

Digital Audio Mixer

SUPPLEMENT

Software Version 2.1

Software Version 2.2

Manual to be supplemented

DMX-R100 Operating Instructions (Part No. 3-868-264-13)

DMX-R100

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How to Use This Supplement

The DMX-R100 software had been updated from Version 2.0 to Version 2.1 to enable use of the optional DMBK-R109 MADI board. Subsequently, it was updated to Version 2.2 to improve the control link between two DMX-R100s connected in cascade mode, operation of the fader group and so on.

This supplement provides information to help update the DMX-R100 software to Version 2.1 or later, descriptions of changes/additions to the specifications made in the DMX-R100 and information on the function of the optional DMBK-R109 MADI board

and how to use it. also provided are the corrections to the Operating Instructions (Part No. 3-868-264-13 (1)).

For conventional functions that will not be affected by the software update, refer to the Operating Instructions (Part No. 3-868-264-13 (1)).

What You Need to Use the Optional DMBK-R109 MADI Board

Updating the DMX-R100 Software of the Console

You can use the optional DMBK-R109 MADI board only with DMX-R100, Version 2.1 or later. Be sure to confirm that the software version displayed when you start the console is Version 2.1 or later before using the DMBK-R109.

- If the version information displayed indicates Version 2.0, update the software using the APPLICATION UPDATE 2.x disk, referring to “Updating the DMX-R100 Software” on page 5.
- When the version you have is Version 1.x, it is necessary to update the software to Version 2.0 first, then to Version 2.1 because the system files of Version 2.0 are different from those of Version 1.x. To update the system from Version 1.0 to 2.0, purchase the V2.0 update kit (not supplied) and update the system to Version 2.0 using the SYSTEM UPDATE 2.0 disk provided with the V2.0 update kit first. Then, update the system to Version 2.1 using the APPLICATION UPDATE 2.x disk supplied with the DMBK-R109.

Contact with your nearest Sony dealer to purchase the V2.0 Update Kit and the latest APPLICATION UPDATE.

For detailed information on how to update the system to Version 2.0, refer to “Updating the DMX-R100 Version” on page 98 in the Operating Instructions for the DMX-R100 (Part No. 3-868-264-13 (1)).

After you have updated the system to Version 2.0, you can reinstall either Version 1.1x or Version 2.x at any time.

Compatibility of Titles

- You can use a title saved using the Version 2.0 console with Version 2.1.
- You can use a title saved using the Version 2.1 console with Version 2.0. However, settings related to the DMBK-R109 are ignored and input and output connections to the DMBK-R109 are treated as NC (NO CONNECTION). Also, the setting of MANUAL GROUP of Version 2.2 is cleared.
- A title saved using the Version 1.x console is not compatible with a title saved using the Version 2.x console. If you try to load a title saved using Version 1.x from the flash memory to the Version 2.x console, a title error occurs and the title saved using Version 1.x is automatically lost.
- If you try to recall a title saved using Version 2.x from the Version 1.x console, a title error occurs and you cannot use that title. Also, if you try to load a title saved using Version 2.x from the flash memory to the Version 1.x console, a title error occurs and the title saved using Version 2.x is automatically lost.

Updating the DMX-R100 Software

1 Confirm that you have the update files, “APPLICATION UPDATE 2.1x” on the DOS-formatted floppy disk.

2 Connect a PS/2 keyboard (not supplied) to the console and turn on the power of the console. The start-up window opens.

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3 Press the ESC key on the external keyboard a few times until the dialogue “Loading now.....” appears in white on a blue screen.

When the console system enters the software update mode, the dialogue “Will you update this system? (y/n)” appears.

4 To execute the update, press “y” on the keyboard.

If you enter this mode by mistake, press “n.”
When you press “n,” the system starts as usual.

WARNING

Never press “y” without having prepared the update floppy disk beforehand. If a DMX-R100 executes the update operations without the correct update disk, the console software files may be damaged and the console may not work properly.

When you press “y,” the message “Insert the floppy disk and press any key.” appears.

5 Insert the “APPLICATION UPDATE 2.1x” disk into the floppy disk drive on the console, and press the space bar on the keyboard. The specifics of the update and the “This updater is ...OK? (y/n)” message appear.

6 Confirm the information on the screen, then;

- press “y” on the keyboard, to start the update.
- if the screen shows incorrect information or parameters, press “n” to cancel the update operation.

When you press “y,” the update programs are decompressed, and the disk files are installed in order, with the process showing on the screen.

When a DMX-R100 system has been updated, the message “Update for XXXX completed. Remove your floppy disk and press any key...” appears.

7 Remove the floppy disk and press the space bar on the keyboard.

8 When the message “Stand-by...” appears, turn the power of the console OFF once. Wait more than 10 seconds, then turn the power ON again.

The DMX-R100 will now run using Version 2.1x of the software.

Note

After the DMX-R100 software has been updated, the calibration data of the fader is reset to the default settings. Thus, after finishing a software update, calibrate the fader position.

For detailed information on how to calibrate the fader position, refer to page 96 in the Operating Instructions.

Inserting the DMBK-R109 into the Console

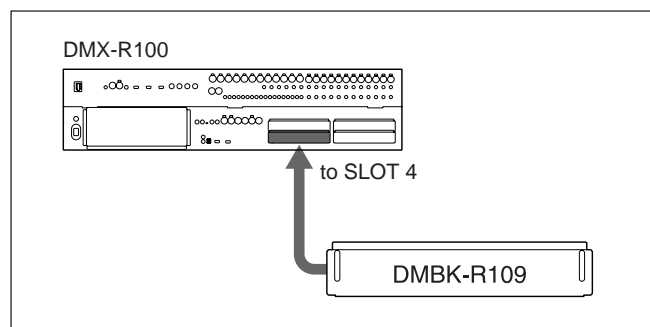
Be sure to insert the optional DMBK-R109 MADI board into SLOT 4 of the console.

Contact your nearest Sony dealer for assistance when adding the board.

Note

Be sure to turn the power of the console off before inserting an optional board into a slot.

Failing to do so results in the cause of console or optional board malfunction.



Addition and Changes in the New Version

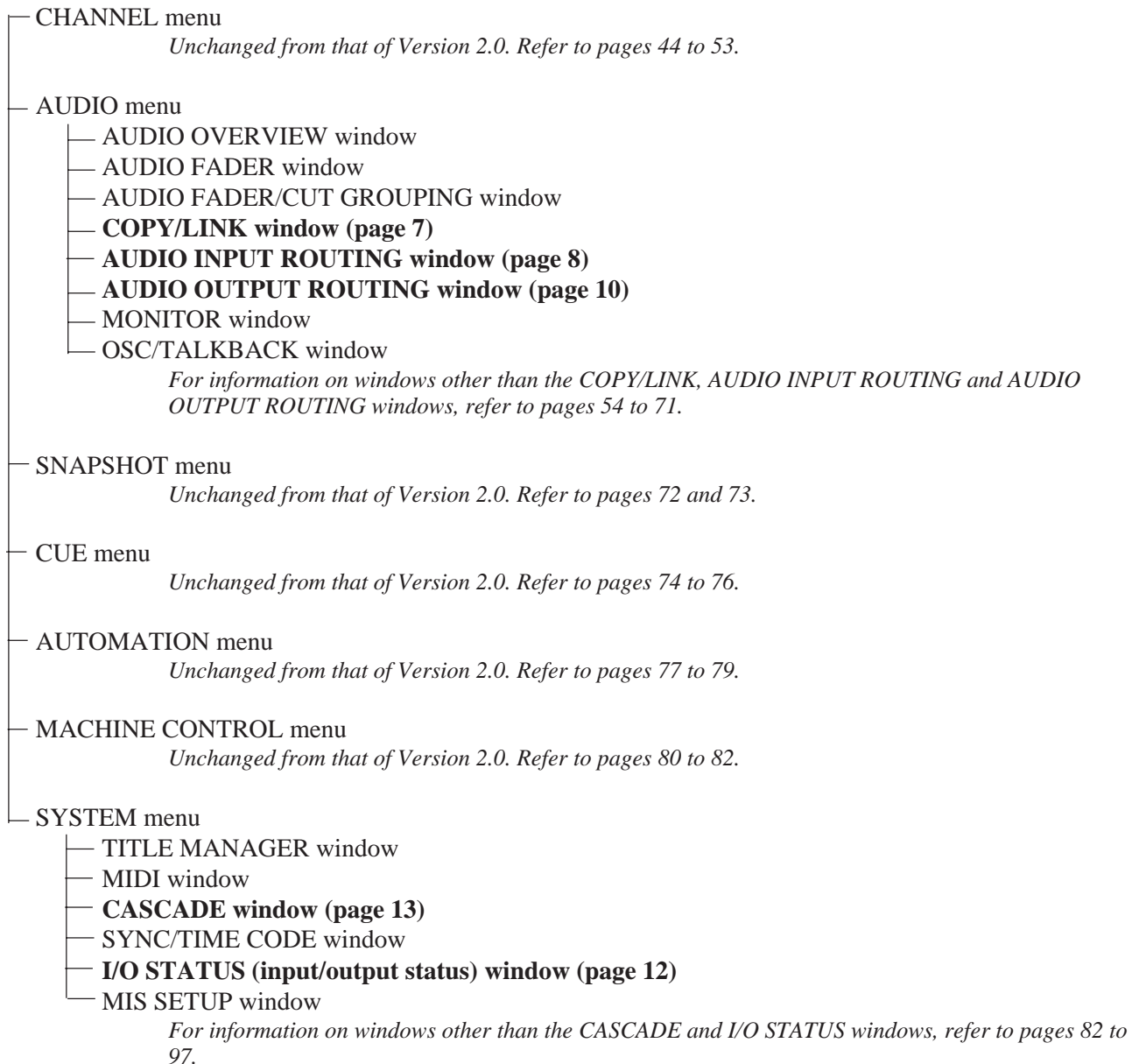
Menu Structure of the Version 2.1

The window-based operating menus of Version 2.1 are organized in the following structure.

In Version 2.1, the COPY/LINK window, the AUDIO INPUT ROUTING window, the AUDIO OUTPUT ROUTING window and the I/O STATUS window have been changed. The CASCADE window has been added.

For detailed information on each menu, refer to the pages indicated in parentheses. For menus and windows that are the same as those of Version 2.0, refer to pages 38 to 97 in the Operating Instructions.

Menus for controlling and monitoring the mixer



Changes on the Menu Bar

The serial communication error display in Cascade mode has been added to the menu bar. Other functions

are the same as those of Version 2.0. Refer to pages 38 to 42 in the Operating Instructions.



Serial communication error display

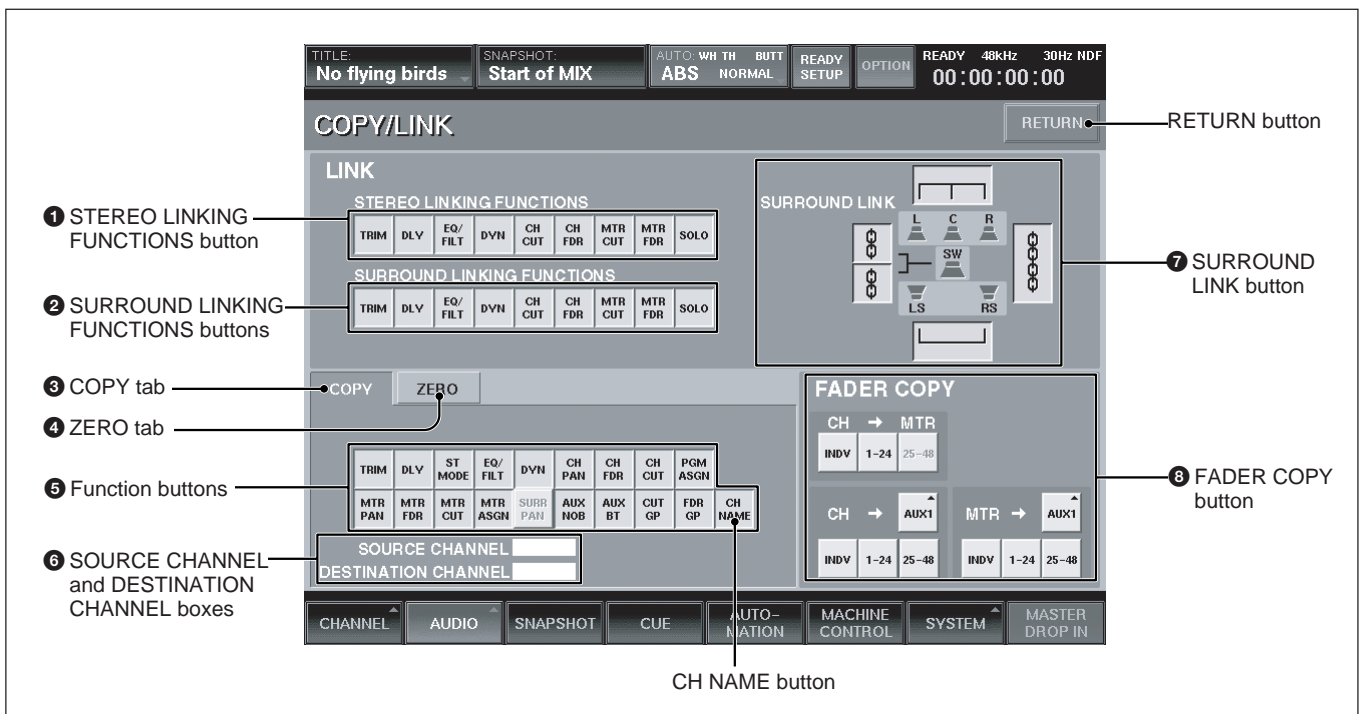
When the console is used as a cascade master unit or a cascade sub unit, SIO ERR is displayed in red on the error display area if any error occurs in communications using the PC port. Also, the

CASCADE window has been added to the SYSTEM button on the bottom menu bar when the DMBK-R109 is inserted.

Changes in the COPY/LINK Window

The CH NAME button has been added to the function buttons **5**.

Buttons **1** to **4** and buttons **6** to **8** are the same as those of Version 2.0. For details on these buttons, refer to pages 59 to 62 in the Operating Instructions.



CH NAME button

When this button is lit in green, you can copy the channel name and also execute the “Zero” function.

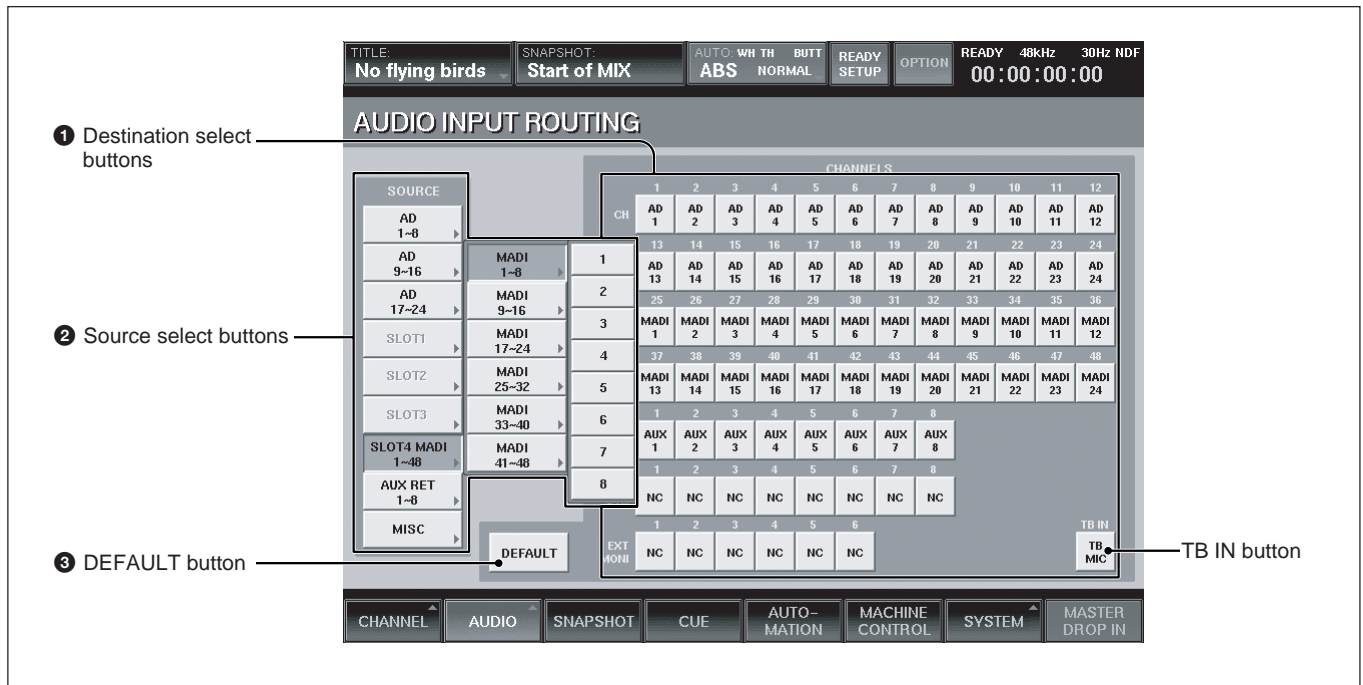
When the “Zero” function has been executed, the corresponding channel name has been cleared.

Addition and Changes in the New Version

Changes in the AUDIO INPUT ROUTING Window

The functions of the source select buttons ❷ and the DEFAULT button ❸ have been changed. The

functions of Destination select buttons ❶ are the same as those of Version 2.0. Refer to page 63 in the Operating Instructions.



❷ Source select buttons

When the window opens, the blocks of the input sources are displayed. By touching the button of the selected block, the source list of the selected block or block list opens in the ► direction.

The source list of each source block is as follows:

- Blocks for AD 1 to 8 to AD 17 to 24
Each block has the source list for 8 inputs.
- Blocks for SLOT 1 to SLOT 4
Each block has the source list for 8 channels.
When the DMBK-R109 is inserted into SLOT 4, 6 blocks are included in SLOT 4 and each block has the source list for 8 channels.
- AUX RET block
This block has the source list for 8 channels.
- MISC block
Includes the lists for 2TR1-L, 2TR1-R, 2TR2-L, 2TR2-R, NC (NO CONNECTION) and TB MIC.
Touching NC opens NC8 (the adjacent 8 channels are simultaneously set to NO CONNECTION).

The display of the block list buttons corresponding to SLOT 1 to SLOT 4 depends on the board inserted.

- When a DMBK-R101 is inserted: SLOTxADC1 to 8

- When a DMBK-R102 is inserted: SLOTxDAC1 to 8
- When a DMBK-R103 is inserted: SLOTxDIO1 to 8
- When a DMBK-R104 is inserted: SLOTxSRC1 to 8
- When a DMBK-R105 is inserted: SLOTxINSERT1 to 8
- When a DMBK-R106 is inserted: SLOTxADAT1 to 8
- When a DMBK-R107 is inserted: SLOTxTDIF1 to 8
- When a DMBK-R109 is inserted: SLOT 4 MADI (A DMBK-R109 can be inserted only into SLOT 4.)
When the SLOT 4 source select button is selected on the cascade master console, the channels 1 to 24 of MADI signals input to the sub console (in Fs = 44.1 kHz or 48 kHz and in 2Fs mode, the number of channels is reduced to channels 1 to 12 of MADI signals) and the busses of the sub console are displayed and selectable.

❸ DEFAULT button

Touch this button to open the dialog box and touch OK to reset the settings of the input matrix to the default shown in the table on the next page.

Note

When a DMBK-R109 is inserted into SLOT 4, the input of the DMBK-R109 is not connected at the

default setting. When the DMBK-R109 is not inserted, the settings of input matrix are reset to the values shown in the table on page 101 in the Operating Instructions.

Default settings when the DMBK-R109 is inserted

Item	Setting
Input routing	<ul style="list-style-type: none"> • AD 1 to 24 are connected to CH-1 to CH-24. • When a DMBK-R105 is inserted in the option slot, each input channel of the DMBK-R105 is connected to insertion return 1 to 8. • When the DMBK-R101/103/104/106/107 is/are inserted, they are connected to the channels starting from the lowest slot number from CH-25 in order. • The input to the DMBK-R109 inserted into SLOT 4 is not connected.
Channel mode	Monaural
Trim setting of the input signal	0 dB
Delay amount	0 Frame, COARSE: OFF
Pan, MTR pan	Control: Center, Button: ON
Surround pan	Front center
Divergence	100 %
MTR assignment	OFF
PGM assignment	PGM L/R: ON
Equalizer	Control : Center, Button: OFF
Dynamics	Control :Center, Button: OFF, EXPANDER: Access
AUX send	Set all busses to monaural, OFF and POST
Fader group	Set all groups to GANG and OFF.
Cut	OFF
Fader	– Infinity
Output routing	<ul style="list-style-type: none"> • PGM L/R busses are connected to the PGM L/R connectors. • AUX 1 to 8 busses are connected to the AUX 1 to 8 connectors. • When a DMBK-R105 is inserted in the option slot, each output channel of the DMBK-R105 is connected to insertion send 1 to 8. • When a DMBK-R102/103/106/107 is/are inserted, MTRs 1 to 8 are connected. • The output from the DMBK-R109 inserted into the SLOT 4 is not connected.
Copy/Link function	All ON

Assigning the input source

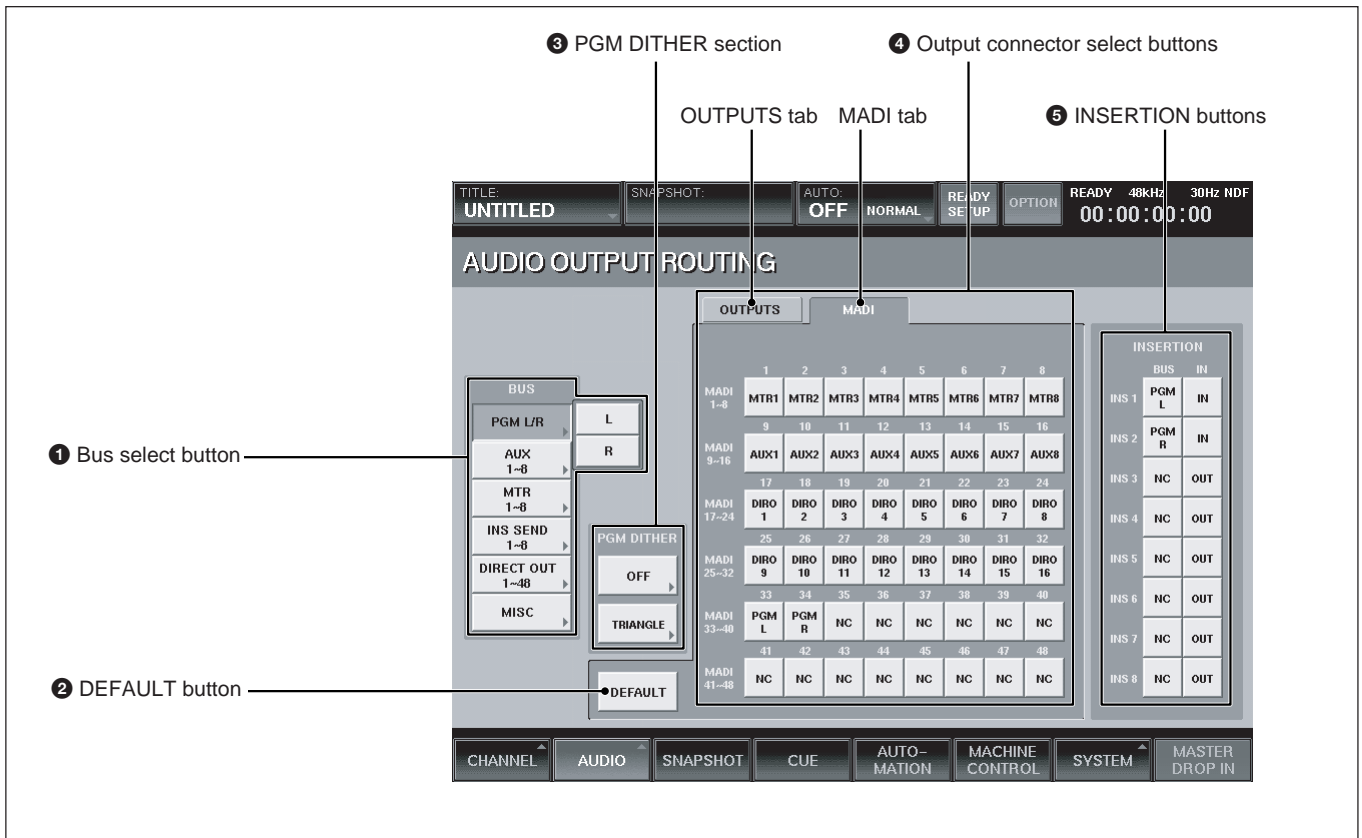
- 1 Touch the source select button corresponding to the desired block.
To select the sources by block, go to step 3.
To select a single source, touch the desired block again.
The list of sources included in the selected block opens.
- 2 Touch the desired source on the source list.
The list of the sources included in the block opens.
- 3 Touch the desired destination select button to select the destination processing channel to which the source signal is to be routed.
The source signal is routed to the proper destination processing channel.
When you select the sources by block, sources are automatically routed to the proper destination by block.
Example: When you select ANALOG IN 1 to 8 as a block, if you touch the CH-3 button, the source signals of ANALOG IN 1 to 8 are routed to CH-3 to CH-10 respectively.

Addition and Changes in the New Version

Changes in the AUDIO OUTPUT ROUTING Window

The functions of bus select buttons **1** and the DEFAULT button **2** have been changed. A MADI tab has been added to the output connector select buttons **4** when the DMBK-R109 is inserted.

The PGM DITHER section **3** and INSERTION buttons **5** are the same as those of Version 2.0. For detailed information on these buttons, refer to pages 65 and 66 in the Operating Instructions.



1 Bus select buttons

When the window opens, the blocks of the busses are displayed. By touching the bus select button of the desired bus, the bus list of the selected block opens in the ► direction.

The list of the block and its output bus list are as follows:

- PGM L/R
L and R
- AUX
This block has 8 busses (AUX 1-8).
- MTR
This block has 8 busses (MTR 1-8).
- INS SEND
This block has 8 busses (INS SEND 1-8).
- DIRECT OUT 1-8 to 41-48
Each block has 8 outputs.

• MISC

This block contains NC (NO CONNECTION), CR MONITOR 1 to 6 and ST MONITOR L/R. Touching NC opens NC 8 (the adjacent 8 outputs are simultaneously set to NO CONNECTION).

2 DEFAULT button

Touch this button to open the dialog box and touch OK to reset the settings of the output matrix to the defaults shown in the table on the previous page.

Note

When a DMBK-R109 is inserted into SLOT 4, the output of the DMBK-R109 is not connected at the default settings.

When a DMBK-R109 is not inserted, the settings of output matrix are reset as shown in the table on page 101 in the Operating Instructions.

④ Output connector select buttons

Select the output connector to which the bus block (or bus) displayed on the bus select button ① is routed.

When a DMBK-R109 is not inserted into SLOT 4, the OUTPUTS tab appears on the upper part of the screen and one of SLOT 1 to 4, AUX SEND 1-8 or PGM MONI OUT connectors is selectable.

Each of SLOT 1 to 4 has 8 output connectors.

When the DMBK-R109 is inserted into SLOT 4, the MADI tab appears and the signals can be assigned to the output channels of MADI.

On the sub console in Cascade mode, the MADI input 1 to 24 channels (in Fs = 44.1 kHz or 48 kHz) and each bus are assigned to the CASCADE outputs in pre-determined manner. Thus, even if you touch the MADI tab on the sub console, you cannot change the bus assignment.

(In 2Fs mode, the number of channels is reduced to channels 1 to 12 of MADI signals.)

Assigning the bus

- 1 Touch the bus select button corresponding to the desired bus.
 - To select the busses by block, go to step 3.
 - To select the single bus, touch that bus select button again.
 - The list of busses included in the selected block opens.
- 2 Touch the desired bus on the block list.
- 3 Touch the output connector button to route the bus signal.
 - The bus signal(s) is routed to the output connector.

When you select the busses by block, busses are automatically routed as a contiguous set of 8.

Example: When you select MTR 1 to 8 as a block, if you touch 1 button of SLOT 1, the bus signals of MTR 1 to 8 are routed to 1 to 8 connectors of SLOT 1 respectively.

Addition and Changes in the New Version

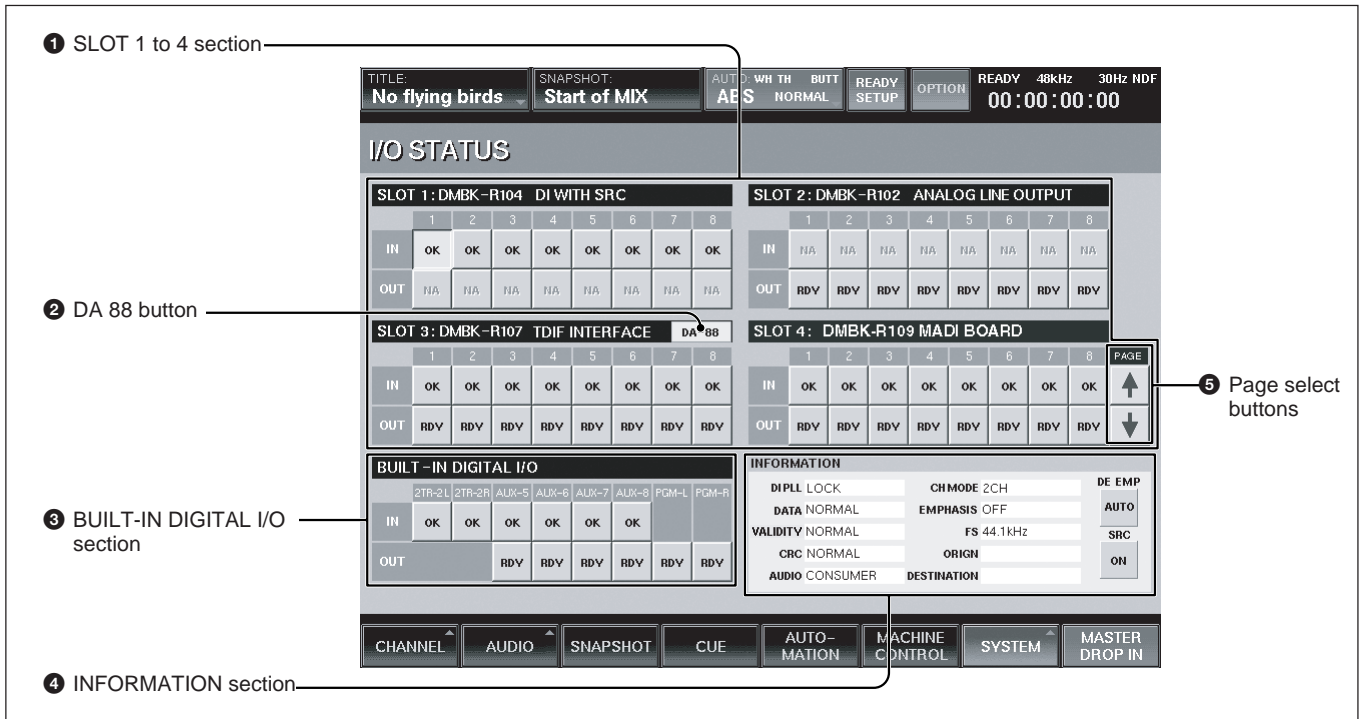
Changes in the I/O STATUS Window

Information displayed in the INFORMATION section

④ has been changed.

Also, page select buttons ⑤ have been added.

The functions of buttons ① to ③ are the same as those of Version 2.0. Refer to pages 91 to 93.



④ INFORMATION section

When your system is not configured in a cascade connection, the description of the INFORMATION section is completely the same as the one on pages 92 and 93 in the Operating Instructions.

When your system is configured in the cascade connection, the description after “VALIDITY” is changed as follows:

On the console set as the cascade master unit, “- - -” is displayed even if the IN button of SLOT 4 is selected.

Even if channels 1 to 24 of the MADI signal input to the sub console are preemphasized, the master console cannot detect this. Thus, confirm the setting on the I/O STATUS window of the sub console, and then set the DE EMP button manually as required. Only when the DE EMP button is set to ON, will the audio signal be deemphasized. However, since the bus signals output from the cascade sub console are not preemphasized, set the DE EMP button to OFF or AUTO for the channel corresponding to the bus.

Note

There are some AES/EBU or MADI devices which do not add the correct channel status to their digital audio output signals. When the console inputs those signals, errors occur on the descriptions after VALIDITY and !xxx is displayed on the IN buttons of each slot. This is not a malfunctions. (xxx indicates the abbreviation of an error item.)

Use the signals as they are, after checking that there are no audible problems with the input audio signals.

⑤ Page select buttons

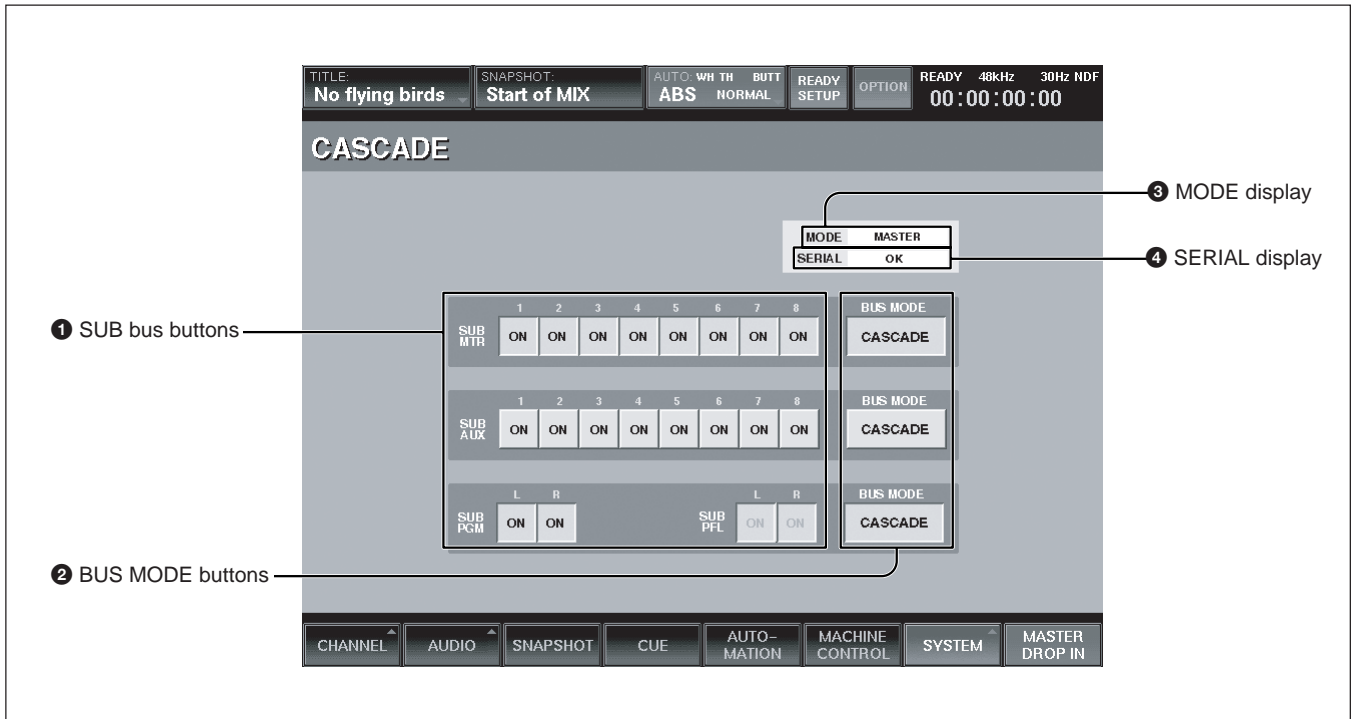
When a DMBK-R109 is inserted into SLOT 4, the page select buttons are displayed at the right side of the screen. Set these buttons as required.

CASCADE Window

This window appears only when a DMBK-R109 is inserted into SLOT 4.

To open this window, touch the SYSTEM button on the bottom menu bar, then select “CASCADE” on the menu.

This window allows you to set the cascade connection and indicates status. You can perform button settings only on the master console and on the sub console, only information on button settings are displayed.



① SUB bus buttons (SUB MTR 1-8, SUB AUX 1-8, SUB PGM L/R, SUB PFL L/R)

When the system is configured in a cascade connection, select whether or not the cascade signals output from the sub console are mixed to the bus of the master console using these buttons on the master console.

Touch the button to set it to ON or OFF.

Displayed in green (ON): Signals from the sub console are mixed.

Displayed in gray (OFF): Signals from the sub console are not mixed.

Set to ON to use the busses in Cascade mode.

Use the MTR 1-8 buttons for the MTR busses, the AUX 1-8 buttons for the AUX busses and the PGM L/R buttons for the PGM L/R busses.

The SUB PFL L/R buttons are fixed to ON when MASTER or SUB is displayed on the MODE display

③ and fixed to OFF when MADI is displayed.

On the sub console, only conditions set on the master

console are displayed and you cannot perform settings using these buttons.

When the system is not configured in a cascade connection (MADI is displayed on the MODE display), these SUB bus buttons are fixed to OFF.

Even if you touch these buttons, nothing changes.

For detailed information on the delay time between the master console and sub console, see the next page.

② BUS MODE buttons

These buttons are activated only on the master console in a cascade connection.

Selects whether or not the delay time of the bus between the sub console and master console matches.

Cascade mode (CASCADE displayed in green):

The delay time matches when the cascaded signals from the sub console are mixed to the bus of the master console. To use the MTR bus in Cascade mode, set the SUB MTR 1 to 8 buttons on the master console to ON so that the CASCADE

Addition and Changes in the New Version

button corresponding to SUB MTR 1 to 8 is displayed in green.

Separate mode (CASCADE displayed in gray): The delay time matches when the bus signal is output from the output connectors of the sub console without being in Cascade mode. To use the MTR bus without cascading it, set the SUB MTR 1 to 8 buttons to OFF on the master console so that the CASCADE button corresponding to SUB MTR 1 to 8 is displayed in gray.

On the sub console, only conditions set on the master console are displayed and you cannot perform settings using these buttons.

When the system is not configured in a cascade connection (MADI is displayed on the MODE display ③), these BUS MODE buttons are fixed to OFF. Even if you touch these buttons, nothing changes.

The BUS MODE buttons of SUB AUX and SUB PGM/SUB PFL functions in the same way for the corresponding buses.

Note

The BUS MODE buttons allow you to set the mode of the bus in units of a block such as MTR 1 to 8 or AUX 1 to 8. On the other hand, the button of each bus allows you to set the bus mode to ON or OFF in units of one bus. Thus, there are busses to be cascaded and busses not to be cascaded in the bus block; you cannot match the delay time of all buses between the sub console and master console.

③ MODE display

Indicates the operation mode of the console.

- **MADI:** Indicates that the console operates alone. The MADI input/output connectors of the DMBK-R109 receive or send the MADI signals.
- **MASTER:** The console operates as the cascade master. The MADI input connectors of the DMBK-R109 receive the CASCADE signals and the MADI output connectors send the MADI signals.
- **SUB:** The console operates as a cascade sub. The MADI input connectors of the DMBK-R109 receive the MADI signals and the MADI output connectors send the CASCADE signals.

④ SERIAL display

Indicates the status of the communication using the PC ports between the cascade master and cascade sub consoles.

OK: Indicates that the communication status is good.

ERROR: A communication error has occurred. Check whether or not the cascade master console or cascade sub consoles are operating correctly. Also, check the connection between the PC ports. Also, ERROR may be displayed when BUSY is displayed in the time code display window of the console when the console is accessing the floppy disk and reads or writes the files on the floppy disk. In such a case, OK is displayed when BUSY disappears. Also, when a communication error occurs, SIO ERR is displayed on the time code display of the top menu bar.

Delay time between the master console and the sub console

The DMX-R100 ensures that the delay time for processing the internal signals are the same for all paths except the insertion send and monitor paths. However, when a DMBK-R109 is inserted, if the MODE SELECT switch of the DMBK-R109 is set to MASTER or SUB, a delay time longer than that in MADI mode is automatically added so as to match the delay time between the master console and sub console. When the system is configured in a cascade connection, set the BUS MODE button properly to obtain the same delay time.

To match the delay time

- When the input of channel 96 is mixed to the MTR busses of 8 tracks when the MTR bus is part of a cascade connection:

- 1** Set the BUS MODE button of SUB MTR to display in green (in Cascade mode) on the CASCADE window of the master console.
- 2** Set the SUB MTR 1-8 buttons to display in green (ON).

- To record 8 channels of the MTR busses of the master console and the sub console respectively into 16 tracks of MTR

1 Set the BUS MODE button of SUB MTR 1 to 8 to display in gray (Separate mode).

2 Set the SUB MTR 1-8 bus buttons to display in gray (OFF).

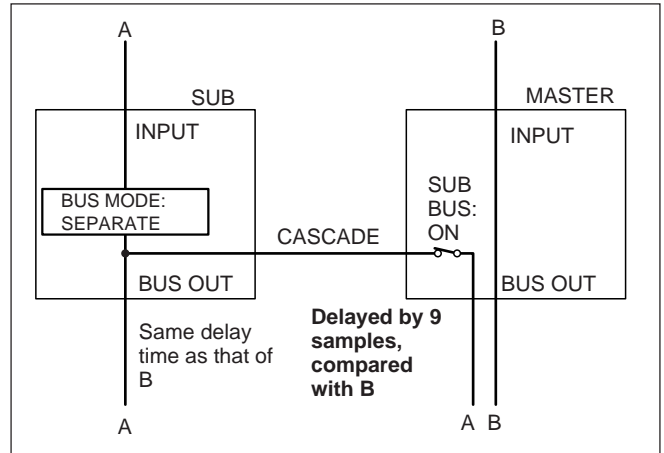
The delay time does not match in the following cases:

The number of samples indicated in the following diagrams are the reference values in $F_s = 44.1 \text{ kHz}$ or 48 kHz .

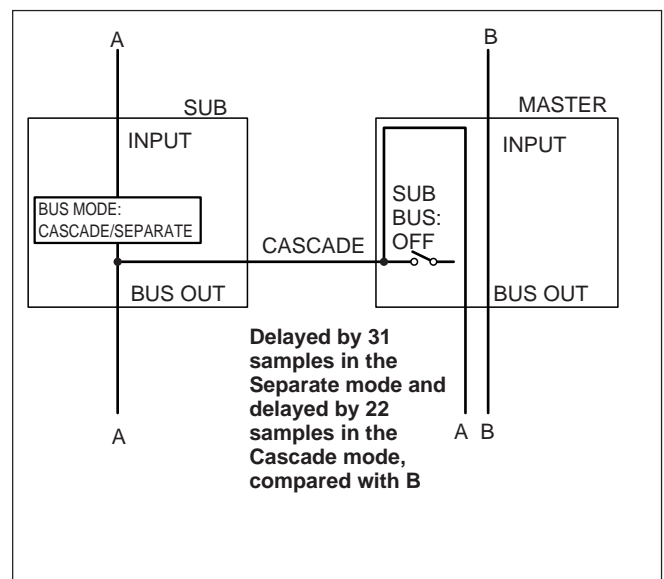
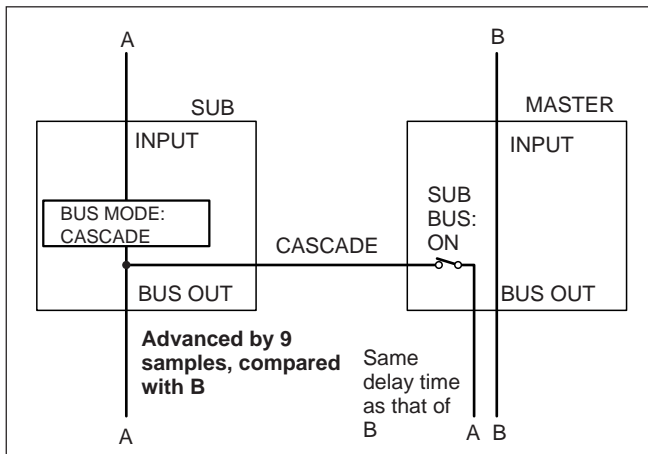
This value may change without warning.

- The delay time between the output signal of the bus set to Cascade mode (corresponding BUS MODE button is lit in green) from the sub console and the bus signal of the master console

- When mixing the bus signal from the sub console at the master console with the BUS MODE button set to the Separate mode (CASCADE is lit in gray) at the sub console



- When receiving the bus signal from the sub console via the INPUT router of the master console



How to Use the Optional DMBK-R109 MADI Board

The DMBK-R109 is an optional MADI board with 48 channels designed to be inserted into SLOT 4 of the DMX-R100 digital audio mixer.

When the console is used separately, the output/input channels can be expanded to up to 72 channels, including other slots.

SLOT 1 to 3 (8 channels x 3): 24 channels
SLOT 4 (DMBK-R109): 48 channels

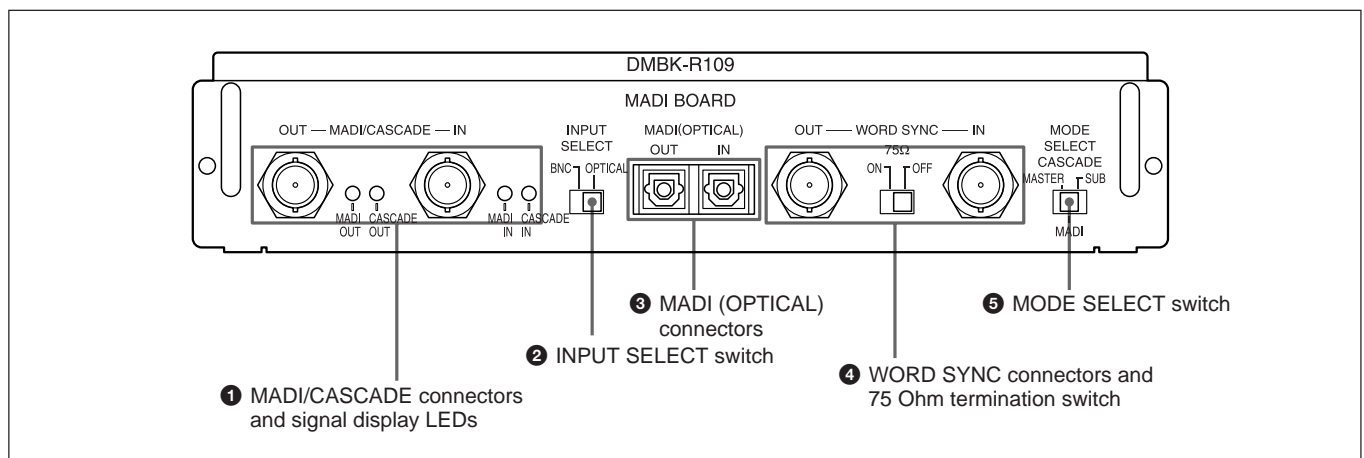
This board allows you to connect external devices such as tape recorders with the MADI interface to the DMBK-R109.

Also, when two DMBK-R109 optional boards are inserted into two separate consoles, a maximum of 96 channels can be mixed by connecting two console in Cascade mode.

Notes

- The DMBK-R109 can be inserted into a DMX-R100 the software version of which is 2.1 or later. When using the DMBK-R109, be sure to confirm that the version number displayed when the program starts up is V2.1 or later.
If the software version is V2.0 or before, see page 4.
- When the sampling frequency is 2 Fs mode (88.2 kHz or 96 kHz), the input/output channels are reduced to 24 channels each.
- In 2 Fs mode, the mode is fixed to LEGACY MODE.
- In a cascade connection, be sure to use BNC cables to connect the master console and sub console.

Locations and Functions of Parts and Connectors of the DMBK-R109



① MADI/CASCADE connectors (BNC type) and signal display LEDs

Inputs/outputs MADI signals conforming to AES 10 or cascaded signals.

IN connector: When the console is used alone, connect the signal from the output BNC type connector of the input source device.

When the system is used in Cascade mode, connect the MADI/CASCADE OUT connector of the sub console.

OUT connector: When the console is used alone, connect the MADI input connector of an external device.

When the system is used in Cascade mode, connect this connector of the sub console to the MADI/CASCADE IN connector of the master console.

Signal display LEDs: When the console is used alone, MADI OUT and MADI IN LEDs indicate the communication status of the MADI signal. When the MADI signal is not input/output correctly, the LEDs blink. The LEDs light solidly when all is correct.

When the system is used in Cascade mode, the CASCADE OUT and CASCADE IN LEDs indicate the communication status of the cascade signal. When the cascade signal is not input/output correctly, these LEDs blink. The LEDs light solidly when all is correct.

Notes

- The signals output from the MADI/CASCADE OUT connector of the sub console are signals with the formatted specially for the DMBK-R109.

If this signal is input to an ordinary MADI device, a loud noise may occur.

- If an ordinary MADI signal is input to the MADI/CASCADE IN connector of the master console, a loud noise may occur.
- Be sure to set the MODE SELECT switch to MADI when the ordinary MADI signals are input/output.

② INPUT SELECT switch

Selects either BNC signal or an optical signal as the signal input to the DMBK-R109 of a console when it is used alone or as the sub console in Cascade mode.

③ MADI (OPTICAL) connectors (SC fiber type)

Use an SC type (standard type) connector for the optical fiber cable connector.

Refer to the AES10 specifications pamphlet for the cable specifications.

When the MODE SELECT switch ⑤ is set to MADI, a MADI signal conforming to the FDDI AES 10 format can be input to the IN connector when the INPUT SELECT switch ② is set to OPTICAL.

A MADI signal which is the same as the signal output from the type BNC OUT connector ① is output from the OUT connector simultaneously.

When the MODE SELECT switch ⑤ is set to MADI, the console can be used alone and the SC fiber connector is used to connect to devices with SC fiber type connectors.

When the MODE SELECT switch ⑤ is set to MASTER, this connector is not activated. When the MODE SELECT switch is set to SUB, the input to this connector can be determined by the INPUT SELECT switch ②.

④ WORD SYNC connectors and 75 Ohm termination switch

Input/output connectors for synchronizing with an external device.

IN connector: Inputs a word sync signal.

75 Ohm termination switch: Must be set correctly when a word sync signal is used. Normally set this switch to ON. When you send a word sync signal to their machines via the type T BNC delay connector, set this switch to OFF.

OUT connector: Outputs the word sync signal.

Note

To synchronize the console with the word signal input to the WORD SYNC IN connector of the DMBK-R109, select WORD IN - SLOT 4 - CH1/2 in the SYNC CLOCK section of the SYNC/TIME CODE window.

⑤ MODE SELECT switch

Selects the operating mode of the console.

MASTER: Sets the console as the master console in a cascade configuration.

SUB: Sets the console as the sub console in a cascade configuration.

MADI: Select this position when the console is used stand-alone.

Note

Be sure to perform this switch setting before turning the power of the consoles on.

How to Use the Optional DMBK-R109 MADI Board

Using the Console Alone

Connecting the DMBK-R109

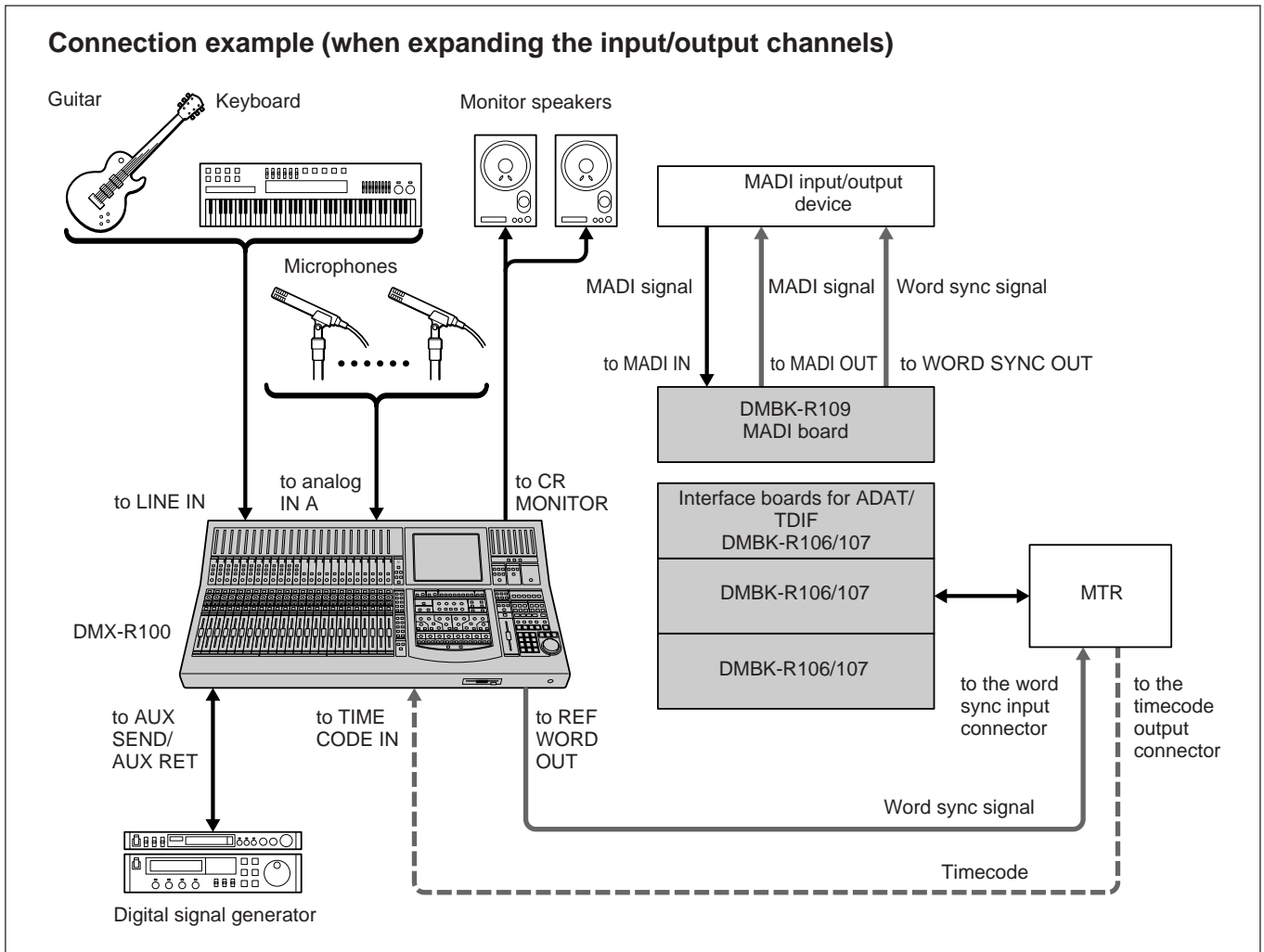
- 1** Turn the power of the console off, and then insert the DMBK-R109 into SLOT 4 of the console.
- 2** Set the MODE SELECT switch on the DMBK-R109 to MADI.
- 3** Select the input signal using the INPUT SELECT switch on the DMBK-R109.
To input the signal from the BNC connector: Set the switch to BNC.
To input the signal from the OPTICAL connector: Set the switch to OPTICAL.
- 4** Connect any external devices to the DMBK-R109. When the INPUT SELECT switch is set to BNC, connect the device to the IN connector of the MADI/CASCADE connector.

When the INPUT/SELECT switch is set to OPTICAL, connect the device to the IN connector of the MADI (OPTICAL) connector. The MADI output is output from the OUT connector of the MADI/CASCADE connectors and the OUT connector of the MADI (OPTICAL) connectors at the same time.

- 5** Connect the external device to the WORD SYNC OUT connector on the DMBK-R109.
- 6** Turn the power of the console on.

Assigning the input/output signals

Assign the input signal of the DMBK-R109 in the AUDIO INPUT ROUTING window and the output signal on the AUDIO OUTPUT ROUTING window on the console.



Using the System in a Cascade Connection

Notes

- To use the system in a cascade connection, be sure to assign one DMX-R100 as the master console and the other as the sub console. The cascade function does not work with the system in any other setup.
- When the system is not used in a cascade connection, be sure to set the MODE SELECT switch on the DMBK-R109 to MADI.
- Supply a word clock signal or video signal as the synchronous signal for the correct synchronization between the consoles and external devices.
- Be sure to synchronize the sub console with the master console using the word clock signal of the REF WORD for WORD SYNC connector.

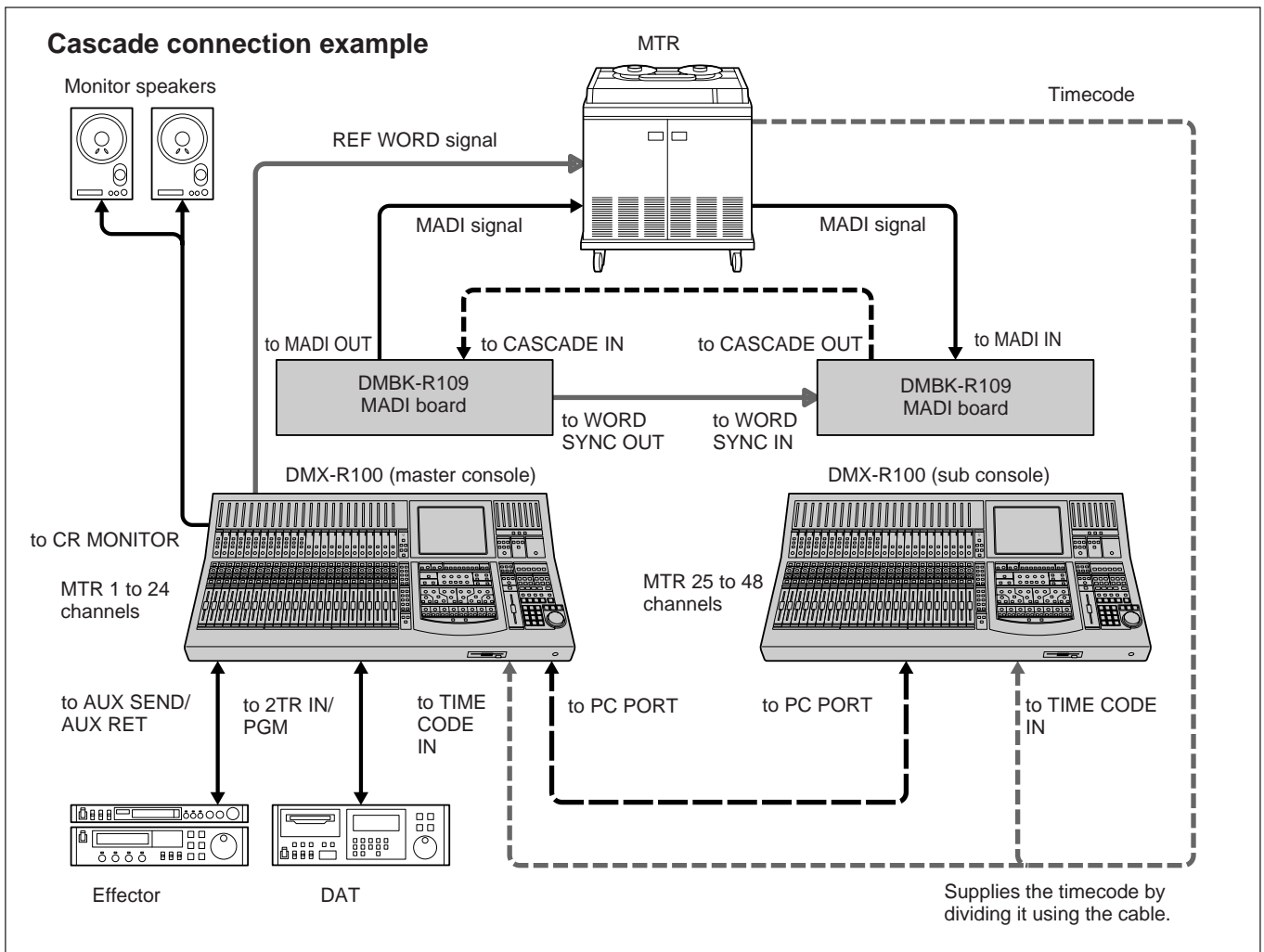
Making a cascade connection

- 1 Turn the power of the consoles off.
- 2 Set the MODE SELECT switch on the DMBK-R109 of the master console to MASTER and the switch of the sub console to SUB.
- 3 Connect the PC PORT connectors of the master console and sub console using a cable equivalent to the printer cable for Macintosh (not supplied).

Note

If these PC PORT connectors are connected between the master and sub consoles, the bus output from the sub console is cut and a communication error message appears on the master console every few minutes.

(Continued)



How to Use the Optional DMBK-R109 MADI Board

- 4 Connect the MADI/CASCADE OUT connector on the DMBK-R109 of the sub console to the MADI/CASCADE IN connector of the master console, using the 75-ohm coaxial cable.
- 5 Connect the WORD SYNC OUT connector of the DMBK-R109 of the master console to the WORD SYNC IN connector on the DMBK-R109 of the sub console.
- 6 To use the automation feature, divide the time code signal using the distribution amplifier or a distribution cable and supply the time code signal to the TIME CODE IN connector of the master and sub consoles respectively.

Setting up in Cascade mode

- 1 Turn the power of the consoles on after finishing step 1 to step 6 for making the cascade connection.

When starting up two consoles in a cascade connection, turn on the power of the sub console first, then within 10 seconds, turn on the power of the master console.

Or, turn on the power of the master console and sub console at the same time.

When starting up, if the setting of the BUS MODE button of the SUB bus of the current title does not match between the master console and the sub console, the setting of the sub console is reset to the same setting as that of the master console.

- 2 Match the sampling frequency between the master console and sub console.

When the sampling frequency does not match between the master console and sub console, an error message appears.

When the error message appears, set the same sampling frequency in the SYNC/TIME CODE window of the master console and sub console respectively. Set the SYNC source correctly, too.

Note

When the sampling frequency is set to 88.2 kHz or 96 kHz, match the settings, including the surround mode setting.

- 3 Open the CASCADE window of the master console and set the BUS mode buttons of the bus to be cascaded (MTR 1-8, AUX 1-8, PGM L/R) to ON.

The signals of the sub console corresponding to the selected bus are mixed with the signals of the bus of the master console.

The CASCADE window of the sub console displays only the settings of the master console. You cannot change the settings on the CASCADE window of the sub console.

- 4 Open the CASCADE window of the master console, and set the BUS MODE buttons selected in step 3 to Cascade mode (lit in green).

The delay time matches between the master console and sub console when the mixing is done in the master console.

In a cascade connection, the delay time between the master console and sub console matches if you set the BUS MODE buttons properly.

For details, see page 14.

Setting the SOLO or PFL modes of cascaded busses

- 1 Set the mode using the SOLO and PFL buttons in the SOLO MODE section of the master console.

Note

You cannot set the mode on the sub console.

- 2 Press the SOLO button of the channel strip on the master console or sub console.

You can monitor the PFL signal or SOLO signal from the CR MONITOR connector of the master console by pressing the SOLO button of either the master or the sub console.

You can monitor the signals (including PFL/AFL) of the sub console selected in the MONITOR window from the CR MONITOR connector of the sub console.

Notes

- The MONITOR window allows you to set the function of the SOLO button of the channel strip. Perform this setting on both the master console and sub console respectively.
- There may be a delay from the time you press the SOLO button on the sub console to the time the audio

out is sent from the master console.
 Thus the PFL operation may be ignored when performing the following operations with BUSY displayed on the timecode display:

- when accessing the floppy disk or flash memory,
- when editing data whose timecode has stopped advancing.

To monitor the SUB bus

When the sub console is not used in Cascade mode (by setting the SUB bus button to OFF), you cannot monitor the SUB bus signal from the CR MONITOR connector of the master console. To monitor the SUB bus signal at the master console, assign the SUB busses to be routed to EXT MONI 1 to 6 in the AUDIO INPUT ROUTING window of the master console and monitor the EXT MONI signals.

Operating in Cascade mode

- You can operate the following buttons only on the master console.

- Buttons on the SOLO MODE section of the master panel of the master console
 - SUB MTR 1-8, SUB AUX 1-8, SUB PGM buttons and their BUS MODE buttons on the CASCADE window
 - The SOLO buttons are linked on the master console and sub console.
 - Items other than the above, and the automation, snapshot and title features function separately between the master console and the sub console.
- On the sub console, only the setting results are displayed. You cannot change the setting on the sub console.

Oscillator and talkback signals on the sub console

If the oscillator or talkback functions are set to ON on the sub console in Cascade mode, the oscillator signals or talkback signals are sent to the output of the sub console. However, they are not sent to the master console via the cascade connection.

Addition to Dialogues in the Window

The following dialogs have been added when updating from Version 2.0 to Version 2.1. The remaining

dialogs are the same as those of Version 2.0. Refer to pages 117 to 119.

Cases	Dialogues and remedies
A communication error has been detected between the master console and sub console in Cascade mode.	<p>“CASCADE: Serial communication error.”</p> <p>[OK] (The dialogue is closed.)</p> <p>Remedy:</p> <ul style="list-style-type: none"> • Check the MODE SELECT switch setting of the DMBK-R109. (It should be set to CASCADE MASTER on the master console and SUB on the sub console.) • Check whether the cable is correctly connected to the PC PORT connectors between the master console and sub console. <p>Note</p> <p>When this dialog appears when the title loading/saving is being executed on the sub console or the automation data is being edited and this dialog automatically disappears after completing those operations, the consoles are operating correctly.</p>

Cases	Dialogues and remedies
The sampling frequency between the master console and sub console is different in cascade mode (the surround settings are also included in $F_s = 88.2 \text{ kHz}$ or 96 kHz).	<p>“CASCADE: Check sampling frequency.”</p> <p>[OK] (The dialogue is closed.)</p> <p>Remedy:</p> <p>Open the SYNC/TIME CODE window on both the master console and the sub console and set the sampling frequency of both consoles to the desired values.</p>
The DMBK-R109 is inserted into SLOT x (x is SLOT 1 to 3).	<p>“OPTION board error. SLOT x cannot support DMBK-R109 MADI.”</p> <p>[OK]; (The dialog is closed.)</p> <p>Remedy:</p> <p>Turn the power of the console off promptly and check the board inserted into SLOT x.</p> <p>If the DMBK-R109 is inserted into SLOTS 1 to 3, remove it and insert it into SLOT 4.</p>

Addition and Changes in the Software Upgraded to Version 2.2

Overview of Version 2.2

To improve ease of use, the following functions have been added or changed in Version 2.2.

Added functions:

- Manual group function
- Control linking of consoles with a cascade connection
- Displaying the time for executing a latest KEEP operation
- Displaying a confirmation dialog when restarting the system
- Offering an insert REC function for VTRs and so on
- Offering an automation editor

Changed functions:

- Opening the AUDIO OVERVIEW window
- Storing snapshot and CUE data in a vacant number
- Automatic switching between A/B buffer during the execution of automation data

Manual Group Function

A MANUAL GROUP function has been added to the gang fader group operations. This function allows you to fix the relative level of the faders during gang fader group operations.

The relative balance between faders is fixed when the GANG fader group is set to ON and stored in the console.

So if any fader in a group, which is set higher than others in that group, is moved down to its ∞ position and released, the relationship between faders in the group will be retained when the fader is moved up again. In other words, when that fader is moved away from ∞ , its exact relationship to the other faders in the group will return as originally set up.

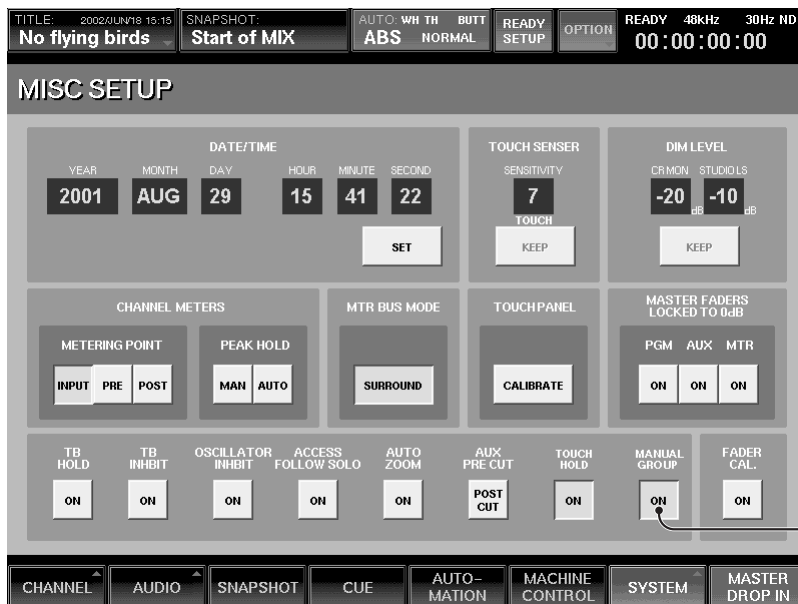
Touch the MANUAL GROUP button in the MISC SETUP window to highlight it green, making this function active.

To operate the GANG fader group in MANUAL GROUP mode

- 1** Set the automation operation to one of OFF, TRIM or ABS mode.
- 2** Create the mix balance for the faders assigned to the GANG group.
- 3** Touch the MANUAL GROUP button (lit in green) in the MISC SETUP window.
The console changes to MANUAL GROUP mode.
- 4** Set the ON/OFF button of the GANG GROUP in step 2 to ON in the AUDIO FADER/CUT GROUPING window.
At this time, the relative balance for the faders, set in step 2, is fixed.
It may be possible to destroy the balance of gang group temporarily by:
 - Moving the lowest fader to its +10 dB setting and releasing. All faders will remain at +10 dB until one of the gang group is moved down again, when the original grouping relationships will return.
 - Moving the highest fader to its ∞ setting and releasing it. All faders will remain at ∞ until one of the gang group is moved again, when the original grouping relationships will return.

To change the mix balance in MANUAL GROUP mode

Touch and hold any one fader in the group and adjust any others in the group.



MANUAL GROUP button

To use the automation with faders in a MANUAL GROUP mode

The MANUAL GROUP (manual gang group) mode is designed to maintain the mix balance as its highest priority. For technical reasons, this results in prohibiting the replaying of automation data and recalling snapshots. As an example, a snapshot might be recalled where the fader settings conflict with those set up in the manual gang group mode.

However, automation data can be written from a MANUAL GROUP and snapshots can be stored too.

If automation is replayed for a Manual Gang Group of faders, the previous moves will be heard but the faders will not move. Any changes can be viewed on the AUDIO OVERVIEW or AUDIO FADER windows.

Once the mix has been completed and all automation data is stored, the movements on the faders can be viewed if the GANG GROUP is set to OFF in the FADER GROUP window or, MANUAL GROUP mode is set to OFF in the MISC SETUP window. Alternatively, it may be convenient to continue automating the fader gang group using TRIM mode.

Notes

- There are some cases where the relative balance between faders in a Gang Group will not be maintained when GANG GROUP mode is in use.
- If any fader with a setting lower than the highest of a Gang GROUP is moved and left at +10, or if any fader with a setting higher than the lowest of Gang GROUP is moved to ∞ and left, then the balance is destroyed temporarily. Making the following changes will destroy the balance permanently:
 - Setting the MANUAL GROUP mode in the MISC SETUP GUI ON or OFF
 - Changing the automation write mode to TRIM
 To make any such changes, make sure none of the faders in a Manual Gang Group are set at their extremes, in order to retain the relative balance between faders.
- As already explained, fader moves can be recorded using the automation when faders are set up in a Manual Gang Group. But please note that if the automation is replayed for those faders, with MANUAL GROUP set to ON in the MISC SETUP GUI, the fader moves will not be displayed. Their settings are likely to be different from the underlying automation moves. So if they are then dropped into automation record, they will jump to the settings that match the automation, if it is different. In other words, the fader settings may not reflect the automation replay settings, as is normal when MANUAL GROUP is set to OFF.

Addition and Changes in the Software Upgraded to Version 2.2

- From Version 2.2, the automation mode (OFF, ABS, TRIM) is stored as title information. Since ON/OFF of the MANUAL GROUP and the relative level

difference between faders are also stored as title information, you can recall the specified mix balance by loading TITLE.

Control Link Between Two Consoles

This involves linking the operation of controls on the master console to those on the sub in order that certain functions on both master and sub are controlled from the master. This function is further enhanced in that it allows control link operations without cascading the busses between the master and sub consoles.

For detailed information regarding control linking, see the following page.

Control link operations are 'one way' in that the master always controls the sub. There is one exception which is the solo function. Pressing a SOLO button on either mixer affects the other.

The CONTROL LINK option in the CASCADE window allows this function to be set active.

on the master console are linked with ones on the sub console.

Additional functions of the MODE display button

When the MODE SELECT switch on the DMBK-R109 is set to MADI, or when DMBK-R109 modules are not installed in the consoles, the MODE display button functions as the MODE SELECT button and you can select the one of the following modes by pressing the MODE display button.

CTL MASTER: Sets the console as the master console for the control link function.

CTL SUB: Sets the console as the sub console for the control link function.

STAND ALONE: Sets the console to operate individually. When not using the cascade function or control link function, be sure to select this mode.

When the MODE SELECT switch is set to MASTER or SUB, the MODE display in the CASCADE window is fixed to the currently selected mode. You cannot change the mode.

Changes in the CASCADE Window

The following items have been added starting from Version 2.2.

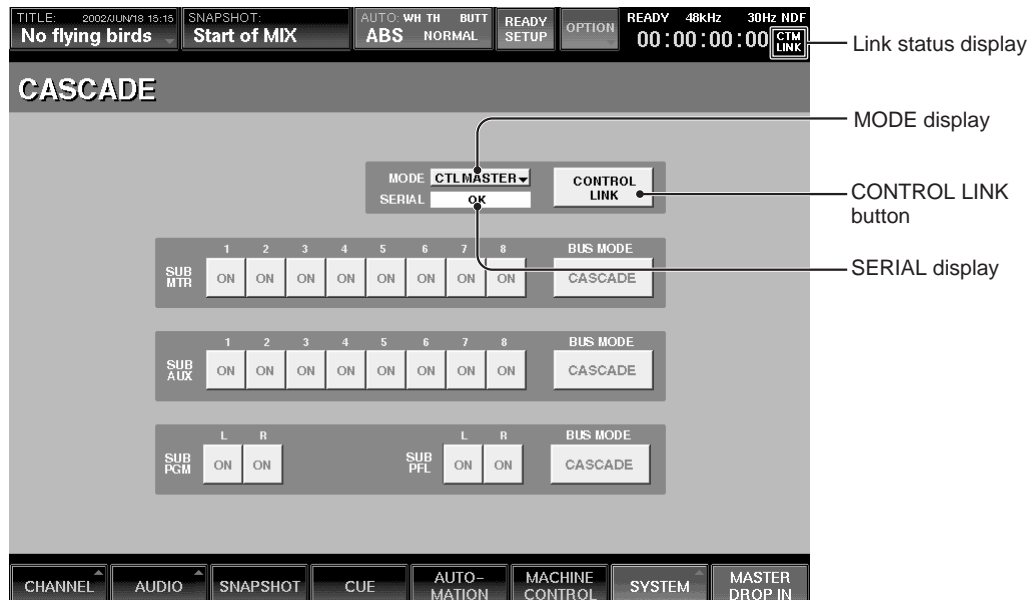
CONTROL LINK button

A CONTROL LINK button has been added. When this button is set to ON (lit in green), operations performed

Link status display

The link status between two consoles is displayed in yellow at the right end of the top menu bar when a timecode error has not occurred.

The CASCADE window opens regardless of mounting the DMBK-R109.



The first line of the display

Displays the following for MASTER/SUB

MAS: CASCADE MASTER

SUB: CASCADE SUB

CTM: CONTROL LINK MASTER

CTS: CONTROL LINK SUB

Nothing: STAND ALONE

The second line of the display

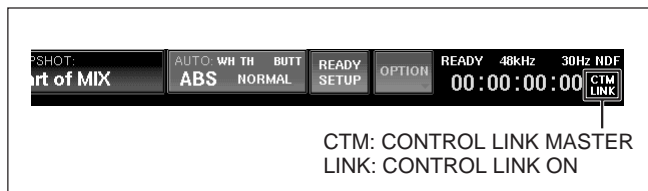
Displays the following for CONTROL LINK ON/OFF

LINK: CONTROL LINK ON

ERR: The whole area of the link status display is red to indicate that a transfer error has occurred between the master console and the sub console.

Nothing: CONTROL LINK OFF

For example, when the console is set as the master console for the control link function and the control link function is active, the link status is displayed as follows.



Additional functions of the SERIAL display

FS ERROR is displayed when there is a difference between the sampling frequencies of two consoles.

Notes

- There is a case where operations cannot be reflected on the sub console based on the status of the sub console. In such a case, the link is maintained until the sub console is ready for operation. If the control link process cannot be completed, a dialog is displayed on the master console. When the dialog is displayed on the master console, you cannot perform operations on the master console until the dialog is closed by touching the OK button on the dialog.
- An error may occur while executing the link command from the master console based on the status of the sub console. In such a case, the dialog is displayed on the sub console. When the dialog is displayed on the sub console, you cannot perform operations on the sub console until the dialog is closed by touching the OK button on the dialog.
- Be sure to use the functions related to the control link

either when the timecode stops running completely or while it is running in stable condition.

When the consoles start to move according to the instructions contained in automation data after the timecode starts to run or when the timecode stops running and the automation data is being edited, automation load increases. If you use the control link function on the master console under such a condition, that control link function may not be reflected on the sub console and the dialog may not be displayed, either.

- Functions related to PFL/AFL/SOLO are always effective in a cascade connection. Even if the CONTROL LINK button is set to OFF, the link cannot be broken.
- When two consoles are used in a cascade connection, be sure to match the software version between two consoles. If the version is different between them, a correct communication does not occur and the cascade function does not work correctly. For example, between systems with Version 2.1x or systems with Version 2.2x, the cascade function works correctly. However, the combination of Version 2.1x and Version 2.2x does not work correctly.
- When two consoles are used in a control link, be sure to check that the version of both systems is 2.20 or later. If the version of either console is older than 2.2, the control link will not function.

Addition and Changes in the Software Upgraded to Version 2.2

Operations which are possible with a control link

When the CONTROL LINK button is set to ON in the CASCADE window, the following operations on the master console are linked with ones on the sub console.

Title operations

Title operations performed in the TITLE MANAGER window and from the TITLE menu on the top menu bar:

KEEP	Temporarily saved in the Current Title's non-volatile memory of the sub console.
SAVE	Overwritten in the title with the same TITLE number as the one in the master console, in the sub console. When there is not enough capacity or the corresponding TITLE is locked in the sub console, an error dialog opens in the sub console.
LOAD	The title with the same TITLE number as the one in the master console is loaded as the current title in the sub console. While loading, or if there is no corresponding TITLE in the sub console, an error dialog opens in the sub console. After starting to load, if loading fails in either the master or sub console, the title will be loaded in the console where the error did not occur.
SAVE AS NEW	The title with the same TITLE number as the one in the master console is saved in the sub console. If the same title exists in the sub console, it is overwritten. When there is not enough capacity or the corresponding TITLE is locked in the sub console, an error dialog opens in the sub console.

For detailed information on error dialogs, see page 31.

Snapshot operations

Snapshot operations performed in the SNAPSHOT window using the SNAPSHOT buttons:

STORE	Overwrites and stores the settings in the same SNAPSHOT number as the one in the master console, in the sub console.
RECALL	Recalls the snapshot data with the same number as the one in the master console, in the sub console. This operation is ignored when the corresponding snapshot data does not exist in the sub console.
NEW	Stores the setting as snapshot data within the sub console for the same number as the one in the master console. When the corresponding snapshot data exists in the sub console, it is overwritten.
TC LINK	Operations using the TC LINK button

Cue operations

Cue operations performed in the CUE window using the SNAPSHOT buttons:

STORE	Overwrites and stores the settings in the same CUE number as the one in the master console, in the sub console.
RECALL	Recalls the cue data with the same number as the one in the master console, in the sub console. This operation is ignored when the corresponding cue data does not exist in the sub console.
NEW	Stores the setting as cue data within the sub console for the same number as the one in the master console. When the corresponding cue data exists in the sub console, it is overwritten.

Notes

- Recalling a CUE linked with a timecode is executed according to its own CUE list independently, on both the master console and sub console even in control link mode.
- Cue and snapshot operations related to events and the timecode are not linked. Link them manually local to each mixer as required.

Automation operations

Automation operations performed in the AUTOMATION window, from the top menu bar and using the TC AUTOMATION buttons:

Automation Operation mode	OFF, ABS, TRIM, SAFE
Automation mode at return	BUTT, RAMP, HOLD TO END, HOLD TO NEXT, TOP TO END, RAMP TIME

Operations related to the MONITOR window

Operations performed in the MONITOR window:

PFL, AFL, SOLO	Operations using the ENBL/DIS button and the MOM/ALT button
Operations using the SOLO ISOLATE button of the SOLO mode	When solo-isolate settings are carried out on the master console, the MONITOR window automatically opens and SOLO ISOLATE button is set to ON on the sub console.

Using the control link function

- 1 Connect the PC PORT connectors of the master console and sub console.
- 2 Open the CASCADE window on both the master and sub consoles.
- 3 Confirm the MODE display in the CASCADE windows on the master and sub consoles.

When a DMBK-R109 is not installed or the MADI is selected on the DMBK-R109:

Touch the MODE display in the CASCADE window to display CTL MASTER on the master console and CTL SUB on the sub console respectively.

When using the cascade function:

After you set the MODE SELECT switch on the DMBK-R109 to the correct position, confirm that MASTER is displayed on the master console and SUB is displayed on the sub console.

- 4 Set the CONTROL LINK button to ON on the master console.
Any operations performed on the master, which are linked to the sub console, will automatically be reflected in the operation of the sub console.

Notes

- When an installed DMBK-R109 is set to MASTER or SUB, the operation mode of the console is fixed to the selected settings, MASTER or SUB. You cannot change the mode using the MODE display button in the CASCADE window.
- Confirm that the MODE display is correct on the master console and sub console respectively.
 - MASTER and SUB (in a cascade connection)
 - CTL MASTER and CTL SUB (in control link mode)Any combinations, other than the above, are incorrect and the system cannot function.
- When using the cascade function and control link function, be sure to connect the PC PORT connectors of both consoles using a cable equivalent to the printer cable for a Macintosh.
- Mode set by the MODE display button and the CONTROL LINK button setting are saved as the settings of each console. These settings are not changed by turning the power on or off or the loading a title.

Addition and Changes in the Software Upgraded to Version 2.2

Insert REC Function

An EDIT ON button has been added in the MACHINE CONTROL window.

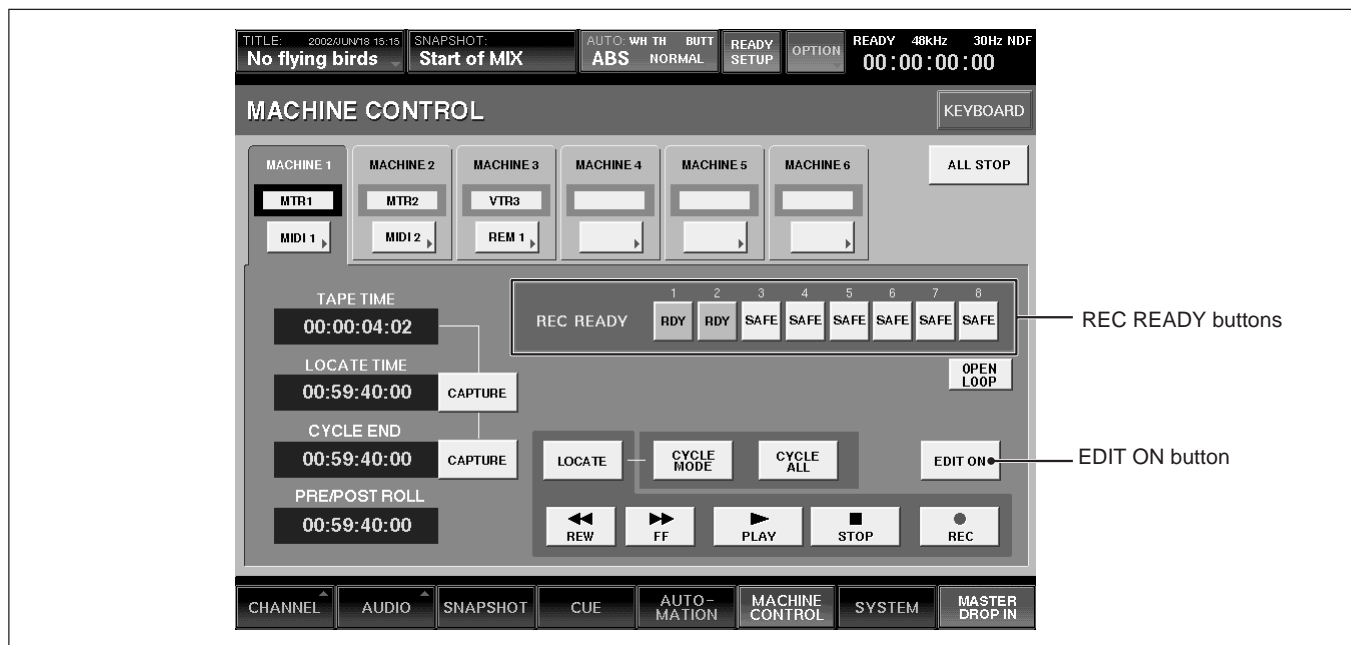
When the EDIT ON button is ON (lit in green), the EDIT ON command is sent to the devices compatible with the SONY 9 PIN remote instead of the REC command.

To perform insert-REC to overwrite data only in the

track specified by a VTR or multi-track recorder, turn this button on.

If a recording is unsatisfactory, try recording again by setting the EDIT ON button to OFF.

Also, 8 REC READY buttons have been added. When any button is set to RDY, the corresponding recorder track is in READY mode.



Devices that are compatible with the REC READY control are listed on the following table. The TASCAM DA-78HR cannot be controlled by the DMX-R100.

Devices compatible with SONY 9 PIN remote

SONY DVW-A500 REC READY 1 to 4 correspond to CH1 to 4. REC READY 5 to 8 are disabled. Recording will be done in Assemble mode regardless of the VTR setting if you try to record with the EDIT ON button set to OFF on the console.

SONY PCM-7040 If recording mode is set to ASSEMBLE or AUDIO INSERT on the PCM-7040, REC READY 1 and 2 turn RDY. You cannot control REC READY on the console.

TASCAM DA-98

Devices compatible with MIDI MACHINE CONTROL

SONY PCM-800

TASCAM DA-98

TASCAM MX-2424 REC READY 1 to 8 correspond to CH1 to 8. If you control REC READY on the console, Channels after CH 9 are set to SAFE.

Notes

- When using devices other than devices listed above, this function may not work correctly. Also, even if you use the devices listed in the above table, this function may not work correctly depending on the version of the recorder you are using. Confirm whether it works correctly before using this function.
- When the REC READY control function does not work correctly, the REC READY display on the console and the operating conditions of the recorder do not match and may erase the data in a random track accidentally. Be sure to confirm whether it works correctly before using this function.

- When REC/READY of each track is controlled by MMC (MIDI MACHINE CONTROL) commands, if punching in/punching out is performed for each track by using the REC/READY button on the tape recorder while the tape recorder is recording, this operation is not reflected on the console until the tape recorder turns to mode other than REC mode.
- If REC/READY are controlled from both the console and tape recorder, the operation status may become unstable or the operating status between the console and the tape recorder may not match.

Automation Editor

By connecting the DMX-R100 to a PC being used as an automation editor via the RS232C port, you can edit automation data and title information on the PC and upload the edited result to the console. When the edited data is sent from the PC, the console receives and recognizes it without restarting.

Notes

When you transfer data between the PC and the DMX-R100, pay attention to the following.

- Before transferring a file, stop the timecode and confirm that automation is in the READY mode or OFF.
If a file is transferred when automation is in RUN mode, it may cause errors of automation operation, damage to the current title, saved titles, and communication.
- Be sure not to perform operations related to title such as SAVE and KEEP while transferring data. Also, be sure not to turn the power of the console off. This may result in corrupting the title data.
- If you upload the edited result to the current TITLE (TITLE number selected on the list for the SAVE button on the TITLE menu), the uploaded current TITLE information will be overwritten by the current title saved by touching the SAVE button.
- If the free space of the console is insufficient when uploading data, it may cause an automation editor error.
Even if an error does not occur when uploading data, the following dialog may appear after uploading or performing operations related to title.

“The Flash Memory is full to capacity. Please archive and/or delete some Titles.”

When the above dialog appears, the correct title

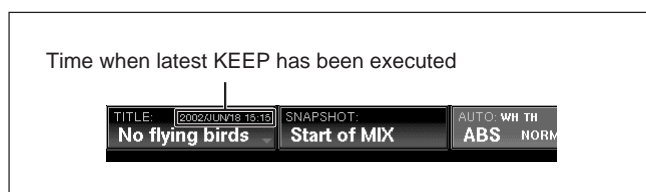
operations are not executed due to insufficiency of free space. In such a case, delete unnecessary titles to secure sufficient free space.

- Since the automation editor exports data even though the title is locked, the locked title is overwritten by the uploaded data.
- The automation editor of Version 1.01 and 1.02 released previously does not handle MANUAL GROUPING. If the edited data is uploaded to the console if the fader position of TITLE with MANUAL GROUPING set to ON has been changed by those automation editors, the correct fader position may not be recalled in the console. However, you can download and/or upload a title when MANUAL GROUPING is set to ON.

Additions, Changes and Corrections in Other Functions

Display of the latest KEEP execution time

The time when the latest KEEP operation was performed (the settings are in the current title) is displayed in the TITLE column on the top menu bar.



The time is also displayed in addition to the date in the DATA column in the INFORMATION section in the TITLE MANAGER window.

Example: 2002-APR-23 23:56

Confirmation dialog when restarting

When restarting is required after loading a title, or changing SYNC SOURCE or Fs on the SYNC/TIMECODE window, the following dialog is displayed in the TITLE MANAGER window and in the SYNC/TIME CODE window.

“The Sampling Frequency or Sync source has changed.

Please check that there is no floppy disk inserted in the drive and then touch REBOOT.”

Addition and Changes in the Software Upgraded to Version 2.2

Changes in the AUDIO OVERVIEW window

You can open the MASTERS page in the AUDIO OVERVIEW window. Each time you touch the PAGE button, the display page changes in the following sequence: 1 — 24, 25 — 48, MASTERS, 1—24.

Also, in the AUDIO OVERVIEW window, the specified page opens if you push the PAGES button on the control console when the AUTO ZOOM button is set to ON in the MISC SETUP window. If you open it from the bottom menu bar, the page corresponding to the current fader page opens automatically.

Registering snapshot and CUE data in vacant numbers

You can select snapshots or CUE items without data registered using the SNAPSHOT window, CUE window and LIBRARY window. You can then store these in the desired number.

For numbers in which nothing is registered, operations involving RECALL, DELETE and name entry operations are ignored.

Changes in the auto rotation between A/B buffers during automation

With Version 2.2, A/B buffers are switched when data is updated during an automation operation.

A description of the AUTO button of the A/B BUFFER ROTATION section ② in the AUTOMATION window is provided (in the right column on page 77) in the Operating Instructions.

Resolution of problems

The following problems from Version 2.1 or before have been resolved in Version 2.2.

- Even if the tape recorder stops when MADI is displayed in the OUTPUT ROUTING window, MADI is displayed correctly.
- Efficiency of sending MIDI messages is improved.
- Locked titles stored on a floppy disk cannot be overwritten.
- If 10/16 or a larger value was selected using the MEASURE selector on the SYNC/TIMECODE window when the timecode is displayed in BARS mode, the timecode was not displayed correctly in the timecode display window. This problem is resolved in Version 2.2.

- When automation data was executed in AUTO mode, events which returned to the original position at the punch out point were not created. This problem is solved. However, the punch in/out function of FOOT, AUTO and AUDITION cannot be used for an object where automation data is not written. When you use the punch in/punch out function for an object without written automation data (the blue pointer moves according to the knob or fader operation), write the automation data beforehand.
- If MTR 5 was selected as MASTER for the VCA group, faders corresponding to MTR 6 to 8 and AUX 1 to 2 in the group moved. This problem is solved.
- In Version 2.1, when the timecode of automation changes from running to ready (or from ready to running), the console pauses and rejects operation for about five seconds. In Version 2.2, this problem is solved.
- When starting up the system, the AUX PRE signal was not affected by CH CUT regardless of the AUX PRE CUT button setting. With Version 2.2, the AUX PRE signal is affected or not by CH CUT according to the AUX PRE CUT button setting.
- When EQ or the dynamics library was recalled in channels which were surround-linked, it might be also recalled in channels which were not linked. This problem is solved.

Notes

Notes on fader operation

When moving faders, be sure to touch fader knobs with the whole of the finger tips.

The touch sense circuit of the faders detects a small amount of change of static electricity. Therefore, if you touch a fader knob with finger nails or with an object other than your fingers, the control console does not recognize your touch, and the fader level and balance will not change.

Limitations on a master fader fixed to 0dB

A master fader fixed to 0dB in the MISC SETUP window cannot be included to a fader group. Also, if the master fader included in the fader group is set to 0dB, this master group is automatically cleared from the fader group.

Limitations on HOLD TO END and TOP TO END modes

When automation is executed in HOLD TO END or

TOP TO END mode, controls cannot be 'DROPEd' out in automation run status.

The WRITE button drops in automation items for the channel and the MASTER DROP IN button drops in automation items for the entire console.

Addition to Dialogues in the Window in the Software Upgraded to Version 2.2

The following dialogues have been added in Version 2.2. The remaining dialogues are the same as those of Version 2.0 and Version 2.1. Refer to pages 117 to 119 of the Operating Instructions and page 21 of this Supplement.

Cases	Dialogues and remedies
When storing a snapshot or CUE is executed in the master console while the sub console is in busy status (BUSY is displayed in the timecode display window). (The dialogue is displayed in the master console).	<p>“SUB: SNAPSHOT(CUE) STORE ERROR for entry ##! Please repeat STORE command.” (## indicates the SNAPSHOT (or CUE) number which could not be stored in the sub console.)</p> <p>[OK]: (Continue processing) (Not stored in the sub console.)</p>
When recalling a snapshot or CUE is executed on the master console while the sub console is in busy status (BUSY is displayed in the timecode display window). (The dialogue is displayed in the master console).	<p>“SUB: SNAPSHOT(CUE) RECALL ERROR for entry ##! Please repeat RECALL command.” (## indicates the SNAPSHOT (or CUE) number which could not be recalled in the sub console.)</p> <p>[OK]: (Continue processing) (Not recalled in the sub console.)</p>
When KEEP is executed on the master console while the sub console is in busy status (BUSY is displayed in the timecode display window). (The dialogue is displayed in the master console).	<p>“SUB: File KEEP ERROR! Please repeat KEEP command.”</p> <p>[OK]: (Continue processing) (KEEP is not carried out on the sub console.)</p>

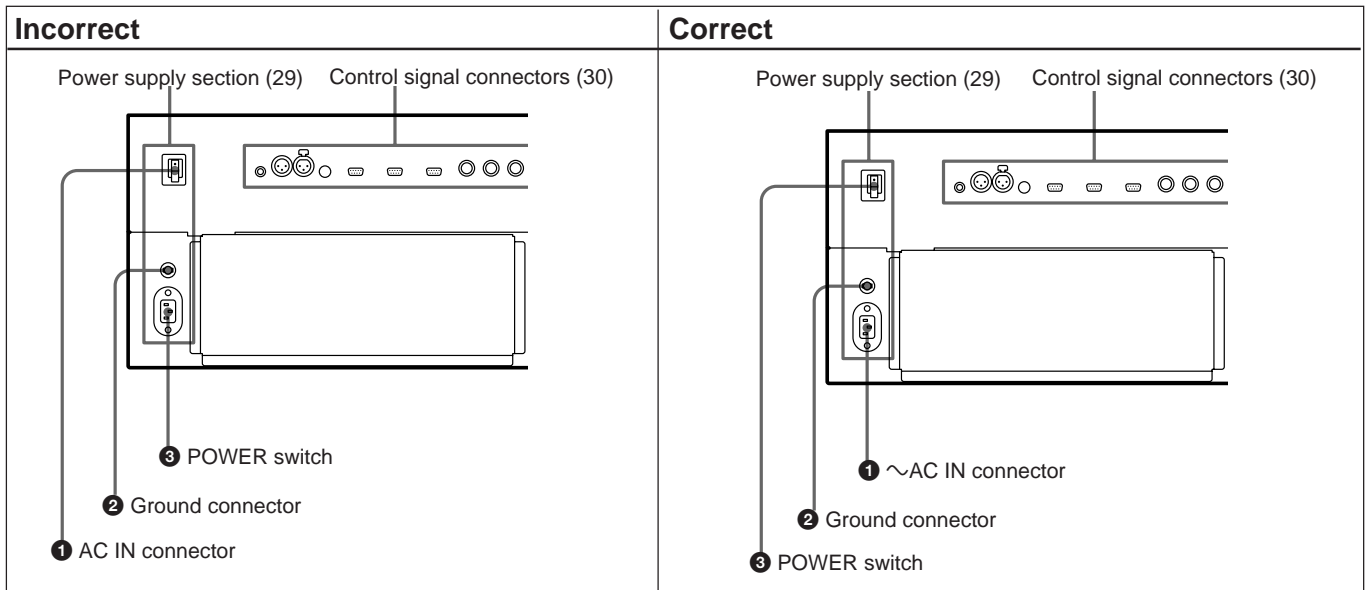
Cases	Dialogues and remedies
When loading a title on the master console while the sub console is in busy status (BUSY is displayed in the timecode display window). (The dialogue is displayed on the master console).	<p>“SUB: File LOAD ERROR for entry ##! ” (## indicates the number of the title which could not be loaded in the sub console or FDD.)</p> <p>[OK]: (Continue processing) (Not loaded in the sub console.)</p>
When saving a title on the master console while the sub console is in busy status (BUSY is displayed in the timecode display window). (The dialogue is displayed in the master console).	<p>“SUB: File SAVE ERROR for entry ##! Please repeat SAVE command.” (## indicates the number of a title which could not be saved in the sub console or FDD.)</p> <p>[OK]: (Continue processing) (Not saved in the sub console.)</p>
When a title which you try to load in the master console does not exist in the sub console. (The dialogue is displayed in the sub console.)	<p>“TITLE LOAD ERROR for entry ##! The Title requested by the MASTER does not exist in the SUB.” (## indicates the number of a title which did not exist in the sub console or FDD.)</p> <p>[OK]: (Continue processing) (Not loaded in the sub console.)</p>
You try to load data to the locked title.	<p>“TITLE SAVE ERROR for entry ##! This Title is locked. Please unlock and repeat the SAVE command.” (## indicates the number of the title which could not be saved or FDD.)</p> <p>[OK]: (Close the message.)</p>
Rebooting is required because the sampling frequency or sync source has been changed.	<p>“The Sampling Frequency or Sync Source has changed. Please check that there is no floppy disk inserted in the drive and then touch REBOOT.”</p> <p>[REBOOT]: (The system is rebooted.)</p>
The capacity of the flash memory is insufficient because a title has been uploaded from the automation editor and so on.	<p>“The Flash memory is full to capacity. Please archive and/or delete some Titles.”</p> <p>[OK]: (Close the message.)</p> <p>Remedy: Delete unnecessary titles until a green bar appears in the FREE SPACE display.</p>

Operation Manual Errata

Some errors appear in the Operating Instructions supplied with the DMX-R100 Version 2.0 (Part No. 3-868-264-13 (1))

We apologize for any inconvenience. Please note the following corrections.

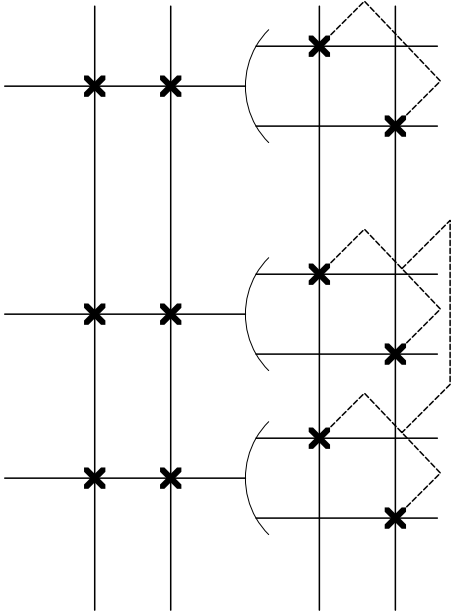
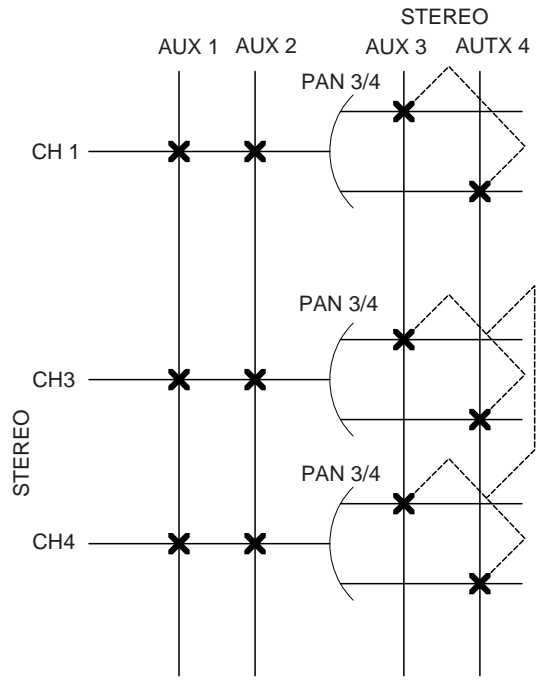
(1) Change the power supply section as follows in the diagram on page 29.



(2) Line 6 of the ⑧ KEY button in the right column on page 50

Incorrect	Correct
<p>1 to 24 (or 25 to 48): Uses the signal of the selected channel as the key signal. The audio channel is selected using two-level channel lists.</p>	<p>1-24 (or 25 - 48, MTR 1-8, AUX 1-8) : Uses the signal of the selected channel as the bus or key signal. When the signal of the selected channel is the key signal, you can select the audio channel using two-level channel lists. The channel that can be selected as the key should be on the same page or the same type of bus. You cannot select channels which are on different pages or on a different bus. Also, you cannot select a bus between the AUX 1 to 4 and AUX 5 to 8 blocks as the AUX SEND bus. Examples of when you cannot select a particular channel as the key: Cannot select CH 30 as the key for CH1 (on a different page) Cannot select MTR 1 as the key for CH1 (on a different page) Cannot select AUX 1 as the key for MTR 1 (Bus type is different.) Cannot select AUX 7 as the key for AUX 1 (AUX block is different.)</p> <p>Channels or busses which cannot be selected are not listed or are dimmed if listed.</p>

(3) Diagram in the left column on page 52

Incorrect	Correct
<p>Linking of AUX send buses</p> 	

(4) The second item of notes of ④ PUNCH IN/OUT section in the left column on page 78

Incorrect	Correct
<ul style="list-style-type: none"> •The items cannot be dropped out (cancels WRITE) automatically even when the AUDIO mode is cancelled. Drop out them using a manual operation. 	<ul style="list-style-type: none"> •The items are dropped out automatically when the AUDITION mode is cancelled.

(5) Line 1 in the left column on page 79

Incorrect	Correct
<p>8 Touch the OFF LINE button.</p>	<p>8 Touch the WRITE NOW button.</p>

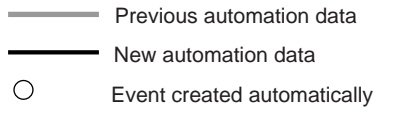
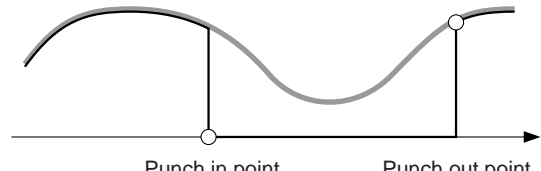
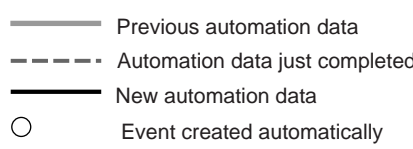
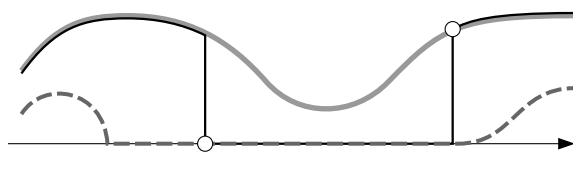
(6) Descriptions in “To calibrate the fader position” in the right column on page 96

Incorrect	Correct
<p>The fader characteristics may change with use. If a fader fails to move correctly, calibrate the fader position as follows:</p>	<p>The fader characteristics may change with use and a fader may fail to move correctly. Or a file in which calibration data for the fader is saved is corrupted accidentally and the fader may move to a different position when recalling the automation data or when executing the fader gang function. In such cases, calibrate the fader position as follows. Also, after the DMX-R100 software has been updated, the calibration data is reset to the default settings. Thus, after finishing a software update, calibrate the fader position, too.</p>

Continued

Operation Manual Errata

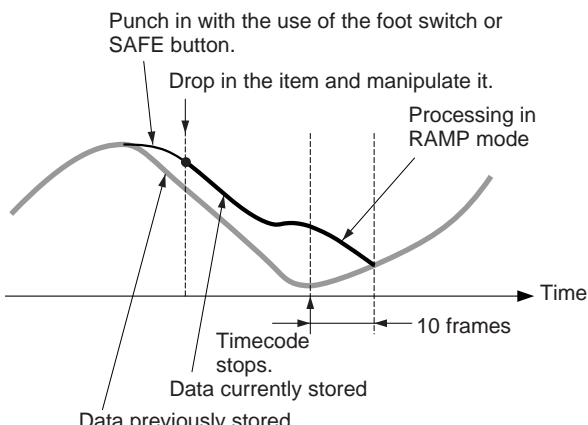
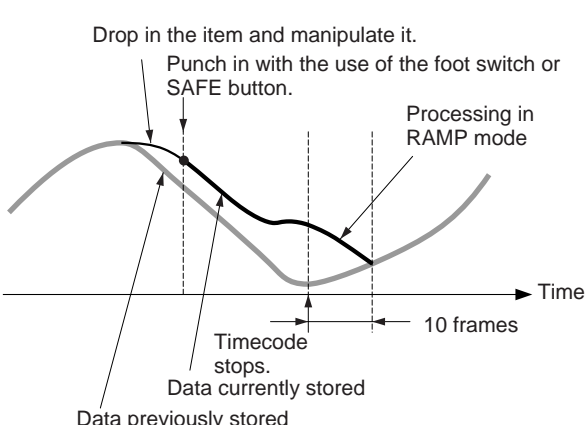
(7) Add the dotted line as shown to indicate the operation just completed in the diagram in the right column on page 113.

Incorrect	Correct
<p>  </p>  <p>Punch in point Punch out point</p> <p>For items in WRITE mode, the events are created automatically at the punch in and punch out points.</p>	<p>  </p>  <p>Punch in point Punch out point</p> <p>For items in WRITE mode, the events are created automatically at the punch in and punch out points.</p>

(8) Last item of step 10 in the left column on page 115

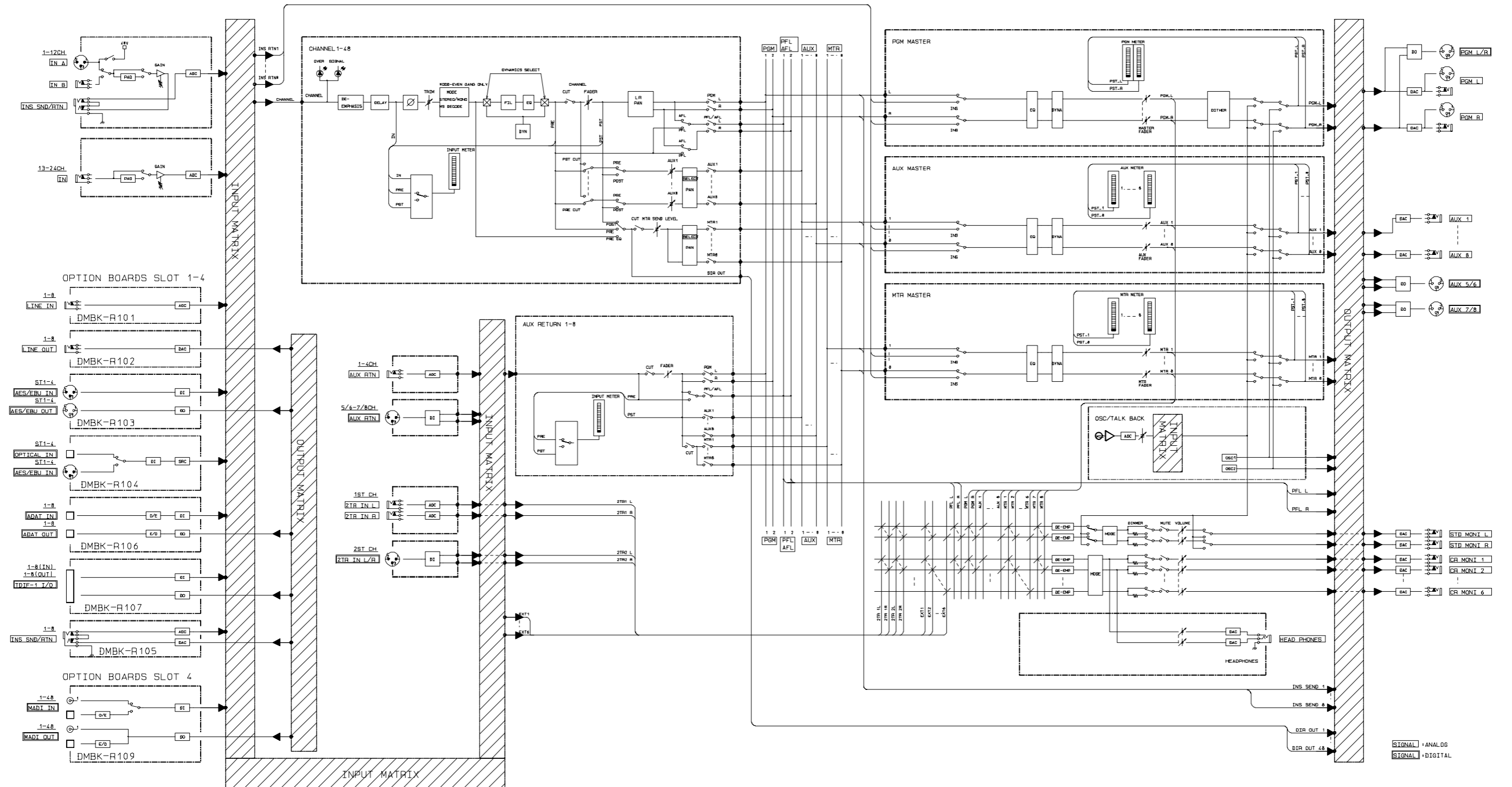
Incorrect	Correct
<p>In this case, the data returns to the previous stored point in BUTT mode, and at the same time all items are punched out of automation record.</p>	<p>In this case, the newly stored data returns to the previous stored point in BUTT mode when the SAFE button is set to ON.</p>

(9) Correct the points for the punch in and drop in RAMP mode (AUTO RETURN TIME: 10 frames) in the right column on page 116.

Incorrect	Correct
<p>In RAMP mode (AUTO RETURN TIME:10 frames)</p> 	<p>In RAMP mode (AUTO RETURN TIME:10 frames)</p> 

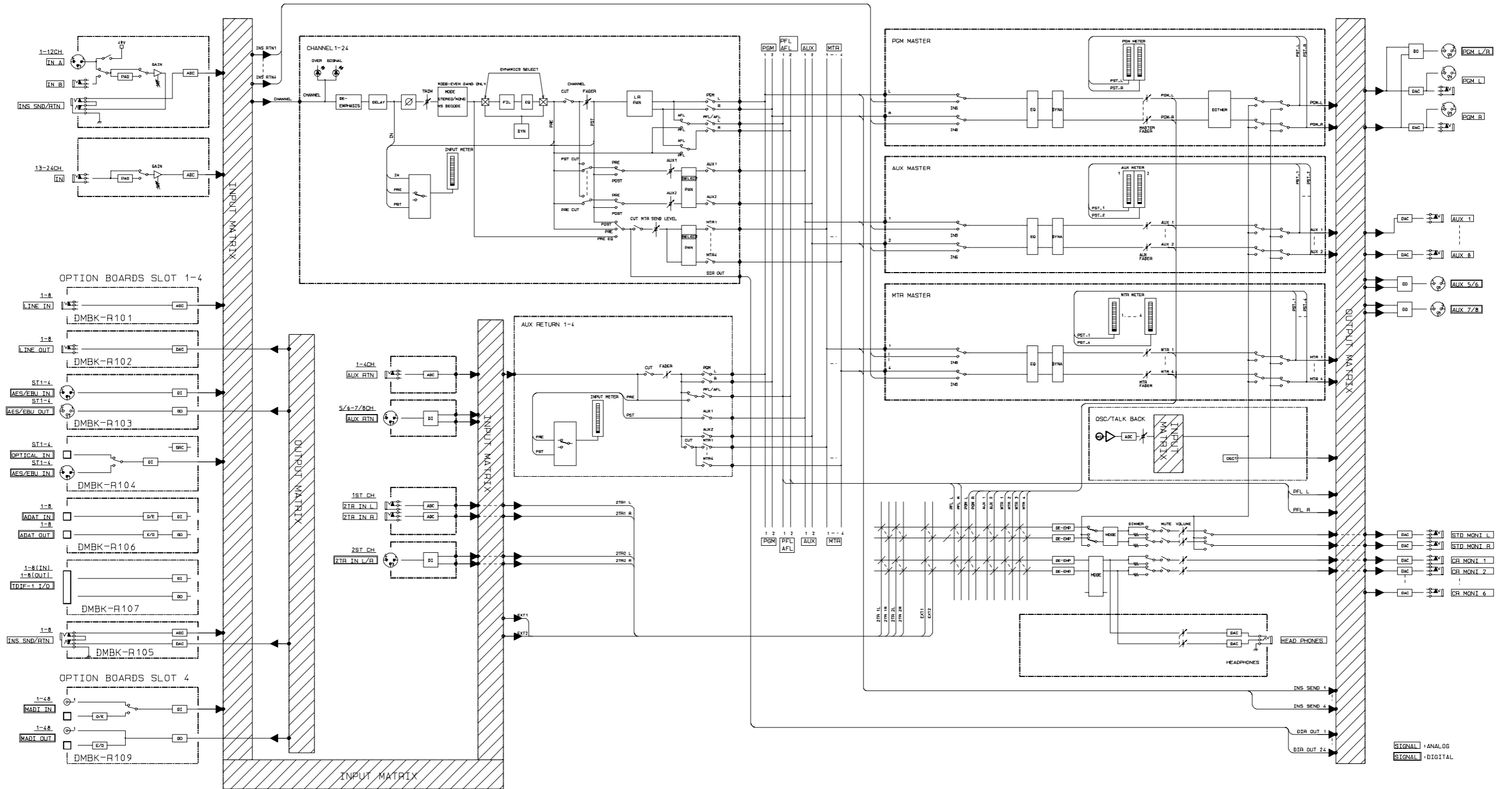
Block Diagram

Fs = 44.1/48 kHz (1 fs)



Block Diagram

Fs = 88.2/96 kHz (2 fs)



Commands Used for Machine Control

MIDI Machine Control Commands (MIDI 1 to 16)

STOP	0xF0, 0x7F, MACHINE ID, 0x06, 0x01, 0xF7	*STANDARD SPEED	
PLAY	0xF0, 0x7F, MACHINE ID, 0x06, 0x03, 0xF7	—64X	0x78, 0x40, 0x00
FF	0xF0, 0x7F, MACHINE ID, 0x06, 0x04, 0xF7	—32X	0x78, 0x20, 0x00
REW	0xF0, 0x7F, MACHINE ID, 0x06, 0x05, 0xF7	—16X	0x78, 0x10, 0x00
REC_STORE	0xF0, 0x7F, MACHINE ID, 0x06, 0x06, 0xF7	—8X	0x78, 0x08, 0x00
REC_EXIT	0xF0, 0x7F, MACHINE ID, 0x06, 0x07, 0xF7	—4X	0x78, 0x04, 0x00
REC_EXIT_PLAY	0xF0, 0x7F, MACHINE ID, 0x06, 0x07, 0x03, 0xF7	—2X	0x78, 0x02, 0x00
REC_BIT	0xF0, 0x7F, MACHINE ID, 0x06, 0x40, 0x05, 0x4F, 0x03,0, 0, 0, 0xF7	—1X —0.5X	0x78, 0x01, 0x00 0x78, 0x00, 0x40
LOCATE	0xF0, 0x7F, MACHINE ID, 0x06, 0x44, 0x02, 0x00, 0x08, 0xF7	—0.1X 0.0X	0x78, 0x00, 0x0D 0x38, 0x00, 0x00
LOCATE_POINT	0xF0, 0x7F, MACHINE ID, 0x06, 0x40, 0x06, 0x08, STANDARD TIMECODE(5Byte), 0xF7	0.1X 0.5X	0x38, 0x00, 0x0d 0x38, 0x00, 0x40
SHUTTLE	0xF0, 0x7F, MACHINE ID, 0x06, 0x47, 0x03, STANDARD SPEED* (3Byte), 0xF7	1X 2X	0x38, 0x01, 0x00 0x38, 0x02, 0x00
RESET	0xF0, 0x7F, MACHINE ID, 0x06, 0x0D, 0xF7	4X 8X	0x38, 0x04, 0x00 0x38, 0x08, 0x00
SEL_TIME_CODE READ	0xF0, 0x7F, MACHINE ID, 0x06, 0x42, 0x01, 0x01, 0xF7	16X	0x38, 0x10, 0x00
MOTION_TALY_READ	0xF0, 0x7F, MACHINE ID, 0x06, 0x42, 0x01, 0x48,0xF7	32X	0x38, 0x20, 0x00
RECORD_STATUS_READ	0xF0, 0x7F, MACHINE ID, 0x06, 0x42, 0x01, 0x4D, 0xF7	64X	0x38, 0x40, 0x00
TRACK_RECORD_READ	0xF0, 0x7F, MACHINE ID, 0x06, 0x42, 0x01, 0x4F, 0xF7		

Sony Serial Interface Protocol (REM 1 and 2)

STOP	0x20, 0x00	*SHUTTLE SPEED	
PLAY	0x20, 0x01	—64X	0x23, 0x7A
REC	0x20, 0x02	—32X	0x23, 0x72
FF	0x20, 0x10	—16X	0x23, 0x67
REW	0x20, 0x20	—8X	0x23, 0x5D
LOCATE	0x24, 0x31, TIME CODE(4Byte) FF/SS/MM/HH	—4X	0x23, 0x54
SHUTTLE	0x21, SHUTTLE SPEED* (2Byte)	—2X	0x23, 0x4A
REMOTE_EDIT_OFF	0x20, 0x64	—1X	0x23, 0x40
REMOTE_EDIT_ON	0x20, 0x65	—0.5X —0.1X	0x23, 0x37 0x23, 0x20
STATUS_SENS	0x61, 0x20, 0x0E	0.0X	0x13, 0x00
CURRENT_TIME	0x61, 0x0C, 0x05	0.1X	0x13, 0x20
EDIT_PRE	0x42, 0x30, 0, 0	0.5X	0x13, 0x37
EDIT_PRESENDS	0x61, 0x30, 0x02	1X 2X 4X 8X 16X 32X 64X	0x13, 0x40 0x13, 0x4A 0x13, 0x54 0x13, 0x5D 0x13, 0x67 0x13, 0x72 0x13, 0x7A

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