Guardian

L7700 IP16 Intelligent Power Supply

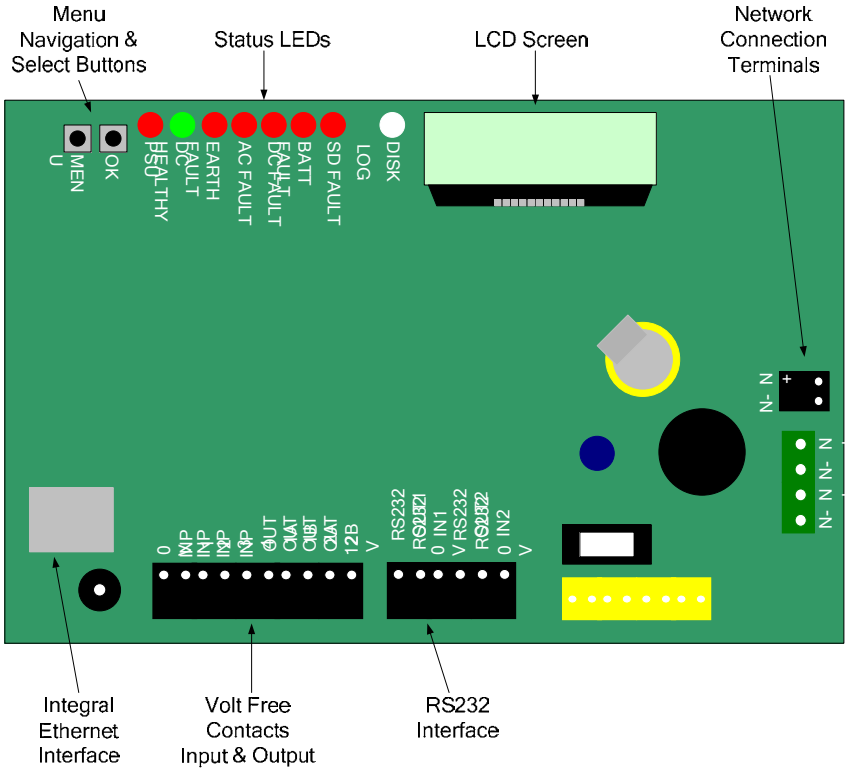
GUARDIAN

STAFF SAFETY SYSTEMS

L7700 IP16 Intelligent Power Supply

The Guardian **L7700 IP16** Intelligent Power Supply replaces the L7717 High Power PSU and features an integrated Ethernet controller allowing system configuration, Datalog access and remote monitoring via a standard Ethernet connection. All system settings previously controlled by DIP switches and the LIMProg programming software may now be carried out using a standard web browser, without the need for custom configuration software. Security is maintained as web access to the setup and configuration screens are password protected. In addition, the unit features; on board calendar & clock and Secure Data flash disk drive which automatically records all system configuration and activity with the date and time. Day and Night alarm settings may be automatically switched by the on-board clock without the need for a manual switch. There are four programmable volt free contact inputs and two volt free contact outputs together with an RS232 output which can be configured for printers, pagers or any other RS232 device.
The unit supports a VOIP expansion card which allows the audio voice channel conversations to be recorded and/or integrated with other IP devices. The integral float charger supports a single 12v 12Ah battery and the AC, DC, Battery and Earth continuity are continuously monitored.

The unit should be located in a central accessible position to allow maintenance access and should be connected to the mains AC supply via a non-switched fused spur outlet with a 5A fuse fitted.



L7700 IP16 Intelligent Power Supply

Guardian

Main Supply Input : 90v – 240v AC (Remove protective cover to gain access to mains input terminals)

Required Battery : 12 volt 12 AmpHour Sealed Lead Acid (**Observe Polarity**)

Output Terminals : Two parallel terminals provided for convenience – connect to Network devices

RS232 Terminals:

TXD : RS232 Level data output for printers, pagers etc.
RXD : RS232 Level data input
CTS & RTS : RS232 Level Outgoing & Incoming flow control for RS232

Input Terminals:

Input 1 : Programmable Input No. 1 active when connected to 0v
Input 2 : Programmable Input No. 2 active when connected to 0v
Input 3 : Programmable Input No. 3 active when connected to 0v
Input 4 : Programmable Input No. 4 active when connected to 0v

Output Terminals:

Output 1A & 1B : Programmable Volt Free Normally Open Output No. 1 (Max 24v DC)
Output 2A & 2B : Programmable Volt Free Normally Open Output No. 2 (Max 24v DC)

Status LEDs:

PSU : Flashing – indicated internal microprocessor is running
DC Healthy : Lights to indicate the incoming DC supply is within tolerance
Earth Fault : Indicates an electrical short between the network & main supply protective earth
DC Fault : Indicates incoming DC supply is operating outside of limits
AC Fault : Indicates a failure of the incoming AC supply
SD Fault : Indicates the on-board Secure Data Disk has malfunctioned
DISK : Indicates read/write activity to the on-board SD Disk

On-board Fuse : 5Amp 20mm fuse protection for Battery. Charger is current limited

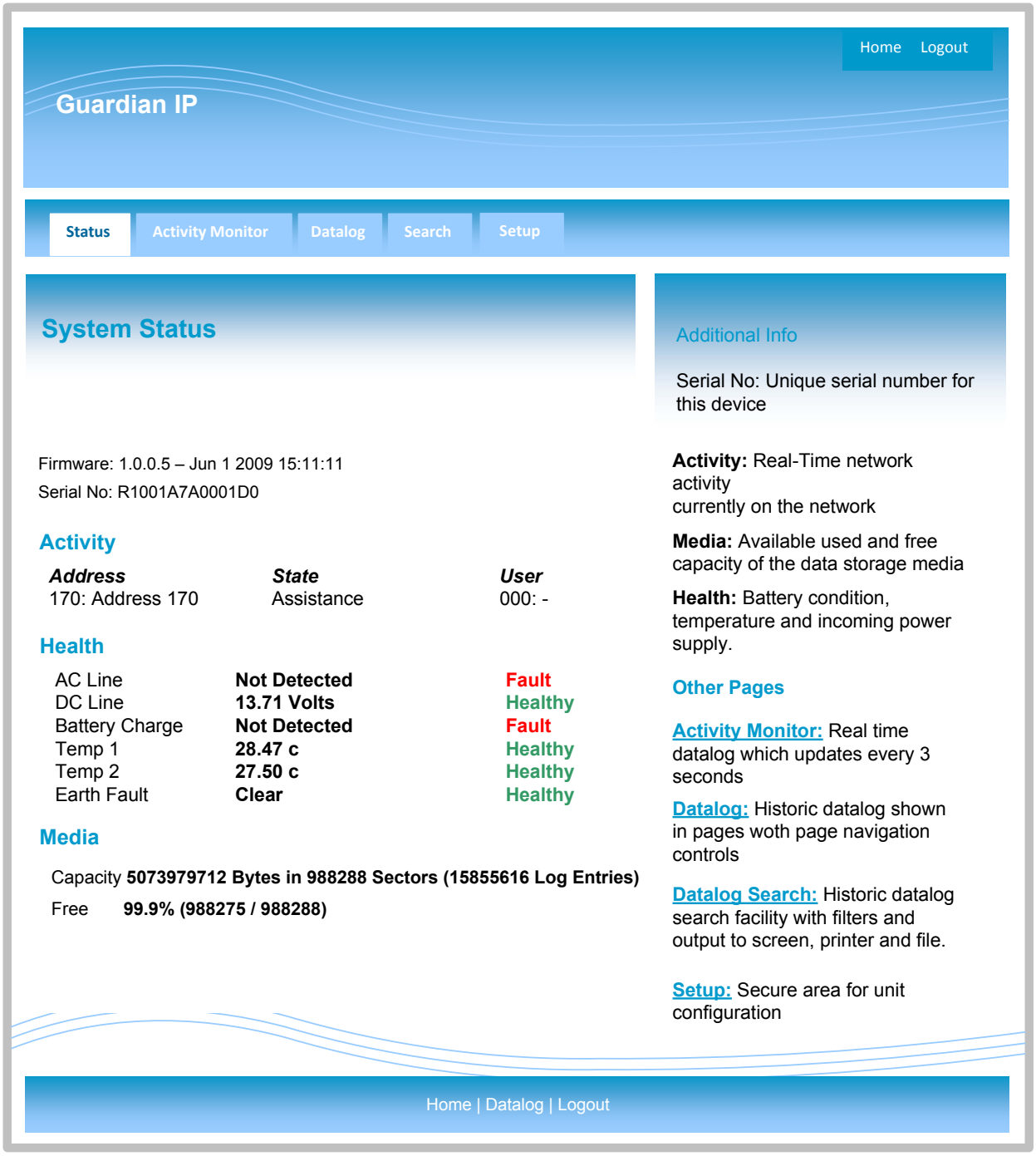
Installation : Self Contained Surface Mounted Case

Size & Weight : 370mm x 260mm x 110mm – 4.5kg

L7700 IP16 Intelligent Power Supply

Guardian IP Embedded Web Server pages

The Guardian IP16 Power Supply Controller contains an embedded web server for system configuration and status monitoring. It is used to gain access to the on-board data-logger recording all system activity with the time and date, and to allow password protected access to the system configuration and networking pages.

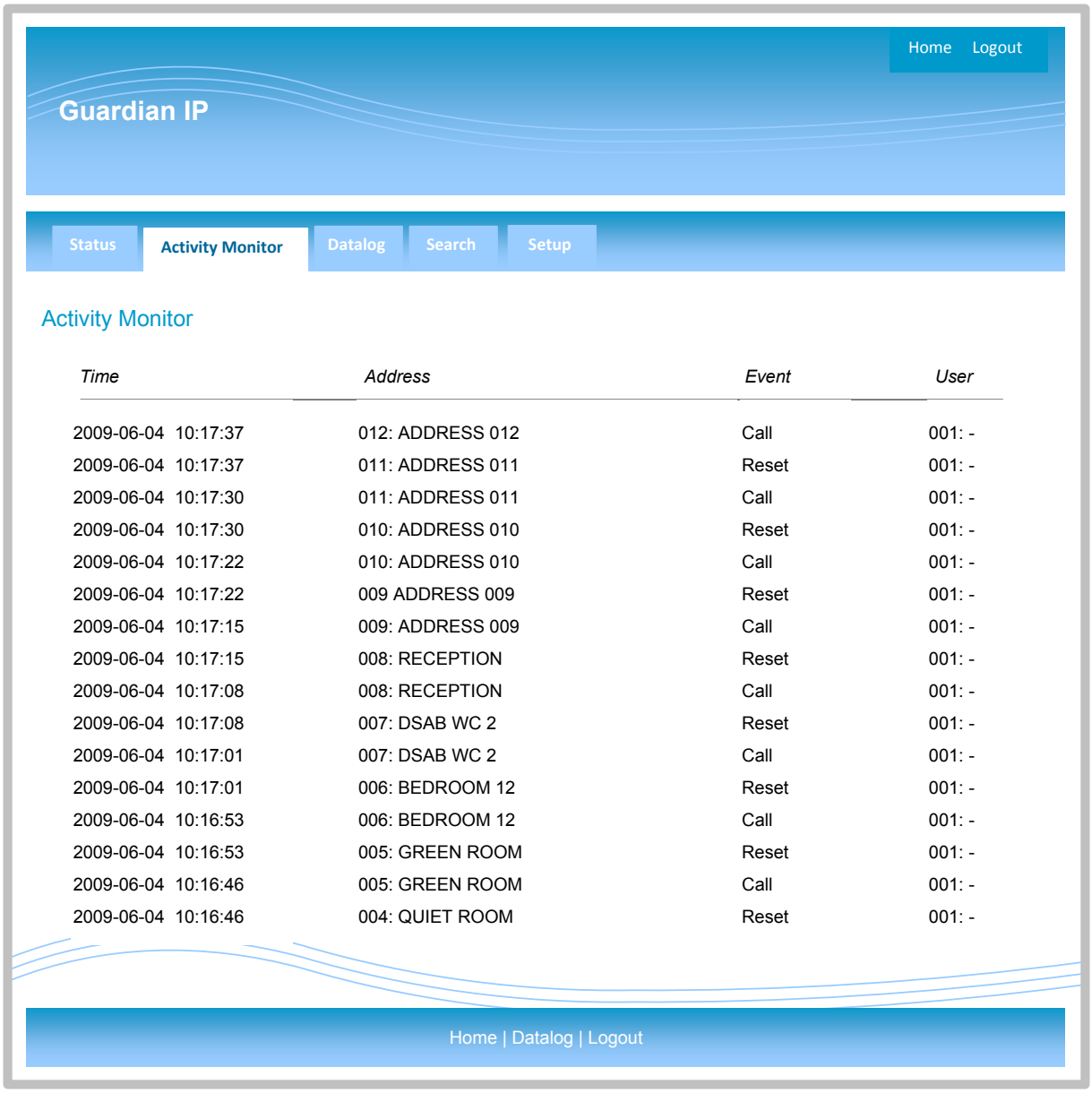


As you can see, the main index screen shows the status of the power supply controller together with any network device which is active. The HTML pages also contain help text to assist unfamiliar users to navigate the user screens.

L7700 IP16 Intelligent Power Supply

Guardian IP Embedded Activity Monitor

All network activity is recorded internally within the L7700 IP16 Controller PSU and may be accessed via the web server. The system automatically records a health check every hour together with the status of the power rails, internal temperature etc.



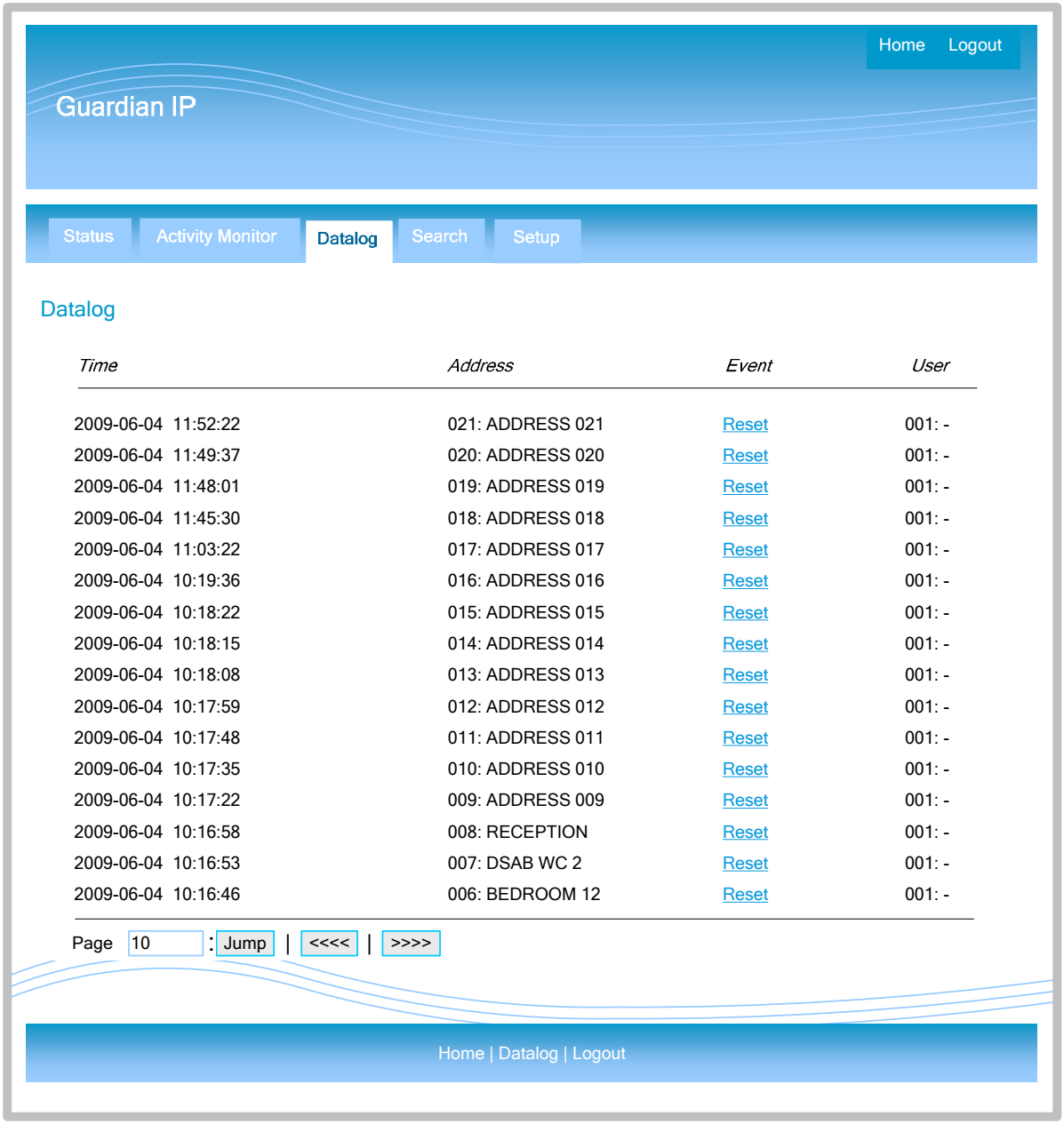
Time	Address	Event	User
2009-06-04 10:17:37	012: ADDRESS 012	Call	001: -
2009-06-04 10:17:37	011: ADDRESS 011	Reset	001: -
2009-06-04 10:17:30	011: ADDRESS 011	Call	001: -
2009-06-04 10:17:30	010: ADDRESS 010	Reset	001: -
2009-06-04 10:17:22	010: ADDRESS 010	Call	001: -
2009-06-04 10:17:22	009 ADDRESS 009	Reset	001: -
2009-06-04 10:17:15	009: ADDRESS 009	Call	001: -
2009-06-04 10:17:15	008: RECEPTION	Reset	001: -
2009-06-04 10:17:08	008: RECEPTION	Call	001: -
2009-06-04 10:17:08	007: DSAB WC 2	Reset	001: -
2009-06-04 10:17:01	007: DSAB WC 2	Call	001: -
2009-06-04 10:17:01	006: BEDROOM 12	Reset	001: -
2009-06-04 10:16:53	006: BEDROOM 12	Call	001: -
2009-06-04 10:16:53	005: GREEN ROOM	Reset	001: -
2009-06-04 10:16:46	005: GREEN ROOM	Call	001: -
2009-06-04 10:16:46	004: QUIET ROOM	Reset	001: -

Guardian

L7700 IP16 Intelligent Power Supply

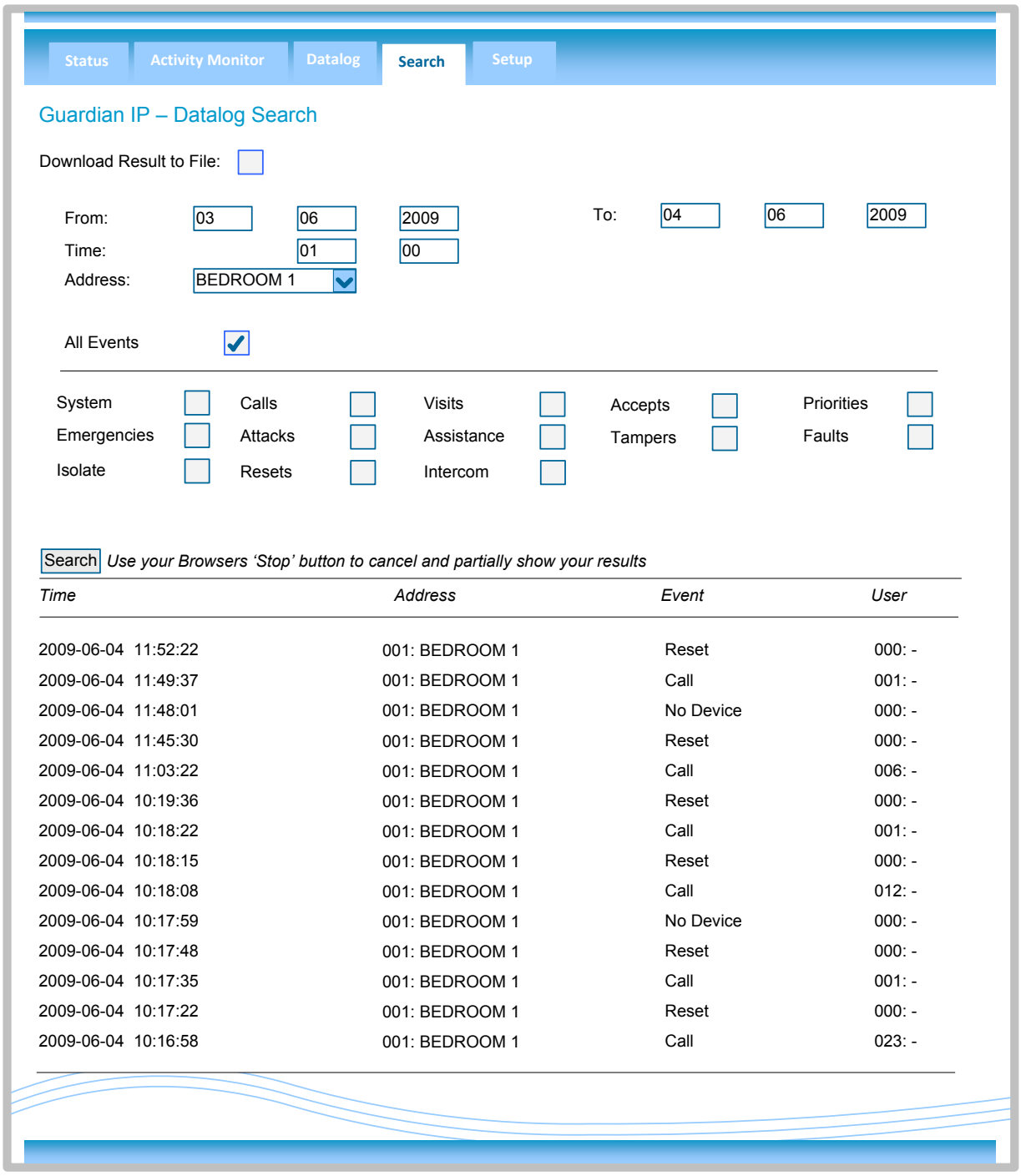
Guardian IP Embedded Datalog and Search Facility

The embedded search facility allows a filter to be applied to this data log for retrieval purposes. Data can be filtered by date, time, location and event type. The data may be shown on-screen or downloaded and imported directly into Microsoft Excel.



L7700 IP16 Intelligent Power Supply

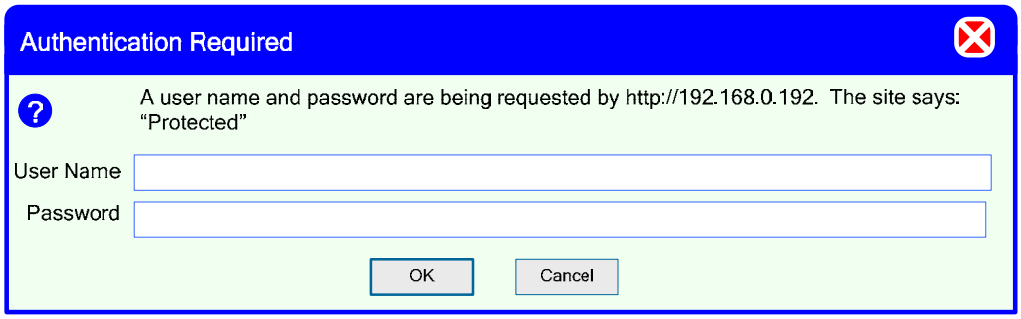
Guardian IP Datalog Search Facility - Example



L7700 IP16 Intelligent Power Supply

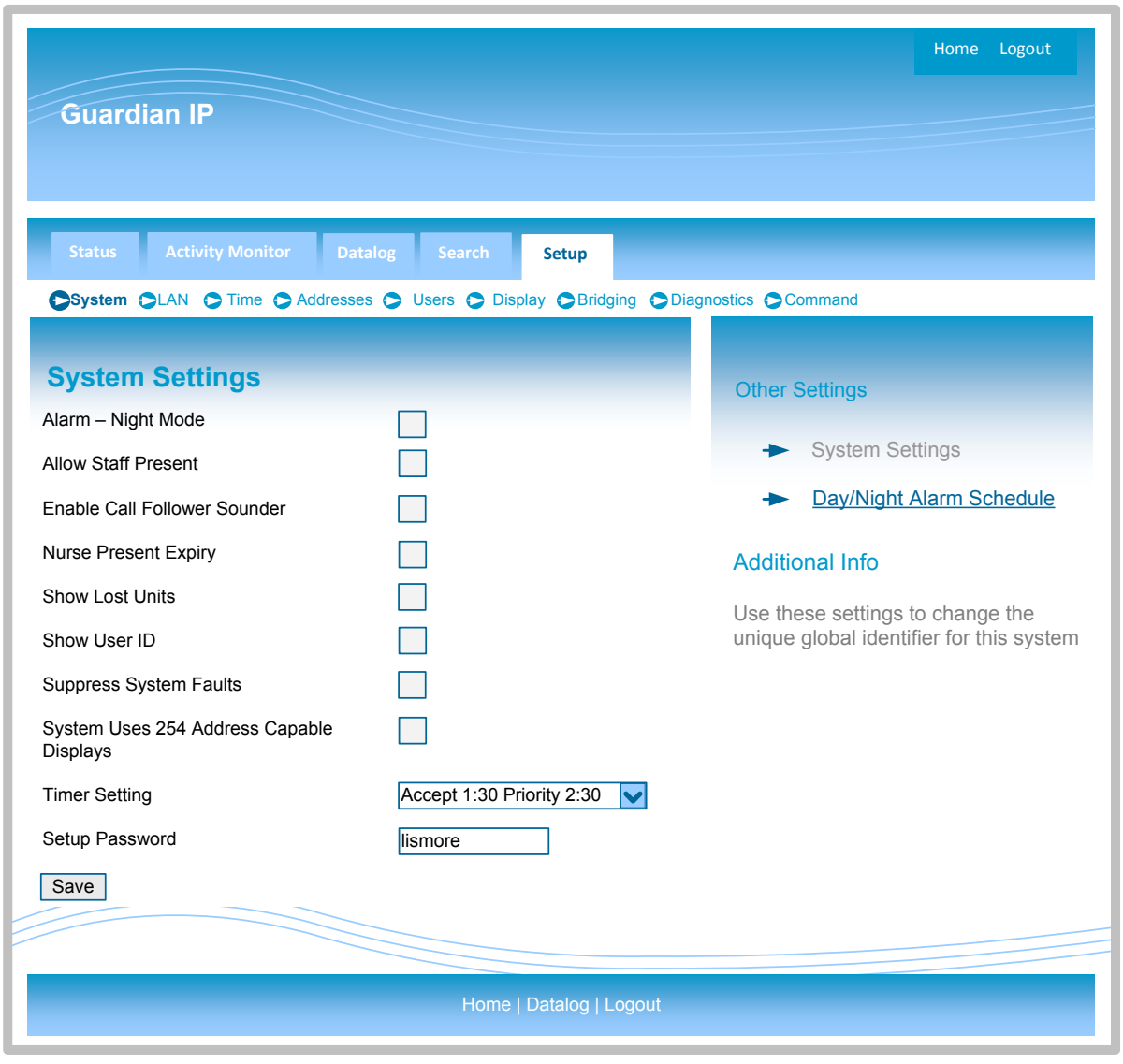
Guardian IP Set Up Page

The setup tab gives access to the engineering configuration screens and is password protected to prevent unauthorised access



Guardian IP System Configuration Screen

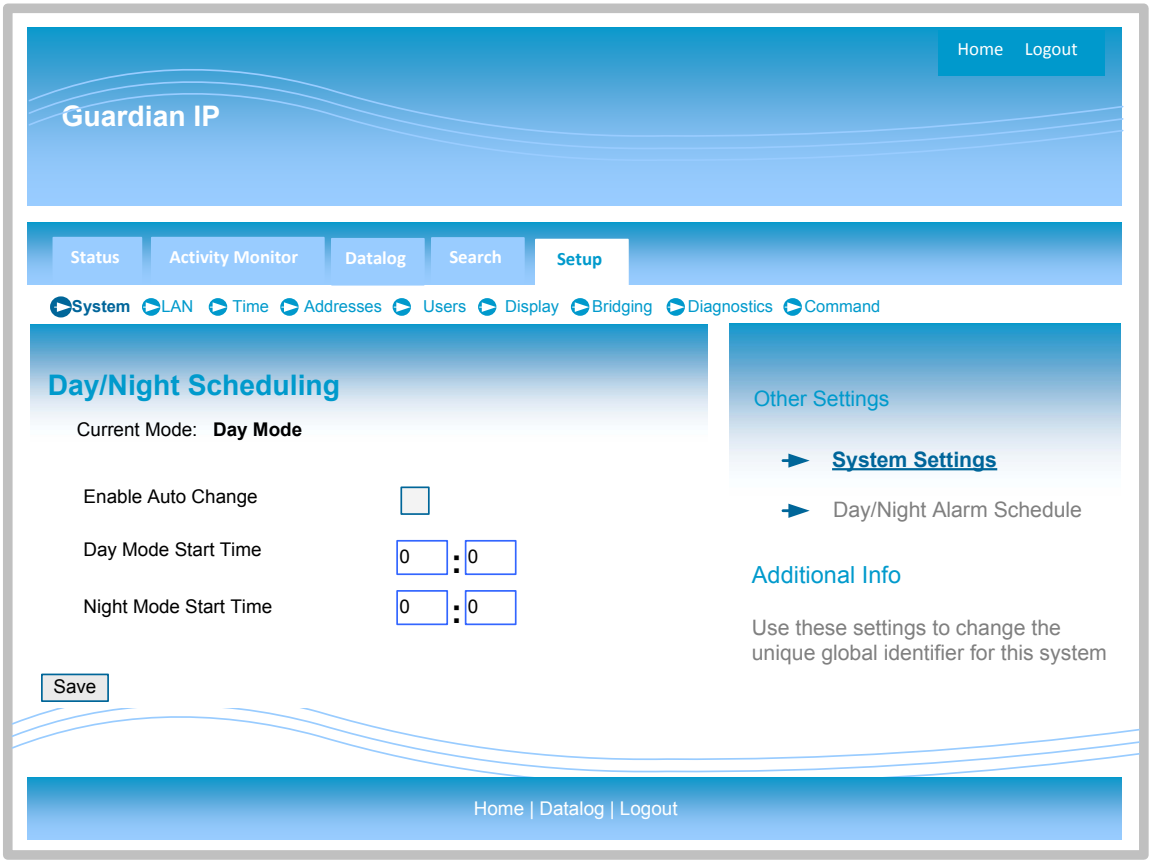
The first screen is the system configuration screen which allows global system settings to be configured. These were previously configured using DIP switches on the L7717 and L717 power supply units. The Day/Night Alarm scheduling is also accessed from this screen and the setup access password can be changed.



L7700 IP16 Intelligent Power Supply

Automatic Day/Night Scheduling

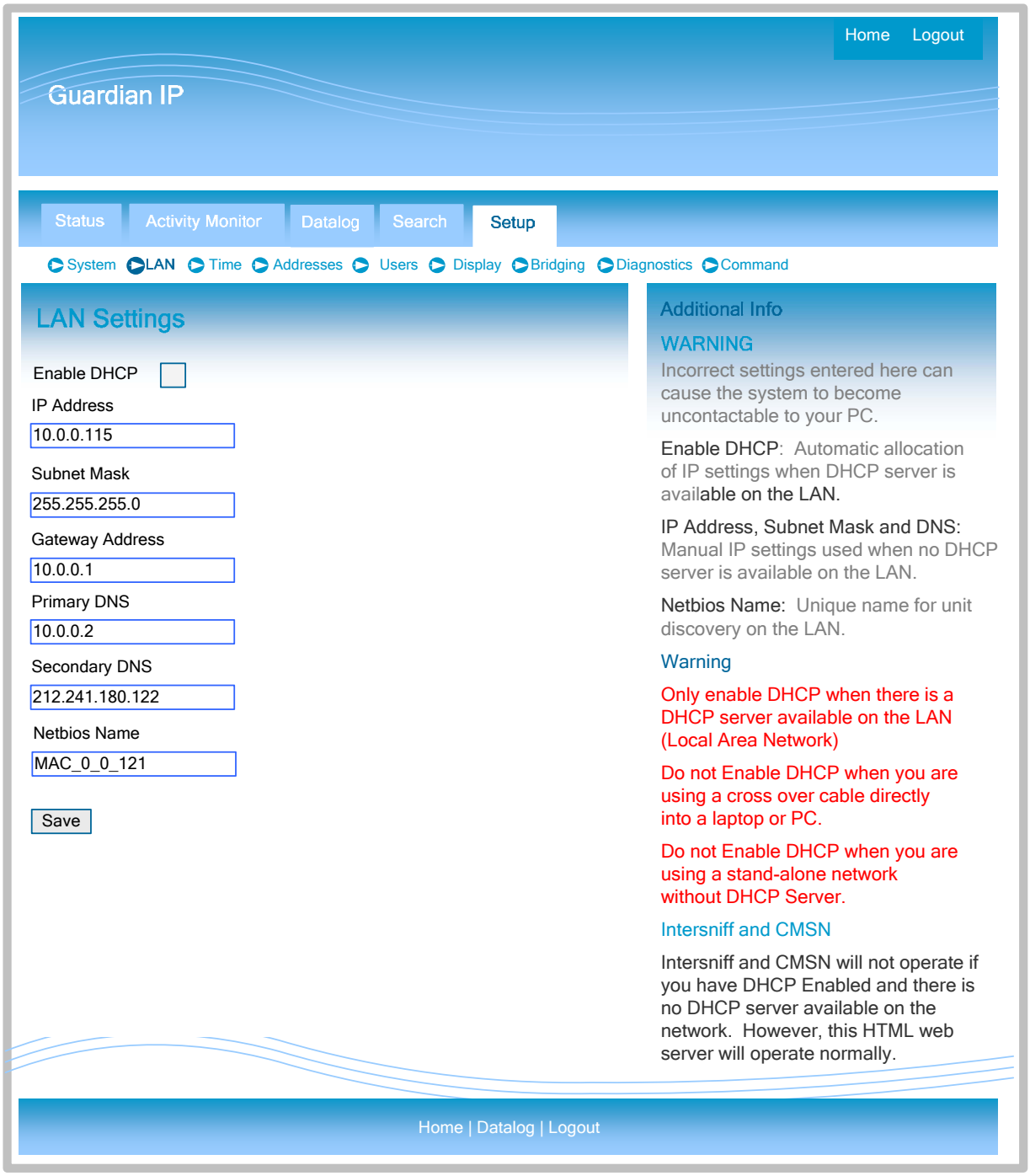
From the system screen there is a link to the Day/Night scheduling screen which can be setup to automatically change the system between the Day and Night alarm modes. Enter the Day Mode Start Time and the Night Mode Start Time, in 24 hour clock format, and select the Enable Auto Change dialogue. The Day/night mode will now automatically change as the on board clock passes the time entered in this screen.



L7700 IP16 Intelligent Power Supply

LAN – Local Area Network Screen

The LAN settings screen controls the essential LAN settings for the IP controller. One a simple one to one crossover cable where a DHCP server is not present (i.e. a simple direct connection between computer and L7700 IP16 Controller) the default IP address will be used (192.168.0.192). On a network where a DHCP server is operating, the L7700 IP16 Controller will automatically be assigned an IP address and this will be shown on the LCD display screen. Alternatively, InterSniff discovery software may be used to locate any IP controller on the LAN.



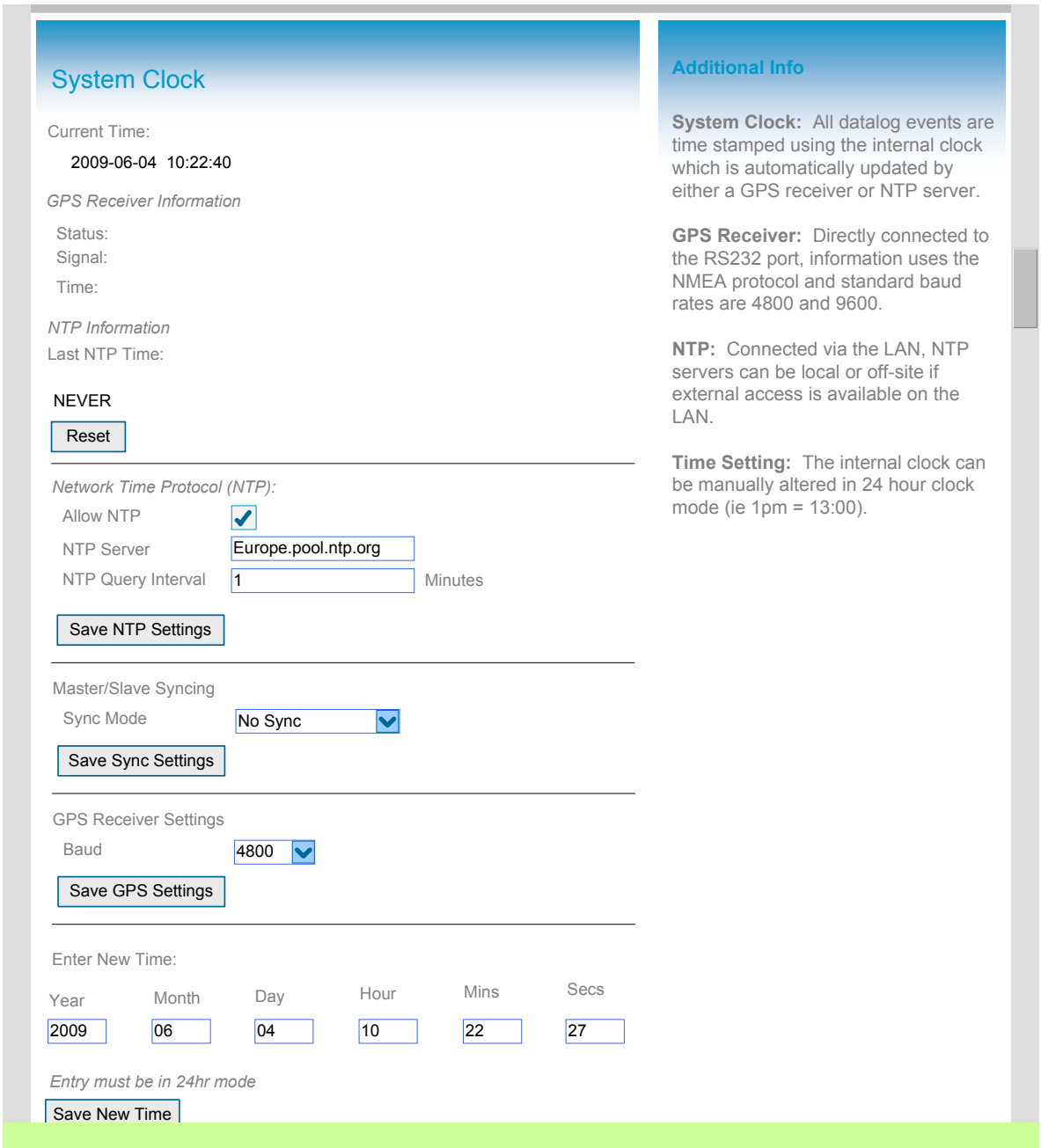
Time – System Clock

L7700 IP16 Intelligent Power Supply

As previously described the L7700 IP16 System Controller contains an on-board Real Time Clock, which can be synchronised by one of the following methods:

NTP Server (Network Time Protocol) over the LAN
GPS Clock connected to the RS232 input
Manually using the Embedded web server on this page.

Please note that if a GPS clock is detected, this will override the manual settings and the NTP updates.



L7700 IP16 Intelligent Power Supply

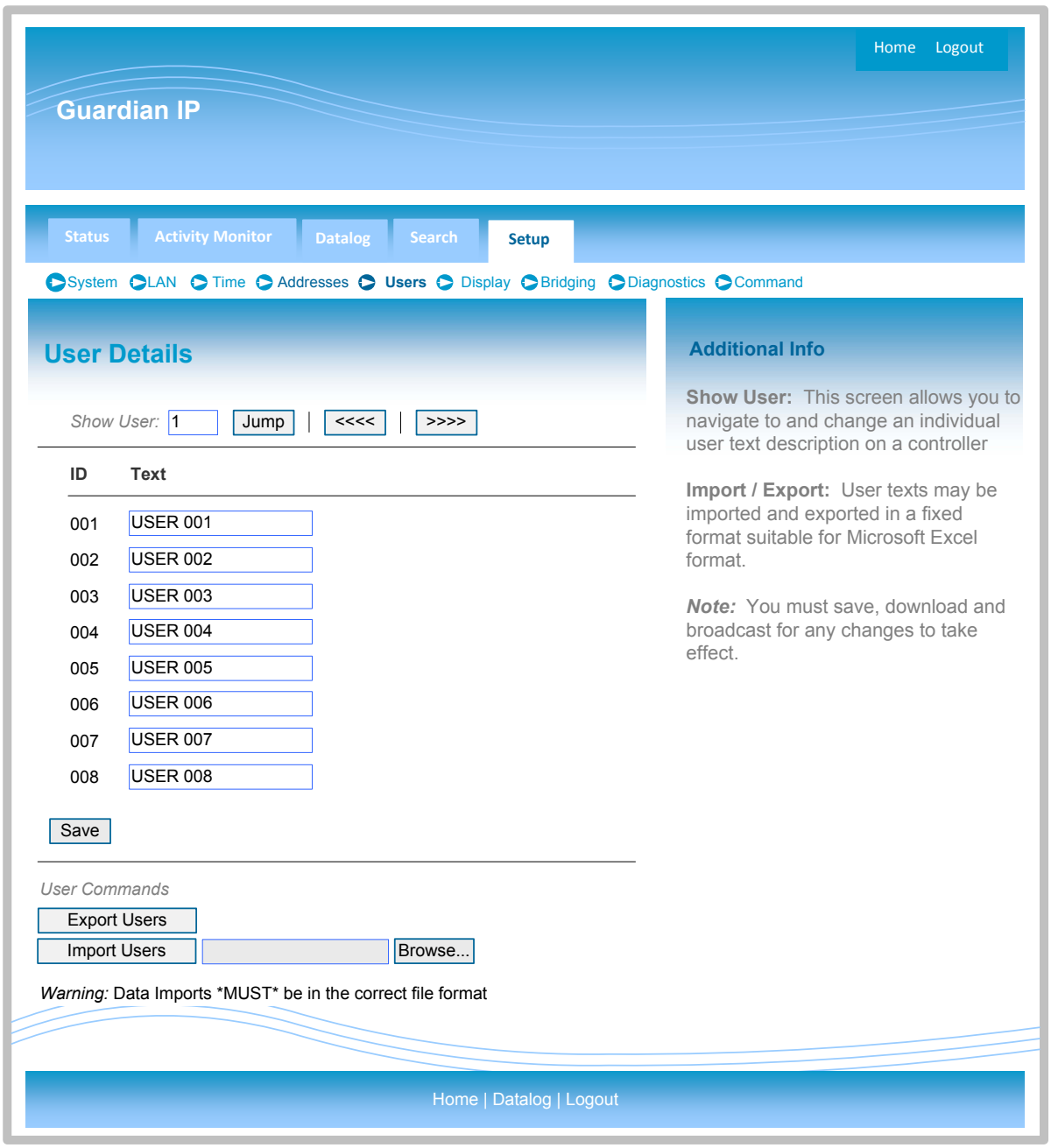
Addresses – Address Descriptions

The Address and User Descriptions may be manually entered into the web pages shown below or alternatively may be uploaded from an Excel spreadsheet. Please note the Excel Import/Export must be formatted in the correct manner and we recommend editing a previously exported spreadsheet rather than creating anew one, to ensure that the correct is used. The Screen below shows eight address descriptions at one time and the pages can be navigated using the Forward (>>>>) and Back (<<<<) arrows or entering a specific address and selecting the JUMP button.

L7700 IP16 Intelligent Power Supply

Users – User Descriptions

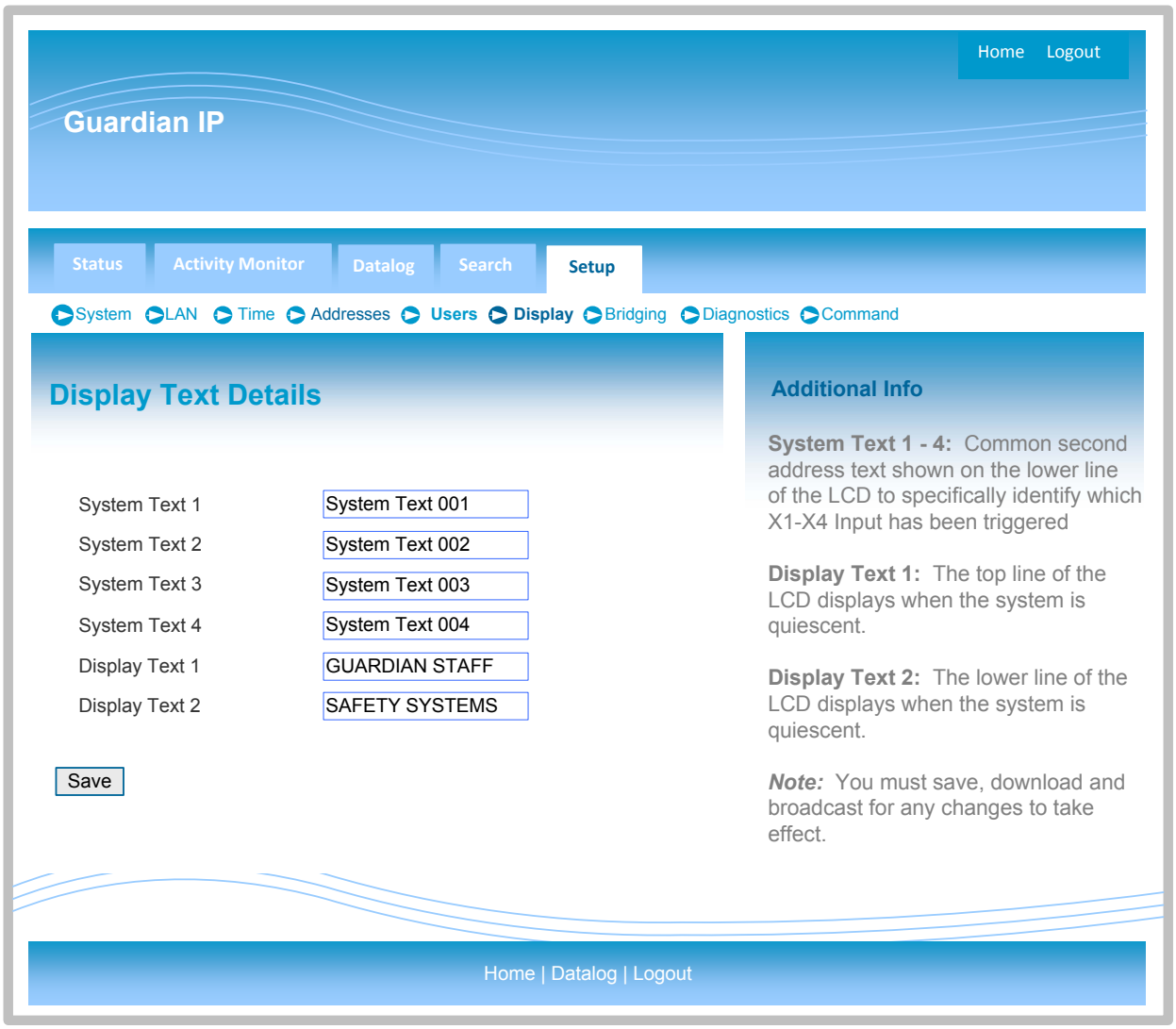
The User Descriptions (User ID's) may be manually entered into the web pages shown below or alternatively may be uploaded from an Excel spreadsheet. Please note the Excel Import/Export must be formatted in the correct manner and we recommend editing a previously exported spreadsheet rather than creating anew one, to ensure that the correct is used. The Screen below shows eight address descriptions at one time and the pages can be navigated using the Forward (>>>>) and Back (<<<<) arrows or entering a specific address and selecting the JUMP button.



L7700 IP16 Intelligent Power Supply

Display – Display Text Descriptions

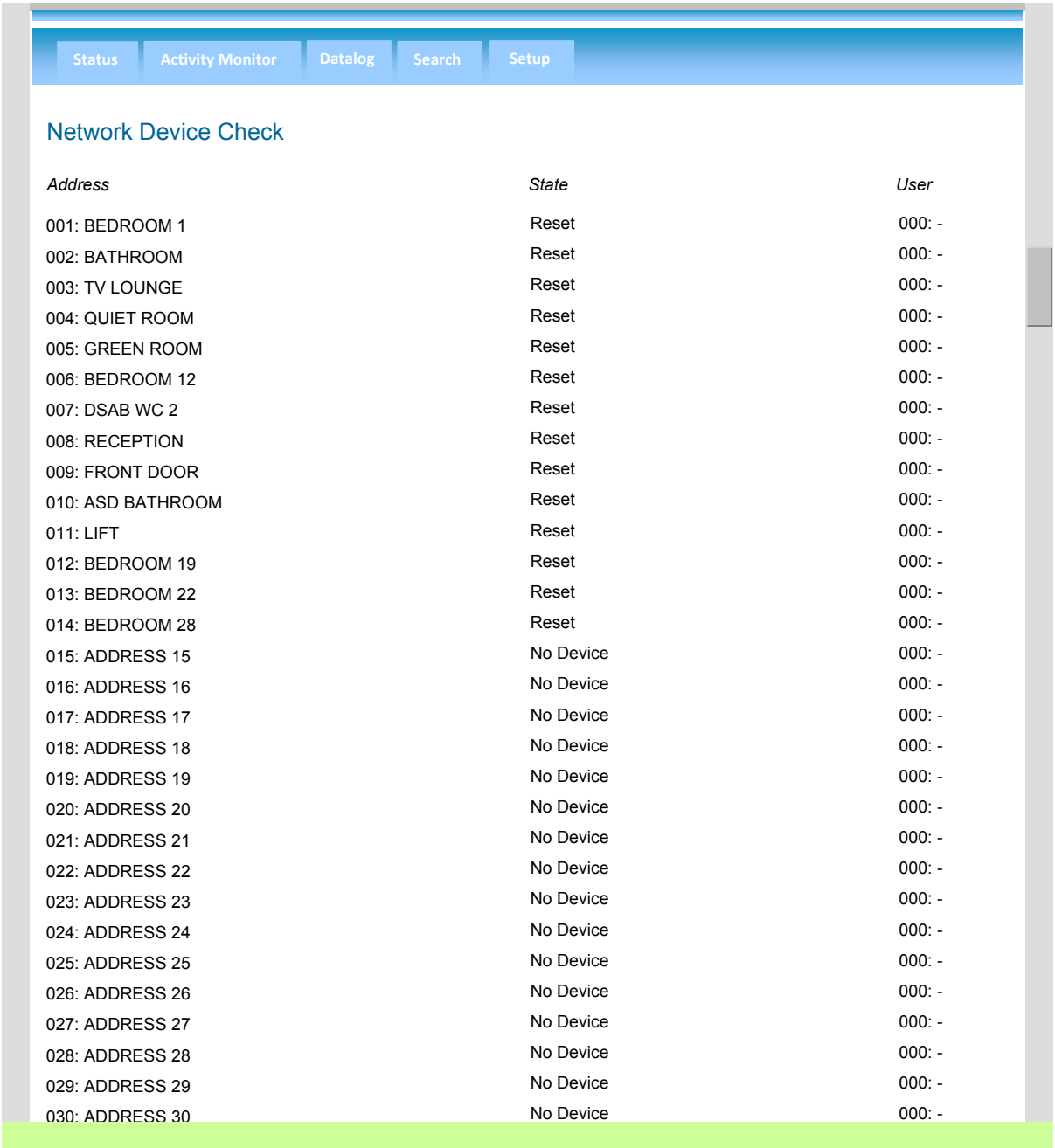
The display text descriptions are the four text strings reserved for the *System Text* descriptions which are linked to the X1, X2, X3, & X4 external inputs on certain addressable call point devices. During an active call, these descriptions will be shown on the lower line of the LCD display unit when a call is activated using one of these terminals. In addition, the *Display Text* lines 1 and 2 may be edited to shown a site specific message on the displays when they are quiescent.



L7700 IP16 Intelligent Power Supply

Network Device Check

Under the Diagnostics tab, the Network Device check provides a list of the network devices currently connected to the L7700 IP Controller, together with their current call state and user information.
If any device is being simulated by the IP Controller, for bridging purposes for example, it will be identified with an [S] after the address.

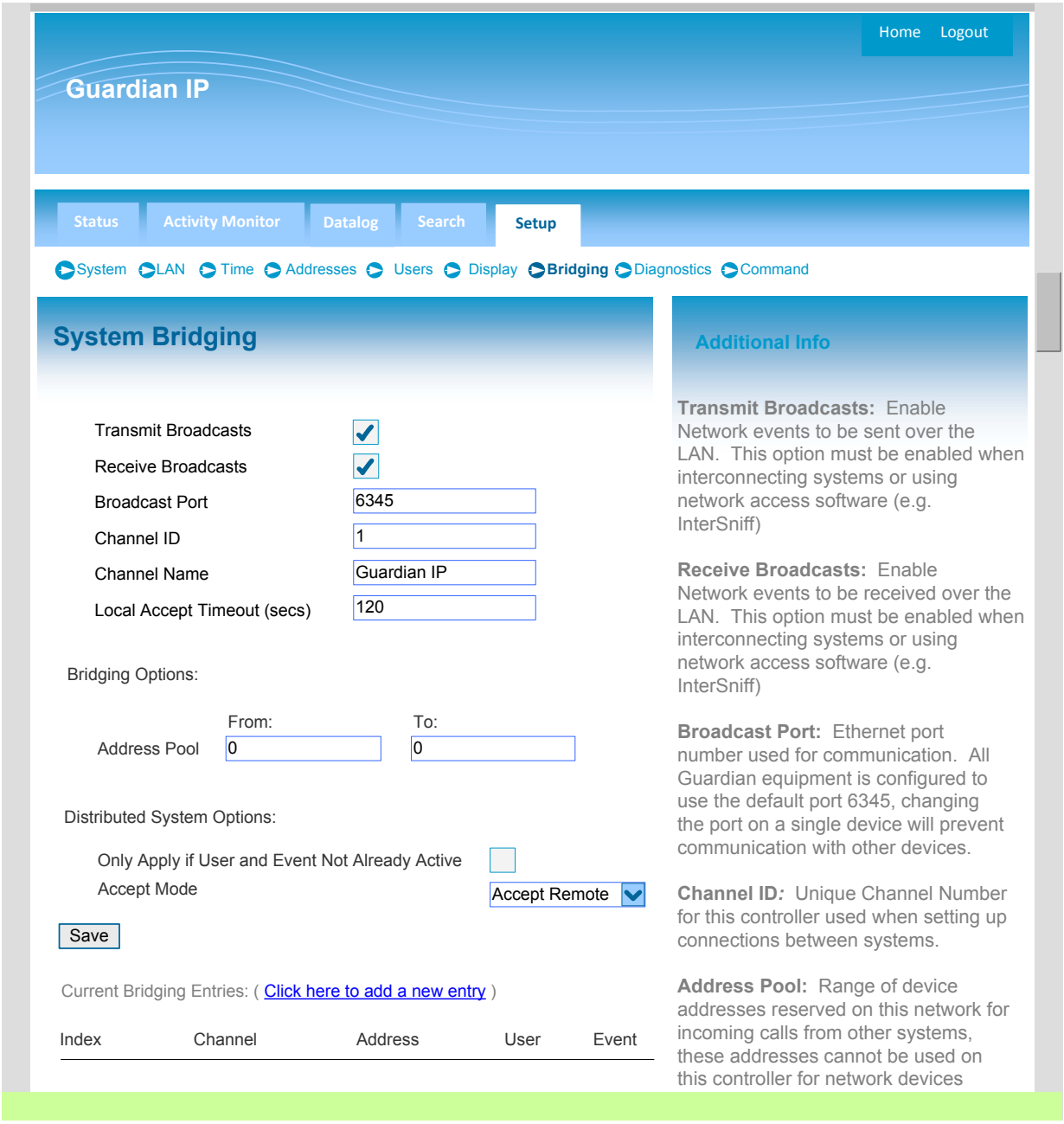


Address	State	User
001: BEDROOM 1	Reset	000: -
002: BATHROOM	Reset	000: -
003: TV LOUNGE	Reset	000: -
004: QUIET ROOM	Reset	000: -
005: GREEN ROOM	Reset	000: -
006: BEDROOM 12	Reset	000: -
007: DSAB WC 2	Reset	000: -
008: RECEPTION	Reset	000: -
009: FRONT DOOR	Reset	000: -
010: ASD BATHROOM	Reset	000: -
011: LIFT	Reset	000: -
012: BEDROOM 19	Reset	000: -
013: BEDROOM 22	Reset	000: -
014: BEDROOM 28	Reset	000: -
015: ADDRESS 15	No Device	000: -
016: ADDRESS 16	No Device	000: -
017: ADDRESS 17	No Device	000: -
018: ADDRESS 18	No Device	000: -
019: ADDRESS 19	No Device	000: -
020: ADDRESS 20	No Device	000: -
021: ADDRESS 21	No Device	000: -
022: ADDRESS 22	No Device	000: -
023: ADDRESS 23	No Device	000: -
024: ADDRESS 24	No Device	000: -
025: ADDRESS 25	No Device	000: -
026: ADDRESS 26	No Device	000: -
027: ADDRESS 27	No Device	000: -
028: ADDRESS 28	No Device	000: -
029: ADDRESS 29	No Device	000: -
030: ADDRESS 30	No Device	000: -

L7700 IP16 Intelligent Power Supply

Bridging – System Bridging

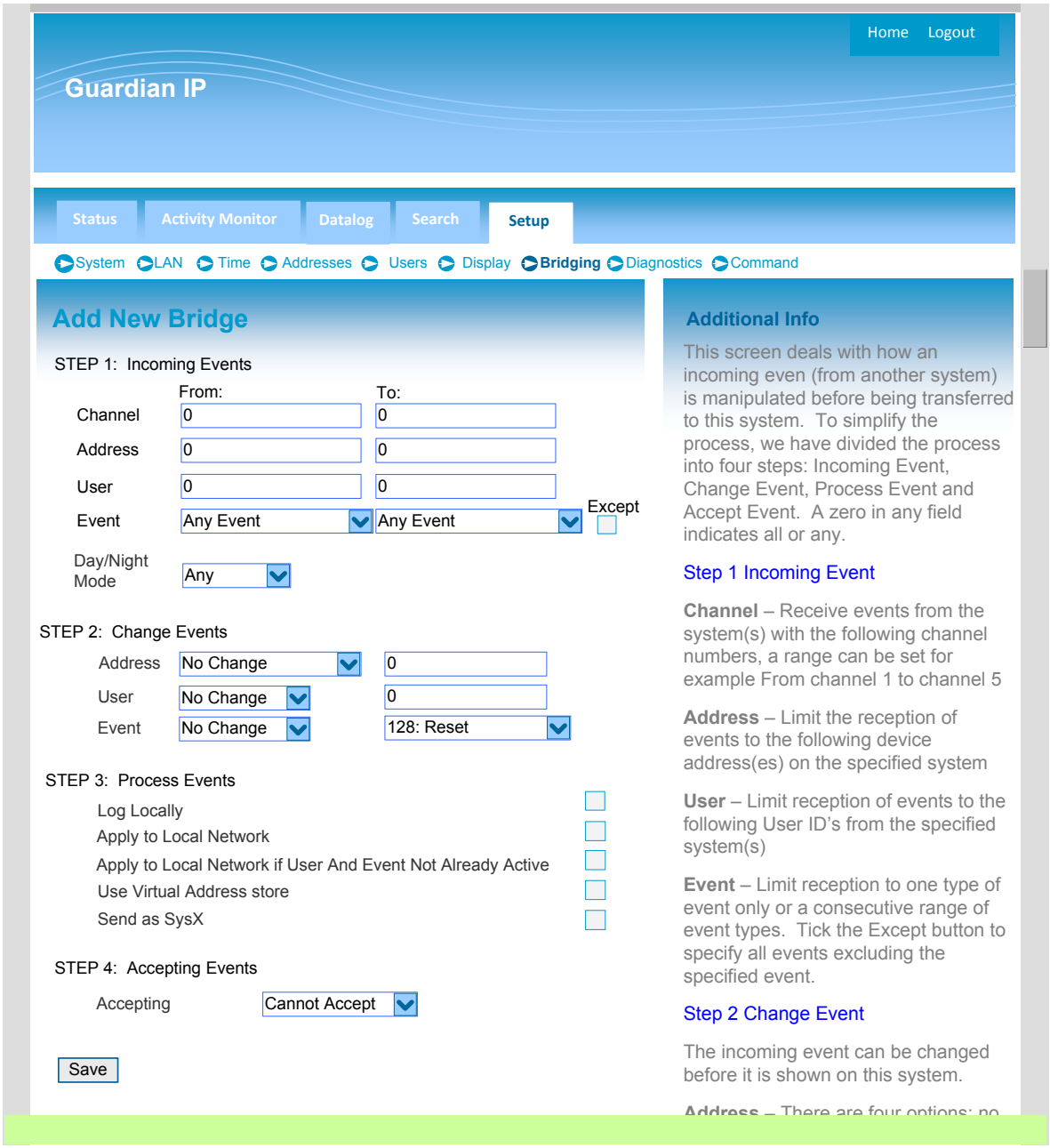
This screen controls the way that the IP Controller communicates with other IP Controllers over the Local Area Network. The Transmit and Receive Broadcast must be selected and the Broadcast Port set to 6345 to ensure communication between controllers, and the Intersniff network configuration software. Further information on Bridging can be found elsewhere in this manual.



L7700 IP16 Intelligent Power Supply

Bridging – System Bridging

This screen deals with how an incoming event (from another system) is manipulated to this system. To simplify the process, we have divided the process into four steps; Incoming Event, Change Event, Process Event and Accept Event. A zero in the field indicates "All" or "Any".



Step 1: Incoming Event

Channel – Receive events from system(s) with the following channel numbers. A range of channel numbers can be set, for example ***From*** Channel 1 ***To*** Channel 5.

Address – Limit reception of events to the following device address(es) on the specified system(s).

User - Limit reception of events to the following User ID's from the device address(es) on the specified system(s).

Event - Limit reception to one type of event only or a consecutive range of events. Tick the Except button to specify *all* events *excluding* the specified exception.

L7700 IP16 Intelligent Power Supply

Step 2: Change Event

Address – There are four options available;

No Change:	The same incoming address is shown on the receiving system
Add Offset:	a numerical value is added to the incoming address number
Map to New:	The incoming event is transferred to a single address
Use Address Pool:	Use the device addresses reserved on this system within the Address Pool settings on the main bridging page.

User – There are three options;

No Change:	The same incoming User is shown on the receiving system
Add Offset:	a numerical value is added to the incoming User number
Map to New:	The incoming User is transferred to a single User number on the receiving system

Event - There are two options;

No Change:	The same incoming Event is shown on the receiving system
Map to New:	The incoming Event is transferred to a single specified Event on the receiving system

Step 3: Process Event

You may choose how the *Incoming Event* is processed by this system

Log Locally – Record the incoming event in the Datalog on this system.

Apply to Local Network – Show the incoming event as a network device on this system (i.e. make the Call show on the displays and overdoor lights etc.

Apply to Local Network User ID & Event Not Already Active– If the incoming event and user matches an alarm already being shown locally on this system then do not apply to the network. This is used where a single trigger can activate network devices on more than one system.

Use Virtual Address Store ("Many to One Bridging") – Where the incoming event is transferred to a single address, (Many-To-One) enable this feature to count the number of incoming calls and resets to ensure the Bridge is only reset when all Many-To-One incoming calls are reset. For example, if 10 call points are set in a many-to-one configuration and two calls are active, two resets are needed to cancel the call on this system.

Send as SysX – Enable this feature to send the incoming events text descriptions to the displays on the receiving system(s). The call will show and sound on the displays as though it originated from this systems. This reature will only operate with the new 254 Address Capable Display Units, and is not compatible with the legacy Guardian/Intercall Displays.

Step 4: Accept Event

This final dialog deals with what happens when the incoming event is accepted at a local display unit on the receiving system. There are four options available;

Cannot Accept:	The incoming event cannot be accepted on the local displays and any attempt to Accept is ignored.
Accept Locally:	The incoming event can be accepted on the local displays and will remain accepted for the period specified in the Local Accept Timeout.
Accept Remote:	The incoming event can be accepted on the local displays and will be passed back to the originating calling device which will be accepted also.
Reset Locally:	The incoming event can be accepted on the local displays and will be reset. The originating calling device will not be affected.

L7700 IP16 Intelligent Power Supply

Command – Network Commands

The commands page contains three basic commands:

BROADCAST:	Send the current Address, User, System and display text to the display units.
REBOOT:	Resets the entire controller and all of the network devices
RESET:	Reset the network devices only

Guardian

L7700 IP16 Intelligent Power Supply

Connecting to the L7700 IP16 Controller

1. *Control Panel – Network Connection* and double click the *Network Connections* icon to open the Network Connections Dialog window. Now select the Wired Local Area Connection.

2. The Local Area Network Connections Status dialog screen will appear. Select the *Properties* button.

3. The Local Area Network Connections Properties dialog screen will appear. Highlight the *Internet Protocol (TCP/IP)* item and select the *Properties* button.

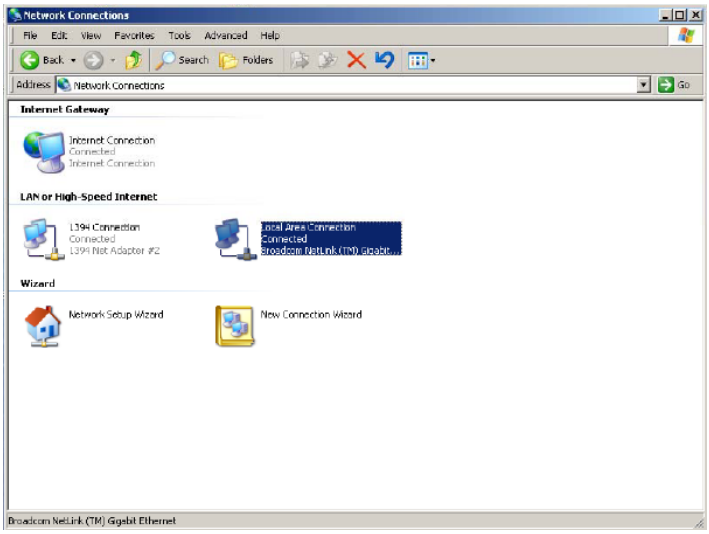
4. The Internet Protocol (TCP/IP) Properties dialog window will now appear. Select the *Use the following IP address* radio button and enter 192.168.0.1 and the 255.255.255.0 Subnet mask (as shown in diagram 4).

5. Now Select *OK* and Windows will reassign the computers IP address.

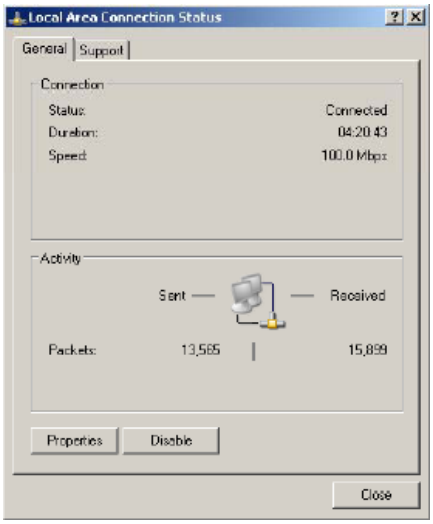
6. Now using a web browser type **http//192.168.0.192** into the address window of the browser. This will open a connection to the L7700 IP16 Web server.

7. You can check the computers IP Address by running a Command Prompt (*Start-Run*-type *cmd* and select OK). Once the Command Window opens type IPCONFIG and hit enter. The IP address should show as 192.168.0.100.

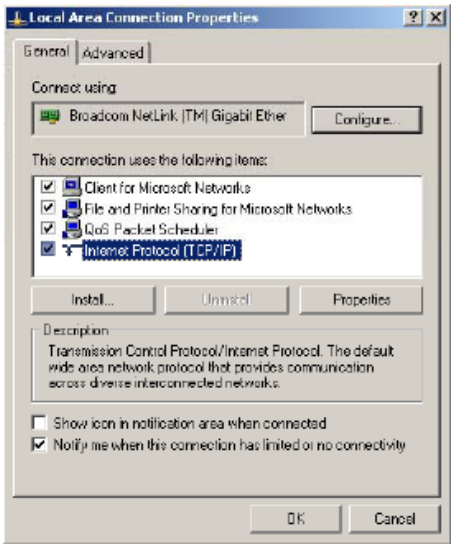
1.



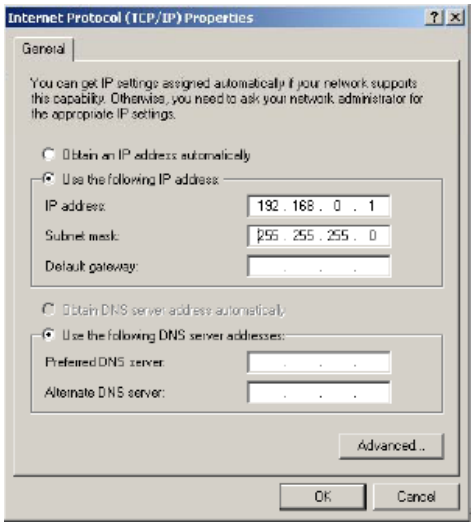
2.



3.



4.



Guardian