



Broadcast Products Technical Bulletin 20-2014-014

DATE: February 3, 2014

SUBJECT: SOFTWARE HISTORY

MODEL: **HDC1000**
HDC1000
HDC1400
HDC1400
HDC1450
HDC1450
HDC1500
HDC1500
HDC1550
HDC1550
HDC1580

SERIAL NO: ALL

Italicized information in green applies to customers outside the United States.

DESCRIPTION

This technical bulletin summarizes software history from the initial release through the latest release.

NOTE: PLD upgrades require specialized tools. Contact your Sony regional service center for details.

ROM FIRMWARE V1.04

- Official product release

ROM FIRMWARE V1.06

- HDC-1550/K is supported.
- When the Return switch is set to ON, Skin Detail can now be turned ON.
- Zoom servo operates normally in HDC1000/1100 and HDLA1500.
- 3D White Shading correction is sufficient at the bottom of the screen.
- When White Setup Mode is set to AWB, white balance settings in STANDARD and AUTO LEVEL are no longer cleared to 0.
- The amount of gamma correction is no longer doubled.
- When a lens in which the lens ID is set to F is attached to HDLA1500, the lens is no longer incorrectly detected as a portable lens.
- When HDLA1500 is installed, the SWITCH ASSIGN2 PAGE can now be displayed.
- When DOWN CONVERTER is set to POWER SAVE, the SD-SYNC signal is output properly.
- Focus position is displayed on the VF in HDC1500/1600.
- Black Set data are saved in the Reference File.
- When the VF MENU/DISP operation is executed from an RM connected to the CCU, the MENU switch of the HDC main unit no longer operates when HDLA1500 is attached.
- When the 32-Scene File (a hidden function) is used, FRAM is no longer cleared and all data are no longer erased.

ROM FIRMWARE V1.07

- HDC1500/L and HDC-1550/F (CED region) are supported.

HDCM12-004

- RPN occurring consecutively in the vertical direction can now be compensated.
- The temperature range setting used as a condition to start APR and the threshold level setting used to detect defective pixels are changed because significant compensation error occurs due to faulty pixels by the APR interlocked with Auto Black Balance under low temperatures.
- The adjustment range for Skin Tone Detail is corrected to match the adjustment range for standard Detail.
- When the HDC1550 TRIAX model is started in a standalone configuration, the filter disc no longer malfunctions.

ROM FIRMWARE V1.08

- HDC1580/L (China region) is supported.
- HDC1000/L (CED region) is supported.

ROM FIRMWARE V1.10

- The following units are supported:
 - HKCT1500
 - HDLA1507 (HDLA1500PMW)
- The following functions and items are supported:
 - Digital Extender
 - Multi Matrix Gate
 - Color Temp Control
 - Prompter: 2 channels (excluding HDC1550)
 - Trunk line: 2 channels of RS422 (excluding HDC1550)
 - GEN-LOCK IN
 - RET IN
 - Operator file
- The VF menu is improved.
- Different coefficients for the 37 MHz trap file are now selected for 50P and 60P.
- The optical level can be displayed on the status screen (excluding HDC1550).
- The number of serial lens files is increased from 16 to 50.
- IRIS-display-related software is changed so that the actual lens position can be displayed even when the IRIS display is set to AUTO IRIS OFF.
- Right and left channel settings for Intercom can now be set from the menu.
- WHITE CLIP OFF can be included in the Reference File.
- Embedded audio related errors are corrected.
- For units in the Continental European region:
 - When Intercom is set to an Assignable Switch, ENG and PROD are displayed on the STATUS screen, rather than INCOM1/INCOM2.
- For HDC1000/1500/1550/1580:
 - S-EVS data are no longer incorrectly displayed on the panel (because this function is not applicable to these units).
- For HDC1550:
 - The amount of audio delay is optimized.
- White balance signals in AUTO LEVEL > STANDARD are cleared to the AWB status immediately before clearing in White AWB mode. Previously, white balance signals were cleared to 0, 0, 0.
- The iris no longer first moves in the reverse direction when Auto Iris Override is suddenly moved.
- Black R/B values no longer return to their center values when ABB is executed in AUTO level.

- MASTER Black returns to 0 when AUTO level is executed, rather than to the value immediately before ABB.
- Names for the serial lenses are correctly saved in the lens file.
- Hunting no longer occurs when the camera is started with AUTO IRIS ON and a serial lens connected.
- Tally no longer turns ON, and the lens extender no longer moves momentarily if a serial lens communication error occurs on the lens side.
- MASTER GAMMA is correctly included in the Reference File.
- Characters no longer fail to be displayed momentarily when HDLA is connected.

AT PLD V1.01

- VF/EXT-VF IIC interface via PLD is supported.

DAP PLD V1.06

- Embedded audio is supported.
- Tracker-T is audible using Incom2.
- Tracker/Earphone level can be changed.
- Trunk-2ch is modified.

DAP PLD V1.07

- When a high-level audio signal (voice) is input to INCOM, the audio signal is no longer distorted.

VDA PLD V1.04

- The RET IN function is supported.
- The GEN LOCK IN function is supported.

SDI PLD V1.09

HDC1500/1600/1000/1100 Only)

- The GEN LOCK IN function is supported.
- The function required for EXT-RET(SDI/VBS) operation is supported.
- The prompter waveform is modified.
- Embedded audio is supported.

TR PLD V1.02

HDC1550 Only

- Audio delay is supported.

ROM FIRMWARE V1.11

- The following setting is added:
SERVICE > MANUAL RPN > Horizontal Continuous Pixels Correction
- RPN is no longer erroneously detected during ABB on rare occasions.
- Position of the ND/CC filter is no longer erroneously detected momentarily when HKCT1500 is connected.
- When set to 23.98PsF, the frame sequence number of the embedded audio control packet is no longer incorrectly added.
- The vertical bar no longer appears in down-converter output on rare occasions.

- When the TRIAX adapter or HDCU900/950 is connected, command communication is no longer momentarily disconnected, and the Scene File can be called.
- The RPN correction cursor can be moved to all areas.
- The optical light reception level is no longer incorrectly displayed when using HDC1550.
- MIX VF can no longer be removed from the VF menu when HDLA1500 is connected.
- The Skin Detail 1 switch display (fixed to ON) no longer disappears from PAINT > SKIN DETAIL.
- The 37 MHz trap filter in B-ch and G-ch operates correctly.

ROM FIRMWARE V1.12

- The camera no longer loses synchronization momentarily when the TRIAX adapter is connected.
- When PRESET OPERATOR is executed in HDC1580, the FORMAT setup for the exclamation mark (!) on the VF no longer switches to NORMAL 1080-59.94i so that the exclamation mark (!) is displayed on the VF.
- When HDC1000/1100 is upgraded from V1.0x to V1.10 or higher, the parallel lens file is initialized.
- When a parallel lens is used with the camera, the correct lens file is recalled at power-ON.
- For HDC1100/1600:
The correct model name is displayed on the CNU character display.
- When the RETURN channel is switched to another channel, the image displayed prior to switching is no longer displayed.
- The TOP menu can be displayed via VF menu from the RM.
- Microphone ON/OFF status on the CCU side changes correctly when the microphone ON/OFF switch for the intercom is activated. In addition, the RETURN channel switches correctly.

ROM FIRMWARE V1.13

- HDC1400 (US/Canada region) is supported.

ROM FIRMWARE V1.14

- For HDC1400:
The RPN correction position is correct when operated in 720-59.94P/50P.

ROM FIRMWARE V1.16

- The accuracy of RPN detection during ABB is improved.
- The white vertical line correction is supported.
- The following function is added:
SERVICE > MANUAL RPN > Cursor Jump
- The following page is added:
SERVICE > RPN MANAGE
- The VF menu can be cleared by pressing and holding for three seconds.
- The Reference File can be cleared by pressing and holding for ten seconds.
- Step Shutter and White are recalled normally in 32-Scene File mode.
- TEST is no longer initialized to OFF at power-ON.
- WHITE R/G/B and MASTER BLACK values in the Reference File no longer change incorrectly when FILE > FILE CLEAR > REFERENCE (ALL) is executed.
- If a break is executed during automatic adjustment of ABS/AWS, the system now resumes the operating conditions present before ABS/ASW was executed.

- When the camera is operated in a full standalone configuration without the remote control unit, some items no longer fail to return to normal conditions when some Auto operations (such as Auto Level detection) are executed.
- WHITE R/B is properly cleared when the Lens File Store operation is executed.
- When the RETURN channel is switched to another channel, the image displayed prior to switching is no longer displayed.
- The WHITE G signal is refreshed when WHITE PRESET is switched from OFF to ON.
- Knee saturation no longer turns ON when Knee OFF is set.
- The lens extender can be switched OFF from Lens Demand when a Scene File is recalled and cancelled with the lens extender ON.

ROM FIRMWARE V1.21

- The Memory Stick PRO can be used for saving/reading in the operator, reference, and scene files.
- Video noise can be reduced in ten stages. The setting is saved in the reference and scene files.
- Hyper Gamma 1 to 4 can be selected as a new gamma table category.
- Master White Gain can be continuously changed from -3dB to +12dB. The setting cannot be saved in a file.
- The burst frequency of VF detail can be selected from 9MHz, 14MHz, and 18MHz. The default setting is 9MHz. In versions up to V1.16, the setting is fixed to 9MHz. The setting is saved in the operator file.
- A gamma curve, which rises five times higher than the basic curve, is added to the STANDARD Gamma Table as No. 7. The basic curve is ITU-R709.
- VBS return input for standalone operation is supported. The aspect ratio (Edge Crop/Squeeze) for VBS RETURN IN can be set in MAINTENANCE > EXT RETURN.
- For HDC1400/1450/1580, dual optical filter unit HKC-DF14 is supported. The number of filters (SINGLE/DOUBLE) can be set in SERVICE > 5/12 > SET UP. When installing HKC-DF14, set the number of filters to DOUBLE.
- The VF POWER OFF release function is supported in portable cameras (HDC1500/1550/1400/1450/1580). When VF POWER is set to OFF by pressing the RET switch on the rear panel, VF power can be turned ON.
- The following functions can be set in the SERVICE > OPTION menu:
 - Master Gain
Master Gain is extended up to +36dB. When set to ON, Master Gain of 18dB, 24dB, 30dB, or 36dB is available. The default setting is OFF, and gain is set up to 12dB.
 - Filter Coefficient at 720P
WIDE or NARROW can be selected. The default setting is WIDE.
 - Zoom Linked Function of Skin Tone Detail
In this function, the level of Skin Tone Detail is linked to the zoom position of the lens and the effect of Skin Tone Detail becomes weaker when moving the lens from Tele to Wide. The default setting is DISABLE. When set to ENABLE, the Z-SKIN DETAIL page is displayed in the MAINTENANCE menu.
 - ZOOM POSI
The preset zoom position is displayed.
 - Z-SKIN TELE
The zoom position, at which Skin Detail level at the Tele side starts to change, is set.
 - Z-SKIN WIDE
The zoom position, at which Skin Tone Detail level at the wide side becomes equivalent to OFF, is set.
 - Z-SKIN SW
ON/OFF for the zoom-linked function of Skin Tone Detail is set.

- SD matrix data for the CCU can be saved in the Scene File.
- FAN MAX automatically set at high temperatures can no longer be changed to FAN MIN from the MSU.
- 3D white shading no longer turns OFF at power-ON.
- The display for VF DISP Focus no longer switches OFF and disappears when removing/inserting the lens connector.
- The display for VF DISP ZOOM no longer refreshes slowly when a parallel lens is connected.
- The ×0.8 Extender Lens File supports large-sized parallel lenses.
- When the display of the IRIS F value is set to the value returned from the lens, and ABB is executed with IRIS CLOSE set to ON, if IRIS CLOSE is set to OFF after execution, the value now returns to the original iris value.
- The original iris value is resumed if ABB is executed with CLOSE ON, CLOSE is returned to OFF, and the F value display is set to the return value from the lens.
- The original iris value is resumed when IRIS CLOSE is set to OFF after Auto Level is executed with IRIS CLOSE ON.
- Step Shutter is no longer activated and ECS set to OFF when AWS is executed with ECS ON.
- Black G is saved in the Reference File.
- A red line no longer appears in the right of the SD-SDI output signal.
- RET3 video is now correctly selected instead of RET1 when RET3 is set to ON with Lens Demand.
- The Cross Color Suppression indicator no longer changes on the display of the remote control when the function is operated because Cross Color Suppression is not supported.
- When the camera is used in a standalone configuration and AUTO KNEE is turned ON, AUTO KNEE ON is displayed, rather than DCC ON.
- The character display in the TEST OUT signal no longer defaults to OFF when power is turned ON and the camera is used in a standalone configuration with RM-B750 connected.
- For HDC1100/1600:
 - The video field corrected by Manual RPN correction is the normal field rather than the opposite field.
- The RPN correction page for the MSU can be opened while the TEMP WARNING alarm is issued in high temperatures.
- The digital extender is forcibly set to OFF while ABB or ABS is under execution.
- When the digital extender is ON:
 - AWS is no longer executed.
 - Only the enlarged area and not the entire area of the screen is detected during AWB operation or correction of Skin Detail Auto Hue.
 - Only the enlarged area and not the entire area of the screen is detected during Auto Knee or Auto Iris control operation.
- The center value for Detail Gain is decreased when the format is 720P.

ROM FIRMWARE V1.22

- The Hyper-Gamma Table selection and Noise Suppression level are saved in the Scene File during 32-Scene File mode.

ROM FIRMWARE V1.23

- When HDC1000 is set to 1080-59.94P or 1080-50P, black level no longer deviates.

ROM FIRMWARE V1.24

HZC-UG444 Only

- User Gamma and RGB 4:4:4 optional software are supported.
- Master White Gain is now preset to 0 dB at startup.
- The following page is added:
DIAGNOSIS > Serial Number Display

ROM FIRMWARE V1.26

- The Auto Lens Aberration Compensation (ALAC) function is supported.
- The following function is added:
MAINTENANCE > TEST OUT > VBS adjustment
- The following pages are added:
MAINTENANCE > BATTERY ALARM
PAINT > COLOR TEMP
- When camera power is turned ON while RM-B750 is connected, the VF MENU no longer switches to ON, but retains its previous setting.
- If a communication error occurs while a lens that supports serial communication is connected, the camera no longer momentarily detects that the lens extender is ON, and errors (such as an exclamation mark (!)) no longer appear momentarily.

ROM FIRMWARE V1.27

- When RCP-750/751 is connected to the REMOTE connector of the camera while the camera is in a standalone configuration, the GAIN, OUTPUT or WHITE BAL switch on the camera main unit is no longer incorrectly enabled. In addition, the display is refreshed correctly when an operation is performed from RCP-750/751.

SDI PLD V1.14

- When the following cameras are connected to HDCU-900/950 and operated from the control panel, white noise several pixels wide no longer appears on the left of a specific line near the lower third of the image.
HDC1000/1100/1400/1580/1600

ROM FIRMWARE V1.30

DAP PLD V3.10

SDI PLD V1.21 (HDC1000/1100/1400/1500/1600 Only)

- Zoom, focus, and iris data for the lens (lens metadata) can be superimposed on the SDI signal. The following limitations apply:
 - Lens metadata are superimposed on SDI-1 output and optical fiber output, but not on SDI-2 output.
 - Lens metadata are not superimposed on HD-SDI output for HDC1400/1450/1550.
 - Lens metadata cannot be transmitted from HDC1450/1550 to the CCU.
 - Lens metadata can be transmitted from HDC1400/1500/1580/1600 to the CCU directly without connecting HDFA-200.
- High speed TRUNK line communication is supported.
- Skin Detail Gate can be transmitted when connected to HDFA-200.
- When HZC-UG444 is installed and HKC-T1500 is connected, ACTIVE LINE: 1080 4:4:4 is displayed in the OUTPUT FORMAT menu.
- Communication between HDC1450/1550 and the CCU can be established when HDC1450/1550 is started with a different format than the CCU.

ROM FIRMWARE V1.31

DAP PLD V3.10

SDI PLD V1.21 (HDC1000/1100/1400/1500/1600 Only)

- When the studio camera or HDLA1500 is turned ON while the UP TALLY switch on the rear panel is set to OFF, the camera no longer operates as if it is set to ON.

ROM FIRMWARE V1.32

- After installation of HZC-UG444, the user gamma table setting is no longer incorrectly initialized to "1" when the unit is started.
- After performing the Auto Black Balance adjustment, the CCD is no longer incorrectly set to frame reading mode with HDC1100/1600.

TG PLD V1.47 OR V1.50

- Output video no longer loses synchronization.

TR PLD V1.15

HDC1500/1450 Only

- When approaching equipment that emits strong electromagnetic fields (such as high output radio equipment, an HMI light to HDTX100/HDFX1550 or a tri-axial cable), the system may get out of sync, resulting in an unlocked main line image, unlocked RET image, or image noise.

These effects are improved; however, startup of the system now takes 15 seconds.

CAUTION: If the system gets out of sync, the unit cannot be operated; maintain sufficient distance from such equipment or shield the electromagnetic fields.

NOTE: A hardware modification is also required with this upgrade.