VS4810

Wireless Alphanumeric, Time & Voice Controller

User's Manual / Installation Guide

Version 1.09

Visiplex, Inc. 2015

VS4810

Wireless Time & Voice Controller

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Notice to User Regarding Radio Frequency Interference

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

About This Manual

This VS4810 User's Manual / Installation Guide describes the installation and setup procedures of the VS4810 for wireless alphanumeric, time and voice messaging. It also provides instructions for transmitter antenna installation.

It is imperative the manual is followed in the order it is presented to prevent damage to the equipment, as well as insuring proper system functionality.

The manual provides instructions for mounting preparation, determining system location and spacing in regard to antennas and other equipment. Information is also provided for verification of reception and transmission quality and troubleshooting of problems that may arise during installation or operation.

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1.1 Introduction

The VS4810 offers the latest and most innovative way to incorporate wireless paging, voice and tone messaging, and PC clock synchronized time throughout your facility, providing you with the benefits of improved productivity and reduced maintenance costs.

The VS4810 wireless controller is a sophisticated alphanumeric, voice and tone, and time synchronization management system. It can send alphanumeric messages to pagers and LED displays, initiate live or pre-recorded voice messages, run a schedule of bells/alerts and synchronize wireless clocks to one accurate atomic time

Additional features of the VS4810 include an optional PBX interface, optional hand held microphone and optional serial communication interfaces.

The VS4810 is a powerful microprocessor-based desktop wireless system capable of addressing up to 1000 receivers. It consists of a fully featured encoder with 8-line by 40-character LCD display and an alphanumeric keyboard.

The VS4810 is compatible with the Visiplex series of digital transmitters ranging from 8 to 300 watts. An internal 8 watt transmitter can be installed at the factory and larger transmitters are available as separate items.

The VS4810 uses the PC clock as a time source for wireless analog clocks, wireless digital clocks and wireless alphanumeric displays. The VS4810 can also be used to synchronize older wired clocks using a special wireless receiver.

1.2 Standard Features

- Generate alerts to alphanumeric and numeric devices, voice or tone devices, and wireless clocks
- User configurable 1000 devices database
- 24 dry contact closures
- RS232 serial port for serial communication
- Built-in high-precision Real-Time clock
- Capable of synchronizing its internal clock from a PC clock or GPS (requires external GPS receiver)
- Synchronize both analog and digital wireless clocks
- User configurable Master Clock synchronization time
- External transmitter port
- Graphic backlit LCD display
- Alphanumeric keyboard
- Built-in memory backup

1.3 Optional Features

- Telephone line interface (RJ-11) for remote status change of system mode and live voice alerts
- Hand held microphone for live voice alerts
- Additional serial ports for extended serial communication
- Built-in scheduled tone activation for wireless receivers
- High power external digital transmitters (25 to 300 watt)
- Automated activation of wireless voice devices from external audio source
- Alarm module expansion for monitoring additional dry-contact closures
- 900MHz or UHF Wireless receiver for monitoring 900MHz or UHF wireless push buttons and transmitters

1.4 Package Contents

The following items are included with the VS4810:
- VS4810 Wireless Alphanumeric, Voice and Atomic time Controller
- Power adaptor
- Manual
- USB cable (Note: RS232 null-modem communication cable supplied prior to 04/01/2014)

1.5 Key Navigation

The following keys also function in system menus as detailed below:

Enter / TAB	Select / Move to next field
SHIFT+TAB	Move to previous field
ESC	Return to previous menu / Cancel changes
↑, ↓	Scroll through available field options
PgDn, PgUp	Scroll displayed information

1.6 Pre-Installation Test

It is recommended to test the VS4810 and the entire system prior to installation in order to verify proper operation and get familiar with the unit operation.

Follow these steps to perform a pre-installation test:

1. If your system is equipped with an internal transmitter, connect the BNC antenna cable to the **RF-OUT** terminal at the back of the VS4810.
    If your system uses an external transmitter, connect the transmitter data cable between the VS101-XX transmitter and the **DATA I/O** port at the back of the VS4810. Connect the antenna to the external transmitter's **RF-OUT** terminal.

2. Connect the provided power supply to the **POWER** jack at the back of the VS4810 and turn the power switch to **ON** position. The main menu should be displayed.
    If you are using an external transmitter make sure it is powered on.

3. Press **4** for the **Administration Menu** and enter the default password (PASSWORD). The menu top line should display **Administration Menu**.

4. Press **1** for **Edit Device Details**. Program a new device (see details on page 11).

5. Press **ESC** twice to return to the main menu.

6. Press **1** to send an alert to a selected device (see details on page 10).

7. Verify that the selected device received the alert sent by the VS4810.

Installation

2.1 Site Inspection and System Location

Consider the following requirements when planning system installation and choosing a location for the VS4810 and other system components:

1. Choose a location that is easily accessible in case you need to perform maintenance on the antenna.

2. The transmitting antenna should be located as close as possible to the center of the site and should not be surrounded by large metal objects that may block the RF signal and decrease the coverage range of the system.

3. The transmitting antenna may be mounted vertically upward, **NEVER horizontally**.

4. Magnetic Mount antenna (such as VS638) should be attached to a large metal object (like an air duct, metal shelf or cabinet) to provide it with a proper grounding. It may be mounted vertically upward or downward.

5. Base Station antenna (such as included with VS654 kit) should be secured to a well-grounded metal structure or to a pole on the roof.
   Locate a path for running the coax cable between the antenna and the transmitter such as a riser (if there is no existing path, create one).
   Place the external transmitter in a location that is as close as possible to the roof such as in the penthouse. Keep the distance between the antenna and the transmitter as short as possible to minimize RF power loss.

2.2 Magnetic Mount Antenna (VS638) Installation

1. Secure the antenna to an adequate grounding surface, HVAC duct or metal "I" beam. The antenna should be mounted vertically upward or downward, **NEVER horizontally**.

2. Choose a mounting location that will provide an adequate grounding surface and free space for RF radiation. If the antenna is mounted too close to metal or closed heavy concrete walls room, a high VSWR may occur which in the long term may cause damage to the transmitter.

3. The optional wall-mount "L" bracket allows mounting the magnetic antenna on the side of a building or other structure, providing the roof's overhang is not excessive.

Note: The antenna should be located as far from the VS4810 and transmitter as the coax cable allows.

2.3 Base Station Outdoor Antenna Kit (VS654) Installation

1. To achieve maximum performance for your outdoor antenna choose a location that is unobstructed by trees, branches, power-lines, etc. Never mount the antenna where there is a signal-reflecting surface such as metal, power lines, mirrored glass, etc.

2. Choose a location that is easily accessible in case you need to perform maintenance on the antenna.

3. For optimal performance, make sure the antenna is installed at an elevation that will provide sufficient clearance to allow your antenna to radiate without interference.

4. It is recommended to mount the antenna where the path of the antenna cable is straight and as close as possible to the system transmitter. Do not coil up 100 feet of coaxial cable when only 20 feet of cable is required. Use a RG-8U coax cable that is specified as Low Loss to minimize power loss.

5. The antenna may be mounted vertically upward, **NEVER horizontally**.

6. Install the grounding kit provided with the VS654 antenna kit.

Note: The antenna should be located as far from the VS4810 and transmitter as the coax cable allows.

2.4 VS4810 Encoder and External Transmitter Installation

Install a UPS power backup to protect the system from power outages and surges. If you are using an external transmitter, place the VS4810 next to it and use the data cable provided to connect VS4810 and the external transmitter. If required, the VS4810 can be placed up to 200' feet from the external transmitter assuming the proper data cable is used.

Once the transmitter and antenna are placed properly, connect them to the VS4810 and the transmitter as follows:

1. If an external transmitter is used, connect the antenna to the **RF-OUT** terminal at the back of the external transmitter. Connect the transmitter data cable between the VS101-XX transmitter and the **DATA I/O** port at the back of the VS4810.
   Otherwise, connect the antenna to the **RF-OUT** terminal at the back of the VS4810.
2. Connect the provided power supply to the **POWER** jack at the back of the VS4810 and turn the power switch to **ON** position. The main menu should be displayed.
   If you are using an external transmitter make sure it is powered on.

3. Press **4** for the **Administration Menu** and enter the default password (PASSWORD)**.** The menu top line should display **Administration Menu**.

4. Press **1** for **Edit Device Details**. Program a new device (see details on page 11).

5. Press **ESC** twice to return to the main menu.

6. Press **1** to send an alert to a selected device (see details on page 10).

7. Verify that the selected device received the alert sent by the VS4810.

Note: Do not place the VS4810 on top of the external transmitter as RF feedback may cause system malfunction.

System Information

Main Menu

The **Main Menu** screen shown below is displayed after the VS4810 is turned on.

```
        MAIN MENU              14:35


     1. SEND MESSAGE
     2. VIEW LAST MESSAGES
     3. LIST DEVICE DETAILS
     4. ADMINISTRATION


ENTER YOUR SELECTIONS:
```

The **Main Menu** provides access to the following available functions and sub-menus:

1. Send Message
2. View Last Messages
3. List Device Details
4. Administration

To access a specific sub-menu, press the digit key representing it.

3.1 Send Message Menu

From the **Main Menu**, select **1**. Following are the field's description:

Device ID	Enter 3 digit ID of the device to be accessed (001-999).
Name	This field is populated automatically with the name or description of the device as programmed by the administrator.
Type	This field is populated automatically with the type of the device as programmed by the administrator.
PA Volume	Use F1 to F4 to select the volume of the audio alert (for Wireless Speaker devices only). **Note**: The volume has to be selected before the **Device ID** is entered.
Message	Enter an alphanumeric message or command to activate speakers or strobe lights controlled by a wireless receiver. Press the **Enter** key to send the message or press **ESC** to cancel the operation. **Note:** that for numeric devices, only the numeric characters are allowed.

The VS4810 supports 999 devices that are accessible by entering the device number on the above menu. The device number is a 3 digits number between 001 and 999 that uniquely represents each device.
Devices 001 to 899 are devices that allow access to individual devices while devices 901 to 999 are pre-programmed as sequential group devices. Each of the devices in the 901-999 range represents groups 01-99 respectively (for example, device 905 represents group 5). Group devices allow easy sequential access to multiple devices that are members of the group.

Press the **ESC** key to return to the **Main Menu**.

3.2 View Last Messages Menu

From the **Main Menu**, select **2**.

Use this option to display the recent messages sent to devices.

Use the ↑, ↓ keys to scroll through the displayed messages. Press the **ESC** key to return to the **Main Menu**.

3.3 List Device Details Menu

From the **Main Menu**, select **3**.

Use this option to display a list of the devices programmed in to the VS4810. The list will include the device number, device name, device capcode and device type.

This option can be useful when the operator is not the system administrator by providing information about the system devices.

Use the ↑, ↓ keys to scroll through the displayed devices. Press the **ESC** key to return to the **Main Menu**.

3.4 Administration Menu

From the **Main Menu**, select **4**. Enter the default password, **PASSWORD**, followed by the **Enter** key. The **Administration Menu** will be displayed.

```
        ADMINISTRATION MENU


    1.  EDIT DEVICE DETAILS
    2.  PRE-PROGRAMMED MESSAGES MENU
    3.  PAGING SETUP MENU
    4.  INTERCOM SETUP MENU
    5.  FM RADIO PROGRAMMING


ENTER YOUR SELECTIONS:
```

The **Administration Menu** provides access to the following available sub-menus:

1. Edit Device Details
2. Pre-Programmed Messages Menu
3. Paging Setup Menu
4. Intercom Setup Menu
5. FM Radio Programming Menu

To access a specific sub-menu, press the digit key representing it.

3.4.1 Edit Device Details Menu

From the **Administration Menu**, select **1**. Following are the fields description:

Device ID	Enter 3 digit ID of the programmed device (001-899). If the device already exists, its details will be displayed for editing or deleting. Group devices (01-99) are represented and accessed by paging to devices 901-999. Press **F1** to edit the device details or **F2** to delete the device.
Name	Enter the name or description of the programmed device.
Code	Enter the capcode of the programmed device. For Voice pagers, enter "0" followed by Tone A and Tone B (for example, "0110111").
Phone	Enter the phone number (not including area code) to dial out for messaging using external Widearea services. If area code is required, enter it in the **DSC** field.
Type	Select the type of the programmed device. <u>Alphanumeric Pager</u> Numeric Pager Tone Only Pager Voice Pager Wireless Speaker Widearea Pager (**Note**: Optional modem is required) Portable Radio Phone LED Display Intercom Station
Baud	Select the baud rate of the programmed device. **5** – 512 bps **1** – 1200 bps **2** – 2400 bps
Mode	Select the mode of the programmed device. **0** – Mode 0 **1** – Mode 1 **2** – Mode 2 **3** – Mode 3
Groups	If required, the device can be programmed as a member of a sequential group. If it is a member, it will receive a message when a message is sent to the group device. Enter up to 4 membership groups. Each group is represented by a 2 digits number from 01 to 99.

	Additional device parameters: 1. For Widearea service pagers, it contains the 3-digit area code. 2. For Intercom devices, this field allows override of the Full-Duplex, Auto answer and Incoming Alert Tone settings programmed in to the VNS22xx (applicable to VS4810 version 1.08 and VNS22xxversion 4.06 or later):
DSC **(Device Special** **Command)**	<table><tr><td>DSC Value</td><td>Full Duplex / Hand Free</td><td>Auto Answer</td><td>Incoming Call Alert Tone</td></tr><tr><td><u>0</u></td><td>Default VNS22xx Settings</td><td>Default VNS22xx Settings</td><td>Default VNS22xx Settings</td></tr><tr><td>1</td><td>X</td><td>-</td><td>-</td></tr><tr><td>2</td><td>-</td><td>X</td><td>-</td></tr><tr><td>3</td><td>X</td><td>X</td><td>X</td></tr><tr><td>4</td><td>-</td><td>-</td><td>-</td></tr><tr><td>5</td><td>X</td><td>-</td><td>-</td></tr><tr><td>6</td><td>-</td><td>X</td><td>-</td></tr><tr><td>7</td><td>X</td><td>X</td><td>-</td></tr></table>
Note: Underlined values indicate default values.	

Enter a 3 digit device number to edit or preview and follow the instructions on the screen. When the cursor is in the **DSC** field, press the **Enter** key. Press the **F2** key to save your changes or press **ESC** to cancel the operation.

Press the **ESC** key to return to the **Main Menu** or repeat the procedure to add or edit additional devices.

3.4.2 Pre-Programmed Messages Menu

From the **Administration Menu**, select **2**. The **Pre-Programmed Messages Setup Menu** provides access to the following pre-programmed messages:

1 - Alarm Messages
2 - PABX Messages
3 - FastPage Messages
4 - FreeText Messages
5 - Wireless Devices
6 - Schedule Paging
7 - Light Control
8 - Voice Messages

To access a specific function, press the digit key representing it.

3.4.2.1 Alarm Messages Menu

Alarm messages provide support for automated messaging when any of the provided 24 dry-contact closures is closed. A dry-contact is closed when pin 1 is shorted with any of the other pins on the **Alarm Inputs** port (see Alarm Point Pin Out Diagram for more details).

From the **Pre-Programmed Messages Setup Menu**, select **1**.

Use the ↑, ↓ keys to select the alarm message to preview or edit.

Press **F1** to edit the selected alarm message. The cursor will be placed on the **Send to Device** field. Following are the fields description:

Send to Device	Enter the number of the device that should receive the message when the selected alarm contact is triggered.
Cancel Page	Determines if a cancel message should be sent to the assigned device when the alarm is canceled. Enter **Y** to activate cancel message, **N** to deactivate cancel message.
Message	Determines the message that should be sent to the assigned device when the selected alarm is triggered
Input Delay	Determines if a message should be sent immediately when the alarm is triggered or only if it was triggered for a period of time longer than Input Delay. Enter a number from **000** to **240** seconds.

Activity Plan	Determines when the alarm monitoring is active. The system will send a message to the designated device only if the alarm is triggered during the monitored time. Enter a number from **0** to **9**. 0 - Always Active 1 - Daily, 6PM-8AM 2 - Weekdays Only, 6PM-8AM 3 - Daily, 8PM-6AM 4 - Daily, 10PM-6AM 5 - Daily, 10PM-5AM 6 - Daily, 6AM-10PM 7 - Weekdays Only, 6AM-10PM 8 - Daily, 8AM-6PM 9 - Weekdays Only, 8AM-6PM **Note**: The execution of the activity plan is dependent on the time stored the VS4810 internal clock. This clock should be kept accurate by receiving time updates from a GPS receiver or from a PC connected to the VS4810 via a serial port.
Repeats	Determines if the message should be repeated as long as the alarm is ON, and the maximum number of repeat messages. The message will be repeated every minute. Enter a number from **00** to **99**.
Cancel Message	Determines the message that should be sent to the assigned device when the selected alarm is canceled.
Note: Underlined values indicate default values.	

When the cursor is in the **Cancel Message** field, press the **Enter** key. Press the **F2** key to save your changes or press **ESC** to cancel the operation.

Press the **ESC** key to return to the **Pre-Programmed Messages Setup Menu** or repeat the procedure to add or edit additional messages.

Note: The VS4810 supports 24 Alarm messages.

3.4.2.2 PABX Messages Menu

PABX (Alpha by Phone) messages provide support for user initiated alphanumeric messaging by dialing in to the VS4810 and entering the device number and message using a telephone keypad.
Typically, when users dial in to the VS4810, they will be able to send numeric messages only using the telephone keypad. The PABX messages allow the users to enter a message code, which represents an alphanumeric message. In this case, the alphanumeric message will be sent instead of the message code.

From the **Pre-Programmed Messages Setup Menu**, select **2**.

Use the ↑, ↓ keys to select the PABX message to preview or edit.

Press **F1** to edit the selected PABX message. The cursor will be placed on the **Message** field. Following are the fields description:

Message	Determines the message that should be sent for the selected PABX message code. For example, if the user enters "*05", the actual message will be the alphanumeric message programmed as PABX message 5.

When the cursor is in the **Message** field, press the **Enter** key. Press the **F2** key to save your changes or press **ESC** to cancel the operation.

Press the **ESC** key to return to the **Pre-Programmed Messages Setup Menu** or repeat the procedure to add or edit additional messages.

Note: The VS4810 supports 99 PABX messages.

3.4.2.3 FastPage Messages Menu

FastPage messages provide quick access to pre-programmed text by using the **F1** to **F10** keys when using the keyboard to send messages.
Messages 1-10 are available by using the F1-F10 keys and messages 11-20 are available by using the **ALT** key with the corresponding **F1** to **F10** keys (for example, press **ALT** and **F2** to access message 12).

From the **Pre-Programmed Messages Setup Menu**, select **3**.

Use the ↑, ↓ keys to select the FastPage message to preview or edit.
Press **F1** to edit the selected FastPage message. The cursor will be placed on the **Message** field. Following are the fields description:

Message	Determines the message that should be sent for the selected function key. For example, if the user presses "F5", the actual message will be the alphanumeric message programmed as FastPage message 5.

When the cursor is in the **Message** field, press the **Enter** key. Press the **F2** key to save your changes or press **ESC** to cancel the operation.

Press the **ESC** key to return to the **Pre-Programmed Messages Setup Menu** or repeat the procedure to add or edit additional messages.

Note: The VS4810 supports 20 FastPage messages.

3.4.2.4 FreeText Messages Menu

FreeText messages provide support for detecting keywords in data received by the serial port. If the keyword is found, the VS4810 can send a message to the assigned device.

From the **Pre-Programmed Messages Setup Menu**, select **4**.

Use the ↑, ↓ keys to select the FreeText message to preview or edit.

Press **F1** to edit the selected FreeText message. The cursor will be placed on the **Send to Device** field. Following are the fields description:

Send to Device	Enter the number of the device that should receive the message when the selected keyword is detected.
Replace Text	Determines if the received text should be replaced with the text in the **Newtext** filed if the keyword is found in the received serial data. Enter **Y** to activate text replacement, **N** to deactivate text replacement.
Keytext	Determines the keyword that should be sought for in the received serial data. If the keyword is found, the whole serial data string or the text in the **Newtext** field will be sent to the assigned device (depending on the setting in the Replace Text field).
Newtext	Determines the text that should be sent to the assigned device if the keyword is found in the received serial data (requires **Replace Text** to be set to **Y**).

When the cursor is in the **Keytext** field, press the **Enter** key. Press the **F2** key to save your changes or press **ESC** to cancel the operation.

Press the **ESC** key to return to the **Pre-Programmed Messages Setup Menu** or repeat the procedure to add or edit additional messages.

Note: The VS4810 supports 99 FreeText messages.

3.4.2.5 Wireless Devices Menu

Wireless devices messages provide support for automated messaging activated by 900MHz or UHF wireless pendants or push button transmitters.
Each pendant sends a wireless signal containing its ID (usually a 3 digit number). When a signal is received by the optional wireless receiver, it is compared to the list of ID stored in the VS4810. If a match is found, the VS4810 will send a message to the assigned device with the assigned message.
Notes: Wireless 900MHz or UHF serial receiver is required to activate these messages.
If multiple matches are found, the VS4810 will send a message corresponding to each match to respective assigned device with the respective assigned message.

From the **Pre-Programmed Messages Setup Menu**, select **5**.

Use the ↑, ↓ keys to select the Wireless Device message to preview or edit.

Press **F1** to edit the selected wireless device message. The cursor will be placed on the **Wireless Code** field. Following are the fields description:

Wireless Code	Enter the ID of the wireless device that should trigger a message. **Note**: Multiple button 900 MHz pendants from the FA series have to be programmed as individual pendants with different Wireless Code. Multiple button 900 MHz pendants from the EN series have to be programmed as individual pendants with same Wireless Code and different Button / Alarm ID.
Supervised	Determines if the device is supervised. If a signal is not received from a supervised device, the VS4810 will send an alert. Enter **Y** to activate device supervision, **N** to deactivate device supervision.
Send to Device	Enter the number of the device that should receive the message when the selected wireless code is detected.

Activity Plan	Determines when the device monitoring is active. The system will send a message to the designated device only if the wireless pendant device is triggered during the monitored time. Enter a number from **0** to **9**. 0 - Always Active 1 - Daily, 6PM-8AM 2 - Weekdays Only, 6PM-8AM 3 - Daily, 8PM-6AM 4 - Daily, 10PM-6AM 5 - Daily, 10PM-5AM 6 - Daily, 6AM-10PM 7 - Weekdays Only, 6AM-10PM 8 - Daily, 8AM-6PM 9 - Weekdays Only, 8AM-6PM **Note**: The execution of the activity plan is dependent on the time stored the VS4810 internal clock. This clock should be kept accurate by receiving time updates from a GPS receiver or from a PC connected to the VS4810 via a serial port.
Repeat Page	Determines if the message should be repeated as long as no cancel transmission is received from pendant, and the maximum number of repeat messages. The message will be repeated every minute. Enter a number from **00** to **99**.
Cancel Code	Enter the ID of the wireless pendant device that should trigger a cancel message. Cancellation message will be sent when this ID is received and will add the word "Cancel" to the message.
Call Type	Determines if the message will be sent when a Normal call (Buttons 1-4), Cancel call, Horizontal Position / Man Down call or Tamper call is received from the pendant device. Differentiation between buttons 1-4 on multiple button pendants is supported by pendants from the EN series only.
Message	Determines the message that should be sent to the assigned device when the selected pendant button is pressed or released.
Note: Underlined values indicate default values.	

When the cursor is in the **Message** field, press the **Enter** key. Press the **F2** key to save your changes or press **ESC** to cancel the operation.

Press the **ESC** key to return to the **Pre-Programmed Messages Setup Menu** or repeat the procedure to add or edit additional devices.

Note: The VS4810 supports 500 Wireless Devices messages.

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3.4.2.6 Schedule Paging Menu

</div>

Scheduled event paging provides support for automated messaging according to a pre-programmed weekly schedule.
The VS4810 supports 4 different weekly schedules, each supporting 48 daily events. At any given time, only one weekly schedule can be active while the other schedules can be programmed and stored for quick access and activation. The schedule can also be programmed using the VPS software (see page 27).

From the **Pre-Programmed Messages Setup Menu**, select **6**.

Use the ↑, ↓ keys to select the Schedule to preview or edit. Following are the fields description:

Schedule	Determines the weekly schedule being previewed or edited. Use the ↑, ↓ keys to select the weekly schedule to preview or edit.
Weekday	Determines the day of the week being previewed or edited. Use the ↑, ↓ keys to select the weekday to preview or edit.
Event	Determines the daily event being previewed or edited. Use the ↑, ↓ keys to select the daily event to preview or edit.
Time	Time of day in which a tone or a message should sent. Enter time in 24 hours format.
Tone / Message	Type of tone or pre-programmed message that should be played by the receiver. Enter a number from **1** to **9** or a letter from **A** to **F** or Use the ↑, ↓ keys to select tone (A-F represent tones 11 -15).
Tone Length	Length of tone (in some cases, created by repeating a shorter tone). Also used to determine the length of dry-contact closure or opening. Enter a number from **0** to **9** or Use the ↑, ↓ keys to select tone length.
Level	Volume of tone or voice message. Enter a number from **1** to **4** or Use the ↑, ↓ keys to select level.
Pause	Delay between each repeat of the tone sequence. Enter a number from **0** to **9** or Use the ↑, ↓ keys to select pause.
Repeats	Number of times to repeat the selected tone sequence (as determined by Type, Level and Length). Enter a number from **0** to **9** or Use the ↑, ↓ keys to select repeats. Some receivers may also support additional values of **A** to **D** (A = 20, B = 60, C = 120, D = 240 repeats).

Device	Enter the number of the device that should receive the message when the selected schedule is met. Enter a device number from **001** to **009**.
Active	Determine if event is active. Non active events are stored but not executed. Enter **Y** to activate the event, **N** to deactivate the event.
Note: Underlined values indicate default values.	

When the cursor is in the **Active** field, press the **ESC** key. Press the **F2** key to save your changes or press **ESC** to cancel the operation.

Press the **ESC** key to return to the **Pre-Programmed Messages Setup Menu** or repeat the procedure to add or edit additional events.

3.4.2.7 Light Control Menu

Sunset/Sunrise light control provides support for automated messaging to devices based on the sunset and/or sunrise time of each day. The activation and deactivation time can be set to an offset of 0 to 99 minutes before sunset and/or after sunrise time. The activated devices will receive a command from the VS4810 at these times and perform a task such as closing or opening dry-contacts.

From the **Pre-Programmed Messages Setup Menu**, select **7**.

Press **F1** to edit the light control settings. Following are the fields description:

Controlled Device	Enter the number of the device that should receive the command at the designated time.
Turn On at Sunset -	Determines the time offset in minutes from the sunset time.
Turn Off at Sunrise +	Determines the time offset in minutes from the sunrise time.
Current Sunset	Displays the calculated current sunset time based on the current date.
Current Sunrise	Displays the calculated current sunrise time based on the current date.
Note: Underlined values indicate default values.	

After the cursor leaves the **Turn Off at Sunrise +** field, press the **F2** key to save your changes or press **ESC** to cancel the operation.

3.4.2.8 Voice Messages Menu

Voice messages provide support for automated voice messaging to speakers and telephone subscribers. The VS4810 supports a total of approximately 8 minutes of voice storage memory that can be divided to 1,2,4,8,16,32 or 64 messages with identical storage space and playback time. The longer the length of the messages, the smaller is the number of messages available.

From the **Pre-Programmed Messages Setup Menu**, select **8**. Following are the fields description:

Messages	Displays and number of messages (according to the memory configuration)
Max Duration	Displays and maximum message length (according to the memory configuration)
Message to Play	Allows play back of the stored messages through the VS4810 speaker. Use the ↑, ↓ keys to select the message, press **Enter** to play the selected message.

Press the **ESC** key to return to the **Pre-Programmed Messages Setup Menu**.

The memory configuration and programming is performed using the VPS software (see page 27). On the VPS software, click on the **VS4810** menu, **Pre-Programmed Messages & Activation** and then click on **Alerts**. Select the preferred memory configuration, select the audio files and then click on **Program** to store the audio file on the VS4810 memory.
Note: Press F1 for help on the VPS software for more details.

After the voice messages were programmed in to the VS4810 memory, they can be used to send voice messages to devices that support voice messages such as wireless speakers, voice pagers or telephone subscribers (requires VS3003 Telephone Interface). The message ID and settings are determined by the parameters stored in the DSC field. For example:

1. If device 201 is of the Wireless Speaker type, when it is accessed from the alarm points, wireless messages or the keyboard, the VS4810 will send the voice message stored in the DSC field to the speaker/s represented by device 201.

2. If device 401 is of the Phone type, when it is accessed from the alarm points, wireless messages or the keyboard, the VS4810 will dial out to the telephone number stored under that device and send the voice message stored in the DSC field to the telephone subscriber.

To program the DSC field, use the **ttrd** format where:
  t is the Alert Type (two digits number from 01 to the number of alerts supported by the receiver).
  r is the Repeat (digit between 1 and 9)
  d is the Delay (digit between 1 and 9) in seconds between repeats
  Note: For automated voice messaging to telephone subscribers, it is recommended that the **r** parameter will be set to 5 or higher.

3.4.3 Paging Setup Menu

From the **Administration Menu**, select **3**. The **Paging Setup Menu** provides access to the following functions:

1 - Reset Database
2 - Time/Date Setup
3 - System Setup
4 - TX Coverage Test
5 - Wireless Setup
6 – Operation Modes
7 - System Status
8 - TX Setup

To access a specific function, press the digit key representing it.

3.4.3.1 Reset Database Menu

Note: This is an **IRREVERSIBLE** command - **DO NOT** select this option unless you are absolutely sure you want to clear all devices and pre-programmed messages data.
You may want to transcribe this information to paper or use the optional PC software to backup the data to a computer.
From the **Setup Menu**, select **1**.

Press **F2** to confirm the Database Reset. Press **ESC** to cancel and return to the **Setup Menu**.

3.4.3.2 Time/Date Setup Menu

From the **Setup Menu**, select **2**.

Press **F1** to edit the time and date settings. Following are the fields description:

Local Time	Enter the local time in 24 hours (military) format.
Date	Enter the local date.
Time Zone	Enter the local time zone offset from UTC (Universal Coordinate Time) or GMT (Greenwich Mean Time). Use 01-24 for negative offset (for example, -06 hours should be entered as 06) and 25-48 for positive offset (for example, +01 hours should be entered as 25).
DLS	Enter **Y** to activate Daylight Saving Time, **N** to deactivate time Daylight Saving Time.
GMT Time	This field is populated automatically according to the local time, time zone offset and daylight saving time status.
Cal. Value	This value is used to calibrate the internal clock of the VS4810 (contact Visiplex technical support for more information).
Last Update	Indicate the date when the clock was last updated manually.
Note: Underlined values indicate default values.	

When the cursor is in the **DLS** field, press the **Enter** key. Press the **F2** key to save your changes or press **ESC** to cancel the operation.

If the VS4810 is connected to a PC or receives the time from an external time receiver, it will revert back to the source time few minutes later overwriting the time changes made.

3.4.3.3 System Setup Menu

This screen allows the administrator to configure the VS4810 as required for the application.

From the **Setup Menu**, select **3**.

Press **F1** to edit the settings. Following are the fields description:

COM1	Enter the serial communication protocol that should be used on COM1. Use the ↑ and ↓ keys to scroll through the available protocols.
Set As	Enter the serial communication settings (baud rate, parity, data bits, stop bits) that should be used on COM1. Use the ↑ and ↓ keys to scroll through the available settings.
COM2	Enter the serial communication protocol that should be used on COM2. Use the ↑ and ↓ keys to scroll through the available protocols.
Set As	Enter the serial communication settings (baud rate, parity, data bits, stop bits) that should be used on COM2. Use the ↑ and ↓ keys to scroll through the available settings.
COM3	Enter the serial communication protocol that should be used on COM3. Use the ↑ and ↓ keys to scroll through the available protocols.
Set As	Enter the serial communication settings (baud rate, parity, data bits, stop bits) that should be used on COM3. Use the ↑ and ↓ keys to scroll through the available settings.
COM4	Enter the serial communication protocol that should be used on COM4. Use the ↑ and ↓ keys to scroll through the available protocols.
Set As	Enter the serial communication settings (baud rate, parity, data bits, stop bits) that should be used on COM4. Use the ↑ and ↓ keys to scroll through the available settings.
Voice	Determines if a voice prompt should be played when a user dials in to the system in order to send a message using a phone keypad. Enter **Y** to use voice prompt, **N** to use a beep prompt.
Time Stamp	Determines if a time stamp should be added to outgoing message. Enter **Y** to add time stamp, **N** for not including time stamp.
RXD	Determines if the receive data should be inverted. Enter **I** to use inverted data, **N** for non-inverted data.
TXD	Determines if the transmitter data should be inverted. Enter **I** to use inverted data, **N** for non-inverted data.
USB Mode	Determines if the serial protocol used by the USB port. Enter **V** for VISIPLEX protocol, **A** for PC-ADMIN protocol.
Password	Enter the new administrator password that will be required to access the Administration Menu. The default password is **PASSWORD**.
VOX	Determines the sensitivity level and timeout interval for automated paging to the Auto Speaker Paging device (usually 898). The Auto Speaker device will be activated when audio is detected on the VOX port and transmission will be terminated when no audio is detected after the timeout interval elapsed. Low Sensitivity requires high audio input and High Sensitivity requires lower audio input. Enter a value between **0** and **9**: **0** – Disabled **1** – VOX Mode 1 (High sensitivity, 4 seconds timeout) **2** – VOX Mode 2 (Medium sensitivity, 4 seconds timeout) **3** – VOX Mode 3 (Low sensitivity, 4 seconds timeout) **4** – VOX Mode 4 (High sensitivity, 8 seconds timeout) **5** – VOX Mode 5 (Medium sensitivity, 8 seconds timeout) **6** – VOX Mode 6 (Low sensitivity, 8 seconds timeout) **7** – VOX Mode 7 (High sensitivity, 16 seconds timeout) **8** – VOX Mode 8 (Medium sensitivity, 16 seconds timeout) **9** – VOX Mode 9 (Low sensitivity, 16 seconds timeout)
Notes: 1. Underlined values indicate default values. 2. Standard paging protocols supported are Visiplex, TAP, COMP1 and COMP2.	

When the cursor is in the **VOX** field, press the **Enter** key. Press the **F2** key to save your changes or press **ESC** to cancel the operation.

3.4.3.4 TX Coverage Test Menu

From the **Setup Menu**, select **4**.

Use this option to send cover page to device 100 every 30 seconds. This feature is useful when testing the transmitter coverage area. The counter will be incremented for each test page that is sent.

Press **ESC** to cancel and return to the **Setup Menu**.

3.4.3.5 Wireless Setup Menu

This screen allows the administrator to configure different wireless settings of the VS4810.

From the **Setup Menu**, select **5**.

Press **F1** to edit the settings. Following are the fields description:

PA Default Volume	Determines the default volume used in voice messaging. Enter a value of **1** (lowest), **2**, **3** or **4** (highest).
PA Mode	Determines if the wireless speaker controllers (such as VNS2200) should be muted when the microphone PTT is off to reduce background audio. Enter **P** to activate mute when the microphone PTT is off, **A** to deactivate mute when the microphone PTT is off. **Note**: This feature requires compatible wireless speaker controller.
PA Timeout	Determines the time period after which the transmission of voice message will be terminated. Enter a value between **1** and **9**: **1** – 30 seconds **2** – 60 seconds **3** – 90 seconds **4** – 120 seconds **5** – 150 seconds **6** – 180 seconds **7** – 210 seconds **8** – 240 seconds **9** – 270 seconds
Time Sync Mode	Determines if time synchronization signal should be sent to wireless clocks. Enter **Y** to activate time synchronization signal, **N** to deactivate time synchronization signal, **S** to activate time synchronization controlled by a PC software.
Slot	Determines when the time synchronization signal should be sent. Enter a value between **0** and **6**: **0** – 15 seconds after top of the minute for TS4xxx and TS5xxx clocks. **1** – 30 seconds after top of the minute for TS4xxx and TS5xxx clocks. **2** – 45 seconds after top of the minute for TS4xxx and TS5xxx clocks. **3** – Top of the minute for TS4xxx and TS5xxx clocks. **4** – Top of the minute for TS-CLK-xxxx clocks, 15 seconds after top of the minute for TS4xxx and TS5xxx clocks. **5** – Top of the minute for TS-CLK-xxxx clocks, 30 seconds after top of the minute for TS4xxx and TS5xxx clocks. **6** – Top of the minute for TS-CLK-xxxx clocks, 45 seconds after top of the minute for TS4xxx and TS5xxx clocks.
Daytime	Determines if time synchronization signal should be sent during daytime or only during nighttime. Enter **Y** to activate time synchronization every minute during daytime, **N** to activate time synchronization signal during nighttime only (1:50AM to 2:10AM, 12AM to 3:30 AM on Day Light Saving change date). Press F8 from the Main Menu to toggle between daytime synchronization and nighttime synchronization (assuming **Time Sync Mode** is set to **Y**).
Master Clock Time	Determines the time when a wireless signal should be sent to a Master Clock Synchronizer to close contact. Enter a valid time in 24 hours format.
Duration	Determines the Master Clock Synchronizer contact closure time interval (seconds). Enter a value between **1** and **9** (default value is **0**).
Secure Data Mode	Determines if secure data mode should be used. This provides data encryption to secure the transmission to the wireless receivers using the security key. Enter a value between **0** (not active) and **9**.
Sec. Code	Determines the security key for secure data mode. Enter a value between **0** and **299**.
Schedule	Indicates if the type and status of the event schedule. **Note**: This setting is applicable only when the schedules events option was ordered and installed on the VS4810.
Schedule Mode	Determines the active Event Schedule. Enter a value between **1** and **4**. **Note**: This setting is applicable only when the schedules events option was ordered and installed on the VS4810. The setting applies to weekly schedule only.
STO	Determines the supervision timeout in seconds for monitored wireless devices (such as 900 MHz pendant). If no signal (activation or supervision) is received from a monitored device within this time interval, a message will be sent to the supervisor pager programmed as device 897. Enter a value between **0** and **999**. **Note**: Device 897 has to be programmed as alphanumeric pager to receive supervision notifications.

	Determines the TX deviation. Enter a value between **1** and **9**: **1** – ±0.5kHz **2** – ±1.0kHz **3** – ±1.5kHz **4** – ±2.0kHz **<u>5</u>** – ±2.5kHz **6** – ±3.0kHz **7** – ±3.5kHz **8** – ±4.0kHz **9** – ±4.5kHz
TX Dev	
Call Sign	Enter the call sign assigned to you by the FCC (if any).
Note: Underlined values indicate default values.	

When the cursor is in the **Call Sign** field, press the **Enter** key. Press the **F2** key to save your changes or press **ESC** to cancel the operation.

3.4.3.6 Operation Modes Menu

This screen allows the administrator to configure global settings of the VS4810.

From the **Setup Menu**, select **6**.

Press **F1** to edit the settings. Following are the fields description:

Pre-Page Delay	Determines if a delay will be applied before the transmission of data for digital paging. Enter **Y** to activate pre-page delay, **<u>N</u>** to deactivate pre-page delay.
Intercom Active	Determines the mode of the 2-way intercom feature. Enter **Y** to activate in half-duplex mode, **F** for full-duplex mode, **<u>N</u>** to deactivate.
LBT Mode	Determines if the Listen before Transmit is activated. Enter **Y** to activate in listen before transmit, **<u>N</u>** to deactivate listen before transmit. **Note**: If listen before transmit is activated and the channel is busy, the Channel Busy indictor on the VS4810 front panel will be lit.
Two-Channel Paging	Determines if different frequencies should be used for different type of transmissions. The 1st channel will be used for standard paging and PA while the 2nd channel will be used for wireless clocks. Enter **Y** to activate two-channel paging, **<u>N</u>** to deactivate two-channel paging. **Note**: This feature requires supporting transmitter with two channels set to different frequencies.
Auto Speaker Paging	Determines if the system will automatically transmit messages to the pre-assigned device (usually 898) when the microphone's PTT is activated. Enter **Y** to activate auto speaker paging, **<u>N</u>** to deactivate auto speaker paging.
Printer Port	Determines if the printer port should dump paging activity date to the connected printer. Enter **Y** to activate the printer port, **<u>N</u>** to deactivate the printer port. **Note**: This feature may require non-standard system configurations. Data is sent to the printer via COM4.
Auto Phone Paging	Determines if the system will automatically transmit messages to the pre-assigned device (usually 899) when a call is received on the telephone interface is activated. Enter **Y** to activate auto phone paging, **<u>N</u>** to deactivate auto phone paging.
Speaker Level	Determines the default volume level of the VS4810 internal speaker used for 2-way communication with intercom stations. Enter a value between **1** and **9**.
Pulse Alarm Mode	Determines if the alarm point should be activated on dry-contact closure or when a pulse signal is detected. Enter a value between **1** and **9**: **0** – Standard dry-contact closure activation. **1** – One pulse signal per second activation. **2** – Two pulse signals per second activation.
Display Mode	Determines if the messages sent to alphanumeric display should overwrite the displayed message or added to the current queue of messages displayed by the alphanumeric display. Use the ↑ and ↓ keys to scroll through the available settings. **<u>OVER</u>** – New messages overwrite the currently displayed message. **SLOT** – New messages are added to the list of messages (messages will be displayed one after the other according to the messages parameters).
Color	Determines the default color that should be used to display messages sent to alphanumeric displays. Enter a value according to the settings supported by the alphanumeric display. **Note**: Please refer to the alphanumeric display instructions sheet for more information.
Mode	Determines the default effect that should be used to display messages sent to alphanumeric displays. Enter a value according to the settings supported by the alphanumeric display. **Note**: Please refer to the alphanumeric display instructions sheet for more information.
Font	Determines the default font that should be used to display messages sent to alphanumeric displays. Enter a value according to the settings supported by the alphanumeric display. **Note**: Please refer to the alphanumeric display instructions sheet for more information.

Time	Determines the default time slice that should be used to display messages sent to alphanumeric displays. Enter a value according to the settings supported by the alphanumeric display. **Note**: Please refer to the alphanumeric display instructions sheet for more information.

Press the **ESC** key to return to the **Setup Menu**.

3.4.3.7 System Status Menu

Depending on the options purchased with your unit, some fields may contain different information. Use this screen to monitor the system status and provide technical information when required.

From the **Setup Menu**, select **7**. Following are the fields description:

Memory	Indicates if memory test was successful or failed.
Keyboard	Indicates if keyboard test was successful or failed.
USB	Indicates if USB test was successful or failed (reserved for future use).
Ports	
1	Indicates if COM1 test was successful or failed.
2	Indicates if memory test was successful or failed. If COM2 was not installed on the system, this field will show **N.I.**
3	Indicates if memory test was successful or failed. If COM3 was not installed on the system, this field will show **N.I.**
4	Indicates if memory test was successful or failed. If COM4 was not installed on the system, this field will show **N.I.**
Phone Line	
1	Indicates if telephone interface 1 test was successful or failed. If telephone interface 1 was not installed on the system, this field will show **N.I.**
2	Indicates if telephone interface 2 test was successful or failed. If telephone interface 2 was not installed on the system, this field will show **N.I.**
Net	Indicates if Ethernet port test was successful or failed. If an Ethernet port was not installed on the system, this field will show **N.I.**
Options	
FT	Indicates if the FreeText option is installed. If the option is not installed on the system, this field will show **N.I.**
WD	Indicates if the Wireless Devices option is installed. If the option is not installed on the system, this field will show **N.I.**
SP	Indicates if the Schedule Paging option is installed. If the option is not installed on the system, this field will show **N.I.**
Alarms Status	Indicates the status of each alarm point of the VS4810. The left most digit represent alarm point 1: **0** – Alarm is off **1** – Alarm is on
Serial	Indicates the VS4810 serial number.
Ver.	Indicates the VS4810 firmware version.
Error	Indicates any error codes, if any, that should be provided for service.

Press the **ESC** key to return to the **Setup Menu**.

3.4.3.8 Transmitter Setup Menu

From the **Setup Menu**, select **8**.

Press **F1** to edit the transmitter setup settings. Following are the fields description:

TX Type	Determines the type of transmitter used. Use the ↑ and ↓ keys to scroll through the available options.
ALC	Determines if the Automatic Level Control is activated for voice transmissions. Use the ↑ and ↓ keys to enable or disable ALC.

When the cursor is in the **ALC** field, press the **Enter** key. Press the **F2** key to save your changes or press **ESC** to cancel the operation.

3.4.4 Intercom Setup Menu

From the **Administration Menu**, select **4**. The **Intercom Setup Menu** provides access to the following functions:

1 – Register Intercom/Call Stations
2 – List Active Intercom/Call Stations
3 – Test Intercom/Call Stations
4 – Intercom Parameter Setup

To access a specific function, press the digit key representing it.

3.4.4.1 Register Intercom/Call Stations Menu

From the **Wireless Intercom Menu**, select **1**.
Use the ↑, ↓ keys to select the Wireless Intercom Station to preview or edit.

Press F1 to edit the selected station settings and follow the instructions on the screen. Following are the fields description:

SID	Station activation code.
Status	Station status (Registered or Not Registered)
RSSI	Received Signal Strength Indication.

Press the **ESC** key to return to the **Intercom Setup Menu** or repeat the procedure to add or edit additional stations.

3.4.4.2 List Active Intercom/Call Stations Menu

From the **Wireless Intercom Menu**, select **2**.

Use this option to display the active wireless intercom stations.

Use the ↑, ↓ keys to scroll through the displayed stations. Press the **ESC** key to return to the **Main Menu**.

3.4.4.3 Test Intercom/Call Stations Menu

From the **Wireless Intercom Menu**, select **3**.

Use this option to test communication to registered wireless intercom stations. Press the **ESC** key to return to the **Main Menu**.

3.4.4.4 Intercom Parameters Setup Menu

From the **Wireless Intercom Menu**, select **4**.

Press F1 to edit the settings. Following are the fields description:

Remote Station Volume Level	Determines the remote intercom station volume level. Use the ↑ and ↓ keys to scroll through the available settings.
Local Console Volume Level	Determines the VS4810 speaker volume level for communication with remote intercom station. Use the ↑ and ↓ keys to scroll through the available settings.
Call Timeout (Seconds)	Determines the time interval after which the call will be terminated automatically. Use the ↑ and ↓ keys to scroll through the available settings.
Paging Baud Rate	Determines the baud rate used by the remote intercom stations to page the VS4810 when initiating a call. Use the ↑ and ↓ keys to scroll through the available settings.

Press the **ESC** key to return to the **Intercom Setup Menu**.

3.4.5 FM Radio Programming Menu

From the **Administration Menu**, select **5**.

Use this option to easily activate a VNS22xx device with new FM radio parameters and start background reception. See also **Background Music (FM Radio) Setup on Wireless Amplifiers** on page 26 for more details.

Use the ↑, ↓ keys to select the required field. Press F1 to send a programming signal to the assigned device ID. Following are the fields description:

FM Station	FM radio frequency in MHz (7 digits, no decimal points). For example, 0960000.
Squelch Level	Squelch or signal threshold level (digit between 0 and 9, 0 is Lowest, 9 is Highest).
Preamp Level	Preamplifier volume (digit between 1 and 9, 1 is Lowest, 9 is Highest).
IF Bandwidth	Signal IF bandwidth.
Device ID	Device to be programmed.

Press the **ESC** key to return to the **Administration Menu**.

3.5 Accessing Wireless Devices via Telephone

Note: Sending alerts using a telephone requires the optional **Telephone Line Interface** and **Alpha by Phone** features and may not be available on your VS4810. See **Accessing Wireless Receivers via Phone** on page 23 for more detailed information.

3.5.1 Accessing Standard Devices

1. Program a device in to the VS4810 as described on page 11.

2. Connect the RJ-11 **PHONE** jack located at the back of the VS4810 to an analog telephone line or extension.

3. Using another phone, dial the number of the telephone line or extension connected to the VS4810.

4. The VS4810 will answer the call with "Please Enter Pager" prompt.

5. Enter the device number as a 3 digit number. The device number can be also entered without leading zeros but it will have to be followed by the **#** key. If the device number entered is not valid, the VS4810 will respond with "Invalid Pager" prompt.

6. If the selected device is Tone / Vibrate device, the page will be sent immediately after entering the device number and the VS4810 will respond with the "Page Sent" prompt.
7. If the selected device is an Alphanumeric or a Numeric device, the VS4810 will respond with "Please Enter Message" prompt.
   For Numeric or Alphanumeric devices, enter a numeric message using the telephone keypad (to send alphanumeric messages, see **PABX Messages**).

8. If the selected device is a Voice pager or Wireless Speaker device, the VS4810 will respond with "Please Wait" prompt and shortly after that with the "Please Speak Message" prompt.
   To send a live voice message, speak your message.
9. To send the message, press **#**. The VS4810 will respond "Page Sent" prompt (for devices that are not live voice devices).

3.5.2 Accessing Wireless Voice or Tone Receivers

Follow these steps to send a voice message or a tone to a speaker by dialing in from a telephone:

1. For live voice messaging, program a Wireless Speaker device in to the VS4810. For tone only or pre-programmed voice messaging, program an alphanumeric device in to the VS4810. Verify that the speaker capcode was programmed properly (Device Type should be set to Alphanumeric Pager).

2. Using another phone, dial the number of the telephone line or extension connected to the VS4810.

3. The VS4810 will answer the call with "Please Enter Pager" prompt.

4. To send a voice message, enter a Wireless Speaker device number as a 3 digit number (for example, "105"). If required, to send a voice message in a specific volume level, enter ***vppp** where:
   v is the Volume (digit between 1 and 4)
   ppp is the Wireless Speaker device number

5. To send a tone, enter an alphanumeric device number as a 3 digit number (for example, "105"). If the device number entered is not valid, the VS4810 will respond with "Invalid Pager" prompt (for phone access only).
   Note: The device number can be also entered without leading zeros but it will have to be followed by the **#** key.

6. The VS4810 will respond with "Please Wait" prompt and shortly after that with the "Please Speak Now" prompt.

7. To send a live voice message, speak your message.

8. To send a tone or pre-programmed voice, enter a message using the formats below:
   For encoders supporting up to 8 tones:
   t is the Alert Type (digit between 1 and 8)
   l is the Length (digit between 0 and 9. **Note**: Length value is applicable to pre-programmed tones only. Use any value for all other voice or tone messages)
   v is the Volume (digit between 1 and 4)
   d is the Delay (optional, digit between 0 and 9)
   r is the Repeat (optional, digit between 0 and 9)
   For example, to send tone 4 with length 5, volume 2, 6 repeats and a delay of 4 seconds between each repeat, enter ****9945246**.

   For encoders supporting more than 8 tones:
   t is the Alert Type (two digits number from 01 to the number of alerts supported by the receiver)
   l is the Length (digit between 0 and 9. **Note**: Length value is applicable to pre-programmed tones only. Use any value for all other voice or tone messages)
   v is the Volume (digit between 1 and 4)
   d is the Delay (optional, digit between 0 and 9)
   r is the Repeat (optional, digit between 0 and 9)
   For example, to send tone 14 with length 5, volume 2, 6 repeats and a delay of 4 seconds between each repeat, enter ****8145246**.

9. To send the message, press **#**.
   The VS4810 will respond with "Page Sent" prompt (for phone access only).

3.6 Accessing Wireless Voice Receivers from via Microphone

Follow these steps to send a live voice message to a speaker using a microphone:

1. For live voice messaging, program a Wireless Speaker device in to the VS4810. Verify that the speaker capcode was programmed properly (Device Type should be set to Wireless Speaker).

2. From the VS4810 **Main Menu**, select **Send Message**.

3. Enter a Wireless Speaker device number as a 3 digit number (for example, "105").

4. To send a voice message, enter a Wireless Speaker device number as a 3 digit number (for example, "105"). If required, to send a voice message in a specific volume level, enter *vppp where:
   v is the Volume (digit between 1 and 4)
   ppp is the Wireless Speaker device number

5. Wait for the "Please Speak Now" prompt at the bottom of the screen.

6. Press and hold the PTT button on the microphone and speak your message.

7. Press the **ESC** or **END** key to end the transmission.

3.7 Accessing Wireless Receivers from the Keyboard

Follow these steps to activate a stored audible alert (tone or voice message), or activate a strobe from the keyboard:

1. Program an alphanumeric device in to the VS4810. Verify that the speaker capcode was programmed properly (Device Type should be set to Alphanumeric Pager).

2. From the VS4810 **Main Menu**, select **Send Message**.

3. Enter a Wireless Speaker device number as a 3 digit number (for example, "105").

4. To activate speakers controlled by a wireless receiver with a tone or voices message stored in the receiver's memory, enter a command in the **Message** field (requires programming of Alphanumeric Pager device, see details on page 11). The command should consist of the **GT** or **GM** prefix followed by the command parameters.

   For devices that support more than 8 tones, use the **GMtlvdr** format where:
   t is the Alert Type (two digits number from 01 to the number of alerts supported by the receiver).
   l is the Length (digit between 0 and 9. **Note**: Length value is applicable to pre-programmed tones only. Use any value for all other voice or tone messages)
   v is the Volume (digit between 1 and 4)
   d is the Delay (digit between 1 and 9)
   r is the Repeat (digit between 1 and 9)

For example, to send tone 14 with length 5, volume 2, 6 repeats and a delay of 4 seconds between each repeat, enter **GM145246**.

For devices that do not support more than 8 tones, use the **GTtlvdr** format where:
t is the Alert Type (digit between 1 and 8)
l is the Length (digit between 0 and 9. Note: Length value is applicable to pre-programmed tones only. Use any value for all other voice or tone messages)
v is the Volume (digit between 1 and 4)
d is the Delay (digit between 1 and 9)
r is the Repeat (digit between 1 and 9)

For example, to send tone 4 with length 5, volume 2, 6 repeats and a delay of 4 seconds between each repeat, enter **GT45246**.

5. To activate strobe lights controlled by a wireless receiver enter a command in the **Message** field (requires programming of Alphanumeric Pager device, see details on page 11). The command should consist of the **CD** prefix followed by the command parameters. Use the **CDmtttt** followed by * format where:
m is the Mode (0 – OFF, 1 – ON)
tttt is the Timeout interval in seconds (4 digits between 0000 and 9999). If the timeout is larger than 0000, the strobe light will be activated and turn of automatically after the number of seconds indicated in that field has elapsed.

For example, to activate a strobe light for 10 seconds, enter **CD10010***. To activate a strobe light until an OFF command is sent, enter **CD10000***. To deactivate a strobe light, enter **CD00000***.

6. Press **Enter** to send the command.

3.8 Initiating and Answering Intercom Calls

Note: Intercom communication allows one way communication at any given time. You must allow the other party to finish talking before you can talk back.
Some system may have been set to Full Duplex or Hands-Free operation modes (not supported by all versions, requires supporting base station and intercom station). In **Full Duplex** mode, the party on the intercom station is only required to accept the call and after that can communicate without pressing and holding the intercom station button.
In **Hands-Free** mode, the party on the intercom station is NOT required to accept the call. The communication is established automatically as soon as the call is received from the base station. As a result, when this mode is activated, the base station can listen to the intercom station area without any notification or indication to the party on the intercom station.

For additional settings, see **DSC** field on page 11.

Base Station Operation

Follow these steps to initiate a call from the base station to an intercom station:

1. From the VS4810 **Main Menu**, select **Send Message**.

2. Enter an Intercom device number as a 3 digit number (for example, "501").

3. Wait for the call to be accepted by the party on the intercom station (the intercom station will sound beeping tones to alert of the incoming call).
    Note: Systems set to hands-free operation do not require the intercom station to accept the call.

4. Once the call request was accepted, press and hold the PTT button on the microphone while speaking.

5. Press the **END** key to end the conversation.

Follow these steps to answer a call from an intercom station:

1. When an intercom station is initiating a call to the base station, the base station will sound beeping tones to alert of the incoming call. Press the **Y** key to accept the call.

2. Press and hold the PTT button on the microphone while speaking.

3. Press the **END** key to end the conversation.

Intercom Station Operation

Follow these steps to initiate a call from an intercom station to the base station:

1. Push the button on the intercom station.

2. Wait for the call to be accepted by the party on the base station (the base station will sound beeping tones to alert of the incoming call).

3. Once the call request was accepted, press and hold the button on the intercom station while speaking.
   Note: Systems set to Full-Duplex or Hands-Free operation do not require the user to press and hold the button while speaking.

Follow these steps to answer a call from the base station:

1. When a base station is initiating a call to the intercom station, the intercom station will sound beeping tones to alert of the incoming call. Press the button on the intercom station to accept the call.
   Note: Systems set to Hands-Free operation do not require the user to press the button to accept the call. The call is accepted automatically as soon as the request is received from the base station.

2. Press and hold the button on the intercom station while speaking.
   Note: Systems set to Full-Duplex or Hands-Free operation do not require the user to press and hold the button while speaking.

3. For systems set to Hands-Free operation: Press the intercom button to end the conversation.

3.9 Background Music (FM Radio) Setup on Wireless Amplifiers

Note: Background FM radio music feature is supported by wireless amplifiers (such as VNS2200) equipped with the VNS2265 option). A Local dedicated FM radio transmitter is required and it has to transmit on the frequency supported by the wireless amplifier.

Follow these steps to activate or deactivate the FM radio background music on wireless amplifiers:

1. Program an alphanumeric device in to the VS4810. Verify that the wireless amplifier / speaker capcode was programmed properly (Device Type should be set to Alphanumeric Pager).

2. From the VS4810 **Main Menu**, select **Send Message**.

3. Enter a Wireless Speaker device number as a 3 digit number (for example, "105").

4. To activate the FM radio background music for a specific time interval, enter a message using the **GMthvds** format:
   t is always 95
   h is hundredth digit of the time interval (digit between 0 and 9)
   v is the Volume (digit between 1 and 4)
   d is tenth digit of the time interval (digit between 0 and 9)
   s is single digit of the time interval (digit between 0 and 9)
   For example, to activate the FM background music for 125 minutes with volume 2, enter **GM951225**.

5. To deactivate the FM radio background music, enter GM**960100**

6. Press the **ENTER** key to send the command.
Follow these steps to change the FM radio background music frequency stored on the wireless amplifiers:

1. Program an alphanumeric device in to the VS4810. Verify that the wireless amplifier / speaker capcode was programmed properly (Device Type should be set to Alphanumeric Pager).

2. From the VS4810 **Main Menu**, select **Send Message**.

3. Enter a Wireless Speaker device number as a 3 digit number (for example, "105").

4. Enter a message using the **FMsvbf*** format:
   s is the squelch or signal threshold level (digit between 0 and 9, 0 is Lowest, 9 is Highest)
   v is the Preamplifier Volume (digit between 1 and 9, 1 is Lowest, 9 is Highest)
   b is the Bandwidth (always 5)
   f is the FM radio frequency in MHz (7 digits, no decimal points)
   For example, to set the FM receive frequency to 95.7 MHz with squelch level of 3, enter **FM3150957000** followed by ***.

5. Press the **ENTER** key to send the command.

Software

4.1 VPS

The optional VPS software allows you to program and backup the VS4810 databases, create scheduled events (tones, bells and device activation) and synchronize the VS4810 date and time to the PC clock.

4.1.1 Connections

The VPS software requires serial communication between the PC and the administered or programmed device. Serial communication can be achieved by utilizing one of the following methods:

1. Connection to a PC equipped with a serial (COM) port.

2. Using a USB to Serial Port adaptor that create a virtual serial (COM) port on the PC. After the 3rd party driver is installed, connect the serial port adapter to the null modem cable connected to the Visiplex system serial port.

3. Using a USB cable to connect the PC directly to the USB port of the Visiplex device (applicable only to devices equipped with a USB port).

Follow these steps to connect the VS4810:

1. If USB connection is used, install USB drivers applicable to the Visiplex device and the Windows OS (x86 or x64, i.e. 32-bit or 64-bit) from the shortcuts under the VPS program group.
   Note: The USB drivers are also located in the **USB Drivers for VS1810-VS4500-VS48xx-VPR01** folder under the VPS software installation folder.

2. Turn on the VS4810. **Note**: do not connect to the PC at this point.

3. Identify the COM number on the PC used for communication with the installed device:

   3.1 If USB connection is used, open Windows Device Manager and expand the Port (COM & LPT) section. Connect the device to the PC using the USB cable and note the COM number newly assigned to the installed device on Windows Device Manager.

   3.2 If standard serial connection is used (using DB9 cable), note the physical COM number on the PC. Connect the device to the PC using the DB9 cable.

4. Install the programming software. Refer to **Software Installation** section for more information.

4.1.2 Software Installation

Note: VPS software must be installed by the PC administrator or by a user with administrator privileges. VPS software is compatible with Windows ME, XP, 2000, Vista and Windows 7.
For Windows Vista and Windows 7, set the installation folder to "C:\Visiplex\VPS".

Download the VPS software from the Download Area of Visiplex website (www.visiplex.com), save it to the PC Desktop and double click on the saved file to start the installation.
If you purchased a copy of the VPS CD-ROM, locate the software CD-ROM and insert it to the CD-ROM drive on the PC. If the installation program doesn't start automatically within 5 seconds, use Windows Explorer to browse to the CD-ROM drive and then run the **VPS_Setup.exe** file.

Press **Next** on each step until the installation process is completed.

4.1.3 Software Configuration

Note: Make sure the Windows user has full access rights to the VPS installation folder and databases folders. To obtain further information and help for each screen, press F1 to display the online help.

Follow these steps to configure VPS:

1. Make sure the VS4810 is powered on and connected to the serial port on the PC.

2. Set the serial protocol on **COM1** of the VS4810 to Visiplex, 9600-8-N-1 or 38400-8-N-1 (see page 18).

3. Click on Windows **Start** button. Select **Programs**, **VISIPLEX** program group, **VPS** and then click on **VPS**.

4. The auto detection dialog box will be displayed. Press **Ok** to start device detection.

5. If connection was established, the device model and connection details will be displayed on the lower left corner of the VPS main screen.
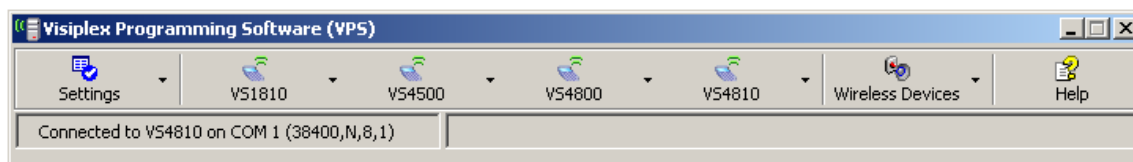
4.1.4 Setting Date and Time from PC

Synchronizing the VS4810 date and time to the PC clock allows you to keep the VS4810 internal clock accurate without using an external time source. This action can be performed manually or automatically as long as the VS4810 is connected to the PC and VPS is running.

Follow these steps to synchronize date and time to the PC date and time:

1. Make sure the VS4810 is powered on and connected to the serial port on the PC.

2. To set the date and time automatically, click on **Settings**, **Configuration & Settings.** Click on **Synchronize Connected Device to PC Clock Automatically** and then click on **Save**.
   This will synchronize the VS4810 clock to the PC clocks periodically every hour.

3. To set the date and time manually, click on **VS4810**, **System Devices & Messaging**, **System Options & Details**. click on **Set Date & Time Now**.

4.1.5 Weekly Tone & Bell Schedule

The weekly tone and bell schedule allows the VS4810 to activate tones, bells or audible alerts stored in the memory of a wireless audio/visual controller such as the VNS2200 according to a pre-programmed weekly schedule. Some of the events are designated to special devices activation and functions.
The weekly schedule consists of 48 daily events that can activate a respective tone, bell or audible alert on the wireless receiver. The VS4810 stores up to four different weekly schedules in its memory with one active schedule.

Follow these steps to program a weekly schedule (see **IMPORTANT NOTES** at the end of this section):

1. Make sure the VS4810 is powered on and connected to the serial port on the PC.

2. Click on **VS4810**, **Weekly Tone & Bell Schedule**.

3. The **Weekly Tone & Bell Schedule** dialog box will be displayed. The last schedule file edited by the user will be retrieved from the disk and displayed. If this file does not exist, a new file will be created by the VPS software. Below are the fields and functions description:

Close	Close the Weekly Tone & Bell Schedule dialog box.
Edit	Display a dialog box that allows updating the highlighted event on the schedule list (see step 4).
Upload	Upload the displayed schedule file in to the VS4810 memory. This command will overwrite the existing programming of the selected schedule.
Download	Download the active schedule from the VS4810 memory to the PC.
Open	Open and display a previously saved schedule file. **Note**: The schedule is not active until uploaded to the VS4810. Use the **Upload** command to program this schedule in to the VS4810.
Save As	Save the displayed schedule to a file on the PC for later use.
Displayed Week Day	Display the scheduled events for the selected day of the week.
Copy From	Copy the daily events of the **Displayed Week Day** to the selected **Week Day** (see step 5).
Test Tone	Test the tone or function programmed in to the highlighted event on the list.
Slot	Set and display the active weekly schedule.
Last Date & Time Read from Device	Last date and time information read from the VS4810 when the dialog was opened.
Set Date & Time Now	Synchronizes the VS4810 clock to the PC date and time.
File Name	Name of schedule file displayed.
Work Offline	Allows performing modifications to the schedule file without programming the VS4810 (usually followed by the **Upload** command).

4. If the **Edit** command is selected, the **Weekly Tone & Bell Schedule – Edit** dialog box will be displayed. Below are the fields and functions description:

Save	Update the schedule file and VS4810 (when **Work Offline** box is cleared) with changes. **Note**: If the **Work Offline** check box is checked, changes made to the schedule programming are only saved to the disk and are not written in to the VS4810 memory. To program the VS4810, click on **Upload** when all changes have been applied.
Cancel	Ignore all changes and exit.
Time	Time of day when then tone should be generated or an event should be activated.
Zone / Device ID	Determines the VS4810 device number that will be activated. Enter a three-digit number representing the device number programmed in to the VS4810 with the receiver's capcode. For example, when generating a tone for zone 05, all wireless receivers programmed with the capcode of device 005 will be activated.
Description	General description for the event. **Note**: This field is saved on the PC database only and is not programmed in to the VS4810.
Alert Type	Type of tone or alert that will be activated by the VS4810. Alert 11 and up will activate a customized user-programmed audio alert stored in the supported receiver (such as VNS2200). **Note**: Alert Type with number higher than 90 are reserved for special operations.
Alert Level	Volume of tone played.
Alert Length	Length of tone (in some cases, created by repeating a shorter tone). In some cases, can also used to determine the length of dry-contact closure or opening. **Note**: Alert length 9 (if supported) will send the selected Alert Type three times with a one second pause between each repeat.
Alert Repeats	Number of times to repeat the selected tone sequence (as determined by Type, Level and Length).
Alert Delay	Delay between each repeat of the tone sequence.
Action	Determines the type of activation command for alerts 10 and 91-99.
Duration	Determines time interval for alerts 9-10 and 91-99.
Active	Determine if an event is active. Non active events are stored but not executed. **Note**: An active events must be assigned with Zone / Device ID larger than 0.

Weekly Tone & Bell Schedule - Monday - Event 02 - Edit

Save   Cancel   Help

Time: **07**:45 AM   Zone / Device ID: 01

Desciption: First Break

Alert Type: 04 - Alert 04   Alert Level: 2

Alert Length: 3   Alert Repeats: 4

Alert Delay: 5 Seconds   Action: Activate

Duration: 00 minutes, 00 seconds

☑ Active

5. If the **Copy From** command is selected, the schedule will be copied from the selected displayed day to the selected **Week Day**.

IMPORTANT NOTES

1. When the **Weekly Tone & Bell Schedule** programming screen is opened, it displays the last file that was edited by the user. The displayed schedule may be different than the actual schedule data stored in to the VS4810 (unless the VS4810 was previously programmed with that schedule).

2. To ensure the schedule displayed is same as the schedule programmed in to the VS4810, press **Download** after opening the **Weekly Tone & Bell Schedule** programming screen. This will download and display the active schedule from VS4810. The schedule is downloaded and saved by default to the **Default.tws** file. Use the **Save As** to save the schedule under a different name.

3. All changes made are applied to the current active slot that represents the current active weekly schedule. Make sure you select the correct slot before using the **Edit**, **Download** and **Upload** commands.

4. Every time the **Slot** is changed, the appropriate schedule is downloaded from the VS4810 and displayed.

5. Unless the Work Offline check box is cleared, changes made to the schedule **DO NOT** update the schedule stored in the VS4810 until the **Upload** command is used. Always upload the schedule to the VS4810 after schedule changes are completed.

6. Use the **Upload** command to program a schedule that was loaded using the **Open** command.

7. It is recommended that each schedule used will be downloaded from the VS4810 and saved to the disk with a name that will describe it appropriately. If required, saved schedules can be loaded to the VPS using the **Open** command and then programmed in to the VS4810 using the **Upload** command.

8. The execution of the schedule programmed in to the VS4810 is dependent on the date and time stored in its internal clock. This clock **MUST** be kept accurate by receiving time updates from a GPS receiver or from a PC connected to it via a serial port.

4.1.6 Calendar Tone & Bell Schedule

The calendar tone & bell schedule allows the VS4810 to activate tones, bells or audible alerts stored in the memory of a wireless audio/visual controller such as the VNS2200 according to a pre-programmed annual schedule. Some of the events are designated to special devices activation and functions.

The schedule calendar consists of 8 to 100 daily events (depending on the VS4810 version) that can activate a respective tone, bell or audible alert on the wireless receiver. Days with active events are marked with an Orange indicators to the left of the date on the calendar.

Unlike the weekly schedule, events have be programmed for each day of the calendar year and there is only one active schedule. When required, events can be copied from one period the other periods for easy programming.

Follow these steps to program a schedule calendar (see **IMPORTANT NOTES** at the end of this section):

1. Make sure the VS4810 is powered on and connected to the serial port on the PC.

2. Click on **VS4810**, **Calendar Tone & Bell Schedule**.

3. The **Calendar Tone & Bell Schedule** dialog box will be displayed. The last schedule file edited by the user will be retrieved from the disk and displayed. If this file does not exist, a new file will be created by the VPS software.

4. If you prefer to have a schedule that starts with a month other than January, use the **Rotate** command to change the first month of the schedule before creating any daily events. Select Rotate 1 Month Forward on the **Schedule Rotation** drop down list and click on **Rotate** until the desired first month is displayed.
   Below are the fields and functions description:

Close	Close the Calendar Tone & Bell Schedule dialog box.
Edit	Display a dialog box that allows updating the highlighted event on the schedule list (see step 5).
Upload	Upload the displayed schedule file in to the VS4810 memory. This command will overwrite the existing programming of the schedule.
Download	Download the schedule from the VS4810 memory to the PC.
Open	Open and display previously saved schedule file. **Note**: The schedule is not active until uploaded to the VS4810. Use the **Upload** command to program this schedule in to the VS4810.
Save As	Save the displayed schedule to a file on the PC for later use.
Apply as Default Week	Copy the events programmed in to the days indicated by the **Selected Week** field to all other weeks of the year.
Selected Period	Indicate the range of dates of the currently selected calendar days. This range can also be selected by clicking on the first day of a period, holding the Shift key, and clicking on the last day of a period.
Copy	Copy the events of the days in the **Selected Period** to the period starting at the **Copy to Period Starting at** date.
Schedule Rotation	Rotate the schedule forward or backwards by a day or a month. Use the **Rotate** command to apply the required changes. When the schedule is rotated by one day forward, all events are moved forward by one day and the events of the last day of the year are copied to the first day of the year. When the schedule is rotated by one month forward, the first month of the calendar is removed and a new month is added at the end of the calendar. The events of the removed month are copied to the added month at the end of the calendar. When the schedule is rotated by one day backwards, all events are moved backwards by one day and the events of the first day of the year are copied to the last day of the year. When the schedule is rotated by one month backwards, the last month of the calendar is removed and a new month is added at the beginning of the calendar. The events of the removed month are copied to the added month at the beginning of the calendar.
Apply	Allow activation or deactivation of events on a selected day or month as indicated by the **Events** drop down list. **Note**: Only events with Zone / Device ID larger than 0 can be activated.
Active Events Count for	Display the number of active events on the selected day.
Test Tone	Test the tone or function programmed in to the highlighted event on the list.
File Name	Name of schedule file displayed.
Last Date & Time Read from Device	Last date and time information read from the supported system when this dialog was opened.
Set Date & Time Now	Synchronizes the VS4810 clock to the PC date and time.

The schedule below is an example of a daily schedule for the year of 2011 with no events on the major holidays (05/30/11, 07/04/11, 09/05/11 and 12/26/11 to 12/31/11).
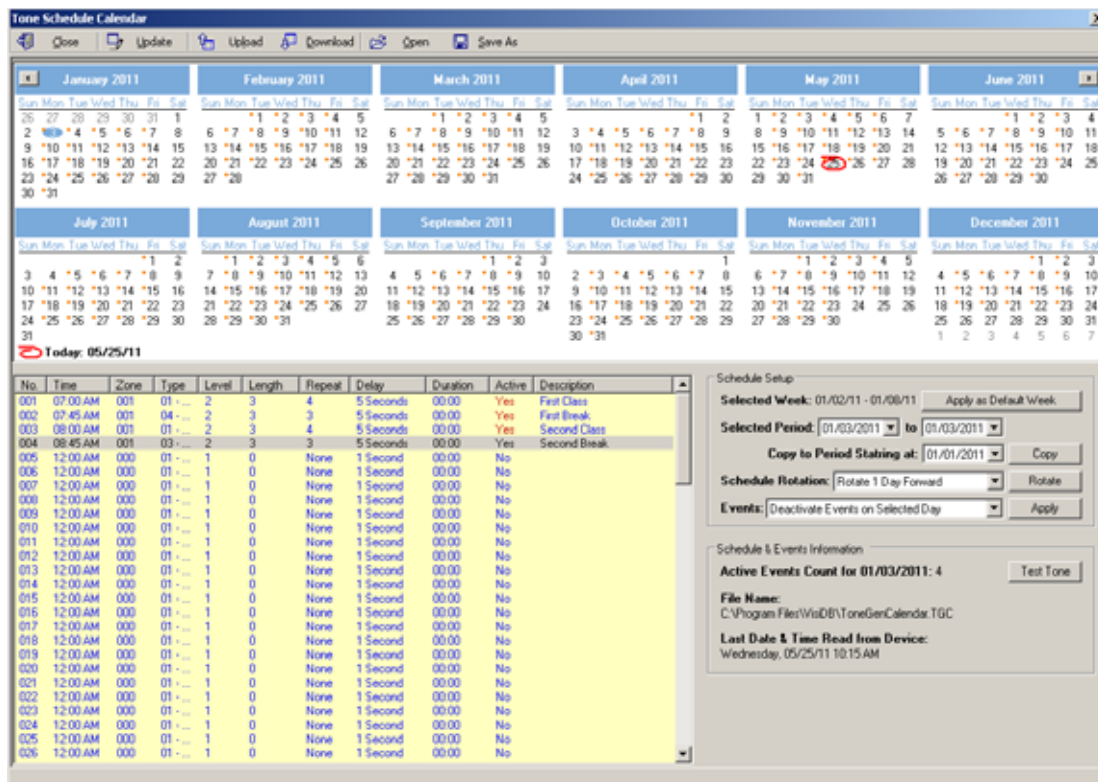
5. If the **Edit** command is selected, the **Calendar Tone & Bell Schedule – Edit** dialog box will be displayed. Below are the fields and functions description:

Save	Update the schedule file with changes.
Cancel	Ignore all changes and exit.
Time	Time of day when then tone should be generated or an event should be activated.
Zone / Device ID	Determines the VS4810 device number that will be activated. Enter a three-digit number representing the device number programmed in to the VS4810 with the receiver's capcode. For example, when generating a tone for zone 05, all wireless receivers programmed with the capcode of device 005 will be activated.
Description	General description for the updated event. **Note**: This field is saved on the PC database only and is not programmed in to the VS4810.
Alert Type	Type of tone or alert that will be activated by the VS4810. Alert 11 and up will activate a customized user-programmed audio alert stored in the supported receiver (such as VNS2200). **Note**: Alert Type 98 will send a command to start a countdown on supported digital clocks. The time should be set to the minute before the time when the countdown is supposed to start. For example, if the countdown supposed to start at 10:00 AM, set the time to 09:59 AM. The countdown interval is determined by Duration. Alert Type 99 will send a command to activate a device such a strobe light or dry-contact closure. The type of activation and timeout interval are determined by Action and Duration.
Alert Level	Volume of tone played.
Alert Length	Length of tone (in some cases, created by repeating a shorter tone). In some cases, can also used to determine the length of dry-contact closure or opening. **Note**: Alert length 9 (if supported) will send the selected Alert Type three times with a one second pause between each repeat.
Alert Repeats	Number of times to repeat the selected tone sequence (as determined by Type, Level and Length).
Alert Delay	Delay between each repeat of the tone sequence.
Action	Determines the type of activation command for alerts 91-99.
Duration	Determines time interval for alerts 91-99.
Active	Determine if an event is active. Non active events are stored but not executed. **Note**: An active events must be assigned with Zone / Device ID larger than 0.

Tone Schedule Calendar – 01/10/11 – Event 004 – Update

✓ Ok   ✗ Cancel

Time: 08:45 AM   Zone / Device: 001

Desciption: Second Break

Alert Type: 03 - Alert 03   Alert Level: 2

Alert Length: 3   Alert Repeats: 3

Alert Delay: 5 Seconds   Action: Activate

Duration: 00 minutes, 00 seconds

☑ Active

6. If the **Copy** command is selected, the schedule will be copied from the **Selected Period** (01/03/2011 to 01/07/2011) to the period starting at the date indicated by the **Copy to Period Starting at** field (02/01/2011).

7. If the **Rotate** command is selected, the schedule will be rotated by one day or one month forward or backwards. In the following example, the schedule was rotated one day forward (the first event if moved from 01/03/2011 to 01/04/2011).

In the following example, the schedule was rotated one month forward to accommodate a schedule that starts with a month other than January. In that case, the daily events of January 2011 were applied to the January 2012.

Since January 3rd on 2012 is a Tuesday (compared to a Monday on 2011), the range of 01/03/2012 to 01/28/2012 may be copied to the period starting at 01/02/2012 in order have the events start at Monday 01/02/2012 using the **Copy** command. In addition, the events of 01/31/2012 may be copied to 01/30/2012 and the events for 01/31/2012 may have to be edited as required.
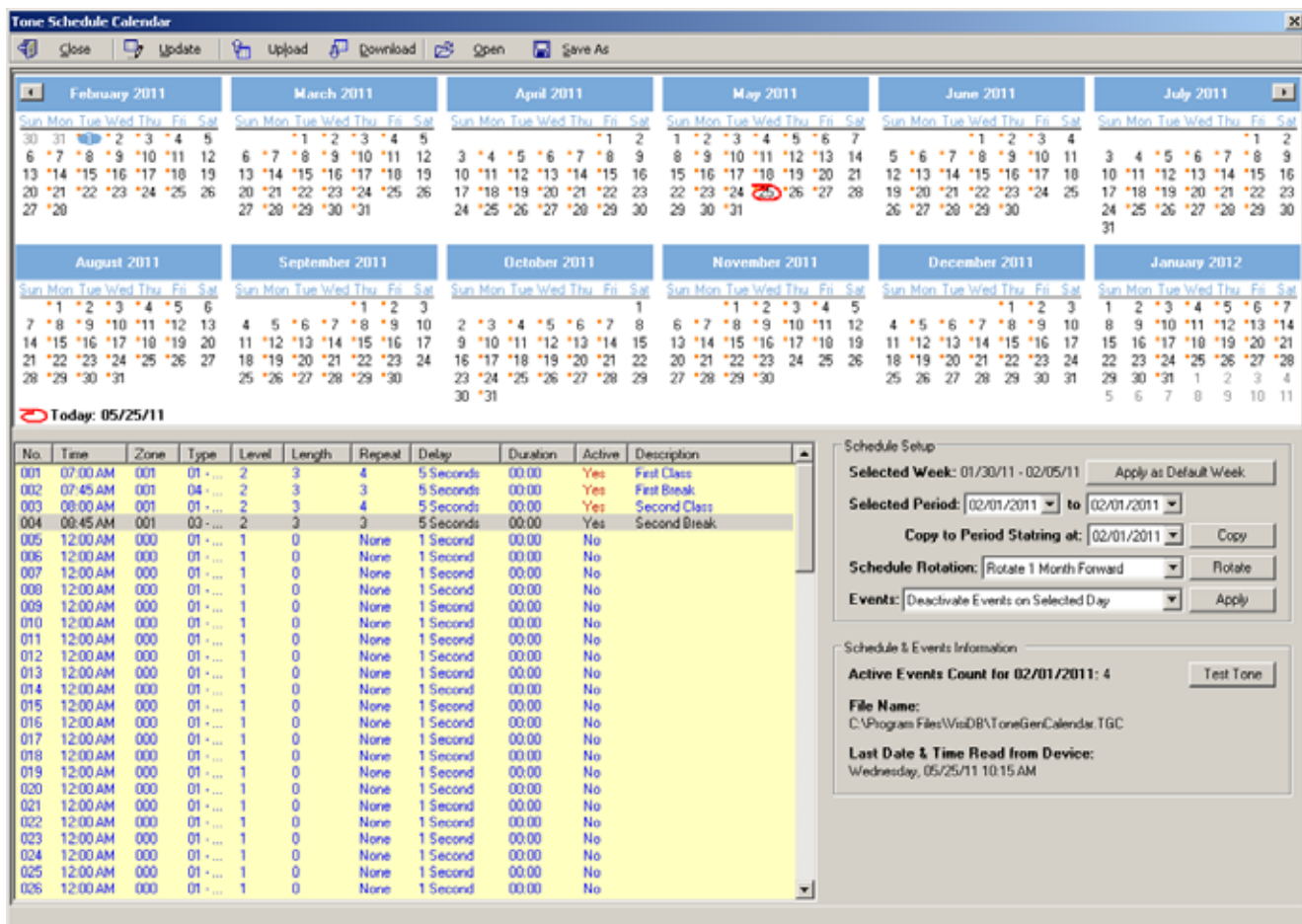
IMPORTANT NOTES

1. When the **Calendar Tone & Bell Schedule** programming screen is opened, it displays the last file that was edited by the user. The displayed schedule may be different than the actual schedule data stored in to the VS4810 (unless the VS4810 was previously programmed with that schedule).

2. To ensure the schedule displayed is same as the schedule programmed in to the VS4810, press **Download** after opening the **Calendar Tone & Bell Schedule** programming screen. This will download and display the schedule from VS4810. The schedule is downloaded and saved to the **Default.tgc** file. Use the **Save As** to save the schedule under a different name.

3. Changes made to the schedule **DO NOT** update the schedule stored in the VS4810 until the **Upload** command is used. Always upload the schedule to the VS4810 after schedule changes are completed.

4. The execution of the schedule programmed in to the VS4810 is dependent on the date and time stored in its internal clock. This internal clock MUST be kept accurate by receiving time updates from a GPS receiver or from a PC connected to it via a serial port.

4.1.7 Scheduled Paging Activation

Scheduled paging allows you to send tones or messages to devices or speakers based on a preprogrammed schedule. This feature can be used as long as the VS4810 is connected to the PC and VPS is running. The tones or messages are generated by the VPS software.
Unlike the weekly and calendar tone & bell schedules, no data is stored by in the VS4810 and the schedule is executed by the VSP software.

Follow these steps to set scheduled paging:

1. Make sure the VS4810 is powered on and connected to the serial port on the PC.

2. Click on **VS4810**, **Pre-Programmed Messages & Activation**, **Scheduled Paging Activation**.

3. The **Scheduled Paging Activation** dialog box will be displayed. The last schedule file edited by the user will be retrieved from the disk and displayed. If this file does not exist, a new file will be created by the VPS software. Below are the fields and functions description:

Close	Close the Pre-Programmed Messages & Activation dialog box.
Edit	Display a dialog box that allows updating the highlighted event on the schedule list (see step 4).
Displayed Week Day	Display the scheduled events for the selected day of the week.
Copy From	Copy the daily events of the **Displayed Week Day** to the selected **Week Day**.
Test Tone	Test the tone or function programmed in to the highlighted event on the list.

4. If the **Edit** command is selected, the **Scheduled Paging Activation – Edit** dialog box will be displayed. Below are the fields and functions description:

Save	Update schedule file and with changes.
Cancel	Ignore all changes and exit.
Zone / Device ID	Determines the VS4810 device number that will be activated. Enter a three-digit number representing the device number programmed in to the VS4810 with the receiver's capcode. For example, when generating a tone for zone 05, all wireless receivers programmed with the capcode of device 005 will be activated.
Description	General description for the updated event.
Alert Type	Type of tone or alert that will be activated by the VS4810. Alert 11 and up will activate a customized user-programmed audio alert stored in the supported receiver (such as VNS2200). To send alphanumeric commands or messages, select **97 – User Defined Message** and enter text in the **Message** field. **Note**: Alert Type with number higher than 90 are reserved for special operations.
Alert Level	Volume of tone played.
Alert Length	Length of tone (in some cases, created by repeating a shorter tone). In some cases, can also used to determine the length of dry-contact closure or opening. **Note**: Alert length 9 (if supported) will send the selected Alert Type three times with a one second pause between each repeat.
Alert Repeats	Number of times to repeat the selected tone sequence (as determined by Type, Level and Length).
Alert Delay	Delay between each repeat of the tone sequence.
Message	Alphanumeric command or message that will be sent on to the device.
Active	Determine if an event is active. Non active events are stored but not executed. **Note**: An active events must be assigned with Zone / Device ID larger than 0.

4.1.8 System Devices Database Programmer

The System Devices Database Programmer allows you to easily add a multiple devices to the devices database.
Click on **VS4810**, **System Devices & Messaging**. Click on **Programmer** to display the Database Programmer dialog box.

Enter the required information into the fields and click on **Program** button to update/program the devices database.
Note: If the **Work Offline** check box is cleared, devices are not programmed in to the VS4810. In that case, use the **Upload** command to program the VS4810 with the device displayed.

4.2 TimeSync

The optional TimeSync software provides central control from a management PC of up to 16 synchronized devices by using serial communication (RS232) between the PC and the device. This software provides the following functionality:

1. Write the PC time and date to the VS4810. This time will be used as the reference time for these devices.

2. Read the time from the VS4810 and synchronize the PC date and time accordingly.

The serial communication can be established in one of the following methods:

1. Using a local RS232 (serial) port on the management PC (usually COM1 to COM4). The encoder or tone generator must be connected via null modem cable to the PC (usually no more than 6' long).

2. Using a virtual RS232 port (such as TS-ADA-051, LAN to RS232 adaptor). This will allow the synchronized device to be located anywhere in the facility as long as it accessible via the LAN to which the PC is connected to.

Each TS-ADA-051 is assigned with an IP address and creates a virtual serial port on the PC. This virtual serial port can be used by the TimeSync software to write or read the time from the synchronized device.

Typical solution packages:

1. Synchronize encoder or tone generator according to PC time:
   VS4810
   TimeSync (VSPS-02) software
   TS-ADA-051 (optional, required only if the encoder or receiver are not connected directly to the PC)

2. Synchronize PC time according to encoder or receiver time:
   VS4810 or
   TimeSync (VSPS-02) software
   TS-ADA-051 (optional, required only if the encoder or receiver are not connected directly to the PC)

4.2.1 Connections

Follow these steps to establish communication between a device (receiver, tone generator or encoder) and the PC:

1. If you intend to retrieve or update the time of remote devices, install the LAN to RS232 adaptor on a designated PC that will be running the TimeSync software.

   The installation of the LAN to RS232 adaptor is usually performed as follows:
   Connect the LAN to RS232 adaptor to your network and to the power. Run the LAN to RS232 adaptor configuration software that will detect all adaptors on the network and display them. Assign a port (RS232/COM) number to each IP address that was detected as a LAN to RS232 adaptor.
   For detailed information, please refer to the installation instructions provided with the LAN to RS232 adaptor.

2. Connect the provided null modem cable to the **COM1** port on the device and the other end to one of the serial ports on the PC. Make a note of the serial port used (COM1, COM2, etc.).
   If a LAN to RS232 adaptor is used, connect it's serial port to the synchronized device.

3. Install the programming software. Refer to **Software Installation** section for more information.

4.2.2 Software Installation

Note: TimeSync software must be installed by the PC administrator or by a user with administrator privileges. TimeSync software is compatible with Windows ME, XP and 2000.

Locate the TimeSync software CD-ROM and insert it to the CD-ROM drive on the PC. If the installation program doesn't start automatically within 5 seconds, use Windows Explorer to browse to the CD-ROM drive and then run the **TimeSync_Setup.exe** file.

Note: For Windows Vista and Windows 7, it is recommended that the installation folder will be changed to "C:\TimeSync").

Press **Next** on each step until the installation process is completed.

4.2.3 Software Configuration

Note: TimeSync software must be used by a user with full access privileges to selected installation folder. Depending on your operating systems and PC configuration, administrator privileges may be required in some cases while in other Standard or Power user privileges may be sufficient.
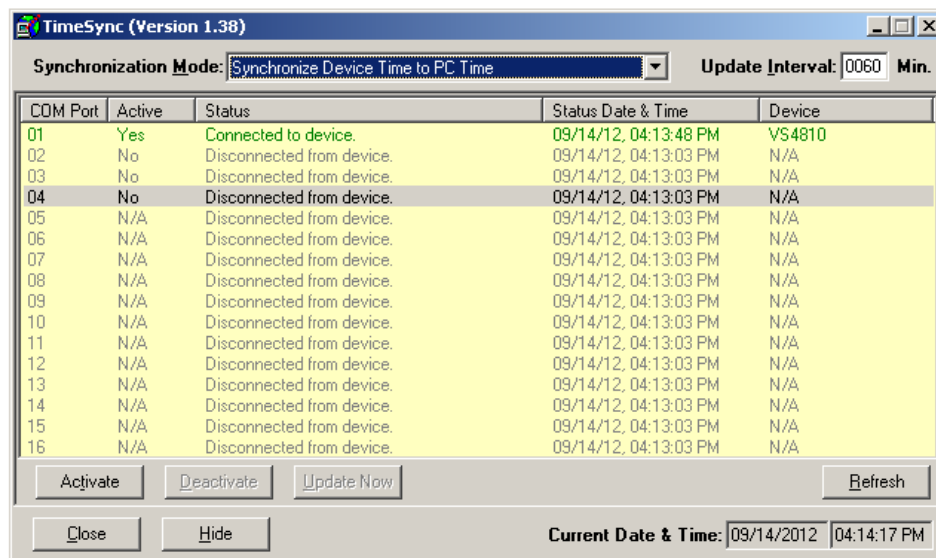
Follow these steps to configure TimeSync:

1. Make sure the VS4810 is powered on and connected to the serial port on the PC.

2. Set the serial protocol on **COM1** of the VS4810 to Visiplex, 9600-8-N-1 or 38400-8-N-1.

3. Press the Windows **Start** button. Select **Programs**, **TimeSync** program group and then select **TimeSync**.

4. Select the **Synchronization Mode**:
   To update the VS4810 according to the PC date and time, select **Synchronize Device Time to PC Time**.
   To update the PC according to the VS4810 date and time, select **Synchronize PC Time to Device Time (Single COM Port)**.

5. Select the **COM Port** assigned to the device on the computer from the list.

6. Click **Activate** to activate the selected **COM Port** and connect to the device (encoder, tone generator or receiver).

7. TimeSync software will try to connect to the device and display the type of device detected.

8. Depending on the **Synchronization Mode** selected, TimeSync will write or read the time to or from the connected device automatically according to the selected **Update Interval** (default is 60 minutes, maximum is 9999 minutes).

Below are the fields and functions description:

Synchronization Mode	Determine if time is read from or send to the connected device.
Update Interval	Time interval to update the devices time or PC time automatically (minimum is 60 minutes, maximum is 9999 minutes).

Activate	Activate the selected COM port and connect to the device (encoder, tone generator or receiver).
Deactivate	Deactivate the selected COM port and disconnect from the device (encoder, tone generator or receiver).
Update Now	Depending on the Synchronization Mode selected, TimeSync will read or write the time from or to the selected device. The device or PC time will be updated accordingly.
Refresh	Disconnect from all devices, reload all COM ports and reconnect to all active devices.
Close	Terminate the TimeSync program.
Hide	Hide the TimeSync window and place to the system tray.
Current Date & Time	Displays the current date and time of the PC.
Device List	Information on the available devices and their status: COM Port - COM (RS232) port number Active - Indicates if the COM port is active (connected to a device) Status - Last connection status with the device Status Date & Time - Date and time of the last connection status Device - The type of device detected.

4.2.4 Setting the PC Clock from the VS4810 Time

Setting the PC clock according to the VS4810 date and time allows you to keep the PC internal clock accurate and therefore use it as a reference for network time (see Windows **Net Time** command). This action can be performed manually or automatically as long as the encoder is connected to the PC and TimeSync is running.

Follow these steps to set the date and time according to the date and time of the VS4810:

1. Make sure the VS4810 is powered on and connected to the serial port on the PC.

2. Set the **Synchronization Mode** to **Synchronize PC Time to Device Time (Single COM Port)**.

3. To set the PC date and time manually, press **Update Now**. This will synchronize the PC clock according to the date and time of the connected device. Note that in some cases this operation may require more than one retry due to other functions performed by the encoder.

4. The automatic update is performed periodically according to the **Update Interval** . The **Status Date & Time** field displays the last date and time when the PC clock was updated.

4.2.5 Setting the VS4810 Clock from PC Time

Setting the VS4810 date and time from a PC allows you to keep its internal clock accurate. This action can be performed manually or automatically as long as the encoder or tone generator is connected to the PC and TimeSync is running.
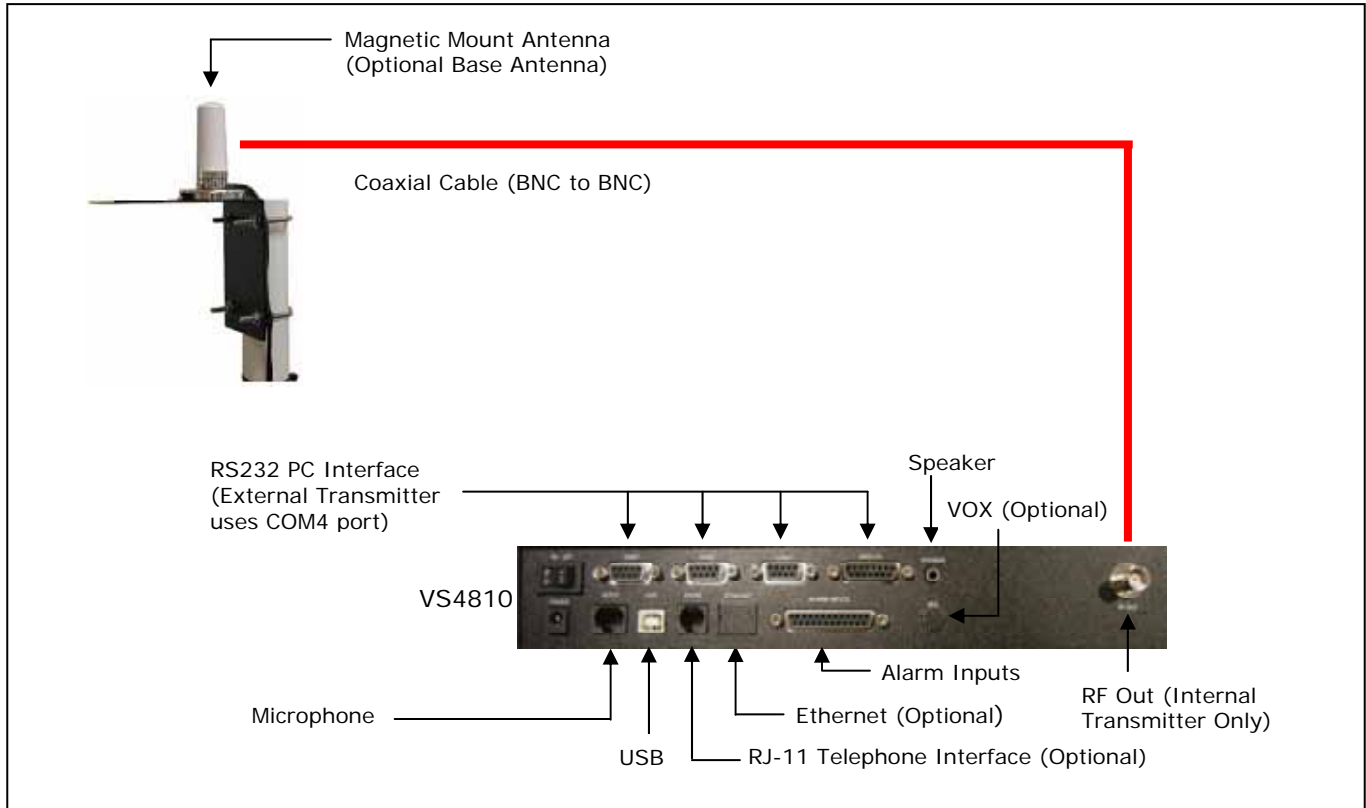
Follow these steps to set the date and time of the VS4810 according to the PC date and time:

1. Make sure the VS4810 is powered on and connected to the serial port on the PC.

2. Set the **Synchronization Mode** to **Synchronize Device Time to PC Time**.
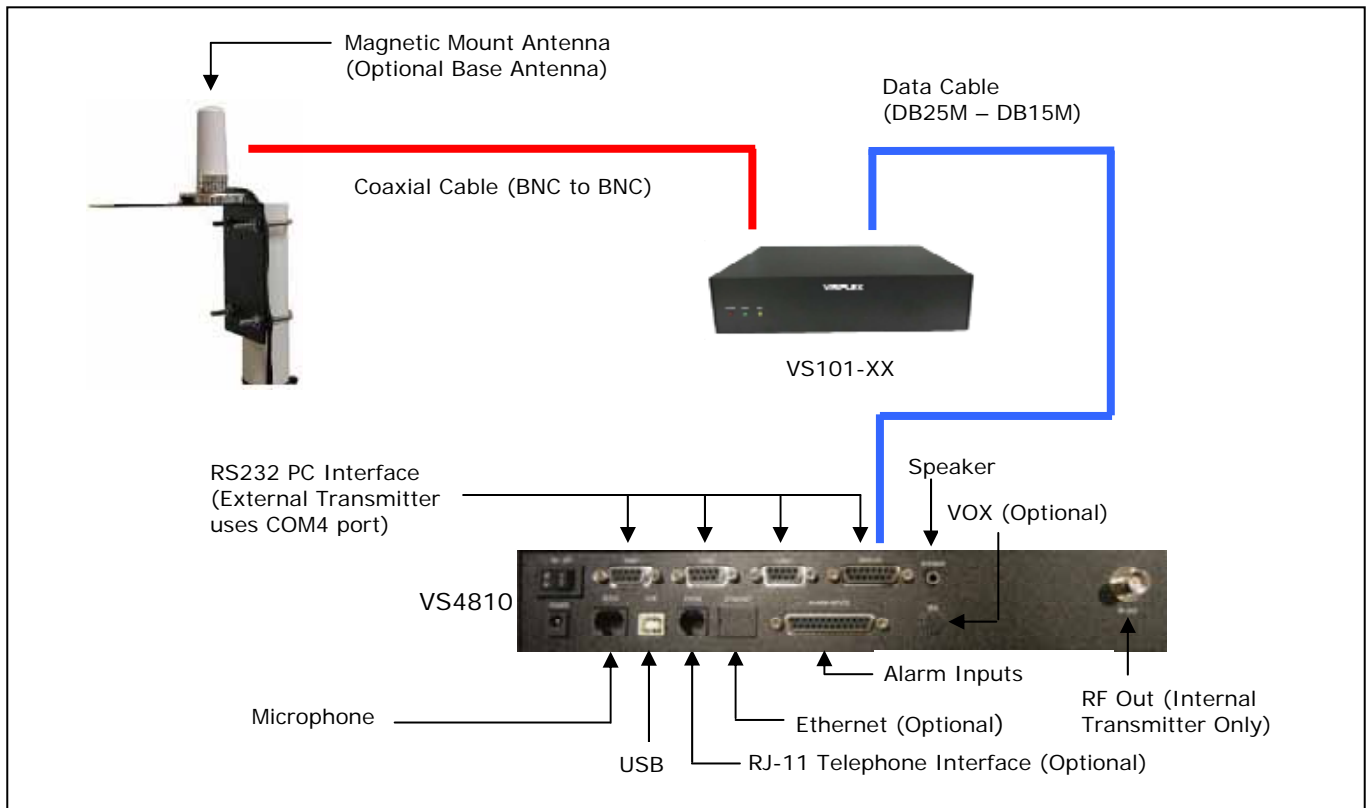
3. To set the PC date and time manually, press **Update Now**. This will synchronize the encoder or tone generator clock according to the date and time of PC. Note that in some cases this operation may require more than one retry due to other functions performed by the encoder.
The encoder or tone generator internal clock will be updated with this data and it will be used as the reference date and time sent to clocks and other receivers or used for the tone schedule.

4. The automatic update is performed periodically according to the **Update Interval** . The **Status Date & Time** field displays the last date and time when the connected device clock was updated.
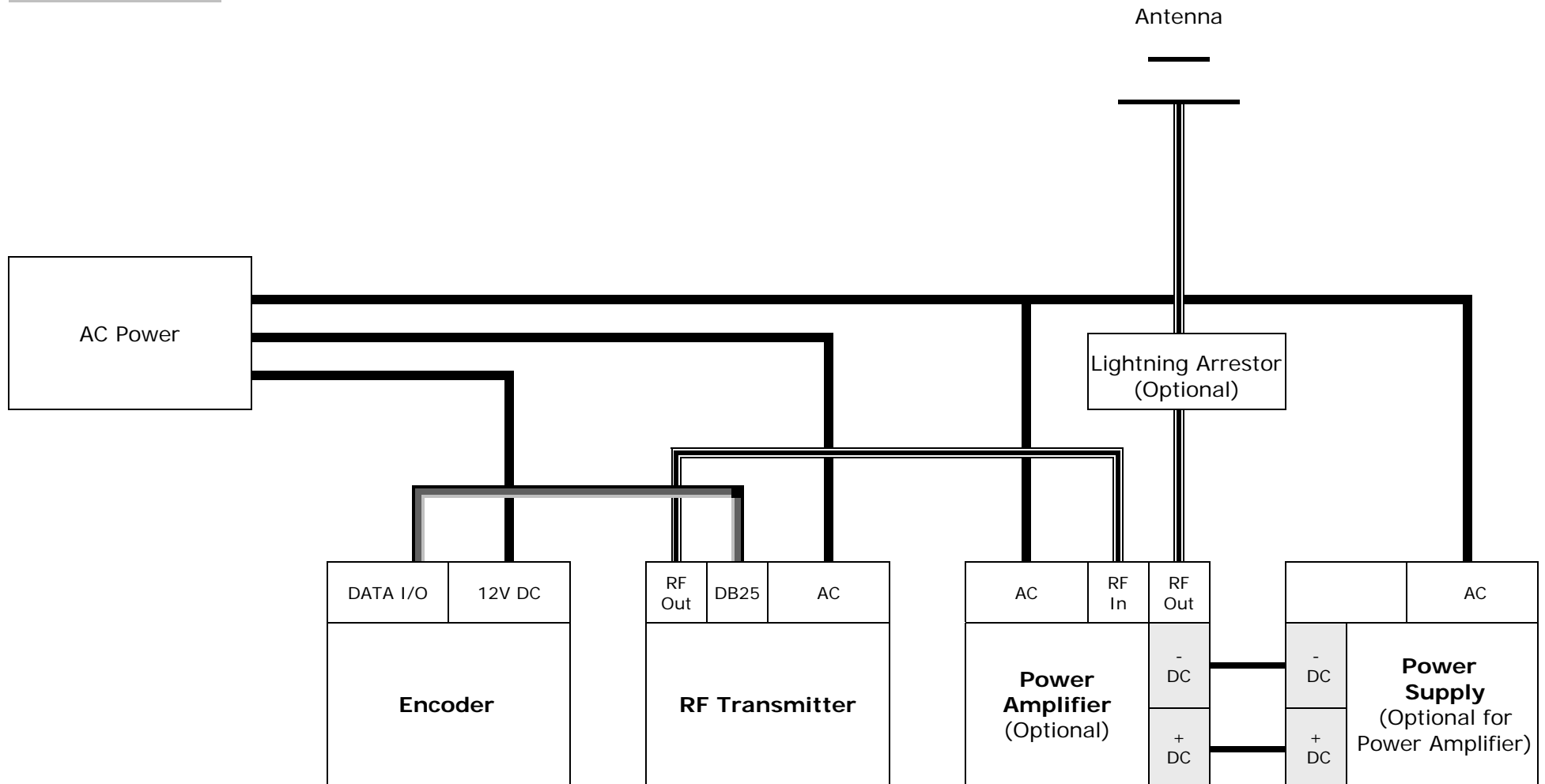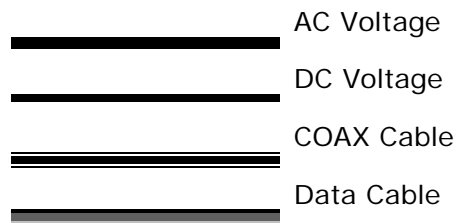
Appendices

Magnetic Mount Antenna
(Optional Base Antenna)

Coaxial Cable (BNC to BNC)

RS232 PC Interface
(External Transmitter
uses COM4 port)

Speaker

VOX (Optional)

VS4810

Alarm Inputs

RF Out (Internal
Transmitter Only)

Microphone

Ethernet (Optional)

USB

RJ-11 Telephone Interface (Optional)

Low Power System Installation Diagram

Magnetic Mount Antenna
(Optional Base Antenna)

Data Cable
(DB25M – DB15M)

Coaxial Cable (BNC to BNC)

VS101-XX

RS232 PC Interface
(External Transmitter
uses COM4 port)

Speaker

VOX (Optional)

VS4810

Alarm Inputs

RF Out (Internal
Transmitter Only)

Microphone

Ethernet (Optional)

USB

RJ-11 Telephone Interface (Optional)

Medium Power System Installation Diagram

AC Voltage

DC Voltage

COAX Cable

Data Cable

Antenna

AC Power

Lightning Arrestor
(Optional)

DATA I/O	12V DC

Encoder

RF Out	DB25	AC

RF Transmitter

AC	RF In	RF Out

	- DC
	+ DC

Power Amplifier
(Optional)

- DC	AC
+ DC	

Power Supply
(Optional for Power Amplifier)

High Power System Installation Diagram

5.2 Appendix B – Connections, Wiring and Pin Out

5.2.1 Serial Port Pin Out (COM1, COM2, COM3)
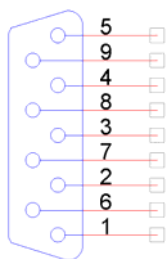
1 – N.C.	6 – N.C.
2 – RX (IN)	7 – N.C. / PWR (OUT, 5VDC / 12VDC)
3 – TX (OUT)	8 – N.C.
4 – RTS (OUT)	9 – N.C.
5 – GND	

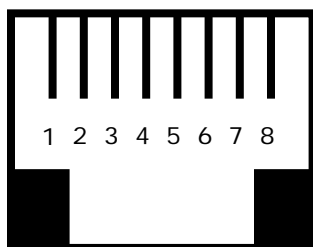### 5.2.2 External Transmitter / Serial Port 4 Pin Out (DATA I/O)
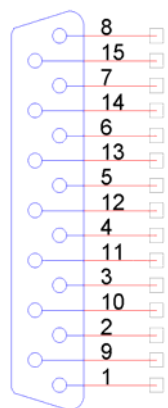
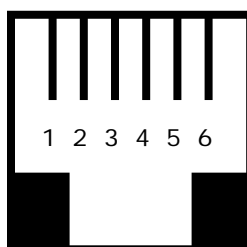|		
1 – GND	6 – DATA IN (IN)	11 – GND
2 – DIGITAL DATA (OUT)	7 – CHANNEL CONTROL (OUT)	12 – GND
3 – DIGITAL PTT (OUT)	8 – PWR (OUT, 12VDC)	13 – PWR (OUT, 5V)
4 – ANALOG DATA (OUT)	9 – RX (**COM4**)	14 – GND
5 – INHIBIT (IN)	10 – TX (**COM4**)	15 – ANALOG (IN) / AUDIO (IN)*

5.2.3 Power Port Pin Out (POWER)
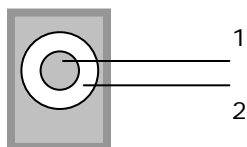
1 – POS (CENTER)
2 – GND

5.2.4 Audio Port Pin Out (AUDIO)

1 – N.C.	5 – GND
2 – N.C.	6 – N.C.
3 – MIC PTT (IN)	7 – N.C.
4 – MIC AUDIO (IN)	8 – N.C.

5.2.5 Phone Port Pin Out (PHONE)
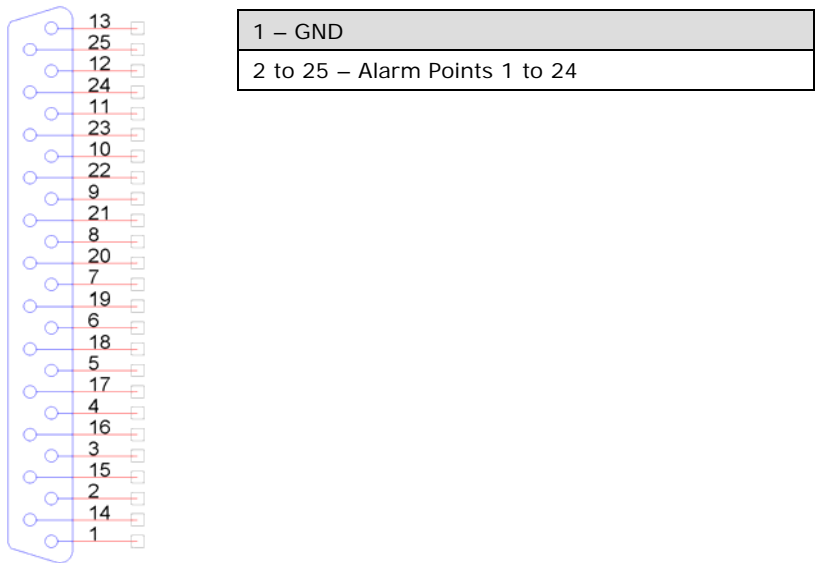
1 – N.C.	4 – RING LINE 1
2 – TIP LINE 2	5 – RING LINE 2
3 – TIP LINE 1	6 – N.C.

5.2.6 External Audio Activation Pin Out (VOX)

1 – AUDIO (IN)
2 – GND

5.2.8 Alarm Input Pin Out (ALARM INPUTS)

1 – GND
2 to 25 – Alarm Points 1 to 24

General Information

6.1 Specifications

Encoder

Frequency Range	VHF: 148-174 MHz, UHF: 403-433 MHz, 438-470 MHz
Data Baud Rate	512, 1200, 2400 BPS
Paging Format	POCSAG (Narrow or Wide Band), 2-Tone
Paging Type	Wireless Alphanumeric, Voice and Tone
Channel Spacing	12.5 kHz or 25 kHz
Power	AC Adaptor - Input: 100-240VAC, 50/60Hz Output: 12VDC, 3A
Approvals	UL/CSA listing (power supply)
Operating Temperature	32° to 104° F / 0° to 40° C
Storage Temperature	14° to 140° F / -10° to 60° C
Operating Humidity	10%-65%
Dimensions (W x H x D)	12" x 8.5" x 3" / 305mm x 216mm x 76mm
Weight	2.70 lbs. / 3.20 lbs with power supply
Warranty	1 Year, Parts and Labor

Internal Transmitter (Optional)

RF Power Output	VTX-6: 6W
Modulation	Data and Tone: ± 3.5 kHz, Voice: ± 5.0 kHz
Frequency Stability	± 0.0025%, -22° to 140° F / -30° to 60° C Reference Temperature: 77° F / 25° C
FM Noise	Minimum 40dB below ± 3.0 kHz deviation at 1000 Hz
Spurious & Harmonic	75 dB
FCC Registration	AIERIT11-450 (6W transmitter)

Telephone Line (optional)

Input Impedance	600Ω Nominal (Off-Hook)
Line Type	Line Level (End to End Station Level), DTMF
Telephone Audio	DTMF Receive Level Dynamic Range: -26 dBm minimum DTMF Receive Frequencies Tone (Nominal, ± 1.5%,± 2 Hz): 697, 770, 852, 941, 1209, 1336, 1477, 1633

Other

Speaker Output	8Ω, Mono

6.2 Warranty

Unless otherwise specified at the time of original purchase, all equipment is warranted as to quality and performance for one year from the date of original shipment from our factory.

This factory warranty covers all parts, software, and/or labor (as specified at time of purchase) at our factory, as well as return shipping to you, the customer, but does not apply to any batteries or other damage resulting from abuse of the equipment. Warranty coverage excludes free replacement of cosmetic items such as clips, logos, etc.

The warranty is void if:
1. There is evidence of abuse to the equipment (i.e., corrosion, unusual physical damage, signs of exposure to temperatures outside the range of specifications, etc.)
2. The equipment contains an unauthorized modification.
3. Identification numbers on the printed circuit boards or chassis have been altered or removed.
4. Evidence of the product having been exposed to or submerged in water.
5. Equipment is damaged through acts of God, including, but not limited to: flood, lightning, hurricane, tornado, sustained high winds, acts of war, natural disasters, etc.

Should you experience problems with any product, we would suggest consulting your system or clock maintenance guide to correct any routine problems such as replacing batteries, cleaning contacts, checking AC voltage, etc.

If the problem persists, please call our technical support department for additional assistance, remote diagnostics help, etc.
If your product must be returned for repair, our technical service department will provide you with a Returned Material Authorization (RMA) number and any other special instructions that will allow the repair to be handled as quickly as possible.
All non-warranty products require a purchase order number in addition to an RMA number for repair work to be started.

For more information, or to obtain technical assistance on any warranty or non-warranty product, please write, call, fax or email to:
Visiplex, Inc.
1287 Barclay Boulevard
Buffalo Grove, IL 60089
Phone: (847) 229-0250 or (877) 918-7243
Fax: (847) 229-0259
E-mail: support@visiplex.com
Website: www.visiplex.com
Business Hours: Monday-Friday, 9:00 AM - 5:00 PM Central Time.