



Broadcast Products Technical Bulletin 20-2007-104

DATE: May 28, 2007

SUBJECT: SOFTWARE UPGRADE—AT VERSION 1.20 AND
FP VERSION 1.02

MODEL: HDW-F900R

SERIAL NO: 10,001–10,625

DESCRIPTION

AT software version 1.20 is available. FP software is also upgraded to version 1.02 to standardize the software with other models. All functions of HDW-F900R remain unchanged by the FP V1.02 upgrade.

PARTS REQUIRED

Part No.	Description	Qty.
BPE-SS-02UJ	HDW-F900R : AT V1.20 + FP V1.02	1

ORDERING INFORMATION

To order upgrades, contact:

Sony SoftwarePLUS®
8281 NW 107th Terrace
Kansas City, MO 64153
Call: (800) 538-7550
Fax: (816) 880-6854
Web: <http://www.sony.com/softwareplus>

Customers outside the United States: *Please order parts from your usual supplier.*

NOTE: You can either download the software file from the SoftwarePLUS website above, or you can order the memory stick containing the software from SoftwarePLUS.

NEW FUNCTIONS

FREEZE MIX Function

The FREEZE MIX function is added to the OPERATION menu.

NOTE: HKDW-905R (slow shutter/image inverter board) is required.

04 FREEZE MIX		TOP
FREEZE	:	OFF
FREEZE AUTO TRIG	:	OFF
FREEZE MAN TRIG	:	EXEC
FREEZE STOP TIME	:	1.0S
CAM/FREEZE SEL	:	FREEZE
FREEZE/MIX SEL	:	FREEZE
FREEZE STATUS	:	CLEAR

The position of multiple cameras can be aligned by monitoring a camera picture saved as a still picture, or by monitoring a combination of a saved still and live camera picture.

To save a camera image as a still picture:

1. Set FREEZE to ON.
2. Select automatic or manual capture of the still image as follows:

Automatic:

- a. Select FREEZE AUTO TRIG.
- b. Select REC.S (save image at start of recording) or REC.P (save image at end of recording).

Manual:

Use FREEZE MAN TRIG or ASSIGN switch.

To use FREEZE MAN TRIG:

- a. Move the cursor to FREEZE MAN TRIG, and press the RE switch.
- b. When PICTURE FREEZE OK? YES NO is displayed, move the cursor to YES and press the RE switch to capture the picture.

To use ASSIGN switch:

- a. Assign FREEZE MANUAL TRIG to ASSIGN switch 1 or to the TURBO switch of OPERATION menu > FUNCTION 1.
- b. Press the assigned switch to capture the picture.

NOTE: After the picture is captured by the ASSIGN switch, the still picture can be displayed instead of the camera picture for a period of time, which is determined by FREEZE STOP TIME. This function is valid when CAM/FREEZE SEL is set to CAM.

When a still picture is captured, FREEZE STATUS changes from CLEAR to STORE to indicate that a still picture is captured.

To delete a still picture from memory:

Set FREEZE to OFF. FREEZE STATUS changes from STORE to CLEAR.

To browse still pictures:

1. Set CAM/FREEZE SEL to FREEZE.
2. Set FREEZE/MIX SEL to FREEZE.

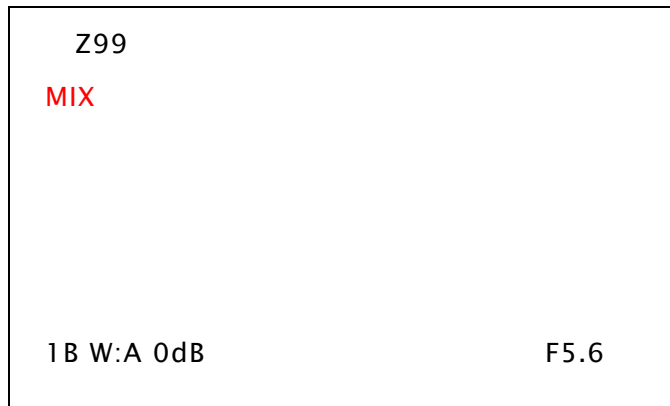
To browse a combination of still and camera pictures:

1. Set CAM/FREEZE SEL to FREEZE.
2. Set FREEZE/MIX SEL to MIX.

To set the VF display:

1. Set OPERATION > VF DISP 2 > DISP FREEZE to ON.
2. Set CAM/FREEZE SEL to FREEZE.

The VF DISP screen indicates whether the picture currently displayed is a still or mixed picture.



NOTE:

- The still picture is deleted when the camera is powered OFF.
 - The still picture cannot be saved to a memory stick.
 - When the camera is in Record mode, the still picture display is canceled automatically before recording, and the recorded picture is displayed.
 - The following functions cannot be used simultaneously with the FREEZE MIX function:
 - SLOW SHUTTER
 - IMAGE INVERT
 - INTERVAL REC
 - AWB
 - ABB
 - Some functions cannot be reflected on a still image, such as GAIN setting changes and WHITE BAL switch setting changes.
-

G BLACK Control Function

G BLACK control is added and can be operated from the RM.

Menu path: PAINT > BLACK/FLARE

WHITE GAIN Variable Range

A function is added to limit WHITE GAIN variable range ± 7 dB.

Menu path: MAINTENANCE > FUNCTION 4 >
WHITE GAIN RANGE

When NRW (Narrow) is selected, the variable range of R/B GAIN for WHITE is narrowed to ± 7 dB. The default setting is WIDE, and the variable range remains unchanged from -30dB to +7dB.

WIDE AWB Function

WIDE AWB is added.

Menu path: SERVICE > SP FUNC > WIDE AWB

AWB is executed with 5600K set to ON or OFF as necessary.

NOTE: WIDE AWB is ON by default. When WIDE AWB is set to OFF, 5600K is also set to OFF.

PF MODE

PF MODE is added.

Menu path: SERVICE > SP FUNC > PF MODE

When PF MODE is set to ON, the AUTO FOCUS detection window or focus information can be displayed on the VF when specific lenses with built-in AUTO FOCUS (made by FUJINON or CANON) are used.

To display the detection window, set OPERATION > MARKER2 > USER BOX to ON. When the VF display is selected, focus information is displayed in the bottom right of the VF.

NOTE: OPERATION > MARKER2 > USER BOX cannot be used when PF MODE is ON and the AUTO FOCUS detection window is being displayed. If AUTO FOCUS is not displayed or a lens that does not support AUTO FOCUS is connected, USER BOX can be used even when PF MODE is ON.

VIDEO CHARACTER Function

The VIDEO CHARACTER function is added.

Menu path: SERVICE > SP FUNC > VIDEO CHARACTER

This function enables the MENU or VF DISP indication to be displayed in HD-SDI output by mixing the characters in the video output signal. TIME CODE can also be displayed in HD-SDI output by setting OPERATION > VF DISP 2 > DISP TIME CODE to ON.

To enable the VIDEO CHARACTER function:

1. Start the menu in SERVICE mode as follows:
 - a. On the AT-172 board, set bit 1 of the 8-gang DIP switch to ON.
 - b. Turn camera power ON.
2. Set SERVICE > SP FUNC > VIDEO CHARACTER to ENABL.
3. Reset bit 1 of the DIP switch back to OFF.

The following new items are displayed in OPERATION > TEST OUT:

VIDEO MIX VFDISP: VF character display ON/OFF
VIDEO MIX MENU: MENU character display ON/OFF

17 TEST OUT		TOP
MIXED CHAR!		
TEST OUT MARKER	:	OFF
TEST OUT VFDISP	:	OFF
TEST OUT MENU	:	EXEC
TEST OUT ZEBRA	:	1.0S
OUTPUT SELECT	:	Y
VIDEO MIX VFDISP	:	ON
VIDEO MIX MENU	:	ON

When VIDEO MIX MENU is set to ON, MIXED CHAR! appears on the second line of the screen above to indicate that the MENU characters are being mixed in the video output signal.

When VIDEO MIX VFDISP is set to ON, MIXED CHAR! appears on the second line from the bottom of the VF DISP screen as follows:

Z99	
TCG 00:00:00:00REC2	
MIXED CHAR!	
1B W:A 0dB	F5.6

Operation in Record Mode

When the VTR enters record mode, the characters are not mixed in main video output. When TEST OUT VFDISP or TEST OUT MENU is ON, VTR operation conforms to the setting, and the display appears on VF or TEST OUT accordingly.

If recording is started while VIDEO MIX VFDISP is ON, REC2 flashes to the right of the TIME CODE display.

Operation in Playback Mode

When the VTR enters playback mode, the characters are not mixed in main video output. When TEST OUT VFDISP or TEST OUT MENU is ON, VTR operation conforms to the setting, and the display appears on VF or TEST OUT accordingly.

If DISP TIME CODE is ON, the TIME CODE is displayed.

Recording with External VTR

If an external VTR is used for recording rather than the VTR in the camcorder, the character mix should be canceled by setting MENU to OFF.

The camcorder can be set so that recording with an external VTR (HDW-250/S280) can be synchronized using the built-in REC switch of the camcorder using the camcorder HDSOI REMOTE I/F function. To cancel the character display and automatically turn it OFF, set MAINTENANCE > FUNCTION 3 > HDSOI REMOTE I/F to CHARA.

NOTE:

- VIDEO MIX VFDISP and VIDEO MIX MENU settings can be saved in USER FILE or ALL FILE, but not in SCENE FILE or REFERENCE FILE.
 - When VIDEO MIX VFDISP or VIDEO MIX MENU is ON, TEST OUT VFDISP and TEST OUT MENU cannot be used. The character to be mixed with main video output has priority.
 - The status of TEST OUT VFDISP and TEST OUT MENU is displayed on the bar indication, and the status cannot be changed. If an attempt is made to change the status, the message NOT AVAILABLE VIDEOMIX! is displayed.
 - VIDEO MIX is disabled during CACHE/INTVAL REC.
 - If TEST OUT SELECT is set to SD and DOWN CON MODE is set to CROP while VIDEO MIX is already set, the characters of the SD signal are expanded to the right and left. As a result, both ends are cut off.
 - If both ASPECT and ASPECTMASK are ON, VIDEO MIX is enabled, and ASPECT MASK LVL is increased while MARKER is ON, the characters interfering with the screen view are also masked.
 - If the ASPECT switch of the VF is set while VIDEO MIX is enabled, the characters are also masked.
 - If any signal other than Y is selected for OUTPUT SELECT while VIDEO MIX is enabled, the characters are not displayed on VF or TEST OUT.
-

PROGRAM IMPROVEMENTS

- The accuracy of FIT VSAW control convergence is improved.
- MATRIX operation method is changed.

MATRIX is set using MATRIX, MATRIX (USER), MATRIX (PRESET), and MATRIX (MULTI) settings. The relationship between the four settings is as follows:

$$\text{MATRIX} = \text{MATRIX (PRESET)} + \text{MATRIX (USER)} + \text{MATRIX (MULTI)}$$

All four MATRIX settings can no longer be turned ON or OFF independently.

When MATRIX is set to OFF, MATRIX (USER), MATRIX (PRESET), and MATRIX (MULTI) can no longer be turned ON or OFF.

When MATRIX is set to ON, MATRIX (USER), MATRIX (PRESET), and MATRIX (MULTI) can be selected independently; however, at least one of the settings must be ON.

- The ABS (VF MENU) setting is now saved even after Power is turned OFF.
OPERATION menu > FUNCTION2 > ABS (VF MENU)
- The MASTER GAMMA setup value is now saved even when power is turned OFF and ON.
- The display for Detail, Knee Point, and R/B Black values no longer changes to 0 if power is turned ON while the RM is being connected.
- If peak level is excessively high when AWB is performed, the indication LEVEL TOO HIGH is changed to OVER LEVEL.
- The LENS RET function now operates when LENS RET and REC are assigned to the ASSIGN1 switch and the TURBO switch.
- When CLIP HIGH LIGHT is set to ON via the menu and combined with IRIS OVERRIDE while IRIS OVERRIDE is set in a positive (+) direction, the IRIS is no longer fixed at the OPEN end when the camera is used.
- The color temperature message is no longer displayed on the VF DISP when VF DISP mode is set to 1 and the AWB switch is pressed.
- When IMAGE INVERT is changed from OFF to ON, AUDIO DELAY now changes appropriately.
- When FORMAT is set to 23.98, 24PsF, 25PsF, or 29.97 on the !LED STD page and power is turned OFF, the FORMAT setting is now saved correctly.

UPGRADE PROCEDURE

CAUTION: DO NOT downgrade software or firmware versions! Operation of the camcorder and data retention are not guaranteed after downgrading.

NOTE: The following system requirements and instructions under "Copy Software to Memory Stick" are required only if you download software from the SoftwarePLUS website.

System Requirements

- Memory stick, 128 MB or less
- PC interface adapter (Use one of the following to copy data from the PC to a memory stick):
 - PCMCIA card adapter MSAC-PC2N
 - Floppy disk adapter MSAC-FD2M
 - VAIO computer with memory stick slot
 - USB supported writer/reader MSAC-US1
- Archive utility for Windows (such as WinZip)

Copy Software to Memory Stick

1. Open the zip file.
2. Select the WinZip option "Use folder names," and extract the rom files to the memory stick.

NOTE: The following directory is created automatically, and the rom files are copied to the HDWF900R folder:

\MSSONY\PRO\CAMERA\HDWF900R

NOTE: As an alternative procedure, you can create the directory described above, and copy the rom files to the HDWF900R folder.

Back Up Settings Using ALL FILE SAVE

1. Insert a memory stick in the camcorder.
2. Set the MENU ON/OFF switch to ON.
3. Select FILE menu > ALL FILE, and press the rotary encoder. (See Figure 1.)

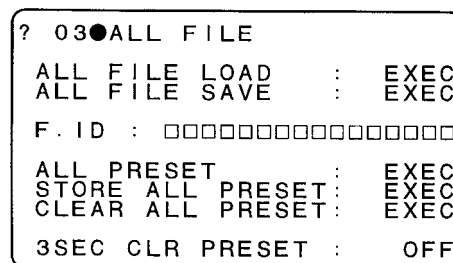


Figure 1

4. Select F. ID, and input the file ID.
5. Select ALL FILE SAVE, and press the rotary encoder.

6. Select a destination file at the file selection page, and press the rotary encoder. (See Figure 2.)

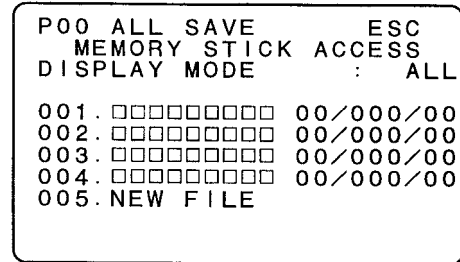


Figure 2

7. Confirm the message COMPLETE! appears on the ALL FILE page.

Upgrade Software

1. Turn main power ON, and set the MENU ON/OFF switch to ON.
2. Select DIAGNOSIS menu > ROM VERSION.
3. Insert the memory stick containing the software file in the camcorder.

NOTE: The message MEMORY STICK ACCESS appears. Wait for the message to disappear.

4. Confirming the cursor is a question mark (?), press the rotary encoder for a few seconds until the system enters version upgrade mode.

The message MEMORY STICK ACCESS appears. (See Figure 3.)

NOTE: DO NOT remove the memory stick while the message MEMORY STICK ACCESS appears.

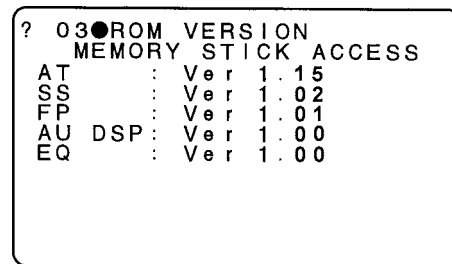


Figure 3

5. Select the AT ROM, and press the rotary encoder. Confirm the message VERSION UP OK appears. (See Figure 4.)

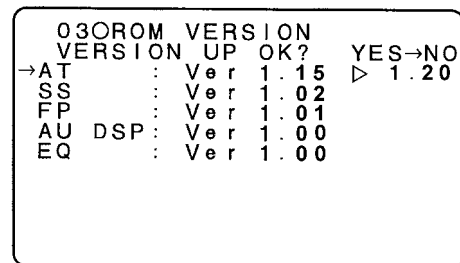


Figure 4

6. Select YES, and press the rotary encoder.

The upgrade starts automatically.

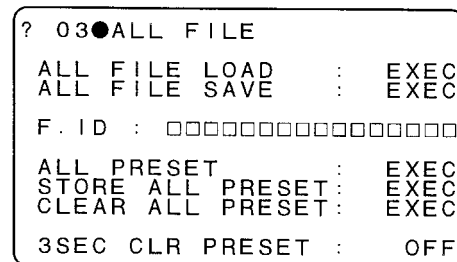
CAUTION: Do not remove the memory stick or power off the unit before the message Complete appears.

7. After the Complete message appears, turn power OFF and ON.
8. Confirm the AT ROM version in the DIAGNOSIS menu.
9. Upgrade the FP ROM the same way as the AT ROM.

Load Settings Using ALL FILE LOAD

Load the settings that were saved before the upgrade as follows:

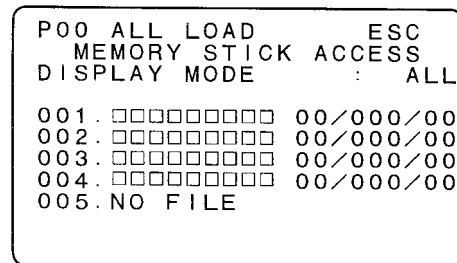
1. Insert the memory stick containing the backup settings in the camcorder.
2. Set the MENU ON/OFF switch to ON.
3. Select FILE menu > ALL FILE, and press the rotary encoder. (See Figure 5.)



```
? 03●ALL FILE
ALL FILE LOAD      : EXEC
ALL FILE SAVE      : EXEC
F. ID : □□□□□□□□□□□□□□
ALL PRESET         : EXEC
STORE ALL PRESET   : EXEC
CLEAR ALL PRESET   : EXEC
3SEC CLR PRESET    : OFF
```

Figure 5

4. Select ALL FILE LOAD, and input the file ID.
5. Select the file at the file selection page, and press the rotary encoder. (See Figure 6.)



```
P00 ALL LOAD      ESC
MEMORY STICK ACCESS
DISPLAY MODE      : ALL
001. □□□□□□□□ 00/000/00
002. □□□□□□□□ 00/000/00
003. □□□□□□□□ 00/000/00
004. □□□□□□□□ 00/000/00
005. NO FILE
```

Figure 6

6. Confirm the message COMPLETE! appears at the ALL FILE page.

ADJUSTMENT PROCEDURE

After upgrading the software, perform the following two adjustments:

1. SD ZEBRA LEVEL adjustment
2. FLARE adjustment