Systems*technologies*

Vision$_{Pro}$®

Wireless Emergency Call System

Installation Manual

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Notice

The contents of this manual, which reflect current Systems Technologies standards and which document Vision Pro software version 2.2.0.53 are subject to revision or change without notice. Software packages released after the publication of this manual will be documented in addenda or succeeding issues of the manual.

Please be aware that VisionLink is a life safety system and the installation of other software or hardware on the system CPU is not supported, may compromise system integrity and may void the system warranty resulting in an hourly charge for technical support. We strongly recommend that a separate computer be used for any other software programs.

If additional information is required, please contact:

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Table of Contents

Safety Regulations

When using your emergency call equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

1. Read and understand all instructions.

2. Follow all warnings and instructions marked on the product.

3. If cleaning should be required, use standard computer shut down procedures, then unplug this product from the wall before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

4. Do not use this product near water (for example, in a wet basement).

5. Do not place this product on an unstable cart, stand, or table. The product may fall causing personal injury or serious damage to the product.

6. Slots and openings in the cabinet are provided for ventilating and protecting the unit from overheating. These openings must not be blocked or covered. This product should never be placed near or over a radiator or heat register. This product should not be built in to a wall or cabinet unless proper ventilation is provided.

7. This product should be operated from a high quality surge suppressor (Isobar) and UPS (uninterruptible power supply). All the devices and the AC outlet that supplies them should not be used for any other electrical equipment.

8. Do not allow anything to rest on the power cord. Do not locate this product where the cord can be tripped on or abused by persons walking on it.

9. Do not use an extension cord with this product's AC power cord.

10. Never push objects of any kind into this product. Never spill liquid of any kind on this product.

11. To reduce risk of electric shock, do not disassemble this product. Take it to a qualified technician when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect assembly can cause electric shock when the product is subsequently used.

12. Call a qualified technician immediately if any of the following conditions occur:

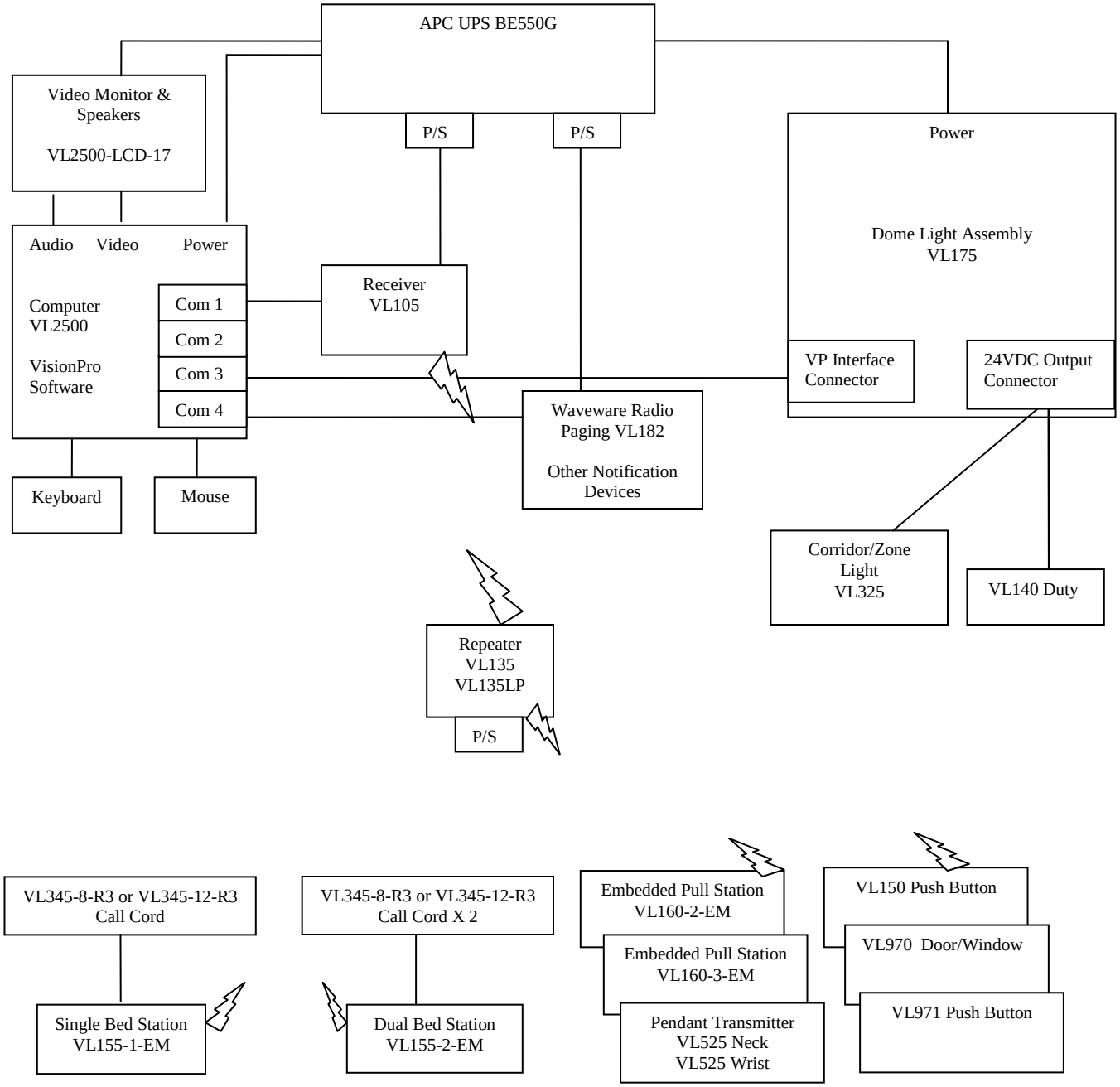
    - The power cord or plug becomes damaged or frayed.
    - If the product has been exposed to rain, water, or any liquid
    - If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
    - If the product has been dropped or damaged.
    - If the product exhibits a distinct change in performance.

Save These Instructions

1 Console Setup

Receiving/Unpacking: Inspect all components and devices for damage upon receipt and verify quantities against the packing list. Report any damage claims immediately to the shipping company and any missing items to Systems Technologies at 208-762-6800.

Refer to the partial block diagram below for an over view of the system configuration.



Block Diagram 1 Vision Link Wireless Nurse Call System Block Diagram

VL2500 Console Assembly:

- Connect the video cable from the monitor into the computer's video output port, Figure 1, and plug the monitor's power cord into the *Surge Protection* side of the provided UPS.
- Connect the 1/8" dual male audio cable between your monitor's audio input or external speakers and the green audio output jack of the computer.
- Connect the keyboard and mouse into the USB or PS2 ports located in the lower right hand corner.
- Connect the receiver, Figure 2, to *Com1* on the computer using the provided serial cable. The receiver power supply plugs into one of the *Battery Backup* + sockets of the UPS and into the receiver.
- Attach the female end of the PC power cable to the back of the console and the male end into one of the *Battery Backup* + sockets of the UPS.

Do not place the receiver near any metal objects or electrical wiring, this will reduce reception.

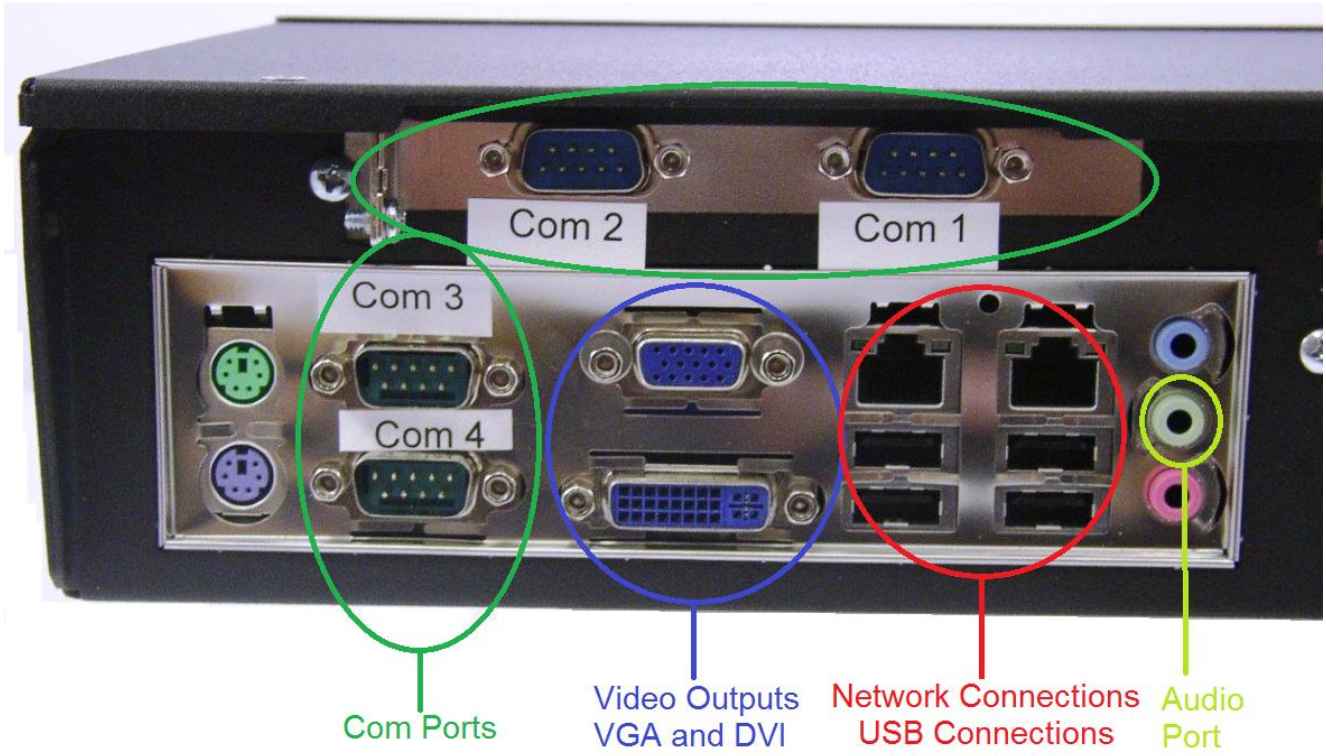


Figure 1

Figure 2

VL182-WAV Radio Paging: If your system is equipped with radio paging, it will come with a DB9 M-F serial cable.

- Connect the female end of the DB9 connector to the *Com4* serial port on back of the computer and the male end to the 9-pin receptacle on the backside of the paging transmitter.
- Attach the provided antenna to the BNC connector on top of the transmitter.
- Connect the two-pin connector of the power cord (white plastic) to the back of the paging transmitter and the male end into a *Battery Backup* + socket of the UPS.

Do not operate radio page transmitter without attaching the antenna. Do not place radio page transmitter close to or on top of metal objects. Keep radio page transmitter as far from console as the cable will allow.

VL175 Control Unit:

- Connect the male end of the provided DB9 M-F serial cable to the *VP Interface Connector* port on the control unit and the female end to *Com3* on back of the VL2500 computer. (Figure 3)

- Connect the power cord to one of the *Battery Backup* + sockets of the UPS. The red light, marked *Output Short Indicator* on the Control Unit, will illuminate if there is a short in an output cable run to the dome lights or upon initial power-up. If the short indicator light illuminates press the reset button and release when the LED goes out. If the short indicator light does not turn off or returns immediately, refer to the troubleshooting procedures in the back of this manual. If you intend to mount the unit to a wall or cabinet, use the four mounting holes along the side of the bottom. (Figure 3)

⚠ **Do not position the Control Unit near any water or place on an unstable table or cart.**
⚠ **Do not open the lid of the Control Unit, this will void the warranty.**
⚠ **Do not apply power to this unit until:**

1. **Ensure there are no shorts across any of the 18 AWG, 2 conductor stranded, non-plenum dome light cabling.**
2. **Verify cable runs to the Control Unit use proper connectors.**
3. **Make sure there is no unused cabling from the Control Unit.**
4. **After VL175 is powered on, connect one run of the Dome/Zone lights & Duty stations at a time. (Figure 4).**

If you do not understand these instructions, contact your dealer/support representative before proceeding.

Figure 3

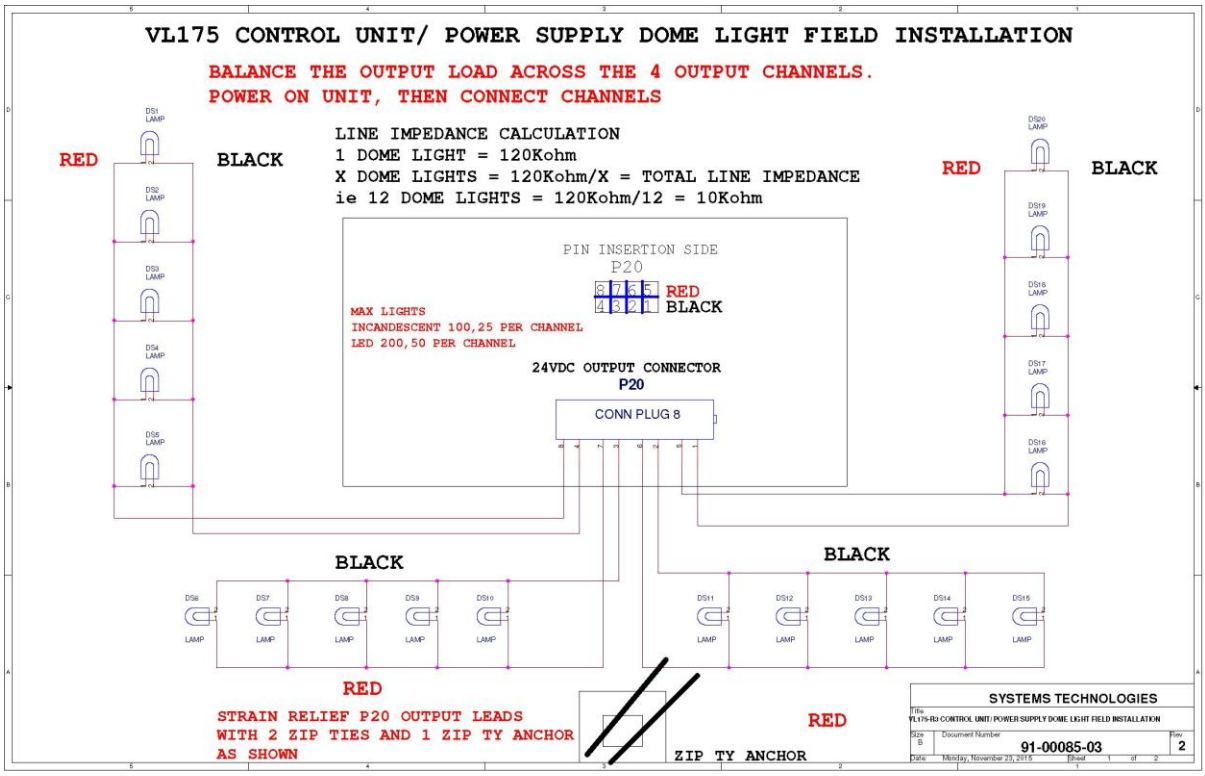
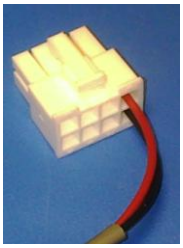
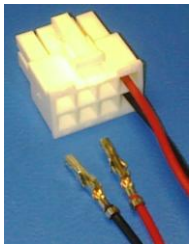


Figure 4

One set of red and black leads will come pre-connected to the connector, Conn Plug 8 pins 8 & 4. This plugs into the 24vdc output connector. If more lighting runs are required, use the supplied leads. Attach each set of supplied leads to the next set of connectors (7&3, 6&2, 5&1) as shown in Figure 4. Be sure to attach the red leads into the top and the black leads into the bottom of the connector. This is done by pushing the connector side of the lead into the connector plug until it snaps and then give it a "tug" to ensure it is fully connected.





Each vertical red and black wire pairs that comes from the 24vdc power output constitutes a channel. When installing the dome lights it is recommended to balance this load by dividing the number of lights equally between the 4 channels. For VL325 series incandescent lights no more than 25 incandescent lights per channel (up to 100 lights). For VL327 series LED lights no more than 50 incandescent lights per channel (up to 200 lights).

System Startup: Push the on/off button in the rear of the computer. The system should automatically boot up into the *VisionPro Wireless Emergency Call System* screen; if it does not contact your dealer for assistance. The case sensitive preset password for VisionPro is "zeke". To add, change, or delete information you will need to enter the password by going to the **Tools** pull down menu and select **Password**. Enter ***zeke*** in lower case letters and select **OK**.

2 Hardware Installation and Programming

VL150 Series Latching Push Button Stations:

VL150-2

VL150

VL150-WP

VL150-2-VR

General Description: The VL150 Emergency Call Station has a locking type push button switch (on / off) centered on a single gang faceplate. An alarm is initiated by pressing the button once and is reset by pressing it a second time. Lighted push buttons will have a battery pack with two AA batteries and an on/off switch attached.

Wiring Instructions: The VL150 series stations will come connected to a transmitting device using a single pair of wires. No field wiring is necessary for this device.

Mounting Instructions: Refer to the VL160 Pull Station section.

Programming into the System: See "Wall Devices" in Section 3 **Custom Programming**.

VL155-EM Series Bed Stations:

VL155-1 Single

VL155-2 Dual

General Description: The bed station is generally placed in a wall adjacent to a resident/patient bed and has an actuating device connected to it with a ¼" plug such as a VL345 series call cord. When the actuating device is used a red LED is illuminated on the bed station and a wireless signal is sent to the receiving console. To reset this alarm the reset button on the bed station will be pressed for about 3 to 5 seconds and the red LED will turn off as well as the alarm at the console. The station will remain in alarm state if each jack does not have a call cord connected to it and seated in the jack properly. Some call cords may require a non-metallic spacer.

Wiring Instructions: No field wiring is necessary for this device. Install the included CR123 batteries then press the reset button.

Mounting Instructions: The VL155 series bed station has a single-gang faceplate that can mount flush to the wall or can be surface mounted.

- All back boxes used for flush mounted stations must be plastic (Carlon A52171D with A410 Ring or Carlon B122A). *Metal boxes are not acceptable to house the transmitter.*
- To flush mount this station cut a new single-gang hole into the wall and use a single-gang caddie or mud ring (MPLS, BB10L, or Arlington LV1RP). Installation rings may need to be notched for the circuit board. The LV1RP ring does not need notching.
- A single-gang plastic surface mount box such as a Wiremold 2344 may be used to cover existing steel back boxes. **NOTE:** Install the AA alkaline batteries (supplied) onto the PCB of the bed station before mounting.

Programming into the System: See "Wall Devices" in Section 3 **Custom Programming**.

VL160 Series Emergency Pull Stations:

General Description: The VL160 stations are generally placed in a wall where a resident/patient might require assistance. Examples of these areas would be in a dining room, restroom, and hallway or next to a bed. The VL160-4 pull stations with a resident check-in button are generally placed in the residents/patients restroom. This series of wall stations all have transmitters attached to them. An alarm will annunciate at the console when the string is pulled down on any one of these stations. To reset this alarm the black slide switch will be pushed to the up position which will remove the alarm from the console. The following is a description of each type:

VL160-2

VL160-3

VL160-4

VL160-5

VL160-2 – Emergency Pull station with LED to indicate station is in alarm

VL160-3 – Emergency pull

VL160-4 - Emergency Pull station with check in features

VL160-5 - Emergency Pull station with LED and Piezo horn to indicate station is in alarm

Wiring Instructions: The VL160 series emergency pull station will come connected to a transmitting device using a set of wires. No field wiring is necessary for this device.

Mounting Instructions: The VL160 series pull station has a single gang faceplate that can mount flush to the wall or can be surface mounted using a plastic surface single gang box.

- All back boxes used for flush mounted stations must be plastic (Carlon A52171D with A410 Ring or Carlon B122A). *Metal boxes are not acceptable to house the transmitter.*
- To flush mount this station cut a new single-gang hole into the wall and use a single-gang caddie or mud ring (MPLS, BB10L, or Arlington LV1RP). Let the transmitter hang down behind the wall while mounting the face plate to the mud ring/caddie.
- A single-gang plastic surface mount box such as a Leviton 2348 for the VL160-3 & VL160-4 or a Wiremold 2344 for the VL160-2, VL160-5 may be used cover existing steel back boxes.

Programming into the System: See "Wall Devices" in Section 3 **Custom Programming**.

VL160-EM and VL170-EM Series Emergency Pull Stations:

VL160-EM

VL170-EM

General Description: The VL160-EM and VL170-EM series pull stations have a transmitter attached to the back of the faceplate. The VL160-EM Emergency and VL170-EM Code Blue Station has a vertical slide switch centered on a single gang faceplate. Pushing the switch down will initiate an alarm and make the LED flash. Pushing the switch up will reset the alarm and turn off the LED.

Wiring Instructions: No field wiring is necessary for this device.

Mounting Instructions: The VL160-EM series pull station has a single gang faceplate that can mount flush to the wall or can be surface mounted using a plastic surface single gang box.

- All back boxes used for flush mounted stations must be plastic (Carlon A52171D with A410 Ring or Carlon B122A). *Metal boxes are not acceptable to house the transmitter.*
- To flush mount this station cut a new single-gang hole into the wall and use a single-gang caddie or mud ring(MPLS, BB10L or Arlington LV1RP).
- A single-gang plastic surface mount box such as a Leviton 2145 or 2348 for the VL160-EM or VL170-EM may be used cover existing steel back boxes.
- For moist locations install the included foam gasket first and tighten the faceplate down evenly to create a moisture resistant seal.

Programming into the System: See “Wall Devices” in Section 3 **Custom Programming**.

VL525-NB7 and VL525-WB7 Pendant Transmitters:

VL525-Neck

VL525-Wrist

VL525-Fall

General Description: The VL525 series pendants are transmitting devices that may be carried by a resident or patient. They may be used as locking type devices or as persistent devices depending on how they are programmed into the system. When used as a locking type device the pendant alarm may only be reset by pressing the small reset button on the front side of the pendant. As a persistent device, the pendant alarm is either reset at the console (double-clicking the alarm) or made to reset automatically after a specific amount of time.

A Fall Alarming variation is available that will send an alarm when the pendant senses a fall. For that feature it is necessary for the pendant to be carried in an upright position in the provided holster, if the pendant is not carried in the holster then in functions as a standard necklace pendant would.

Programming into the System:

- Select the **Tools** pull down menu and select **Configure**.
- Highlight the room the pendant is to be added to and select **Details**.
- Select the correct bed number at the top of the screen then place a check mark (click) in the box next to "Has Wireless Pendant".
- Place the ID number of the pendant (printed on the bottom side of the pendant) in the space labeled "ID". If you want it to be a locking type pendant place a check mark in the box next to "Locking Type". If you would like it to be a persistent pendant leave the locking type box empty.
- Click on the **OK** boxes and then click on **File** and **Save**.

See "Programming Persistent Devices" at the beginning of Section **3 Custom Programming** for more information.

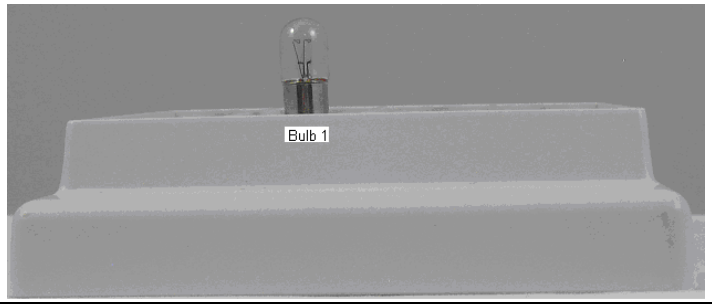
The VL525 should be only reset by using the proper resetting stylus. Using any other device such as a pen or pencil may damage the pendant and void the warranty.

VL325 Series Dome/Zone Lights:

VL325-1

This dome light has one bulb and will light for calls defined as:

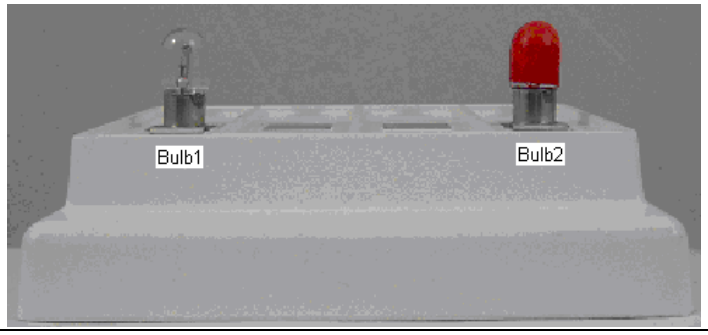
Normal	steady illumination	Bulb1
Emergency *(Fast Emergency)*	fast on/off illumination	Bulb1



VL325-2

This dome light has two bulbs and will light calls as follows:

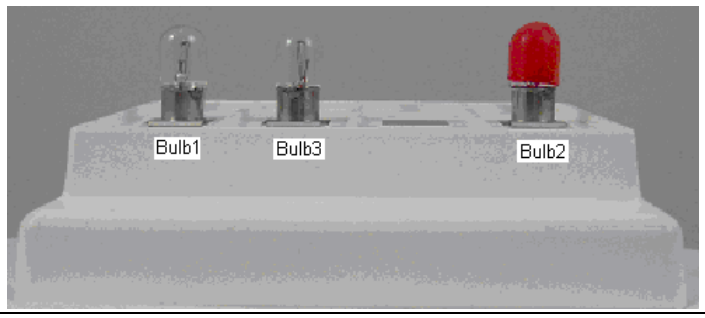
Normal	steady illumination	Bulb1
Emergency *(Fast Emergency)*	fast on/off illumination	Bulb1
Fire	fast on/off illumination	Bulb2



VL325-3

This dome light has three bulbs and will light calls as follows:

Normal	steady illumination	Bulb1
Emergency *(Fast Emergency)*	fast on/off illumination	Bulb1
Fire	fast on/off illumination	Bulb2
Code Blue *(Extremely Urgent)*	fast on/off illumination	Bulb3



VL324 – 4

This dome light has all four bulbs

General Description: Dome lights, VL325-1 series, are generally placed over the door of a room as a visual indicator of an alarm. A STEADY ON condition indicates a normal priority alarm such as a bed station or pendant call. A FLASHING condition indicates an emergency priority alarm such as an emergency pull or staff emergency station. An emergency priority will supersede a normal priority and will flash even if a normal priority call is active. Dome lights with multiple bulbs can be configured in the VL2500 programming to light any bulb depending on how the device is set up and various colored lenses can be used.

Zone lights are generally placed in strategic locations such as in front of a nurse station or at the corner of a hallway and encompass an area of rooms instead of a single room (indicating a call has been activated in an area). Their operation will mirror that of the dome lights including the priority operation.

Wiring Instructions:

- Dome/Zone lights require two conductor, twisted, 18 AWG wire for power.
- Dome/Zone lights are polarity sensitive, (the red wire is positive, black wire is negative), and must be connected red-to-red and black-to-black at every light.

- All dome light wiring should be run in parallel (see **Figure 4** from previous chapter). It is strongly recommended that you distribute the quantity of dome lights fairly evenly between the four outputs.
- Recommended wire is 182CGRY (PVC), 18CPWHT (fire rated), or equivalent. Maximum wire run should not exceed 500 feet. Maximum 100 dome lights, 25 per channel.

Mounting Instructions:

- Dome/Zone lights mount onto a 2 gang back box, mud ring or caddy.
  - New Construction: Raco 232 box with 791 ring, Union SN236 box.
  - Existing Structure: Carlon B225R-UPC box, Caddy MPLS 2 ring.
  - Surface Mount: Wiremold NM2048-2 box or V5747-2 box.
- Remove the white plastic lens by pulling directly away from the light fixture to access the mounting holes.
- Four screws are provided with each dome light.

Dome Light Installation and Testing:

- All connections are to be made before connecting the VL325 Dome Light runs to the VL175 Control Unit and powering on.
- Connect the red and black wires from the VL325 Dome Light to the red and the black wires used for the main wire run. At each junction there will be 3 (or more) red wires connected and 3 (or more) black wires connected.
- Use the dipswitch, Figure 5, on the bottom side of each light to set the address.
  - The switch uses the binary system where the on position is a 1 with the switch up(closest to the switch number) and off is a 0 with the switch down (away from the switch number).
  - All '0's" (all off) will place the light in self test mode; the light will blink on and off as long as it is connected to 24VDC while in this mode.
  - All "1's" (all on) will place the light in communication test mode; the light will blink as long as it is connected to the VL175 controller output while it is powered and within the VisionPro software you have selected **Dome Light Test** (***Tools*** pull down menu and highlight ***Tests***). Any properly connected Dome/Zone light set to all 1's should blink. This procedure tests the wiring and computer interface.
  - Addresses 252 – 254 are reserved and may not be used in normal operation. Usable addresses are 1 – 251.

Figure 5

Setting Dome Light ID's:

Switch Number	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Binary Value	1	2	4	8	16	32	64	128

- Move the required switch(s) up to add up to the desired dome light address.
- Example: Dome Light address 11 = Switches 4, 2, and 1 up (8 + 2 +1)
  Dome Light address 79 = Switches 7, 4, 3, 2, 1 up (64 + 8 + 4 + 2 + 1)

For a complete conversion of 1 through 255 see Appendix B Decimal to Binary Conversion.

Programming Dome Lights in the System:

- Click on the **Tools** pull down menu and select **Configure**.

- Highlight the appropriate room and select **Properties**.
- Place a check mark next to **Enable Dome Light** and enter the address in the appropriate area. See **Figure 6** below.
- Click all **OK** boxes until back to the main screen then click on **File** and **Save**.

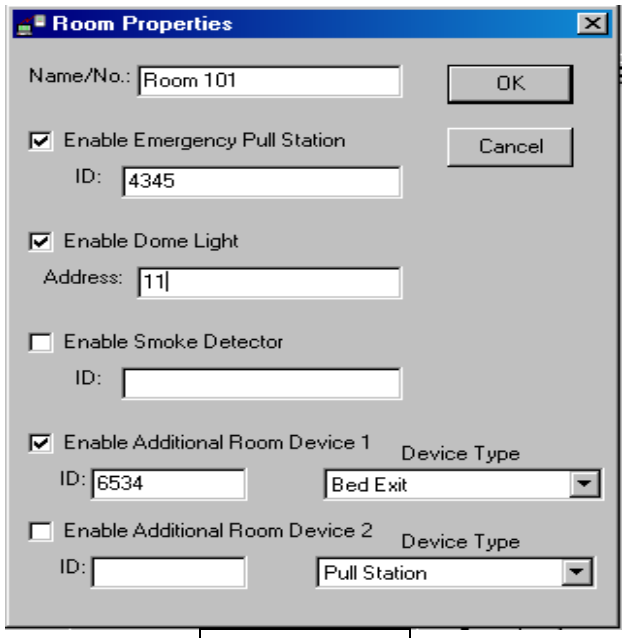


Figure 6

Programming Zone Lights into the System:

- Click on the **Tools** pull down menu and select **Configure**.
- Select the **Zones** button at the bottom right.
- Within the Alarm Zones screen select the **Zones** button at the top right. Here you may add, remove, or edit (through Properties) a zone. To add a new zone, select **Add** and type in a name for that zone. Next, enter the ID number associated with this zone light in the Address area. Select **OK** then add another zone or click **OK** again when finished.
- In the Alarm Zones area (see **Figure 7** below) select a Zone Name using the pull down menu next to the displayed zone name. Highlight a room and use the > symbol to assign them to the current zone or click on the >> symbol to move all rooms to the assigned side. You may have to change the Station Name (using the pull down menu) to find all of the rooms available. Click all **OK**'s and **Save** when finished.

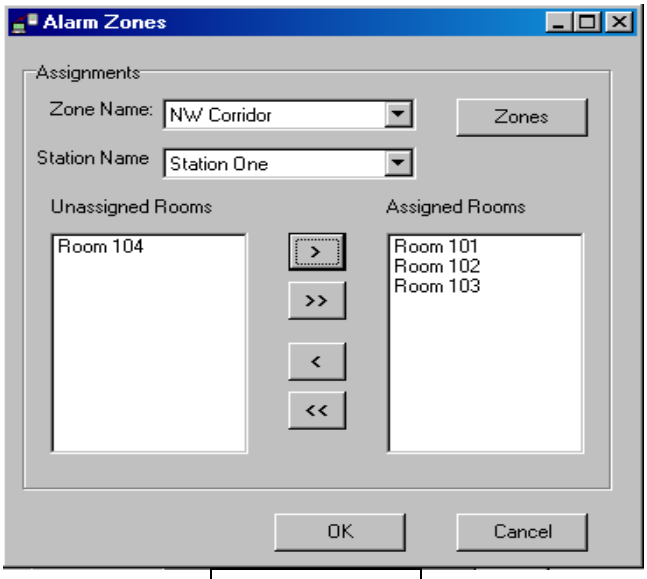


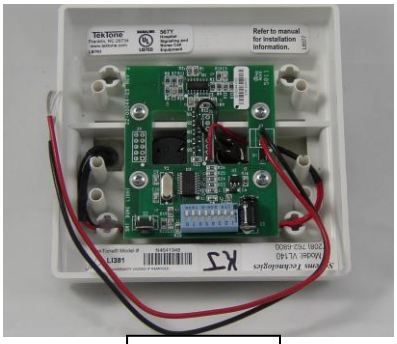
Figure 7

Back Boxes:

- Boxes recommended for new construction are the Raco deep metal box, part number 232 with the Raco mud ring, part number 971 OR the Union Plastic back box, part number SN236.
- Boxes or rings recommended for old construction or remodel are the Carlon plastic back box, part number B225R. If accepted by local jurisdiction, the MPLS2 Caddy manufactured by Erico may be used.
- Boxes recommended for surface mount are the Wiremold NM2048-2 or V5747-2.

VL140 Duty Stations:

VL140



VL140

General Description: Duty stations are generally placed in an area where caregivers work or relax behind a closed door or away from the hallways such as an employee lounge or lunch room. Rooms are assigned to each duty station so that it will annunciate when an alarm is activated from one or more of these rooms notifying the caregiver. Notification is visual with a red light and the option of an audible sound which can be toggled on and off by pressing a red button. After call is answered, the button should be hit again if sound was shut off. Otherwise only LED will flash on next call.

Wiring Instructions: Duty stations utilize the same wire and power as the dome lights and may run parallel off of a dome light. See Dome Lights above for more information.

Mounting Instructions: Same as VL325 Dome Lights.

Installation and Testing: Same as VL325 Dome Lights.

Programming Duty Stations into the System: Duty Stations program into the system in the same manner as Zone Lights.

Back Boxes: Same as VL325 Dome Lights.

VL130 Beacon Locator System:

VL130-LC

VL130-LC-FM

General Description: VL130 Location beacons are used in conjunction with specially programmed VL525 pendants to provide the location of a pendant that has been alarmed. The location beacon uses the antenna to broadcast a signal that the VL525 Location pendant listens for and stores upon hearing. When the pendant is alarmed it will send the location of the last beacon(s) that it passed along with the alarm signal. The location is added to the announcement or pages that the VL2500 sends and can be accessed by clicking on the alarm that appears on the screen and pressing "A" on the keyboard.

Wiring Instructions: In flush mount situations the power supply assembly is routed or covered so as to reduce visual impact and tampering.

Mounting Instructions: Location beacons are installed flush or above drop ceilings. Elopement beacons are installed above doors or entry ways.

Installation and Testing:

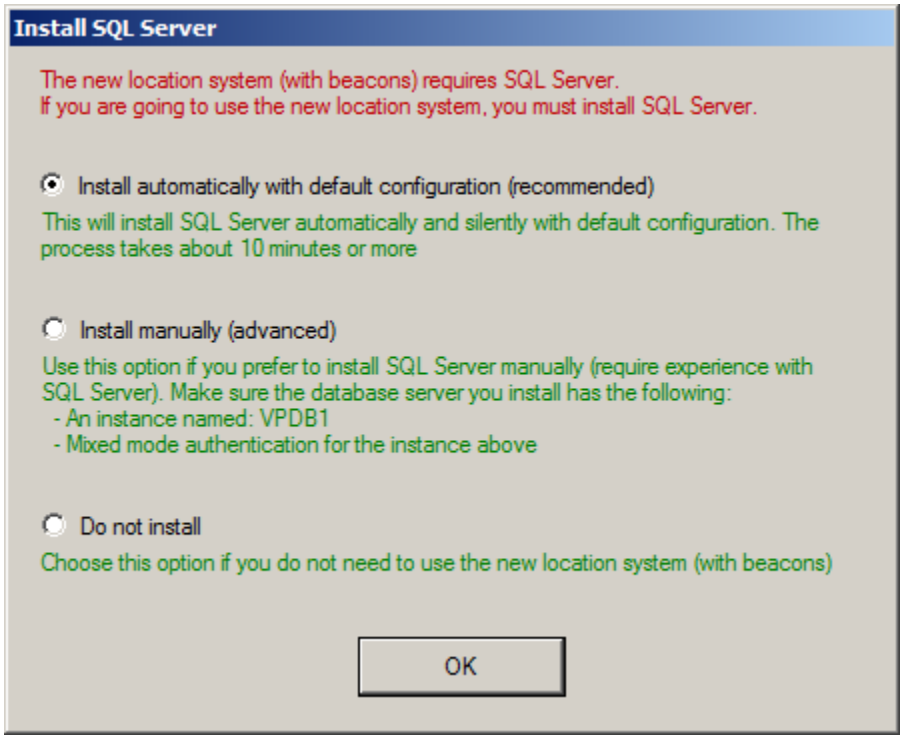
- Install beacons at locations like lobby's, different points of hallways, building choke points, elevator and stairway accesses. More beacons used will give a more accurate location and can provide direction of travel.
- During installation the beacon transmission power levels can be set using the potentiometer on the controller. There are 8 settings, 0 is very short and 7 is the longest. The switch rotates and can be adjusted with a small screw driver. A magnifying glass may be needed as the numbers on the potentiometer are very small.
    - Use the beacon test pendants to test the field size and adjust the power level so the pendant will receive the signal at about 15-20 feet. In multi-floor facilities power levels must be adjusted so a beacon will not bleed through to adjacent floors.

Back Boxes:

- VL130 units can be surface mounted using the flanges on the control box and the mounting bracket provided for the antenna.
- VL130-FM units can be flush mounted using an Arlington LV1RP ring or can be surface mounted using a Wiremold 2344 back box. The mounting bracket can be screwed directly into the bigger hole on the faceplate.

Programming beacons into the System:

- Make sure you have the latest version of VisionPro. During a new installation or an upgrade of VisionPro, you will be prompted to install SQL Server.
- *Note:* SQL Server installation process has several system requirements such as: .NET Framework 2.0, .NET Framework 4.0, Windows Install 4.5... If your computer does not have all the requirements, the installer will automatically install the missing ones. Sometimes the installer will restart the computer automatically (if needed) after installing the requirements. When that happens, resume the setup process after the computer finishes booting up.

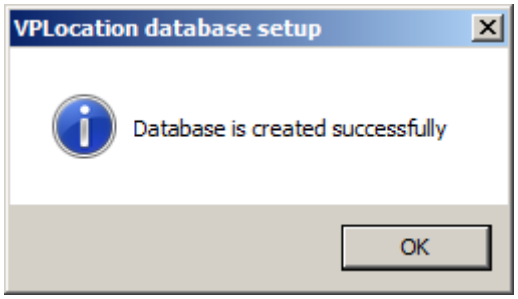


Choose the first option for the program to set up SQL Server automatically. Only use the second option if you are really confident that you know how to work with SQL Server. The third option lets you skip the SQL Server installation. Beacon location system will not work until SQL Server is installed.

If the installation process asks to change the default password just say no and keep the default password. Click OK to proceed.

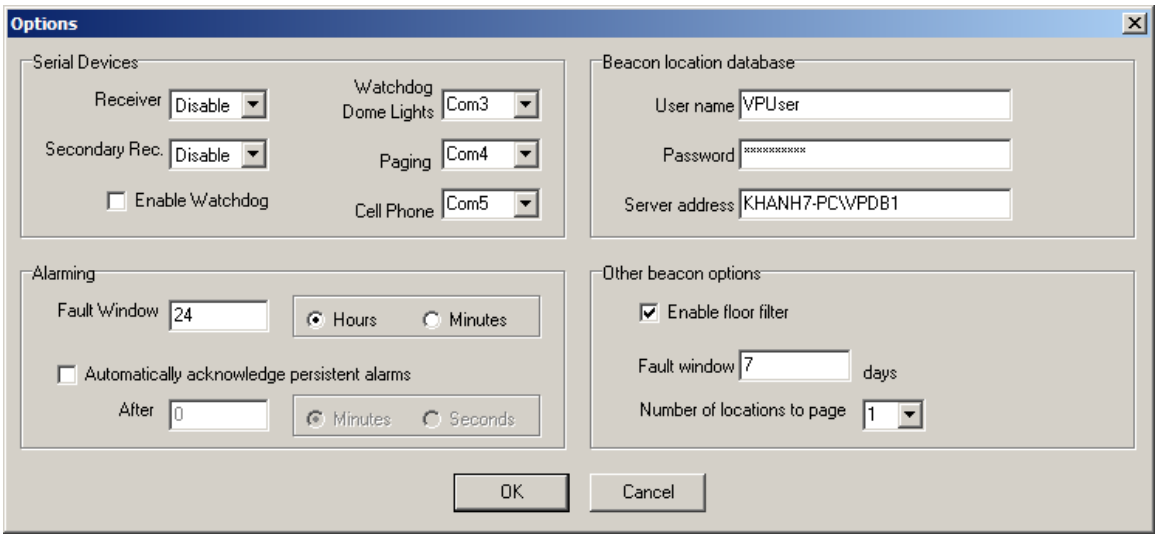
Note: If your system has been shipped with VisionPro version 220R7 or newer, you can skip this step because SQL Server should already been installed.

SQL Server setup is done when you see the following message:

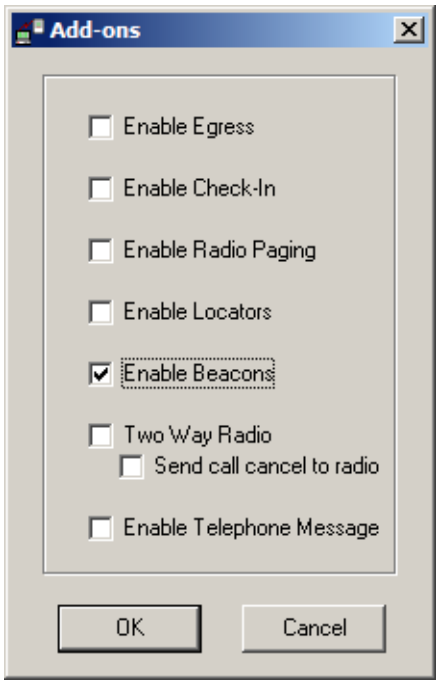


- Open VisionPro. Go to **Tools,** enter the **Password**, then go to **Tools** and **Options** and update Beacon Options if needed:

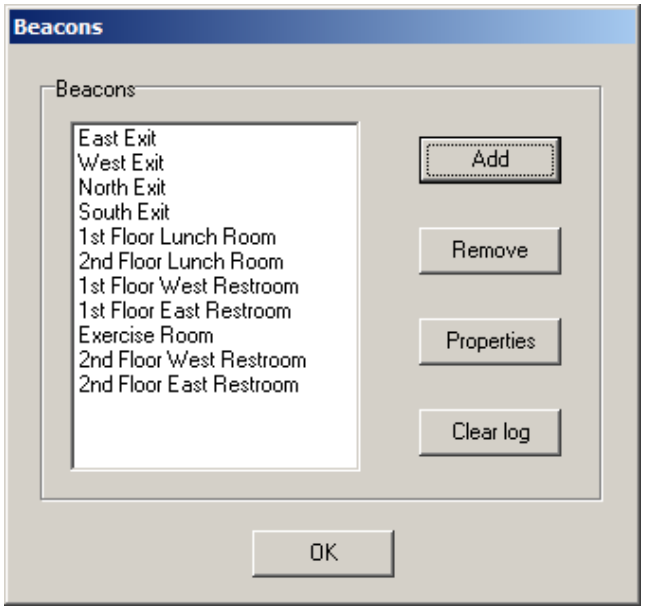
  - Other beacon options:
    - Enable floor filter: Floor filter helps improve locating precision in some cases. It is enabled by default.
    - Fault window: not in use currently.
    - Number of locations to page: This is the number of location names that will be sent to the pager(s) and also the number of location names that will be announced with two-way radio. The first location name sent shows the current location, the next two names are the location history with the more current location showing first.

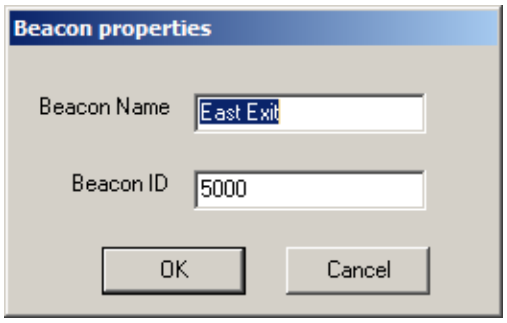


- Go to **Tools** and **Add-Ons** and check "Enable Beacons" then click **OK**. On VisionPro main interface, click "Save" button on the toolbar or "Save" option in the **File** menu. No error message means you have a good connection to database server. Any other results may mean that the Server address is wrong or that SQL may need to be re-installed.



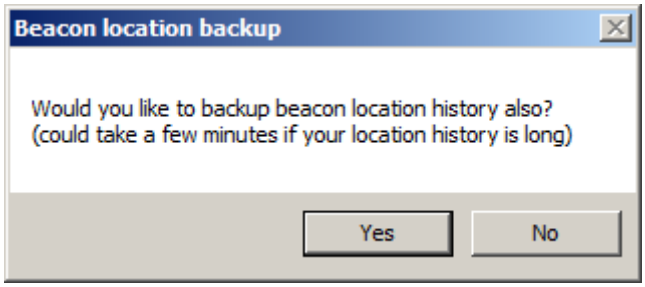
- Go to **Tools** and **Beacons** and start adding beacons using buttons on the right in the Beacons window. For each beacon, you need to enter a beacon name and a beacon ID in the Beacon properties window. Beacon name is the location name and beacon ID is the number you can find on beacon boxes.



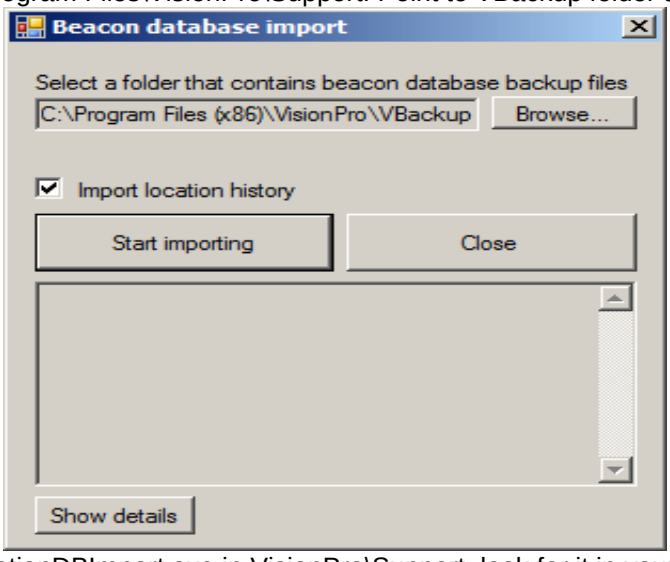


When you are done with programming all the beacons click on all **OK**'s then click on the **Save** button or click on **File** and **Save.** After saving the beacon location system should be ready to use. To back up or export the current beacon list, continue with the next step.

- Back up/Export/Restore/Import: To back up or export the current list of beacons, go to **File** and **Backup Files**. You will have the option to back up location history also. Backup files will be saved under VBackup inside VisionPro folder.



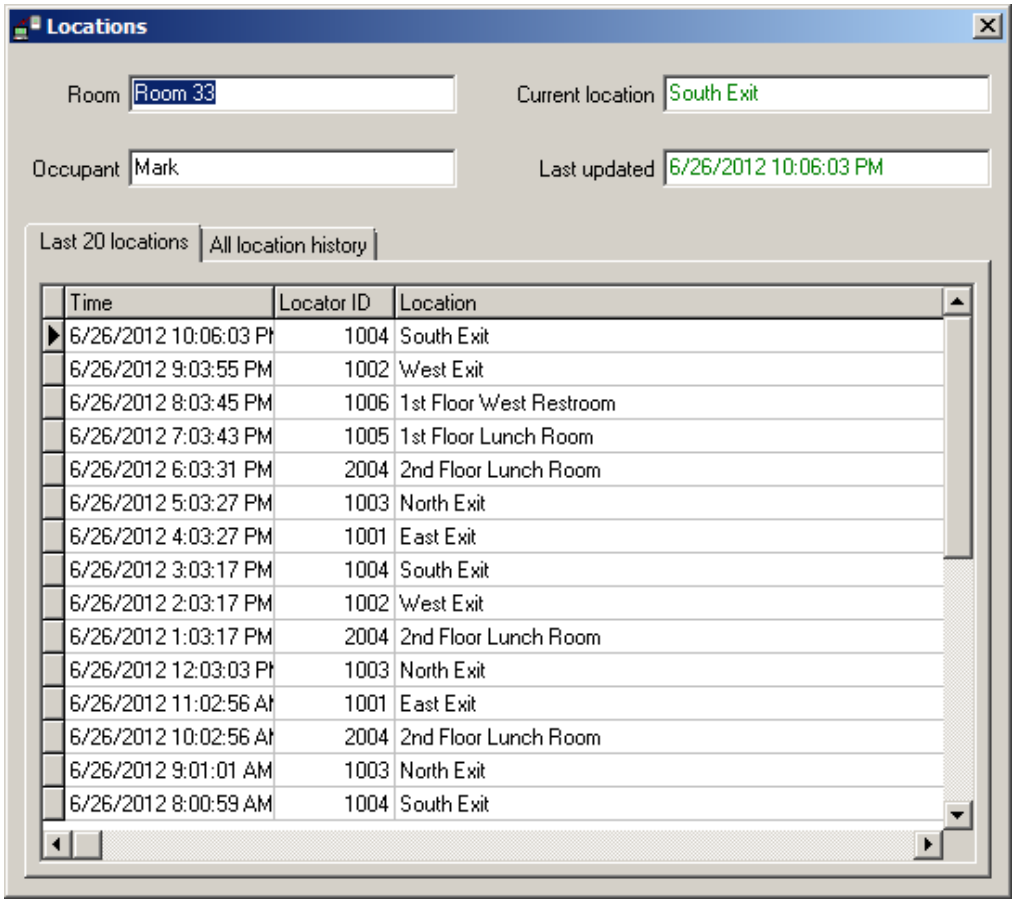
  - To Restore or Import a beacon list and associating location history, run BLocationDBImport.exe located in C:\Program Files\VisionPro\Support. Point to VBackup folder and "Start importing".

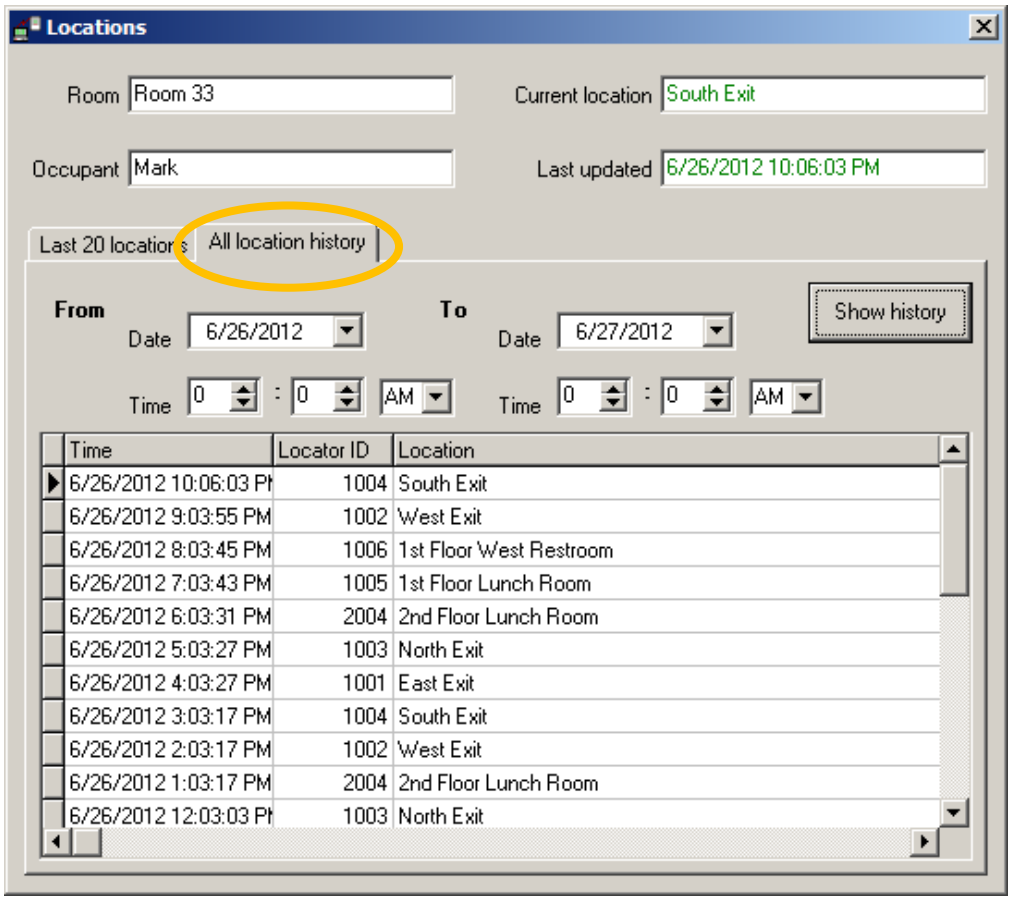


If you cannot find BLocationDBImport.exe in VisionPro\Support, look for it in your VisionPro setup CD under \Program Files\VisionPro\Support.

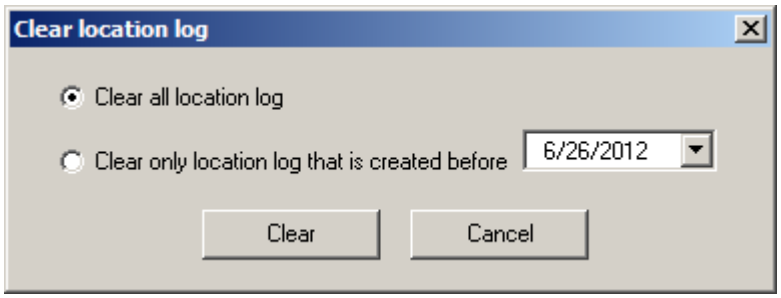
Using VisionPro Beacon Location System

- Once set up, Beacon location system will constantly monitor devices' locations. Location information is sent from a device to VisionPro when:
  - The device is sending an alarm or an alarm reset
  - The device is sending an supervisory signal
- There are 2 ways to access location data of a device:
  - If there is currently an active alarm triggered by this device, you can access its location information by:
    - Single click the row with the alarm event
    - Press 'B' (short for Beacon). If your VisionPro system uses both Beacons and Repeaters for location, press 'A' instead. 'A' is short for Auto which means VisionPro will automatically decide which location system to show depending on device's current location.
  - If there is no active alarm triggered by this device, you can access its location information by:
    - Go to room detail page which contains the device (either by using the tree on the left side of VisionPro main interface or by using the menu **Tools** and **Configure**).
    - Click "Location 2".
- Beacon location information in the Locations window:
  Beacon location interface allows users to access all location data related to a selected pendant. By default it shows the last 20 locations of the pendant. When you need more location history, simply switch to "All location history" tab, orange oval below. Choose a time range and click "Show history" . Location history is never cleared unless you manually do that. Therefore, one can access location history as far back as when you just started to use beacon location system.



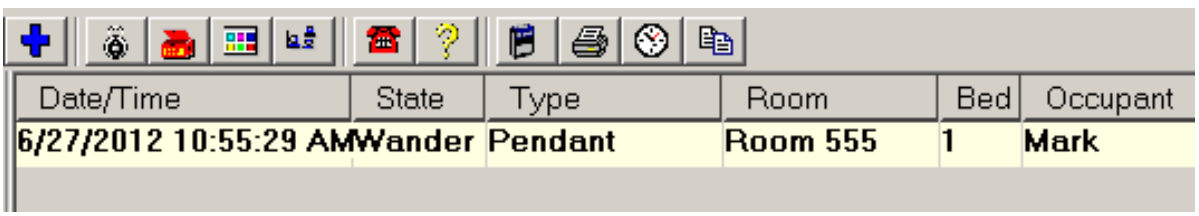


To manually clear location history, go to **Tools,** click on **Beacons**, click on Clear history.



Elopement Alarms:

The Beacon system can be used for elopement alarm with the correct beacon type. When specially programmed elopement pendants enter certain restricted zones using a beacon programmed for elopement, the pendants will send elopement alarm signals as soon as the pendant hears the signal. VisionPro software will display the elopement alarm as "Wander" alarm state. If the elopement pendant stays in the zone of the elopement beacon, the pendant will keep sending alarm signals to VisionPro every 30 seconds. The pendant has to be moved away from the elopement zone before it can be cleared from the system. Elopement beacons also provide location with location pendants.



VL135-B7, VL135-WP-B7 Repeater:

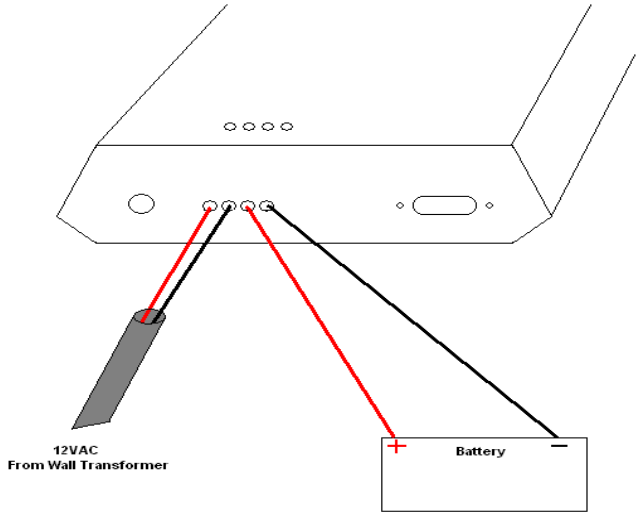
VL135

VL135-WP

General Description: A repeater is used to cover areas that are out of range of the VL2500 console. The repeater is placed in various positions between the farthest transmitters and the VL2500 receiver. The repeater listens for valid transmissions then retransmits them to other repeaters and the VL2500 receiver. The yellow circle shows the location of the repeater ID. This information is used during programming Vision Pro.

Wiring Instructions:

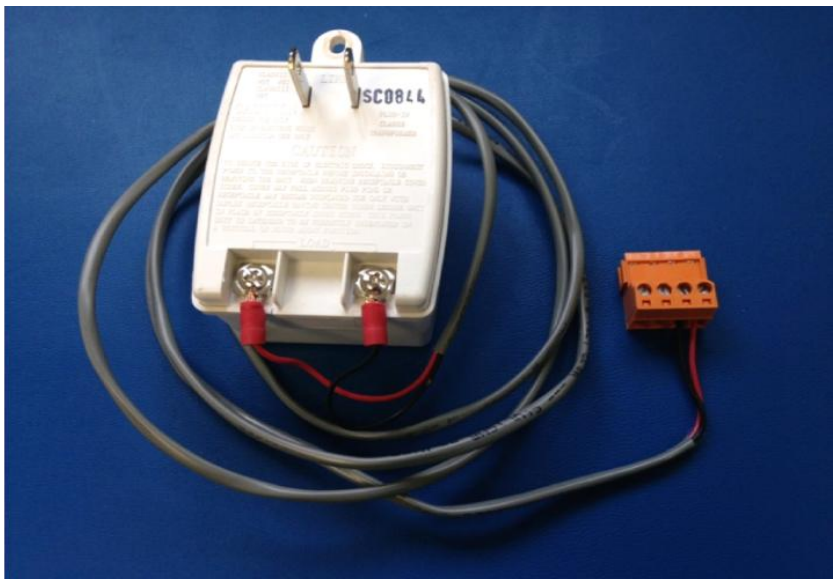
- On the bottom of the repeater there are four small holes all in a row to the left. This is where AC power is connected for a standard repeater or AC power and battery for a waterproof repeater installation.
- Before inserting the wire make sure it is not frayed then push the wire gently into the bottom hole and secured with the lug screw above the wire. Use a small flat screw driver to tighten the lug screw. The biggest concern is proper placement and making sure the wire is completely in the lug connection.
- From left to right the first two hole connections are for the AC power. These two connections are not polarity sensitive. You can connect the red and black either way. After the repeater is connected to the cable connect the transformer to the cable.
- The two holes on the right side are for the battery connection. This is polarity sensitive. Make sure the red positive wire is connected to the 3rd lug connection from the left and the black negative is connected to the last lug connection. The red wire is then connected to the battery positive connection and the black to the battery negative connection.



VL135LP LOW POWER REPEATER:

Low Power Repeater

General Description: A low power repeater, is used when a station's transmitter signal cannot reach the receiver at the computer station. The repeater is placed in between the transmitter and the base receiver. The repeater listens for valid transmissions then retransmits them. This version of repeater has the same receiver coverage as the VL135-R9 but retransmission distance is shorter. The yellow circle shows the location of the repeater ID. This information is used during programming Vision Pro.



Power Adapter for Low Power Repeater

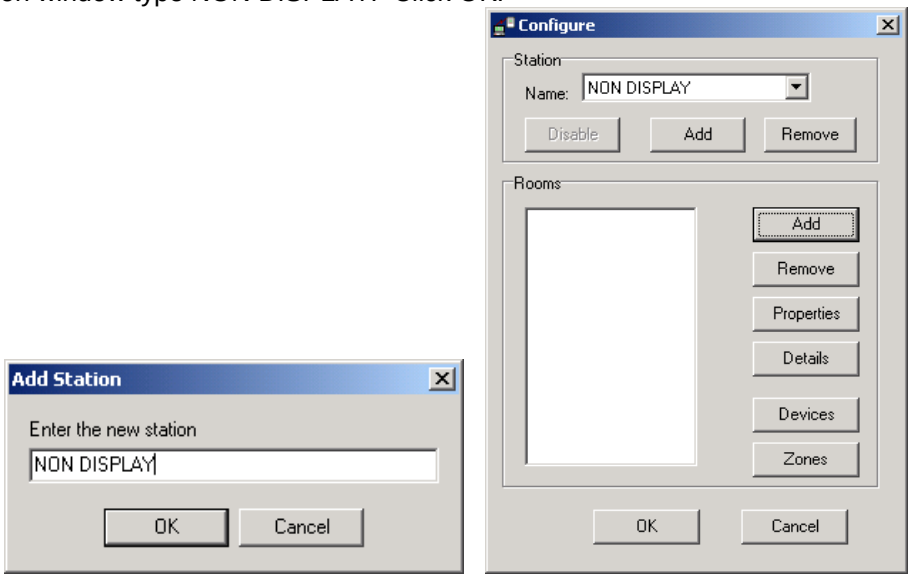
Wiring Instructions: Referring to wire the AC power adapter to the mating orange connecter. From right to left the first two hole connections are for the AC power. These two connections are not polarity sensitive. You can connect the red and black either way

Before inserting the wire make sure it is not frayed then push the wire gently into the hole and secured with the lug screw above the wire. Use a small flat screw driver to tighten the lug screw. The biggest concern is proper placement and making sure the wire is completely in the lug connection.

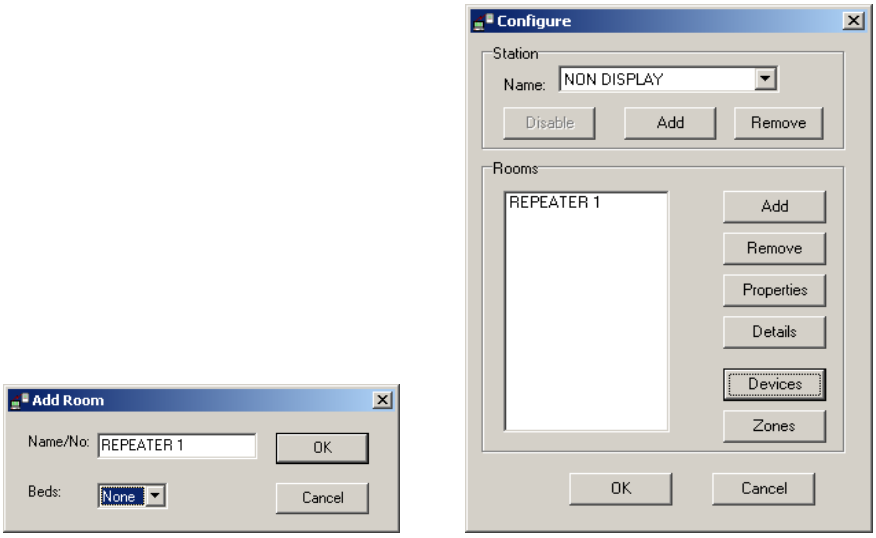
On the bottom of the low power repeater there is an orange connector. This is where AC power is connected.

Programming Repeaters into the System:

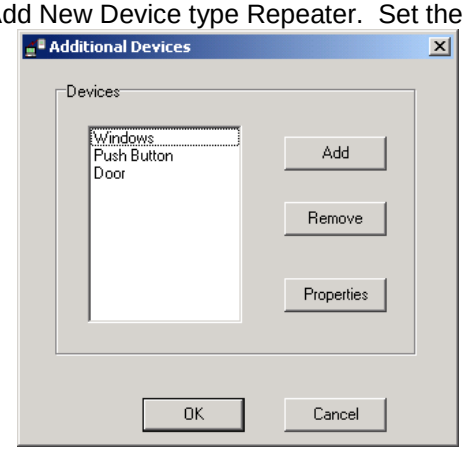
- From the **Tools** pull down menu select **Configure** then with the Station pane select Add. Within the Add Station window type NON DISPLAY. Click OK.

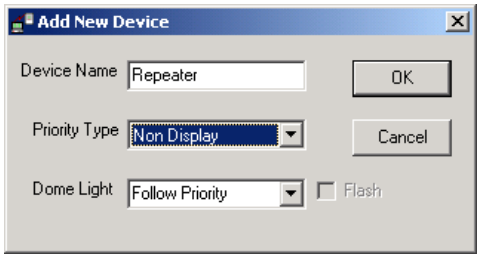


- In the **Configure** window, Station pane select NON DISPLAY. In the Rooms pane click Add. In Add Room type in something descriptive about the repeater like it's location (Rptr by Rm 205). For these instructions type in REPEATER 1. Change Beds to None. Click OK. Click Devices. Then click ADD.



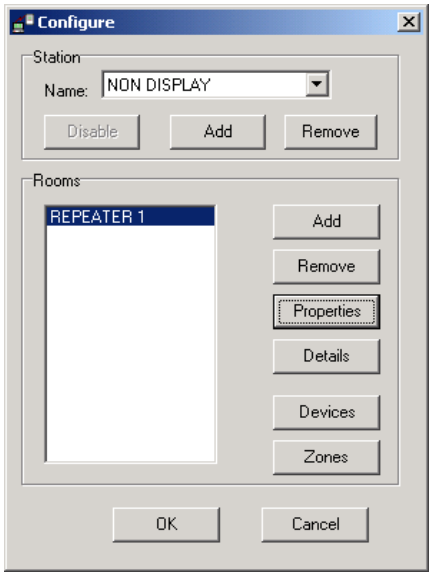
- Within Add New Device type Repeater. Set the Priority to Non-Display. Click all **OK**'s.

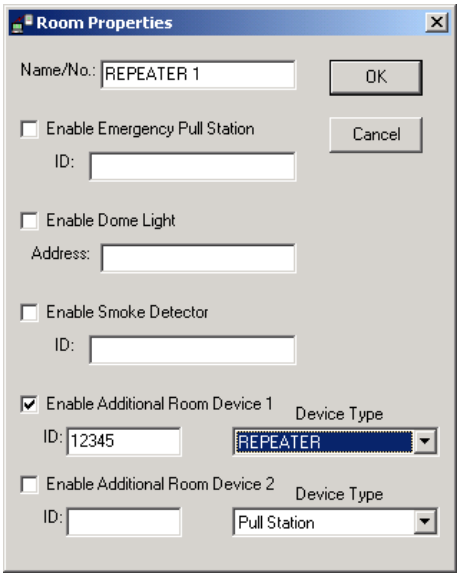




- In the **Configure** window select REPEATER 1. Click on Properties. Click "Enable Additional Room Device 1". Type in the ID (always 9###) of the repeater. Select Device Type REPEATER. Then click **OK**.

Repeat the above sequence for any of other repeaters programmed into the system. Click all **OK**'s and then **Save**.





VL971 Momentary Push Button Station:

VL971

VL971-WP

General Description: The VL971 Momentary Push Button Station has a round momentary push button switch centered on a single gang faceplate. An alarm is initiated by pressing the button. The alarm may be programmed into the system to stay on the screen until "double-clicked" away or can be made to reset after a specific amount of time (persistent priority).

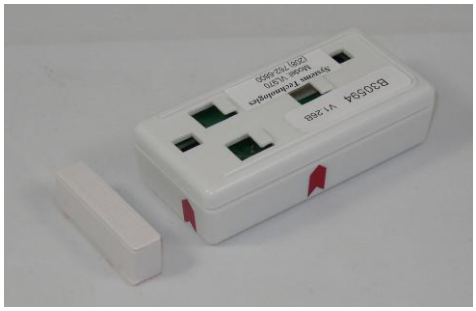
Wiring Instructions: The VL971 will come connected to a transmitting device using a single pair of wires. No field wiring is necessary for this device.

Mounting Instructions: Same as the VL160 Pull Station instructions.

Programming into the System: See "Programming Persistent Devices" at the beginning of Section 3 for more information.

Egress Alarms:

VL971



General Description: The system will monitor egress alarms from devices such as a Universal Transmitter (VL965) or a Door/Window Transmitter (VL970). You can program these devices to be "always active" or to only be active during a specific time of day. **NOTE**: Even after entering your egress alarms into the system you will have to **Enable** the egress function before they will work.

Setting up Egress Paging: See "System Paging" on the next page to setup egress paging.

Mounting Instructions: Place the magnet on the moving surface, like a window or door. The magnet must end up next to either red arrow on the transmitter when the door/window is closed, as shown with the orange arrows in the figures above. Keep the gap as small as possible.

Programming into the System:

- From the **Tools** pull down menu select **Add-ons**. Place a check mark next to **Enable Egress** and click **OK**.

- From the **Tools** pull down menu select **Egress**. The white box under **Alarms** will display any egress alarms already setup.
- To add a new egress alarm click on the **Add** button. Enter a Name for the alarm such as Main Entrance or North Door. Whatever name you type in here will be displayed on the console when the device is activated.
- Enter the ID number associated with the device (usually a 5 digit number located on the bottom of the device/transmitter) in the ID box.
- Now determine if you want this device to always be active or to only be active during a specific time of day. If you would like this device to always be monitored place a check mark next to **Always arm**. If you want to have the alarm only active during a specific time of day leave the **Always arm** blank and change the **Arm time** so the system knows when to start monitoring this device and change the **Disarm time** so the system knows when to stop monitoring this device. In **Figure 8** below the Main Entrance is only being monitored after 10:00PM and until 6:00AM.
- There is a box for **Disable this device**; use this box if you want to temporarily disable this device so it does not alarm.
- Click on **OK** and continue entering any other egress alarms until finished then click **OK** again and **Save** from the **File** pull down menu.

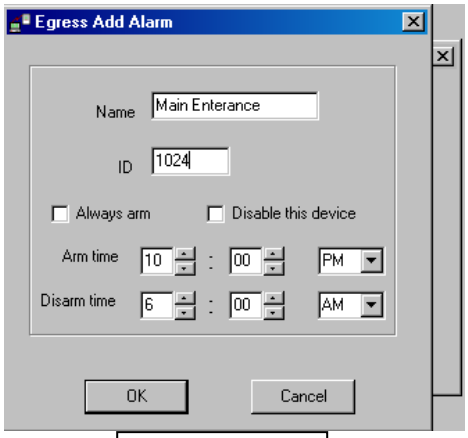


Figure 8

System Paging:

General Description: With the VL182-WAV paging transmitter connected to the VisionPro system alarm calls can be sent to pocket pagers (VL715 series). These alarms will display the room name and device type on the pocket pager. Escalation is available so that if the alarm stays on the screen for a pre-determined time the call can be sent either to the same group of pagers or a new group of pagers (see "VisionPro Paging Escalation Summary"). A third level is also available. This is local area paging meant to provide coverage on the facility grounds only.

Wiring/Connection Instructions: The VL182-WAV is provided with a power cord and a DB9 M-F serial cable. The male end of the power cord should be connected into the UPS provided with the system; the female end to the back side of the transmitter. The female end of the serial cable connects to the back side of the computer console in COM4; the male end to the back side of the transmitter. Do not connect the serial cable while the computer is on.

Understanding How Paging Works: The VL182-WAV comes pre-programmed with 50 cap codes. A list of these cap codes are provided with the transmitter and are also listed on page 44. Cap codes identify what pager(s) will receive the information from the paging transmitter. When a message is sent to Cap Code 100 (1998800) it will be received by all pagers programmed with this cap code. Each pocket pager or group of pagers must be setup or programmed with their cap codes within the program (see "Apollo Gold Programming Instructions" on 45). Once they are setup you can add them into the system software (see "Programming into the System" below). Any pagers or groups created in the software may have rooms assigned to them. Escalation may be setup to have calls repeat to the pagers if the call remains on the screen after a preset number of minutes.

Programming into the System:

- From the **Tools** pull down menu select **Radio Paging**. Click the **Pagers** button at the top left. *If there are any pagers already programmed into the system they would be listed in the white box. You may edit any pager by selecting it and clicking on **Properties**.*
- Click on the **Add** button and type in any alpha-numeric name for this pager or pager group such as *All Page* or *CNA* and enter the cap code below it. Continue to add pagers until completed. If you are adding *Manager* level, second level, pagers you will need to add "1000" in front of the 3-digit cap code (see "VisionPro Paging Escalation Summary" on page 34). Click OK after every entry.
    - Capcodes used in VisionPro programming generally are not the same as what are programmed into the pagers. Paging Capcodes are explained on page 44.
- At the **Paging Room Assignments** screen assign rooms to any of the pagers you have created by selecting the appropriate pager (use the down arrow next to the pager name to select a different pager) and then highlighting a room or rooms in the left pane and pressing the single arrow "**>**" (see **Figures 9 & 10**).
- Assign any egress devices by pressing the **Egress** button just below the **Station** name. If this button is grayed out **Egress** will have to be enabled through **Tools** and **Add-ons.**
- Once you have assigned all the rooms to the appropriate pager(s) then click **OK** and **Save**.

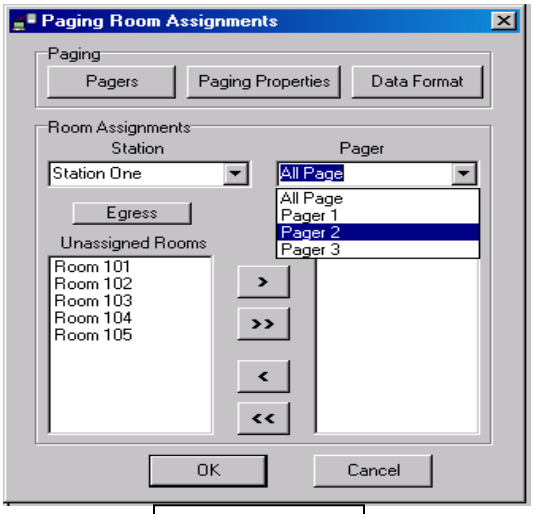


Figure 9

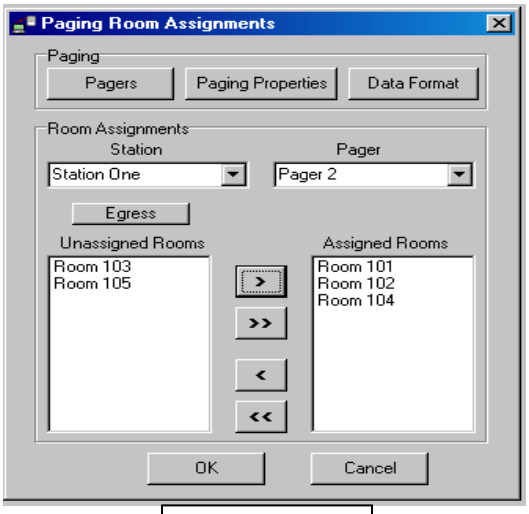
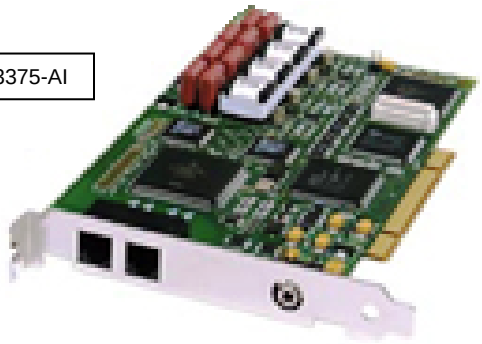
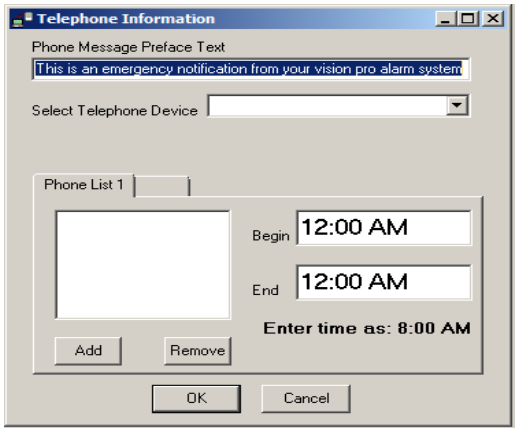


Figure 10

VL3375-AI OFF-SITE NOTIFICATION KIT:

VL3375-AI





General Description: The VL3375-AI off-site notification kit allows the console to send an audible message to any operational phone number through an analog phone line. The message starts with a user defined preamble followed by the annunciation of the alarm information twice which includes (but is not limited to) the room name and activating device name. When a call is placed, the receiving phone will be called although the system will not annunciate the message until the person answering the phone says something such as "hello". The message is delivered and then the system will hang up and move to the next programmed phone number (if multiple numbers). The VL3375-AI is integrated into the computer console and must be installed at the

factory. **The VL3375-AI REQUIRES a dedicated analog phone line and the answering party to say "Hello" or something similar**.

Programming into the System:

- From the **Tools** pull down menu select **Add-ons** and click on **Enable Telephone Message**. Then click on **Tools** and **Telephone Message.** Each console comes with a pre-made message "This is an emergency notification from your Vision Pro alarm system" in the **Phone Message Preface Text** area. You may use this message or overwrite it with your own message.
- To add phone numbers to a list simply click on the **Add** button and type in the number; do not include a hyphen. If you need to dial a number first to access an outside line such as a "9" place a comma after the number then enter the phone number without spaces or hyphens. Click the **OK** button when finished. You may add several numbers this way to create a list of numbers to be dialed upon each alarm.
    - When multiple numbers are entered in the phone list the system will dial them in the order they are entered and will call the entire list regardless of the call being answered.
    - If any of the numbers are cell phone or long distance, make sure that the line has long distance capability.
    - When dialing cell phone numbers a different way of dialing the number may be needed. AT&T services may require 1, then the area code and rest of number like this : 12087626800. Verizon service may require just the area code and rest of the number like this: 2087626800. Some experimenting may be necessary to find the correct combination for the other service providers.
- After entering all of the information click **OK** and then **Save**.
- The VL3375-AI can be configured for calling out at any level but requires changes in the VisionPro.ini file. Contact Tech Support for help when setting up the call out levels other than Initial Call.

VL3325 SDACT CENTRAL STATION ALARM MONITORING INTERFACE:

VL3325

General Description: The VL3325 is an external device connected to the VisionPro console and sends alarm information to a remote monitoring station via an analog telephone line(s). It can be used in conjunction with or in place of local area pocket paging. Your dialer has been tested prior to shipment. If the phone number and account information to your Central Receiving Center was provided it was tested to YOUR Central Receiving

Center and software setup should already be complete. **The VL3325 SDACT REQUIRES one or more analog phone lines.**

Wiring/Connection Instructions:

- A power supply, DB9 M-F cable, and two RJ-45 phone cables are included with the VL3325.
- **Figure 15** shows a wiring diagram for cable connections. The DB9 M-F cable will connect from the VL2500 computer (paging port COM 4) to the back of the VL3325 dialer.
- **Figure 16** shows a wiring diagram for cable connections if the VL3325 is to be used in conjunction with another notification system.
- The power supply has two parts; connect the two parts at the transformer (3-pin connector), connect the smaller end of this power cable to the back of the dialer where it is labeled POWER and the other end to the UPS (provided).
- Two communication cables have been provided and there are two Line outputs, 1 & 2. If you have a primary and secondary phone line available, connect one cable to the Line 1 output and the other cable to the Line 2 output of the VL3325. If you only have one line available connect only one of the cables provided to the Line 1 output on the VL3325. Connect the other end of the communication cable(s) to your RJ31X phone jack. These phone lines are **required** to be analog lines. If only one line is to be used the VL3325 will need to be programmed for one line only.

If you have the VL182-WAV paging transmitter see **Figure 13** on the next page for a wiring diagram. The DB9 F-F NM cable will connect from the VL2500 computer (COM 4) to the male end (TO MODEM) of the Modem Data Splitter at the "To Modem" connector (see **Figure 12**). Next, connect the Null Modem adapters (**Figure 11**) to both sides of the Modem Data Splitter. Next, connect the DB9 M-F cable provided from one of these adaptors to the back side of the VL3325 where it says "VL2500 COM 4" (see **Figure 15**). The other adaptor is used to connect the VL182-WAV transmitter using the DB9 M-F cable provided with it.

Figure 11

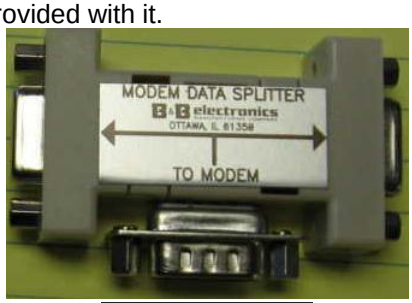


Figure 12

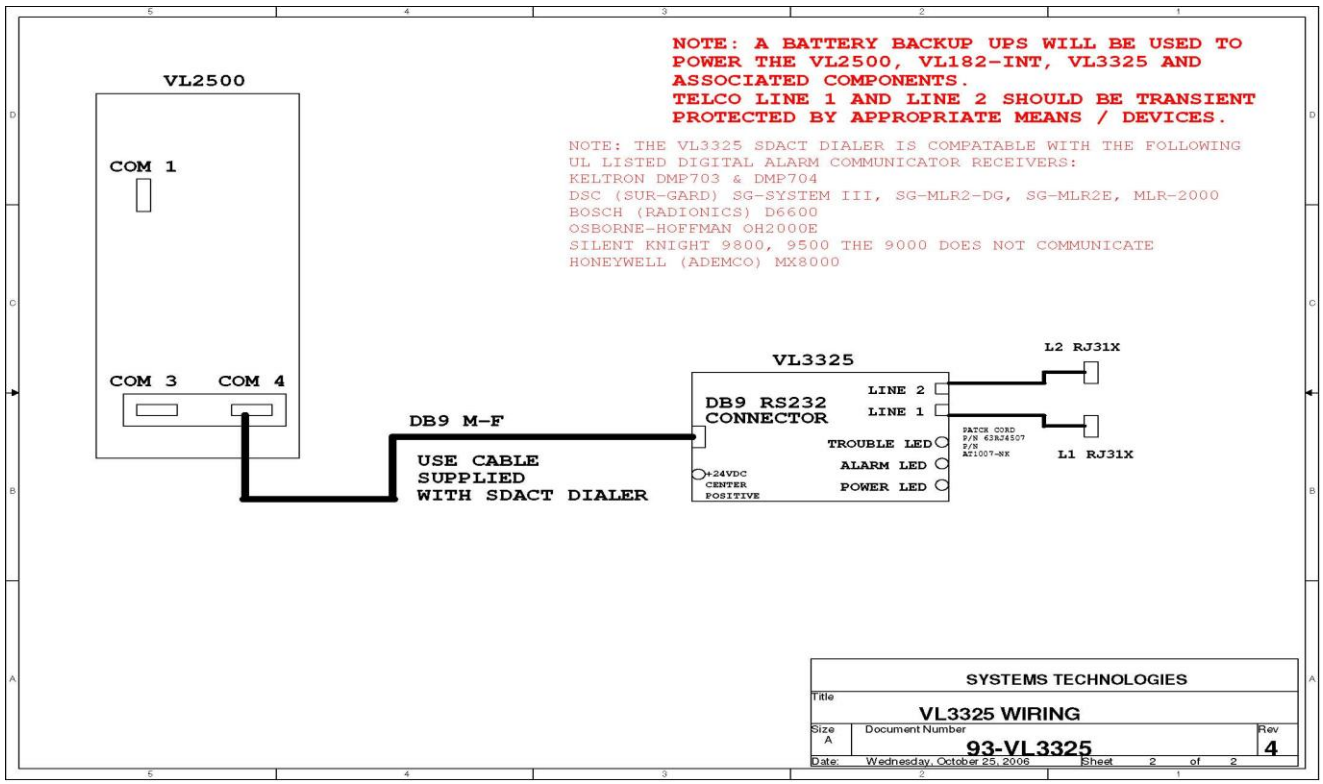


Figure 13

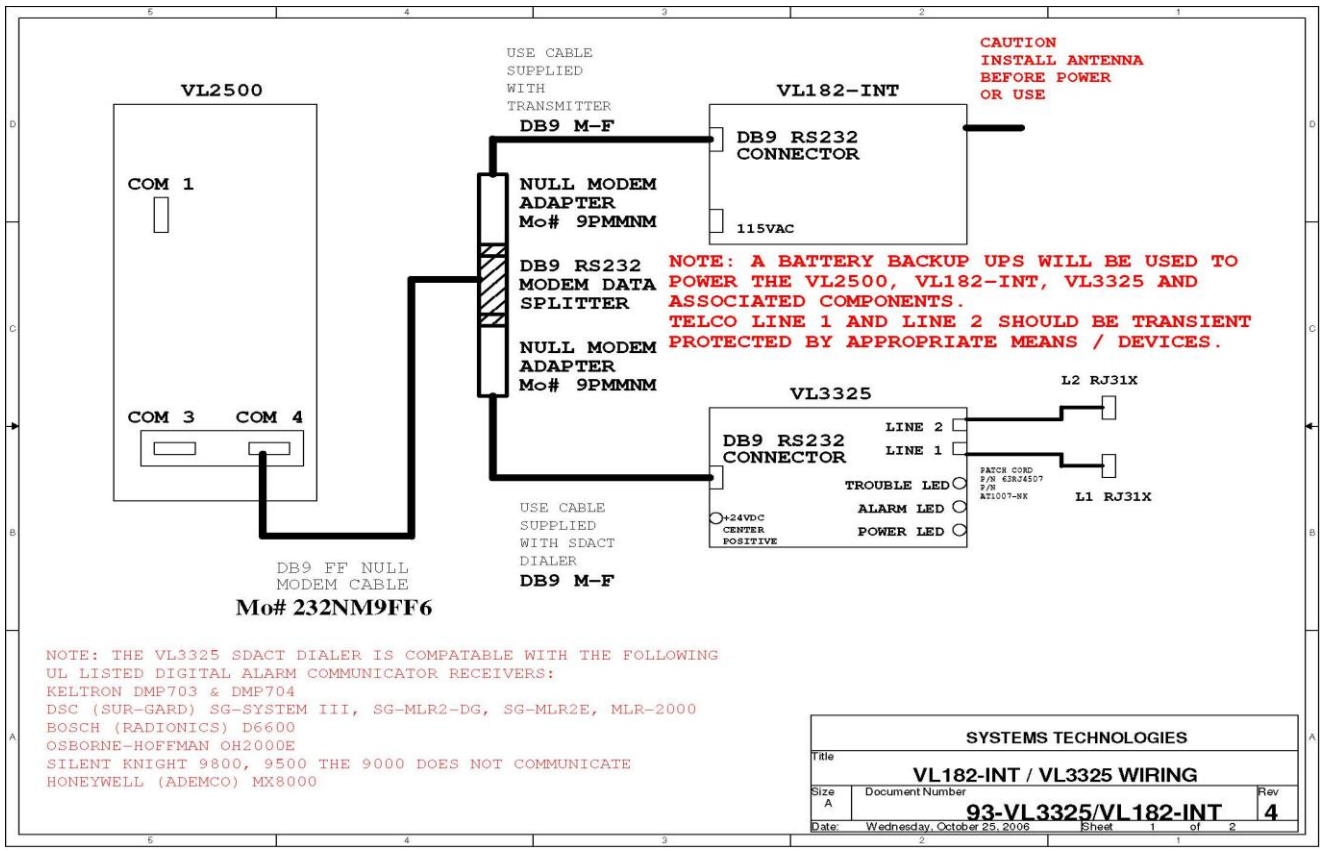


Figure 14

Programming the VL2500 System for use with VL3325 SDACT dialer:

- All room names programmed into the VisionPro console that need to be sent by the VL3325 will have a # symbol directly preceding a three to four digit room number. An example for Room 101 would be ***#101***. **There can not be a space between any characters in this part of the room name**. You may add other information before or after this such as "Room #101 Betty May" as long as the #101 has **no spaces** in it. **NOTE**: For help creating room names into the system see *Creating Stations and Room Names* under the Custom Programming section, Wall Devices.
- After creating all the room names you will need to create a pager group name such as "Monitoring Service" with a cap code of 800 and then assign all the rooms to this pager in the paging assignments area (see **System Paging** earlier in this section).

Figure 15

Figure 16

VL3345 CELLULAR PHONE INTERFACE:

VL3345

General Description: Provides automatic text messaging of alarm information to cellular telephones. Also allows instant text messaging from the console computer to cellular telephones. The VL3345 Cellular Telephone Interface is required along with a 3G GPRS SIMM card. Requires VisionPro software version 1.26.46 or later. This works with any cell provider that uses a 3G SIMM card, AT&T being the most common. **4G SIMM cards will not work with this device.**

Wiring/Connection Instructions:

- Remove the SIMM card cover and slide your activated cell phone SIMM card into the slot on the GPRS modem (see **Figure 17**, circled in red).
- Connect the DB15 Male to DB9 Female cable (provided) between the modem at the RS232 jack (see **Figure 18**, circled in red) **and** an available COM port on the computer console.
- Connect the antenna (provided) to the modem by screwing it into the appropriate jack.
- Connect the power connector (provided) to the modem by screwing it into the appropriate jack.
- With a properly activated SIMM card and enough signal the LS light will blink slowly after the initial startup. A solid LS light means that there is not enough signal or the SIMM card is not activated.

Programming into the System: Within the VisionPro software you will have to create a name for each cell phone number you wish to enter into the system. Cellular messaging setup is the same as paging.

- To create a name, go to the **Tools** pull down menu and select **Radio Paging**.
- Select the **Pagers** button at the top left.
- Select the **Add** button. Enter the name you would like to call this cell phone into the box next to **Name for Pager**. Just below the name place the cell phones number without dashes or other characters (see **Figure 19** on the next page). Place a check mark in the box next to **This is a cell phone**. Place a check mark in the box next to **Cell phone is a manager** only if this phone is to receive calls during Manager Level Escalation instead of upon the initial alarm (see **System Paging** earlier in this chapter for more information on escalation).
- You may continue to add phones by clicking **OK** and then the **Add** button. Once you have entered all of the phones click **OK** to get back to the **Paging Room Assignments** screen.
- Assign rooms to the phones as you would to pagers (see **System Paging** earlier in this chapter for more information on paging assignments) and **Save** the changes.

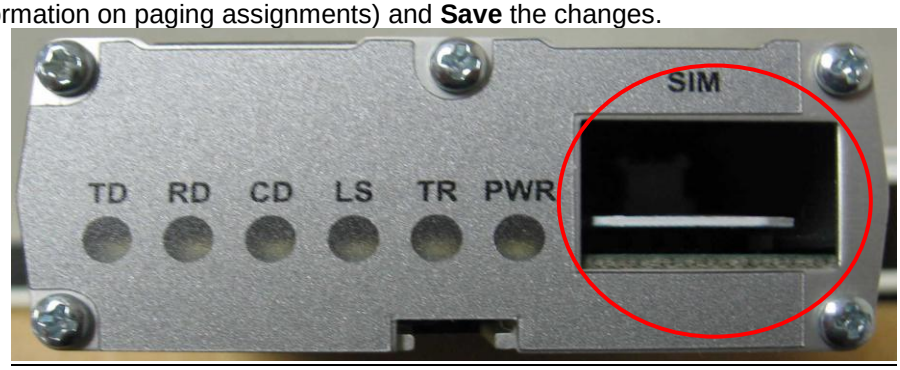


Figure 17

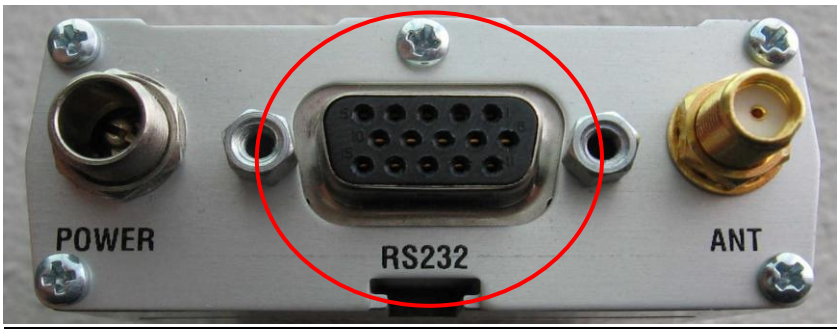


Figure 18

Figure 19

3 Custom Programming

Programming Stations and Rooms:

Creating Station and Room Names:

- From the **Tools** pull down menu select **Configure**. If **Configure** is grayed out or not selectable you must first enter the password by selecting **Password** and entering it in the space provided. The factory default password is "zeke".
- Two sections are in the **Configure** box, the top section is the Station box and the bottom section is the Rooms box, **Figure 20**. Each section has its own Add and Remove buttons to use for programming the system.
    - To create a Station click on the Add button in the top Station section.
        - Enter the Station name (Hall A, First Floor, Pine BLVD, etc.), **Figure 21.** Generally stations are created for specific areas of the facility, common areas and repeater supervision.
        - Click on the **OK** button and repeat the process to add any additional stations.
        - Click on any **OK**'s and then **File** and **Save** or click on the **Save** button to save the changes. Go back to **Tools** and **Configure** to add Room names.
    - Room names can be created or added after the Station names are all in by clicking on the Add button in the lower Rooms box.
        - Enter the Room name (Room 100, Apt 01, Room #102, Apt #16, etc.), **Figure 22.**
        - Select the number of beds for the room. General rule is to select 1-2 more beds than actual for the resident rooms and None for public or common area rooms.
        - Click the **OK** button and repeat the process to enter any additional rooms for that station until the room configuration for that station is complete.
        - Click all **OK**'s and then **Save**. Go back to **Tools** and **Configure** to repeat the process for adding rooms to any other stations left and **Save** any further changes when finished.

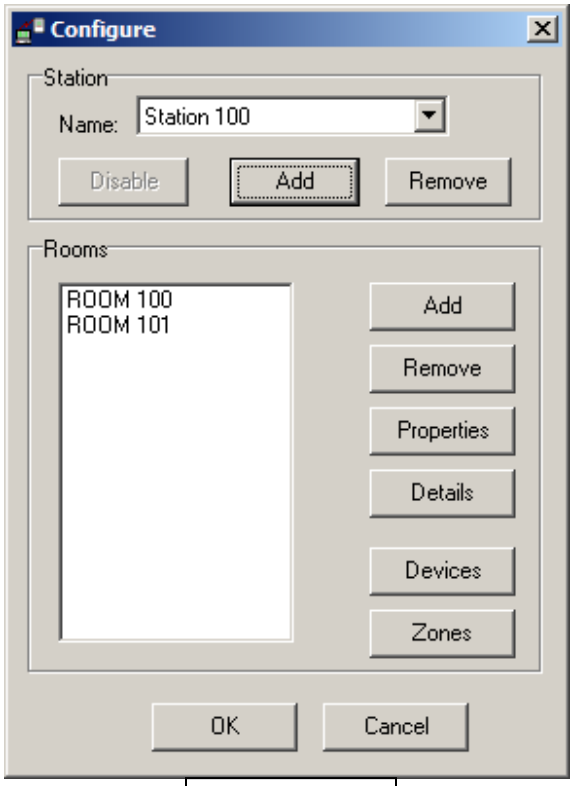


Figure 20

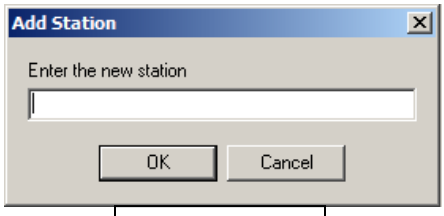


Figure 21

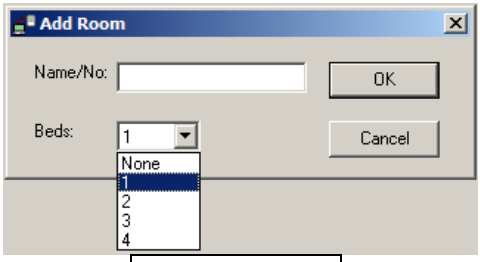


Figure 22

Creating Custom Devices:

Creating a Custom Device:

- From the **Tools** drop down and **Configure** click on the button in the lower right corner labeled **Devices** (**Figure 23**).
- Choose the **Add** button from the right side of the Additional Devices box (**Figure 24**).
- Enter a name for the custom device (Doorbell, Staff Emergency, etc.) (**Figure 25**).
- Choose a Priority level and Dome light for the device. Priority levels are explained below and can be set to light the standard light for that priority or a specific light can be chosen.

Priority		Alarm Color		Dome Light
Emergency (Pendants, Pulls)	-	Off-White/Beige	-	Dome light 1 Flashing
Normal (Bed Station)	-	Gray	-	Dome light 1 Steady
Persistent (Pendants, Doorbell)	-	Green	-	Dome light 1 Flashing
Fire (Smoke Detectors)	-	Red Says "Smoke"	-	Dome light 2 Flashing
Extremely Urgent (Code Blue)	-	Blue	-	Dome light 3 Flashing
Non-Display (Repeater)	-	None	-	None
Display Only (No Page)	-	Beige	-	Dome light 1 Flashing
Persistent NF	-	Green	-	Dome light 1 Flashing
Fast Emergency (Bathroom)	-	Orange	-	Dome light 1 Flashing
Alternate Check-In (PIR)	-	None	-	None
Fault (Device with Problem)	-	Pink	-	None

- Click the **OK** and repeat to create more devices or click the **OK**'s and **Save**. Once saved the custom device types can be used in Properties as an "Additional Room Device" or in Details as "Optional Device" by selecting in the drop down following the ID box.

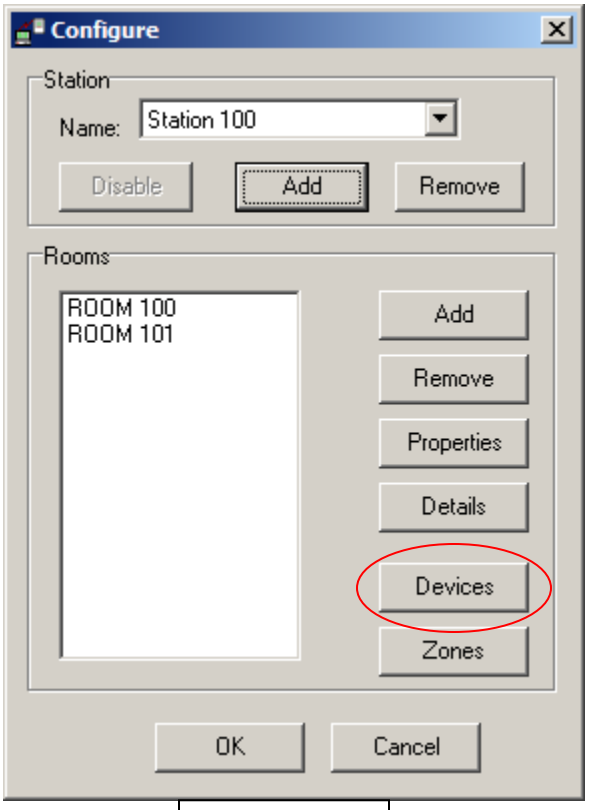


Figure 23

Figure 24

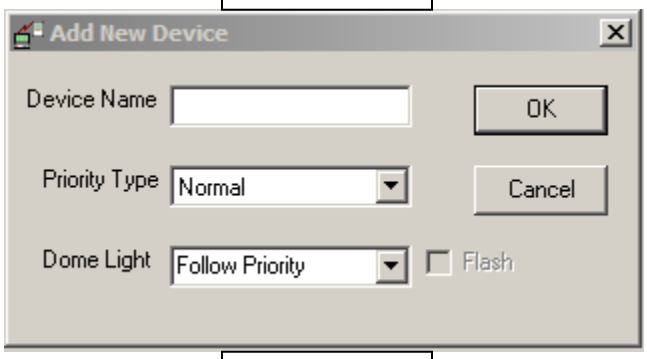


Figure 25

Persistent Devices:

Adding Persistent Devices into the System:

- From the **Tools** drop down and **Configure** highlight the room name a device needs to be added to.
- Select **Details** if the device is directly associated with a resident/patient such as a pendant or bed side station; Select **Properties** if the device is associated with a room or area such as a doorbell or a bathroom call station.
- Persistent devices will always be programmed as **Additional Room Devices** or **Optional Devices** except for the pendant. A persistent pendant will be added in the **Details** area at the **Has Wireless Pendant** section with NO check mark in the **Locking Type** box.
- Persistent alarms, when activated, will stay on the screen until one of the following conditions occur;
    a. Someone "double-clicks" on the alarm,
    b. The VisionPro program is terminated (exited),
    c. Persistent alarms are set to automatically acknowledge (terminate) after a pre-determined time. To set persistent alarms to automatically acknowledge go to the **Tools** pull down menu and select **Options**. In the **Options** screen place a check mark next to "Automatically acknowledge persistent alarms" and enter a time (select minutes or seconds) next to "After". Click the **OK** button and **Save** after making the change.

See "Understanding Alarms and their Names" in the Wall Devices section for detailed information on Additional Room Device & Optional Device operations.

Wall Devices:

Understanding Alarms and their Names: When a system has multiple types of devices being used it is a good idea to follow a standard way of programming the device into the system. Room specific devices (Bathroom Pulls, Smoke Detectors, Dome Lights, etc.) are generally programmed in the room Properties section of the **Configure** screen, **Figure 25**. Resident specific devices (Pendants, Bed Stations, Bed Pads, etc.) are generally programmed into the room Details section of the **Configure** screen, **Figure 26**. Using the same procedure for programming each time makes it easier to find devices if changes are needed or devices are added.

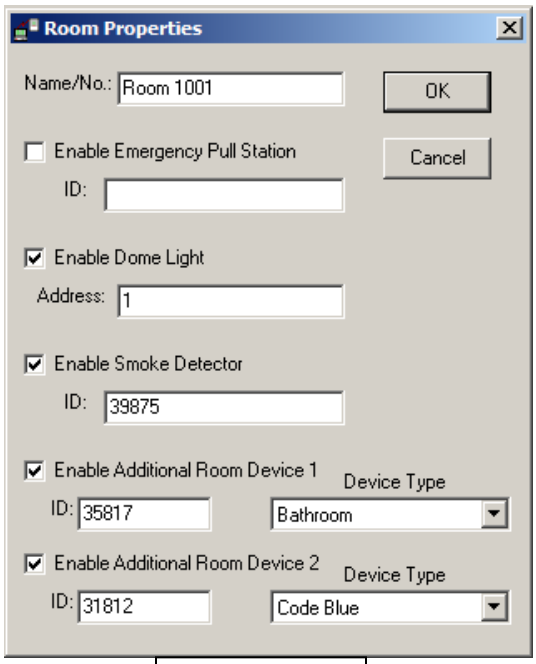


Figure 25

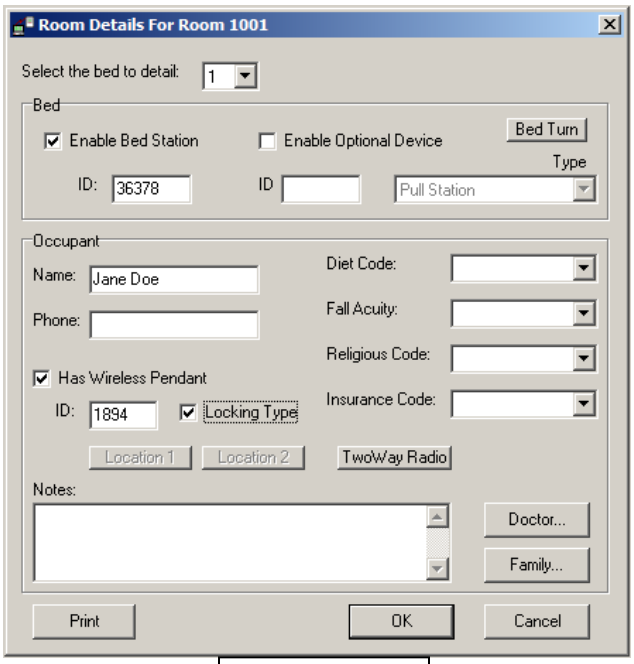


Figure 26

Adding Wall Devices into the System:

- From the **Tools** drop down select **Configure**, choose the Station in the top box that contains the room(s) to be worked with.

- Highlight the room a device needs to be added to. Select either **Properties** or **Details** depending on how you want the device to function (room specific or resident specific). Enable the device type by placing a check mark next to “Enable …” or next to “Has Wireless Pendant” for pendants.
    - When in the **Details** area be sure to select the particular bed a device is to be added to by using the pull down menu at the top of the screen (see **Figure 27**). Enter the ID number, a four or five digit number located on the bottom side of the transmitter or pendant, into the ID space provided.
    - If you are using a multi-input transmitter (VL965) and need to utilize more than one ID number for this transmitter use the ID number on the bottom side for input 1; add 1 to the ID number for input 2; add 2 to the ID number for input 3 (see **Figure 29** for input correlation).
        - The VL155-2 Dual Bed Station uses input 1 & input 2 where input 1 is the bottom ¼” jack and input 2 is the top ¼” jack. For programming use the ID from the bottom of the transmitter in Bed 1 (example 5243), then change to Bed 2 and use the original ID plus 1 (example 5244). This has to be done or both jacks on the bed station will not work correctly. See **Figure 28.**
- Once you are finished programming in all devices click all **OK**'s and save your program by selecting **Save** from the **File** pull down menu.

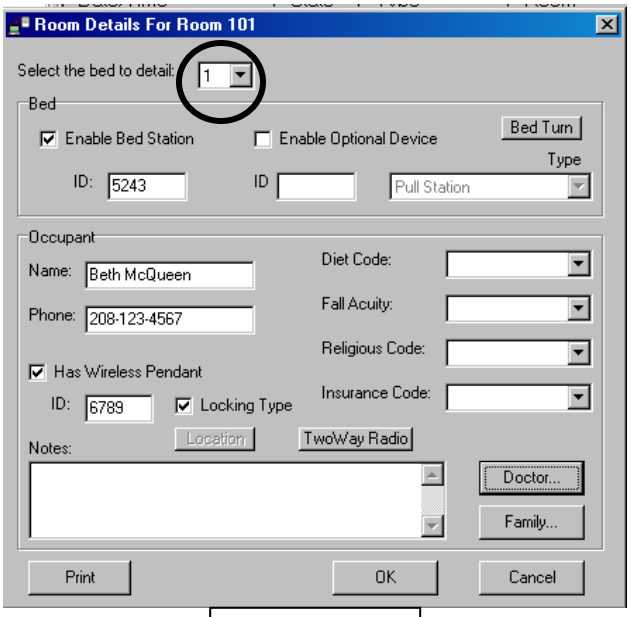


Figure 27

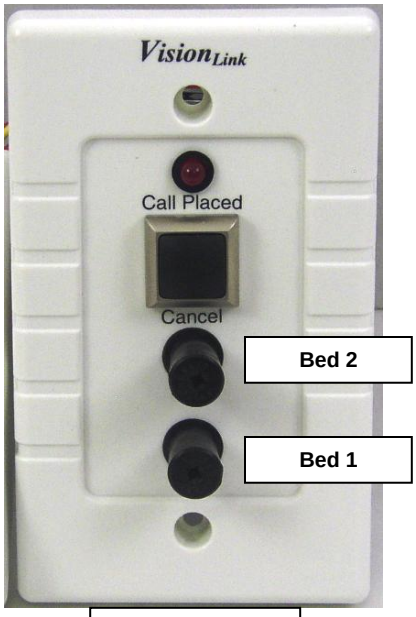


Figure 28

VL965 ZTX Transmitter Configuration:

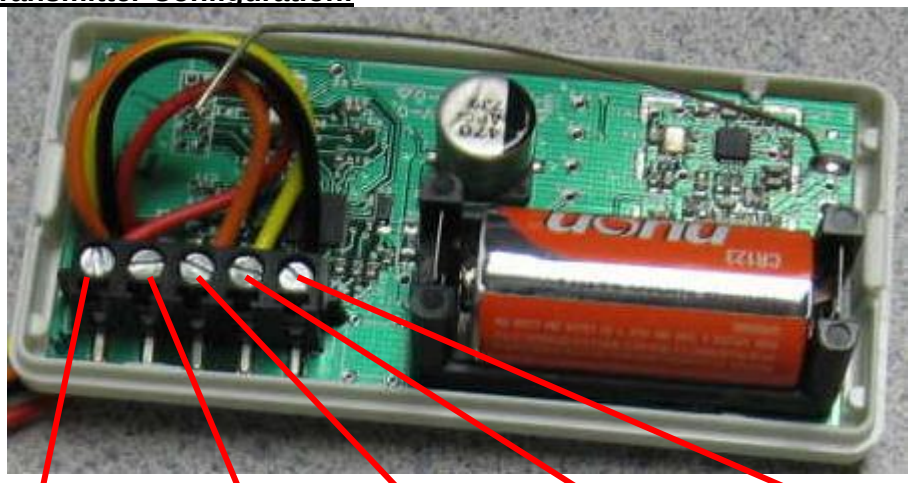
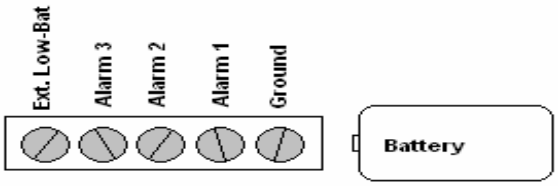


Figure 29

Wiring to Stations



VL965 Transmitter Wiring

VL965	VL155-2	VL155-1	VL 160	VL160-4	Xmitter test
Ext. Bat =	**Red**	**Red**	None	None	
Alarm 3 =	None	None	None	**Orange**	Status 32 - Used for Check In
Alarm 2 =	**Orange**	None	None	None	Status 8
Alarm 1 =	**Yellow**	**Yellow**	**Red**	**Red**	Status 0
Ground =	**Black**	**Black**	**Black**	**Black**	

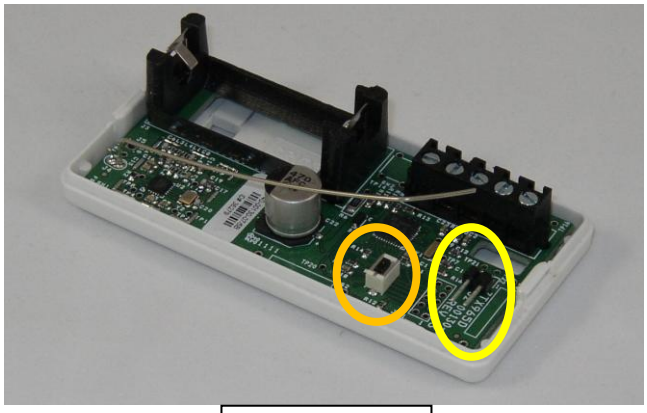


Figure 30

The yellow oval in **Figure 30** shows the jumper location on the VL 965 transmitter to enable an external battery pack. For no external battery pack install a jumper across both pins. Jumpers should be put on every transmitter except for bed station transmitters. The orange oval shows the reset button which is pushed after a battery is installed.

Jumper Settings

ON both pins = External Battery Not Connected
Off both pins = External Battery Connected

Bed Turn:

General Functionality: When Bed Turn is enabled an alarm will be created throughout the day at a fixed interval; every thirty minutes, every hour, or every two hours. This alarm will display at the console, light up the dome light (if used) and send a text message to the appropriate pocket pager (if used). To reset this alarm the bed station for the bed to be turned will have to be activated and then reset forcing someone to the room. **A Bed Station has to be programmed into the room Details before Bed Turn can be used.**

Programming into the System:

- From the **Tools** pull down menu select **Configure**. Select the appropriate Station for the Room to be worked with.
- Highlight the Room you would like to create a bed turn alarm for and select **Details**. Select the appropriate bed from the **Select the bed to detail** pull down menu.
- Click on the **Bed Turn** button at the top right (**Enable Bed Station** must be enabled for the bed turn function) and place a check mark next to **Enable Bed Turn for this bed station** (see **Figure 31**).
    - *After the Bed Turn has enabled the ID of the Bed Station will turn gray and cannot be modified until the Bed Turn has been disabled*.
- Set the time interval for bed turn to 30 minutes, 1 hour, or 2 hours by clicking in the appropriate circle. The time of hour to create a call is when the bed turn will start, either at the top of the hour, 15 minutes after the hour, etc.
- Click the **OK** and repeat to set up more if needed. When finished click on all **OK**'s and **Save**.

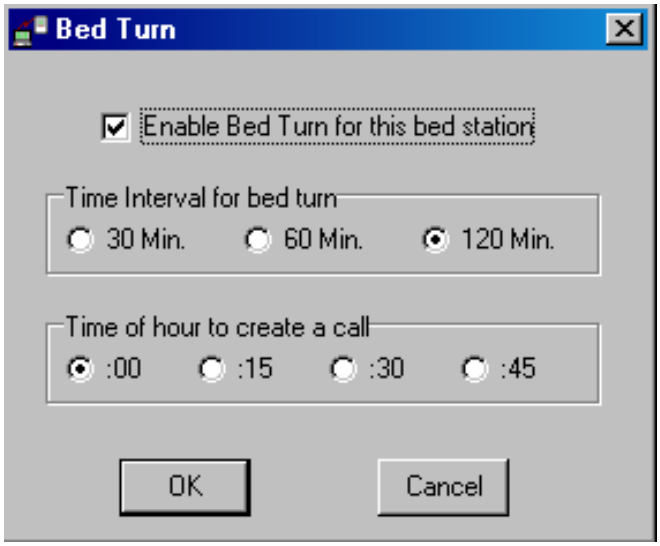


Figure 31

Reminder:

General Functionality: The Reminder function allows the user to setup a reminder notice which can be sent to a pocket pager or group of pagers, appear on the console in a text message box, audibly annunciate the message at the console (or over two-way radios is so equipped) or any combination of the three. You may set the date and time of day for the message to notify and mark it as a daily message if needed. The reminder function is easily accessible from an icon along the top of the screen.

Programming into the System:

- To access the **Reminder** function click on the  icon near the top of the screen, fourth icon from the right.
- All queued messages will be listed in the white box, **Figure 32**.
    - To edit an existing message highlight it and select **Edit**.
    - To remove a message, highlight it and select **Remove**.

- To add a new message select **Add**.
  - In the Reminder Text box, see **Figure 33**, type in the message as you want it to appear/annunciate.
  - Set the time of day you would like this message to activate.
  - To change the date, delete the existing date and use the MM/DD/YY method.
  - Place a check mark next to the method of delivery for the message:
    - Screen – creates a text message box on the screen;
    - Pager – sends a radio page to a pocket pager or group of pagers;
    - Two-Way Radio – verbally annunciates the typed message at the console.
    - You may check more than one box. If you selected **Pager**, be sure to select the pager or group name in the **Pager Name** area.
  - Place a check mark next to **Daily** if you would like this message to re-occur every day at the designated time. If not, leave unchecked and the message will happen only at the assigned time and date.
  - Click all **OK**'s and **Save** the changes.

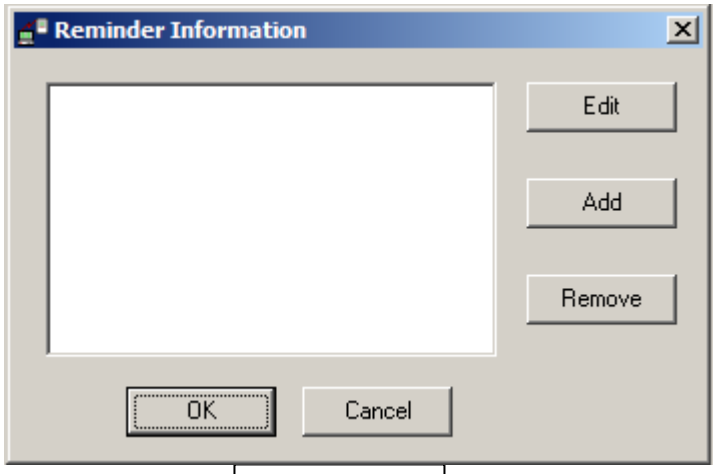


Figure 32

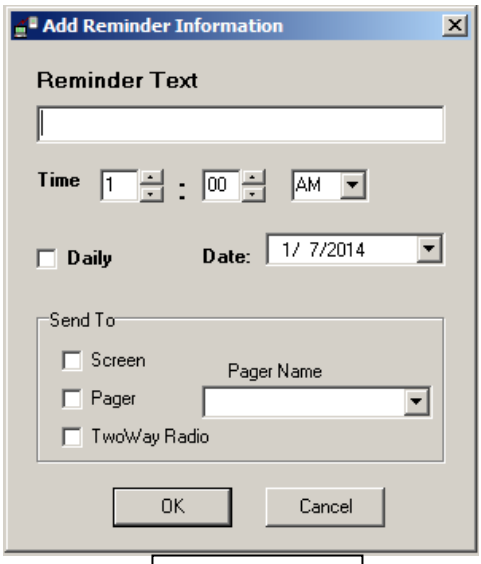


Figure 33

Manual Page:

General Functionality: The manual page function allows the user to send an instant text message to any pager or group of pagers created in the system. The manual page function is easily accessible from an icon along the top of the screen.

How to Use Manual Page:

- Select the  icon from the icons along the top of the screen, sixth icon from the right.
- Select a pager or group name and type a message into the message box, see **Figure 34**.
- Click on the **Send** button to send the page.

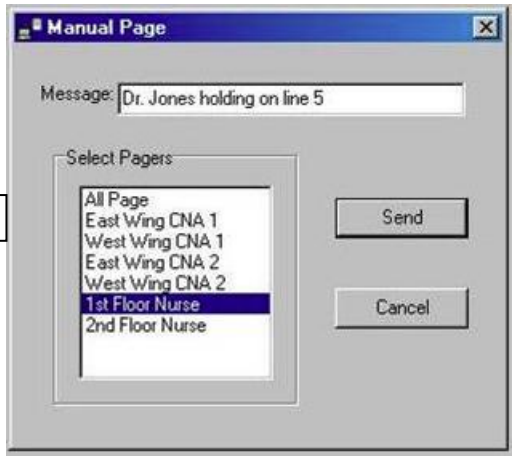


Figure 34

VisionPro Paging Escalation Summary:

Initial Group is a pager or pager group with a 3-digit cap code programmed into the VisionPro software, has rooms assigned to it, and is expected to receive pages upon an alarm.

Manager Group (Enable Paging Escalation) is a pager or pager group that has a "1000" preceding the 3-digit cap code programmed into VisionPro, has rooms assigned to it, and is expected to receive pages after the initial group or after the recall to the initial group (if **Pager Recall** is enabled).

Administrator Pager Group (Admin pagers/cell phones) is a pager or pager group with a 3-digit cap code programmed into VisionPro and is expected to receive pages after the Manager group. This group will receive a second page if the call remains on the console. No rooms assigned at this level. Any pager or cell phone can be assigned and all get the final page.

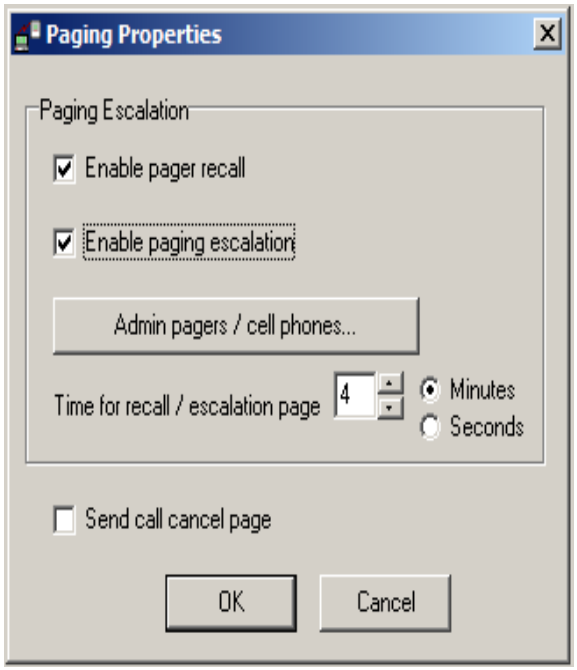
To enable paging escalation you must enable either or both options under Paging Properties (listed below). The time between escalation pages may be set to any number of minutes (represented hereafter as "X") but will remain constant between any and all escalation groups or pages. **Note:** There is an option that will enable continuous paging where the final group (Admin Pager) may be recalled continuously at X minute intervals until the call is reset. Contact your dealer for help activating this setting.

Enable Pager Recall Only:

1. The initial group receives a page directly after a call appears on the console.
2. The initial group receives a page X minutes after the call appears on the console if the call is not answered (reset).
3. No more pages will occur for a call that remains on the console.

Enable Paging Escalation:

1. The Initial group receives a page directly after a call appears on the console.
2. The Manager group receives a page X minutes after the call appears on the console if the call is not answered (reset).
3. The Admin group receives a page X minutes after the call pages the Manager group if the call is not answered (reset).
4. The Admin group receives a second page X minutes after the first Admin group was paged if the call is not answered (reset).
5. No more pages will occur for a call that remains on the console for this group.



Enable Pager Recall & Paging Escalation:

1. The Initial group receives a page directly after a call appears on the console.
2. The Initial group receives a second page X minutes after the call appears on the console if the call is not answered (reset).
3. The Manager group receives a page X minutes after the Initial group receives their second page if the call is not answered (reset).
4. The Admin group receives a page X minutes after the call pages the Manager group if the call is not answered (reset).
5. The Admin group receives a page X minutes after the first Admin group was paged if the call is not answered (reset).
6. No more pages will occur for a call that remains on the console.

Alert Notification and Escalation

Part Number	Device	Output	Escalation Type	Description
AD2000	Hardware Interface	Voice Phone Call with pre-recorded announcement.	None	Relay activated dialer used with MicroVision 200Z and 400Z. Delivers pre-recorded announcement. Does not announce room or resident.
VL3325	Hardware Interface S-DACT Dialer	SIA data format (uses one com port)	Sends on Level 1.	Central Station Monitoring Interface for VL-2500-B7 and MV400. Sends any alarm event with a # sign in front of the room number to a central station. Requires one or two analog CO or PBX lines.
VL3345	Hardware Interface Cellular Modem	Text message to cell phones (uses one com port)	Configurable for each level	Cellular telephone interface for VL2500-B7. Sends alarm information as a text message to cellular telephones. Requires 3G GPRS SIMM card and text messaging plan from cellular provider such as AT&T.
VL3350	Hardware Interface	Two way radio broadcast (uses one com port)	Transmits out immediately on Level 1. No escalation.	Two way radio interface for VL2500-B7. Provides audio in and push to talk. Requires a two way radio base station and radios.
VL3360	Software interface	E-mail notification and mass notification (uses two com ports)	Configurable for each level	Software installed on a VL2500-B7 Vision Link computer console. Sends alarm events to email addresses including Smartphones and PDA's. Includes mass notification to email groups.
VL3375-AI	Hardware Interface PC - AI Logics Card	Voice Message	Configurable for each level.	Voice notification for VL2500-B7. Dials a cellular, outside or PBX extension number and voice announces a pre-programmed message plus the alarm event information. Requires one analog CO or PBX line and a human voice to answer before message is delivered.
VL3380-WAV	Computer equipped with serial receiver, Windows 7, VNC, Vision Link, LogMeIn and Alert Utility software.	Spectralink Wireless Telephones, Email, Mass Notification via email (uses two com ports)	Configurable for each level	Communications Server. Includes Vision Link, VNC, Alert Utility, Windows 7 and LogMeIn software. Hardware includes serial receiver, com port card and connector cable. Collects wireless alarms displayed on multiple consoles and sends alarm notification as text messages to Spectralink or Ascom wireless telephones. Also sends email notification to smartphones, IPADs and other email addresses. Allows management to access reports, view alarm events and update programming from on or off site. Requires LAN connection and Spectralink or Ascom OAI.
VL182-WAV	Hardware Interface	Text message to Alpha-Numeric Pocket Pagers (uses one com port)	Configurable for each level	Sends alarm events as text messages to pocket pagers and LED readerboard displays

	Escalation Levels		
Level 1	Initial Level	First page and Pager Recall	1 to 2 pages
Level 2	Manager Level	Enable Paging Escalation	1 Page
Level 3	Administrator Level	Admin Pager/Cell Phone	2 or Continuous Paging

Pocket Pager Cap Code List:

VP CC	Pager CC	VP CC	Pager CC
100	1998800	125	1996300
101	1998700	126	1996200
102	1998600	127	1996100
103	1998500	128	1996000
104	1998400	129	1995900
105	1998300	130	1995800
106	1998200	131	1995700
107	1998100	132	1995600
108	1998000	133	1995500
109	1997900	134	1995400
110	1997800	135	1995300
111	1997700	136	1995200
112	1997600	137	1995100
113	1997500	138	1995000
114	1997400	139	1994900
115	1997300	140	1994800
116	1997200	141	1994700
117	1997100	142	1994600
118	1997000	143	1994500
119	1996900	144	1994400
120	1996800	145	1994300
121	1996700	146	1994200
122	1996600	147	1994100
123	1996500	148	1994000
124	1996400	149	1993900

VP CC refers to the capcode entered into the VisionPro program so pages can be sent to a particular pager capcode. VP CC 100 sends a page to pager capcode 1998800.

Pager CC refers to the capcode entered into all pocket pagers that should receive pages from the appropriate VP CC. If you place capcode 1998800 into all of the pagers then all of the pagers would receive a page from VP CC 100.

Apollo Pager Programming Instructions:

To program the pager:

- Remove the battery cover and battery and hold down the Select button.
- Insert the battery and continue to hold the Select button until "password" is shown in the display. The default password is 0000.
- Press the Read button to advance to the Frequency screen. You may change the frequency by using the Scroll buttons and the Select button as needed.
    - The default frequency is 467.8000 and unless otherwise stated should remain at that frequency.
- Press the Read button to advance to the "Capcode" screen. The first capcode should be "on". The default first capcode is 1998800. Make sure there are four "A" at the far right.
    - If you need to change the capcode or the characters at the far right use the Scroll buttons and the Select button as needed.
- Once capcode 1 is complete press the Read button to advance to capcode 2. The second capcode is optional and may be programmed to "off".
    - To program the second capcode make sure it is "on" by pressing the Select button while the "off" is flashing and change the capcode as needed including the four "A" at the far right using the Scroll buttons and the Select button. Press the Read button after setting the correct capcode. Continue through all six capcodes in this manner.
- Next is the "Baud" screen. The default baud rate is "512". This may be changed as needed by using the Select button. Press the Read button.
- The next screen is "Modify Password". It is not recommended to change the password from the default setting of "0000".
- Press the read button to move to the next screen which is "Adjust Contrast". The default setting is "4". To change this setting use the Select button. Press the Read button to finish the pager configuration.
- The word "pass" should be temporarily displayed with an audible "beep".
- Remove the battery and after a few seconds insert the battery back into the pager. The pager will restart into the default screen, the date and time may need to be set.

Apollo Pager Use Simplified:

1. Apollo Gold pagers have 4 buttons used to access messages and all of the other options available on the pager. The buttons are the Left Arrow, Right Arrow, Middle Button (Pause button, has two vertical lines on it like a remote pause button), and the Power Button (biggest button, far right of pager, has a circle and a line on it).

2. **To read calls** that are received on the Apollo Gold Pagers, press on the Power Button (big button) on the right hand side of the pager. Once that button is pressed the latest message received by the pager will be shown on the screen.

3. **To scroll through pages** that have been received press the Power Button to make the pager display the pages received and then use the Left or Right Arrow buttons to move through the messages. Each message will show what alarm was displayed on the computer when the call came in, the date and the time, and it will also have a number by it that designates which message it is. Each pager can hold about 20 messages before it will start deleting and replacing the oldest messages.

4. To keep confusion of the messages to a minimum it is a good idea to delete the messages from the pager after they have been viewed. A new message on the pager is shown by a upward facing arrow on the upper left part of the LCD display. When the arrow shows up use the Power Button to make the message appear so you can read the message. After the message has been read hit the Power Button again to go to the date and time screen. On this screen you then push the Middle (Pause) Button and it will bring up a row of icons along the bottom of the screen. The first one that blinks will be an up arrow and will say up or escape. Press the Right Arrow and that will take you to an X on the right hand side that will say Delete All. Press the Middle (Pause) button when on the X and it will take you to a screen that says Delete All?. When you see that press the Right Arrow. The pager will beep and will go back to the date and time screen. Any messages that have not been read will remain on the pager so be sure to look through all of the messages before deleting.

5. There are 2 other options that you may want to use on the pager. They are Set Time and Set Alert. When the pager is on a blank screen, press any button once to get to the date and time screen. Press the Middle (Pause) Button once to reach the screen that shows the row of icons along the bottom of the screen. Use the Left or Right Arrow to move through the icons to reach the option you wish to use. When setting time you use the arrow buttons to navigate left and right through the numbers, the Middle Button to change the numbers and the Power Button sets the time when everything is correct. One warning, while setting time and date and a call comes in, any work that you have accomplished resetting the time and date will be lost as the call always takes precedence. The Set Alert option will allow you to choose between different sounds, songs, vibrate, and mute. Use the Left and Right Arrows to choose the sound, the Middle (Pause) Button moves down through the options, and the Power Button sets the selected option.

Instructions for Room/Station Removal:

General Information: Removing a Room or a Station should only be done if a station was created by accident or during a complete reprogramming of the system. A Station cannot be removed as long as there are Rooms or transmitters assigned in the station. A Room cannot be removed as long as there is a transmitter assigned.

Room Removal Instructions:

- Click on **File** and then **Backup Files**. Click on "Yes" in the box that opens up. This is done in case of any errors (allows the programming to be reset to that point).
- Click on **Tools** then **Configure** and select the Station that contains the Room that is to be removed from the top box.
    - If there are any transmitters in the programming (Properties and Details) they will have to be removed (ID's deleted and activation check marks removed).
    - Click all **OK**'s and **Save**, then go back to **Tools** and **Configure** and select the Station and then click on the Room for removal. Click on the Remove button in the lower box. The system will ask for confirmation, click on Yes. Repeat if necessary.
- Click all **OK**'s and **Save**. Close the program down and re-open.

Station Removal Instructions:

- Click on **File** and then **Backup Files**. Click on "Yes" in the box that opens up. This is done in case of any errors (allows the programming to be reset to that point).
- Click on **Tools** then **Configure** and select the Station that is to be removed from the top box.
    - Any Rooms that have transmitters in the programming (Properties and Details) will have to be removed (ID's deleted and activation check marks removed).
    - Click all **OK**'s and **Save** after all transmitters have been removed from the Rooms.
- Click on **Tools** and **Configure** and select the Station for removal. Click on the Remove button in the upper box.
    - The system will ask for a password, enter "srzeke" and click on OK or press the Enter key.
- Click all **OK**'s and **Save**. Close the program down and re-open.

**Note: If the Enable Bed Station in Details has an ID but is grayed out it is because you have Bed Turn selected. Click the Bed Turn button and un-check Enable Bed Turn for this bed station*

Enabling Synchronization For VisionPro (VL-SYNC):

General Description: Synchronization (VL-SYNC) allows a system with multiple VL2500 consoles to be tied together so that any programming changes only have to be done on one "master" computer. When the master computer has changes made to the programming at the point of Save it will update the programming on any other computer that it is synchronized with. All computers that are synchronized will have the same programming but each individual "slave" computer will have the ability to work for just a specific area if the program is written correctly.

This instruction shows the steps to set up synchronization on a set of computers. There can be only one master but there can be an unlimited number of slaves. System configuration on the master computer is pushed to all the slaves during synchronization. All the computers are required to be on the same local area network.

Setting up synchronization on VisionPro should only be done by advanced computer system professionals. The setup process for the master is a lot more complicated than the setup process for the slaves.

I. Setting up synchronization on the Master computer (the first four steps (bullets) should be done for all computers in case a Slave needs to become a Master sometime in the future):

1. Check the version of VisionPro. If it is not version 2.2.0.20 or newer then it needs to be upgraded to the newest version of VisionPro. (Any computer from the factory with version 2.2.0.20 or later will already have SQL Server installed. Earlier versions require it to be installed before proceeding.)
2. Close down VisionPro and then log off the Nurse profile. Log on into the Administrator profile and close down VisionPro again.
3. Run **InstallSQLServer_Sync.exe** which included on the setup CD and follow the instructions.
4. Enable remote connections to local SQL Server:
    - Open SQL Server Configuration Manager.
        - Click on the **Start** button in the lower left corner, select **All Programs**, click on **Microsoft SQL Server 2008 R2**, click on **Configuration Tools** and click on **SQL Server Configuration Manager**.
    - Click on **SQL Server Network Configuration** (**Figure 35**).

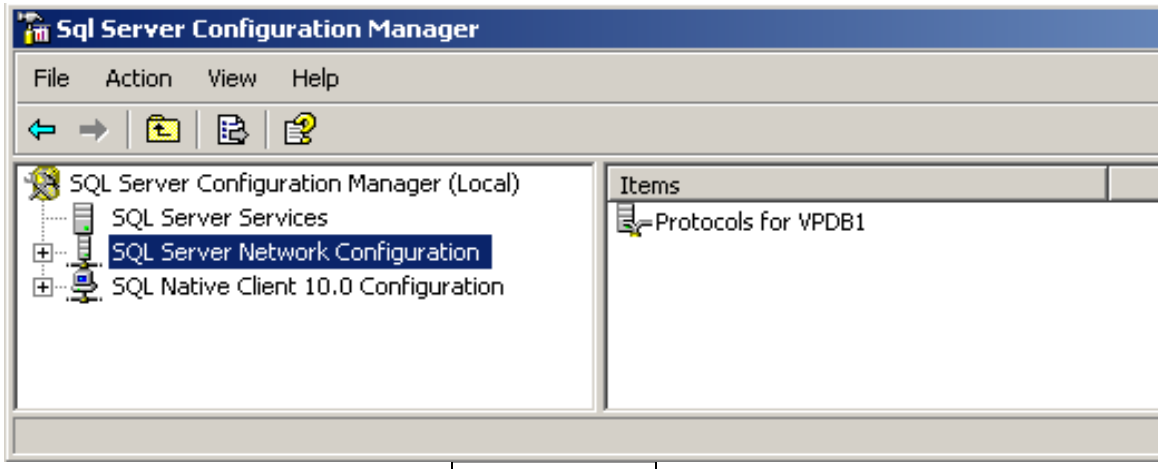


Figure 35

- Double click on "**Protocols for <instance name>**". On the list of Protocols for the current instance (**Figure 36**), enable TCP/IP.
    - Right click on the TCP/IP entry and select the Enable option.
    - A prompt that the changes made will not take effect until the service has been stopped and started will appear, click the OK button.
- Click on **SQL Server Services** in the left column (**Figure 37**).
- Restart SQL Server in the right column by right clicking on the **SQL Server(*instance name*)** and selecting **Restart**. A box will pop up and disappear and then **SQL Server(*instance name*)** will show as Running in the State column.

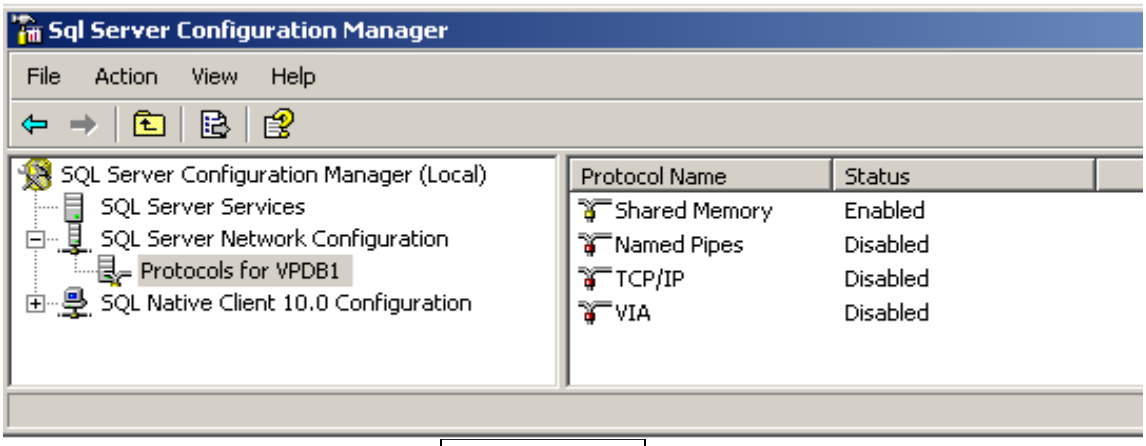


Figure 36

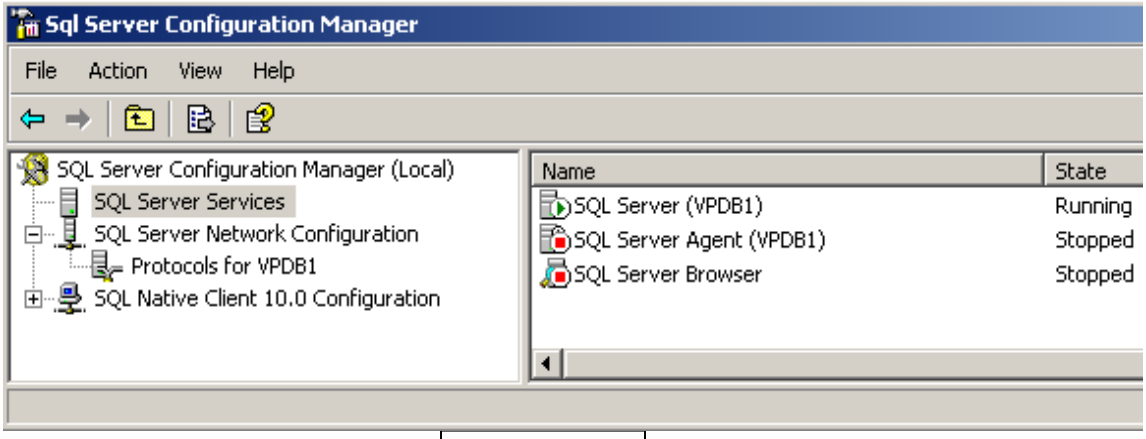


Figure 37

- Change start mode of **SQL Server Browser** from Disabled to Automatic (**Figure 38**) and start the service.
  - Right click on **SQL Server Browser**, select **Properties**, select the **Service** tab, click on **Disabled** and choose **Automatic**. Click on Apply and OK.
  - Right click on **SQL Server Browser** and select **Start**.

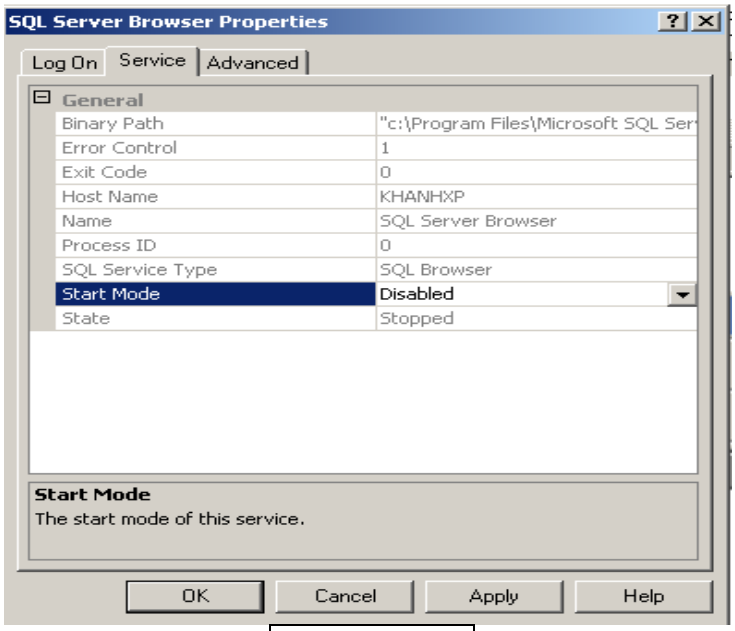


Figure 38

- Allow remote connections to SQL Server through Firewall.
  - For Windows 7 (64 bit), use the following instructions to add the following programs to Windows Firewall's Allow Programs:
    - Click on the **Start** button in the lower left corner and select **Control Panel**.
    - Click on **System and Security**.
    - Click on **Windows Firewall**.
    - Click on **"Allow a program or feature through Windows Firewall"** in the left pane.
    - Click on the **"Change Settings"** button over the list then click on the **"Allow another program"** button under the list.
    - Click on the **"Browse"** button in the Add a Program box.
    - Browse to C:\Program Files\Microsoft SQL Server\MSSQL10 50.VPDB1\MSSQL\Binn\sqlservr.exe and double click on it.
    - The Add a Program box will re-open with "SQL Server Windows NT - 64 Bit" highlighted, click on the Add button. Make sure all boxes after that entry are checked.
    - Click the "Allow another program" button.
    - Click on the "Browse" button in the Add a Program box.
    - Browse to C:\Program Files (x86)\Microsoft SQL Server\90\Shared\sqlbrowser.exe and double click on it.
    - The Add a Program box will re-open with "SQL Browser Service EXE" highlighted, click on the Add button. Make sure all boxes after that entry are checked.
    - Click the OK button at the bottom of the screen and close out of Control Panel.
  - ***For Window 7 (32 bit) follow the same instructions as the Windows 7 (64 bit) until the second Browse To instruction. Use the following address instead and then follow the rest of the instructions.***
    - ***C:\Program Files\Microsoft SQL Server\90\Shared\sqlbrowser.exe***
  - For Windows XP (32 bit) use the following instructions to add the following programs to Windows Firewall's Exceptions:
    - Click on the Start button in the lower left corner and select Control Panel.
    - Click on Security Center.
    - Click on Windows Firewall.
    - Click on the Exceptions tab at the top of the window.
    - Click on the "Add Program" button and a new Add a Program window opens, click on Browse.
    - Browse to C:\Program Files\Microsoft SQL Server\MSSQL10 50.VPDB1\MSSQL\Binn\sqlservr.exe and double click on that entry.
    - The Add a Program box re-opens with "sqlservr" highlighted, click the OK button.
    - Click on the "Add Program" button and a new Add a Program window opens, click on Browse.
    - Browse to C:\Program Files\Microsoft SQL Server\90\Shared\sqlbrowser.exe and double click on that entry.
    - The Add a Program box re-opens with "sqlbrowser" highlighted, click the OK button.
    - Click any other OK and then close everything down back to the main desktop.

5. Set up a shared folder in a easily found location on the C: drive of the Master computer. Name the folder something that is recognizable (for example C:\SyncShared). The shared folder is where the programming for the slave computers is downloaded from the Master computer to the slave computer(s).
   - Once the shared folder has been created it has to be shared with the Nurse user.
     - Right click on the new shared folder, click on **Properties**.
     - Click on the **Sharing** tab at the top of the window.
     - Click on the **Share** button.

- Click the drop down arrow at the right of the empty box, choose **Nurse** and click on **Add**.
- Nurse will show up in the lower pane with a "Read" permission level. Click on "Read" and change the setting to "Read & Write".
- Click on the **Share** button at the bottom of the window.
- Click on **Done**.
- Click on **Close**.

6. ***At this point the common setup for the Master and Slave computers is finished, proceed from the next step to finish the Master computer or proceed to Step II to finish setup for Slave computer(s).***
7. Turn on the Master sync mode in VisionPro.
   - Click on **Help** then click on **Activate Synchronization** and a "Activation key is required" box appears (Figure 39).

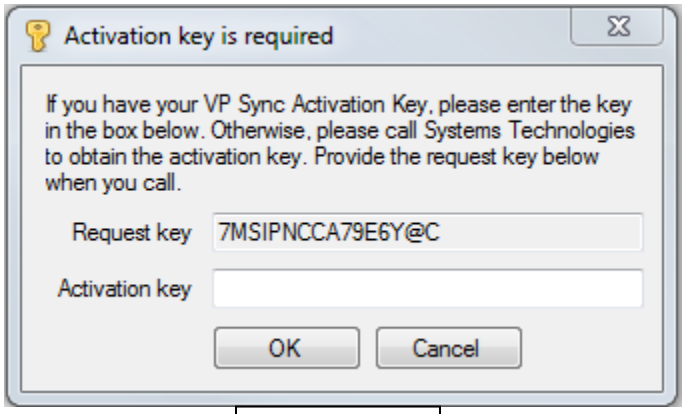


Figure 39

   - Contact Systems Technologies (the contact number can be found at the front of the manual) with the Request key. Technical Support will provide the Activation key, enter the key and click on OK.
   - Click on **Tools** and then click on **Synchronization** (Figure 40).

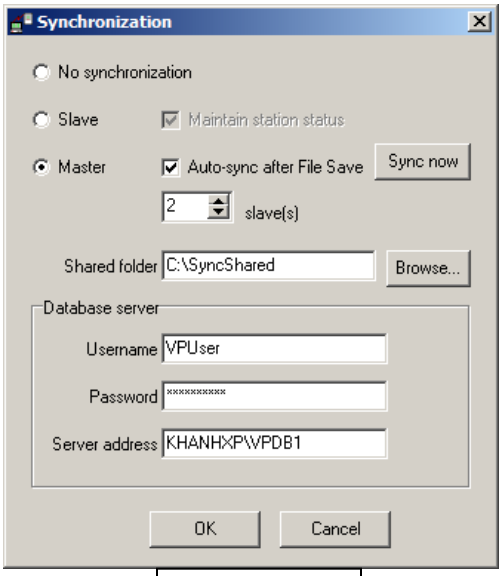


Figure 41

   - Click the spot next to Master to set the computer up as the Master computer of the system. Place a check by "Auto-sync after File Save" if you want Synchronization to happen automatically every time you save VisionPro configuration. Then set the number of slaves.
   - Enter the path to the Shared Folder (C:\SyncShared) that was created in Step 6.
   - Click **OK** when all data has been entered and then click **File** and **Save**.
8. The setup for the Master computer is now finished, follow the steps in the next section to finish the setup for the Slave computers.

II. Setting up synchronization on slave computers.

1. Check the version of VisionPro being used, match it to what is being used on the Master computer, should be version 220r20 or newer.
2. Close down VisionPro and log into the Administrator profile.
3. Turn on Network Discovery (Windows 7).
    - Click on the Start button.
    - Click on Control Panel.
    - Click on Network and Internet.
    - Click on View Network Computers in the Network and Sharing Center.
    - "File Sharing is Off" message should drop down from the top of the window, click on the message.
    - Click on "Turn on Network Discovery and File Sharing".
    - Click on No.
4. Map a network drive to the shared folder on the Master computer. (Figure 42)
    - Right click on the Computer icon on the desktop.
    - Click on "Map Network Drive".
    - Choose a drive letter from the list (usually use X:)
    - Click the Browse button and find the shared folder on the Master computer.
    - Check "Reconnect at logon".
    - Log off the Administrator profile, log into the Nurse profile and repeat the process.

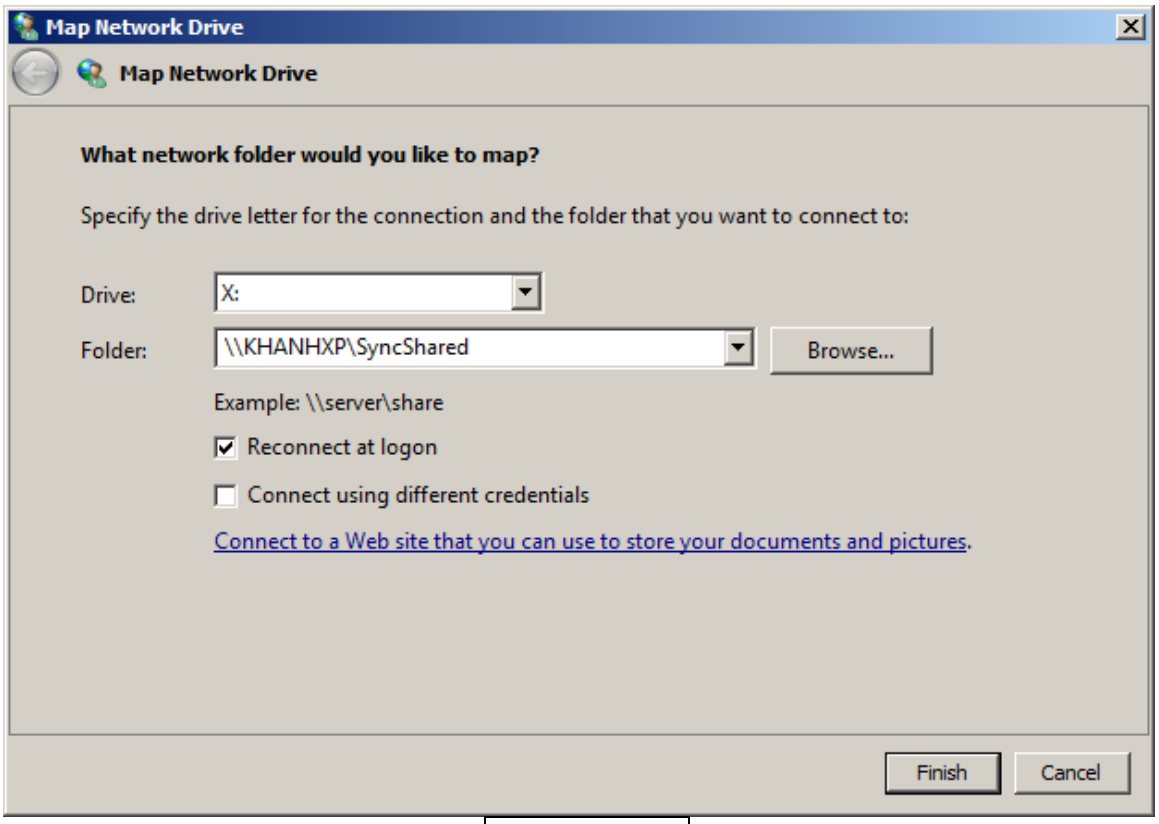


Figure 42

5. Turn on Slave sync mode in VisionPro. (Figure 43)
    - Click on **Help** then click on **Activate Synchronization** and follow the instructions. Contact Tech Support (1-888-826-3394) with the Request Key. Enter the Activation Key and click OK.
    - Click on **Tools** then click on **Synchronization**.
    - Select *Slave* and place a check mark next to "Maintain station status". Recommended if you wish to keep the local station status (enabled or disabled stations) of the slave.
    - Enter the mapped network drive that was created earlier in the Shared Folder location.
        - Click Browse, the mapped network drive will show under the computer icon with the drive letter that was assigned.

- In the Database Server section, enter the database server information of the SQL Server on the Master computer. Use the following format: *mastercomputername*\VPDB1
- Click OK when finished entering the information then click on **File** and then **Save**.

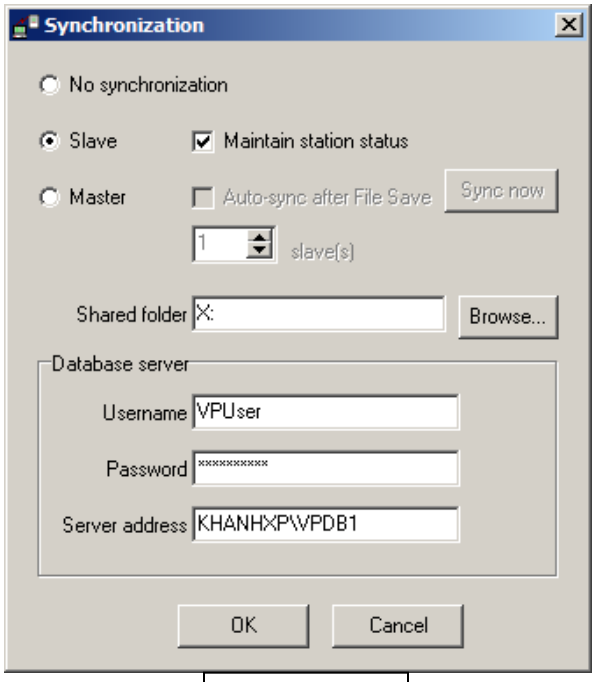


Figure 43

III. Testing the synchronization system:

1. Make some changes on the Master and start syncing.
   - If you use "Auto-sync after File Save", sync process will start automatically every time you save VisionPro configuration.
   - If not, you need to open Synchronization dialog box and click "Sync now" to start syncing.
2. You will see the following window as sync is in progress (Figure 44).

Figure 44

A successful sync will look like Figure 45:

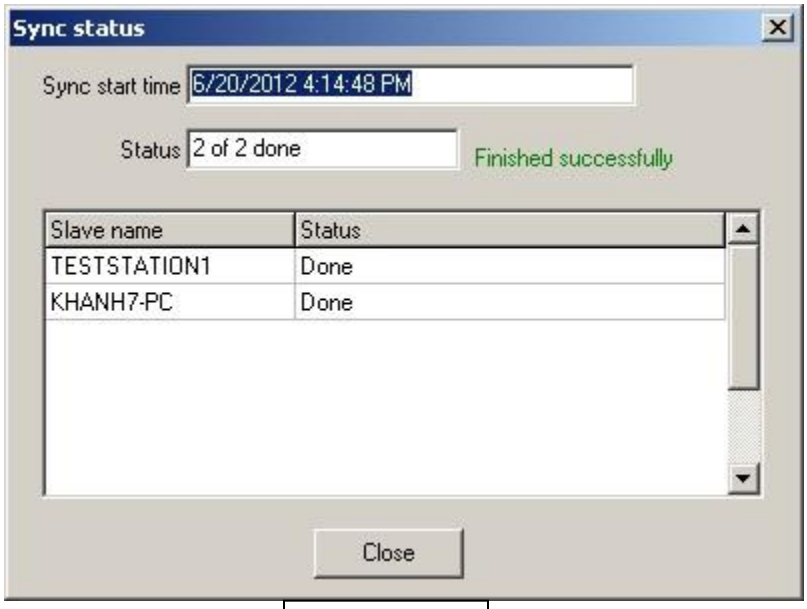


Figure 45

3. If there is any problem with accessing the shared folder, you will see a "File error" status (Figure 46). As this happens, the slave with the error will automatically perform a roll back. After the roll back, the slave will function normally as it did before syncing.
    - Check the network connections and try syncing again.
    - Check settings for the Master and Slave sync.

Figure 46

4. If there is any event (Calls, Low-batteries, Faults...) on a slave when sync starts, you will see a "Busy" status (Figure 47). In this case, you need to clear the event on the slave. Synchronization on a slave will resume quickly after all the events are cleared (Figure 48).
    - Clearing a fault may require VisionPro being closed and re-opened.

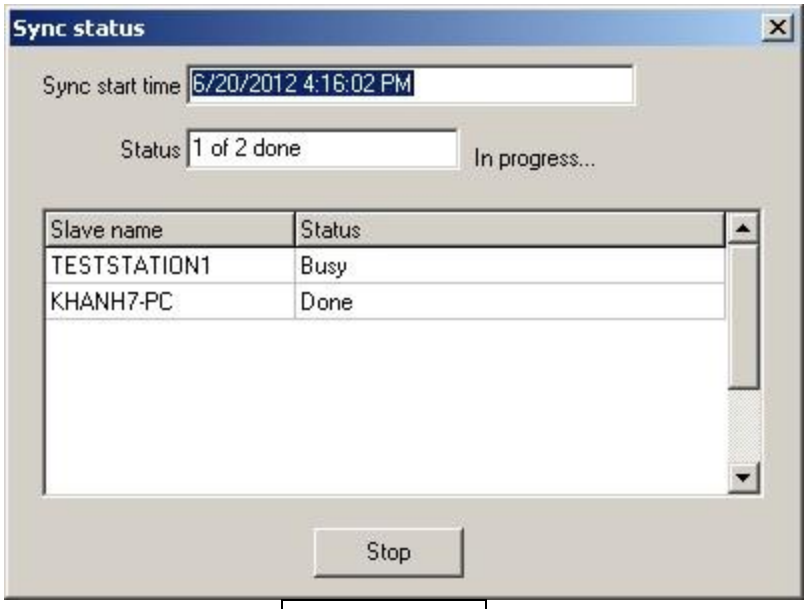


Figure 47

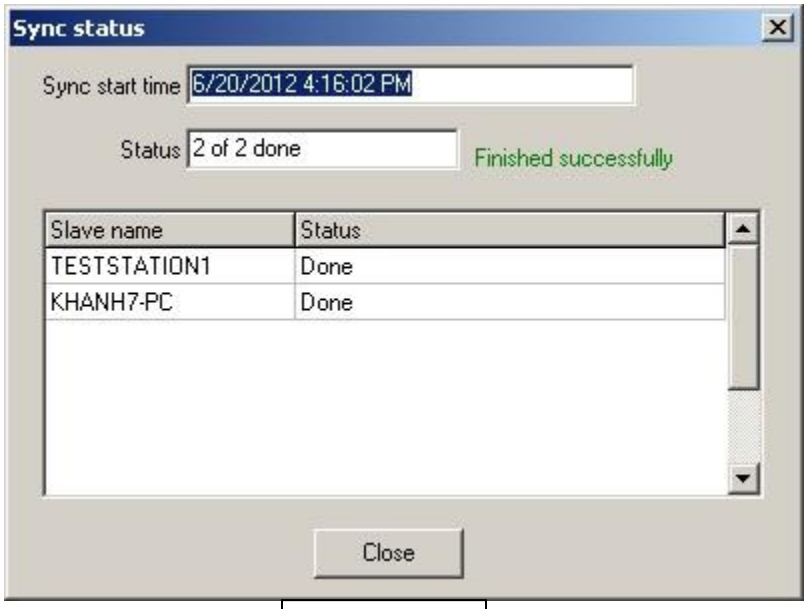
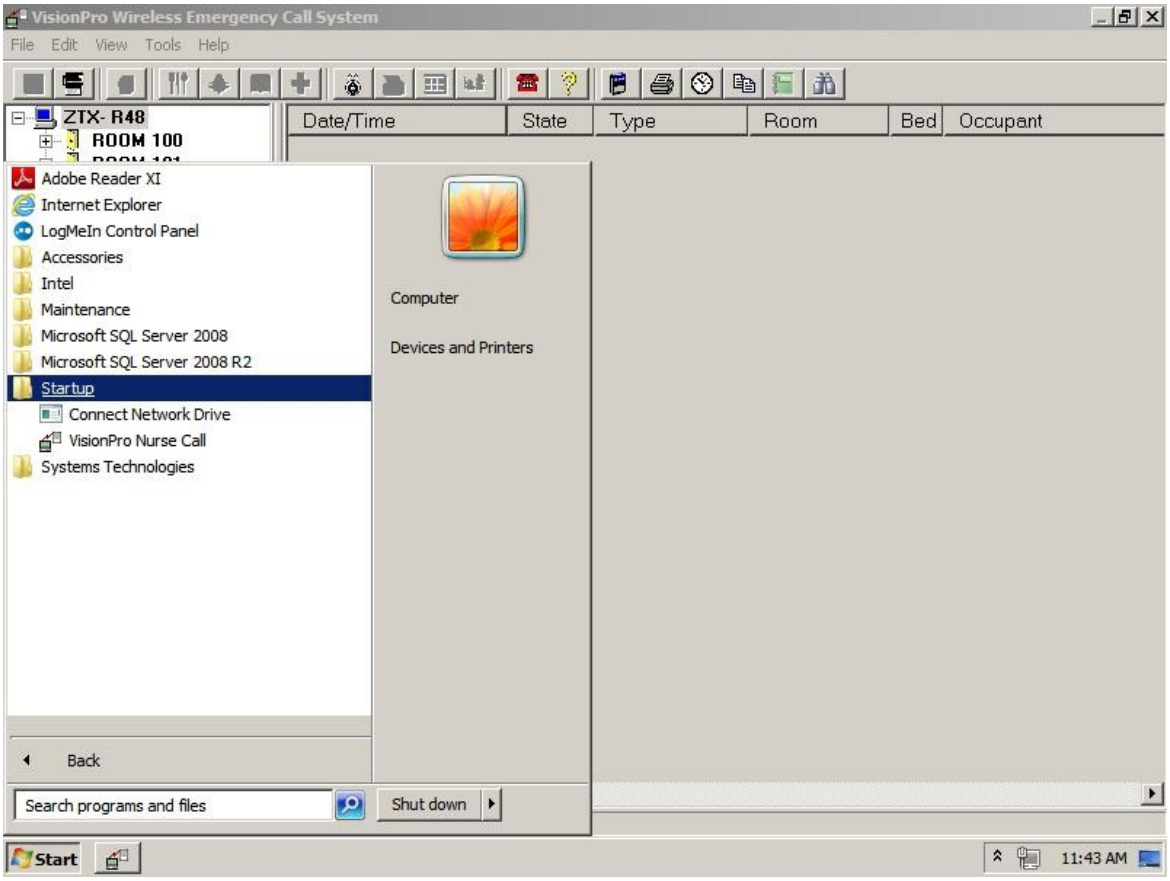


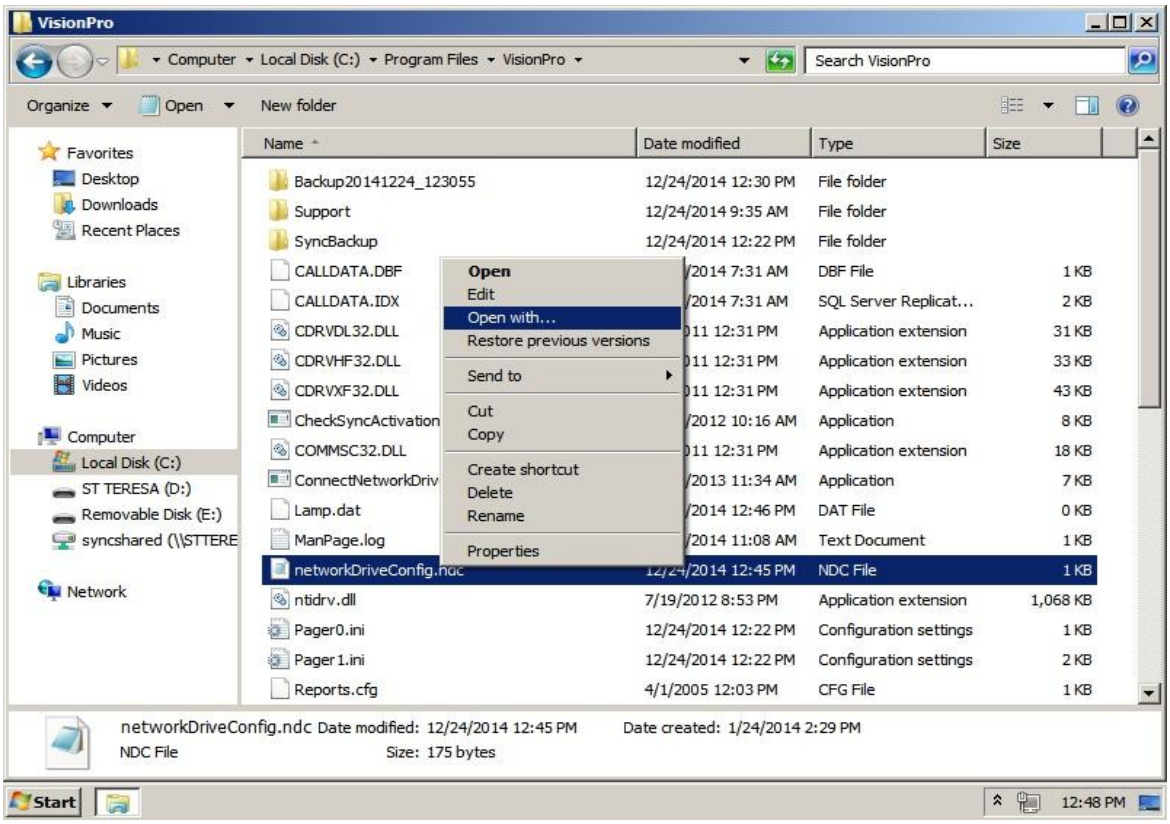
Figure 48

The “Connect Network Setup” program is used in conjunction with the Vision Pro Sync System. It is a utility that needs to be installed on each slave PC in the system. The latest version of VisionPro has the utility already installed on the PC before it leaves Systems Technologies. The Network drive that is mapped to the master sometimes does not connect from the slave upon initial start up. VisionPro starts automatically and preempts the “login upon reconnect” feature in Microsoft for the mapped network drive. This is one cause of the Sync not working causing an error to be displayed on the Master. If the slave PC has its VisionPro software shut down and restarted, then the sync will usually work.
This utility forces the VisionPro to wait for the network drive to connect first, then the VisionPro software starts and the drive is immediately available. The “Network Drive Config” file in the VisionPro program folder needs to be modified to point to the master for it to operate properly. If the PC is older and does not have the “Connect Network Setup” utility already in the VisionPro program file, then it will need to be installed by the customer. Use our Dropbox account and email the link to the utility to the customer for it to be installed. If it is installed properly then it will show up in the Start Menu\All Programs\Startup\ location above the VisionPro Nurse Call icon. This causes it to start before the VisionPro software and makes the drive available immediately

1) Verify that the “Connect Network Drive” utility is in the Startup menu above the VisionPro icon

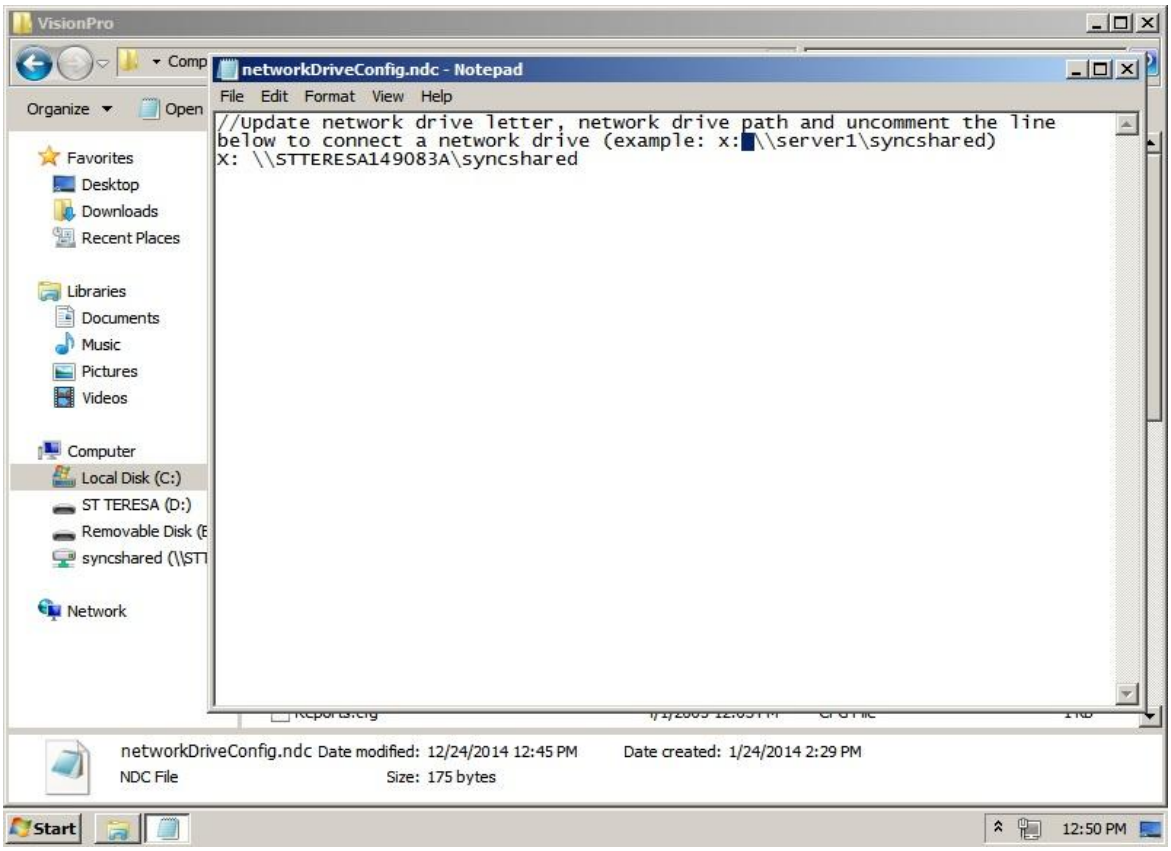


2) Navigate to the VisionPro program file folder (C:\Program Files\VisionPro\Networkdriveconfig.ndc) & hover the cursor over the file then “Right Click” to bring up the menu and select “Open with” & choose “Notepad”



3) Change the directory that the utility points to in the notepad document, then save the change. Be sure to place a space after X: before the two backslashes as indicated below in the picture (X: \\Master

Name\syncshared)



Statistical Call Analysis:

Statistical Call Analysis is a useful tool to quickly determine call activity for a transmitter. The report generated is called an SCA Report. Access this reporting tool by clicking on the double page icon as shown in the green circle below, (Figure 49).

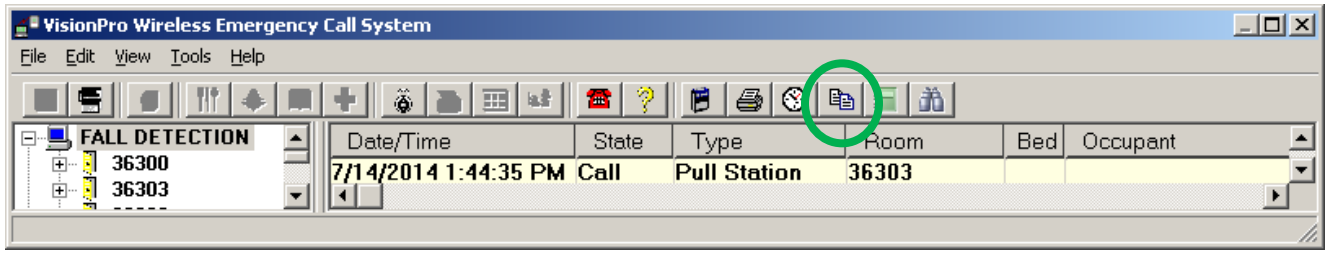


Figure 49

A password challenge is presented (Figure 50). The super secret password is scazeke. Then click OK.

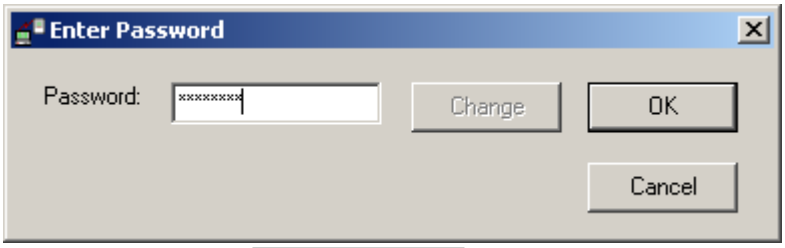


Figure 50

Any configured room can be selected. Any date range can be selected. The example transmitter below is on a trigger (Figure 51). As a result all times are the same. In real life the response times will vary from a few seconds to many minutes depending on staff action.

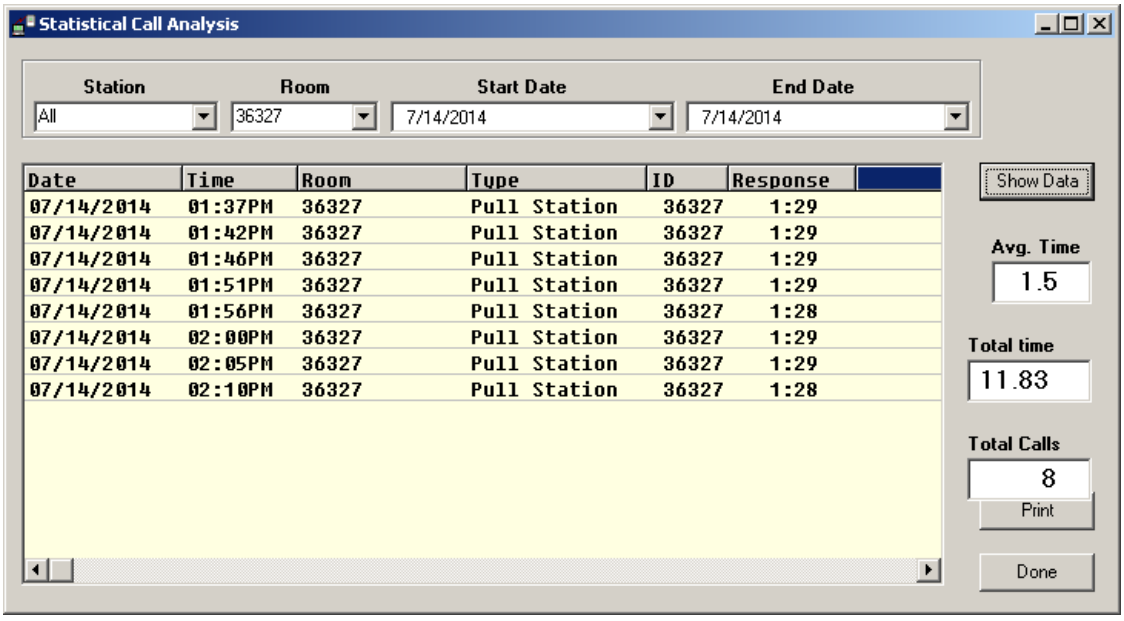


Figure 51

4 System Maintenance

Introduction: The following section provides a brief description as well as recommended preventive maintenance instructions. Also included is general information on user serviceable parts for your VL2500 system and accessories. Many of the parts listed below are optional and may not be included with your system. Optional parts are indicated with an * after the part number.

Part Number	Operation/Maintenance/Replacement Instructions
VL2500	The VL2500 VisionLink Video Display Console PC is the master station and includes a VL105 receiver, keyboard, mouse, UPS, VisionPro software and manual. The monitor is sold separately with built in speakers. All alarms are visually displayed at the console. Audible tone annunciation is provided through the speakers. Available verbal annunciation is also available through the speakers when two way radio is enabled. Peripheral devices such as the VL175 Dome Light Controller, VL182-WAV Paging Transmitter and the VL175-WD are also controlled by the VL2500 Console.
VL2500	The console should be placed in a dust free environment and on solid footing. Do not place console in an enclosure without air circulation. Console should be connected directly into the *Battery Backup* provided with your system. Suggested maintenance for the console should be on an annual schedule. During the first year of operation do not open the casing of the console as it has a "Warranty Void" sticker on it. If you have an extended warranty period, call Systems Technologies for instructions after 1 year to open the casing.
VL2500	**Do not open the console casing while computer is running**. After each year of operation, the inside of the computer console should be blown out using static free compressed air such as GC Electrics "Airjet". The console should be shut down before cleaning. You may use a damp rag to clean the outside of the console as needed including the keyboard & mouse.
VL105	**Do not position the receiver on or near any metal objects. Mounted on a wall at least 6' from the ground is recommended.** The VL105 receiver should be connected to COM 1 serial port on the back side of the computer using the provided cable. It is powered by an external transformer which should be connected to the Battery Back-up side of the UPS (included).
VL105	The VL105 receiver requires no general maintenance needs. If the receiver has a maintenance issue, it must be sent back to the factory for repair.
VL182	**Do not position paging transmitter on or near any metal objects. Mounted on a wall at least 6' from the ground is recommended.** The VL182 paging transmitter is connected to one of the comports on the VL2500 (generally COM 4) and will send pages when an alarm occurs on the VL2500.
VL182	The VL182 paging transmitter requires no general maintenance. **Do not operate the VL182 without the antenna attached as that can cause the transmitter to fail.**
VL175-WD *	The watchdog unit monitors the console for system failures. If the system stops communicating with this unit, an audible alarm will sound within 45 seconds. This unit connects to the console via the DB9 M-F serial cable provided. It has its own power supply (provided) which connects from a 120VAC outlet directly to the unit.

VL175 *	The dome light Control Unit/Power Supply is connected to the VL2500 console by the RS232 cable provided. The output of the control unit provides power to dome lights and zone lights. When a call is placed on the console, information is sent to the controller, then to the lights activating them. Resets are accomplished in the same manner to de-activate the light. Watchdog should be enabled which will monitor the system. If the program locks up or the computer fails, the watchdog sounds and audible alarm within 45 seconds of loss of communication.
VL175 *	The control unit provides four 24VDC outputs. The output short indicator will illuminate when there is a short in one or more of these outputs or upon applying power to the controller. Use the Reset Button on face of control unit after the short has been isolated and eliminated or after applying power to the unit. The fuse on the face of the control unit provides protection from surges through the 110VAC input to the unit.
VL175 *	**Do not open unit. If you have a problem with the Control Unit, call your dealer for technical support.** External fuse may be replaced by a 3AG 1amp Slo Blo inline fuse (unplug unit from AC input prior to removal of fuse). Call your dealer for any other replacement parts.
VL325-1 *	Dome/Zone Lights mount onto a two-gang mud ring or back box, usually over a resident door or onto the ceiling. Dome/Zone Lights flash a white light for emergency calls, ***and a*** steady white light for normal calls. Each device is required to be connected to the Controller/Power Supply via two conductor, twisted, 18AWG wire in parallel (connect red to red, black to black). To set an address on these devices, use the dipswitches on the backside near the bottom. Each of the 8 positions on the dipswitch represents a number. 1=1, 2=2, 3=4, 4=8, 5=16, 6=32, 7=64, 8=128. ID 10 is represented by dipswitch setting where 1=off (down), 2=on (up), 3=off, 4=on, 5=off, 6=off, 7=off, 8=off (the "on" switches total 10 when values added together).
VL325-1 *	Replacement light bulbs are Miniature Incandescent Base Bayonet T-3 1/4 28V (CM1829). Please call your dealer for any other replacement parts.
VL525-N & VL525-W or VL515-N & VL515-W *	Pendant devices are mobile devices. They are generally associated with a particular resident or caretaker and carried on their person. The VL525 or VL515 series pendant may be used as a latching device forcing the pendant to be reset at the pendant. It may also be used as a persistent alarm allowing a reset at the console. Each pendant has a red LED indicator that flashes when it is activated or reset.
VL525-N & VL525-W or VL515-N & VL515-W *	A pendant is low maintenance equipment that is fully supervised for low battery conditions and activity. After the LoBat fault appears there is about 3-4 weeks of battery life left. Any other fault that appears will require testing and programming verification.
VL525-N & VL525-W or VL515-N & VL515-W *	Use a CR2450 Lithium 3volt coin cell battery for the VL515 series or VL525-W pendants. The deeper VL525-N pendants use the thicker CR2477 batteries. Remove the old battery from the pendant and let the pendant sit for 1-3 minutes. Insert the new battery and turn over to verify that LED is blinking. Put pendant back together.
VL155-1 & VL155-2 *	The single and dual Bed Stations have an LED indicator which will illuminate when the station is activated. Two ways to activate the station are by pressing the call cord button or by removing the call cord from the station. Once activated, you may reset the call by pressing the black reset button below the LED indicator and holding for 3-5 seconds until the indicator goes out.
VL155-1 & VL155-2 *	The VL155-1 single Bed Station has a jack at the bottom of the faceplate and that corresponds to the ID on the transmitter. The VL155-2 dual Bed Station has two jacks, the jack at the bottom corresponds to the ID on the transmitter and the jack above it is programmed in using the transmitter ID plus 1.

Part Number	Operation/Maintenance/Replacement Instructions
VL155-1 & VL155-2 *	Each Bed Station requires two AA batteries which are supervised for a low battery condition and will show on the console at “Ext Bat”. The VL965 Universal Transmitter attached to the Bed Station is fully supervised for low battery and activity. General life span of the Lithium 3volt battery in the VL965 is about 3 years. Always be careful when removing a VL155 series station from an installed location. During installation of the Bed Station or battery replacement the AA batteries need to be installed on the main circuit board and then the top removed from the transmitter and the reset button on the inside pressed. The VL155 series bed station requires two AA batteries. Use a (VL604) CR123A 3volt lithium battery for the VL965 Universal Transmitter and after replacement of the battery always press the reset button on the transmitter.
VL160-EM, VL170-EM Series	Each VL160-EM or VL170-EM Series Emergency Pull Station has a 48" pull string for easy activation along with a slide switch. Activate by pulling the string until the slide moves down or manually moving the slide down. A red LED will begin blinking to indicate the station is in alarm. Reset by pushing the slide back up into the up position and the LED indicator light will stop blinking.
VL160-3, VL160-2 & VL160-4 & VL160-5 *	Each VL160 series Emergency Pull Station has a 48" pull string for easy activation along with a slide switch. Once activated, you may reset the call by returning the switch to the upper most position. The VL160-2 has an added LED indicator with a dual AA battery pack. The VL160-4 has an added “check-in” button for the resident check-in feature.
VL160-3, VL160-2, VL160-4, VL160-5, VL160-EM, VL170-EM Series	The VL965 Universal Transmitter attached to Emergency Pull Stations is fully supervised for low battery and activity. General life span of the Lithium 3volt battery is about 3 years. Always be careful when removing this unit from an installed location as the transmitter hangs by the wires. The EM series has the transmitter directly mounted to the back faceplate. Use a (VL604) CR123A 3volt Lithium battery for the VL965 Universal Transmitter and after replacement of the battery always press the reset button on the transmitter.
VL135	The VL135 Repeater is used in areas away from the main console to send signals from the wireless devices in those areas to the main console. The VL135 Repeater is supervised for function and the console can be programmed to monitor the function. A non-functioning repeater will show as a fault on the console screen.
VL135	The VL135 Repeater is powered by a 12VAC 20v power supply that is provided. The repeater requires a dedicated outlet. Weatherproof or Battery backup variations are available.

5 Troubleshooting

General

All cables should be connected before applying any power. Use the block diagram as a guide.

After all connections have been made, turn on the computer. If nothing happens, check to see that it does have power available (the outlet has power, surge suppressor is on, the UPS is on, etc.). After checking the power, if the computer still does not boot up, contact your dealer/support representative.

The system boots into Microsoft Windows 7 and should automatically open VisionPro upon boot up.

Faults

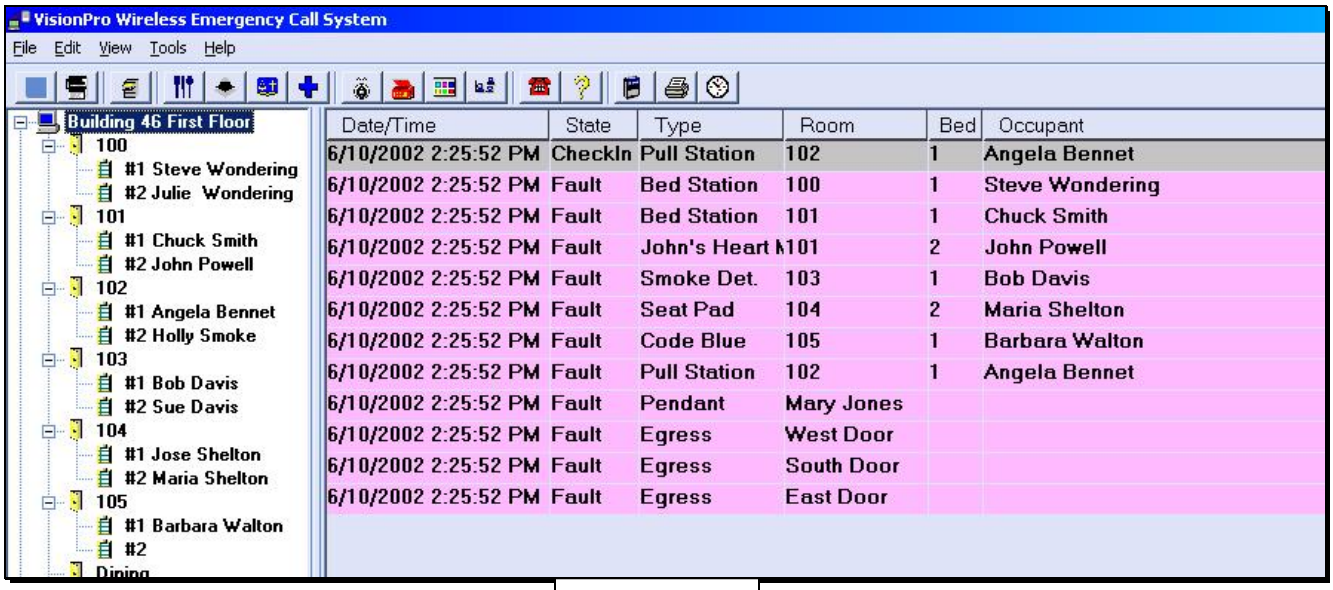


Figure 1

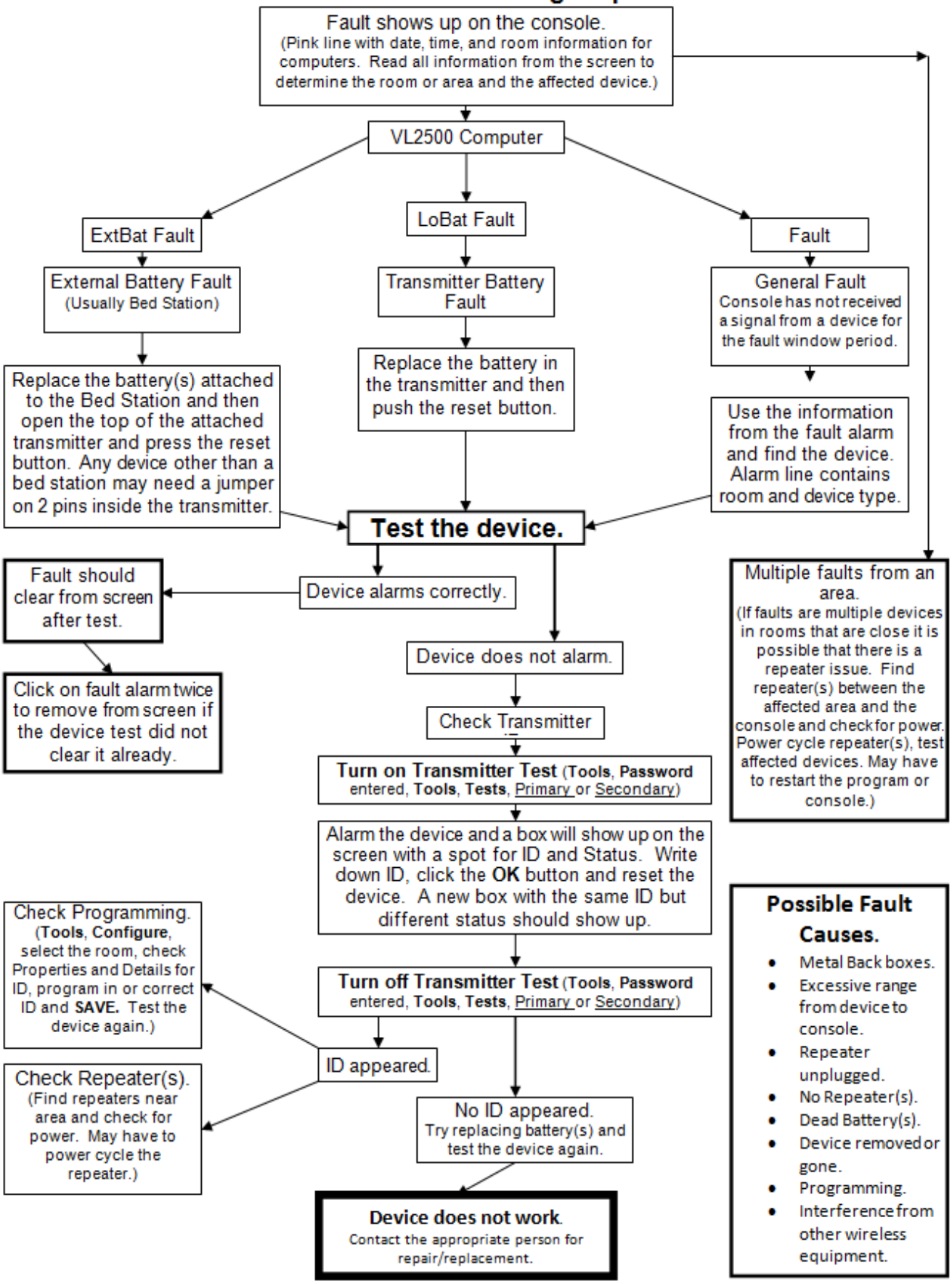
Faults will show up on the console screen if a device does not report to the VisionPro programming correctly for the duration of the Fault Window. When a fault appears on the console the line contains all of the information required for finding the device in the facility programming and sometimes even in the facility. All faults require the testing of the affected device and then the clearing of the fault itself by double clicking on the pink line on the screen. LoBat (Low Battery) faults may disappear after replacing the battery and testing the device.

Causes for Faults:

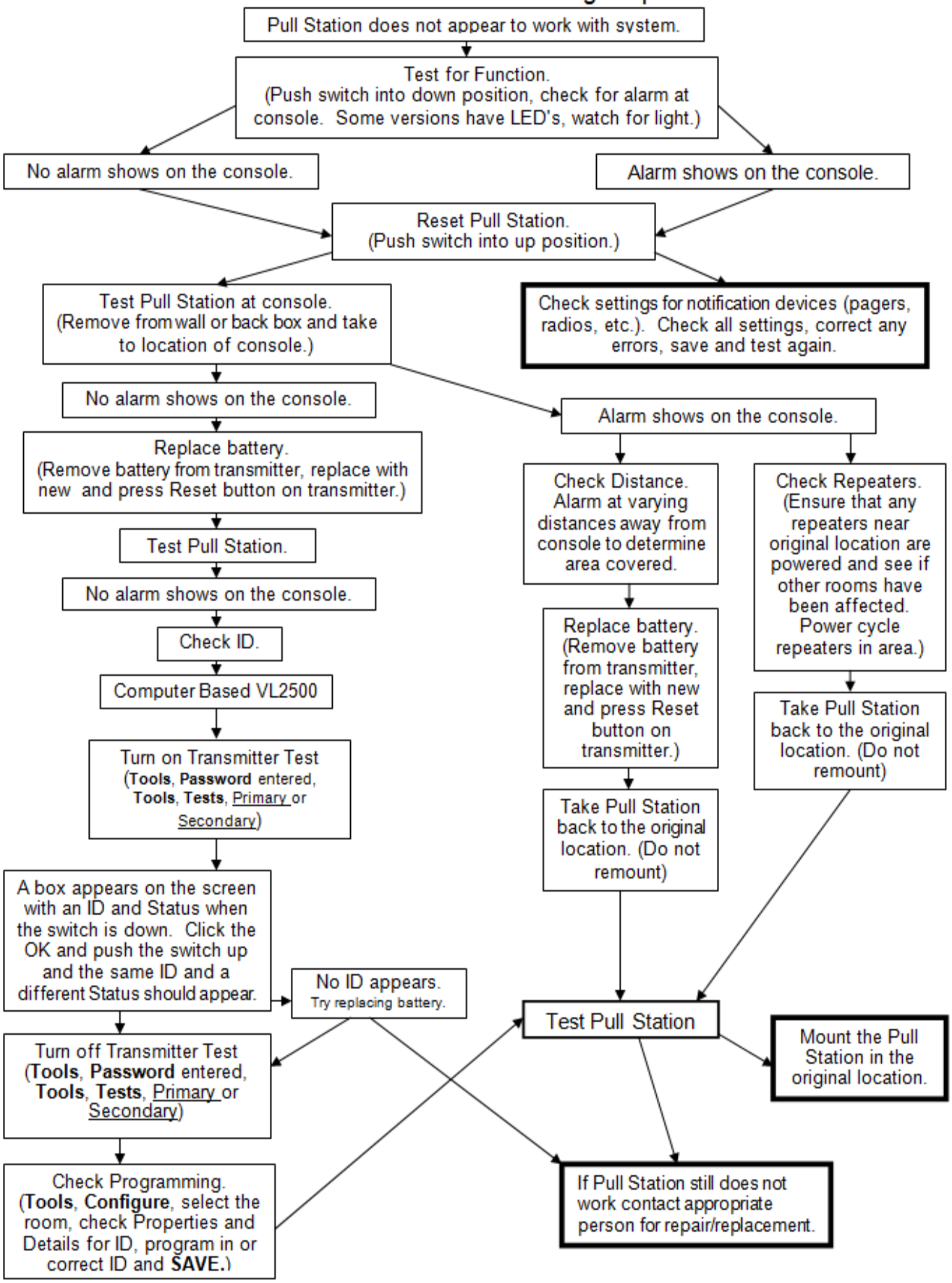
- Device programming may be incorrect - the ID of the device is programmed into the software incorrectly.
- The device may be too far away from the console or nearest repeater (pendants may be taken from facility on trips or emergencies).
- Battery in the device has failed or died. A LoBat fault will appear when a device reaches the low battery state and should give about 2 - 4 weeks before the battery is to depleted to power the device.
- A repeater for an area may be down (unplugged or turned off for some reason). Not all devices in the area of a down repeater may be affected as some device may be able to make it to another repeater or console.
- A device has failed. Devices can fail due to moisture, electrical surges, or other environmental factors.

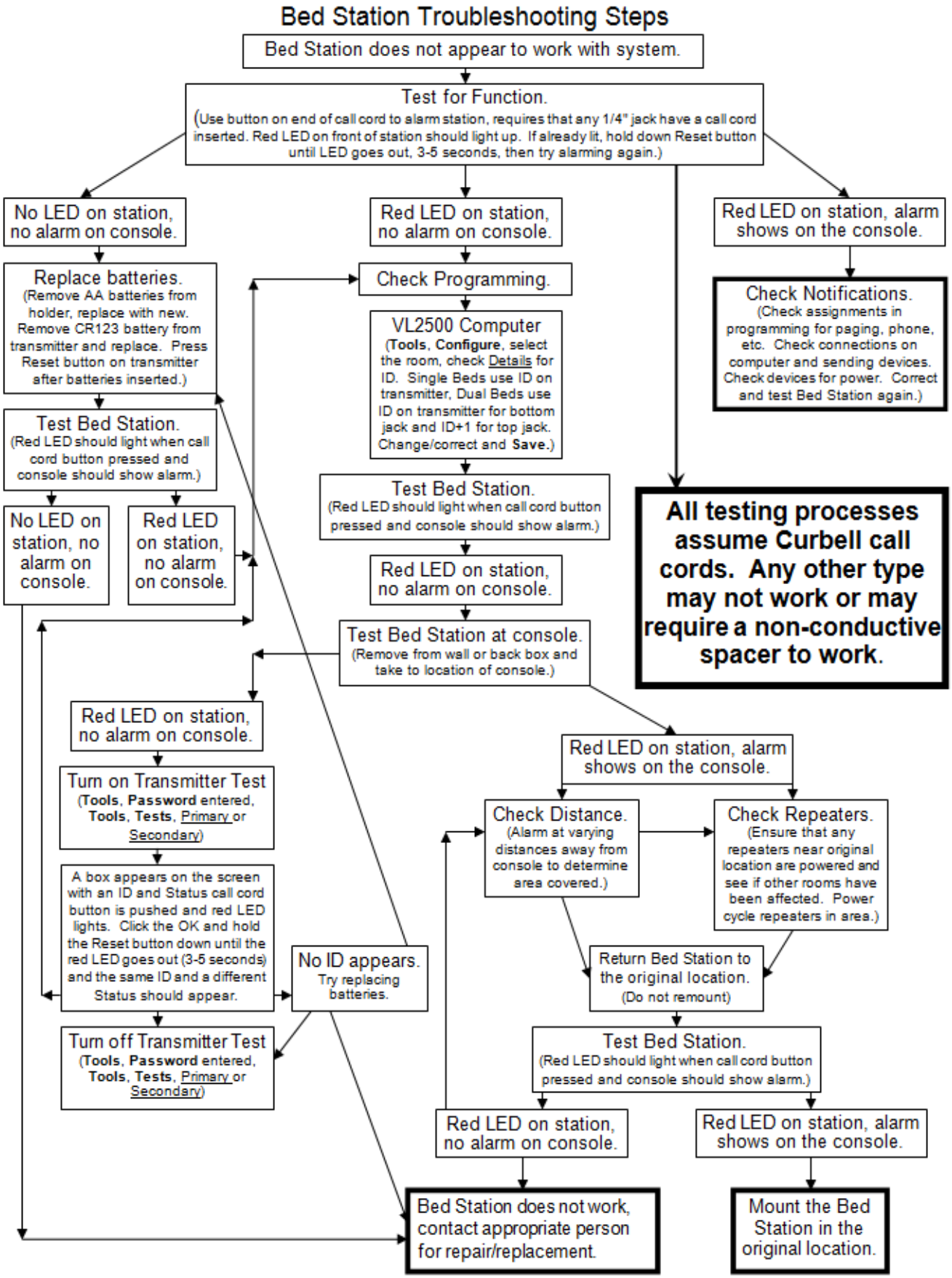
Flow charts for troubleshooting faults and various device types are on the following pages.

Fault Troubleshooting Steps

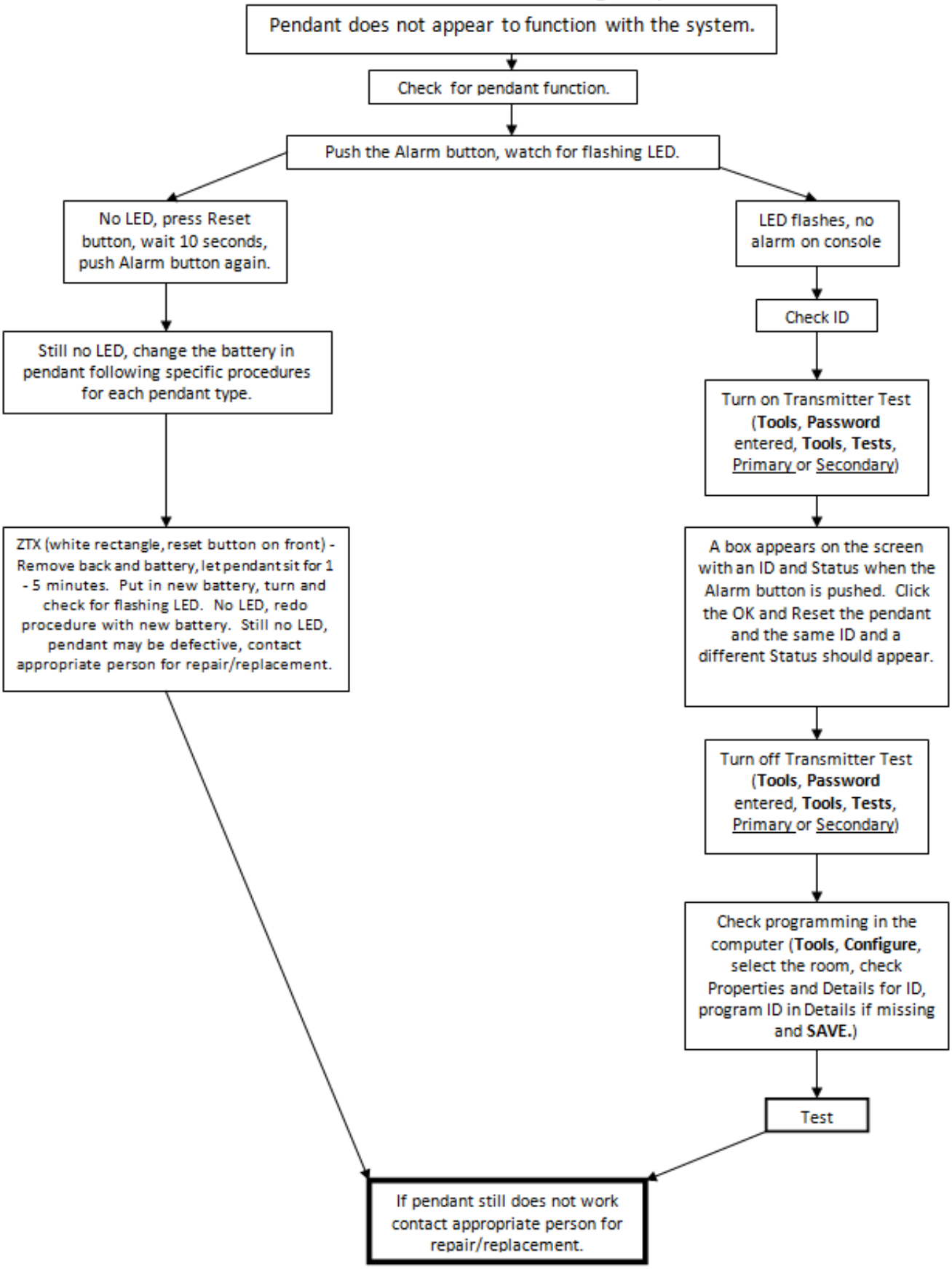


Pull Station Troubleshooting Steps




Bed Station Troubleshooting Steps
Bed Station does not appear to work with system.
Test for Function.
(Use button on end of call cord to alarm station, requires that any 1/4" jack have a call cord inserted. Red LED on front of station should light up. If already lit, hold down Reset button until LED goes out, 3-5 seconds, then try alarming again.)
No LED on station, no alarm on console.
Red LED on station, no alarm on console.
Red LED on station, alarm shows on the console.
Replace batteries.
(Remove AA batteries from holder, replace with new. Remove CR123 battery from transmitter and replace. Press Reset button on transmitter after batteries inserted.)
Check Programming.
Check Notifications.
(Check assignments in programming for paging, phone, etc. Check connections on computer and sending devices. Check devices for power. Correct and test Bed Station again.)
VL2500 Computer
(Tools, Configure, select the room, check Details for ID. Single Beds use ID on transmitter, Dual Beds use ID on transmitter for bottom jack and ID+1 for top jack. Change/correct and Save.)
Test Bed Station.
(Red LED should light when call cord button pressed and console should show alarm.)
All testing processes assume Curbell call cords. Any other type may not work or may require a non-conductive spacer to work.
No LED on station, no alarm on console.
Red LED on station, no alarm on console.
Red LED on station, no alarm on console.
Test Bed Station at console.
(Remove from wall or back box and take to location of console.)
Red LED on station, no alarm on console.
Red LED on station, alarm shows on the console.
Turn on Transmitter Test
(Tools, Password entered, Tools, Tests, Primary or Secondary)
Check Distance.
(Alarm at varying distances away from console to determine area covered.)
Check Repeaters.
(Ensure that any repeaters near original location are powered and see if other rooms have been affected. Power cycle repeaters in area.)
A box appears on the screen with an ID and Status call cord button is pushed and red LED lights. Click the OK and hold the Reset button down until the red LED goes out (3-5 seconds) and the same ID and a different Status should appear.
No ID appears.
Try replacing batteries.
Return Bed Station to the original location.
(Do not remount)
Turn off Transmitter Test
(Tools, Password entered, Tools, Tests, Primary or Secondary)
Test Bed Station.
(Red LED should light when call cord button pressed and console should show alarm.)
Red LED on station, no alarm on console.
Red LED on station, alarm shows on the console.
Bed Station does not work, contact appropriate person for repair/replacement.
Mount the Bed Station in the original location.

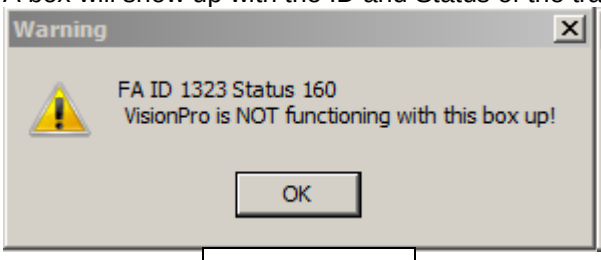
Pendant Troubleshooting Steps



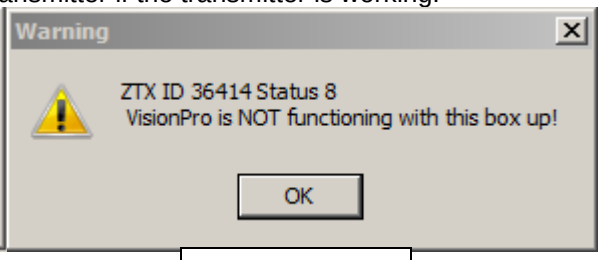
No response from a device (transmitter)

Ensure the device ID has been entered into the system program correctly using Transmitter Test.

- Click on **Tools** and click on **Password** and enter the password if the options in the Tools drop down are all gray.
- Click on **Tools** and go to the bottom of the list to **Tests**.
- Select one of the tests to set the system to Test mode.
    - Primary Transmitter Test - Used for ZTX transmitters or pendants (white cases)
    - Secondary Transmitter Test - Used for FA transmitters or pendants (tan cases)
    - Dome Light Test - Used to test the communication between the console, dome light controller and dome lights
- Alarm the device.
- A box will show up with the ID and Status of the transmitter if the transmitter is working.



FA transmitter



ZTX transmitter

- Click the **OK** button and if the transmitter is programmed into the system the alarm for the transmitter will appear. If no alarm appears then the transmitter is not programmed into the system.
- Reset the device and the same box will show up with a different status number. Click the **OK** button and then go back to Tools and Tests and click on the test that has the check mark next to it.
- Be sure that Transmitter Test has been turned off as it will affect the operation of the system (no alarms will show up until the OK buttons have pressed).

Transmitter not being received

- Do a transmitter test
- Check Com port settings
- Physically check com port
- ZTX transmitters use the last ID (alarm 3) for Check-In. If this is enabled it will disable the use of this ID for anything but check-In.
- ZTX = 5 digit address for transmitters, 1 to 4 digit address for pendants

Low Battery Alert

- This is initiated when the transmitter battery is at 2.1 volts, a correct voltage must be measured with the battery in circuit and the transmitter transmitting

- This will be transmitted with the supervisory signal every 60 minutes

Radio Paging not functional

If pages are not being sent when alarms appear on the console then some tests need to be performed.

- Check if it is one pager or all pagers that are affected, could just be a single pager with an issue.
- Check the paging transmitter for power lights. If no lights appear on the transmitter then find the power supply and plug back in.
- Check the cables between the console and the paging transmitter. There should be a serial cable that attaches to a comport on the back of the computer (usually Com 4) and the paging transmitter. If there is not then find and reattach the cable.
- Perform a manual page with the software.
    - Click on the "Send a Radio Page" Button,  .

    - Type in a message like "Test pagers".
    - Click on the paging group that is to be tested from the pagers list under the text box.
    - Click on Send.
    - Repeat for any other paging groups that need to be tested.
- If the paging transmitter has power, is connected to the console and the manual page function works but the system still will not page when an alarm appears then the room assignments for the programming will need to be checked.
    - Click on **Tools** and click on **Radio Paging** (Password may have to be entered first).
    - Check the Paging Assignments by looking through the Stations and the Pagers.
    - Anything on the right hand side under the Pagers box should be paging if an alarm appears on the console. Anything on the left hand side will not page when an alarm occurs.
    - Use the arrows between the columns to assign or un-assign the rooms to the paging groups desired.
    - Click on the **OK** button and then click on File and Save to save any changes.
    - Close VisionPro and then re-open and test some device again.
- Check the Devices that have been created in **Tools**, **Configure**, and the **Devices** button. Certain priorities do not send pages when used.
- Only Calls, Cancels and Bed Turns will page.
- Any rooms that need to be paged out should be assigned in paging room assignments for the first level pages and the escalation pages, Administrator level does not require the rooms to be assigned but requires that the desired paging groups be assigned.
- Check the Data Format setting in **Tools**, **Radio Paging** and make sure that they are set correctly for the paging transmitter being used (most common setting are 9600 baud, 8 N 1, and Comp 2).

Dome Light Controller Output Short Indicator Light is on

The short indicator light may illuminate when the unit is first powered up. It will also illuminate when there is a short condition in the output. While lit, no Dome/Zone lights will operate. Pressing the reset button will reset the controller but if the short still exists, the indicator will illuminate again.

- To ***confirm*** a short ***exists***, unplug the controller from the 120VAC outlet.
- Next, use an Ohm meter and check for continuity between the positive and negative wires on each run.
- There should be approximately 120k divided by the number of dome lights on each run. Example: If you have 6 dome lights on a run, the line impedance should read approximately 20k ohm.

Dome lights not working

Be sure the cable from the VL175 is connected to the correct port on the computer, that the unit is plugged in, and the dome lights are wired correctly (red to red, black to black). Perform the corridor light self-test described in Chapter 2 (address 0).

- Lights should blink if there is 24 VDC available from the power supply. ***If they do not blink, check for 24VDC at the light itself. If there is 24VDC at the light, but it does not flash, then the light is bad.***
- Next, initiate the Dome Light Test in the software (also described in Chapter 2) and set the dome light to address 255 (all 1's). ***The light should blink. If it does not blink, but did so when set to all off (first test), then there may be a communication problem between the console and the controller. Replace the DB9 M-F serial cable between the console and the controller, ensuring that it is plugged into the COM 3 port on the console.***
- ***If both tests above worked correctly,*** ensure the correct Dome Light address is entered into the room and the dip switches on the dome light ***are correctly positioned for this*** room. In addition, pushing the reset button on the dome light controller may be required to unlatch any devices that are locked up.
- If still not working, there are 4 pairs of outputs in the power supply (VL175). If all pairs are not in use, connect the wires to another pair.
- If a Dome Light is programmed with the same address as a Zone or Duty station, it could cause the lights to lock up, blink only once or not function at all.
- All Zones and Duty stations must have ***different addresses than room lights***. All addresses used are logged in a text file named *lamp.dat* in the VisionPro directory. This file can be opened in notepad.

System not responding

System lock-up can be caused by a number of factors.

- Lock up may be caused by static electricity or a power surge.
- ***Heat may also be a cause if the console is confined within a cabinet or closet.***
- If the system is not responding, always try to shut the system down correctly by first ***exiting*** the program ***then close Windows 7. If the computer does not allow this, then push and hold the on/off button on the tower until power is off.*** Leave the computer off for 60 seconds before restarting.
- Upgrading the VisionPro can also cause a change in the paging format, the correct settings are needed to prevent the freeze up.
- If the system has dome lights and paging, also turn off the Dome Light Power Supply and Paging Transmitter.

Contact your dealer/support representative if the problem continues to occur or if you need ***further*** assistance.

Device continues to report low battery even after a new battery is installed

After installing a new battery, the reset button inside the transmitter case must be pressed before the low battery alarm from the transmitter will clear. If that has been performed and the battery is above 2.1 VDC, then the transmitter may need to be replaced. Low battery alarms do not show up on transmitter test unless an alarm call is sent simultaneously.

6 FAQ's

1. *How many devices can VisionPro support?*
   It can support 65,536 transmitters, one paging transmitter, and any number of pagers on the same frequency. Each Dome Light Power Supply can support 100 dome lights.

2. *How do I find which device ID numbers are already in use on an existing system?*
   In the Vision Pro directory, the xmit.dat file lists transmitter ID's and room names or numbers. The lamp.dat file lists dome light ID's and room names or numbers. These are text files and can be opened with any text editor (Notepad, Wordpad, Word, etc.). **Do not change these files.**

3. *What is the name of the file that keeps track of all the calls?*
   In the VisionPro directory there is a text file called VisPro.log that records all calls and can be opened by double clicking on the desktop icon.

4. *What is the minimum recommended screen resolution for VisionPro?*
   800x600 is the recommended resolution although there is no maximum. Higher resolutions may make some of the programming boxes open up at random sizes. If you set resolution to 640x480, the text in the right pane will not display calls when the program is opened until the vertical divider window is moved. VisionPro was not designed to run at that low of a resolution.

5. *What happens when the dome lights receive more than one alarm?*
   Dome lights will always display the highest priority alarm. If a bed station alarm is sent (steady on) and then an emergency pull station for that room is sent, it will change from a steady on condition to blinking (emergency). If only the emergency is reset (cleared) it will return to steady on, until the bed station is reset or cleared.

6. *Why can't I assign a room to a Zone or Duty station?*
   In order for Zone and Duty stations to respond to a room, that room must have a dome light ID in use. This does not necessarily have to be a real dome light, just an ID. You cannot assign transmitters to Zones or Duty stations. In other words, Zones and Duty stations are "collections" of dome lights.

7. *I lost the system password. Is there any way to get into the system to make program changes?*
   Yes. Contact your dealer.

7 Warranty Information

Systems Technologies Warranty Policy

Please refer to the Warranty and Disclaimer section at the end of the next page for complete information. In general, Systems Technologies will guarantee all VisionPro, MicroVision and VisionLink hardware for a period of one year beginning on the date the system is shipped. System software, pocket pagers, bed pads, and call cords are warranted for a period of 90 days beginning on the date shipped. The warranty guarantees that the system will be free of defects in parts and workmanship. Systems Technologies agrees to correct any defect found, twenty-four hours a day, and seven days a week. If warranty service is performed outside of normal business hours (8:00 AM to 5:00 PM, Monday through Friday, Pacific Standard Time), a service charge will be applied that is 50% of the prevailing non-warranty service rate. Service performed outside the warranty window will be billed at the prevailing rate.

Warranty Products Return Policy (AR)

Systems Technologies will authorize the return of a product only under the conditions of the warranty policy. No product may be returned after 30 days. When it is necessary to return goods to Systems Technologies, the purchaser must call the Systems Technologies Service Department (208-762-6800) for an Advanced Replacement (AR) number. Systems Technologies will verify the validity of the warranty claim and issue an AR number to the purchaser. If a replacement product is shipped, the purchaser will be invoiced at customer's established pricing. Appropriate credits will be made only after receipt of the returned product with a valid AR number. The purchaser should have the following information BEFORE placing the call:

- Company Name
- Product Model
- Serial Number
- Specific Nature of the Problem
- Diagnostic Procedures completed
- Facility Name and Telephone Number of End User

RMA numbers are valid for 10 business days only. AR numbers must be prominently displayed on the shipping label of all boxes containing returned goods. Systems Technologies expects all returned goods to be shipped freight prepaid. Any equipment that arrives at Systems Technologies without the preceding information will be returned. If a product is sent in as defective and upon inspection proves to be non-defective, a testing and handling fee will be assessed and the unit will be returned. All repaired or exchanged units under warranty will be shipped, freight prepaid, to the purchaser. The warranty does not cover physical damage incurred in shipping. In such cases, the purchaser is responsible for processing all freight claims.

All returns are subject to a 20% restocking fee.

Products by other manufactures that are sold through Systems Technologies are subject to the return policies of the original manufacturer. Systems Technologies will charge a 20% restocking fee beyond any fees that may be levied by the manufacturer of the product. Systems Technologies will not accept for return any products that were specially manufactured for the customer by Systems Technologies or any other outside manufacturer.

Non-warranty Products Return Policy

All non-warranty repairs are billed on a time and material basis. Applicable rates may be obtained from a Systems Technologies Customer Service Representative. All billable repairs will be returned COD unless prior credit has been established.

Failure to Return Product

Should Systems Technologies not receive the replaced product within 30 days of issuance of the AR, payment is due on the replacement product. Should a credit be granted after the 30-day period, a processing fee will be assessed and a new RMA number will be assigned.

Warranty & Disclaimer

Systems Technologies, Inc. ("Systems Technologies") warrants its products ("Product" or "Products") to conform to its own specifications and to be free of defects in materials and workmanship under normal use for a period of twelve (12) months from the date of manufacture. Within the warranty period Systems Technologies will repair or replace, at its option, all or any part of the warranted products. Systems Technologies will not be responsible for dismantling and/or reinstallation charges. To exercise the warranty, the User ("User", "Installer" or "Consumer" must be given a Return Material Authorization ("RMA") Number by Systems Technologies. Details of shipment will be arranged at that time.

This warranty does not apply in cases of improper installation, misuse, failure to follow installation and operating instructions, alteration, abuse, accident or tampering, and repair by anyone other than Systems Technologies.

This warranty is exclusive and expressly in lieu of all other warranties, obligations or liabilities, whether written, oral, express, or implied, including any warranty of merchantability or fitness for a particular purpose. Systems Technologies will not be liable to anyone for any consequential or incidental damages for breach of this warranty or any other warranties.

This warranty shall not be modified, varied or extended. Systems Technologies does not authorize any person to act on its behalf to modify, vary or extend this warranty. This warranty will apply to Systems Technologies products only. All other products, accessories or attachments used in conjunction with Systems Technologies equipment, including batteries, will be covered solely by their own warranty, if any. Systems Technologies will not be liable for any direct, incidental or consequential damage or loss whatsoever, caused by the malfunction of Products due to products, accessories, or attachments of other manufacturers, including batteries, used in conjunction with Systems Technologies Products. This warranty does not warrant the replacement of batteries that are used to power Systems Technologies Products.

The User recognized that a properly installed and maintained emergency call system might only reduce the risk of events such as personal injury, robbery, burglary or fire. It does not insure or guarantee that there will be no death, personal damage and/or damage to property as a result. Systems Technologies does not claim that the Product may not be compromised and/or circumvented, or that the Product will prevent any death, personal and/or bodily injury and/or damage to property resulting from burglary, robbery, fire or otherwise, or that the Product will in all cases provide adequate warning or protection.

Systems Technologies shall have no liability for any death, injury or damage, however incurred, based on a claim that Systems Technologies Products failed to function. However, if Systems Technologies is held liable, directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, Systems Technologies' maximum liability will not in any case exceed the purchase price of the Product, which will be fixed as liquidated damages and not as a penalty, and will be the complete and exclusive remedy against Systems Technologies.

►**Warning:** The User should follow all installation, operation and maintenance instructions. The User is strongly advised to conduct Product and systems tests at least once each week. Changes in environmental conditions, electric or electronic disruptions and tampering may cause the Product to not perform as expected.

►**Warning:** Systems Technologies warrants its Product to the User. The User is responsible for exercising all due prudence and taking necessary precautions for the safety and protection of lives and property wherever Systems Technologies products are installed.

APPENDIX B Back Box Recommendations

Back Box and Mounting Bracket Recommendations for Wireless Stations and Dome Lights

	New Construction		Old Construction		Surface Mount	
	Mfgr.	Cat#	Mfgr.	Cat#	Mfgr.	Cat#
Pull Stations and Push Button Stations: VL160-X, VL150, VL170,VL971	Carlon	A52171(D),(E),(DE) **w/ A410**	Carlon	B120R	Leviton	42777-1-WA
	Carlon	B122A, BH122A	SmartBox Inc. *(See Note)	32EB	Wiremold	2348
	Carlon	RN-23				
			Caddy	MPLS		
			Carlon	100RB		
Bed Stations: VL155-X	Carlon	A52171(D),(E),(DE) **w/A410**	Smartbox Inc. *(See Note)	32EB	Wiremold	2344
			Caddy	MPLS (Slight modification required)		
Dome Lights and Zone Lights: VL325 series	Raco	232 **w/791**	Carlon	B225R	Wiremold	V5747-2
	Union	SN236			Wiremold	NM2048-2

*Note: When using the SmartBox #32EB it also requires the Systems Technologies part # 2-GEB/SGV faceplate.