DEDICATED MICROS

EcoSense Installation & Operation Guide

NetVu CONNECTED

ecosense

Contents

Introduction

What is the…

EcoSense ?

The EcoSense from Dedicated Micros provides low cost multi channel recording with simultaneous playback and viewing; ideal for the cost conscious user who needs reliable, networked, high performance CCTV at an affordable price.

Available with 4, 8 or 16 camera inputs, all offering telemetry control, the EcoSense has built in Alarm functionality and onboard Activity detection software.

The state of the art touch sensitive front panel and the accompanying Infra-Red (IR) Remote Control make for simple, quick operation. Dedicated Micros trademark plug and play intuitive set-up, user-friendly interface with colour coded 'softkeys' and configuration menus common to both local monitor and web interface; help keep installation and operator training to a minimum.

The EcoSense offers a global record rate of up to 200pps (dependant on model) at CIF and can record up to 16 cameras (dependant on model) simultaneously in MPEG-4 or JPEG format. The Profile Record feature enables an operator to set different recording rates and resolutions across scheduled, normal and alarm modes for all cameras.

As standard, the unit includes internal storage with a CD/DVD-R Writer and USB ports for external video archiving.

Among the many other features included as standard on the EcoSense are; multiway display, multiple language support, telemetry control (including coax telemetry), audio recording, activity detection and remote monitoring using NetVu ObserVer (utilising DM's unique ***Trans****Coding capabilities to provide fluent live and replay images). The EcoSense is undoubtedly the ideal product when high-performance video recording and transmission is required at an affordable cost.*

For further information, please visit the website:

www.dedicatedmicros.com

or contact Dedicated Micros customer services in your region.

Features

- 4, 8 or 16 camera input options
- True global record rate of up to 200pps at CIF
- Simultaneous Live viewing and Recording
- D1/4CIF/2CIF/CIF record rate at 3/3/6/12pps per camera
- JPEG or MPEG-4 recording and transmission
- Touch sensitive front control panel
- Easy to use on-screen, colour coded softkeys
- Field serviceable hard drives
- Telemetry support (Coax & Serial)
- All DVR functions fully supported by Keyboard/IR Remote Control
- MultiMode Recording - Dynamically-switchable resolution, record-rate & compression (MPEG4/JPEG) per camera
- Single, Picture in Picture and Multiway displays
- Live and playback viewing locally and over Ethernet
- Built in activity detection
- Built in DVD writer and USB ports for download of video archive to external flash memory
- Web pages provide easy remote configuration
- Alarm Inputs & Outputs
- Optional external keyboard available

NetVu CONNECTED

The unit has NetVu Connected technology built-in to ensure maximum compatibility with future developments in networked security. NetVu Connected technology enables the Unit to fully interact with other NetVu Connected compatible products from Dedicated Micros including the DV-IP Decoder, NetVu ObserVer and PDA Viewers. Providing interoperability between the worlds leading security companies, NetVu Connected uses industry standard networking protocols supported by a wide range of third party integration products and SDKs to ensure future on-going compatibility.

COMMON CONFIGURATION INTERFACE

A Common Configuration interface is displayed when the unit's configuration screens are accessed locally at the unit or remotely via a web browser. This unified system ensures that the installer is familiar with the configuration screens irrespective of their location to the unit, minimising training and familiarisation time and increasing the speed of installation and alteration.

The Unit includes a unique colour-coded menu structure and onscreen Graphical User Interface (GUI). Context sensitive, the menu structure always represents the area of the menu the user is in, allowing them to quickly select the options and settings they need without having to trawl through menu pages and options. The colour coded buttons displayed on the monitor match those on the touch screen front panel and IR Remote Control, whilst control can also be conducted through an attached USB Mouse or supported Keyboard (DM/KBC1 / DM/KBC2).

Design of the manual

The manual has three parts:

1. Installation — Shows details of how to install the unit and connect external devices.
2. Configuration — Shows details of the unit's menus.
3. Operation — Shows quick reference details on how to control the unit.

The order and layout of these pages has been designed to help the setup process. It is recommended that the menus are edited sequentially (as they appear on the page), to enable accurate, easy and efficient setup.

Important Safeguards

Read Instructions
All the safety and operating instructions should be read before the unit is operated.

Power Sources
This unit should be operated only from the type of power source indicated on the manufacturer's label.

Servicing
Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards.
Refer all servicing to qualified service personnel.

Ventilation
Ensure unit is properly ventilated to protect from overheating.
All the safety and operating instructions should be read before the unit is operated.

To prevent fire or shock hazard, do not expose this equipment to rain or moisture. The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user of this equipment that there are dangerous voltages within the enclosure which may be of sufficient magnitude to constitute a risk of electric shock.

WARNING

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Lightning Strike
The unit has some in-built protection for lightning strike, however it is recommended that isolation transformers be fitted to the system in areas where lightning is a common occurrence.

Regulatory Notes and FCC and DOC Information
(USA and Canadian Models Only)

Warning: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

If necessary, the user should consult the dealer or an experienced radio/television technician for corrective action. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems".

This booklet is available from the US Government Printing Office, Washington, DC20402,
Stock No. 004-000-00345-4.

This reminder is provided to call the CCTV system installer's attention to Art. 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

CE Mark

If this product is marked with the CE symbol it indicates compliance with all applicable directives.

Directive 89/336/EEC.

A 'Declaration of Conformity' is held at Dedicated Micros Ltd.,

1200 Daresbury Park, Daresbury, Cheshire, WA4 4HS, UK.

Laser

The unit supports an integrated CD writer, the following are additional warnings associated with installing and operating the CD writer, please pay particular attention to this information.

- Caution - Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- To prevent exposure to laser emanations (harmful to the eyes), do not attempt to disassemble this unit.

Installing the Unit

Before you start

Check the contents of the box

The following items are included in the box:

Remove all items from the packaging and check the items listed below are present.

- EcoSense DVR (either 4, 8 or 16 input)
- IR Remote Control
- 12v DC Power Adaptor
- EcoSense Software CD
- Quick Start Guide

If any of these items are missing please contact Dedicated Micros Technical Support team.

Note: *Before installing the unit, carefully read all Safety Instructions and the following information on where the unit should be located.*

Choosing a location for installation

- The unit is designed to be desk, shelf or rack mounted. Rack mounting brackets are available as an optional accessory.
- Ensure the unit is properly ventilated to protect from overheating.
- Ensure there is a 3cm gap on both sides of the unit.
- Ensure the IR receiver on the front of the unit faces the operator position, and is not more than 10 feet (3 metres) from the operator.
- Ensure the unit is not located anywhere it could be subject to mechanical shocks.
- The unit should be located in an area with low humidity and a minimum of dust. Avoid places like damp basements or loft spaces.
- If the unit is to be installed in a closed assembly, the maximum operating temperature must not exceed 40°C (104°F).
- Ensure there is reliable earthing of the mains outlet when fitted to supply connections (other than direct connection to the branch circuit).
- Any branch circuit supplying the unit must be rated at 15Amps.
- It is recommended that an uninteruptable power source be connected to the unit in case of power failure (to ensure continuous operation of the unit).

Electrical Connections

Please ensure the following are available and have been tested prior to the installation:

- Mains point
- Network point
- Network cable
- Active video signals i.e. at least one working camera feed
- PC with CD ROM drive and connection to the same network as the DVR (Recommended).

Quick Overview Of Default Record Settings
Units provide out of the box:

High performance recording on ALL cameras with minimal configuration.

Consistent recording duration and smooth motion video per camera regardless of the number of cameras connected.

Continuous 3pps MPEG4 recording on all cameras, on all channel variants (default out of the box).

Complete Flexibility
It is possible to set the unit's record configurations based on specific priorities. The **Profile Record** feature allows different record rates and quality settings to be used for unset, set and override modes for all cameras. This can ensure event images are recorded at high quality, whilst normal 'non event' images are recorded at a reduced setting, minimising storage requirements.

With true global record rates of up to 200pps (PAL) and 240pps (NTSC), the unit offers recording of up to 3pps on each camera, out of the box, at a record duration of 7, 14 or 30 days (the default is 14 days).

Note: *It is the Installer/Owner's responsibility to ensure that the record duration is set to the necessary requirements of the application.*

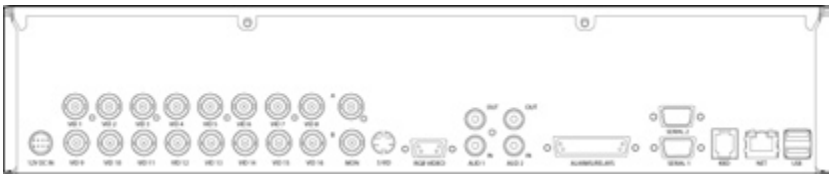
Installation

Front Panel connections

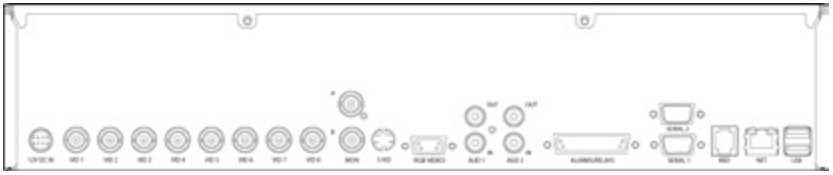
Data

CD/DVR	Internal CD/DVR drive
USB	USB2.0 connector
IR	Infra-Red receiver for use with Remote Control

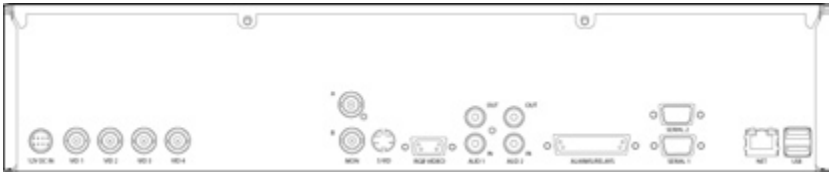
Rear Panel connections



16 Input model



8 Input model



4 Input model

Video

VID1 to VID4/VID8/VID16	75Ω BNC composite video inputs 1V pk-pk (with loop through available)
MON A	75Ω BNC composite monitor output, 1V pk-pk
MON B	Spot Monitor output
S Video	S Video Connection
VGA	VGA Monitor output

Audio

Audio IN	2x RCA (phono) socket, 8KHz/16KHz/22KHz sampling 75Ω input impedance, 1V pk-pk
Audio OUT	2x RCA (phono) socket, line level <100Ω output impedance,1V pk-pk amplification required

Data

SERIAL 1	RS-232 (3 wire)
SERIAL 2	RS-485 (2 wire)
USB	2x USB2.0 connectors
NET	RJ45 Ethernet network connector, 10/100 Mb/s Ethernet Network
KBD	RJ12 connector for use with KBC01 or KBC02 Keyboards

Note: *The KBD connection is not available on the 4 channel unit.*

Alarms and relays

ALARMS IN	25 way (female) D Type 24V 200mA 17 General Alarm Inputs Range of Alarm states are i. 0 – 800R = Short circuit ii. 800R – 2K = closed contact iii. 2k – 12k = open contact iv. > 12K = open circuit.

Note: *5 alarm inputs supported on 4 channel unit.*

RELAYS	Via 25 way (female) D Type rated at 24V 200mA 2 onboard light duty relay output (500mA@12V-48V Max)

Note: *1 relay output supported on 4 channel unit.*

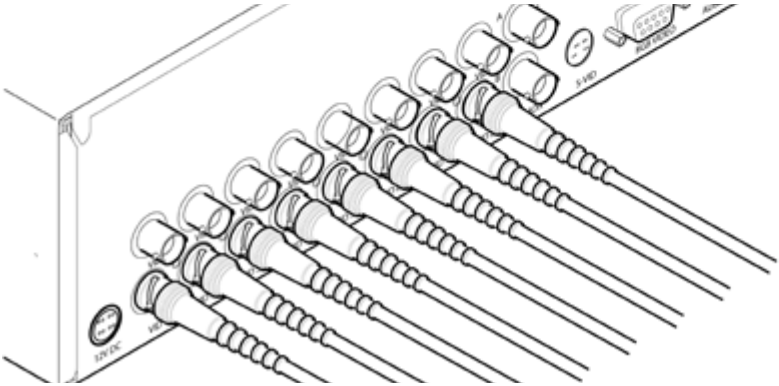
Power

POWER	input for 12v DC external power unit (supplied).

Installing the EcoSense Unit

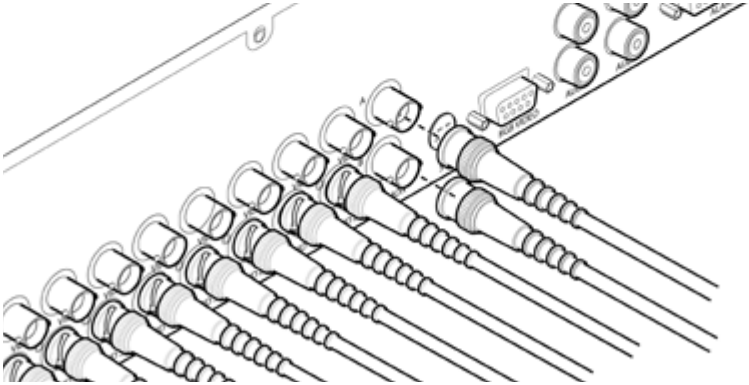
This procedure shows the sixteen camera input version.

Step 1 Connecting Video



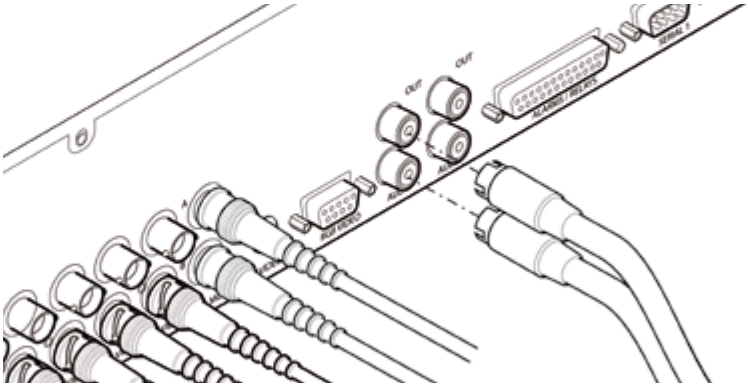
The unit supports up to 4, 8 or 16 connected Video Inputs (dependant on model) via the 75Ω BNC connectors. Connect cameras to the video inputs, starting from input 1.

Step 2 Monitor



The unit supports a main monitor via 'Mon A' and a spot monitor via BNC labelled 'Mon B'.
A monitor can also be connected via the S-Video or RGB Video outputs.

Step 3 Connecting Audio



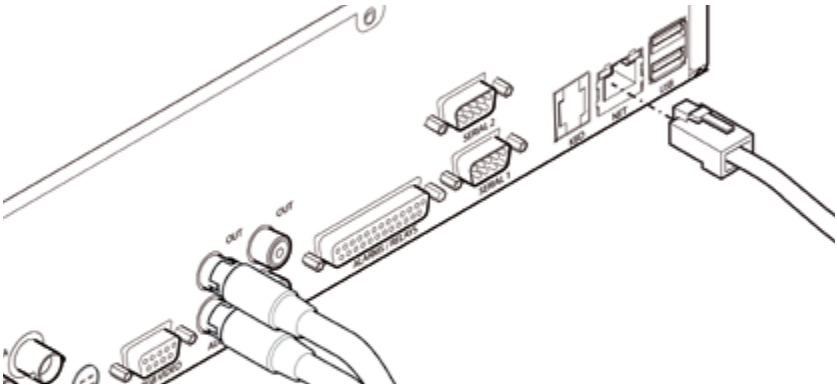
The unit supports two channels of bi-directional audio, accessible through NetVu ObserVer. Connect the audio equipment to the phono sockets AUDIO IN and AUDIO OUT. The audio channel defaults to recording camera 1.

The following modes of operation are supported:

- Challenge – intruders from an RVRC.
- Listen – to local audio from a site at the RVRC.
- Record - local audio from a site with the video.
- Replay - all audio through a local Audio output (not supported when Audio out is used as a challenge/PA source)

Note: *The Audio output can be configured as a challenge output or as a replay output.*

Step 4 Connecting to the Network



The unit supports a 10/100Mbps auto-detecting network port. Use a CAT5 cable to connect the unit to the network.

By default the unit is configured for DHCP i.e. the unit is automatically allocated an IP address from a network DHCP server.

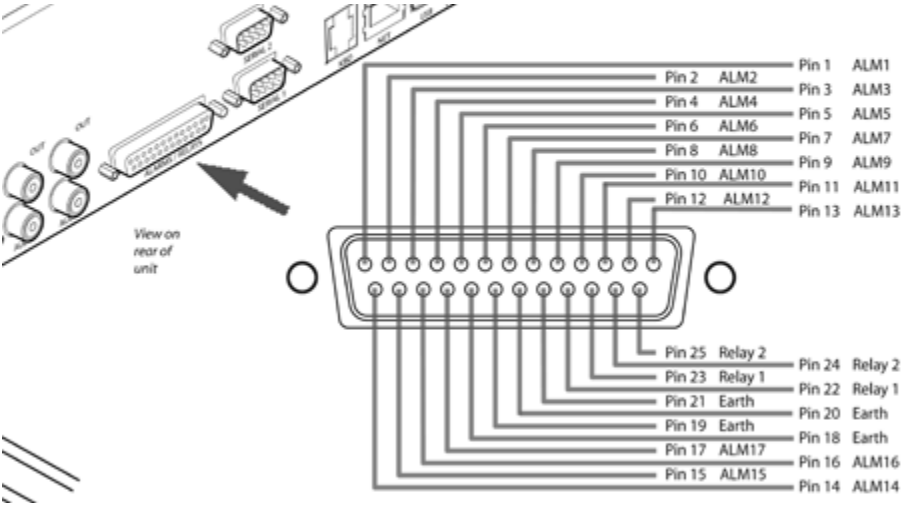
DHCP works by assigning an IP address at initial connection to the network. It is possible however that this IP address can change without notification i.e. following power failure. It is therefore recommended that the unit be allocated a fixed IP address. A fixed IP address can be assigned via the Configuration Menu pages:Network Settings->Network->IP Address.

When the unit is powered up, the network address can be found by viewing on a local monitor and navigating to Configuration Menu pages:System Settings->System->IP Address.

Refer to 'Configuring The Unit' for further guidance on locating the unit's IP address and for details of the default DNS (Domain Name Server) address.

DNS (Dynamic Name Servers) is supported and therefore the unit can be assigned a name. This removes the need for the unit to have a fixed IP address and makes it easier for a remote user to locate.

Step 5 Alarms / Relays



Alarms

The unit supports 17 normally open/closed alarm inputs via the back panel, or one Global keyswitch input with camera specific inputs configurable as entry/exit alarms.

Note: *The 4 channel unit supports 5 normally open/closed alarm inputs.*

Relay Connector

Pin	**Alarm Input Connection**
1 - 17	1-17
18-21	Earth Common

Relays
The unit support up to two 24V 200mA relays

Relay Connector

Pins	Connection
22 & 23	Relay 1 signal
24 & 25	Relay 2 signal

Note: *The 4 channel unit supports one relay output.*

Step 6 Connecting Serial Ports
Serial port 1 offers RS-232 connectivity, serial port 2 offers RS-485 connectivity.

Serial ports have two main uses:

1. Connecting twisted pair telemetry for PTZ cameras.
2. Debug operations.

RS232

RS-232	Serial 1 Pin Allocation
Transmit Data (RXD)	2
Transmit Data (TXD)	3
Ground (GND)	5

RS485

RS-485	Serial 2 Pin Allocation
Transmit Data (RS485+)	1
Transmit Data (RS485-)	9
Ground (GND)	5

Step 7 Connecting a Keyboard
The unit supports Dedicated Micro keyboards DM/KBC1 and DM/KBC2. Connect either of these keyboards via the KBD connector socket on the rear panel.

Note: *The optional Keyboard is not supported on the 4 channel unit.*

Note: *Refer to the Unit Operation section of this manual for further guidance regarding the supported keyboards.*

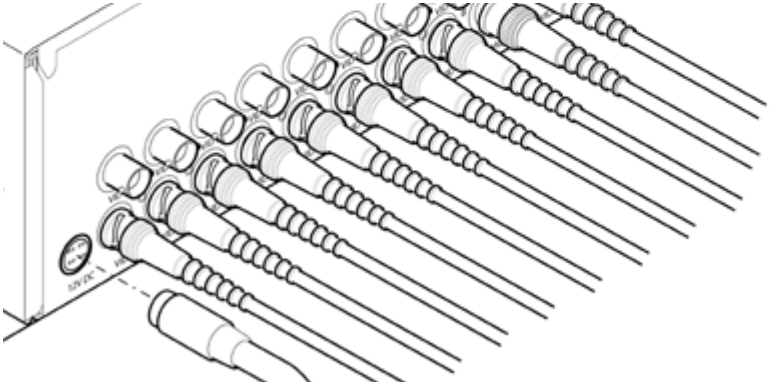
Step 8 Connecting DM Oracle, 2060 & 2040 Domes
A DM Oracle, 2040 or 2060 Dome can be connected via RS485 twisted pair cabling.

The dome address should be set according to the camera number of unit (1-16).

Pin connections for RS485 connection to a Dennard dome on serial port 2 are:

Dome Cable	**Pin Connections**
Yellow	1 TX+
Green	9 TX-

Step 9 Connecting Power



Connect the 12v DC power adaptor (supplied) to the unit and then to the wall socket, or to a fused spur connection. To be compliant with wiring regulations in some countries, an Alarm/ Security device should be connected to a fused spur and not a wall outlet socket (check local regulations before installation).

Accessing & Configuring the Unit

The unit can be configured either on the local monitor or over the network using a PC with Internet Explorer or similar browser. Both have near identical menu interfaces.

Accessing the menus on a local monitor

1. The Configuration pages can be displayed on a local monitor (connected to BNC Connector 'Mon A' on the rear of the unit). When connected, point the IR Remote Control at the front of the unit and press the MENU button.

Note: *If the IR Remote Control does not open the configuration menus, press the DVR button to make sure it is in DVR mode, then press the MENU button again.*

Accessing the menus on a PC web browser

Locating the Unit IP address

The IP address of the unit is required to access the webpages. It can be identified from the configuration menu pages using the local monitor, press the MENU button on the IR Remote Control and navigate to the System Settings->System menu to find the DHCP assigned IP address.

Note: *The unit can be installed in a DHCP network environment where an IP address, subnet mask and default gateway will automatically be allocated from the network DHCP Server (DHCP is enabled by default).*

Note: *If a DNS (Domain Name Server) address is not to be used, it is strongly advised that a fixed IP address be assigned (a DHCP assigned address can change without notification i.e. following power failure).*
A fixed IP address can be assigned via the Network Settings->Network menu.

For information on locating the unit's IP address via a PC and serial port connection, refer to Appendix D.

Default DNS Address

It is recommended that a DNS (Domain Name Server) address be configured. Assigning a recognisable name can help a remote user to locate the unit.

If no System name is allocated to the unit, the default DNS address will be:

```
machine serial number.yourdomain.com
```

- <machine serial number> is displayed in the System menu page and also on the underside of the unit.
- <yourdomain> is the name assigned to your DNS network.

The default DNS address can be renamed via the Network Settings->Network menu. Following renaming, the DNS address will be:

```
yourname.yourdomain.com
```

- ' yourname' is the name assigned via the Network menu.
- <yourdomain> is the name assigned to your DNS network

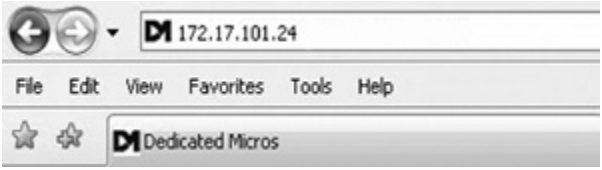
Note: *To activate an assigned DNS address, it will be necessary to reboot the unit. The unit can be rebooted via System Settings:>Maintain-> Reset.*

IMPORTANT: *To set the time and date on the unit, navigate to System Settings->Time and Date.*

Accessing the Configuration Webpages

The unit can be configured using the webpages. To access these:

1. Launch Internet Explorer (or similar web browser package).
2. Type the URL for the unit (IP or DNS address).

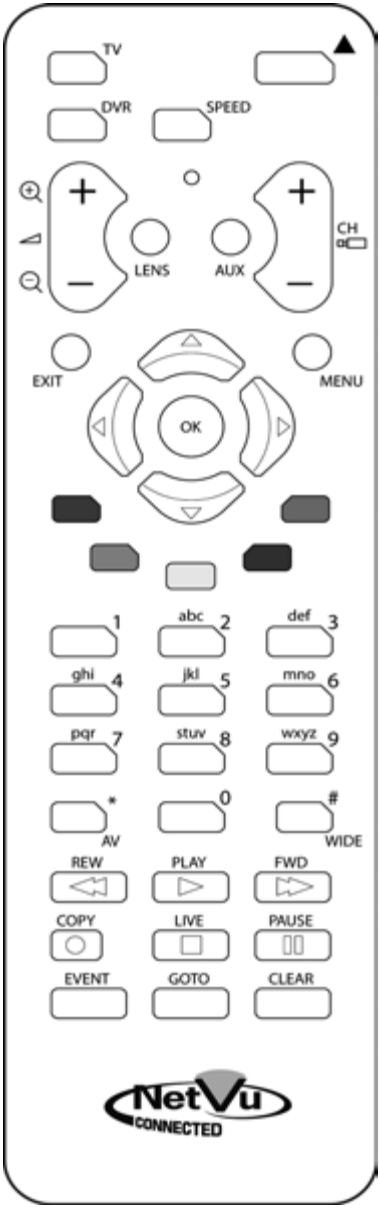


3. The Opening menu page will be displayed.

Remote Control

The IR Remote Control offers all the control functionality required to navigate the menus.

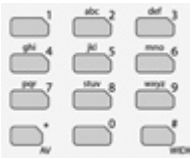
Note: *Not all buttons on the IR Remote Control are relevant for the Unit.*



Key	Button
	Switches the Remote Control to 'TV' mode and sends codes understood by common TV sets.
	Switches the Remote Control to 'DVR' mode. Note the DVR mode is the default mode of operation.
	Toggle the speed of PTZ camera movement (two speeds available).
	Use the Zoom button to zoom in/out with a selected camera. Also used to zoom (x2) into Live or Playback images.
	This button will change the Zoom Keys operation to focus or iris functions (when available).
	Use this button to cycle through available cameras.
	This button should be pressed (followed by a numeric entry) to carry out auxiliary actions on a PTZ camera.
	Press the Menu button to enter the Configuration menus.
	Press the Exit button to exit the Configuration menus.

Use the Directional and OK buttons to navigate through the menu screens and accept changes. Also use for PTZ telemetry control of cameras.

Use the Softkeys (Red, Green, Yellow, Blue Purple) to directly access the corresponding function displayed on the menu screen.



The Number pad should be used to select specific cameras and preset positions when available.

Use the Playback buttons to interrogate recorded images. Use the LIVE button to switch from Playback or menus to a LIVE display.

Using the IR Remote Control

Press the MENU button to access configuration menus via a connected local monitor. The menu will have a red indicator highlighting the first option. Select a main menu heading to open a drop down list of further sub-options. Press the Down Directional button to highlight the next menu option, press OK to open the highlighted menu.

Press the Right Directional button to highlight the first editable parameter on the screen.

Use the Left/Right/Up/Down Directional buttons to move between fields.

Select OK to start editing a field (the option will be outlined in green).

Use the Up/Down Directional buttons to change the settings within an editable field.

Use the OK button to accept a new setting. Use the coloured softkeys to select the accompanying colour option on screen i.e. red button to select the red option. To undo changes made to any menu, select the Refresh (Purple) option.

Note: *See below for information on entering alpha-numeric data.*

Using the Front Panel Interface

The Configuration and Viewer menus can be navigated and edited using the unit's front panel interface (via a connected local monitor).

Navigate the menu tree via the Up/Down Directional buttons. When a menu is highlighted, open by pressing the OK button.

Use the Left/Right/Up/Down Directional buttons to move between fields.

Select OK to start editing a field (the option will be outlined in green).

Use the Up/Down Directional buttons to change the settings within an editable field.

Use the OK button to accept a new setting.

Use the colour bar (Red, Green, Yellow, Blue and Purple) to directly access the corresponding function displayed on the menu screen i.e. red panel to select the red option.

Note: *See below for information on entering alpha-numeric data.*

Entering Alpha-Numeric Data via a Local Monitor

Numeric or text data is entered using the on-screen Virtual Keyboard (Arrow Key Editor).

To display the Virtual Keyboard, navigate to the relevant text input box using the Directional buttons and double press the OK button twice on the IR Remote Control or Front Panel Interface. The Virtual Keyboard is displayed.

Use the Directional buttons to move between characters, use the OK button to select a character. Select 'Submit' to enter details, press 'Cancel' to exit without entering any text.

Alpha-numeric data can also be entered in either upper or lower case format by 'multi-tapping' a relevant button. For example, with the cursor located in the text entry window of the Virtual Keyboard, repeatedly tap button '2' to cycle through the following characters: 2,A,a,B,b,C,c,2 etc.

To select one of these characters, simply stop tapping the button when the chosen character is displayed. The cursor will then progress, ready for the next character entry.

Note: *A USB Keyboard (not supplied) can be connected via one of the USB ports on the unit. The USB Keyboard can then be used to enter alpha-numeric data via the local menus.*

Using a USB Mouse or the Webpages

Navigate the menus by clicking the tabs displayed on the left of the menu headings (on the menu tree). The first option is highlighted with a red tab. Select a main menu heading to open a drop down list of further sub-options.

Highlight an editable field by clicking on it directly.

If viewing pages locally, enter alpha numeric data via the Arrow Key Editor (see above). If viewing remotely, enter via the PC keyboard. If available, click on the drop down menus to select settings.

Note: *A selected item in the drop down list will appear highlighted.*

Navigating away from a page (clicking on a different option on the menu tree) will automatically save any changed settings. To undo changes made to any menu, select the Refresh (Purple) option.

Using a Supported Dedicated Micros Keyboards (DM/KBC1 & DM/KBC2)

The unit can also be controlled using an optional Dedicated Micros keyboard (except the 4 way unit). This is connected via the KBD connector on the rear of the unit and provides the same control functions as the I.R Remote Control.

Note: *Refer to 'Using the optional Keyboards (DM/KBC1 & DM/KBC2)' for further guidance.*

Main Menu

When first accessing the unit, the main menu will be displayed. This menu allows access to the Configuration menus, the Viewer menus and also several Download options.

Note: *The Download options will only be available if viewing remotely via an IP connection.*

Select the Configuration menu tab to access the unit's Configuration menus. Refer to 'Navigating the Configuration Menus' for further guidance.

Select the Viewer menu tab to access the unit's Viewer function. Refer to 'Unit Operation' for guidance on the numerous Viewer features.

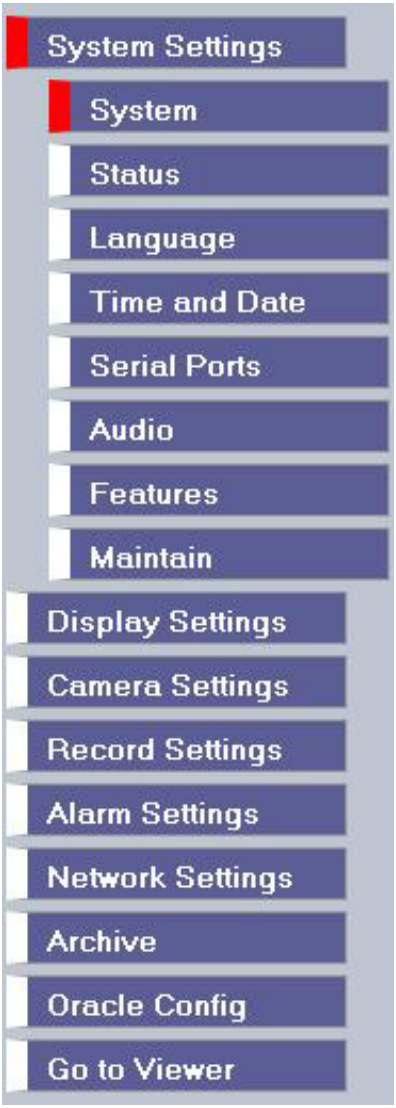
Select the Download menu tab to access the various Download sub-options. Select from:

- Product Manual — Select to open an electronic version of the Installation & Operation Guide.
- ObserVer Manual — Select to open an electronic version of the NetVu ObserVer User Guide. NetVu ObserVer is a free video management software package from Dedicated Micros. It allows users to seamlessly view distributed images from any 'NetVu Connected' product.
- NetVu ObserVer — Select to download the NetVu ObserVer video management software.
- Java (JRE) — Select to download the Java (JRE) software (from the unit). This software is required to successfully view Configuration and Viewer menus remotely.

IMPORTANT: *By default, no Usernames and Passwords are required to access any of the various menus. Usernames and Passwords can however be added to regulate access to the Configuration and Viewer menus. Refer to the 'Display Settings-> User Accounts' menu for information on establishing Usernames and Passwords.*

Navigating The Configuration Menus

When accessing the configuration menus, the menu tree will be displayed.



The configuration pages are navigated using the menu tree (displayed on the left of each page). Selecting one of the menu options will display the relevant page. Associated sub-menus will then be available.

Relevant menus can also be accessed directly from other menu screens via the coloured softkey options shown at the base of each menu. The options available will depend on the menu being viewed. Select a softkey option by pressing either the corresponding button on the IR Remote Control (if viewing the menus locally), or by selecting the relevant option via the PC mouse (if viewing the webpages).

Note: *Any changes made via the webpages are automatically saved when the page is closed. To 'manually' save changes, select the Save option.*

System Settings

The menus under the System Settings heading allow the unit's core settings to be viewed, changed and the system software upgraded.

The System option displays details about the unit including the IP address, unit serial number, MAC address and software version.

The Unit Status page displays information about the unit's operating condition, shows how long the unit has been operating and the reason for the last reset. It also shows camera status and displays any failed cameras.

The Alarm Status page shows which contacts are open, which zones are in alarm and which relays are operating.

The Language page allows the system language to be set. The language can also be changed for the current session only.

The Time and Date page allows the unit time and date settings to be adjusted, including setting the timezone.

The Serial Ports page allows each of the two serial ports to be individually configured for one of a range of operations, including, debug, PPP and telemetry.

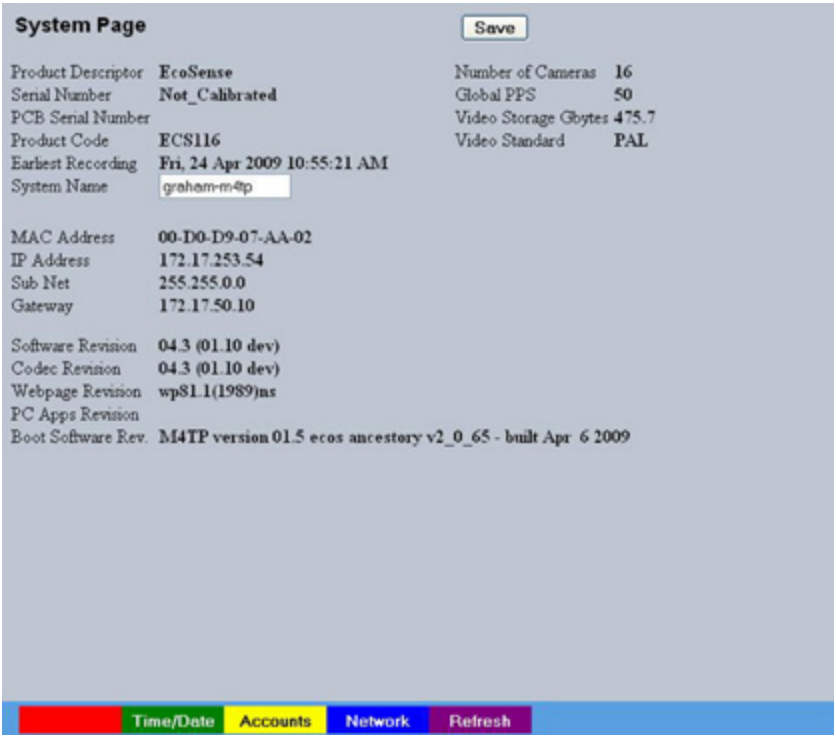
The Audio page shows the settings available for each of the audio channels and allows configuration of audio quality.

The Features page allows control of the different features that are available within the software including Email reporting, webcam support and control of the display resolution.

The Maintain page allows the current configuration to be saved, and for previously saved settings to be loaded. It also enables easy upgrade of the system software.

System

This menu shows the general information about the unit including the version of software installed, the unit's serial number and the allocated DHCP IP address.

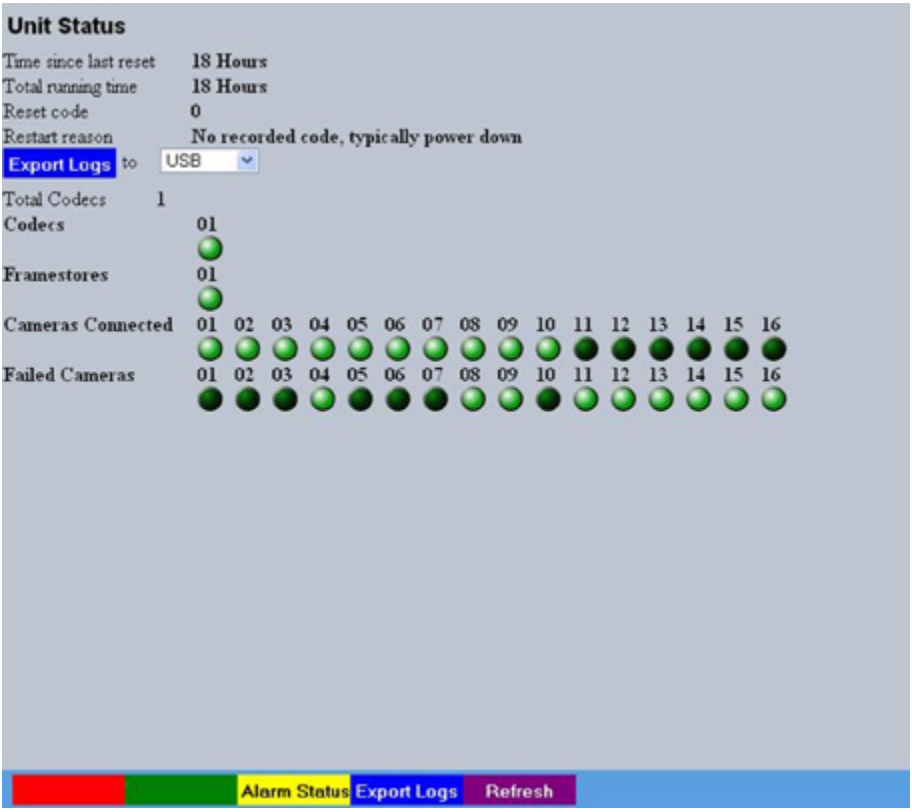


Product Descriptor	Details the product model.
Serial Number	Identifies the serial number of the specific unit.
PCB Serial Number	Displays the PCB (Printed Circuit Board) serial number of the unit.
Product Code	Displays a code identifying the unit's specification.
Earliest Recording	Displays the date/time of the earliest recording held on the unit.
System Name	This field can be edited to allocate a name to the unit. This is displayed when the unit is accessed via NetVu ObserVer and is sent when transmitting information to a Remote Video Response Centres (RVRC).
Number of Cameras	Shows the number of camera channels on the unit.
Global PPS	Details the Global PPS (Pictures Per Second) recording rate for all cameras.
Video Storage Gbytes	Highlights the available video storage capacity in Gigabytes.
Video Standard	Displays the video standard adopted by the unit i.e. PAL, NTSC.
MAC Address	This is the MAC address assigned to the unit.
IP Address	This is the IP address allocated to the unit.
Sub Net	This is the subnet of the network where the unit is located.

Gateway	This is the IP address of the default gateway (router) assigned by the DHCP server.
Software Revision	This identifies the version of software the unit is running.
Codec Revision	This identifies the codec version the unit is running.
Webpage Revision	This identifies the webpage version the unit is running.
PC Apps Revision	This identifies the revision archive of the Viewer and associated PC Apps software.
Boot Software Rev.	Displays the infrastructure componentry software revision.

Unit Status

This menu details information regarding the status of the unit, notably the total time the unit has been operating and the time since its last reset. Status log information can also be exported via the 'Export Logs' option to either a CD/DVD or a USB device.



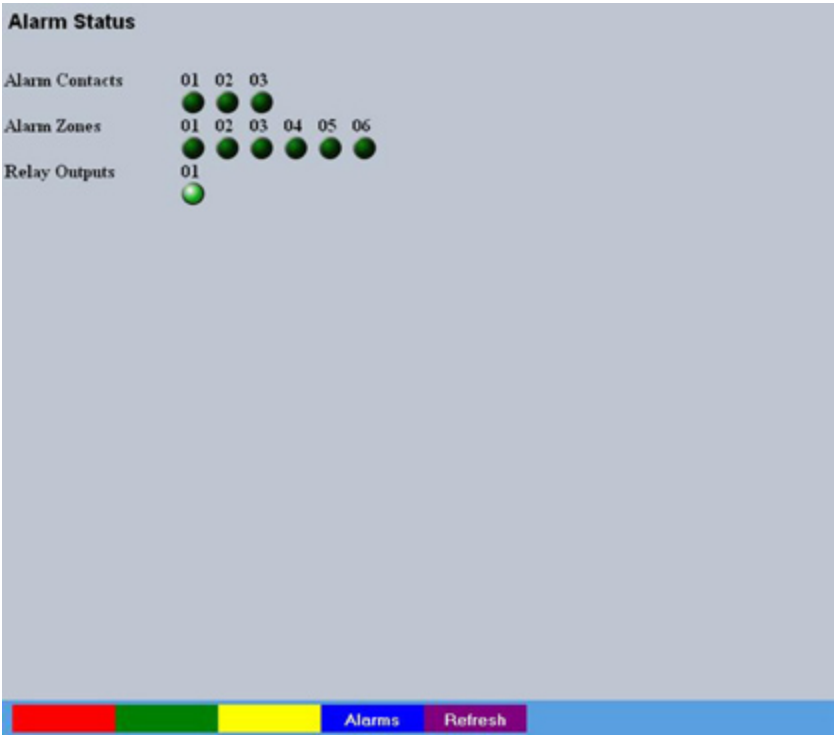
Time since last reset	Details the time since the unit was last reset.
Total running time	Details the total time the unit has been operational.
Reset code	The last reset code used is displayed.
Restart reason	The reason for the last restart is displayed i.e. Controlled User Reset.
Export Log (Blue)	Select this option to export log data to an inserted CD/DVD or a connected USB device.
Total Codecs	Details the current number of installed codecs.
Codecs	Installed codecs currently operating as a codec will be highlighted light green. Hover the cursor over individual buttons to display either 'On' or 'Off'. 'On' signifies that the codec is active as a codec.
Framestores	Installed codecs currently operating as a framestore will be highlighted light green. Hover the cursor over individual buttons to display either 'On' or 'Off'. 'On' signifies that the codec is active as a framestore.

Note: *The 'On'/'Off' text will only be displayed if viewing the Unit Status menu remotely over an IP connection.*

Cameras Connected	Those camera channels with cameras connected will be highlighted light green. Those not in use will appear dark green.
Failed Cameras	Those camera channels where the connection is deemed to have failed will be highlighted light green. Those working correctly will appear dark green.

Alarm Status

This menu details information regarding the status of the unit's alarm contacts, alarm zones and relay outputs.



Alarm Contacts/Zones/Relay Outputs	Alarm Contacts, Alarm Zones and Relay Outputs that are in an 'active' state are shown light green. 'In-active' ones appear dark green (not illuminated).

Language

This menu allows the system language to be set. Changing the System Language will effect all menu pages. If required, the language can also be changed for the current session only.

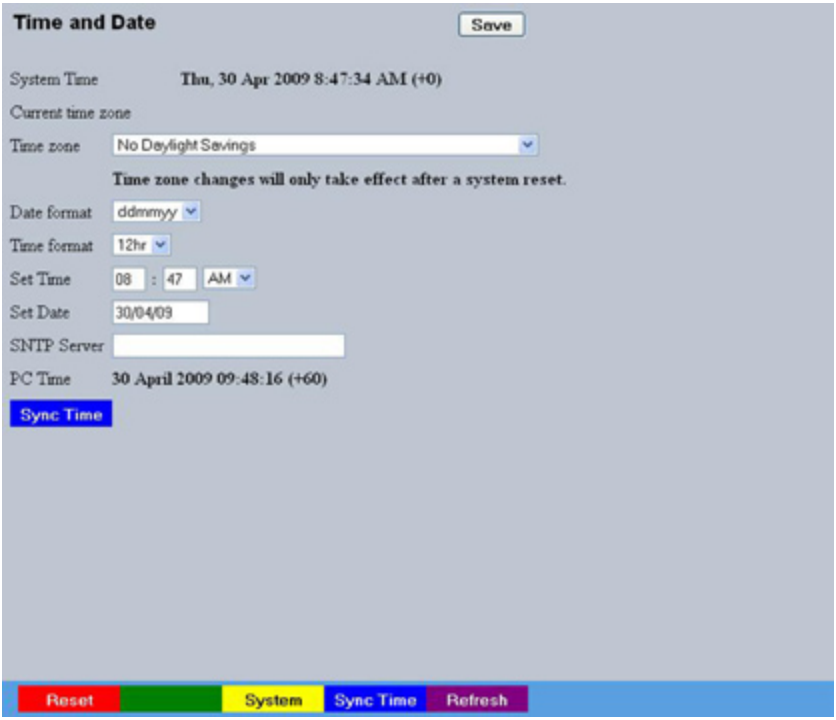
System Language	Select to change the system language setting.
Reset (Red)	Select to reset the unit.

Note: *The unit MUST be reset to implement system language changes.*

Session Language	Select to change the language settings for the current session only.
Choose	Select to immediately activate session language changes.

Time and Date

This menu allows the time and date to be set on the unit. Required timezone information can also be established and the unit time synchronised to that of the PC being used to view the webpages.



System Time	The current system time and date is displayed.
Current Time Zone	Displays the currently selected time zone settings.
Time Zone	Select the relevant timezone offset from the accompanying drop down menu.
Date Format	As default, the date is entered dd/mm/yy. It can also be displayed as mm/dd/yy or yy/mm/dd.
Time Format	As default, the time displayed is in 12 hour format. This can be changed to 24 hour if required.
Set Time	Enter a current time for the unit.
Set Date	Enter a current date for the unit.
SNTP Server	A Simple Network Time Protocol (SNTP) server allows external devices to connect and set their current date and time settings to that of the SNTP. If required, enter the SNTP server IP address here.
PC Time	Displays the system time of the PC currently being used to view the webpages.
Sync Time (Blue)	Use this button to synchronise the time of the unit to that of the PC being used to view the webpages.

Note: *The PC Time and Sync Time options will only be available if viewing the menu via the webpages.*

Serial Ports

This menu allows configuration of the unit's Serial ports. Refer to 'Installing the Unit' for installation information.

Serial Port	There are two serial ports available.
Port Config	The serial ports can be configured to specific uses. Select from:

None	Switches port off
Debug	Sets port for serial communications
PPP	Sets port for Point to Point Protocol
Telem	Sets port for Telemetry purposes
Comm	Sets port for Comms purposes

Interface Type	Serial port 1 is configured for RS232 communications. Serial port 2 is configured for RS485 communications.
Baud/Parity/Data/Stop/Flow Control	These options allow the Serial port communication settings to be configured.

Note: *When a telemetry protocol is selected, these settings will default to pre-determined values and should not normally be altered.*

Protocol	This is a drop down list of serial telemetry protocols supported by the unit.

Note: *Refer to 'Appendix E' for a full list of supported telemetry protocols.*

Audio

The Audio menu allows settings for the bi-directional audio channels to be edited. Audio can be recorded from camera inputs via input 1. Challenge audio i.e. originating from an Operator at a Remote Video Receiving Centre (RVRC) can be recorded via input 2. This combined audio is then available on Audio Output 1. Refer to 'Installing the Unit for audio hardware installation information.

Audio Recording	Select 'Enable' to activate Audio recording.
Record Audio Challenge	Select this option to record an audio challenge originating from an operator at an RVRC.
Audio Sample Rate	Audio can be recorded at 8Hz, 11Hz, 16Hz or 22Hz.
Record Gain	This option allows the Record Gain level to be set. This is the base setting from which the AGC (Automatic Gain Control) will operate. Select from 1 to 15. The default and recomended setting is 15.
Playback Sample Rate	Audio can be played back at 8Hz, 11Hz, 16Hz or 22Hz.
Playback Volume	Select a volume setting between 1 to 64 for audio playback.
Record AGC	Select this option to activate the AGC (Automatic Gain Control) function. AGC helps produce a better quality recording by removing background noise/distortion.
Record uncompressed	Select this option to record audio in an uncompressed format.

Note: *Recording in uncompressed format will significantly increase the disk space used.*

Features

This menu enables the activation of system features such as Email Reporting.

Detected Video Standard	The unit automatically detects the video standard being used i.e. PAL/NTSC.
Horizontal/Vertical	Edit the resolution settings. This will be the fundamental resolution for the unit.
Email Reporting	Select this option to activate the Email Reporting function, refer to 'Network Settings-E-mail' for more information.

Note: *When de-selected here, the 'Email Reporting' menu will no longer be displayed in the menu tree.*

Remote Reporting	Select this option to activate the Remote Reporting function, refer to 'Network Settings-Remote Reporting' for more information.

Note: *When de-selected here, the 'Remote Reporting' menu will no longer be displayed in the menu tree.*

Deinterlace mask	Select this option to improve display clarity and minimise the comb effect that may be visible when recording high motion scenes in 4CIF mode.
Secondary Web Port	If the default port setting for web serving has already been allocated, it is possible to configure a second port number i.e. the secondary web port can be set to 8000 if the default web port (80) is blocked by the network or firewall.

Telem UDP Port Selection	Select ‘Automatic’ to enable the unit to select a suitable port for telemetry purposes. Select ‘Default’ to use the default port settings (1025). Select ‘User Defined’ to use settings entered in the ‘Telemetry Port’ option.
Telemetry Port	Enter the port settings for telemetry data here. The default setting is 1025.
User Logging	Enable this option to activate User Logging. Refer to ‘Appendix C’ for further information regarding the User Logging function.
Comb Filter	Enable this option to activate the Comb Filter function. Comb Filter can help improve the fine details of a video signal image by filtering the luminance and chrominance separation process.
Unicode Support	Select to activate the Unicode function supported by the unit. Unicode is a specification which allows text in any language to be displayed in a consistent and correct manner.
Auto Update Web Variables	Configures the unit to update all system variables required for an automatic upgrade without requiring confirmation. Do not check this box if you run a customised applet.

Maintain

This menu allows the unit to be reset and a software upgrade to be performed via an inserted CD/DVD or a connected USB device. Current unit settings can also be saved for future use and previously saved settings restored.

Configuration

Default (Green) — Select to return the unit to its factory default settings.

Note: *Selecting the Default button will cause the system to reboot.*

Save (Purple) — Select to save current unit settings to the selected media.

Restore (Blue) — Select to restore previously saved settings from the selected media.

Note: *Selecting the Restore button will cause the system to reboot.*

To/From — Select the relevant media device to save to or restore from i.e. USB or CD/DVD.

Server

Reset (Red) — Select to cycle the power to the unit.

IMPORTANT: *To upgrade the unit, insert a media device containing relevant software upgrades and select 'Reset'.*

Note: *For the latest software upgrades, please refer to the Dedicated Micros website: www.dedicatedmicros.com*

Display Settings

The menus under the Display Settings heading allow the unit's Viewer display settings to be altered and User Account details to be viewed and changed.

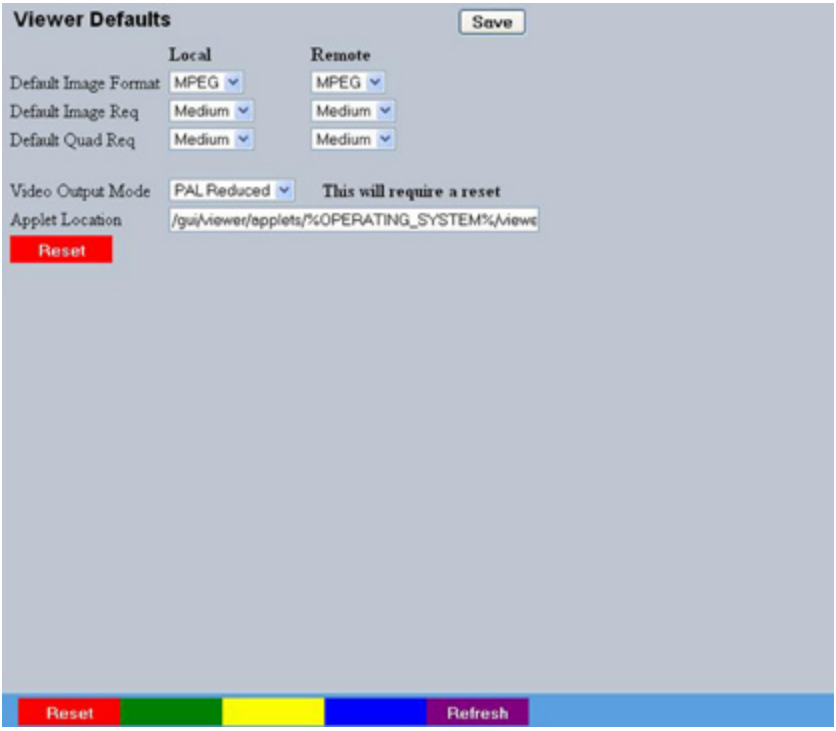
The Viewer Defaults page allows the Viewer menu settings to be configured.

The Display page controls how the local monitors present information. They control whether text will be displayed on the Main or Spot monitors, the colour of that text, and how long cameras being displayed in sequence will be shown on screen.

The User Accounts page helps protect configuration procedures by limiting access to specific users via accounts and passwords.

Viewer Defaults

This menu allows configuration of settings for the Viewer function. Refer to 'Operating The Viewer' for more information regarding this feature



Default settings can be configured for accessing the Viewer function via a local monitor and also remotely via a network connection.

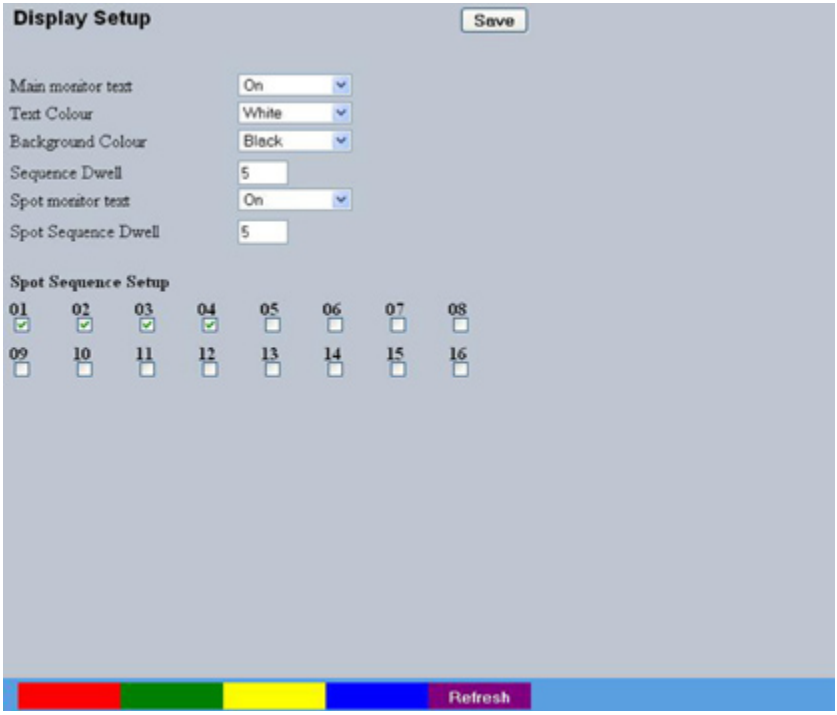
Default Image Format	Images from connected cameras can be displayed in either JPEG or MPEG format.
Default Image Req	Images displayed full screen in the Viewer menus can be shown in either High Medium or Low resolution.
Default Quad Req	Images displayed in Quad format in the Viewer menus can be displayed in either High Medium or Low resolution.
Video Output mode	Select the display output that best suits the viewing monitor. Select from: PAL Default PAL Reduced

Note: *It will be necessary to reboot the unit to implement any change to the Video Output Mode. The unit can be rebooted via System Settings:>Maintain:>Reset.*

Applet Location	The location of the unit's Viewer menu applet is displayed. The default location will always be the applet installed on the unit. If accessing multiple units via a remote connection, all can be assigned the same Viewer applet. This will lessen the load time required when accessing different DVRs/Servers. For example, if a local unit and a remote DVR are to be accessed, it is possible to set the Applet location for both DVRs as the local unit. If viewing the unit remotely, Dedicated Micros provide a remote applet located on the Dedicated Micros website (www.dedicatedmicros.com/software_release/index_firmware.php). Due to possible bandwith restrictions on the network the DVR is located, using this remote applet may improve data transfer speeds.

Display

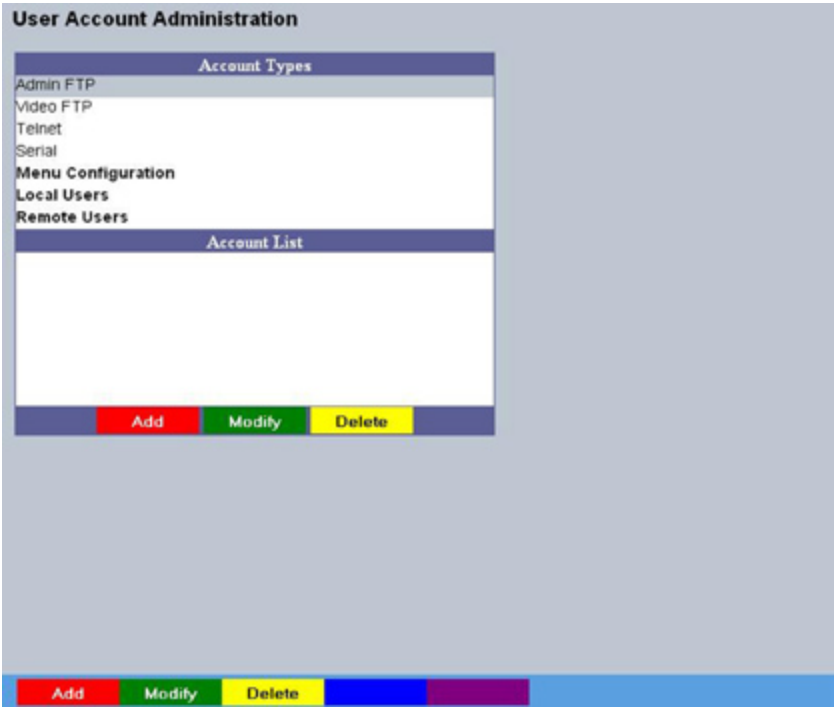
This menu allows configuration of monitor settings used when viewing camera images and text data.



Main monitor text	It is possible to select text to be displayed on the main monitor. The text displayed will include; time, date, mode of operation (Set, Unset or Override), camera number and camera title.
Text Colour	The colour of the displayed text can be changed. Select from the options available in the drop down list.
Background Colour	A black background appears by default around the text. It is possible to change the colour of this background. Select from the options available in the drop down list.
Sequence Dwell (secs)	The sequence dwell time can be set from 1 to 99 seconds. The dwell time is the period a camera's images are displayed before switching to the next camera in the sequence.
Spot monitor text	It is possible to select text to be displayed on the spot monitor. The text displayed will include; time, date, camera number and camera title.
Spot Sequence Dwell	The spot sequence dwell time can be set from 1 to 99 seconds. The dwell time is the period a camera's images are displayed on a connected spot monitor before switching to the next camera in the sequence.
Spot Sequence Setup	All of the unit's camera input channels are shown. To include any of these camera channels in the spot monitor sequence, selected the accompanying tickbox.

User Accounts

The unit can protect configuration procedures by limiting access via usernames and passwords.



Account Types

The available account types for which users and passwords can be assigned privileges are:

- Admin FTP

  Assigning username and password requirements for the Admin FTP function will limit access to the unit via an FTP connection.

- Video FTP

  Assigning username and password requirements for the Video FTP function will limit access to the Video FTP archiving feature (used with DM's NetVu ObserVer).

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- Telnet

  Assigning username and password requirements for Telnet connections will limit Telnet access to the unit (Telnet can be used to upgrade the unit).

- Serial

  Assigning username and password requirements for Serial connections will limit access via a Serial link.

- WebPage Configuration

  Assigning WebPage Configuration privileges will limit access to the Configuration menus when viewed remotely. When implemented, the user will be prompted for a username and password before access to the Configuration menus (via the main menu) will be granted.

- Menu Configuration

  Assigning Menu Configuration access privileges will limit access to the Configuration menus when viewed locally. When implemented, the user will be prompted for a username and password before access to the Configuration menus (via the main menu) will be granted.

- Local Users

  Assigning Local Users access privileges will limit access to the Viewer pages for local users. When implemented, the local user will be prompted for a username and password before access to the Viewer pages (via the main menu) will be granted.

- Remote Users

  Assigning Remote Users access privileges will limit access to the Viewer pages for remote users. When implemented, the remote user will be prompted for a username and password before access to the Viewer pages (via the main menu) will be granted.

When granting access privileges to Local and Remote Users, it is possible to limit access to specific cameras. Using the Camera Selection segment of the Add New Account menu, enter those cameras for which access will be permitted. Select the cameras in accordance with the input channel they're connected to on the rear of the unit. For example, if wanting to allow access to camera 1 to 3 inclusive, enter: 1-3. If wanting to grant access to cameras 1,3 and 6, enter 1,3,6. If no camera data is entered, access will be allowed to all connected cameras in both live and playback modes.

Note: *There are no default usernames and passwords for any of the Account Types. If none are assigned, access will be granted to all users and no request for a username and password will be made.*

Account List	When an Account Type is highlighted, details of users with access will be displayed.
Add	Highlight an administration feature i.e. Serial and select 'Add'. Enter the new User Name and Password. That user's name will now be displayed in the account list.
Modify/Delete	To modify or delete a user's settings, highlight the user in the list and press the relevant button to Modify or Delete.

Note: *If viewing the User Accounts page via a local monitor and navigating with the I.R Remote Control. Press the right directional button from the menu tree to access the Account List.*

Camera Settings

The Camera Settings menus allow configuration of cameras connected to the unit. Refer to the individual menus for further details.

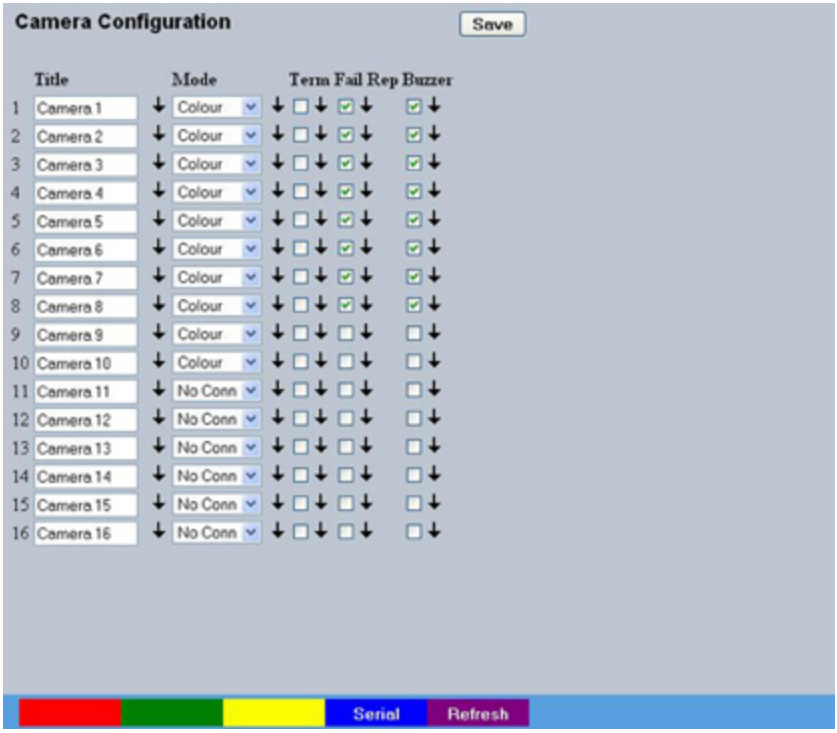
The Camera page allows the quick configuration of all connected local camera channels.

The Camera Setup page allows the colour and contrast settings for each individual camera to be adjusted (with a dynamic preview available).

The Camera Telemetry page enables telemetry capable cameras to be configured.

Camera

This menu allows the configuration of active camera channels.



Title	Each of the camera titles can be edited for ease of use i.e. the camera type, location or view description could be used.

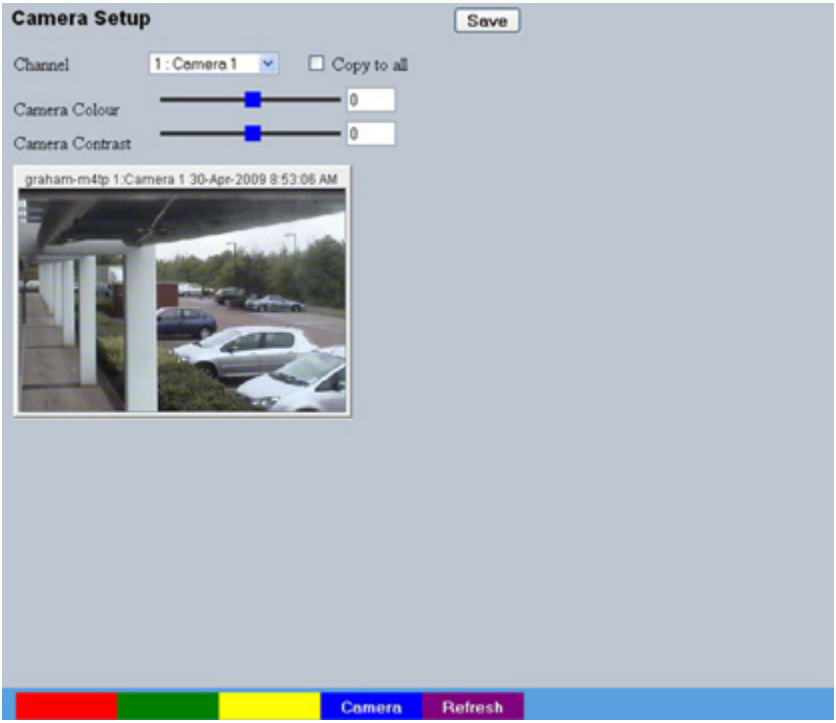
Note: *If a camera title is entered via the local monitor, an on-screen virtual keyboard will be displayed to aid text entry.*

Mode	The settings will default to 'Colour'. If Monochrome cameras are used, select 'Mono'. Selecting 'Mono' will remove colour patterning. If a particular channel is not in use or the camera has failed, select 'Not Connected'.
Term	When selected, the unit will automatically terminate the camera input with 75Ω.
Fail Rep	Select this option to activate a Failure report in the event of camera connection failure.
Buzzer	In the event of camera failure, select this option to activate the unit's in-built buzzer to alert the operator.

Note: *The arrow button displayed next to each textbox allows settings to be replicated for those cameras listed below. This will only affect the adjacent option i.e. Mode arrow will replicate the Mode setting to all cameras below the clicked arrow.*

Camera Setup

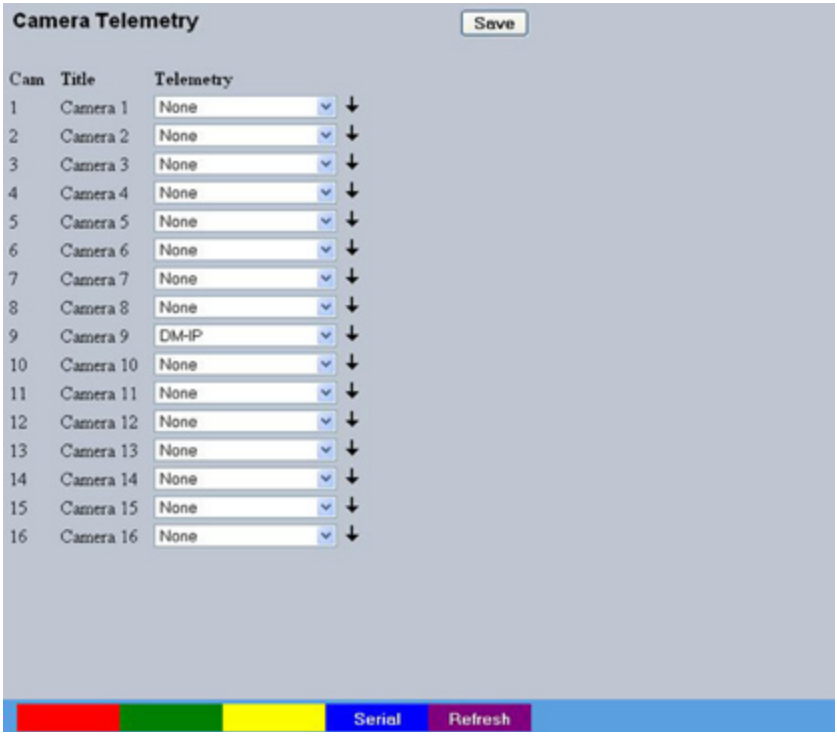
This menu allows the colour and contrast settings for each individual camera to be adjusted.



Channel	Select a camera channel for review and adjustment.
Copy to all	Select this option to apply current settings to all connected cameras.
Camera Colour	Select a colour value from -8 to +8 via the slidebar or enter a number directly into the accompanying textbox.
Camera Contrast	Select a contrast value from -8 to +8 via the slidebar or enter a number directly into the accompanying textbox.

Camera Telemetry

This menu allows configuration of telemetry capable cameras and the assignment of telemetry protocols.



Cam	Lists available camera channels.
Title	Titles assigned to each camera are displayed.
Telemetry	If a telemetry capable camera is connected, the appropriate control protocol should be selected from the accompanying drop down list. Refer to 'Appendix E' for details of supported telemetry protocols.

Note: *The arrow button displayed next to each textbox allows settings to be replicated for those cameras listed below. This will only affect the adjacent option i.e. Telemetry arrow will replicate the Telemetry setting for all cameras below the clicked arrow*

Record Settings

The Record Settings menus allow configuration of the unit's record functions. Record settings can be configured for normal operation, on alarm, by schedule and for set holiday and weekend periods. Selected video data can be saved and protected. Refer to the individual menus for further details.

The Record page allows the basic Recording settings to be edited.

The Profile Record page allows the recording configuration to be based on specific priorities. The record rate and quality can be customised to respond appropriately to the alarms and time of day.

The Schedule page is used to configure the Timer Function, this enables the unit to automatically be put into set/unset mode at specific times on specific days.

The Holiday and Weekend page enables Set mode to be activated for individual dates i.e. public holidays or weekends.

The Protect Video page allows previously recorded data to be protected and retained. If needed, all recording can be halted and saved video deleted.

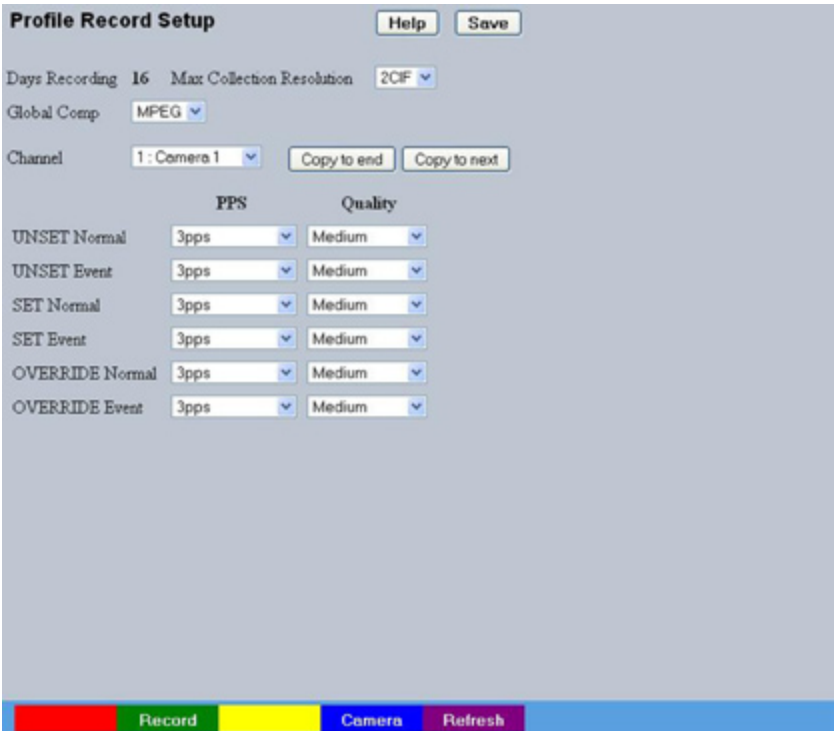
Record

The unit has a range of pre-defined configurations available. As standard the unit can record at 5pps MPEG4 for up to 14 or 30 days (dependant on model). Alternatively the unit can be configured for 1pps JPEG recording on each camera).

Days Recording	Displays the record duration possible using the current configuration.
Camera Settings	Choose the rate of non alarm recording to be used from the range of preset recording profiles. Select from Normal Rate MPEG4 5pps or Normal Rate JPEG 1pps
Record Duration/Enhance Quality	The recording duration can be limited to a set number of days (30,14 or 7); allowing the recording quality to be enhanced for a shorter storage period.

Profile Record

It is possible to set the unit recording configuration based on specific priorities. The **Profile Record** *feature allows different record rates, and quality settings to be used for unset, set and override modes for all cameras. This can ensure event images are recorded at high quality, whilst normal 'non event' images are recorded at reduced setting, decreasing storage requirements.*



Days Recording	Displays the record duration possible using the current configuration.
Max Collection Resolution	Setting the Max Collection Resolution limits the unit to record within the following maximum resolutions across all cameras: CIF global pps at a maximum 400pps. 2CIF global pps at a maximum 200pps. 4CIF global pps at a maximum 100pps. Lowering the resolution settings will significantly lessen the storage capacity requirements.
Global Comp	Select image compression format (MPEG or JPEG) for all camera inputs.
Channel	Enables selection of a specific camera for editing.
Copy To All	Select to copy the current profile record settings to all camera channels.
Copy To Next	Select to copy the current profile record settings to the next camera channel.

Unset/Set/Override Normal	Shows the recording profile used by the camera if no Schedules are applied and the camera is operating under Normal (non Event) conditions. Refer to Record Settings->Schedule for further details.
Unset/Set/Override Event	Shows the recording quality that will be used by the camera during an Alarm or Event. Note that Set and Override settings will be used only when Schedules are applied. Refer to Record Settings->Schedule for further details.

Note: Unset, Set and Override modes can be renamed via Record Settings->Schedule.

PPS	The accompanying dropdown list allows the number of frames captured per second to be set. The pictures per second (pps) option allows either 6, 5, 2, 1, 0.5, 0.25 or 0.1 pps to be recorded. Pictures can also be recorded at 'Real Time' speed, '3/4 Real Time' or '1/2 Real Time'. To disable record, choose the 'No Record' option. 'User Defined' is for future use.
Quality	The accompanying dropdown list allows the quality of recorded images to be set. Select from Maximum, High, Medium, Low or Very Low. 'User Defined' is for future use.

Note: *The higher the Quality setting, the greater the storage space used.*

Schedule

This menu allows the Schedule function to be configured. This enables the unit to automatically be put into set/unset mode at specific times on specific days. This can help reduce unnecessary alarm triggers.

When the unit is in Set or Unset mode, combine with different recording qualities and rates under normal and alarm conditions for a high degree of control in a range of situations.

Note: *If Keyswitch is Enabled, the Day Time and Night Time options will not be displayed. The additional Keyswitch options will instead be displayed.*

Mode/Title	Enables a name to be entered for Unset, Set and Override mode.
Current Mode	Shows the current timer mode according to the names entered in the Mode/Title text boxes.
Day Time	Enter the time (using the 24hr clock) when Unset mode will begin.
Night TIme	Enter the time (using the 24hr clock) when Set mode will begin.
Keyswitch	A Keyswitch can be used to switch the recording profile (Unset/ Set).

Note: *When the Keyswitch option is set to 'Enabled'. It is necessary to save (or exit and return to) the menu. The additional Keyswitch options will then be displayed.*

Enable-N/O	Select if the Keyswitch is to be normally open (UNSET). Then choose a contact to be used in a specific zone as the Keyswitch.

Enable-N/C	Select if the Keyswitch is to be normally closed (SET). Then choose a contact to be used in a specific zone as the Keyswitch.
Enable EOL	Select to configure the Keyswitch for EOL. The End Of Line (EOL) option enables the Keyswitch to detect any changes in the electronic input resistance. A change outside the expected values will result in a Tamper Alarm (short circuit or open circuit) being detected and the system switching to alarm mode.

Holiday & Weekend

This menu allows the unit to be automatically switched to Override mode for individual days i.e. public holidays or during a weekend (or any defined period).

IMPORTANT: *Holiday and Weekend settings cannot be entered when a Keyswitch has been enabled in the Record Settings->Schedule menu.*

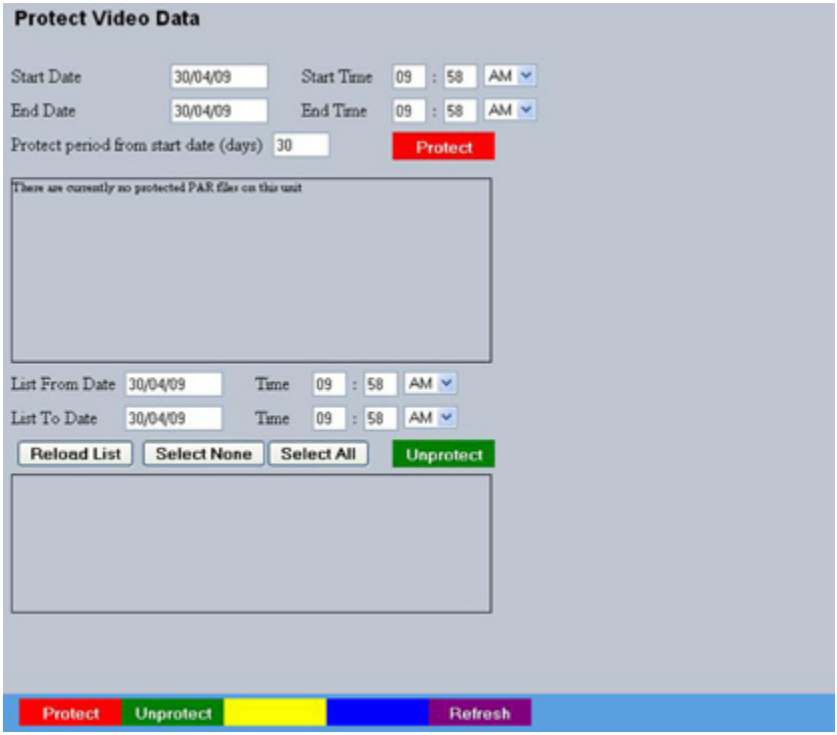
Holidays	Enter a date and press the Add button. The date will be added to the Holiday list. To delete, highlight and select Delete.
Weekends	Select 'Enable' to activate the Weekend function. Set mode will now be active for the dates outlined below.
Start	Select a Start day and time for Weekend mode.
End	Select an End day and time for Weekend mode.

Note: *Weekend mode will remain activate each week until deselected.*

Protect Video

This menu allows the unit to automatically protect and retain recorded data. Previously saved data can also be unprotected. Enter a start and end time and select 'Reload List' . All saved video files from the chosen time period will be shown in the upper textbox. These recorded 'PAR' files can then be selected and protected via their accompanying checkboxes and the Protect option. Selected video files can also be unprotected via the Unprotect option.

The lower textbox provides a status report detailing which video files have been protected/unprotected.



Start Date	Enter a start date to protect video.
Start Time	Enter a start time to protect video.
End Date	Enter an end date to protect video.
End Time	Enter an end time to protect video.
Protect Length (days)	Enter the number of days that selected files will be protected for.
Protect	Select this option to protect recorded video for the selected time period(s).
Unprotect	Select this option to unprotect recorded video selected from the list.
Reload List	This will refresh the video list according to the selections made in the Start Time/Date and End Time/Date dialog boxes.
Select None	This de-selects all the available video files.
Select All	This selects all the available video files.

List From Date/Time	This dialog box allows a search to be made within the protected video list starting from a specific Time and Date.
List To Date/Time	This dialog box allows a search within the protected video list to conclude at a specific Time and Date.

Alarm Settings

The Alarm Settings menus allow configuration of the unit's alarm functionality. Individual alarm inputs and alarm zones can be configured. Global relays can be activated and the Activity grid set up. Refer to the individual menus for further details.

The Alarm Input page allows configuration of alarm channels. Up to 17 alarm channels are available.

The Zone Input page enables the configuration of alarm zones. Up to 32 separate alarm zones can be created.

The Zone Actions page enables actions such as Go to Preset to be allocated to alarm zones. Zones can also be associated with a specific camera. On receipt of an alarm, images from the associated (primary) camera will automatically be displayed in the Viewer menu.

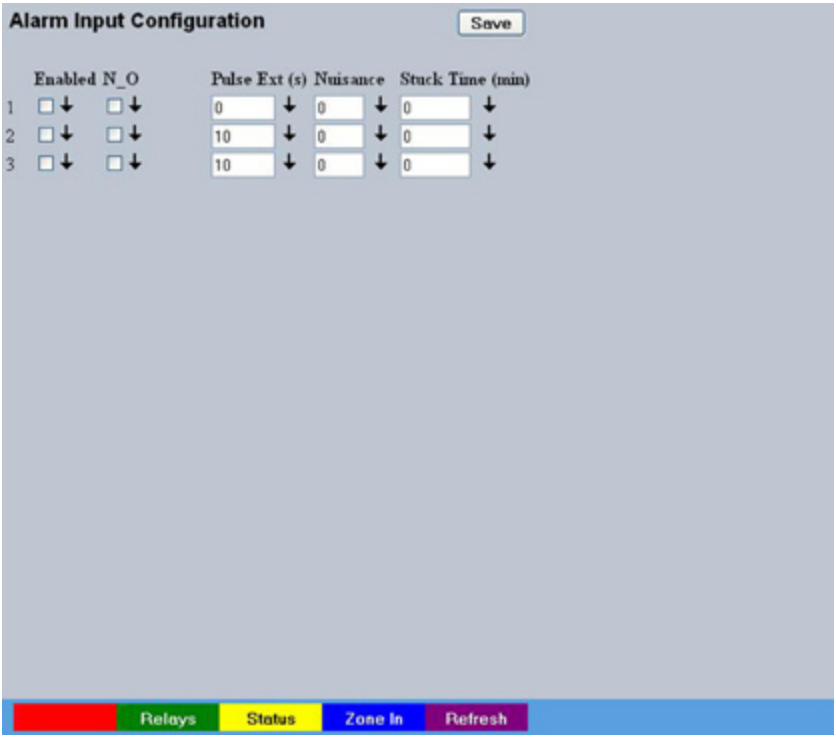
The Activity Setup page allowed activation and configuration of the Activity feature on all video inputs. The Activity feature enables cameras to automatically detect any movement/changes within the video scene. This can trigger a number of operations such as FTP alarm notification or an increase in the recording rate.

The Activity Response page enables configuration of responses following an Activity Detection trigger.

The Global Relays page allows the four onboard relay connections and global relay settings to be configured.

Alarm Input

This menu allows configuration of the alarm settings, refer to 'Installing the Unit' for hardware installation guidance.



Number	This identifies which input is being configured. The unit supports 17 on-board alarms.

Note: *The 4-input unit supports 5 on-board alarms.*

Enabled	Each input must be enabled to function. If the input is not enabled and an alarm is received, the unit will not acknowledge the alarm.
N_O (Normally Open Contact)	N_O indicates the non-alarm state of the input. Tick the N_O checkbox to set the corresponding input to Normally Open. The alarm will then trigger when the input is closed (shorted). If left as Normally Closed (the default setting), the alarm will trigger when the input is opened.

Note: *If EOL alarms are to be used, this option should not be selected i.e. leave set as Normally Closed.*

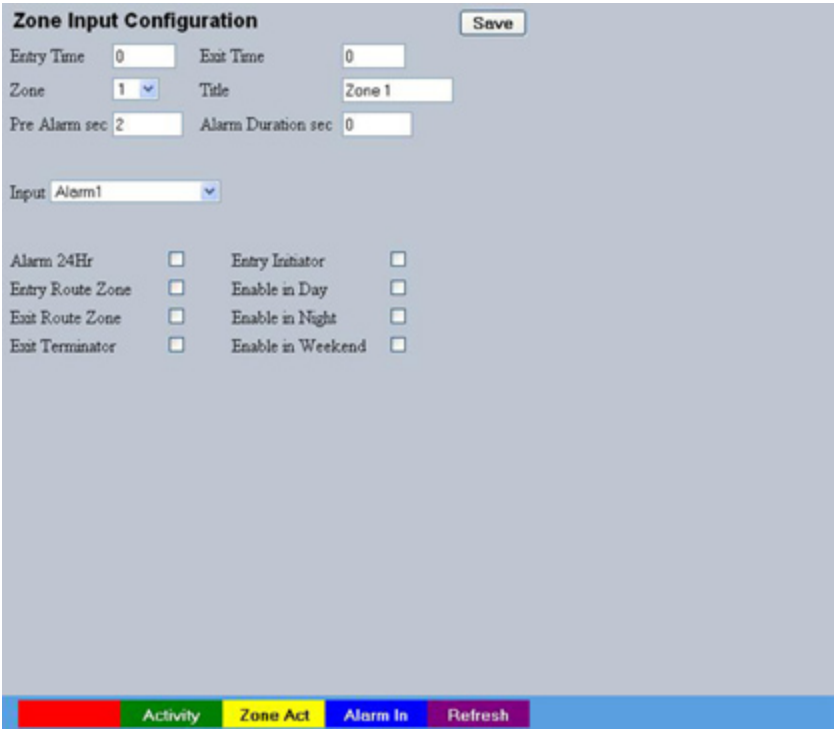
Pulse Ext (s)	A pulse extension is used to prevent double triggers on a single alarm. The pulse extension time starts on an alarm trigger. If that contact is triggered again after the first alarm has finished but within the pulse extension, the second trigger will not restart the alarm, but will extend the current alarm duration. Enter the time in seconds for this extension.

Nuisance	This is a repetitive detector value. When an alarm is received on the unit, it will store the alarm time and monitor the number of times the same detector is triggered within an hour period. If the detector is triggered the number of times entered here, the unit will de-activate this detector from triggering an alarm for an hour. The unit will continue to monitor the detector and check how many times it is triggered during this period. If it is again triggered more than the amount set in the nuisance counter, it will remain de-activated for another hour. This will continue until the trigger value falls below the nuisance count setting. To disable this feature, leave the setting as '0'.
Stuck Time (min)	If any of the alarms/detectors are active for a period longer than specified here, they will automatically be omitted. This time period is set in minutes.

Note: *The arrow button displayed next to each textbox allows settings to be replicated for those cameras listed below. This will only affect the adjacent option i.e. Enabled arrow will replicate the Enabled setting to cameras below the clicked arrow.*

Zone Input

This menu allows the configuration of established alarm zones. A single or multiple trigger can be used to generate an alarm. It is possible to allocate up to 32 alarm zones to carry out a combination of actions. Use these options in conjunction with the Zone Actions menu.



Entry timer	This is the number of seconds allowed for the user to enter the zone and disable the alarms. If the alarm is not disabled within this period the alarm will be triggered.
Exit timer	This is the number of seconds from the alarm being set within which the user must exit the set zone. If the user is still within the zone after this time period the alarm will be triggered.
Zone	An alarm zone can be established to logically groups alarms and initiate actions when an alarm is activated, there are 32 configurable zones.
Title	This information is stored along with the relevant images in the database, ensure this has relevance to the alarm zone.
Pre-Alarm sec	This is the time period prior to the start of the alarm included with the alarm recording for archive. These images will also be protected from being overwritten.

Note: *It is recommended that the Pre-Alarm option be set to the same value as the Pre-Trigger setting in the "Profile Record" menu. This will ensure successful playback of high quality Pre-Trigger images. High quality pre-trigger images will only playback properly if review (playback) starts prior to the pre-trigger initiation.*

Alarm Duration sec	This is the minimum time period in seconds (from the start of the alarm) that is protected from being overwritten. This time will include the alarm trigger, the pulse extension and any post alarm recording. It will not include pre-alarm images.
Zone Input Rule	This determines which input(s) will trigger the zone alarm:
Input	This sets an input or system function as the primary alarm trigger. Select from Alarms 1-32, Activity 1-16, Preset 1-16, Disk Low, Disk Full, Panic, Archiving Slow, Archiving Fault, Virtual 1-16, and Keyword Channel 1-32 (which will trigger the Alarm if any or the 32 programmed keywords are detected on the selected channel).
Alarm 24Hr	This option can be enabled for alarms that do not require change at any time and are to remain as programmed i.e. Panic Alarm. When this is selected, the Set, Unset and Override options are disabled.
Entry Route Zone	This creates deferred alarms along a specified route while the entry time is active. This is in compliance with BS8418 (the British Standard for remote video reporting centres). Diverting from the entry route during the countdown will result in the alarm being triggered immediately. This allows staff entry without triggering an alarm prior to switching the system to Set mode.
Exit route Zone	This creates deferred alarms along a specified route while the exit time is active. This is in compliance with BS8418 (the British Standard for remote video reporting centres). Diverting from the exit route during the countdown will result in the alarm being triggered immediately. This allows staff to exit without triggering an alarm.
Exit Terminator	This will trigger the exit timer if the system is set. A countdown timer will automatically start when the alarm is activated and ensure the alarm system is not activated by other specified alarm triggers for the Set time i.e. allowing a Guard to exit a building.
Entry Initiator	This will trigger the entry timer if the system is set. A countdown timer will automatically start when the 'primary' alarm trigger i.e. front door, is actioned. This ensures the alarm system is not activated by other specified alarm triggers for the set time
Enable in Unset	Each alarm can be configured to be active when the unit is in a specific operation mode. Enable this for the zone alarm to be active in Unset operation mode.
Enable in Set	Each alarm can be configured to be active when the unit is in a specific operation mode. Enable this for the zone alarm to be active in Set operation mode.
Enable in Override	Each alarm can be configured to be active when the unit is in a specific operation mode. Enable this for the zone alarm to be active in Override operation mode.

Zone Actions

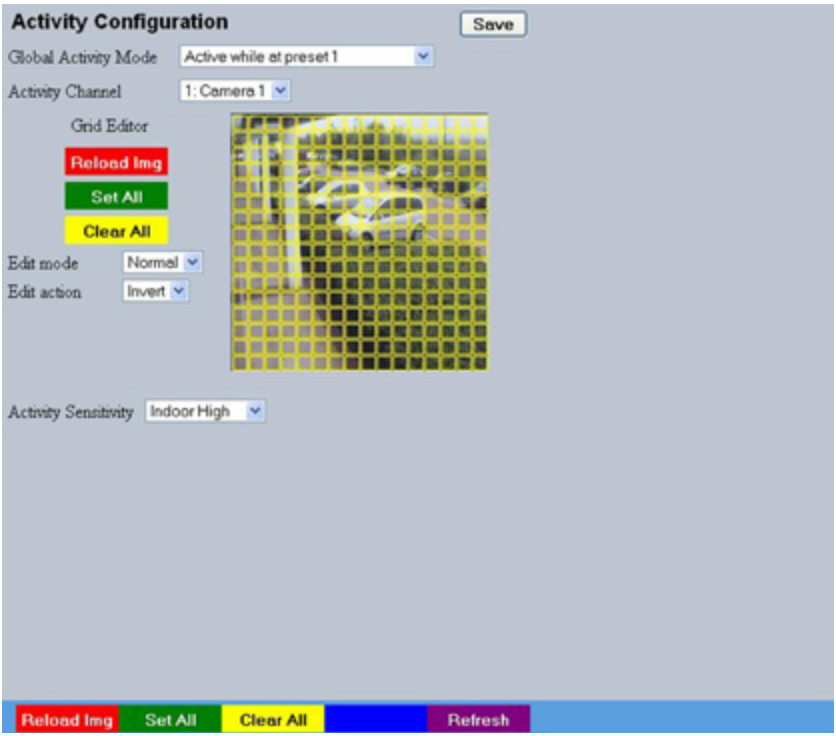
This menu allows actions to be allocated to individual alarm zones; Primary and Secondary cameras can be allocated to the zone and actions undertaken following alarm activation. This page should be configured in conjunction with the Zone Inputs menu.

Zone	Select a zone (alarm) to configure.
Primary Camera	This allows a camera to be assigned as the primary camera associated with the Alarm Zone. The primary camera will be displayed when an alarm in this zone is triggered.
Alarm Colour	This displays the local alarm text in the selected colour and can be useful in prioritising alarms. Options available are Red, Green, Blue, Yellow, Cyan and Magenta.
Secondary Cameras	This setting gives the facility to assign additional cameras to the zone. These cameras will become part of the alarm sequence shown in the Viewer menus when the alarm zone is triggered.
Create Database Entry	An alarm activation will be added to the database. The zone title will be used as part of the entry information.
Alarm Relay	Select to trigger an alarm relay following zone activation. Select the specific relay via the 'Relay' option.
Profile Change	Select to enable the unit to switch from Normal to Event recording following alarm zone activation.
Play Audio	It is possible to play associated audio upon zone alarm activation.
Alarm Reporting	This must be enabled to allow the unit to send an alarm notification to an external destination i.e an RVRC reporting via NetVu ObserVer.

Add Still Image	This will record a still image of the trigger along with the standard recording. This can then be sent on to an external destination.
Email Image	If this option is selected, a JPEG will be added to the reporting email (if Email Reporting is selected).
Protect alarm Images	Alarm images can automatically be protected from being overwritten.
Switch Spot Monitor	Select to display the alarm zone Primary camera on the Spot Monitor.
Goto Preset	It is possible to action a camera to automatically be sent to a preset position when an alarm is triggered.
Email Reporting	The unit can send an email when an alarm is detected, refer to 'Network-E-mail' for more information.
VMD/Activity Inhibit	Select to inhibit (ignore) the VMD/Activity detection feature. Refer to 'Activity Setup' for more information.
Enable Buzzer	Select to activate the unit's internal buzzer upon alarm receipt.
Preset Camera	The preset camera is the camera which will be sent to a designated preset position upon alarm activation.
Preset	Enter the preset position number for the selected camera here, refer to 'Unit Operation-PTZ Program' for more information on establishing camera preset positions.
Relay	Select an onboard or external relay to automatically close on receipt of an alarm.
Relay Duration	Enter (in seconds) how long the relay is to remain closed.
Alarm Image Snapshot Delay	This figure allows a delay to be introduced before an alarm snapshot is taken. This is used when the alarm relates to a PTZ camera which has to travel to a preset position.

Activity Setup

The unit supports Activity Detection on all video inputs. It enables cameras to automatically detect any movement/changes within the video scene; this can trigger a number of operations such as FTP alarm notification and an increase in recording rate.
A still image of the selected camera will be shown in the Grid Editor screen. To establish an Activity zone, edit the cells displayed across the image.
This option should be used in conjunction with the Zone Inputs and Zone Actions menus.



Global Activity Mode	Three options are available for Activity activation (specifically in relation to a PTZ camera). Selecting 'Active while at Preset 1' will result in Activity mode functioning only when the camera is at preset position 1. Select 'Active while camera not in motion' for Activity mode to function only when the camera is still. Select 'Always Active' for Activity mode to be in constant operation.
Activity Channel	This is a drop down list of the video inputs on the unit, selecting an input will display images from the corresponding video source.
Grid Editor	Use the Grid Editor by placing cells in areas of the camera view where movement will trigger an alarm. To enter cells navigate across the image via the Directional buttons of the I.R Remote Control). If viewing on a local monitor place a cell by pressing the OK button. If viewing via the webpages, use the mouse to navigate across the image, use the left mouse button to place a cell.
Reload Img (Red)	This option will update the still image displayed in the Grid Editor.

Set All (Green)	This option will insert a default square of 16 x 16 cells across the displayed video image.
Clear All (Yellow)	This option will clear all entered cells.
Edit Mode	Leave as ‘Normal’. Different Edit Mode functions will be added following future development.
Edit Action	Select ‘Invert’ to change the current grid state i.e. Clear to Set. Select ‘Clear’ to remove grids or select ‘Set’ to add grids.
Activity Sensitivity	This option allows the sensitivity setting to be established for the activity grid being configured. There are five settings to choose from: Indoor High, Indoor Low, Outdoor High, Outdoor Low, Very Low.

Activity Response Setup

This menu enables response configuration following activity trigger on a selected camera channel.

Channel	Select the camera input for configuration from the drop down list.
Detection Type	To configure the selected camera channel for Activity, select ‘Activity’. To assign no detection settings, select ‘None’.
Activity To Trigger	Following Activity activation, select ‘Simple Response’ to trigger specific chosen responses. Refer to ‘Activity Response Setup’ for more information. Select ‘Zone’ to apply the Zone Input rules as configured in the Zone Input menu. Refer to ‘Zone Input’ for more information.
Copy To All	Select to copy the current Activity Response settings to all camera channels.
Create Database Entry	When selected, an alarm entry will be added to the Event database.
Profile Change	Select to enable the unit to switch from Normal to Event recording following alarm activation.
Alarm Reporting	This must be enabled for the unit to automatically connect on alarm.
Alarm 24Hr	This will ensure that Activity Detection is permanently enabled on this camera channel.
Add Still Image	This will record a still image of the trigger along with the standard recording. This can then be sent on to an external destination.

Protect Alarm Images	Select to automatically protect alarm images from being overwritten.
Switch Spot Monitor	Enable this option to display alarm activated cameras on the connected Spot Monitor.
Enable in Day	This will enable Activity Detection when the unit is in Day (Unset) operation mode.
Enable in Night	This will enable Activity Detection when the unit is in Night (Set) operation mode.
Enable in Weekend	This will enable Activity Detection when the unit is in Weekend (Override) operation mode.

Global Actions

This menu details how to configure the default relay actions supported on the unit.
The unit supports two onboard relay connections and global relay settings. These global relays can be triggered under specific conditions i.e. on receipt of any alarm or any notification of Activity Detection.

Image Protection Period	Select a time period (in days) that images associated with an alarm will be protected from deletion.
Alarm Display Mode	When a relay has been triggered, the primary camera associated with that relay can immediately be displayed on the local monitor. Select 'Jump To Primary Camera' from the drop down list to activate this function.
Revert Display Mode after Alarm	Enable this setting to make the unit return to the view displayed before the alarm activation.
Alarm Display Alert	Enable this setting to display an alarm text alert in the colour specified in 'Alarm Colour' in the Zone Actions Menu.
Alarm (Relay 1)	Select this option to establish any alarm trigger as a Global Relay. Therefore the relay will close when an alarm is received on any of the alarm inputs.
Activity (Relay 2)	Select this option to establish any Activity Detection trigger as a Global Relay. Therefore the relay will close when Activity is identified on any of the camera inputs.

Network Settings

The Network Settings menus allow configuration of the unit's network functionality. Key network settings can be established such as 'fixing' the unit's IP address and maximum transmission rate. E-mail, remote reporting on alarm and FTP download can also be configured. Refer to the individual menus for further details.

The Network Settings page allows configuration of the unit's network connections such as the name assigned to the unit and its IP address.

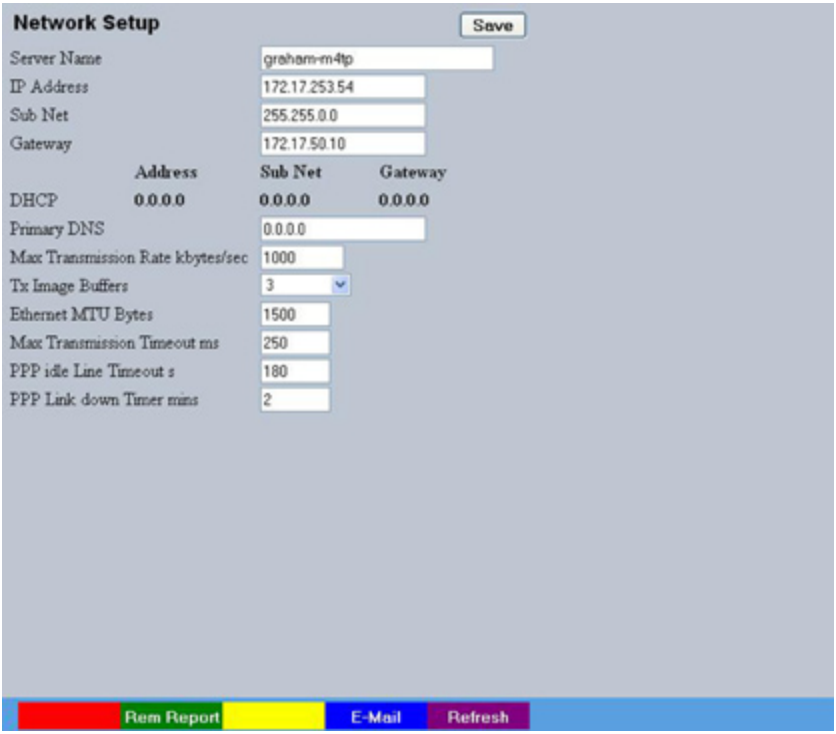
The Live Transmission page enables JPEG and MPEG profiles to be created for transmitting images via a High, Medium or Low quality network connections to any viewing software or to another unit using this one as an IP source..

The Email page allows configuration of the Email feature. The unit can automatically transmit an e-mail to an SMTP Server following an event i.e. on receipt of an alarm or a camera failure notice.

The FTP Download page allows data to be archived to a central FTP server. This could be on receipt of an alarm, Activity activation or at a scheduled time to back-up recorded video.

Network

This menu allows additional network settings to be configured if required. If utilising the 1Gb network connection, enter address details via Network Settings:Gb Network.

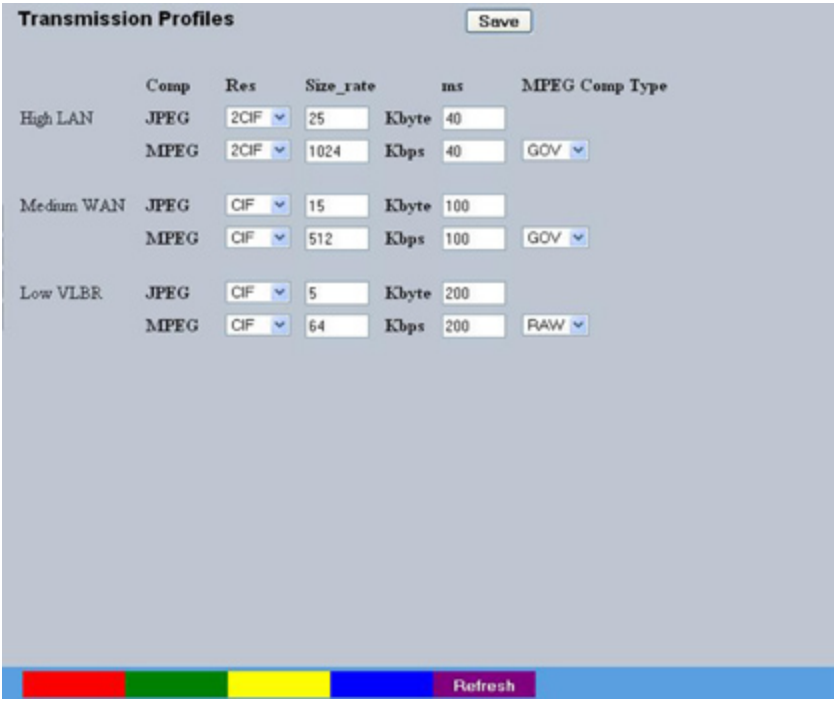


Server Name	This field can be edited to allocate a name to the unit. This would be used if accessing the unit via a Domain Name Server (DNS).
IP Address	This is the IP address allocated to the unit.
Sub Net	This is the subnet of the network were the unit is located.
Gateway	This is the IP address of the default gateway (router).
Primary DNS	This is the primary DNS server IP address for applications utilising domain names.
Max Transmission Rate	Shows the maximum transmission speed for the network type.
Force 10BaseT operation	The unit supports 10 or 100BaseT half duplex transmission. Selecting this option will force the unit to operate at a 10BaseT connection.
Tx Image Buffers	This is used in order to improve the picture delivery over Ethernet when using a slow connection i.e. 256Kbps. A buffer setting of 1,2 or 3 is available.
Ethernet MTU	This is the maximum transmit unit for the Ethernet packet. The MTU is the largest physical packet size measured in bytes that the network can transmit. By default this figure is set to 1500bytes.
Mx Transmission Timeout ms	This is the time (in milliseconds) the unit will wait to re-send a packet if an acknowledgement is not received.

PPP Idle Line Timeout s	This is the time (in seconds) the unit will wait before disconnecting the PPP (Point to Point Protocol) link if data has not been transmitted or received.
PPP Link Down Timer mins	If for any reason the PPP connection is lost, this is the time (in minutes) before the unit will be forced to drop the PPP connection.

Live Transmissions

The unit transmits live images using JPEG or MPEG formats.
The NetVu Connected remote viewing software will use the settings configured on this page as the defaults for JPEG & MPEG; High, Medium and Low settings.



High LAN/Medium WAN/Low VLBR	This shows the transmission settings configured for a High quality LAN (Local Area Network) connection, Medium quality WAN (Wide Area Network) connection or a Low quality VLBR (Very Low Bit Rate connection).
Comp	Settings can be established for JPEG and MPEG compression.
Res	For MPEG and JPEG transmission, select image resolution settings (4CIF, 2CIF, CIF or QCIF).
Size_rate	For JPEG, the figure entered will be the size of the JPEG transmitted (in Kbytes). For MPEG4 the figure will be the bit rate allocated. A higher rate will provide better quality picture display. JPEG file sizes can be configured in the range of 5-45Kbytes and MPEG bit rates in the range of 45-2500Kbits/second.
ms	This shows the number of pictures transmitted per millisecond. For JPEG, the actual images transmitted will depend on the bandwith of the link, increasing the pictures sent per millisecond may introduce time lag if bandwith is not sufficient. On MPEG transmission, increasing the pictures sent will also reduce the quality of the images (as more images are transmitted for the defined bit rate).

MPEG Comp Type	Select whether transmitted MPEG4 images are sent as RAW data or in GOV (Group of Video) format. RAW mode transmits a single I frame and then a sequence of P frames (until a change in transmission is detected). GOV mode sends I and P frames in a standard format i.e. I to P frame ratio as set by the record parameters.

E Mail

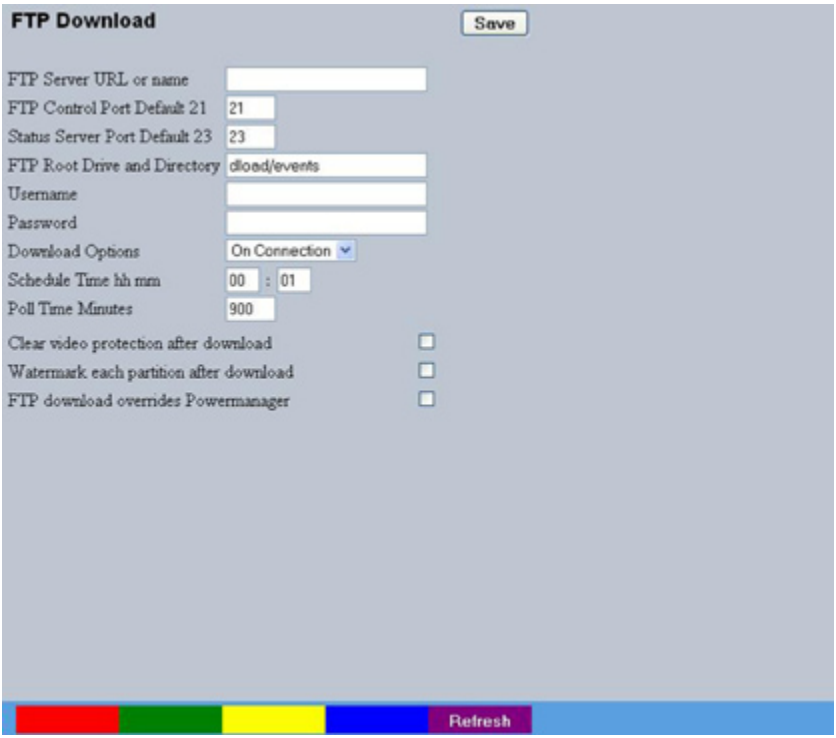
The unit can automatically transmit an e-mail to an SMTP Server under numerous conditions i.e. on start up, on receipt of an alarm, camera failure etc. This allows the unit to be installed in unmanned applications where a Remote Video Response Centre (or Manager etc.) would be notified by e-mail if any of these conditions occur.

Connection Profile	It is possible for the e-mail to be transmitted via the Ethernet network or dial up connection (PPP 'Point to Point Protocol'). This setting presumes that a modem has been connected or configured and the unit is connected to a LAN or WAN and allocated a valid IP address.
Mail Server Address	This is the IP address or URL of the SMTP Server that the e-mail will be sent to. The SMTP server will then forward this to the intended recipient.
Recipient Email	This is the e-mail address of the intended recipient.
Display Name (Recipient)	This is the addressee name that will be shown in the email name field.
Reply to Email	This field must be configured if the recipient is to reply to an e-mail. The unit does not accept incoming e-mails therefore ensure this is a valid e-mail address.
Display Name (Reply To)	This is the 'reply to' name that will be shown in the email name field.
Sender Email	These optional fields indicate the source of the e-mail notification. If the fields are left blank the unit will use the system name to create a sender name.

Display Name (Sender)	This is the sender name that will be shown in the email name field.
Send on Startup	Select to send email notification on startup.
Send on Alarms	Select to send email notification on alarm activation.
Send on Camera Fail	Select to send email notification on camera fail.
Send on Activity Event	Select to send email notification on activation of the Activity Detection feature.
Send Image	Select to send accompanying image from supporting primary camera.
Log Email	Select to log every e-mail transaction that the unit issues.
Email Image Res	Select resolution settings for images sent as 'thumbnail' attachments. Choose from: Thumbnail, LO (low res), MED (medium res) and HI (high res).

FTP Download

The unit can archive images to a central FTP (File Transfer Protocol) server. This could be on receipt of an alarm, activation of the Activity Detection or at a scheduled time to backup recorded video. Using FTP in a multi-unit application ensures that all files are stored in one central location for each of the units, offering efficient file management and easy review capabilities.

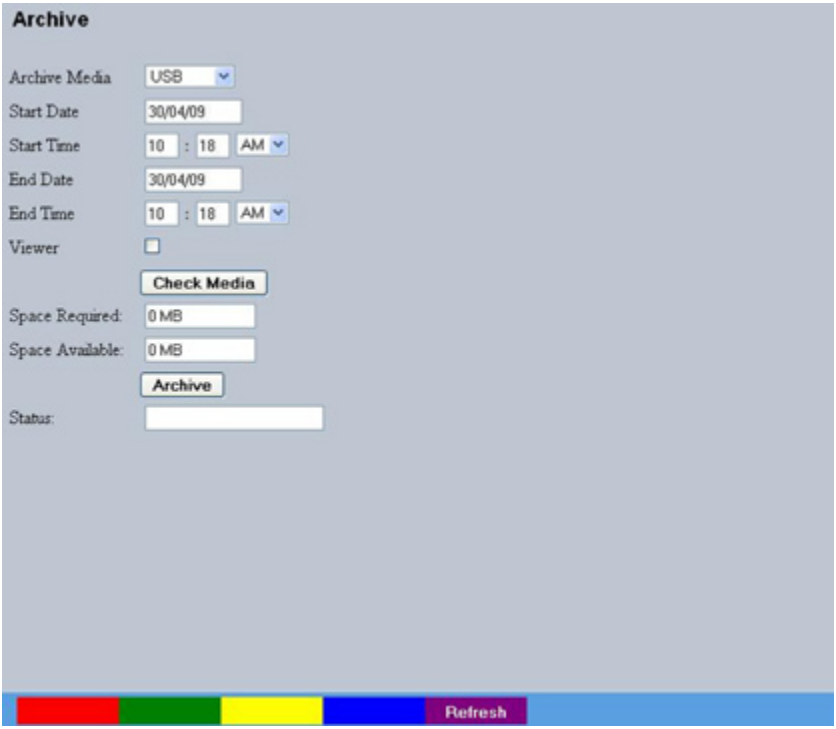


FTP Server IP URL or name	This is the IP address, URL or name of the FTP server the unit will connect to for FTP image download purposes.
FTP Control Port	The default port for FTP use is port 21. If this port has already been allocated on the network, it is possible to identify and allocate an alternative port.
Status Server Port Default	The default port for the Server Status function is port 23, if this port has already been allocated on the network, it is possible to identify and allocate an alternative port number.
FTP Root Drive and Directory	This is the directory where the images are to be stored, it is recommended that a name associated with the unit be used for ease of retrieval.
Username	If it is necessary to use an authentication process to access the FTP server, enter the relevant username here.
Password	If it is necessary to use an authentication process to access the FTP server, enter the relevant password here.

Download options	Select one of the following options from the drop down menu:	
	On Connection	This will automatically start the Archive download when the unit detects the archive destination is present.
	Scheduled	It is possible to force the unit to archive images at a scheduled time, enter a time to activate this function each day.
	Polled	This will set the unit to activate archive download at regular intervals, the time is in minutes and is the period between the end of one archive download and the start of the next.
	Manual only	The archive process will only commence when the user initiates the action.
Schedule time hh mm	If 'Scheduled' has been selected in Download Options, enter a time for the download to take place each day.	
Poll time Minutes	If 'Polled' has been selected in Download Options, enter the number of minutes which will elapse between the conclusion of one archive download and the start of the next.	
Clear video protection after download	This automatically clears the image protection from successfully downloaded images.	
Watermark each partition	This enables a watermark to be generated and stored in a text file downloaded with the video to the FTP server (for each image partition). This watermark is logged in the log file.	
FTP download overrides Powermanager	When selected, if the unit is in the process of an FTP download and the unit is sent into reset, the reset will not begin under the FTP process has completed.	

Archive

This menu allows Event database information to be downloaded to an inserted DVD/CD or connected USB media device.



Archive Media	Select to archive to either a DVD/CD or USB media device.
Start Date	Enter a start date for the event download.
Start Time	Enter a start time for the event download.
End Date	Enter an end date for the event download.
End Time	Enter an end time for the event download.
Viewer	When selected, the unit will add a Viewer program to the archive. It is recommended that this option be selected as it will ensure the downloaded video images can always be successfully viewed.
Check Media button	Selecting this option will display the space required (in megabytes) for the chosen event period to be fully downloaded. The space currently available on the CD/DVD or USB device is also shown.
Archive Space Required	Space required for archive download.
Archive Space Available	Space currently available on CD/DVD or USB device.
Archive button	Select this button to begin the Archive process.
Status	During Archiving, status messages will be displayed detailing the archive process.

Oracle Dome Configuration

If a camera channel has a Dedicated Micros Oracle dome camera connected, the Oracle Configuration menus can be used to view settings and establish Presets, Patrols and Privacy Masks. Refer to individual menus for further details.

The Status page details fundamental information regarding the status of the Oracle Dome i.e. the model type and the version of software/firmware installed.

The Presets page allows Preset positions to be configured and stored.

The Sectors page enables the cameras 360 degree field of view to be effectively split into 32 segments. These segments can be named and displayed via the On Screen Display (OSD).

The Patrols page allows camera patrol sequences to be established and configured. The Patrol feature uses established preset positions to automatically pan, tilt and zoom the camera in the selected sequence.

The Privacy Masks page allows privacy masking to be established and configured. The Privacy Mask feature can be used to 'blank out' sensitive or private areas which appear in the cameras field of view.

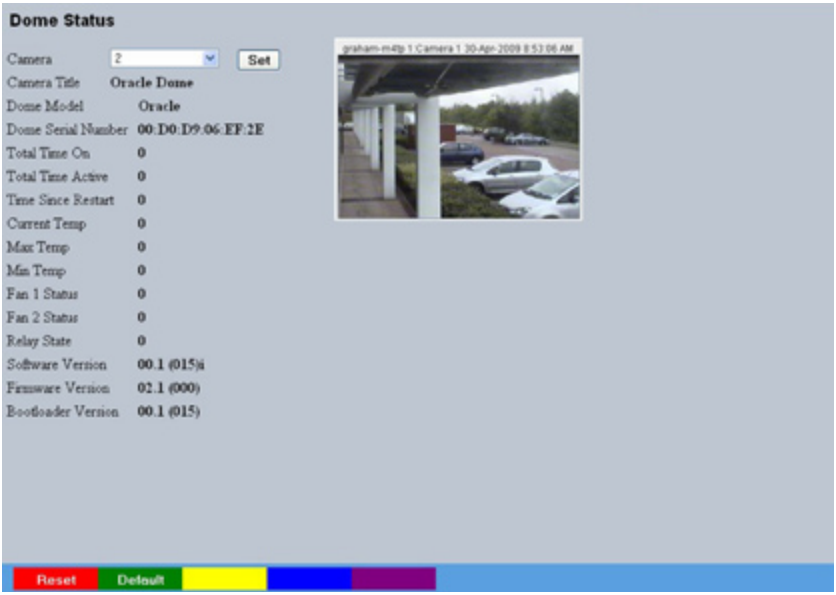
The OSD Settings page allows the Oracle Dome OSD (On Screen Display) information to be configured. This text will accompany displayed camera images in the Viewer menus.

The Camera Settings page enables features such as white balance and shutter speed to be configured.

The Event Settings page allows actions to be established and configured for the Oracle Dome camera following an alarm. A Home position can be established and the delay time set for what period of inactivity is required before the camera will be sent to its home position.

Status

This menu details information regarding the status of the Oracle Dome, notably the model type, current temperature and the version of software/firmware installed.



Camera	Select a camera channel. The menu will only display successfully if the chosen camera channel has an Oracle Dome camera connected.

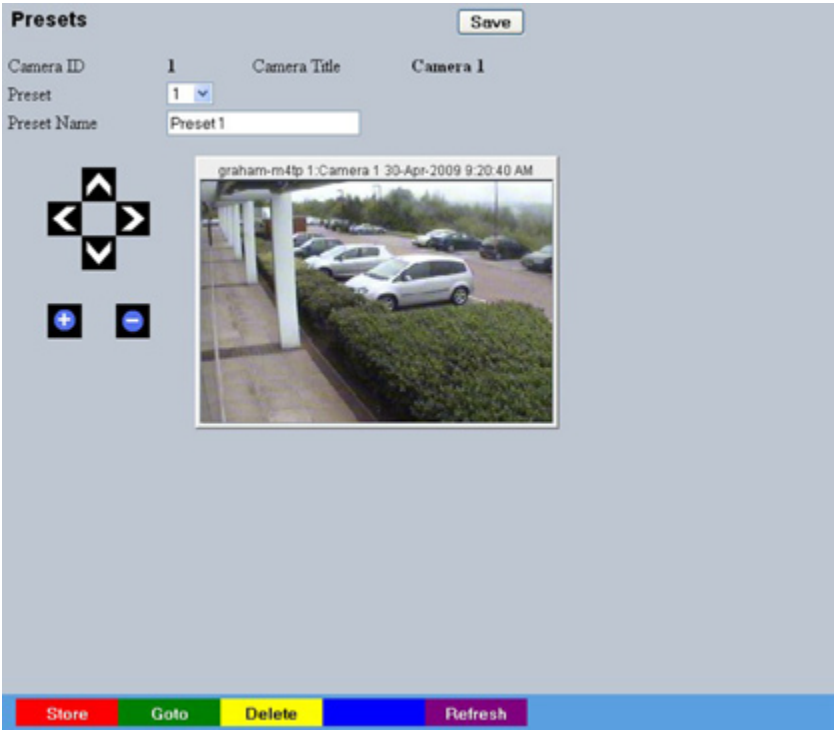
IMPORTANT: *All subsequent Oracle Configuration menus will relate to the camera selected here. Camera selection is only possible via this Status menu.*

Camera Title	Title assigned to the selected camera channel.
Dome Model	Details the product model.
Dome Serial Number	Identifies the serial number of the specific camera.
Total Time On	Details the operational life time of the camera to date.
Total Time Active	Details the total time the unit has been active (in motion).
Time Since Restart	Details the time since the camera was last reset.
Current Temp	Details the current temperature of the camera unit.
Max Temp	Details the maximum temperature the camera unit has reached.
Min Temp	Details the minimum temperature the camera unit has reached.
Fan 1 Status	Details the operational status of installed Fan 1.
Fan 2 Status	Details the operational status of installed Fan 2.
Relay State	Details the operational status of the camera unit's relay.

Software Version	This identifies the version of software the camera unit is running.
Firmware Version	This identifies the version of firmware the camera unit is running.
Bootloader Version	This identifies the bootloader version of the camera unit is running.

Presets

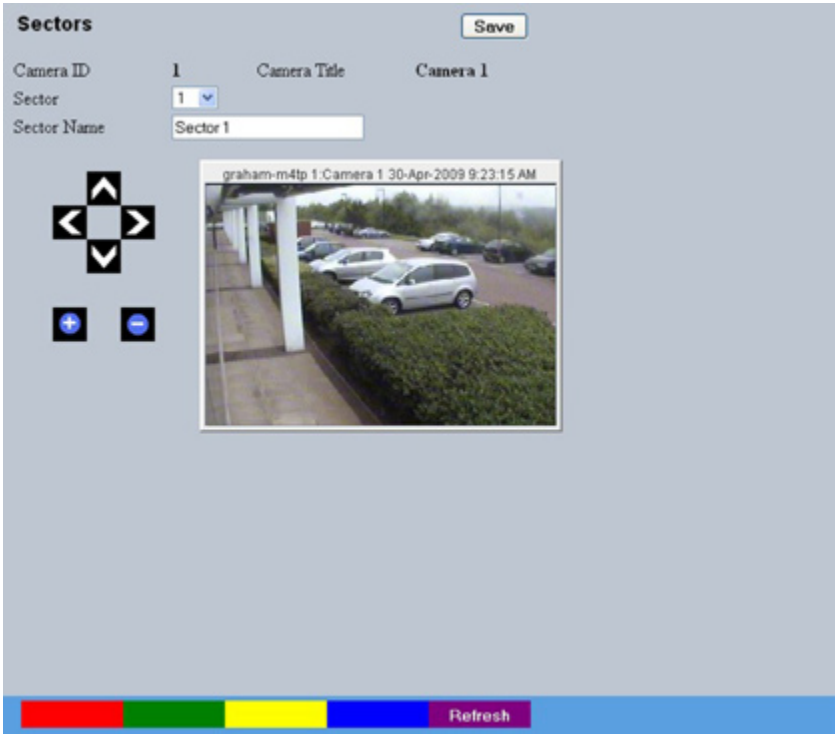
This menu allows Preset positions to be configured and stored for the Oracle Dome camera.



Camera ID	Selected camera channel.
Camera Title	Title assigned to the selected camera channel.
Preset	Select a preset number (1 to 100).
Preset Name	Enter a recognisable name for the Preset (up to a maximum of 25 characters).
+ (Red)	Use the + button to zoom the camera view IN.
- (Blue)	Use the - button to zoom the camera view OUT.
Navigation Buttons	Use the four navigation buttons to position the camera view.
Save (Grey)	Select to save the entered preset title to the unit and the Oracle Dome camera memory.
Store Preset (Red)	Select this button to store the current preset position to the Oracle Dome camera's memory.
Goto Preset (Green)	Select this button to immediately send the camera to the currently stored preset position.
Delete Preset (Yellow)	Select this button to delete the currently displayed preset configuration.

Sectors

This menu allows the Oracle Dome cameras 360 degree field of view to be split into 32 segments. These segments can be named and set to accompany the displayed camera image via the OSD menu. They can be used to aid an Operator in quickly identifying the current camera position.



Camera ID	Selected camera channel.
Camera Title	This is the title assigned to the selected camera channel.
Sector	Select from sector 1-32.
Sector Name	Enter a name for the selected sector (up to a maximum of 25 characters).
+ (Red)	Use the + button to zoom the camera view IN.
- (Blue)	Use the - button to zoom the camera view OUT.
Navigation Buttons	Use the four navigation buttons to position the camera view.

Patrols

This menu allows camera patrol sequences to be established and configured for the Oracle Dome camera. The Patrol feature utilises established preset positions to automatically pan, tilt and zoom the camera in the selected sequence.

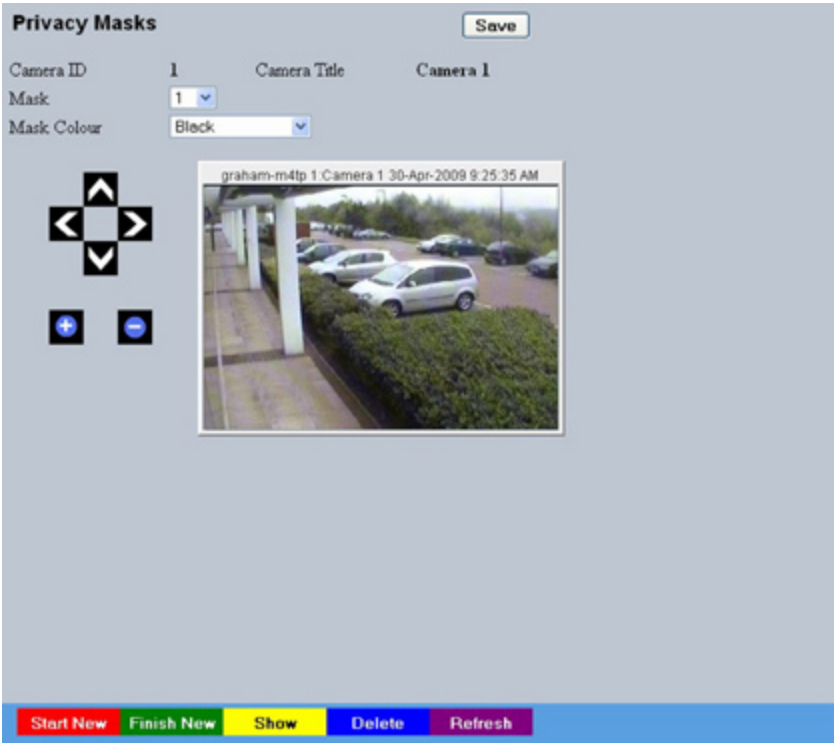
Camera	Selected camera channel.
Camera Title	Title assigned to the selected camera channel.
Patrol	Up to four Patrol sequences can be established.
Patrol Name	Enter a recognisable name for the Patrol.
1-32	Up to 32 individual positioning manoeuvres can be added to a Patrol.

Note: *Selecting one of the 1-32 buttons will send the camera to that Preset position.*

Preset	Select a pre-established Preset.
Speed	Select the Speed the Patrol will progress to the next Preset position (the speed can be set as a percentage of maximum capability).
Dwell	Select the Dwell time (in seconds) the Patrol will remain at this Preset position.
Save (Grey)	Select to store the preset sequence to the unit and the Oracle Dome camera memory.
Play (Red)	Select to activate (play) the current patrol sequence.

Privacy Masks

This menu allows Privacy Masks to be established and configured for the Oracle Dome camera. The Privacy Mask feature can be used to 'blank out' sensitive or private areas which appear in the cameras field of view.



Camera	Selected camera channel.
Camera Title	Title assigned to the selected camera channel.
Mask	Up to 24 separate masked areas can be created.
Mask Colour	The colour of the mask can be selected from the drop down list. The default is black.

Note: *Select 'Start New' (Red) to begin creation of a privacy area. A black rectangle will then be displayed superimposed across the camera view. It is recommended that the camera be navigated to the exact centre of the area requiring the privacy mask before pressing the 'Start New' button.*

+ (Red)	Use the + button to zoom the camera view IN.
- (Blue)	Use the - button to zoom the camera view OUT.
Navigation Buttons	Use the four navigation buttons to position the camera view.

Note: *When 'Start New' has been selected, the +/- and Navigation buttons can be used to set the size and shape of the Privacy Mask.*

Save (Grey)	Select to store the mask colour.
Start New (Red)	Select this option to begin creation of privacy mask.
Finish New (Green)	Select this option to finish creation of privacy mask.

Show (Yellow)	Select this option to show camera view with existing privacy mask displayed.
Delete (Blue)	Select this option to delete the currently displayed privacy mask.

OSD Settings

This menu allows the Oracle Dome OSD (On Screen Display) information to be configured. This text will accompany displayed camera images in the Viewer and on a local monitor.

Preset Title Position	Select desired position to locate the Preset Title information.
Sector Title Position	Select desired position to locate the Sector Title information.
PTZ Display Position	Select desired position to locate the PTZ Display information.
Alarm Name Position	Select desired position to locate the Alarm Name Position information. For all above functions, the available positions are: Top Left, Top Right, Bottom Left, Bottom Right and Off (No information displayed). All options are then split into three further sections; 1,2 and 3. This relates to the display line i.e. Top Left 1 would be the very top line, Top Left 2 would be the line below etc. This enables information to be 'stacked' in one segment of the screen.
Engineer Display	Toggle to switch the Engineer Display text On/Off. This function is intended for future development.
Save (Grey)	Select to store OSD Settings to the unit and the Oracle Dome camera memory.

Camera Settings

This menu allows settings for the Oracle Dome camera to be established and configured.

Camera	Selected camera channel.
Camera Title	Title assigned to the selected camera channel.
Backlight Comp	Select to activate Backlight Compensation. This feature compensates for back-lit scenes by enhancing objects which would previously have been in silhouette.
Auto Slow Shutter	The Oracle Domes auto slow shutter feature enables the camera to automatically decrease the shutter speed in low light settings to help maintain quality of displayed images.
Auto Focus	The Oracle Domes Auto Focus feature enables the camera to best focus on its current view. Select to activate.
Auto Flip	When the Oracle Domes Auto Flip feature is activated, it will rotate a camera 180 degrees when it reaches its maximum upper or lower extremity i.e pointing directly upwards or downwards. This enables a camera to continue a tilt manoeuvre i.e. if tilting in an upwards direction, when the camera is pointing directly up, it will rotate 180 degrees and begin tilting down. If unselected, a camera will stop when it reaches its maximum upper or lower extremity.
HyperD Mode	If the connected Oracle Dome camera is part of the HyperD non-wide dynamic range, select to activate the unique wide dynamic function.

Digital Zoom	Select to activate the Digital Zoom function e.g. the camera will zoom within the actual image.
Optical Zoom Limit	Select to limit the Oracle Domes optical zoom function. By default '100x' is selected and the camera can zoom to its maximum capabilities. The optical zoom function can be limited to between 75% and 100% magnification.
ICR	Oracle Domes with day/night cameras have an Infrared Cut Removal (ICR) function which can enhance the camera's sensitivity in low light conditions as well as allowing infrared illumination to be used (infrared is blocked by the IR cut filter). When ICR is ON, the camera switches to monochrome mode, the IR cut filter is removed and the camera is at its most sensitive. The default setting for the camera is AUTO ICR where the filter is controlled automatically dependent on the scene brightness determined by the camera. The camera can be forced to stay in colour mode by setting ICR to OFF, or can be forced into mono with maximum low light sensitivity by setting ICR to ON. Alternatively ICR switching can be triggered in response to an alarm input. This allows a photocell sensor to be connected to one of the dome's alarm inputs to control the ICR. This method can be used to avoid instability that may occur when the camera controls the ICR switching in marginally low light conditions. Removing the IR cut filter due to low light can cause enough of an increase in scene brightness and video level to make the camera return the IR cut filter and switch immediately back to colour mode (at which point the video level drops and the process is repeated).
White Balance	The Oracle Domes White Balance feature enables the camera to compensate for different lighting scenarios which can effect the colour quality of the displayed image. Select 'Auto' for the camera to auto-compensate for white balance depending on current view. Select 'Indoor' to permanently set for best results in an indoor setting. Select 'Outdoor' to permanently set for best results in an outdoor setting.
Exposure	The Oracle Domes Exposure setting can be set to maintain optimum contrast settings for the viewed image/camera location. Select 'Full Auto' for the camera to auto-compensate for best exposure settings depending on current view. Select 'Manual' to manually configure exposure settings. Select 'Shutter Priority' to manually enter the shutter speed.
Shutter Speed	If the Exposure feature is to be manually configured, enter the shutter speed settings.
Coax Gain	If the camera feed to the unit originates from the coax output of the Oracle Dome camera, the video signal can be boosted by increasing the coaxial gain setting. The default gain is 0 to increase it select a value between 1 and 100 until the optimum image quality is reached.
Coax Lift	If the camera feed to the unit originates from the coax output of the Oracle Dome, the video signal can be boosted by increasing the coaxial lift setting. Coaxial lift differs from gain as only the high frequency end of the video signal spectrum is boosted, to compensate for the greater attenuation of high frequencies in coax cables. The default gain is 0 to increase it select a value between 1 and 100 until the optimum image quality is reached.
UTP Boost	If the camera feed to the unit originates from the twisted pair output of the camera. Two levels of boost can be activated to improve image quality by compensating for losses in the cables.

Event Settings

This menu allows actions to be established and configured for the Oracle Dome camera following an alarm event. A Home position can be established for the camera and the delay time set for what period of inactivity is required before the camera will be sent to its home position.

Camera	Selected camera channel.
Camera Title	Displays the title assigned to the selected camera channel.
Event Name	If required, enter a specific name for the alarm event.
Type	Select the alarm type from: EOL (End of Line), NC (Normally Closed), NO (Normally Open) or Disabled.
Action	Select a preset position or a patrol action for the camera upon alarm event.
Relay	Select an action for the relay. Select ‘Momentary’ for the relay to momentarily switch state. Select ‘Duration’ to switch relay status for the duration of the alarm.
Home (Grey)	Select to send the camera to its predetermined home position.
Action	Select a preset or patrol from the accompanying drop down list. This preset/patrol will now be set as the cameras ‘home’ position.
Delay	Select the time (in seconds) for which the camera is inactive i.e. no operator input, before returning to its home position.
Save (Grey)	Select to store Event Settings to the unit and the Oracle Dome camera memory.

Unit Operation

The unit can be operated via the Viewer menus and the enclosed IR Remote Control, the optional keyboard or with a USB mouse. They can also be viewed and accessed remotely via the webpages and the 'Viewer' menu option.

Operating the Viewer

Navigation is via a colour coded softkey system. The colour bar provides an intuitive approach to operator and installer use. The coloured keys on the IR Remote Control correspond to the menu options displayed on screen.

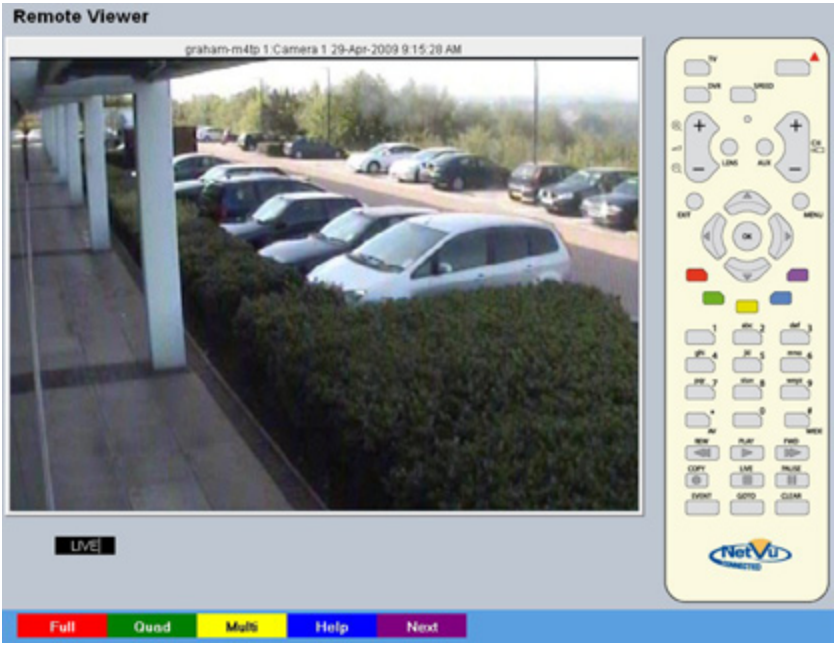
Note: *The screen images shown throughout this section are those displayed remotely via the webpages; If viewing locally, the menu layout will differ slightly.*

The function of the keys will change according to whether the unit is in Live or Playback mode.

Overleaf are described the available Viewer menu pages. To display the colour coded menu options when viewing locally, press the OK button on the IR Remote Control or click the mouse button.

View Control

The View Control page allows connected video inputs to be displayed full screen or in Quad/Multi way display format. The Help Video page can also be accessed.



Red	Full	Show currently selected camera full screen.
Green	Quad	Displays four images on-screen, putting the currently selected camera in the top left segment of the four, and will increment all cameras by one if pressed again i.e. if cam 1 is shown top left, cam 2 top right etc. then the views will increment to cam 2 top left, cam 3 top right etc.

Note: *When a camera button is pressed to select a new camera, the new selection will be displayed in the top left hand corner of the display. The next three connected cameras will be displayed in the following three positions.*

Yellow	Multi	By default displays nine images on-screen, putting the currently selected camera in the top left segment, followed by the next eight cameras and will increment all cameras by one if pressed again i.e. if cam 1 is shown top left, cam 2 adjacent etc. then the views will increment to cam 2 top left, cam 3 adjacent etc.

Note: *The Multi option not available on 4-way model.*

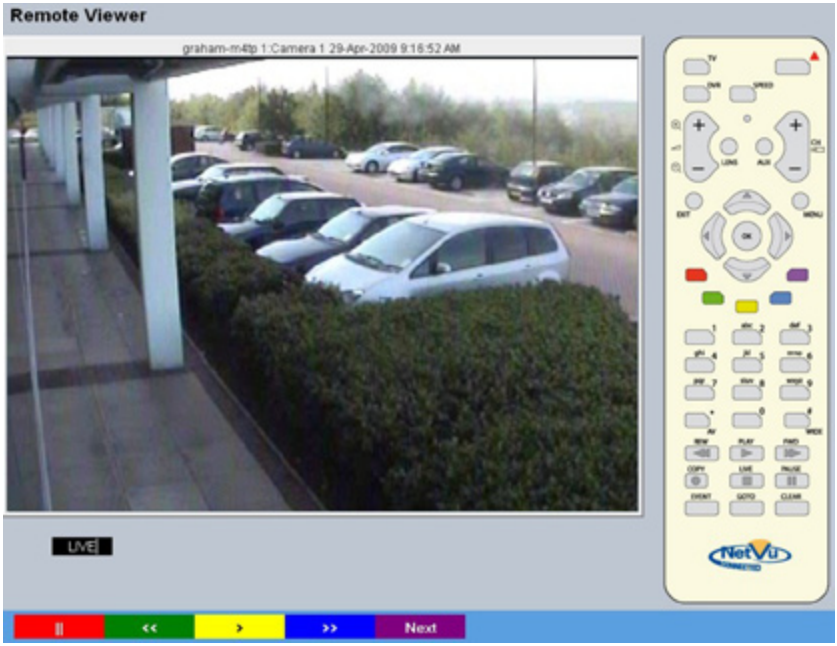
Blue	Help	Select to display the Video Help menu.

Note: *The Seq option not available on 4-way model.*

Purple	Next	Opens the next page of the Viewer menu.

Video Control

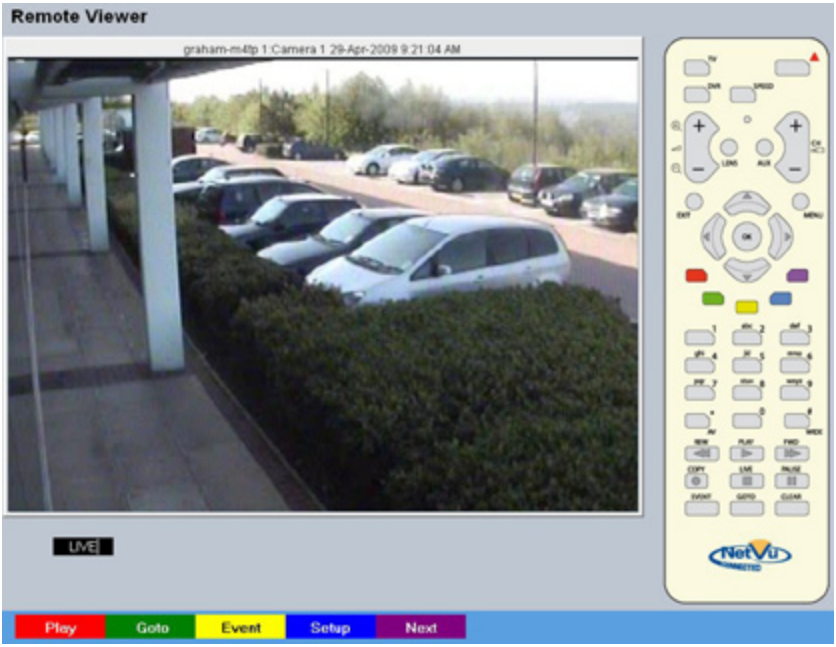
The Video Control page offers video playback functions i.e. play, pause, rewind and fast forward



Red	II	Freezes current video display.
Green	<<	Rewinds current video.
Yellow	>	Plays from current position.
Blue	>>	Fast forwards video up to current recording position.
Purple	Next	Opens the next page of the Viewer menu.

Selection Page

The Selection page allows access to various image and event playback functions.



Red	Play	Switches the selected camera(s) shown onscreen into Play mode.
Green	Goto	Opens the GoTo menu.
Yellow	Event	Displays the Events menu.
Blue	Menu/Setup*	Opens the Configuration menu pages.

IMPORTANT: *Selecting this option will exit the Viewer menus. This will be logged in the User Activity Log as the current user terminating the session, refer to 'Appendix C' for further information regarding the User Activity Log.*

Purple	Next	Opens the next page of the Viewer menu.

* *Menu will be displayed in the local viewer, Setup will be displayed in the remote viewer.*

PTZ Program Option

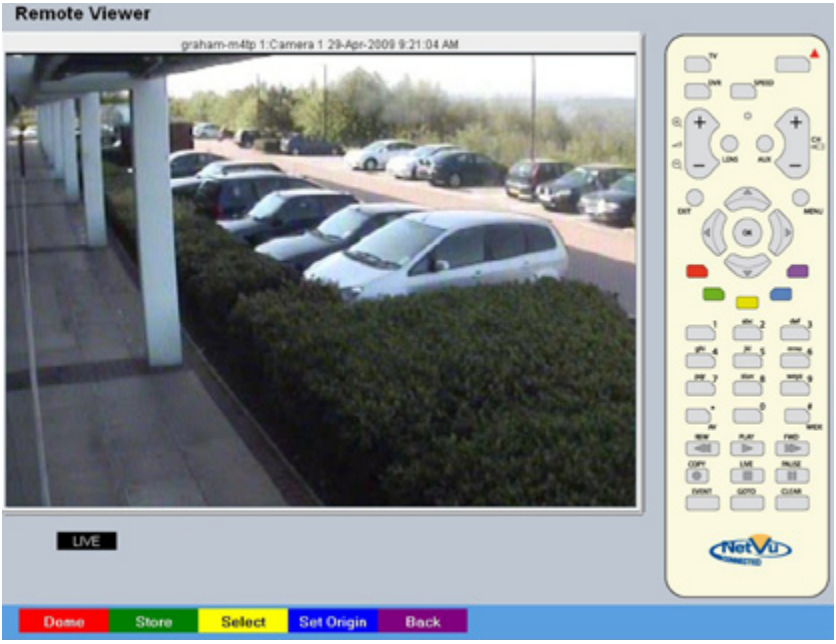
The Program page allows preset settings for PTZ cameras to be established and an 'Origin' base position established for a camera.

Note: *This page will not be available for all cameras.*

Red	Preset	If Preset positions have been established for the PTZ camera, select the Preset option and enter a preset number. Refer to the 'Presets' menu page for further details on establishing preset positions.
Yellow	Patrol	If Patrols have been established for the camera, select the Patrol option and enter a number. Refer to the 'Patrols' menu page for further details on establishing Patrols.
Blue	Prog	Opens the 'Dome Menu Option' page.
Purple	Next	Opens the next page of the Viewer menu.

Program Page

The Program Menu page allows the PTZ configuration on the currently selected Telemetry camera to be accessed and configured (if such menus are available).



Red	Dome	Select to display the Dome Menu page.
Green	Store	Use to save the current view as a Preset for this camera. Press this button then a preset position (using the numeric keys on the IR Remote Control or optional Keyboard if viewing via a local monitor). To re-send the camera to this position, select the camera, then press Next -> Preset -> (preset number).

Note: *When entering a new preset, any previous preset assigned to that number (for the same camera) will be overwritten.*

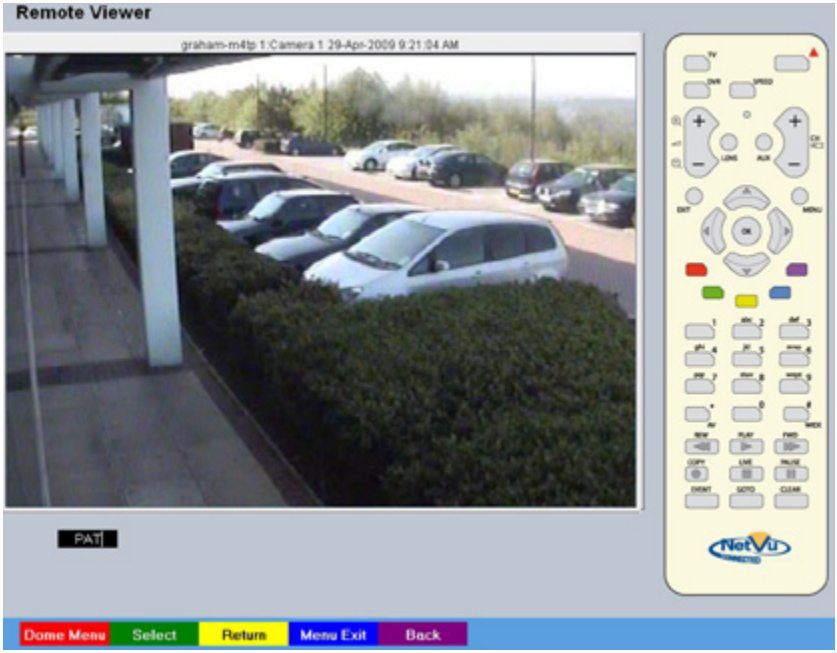
Yellow	Select	This option will send the camera to the stored 'Preset1' position.
Blue	Set Origin	The Origin option allows a base position to be established for the Oracle dome camera. The camera will register this position as zero degrees. Any command that sends the camera to a coordinate will use this origin as its starting point..

Note: *This option is only available for Oracle dome cameras.*

Purple	Back	Return to the 'PTZ Program Option' page.

Dome Menu Option

The Dome Menu page allows camera specific menus imbedded on the currently viewed Telemetry camera to be accessed and configured (if such menus are available).



Red	Dome Menu	Select to view camera specific sub-menus embedded on the Telemetry camera (if applicable). The camera specific menus will be overlaid across the screen.
Green	Select	This option enables sub-menu content selection (dependent on the protocol selected). Please refer to the specific camera documentation for further guidance.
Yellow	Return	This option enabes sub-menus to be exited (dependent on the protocol selected). Please refer to the specific camera documentation for further guidance.
Blue	Menu Exit	This option will fully exit any embedded camera sub-menus currently being viewed.
Purple	Back	Return to the previous page of the Viewer menu.

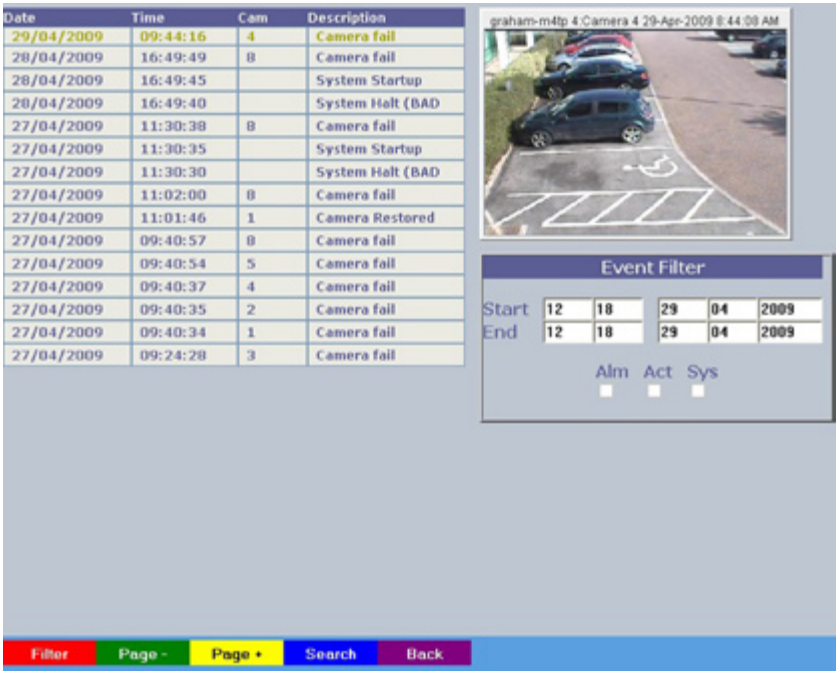
GoTo Option

The GoTo Navigation page allows quick and easy investigation of recorded video data. Use the Time and Date options to view recorded images from the camera channel currently being viewed.

Time	Enter the required time (using the 24hr clock)
Date	Enter the required date
Earliest Recording	The earliest recording time available for the camera currently being viewed will be displayed.

Event List

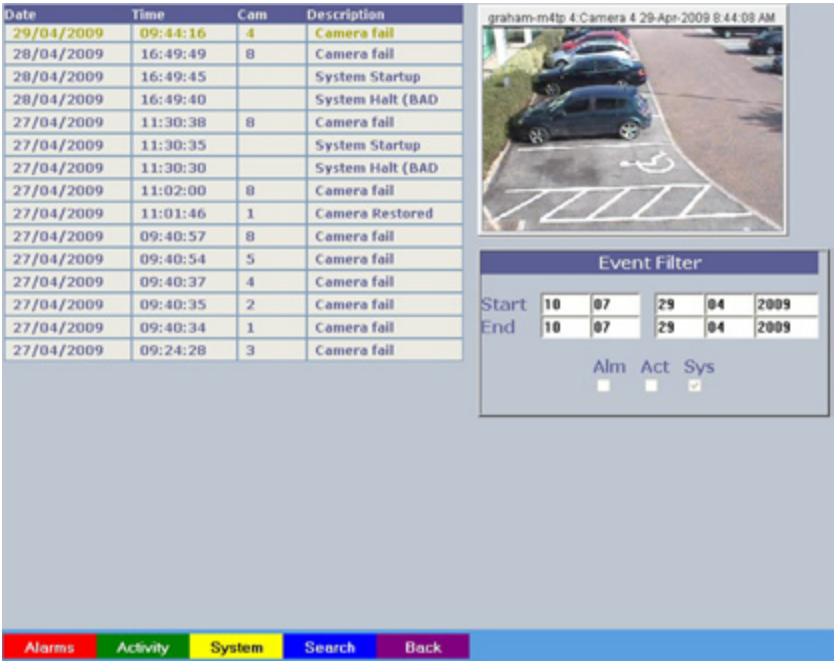
Alarms and activity detection are tagged and stored in the Event List for easy retrieval along with System events such as system start data and camera fails. Each event is labelled with an event type (alarm, activity or system) and its time and date. To view any additional pages of Event data, select the Yellow Softkey. Select the Green Softkey to view previous pages. If viewing locally, use the Up/ Down Directional buttons to select a specific event, the selected event is displayed in the preview window. If viewing locally, press PLAY on the IR Remote Control/Keyboard to playback an event. If viewing remotely, highlight and click a chosen event to playback.



Red	Filter	Select to open the Event Filter menu
Green	Page -	Select to display the previous page of Event data
Yellow	Page +	Select to display the next page of Event data
Search	Blue	When a start and end date/time parameter has been entered, select Search (blue) to begin the filter process (see Viewer menus->Event Search Filter for further details).
Back	Purple	Select to return to the View menu page.

Event Search Filter

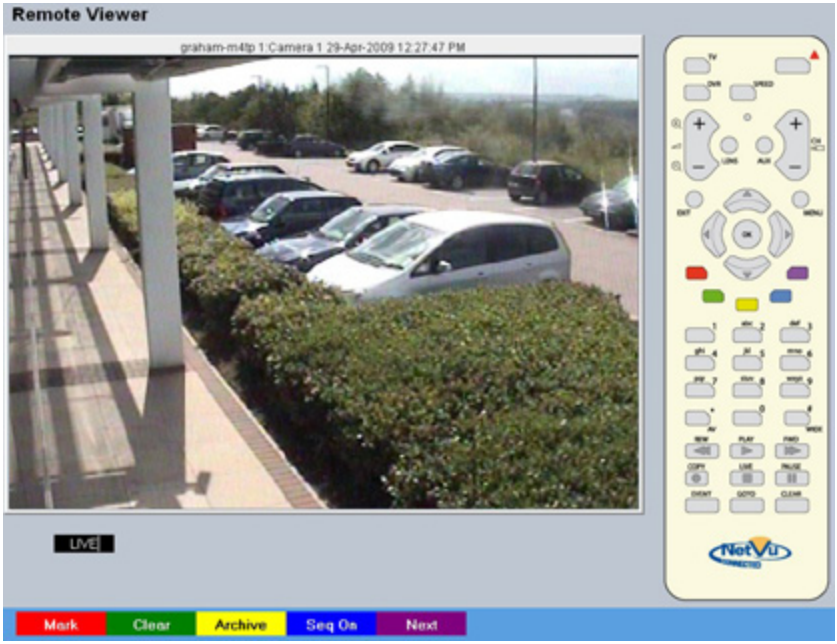
The Event Search Filter allows store events to be filtered by time and category, aiding the search process when large numbers of events are stored.



Event Filter Start		Enter a start date/time for the Event Search.
Event Filter End		Enter an end date/time for the Event Search.
Red	Alarms	Select to only display Alarm category events.
Green	Activity	Select to only display Activity category events.
Yellow	System	Select to only display System category events.
Blue	Search	When a start and end date/time parameters have been entered, select Search (blue) to begin the filter process.
Purple	Back	Return to the ‘Event List’ page.

Archive Selection

Images and events can be marked and added to the Copy Event List. The Viewer menu can also be set to 'sequence' through connected cameras and display images in sequential order.

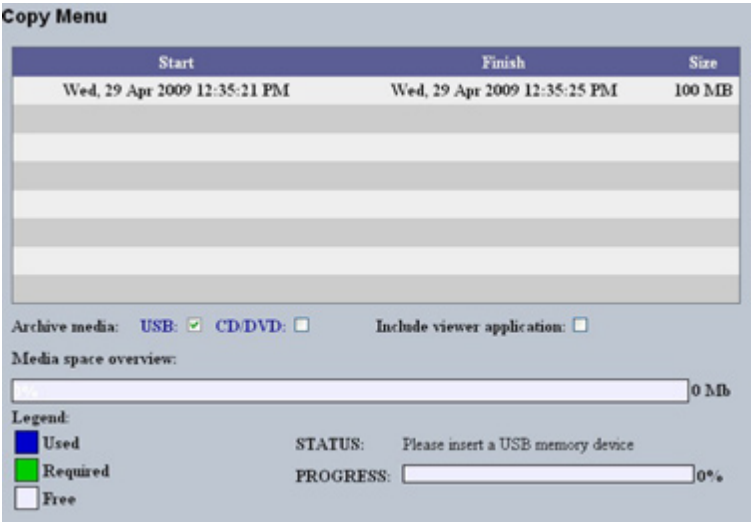


Copy Event List			
1:	1 Aug 2008 10:10:22	->	1 Aug 2008 10:14:57
2:	---	->	---
3:	---	->	---
4:	---	->	---
5:	---	->	---
6:	---	->	---
7:	---	->	---
8:	---	->	---

Red	Mark	In Playback mode, select 'Mark' to establish a start point for archiving purpose. The Copy Event List box will be displayed (see above) detailing the start date and time of the archive. Select 'Mark' again to establish an end time for the archive. A maximum of eight copy periods can be added to the Copy Event List.
Green	Clear	In Playback mode, select Clear to remove the last start or end mark added to the Copy Event List.
Yellow	Archive	Opens the Copy Menu.
Blue	Seq On/Off	Select 'Seq On' to display images from all connected cameras in a sequential order.
Purple	Next	Opens the Play menu for the currently displayed camera.

Copy Menu

Images and events can be copied to CD/DVD or USB Media for remote reviewing away from the unit (for evidential or monitoring purposes). The Copy Menu can be accessed via the 'Archive' (Yellow) button on the Archive Selection page.



The Copy menu will display the Archive periods added to the Copy Event List. The Start and Finish date/times will be shown along with the estimated size of the download.

Archive Media	Select the media device (USB or CD/DVD) for archive purposes.
Include Viewer Application	Select whether the application required to view archived data is included in the download.
Used (Blue)	Displays the space (as a percentage) already used on the chosen media device.
Required (Green)	Displays the space (as a percentage) required to download the selected archive(s).
Free (White)	Displays the space (as a percentage) that will remain following the download.
Status	Displays messages relevant to the archive process i.e. 'Archive In Progress'.
Progress	Displays the progress of the current archive (as a percentage of completion).

To Copy Events/Images to a USB Device

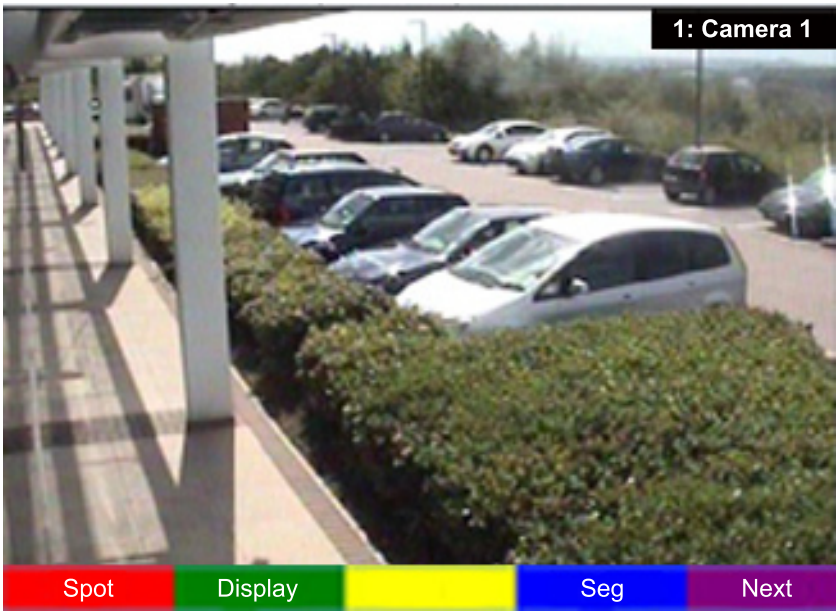
1. Insert a USB Device into the USB port on the front of the unit.
2. Select USB from the Archive Media checkbox.
3. Select the Copy option (Red) to start archive.
4. Selected items are then saved to the USB device.
5. The USB export progress is displayed as a %. On completion the status will read ‘Archive Complete’.

To Copy Events/Images to a CD/DVD

1. Insert a CD/DVD Device into the CD/DVD drive on the front of the unit.
2. Select CD/DVD from the Archive Media checkbox.
3. Select the Copy option (Red) to start archive.
4. Selected items are then saved to the CD/DVD.
5. The CD/DVD export status is displayed as a %. On completion the status will read ‘Archive Complete’.

Spot Monitor / On-Screen Display (Local Monitor Only)

This menu (only accessible via a local monitor) allows configuration of the camera output displayed on the spot monitor, plus enables all on-screen display text to be removed from the main monitor display



Red	Spot	Select to change the camera currently displayed on the spot monitor. When selected, use the IR Remote Control, Front Panel Interface or optional Keyboard to cycle through available cameras. As different cameras are selected, they will be displayed on the spot monitor only and not on the main monitor. The text 'Spot' will be displayed in the lower left segment of the main monitor.
Green	Display	Select to remove the on-screen text displayed on the main monitor.
Blue	Seg	Select to custom configure a quad or multiscreen display. First ensure the viewer is displaying in Quad or Multiscreen format, then select 'Seg'. The camera view in the top left segment will be highlighted. Select a camera channel via the IR Remote Control, Front Panel Interface or optional Keyboard. When your chosen camera is displayed, select 'OK'. The next camera segment will then be highlighted and ready to be assigned a camera. Select 'Seg' to exit when all segments have been assigned a camera channel. When accessing Quad or Multiscreen display, the custom display config will now be displayed.
Purple	Next	Opens the next page of the Viewer menus.

Help Videos

The Help Videos offer step by step guidance on performing some of the most common tasks required of the EcoSense. Access the Video Help menu by selecting the Help (yellow) option on the View Menu. The Help videos are divided into six categories; each category containing relevant videos. To play a video, first click directly on one of the six categories. If viewing remotely, use the Directional buttons and the OK button. A connected USB mouse can also be used. When a category is chosen, all associated videos will be listed. Select a video to play.

Note: *A speaker must be connected to the Audio OUT connection to hear the associated audio commentary.*

Purple	Back	Return to the ‘View Menu’ page.

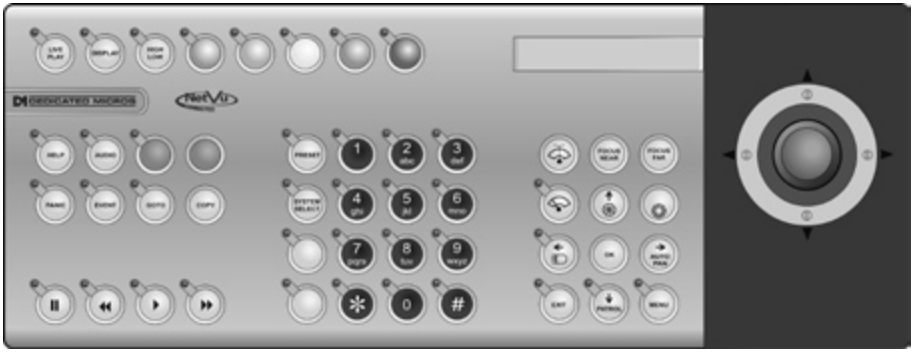
Using the optional Keyboards (DM/KBC1 & DM/KBC2)

The unit can also be controlled using an optional Dedicated Micros keyboard. This is connected via the KBD connector on the rear of the unit and provides the same control functions as the I.R Remote Control. The following keyboards are supported:

Note: *The 4 channel unit does not support the optional Keyboard.*

DM/KBC1 Keyboard

DM/KBC2 Keyboard



Note: *Not all buttons detailed below are relevant for both models of keyboard.*

Key	Function
	Displays the Softkeys menu if not currently on screen. Selects the colour coded item displayed on screen.
	Switches from Playback to Live mode.
	Toggles the visibility of on-screen text and status bar if no Softkeys are on screen. (For future use).
	For future use.
	Displays the Softkey options for the Audio functions (for future use).
	Forces all the cameras to record in alarm mode for three minutes, or until the button is pressed again (for future use).
	Play mode - Marks start and end of archiving point. Live mode - Opens the Archive Copy menu.
	Live mode - No functionality. Play mode - Starts fast forwarding from play time. Rewind mode - Starts fast forwarding from play time. Pause mode - Steps forward one frame.
	Live mode - Puts unit into reverse playback from current time. Play mode - Starts rewinding from play time. Rewind mode - Increases the rewind speed. Pause mode - Steps back one frame.
	Live mode - Freezes the current display window Play mode - Pauses video in playback.
	Live mode - puts the unit into playback using the last stored playback time
	Displays the Events list menu.
	Opens the GOTO menu

For future use.

Toggles control from Main to Spot monitor.

Allows the numeric selection of a camera (numeric selection defaults to camera selection).

Allows entry of camera and Preset and numbers.

For future use.

For future use.

Triggers the wash function on a telemetry camera.

Triggers the wipe function on a telemetry camera.

Switches on the lamp on a telemetry camera.

Adjusts the focus to objects nearer the camera.

Adjusts the focus to objects further from the camera.

Closes the Iris on a Telemetry camera.

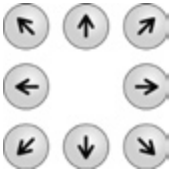
Opens the Iris on a Telemetry camera.

Zooms in on a telemetry camera and also provides electronic zoom out.

Zooms out on a telemetry camera and also provides electronic zoom in.

Sends a Patrol command to a telemetry camera.

Instructs the selected telemetry camera to automatically pan (on cameras that support this function).



Used as menu and on-screen navigation keys.
Pan and tilt control for telemetry cameras.

In Play mode: Used to Mark Start/End positions.

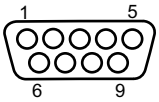
In Live mode: Displays the Copy List and archive controls.

Exits menus.

Appendix A

Serial Port Pin Outs

It is possible to connect a variety of telemetry cameras to the unit, use the following tables as a guide.



RS232 Connectivity (Serial 1)

Pin	Description
2	Receive Data
3	Transmit Data
5	Ground

RS485 Connectivity (2 wire) (Serial 2)

Pin	Description
1	RS485 + (A)
9	RS485 - (B)
5	Shield (GND)

Appendix B

Using the Keyboard/RC Interface Control To Control A Common Television Set

To use the Keyboard/RC Interface Control as a common television remote handset, it is necessary to input a code specific to the relevant television. Below are detailed the procedures to follow and a listing of the codes associated with common television brands.

How to Program The IR Remote Control

1. Turn the TV you wish to control ON.
2. Press and hold the TV button on the Keyboard/RC Interface.
3. Press and hold the PANIC button until the LED on the Keyboard/RC Interface Control turns ON.
4. Release both buttons, the LED will stay ON.
5. Press and release the PLAY button.
6. Enter the required code (see list below and overleaf). Please note that up to 10 codes can be entered at any one time. For many makes of television it will be necessary to try several codes before the user is able to pinpoint the relevant one for the TV model.
7. Press PLAY. The IR Remote Control will search the stored codes. Note that if more than one code has been entered, it will be necessary to press the REV button to cycle individually through the stored codes. To view which code has successfully accessed the TV, simply note when the TV turns OFF.
8. Press STOP. The LED turns OFF and the code is stored.

Codes Relevant To Common Televisions.

TV Brand	Code(s)
Alba	2003/2009/2010/2021/2022/2041/2045/2052/2093/2255/2278/2293/2306/2492/2497/2498/2521/2527/2541/2545/2564/2605/2609/2614/2618/2622/2631/2633/2636
Amstrad	2002/2009/2010/2012/2024/2045/2492/2498/2515/2515/2515/2521/2540/2605/2609/2610/2618/2621/2633
Baird	2068/2081/2504/2517/2518/2618
Bang & Olufsen	2000
Bauer	2617
Beko	2007/2027/2052/2180/2191/2228/2242/2269/2498/2588/2589/2616/2637
Binatone	2003
Blaukpunkt	2008/2079/2519/2625 /2636
Brandt	2029/2033/2034/2075/2076/2081/2117/2174/2272/2332/2535/2536
Brother	2610
Daewoo	2003/2009/2037/2039/2060/2070/2105/2128/2148/2224/2492/2498/2521/2551/2565/2566/2570/2592/2605/2609/2633/2636
Ferguson	2028/2029/2036/2038/2050/2068/2076/2089/2093/2143/2173/2517/2518/2536/2560/2618/2619/2620/2625/2627/2637
Goldline	2498
Goldstar	2003/2009/2011/2037/2053/2059/2077/2093/2094/2492/2498/2527/2542/2605/2608/2616/2624/2629/2632/2636/2637
Goodmans	2002/2004/2009/2021/2022/2037/2045/2059/2068/2070/2076/2093/2259/2369/2492/2496/2497/2498/2504/2516/2548/2551/2554 2605/2609/2610/2614/ 2633/2635/2636
Hitachi	2003/2004/2014/2017/2021/2026/2031/2033/2034/2035/2054/2081/2082/2083/2169/2175/2199/2201/2202/ 2253/2260/2380/2385/2396/2414/2426/2427/2441/2448 /2450/2469/2470/2471/2472/2497/2498/2499/2500/2504/2509/2512/2522/2524/2549/2551/2575/579/608/620/627/629/636

JVC	2021/2037/2045/2050/2210/2216/2239/2240/2267/2276/2280/2282/2298/2333/2377/2397/2497/2502/2507/ 2517/2518/2521/ 2557/2563/ 2572/2577/2597/2609/2615/2616/2622/2636/2646
LG	2003/2009/2011/2037/2053 /2055/2059/2077/2084/2093/2094/2195/2200/2237 /2245/2261/2262/2263/2274/2287/2312/2330/2355/2356/2359/2364/2381/2389 /2451/2452/2492/2498/2527/2542/2580/2581/2582/2594/2596/2598/2600/2605/ 2608/2616/2645/2647/649
Panasonic	2042/2043/2044/2063/2074/2085/2086/2100/2107/2114/2123/2130/2134/2136/2138/2168/2187/2226/2252/2324/2357/2361/2388/2408/2415/2416/2428/2429/2473/2474/2475/2498/2511/2520/2523/2528/2562/2578/2585/2599/ 2601/2603/2620/2636/640/ 648
Philips	2000/2003/2031/2032/2037/2055/2056/2068/2070/2087/2093/2108/2109/2112/2115/2119/2122/2126/2129/2131/2132/2133/2141/2146/2147/2149/2150 2152/2154/2155/2157/2163/2170/2182/2183/2190/2192/2197/2206/2214/2215/2229/2231/2246/2248 2249/251/254/257/264/275/277/283/291/297/323 /338/339/343 /383/384/393/398/436/453/454/476/477/478/479/480/481/495/498/499/554/567/568573/604/623/624 /627/629/ 635 /636/637/643/644
Pioneer	2029/2037/2081 /2093/2379/2382/2387/2390/2392/2444/2449/2498/2584/2627/26 /2637
Sanyo	2003/2004/2006/2014/2016/2021/2023/2024/2025/2030/2032/2076/2088/2161/2220/2223/2290/2292/2401/2442/2443/2492/2494/2497/2501/2504/2513/2532/2605/ 2627/2629/2633
Sharp	2001/2005/2023/2040/2101/2102/2127/2139/2160/2162/2186/2193/2207/2219/2335/2352/2354/2360/2365/2366/2368/2372/2373/2376/2403/2407/2417/2422/2423 /2424/2430/2431/2432/2433/2434/2455/2456/2457/2458/2459/2460/2461/2462/2463/2483/497/502/506/513/533
Sony	2004/2009/2021/2023/2024/2047/2067/2076/2078/2091/2097/2098/2110/2111/2118/2121/2125/2135 /2142/2166/2177/2185/2204/2234/2236/2326/2344 /2345/2346/2349/2363/ 2400/2402/2404/2405/2410 /2413/2418/2420/2439//2493/ 2494/2497/2508 /2569/2571/587/602/603/607/639
Technics	2043
Toshiba	2015/2021/2051 /2069/2090/2103/2137/2158/2159/2165/2179/2188/2194 /2208/2211/2213/2217 /2218/2222/2243/2244/2250/2271/2284/2288/2294 /2303 /2304/2313/2318/2319/2320/2321/2322/2328/2347/2350/2370/2375/2394/2409/2421/2435/2437/2440/2465/466/467/485/487/489/490/496/497/503/508 /526/574/54/ 591/595/606/607/632/642

Appendix C

User Activity Logging

User Activity logging can be enabled or disabled via the System Setting->Features menu. When this feature is enabled, the unit will record all actions performed via the user interface. These actions include Viewing the live stream, activating telemetry, altering the unit configuration, viewing recorded video, archiving video and any system events such as restarting the unit.

Data recorded will include the user name, login time and date, what action was performed, which channels were viewed and which telemetry instructions were issued.

The log files will be retained on the unit for as long as any related video files are kept. One log file will be created daily as a text file and will be named automatically (using the date of creation), and stored in the logs directory on the unit. This can then be downloaded via ftp if required.

Action	Stored Data
User Login	Username, Local or Remote, Login
Local Archive	Username, Local or Remote control, Media
Remote Raw Archive 1	http Username, Submission requesting archive time
Remote Selective Archive	http Username, Submission requesting archive time
Remote Raw Archive 2	FTP Username, List of downloaded files
Telemetry	IP address of user, Local or Remote, Channel Controlled, Command sent
Configuration	Username, Local or remote, Menus changed, Items changed
Playback	Username, Remote, Channel viewed, From time
Live	Username, Remote, Channel viewed
System Events	Username, Event Info

Appendix D

For guidance on locating the unit's IP address via a serial port connection, please see below:

Locating the unit IP address using the serial port

1. With the mains power off, connect a standard 9DF-9DF RS232 communications cable from the PC to one of the serial port connections on the rear of the unit.
2. On the PC, click Start->Programs->Accessories->Communications->Hyperterminal and create a new connection via the COM port using these settings.

Bits per second	115200
Data Bits	8
Parity	None
Stop bits	1
Flow Control	None

3. Power the unit, the Power LED on the unit will illuminate.
4. Hyperterminal will display the communications information as the unit boots up. This will include the IP address, Subnet and Gateway.

Appendix E

Unit Specification

LANGUAGES

Including: English, French, Italian, German, Spanish,

CAMERAS

4, 8 and 16 camera inputs available. Auto detection on power up. Alarm on Camera Fail.

Option to view all or selected cameras without effecting recording.

MONITOR VIEWING

Main monitor:

Full screen, picture in picture, quad viewing and multiscreen.

Mon A: Composite video BNC connector.

Spot monitor: Full screen, sequence.

Mon B: Composite video BNC connector.

ACTIVITY DETECTION

Each activity detection will switch the selected camera from normal record profile to alarm record profile. This feature can also; log the event, activate a relay, trigger a sounder, switch camera or link to an alarm.

Individual configurable alarm responses include; move camera to preset, activate a relay, remote alarm reporting, email on alarm, log event, switch camera, activate sounder.

ALARMS & RELAYS

17 normally open/closed tamper proof alarm inputs via back panel on 8/16 channel units.
5 normally open/closed tamper proof alarm inputs via back panel on 4-channel unit.

Keyswitch alarm.

2 relay outputs on 8/16 channel units.
1 relay output on 4 channel unit.

AUDIO

The user has the option to record and play back audio through the unit. Recorded with images, audio can be played back directly from the unit via powered external speakers.

Audio output for on site PA/Challenge.

Connections:

Line in: 1V pk-pk, RCA phono socket.

Line out: 1V pk-pk, RCA phono socket.

SEARCH AND PLAYBACK

- Frame advance/rewind, fast picture search and pause keys.
- Event list, including event list filter with unique quadrant preview facility.
- GOTO time and date.
- Playback in quad, multiscreen, picture in picture and full screen.

RECORDING

Playback and record to hard disk simultaneously.

Alarmed or manually selected images can be protected from being overwritten.

Timed expiry option allows images to be held for a selected number of days.

EVENT COPYING

Event sequences and user defined recorded sequences can be saved to a disc via the integrated CD/DVD-writer or to an external flash drive through the USB port.

NETWORKING CAPABILITIES

A standard Ethernet connection allows live and recorded viewing on a networked PC using DM's NetVu ObserVer software. Webpages are available for configuration and live viewing using a standard web browser

KEYBOARD/RC INTERFACE CONTROL

Offering full system control.

OPTIONAL KEYBOARDS

Supports Dedicated Micros keyboards:

DMKBC1

DMKBC2

TELEMETRY

Built-in RS485/Twisted pair protocols provide direct control of the numerous domes including but not limited to the following:

- Dedicated Micros Serial
- AD Matrix/AD 168-Matrix
- Baxall C
- BBV C/RS485/Matrix
- Dennard/Dennard C
- Ernitec
- JVC
- Kalatel
- MarkMercer
- Panasonic WV-CS600/WV-CS850
- Pelco C
- Philips/Philips 232
- Samsung
- Sanyo
- Sensormatic
- Ultrak
- Vantage
- VCL/VCL-Matrix
- Vicon
- Vista

RESOLUTION

QCIF, CIF, 2CIF,4CIF, D1

COMPRESSION

JPEG & MPEG-4 format files.

User definable file size and bit rate.

ECOSENSE RANGE DATA

Serial Ports: 1 x RS232 and 1 x RS232.

Ethernet: 1x Ethernet RJ-45 10/100 Ethernet connection.

USB: 3 x USB 2.0 Connector (1 positioned on the front panel).

TEMPERATURE RANGE

5 - 40°C

RELATIVE HUMIDITY

10% - 85% Non-condensing.

UNIT DIMENSIONS

435mm deep, 440mm wide, 98mm high.

Notes

Index

Dedicated Micros Ltd.
1200 Daresbury Park, Daresbury,
Cheshire, WA4 4HS, UK

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Installed by

MI-I-ECS1/E1-0