# VNS Amplifier & Controller Installation Guide

### VNS Amplifier & Controller Installation

- 1. Determine the installation location for the VNS device. Consider the following when determining the installation location:
  - Standard VNS device is equipped with AC to DC power adaptor and require a standard 110VAC or 220VAC power outlet. The power adaptor consists of 6' DC power cable and 6' of AC power cord. Consider these cable lengths and the distance between the power outlet and the VNS device.
  - For VNS devices equipped with VNS2256 option: The solar panel is equipped with 15' feet of power cable. Consider this cable length and the distance between the outdoor solar panel installation location and the VNS device.
  - For VNS devices equipped with VNS2261 option: The intercom wall plate is equipped with 25' feet of data cable. Consider this cable length and the distance between the intercom wall plate installation location and the VNS device.
- 2. Position the VNS device on the mounting surface and confirm that its BNC antenna connector is pointing upwards and is vertical to the floor.

Note: When the device is installed properly, the LED should be on the left top corner (front view).

- 3. Secure the VNS device to the wall using screws appropriate for the mounting surface (use 1.5"-2" long screws).
- 4. If an external antenna is used, install it on the BNC connector. Otherwise, use the provided rubber cap to seal the BNC connector.
- 5. Connect the speaker or controller cables to the connectors marked as **OUTPUT**. Below are the available connector types that may be installed on your device:
  - **2 Pin Female**: Controlled Device (12VDC or Dry-Contact)
  - 3 Pin Female: Speaker Audio Output
  - 4 Pin Female: Dual Output for Two Controlled Devices (12VDC or Dry-Contact)
  - 5 Pin Female: Dual Speaker Audio Output for Two Speakers
  - 8 Pin Male: Intercom Wall Plate (for VNS2261 option)
- 6. Connect the other end of each cable to the appropriate Controlled Device or Speaker. Verify proper connections.
- 7. Connect the power adaptor male connector to the **POWER** connector of the VNS device (for AC powered device only).

**Note**: The VNS devices should be protected from direct rain and snow, and if possible, from direct sun. These devices are suitable for outdoors installation. Yet, the devices are not watertight and it's highly recommended that outdoors installation locations will include an overhang to protect the VNS device from direct rain, snow and sun.

### VNS2256 (Solar Charger with Internal Battery) Option

Note: The instructions below are for general reference only. Always Review the instructions enclosed with the solar panel before installation.

- 1. Follow steps 1-6 of the VNS Amplifier & Controller Installation described above.
- 2. Secure the mounting bracket to a permanent structure facing the southern sky. Use screws or bolts appropriate for the mounting surface.
- 3. Secure the solar panel to the mounting bracket (Image 1).
- 4. Adjust the solar panel to an angle between 45 and 60 degree from the horizon.
- 5. Tighten all screws to lock mounting bracket and solar panel in position.
- 6. Connect the solar panel male connector to the **POWER** connector of the VNS device.
- 7. Allow 24 hours for battery to recharge.

# Image 1



### VNS2261 (2-Way Intercom) Option

Note: The instructions below are for general reference only. Always Review the instructions enclosed with intercom wall plate before installation.

- Before installation, consider the distance between the VNS device and the VNS2261 intercom wall plate. The VNS device and the 1. VNS2261 intercom wall plate will be connected using the provided CAT5 cable (25' long).
- Follow steps 1-6 of the VNS Amplifier & Controller Installation described above. 2.
- 3 Disconnect the power source connector from the **POWER** connector of the VNS device.
- Run the data cable between the VNS device and the VNS2261 intercom wall plate (Image 2). 4.
- Connect the RJ45 end of the cable to the VNS2261 intercom wall plate. 5.
- Install the intercom wall plate according to the instructions provided with it: Attach the intercom wall plate to a single gang box 6. using the supplied 2 screws (Image 3). Note: When mounting directly to wall surface (without gang box), remove the data cable outlet from the bottom, pass the cable through the outlet at the bottom.
- 7. Connect the other end of the cable (8 Pin Female connector) to the 8 Pin Male connector of the main VNS device marked as OUTPUT 5.
- 8. Connect the power source connector to the **POWER** connector of the VNS device.

Screw (x2)

9. Document the location and the serial number of the main VNS device. Note: The serial number of the main VNS device is required for system programming.

### Image 2



Single-gang wall mounting Single-gang box 83.5mm 3-5/16"

Connecting cable

# Surface wall mounting

Image 3





### VNS2271 Option - Programming Custom Audio Messages using VisiDB

- 1. Connect your VNS2XXX receiver module to the PC using the special programming power supply. This power supply will have a serial cable attached to the VNS2XXX power connector.
- 2. Make sure a microphone is connected to your PC.
- 3. Record your WAVE files using **Windows Sound Recorder** (located under Start Menu\Programs\Accessories\Entertainment) or any other audio editing software.
- 4. Prepare your WAVE files for upload and make sure that they are saved at the correct format:
  - 4.1 Record a wave file or open a pre-recorded file (File, Open).
  - 4.2 Go to File, Save As.
  - 4.3 Enter a file name for the recorded or modified file.
  - 4.4 Click on Change button.
  - 4.5 Set Format to PCM.
  - 4.6 Set Attribute to one of the following: 8.000 kHz, 8 bit, Mono or 11.025 kHz, 8 bit, Mono.
  - 4.7 Click Save.
  - 4.8 Repeat for all additional WAVE files.
- 5. Open VisiDB. VisiDB will be connected to the receiver module once it is open. **Connected to PA Speaker** should be displayed in the lower right hand corner of the screen.
- 6. Click on Devices, then Device Programmer, and then Custom Alerts Programmer. The programmer should open.
- 7. Click on the Read Configuration button. This will tell you how many alerts the receiver module is set to hold.
- Click on the Expanded Memory Alerts Configuration drop down menu and select how many alerts the receiver module needs to hold.

# Note: The more alerts a receiver module needs to hold, the shorter the alert needs to be.

- 9. Click **Update Configuration** to change the amount of alerts the receiver module will hold. <u>Note</u>: Updating the memory configuration will erase all existing custom alerts previously programmed.
- 10. Enable the alert numbers that will hold a file by checking the box to the left.
- 11. Click on the Browse button and search for your WAV file.
- 12. Click on your file then click on the **Open** button to the right.
- 13. Your WAV file should now be in the File Name box. Repeat Steps 8 and 9 for as many files as necessary.
- 14. Click the **Program** button at the top of the programmer to upload your WAV files to your receiver module.
- 15. Disconnect the VNS2XXX receiver.

If required, connect additional VNS2XXX receiver and program as described above

### **Default Pre-Programmed Tones & Alerts**

- 1. Single Tone
- 2. Dual Siren
- 3. Voice Message: "Attention! This is a lockdown emergency. Please take refuge immediately. This is not a drill"
- 4. Voice Message: "Attention! This is an evacuation emergency. Please evacuate the building and follow evacuation procedures"
- 5. Voice Message: "Attention! The emergency condition has been cleared. Resume to normal condition"
- 6. Voice Message: "Attention! This is a lockdown drill. Please take refuge in the nearest building and follow lockdown procedures. This is only a drill"
- 7. Beep Alert
- 8. School Bell
- 9. Long Tone

# VNS Amplifier & Controller – Connections and Adjustments



# **Connectors Pin Out (Front View)**



POWER & Programming				
1 – VDC (IN)				
2 – GND				
3 – GND (Battery)				
4 – RX (RS232)				
5 – TX (RS232)				
6 – N.C.				

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Controlled Device (12VDC or Dry- Contact) Output	Speaker Audio Output	Dual Controlled Device (12VDC or Dry-Contact) Output	Dual Speaker Audio Output	Alphanumeric Display Output
1 – GND (GRN)	1 – Wire 1	1 – GND (1st, GRN)	1 – Wire 1 (1st)	1 - RX (RS232)
2 – 12V (PUR)	2 – Wire 2	2 - 12V (1st, PUR)	2 – Wire 2 (1st)	2 – GND
	3 – N.C.	3 - 12V (2nd, PUR)	3 – N.C.	3 – N.C.
		4 – GND (2nd, GRN)	4 – Wire 1 (2nd)	4 – GND
			5 – Wire 2 (2nd)	5 – VDC (OUT)