



PM1D System Software Update Guide

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Before you use the PM1D system

PM1D system contains software that allows the CS1D/DSP1D(-EX)/AI8/AO8/DIO8 (subsequently referred to as “the components”) to operate independently. Thus, all software must be updated to the same version to ensure consistency. If you fail to perform this step, the CS1D’s version checking function will detect the inconsistency, and the system will not start up correctly.

Once you have updated the entire system to the same version, subsequent updates are not necessary. However if you add a new unit or update, you must once again update the entire system.



- *After updating the system, you must execute INITIALIZE ALL MEMORIES. If you fail to perform the initialization, operation is not guaranteed.*

System Requirements

The following system is required in order to perform the update.

- An IBM PC/AT compatible computer with a Pentium II 233 MHz processor and 64 MB of memory or better. (Pentium II 350 MHz and 128 MB of memory is recommended.)

NOTE:

- *Depending on your hardware or OS, system requirements may be greater than listed above.*
- *If you are using a notebook computer, system requirements may be greater than listed above as the minimum. Also, communication may become unstable due to the power management settings in the Windows Control Panel, or due to power management settings specific to notebook CPUs (e.g., SpeedStep (Intel Corporation), PowerNow! (AMD Corporation), or LongRun (Transmeta Corporation)). Please disable these power management settings and use your computer with its power supply adaptor connected.*

- Windows 95 (OSR2 or later), Windows 98 (including Second Edition), Windows Me, Windows NT 4.0 (Service Pack 6a or later), Windows 2000, or Windows XP Home Edition/ Professional
- Display capability of 800 x 600 pixels (SVGA, High Color) or better

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- 10 MB or more free hard disk space
- Mouse
- Serial port
- RS-232C cable (cross-connected)
- One ATA-compliant PCMCIA Type II PC Flash Storage card (subsequently referred to as “memory card”)
- A device with a PCMCIA Type II card slot (A system that enables you to copy downloaded files to the memory card)

System update procedure

When updating the system, you must perform the update and installation for all components. Using the procedure described below, perform the firmware update and the CS1D screen software update.

Before you start the procedure below, download the update file named “pm1d_system***.zip (*** stands for a version number)” from the Yamaha website and expand the file.

<http://www.yamahaproaudio.com/downloads/index.html>



Scene data etc. that you created using this system must be backed up on a memory card before you perform the update. The internal data will be lost when you perform the update procedure.

For details on how to save data to a memory card, refer to the Reference Manual (Software).



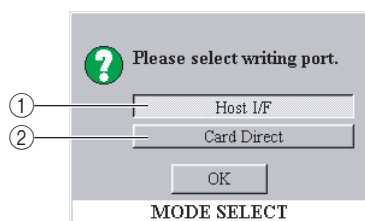
Do NOT turn off the power to the system or connect or disconnect the cables during the update operation. Otherwise, the software licensing information may be deleted if you are updating the PM1D Version 2 system software. If the update operation is interrupted, turn off the power to each component, wait at least five seconds, turn on the power to the components, then restart the update operation.

1. Updating the firmware (CS1D/ DSP1D(-EX)/AI8/A08/DIO8)

You will use the PM1DLOAD software to update the firmware of each component. The basic procedure and the update method for each firmware is explained below.

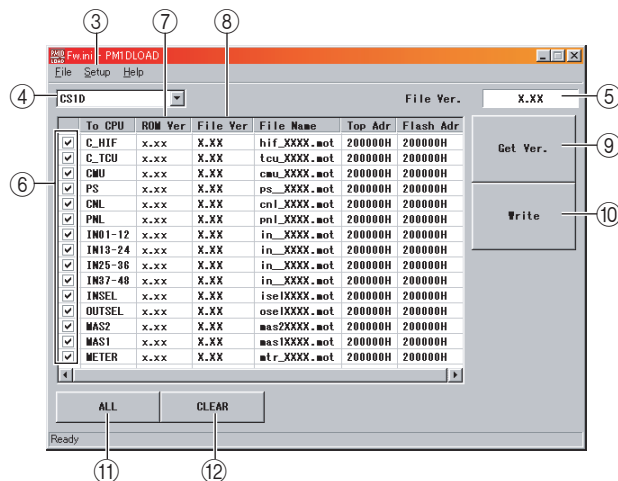
[Explanation of each screen in PM1DLOAD]

□ Mode Select screen



- ① “Write via serial port” mode
You must select this.
- ② “Write board directly” mode
Do not select this.

□ Main screen



③ [Setup] menu

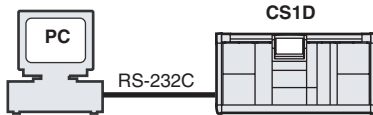
Serial Port	select the computer's serial port to use
Connection Point	select the serial port to use on the PM1D system
Fonts	change the display font

- ④ **Target select menu**specify the component to be written
- ⑤ **Overall version**indicates the version to be written (overall version)
- ⑥ **Writing target check boxes**.....check boxes select writing target
- ⑦ **ROM version field**indicates the currently-written version
- ⑧ **File version field**indicates the version to be written
- ⑨ **[GetVer.] button**.....obtains the ROM version
- ⑩ **[Write] button**initiates firmware writing for all items checked in the writing check boxes ⑥
- ⑪ **[ALL] button**check all writing check boxes ⑥
- ⑫ **[CLEAR] button**.....uncheck all writing check boxes ⑥

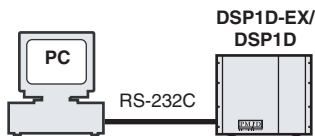
[Using PM1DLOAD]

1-1 Depending on the target that is being updated, the firmware is sent over the following routes from the computer (PC). Connect an RS-232C cable (cross connected) or a D-Sub half-pitch 68-pin cable to provide the appropriate route, and turn on the power.

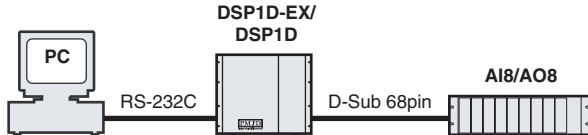
- CS1D update



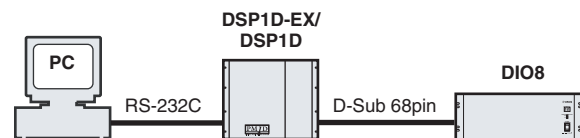
- DSP1D-EX/DSP1D update



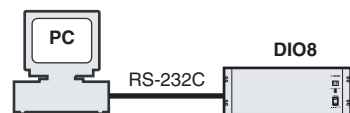
- AI8/AO8 update



- DIO8 update (via DSP1D)



- DIO8 (Direct) update



- Scene data etc. that you created using this system must be backed up to a memory card before you perform the update. Power-off all speaker amps, set all output volumes to the minimum position, and do not input any audio signals.
- If any components not shown above and not related to the update are connected, turn off their power.
- When updating the AI8/AO8, you must observe the restrictions listed below. If you fail to observe these, it may be impossible to perform the update.
 - The port connected to the 68-pin cable used for the update must match the port selected by the select switch of the unit.
 - If the firmware is blank (the 7-segment display of the AI8/AO8 indicates 88), make sure that the above condition is met, and then turn on the power. However, you must do this for each unit immediately before updating it.
- When updating the DIO8 via the DSP1D, you must observe the following restriction. If you fail to observe this, it may be impossible to perform the update.
 - Connect OUTPUT A of the DIO8 to one of the INPUT ports of the DSP1D.

1-2 Before you perform the update, you must exit all other software and memory-resident programs.

1-3 Open the LOADER folder in the pm1d_system*** folder (**** stands for a version number) that you have already downloaded and expanded, then double-click the PM1DLOAD.exe file.

1-4 Start up PM1DLOAD, and when the mode select screen appears, select Host I/F ① and click OK.

NOTE: The update cannot be performed if you select Card Direct ② in the Mode Select screen.

1-5 When the PM1DLOAD update software starts, select the serial port of your computer in the Serial Port field of the [Setup] menu ③.

You can choose from ports COM1–COM9.

1-6 In the Connection Point field of the [Setup] menu ③, specify the destination component that you connected to the computer in step 1-1.

This setting is ignored in the case of the DIO8 (Direct), and need not be set.

1-7 From the target select menu ④, select the components that you want to update.

Select [DIO8 (Direct)] if you plan to update the DIO8 by connecting it directly to the computer.

1-8 Click the [GetVer.] button ⑨. The current firmware version for each component will be displayed. Compare the ROM version field ⑦ and File version field ⑧ of the list, and add a check mark for all lines that have different versions.

NOTE:

- If the firmware has been erased, the version will not be displayed. You must add a check mark in this case as well.
- In some cases, the version of the AO8 cannot be obtained from port B, but if you have made connections and settings in accordance with the restrictions given earlier, you will be able to write the update.

1-9 Click the [Write] button ⑩. Updating of the items you checked in step 1-8 will begin.

Once you initiate the writing process even once, the screen of the CS1D will indicate “If loading is completed, Please re-start.”

NOTE: When updating the AI8/AO8 or DIO8 via the DSP1D, the restrictions listed in 1-1 may mean that some units cannot be updated. (In this case, a message will inform you that a unit was skipped.)

1-10 When the update is completed, turn the power of the updated components off and then on once again.

1-11 Click the [GetVer.] button ⑨. Verify that the ROM version field ⑦ and the File version field ⑧ are now the same for each updated item.

If the ROM version cannot be obtained, or if the versions do not match, the update was not successful. Please repeat the procedure from step 1-8.

1-12 Repeat steps 1-1–1-11 until all components have been updated.

2. Updating the CS1D screen software

To update the CS1D screen software, you will use one memory card, and copy the downloaded file via the memory card into the CS1D. Before you perform this procedure, you must complete the firmware update described in the preceding section.

2-1 You will need to provide a commercially-available memory card and a system that is able to read this card (e.g., a notebook computer that has a PCMCIA Type II slot).

Turn off the power of the CS1D.

2-2 Insert the FAT16-formatted memory card into your computer.

For details on how to format the card, refer to the manual of your computer or card.

2-3 Open the CS1DAPP folder in the pm1d_system* folder ("***" stands for a version number) that you have already downloaded and expanded, then choose [Select all] from the [Edit] menu. Then choose [Copy] from the [Edit] menu.**

2-4 From "My Computer," open the drive of the memory card you inserted.

2-5 From the [Edit] menu, choose [Paste].

2-6 When the copy operation has been completed, remove the memory card.

For details on removing the card, refer to the manual of your computer or memory card.

2-7 Insert the memory card into the CS1D's PC ATA STORAGE CARD slot A or B, and turn on the power of the CS1D.

The normal start-up title screen will not appear, and the CS1D will be in update mode.

2-8 When "START?" appears in the screen, use the track pad to click the OK button.

If you click the CANCEL button at this time, the CS1D will stop operating. Remove the card, and restart the CS1D.

2-9 When the screen indicates "COPY OK," remove the card and restart the CS1D and all other components.

Make sure that the CS1D does not display a version check popup message (see page 5) on the LCD.

NOTE: If the operation fails, the CS1D displays a popup message indicating that the version check operation failed. In this case, make sure that all settings and connections are correct, then restart the firmware update.



- Insert only one memory card in the PC ATA STORAGE CARD slot. If you simultaneously insert another card into the other vacant slot, the update may not occur correctly.
- If you updated the entire system, you must execute INITIALIZE ALL MEMORIES. Operation cannot be guaranteed if you fail to initialize the memories.

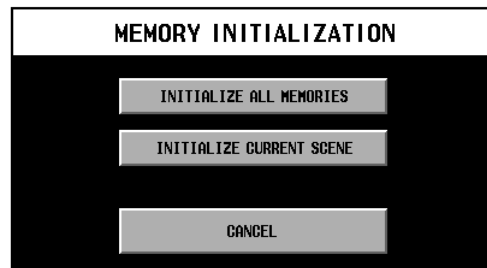
3. Initializing the memory

Be sure to initialize the memory after you update the firmware and CS1D screen software.

3-1 Turn off the power of the PW1D power supply.

3-2 Turn on the power to the PW1D.

After the opening screen appears on the CS1D's LCD, press and hold down the left and right switches located below the track pad in the data entry block until the CS1D displays the following screen.



3-3 Use the track pad and the left/right switches to select "INITIALIZE ALL MEMORIES."

The corresponding display shown below will appear.



"INITIALIZE ALL MEMORIES": All memory will be initialized. All parameters that can be stored in memory will return to their factory-set condition.

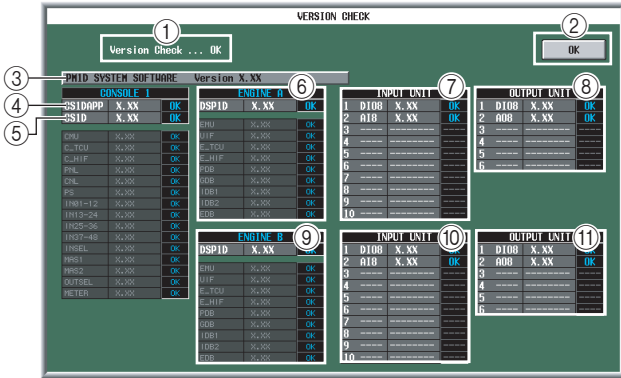
3-4 Use the left/right switches on the track pad to select OK.

After initialization occurs, the system will restart.

The update operation is now complete.

About the version checking function

The CS1D screen software contains a function that checks whether the software of all components is a valid combination of versions. If there is a combination of different versions, or if any component has malfunctioned, the VERSION CHECK popup window will appear when the CS1D starts up. This will not appear if all components are correct. This version check function is explained below.



- ① Checking result message field
- ② OK button (may not be displayed in some cases)
- ③ PM1D SYSTEM SOFTWARE version display field
- ④ CS1D screen software version display field
- ⑤ CS1D firmware version display field
- ⑥ ENGINE A DSP1D(-EX) firmware version display field
- ⑦ ENGINE A INPUT UNIT firmware version display field
- ⑧ ENGINE A OUTPUT UNIT firmware version display field
- ⑨ ENGINE B DSP1D(-EX) firmware version display field
- ⑩ ENGINE B INPUT UNIT firmware version display field
- ⑪ ENGINE B OUTPUT UNIT firmware version display field

Version display fields ④ through ⑪ convey the following information.

⑫	⑬	⑭
1 D108	X.XX	OK
2 A18	X.XX	OK
3		
4		
5		
6		
7		
8		
9		
10		

- ⑫ Component name or firmware name
- ⑬ Firmware version display field for ⑫
- ⑭ Result of test

Of these fields, lines displayed in white characters indicate the version of that entire component. Lines displayed in smaller characters of gray provide details on firmware versions of individual CPUs within the component. Of these, fields ⑬ and ⑭ may be of the following types.

Field ⑬ display list

x.xx (numeric)	Firmware version
NO REPLY	CPU within the component does not respond
-----	Board not installed in the DSP1D(-EX)
DIFF.	Board is incorrectly inserted in the DSP1D(-EX)

Field ⑭ display list

OK	Normal
---	Not connected (normal)
NG	Illegal firmware version within the component or no response from CPU within the component
OLD	Old version
NEW	New version
DIFF	Illegal combination of versions

The above test results are summarized, and a message is shown in ①. If this popup window appears, refer to the following explanation and resolve the reason for the problem.

❑ [Results other than OK]

If there is a problem with other than the firmware that operates the controls of the CS1D and the INPUT UNIT / OUTPUT UNIT, the OK button ② will not appear.

In this case, it will be impossible to perform any screen operations or use any of the controls, and thus impossible to control the system.

Since correct operation cannot be guaranteed in such a state, please remove the cause of the problem. The system will not recover until the cause is removed.

If there is a problem with the firmware that operates the controls of the CS1D and the INPUT UNIT / OUTPUT UNIT, the OK button ② will appear.

Click the OK button, and the system will forcibly be started up, ignoring the faulty component or faulty portion of the component.

At this time, a popup window will appear to inform you which component is being ignored, and the following limitations will apply. However, the correctly functioning components will operate, allowing you to control the remaining portions of the system.

❑ INPUT/OUTPUT UNIT section

INPUT UNIT not OK	Only that unit is muted, and will not be controllable
OUTPUT UNIT not OK	Only that unit is muted, and will not be controllable

□ CONSOLE section

INPUT01-12 not OK	INPUT block (CS1D lower left) inoperable
INPUT13-24 not OK	INPUT block (CS1D upper left) inoperable
INPUT25-36 not OK	INPUT block (CS1D lower right) inoperable
INPUT37-48 not OK	INPUT block (CS1D upper right) inoperable
INSEL not OK	SELECTED INPUT CHANNEL block inoperable
MAS1 not OK	MIX OUTPUT / DCA GROUP block inoperable
MAS2 not OK	MIX OUTPUT / DCA GROUP block inoperable
OUTSEL not OK	SELECTED OUTPUT CHANNEL block, SCENE MEMORY block, MASTER block, LCD FUNCTION ACCESS block, USER DEFINE block, STEREO OUTPUT block, Data entry block (except for track pad and left/right switches) inoperable
METER not OK	METER BRIDGE block will not function

The system will recover from these limitations when you remove the cause of the problem and turn on the power of the CS1D once again.

NOTE:

- *These problems can normally be solved by executing the system update. However, if problems remain after this is done, please contact Yamaha service.*
- *If there is a problem with a unit, please check whether there is a faulty connection for the D-Sub half-pitch 68-pin cable. The unit will not function correctly if a pin is bent or not inserted.*

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