

Sony Corporation

No. PMWM08-015

Technical Memo

Class [2]

Issued : August 8, 2008

Subject: PMW-EX1 Ver1.11 has been released

<< Internal use only >>

Page 7 and after on this information are internal use only.

Information for only Service section cannot be disclosed.

Applicable Model(s)	(Destination)	Serial Number(s)		Number of Unit(s)
PMW-EX1	CE7	400001	- 405335	5036
PMW-EX1	CN	500001	- 500310	310
PMW-EX1	E	200001	- 201224	1121
PMW-EX1	J	300001	- 300670	634
PMW-EX1	UC	100001	- 107389	7162
PMW-EX1/0	CN	500311	- 500760	280

[Overview]

PMW-EX1 V1.11 Is Released

PMW-EX1 Background Software V1.10 Is Released

[Reason/Objective]

Addition of new functions, improvement of functions and bug corrections

[Addition of New Functions and Improvement of Functions]

- 1) SxS 32GB, PHU-60K is supported.
- 2) The 24Psf signal output is supported in the Camera Mode.
- 3) Chinese menu is supported.
- 4) Clip Number Reset function is changed to the Clip Number Set so that arbitrary number can be entered.
- 5) The Clip > Update function is added in the MENU so that the management data inside the media can be restored manually.
- 6) Number of the shutter speed choices is increased. The newly increased choices are shown by the cells (with asterisk * mark) in orange in the following table

Step	60i/P	50i/P	30P	25P	24P
1	-	-	1/40	1/33	1/32
2	-	-	-	-	1/48
3	-	-	1/50	1/50	1/50
4	1/60	1/60	1/60	1/60	1/60
5	-	-	-	-	1/96
6	1/100	1/100	1/100 *	1/100	1/100 *
7	1/120 *	1/120 *	1/120	1/120 *	1/120 *
8	1/125	1/125	1/125	1/125	1/125
9	1/250	1/250	1/250	1/250	1/250
10	1/500	1/500	1/500	1/500	1/500
11	1/1000	1/1000	1/1000	1/1000	1/1000
12	1/2000	1/2000	1/2000	1/2000	1/2000

- 7) It is improved that the REC mark can be displayed even during LCD Display OFF.
- 8) Audio distortion is decreased. (TRIM level is changed to the 6 dB step when operated from the menu.)
- 9) It is improved that the picture does not swing during the REC Review mode.

[Bug Correction]

- 1) The trouble is corrected that an error occurs when switchover of the media slots takes place during continuous recording with the i.LINK connected.

[Applicable Units]

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PMW-EX1 CE	400001	-	405335	5036
PMW-EX1 CN	500001	-	500310	310
PMW-EX1 E	200001	-	201224	1121
PMW-EX1 J	300001	-	300670	634
PMW-EX1 UC	100001	-	107389	7162
PMW-EX1/0 CN	500311	-	500760	280

Upgraded software has been already installed in the following units before factory shipment even though these units are within the applicable serial number range listed above.

PMW-EX1 E**Total 103 units**

200886	200990	201057	201092	201156	201218
200888	200991	201059	201093	201157	201221
200900	200992	201060	201098	201159	201225
200902	200993	201062	201103	201162	
200907	200995	201063	201105	201163	
200908	200996	201065	201110	201164	
200920	201003	201066	201111	201165	
200929	201007	201067	201112	201166	
200930	201008	201069	201113	201167	
200931	201012	201070	201115	201168	
200935	201026	201071	201118	201169	
200936	201027	201074	201119	201170	
200939	201031	201075	201123	201172	
200949	201032	201076	201124	201173	
200950	201036	201077	201125	201174	
200957	201038	201079	201131	201177	
200964	201039	201081	201137	201178	
200978	201040	201083	201152	201185	
200985	201054	201086	201153	201207	
200989	201055	201089	201154	201214	

PMW-EX1 J**Total 36 units**

300033	300391	300577	300632	300537	300638
300084	300457	300578	300635	300538	300643
300110	300493	300580	300505	300553	300644
300184	300494	300582	300515	300554	300649
300196	300573	300584	300525	300557	300652
300218	300575	300616	300526	300572	300653

PMW-EX1 CE7

Total 299 units

404573	404780	404892	404956	405070	405157
404580	404781	404895	404957	405071	405158
404590	404782	404898	404958	405073	405159
404598	404783	404899	404960	405074	405160
404599	404784	404902	404963	405075	405161
404611	404786	404903	404967	405076	405162
404617	404787	404904	404970	405078	405165
404618	404788	404905	404973	405079	405166
404624	404789	404906	404974	405080	405167
404625	404791	404907	404975	405081	405168
404626	404793	404908	404976	405082	405170
404629	404801	404910	404985	405083	405171
404632	404804	404911	404995	405084	405172
404633	404805	404912	405014	405085	405174
404634	404806	404913	405024	405086	405175
404636	404810	404914	405027	405088	405178
404639	404812	404915	405030	405089	405179
404640	404813	404916	405035	405090	405180
404641	404816	404917	405036	405091	405182
404642	404817	404918	405037	405092	405186
404643	404818	404919	405038	405093	405188
404645	404822	404923	405040	405094	405189
404646	404825	404925	405041	405095	405191
404648	404828	404928	405042	405096	405193
404649	404829	404929	405043	405098	405207
404651	404830	404930	405044	405099	405228
404652	404831	404931	405045	405100	405235
404655	404832	404932	405046	405101	405238
404666	404833	404933	405047	405102	405251
404667	404834	404934	405048	405103	405256
404674	404836	404935	405049	405104	405260
404682	404838	404936	405050	405105	405261
404694	404850	404937	405051	405107	405263
404698	404851	404938	405052	405108	405265
404701	404856	404939	405053	405109	405266
404704	404860	404940	405054	405110	405267
404714	404862	404941	405055	405113	405269
404723	404870	404942	405056	405132	405270
404726	404871	404943	405058	405137	405271
404734	404874	404944	405059	405138	405272
404741	404875	404945	405060	405140	405273
404743	404879	404946	405061	405141	405274
404744	404880	404947	405062	405142	405275
404746	404881	404948	405063	405143	405276
404756	404883	404949	405064	405144	405277
404757	404884	404950	405065	405146	405280
404763	404886	404951	405066	405148	405282
404767	404888	404952	405067	405150	405285
404778	404890	404954	405068	405151	405286
404779	404891	404955	405069	405153	

PMW-EX1 CN

Total 170 units

500345	500433	500573	500632	500663	500693
500347	500436	500574	500633	500664	500694
500358	500447	500575	500634	500665	500695
500362	500449	500577	500635	500666	500696
500368	500452	500579	500636	500667	500697
500371	500456	500580	500638	500668	500698
500373	500459	500581	500639	500669	500699
500375	500462	500582	500640	500670	500700
500379	500469	500584	500641	500671	500701
500380	500476	500587	500642	500672	500702
500381	500477	500593	500643	500673	500703
500383	500480	500595	500644	500674	500704
500384	500484	500596	500645	500675	500705
500388	500489	500597	500646	500676	500706
500391	500496	500598	500647	500677	500707
500392	500497	500599	500648	500678	500708
500393	500498	500602	500649	500679	500713
500396	500509	500603	500650	500680	500715
500397	500561	500604	500651	500681	500716
500399	500562	500607	500652	500682	500724
500401	500563	500612	500653	500683	
500403	500564	500613	500654	500684	
500405	500565	500619	500655	500685	
500406	500566	500625	500656	500686	
500411	500567	500626	500657	500687	
500412	500568	500627	500658	500688	
500413	500569	500628	500659	500689	
500420	500570	500629	500660	500690	
500424	500571	500630	500661	500691	
500427	500572	500631	500662	500692	

PMW-EX1 UC

Total 227 units

101442	106211	106307	106884	107080	107371
104027	106230	106308	106892	107081	107372
104063	106232	106309	106895	107084	107373
104098	106235	106316	106896	107143	107374
104892	106242	106322	106900	107157	107375
104935	106244	106328	106901	107161	107376
105185	106261	106331	106903	107183	107377
105501	106263	106332	106905	107184	107378
105503	106264	106333	106909	107203	107379
105890	106265	106334	106910	107239	107380
106114	106266	106336	106913	107285	107381
106134	106267	106337	106926	107296	107382
106138	106268	106338	106967	107297	107383
106143	106269	106339	106968	107298	107384
106149	106271	106340	106983	107299	107385
106150	106275	106341	107033	107300	107387
106156	106277	106342	107040	107304	107388
106158	106278	106343	107042	107307	107390
106160	106279	106345	107043	107310	107391
106161	106280	106346	107045	107311	107392
106164	106281	106347	107046	107318	107393
106165	106282	106401	107047	107351	107394
106166	106283	106444	107048	107352	107396
106168	106284	106474	107051	107353	107397
106170	106286	106758	107052	107354	107398
106171	106287	106781	107053	107355	107399
106174	106288	106786	107054	107356	107400
106175	106289	106805	107055	107357	
106176	106291	106815	107056	107358	
106180	106293	106830	107057	107359	
106182	106294	106831	107060	107360	
106184	106296	106832	107061	107361	
106185	106297	106835	107062	107362	
106191	106298	106842	107064	107363	
106195	106299	106843	107066	107364	
106198	106300	106851	107068	107366	
106200	106302	106863	107071	107367	
106204	106303	106866	107072	107368	
106207	106304	106870	107073	107369	
106209	106306	106873	107076	107370	

The following paragraphs of this Technical Memo is “Company confidential”.
Do not disclose the “Company confidential” information.

[Addition of the Maintenance Function]

- 1) The [Log Dump] function is added in the Maintenance Menu so that the logs of the machine internal operations can be saved in the media. If any errors occur in the equipment, the logs of the internal operations can be saved in the media so that the error logs can be retrieved by using the ServiceNavi - EX with a PC.
- 2) The Self-Diagnosis Item 2 in the Maintenance Menu is enabled so that its functions can be used.

Item 2 Functions

ID	Contents that can be diagnosed	Error value and its meaning	Type1/2
0x01	Testing the COPRO (SAD) communication signal line	-1: A connection error is detected.	1, 2
0x02	Testing the LCD (SAD) communication signal line	-1: A connection error is detected.	1, 2

[Availability]

Download the file from the specified technical memo Software Download Site.

Filename: PMW-EX1_1.10_0530, PMW-EX1_1.11_0531

[Version Upgrade Procedure]

First of all, open the service use USB (sealed by lid) and connect the USB to the PC as shown in photo 1. Photo 1 shows the machine after lid is removed. Detailed version upgrade procedure is described below.



Photo 1

Be sure to use the Update Software that is supplied separately for version upgrade of the software.

[Caution] The following two softwares should be upgraded in the specified order. Be sure to install [..¥PMW-EX1_1.10_0530] first. Upon completion of installation of [..¥PMW-EX1_1.10_0530], then start installation of [..¥PMW-EX1_1.11_0531].

[Caution] NEVER turn OFF the power nor disconnect any cables while installation of software is in progress. Doing so will result in the trouble that the equipment does not start up.

<< Binary Package Installation Manual >>

1. Preparation (Setting the PC environment. Only for the first time)

1) Confirming environment of the PC to be used for execution of the binary package loader

- Confirm that OS is Windows XP or Windows Vista.
(Use of Windows 2000 is prohibited. Operations using other types of OS are not verified yet.)

2) Installing the binary package loader runtime

- Install the NET Framework Version 2.0.

(However, if the above-described runtime has already been installed earlier, installation work of this step is not necessary.)

Refer to the following URL. (As of July 22, 2008)

<<http://www.microsoft.com/downloads/details.aspx?familyid=0856EACB-4362-4B0D-8EDD-AAB15C5E04F5&displaylang=ja>>

- ◆ [Microsoft.NET Framework Version 2.0 re-distributable package (x86)] Press the [Download] button of the acquisition web menu.
- ◆ Save the [dotnetfx.exe] file in your PC.
- ◆ Execute the [dotnetfx.exe] file that has been saved in your PC.

3) Extracting the USB driver file

- ◆ Extracting the binary package loader set - zip extension file
(Extract PMW-EX1_1.10_0530.zip.)
- ◆ Confirming contents of the binary package loader set file
The following files should be contained in the extracted directory:
 - Binary package
: File with extension .BIN (PMW-EX1_1.10_0530.bin)
 - Binary package loader
: File with extension .EXE (BinaryPackLoader.exe)
 - USB driver
: File with extension .INF (USBSER_XDCAM_EX.inf)
 - Installation Manual (English version)
: This Binary Package Installation Manual (readme_e.pdf)
 - Installation Manual (Japanese version)
: The Binary Package Installation Manual (readme_j.txt)

4) Connect the PMW-EX1 to the PC via USB

- ◆ USB port of the PMW-EX1
Place the PMW-EX1 with the viewfinder in your front. Remove the cover in the bottom of the right side panel. Then, you can locate the various connection ports.

To access the USB port for version upgrade, the inner cover on the right should be removed. Remove the screw and remove the inner cover.

You can access the hidden USB port inside the inner cover. Connect the USB cable between the hidden USB port and a PC.

(No inscription or no printing is made to the hidden USB port because it aims at debugging only.)

5) Turning ON the power of the PMW-EX1.

◆ Method of turning ON the power of the PMW-EX1

- (1) Connect the power adapter to the PMW-EX1. (Do not attempt software installation on battery power.)
- (2) Set the [Cam] switch to the ON position (it is the opposite position to “video (media)”.

6) Setting up the USB driver

◆ A PC recognizes that a new USB device has been connected. After that, the USB driver is set up as described below.

(You can confirm that a PC has recognized connection of a new USB device when the message “A new hardware is found.” is displayed on a PC screen.)

- (1) The [Found New Hardware Wizard] window appears.
- (2) The message “Can Windows connect to Windows Update to search for software?” appears prompting your response. Select “No, not this time”. Then, press the [Next (N)>] button.
- (3) Then, a message on the next screen “What do you want the wizard to do?” appears prompting your response. Select “Install from a list or specific location [Advanced] (S)” and press the [Next (N)>] button.
- (4) Then, a message on the next screen “Please choose your search and installation options” appears prompting your response. Select “Search for the best driver in these locations”. Click the checkbox “include this location in the search (O)”, and press the [Browse (R)] button to specify the folder in which the file has been extracted and is located in step 1-(3).
(Location where “inf” file has been extracted.)
- (5) When installation of driver is started, the message “The software you are installing for this hardware: PMW-EX1/USB COM Port has not passed Windows Logo testing to verify its compatibility with Windows XP] appears.
Without regard to the message, press the [Continue Anyway] button to continue installation.
- (6) The message “Completing the Found New Hardware Wizard” appears. Press the [Finish] button to finish setting up of driver.
- (7) Confirm that driver setup is complete successfully by viewing the menu screens as described below: Open “My Computer” – “Properties” screen ⇒ “Hardware” tab ⇒ “Device Manager” button ⇒ “Ports (COM&LPT)” ⇒ “PMW-EX1/USB COM Port for Vista/XP” is displayed on the screen.

2. Installation Procedure

Be sure to install [..¥PMW-EX1_1.10_0530] first. Upon completion of installation of [..¥PMW-EX1_1.10_0530], start installation of [..¥PMW-EX1_1.11_0531].

- 1) Double-click the executable file (BinaryPackLoader.exe) of the binary package loader with extension “exe” contained in the extracted directory (..¥PMW-EX1_1.10_0530) of the binary package loader set.
Then, the binary package loader executes the following processes automatically.

- (* However, wait for a while before starting to boot up the application (by double-clicking the executable file) after completion of USB port connection because it takes time to recognize the USB device by executing the item “**1. Preparation (Setting the PC environment. Only for the first time)** - 4) Connect the PMW-EX1 to the installation PC via USB”.)

- ◆ Checking the binary package checksum
(Check result of the checksum is displayed as “Check Sum OK” or “Check Sum Error: (90001)” in the upper column of the display screen.)
- ◆ Indicating version number of the binary package
(Version number of the “Package” is displayed in the “Ver” column of the display screen.)

- 2) First, confirm display of “Click [Start To Install] Button” in the upper column of the screen. Then, press the “Start To Install” button in the top left of the screen. The binary package loader executes the following processes automatically.

[Caution!!] NEVER turn OFF the power nor disconnect any cables while installation of software is in progress.

- ◆ Reboot the PMW-EX1 as the pre-process of installation.
(The message “Rebooting the Target” appears in the upper column of the screen.)
- ◆ Install the binary package
(The message “Installing” appears in the upper column of the screen.)
- ◆ Log showing progress is displayed in the log information area.
< * Note > Even when the log information screen of the binary package loader looks as if the software installation is stopped advancing, the internal processing is going on.
(The log information screen stops advancing for 2 to 3 minutes at the 60% degree of progress with the log information display “<<<<<Update Start (JTAG)>>>>>” even though the time depends on the size of the binary package.)
Look at the gear animation. As long the gear animation is running, the internal processing is going on and the system is not hung up. DO NOT terminate the installation process, but wait for a while.))

- 3) When the software installation is complete with success, the message “Installed Successfully” appears in the upper column of screen indicating that the binary package loader has completed the software installation with success.

When the message “Reset the Target” is displayed in the upper column of the screen, disconnect the USB cable from the PMW-EX1, and turn OFF the power once and back ON to confirm that the PMW-EX1 starts up normally.

- 4) When you have confirmed the message “Click Close Button to Finish” in the upper column of the screen, press the crossing [X] button in the top right to exit the binary package loader.
- 5) Next, double-click the executable file (BinaryPackLoader.exe) of the binary package loader with extension “exe” contained in the other extracted directory (.\PMW-EX1_1.11_0531) of the binary package loader set, and execute installation of the other binary file. Repeat operations of the above-described item (2), (3) and (4). Then, upgrading the two binary files is complete.

[Verification upon Completion of Version Upgrading]

Disconnect the USB cable, and disconnect the power cable to turn OFF the power. Turn the power back ON, and confirm that the PMW-EX1 starts normally.

[Software History]

V1.02 Official release of initial software for mass production 2007/10/31

V1.03 Software version to change the mass production running. 2007/11/9

Changed contents ⇒ Commands for production are supported from this version (Contents of the disdlg command is expanded and the OSD display can be turned off.) Correction of other bugs.

V1.05 Software version to change the mass production running. 2008/4/9

[Newly Added Functions]

1) Operability of the JOG dial is improved.

The bug that the cursor moves unintentionally on the screen when the JOG dial is operated.

2) Flange-back error at ND filter ON is corrected.

The flange-back accuracy when the ND filter is turned ON is improved.

3) i.LINK Enable menu choices are changed.

The i.LINK menu is changed to enable selection of i.LINK Enable even in the HQ mode and the HD-SDI can be turned OFF for power saving.

When i.LINK Enable is selected in the HQ mode, the i.LINK output is not supplied and the SDI output is turned OFF.

[Bug Correction]

1) Countermeasure against the error that the DF (Drop Frame) bit is set in the record mode of 50i, 50p, 25p and 24p with the TC mode being set to CLOCK.

When the PMW-EX1 is in the record mode of 50i, 50p, 25p and 24p with the TC mode being set to CLOCK, the software is changed so that the XDCAM Transfer does not read the signal (software is corrected not to see the DF bit.)