YAMAHA

PM1D VERSION 2
DIGITAL AUDIO MIXING SYSTEM

# PM1D System Software Version 2 Supplementary Manual

This supplementary manual primarily describes the additional and modified functions that have been incorporated into PM1D System Software version 2.0. Please read this manual in conjunction with the original manual that came with your Yamaha PM1D digital audio mixing system.

## Table of Contents

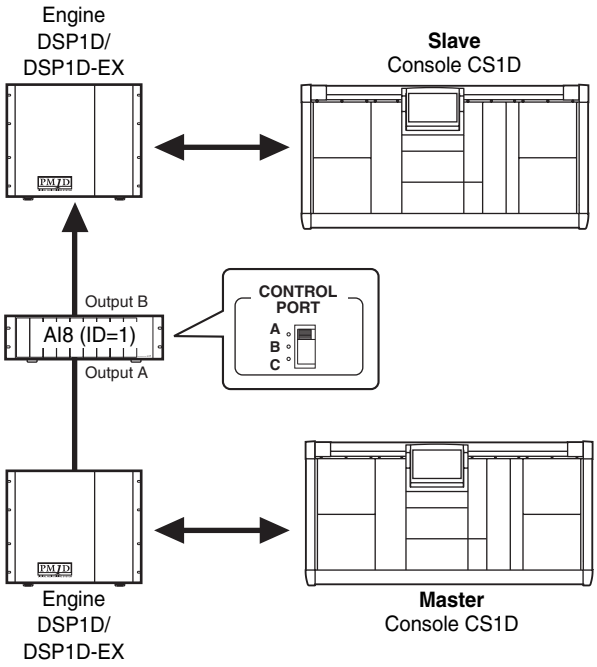


EN

# Main changes

## Auto Gain Adjustment function

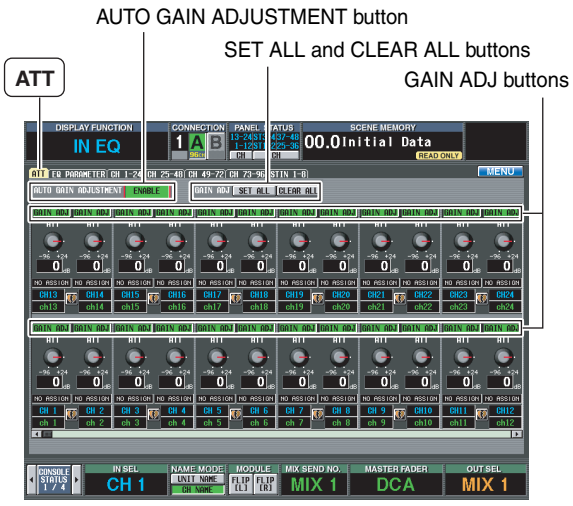
If you adjust the HA gain on the master CS1D (master for HA control), the attenuation on a slave CS1D can automatically be adjusted so that the channel output levels will remain unchanged.




The master unit is the CS1D (or PM1D Manager) connected via a DSP1D that is connected to the port through which the AI8 is controlled. The slave unit is the CS1D (or PM1D Manager) connected via a DSP1D that is connected to any port other than the master. You can switch between the master and slave.

### ■ Switching the Auto Gain Adjustment function on and off

**1. On the slave CS1D, display the ATT screen for the IN EQ function.**




**2. In the upper left of the screen, click the AUTO GAIN ADJUSTMENT button to enable the function.**

The Auto Gain Adjustment function is now enabled.

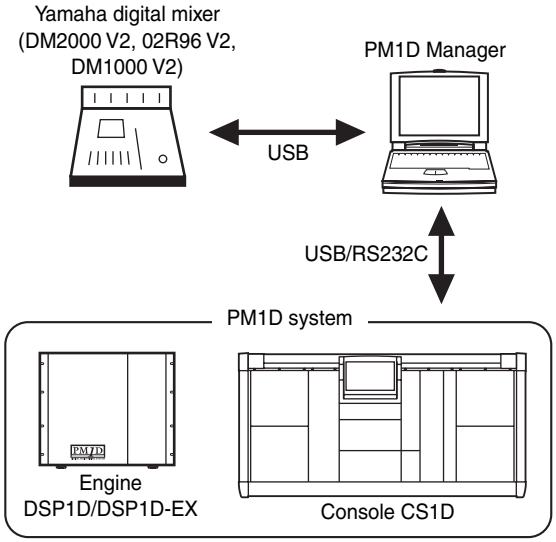

**3. Turn the GAIN ADJ button on or off to switch the function for each channel on or off.**


**Note**

- *Click the SET ALL button to turn on the function for all channels globally. Click the CLEAR ALL button to turn off the function for all channels globally.*
- *In most cases, turn on the Auto Gain Adjustment function only on the slave CS1D unit. If you turn on the function on the master CS1D unit, the output level of the master CS1D will also be adjusted automatically.*
- *The GAIN ADJ button's on/off status is not linked even if the corresponding two channels are paired. Even if the GAIN ADJ button of either one of the paired channels is turned on, the attenuators will not be linked.*
- *When you turn off the GAIN ADJ button for one of the paired channels, the attenuator value for the even-numbered channel will change to the value for the odd-numbered channel. In this case, please note that the volume level might increase more than expected.*
- *If the attenuator values are selected as one of the Recall Safe items, and if the GAIN ADJ button for the recalled scene is set to on, this function will apply to the recalled HA gain. The Recall Safe function does not apply to the GAIN ADJ button and AUTO GAIN ADJUSTMENT button settings. Therefore, you must first store these button settings in the scenes.*

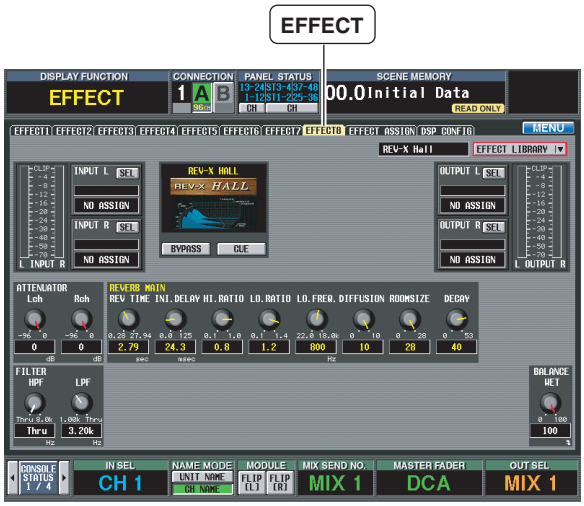
## PM1D Manager Remote Control function

Connecting the PM1D Manager and a Yamaha digital mixing console (DM2000, 02R96, or DM1000) via USB enables you to remotely control the PM1D system from the digital mixing console. For details, refer to the PM1D Manager V2 Owner's Manual.



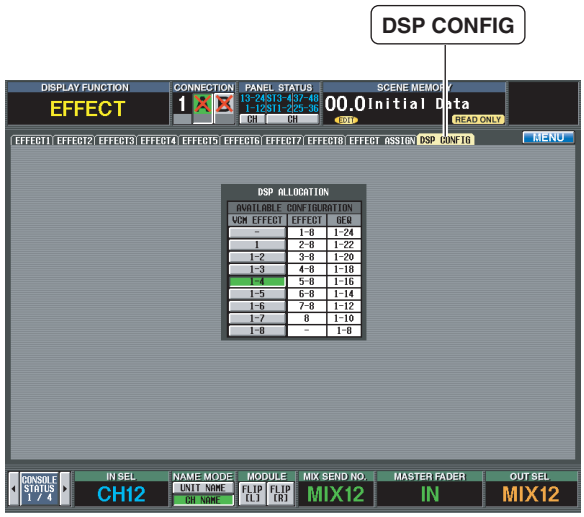
## VCM Effects available

Various effects sold as Add-On Effects packages for Yamaha digital mixing consoles (such as DM2000) are now included as standard. To use the VCM effects, you must first specify the number of VCM effects you wish to use to limit the number of available GEQ modules.




The VCM effects employ Virtual Circuitry Modeling technology, and include compressors and EQs that model the characteristics of analog circuits, OpenDeck, which emulates tape compression created by open reel tapes; and the REV-X reverb effect, which is based on a newly-developed algorithm and provides richly reverberant sound quality with smooth attenuation. For more information on the VCM effects, please refer to the Appendix on page 18.

To use the VCM effects, you must first specify the number of VCM effects you wish to use in the following DSP CONFIG screen to limit the number of available GEQ modules.



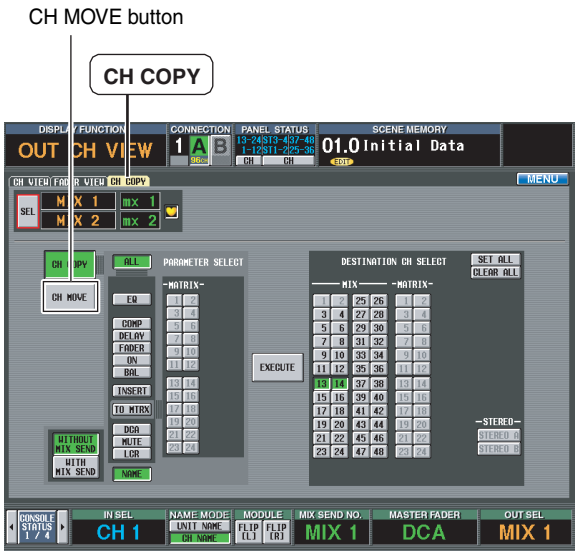

| Value | VCM effects | Conventional effects | Available GEQ |
|---|---|---|---|
| — | — | EFFECT 1–8 | GEQ 1–24 |
| 1 | EFFECT 1 | EFFECT 2–8 | GEQ 1–22 |
| 1-2 | EFFECT 1–2 | EFFECT 3–8 | GEQ 1–20 |
| 1-3 | EFFECT 1–3 | EFFECT 4–8 | GEQ 1–18 |
| 1-4 | EFFECT 1–4 | EFFECT 5–8 | GEQ 1–16 |
| 1-5 | EFFECT 1–5 | EFFECT 6–8 | GEQ 1–14 |
| 1-6 | EFFECT 1–6 | EFFECT 7–8 | GEQ 1–12 |
| 1-7 | EFFECT 1–7 | EFFECT 8 | GEQ 1–10 |
| 1-8 | EFFECT 1–8 | — | GEQ 1–8 |

**Note**

- *To use VCM effects on a single effect module, you must disable two GEQ modules.*
- *If you change this setting, the effect and GEQ output will be temporarily muted.*
- *The disabled GEQ modules still enable you to control the parameters, but the output will be muted.*
- *You can recall these new effects in the same way as the existing effects. That is, you recall the desired effects from the Effect library.*
- *Please note that if you mix a signal processed with VCM effects with a signal that utilizes a different routing, a difference in time resulting from the different signal paths may cause a comb filter effect (a phenomena in which the level of some frequencies decreases).*

## Channel Move function in the CH COPY screen

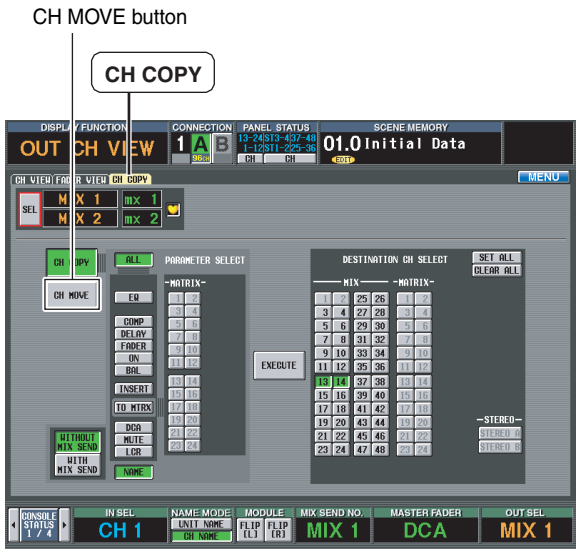
In addition to the CH Copy function in the CH COPY screen, which copies channels globally, a CH Move function that moves channels is now available.




The CH Move function enables you to move any input or output channels to specified channel locations. When the channels are moved, the channels between the move source and destination channels will move forward or backward accordingly. To use the CH Move function, you can either use the CH COPY screen or operate the keys on the top panel.

## ■ Moving the channels in the CH COPY screen

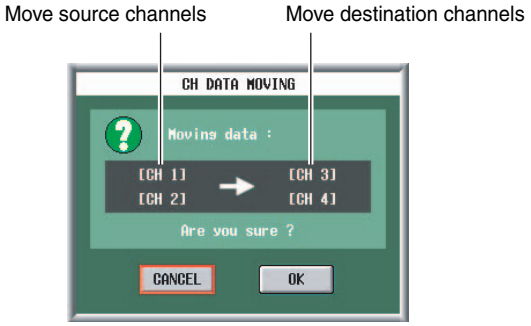
1. **Display the CH COPY screen for the IN CH View or OUT CH View function.**




2. **In the CH COPY/CH MOVE section, turn on the CH MOVE button.**
   If the CH COPY button is on, you can use the usual Channel Copy function.


3. **Press the [SEL] switches to select the channels you wish to move.**
4. **Select the destination channels in the DESTINATION CH SELECT section.**

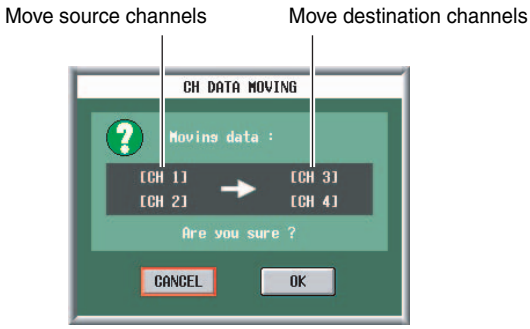

5. **Click the EXECUTE button.**
   The CH DATA MOVING pop-up window appears, indicating the move source and destination channel numbers.




6. **Click the OK button to execute the function.**
   The channels are now moved to the new locations.

## ■ Moving the channels from the top panel

1. **Press the [SEL] switches to select the input channels you wish to move.**
2. **Press the [CHANNEL COPY] key.**
3. **Hold down the [SHIFT] key and press the [SEL] switch of the destination channels.**
   The CH DATA MOVING pop-up window appears, indicating the move source and destination channel numbers.




4. **Click the OK button to execute the function.**
   The channels are now moved to the new locations.

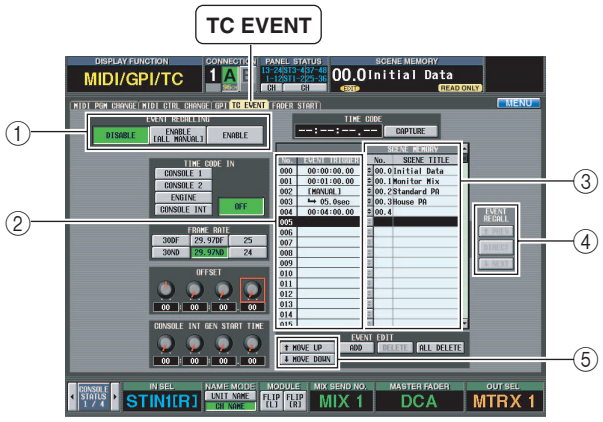
### Note

- *The move source channel can be a single channel or two channels that can be paired.*
- *You can move a single channel under the following conditions: There are no paired channels between the move source and destination channels, AND all the following parameters are turned off: HA GAIN GANG, HA A/B LINK, GATE LINK, COMP LINK, DELAY GANG, GANG PAN/INV PAN/BALANCE in PAN MODE, and M/S DECODE.*
- *If you move two channels, the first channel of the destination channels will be the first of the two channels that can be paired. Therefore, moving two channels will never swap between the left and right channels.*
- *You can move the channels only within the following channel sections:*
  - *Input channels 1–96*
  - *Stereo input channels 1–8*
  - *MIX channels 1–48*
  - *STEREO A/B channels*
  - *MATRIX channels 1–24*

# Changes in Scene Memories and Libraries

## Expanding the Event Recall function in the TC EVENT screen

In the TC EVENT screen, you can now register scenes in the order of use, so that these scenes can be recalled manually, or automatically according to the specified interval time.




The TC EVENT screen features the following additional functions:

### ① EVENT RECALLING


Use the following three buttons to switch the event list operation.

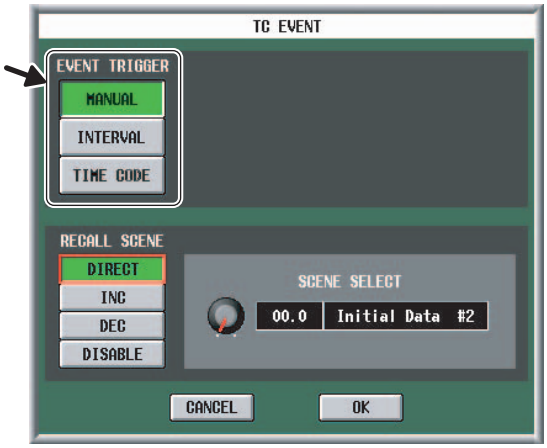
| Button | function |
|---|---|
| **DISABLE** | The Event List function will not recall scenes registered in the event list. |
| **ENABLE [ALL MANUAL]** | Scenes registered in the event list will be recalled only by manual operation. If the list contains events for which a time code has been specified, the candidate event for recall will change as time code progresses, but events will not actually be recalled unless you recall them manually. |
| **ENABLE** | Scenes registered in the event list will be recalled according to the specified condition (time code, interval, or manual operation). |

The upper part of the display will show TC [MJ] indicator if ENABLE [ALL MANUAL] is selected, or TC indicator if ENABLE is selected.

### ② EVENT TRIGGER

This column indicates the way in which each event is recalled.

Click the ⇕ button to display the TC EVENT pop-up window, then click one of the following three buttons to select the recall condition.

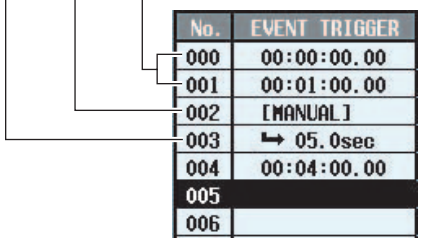



| Button | function |
|---|---|
| **MANUAL** | You can use the EVENT RECALL button in the EVENT RECALL section (④) or a USER DEFINE switch to recall the event. "[MANUAL]" appears in the EVENT TRIGGER column. |
| **INTERVAL** | The scene will be recalled when the specified time has elapsed since the preceding scene was recalled. If you select this button, specify the INTERVAL TIME parameter in the range of 0.1 through 999.9sec. An " ↳ " symbol and the interval time will appear in the EVENT TRIGGER column of the event list. |
| **TIME CODE** | The scene will be recalled when the time code (LTC or internal time code) reaches the specified time. If you select this button, specify the time code (hours/minutes/seconds/frames). The specified time code will appear in the EVENT TRIGGER column of the event list. |

Event that is recalled when the specified time has elapsed since the preceding scene was recalled

Event that will be recalled manually

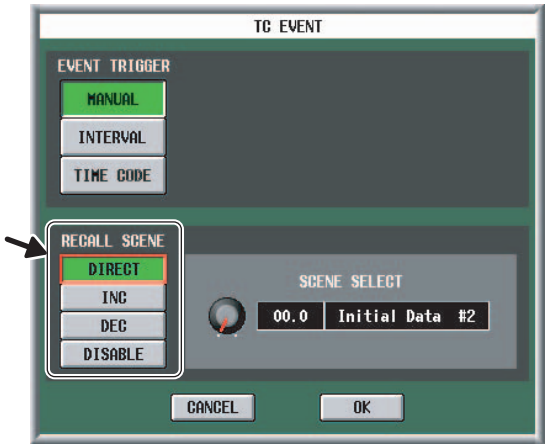
Events that will be recalled when the time code reaches the specified time



### ③ SCENE MEMORY

These are the number and title of the scene to be recalled.

Click the ⇕ button to display the TC EVENT pop-up window, then click the number of a scene to select it.




| Button | Function |
|---|---|
| **DIRECT** | Recalls the specified scene. Specify a scene to recall in the section to the right. |
| **INC** | Recalls the subsequent scene (registered just after the current scene). |
| **DEC** | Recalls the previous scene (registered just before the current scene). |
| **DISABLE** | Recalls no scene. |

### ④ EVENT RECALL

These functions enable you to recall events. The following three buttons are provided.

| Button | Function |
|---|---|
| **PREV** | When you click this button, the event *preceding* the last-recalled event in the list will be recalled and selected. |
| **DIRECT** | When you click this button, the event currently selected in the event list will be recalled. |
| **NEXT** | When you click this button, the event *following* the last-recalled event in the list will be recalled and selected. This button is useful when you recall an event that has been assigned as "[MANUAL]" in the EVENT TRIGGER column. |

### ⑤ MOVE UP/MOVE DOWN

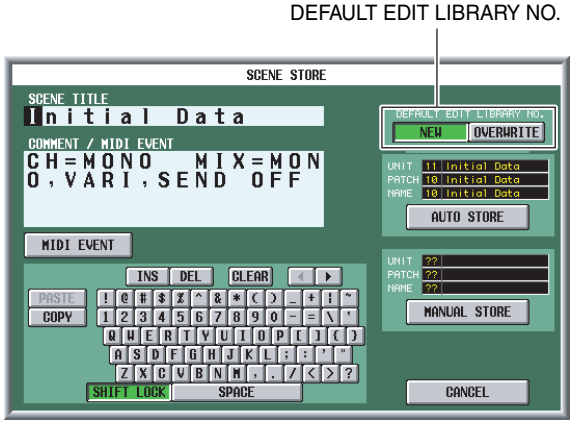

These buttons move the currently-selected event one position earlier (MOVE UP) or later (MOVE DOWN) in the event list.

**Note**

- *If the EVENT TRIGGER column of the selected event shows a time code, these buttons will be grayed-out and unavailable. To change the order of each event that displays a time code, change the time code.*

## Overwriting libraries during the Auto Store operation

When you store scenes using the Auto Store function, you can now select an unused library or the original library as the initial store destination.




The following buttons are now available in the SCENE STORE pop-up window that is displayed when you press the SCENE MEMORY [STORE] switch (or the STORE button in the MEMORY screen).


| DEFAULT EDIT LIBRARY NO. | |
|---|---|
| **NEW** | The lowest unused library numbers will be selected. (This is the same as the previous software version.) |
| **OVERWRITE** | The number of the most-recently recalled library will be selected. (If the scene was specified as read-only, or if the corresponding library is write-protected, the lowest-numbered unused library will be selected.) This selection is useful when you wish to prevent a particular library from becoming full or lacking space during the Auto Store operation, or when you wish to edit a particular library. |

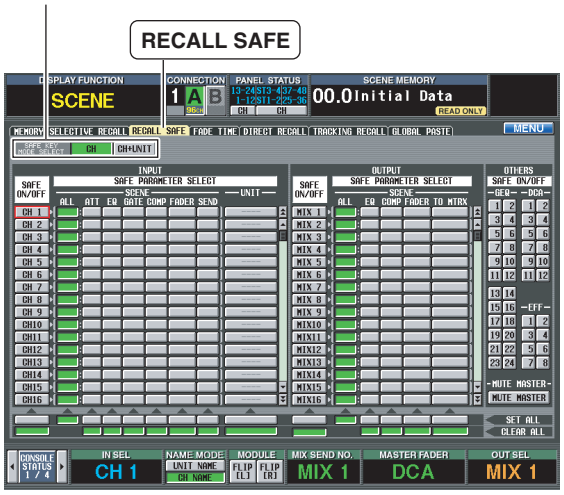
**Note**

- *This setting is remembered when you close the pop-up window.*

## Unit settings can be included in the Recall Safe channel settings

You can globally apply the Recall Safe function to settings for units that are patched to Recall Safe channels, as well as to the Recall Safe channel settings themselves.

SAFE KEY MODE SELECT section





| SAFE KEY MODE SELECT | |
|---|---|
| CH | If you turn on or off the Recall Safe function for the selected channel from the panel or in the IN CH VIEW screen, only the Recall Safe function for the channel is turned on or off. (This is the same as the previous software version.) |
| CH+UNIT | If you turn on or off the Recall Safe function for the selected channel from the panel or in the IN CH VIEW screen, the Recall Safe function for both that channel and the unit patched to the channel is turned on or off. |

**Note**

- *Selecting the Recall Safe items using the SAFE [RECALL] switch on the panel or the button in the IN CH VIEW screen (when the CH+UNIT button is turned on) provides the same result as turning on the SAFE ON/OFF button and UNIT button on the screen (when the CH button is turned on).*
- *When the CH+UNIT button is turned on, the SAFE [RECALL] switch on the panel or the button in the IN CH VIEW screen is linked to the on/off operation of the SAFE ON/OFF and UNIT buttons on the screen.*

## Additional preset scenes

Factory-shipped preset scenes 00.0 – 00.9 in the scene memory were reviewed and replaced with more practical scenes. For details, please refer to the "Scene Memory Preset List" on page 15.

**Hint**

- *To use the preset scenes, follow the steps below:*
  1. *Recall the desired preset scene.*
  2. *In the INPUT PATCH screen, patch the input channels that use the signals from the connected units. When you click the AUTO SETUP button, the unit signals are patched from Channel 1 in the order of the connected units.*
  3. *In the OUTPUT PATCH screen, patch the buses to the signals of the connected units.*

**Note**

- *Please note that if you mix signals that have different paths, a difference in the time taken via the different signal paths may cause a comb filter effect (a phenomena in which the level of some frequencies decreases).*

## Expanded user area for Input EQ/ Channel libraries

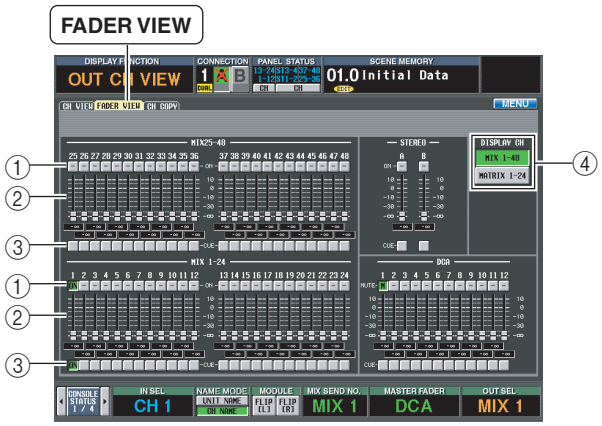
The user area for the Input EQ library and Input Channel libraries has been expanded.

- **Input EQ library**
  #001 – 199 (#038 – 199 are the user area.)
- **Input Channel library**
  #000 – 199 (#001 – 199 are the user area.)

# Changes and additions of screens

## New FADER VIEW screen

The FADER VIEW screen has been added to the IN CH View function and OUT CH View function.




### ① ON/MUTE

These buttons enable you to switch the channels on/off, and switch DCA group muting on/off. They are linked to the [ON] switches of the corresponding channels and the [MUTE] switches of the DCA groups.

### ② Level

These buttons enable you to adjust the level of the channels and DCA groups. The current value is shown in the box immediately below. They are linked to the encoder or fader of the corresponding channel or DCA group.

### ③ CUE

These buttons enable you to switch cue monitoring on/off for the channels and DCA groups. They are linked with the [CUE] key of the corresponding channel or DCA group.

### ④ DISPLAY CH

Switches the channels that are shown in the FADER VIEW screen.

**• When you are using the IN CH View function:**

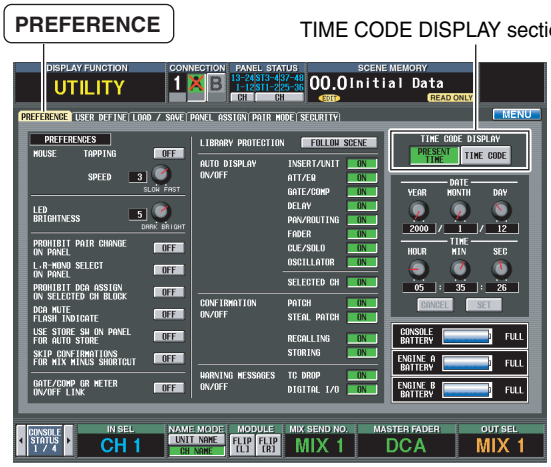
| | |
|---|---|
| **INPUT [PANEL]** | Channels specified via the Panel Assign function, and DCA groups 1–12 |
| **CH 1-48/ST IN 1-4** | Input channels 1–48, ST IN channels 1–4, DCA group 1–12 |
| **CH 49-96/ST IN 5-8** | Input channels 49–96, ST IN channel 5–8, DCA groups 1–12 |

**• When you are using the OUT CH View function:**

| | |
|---|---|
| **MIX 1-48** | MIX channels 1–48, STEREO A/B channels, DCA groups 1–12 |
| **MATRIX** | MATRIX channels 1–24, STEREO A/B channels, DCA groups 1–12 |

## Clock on the meter bridge

The TIME CODE indicator on the meter bridge block can now display the current time. Also, an additional parameter enables you to switch between the current time and time code.

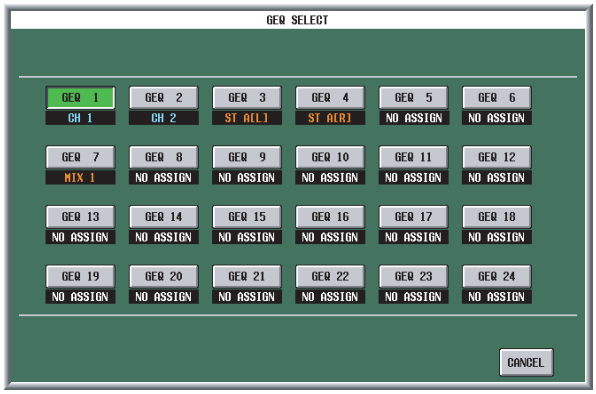




| TIME CODE DISPLAY | |
|---|---|
| **PRESENT TIME** | Displays the current time in 24-hour format (hours/minutes/seconds). |
| **TIME CODE** | Displays the time code. |

## Displaying the GEQ routings

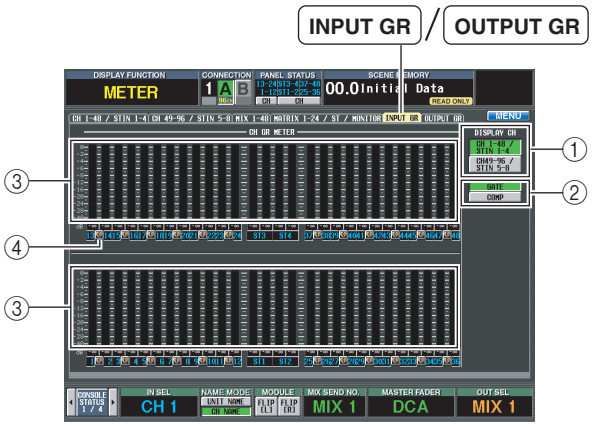
When you select a GEQ module in the GEQ PARAMETER screen, the GEQ SELECT pop-up window enables you to identify any GEQ modules that have already been patched.




This window displays the signal routing of already-patched GEQ modules, and displays “NO ASSIGN” for unpatched GEQ modules.

## Displaying the GR meters

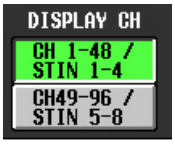
The INPUT GR screen and OUTPUT GR screen have been added to the Meter function. These screens display the gain reduction meters for Input channel gates and compressors, and Output channel compressors.




### ① DISPLAY CH

Switches the channels that are displayed in the INPUT GR and OUTPUT GR screens.

**INPUT GR screen:**




| | |
|---|---|
| **CH 1-48/ST IN 1-4** | Input channels 1–48, ST IN channels 1–4 |
| **CH 49-96/ST IN 5-8** | Input channels 49–96, ST IN channels 5–8 |

**OUTPUT GR screen:**


| | |
|---|---|
| **MIX 1-48** | MIX channels 1–48 |
| **MATRIX 1-24/STEREO** | MATRIX channels 1–24, STEREO A/B channels |

### ② GATE/COMP (Gate/Compressor)


These buttons select whether the meters will display gain reduction for the Gate or Compressor. These buttons appear only in the INPUT GR screen.

### ③ Meters

These peak level meters indicate the amount of gain reduction for each channel. The current fader value is shown in the box below.

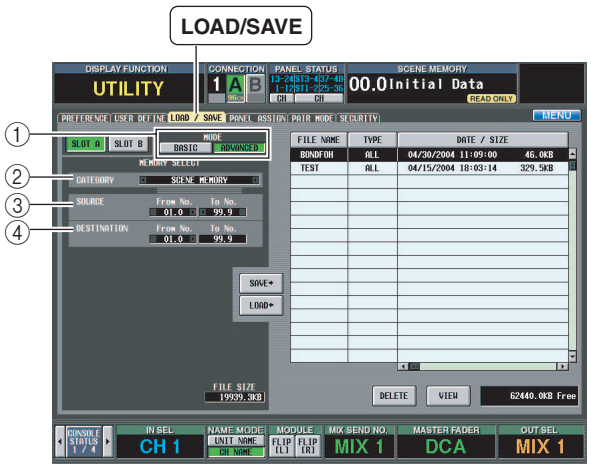
### ④ Pair icon

This icon indicates the pairing status of two adjacent odd-numbered/even-numbered channels.

# Other changes

## Filtering during save or load operations

You can specifically select any region of any scene or library data to be saved to a memory card. You can also specifically select any region of any scene or library data to be loaded from a memory card.




In addition to BASIC mode (in which you can save the entire or specified data in the scene memories or libraries to a memory card, or load them from a memory card), ADVANCED mode enables you to save or load a specified range of the data.

### ■ ADVANCED mode:

When you turn on the ADVANCED button in the LOAD/SAVE screen, the left side of the screen will display the following items:

#### ① MODE


Switches between BASIC and ADVANCED mode.

#### ② CATEGORY


Indicates the category of data that is selected for saving or loading: scene memory or a type of library. Click the [◀]/[▶] buttons at left and right or use the [DATA] encoder to change the category.

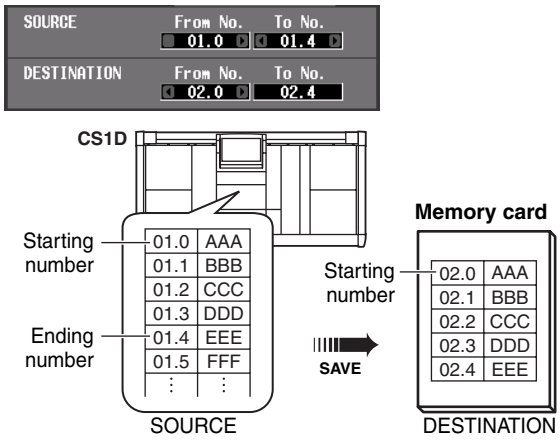
#### ③ SOURCE (save/load source numbers)


Indicates the starting and ending numbers of the scene memory or library items that will be saved to or loaded from the card. Click the [◀]/[▶] buttons at the left and right in each box or use the [DATA] encoder to change the numbers.

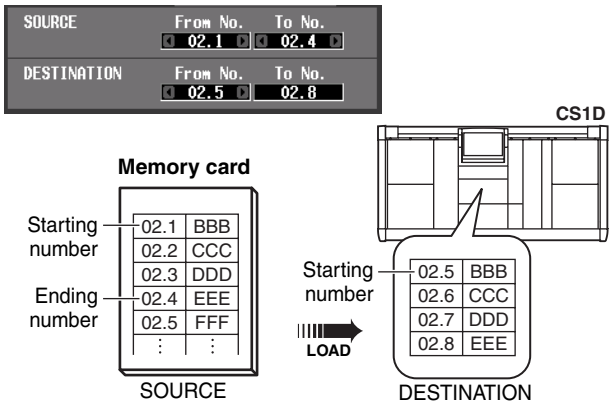
#### ④ DESTINATION (save/load destination numbers)


Indicates the starting and ending numbers of the scene memory or library items into which the specified data will be saved or loaded. If you want to change the save/load destination numbers, click the [◀]/[▶] buttons at the left and right of the starting number box or use the [DATA] encoder. (The value in the ending number box will change automatically according to the starting number and the source range.)

**When you change the save destination starting number:**




**When you change the load destination starting number:**

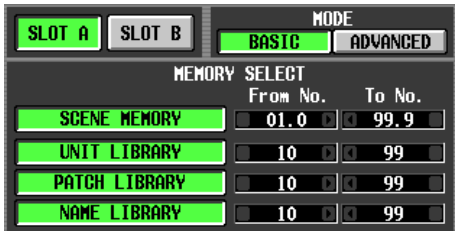



**Note**

- *To format a memory card first, use a computer or other external device and select the FAT16 format. The CS1D does not support the FAT 32 format.*
- *You can load the data you saved using System Software older than version 2.0.*
- *The preset effects in the Effects library of System Software version 2.0 includes VCM effects. Therefore, if you try to load the Effects library data of an older version, part of the data may not be loaded. In such a case, change the load destination starting number in the DESTINATION section, then load the data again.*

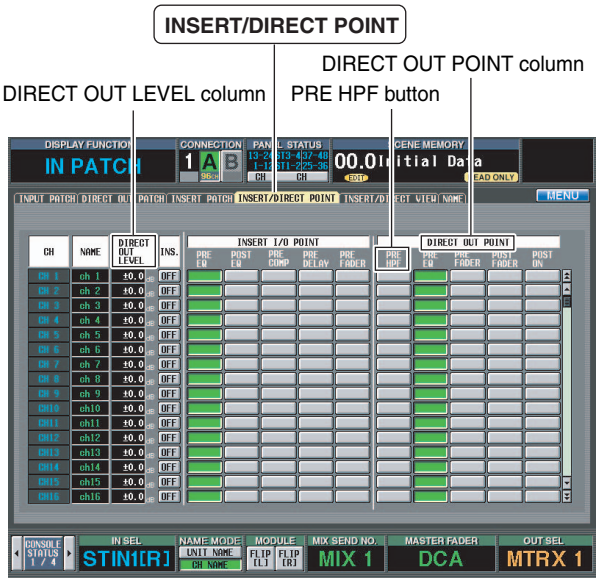
### ■ BASIC mode:

In BASIC mode, you can now specify the range of data to be saved or loaded for the Unit library, Patch library, and Name library.

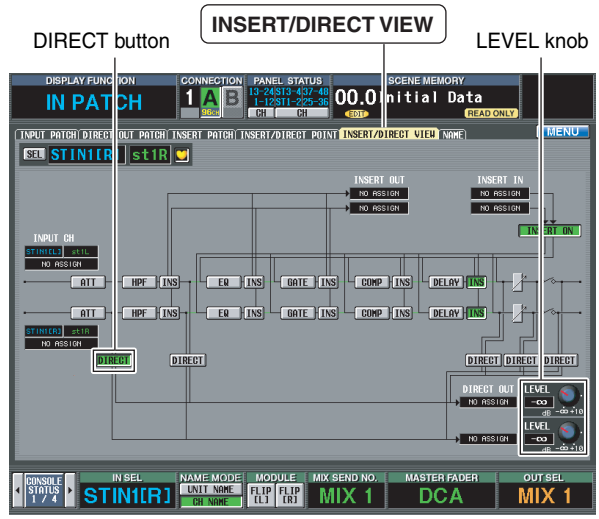


## Direct output just before the HPF

The signal can be now directly output just before the Input channel HPF. You can also adjust the direct output level.




To select a position just before the HPF as the direct output on the INSERT/DIRECT POINT screen, turn on the PRE HPF button for the corresponding channels in the DIRECT OUT POINT column. The DIRECT OUT LEVEL column will indicate the direct output levels. However, to adjust the level, use the INSERT/DIRECT VIEW screen.



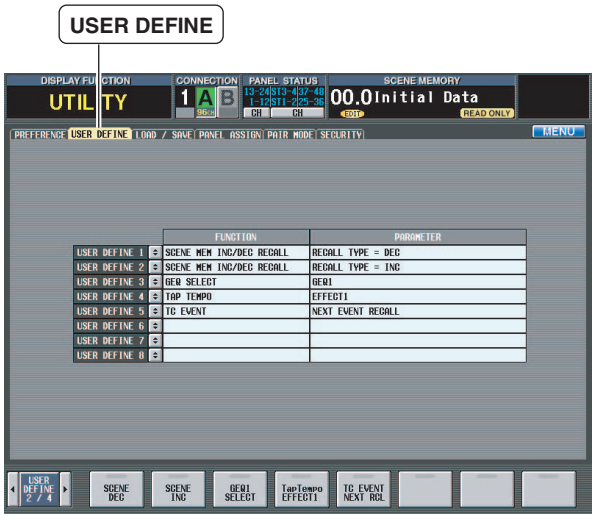

To select a position just before the HPF as the direct output in the INSERT/DIRECT VIEW screen, turn on the DIRECT button located just before the HPF. Use the LEVEL knob located in the lower right corner of the screen to change the direct output level. The direct output levels are not linked even if the corresponding two channels are paired.

### Hint

- *These settings are saved in scene memories.*
- *If you load data that was saved in a System Software version older than version 2.0, the direct output level will be set to 0 dB. The default direct output point is PRE EQ.*

## Additional functions for the USER DEFINE switches

More functions are available that can be assigned to the USER DEFINED [1]–[8] switches.



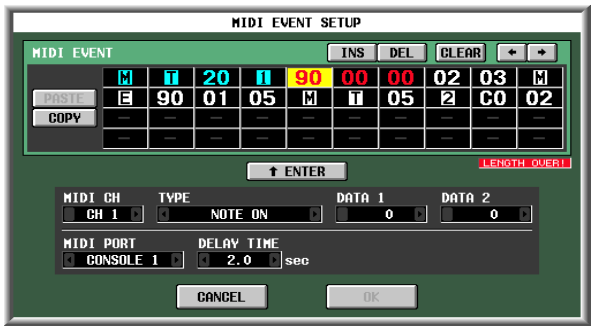

The following functions have been added:

| FUNCTION | PARAMETER | Explanation |
|---|---|---|
| GEQ SELECT | GEQ1–24 | Display the GEQ PARAMETER screen. |
| TAP TEMPO* | CURRENT | Uses the Tap Tempo function available on the displayed screen. |
| | EFFECT1–8 | Uses the Tap Tempo function available for the specified effect. |
| TC EVENT | NEXT EVENT RECALL | Recalls the subsequently-numbered event. |
| | PREV EVENT RECALL | Recalls the previously-numbered event. |
| | DIRECT EVENT RECALL | Recalls the specified event registered on the TC EVENT screen. |
| | ENABLE/DISABLE | Switches between the ENABLE button and DISABLE button on the TC EVENT screen. |
| | ENABLE[ALL MANUAL]/DISABLE | Switches between the ENABLE [ALL MANUAL] button and DISABLE button on the TC EVENT screen. |
| TALKBACK DIRECT ASSIGN | MIX 1–48, MATRIX 1–24, STEREO, MONITOR B | Send the talkback signal to the specified output channels. (If you turn it off, the previous talkback setting will be used.) |

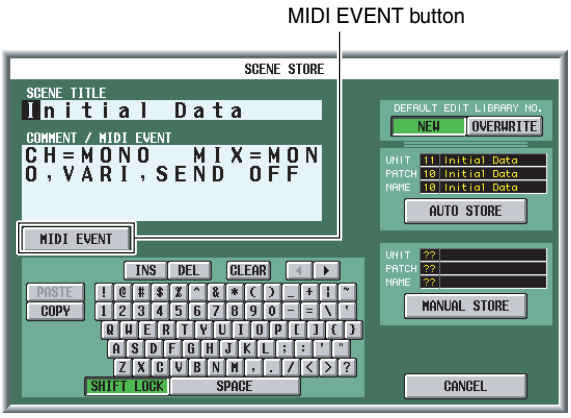
* This function is enabled only when an effect that features the TEMPO parameter is selected. The USER DEFINE switch LED flashes at the specified tempo while and after you set the tempo. For more information on the Tap Tempo function, please refer to page 51 of the PM1D System Software Version 1.5 Supplementary Manual.

## Inserting MIDI events from the event list

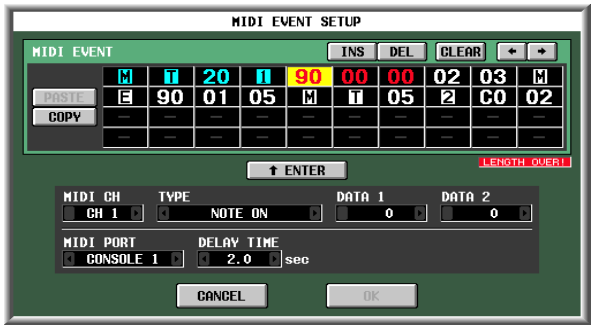
In addition to entering hexadecimal values, you can also specify MIDI events for scene recall by entering the desired MIDI events using the list in the new MIDI EVENT SETUP pop-up window. To open this pop-up window, a MIDI EVENT button has been added to the SCENE STORE pop-up window and the SCENE TITLE pop-up window.
You can also delay the output of MIDI events by a specified time.




1. **Click the STORE button on the MEMORY screen for the Scene function to display the SCENE STORE pop-up window. Alternatively, click the TITLE EDIT button to display the SCENE TITLE EDIT pop-up window.**




2. **Click the MIDI EVENT button to open the MIDI EVENT SETUP pop-up window.**




In this pop-up window, you can assign MIDI events using one of the following two methods:

### ① Directly inputting hexadecimal values

With this method, you directly input the message as hexadecimal values.
In this window, you can input a message by clicking the desired input box to select it (the box will be highlighted) and rotating the [DATA] encoder. Use the [INC]/[DEC] switches to move the input position.

When you click a box in which a hexadecimal value has been input, the range of values that can be interpreted as a valid MIDI message (including that box) will turn red. The lower part of the window displays the MIDI channel (MIDI CH), message type (TYPE), and data values (DATA 1, DATA 2) that are interpreted from this MIDI message, enabling you to verify that the appropriate MIDI message has been input.
You can use the following buttons to input or edit the message in this window.

| | |
|---|---|
| [◀]/[▶]buttons | Move the highlighted area to left or right. |
| **INS button** | Inserts a space (blank) at the highlighted position. Pressing the <Insert> key on a PS/2 keyboard will produce the same result. |
| **DEL button** | Deletes the character at the highlighted position. Pressing the <Delete> key on a PS/2 keyboard will produce the same result. |
| **CLEAR button** | Erases the entire message that was input in the MIDI message input boxes. |

### ② Specifying the type of message

With this method, you specify the desired MIDI channel, type of message, and data value. This information will be converted into the appropriate hexadecimal values.
Click the first box into which you want to input data. Next, click the [◀]/[▶] buttons at the left and right of the TYPE box or use the [DATA] encoder to select the type of message. Then use the MIDI CH, DATA 1, DATA 2, MIDI PORT boxes to specify the MIDI channel, MIDI event settings, and output port. The values that can be selected in the MIDI CH, DATA 1, and DATA 2 boxes will depend on the type of message you selected first.
The DELAY TIME box enables you to set the amount of time by which the MIDI event output is delayed after scene recall. You can set this delay time in 0.1 sec steps.

| TYPE | MIDI CH | DATA 1 | DATA 2 |
|---|---|---|---|
| NOTE OFF | 1–16 | Note number (0–127) | Note-off velocity (0—127) |
| NOTE ON | | | Note-on velocity (0–127) |
| KEY PRESSURE | | | Pressure value (0–127) |
| CONTROL CHANGE | | Control number (0–127) | Controller value (0–127) |
| PROGRAM CHANGE | | Program number (0–127) | — |
| CHANNEL PRESSURE | | Pressure value (0–127) | — |
| PITCH BEND | | Pitch bend MSB (0–127) | Pitch bend LSB (0–127) |
| EXCLUSIVE MASSAGE | — | | |

When you have specified all of the values, click the "↑ ENTER" button in the screen. The hexadecimal values for that message will be input in the input box of the MIDI EVENT SETUP window. As necessary, you can edit the message by clicking an input box and rotating the [DATA] encoder.

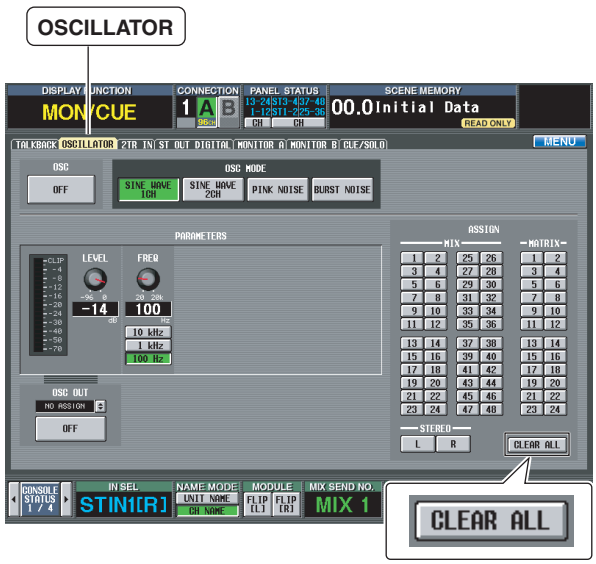
**Note**

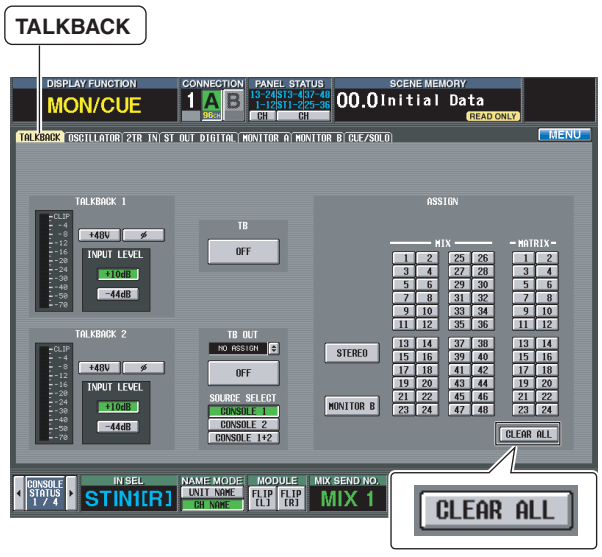
- *The maximum length of MIDI events you can enter is 32 bytes, including the MIDI output destination port and other data and comments. When the number of bytes exceeds the maximum, the "LENGTH OVER!" message will appear.*

- *You can follow the steps below to set the DELAY TIME using the SCENE STORE (or SCENE TITLE EDIT) pop-up window.*
  1. *Move the cursor to the COMMENT/MIDI EVENT section, then click the EVENT CODE SET button.*
  2. *Click T and numbers 0-9 on the character palette to specify the two-digit delay time in 100 msec steps. For example, if you wish to delay the MIDI event output from scene recall by 500 msec, enter "T05." You do not need to enter a value if you do not want to delay the event output.*
  3. *Click 1, 2 (Console 1 or 2), or E (Engine) on the character palette to configure a MIDI port to output MIDI events.*

## CLEAR ALL button added to the OSCILLATOR and TALKBACK screens

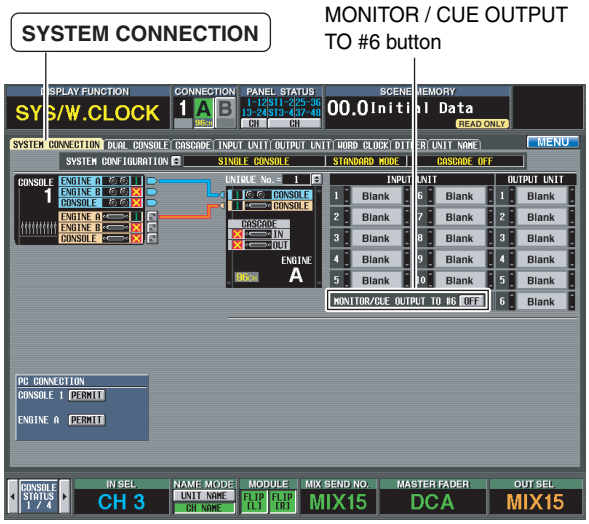
The OSCILLATOR and TALKBACK screens now feature a CLEAR ALL button that cancels all assignments to the buses.




## Outputting the MONITOR and CUE signals from the DSP1D

The DSP1D OUTPUT 6 connector can now output MONITOR A/B and CUE signals. This is convenient when you use the PM1D Manager's remote control function for the monitor/cue operation.





When you turn on the MONITOR/CUE OUTPUT TO #6 button in the SYSTEM CONNECTION screen, the MONITOR A/B and CUE 1/2 signals are output to the device connected to the DSP1D's OUTPUT 6 connector (channels 25-32). The following signals are output to the specified channels:

| Channel number | Output signal |
|---|---|
| 25/26 | MONITOR A L/R |
| 27/28 | MONITOR B L/R |
| 29/30 | CUE 1 L/R (Console 1 CUE signals) |
| 31/32 | CUE 2 L/R (Console 2 CUE signals) |

### Note

- *Even if you have set the output patch, when the MONITOR/CUE OUTPUT TO #6 is turned on, the MONITOR/CUE signals will have priority and will be output.*
- *The MONITOR/CUE signal output to the unit is the same as the signal output from the engine to the console. The TALKBACK DIMMER, CUE INTERRUPT, ON/OFF, and LEVEL controls on the console are ineffective for the signals output from the unit. Therefore, the meter indication does not necessarily reflect the level of the output signals. For details on the signals output from the engine, refer to the PM1D System Block Diagram.*

## No limitation in multiple selections for the Global Paste function

In the previous software version, the Global Paste function enabled you to select up to 100 scenes at a time. However, this limitation has been removed. However, if you select 101 or more scenes to paste, you will not be able to use the Undo function. In this case, back up all important data using the Select All function, then execute the Global Paste function.

## Selecting WITH MIX SEND in the CH COPY screen

In the previous software version, you could select WITH MIX SEND only when the ALL parameter was selected in the CH COPY screen for the Output CH View function. In the version 2.0 software, you can select WITH MIX SEND even if ALL is not selected.

## Support for the MY8-DA96 card

The MY8-DA96 card is now supported, and you can display and edit the contents of the card using the CS1D or PM1D Manager.

## Compatibility of created data

Any data created in System Software version 2.0 (such as scenes, libraries, setup data, etc.) cannot be loaded to a unit that runs System Software version 1 (i.e., all versions prior to version 2.0). However, any data created in System Software version 1 can be loaded to a unit that runs System Software version 2.0.

# Appendix

## Scene Memory Preset List

| Scene # | Title |
|---|---|
| **00.1** | **Front of House** |

This front of house preset scene is designed by a famous American front of house engineer. It features preset parameter values for the output channels, including Front Fill, Delayed Speaker, as well as Stereo Mix Send to the internal effects.

**INPUT CH1-96**

EQ ON, TO STEREO ON, MIX SEND ON, CH ON

**STEREO INPUT1-8: Internal EFFECT RETURN**

TO STEREO ON, CH ON

**MIX1-16: Internal EFFECT SEND**

PAIR ON, MIX ON, LEVEL 0 dB

**MIX17-18: Stereo Sub Feed**

PAIR ON, MIX ON, LEVEL 0 dB, GEQ INSERT, INSERT ON

**STEREO A-B**

STEREO ON, LEVEL 0 dB, GEQ INSERT, INSERT ON

**MATRIX1-12: Front Fill Speaker, Delay Speaker, Rec Out**

MATRIX ON, LEVEL –∞ dB, GEQ INSERT, INSERT ON (MATRIX1-6)

**GEQ1-12**

GEQ ON, LINK ON

| Scene # | Title |
|---|---|
| **00.2** | **Monitor** |

This monitor mix preset scene is designed by a famous American monitor engineer. MIX 1-20 feature the inserted GEQ as Wedge monitoring; MIX 25-44 emulate 10-channel in-ear monitoring. Four effects are assigned to each monitoring path. The stereo output is designed as Side Fill, featuring the inserted GEQ.

**INPUT CH1-96**

HPF ON—F: 50 Hz—SLOPE: 18 dB, EQ ON, MIX SEND ON—PRE FADER, TO STEREO ON, CH ON

**STEREO INPUT1-8: Internal EFFECT RETURN**

HPF ON—F: 50 Hz—SLOPE: 18 dB, EQ ON, MIX SEND ON – PRE FADER (If a signal sent to a Mix bus causes an internal feedback loop, the corresponding MIX SEND will be turned off.), TO STEREO ON (STEREO INPUT 1, 2, 5, 6), CH ON

**MIX1-20: Wedge Mix**

GEQ INSERT, INSERT ON, MIX ON, LEVEL 0 dB

**MIX21-24: Internal EFFECT1-4 SEND**

MIX ON, LEVEL 0 dB

**MIX25-44: In Ear Monitor**

PAIR ON, EQ ON, COMP ON—THR: 0 dB—RATIO: ∞: 1—ATTACK: 0 msec—KNEE: HARD, MIX ON, LEVEL 0 dB

**MIX45-48: Internal EFFECT5-8 SEND**

MIX ON, LEVEL 0 dB

**STEREO A-B: Side Fill Mix**

GEQ INSERT, INSERT ON, LEVEL 0 dB

**GEQ1-24**

GEQ ON, LINK ON (GEQ21-24)

| Scene # | Title |
|---|---|
| **00.3** | **FoH & Mon** |

This preset covers the front of house and monitor on a single console. The latter half of the mix is regarded as the monitor send, and the GEQ is inserted for Wedge monitoring. This preset setting emulates Front Fill and Delayed Speaker, with Matrix output.

**INPUT CH1-96**

EQ ON, TO STEREO ON, MIX SEND ON, CH ON

**STEREO INPUT1-8: Internal EFFECT RETURN**

TO STEREO ON, CH ON

**MIX1-16: Internal EFFECT SEND**

PAIR ON, MIX ON, LEVEL 0 dB

**MIX17-18: Stereo Sub Feed**

PAIR ON, MIX ON, LEVEL –∞ dB, GEQ INSERT, INSERT ON

**MIX25-36: In Ear Monitor**

PAIR ON, EQ ON, COMP ON —THR: 0 dB—RATIO: ∞: 1—KNEE: HARD, MIX ON, LEVEL 0 dB

**MIX37-48: Wedge Mix**

GEQ INSERT, INSERT ON, MIX ON, LEVEL 0 dB

**STEREO A-B**

STEREO ON, LEVEL 0 dB, GEQ INSERT, INSERT ON

**MATRIX1-12: Front Fill Speaker, Delay Speaker, Rec Out**

PAIR ON, MATRIX ON, GEQ INSERT, INSERT ON (MATRIX1-6)

**GEQ1-24**

GEQ ON, LINK ON (GEQ1-12)

| Scene # | Title |
|---|---|
| **00.4** | **In Ear Monitor** |

This preset simulates an in-ear monitoring mix. It is a highly practical preset, typical of the PM1D, with in-ear monitor and Wedge monitor categorized into Output DCA for emergency use.

**INPUT CH1-96**

ATT: –10 dB, HPF ON—F: 50 Hz—SLOPE: 18 dB, EQ ON, COMP ON, TO STEREO ON, MIX SEND ON, VARI PAN LINK ON, FIXED MIX PAN ON, CH ON, LEVEL 0 dB

**STEREO INPUT1-8: Internal EFFECT RETURN, 2-track Input**

ATT: –10 dB, HPF ON—F: 50 Hz—SLOPE: 18 dB, EQ ON, COMP ON, TO STEREO ON, MIX SEND ON, VARI PAN LINK ON, FIXED MIX PAN ON, PAN MODE: BALANCE, CH ON

**MIX1-24: In Ear Monitor**

PAIR ON, EQ ON, DCA 11 ASSAIGN, MIX ON, LEVEL 0 dB

**MIX25-36: Wedge Mix**

GEQ INSERT, INSERT ON, DCA12 ASSIGN, MIX ON, LEVEL 0 dB

**MIX45-48: Internal EFFECT SEND**

EQ ON, DCA9 ASSIGN, MIX ON, LEVEL 0 dB

**STEREO A-B**

EQ ON, LEVEL 0 dB

**GEQ1-24**

GEQ ON, LINK ON (GEQ1-12)

**DCA9, 11-12**

DCA LEVEL 0 dB

| Scene # | Title |
|---|---|
| **00.5** | **Musical** |

This preset simulates a musical mix scene. MIX1-12 are set to Fix, and are designed to be used as buses.

**INPUT CH1-96**

ATT: –3 dB, INSERT OFF—PRE DELAY, EQ ON, TO STEREO ON, FIXED MIX PAN ON

**STEREO INPUT1-8: Internal EFFECT RETURN, 2-track Input**

EQ ON, FIXED MIX PAN ON

**MIX1-12**

FIX, PAIR ON (MIX5-6,11-12), EQ ON, TO MATRIX ON—LEVEL: 0 dB (Even-numbered MIX bus sends from MIX 5 and 11, and odd-numbered MIX bus sends from MIX 6 and 12 are set to –∞ dB.), MIX ON, LEVEL 0 dB

**MIX13-48: Internal EFFECT SEND, etc.**

VARI, PAIR ON (MIX13-24), EQ ON, DCA12 ASSIGN (MIX13-22), DCA10 ASSIGN (MIX25-26), DCA11 ASSIGN (MIX33-35), MIX ON, LEVEL 0 dB

**STEREO A-B**

EQ ON

**MATRIX1-24**

EQ ON, MATRIX ON, LEVEL 0 dB

**EFFECT1-8**

EFFECT1: MIX25, EFFECT2: MIX26, EFFECT3: MIX27, EFFECT5: MIX33, EFFECT6: MIX34, EFFECT7: MIX35, EFFECT8: MIX36

| Scene # | Title |
|---|---|
| **00.6** | **OB Truck** |

This preset simulates a scene for an outside broadcasting truck or van. It features the HPF setting that is very practical for broadcasting application, and a MIX send setting that will simulate both internal and external effect sends.

**INPUT CH1-96**

HPF ON—F: 95 Hz—SLOPE: 18 dB, EQ ON, COMP ON, MIX1-12 SEND ON, FIXED MIX PAN ON, CH ON

**STEREO INPUT1-8: Playback, Internal EFFECT RETURN**

MIX1-12 SEND ON (STIN1-4), FIXED MIX PAN ON, CH ON

**MIX1-4: Internal EFFECT SEND**

MIX ON, LEVEL 0 dB

**MIX5-12: External EFFECT SEND**

PAIR ON (MIX5-8), MIX ON, LEVEL 0 dB

**MIX37-48: Wireless Camera Mix, Playback Mix, Mic Mix, etc.**

FIX, INSERT ON (MIX45-48), PAIR ON (MIX45-48), DELAY ON—86 msec@fs=48 kHz (MIX41), DCA11 ASSIGN (MIX45-46), DCA12 ASSIGN (MIX41, 47-48), TO STEREO ON (MIX41, 45-48), MIX ON (MIX41, 45-48), LEVEL 0 dB (MIX41, 45-48)

**STEREO A-B**

INSERT ON—POST ON, TO MATRIX ON—MATRIX1-2 SEND LEVEL: 0 dB—MATRIX3 SEND LEVEL:–3.1 dB (STEREO A L/R), STEREO ON, LEVEL 0 dB

**MATRIX1-3**

PAIR ON (MATRIX1-2), MATRIX ON, LEVEL 0 dB

**EFFECT1-8**

EFFECT1: MIX1, EFFECT2: MIX2, EFFECT3: MIX3, EFFECT4: MIX4, EFFECT5: MIX45-46, EFFECT6: MIX47-48, EFFECT7: STEREO B L/R, EFFECT8: STEREO A L/R, EFFECT5-8: MULTI BAND DYNA.

**DCA11-12**

DCA LEVEL 0 dB

| Scene # | Title |
|---|---|
| **00.7** | **Theatre** |

This preset simulates a theatrical mix scene. It features the default settings for L-C-R panning.

**INPUT CH1-*96***

HPF OFF—F: 20 Hz, EQ ON, LCR ON, CH ON

**STEREO INPUT1-8: Internal EFFECT RETURN, etc.**

HPF OFF—F: 20 Hz, EQ ON, LCR ON, CH ON

**MIX1-12: Stage Mix, Monitor Mix, etc.**

FIX (MIX1-4), EQ ON, DELAY ON —0.00 msec, MIX ON (MIX1-8), LEVEL 0 dB (MIX1-8)

**MIX13-48: Internal EFFECT SEND, etc.**

PAIR ON (MIX13-20), EQ ON, DELAY ON—0.00 msec (MIX25-48), MIX ON (MIX13-20,25-48), LEVEL 0 dB (MIX13-20)

**STEREO A-B**

LCR CENTER BUS CONTROL ON, EQ ON, TO MATRIX ON (STEREO A L/R), STEREO ON, LEVEL 0 dB

**MATRIX1-24: Delay Mix, etc.**

PAIR ON (MATRIX1-8), EQ ON, DELAY ON—0.00 msec, MATRIX ON, LEVEL 0 dB (MATRIX1-12)

**EFFECT1-8**

EFFECT1: MIX13-14, EFFECT2: MIX15-16, EFFECT3: MIX17-18, EFFECT4: MIX19-20

| Scene # | Title |
|---|---|
| **00.8** | **Broadcast** |

This preset simulates a broadcasting application. It includes input channel EQ and Comp settings that are typical to broadcasting, as well as multiple sends.

**INPUT CH1-24: Radio Lapel Mic**

EQ ON—LOW TYPE: SHELF—LOW F: 71 Hz—LOW G: –3 dB—HIGH MID Q: 0.90—G: +4 dB, COMP ON—THR:—18 dB—RATIO: 3.5: 1, DCA1 ASSIGN (CH13), DCA2 ASSIGN (CH14), DCA3 ASSIGN (CH15), DCA4 ASSIGN (CH16), DCA5 ASSIGN (CH17), DCA6 ASSIGN (CH18), DCA7 ASSIGN (CH19), DCA8 ASSIGN (CH20), DCA9 ASSIGN (CH21), DCA10 ASSIGN (CH22), DCA11 ASSIGN (CH23), DCA12 ASSIGN (CH24), TO STEREO ON, FIXED MIX PAN ON, CH ON

**INPUT CH25-*96***

HPF OFF—SLOPE: 12 dB, EQ ON, FIXED MIX PAN ON, CH ON, LEVEL 0 dB

**STEREO INPUT1-8: Internal EFFECT RETURN, Playback**

TO STEREO ON, FIXED MIX PAN ON, CH ON

**MIX1-16: Recording Mix**

MIX ON, LEVEL 0 dB

**MIX21-24: Internal EFFECT SEND**

MIX ON, LEVEL 0 dB

**MIX25-48: Sub Group**

FIX, PAIR ON, TO STEREO ON, MIX ON, LEVEL 0 dB

**STEREO A-B**

COMP ON—THR:–18 dB (STEREO A), STEREO ON

**EFFECT1-8**

EFFECT1: MIX21, EFFECT2: MIX22, EFFECT3: MIX23, EFFECT4: MIX24

**DCA1-12**

DCA LEVEL 0 dB

| Scene # | Title |
|---|---|
| **00.9** | **Live Recording** |

This preset simulates a live recording application. MIX1-48 are set to Fix, and sent to the recorder. Each channel's direct out also features settings appropriate for recording.

**INPUT CH1-*96***

DIRECT OUT POST ON, HPF OFF - SLOPE: 12 dB, EQ ON, TO STEREO ON, CH ON

**STEREO INPUT1-8: Internal EFFECT RETURN, etc.**

DIRECT OUT POST ON, HPF OFF—SLOPE: 12 dB, EQ ON, TO STEREO ON, CH ON

**MIX1-48: Recording Mix**

FIX, TO MATRIX ON—PRE FADER, MIX ON, LEVEL 0 dB

**STEREO A-B**

STEREO ON

**MATRIX1-4: Internal EFFECT SEND**

MATRIX ON, LEVEL 0 dB

**EFFECT1-8**

EFFECT1: MATRIX1, EFFECT2: MATRIX2, EFFECT3: MATRIX3, EFFECT4: MATRIX4

**DCA1-12**

DCA LEVEL 0 dB

# VCM Effect Parameter List

## 072: REV-X HALL, 073: REV-X ROOM, 074: REV-X PLATE

These effects are a newly-developed 2-in/2-out reverb algorithm. They provide a high-density, richly reverberant sound quality, with smooth attenuation, spread and depth that work together to enhance the original sound. You can choose one of three programs to suit the acoustic sound field and your intentions: REV-X Hall, REV-X Room, and REV-X Plate.

| Parameter | Range | Description |
|---|---|---|
| REV TIME | 0.47–46.92 s *1 | Length of reverberation |
| INI. DLY | 0.0–125.0 ms | Delay time until early reflection is heard |
| HI. RATIO | 0.1–1.0 | The reverberation duration of the high frequency range is expressed as a ratio relative to REV TIME. |
| LO. RATIO | 0.1–1.4 | The reverberation duration of the low frequency range is expressed as a ratio relative to REV TIME. |
| LO. FREQ | 22.0 Hz–18.0 kHz | Reference frequency of LO. RATIO |
| DIFF. | 0–10 | Left and right directional spread of reverb sound |
| ROOMSIZE | 0–28 | Size of space |
| DECAY | 0–53 | Speed at which the gate closes |
| HPF | THRU, 22.0 Hz–8.00 kHz | Cut-off frequency for the high pass filter |
| LPF | 1.00 kHz–18.0 kHz, THRU | Cut-off frequency for the low pass filter |

*1. This value applies only when the effect type is REV-X PLATE, with ROOM SIZE set to 28. The setting range varies depending on the effect type and the ROOM SIZE value.

## 075: COMP276

This effect emulates the characteristics of analog compressors that are widely used in recording studios. It will produce a thick, strong frame sound suitable for drums and bass. You can control two monaural channels independently.

| Parameter | Range | Description |
|---|---|---|
| INPUT 1 | –180 to 0 dB | Adjusts the CH1 input level |
| OUTPUT 1 | –180 to 0 dB | Adjusts the CH1 output gain |
| RATIO 1 | 2:1, 4:1, 8:1, 12:1, 20:1 | Ratio for CH1 compressor |
| ATTACK 1 | 0.022–50.4 ms | Attack time for CH1 compressor |
| RELEASE1 | 10.88–544.22 ms | Release time for CH1 compressor |
| MAKE UP1 | OFF, ON | Automatically corrects output gain reduction when CH1 compressor is applied |
| SIDEHPF1 | OFF, ON | When the HPF in the side chain of the CH1 compressor is turned on, the compression applied to the low range will be weakened, thus emphasizing the low range. |
| INPUT 2 | –180 to 0 dB | Adjusts the CH2 input level |
| OUTPUT 2 | –180 to 0 dB | Adjusts the CH2 output gain |
| RATIO 2 | 2:1, 4:1, 8:1, 12:1, 20:1 | Ratio of CH2 compressor |
| ATTACK 2 | 0.022–50.4 ms | Attack time of CH2 compressor |
| RELEASE2 | 10.88–544.22 ms | Release time of CH2 compressor |
| MAKE UP2 | OFF, ON | Automatically corrects output gain reduction when the CH2 compressor is applied |
| SIDEHPF2 | OFF, ON | When the HPF in the side chain of the CH2 compressor is turned on, the compression applied to the low range will be weakened, thus emphasizing the low range. |

## 076: COMP276S

This effect emulates the characteristics of analog compressors that are widely used in recording studios. It produces a thick, strong frame sound suitable for drums and bass. You can link and control the L and R channel parameters.

| Parameter | Range | Description |
|---|---|---|
| INPUT | –180 to 0 dB | Adjusts the input level |
| OUTPUT | –180 to 0 dB | Adjusts the output gain |
| RATIO | 1:2, 4:1, 8:1, 12:1, 20:1 | Ratio of the compressor |
| ATTACK | 0.022–50.4 ms | Attack time of the compressor |
| RELEASE | 10.88–544.22 ms | Release time of the compressor |
| MAKE UP | OFF, ON | Automatically corrects output gain reduction when the compressor is applied |
| SIDE HPF | OFF, ON | When the HPF in the side chain of the compressor is turned on, the compression applied to the low range will be weakened, thus emphasizing the low range. |

## 077: COMP260

This effect emulates the characteristics of mid 70's compressors/limiters that are the standard for live SR. You can control two monaural channels independently. You can also link several parameters via stereo links.

| Parameter | Range | Description |
|---|---|---|
| THRE.1 | –60 to 0.0 dB | Threshold of CH compressor |
| KNEE1 | SOFT, MEDIUM, HARD | Knee of CH1 compressor |
| ATTACK1 | 0.01–80.0 ms | Attack time of CH1 compressor |
| RELEASE1 | 6.2–999 ms | Release time of CH1 compressor |
| RATIO1 | 1.0–500, ∞ | Ratio of CH1 compressor |
| OUTPUT1 | –20 to 40 dB | Adjusts the CH1 output gain |
| THRE.2 | –60 to 0.0 dB | Threshold of CH2 compressor |
| KNEE2 | SOFT, MEDIUM, HARD | Knee of CH2 compressor |
| ATTACK2 | 0.01–80.0 ms | Attack time of CH2 compressor |
| RELEASE2 | 6.2–999 ms | Release time of CH2 compressor |
| RATIO2 | 1.0–500, ∞ | Ratio of CH2 compressor |
| OUTPUT2 | –20 to 40 dB | Adjusts the CH2 output gain |
| ST LINK | OFF, ON | Links CH1 and CH2 as a stereo pair. THRE., KNEE, ATTACK, RELEASE, and RATIO parameters are linked; OUTPUT parameter is not linked |

## 078: COMP260S

This effect emulates the characteristics of mid 70's compressors/limiters that are the standard for live SR. You can link and control the L and R channel parameters.

| Parameter | Range | Description |
|---|---|---|
| THRE. | –60 to 0.0 dB | Threshold of the compressor |
| KNEE | SOFT, MEDIUM, HARD | Knee of the compressor |
| ATTACK | 0.01–80.0 ms | Attack time of the compressor |
| RELEASE | 6.2–999 ms | Release time of the compressor |
| RATIO | 1.0–500, ∞ | Ratio of the compressor |
| OUTPUT | –20 to 40 dB | Adjusts the output gain |

## 079: EQUALIZER601

This effect emulates the characteristics of 70's analog equalizers. Re-creating the distortion of typical analog circuits will add drive to the sound.

| Parameter | Range | Description |
|---|---|---|
| LO TYPE | HPF-2/1, LSH-1/2 | Type of EQ1 |
| LO F | 16.0 Hz to 20.0 kHz | Cut-off frequency of EQ1 |
| LO G | –18.0 to +18.0 dB | Gain of EQ1 |
| MID1 Q | 0.50–16.0 | Q of EQ2 |
| MID1 F | 16.0 Hz to 20.0 kHz | Center frequency of EQ2 |
| MID1 G | –18.0 to +18.0 dB | Gain of EQ2 |
| MID2 Q | 0.50–16.0 | Q of EQ3 |
| MID2 F | 16.0 Hz to 20.0 kHz | Center frequency of EQ3 |
| MID2 G | –18.0 to +18.0 dB | Gain of EQ3 |
| INPUT | –18.0 to +18.0 dB | Input gain |
| OUTPUT | –18.0 to +18.0 dB | Output gain |
| MID3 Q | 0.50–16.0 | Q of EQ4 |
| MID3 F | 16.0 Hz to 20.0 kHz | Center frequency of EQ4 |
| MID3 G | –18.0 to +18.0 dB | Gain of EQ4 |
| MID4 Q | 0.50–16.0 | Q of EQ5 |
| MID4 F | 16.0 Hz to 20.0 kHz | Center frequency of EQ5 |
| MID4 G | –18.0 to +18.0 dB | Gain of EQ5 |
| HI TYPE | LPF-2/1, HSH-1/2 | Type of EQ6 |
| HI F | 16.0 Hz to 20.0 kHz *1 | Cut-off frequency of EQ6 |
| HI G | –18.0 to +18.0 dB | Gain of EQ6 |
| LO SW | OFF, ON | Switches EQ1 on/off |
| MID1 SW | OFF, ON | Switches EQ2 on/off |
| MID2 SW | OFF, ON | Switches EQ3 on/off |
| MID3 SW | OFF, ON | Switches EQ4 on/off |
| MID4 SW | OFF, ON | Switches EQ5 on/off |
| HI SW | OFF, ON | Switches EQ6 on/off |
| TYPE | CLEAN, DRIVE | Selects the equalizer type. The CLEAN equalizer provides non-distorted, clear, typical digital sound, emulating variations in frequency response in the analog circuits. The DRIVE equalizer provides distorted, driven sound that enhances analog flavor, emulating changes in frequency response in the analog circuits. |

*1. 16.0 Hz to 20.0 kHz (LPF-1, LPF-2), 1.0 kHz to 20.0 kHz (HSH-1, HSH-2)

## 080: OPENDECK

It emulates the tape compression created by two open reel tape recorders (a recording deck and a playback deck.) You can change the sound quality by adjusting various elements, such as the deck type, tape quality, playback speed, etc.

| Parameter | Range | Description |
|---|---|---|
| REC DEC | Swss70, Swss78, Swss85, Amer70 | Selects the recording deck type |
| REC LVL | –96.0 to +18.0 dB | Adjusts the input level of the recording deck. As you raise the level, tape compression is generated, which narrows the dynamic range and distorts the sound |
| REC HI | –6.0 to +6.0 dB | Adjusts the high range gain of the recording deck |
| REC BIAS | –1.00 to +1.00 | Adjusts the bias of the recording deck |
| REPR DEC | Swss70, Swss78, Swss85, Amer70 | Selects the playback deck type |
| REPR LVL | –96.0 to +18.0 dB | Adjusts the output level of the playback deck |
| REPR HI | –6.0 to +6.0 dB | Adjusts the high range gain of the playback deck |
| REPR LO | –6.0 to +6.0 dB | Adjusts the low range gain of the playback deck |
| MAKE UP | Off, On | When you adjust the REC LVL, the REPR LVL reflects the change, maintaining the relative output level. You can change the amount of distortion without changing the output level. |
| TP SPEED | 15ips, 30ips | Selects the tape speed |
| TP KIND | Old, New | Selects the tape type |

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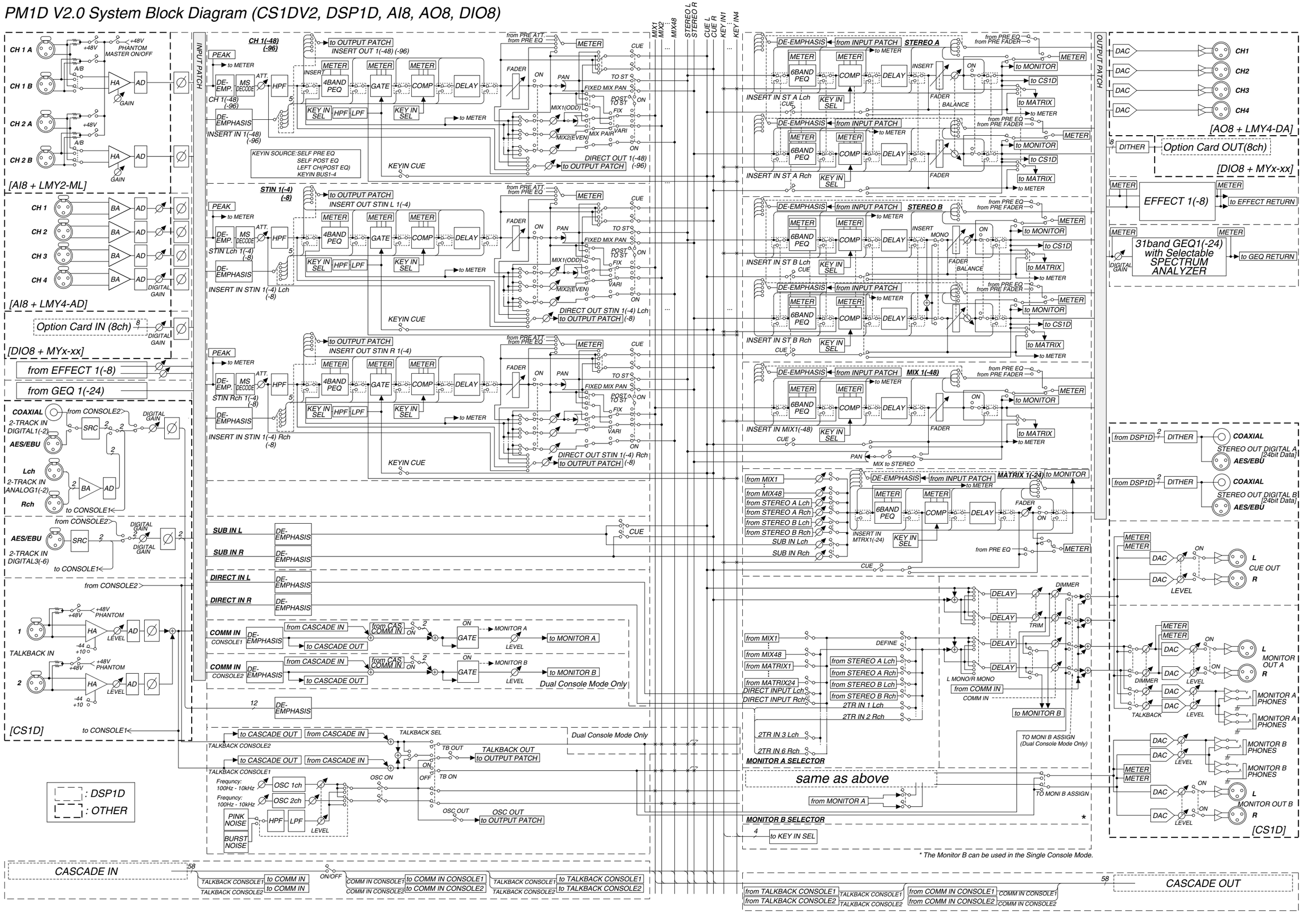
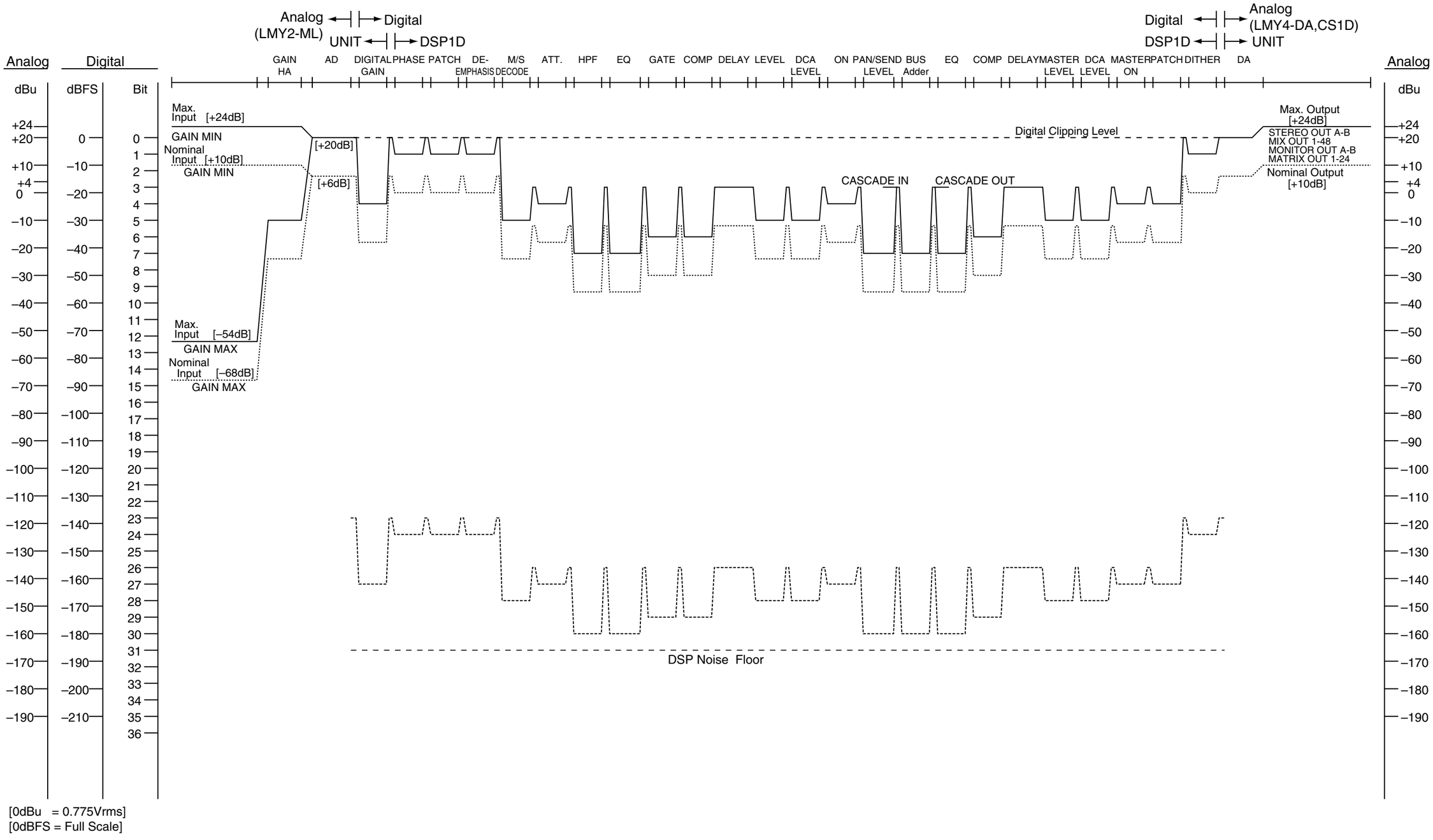
# PM1D V2.0 System Block Diagram (CS1DV2, DSP1D, AI8, AO8, DIO8)



# *PM1D System V2.0 Level Diagram*




[0dBu = 0.775Vrms]
[0dBFS = Full Scale]