

**SONY**



## HDC User Group Newsletter No.2

We've made it to the second edition...and if we're not careful it may build into a fascinating reference collection with a free binder with next months edition.

We've now delivered more than 130 HDC camera channels into the UK and Ireland market, and are starting to build up some experience of the issues that you have when using the cameras for real. Please do let us know how you're getting on with the cameras though. We don't get out much these days, so something that may be obvious to you may never have occurred to us.

If you don't wish to receive this letter, or you know other people who might wish to receive it, please let me know: [neil.thompson@eu.sony.com](mailto:neil.thompson@eu.sony.com)

## Manufacturing at Pencoed

HDC camera systems are now being made in the Pencoed factory in South Wales. Pencoed have made BVP and DXC cameras for many years now, and it's strange to think that if you've bought a BVP-E30 in Tokyo, it's been made in the UK. They now aim to make several thousand HDC systems, including RCPs, HDCUs and MSUs per year.

A request from the production engineers...they'd really like to get a better idea of how the cameras are used in the real world. If it could be arranged for three or four visitors to attend an OB or studio recording at some stage, they'd really appreciate it.

## Clip Levels

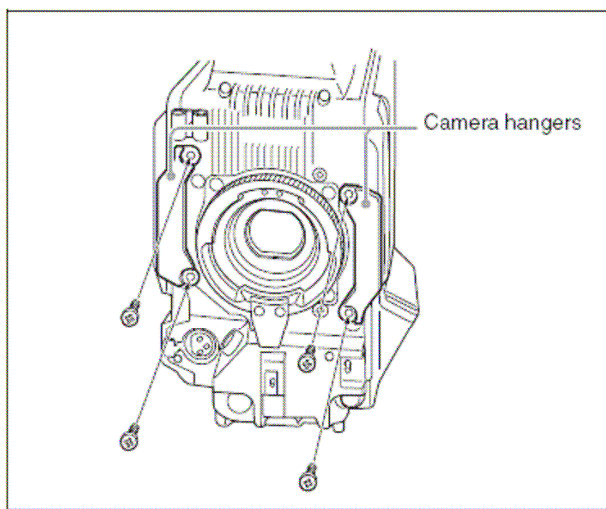
As shipped from the factory, the range of clip levels on the RCP or MSU will only just give you enough range to get to 100%.

If you turn the individual R,G, and B white clips up to +30, it gives you a range down to about 98%.

(If you save these offsets as part of your reference file, it will always be this way when you hit the standard button, and it will re-centre the RGB white clips to show '0' on the displays, with the +30 offset applied invisibly in the layer underneath...if that makes sense.)

## HDLA Camera hangers

In order to use the large lens adapters (HDLA-1500) you need to attach a pair of brackets to the front of the camera. These lock the camera into position when you slide it forward into the cradle. The brackets are supplied with the HDLA. This seems fair enough at first glance, but of course most users have more cameras than large lens adapters, so you'll generally need extra brackets for these cameras if you want to be able to use any camera with large lens adapters.



We are negotiating with the factory to get them to fit them as standard to the cameras, but in the meantime, you may need:

**A-1128-405-A** HDLA Mounting plates £126.46

This is a pair of brackets, and includes fixing screws.

## Viewfinder Mounts

We also do a similar thing with top mounting viewfinders...the mounting wedge that screws to the top of the camera is supplied with the viewfinder, and often people have more cameras than top mounting viewfinders.

**A-7612-405-B** VF mounting wedge receptacle £174.47

## Note on spares ordering

The best way to get spares is to register to use the online parts ordering system called IBISS. Orders received before mid-day for in stock parts should be delivered next day.

To register, e-mail your spares account number and address to [tsg.helpdesk@eu.sony.com](mailto:tsg.helpdesk@eu.sony.com)

Or, you can call the helpdesk on 01256 828828.

Or, our dealers can order parts for you if you don't have an account.

## HDLA with portable lenses

Owing to the way the lens mount is designed it is not possible to use the HDLA-1500 large lens adapter with portable lenses.

*What would be the point of that anyway...?*

...You need an HDLA to support and power the large CRT viewfinder. Many people still want the lag free performance of a CRT, and the only HD CRT is the HDVF-700. So if you want a CRT viewfinder then you need the HDLA-1500.

We are currently working with the factory to find a solution for portable lenses. A 'sawn off' version of the current adapter is proposed, but we are also looking at some other possibilities, including adapting the trusty BVF-55 to work on HD cameras (still in SD mode). We don't have a perfect solution at the moment, but we're working on it. Your comments and feedback welcome.

## Finding Focus

Never easy in the HD world, but there are a couple of features that may help.

Traditionally the peaking control on the viewfinder has helped with finding focus, but if the vision engineers have turned down the detail correction there may not be much of a hard edge for the peaking to magnify.

With the HDC-1500 and HDC-950 there is a separate detail circuit purely for the viewfinder feed (VF DTL). This can be set in the menus to give a base level of detail in the viewfinder, which can then be amplified as required using the rotary peaking control on the viewfinder.

VF DTL control can be found in the operation menu of the '950, on the same page as the zebra settings, or in the user menu of the '1500.

The 1500 also has an extra item on the same page called viewfinder crispening (VF CRISP). Strangely enough turning this up will make your viewfinder pictures look

softer. It is actually a noise coring function that tells the detail correction to ignore small variations in detail, assuming that this may be noise.  
If you're having trouble focussing on faces try turning the crispening down to -30 or so. Faces may look noisy, as more of the skin texture gets fed through to the detail corrector, but it may help, and will not of course affect the main program output.

## Triax / fibre adapter cable short detection

The triax / fibre converters will detect a short between the two screens of a triax cable, and shut down. This is an additional safety feature to the current BVP protection systems.

If it is really causing you operational problems please contact [neil.thompson@eu.sony.com](mailto:neil.thompson@eu.sony.com) . We would strongly recommend however, that the best solution is to check the condition of triax cables, and ensure they are well maintained in order to take advantage of this extra safety feature.

## Cable Runs

We'd still appreciate your feedback on practical cable runs you have achieved. Cable runs with the triax fibre converters are looking better than expected, with up to 800m of 11mm triax plus about 800m more of fibre at the camera end. In the near future we hope to be able to add an optical headroom meter to the diagnostics, that will give a better indication than the current traffic lights of when you are likely to go out of range.

## Cable repairs

Bryant Broadcast are now set up to repair and terminate fibre cables with the standard Lemo connectors.

[http://www.bryant-broadcast.co.uk/fibre\\_term.html](http://www.bryant-broadcast.co.uk/fibre_term.html)

## Software for network connection of MSU and RCPs.

We were due to release a new version of software for network control of cameras last month. It didn't happen. Apologies to all those waiting to wire in their MSUs.

If you're desperate to get an MSU working, we do still have the first beta version of software that supports MSU control. It does work, with some limitations, but it does mean you have to wind back the software version in the HDCU to V1.04. For this reason we're reluctant to install this software, and if you can possibly wait till the full release in early August it would be appreciated.

## Monitoring Outputs from HDCU-1500

A number of people have asked if you can switch off the superimposed characters on the digital outputs from the HDCU-1500.

There is a character on/off/menu switch on the front edge of the DTX board, but this also switches off the characters from the composite output, which is useful for checking the status of the system.

**S2-1** on the DRX board (front of card, lower edge) will switch off characters to the SDI output, without affecting the composite output.

## Delay through the down conversion process

There will always be a processing delay in the down-converters in the camera system. The process used by Sony in current HDC systems delays the video by 90 lines at 1080 or 120 lines in 720 mode.

90 lines is 3.2mS or about 1/12 of a frame.

There are three possible ways of dealing with this.

- You can output the SD 90 lines late.
- You can delay the HD by 90 lines so they are in sync, but both late.
- You can delay the SD so that it's exactly 1 frame late, which may be more convenient in some cases.

Choose your preferred option using S410 (HD-SD DLY) on the HDCU-1000/1500 : AT-167 board.

- 0-DLY : Same phase between HD and SD output
- LINE-DLY : Sets the minimum delay between HD and SD, 90H (1080i)
- FRAME-DLY : SD signal delay, 1 frame (1080i) or 2 frames (720P).

*Factory Setting: LINE-DLY*

Examples:

- If using HD outputs on HDCU-1500/1000 mixed with HDCU-900/950, set LINE-DLY.
- If using HD and SD outputs on HDCU-1500/1000 mixed with HDCU-900/950, set FRAME-DLY.
- If using HD outputs on HDCU-1500/1000 only, set LINE-DLY.
- If using HD and SD outputs on HDCU-1500/1000 only, set 0-DLY.
- Note: If camera format setting is 24PsF and the 0-DLY mode have been set, then the setting is treated as FRAME-DLY.

## Bi-Level vs. Tri-level Syncs

The system will lock to either sync type. Theoretically, tri-level sync will give less jitter, though we've yet to hear of many practical problems with jitter using bi-level, but if you are having trouble, tri-level may be the answer (Please let us know if you've come across any instances.)

One other reason for using one flavour or the other is related to the previous section on down-converter delay timing. It seems that if you use tri-level sync in 90H delay mode, the system will lock to the HD output with the SD output 90H delayed. If using bi-level sync, the system will time to the SD output, with the HD output 90H advanced.

## Audio Delay

Program audio from the camera mics can be delayed to match whichever configuration of video timing you are using. See page 04 of the configuration menu in the HDCU.

## Support Contracts

We currently offer a 3 year support contract that includes:

- Specialist telephone support, engineer call back within 30 mins
- Access to exclusive contract stock holdings to enable priority hardware repairs
- CCD block also included
- On-site support - (priority response available, on chargeable basis, if required)

We can also offer tailored support proposals to meet customers specific requirements. More details on costs for HDC support contracts next month.

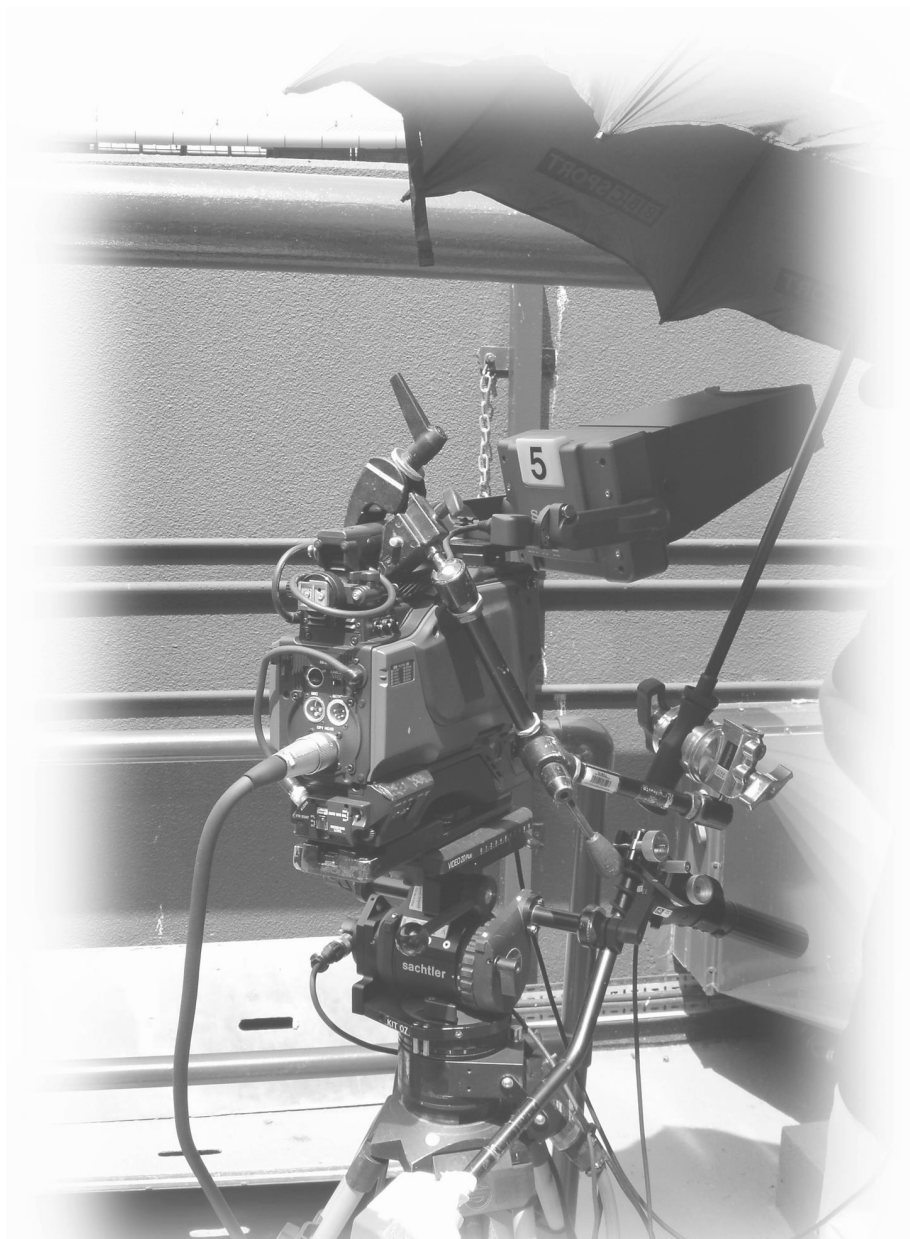
*If you need any more information in the meantime please give Kate Bosworth a call on 01256 828750 or e-mail [Kate.Bosworth@eu.sony.com](mailto:Kate.Bosworth@eu.sony.com)*

## Hire Contacts

The following have HDC-950 or HDC-1500 camera systems for hire:  
(In alphabetical order!)

**Finepoint**     [www.finepoint.co.uk](http://www.finepoint.co.uk)  
**Hyperactive**   [www.hyperactivebroadcast.com](http://www.hyperactivebroadcast.com)  
**Presteigne**     [www.presteigne.co.uk](http://www.presteigne.co.uk)

Don't forget that  
HDC-950s will work with HDCU-1500s and HDCU-1000s  
HDC-1500s will work with HDCU-950s and HDCU-900s



HDC-950 with T series CCD block finds some shade at Wimbledon.

Service and Tech Support:  
Helpdesk: 01256 828828  
Website: [www.sonybiz.net/uk](http://www.sonybiz.net/uk) Register, and click on support.

General product issues, feedback and comments for the newsletter:  
[Neil.Thompson@eu.sony.com](mailto:Neil.Thompson@eu.sony.com)