

HD-P2 Release Notes

For Version 1.05 Software

August 13, 2007

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Introduction

This document adds or replaces information that has been added or changed since the printing of the version of the Owner's Manual with the designation **D00895120A** shown in the upper right side of the cover page.

Version 1.05

August 7, 2007

Maintenance

- Previously, the HD-P2 would incorrectly continue its transport motion when receiving still frame time code. This has been corrected in 1.05.
- Previously, the HD-P2 would not re-chase according to the setting of Auto Trigger when receiving moving time code after receiving still frame time code. This has been corrected in 1.05.
- The Scan Media function, which is part of the Windows CE operating system used by the HD-P2, has been found unreliable in rare cases. To avoid data corruption by Scan Media, this function has been removed.

Version 1.04

February 17, 2006

New Features:

- System optimizations have been added which result in a more responsive overall feel to the system and smoother screen updates, especially at the highest sample rates.
- Pre-record functionality has been improved. It now pre-records "forward" by advancing the timeline while in pre-record until the buffer is full. An on-screen text message helps to indicate what is happening:
 - "Filling Pre-Record Buffer"
 - "Pre-Record Buffer Full"

When in auto-append mode with Pre-Record enabled, pressing Pause causes the timeline to jump to the end of audio, enter monitor mode, and time starts moving as the pre-record buffer is filled.

If not in auto-append, the timeline starts where it is at and pre-record commences from that point forward.

This means it is now possible to pre-record starting at zero. It also means that "abuttet" recordings with pre-record will no longer overlap previous audio.

When pre-recording (pause) is cancelled (i.e. Stop is pressed) the system now returns to the timeline location where pre-recording had started.

- Added "tTAPE=YYMMDD " string to the description field of the Broadcast Wave audio files to support automated sync & import with Avid systems.
- The take number now continues to be displayed after recording has stopped. Pressing another transport key, retake, or moving the playhead in time clears it back to normal behavior.
- A "please wait" screen has been added to record stop processing to indicate large pending buffer writes in progress.
- The timecode value entry method has been changed to be easier to use with a keyboard. The Up/Down Arrow keys will change the highlighted field value (without needing to press Enter first). The Left/Right Arrow keys and Tab/Shift+Tab navigate from field to field.
- A seamless new-take feature has been added where hitting the REC key during a recording (10 secs or greater since last the record started) closes the current file and opens a new one, creating a new take.
- An S/PDIF slip indicator has been added to the audio clock status page

Maintenance Items:

- Timecode cannot be turned on while in File Edit screen. This is because the File Edit screen requires control by the transport keys in conflict with those keys' use while in timecode chase mode.
 - The file edit screen can no longer be entered while chasing timecode.
- Previously, when chasing timecode and the timecode was stopped & started quickly, the HD-P2 would sometimes not re-enter chase (even with Auto Trigger mode enabled). This has been fixed.
- Rare instances of no audio playback at 192k while chasing timecode using certain CF cards have been fixed.
- Previously, a buffer overrun could occur with Pre-Record enabled and beginning to record at 00:0:00:00. This has been fixed.
- Previously, buffered audio wasn't being written to disk when stop was pressed. This has been fixed.
- Previously, chasing timecode at 23.976 or 24.975 would not work under certain conditions. This has been fixed.
- Previously, the correct clock source was not shown in the Audio Clock Information screen when timecode was enabled. This has been fixed.
- Input monitor is now correctly turned on when waiting to record locked to timecode.
- Previously, too many markers could be created under certain conditions when recording and chasing timecode. This has been fixed.
- The Max File Size parameter is now included in the system defaults.
- A New Project or Load Project command now correctly turns off the timecode LED.
- Previously, locating during playback did not function consistently as expected if a Locate button was pressed multiple times quickly. This has been fixed.
- Previously, renaming a project could cause audio output to mute until the project was reloaded. This has been fixed.
- Previously, discontinuous timecode, or the HD-P2 attempting to lock to timecode before the code was stable, could result in extra takes being written. This has been fixed.
- Previously, viewing the More Information screen from the File Edit screen would disable timecode chase. This has been fixed.
- The ":" frame separator is now displayed correctly in the menus, including the “,” separator for drop frame operation.

Miscellaneous:

- Some USB keyboards will not work with the HD-P2 when using a USB to PS/2 adapter. Using a PS/2 keyboard is strongly recommended for correct operation.
- Note that the Media Speed Check utility is optimized for use with solid state Flash media.

Version 1.03

Maintenance Items

- Previously the 512MB setting of Max File Size did not work. This has been fixed.
- Rare instances of no audio playback after quick transport operations have been addressed.
- Previously recording would not stop at the end of the specified timecode day. This has been fixed.
- Rare instances of the transport not stopping when timecode is stopped have been addressed
- Rare instances of record incorrectly continuing over discontinuous timecode have been addressed
- Previously the LCD screen would slow down when both LTC and word clock were connected. This has been fixed.
- Previously when Trigger mode was set to Single, the operation of the unit could appear to slow down. This has been addressed.
- Previously new a new project could not be created from a project template. This has been fixed.
- Previously a Freewheel setting of 1 frame would operate as if set to Infinite. This has been fixed.

Version 1.02

Hardware

MicroDrive Media

Unlike Compact Flash media, which has no moving parts, MicroDrive media is a small mechanical device. It is therefore adversely affected by vibrations that could cause the drive mechanism to skip. Such vibrations could be caused by loud sounds in the environment where the HD-P2 is located – they could be caused by running the built-in speaker at high sound levels – they could also be caused by excessive jostling when used with the shoulder strap. It is strongly recommended that Compact Flash media be used in situations where vibration, physical shock, or jostling is possible.

One symptom of MicroDrive media being affected by vibration or shock is stopped recordings due to a buffer over run.

LCD Ghosting

If the LCD backlight is on for 16+ hours and/or the temperature exceeds 40C, faint ghosting of the LCD information may appear. It is not permanent and will go away when the temperature is reduced.

Mic Switch Operation

The MIC switch must be set to EXT for the built-in speaker to function, even if the individual LEFT & RIGHT INPUT switches are set to LINE. This is to prevent feedback from occurring between the built-in mic and the built-in speaker.

FireWire Power

Some PCI FireWire cards have been found to have a power connector on them that can take power from a disk drive-style power connector. Such cards rely on that power connector to make good voltage available to a device connected to their FireWire connection.

If your PCI based FireWire card has a connector for a disk drive-type power plug, it must be connected for proper FireWire voltage to be available to the HD-P2 via the FireWire connection.

Software

Timecode LED Behavior

In order to make it easier to know what timecode/transport state the HD-P2 is in at a glance, the TIMECODE LED behavior has been changed as below compared to what is described in the Owner's Manual.

LED State	Comment
Off	TC key disabled, non-timecode operation
Fast Blink	TC key enabled, bad LTC and TC Gen not running Transport can't run
Slow Blink	TC key enabled, good LTC or TC Gen Transport Stopped
On	TC key enabled, good LTC or TC Gen Transport running

- Whenever the TC LED is off or fast blinking, timecode isn't being used.
- When the TC LED is blinking slowly or on, then TC is good but the Transport is stopped.
- When TC is good and the transport is engaged (play, record, or waiting for trigger) the LED is on solid.

Creating A New Project

Following are the steps to create a new project:

1. Go to the Change/New Project screen
 - MENU + PROJECT from the top panel
 - "N" from a PS/2 keyboard
2. Select *Create New Project*
3. Select the project template to use
4. Name the new project
5. Confirm
 - SELECT from the top panel
 - ENTER from a PS/2 keyboard

Jam Sync

In the Timecode Settings window, there is setting to enable/disable Jam Sync. This essentially sets the HD-P2 to operate as if Infinite Freewheel is enabled. It should be noted that a "re-jam" (connection of a timecode source) will not interrupt a play or record operation. Re-jamming timecode must be done with the HD-P2's transport in Stop. When Jam Sync is enabled, it is not possible to enter the Freewheel menu.

Pre-Record Bar

Following is further explanation of the use of the pre-record bar in addition to what is already documented:

This bar represents the internal buffering between the media and the HD-P2's audio engine. As the buffer fills up, the bar is filled in from left to right.

While recording (or in pre-record) this bar shows how much data, if any, is waiting to be written to the media. Typically the bar will be at or near empty as incoming audio is continually written to the media. It is possible to know when the media is having a hard time keeping up if this bar continues to fill up over time and never goes down. Eventually the buffer fills up and recording is stopped with a buffer overrun warning.

During playback the bar represents audio read from the media and queued for playback. Depending on the sample rate, the HD-P2 fills 1/4 to 1/2 of the buffer. If the buffer becomes empty this can be a good indication that the media is having a hard time keeping up with the audio rate. Should the buffer become empty, playback is stopped and a buffer underrun warning is shown.

Max File Size

This setting, under the Project Settings menu, allows the user to determine the maximum file size of a take (an individual audio file). The range of this setting is 512MB – 2GB and the default setting is 1.5GB.

There may be times when smaller audio files are desired to exist within one project. For example, when individual takes may need to be burned to CD media as data.

As always, the record/playback of audio file (take) transitions is seamless regardless of the setting of this menu.

Auto Markers

In addition to dropping markers on audio overs and timecode dropouts, the HD-P2 can drop markers in time increments from 1 minute to 5 minutes. Settings for all three Auto Markers modes are under the *Auto Markers* menu under the *Project* menu.

No Fault Recording

The HD-P2 transparently closes & re-opens audio files every 1.5 seconds while recording. This ensures data safety in the event of power loss or other unpredictable occurrence during recording.

Disk Status

The display and icon in the lower right of the LCD screen displays the time remaining available to record on the inserted media at the selected sample rate and bit depth in HH:MM format. Momentarily holding STOP will display the actual space remaining on the media

Reset to Factory Defaults

Under the *Default Project Settings* menu there is a selection to initialize all of the HD-P2's settings to their factory defaults.

Pull Up/Down Sample Rate Settings

A pull up/down sample rate is always relative to the chosen time code rate.

For example, when it is required to chase 30fps LTC but the project will eventually be pulled down to 29.97, a 30 Pull Up setting would be used providing an operating sample rate of the selected sample rate plus 0.1% while chasing 30fps LTC. Later, when chasing 29.97, the sample rate will be normal.

The following 0.1% pull up/down rates are supported by the HD-P2:

23.976	Pull Down
24.00	Pull Up
24.975	Pull Down
25.00	Pull Up
29.97	Pull Down
30.00	Pull Up

If 1% or 4% pull up/down rates are required, the HD-P2 must be locked to an external clock source providing that rate.

Pre-Record

The pre-record buffer is not active when the HD-P2 is set to chase timecode.