DVS-9000 System Application Software V3.23

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This upgrade affects the following software.

DVS-9000/SF software CCP-8000/9000 panel software CCP-8000/9000 menu software BKDS-9470 DME software MVE-9000 DME software

1. Outline of Software

1.1 New Functions

1.1.1 Panel

• Next transition link -

A new function is added to Key Transition Link on Menu 7321.2 so that next transition of key is link-selectable.

1.1.2 BKDS-9470 V3.10

Wipe Crop –

The Wipe Crop effects (standard wipe pattern No.1-24) are newly supported. The operation can be done on the menu of DME > Edge > Wipe Crop (Menu 4116).

Wind-

The Wind effect is newly supported. The operation can be done on the menu of DME > Light/Trail > Wind (Menu 4155).

• Mix Color –

The Mix Color effect is newly supported. This is a combination of two colors with a pattern generator. This Mix color signal can be used in border, flex shadow, trail, background, and wind effects. The operation can be done on the menu of DME > Edge > Color Mix (Menu 4117).

External Video –

The External Video is available for border, flex shadow, trail, background, and wind effects. To use the External Video, the number of AUX bus for switcher output connected to DME-9000 Ext In should be set. The operation can be done on the menu of ENG SETUP > Switcher > Device Interface > DME Type Setting > DME SDI Interface (Menu 7337.7).

- Rainbow Color of Trail Effect
 - The Rainbow Color effect is added in the <Trail Source> group on the menu of DME > Light/Trail > Trail menu (Menu 4152).
- Shadow effect for Images Mixed 2 DME channels This effect gives the images which combined 2 DME channels a shadow. The operation can be done on the menu of GLBL EFF > ch1-ch4 (ch5-ch8) / Shadow (Menu 4213/4223). This effect is available when 3 or 4 channels are combined.
- User Texture Pattern for Spotlighting
 - As a texture pattern for spot lighting, User Texture Pattern (a texture pattern which a user creates) can be used. The User Texture Pattern can be selected on the menu of DME > Light/Trail > Spot Lighting > Texture Pth Select (Menu 7156.1). To add a Texture Pattern, a texture package is created from a bitmap file, and then it is installed into BKDS-9470. The installation can be done on the menu ENG SETUP > System Install/Unit Config > Texture Package (Menu 7316.9). This function is available with BZS-9471 (Texture Lighting Software).
 - * For details of the installing, format, size and file name for User Texture Pattern, please see the User's Guide Supplement.
- The storage space for the data of Snapshot, Effect and Setup is changed The storage space for the data of Snapshot. Effect and Setup is changed from the compact flash on the CA board to the battery backup S-RAM. The compact flash cannot be written upon except when upgrading software on that account. The effect on when the compact flash is damaged is circumvented.
 - * Be sure to save all data before upgrading to V3.10. Be sure to load all the data after upgrading. (The data on the compact flash cannot be used after upgrading.)

1.1.3 Switcher (function implemented with BKDS-9470 V3.10)

• DME Wipe Crop Transition –

DME Wipe Crop Transition function is newly supported. For the execution for a DME wipe crop transition, you can select from the following three possibilities. The DME Wipe Crop Transition can be selected on the menu of M/E > DMEWipe > Modify > Remove From Begin (Menu 1165.1) for each M/E.

(a) Cut:

The cropping does not change during the transition, but at the end point of the transition the cropping is removed (enlarges). That is the same function that the current [Remove From Begin] button is set to OFF on the menu of M/E > DME Wipe > Modify (Menu 1165 etc). (b) Last 5 %:

The cropping is maintained for the first 95% of the transition, and is progressively removed during the last 5% of the transition (enlarges).

(c) Linear:

The cropping is removed linearly through the whole course of the transition (enlarges). That is the same function that the current [Remove From Begin] button is set to ON on the menu of M/E > DME Wipe > Modify (Menu 1165 etc).

Only when the execution mode for a DME wipe crop transition is set to [Last 5%], the [Release Transition] capability is available. When the [Release Transition] on the menu of M/E > DME Wipe > Modify is set to ON, the transition is completed in 70 % of transition execution time and then in the last 5% the cropping is removed (enlarges). (Dead zone: 70 -95 %)

1.2 Restrictions V3.20

With regard to the following DME parameters, the upper and lower limits of ten-key input and those of knob control input are not in agreement. This technical memo cannot, however, handle the problem since correction is required on the DME side. This is corrected in V3.22

```
DME \rightarrow NON-LINEAR \rightarrow Ripple \rightarrow Shape \rightarrow Position \rightarrow V
DME \rightarrow NON-LINEAR \rightarrow Ripple \rightarrow Shape \rightarrow Position \rightarrow H
DME \rightarrow NON-LINEAR \rightarrow Lens \rightarrow Position \rightarrow V
```

- System Manager must be of V1.51 or greater, if used in the system using the MKS-8010A.
- The other restrictions are the same as those V3.10 imposes.

1.3 Bug Fixes - The following bugs are fixed in V3.20

1.3.1 Switcher bugs corrected in this version

- When #273 pattern is selected from Wipe Sub Pattern, parameters cannot be adjusted.
- When still pictures are stored continuously using [Record] button on Menu2151 frame memory animation, creating key-frame is not completed, a pop-up screen on the menu is kept open, and the menu becomes uncontrollable, if recording is performed with duration set to more than 100 and [Create Key-frame] is executed on Menu 2152 with the still pictures.

1.3.2 Other bugs corrected in this version

- When Key Source is modified from "Self" to "Split", Key Source signal name on the status display at top of Key menu incorrectly turns to the signal name selected for "Auto Select". (Wrong status display)
- When in Dual M/E Assign mode, faders in one M/E row are inhibited, and illumination for it is turned OFF. If these faders are then operated a screen is switched.

- With Button Tally on Menu 7326 set to "System", [KEY2], [KEY3], [KEY4] buttons go ON in red simultaneously with [KEY1] button on the key control section when Key1 becomes "On-Air" and [KEY1] button goes ON.
- With Button Tally on Menu 7326 set to "System", the cross point button of "On-Air" M/E does not go to "High tally (red)" when the power is turned ON.
- When Router Snapshot is recalled. Router cross points of more than 31 cannot be switched at the same time.
- When the cross point is changed by fader operation, Router bus and the cross point of other M/E without link setting move together if Ext Bus Link is used in Bus Toggle Off mode. The system works correctly if the cross point buttons are directly switched.
- When "compact" is set for switcher's matrix size on Menu 7316, Proc Video and Proc Key signals of each M/E, which are not used generally for "compact", are registered. As a result, signals such as M/E2 Out1 cannot be registered and the cross points for them cannot be selected from the router.
- [KEY PRIOR] button on the transition operation section does not work correctly.
- With regard to the following parameters, the upper and lower limits of ten-key input and those of knob control input are not in agreement.

```
DME \rightarrow NON-LINEAR \rightarrow Ripple \rightarrow Radial \rightarrow Position \rightarrow V
```

 $DME \rightarrow NON-LINEAR \rightarrow Kaleidoscope \rightarrow Phase \rightarrow H$

GLBL EFF \rightarrow Brick \rightarrow Side H/V \rightarrow Compress Left/Right/Top/Bottom

When Hue is input from the ten-key, "359.98" is displayed if "359.99" is input. Similarly, "359.99" is displayed if "0" is input.

- 3D parameters of the DME are not correctly displayed on Non-Linear menu.
- When Key menu of M/E is displayed, the menu begins rebooting. The problem occurs only when Key Source is set to #128 or later. (The number that is generally not used.)
- When a non-defined vertical function key (left side) in the menu is pressed, the menu changes to another menu, instead of staying unchanged.
- VTR constants are not reflected on Cueup & Play operations
- When the same signal is assigned to two or more buttons in the system using SUB1 SUB4 for "cross point assign," the button with the smallest number only is illuminated if any one of them is pressed. Now, all the buttons are illuminated simultaneously.
- When FTB Auto Trans is executed with GPI input of the SCU or the DCU, behavior with GPI trigger inputted again during the execution, is not in compliance with FTB setting on Menu 7326.7.

1.3.3 MKS-8010A specific bugs corrected in this version

- System Manager and the control panel are not connectable.
- Software on System Manager side must be upgraded to V1.51.
- MKS-8010A cabinet fan error is not correctly output.
- When the MKS-8010A is started up, data LAN communication and file operations may fail and version information on equipment cannot be read if switching hub is started up after the MKS-8010A. In this case, the MKS-8010A must be rebooted.

1.4 Bug Fixes - The following bugs are fixed in V3.21.1

1.4.1 MKS-8010A specific bugs corrected in this version

- When the MKS-8010A was used as Simple Primary Station for S-BUS panel such as MKS-8080/8082, if you switched some cross point buttons on the S-BUS panel quickly, there were cases that the S-BUS panels were not switched. The MKS-8010(non-A) does not have this problem.
- The Editor port that was being used for Serial tally information stopped working. It was a problem for the MKS-8010A V3.21 only.

1.5 Bug Fixes - The following bugs are fixed in V3.22

1.5.1 Switcher bugs corrected in this version

- There has been a case that the PGM picture is replaced by the PST picture depending on the conditions when the Next Transition button is pressed in the multi program mode.
- There has been a case that the Region data is not recovered partly when the Init Panel is executed from Editor.
- There has been a following case: When the key frame is created that executes the DME wipe transition when the DME wipe Crop is set to ON, and when it is executed, the picture flickers at the last moment of ending the transition.
- There has been a case that the resume function does not work correctly when the power supply is not stable.
- In a system using Simple P/P software (BZS-9250), a signal assigned to Output disappears right after setup load or reset when P/P section operates in DSK mode. (It becomes Undefined.)
- A shock noise is found on Key when cross point is changed with Border used for Key.

1.5.2 MVE-9000 bugs corrected in this version

- The path of the DME wipe number 1001 was set to spline, not set to linear.
- When the default KF Duration is set shorter than 1 second, and when the key frame is inserted after a reset of the MVE, the duration of the new inserted KF is not the set value.
- When the non-linear effects of Page Turn and Roll are activated, and when at the same time the picture is turned over by the Rotation, the way of rolling over the page was not correct.
- When the Mosaic is set to ON, the signal processing at the upper blanking period of screen was not correct.
- When the image is reduced of its size significantly by the [LOC XYZ] button, and when the key frame is created to minimize the X-directional aspect to nil completely, there was a case that noise appears on both sides of the screen immediately before the image disappears as the RUN is executed.
- The soft border effect did not work correctly in the Wipe Crop.
- There was a case that shadow is not CROPped even when the Wipe Crop is activated on the image with Shadow effect.
- When the POWER is not turned on in the second power supply unit, it is detected as an error so that the error status is issued.
- There was a case that the Saturation value has exceeded the 100%R value in the setting of the ART EDGE Rainbow Color.
- Position of the Effect GP2 of the Mask has shifted to the left.
- The Wind effect did not work correctly so that it had an adverse effect on the other channels.
- There was a case that the left side of the screen has the black blurring with the Rainbow effect is used in Trail.

- The color inside the Key Border was incorrect.
- When both of the Defocus and Blur are set to ON at the same time, Defocus is improved to be more effective when compared with the case in which Defocus only is activated.

1.5.3 Others problems corrected in this version

- When [Auto Trans/Cut Swap] is set to ON using the Menu7326.4, and when the AT Trans is executed by the GPI input of either Panel (SCU) or of DCU, the Cut is actually executed.
- When the Tally Copy operation is executed using the Menu7365, Copy of the Copy has not been executed correctly depending on the sequence of setting ups.
- When Router is going to be operated from the control panel, when the location of the Router is set to 401, the Source Name that is displayed on the Aux bus operation section is not displayed correctly.
- The machine specifications determine that the Fill and the Key Source of the XPT Hold on the Key bus cannot be set independently using the KF Path menu. In spite of the specifications, the menu allows the inhibited operation. We have changed that the above independent operation cannot be executed on the menu too.
- When the control panel is reset using the Menu7315, the top menu button M/E1 lights up by the menu screen remains in the ENG SETUP.
- When [Factory] is selected as the Texture Pattern with the Menu4156.1, and when any other menu is selected and then the screen is resumed again, it is designed to return to [User]. This time, we have changed the specification so that the previous selection is maintained.
- In some parameters, the upper/lower values of the parameters when the value is entered from the ten-key are different from the upper/lower values of the parameters when the parameter is set by rotating the knob are different. These bugs are fixed.
 - $DME \rightarrow NON-LINEAR \rightarrow Ripple \rightarrow Shape \rightarrow Position \rightarrow H$
 - $DME \rightarrow NON-LINEAR \rightarrow Lens \rightarrow Position \rightarrow V$
 - $DME \rightarrow Video\ Modify \rightarrow Color\ Modify \rightarrow Contrast \rightarrow Y\ Clip$
 - DME → Input/Output → Video/Key → Ext Key/Lum Key → Clip
 - $M/E \rightarrow Key \rightarrow Type \rightarrow Lum Key/Lin Key \rightarrow Clip$
 - $M/E \rightarrow Key \rightarrow Video \ Process \rightarrow Video \ Process \rightarrow Black \ Level$
 - $M/E \rightarrow Misc \rightarrow Video Process \rightarrow Video Process \rightarrow Black Level$

1.5.4 MKS-8010A Specific bugs corrected in this version

- When this system used in the simplified primary station, there was a case that switching of the cross-points became impossible from the AUX bus remote controller (MKS-808x).
- Serial tally of the MKS-8010A did not work.
- When the switchers or DMEs that can be operated from the control panel using the Menu7312.1 and Menu7312.2, are switched and their switching operation is executed using the [Exec] button of the Menu7312, the displays are switched but the actual operations are not switched. When this error occurred, the control panel had to be reset in order to execute the above-described operation.

1.5.4 BKDS-9470 Specific bugs corrected version 3.10

- The path of the DME wipe number 1001 was set to spline, it should be set to linear.
- When the default KF Duration is set shorter than 1 second, and when the key frame is inserted after a reset of the MVE, the duration of the new inserted KF is not the set value.
- With the Video Modify > Mask function (menu 4127), there was a possibility that the position of Effect Gp2 was shifted to left when Gp1 and Gp2 were turned on the simultaneously.
- When both Defocus and Blur (menu 4121) are set to ON at the same time, Defocus has been improved to be more effective when compared with the case in which Defocus only is activated.
- When the effect of Hard Freeze (menu 4131), Time Strobe and Film is executed, the short line noises appeared at the left hand side of the frozen picture. (It has been supported by V3.02.)

1.6 Bug Fixes - The following bugs are fixed in V3.23

1.6.1 Switcher bugs corrected in this version

- There might be cases that the processor hanged when files were loaded.
- The default recall function did not work correctly on the Color Bkgd menu.

1.6.2 MVE-9000 bugs corrected in this version

- The system phase was not saved in the Setup.
- When Init Status is saved or loaded in File menu, the current DME status is written as an Init Status. Thus, the clear work buffer status is also incorrect.
- With Setup menu (menu number 7334), the Editor port is set to the independence mode. Then, GO TO TC button on an editor is pressed to move to the position between Keyframes. The DME image is misaligned from the specified position.

1.6.3 MKS-8010A Specific bugs corrected in this version

• There might sometimes be cases that S-Bus Tally and Parallel Tally for DCU didn't output.

1.6.4 Others problems corrected in this version

• Swer Local Names could not be sent as Alias names.

2. Parts Required for Version Upgrade

2.1 Parts Required

2.1.1 Application Software

The following six types of application software are required for upgrading versions of the DVS-9000/SF system to V3.23.

Data is saved as follows;

DVS-8000/SF: /Application/MVS&DVS BKDS-9470: /Application/BKDS9470 MVE-9000: /Application/MVE9000

CCP-8000 (MKS-8010)/9000: /Application/PANEL CCP-8000 (MKS-8010)/9000: /Application/MENU CCP-8000 (MKS-8010)/9000: /Application/MENU OS

CCP-8000 (MKS-8010A): /Application/PANEL A CCP-8000 (MKS-8010A): /Application/MENU A

- The software is not an optional item and has no model number.
- ❖ Download the software from a specified FTP site.
- Names of application software for each model

Software for DVS-9000/SF: MVS Application

Software for CCP-8000/9000 (Main Panel): Panel Application Software for CCP-8000/9000 (Menu Panel): Menu Application

Software for BKDS-9470: DME Application Software for MVE-9000: MVE-9000 Application

2.1.2 Software for downgrading the menu version (For the MKS-8010 and CCP-9000 only)

This software is for returning the version to V3.11 after upgrading Menu software to V3.23. Data is saved as follows;

/Menu VersionDown /

❖ Download the software from a specified FTP site.

3. Caution on Version Upgrade

3.1 Confirmation of Software Version

- Verify the versions for the application software in accordance with the following;
- (1) Press buttons ENG SETUP>System>Install in that order to open Install menu (Page7316).
- (2) Verify that the version of each unit is V1.30 or higher.

SWR1 (MVS): V1.30 or higher DME1 (MVE): V1.30 or higher

DCU: V1.30 or higher

PNL1 (Panel): V1.30 or higher

Notes:

- ❖ If the version is not V1.30 or higher, upgrade it to V1.35 before installing this upgrade.
- ❖ If the version for the BKDS-9470 is not V1.42, upgrade it to V1.42 before implementing this technical memo.

3.2 Preparation

3.2.1 Copying application software to compact flash memory

* Copy the data downloaded from the specified FTP site and saved in the following directory to a compact flash memory commercially available on market.

Some files are compressed. Copy them as they are without uncompressing.

/Application/

3.3 Installation

- ❖ Be sure to install the software in the following order.
 - (1) Upgrade the software of Switcher (MVS) to V3.23.
 - (2) Upgrade the software of Menu to V3.22.
 - (3) Upgrade the software of Panel to V3.23.
 - (4) Upgrade the software of DME (BKDS-9470) to V3.10.
 - (5) Upgrade the software of DME (MVE-9000) to V3.23.
 - (6) Upgrade the software of DCU to V3.00. (This is not required if the version is V3.00)

Note: Install the software in the above order. Otherwise, the installation can fail.

3.4 Other Notes

- (1) When the SCU (MKS-8010A) of "1U" is in use, installation software is different from that previously used for the SCU (MKS-8010) and the CCP-9000. Please pay attention to it.
- (2) The previous version 3.1x software for the SCU (MKS-8010) and the CCP-9000 includes software for OS version upgrade as well as regular application software to stabilize OS performance (part of the FULL Menu Install). There are no problems if this software is not installed, because it has nothing to do with fixing bugs. However, it is suggested, to install that upgrade for improving the performance stability. If the version 3.1x OS upgrade was not installed, the OS upgrade can be done at this time. Installation is described in section 4.4. Step 9 below.
- (3) With regard to the MKS-8010 and CCP-9000, install the software saved in the following directory and then the software to downgrade for returning the version to V3.11 or lower after upgrading the menu software OS to V3.22.

/Menu VersionDown /

Procedure for downgrading the version

- * Do not reboot the panel software at this stage.
- (1) Insert a compact flash memory card with the software for Menu VersionDown copied to it, into the memory card adaptor.
- (2) Press buttons ENG SETUP>System>Install in that order to open Install menu (Page7316).
- (3) Press [Install] button to display a list of software copied to the compact flash memory card on the menu screen.
- (4) Move a cursor to the following file. Press [Exec] button, and then "Yes" in reply to a confirmation message.
 - MENU CPU (for downgrade from V3.20 or later)
- (5) File transfer begins. Press "OK" in reply to a completion message.
- (6) Press the menu number display at the upper-left corner of the menu screen to obtain the popup screen for inputting the menu number.
- (7) Input "9999" to display Engineering Menu.
- (8) Press [Reboot Panel] button to restart up the control panel.
- (9) Install the menu software of the version to be downgraded in a regular manner. (Refer to 4.4 for the procedure.)

4. Version Upgrade Procedure

Note: Never turn off the power during the version upgrade unless otherwise specified. Pay attention to it particularly when software installation is in process. The unit may not start up if the power is turned off during the installation.

4.1 Calling User Setup

- (1) Press buttons ENG SETUP>System>Start Up in that order to open Start Up menu (Page7314).
- (2) Verify that Start Up Mode of SWR1, PNL1 and DME1 is "Custom" and that Setup is "User".
- (3) If Step (2) is "yes", go to Step (6). Otherwise, take the following steps; Move a cursor to SWR1 and press [Custom] button of Start Up Mode and then [User] button of Setup in that order.
- (4) Similarly, move the cursor to PNL1, DME1, and press [Custom] button, and [User] button of Setup in that order.
- (5) Press [Exec] button, and then "Yes" in reply to a confirmation message. Up to this point, Start Up mode of Setup for Switcher (MVS), Panel, and DME (MVE) is switched to User.

- (6) Press [Initialize] button using Function key to display "Initialize" menu (Page 7315)
- (7) Move the cursor to SWR1 and press [Reset] button.
- (8) Similarly, move the cursor to PNL1, DME1, and press [Reset] button.
- (9) Press [Exec] button, and then "Yes" in reply to a confirmation message. Switcher (MVS) and Panel restart up in the setup mode of User setting.

4.2 Saving Data

- (1) Insert a blank compact flash memory card into the memory card adaptor of the control panel.
- (2) Press [Save], [Memory Card], [Setup], and [Initial Status] buttons on File menu (Page 7171) in that order.
- (3) Press [Exec] button, and then "Yes" in reply to a confirmation message.
- (4) Using File menu (Page7171) again, press buttons such as [Snapshot] and [Effect] that you wish
- (5) Press [Exec] button, and then "Yes" in reply to a confirmation message.
- (6) Remove the compact flash memory card after saving data is complete.
 - ❖ An error message can appear after executing the above Step 3 due to the compact flash memory card unrecognized by the unit. In this case, reinsert the compact flash memory card and proceed with the above Step (2) once again. If it does not work, attempt the following steps, which are likely to succeed.
 - o Press buttons ENG SETUP>System>Maintenance in that order so that USB port is recognized again.
 - Then, proceed with the above Step (2) once again. Try similar manners when a compact flash memory card cannot be recognized.

4.3 Installing Switcher (DVS) Software

- (1) Insert a compact flash memory card to which application software is copied, into the memory card adaptor.
- (2) Press buttons ENG SETUP>System>Install in that order to open Install menu (Page7316).
- (3) Press [Install] button to display a list of software copied to the compact flash memory card on the menu screen.
- (4) Moving a cursor to one of the following six software files that you wish to install, press [Exec] button, and then "Yes" in reply to a confirmation message.
 - DVS-9000 to be upgraded from V1.35 or lower to V3.23:

DVS9000 Proc [V3.23] (for full install)

• DVS-9000 to be upgraded from V1.35 or higher to V3.23:

DVS9000 Proc [V3.23] (for upgrade)

• DVS-9000 to be upgraded from V3.00 or higher to V3.23:

DVS9000 Proc [V3.23] (for NO FPGA)

• DVS-9000SF to be upgraded from V1.35 or lower to V3.23

DVS9000SF Proc [V3.23] (for full install)

• DVS-9000SF to be upgraded from V1.35 or higher to V3.23:

DVS9000SF Proc [V3.23] (for upgrade)

• DVS-9000SF to be upgraded from V3.00 or higher to V3.23:

DVS9000SF Proc [V3.23] (for NO FPGA)

- (5) File transfer begins. Press "OK" in reply to a completion message.
 - When the version is upgraded from lower than V2.10, the following error message may appear at this point.

"CPU/80/BOOT2.CLF PUT CLOSE (0x21)"

However, it causes no problem as long as the following steps from (6) to (11) are correctly performed. Go on without doing anything for the error message.

(6) Turn the power of the DVS unit Off and On to restart up the DVS unit.

The following steps are required for installing COMM1 software when (1) the version of DVS9000-COMM1-BOOT is not "V1.3" or (2) the version of DVS9000-COMM1-APP is not "V1.4."

- (7) Open Install menu (Page 7316) once again after restarting up the DVS unit.
- (8) Press [Install] button to display a list of software copied to the compact flash memory card on the menu screen.
- (9) Moving a cursor to the following file, press [Exec] button, and then "Yes" in reply to a confirmation message.

MVS8000/DVS9000/SF (Comm1 Only) [V3.23]

- (10) File transfer begins. Press "OK" in reply to a completion message.
- (11) Turn the power of the MVS unit Off and On to restart up the DVS unit.

4.4 Installing Menu Software and Resetting up Network Configuration

Version upgrade procedure varies dependent on the panel used.

- (1) Insert a compact flash memory card to which application software is copied, into the memory card adaptor.
- (2) Press buttons ENG SETUP>System>Install in that order to open Install menu (Page7316).
- (3) Press [Install] button to display a list of software copied to the compact flash memory card on the menu screen.
- (4) Choose software out of the following two types based on the panel to version upgrade. Move a cursor to the software file to install. Press [Exec] button, and then "Yes" in reply to a confirmation message.

For upgrading the MKS-8010/CCP-9000 to V3.22

MENU CPU (for upgrade from V1.30 or later)

For upgrading the MKS-8010A to V3.22

MENU CPU MKS8010A (for full install)

- (5) File transfer begins. Press "OK" in reply to a completion message.
- (6) Press the menu number display at the upper-left corner of the menu screen to obtain the popup screen for inputting the menu number.
- (7) Input "9999" to display Engineering Menu.
- (8) Press [Reboot Panel] button to restart up the control panel.
 - * You may turn the power of the SCU unit Off and On to restart up the SCU unit, instead of the above steps from (6) to (8). However, we suggest you take the above steps.
 - ❖ When upgrading the MKS-8010 and CCP-9000, it is suggested for improving the performance stability, that OS version is upgraded in accordance with the following steps...
- (9) Press buttons ENG SETUP>System>Install in that order to open Install menu (Page7316).
- (10) Press [Install] button to display a list of software copied to the compact flash memory card on the menu screen.
- (11) Move a cursor to the following file. Press [Exec] button, and then "Yes" in reply to a confirmation message.

MENU Kernel OS (for V3.22 or later)

- (12) File transfer begins. Press "OK" in reply to a completion message.
- (13) Press the menu number display at the upper-left corner of the menu screen to obtain the popup screen for inputting the menu number.
- (14) Input "9999" to display Engineering Menu.
- (15) Press [Reboot Panel] button to restart up the control panel.
 - ❖ If the software version is V3.11 in the system using the MKS-8010A, install software for coping with FTP troubles in accordance with the following steps.
- (9) Press buttons ENG SETUP>System>Install in that order to open Install menu (Page7316).
- (10) Press [Install] button to display a list of software copied to the compact flash memory card on the menu screen.
- (11) Move a cursor to the following file. Press [Exec] button, and then "Yes" in reply to a confirmation message.
 - MENU CPU MKS8010A (for upgrade from V3.11)
- (12) File transfer begins. Press "OK" in reply to a completion message.
- (13) Press the menu number display at the upper-left corner of the menu screen to obtain the popup screen for inputting the menu number.
- (14) Input "9999" to display Engineering Menu.
- (15) Press [Reboot Panel] button to restart up the control panel.
 - ❖ When required installation is complete, take the following steps.
- (1) When the menu is redisplayed, press buttons ENG SETUP>System>Network Config in that order to open Network Config menu (Page 7311).
- (2) Press [Auto Config] button, and then "Yes" in reply to a confirmation message.
- (3) Verify that connected equipment is all displayed on the menu, and then press [Define] button.
- (4) Press "Yes" in reply to a confirmation message.

4.5 Installing Panel Software

Version upgrade procedure varies dependent on the panel used.

- (1) Press buttons ENG SETUP>System>Start Up in that order to open Start Up menu (Page7314).
- (2) Move a cursor to PNL1 and Press [Custom] of Set Up Mode and [Factory] of Setup in that order.
- (3) Press [Exec] button, and then "Yes" in reply to a confirmation message. Up to this point, Start Up mode of Setup is set to "Factory".
- (4) Insert a compact flash memory card to which application software is copied, into the memory card adaptor.
- (5) Press buttons ENG SETUP>System>Install in that order to open Install menu (Page7316).
- (6) Press [Install] button to display a list of software copied to the compact flash memory card on the menu screen.
- (7) Choose software out of the following two types based on the panel to version upgrade. Move a cursor to the software file to install. Press [Exec] button, and then "Yes" in reply to a confirmation message.

For upgrading the MKS-8010/CCP-9000 to V3.23

MKS8010/CCP9000 PNL CTRL *Upgrade*

For upgrading the MKS-8010A to V3.23

MKS8010A PNL CTRL *Upgrade*

- (8) File transfer begins. Press "OK" in reply to a completion message.
- (9) Turn the power of the SCU unit Off and On to reboot the SCU unit.
 - * Rebooting the SCU unit in the step (9) is required for installing the SCU software. Be sure to do it.

4.6 Installing DME (MVE) Software

- (1) Insert a compact flash memory card to which application software is copied, into the memory card adaptor.
- (2) Press buttons ENG SETUP>System>Install in that order to open Install menu (Page7316).
- (3) Press [Install] button to display a list of software copied to the compact flash memory card on the menu screen.
- (4) Choose either of the following software according to the DME unit, and move a cursor to the software file for installation. Press [Exec] button, and then "Yes" in reply to a confirmation message.

For upgrading the BKDS-9470 to V3.10: BKDS-9470 [V3.10] For upgrading the MVE-9000 to V3.23: MVE-9000 [V3.23]

- (5) File transfer begins. Press "OK" in reply to a completion message.
- (6) Turn Off/On the power of the DVS-9000/SF unit for the BKDS-9470 or that of the MVE-9000 unit for the MVE-9000, to restart up the unit.
 - When the MVE-9000 is upgraded from V2.xx, go on to the following step (7), after starting up the unit, because pattern for Texture Lighting is not yet installed by this step. (The installation is required twice.) The step (7) is not required if the MVE-9000 is upgraded from V3.00 or higher.
 - ❖ When the BKDS-9470 is upgraded from V1.42, go on to the following step (7), after starting up the unit, because pattern for Texture Lighting is not yet installed by this step. (The installation is required twice.) The step (7) is not required if the BKDS-9470 is upgraded from V3.00 or higher.
- (7) Install the MVE-9000 or BKDS-9470 software once again by repeating the above steps from (2)
 - ❖ When the file transfer is complete, an error message may appear saying that some file transfer is skipped. However, you may disregard it because the version upgrade itself is completed successfully. Verify the version (step 4.10 below) to be sure.

4.7 Installing DCU Software (This is not required if the version is V3.00)

- (1) Insert a compact flash memory card to which application software is copied, into the memory card adaptor.
- (2) Press buttons ENG SETUP>System>Install in that order to open Install menu (Page7316).
- (3) Press [Install] button to display a list of software copied to the compact flash memory card on the menu screen.
- (4) Move a cursor to DCU program. Press [Exec] button, and then "Yes" in reply to a confirmation message.
- (5) File transfer begins. Press "OK" in reply to a completion message.
- (6) Turn the power of the DCU unit Off and On to restart up the DCU unit.

4.8 Clearing Memory and Re-Starting Up

- (1) Press buttons ENG SETUP>System>Initialize in that order to open Initialize menu (Page7315).
- (2) Move a cursor to SWR1 and press [All Clear] button.
- (3) Similarly, move a cursor to PNL1 and press [All Clear] button
- (4) Press [Exec] button, and then "Yes" in reply to a confirmation message.

4.9 Initializing Flash Memory

- (1) Press buttons ENG SETUP>System>Start Up in that order to open Start Up menu (Page7314).
- (2) Move a cursor to SWR1. Press [Setup Define] button, and then "Yes" in reply to a confirmation message.
- (3) Similarly, press [Initial Status Define] button, and then "Yes" in reply to a confirmation
- (4) Move a cursor to PNL1. Press [Setup Define] button, and then "Yes" in reply to a confirmation message.
- (5) Similarly, press [Initial Status Define] button, and then "Yes" in reply to a confirmation message.

4.10 Setting Up System Configuration (For a case of one each of DVS, MVE and Panel)

- (1) Press buttons ENG SETUP>System>System Config. in that order to open System Config. menu (Page7312).
- (2) Verify that [Single Proc] button is selected at System Operation Mode Group. If it is not selected, press the button.
- (3) Press [Panel Assign] button to display Panel Assign menu (Page 7312.1).
- (4) Verify that [SWR1] button is selected at 1st Switcher Group. If [SWR2] button is selected, press [SWR1] button. Press [SWR2] button to turn off the light (not selected) as [SWR2] is selected at 2nd Switcher group. (The 2nd switcher is non-existent.) Verify that [Network Master], and [Tally Master] buttons are all illuminated. If not, press the button to illuminate them.
- (5) Press [System Config] button using Function key to display again System Config menu (Page7312)
- (6) Press [Switch Assign] button to display Switch Assign menu (Page 7312.2)
- (7) Verify that a cursor points to SWR1. If it does not, move it to SWR1.
- (8) Verify that [DME1] button is selected at 1st DME Group. If other DME is selected, press [DME1] button. Next, press [DME] button selected at 2nd DME group to turn off the light. All [DME] buttons at 2nd DME group are not selected. (The 2nd DME is non-existent.)
- (9) Press [System Config] button using Function key to display again System Config menu. (Page7312)
- (10) Press [Exec] button. A popup menu appears to show setting progress. Upon completion of the setting, the popup menu disappears automatically. (About 15 seconds)

As a result, the setting is as follows; System Operation Mode=Single Proc 1st Switcher = SWR12nd Switcher =none

SWR1 DME = DME1 only

4.11 Verifying Versions

- * The software version upgrade is completed. To make sure that the installation is done successfully, verify the software version as follows;
- (1) Press buttons ENG SETUP>System>Install in that order to open Install menu (Page7316).
- (2) Verify that the software version for each unit is as follows;

Menu: Version 3.22 (Jul.09.2004 15:27): For the MKS-8010/CCP-9000

Menu: Version 3.22 (Jul.09.2004 15:35): For the MKS-8010A

PNL1: Version 3.23 (Jul.15.2004 10:00): For the MKS-8010/CCP-9000

PNL1: Version 3.23 (Jul.15.2004 10:00): For the MKS-8010A

SWR1: Version 3.23 (Jul.15.2004 23:22)

DME1:Version 3.10 (Jul.26.2004 16:01): For the BKDS-9470 DME1:Version 3.23 (Aug.13.2004 12:00): For the MVE-9000

DCU1: Version 3.00 (Oct.3.2003 18:21)

- ❖ Date and time may vary. No problem occurs as long as the version number is correct.
- The version shown here is that for application software for each unit. The installation is complete as long as the version is as shown above. However, to be sure verify the software detail information installed in each of the unit as follows;
- (3) Move a cursor to "Menu" and press [Detail Information] button to show a software list. Verify the software as follows. Verify the same for other units.

Menu (MKS-8010/CCP-9000)

| Software | Version |
|------------------|----------------------------------|
| MKS8010-MENU-GUI | Version 3.22 (Jul.09.2004 15:27) |
| MKS8010-MENU-IF | Version 3.22 (Jul.09.2004 15:27) |

Menu (MKS-8010A)

| 1.10110 (1.1110 001011) | |
|-------------------------|----------------------------------|
| Software | Version |
| MKS8010A-MENU-GUI | Version 3.22 (Jul.09.2004 15:35) |
| MKS8010A-MENU-IF | Version 3.22 (Jul.09.2004 15:35) |

❖ Date and time of the version may vary. No problem occurs as long as the version number is correct.

PNL (For the MKS-8010)

| Software | Version |
|-------------------------|----------------------------------|
| MKS8010-CTRL-MAIN-BOOT | Version 1.10 (Dec.14.2001 15:57) |
| MKS8010-CTRL-MAIN-APP | Version 3.23 (Jul.15.2004 12:00) |
| MKS8010-CTRL-COMM1-BOOT | Version 1.3 (Mar.18.2003 22:10) |
| MKS8010-CTRL-COMM1-APP | Version 1.3 (Mar.18.2003 22:10) |
| MKS8010-CTRL-COMM2-BOOT | Version 1.3 (Mar.18.2003 22:10) |
| MKS8010-CTRL-COMM2-APP | Version 1.3 (Mar.18.2003 22:10) |

PNL (For the MKS-8010A)

| Software | Version |
|-------------------------|----------------------------------|
| MKS8010A-CTRL-MAIN-BOOT | Version 1.20 (Mar.24.2004 10:48) |
| MKS8010A-CTRL-MAIN-APP | Version 3.23 (Jul.15.2004 12:00) |
| MKS8010A-CTRL-COMM1-BOO | Version 1.00 (Feb.25.2004 20:48) |
| MKS8010A-CTRL-COMM1-APP | Version 2.00 (Apr.7.2004 11:28) |
| MKS8010A-CTRL-COMM2-BOO | Version 1.00 (Feb.25.2004 20:48) |
| MKS8010A-CTRL-COMM2-APP | Version 2.00 (Apr.7.2004 11:28) |

PNL (For the CCP-9000)

| Software | Version |
|--------------------------|----------------------------------|
| CCP-9000-CTRL-MAIN-BOOT | Version 1.10 (Dec.14.2001 15:57) |
| CCP-9000-CTRL-MAIN-APP | Version 3.23 (Jul.15.2004 12:00) |
| CCP-9000-CTRL-COMM1-BOOT | Version 1.3 (Mar.18.2003 22:10) |
| CCP-9000-CTRL-COMM1-APP | Version 1.3 (Mar.18.2003 22:10) |
| CCP-9000-CTRL-COMM2-BOOT | Version 1.3 (Mar.18.2003 22:10) |
| CCP-9000-CTRL-COMM2-APP | Version 1.3 (Mar.18.2003 22:10) |

❖ Date and time of the version may vary. No problem occurs as long as the version number is correct.

SWER

| BVER | | | | | |
|----------------------|----------------------------------|--|--|--|--|
| Software | Version | | | | |
| DVS9000-MAIN-BOOT | Version 3.23 (Aug.13.2004 13:36) | | | | |
| DVS9000-MAIN-APP | Version 3.23 (Aug.13.2004 13:40) | | | | |
| DVS9000-COMM2-BOOT | Version 3.23 (Aug.13.2004 13:37) | | | | |
| DVS9000-COMM2-APP | Version 3.23 (Aug.13.2004 13:40) | | | | |
| DVS9000-XPT-BOOT | Version 3.23 (Aug.13.2004 13:36) | | | | |
| DVS9000-XPT-APP | Version 3.23 (Aug.13.2004 13:41) | | | | |
| DVS9000-OUTPROC-BOOT | Version 3.23 (Aug.13.2004 13:36) | | | | |
| DVS9000-OUTPROC-APP | Version 3.23 (Aug.13.2004 13:41) | | | | |
| DVS9000-OUTPROC-FPGA | Version 2.00 (Apr.22.2003 12:16) | | | | |
| DVS9000-FM-BOOT | Version 3.23 (Aug.13.2004 13:36) | | | | |
| DVS9000-FM-APP | Version 3.23 (Aug.13.2004 13:41) | | | | |
| DVS9000-FM-FPGA | Version 2.10 (Sep.05.2003 09:22) | | | | |
| DVS9000-ME3-BOOT | Version 3.23 (Aug.13.2004 13:36) | | | | |
| DVS9000-ME3-APP | Version 3.23 (Aug.13.2004 13:41) | | | | |
| DVS9000-ME3-FPGA | Version 3.00 (May.21.2004 12:39) | | | | |
| or Note ¹ | Version 3.00 (May.21.2004 13:28) | | | | |
| DVS9000-ME3-SOLID | Version 1.00 (Jul.10.2001 13:52) | | | | |
| DVS9000-ME2-BOOT | Version 3.23 (Aug.13.2004 13:36) | | | | |
| DVS9000-ME2-APP | Version 3.23 (Aug.13.2004 13:41) | | | | |
| DVS9000-ME2-FPGA | Version 3.00 (May.21.2004 12:39) | | | | |
| or Note ¹ | Version 3.00 (May.21.2004 13:28) | | | | |
| DVS9000-ME2-SOLID | Version 1.00 (Jul.10.2001 13:52) | | | | |
| DVS9000-ME1-BOOT | Version 3.23 (Aug.13.2004 13:36) | | | | |
| DVS9000-ME1-APP | Version 3.23 (Aug.13.2004 13:41) | | | | |
| DVS9000-ME1-FPGA | Version 3.00 (May.21.2004 12:39) | | | | |
| or Note ¹ | Version 3.00 (May.21.2004 13:28) | | | | |
| DVS9000-ME1-SOLID | Version 1.00 (Jul.10.2001 13:52) | | | | |
| DVS9000-PP-BOOT | Version 3.23 (Aug.13.2004 13:36) | | | | |
| DVS9000-PP-APP | Version 3.23 (Aug.13.2004 13:41) | | | | |
| DVS9000-PP-FPGA | Version 3.00 (May.21.2004 12:39) | | | | |
| or Note ¹ | Version 3.00 (May.21.2004 13:28) | | | | |
| DVS9000-PP-SOLID | Version 1.00 (Jul.10.2001 13:52) | | | | |
| DVS9000-COMM1-BOOT | Version 1.3 (Mar.18.2003 22:10) | | | | |
| DVS9000-COMM1-APP | Version 1.4 (Jul.07.2003 15:26) | | | | |

- ❖ Date and time of the version may vary. No problem occurs as long as the version number is correct.
- ❖ The above is an example of the DVS-9000 with all option boards installed. No information on an option board is displayed if it is not installed.

 ❖ Note ¹ – For the MIX-46 board with board P/N suffix -12

DME (For the BKDS-9470)

| Software | Version |
|----------------------|----------------------------------|
| BKDS-9470-MAIN-BOOT | Version 1.50 (Jul.26.2004 15:55) |
| BKDS-9470-MAIN-APP | Version 3.10 (Jul.26.2004 16:01) |
| BKDS-9470-COMM1-BOOT | Version 1.50 (Jul.26.2004 15:58) |
| BKDS-9470-COMM1-APP | Version 3.10 (Jul.26.2004 15:58) |
| BKDS-9470-COMM2-BOOT | Version 1.50 (Jul.26.2004 15:59) |
| BKDS-9470-COMM2-APP | Version 3.10 (Jul.26.2004 16:00) |
| BKDS9470-DVP1-BOOT | Version 1.50 (Jul.26.2004 15:55) |
| BKDS9470-DVP1-APP | Version 3.10 (Jul.26.2004 15:54) |
| BKDS9470-DVP2-BOOT | Version 1.50 (Jul.26.2004 15:55) |
| BKDS9470-DVP2-APP | Version 3.10 (Jul.26.2004 15:54) |

DME (For the MVE-9000)

| Software | Version |
|--------------------|----------------------------------|
| MVE9000-MAIN-BOOT | Version 1.10 (Feb.6.2004 17:19) |
| MVE9000-MAIN-APP | Version 3.23 (Aug.13.2004 15:05) |
| MVE9000-COMM1-BOOT | Version 1.10 (Feb.6.2004 17:21) |
| MVE9000-COMM1-APP | Version 3.23 (Aug.13.2004 15:02) |
| MVE9000-COMM2-BOOT | Version 1.11 (May.5.2004 13:45) |
| MVE9000-COMM2-APP | Version 3.23 (Aug.13.2004 15:03) |
| MVE9000-VIF-BOOT | Version 1.10 (Feb.6.2004 17:19) |
| MVE9000-VIF-APP | Version 3.23 (Aug.13.2004 14:56) |
| MVE9000-DVP1-BOOT | Version 1.10 (Feb.6.2004 17:19) |
| MVE9000-DVP1-APP | Version 3.23 (Aug.13.2004 14:56) |
| MVE9000-DVP2-BOOT | Version 1.10 (Feb.6.2004 17:19) |
| MVE9000-DVP2-APP | Version 3.23 (Aug.13.2004 14:56) |
| MVE9000-DVP3-BOOT | Version 1.10 (Feb.6.2004 17:19) |
| MVE9000-DVP3-APP | Version 3.23 (Aug.13.2004 14:56) |
| MVE9000-DVP4-BOOT | Version 1.10 (Feb.6.2004 17:19) |
| MVE9000-DVP4-APP | Version 3.23 (Aug.13.2004 14:56) |
| MVE9000-DVP5-BOOT | Version 1.10 (Feb.6.2004 17:19) |
| MVE9000-DVP5-APP | Version 3.23 (Aug.13.2004 14:56) |
| MVE9000-DVP6-BOOT | Version 1.10 (Feb.6.2004 17:19) |
| MVE9000-DVP6-APP | Version 3.23 (Aug.13.2004 14:56) |
| MVE9000-DVP7-BOOT | Version 1.10 (Feb.6.2004 17:19) |
| MVE9000-DVP7-APP | Version 3.23 (Aug.13.2004 14:56) |
| MVE9000-DVP8-BOOT | Version 1.10 (Feb.6.2004 17:19) |
| MVE9000-DVP8-APP | Version 3.23 (Aug.13.2004 14:56) |

- ❖ Date and time of the version may vary. No problem occurs as long as the version number is correct.
- ❖ The above is an example of the MVE9000 with all option boards installed. No information on the DVP board is displayed if it is not installed. Two kinds of the software are required for one piece of the DVP board. Therefore, eight kinds of the software from DVP1 to DVP8 are prepared for four-piece configuration of the DVP board.

4.12 Downloading Saved Data

- (1) Insert the compact flash memory card to which data is saved at Step 4.2, into the memory card adaptor.
- (2) Press buttons File > All/Directory in that order to display File menu (Page7171). Then, press [Load], [Memory Card], [Setup], and [Initial Status] buttons in that order. If other saved data is existent, press that button too to choose it.
- (3) Press [Exec] button, and then "Yes" in reply to a confirmation message.
- (4) Remove the compact flash memory card upon completion of downloading.
 - Performing the above four steps writes the initial status data into the compact flash memory card.

4.13 Writing Setup Data into Flash Memory Card

- (1) Press buttons ENG SETUP>System>Start Up in that order to display Start Up menu (Page7314).
- (2) Move a cursor to SWR1. Press [Setup Define] button, and then "Yes" in reply to a confirmation message.
- (3) Similarly, move a cursor to PNL1. Press [Setup Define] button, and then "Yes" in reply to a confirmation message.
- (4) Similarly, move a cursor to DME1. Press [Setup Define] button, and then "Yes" in reply to a confirmation message.

4.14 Changing Start Up Mode of Control Panel

- (1) Press buttons ENG SETUP>System>Start Up in that order to display Start Up menu (Page7314).
- (2) Move a cursor to PNL1. Change the setting of Start Up Mode and Setup to that before "Factory", using [4.5 Installing Panel Software].
- (3) Press [Exec] button, and then "Yes" in reply to a confirmation message.
 - ❖ Performing the above three steps returns Start Up Mode to the status before the version upgrade.

The version upgrade is complete. However, continue upgrading if functions supported newly with V3.23 are set up.

After the setting, be sure to write setup data into a flash memory card as User Setup in a similar manner to Step 4.11.

In addition, Setup Data and Initial Status Data saved before the version upgrade in the built-in HDD or a flash memory card, must be re-saved as new data including newly supported functions. Save the data after the version upgrade in a similar manner to Step 4.2.

Signal format does not change due to the version upgrade. However, verify that signal format and Reference Input are correctly set up.

5. Compatibility with Former Version

No compatibility problem occurs with the files (setup, snapshot, key frame, etc) of V1.10 or higher.

6. Software Version History

| Data | Tech Memo No. | DVS | PANEL | MENU | BKDS- | MVE- | DCU- |
|--------|------------------|----------|---------------|------------|--------------|------------|---------------------|
| | | | Non-A/A | Non-A/A | 9470 | 9000 | 8700/2700 |
| '02.09 | Official Release | V1.30 | V1.30 | V1.30 | - | | V1.30 |
| '02.11 | SWEM02-029 | V1.35 | V1.35 | V1.35 | - | | V1.31 |
| '02.12 | *1 | | \rightarrow | \uparrow | V1.36 | | ↑ |
| '03.01 | *2 | V1.37 | ↑ | \uparrow | ↑ | | \uparrow |
| '03.03 | SWEM03-010 | V2.00 | V2.00 | V2.00 | V1.40 | | V2.00 |
| '03.04 | SWEM03-017 | V2.10 | V2.10 | V2.10 | V1.41 | | V2.10 |
| '03.05 | SWEM03-021 | V2.20.1 | V2.20 | V2.20 | V1.42 | | \uparrow |
| '03.06 | SWEM03-026 | V2.21 | V2.21 | V2.21 | ↑ | | ↑ |
| '03.06 | *3 | ↑ | ↑ | ↑ | ↑ | V2.21 | ↑ |
| '03.08 | SWEM03-031 | V2.22 | <u>V2.23</u> | V2.22 | <u>V1.43</u> | V2.22 | ↑ |
| '03.10 | SWEM03-037 | V3.00 | V3.00 | V3.00 | 1 | V3.00 | V3.00 |
| '03.11 | SWEM03-044 | ↑ | ↑ | ↑ | V3.01 | \uparrow | ↑ |
| '04.02 | SWEM04-005 | V3.10 | V3.10 | V3.10 | ↑ | V3.10 | ↑ |
| '04.03 | SWEM04-010 | ↑ | ↑ | V3.11 | ↑ | V3.11 | ↑ |
| '04.03 | *4 | ↑ | ↑/V3.10 | ↑/V3.11 | ↑ | \uparrow | ↑ |
| '04.06 | SWEM04-019 | V3.20 | V3.20 | V3.21 | ↑ | \uparrow | \uparrow |
| '04.06 | *5 | ↑ | ↑ | ↑ | ↑ | \uparrow | ↑/V3.20 |
| '04.07 | SWEM04-026 | V3.22 | V3.22 | V3.22 | ↑ | V3.22 | ↑/↑ |
| '04.08 | SWEM04-028 | ↑ | ↑ | ↑ | 3.10 | ↑ | ↑ |
| '04.08 | | V3.23 | V3.23 | V3.23 | 1 | V3.23 | ↑ / ↑ |

^{*1:} BKDM-9470 official shipment

^{*2:} OUT-26A board supporting BZS-9250 (Simple PP Software)
*3: MVE-9000 official shipment

^{*4:} MKS-8010A official shipment

^{*5:} MKS-2700 official shipment