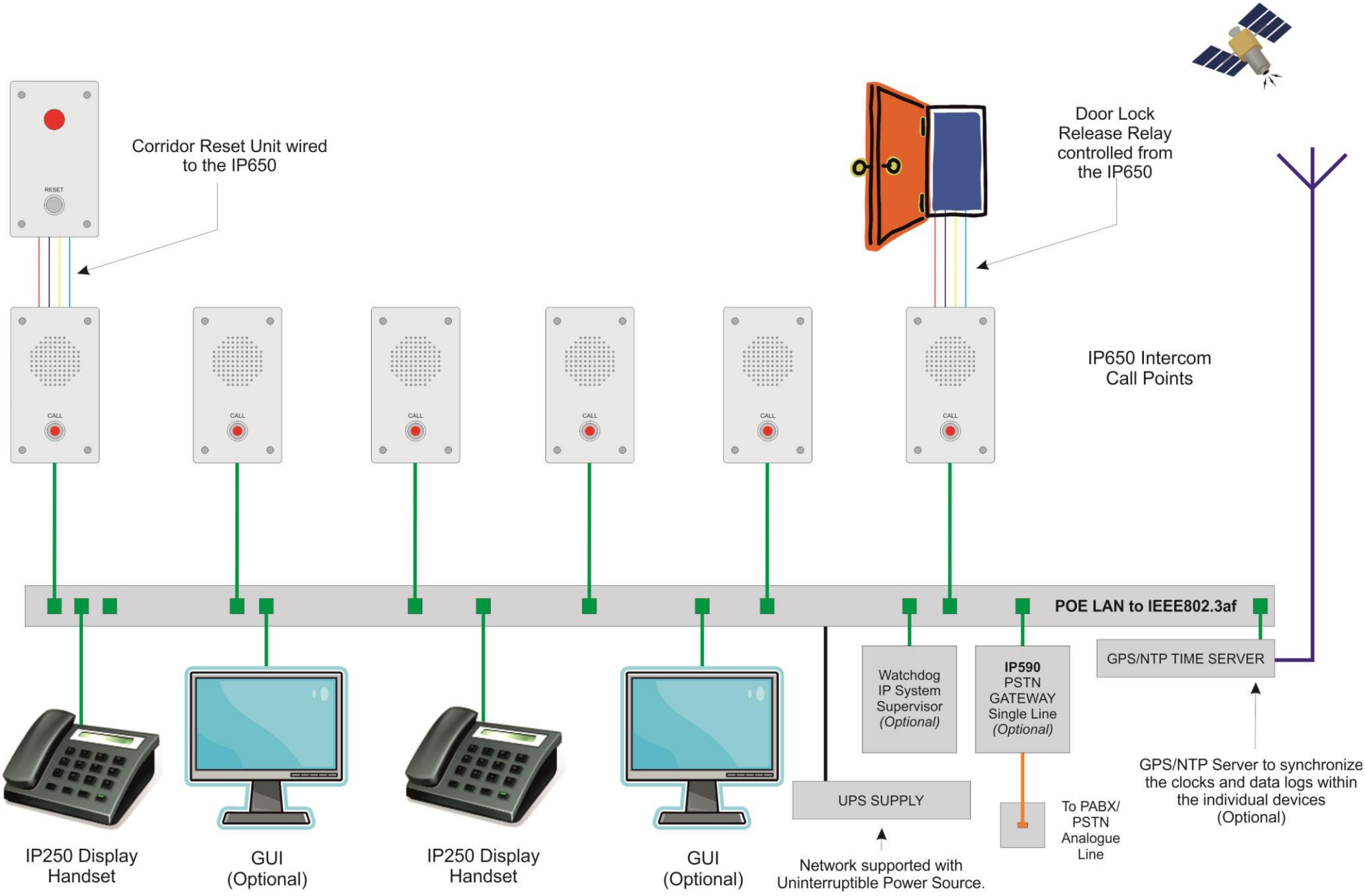
IP250 VOIP TELEPHONE QUICK START GUIDE

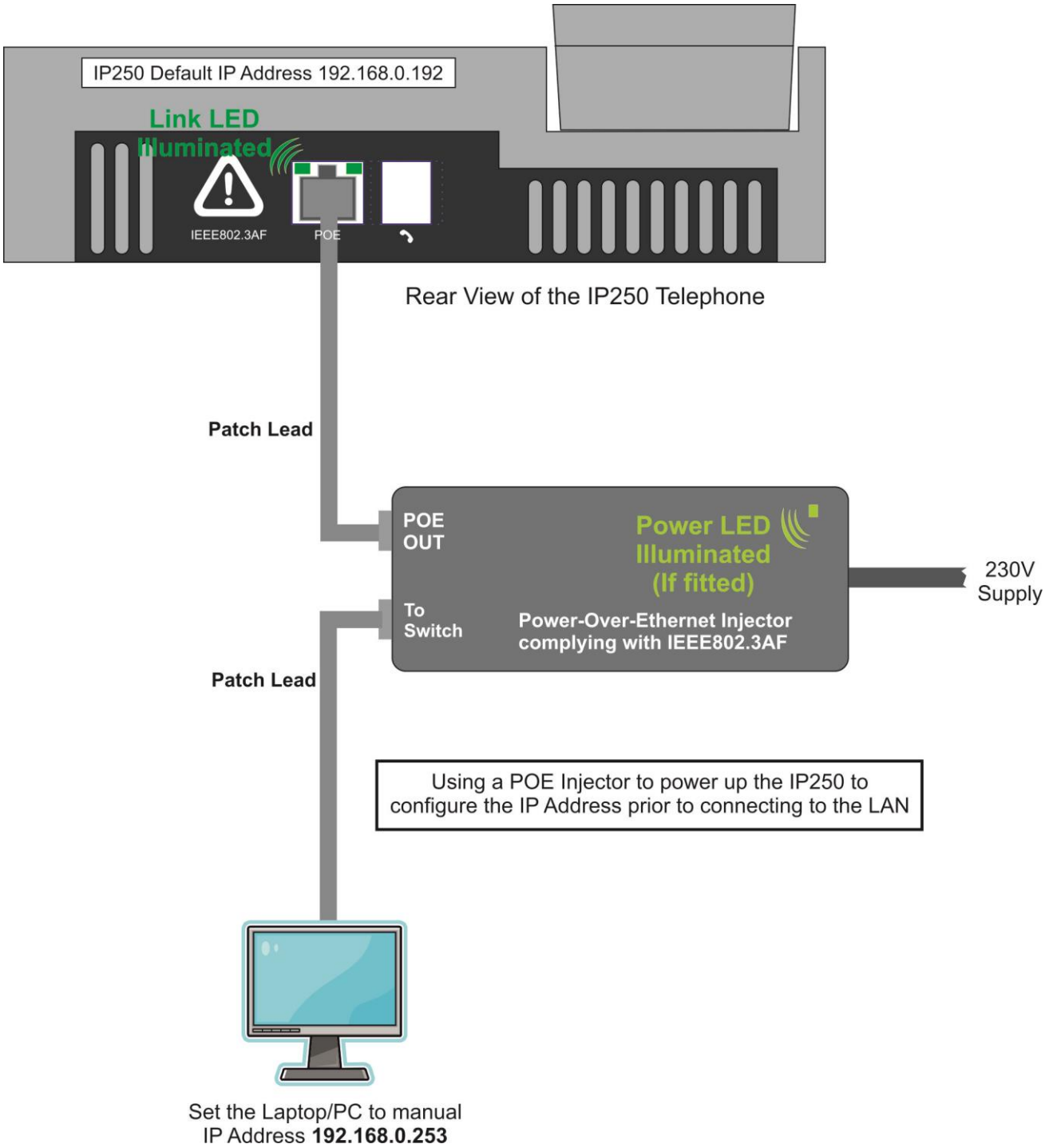
Documentation Version 08-08-2014



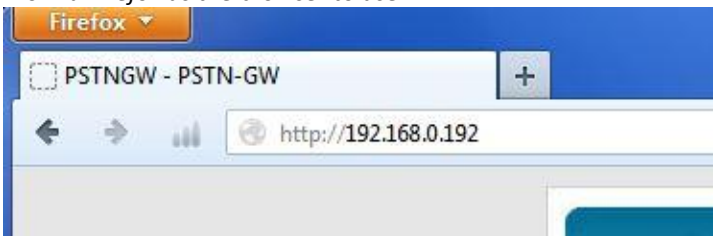
Notes: All connections shown in green comprise dedicated LAN with POE installed & Certified by others to IEEE802.3af

IP250 VOIP TELEPHONE

The IP250 VOIP Telephone allows duplex speech calls to be made and answered to the call point devices. The IP250 requires a unique IP Address and separate configuration using a POE injector and laptop BEFORE you connect it to the Cell Call Local Area Network. **UNDER NO CIRCUMSTANCES SIMPLY CONNECT THIS DEVICE TO THE NETWORK WITHOUT CONFIGURING THE IP ADDRESS.**



Enter the IP Address into the address bar. *We recommend Mozilla Firefox as the browser to use.*



CONNECTIONS TO THE UNIT

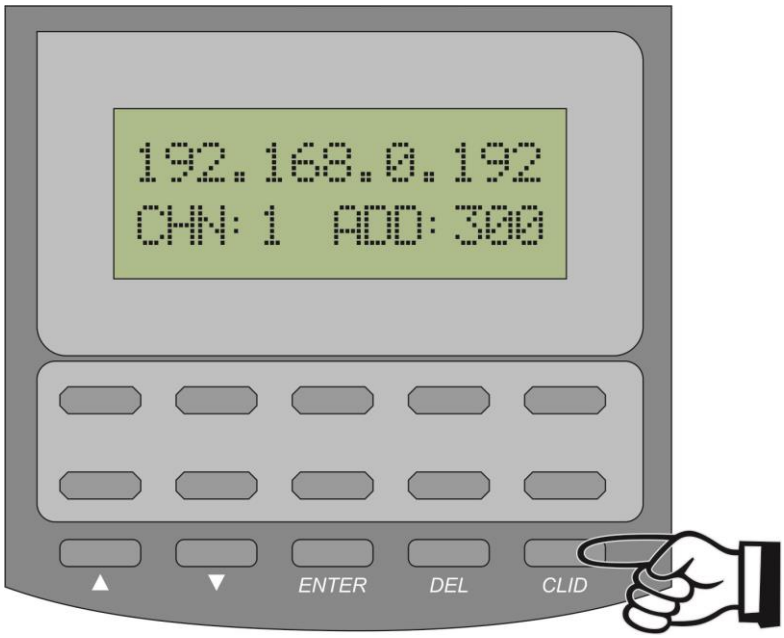
After you have configured the IP Address for the device, it can be connected to the network.

POWER OVER ETHERNET

The IP250 requires a POE (Power Over Ethernet) source compliant to IEEE802.3af and is a IEEE802.3af Class 0 device representing a load of between 0.43 and 12.95W. The POE (Power Over Ethernet) source must be supported with a suitable un-interruptible power supply as the IP250 Display Telephone does not contain a battery in the event of a POE failure.

DISPLAYING THE IP ADDRESS

When the unit is in the quiescent condition, it is possible to display the current IP Address, Device Address and Channel Number by pressing the CLID key as shown below.



DISPLAYING THE FIRMWARE VERSION

While displaying the IP Address as shown above, pressing the upward arrow key will allow the unit to show the firwmware version and software build date as shown below.

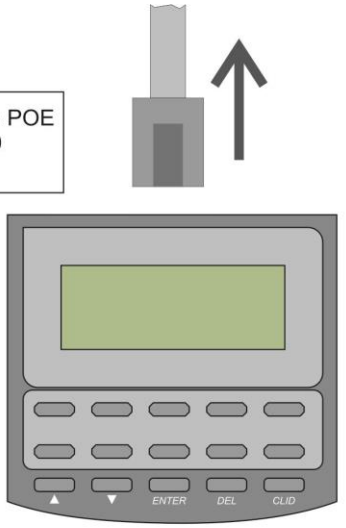
FACTORY DEFAULT SETTINGS.

The unit is shipped from the factory with a set of default settings and the following information is provided to return the unit to these default settings should a configuration error occur or the unit has been allocated an unknown IP Address etc. **However, returning the unit to factory default will also erase all configuration settings and this must be considered before proceeding.** Locate the default button on the left side of the circuit board. Near this button is a small LED.

BEFORE PROCEEDING - VERY IMPORTANT

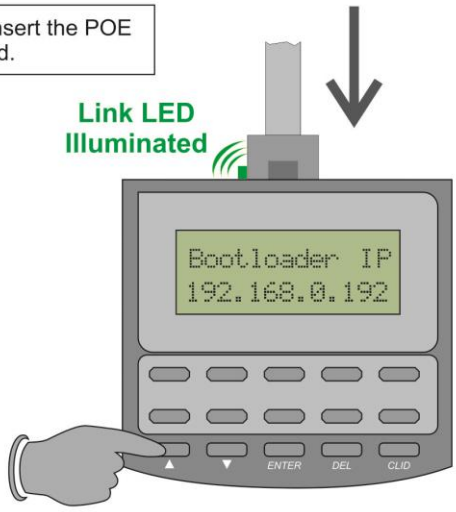
Ensure no other device on your network is using the IP Address 192.168.0.192 as this will be the address of this device once the LAN default has been completed.

1. Remove the POE and wait for 10 seconds.

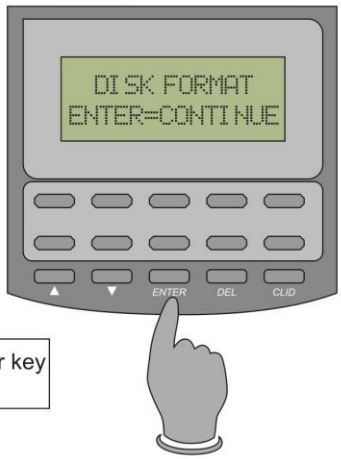


2. Insert the POE Lead.

Link LED Illuminated



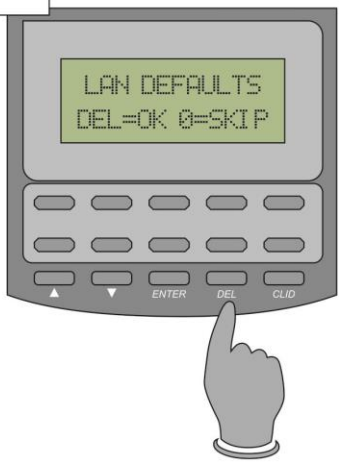
3. Press and hold the up arrow key



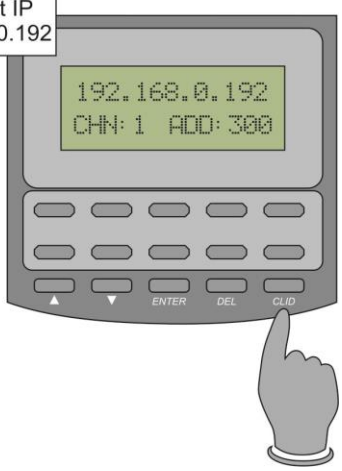
4. Press the Enter key to continue

5. Press the DEL key to continue and clear the data log

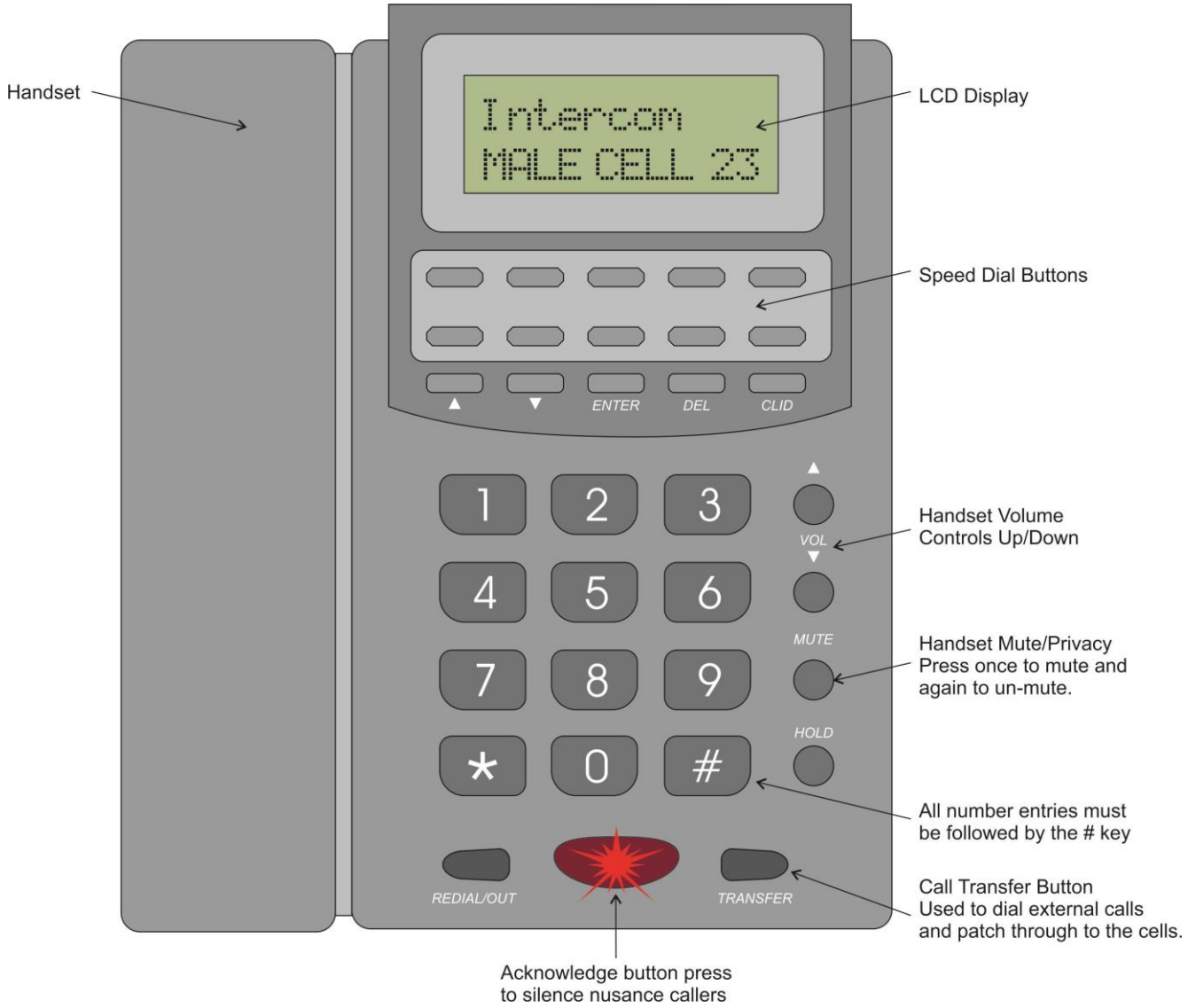
6. Press the DEL key to continue and reset the LAN defaults



The device will now be on the default IP Address 192.168.0.192



Using the IP250 Display Telephone



ANSWERING CALLS FROM INTERCOM POINTS.

When a device is calling, the IP250 will ring and the display will show the calling cell. Simply lift the receiver and the speech path will open.

TO CALL AN INTERCOM POINT.

1. Lift the handset and enter the cell four digit number followed by the # (Hash) key.

TO FREE DIAL - CALL ANOTHER EXTENSION VIA THE PABX (DECT/EXTERNAL LINE ETC)*

1. Press the TRANSFER Button and enter the number followed by the # (Hash) key.

TO CALL EXTENSION AND TRANSFER TO A INTERCOM POINT*

1. Press the TRANSFER Button and enter the external number followed by the # (Hash) key.
2. To transfer the call, press the TRANSFER button again and enter the four digit cell number followed by the # (hash) key.
3. Speak to the cell then replace the handset, the external party is now talking to the cell.
4. The call is hung up by the external party or the corridor reset button *(if this feature is enabled)*

NUISANCE CALLS*

Nuisance callers can be removed from the IP250 with a single press of the red flashing button *(if this feature is enabled)*. The Mimic Panel, GUI and other indicators will continue to show the calling cell. It is reset with the Corridor Reset button.

** Function not enabled by factory default or requires additional equipment.*

SETTING UP EACH DEVICE INDIVIDUALLY

See the diagram on the previous page which shows how to connect the **device** to a laptop or computer using a POE Injector.

VERY IMPORTANT

UNDER NO CIRCUMSTANCES SIMPLY CONNECT EVERYTHING SIMULTANIOUSLY TO THE NETWORK AND THEN POWER UP – YOU WILL HAVE ALL UNITS ON ONE IP ADDRESS AND NOTHING WILL WORK!

INTERSNIFF DIAGNOSTIC SOFTWARE

We strongly recommend the use of INTERSNIFF diagnostic software which is free and can be downloaded from our external FTP site. It provides automatic detection of all Intercall IP devices on the LAN as well as traffic monitoring and a host of other useful functions for fault finding.

QUICK START GUIDE

Connect the IP250 Telephone to your laptop computer using a POE Injector or POE Switch as shown on page 3. If you are using a switch make certain you have no other devices on the same IP Address. (By default **all units** are on the same IP Address 192.168.0.192)

All settings are adjusted using the embedded website so a laptop with a browser is all that is required. You will need to gain access to the secure section of the embedded website, the user is ***admin*** and the password is ***lismore***.

1. Set up an **Individual IP Address** for the IP250 VOIP Telephone – *the factory default for all units is 192.168.0.192.*
2. Enter the **System Name** (site name) – *the factory default is "IP250"*
3. Configure the unique **Telephone Number** for the IP250 – *the factory default is 300 for all IP250's*
4. Configure the **Acknowledge Button** to silence nuisance callers – *the default is disabled*
5. Configure the **Channel Number** – *the default is channel 0 so the IP250 will ring for intercom points on all channels.*
6. Configure the **Free Dial** Setting – *Allows the IP250 to call other extension numbers on the PABX & external lines.*
7. The IP250 contains an accurate calendar clock supported by a lithium battery and you may use the IP250 as a *Time Master* and configure all other devices as *Time Slave* to synchronize to the IP250 clock. We recommend adding an NTP Time Server to the LAN & entering the IP Address of the NTP Server into the Time page of the IP250.
8. Change how the IP250 LCD displays incoming calls.
9. Change which **Events** ring the IP250 Telephone – *In most applications it is simpler to prevent the IP250 from ringing for a specific event than it is to exclude the event using bridging.*

All settings are adjusted using the embedded website so a laptop with a browser is all that is required.

VERY IMPORTANT - LOCAL AREA NETWORK

The Backbone of the system is the **Local Area Network (LAN)** & the reliability and performance of t system is entirely reliant on the Local Area Network infrastructure supporting it. **The Local Area Netwo must be certified & bandwidth qualification tested to IEEE802.3** prior to the connection of the equipmer Simple cable LED testers, tone testers or the ability to ping a device or see a website over the network **do not** indicate the integrity of the network or its bandwidth capacity. A typical low cost network qualifier the Fluke Cable IQ Qualification Tester shown on the right.

TYPICAL POE SWITCH

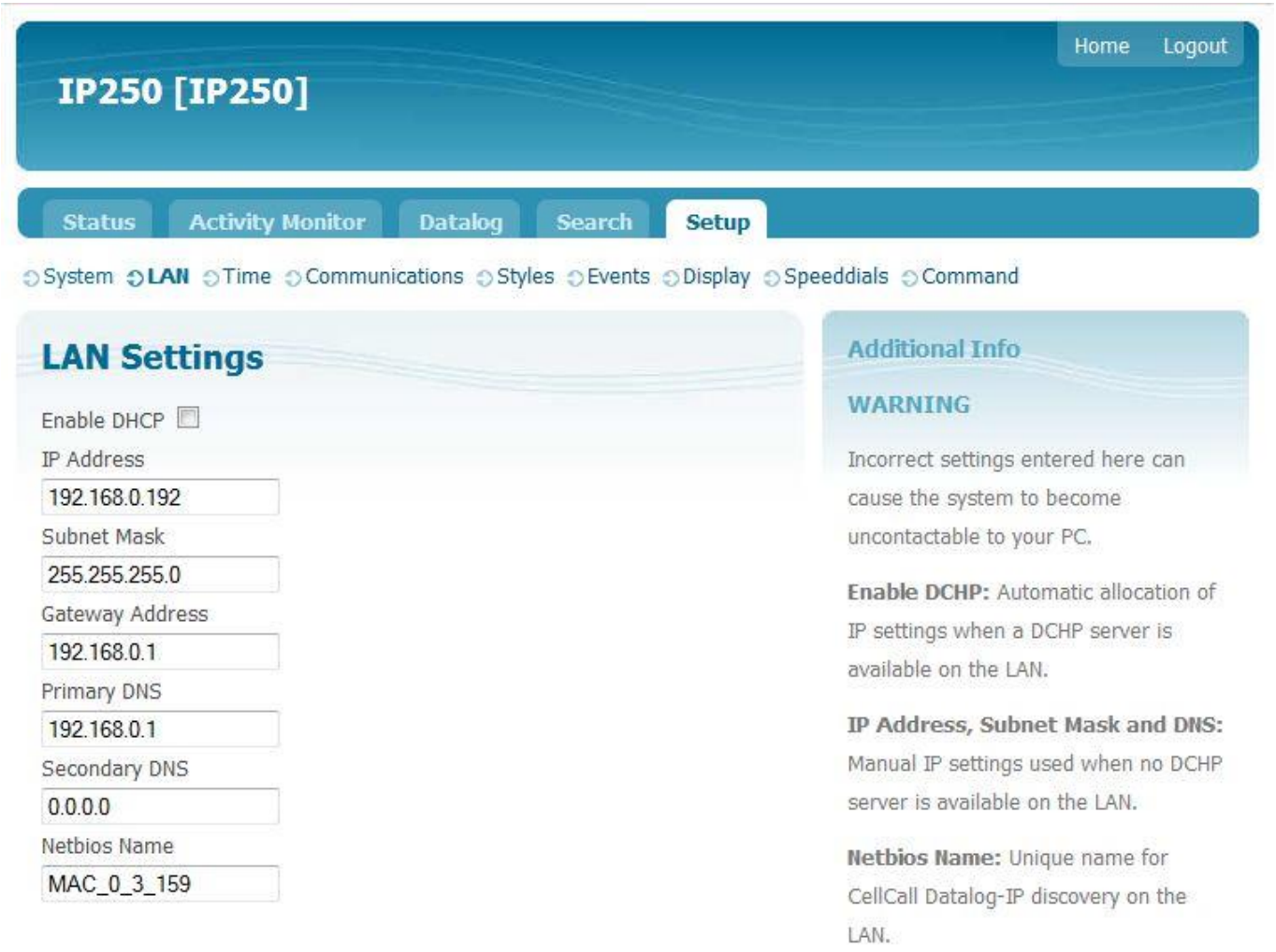
This is a **Netgear FS728TP** which provides up to 24 ports of POE output suitable for up to 24 POE Devices and contains management functions with web access.

TYPICAL NTP TIME SERVER

This is a Galleon NTS6001 which uses a GPS receiver to generate an NTP Clock Server over the LAN which can be received by the devices to synchronize their on-board clocks.

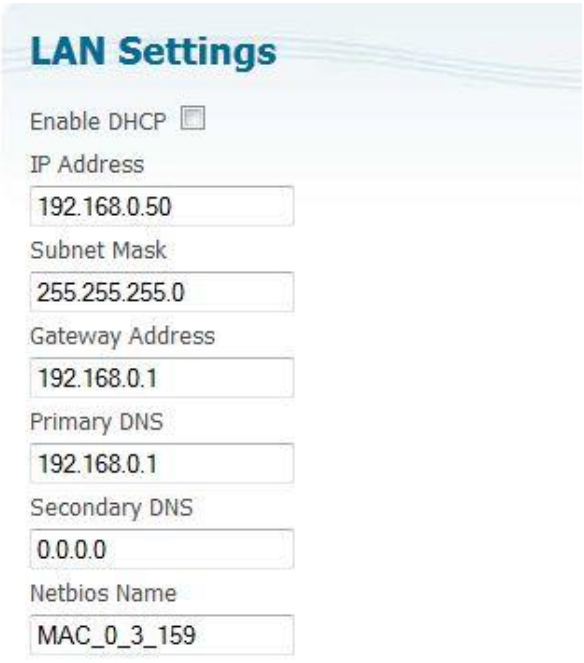
SETTING UP THE IP ADDRESS FOR THE IP250

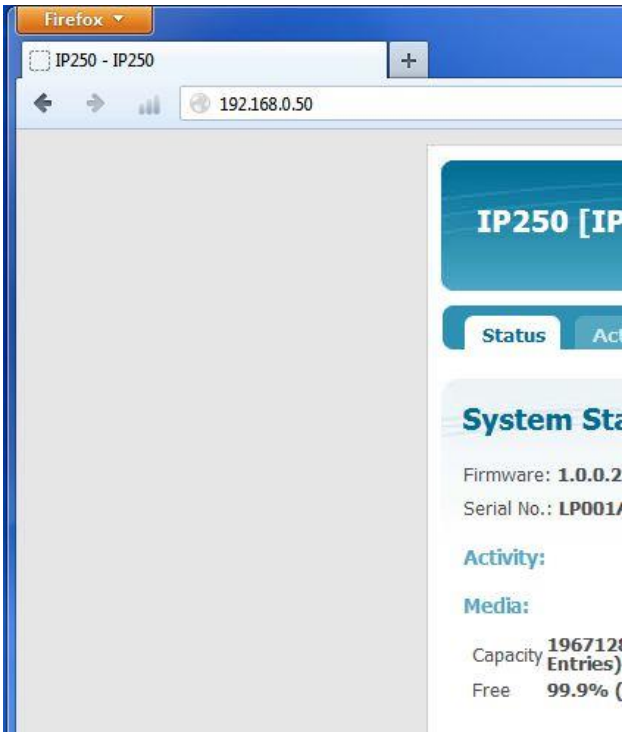
Navigate to the LAN page (shown below) and enter the **unique** IP Address for this device and select Save.



USING THE NEW IP ADDRESS

After changing the IP Address, and pressing the save button, the device will reboot and you will need to enter the new IP Address into your browser as shown on the right.

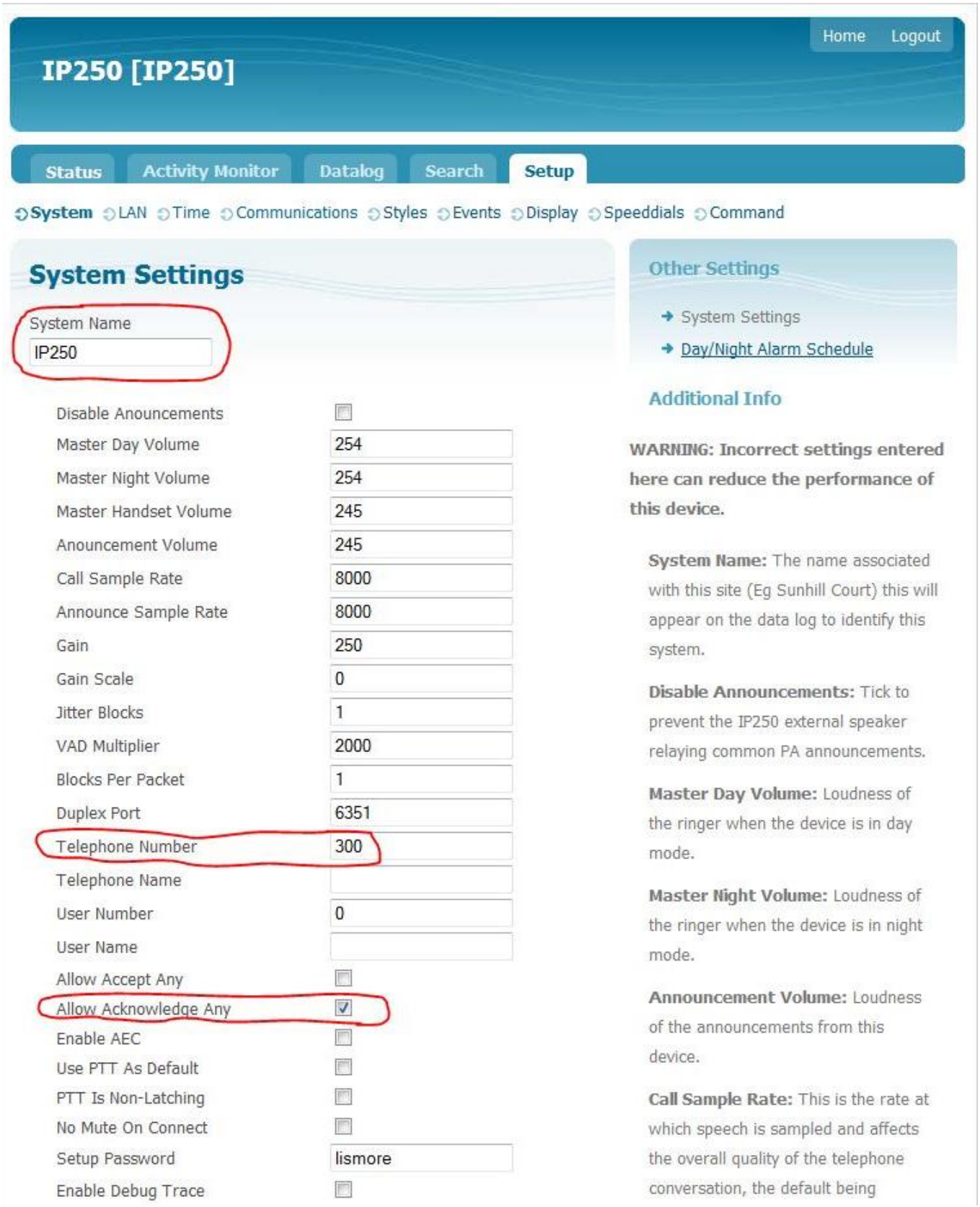




SYSTEM NAME
Enter the System (Site) Name into the System Name dialog at the top of this page.

TELEPHONE (Extension) NUMBER OF THIS IP250
Enter the telephone (extension) number for this handset. **VERY IMPORTANT:** If your system has more than one IP250, they must be set to unique numbers.

ALLOW ACKNOWLEDGE ANY (Optional)
Tick to allow the staff to silence nuisance callers by pressing the IP250 Red Button.



COMMUNICATION SETTINGS

The communication settings control how the IP250 Telephone connects to other Intercall devices via the LAN. With the use of Channel numbers, we can identify groups of device. For example, in a system where there are various wards or wings or floors, we can allocate a single channel number to all of the devices in these specific areas or groups.

Any Channel, Any Address, Any Event.

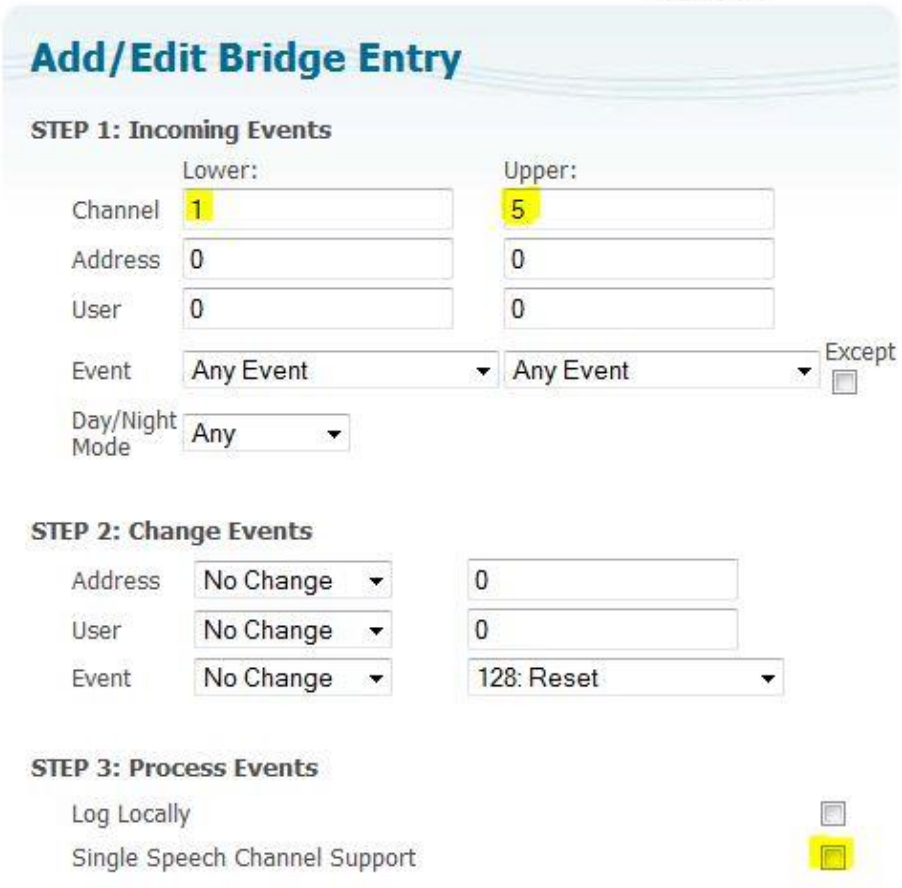
The factory default is Channel number is 0 (zero) The IP250 will ring for all answerable calls from any channel. To restrict the events which ring the IP250 use the ***Event Priority*** feature - see page 14.

Specific Addresses or Channels.

To restrict which channel(s) or Addresses ring the IP250, you will need to set the IP250 to a unique channel number and create bridging entries in the IP250.

Creating a Bridging Entry.

Navigate to the communication page of the IP250 and select Set *Click Here to Add A New Entry*. This will open the Bridging entry dialog shown below.



Step 1 – Incoming Channels.

Enter the range of channel numbers you wish the IP250 to ring for. In our example this is all Channels between 1 and Channel 5. You can also restrict the IP250 to only ring for specific addresses or users, which we have not done in this example as 0 (Zero) is *any address* and *any user*.

Incoming Events.

For most applications, set the Event Range to *Any* Event. If you wish to prevent the IP250 ringing for a single event from a specific channel, use the Event dropdown to select the event and tick the *Except* box.

IMPORTANT When restricting events, you must ensure that all other events are still allowed to pass through the entry. This may require many additional bridging entries per channel.

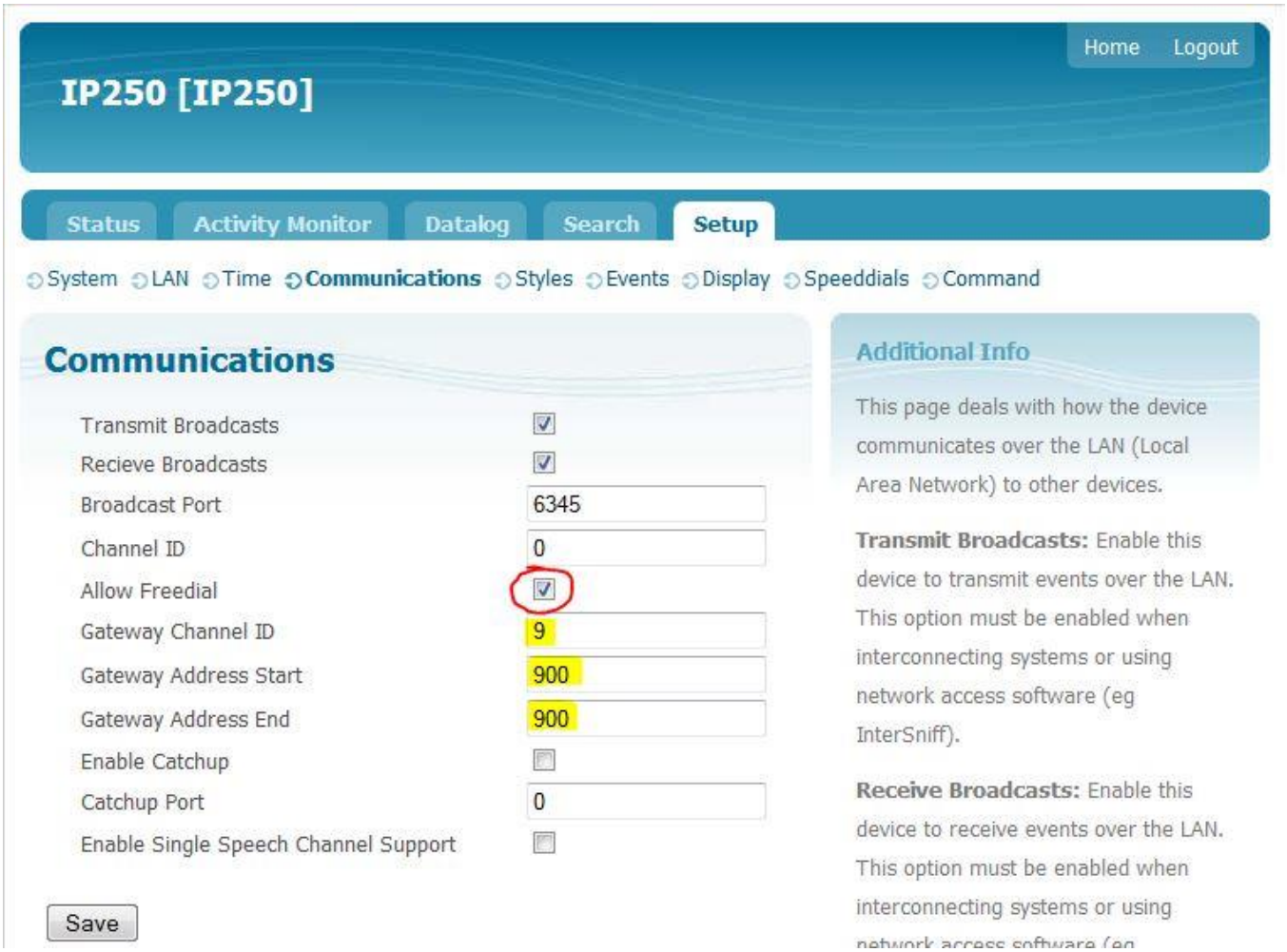
Step 2 Change Events.

In most applications, there is normally no requirement to change events, users or addresses.

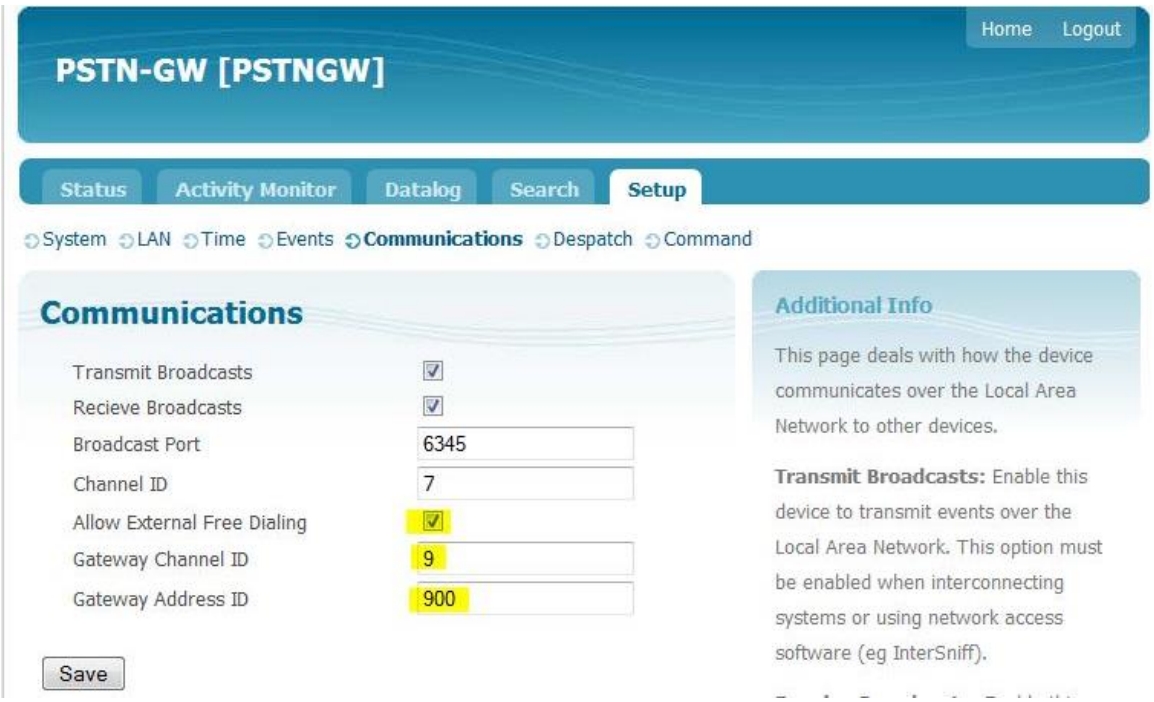
Step 3 Process Events.

If you are connecting to a single speech channel legacy interface such as L7700 and L7755 then you should tick Single Speech Channel Support. You do not need to enable this tick box if you are connecting to other Intercall full IP equipment.

Freedial Function. – *only required if you are using a PSTN Gateway or SIP Gateway.*
The Freedial function allows the IP250 to transfer and make calls to third party devices via the IP590 PSTN/PABX Gateway. In order to connect to the IP590 PSTN Gateway, you must enter the IP590 Gateway Channel number and Gateway Address into the IP250 Communication settings. You must also tick the *Allow Freedial* dialog highlighted in red below. The Gateway start and end address allows for a range of Gateway devices to be used by the IP250 if the first one is busy.

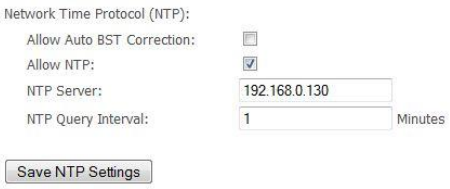


Freedial Matching Entry in IP590 PSTN Gateway.
The Gateway Channel Number and single Gateway Address are also entered into the corresponding communications page of the IP590 PSTN Gateway. You must also tick the *Allow External Free Dialling* dialog into the IP590 website as shown below.

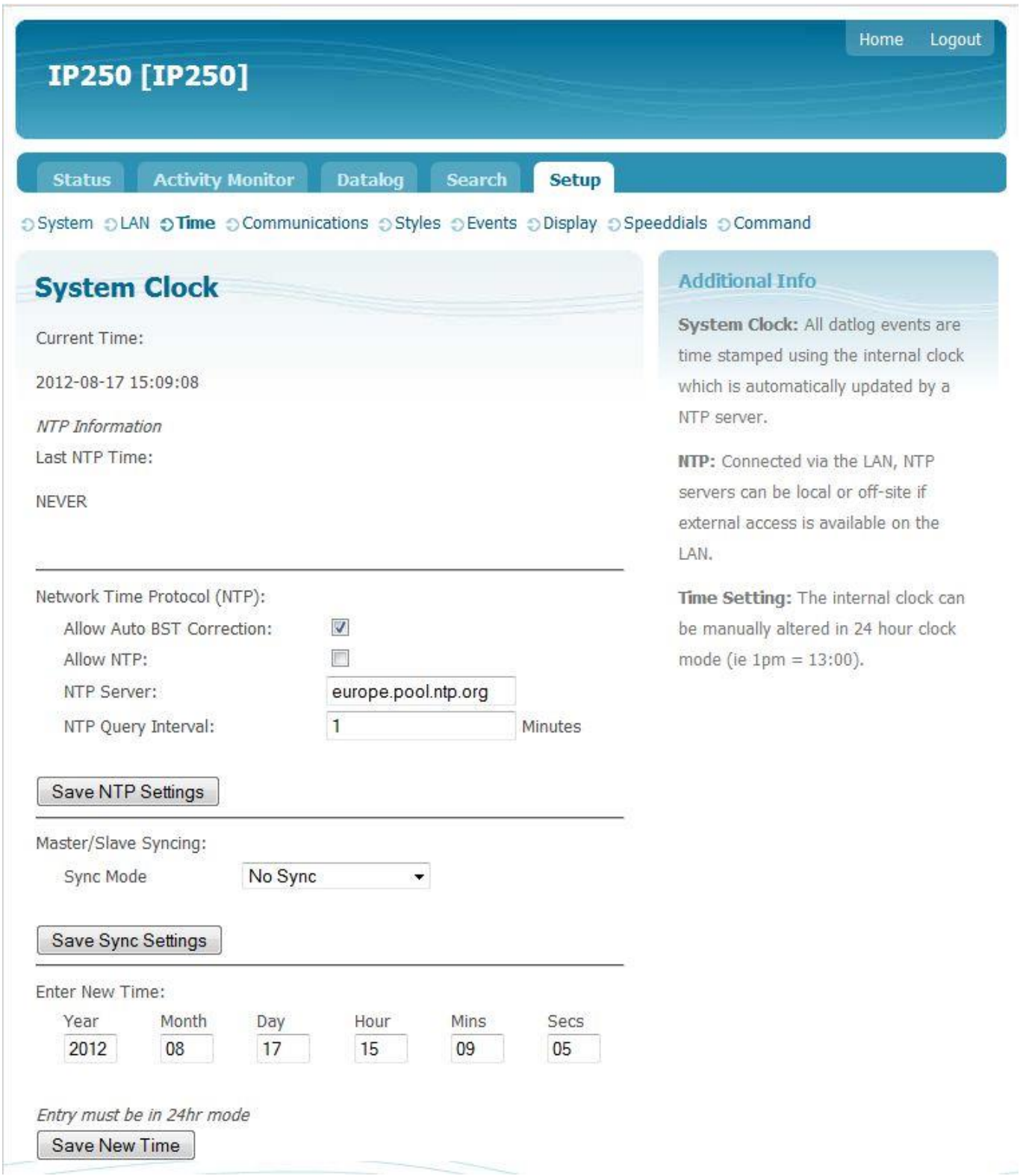


TIME SETTINGS

The IP250 Gateway features an on-board calendar clock which time stamps all events in the datalog. It is supported by a lithium battery and may be used as a Time Master for other devices on the system. Ideally, the IP250 should receive regular synchronization with a reference clock, such as an external **GPS-NTP Server**.

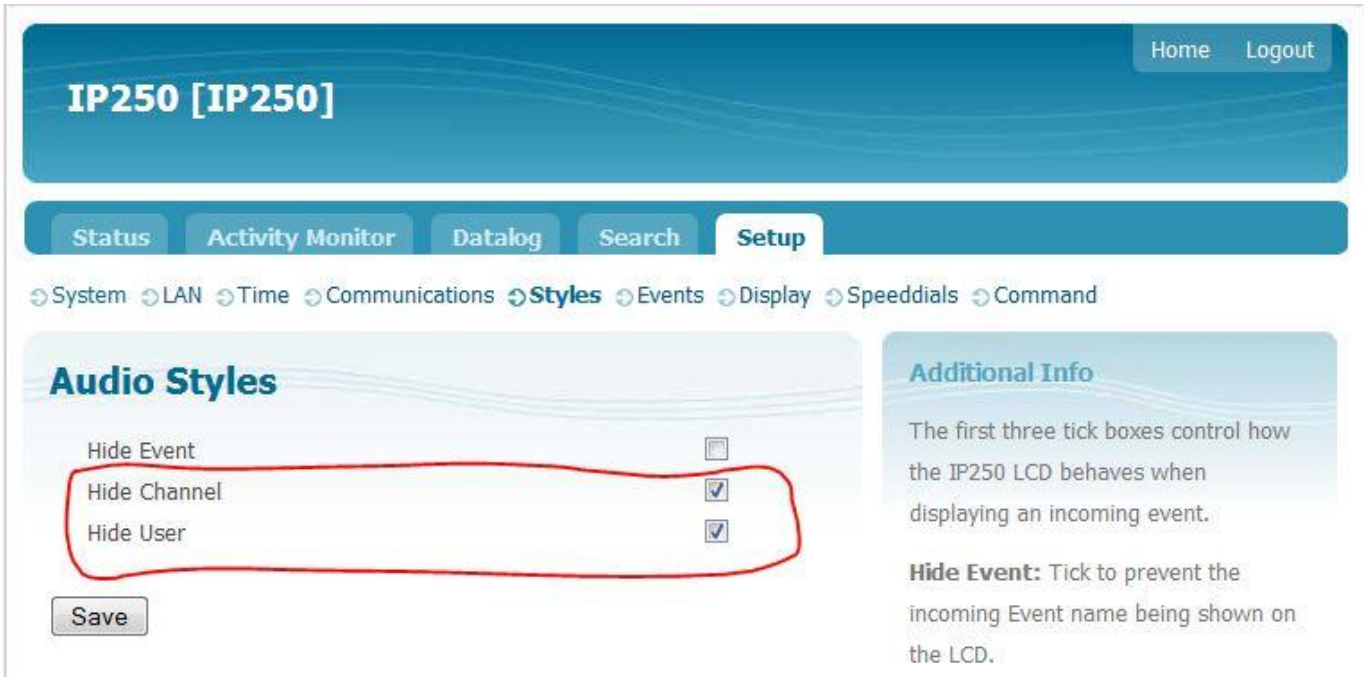


Setting the **IP250 Display Handset** to a **Time Master** to automatically update the other devices which are configured as a **Time Slave**.



IP250 Display Settings

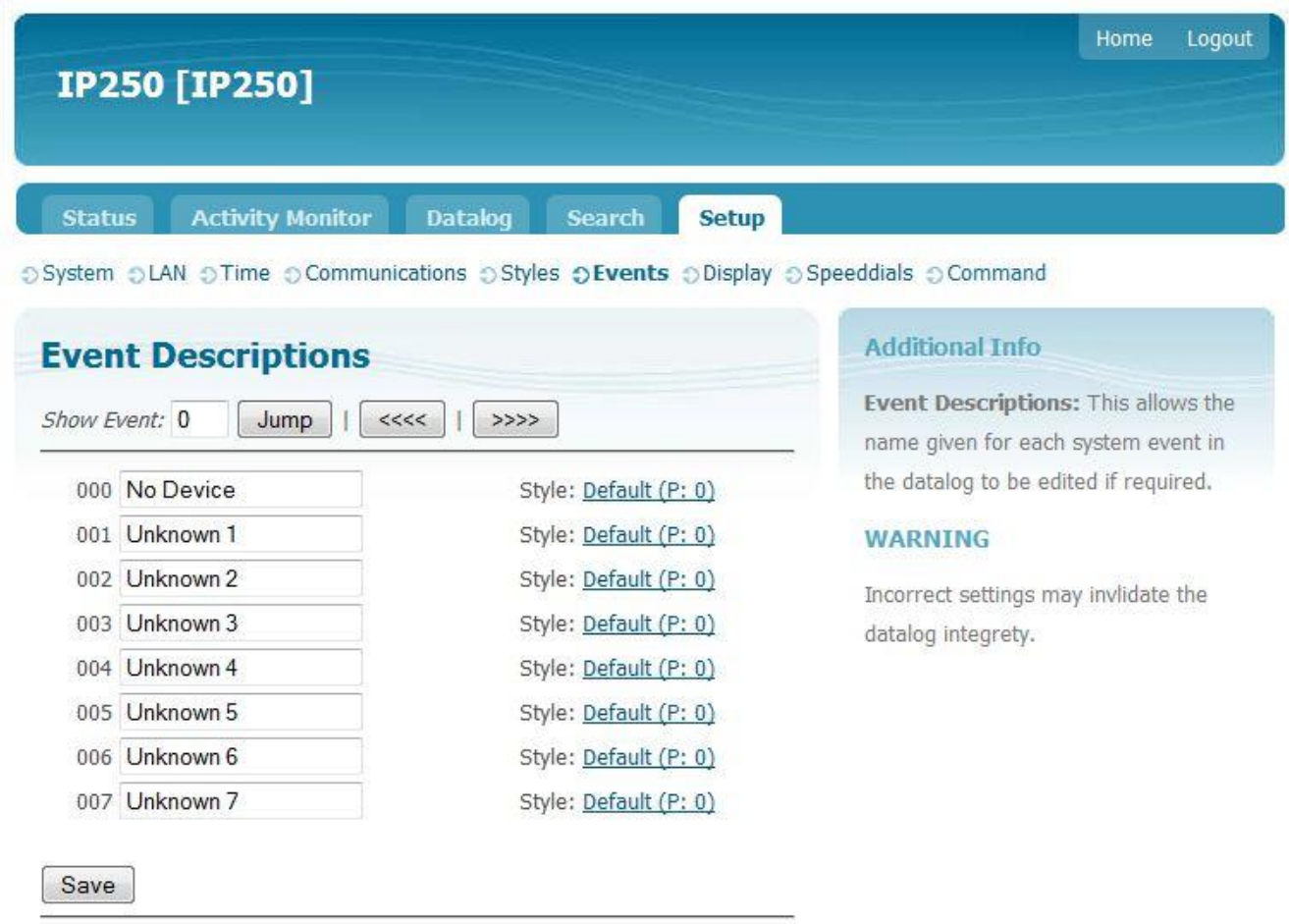
The communication settings control how the IP250 LCD Display shows the incoming calls from the cells. The best way to present this information is to configure the IP250 as follows so the LCD Display clearly shows the identity of the calling cell.

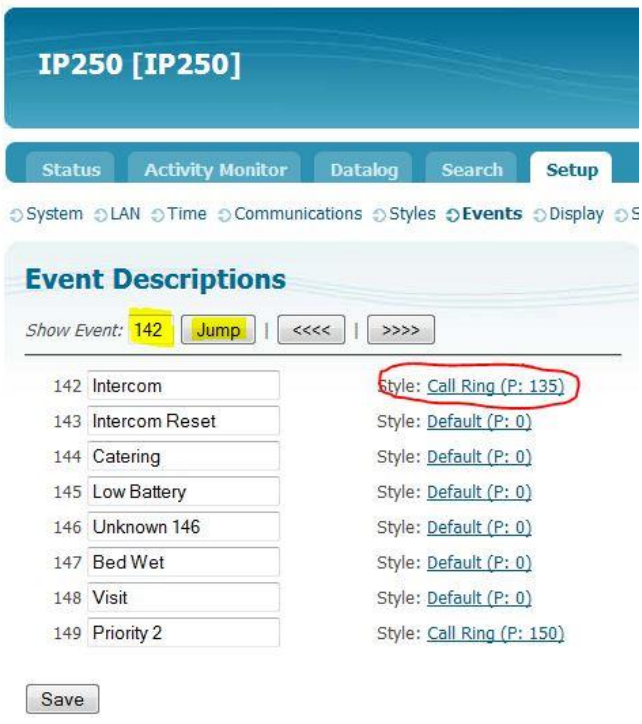


When these settings have been changed only the calling cell will be displayed on the LCD screen as shown below.

Using Event Priority to restrict the events which ring the IP250.

The IP250 Display Telephone can be configured to ignore certain events, although you could achieve the same configuration by bridging, for most applications, it is simpler to use the events dialog. By factory default the IP250 will ring for the following events; Call, Assistance, Intercom & Priority1,2,3,4. All other events will be ignored and this may not be suitable for your application. To change which types of event ring the phone, you need to change the style for that particular event. To prevent the IP250 ringing for Intercom, navigate to the Events page as shown below.





Enter 142 in the *Show Event* dialog and press the **Jump** Button, you can now use the arrow controls to navigate through the different types of event. When you get to the desired event (in our example intercom) select the style hyperlink shown in red in our example.

This will open the Event Style dialog for the selected event. To prevent the IP250 ringing for the selected event, simply change the event priority to zero (0) and press the save button as shown in the example below.