

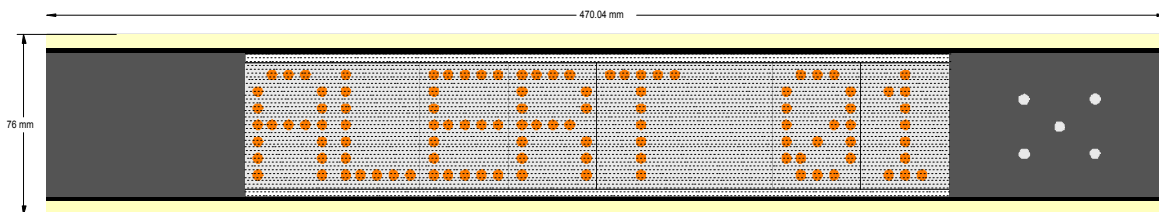
HV800 Multi Colour Digital Display Device



Connecting to ScanAlert Nurse Call System

The HV800 dot matrix display is scalable from a 4-digit character block up to a 32 character unit and offers the following: -

- Chime dependant on alarm level
- Power obtained from the ScanAlert Bus
- 3x Colour notification
- 6x Zoning Levels selected to individual call point
- Night and Day Mode Chime Volume
- Upload from Tracker 1 Database allowing file save for display
- Swivel Mount



Below documentation using the following version numbers for ScanAlert operation.

IC4 at version DRV_B1.asm on Driver Board

U1 at version BLKX_B1.asm on Matrix Block Board. (X being the address per block)

U1 at version Chime_B1.asm on Chime Board

Description

By selecting the above firmware the HV800 display is designed to operate with ScanAlert Buss Technology as used in the Alert Call System product line. The unit can also be programmed to operate via a serial connection or via wireless for other applications. Each character block is under the control of the front-end driver board with all data being passed in serial to each block and attached modules. E.g. the HV800/8 is supplied with 8 character blocks and one chime board for audible notification. Up to 250 Call Points can be attached to the display and each call can have colour, zoning and sound assigned to that point

Three colours can be used to depict priority

When compiling the display information within AlertTracker version 1.903.1 or later software, the user has the ability to assign; RED – GREEN – AMBER to each individual call point. This allows calls to be categorised as RED for urgent, AMBER for assist, and GREEN for a standard call.

Three unique chime tones following priority of call

The chime that accompanies the call will change with the colour used. These being a slow repeating chime for a GREEN normal call through to an urgent repeating chime for a RED urgent call. A gentle repeat chime is used if the call has been in operation for some time, as a reminder that the call needs attention.

Night / Day mode operation

The chime can have a remote control assigned to it to allow switching between Night and Day modes of operation. As quiet time approaches, the operator can switch all or selected displays to a lower volume. This will remain at a lower volume until either the operator activated Day Mode, or 6 hours has passed. The automatic increase in volume is 6 hours after the Night Mode command is given.

Six Zone Levels

Prior to uploading to the display, the Programming Technician assigns the zone or multiple of zones the display will use. The programmer will then work through the database being used by the display, and assign the operating zones tied to each user description.

Changes in call description are uploaded via serial bus from a computer

By using Alert Tracker Software any changes to the individual entries or descriptions can easily be uploaded to the display and upon completion of upload, the display can be instantly placed back on line causing minimal disruption for the user. Alert Tracker also has the advantage of providing safe backup for the display. The uploaded information will remain in EEPROM even if power is removed. If off site uploading is preferred option, the EEPROM can be loaded via another display that may be located on the Technicians bench. Once uploaded, the EEPROM can be swapped between display units. Please ensure all power is removed when plugging and unplugging IC's.

Low power consumption

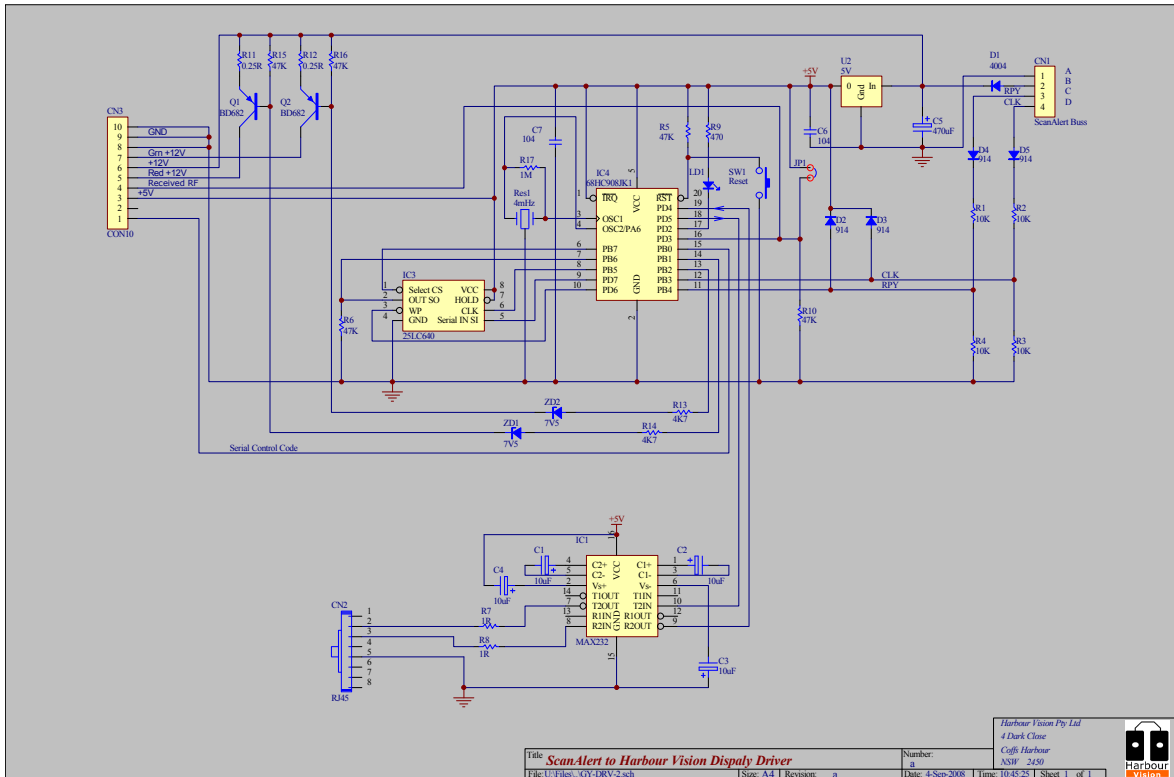
The display can operate from a 12V / 2Amp DC power pack drawing an average of 1Amp for an 8 character display. Alternately, the unit will be powered directly from the ScanAlert buss.

This allows safe and easy connection to the existing ScanAlert Buss.

Flexibility in the number of characters blocks used for complex messages

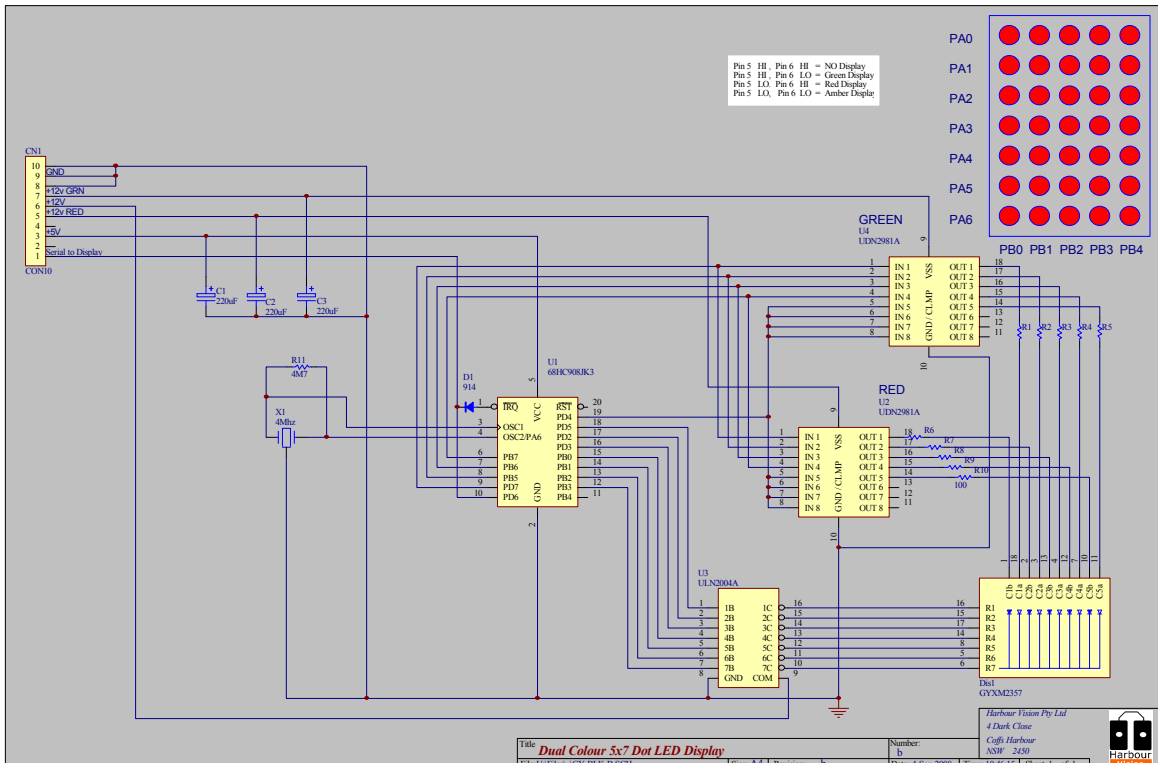
Each individual character has its own character generator chip assigned to it with a 10 wire buss interconnecting each module. This allows for greatest flexibility from 4 characters through to a maximum single line capacity of 32 characters.

Below documentation – Schematics showing Driver, Display and Chime Circuitry.

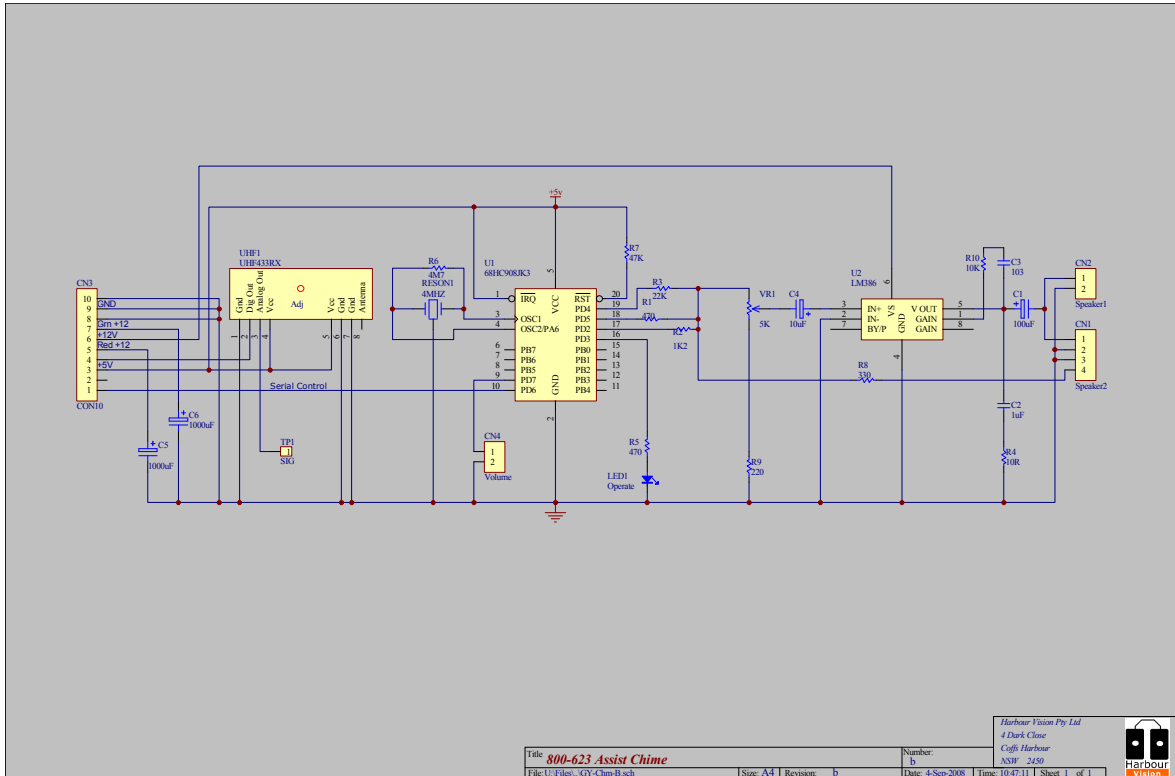


JP1 will alternate the green and red display. This is selected to suit the display block being used.

Operating the reset switch will start the display boot sequence if testing display blocks, or before commencing upload.



Chime Circuitry



Note:

Adjusting the volume pot VR1 will adjust the overall volume of Day and Night Mode operation. i.e. and increase in volume while in Day Mode, will result in the same increase in Night Mode.

The LED will light, when a refresh of data is sent to the chime board.

CN4 is configurable to allow changes in operating mode along with firmware changes. CN4 is not operational for version Chime-B1.

- Terminals**
- A – System Ground**
 - B – System Positive +13.8v**
 - C – System reply (active high)**
 - D – System Clock**

Overall Dimension for an 8 Character Display

470L x 76H x 33D mm



Display Upload Instructions and Information



The upload to the HV800 type display requires AlertTracker 1 Version 1.903.1 or later and a serial cable with wiring as described in the schematic diagram HV800 – Driver Board. Using the Tracker 1 instruction manual, configure the display data in the database, ensuring that each call point description does not exceed the number of character blocks allocated to the display you are uploading. If you are using an unlicensed version of Tracker Software, then enter “ Trial “ mode when booting Alert Tracker. This will give you all the resources required to programme and configure the database.

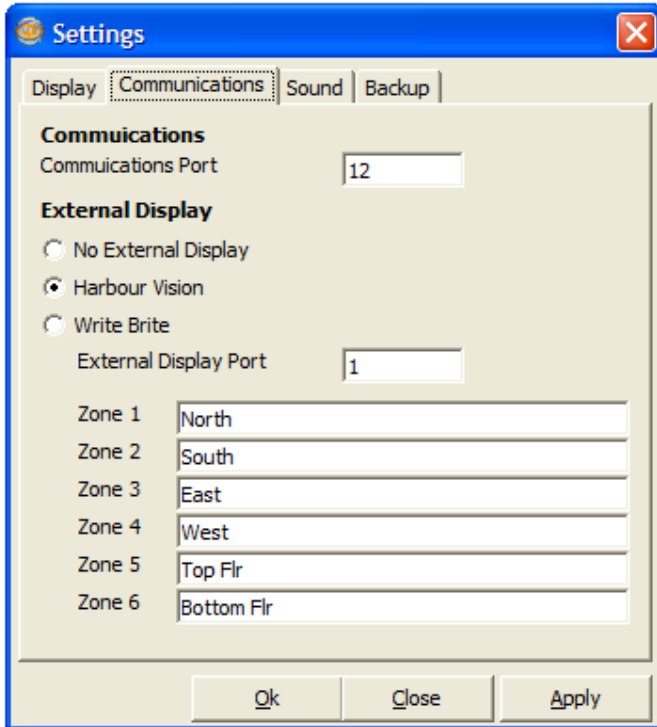
Connect the computer to the display and navigate to the HV upload tab. Assign the appropriate zone or zones for this current display. The display will respond to any incoming calls that match its own zone. Power cycle the display by operating the RESET button on the Driver PCB, and wait for the display instruction “UPLOAD?” At this time click on the upload tab in the software, and if there is successful connection, the display will acknowledge the upload connection by changing to red colour with the information “ **LOADING!** ”.

NOTE: There is no handshaking with this communication, if there is no successful communication between units, then the display will fall through to operate mode.

Once uploading commences the AlertTracker 1 software will indicate by bar graph the progress of the upload. If the upload is cancelled, the data entered up to the point of cancellation will reside within the display. At the completion of the upload, a short tone will be heard from the display and a RED dot will remain in the bottom right corner of the display. Is an indication that a display re-boot is now required.

Upon re-boot (once again using the RESET button) the display will now commence showing the latest update date. This will remain resident in the display as an indication of the date the display was last changed.

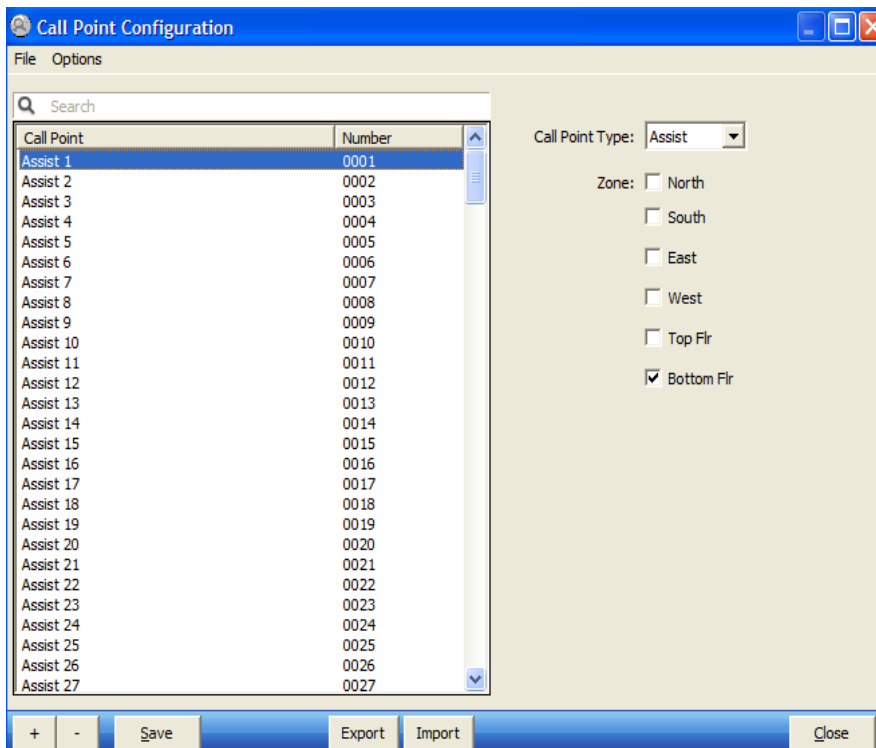
Communicating with the display



Settings - Communications

After activating the Harbour Vision setting, the zones can be defined here. Select the communications port the DSD is connected to and the port nominated for After activating the upload communications to the display.

Configuring the Call Point Database

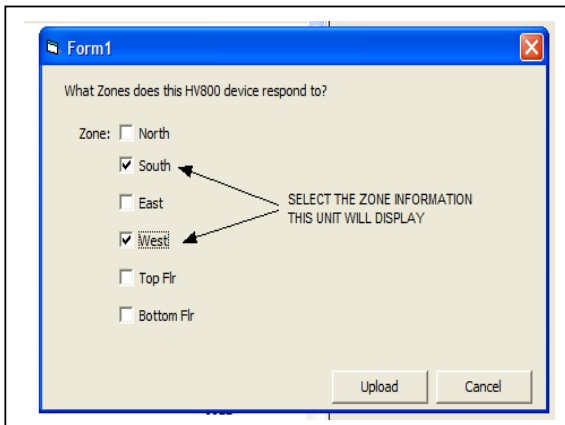
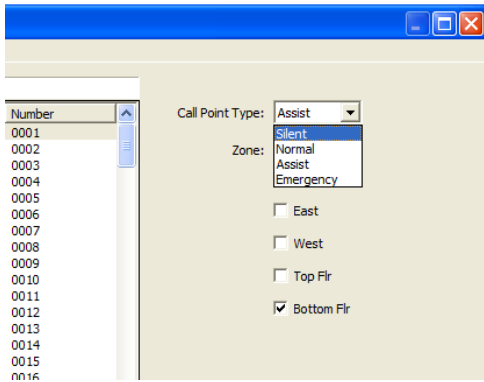


File - Add multiple call points

Build the database quickly by choosing groups, which have common titles. You can select the start point and number of call points with the common title, and Tracker will automatically fill the database. The example here shows "Assist" as the common title. As an alternative, you may export the database as a .CSV file where editing for more complex entries may be easier, then import back into the database.

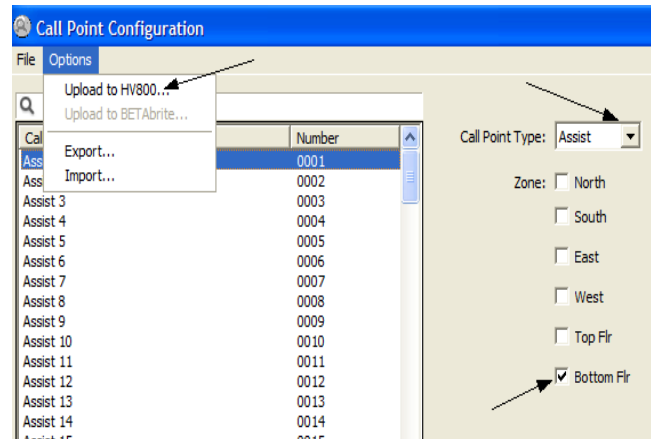


Configuring the Zones



Select the appropriate zone per call point entry. The call will only appear and sound on the displays that has a similar match within the call point database.

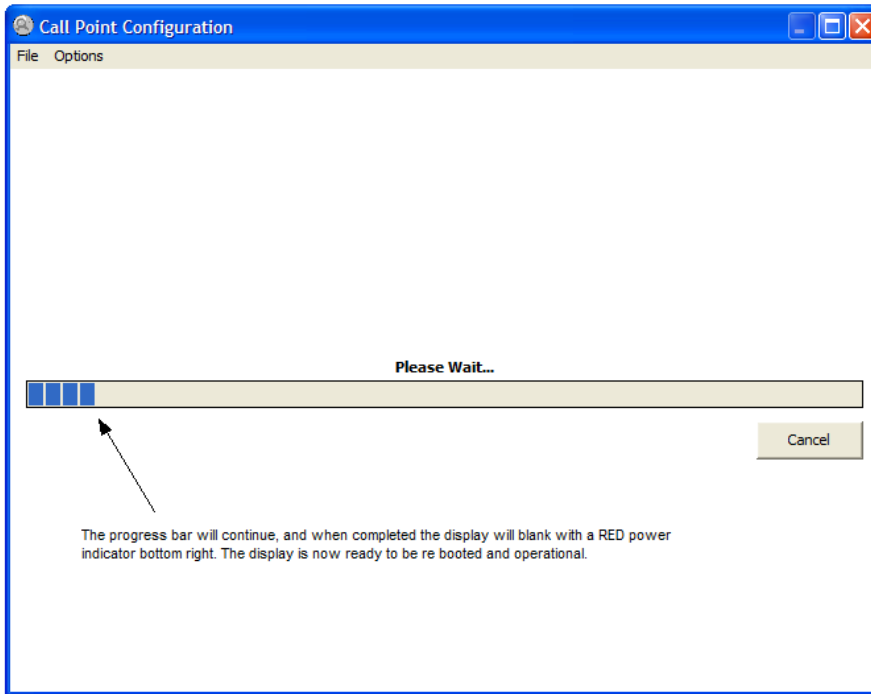
- Emergency will be RED with urgent sound
- Assist will be AMBER with a repeating chime
- Normal will show GREEN with slow repeat chime
- Silent will show GREEN with no chime



Marking Multiple points for updates and changes

Once the database has been added, it is then possible to quickly pass over the points and make multiple updates. For example you may wish to mark 10 points as silent. By HOLDING the SHIFT KEY and clicking the top and bottom group of points you wish updated, marked (blue), navigate and select the appropriate zones and call type on the right side of the call point configuration page. Select save. This block of points will now take on similar attributes.

Similarly, you can hold the CNTL key while clicking call points to mark a scattered group of points, then select the zones and hit save. You may notice the blue selected points will grey out once a check box is changed in the zone table. This is normal configuration, and proceeding to the save key will update all previously highlighted blue.



IF the system is in any way interrupted while down loading, then cancelling and starting the download again will be the best option.

Upload to HV800 is found under Setup – Options. Remember to select the zones you wish this particular HV800 display to respond to.