Installation Guide

Asgard HD Decoder

Building Block Video Ltd **www.bbvcctv.com**
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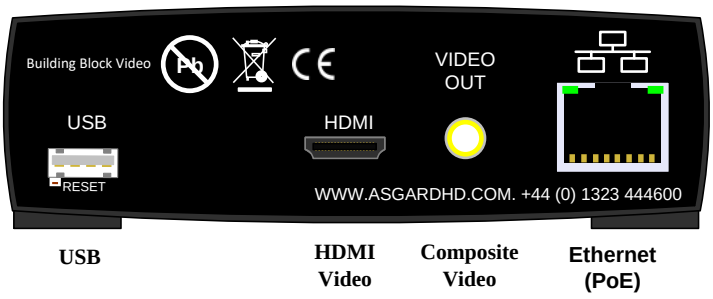
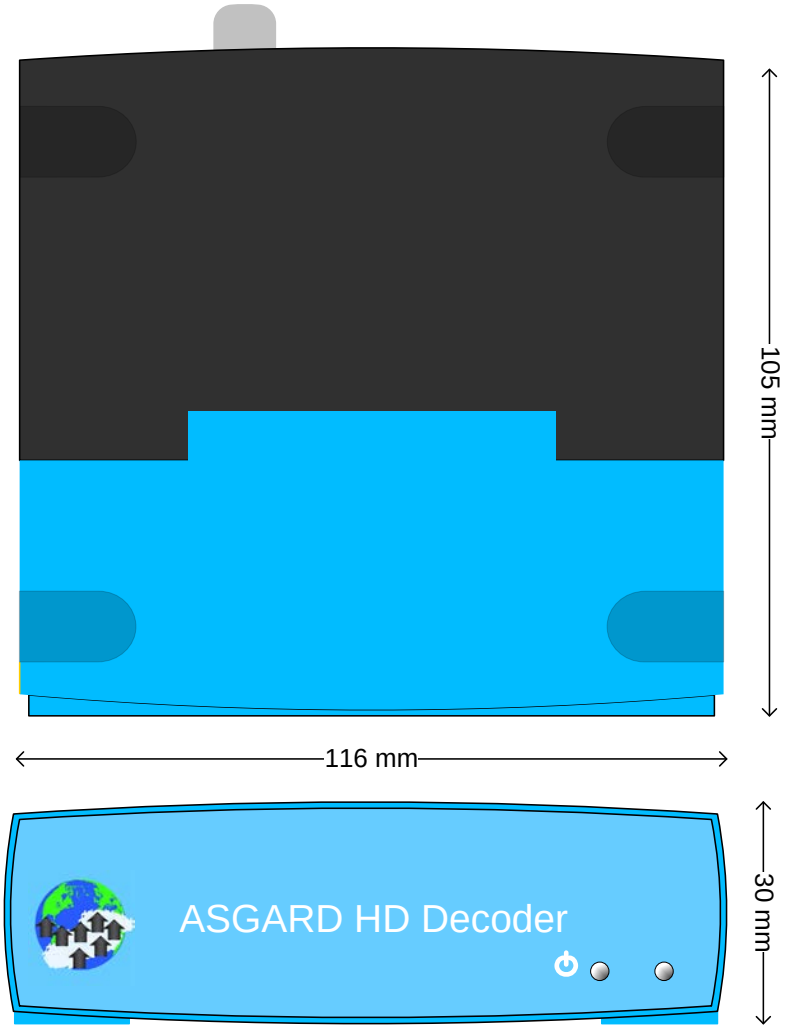
Contents

Unit specification

Power supply	PoE (48 Volt POE standard)
Power consumption	6 watts
Video Outputs	HDMI 1080P 720P Composite NTSC or PAL
Screen Images	Full screen display of live images Quad screen display of live images
Network connections	10/100 PoE Port 23 Telnet 80 Webpage interface 8080 remote CGI control
Video Standards	H.264, MPEG, MJPEG
Temperature, ambient	32°F (0°C) to 104°F (40°C) operating
Temperature, ambient	-40°F (-40°C) to 167°F (75°C) non-operating and storage
Humidity (RH), ambient	10% to 90% (non-condensing) operating
Dimensions (H x W x D)	30mm, 116mm, 105mm
Weight	160 grams





Unpacking - Inspect the packaging for signs of damage. If damage has occurred, advise the carrier and/or the suppliers immediately. Unpack the Decoder carefully and check that all the items are present and correct (see checklist on box). If any item is missing contact the supplier.

Retain Packaging - The shipping carton is the safest container in which to transport the unit. Retain undamaged packaging for possible future use.

IMPORTANT SAFETY PRECAUTIONS

Read & Retain Instructions - All relevant safety, installation and operating instructions should be read & retained before attempting to install, connect or operate the unit.

Water and Moisture - Do not expose the internal electronics of this unit to water or dampness.

Power Sources - This unit should be operated only from a PoE source.

Servicing - Servicing of the unit should only be undertaken by qualified service personnel.

Damage Requiring Service - Servicing by qualified personnel should be carried out under the following conditions:

(a) When the power-supply cord or plug is damaged
(b) If liquid has been spilled, or objects have fallen into, the unit
(c) If the internal electronics of the unit have been exposed to rain or water
(d) If the unit does not operate normally by following the operating instructions
(e) If the unit has been dropped or the enclosure is damaged

Replacement Parts - If replacement parts are required, ensure that only replacement parts recommended by the product manufacturer are used.

Safety Check - Upon completion of any service or repairs to the unit, safety checks should be performed to ensure that the unit is in proper operating condition.

Pre-installation Checks - It is recommended that the unit be bench-tested prior to installation on the site.

Adhere to Safety Standards - All normal safety precautions as laid down by British Standards and the Health and Safety at Work Act should be observed or relevant local regulations.

WARNING

TO PREVENT DANGER OF FIRE OR SHOCK, DO NOT EXPOSE THE INTERNAL COMPONENTS OF THIS EQUIPMENT TO RAIN OR MOISTURE.

Introduction or Heads up to the things that will leg you up!

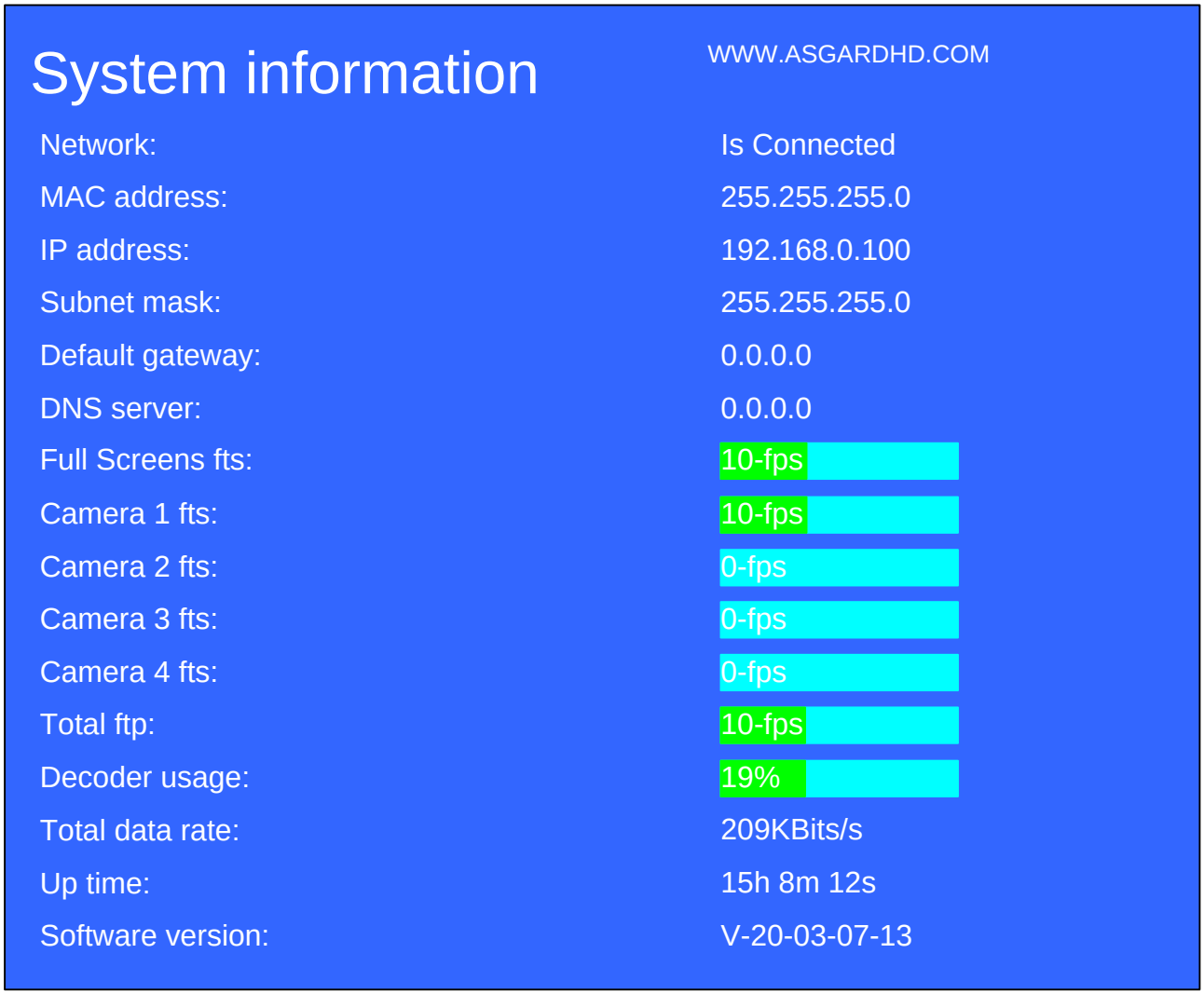
When the network cable that is connected to an appropriate PoE source is plugged into the decoder, you will see the power LED will glow red on the front of the decoder and the LEDs on the network socket will flash in response to network LINK and network ACTIVITY. On the video screen approximately 10 seconds after power up, you will see the ASGARD logo, then in a further 40 seconds the decoder will be ready to stream video. If there are no cameras selected in the startup boxes the video screen will remain blue.

In this manual you will find that all IP address are IPv4.

The Decoder can support either static or DHCP acquired address.

If the unit is powered up without Network connection, the unit will stop on the System information screen and it will continue to display 'is Disconnected' in the Network status. This can happen when the unit is powered from a PoE injector but not connected to a switch or direct to a camera/encoder.

The unit resumes normal operation when a network becomes available.



When you have established a network connection you will see "Loading cameras" on the video monitor

Something similar happens if the network is lost when the unit is working. The unit will restart and halt on the screen above. When the network is reconnected the unit will restart.

System setup

On receipt, the Decoder will have a default IPv4 address of 192.168.0.100. Open a web browser, type “192.168.0.100” in the address bar and press Enter.

Now you will presented with a user name and password prompt.
On delivery and or after a reset the default user and password are:
User name: *admin*
Password: *admin*

When the correct user name and password have been used you will be presented with the root webpage. Using the webpage you will need to select a Network mode, either DHCP or Static. If you are using Static this will be an available IP address within your subnet.
When setting up a static address you will also need the default gateway & DNS server addresses. The decoder can also have its own DNS name. As default it is ‘ASGARDHD’ this information should be supplied by your network administrator.

Root Webpage

Configuration Home

Video Settings

Video output mode: 1080P-HDMI

Network Settings

Network mode:	DHCP
IP address:	192.168.0.100
Subnet mask:	255.255.255.0
Default gateway:	0.0.0.0
DNS server:	0.0.0.0
DNS name:	ASGARDHD
Remote port:	8080

Startup Cameras

Startup camera 1:	
Startup camera 2:	
Startup camera 3:	
Startup camera 4:	

VSOM Details

VSOM server version:	VSOM7
VSOM server IP address:	0.0.0.0
VSOM username:	admin
VSOM password:	••••••••
VSOM database name:	bas

Update settings | Upload settings file | Download settings file

Custom Cameras

Edit custom list | Upload custom list | Download custom list

Firmware Update

Upload firmware

Control Device

Control device

Remote Keyboard

Remote Keyboard

Display all cameras

Display all cameras

Display all cameras

Edit login details

Logout

WWW.ASGARDHD.COM
SW VERSION: V-20-30-07-13
MAC Address: C8:F7:04:99:00:0C

Video Settings

The Decoder can support different resolutions and video formats.

This drop down box allows the selection of screen sizes or video formats:
1080P-HDMI
720P-HDMI
PAL *Phase Alternating Line*
NTSC *National Television System Committee*
Note, If PAL or NTSC is selected but a HDMI cable is plugged in it will over write the web page selection.

Network Settings

The network interface can be set for either DHCP or Static. As mentioned earlier, when you receive the decoder it will have a static address of 192.168.0.100 & a default DNS name of ASGARDHD.

Startup Cameras

On power up the default cameras can be specified. This is normally used when the decoder is deployed as a remote monitor that will always stream from the same source. If one camera is specified then it will be a full screen image. If more than one camera is selected it will bring up the quad screen.

VSOM server

Now the is part of the network it will need to know the VSOM server IP address and user name and password these will need to be entered, there are examples below. If you are connecting to VSOM 6.3.* it will also require the database name. The database default name is 'bas' this may be different on your system.

VSOM 6.3.*

The default VSOM username, VSOM password & VSOM database name will be set on delivery.

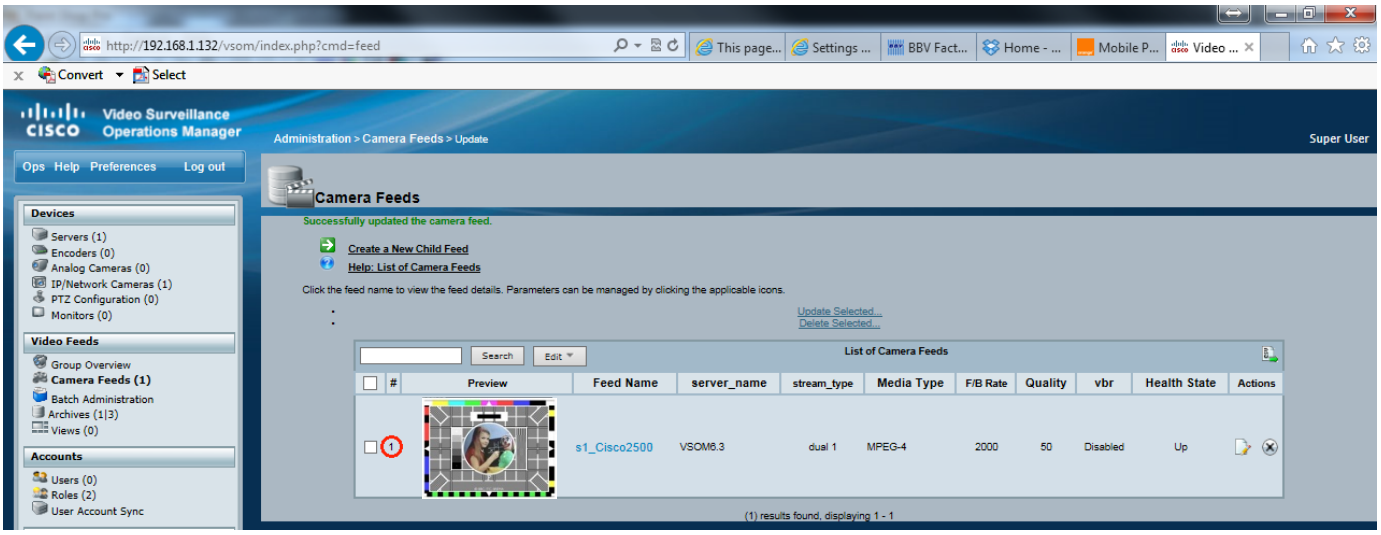
VSOM Details

VSOM server version:	VSOM6
VSOM server IP address:	0.0.0.0
VSOM username:	public
VSOM password:	access
VSOM database name:	bas

Update settings | Upload settings file | Download settings file

When the editing of this section is complete, it will need to be loaded in to the Decoder this is done by clicking on Update settings.

When the Decoder is connected to VSOM 6.*.* it is very important that all the cameras & decoders have camera numbers. Below you will see the location of the camera number circled in red.



VSM 7.* The default VSOM username & VSOM password will be set on delivery.

VSOM Details

VSOM server version:	VSOM7
VSOM server IP address:	0.0.0.0
VSOM username:	admin
VSOM password:	S3cur4u2

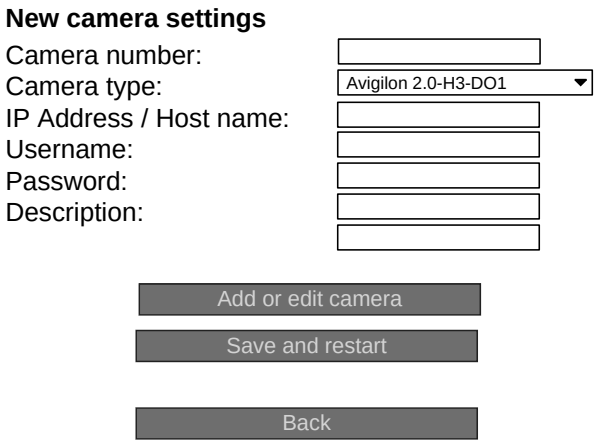
Update settings | Upload settings file | Download settings file

When the editing of this section is complete it will need to loaded in to the Decoder this is done by clicking on Update settings.

When the decoder reboots it will connect to the VSOM and download the database.

Custom camera

Depending on the installation it may be required to stream directly from a device that is on the network. This is done by adding a camera url to the custom camera list.



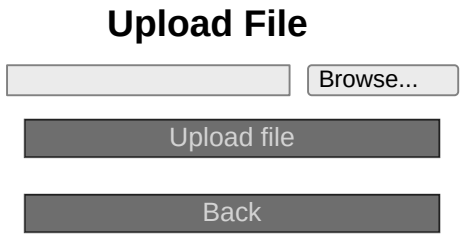
There are a number of directly supported cameras, these are listed on the penultimate page. If it is not shown in the drop down box, the complete url can be typed into the IP Address box. For example; below is the structure that is used to build the url for the Cisco 4300 & 4500.

rtsp://<username>:<password>@<cameraIP>/StreamingSetting?version=1.0&action=getRTSPStream&sessionID=<sessionID>&ChannelID=<channelID>&ChannelName=<channelName>

NOTE if the custom camera number is the same as one of the VSOM cameras the VSOM camera will be shown and the custom camera will NOT.

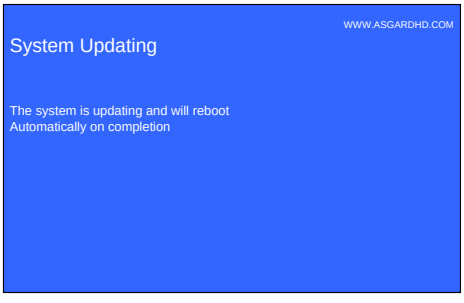
Firmware Update

Building Block Video typically provides periodic firmware updates for products covered under the terms of support. Checking for updates regularly will ensure that the decoder is functioning correctly and avoid any potential issues that may arise. This section provides instructions on how to update the firmware of the decoder. With every release of decoder firmware there is a new 'updatelog.txt' this lists the changes in the firmware.



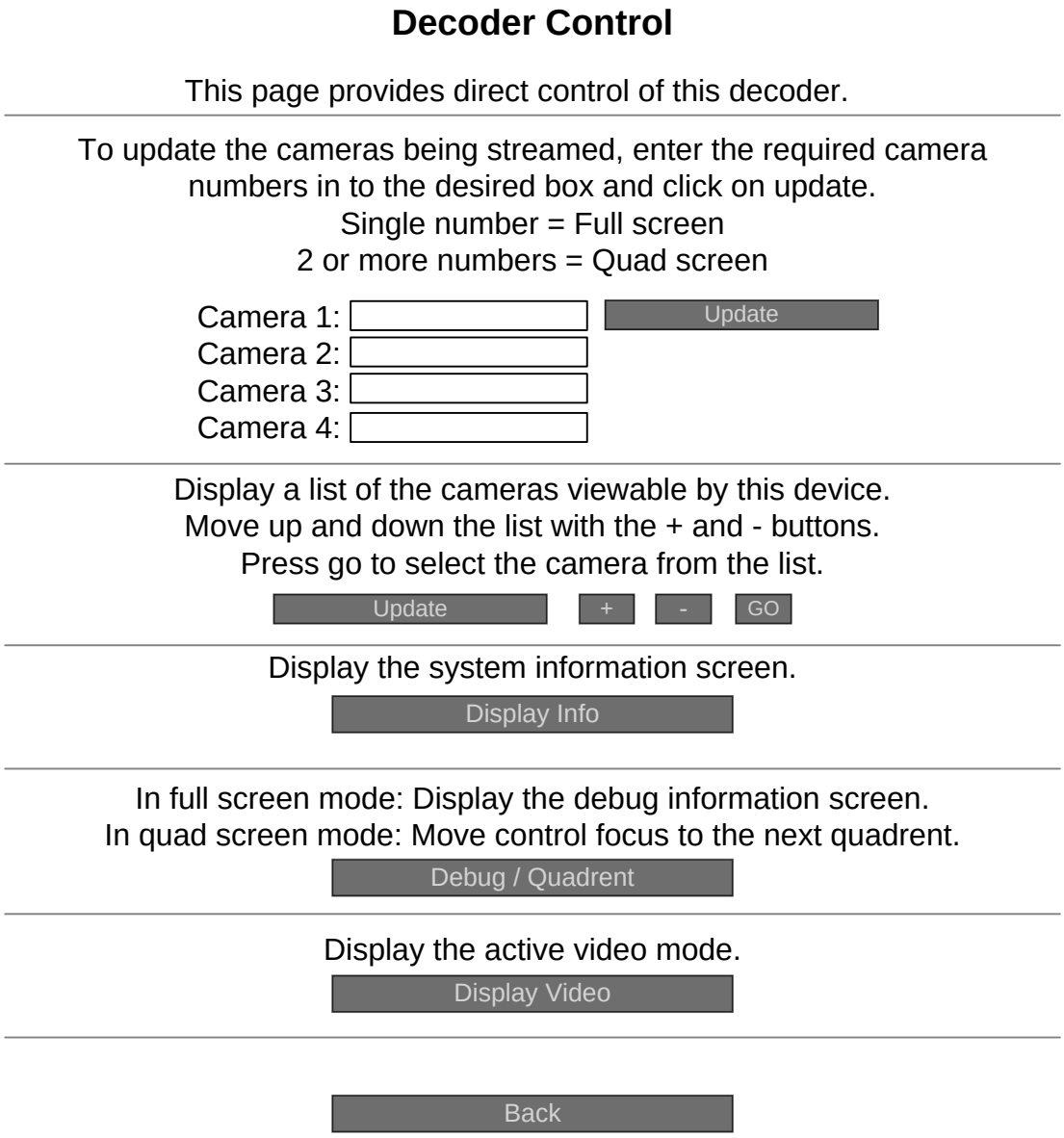
The firmware is openly available to download from http://www.asgardhd.com/firmware/ . When you have downloaded the latest file from the website and saved it to the desktop. Go to the Upload File web page on the decoder. Click on Browse... and navigate to the 'updatexx.tar.gz' then click Upload file

When the decoder is updating the video screen will go to a blue screen and then reboot on completion of the update.



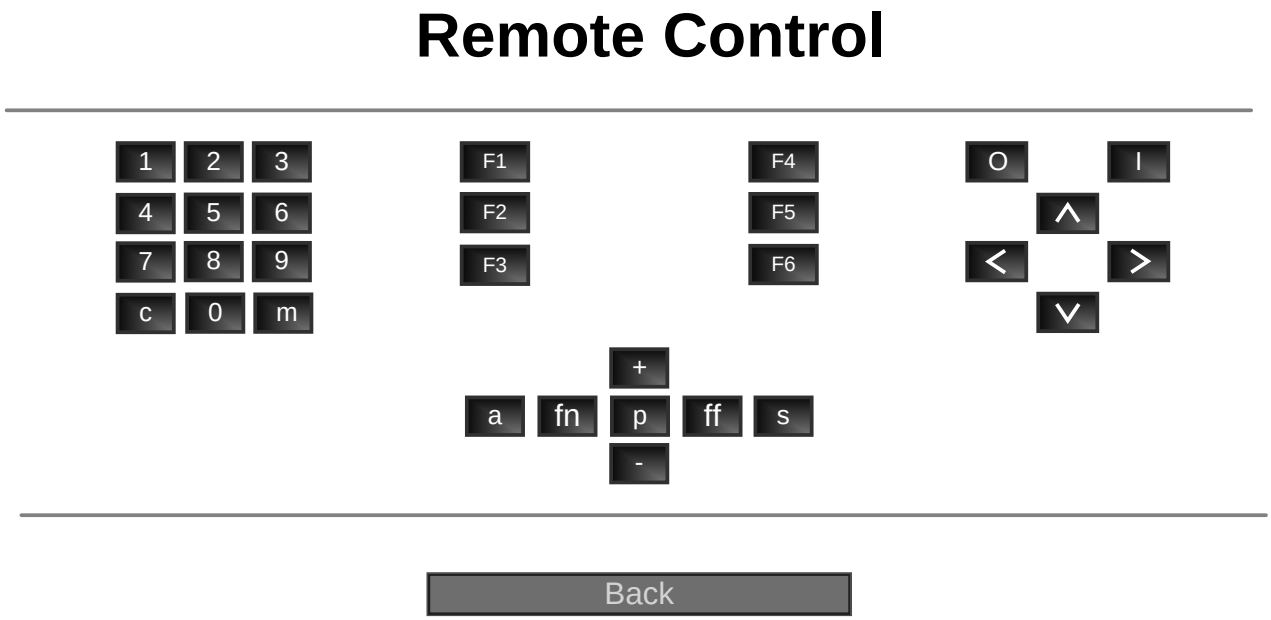
Control Device

Provides control of the decoder, please note this controls the video output of the decoder.



Remote Control

This page provides a web based GUI keypad to assist with engineering support of the decoder.



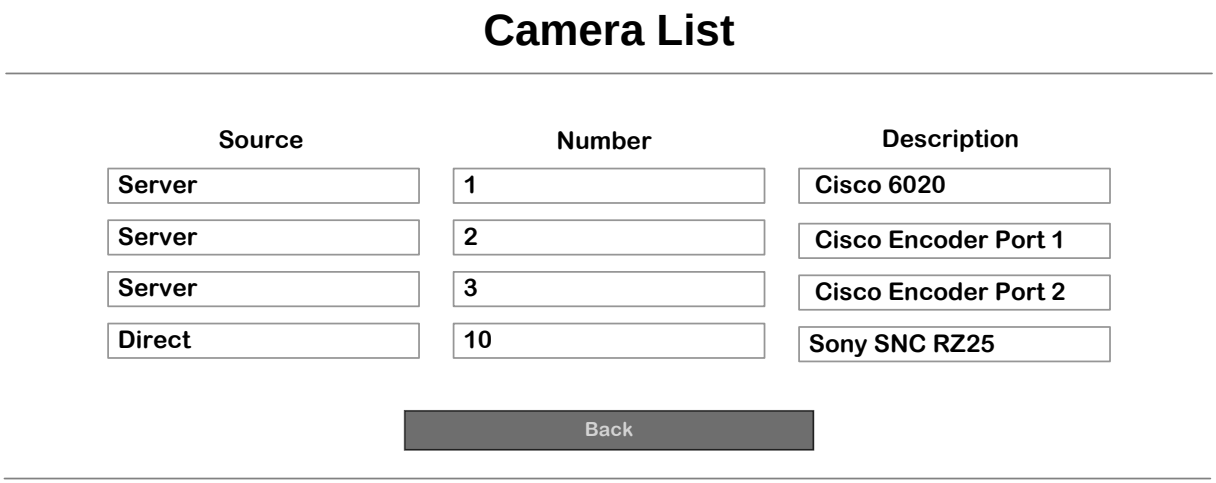
C	Camera selection key	fn	Focus near
M	Monitor selection between single and quad	ff	Focus far
F1	*In full screen mode*: Display the debug information screen.	O	Iris open
F1	In quad screen mode: Move control focus to the next quadrant.	I	Iris close
F2	Save a preset (see note save preset)	∧	Tilt up
F3	Not used an the decoder	∨	Tilt down
F4	Display camera list	<	Pan left
F5	Display the system information screen.	>	Pan right
F6	Display the active video mode	p	Preset
+	Plus key	a	Alarm
-	Minus key	s	Sequence

Note- To save a preset enter a number sequence followed by the F2 and then the p key.

Example, 1 5 F2 and finally p. This will save preset 15.

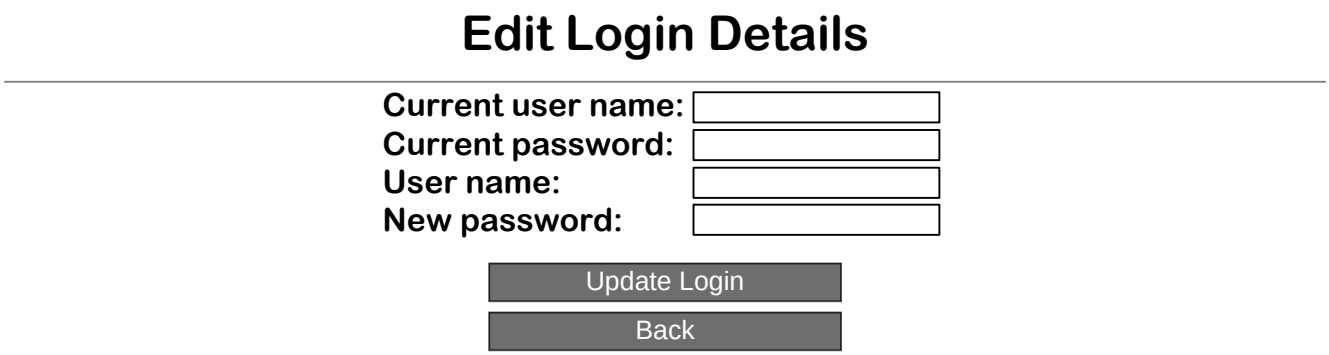
Display all cameras

When working on the decoder from a remote location you can bring up a list of the cameras with the descriptions etc**.**



Edit Login Details

As with most web based equipment you can edit the logging on details. This is done by entering the current user name and password and then entering new details for one or both.



Error codes and definitions

VSM 7	ERROR connection failed!	Unable to download the xmlfile from the server
	ERROR connection failed!!	Redirected address received from the vsm is invalid(probably will never happen)
	ERROR unknown?	Something went seriously wrong as in packet was received in a corrupt state
	ERROR Authentication failed!	Invalid username or password whilst connecting to the vsm
	ERROR The requested resource is not available!	The server returned a html 404 file not found response meaning that it does not have the requested information ip address may be a media server rather than VSOM required
	NOTE: other errors are interpreted directly from the server responses	

VSOM 6	Server connection error!	Unable to make a connection to the sql database held on the server either the username, password or ip address is wrong

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RTSP	Camera connection	Errors are caused by responses from the RTSP requests made by the decoder/keyboard to the camera/server
	Camera not present on server	**OPTIONS** request failed
	Temporary server fault please wait	**DESCRIBE** request failed
	Camera server failed E3	**SETUP** request failed
	Camera server failed E4	**PLAY** request failed
	Camera server failed E5	**PAUSE** request failed
	Camera server failed E6	**TEARDOWN** request failed
	Camera server failed E7	Unable to bind local port

	10/100 PoE Port
HDMI	High-Definition Multimedia Interface for connection to a HDMI - compliant device
VIDEO OUT	Composite video output formats supported PAL & NTSC
RESET	Reset button clears the memory of all user settings and forcibly reboots the decoder
USB	Universal Serial Bus to be defined

Mounting the Decoder

The decoder can be mounted to the rear of the monitor with the use of an additional mounting bracket. This can be ordered at the same time as the decoder or separately. An example of the mounting bracket is shown below.

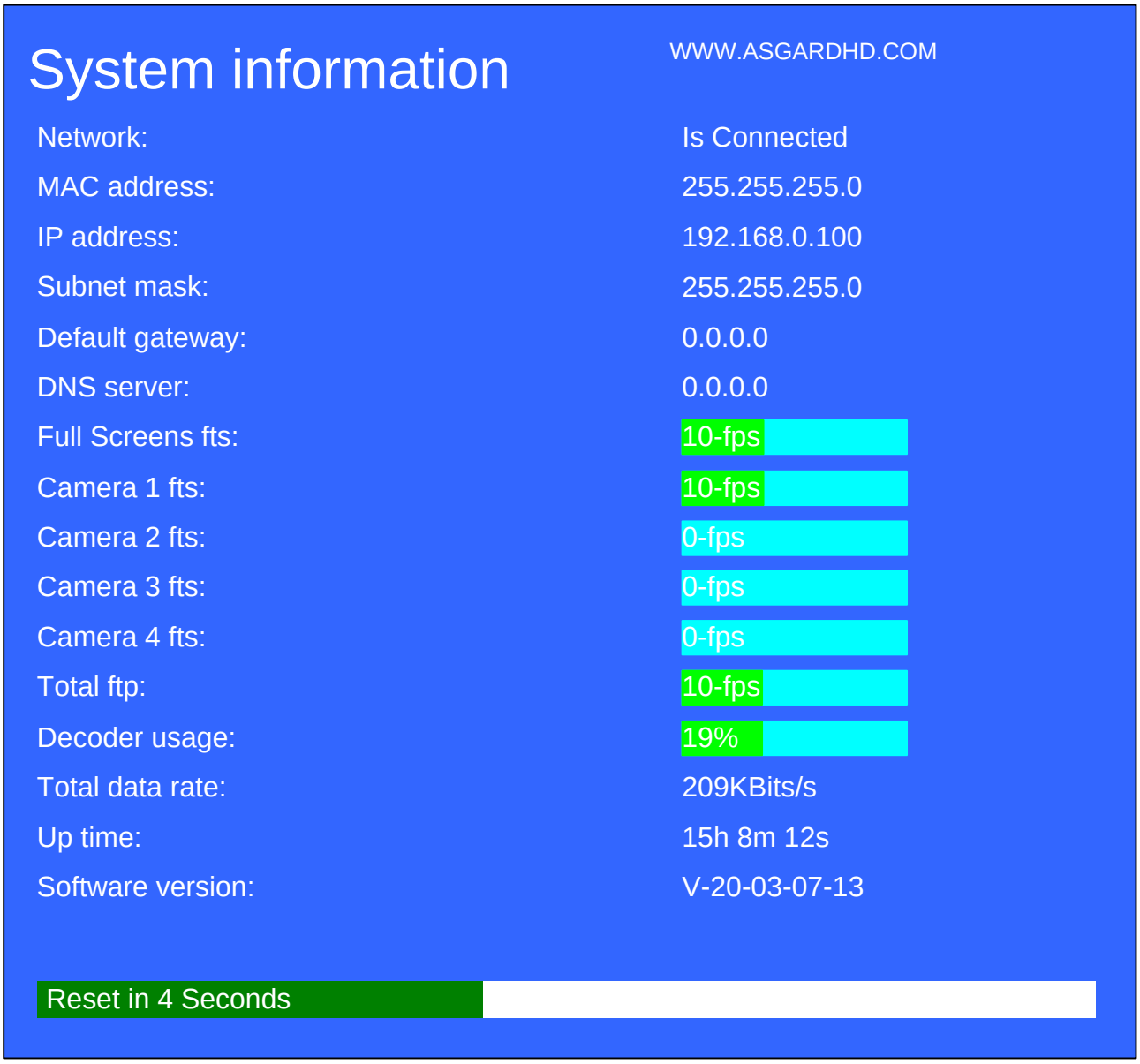
Mounting bracket

Reset Button

The Reset button on the rear of the decoder has two duties; one to locally turn on and off the System Information screen and secondly, it will set the decoder back to factory default.

Factory default

To default the decoder you will need to press and hold the reset button in for 5 seconds, then the unit will reboot and all the settings will be back to factory default. This includes the default IPV4 address of 192.168.0.100.



CGI Commands

http://<ip address>:<remote port>/command.cgi? ……

alarm=?	? = time before returning to previous camera
layout=1&?	? = camera number
layout=4&?,?,?,?	?'s = camera numbers
set_tile=A&B	A = segment 0 – 4 B = camera number

RemoteCamera=rtsp://<username>:<password>@<cameraIP>/…….(Max 250 characters)

All commands can be sent in one submission, but are handled in the order above.

For example the sender may wish to send:

http://<ip address>:<remote port>/command.cgi?set_tile=0,5&alarm=10

This would do the following:

1. Sets the alarm counter to 5 seconds and begins counting down.
2. Switches segment [0] or full screen view to camera 5
3. Gives a notification alert of 3 consecutive counts
4. Waits for the 5 second alarm counter to time out
5. Returns the view to the previous layout and cameras

Custom camera list

List of directly supported cameras & encoders.

Make	Model
AVIGILON	2.0-H3-DO1
AXIS	209FD
AXIS	233D
BOSCH	VIP X1F (encoder)
CISCO	2500
	2521
	2600
	2900
	4300
	4500
	6000P
	6020
	6400
	CIVS-SENC-4P (encoder)
ETROVISION	EV6150A-CI
GENIE	Static
	PTZ
MOBOTIX	Mobotix M12
PANASONIC	WV-SP102
SANYO	VCC-4000
	VCC-4600P
SONY	SNC RZ25
	SNC-CH240
VICON	V960 Series
	HD-PTZ
	V9360
VANTAGE	VIPC5300
VISTA	HNCA-811NZ1

List correct at time of the manual being written. For an up to date list goto www.asgardhd.com.

If you have additional requirements please contact the ASGARD HD team on support@asgardhd.com.

Notes

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ASGARD HD Keypad

Application Notes

The BBV Asgard HD keyboard is a unique camera control system with an inbuilt video decoder for intuitive control of IP cameras. This can be connected directly to one or more Cisco Media Servers. Operation is achieved without the use of an additional PC, simplifying system setup and offering a robust high-security solution, with no user internet access.
The strength of the Asgard HD keyboard lies in its flexibility and simplicity as a standalone, easily deployed system without the need for any other control equipment.
By attaching an HDMI monitor, the Asgard HD will be in full control of all the available cameras on the system. Cameras are selected by entering the camera number to display the required picture. Cameras equipped with PTZ functionality will be controlled with the joystick.

Applications include local viewing of video in retail outlets with the keypads, education facilities, banking halls, Transport etc.

System Components

- CVSM 7 and VSOM 6.3.xx compatible
- User network safe device no user internet access
- Can provide images and control of local and remote cameras
- Supports a large selection of IP cameras
- Joystick control of dome and PTZ cameras
- Responds to events from remote devices
- Intuitive configuration via simple web pages
- LCD video display for discreet viewing

Technical Specification

Power	• PoE (LPS) 6 Watts
Screen Images	• Full screen display of live images 1080P
	• Quad screen display of live images
Events	• via CGI commands
Video output mode	• HDMI
Network connection	• 10/100 PoE Port
Video Standards	• H.264, MPEG4
Temperature, ambient	• -5°C to 55°C operating • -25°C to 70°C non-operating and storage • 10% to 90% (non-condensing) operating
Dimensions	• 370mm (w) x 220mm (d) x 120 (h)
Weight	• 1.05Kg