

# PROGRAMMING SOFTWARE

(Applicable to the firmware Ver. 2.00 or later)



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# 1. GENERAL DESCRIPTION

The 9000M2 Series programming software is designed to set all functions of the 9000M2 Series amplifiers. It allows settings made through manual operation of the amplifier's front panel keys to be easily performed on a PC. Using this programming software, setting and operation data can be written into or read out of the 9000M2 Series amplifiers. Operation data can also be output as a CSV file, and printed using Excel. The operation data's extension is "mx2."

The software runs on Microsoft Windows XP, Windows Vista, or Windows 7 operating systems.

It is recommended that the PC's hue setting be set to 16-bit or greater, and that the resolution be set to at least XGA (1024 x 768).

## Notes

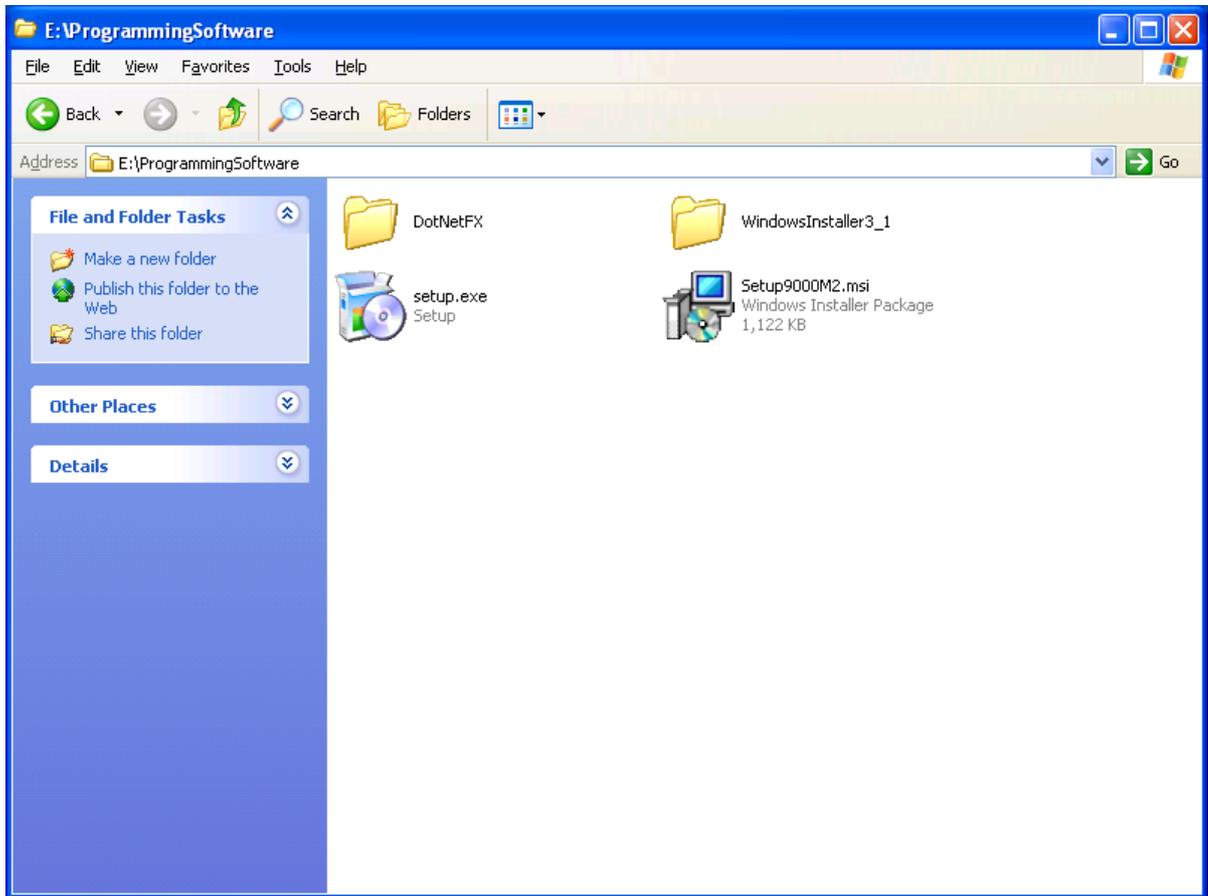
- This instruction manual supports the 9000M2 Series amplifiers' firmware Ver. 2.00 or later.  
Some of the functions described in this manual do not work on the firmware earlier than Ver. 2.00.
- When OS is Microsoft Windows Vista or Windows 7, the text size in the display property needs to be set to "Smaller-100% (default)".  
Setting to other size could cause the text on the screen to be incorrectly displayed.

\*Windows is a trademark of Microsoft Corporation.

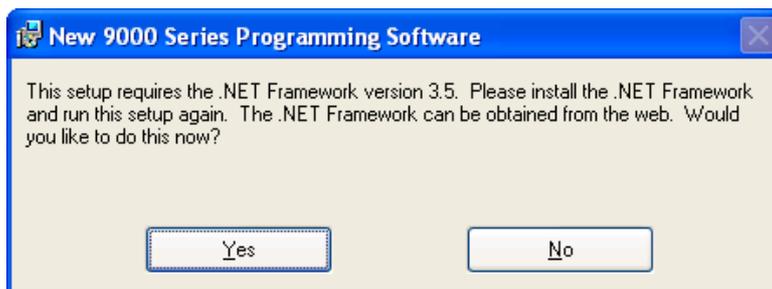
## 2. INSTALLATION

Be sure to exit all currently running applications before beginning installation of the software. Follow the procedure below to install.

**Step 1.** Open the "ProgrammingSoftware" folder located in the Software folder contained on the supplied CD-ROM, then double-click "Setup9000M2.msi" in the opened folder.



If ".NET Framework" has not been installed in the PC, the following screen is displayed. In such cases, follow the instructions on the screen to install ".NET Framework."

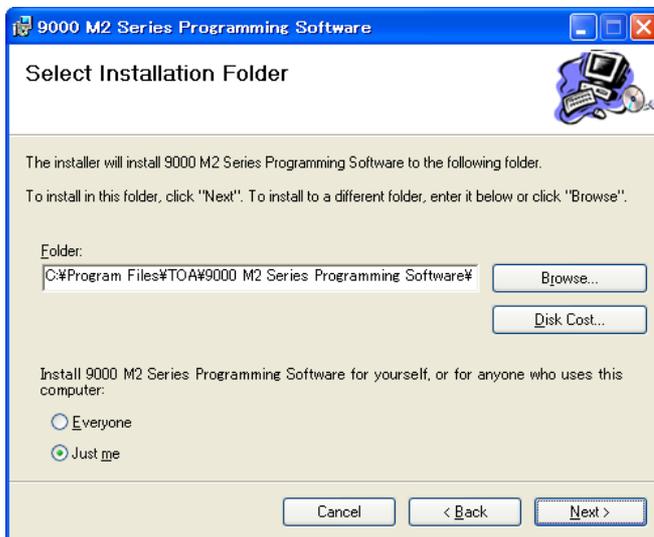


The 9000M2 Series programming software installer starts when installation of ".NET Framework" is completed or if ".NET Framework" is already installed on the PC.

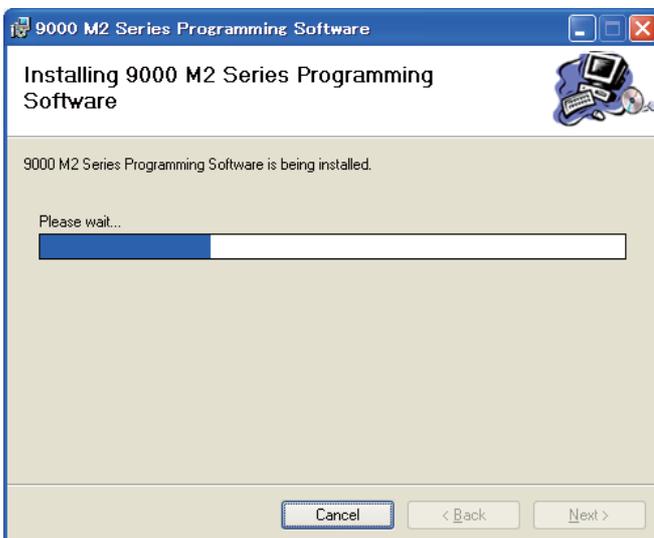
The following wizard screen appears after several installation screens have opened.



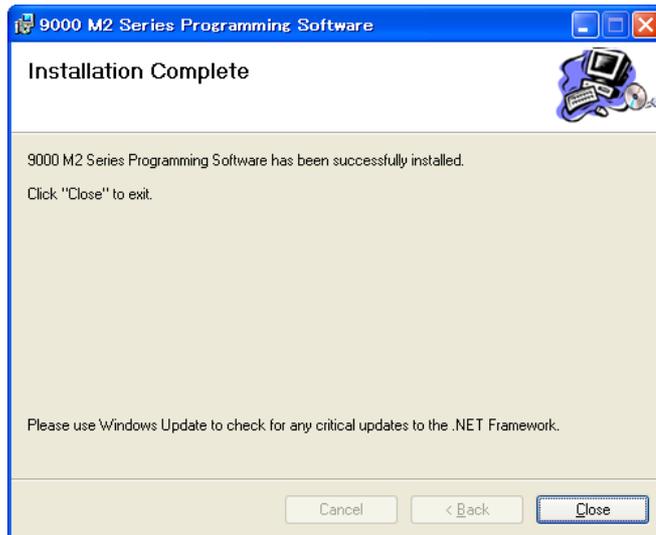
**Step 2.** Click the "Next" button.



**Step 3.** Select the folder in which the software is to be installed, then click the "Next" button. The dialog shown below is displayed and installation continues.



When the following dialog is displayed, the installation is correctly completed.

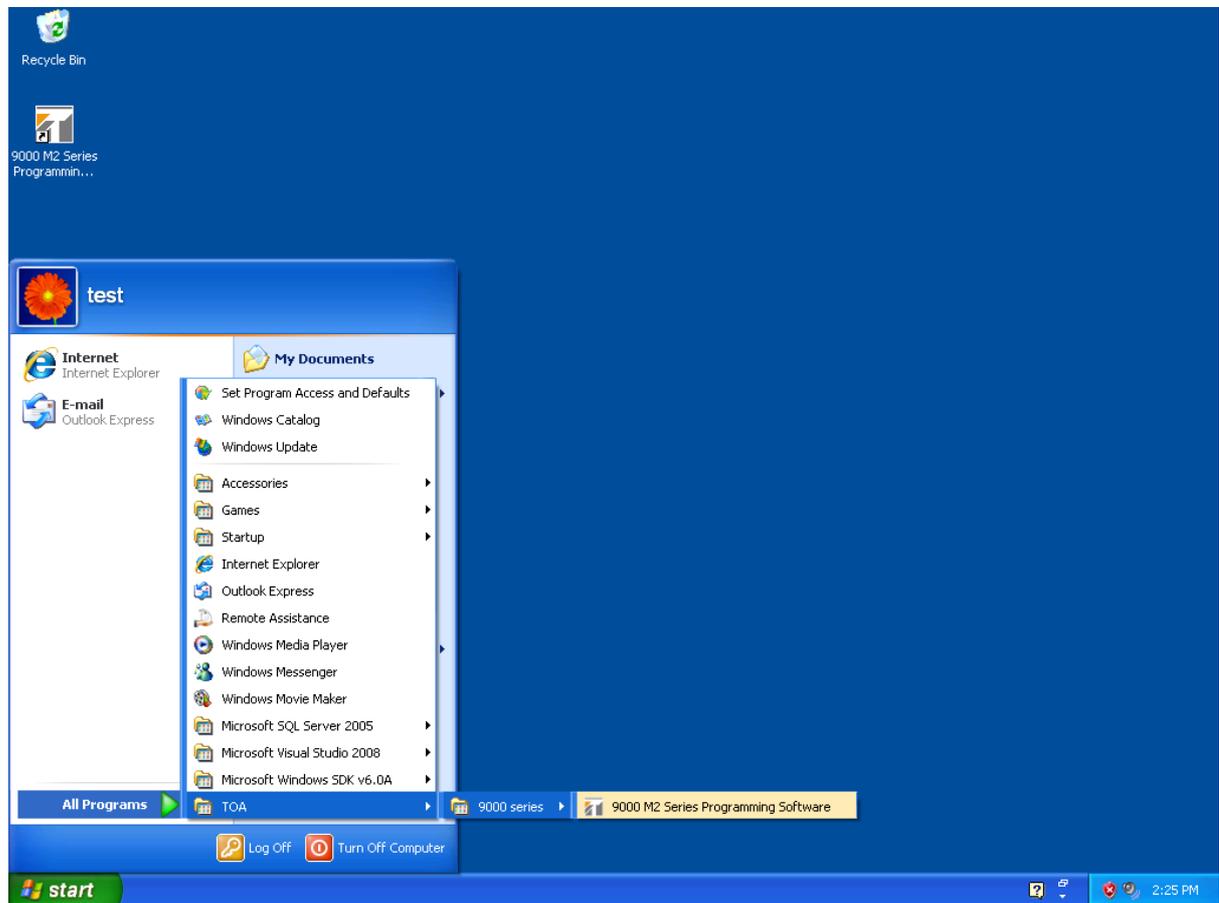


**Step 4.** Click the "Close" button.

### 3. STARTING AND EXITING THE SOFTWARE

The following two methods can be used to start the installed 9000M2 Series programming software.

- (1) Click the "Start" button on the PC's Desktop screen and select "All Programs (P) → TOA → 9000 Series → 9000M2 Programming Software" from the Start menu. The software will then be started.



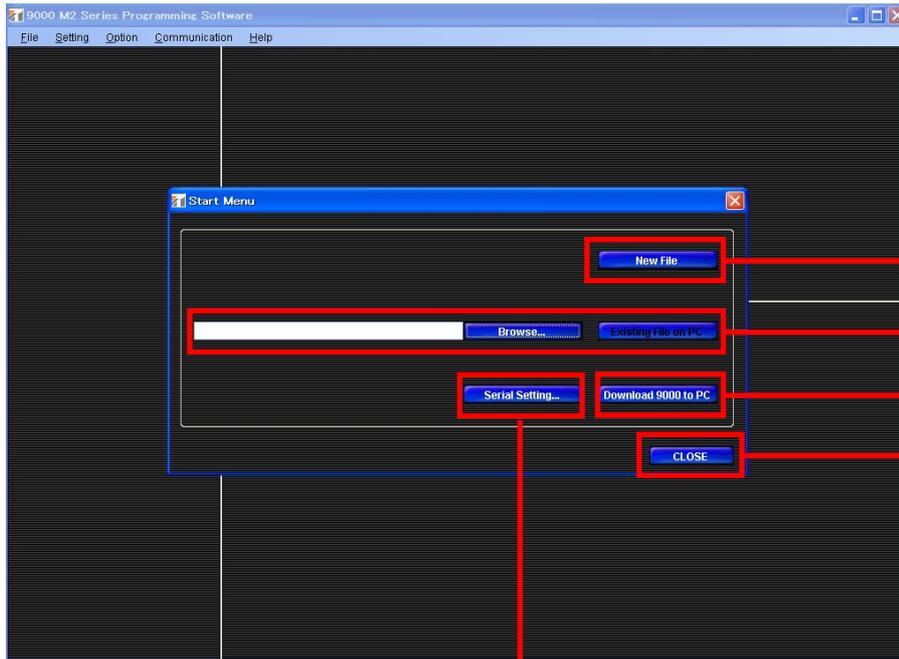
- (2) Double-clicking the [9000M2 Series Programming Software] icon on the PC Desktop causes the software to start.



- (3) To exit the software, select "Exit" from the File menu on the main screen.

## 4. START MENU SCREEN

Starting the software displays the "Start Menu" window on the main screen.



Creates a new file (p. 11).

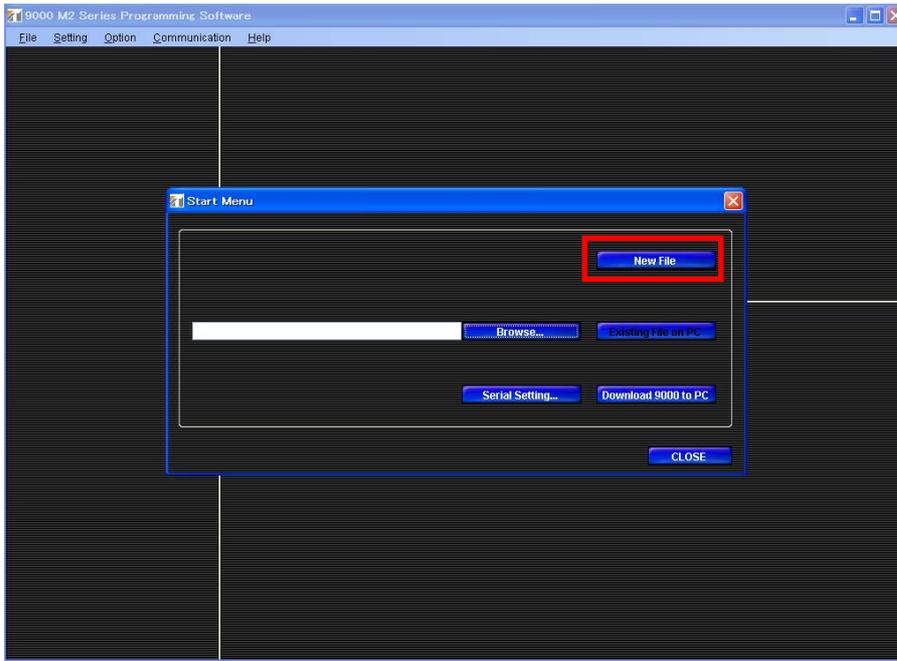
Loads an existing file into the software (p. 12).

Downloads a file from the amplifier (p. 13).

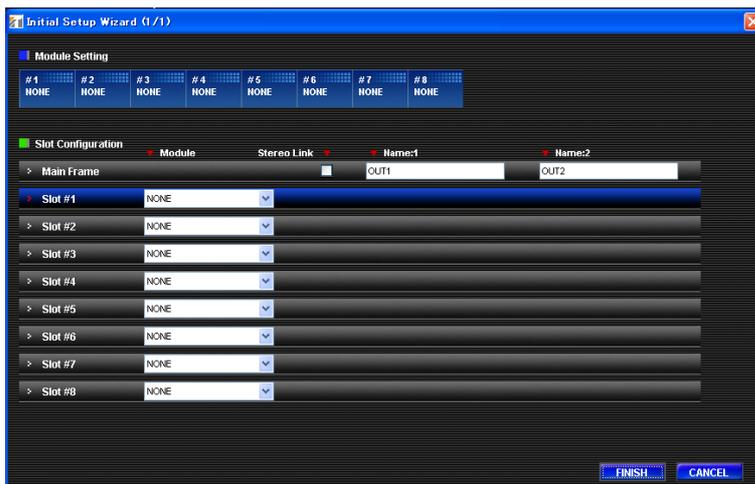
Closes the Start Menu screen.

Makes settings to communicate between the PC and 9000M2 amplifier (p. 59).

## 4.1. Creating a New File



Clicking "New File" on the Start Menu screen displays the following initial setting wizard screen.



Perform initial settings according to the initial setting wizard.

### Step 1. Set module configurations.

**1-1.** Select a module inserted into the amplifier's slots from the pull-down menu in the "Module" field of the "Slot Configuration" area.

**1-2.** Performing module setting displays the module model number in the Module Setting space at the top of the screen. Also, the channel name entry field is displayed in the "Slot Setting" area depending on

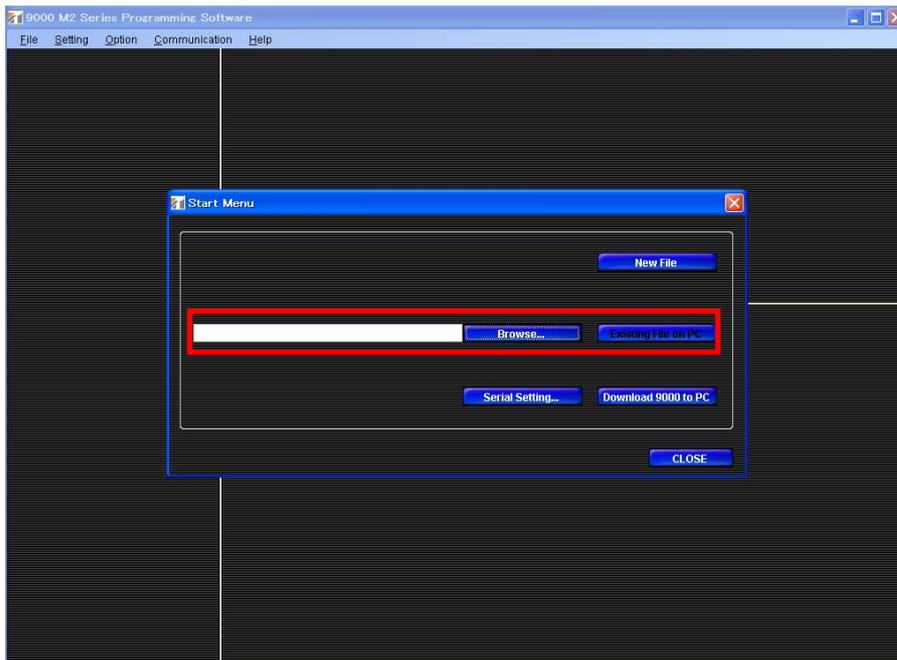


the number of inputs of the module.

**1-3.** Enter a name in the "name" field as required.

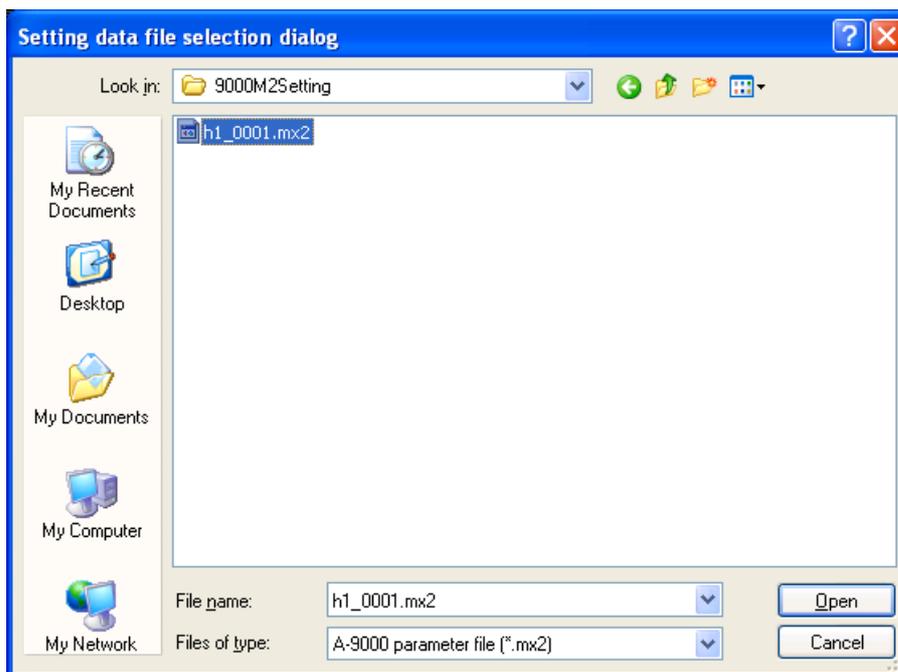
**1-4.** This completes all the Slot settings. Clicking the "NEXT" button displays the main screen (refer to [p. 14](#)).

## 4.2. Loading an Existing File



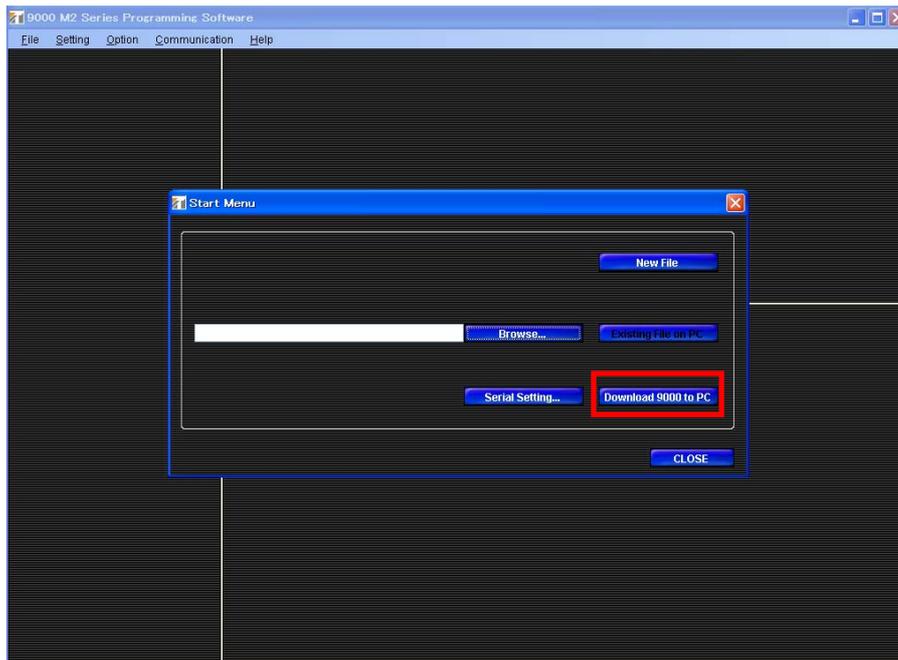
**Step 1.** Click the "Browse..." button to select the "\*.mx2" file.

**Step 2.** Click the "Existing File On PC" button.



**Step 3.** The window closes and the set contents are loaded into the PC, causing the main screen to be displayed.

### 4.3. Downloading a File from the Amplifier

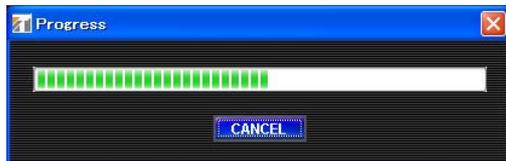


**Step 1.** Ensure that the PC is correctly connected to the amplifier and that the power is on.

**Step 2.** Click the "Download 9000 to PC" button.

**Step 3.** The window closes and downloading begins.

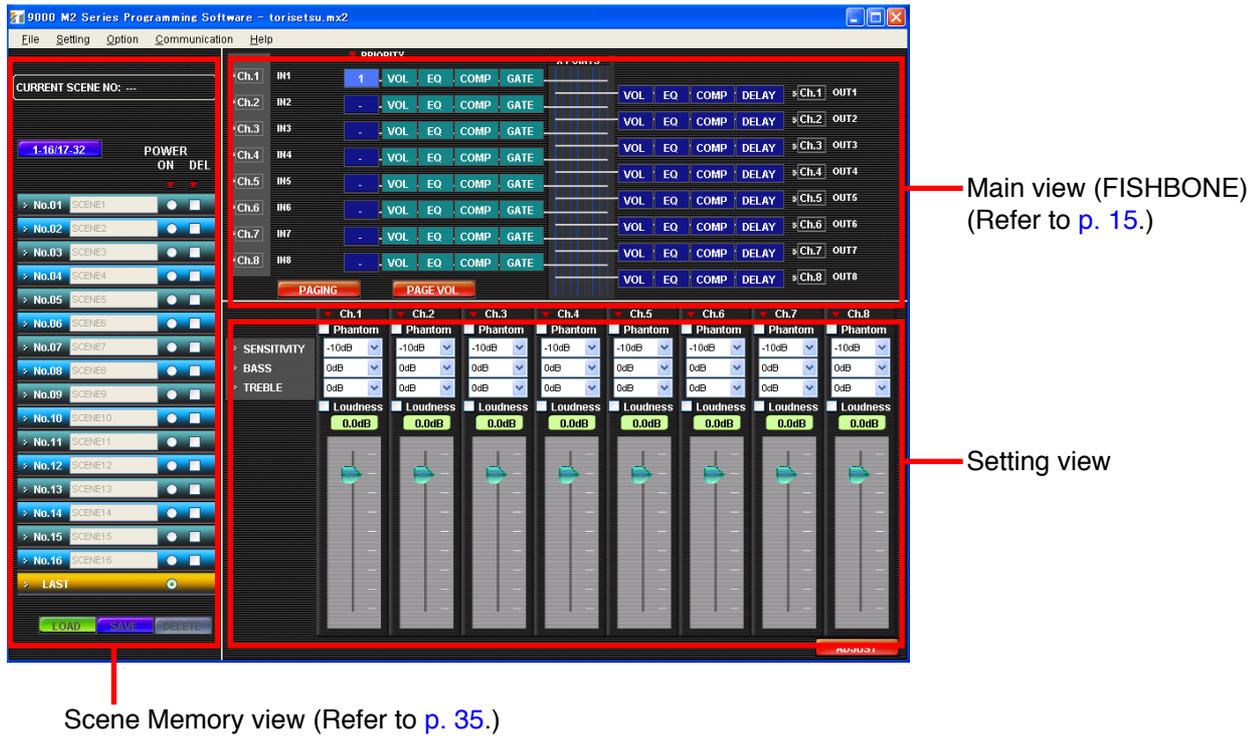
**Step 4.** The progress bar is displayed during downloading.



**Step 5.** Set contents are loaded into the PC and the main screen is displayed.

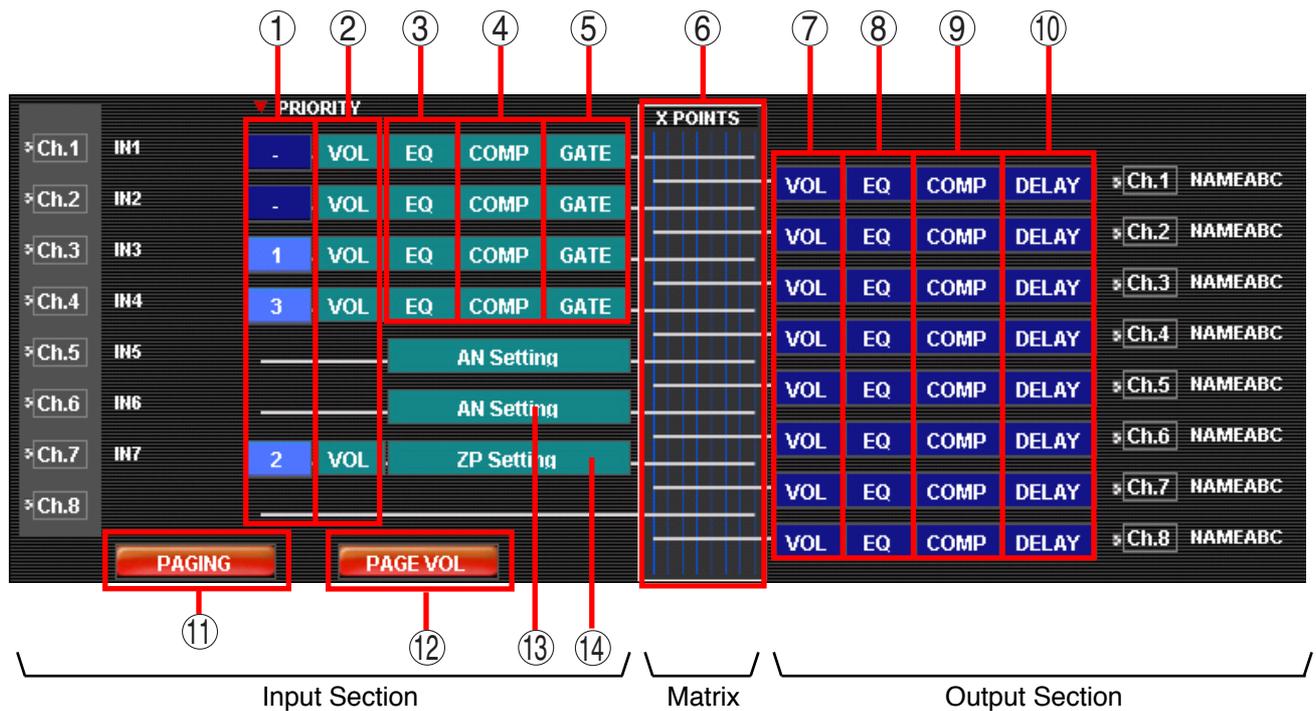
## 5. MAIN SCREEN

When settings are completed on the start menu, the main screen is displayed.



The contents to be displayed in the Setting view differ depending on the items selected in the Main view.

## 5.1. Main (FISHBONE) View Operation



Clicking a function box allows the function corresponding to that box to be set.

- |                        |  |
|------------------------|--|
| ① Priority             | "Paging Priority Settings" on <a href="#">page 46</a>            |
| ② Input Volume         | "Input Volume Settings" on <a href="#">page 19</a>               |
| ③ Input EQ             | "Input EQ Settings" on <a href="#">page 22</a>                   |
| ④ Input Compressor     | "Input Compressor Settings" on <a href="#">page 25</a>           |
| ⑤ Input Gate           | "Gate/Ducker/NOM" Settings on <a href="#">page 26</a>            |
| ⑥ Cross Point          | "Cross Point Settings" on <a href="#">page 34</a>                |
| ⑦ Output Volume        | "Output Volume Settings" on <a href="#">page 20</a>              |
| ⑧ Output EQ            | "Output EQ Settings" on <a href="#">page 23</a>                  |
| ⑨ Output Compressor    | "Output Compressor Settings" on <a href="#">page 25</a>          |
| ⑩ Output Delay         | "Delay Time Settings" on <a href="#">page 29</a>                 |
| ⑪ Paging Settings      | "Paging Settings" on <a href="#">page 47</a>                     |
| ⑫ Paging Output Volume | "Paging Volume Settings" on <a href="#">page 48</a>              |
| ⑬ AN Settings          | "AN (Ambient Noise Control) Settings" on <a href="#">page 31</a> |
| ⑭ ZP Settings          | "ZP (Zone Paging) Settings" on <a href="#">page 33</a>           |

## 5.2. Menu Contents

### 5.2.1. File menu

- **"Start Menu..."**  
Opens the "Start Menu" dialog. Refer to "Start Menu Screen" on [page 10](#).
- **"Open..."**  
Opens an existing setting data file (\*.mx2). Refer to "Loading an Existing File" on [page 12](#).
- **"Save..."**  
Overwrites and saves the file being edited.
- **"Save As..."**  
Saves the file being edited under a different name.
- **"Excel CSV Format..."**  
Outputs a CSV-format file. Refer to "CSV-Format File Output" on [page 57](#).
- **"Exit"**  
Exits the application software.

### 5.2.2. Setting menu

- **"Initial Setting Wizard..."**  
Opens the "Initial Setting Wizard" screen. Refer to "Creating a New File" on [page 11](#).
- **"Remote Setting Wizard..."**  
Opens the "Communication-Type Remote Controller Setting Wizard" screen. Refer to "Remote Controller Settings" on [page 49](#).
- **"Module Setting..."**  
Opens the "Module Setting Dialog" screen. Refer to "Module Change Settings" on [page 38](#).
- **"Key Lock Setting..."**  
Opens the "Key Lock Setting Dialog" screen. Refer to "Key Lock Settings" on [page 39](#).
- **"C-IN Setting..."**  
Opens the "C-IN Setting Dialog" screen. Refer to "Control Input Terminal Settings" on [page 40](#).
- **"C-OUT Setting..."**  
Opens the "C-OUT Setting Dialog" screen. Refer to "Control Output Terminal Settings" on [page 44](#).
- **"Paging Setting..."**  
Displays the "Paging Settings" screen. Refer to "Paging Settings" on [page 47](#).
- **"Paging Volume Setting"**  
Displays the "Paging Volume Settings" screen. Refer to "Paging Volume Settings" on [page 48](#).
- **"Paging Priority Setting..."**  
Opens the "Paging Priority Setting Dialog" screen. Refer to "Paging Priority Settings" on [page 46](#).

### 5.2.3. Option menu

- **"Update Firmware..."**

Opens the "Firmware Update Dialog" screen. Refer to "Firmware Update" on [page 63](#).

### 5.2.4. Communication menu

- **"Download 9000 to PC"**

Obtains setting data from the connected 9000M2 amplifier.

The progress dialog is displayed during communication.

Refer to "Downloading Setting Data from the Amplifier" on [page 60](#).

- **"Upload PC to 9000→ All Data"**

Loads all setting data to the connected 9000M2 amplifier.

The progress dialog is displayed during communication.

Refer to "Uploading All Setting Data to the Amplifier" on [page 61](#).

- **"Upload PC to 9000→ SCENE"**

Loads data for a single scene to the connected 9000M2 amplifier.

The progress dialog is displayed during communication.

Refer to "Uploading Single Scene Data to the Amplifier" on [page 62](#).

- **"Serial Setting Wizard..."**

Opens the "Serial Port Setting Wizard" screen.

Refer to "Communication Settings" on [page 59](#).

### 5.2.5. Help menu

- **"About"**

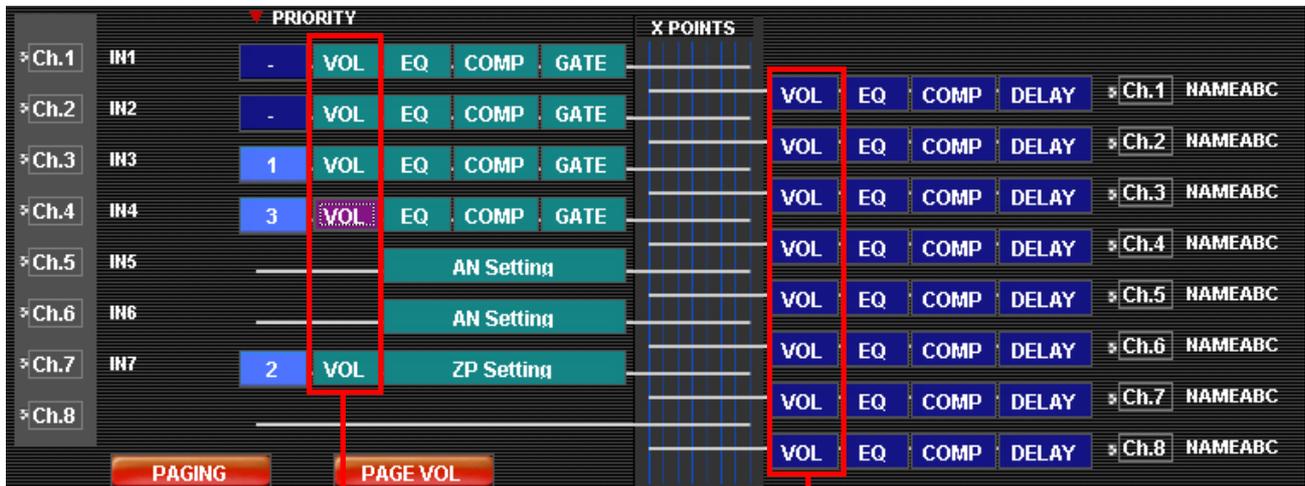
Displays the software's version number and copyright.

## 6. MAIN VIEW SETTINGS

When settings are completed on the start menu, the main screen is displayed.

### 6.1. Volume Settings

Click the "VOL" button of the desired input or output channel on the Main (FISHBONE) view screen. The selected button is highlighted, and the screen showing all set input or output volume controls appears on the Setting view.



Input volume setting

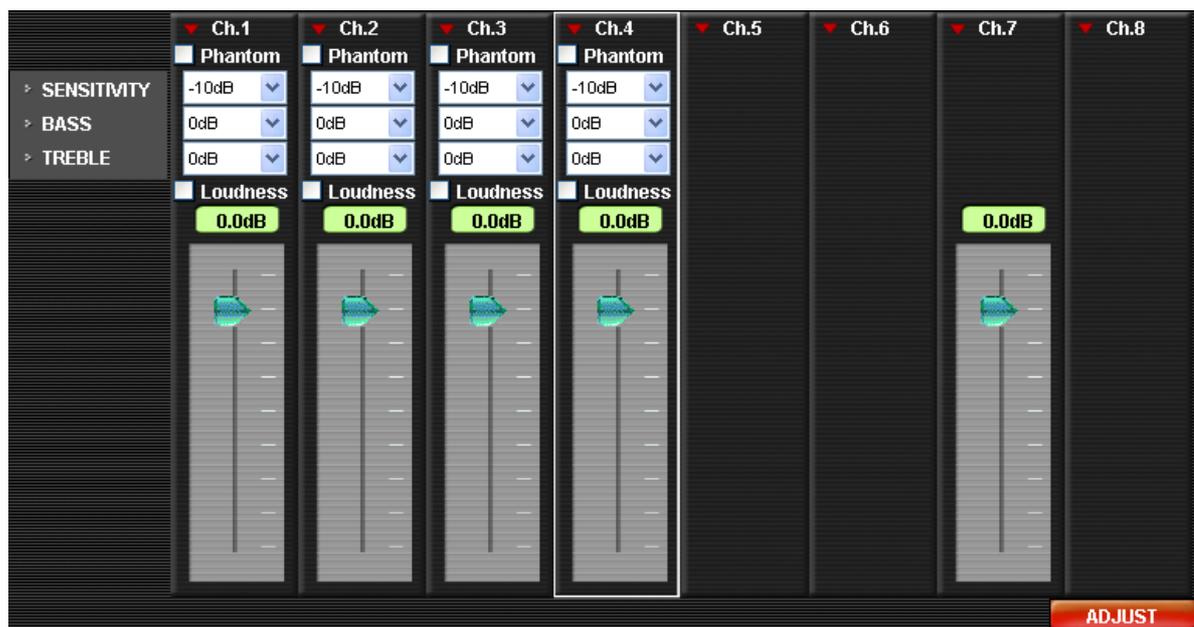
Output volume setting

For paging volume settings, refer to "Paging Volume Settings" on [page 48](#).

The output volume setting to be performed on the above screen is independent of the paging output volume settings and neither has influence on the other.

### 6.1.1. Input volume settings

**Step 1.** Use the pull-down menu to perform settings for "SENSITIVITY," "BASS" and "TREBLE", and check the corresponding checkboxes to perform settings for "Phantom" and "Loudness."



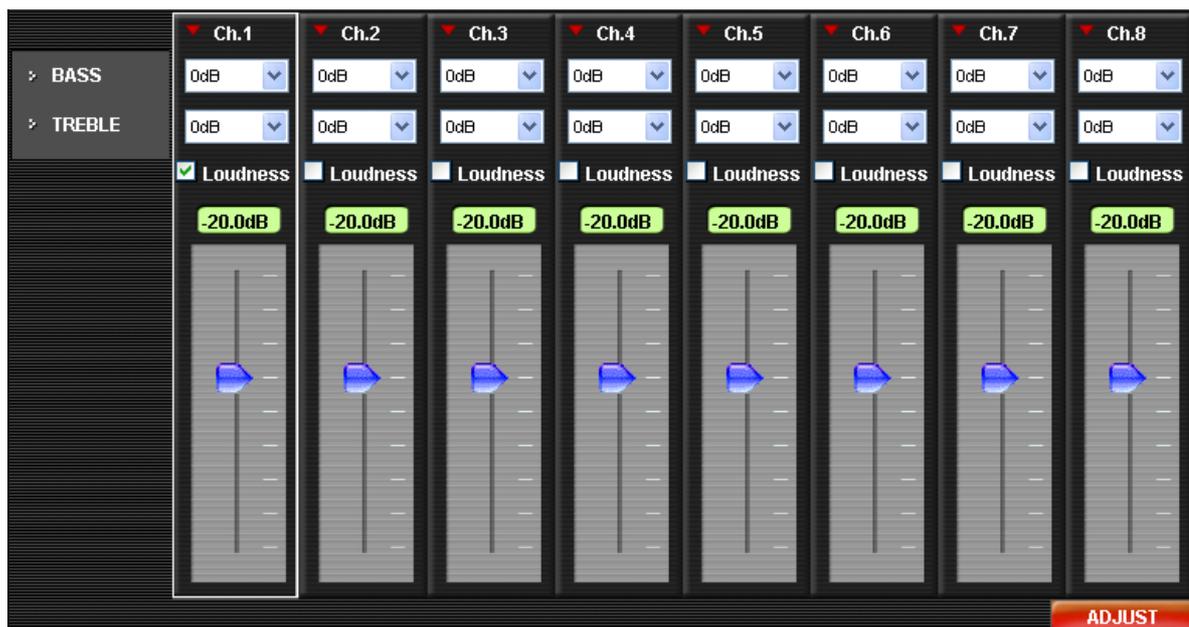
**Step 2.** Adjust the level with the fader.

The fader can be set within the range of "OFF, -70.0 dB through 10.0 dB" in 0.5 dB units.

**Step 3.** Repeat Steps 1 and 2 for each of the channels to be set.

## 6.1.2. Output volume settings

**Step 1.** For "BASS" and "TREBLE" settings, use the pull-down menu and check the "Loudness" checkbox.



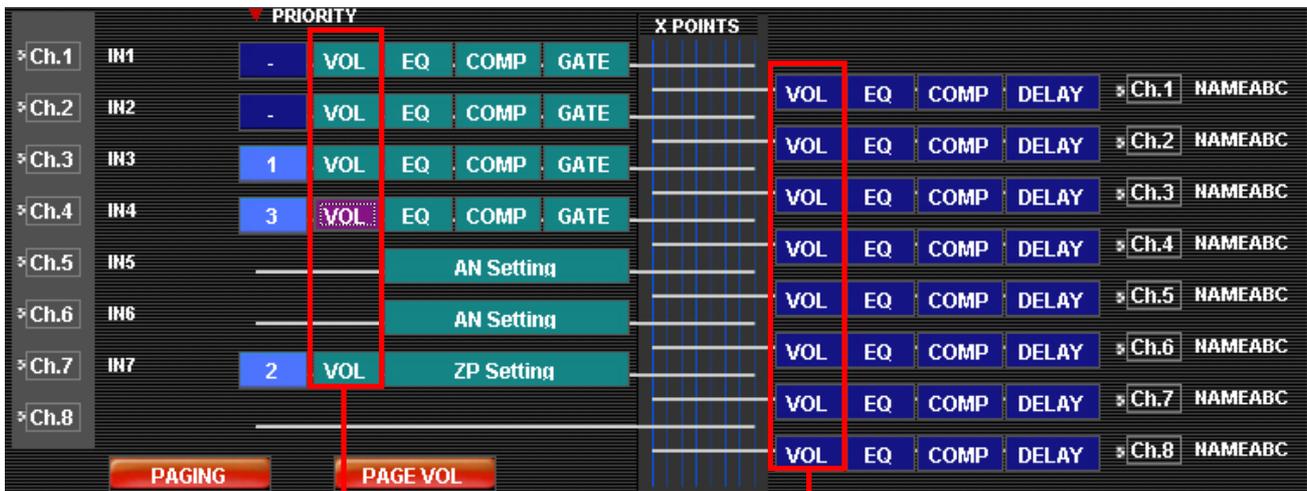
**Step 2.** Adjust the level with the fader.

The fader can be set within the range of "OFF, -70.0 dB through 10.0 dB" in 0.5 dB units.

**Step 3.** Repeat Steps 1 and 2 for each of the channels to be set.

## 6.2. EQ Settings

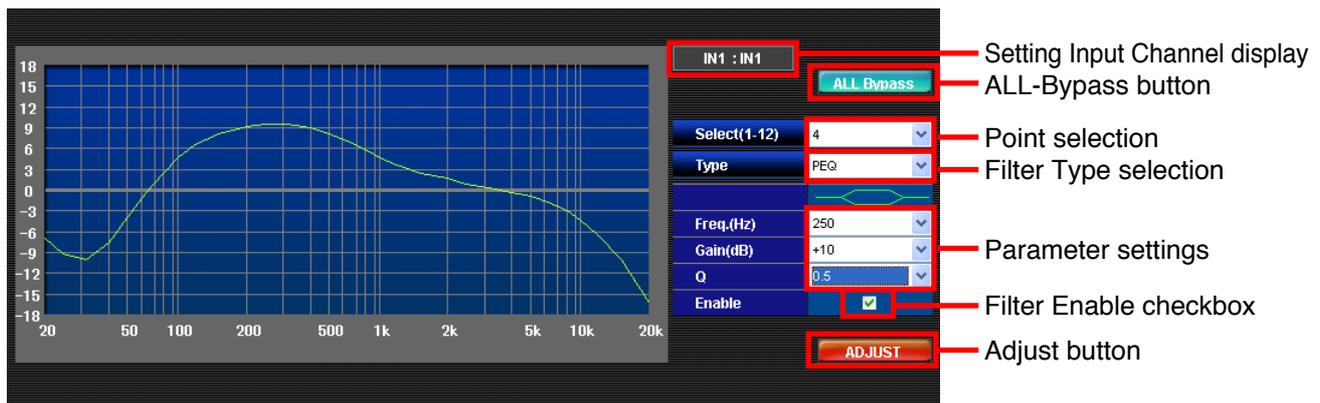
Click the "EQ" button of the desired input or output channel on the Main (FISHBONE) view screen. The selected button is highlighted, and the corresponding settings screen appears on the Setting view.



Input EQ settings

Output EQ settings

## 6.2.1. Input EQ settings



The channel name to be set is displayed on the Setting Channel display.

**Step 1.** Select the point selection combo box (1 - 12) to switch filter points. Any point may be used.

**Step 2.** Select the type of filter (Through, PEQ, LPF, HPF) with the Filter Type combo box.

**Step 3.** Select parameters for "Freq," "Gain" and "Q."

**Step 4.** Check the Filter Enable checkbox to enable the filter. If enabled, it is shown on the graph.

**Step 5.** Repeat Steps 1 - 4 until the desired point has been reached.

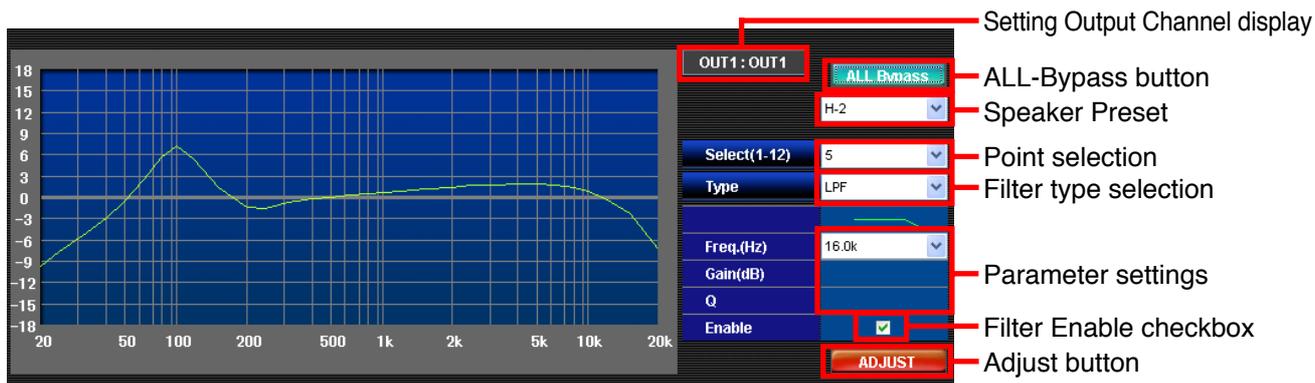
### ALL-Bypass Function

Clicking the "ALL-Bypass" button on the screen unchecks all Filter Enable checkboxes and disables all filters. Selected parameters are kept.

### Adjustment Function

If the "ADJUST" button on the screen is clicked, the current parameters of the 9000M2 amplifier connected by way of the RS-232C cable are switched to the value set on the screen, allowing the set sound to be aurally monitored.

## 6.2.2. Output EQ settings



The channel name to be set is displayed on the Setting Channel display.

**Step 1.** Select the point selection combo box (1 - 12) to switch filter points. Any point may be used.

**Step 2.** Selecting the speaker model in the Speaker Preset field allows optimum parameter settings.

**Step 3.** Select the type of filter (Through, PEQ, LPF, HPF) as required using the Filter Type combo box.

**Step 4.** Select parameters for "Freq," "Gain" and "Q."

**Step 5.** Check the Filter Enable checkbox to enable the filter. If enabled, it is shown on the graph.

**Step 6.** Repeat Steps 3 - 5 for each of the points to be set.

### ALL-Bypass Function

Clicking the "ALL-Bypass" button on the screen unchecks all Filter Enable checkboxes and disables all filters. But setting parameters and selected speaker preset items are kept.

### Adjustment Function

If the "ADJUST" button on the screen is clicked, the current parameters of the 9000M2 amplifier connected by way of the RS-232C cable are switched to the value set on the screen, allowing the set sound to be aurally monitored.

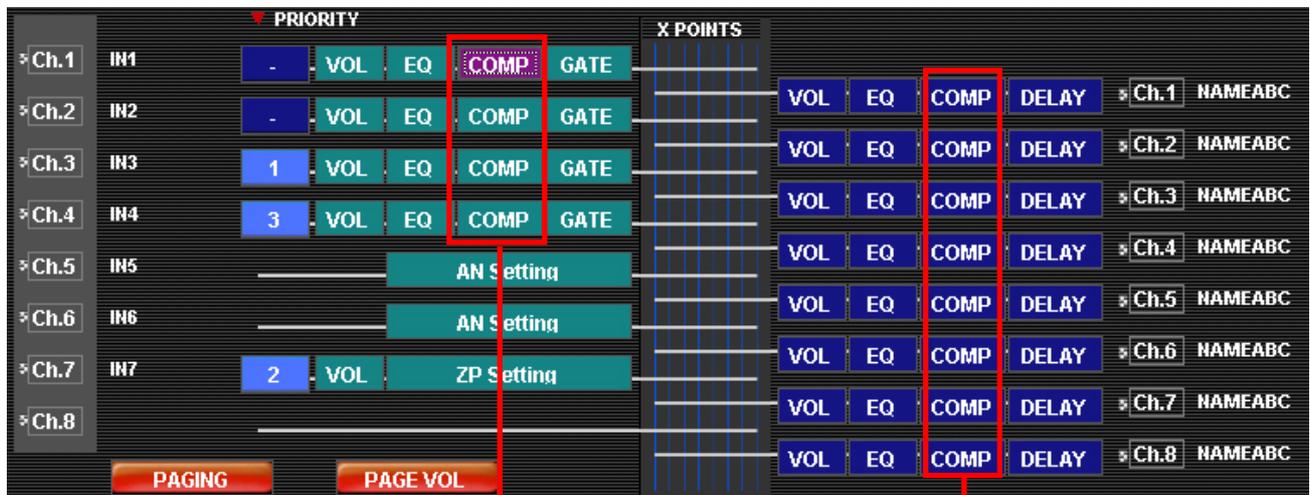
### Note

A maximum of 10 kinds of preset items can be set with the speaker preset box. These preset items can be uploaded simultaneously to the 9000M2 amplifier by selecting "Upload PC to 9000 → All Data" from the Communication menu on the menu bar. Each individual preset item cannot be uploaded even when "Upload PC to 9000 → SCENE" is selected.

When using the speaker preset, be sure to execute "Upload PC to 9000 → All Data."

### 6.3. Compressor Settings

Click the "COMP" button of the desired input or output channel on the Main (FISHBONE) view screen. Settings are possible for channels using the D-001T or D-001R module. The selected button is highlighted and the setting screen appears on the Setting view.

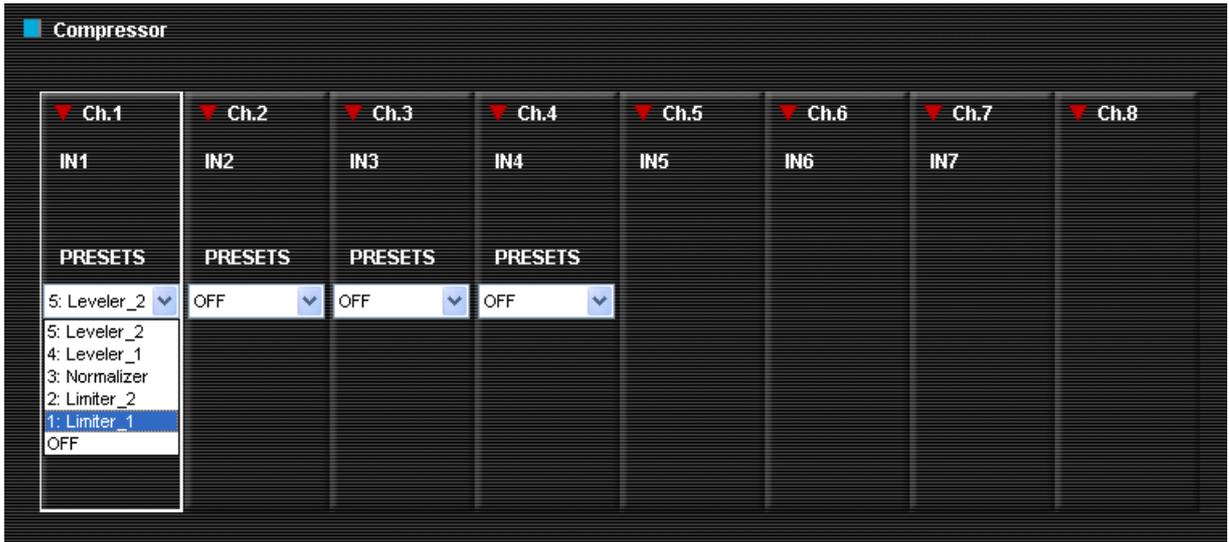


Input COMP Settings

Output COMP Settings

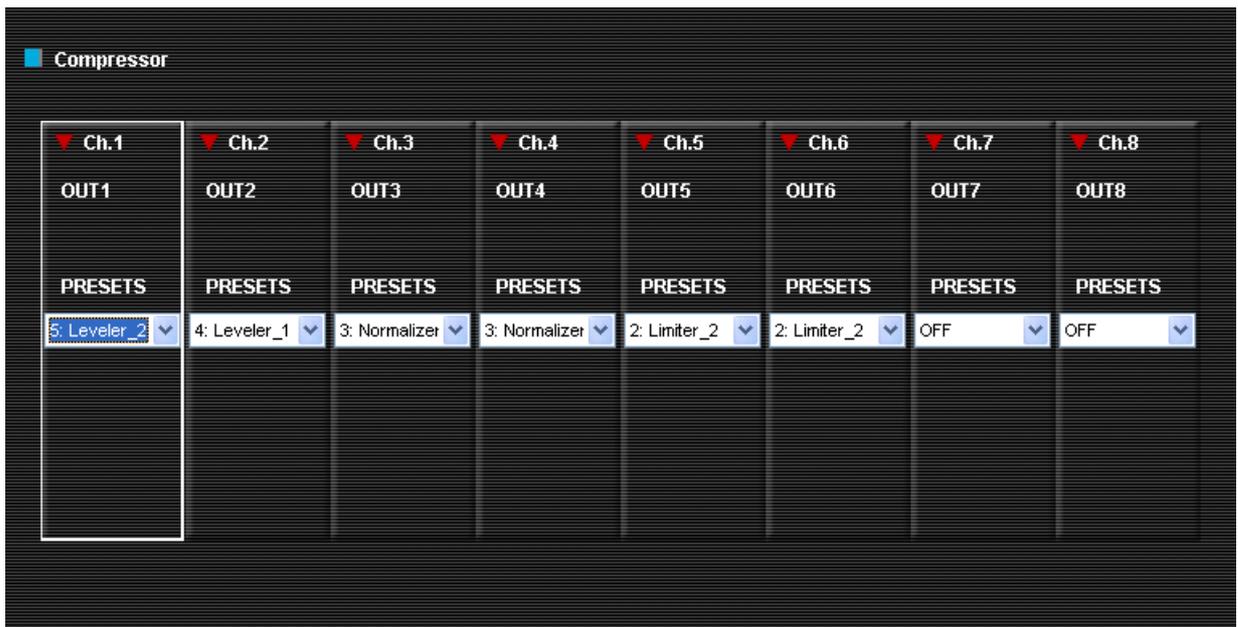
### 6.3.1. Input compressor settings

Set the required preset values using the "PRESETS" pull-down menu.



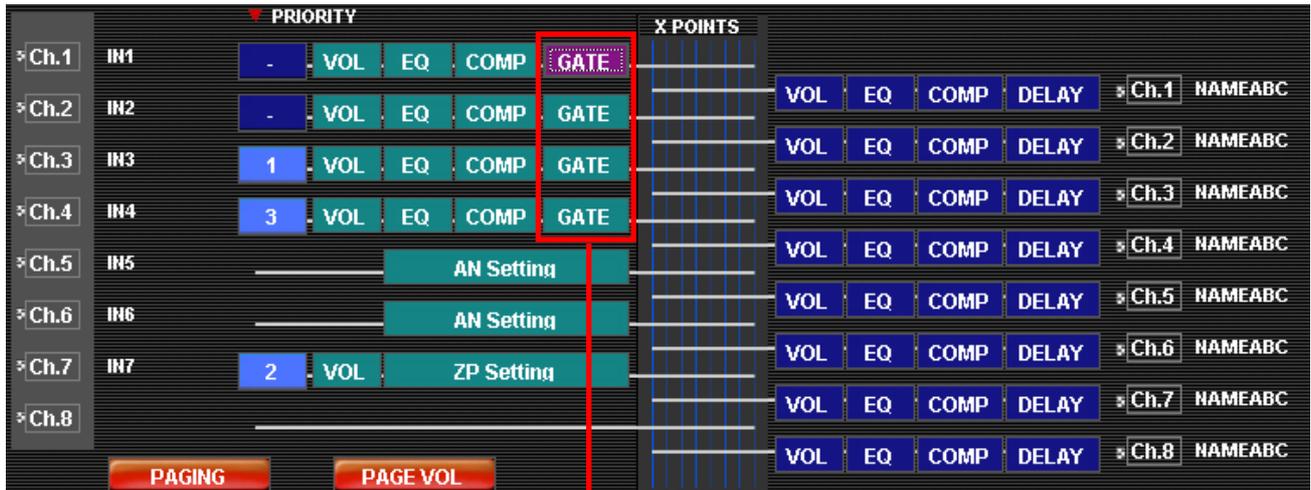
### 6.3.2. Output compressor settings

Set the required preset values using the "PRESETS" pull-down menu.



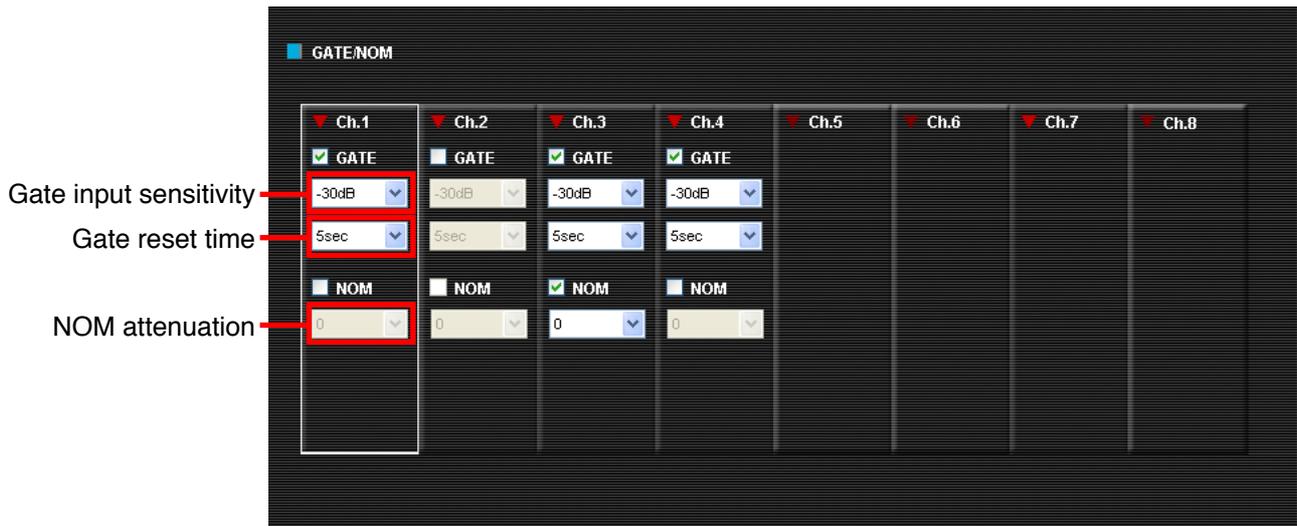
## 6.4. Gate/NOM Settings

Click the "GATE" button of the desired channel on the Main view (FISHBONE) screen. The selected button is highlighted and the setting screen appears on the Setting view.



Gate settings

### 6.4.1. Gate/NOM settings



**Step 1.** To enable gate settings, check the "GATE" checkbox for each channel desired.

**Step 2.** Select gate parameters from the pull-down menu.

- Gate input sensitivity: -40 to -5 dB, in 5 dB units
- Gate reset time: 1 - 8 seconds

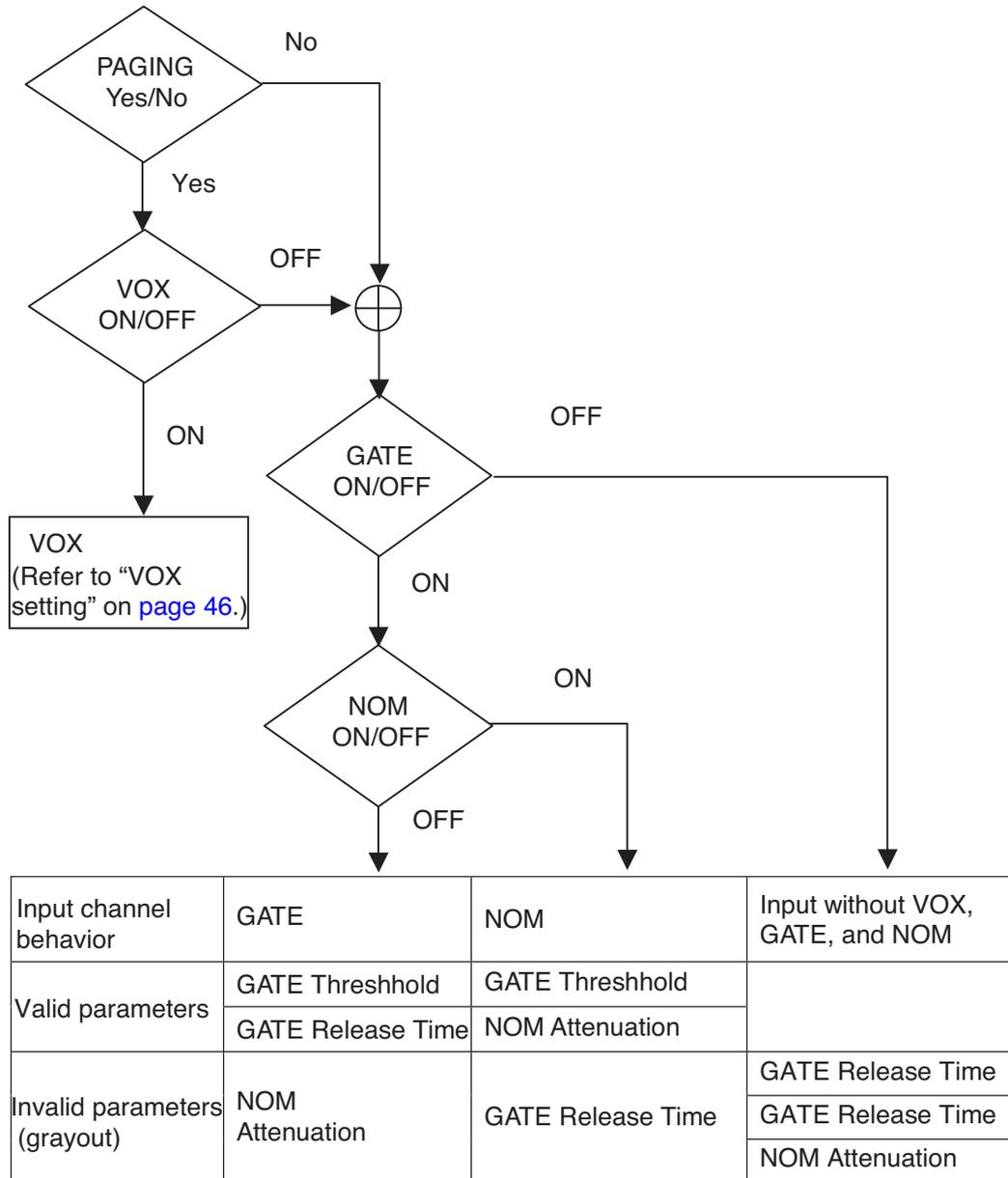
**Step 3.** Check the "NOM" checkbox for channels for which the NOM setting is desired.

**Step 4.** Set the NOM attenuation for all enabled channels.  
It is possible to find setting value A using the following equation, assuming that N represents the number of open microphones:  
NOM attenuation = A x log<sub>10</sub>N

#### Notes

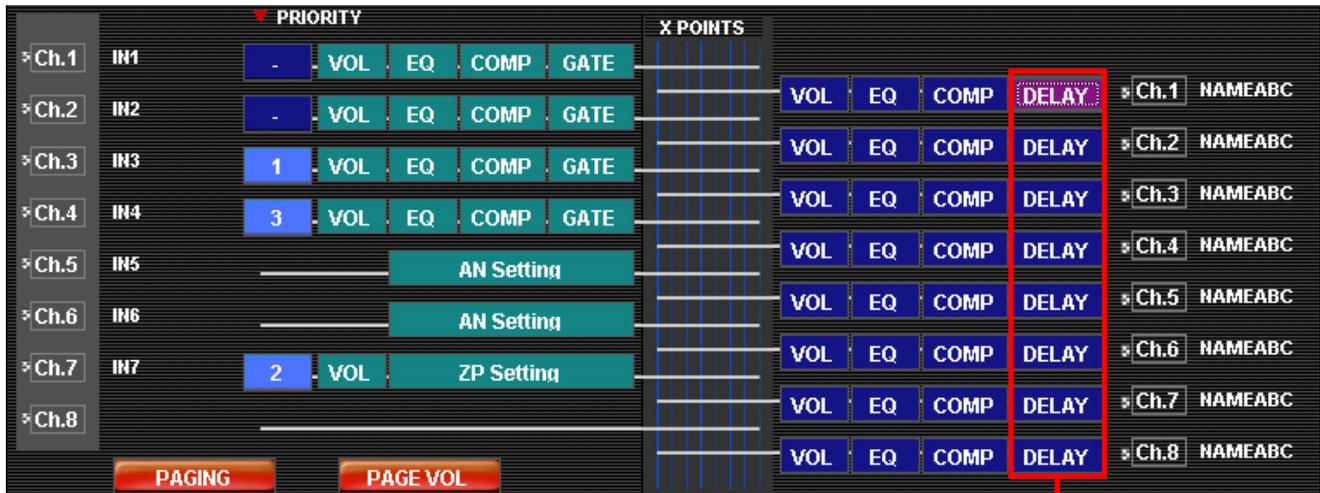
- The NOM attenuation and gate reset time are not set on an individual channel basis, but are jointly set for all channels. Therefore, if a value is changed on the pull-down menu of any channel, the values of all enabled channels are also changed in synchronization.  
Also, the gate reset time and VOX reset time (refer to p. 46) are common.
- The GATE and NOM settings cannot be performed for the input channels for which the VOX function (refer to p. 46) is set.

[Setting conditions among the Gate function, NOM function, and VOX function]



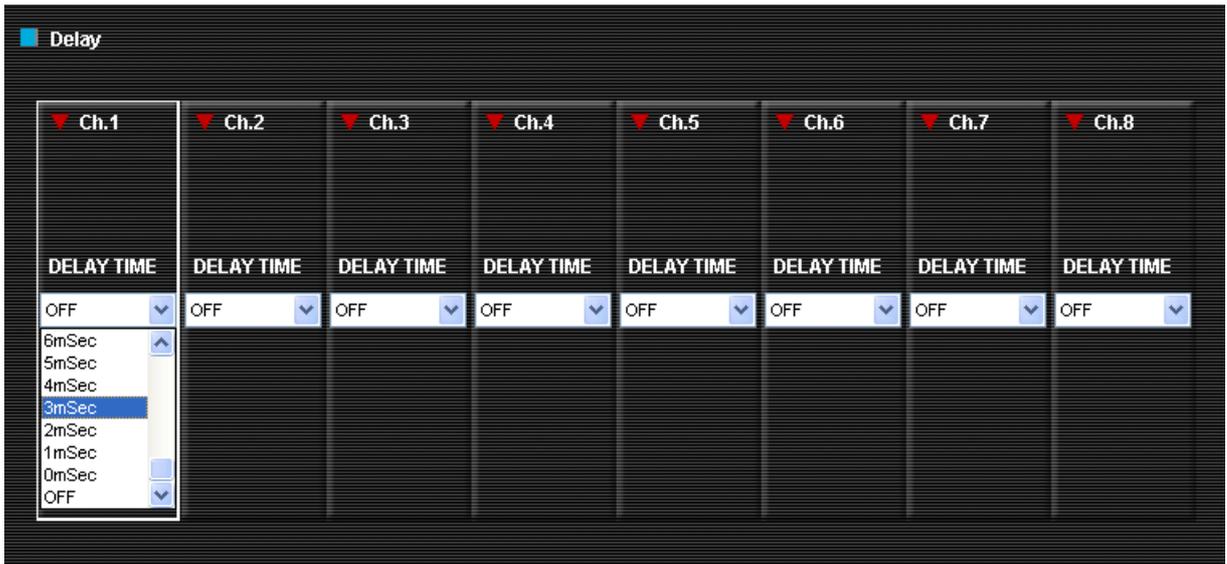
## 6.5. Delay Time Settings

Click the "DELAY" button of the desired channel on the Main view (FISHBONE) screen. The selected button is highlighted and the setting screen appears on the Setting view.



Delay settings

### 6.5.1. Delay time settings



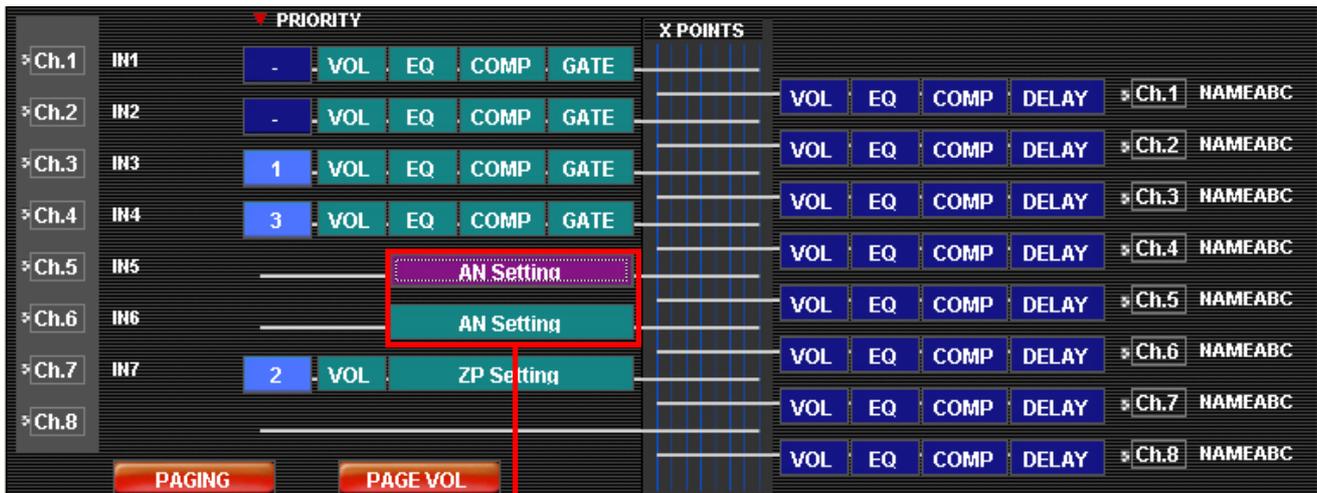
**Step 1.** Set the required delay time values using the "DELAY TIME" pull-down menu. The delay time interval can be set within the range of 0 - 40 ms in 1 ms units.

A combined total of up to 40 ms can be set for both output channels 1 and 2. When the T-001 module is used, up to 40 ms can be set for output channels 3 and 4, 5 and 6, or 7 and 8, combined. For example, set the delay time of output channel 2 to "10" or less if output channel 1 is set for "30." If channel 2 is set for a delay time exceeding "10," the set value of channel 1 is automatically changed so that the total value of both channels combined equals 40.



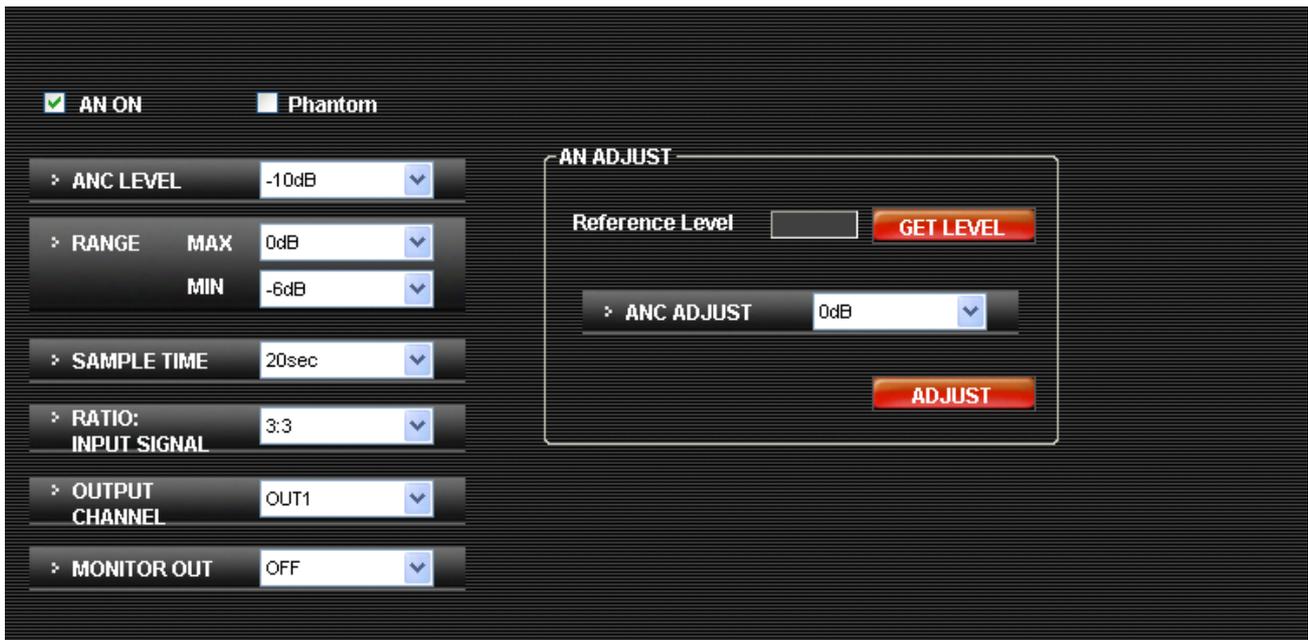
## 6.6. AN (Ambient Noise Control) Settings

Click the "AN Setting" button of the desired channel on the Main (FISHBONE) view screen. Settings are possible for channels using the AN-001T module. The selected button is highlighted.



AN settings

Check the "AN ON" checkbox on the displayed AN setting screen, and the setting items become valid.



Perform settings for the enabled items: "ANC LEVEL," "RANGE," "SAMPLE TIME," "RATIO: INPUT SIGNAL," "OUTPUT CHANNEL" and "MONITOR OUT."

Checking "Phantom" allows the phantom power (24 V) to be supplied to a condenser microphone.

### [AN adjustment]

Clicking the "GET LEVEL" button displays the AN reference level in the Reference Level box.

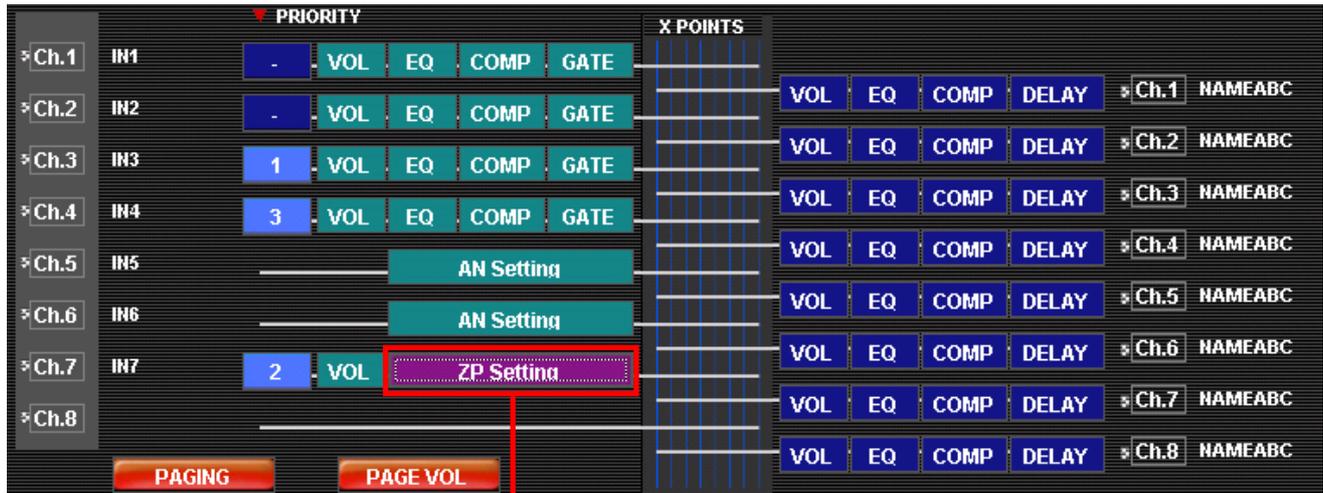
Using the ANC ADJUST combo box, adjust the ANC adjustment value so that the reference level becomes "0." Increase the ANC adjustment value when the reference level is higher than 0, and decrease when it is lower than 0.

Click the ADJUST button, and the set value is stored in the amplifier. Repeat this procedure from the beginning until the reference value becomes nearly "0."

ANC LEVEL: Sets the input sensitivity of the ambient noise detection microphone.  
RANGE: Sets the variation range of the output level using the ANC.  
SAMPLE TIME: Sets the measurement time for ambient noise.  
RATIO INPUT SIGNAL: Sets the ratio of the ambient noise level change to the output level change.  
OUTPUT CHANNEL: Sets the ANC enabled-output channels.  
MONITOR OUT: Sets the channels for monitoring ambient noise.

## 6.7. ZP (Zone Paging) Settings

Click the "ZP Setting" button of the desired channel on the Main view (FISHBONE) screen. Settings are possible for channels using the ZP-001 module. The selected button is highlighted.



ZP settings

**Step 1.** Select the desired ZP operation mode.

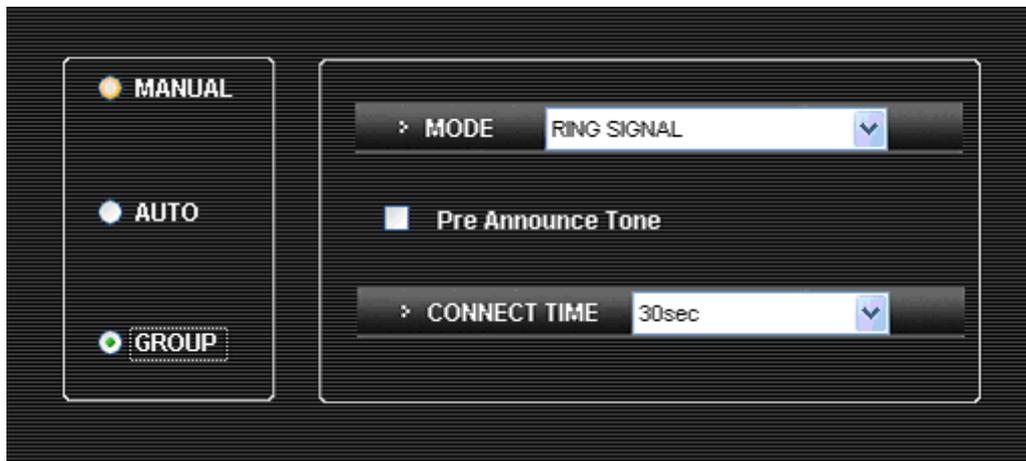
**MANUAL:** Designates individual call zones each time a paging call is made.

**AUTO:** Makes a call to the zone(s) preprogrammed in the Paging Call setting.

**GROUP:** Designates call groups preprogrammed in the Paging Call settings each time a paging call is made.

### Note

For paging zone settings, please refer to "Paging Settings" on [page 47](#).



**Step 2.** Select the paging MODE ("PAGING PORT" or "RING SIGNAL").

**Step 3.** If a pre-announcement tone is required, click its checkbox.

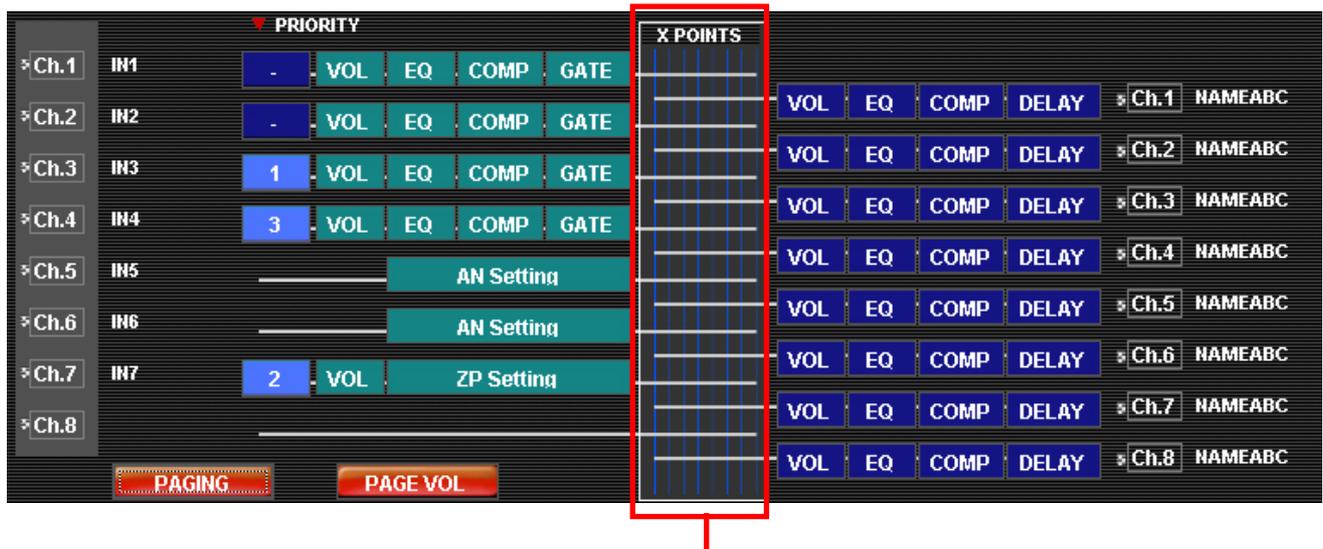
**Step 4.** Set the call timeout interval (CONNECT TIME) to "30 seconds" or "10 minutes."

### Note

Paging calls exceeding the set timeout interval are automatically cut off.

## 6.8. Cross Point Settings

Clicking the cross point area on the Main (FISHBONE) view displays a selection frame in the cross point area.



Cross point area

- Step 1.** The cross point on the Setting view alternates between ON and OFF whenever each channel's cross point on the cross point area is clicked. The "X" indication is displayed for cross points which have been set to ON.
- Step 2.** Clicking a cross point on the Setting view turns the checkmark red, allowing the cross point gain to be adjusted with the fader at right.
- Step 3.** Similarly, perform settings for all other channels.

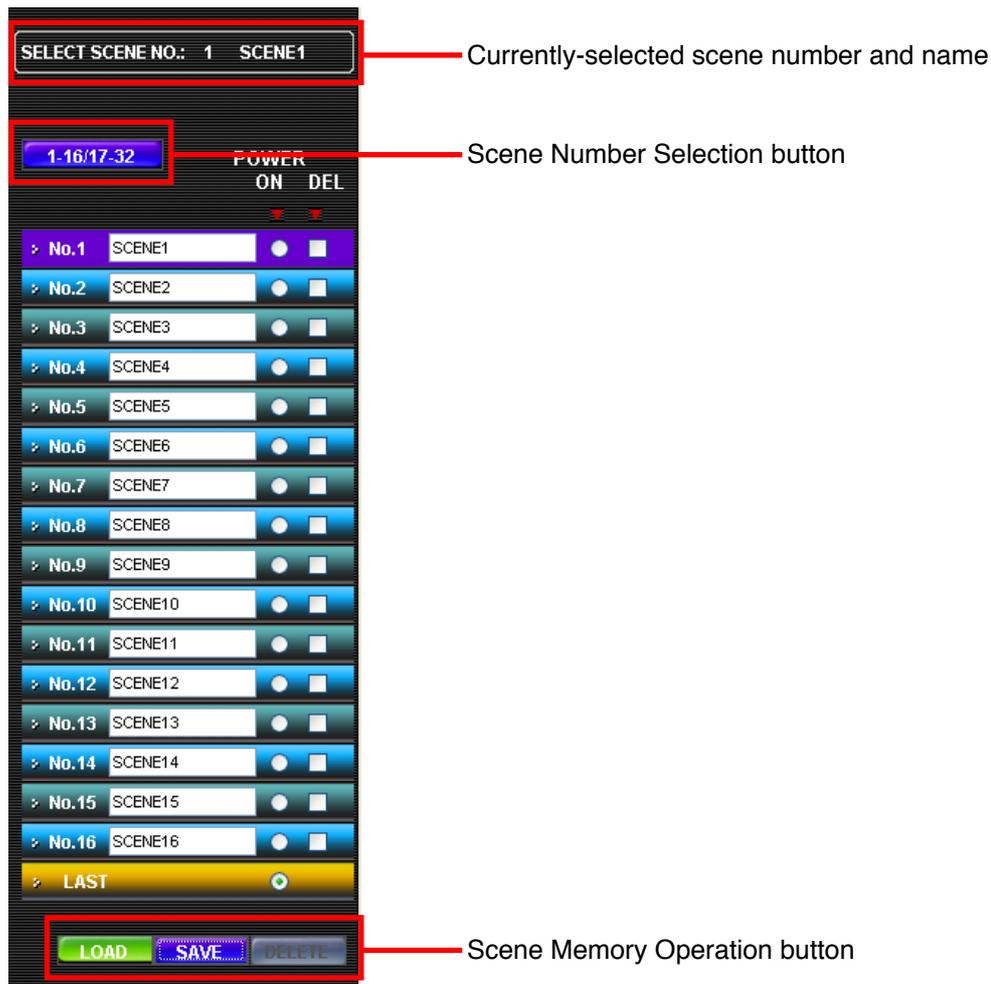


### Adjustment Function

If the "ADJUST" button on the screen is clicked, the current parameters of the connected 9000M2 amplifier are switched to the value set on the screen, allowing the set sound to be aurally monitored.

## 6.9. Scene Memory View Operation

Scene memory can be operated for "LOAD," "SAVE" and "DELETE" on the Scene Memory view.



### [LOAD Procedure]

**Step 1.** Click the Scene Number selection button to display scene number groups of 1 - 16 or 17 - 32.

**Step 2.** Click the scene number(s) to be loaded to select.



**Step 3.** Click the "LOAD" button in the Scene Memory Operation button.

**Step 4.** The selected scene is loaded, displaying the currently-selected scene number and its name.

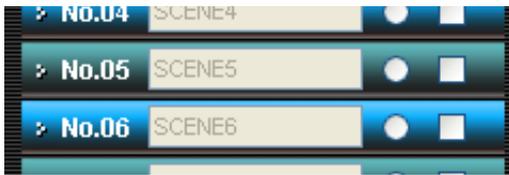
### Note

While scene data is being edited on the Setting view, if its scene is called up, the previous scene data is overwritten by the data being edited. In such cases, a confirmation dialog is displayed.

### [SAVE Procedure]

**Step 1.** Click the Scene Number selection button to display scene number groups 1 - 16 or 17 - 32.

**Step 2.** Click the scene number to be saved to select.



**Step 3.** When changing the scene name, be sure to enter a new name. (Up to 7 characters)

**Step 4.** Click the "SAVE" button in the Scene Memory Operation button.

### [DELETE Procedure]

This operation does not delete scenes, but returns the contents of scene memory to an initial value.

**Step 1.** Click the Scene Number selection button to display scene number group 1 - 16 or 17 - 32.

**Step 2.** Check the scene number to be deleted. Two or more scene numbers can be selected.



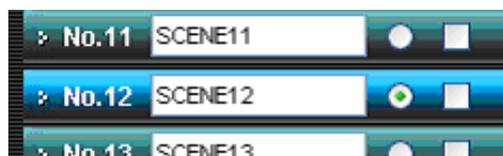
**Step 3.** Click the "DELETE" button in the Scene Memory Operation button.

**Step 4.** The deleted scene memory reverts to its default setting.

### [Selecting the initial scene number to be started when power is switched ON]

**Step 1.** Click the Scene Number selection button to display scene number group 1 - 16 or 17 - 32.

**Step 2.** To always start with a fixed scene number, check the desired scene number.



To use the scene number that was selected just before the power was switched OFF, check "LAST."



Setting data that is saved to scene memory

The following data can be saved to scene memory:

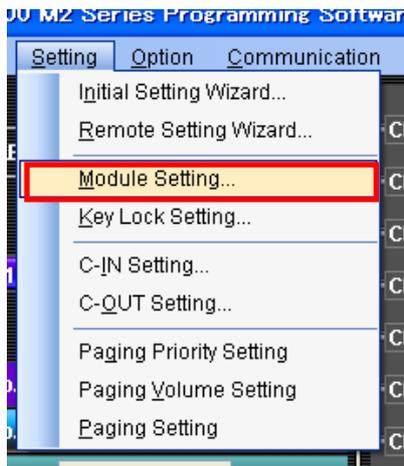
- Input volume level
- Output volume level
- GATE data (Threshold, ON/OFF)
- Input EQ data
- Output EQ data
- Input COMPRESSOR data
- Output COMPRESSOR data
- DELAY data
- AN setting data
- ZP setting data (Paging mode, Pre-announce tone ON/OFF)

**Note:** Parameters not described above are saved to the Main memory.

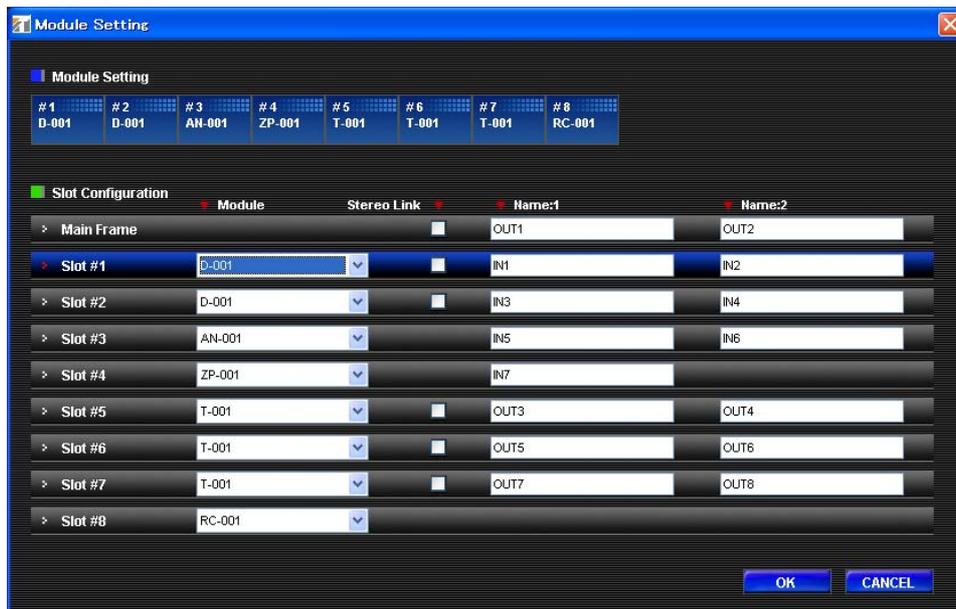
# 7. SETTING SCREEN

## 7.1. Module Change Settings

Select "Setting → Module Setting" from the menu on the main screen.



The Module Setting dialog window is displayed.



**Step 1.** Select the module inserted into each slot using the "Module" column pull-down menus in the "Slot Configuration" area (Nothing is displayed in the menu if the module cannot be selected.)

**Step 2.** Module model numbers are displayed in the Module Setting area located at the top of the screen. Also, a channel name input field is displayed in the Slot Configuration area depending on the number of module inputs.

**Step 3.** Enter a name in the name input field as required.



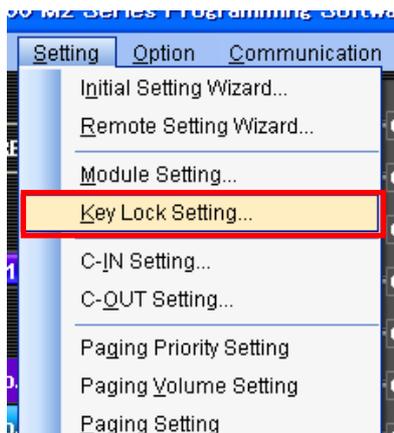
To stop the setting partway through, click the "CANCEL" button. The edited content is abandoned and the dialog window is closed.

**Step 4.** To set the stereo link, check the "Stereo Link" checkbox.

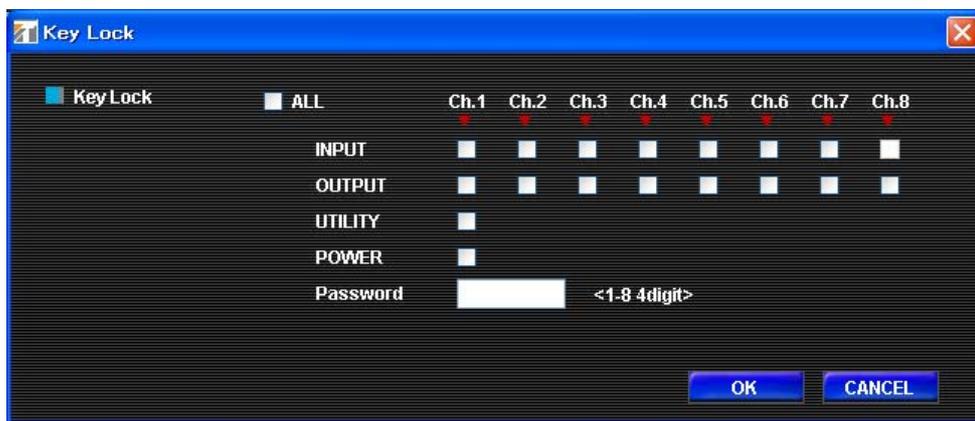
**Step 5.** Click the "OK" button following setting completion of all slot modules to make the new settings take effect.

## 7.2. Key Lock Settings

Select "Setting → Key Lock Setting..." from the menu on the main screen.



The Key Lock Setting dialog window is displayed.

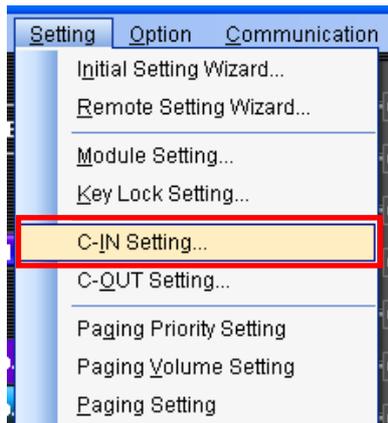


**Step 1.** Enter a number of up to 4 digits consisting of numerals of 1 - 8 in the password entry field. To stop the setting partway through, click the "CANCEL" button. The edited content is abandoned and the dialog window is closed.

**Step 2.** Check the desired items and click the "OK" button to make the settings take effect.

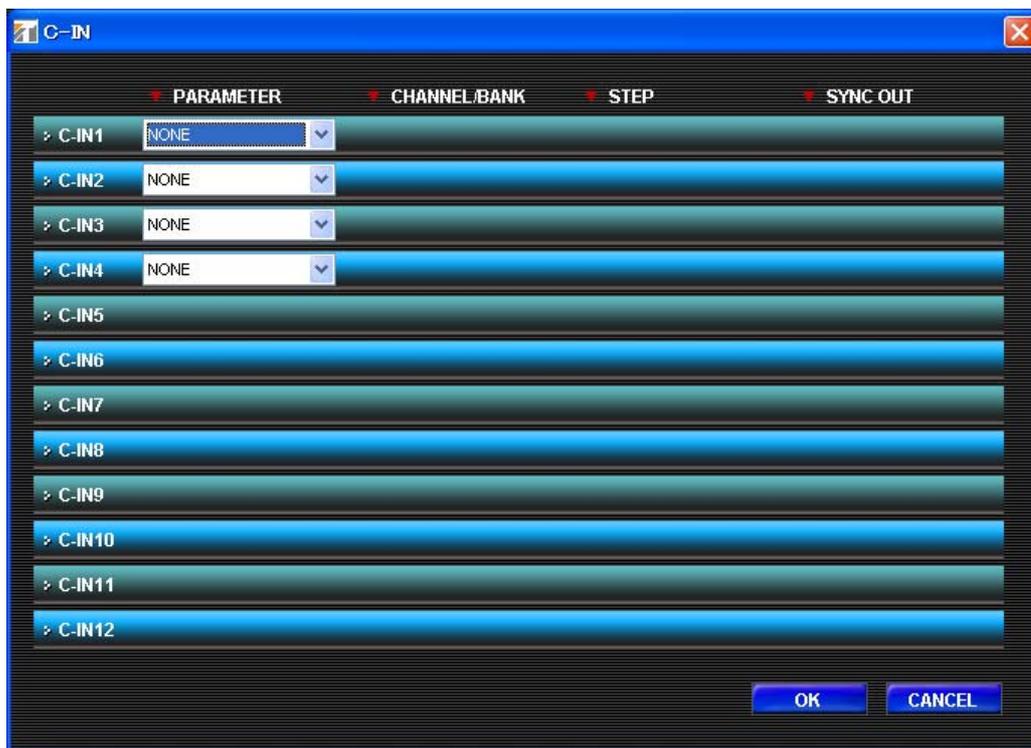
### 7.3. Control Input and Output Terminal Settings

Select "Setting → C-IN Setting..." from the menu on the main screen.

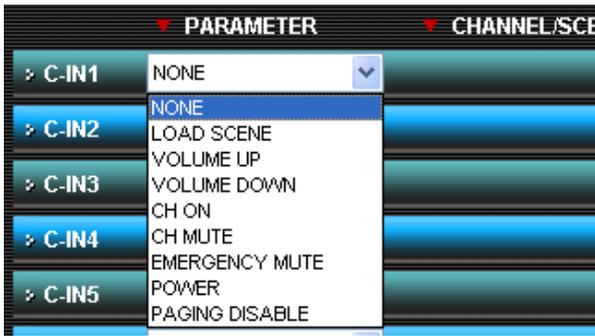


The C-IN Setting dialog window is displayed.

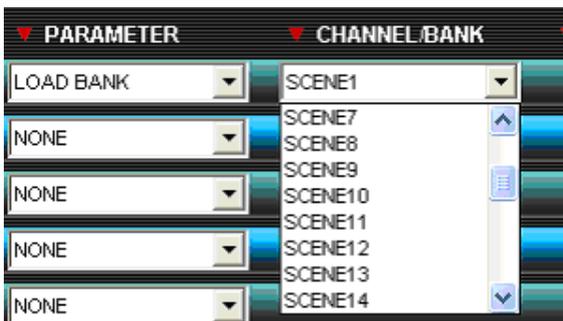
The amplifier is equipped with 4 control input channels, which can be expanded to up to 12 channels by mounting the C-001T module.



Select the item from the PARAMETER combo box, starting with C-IN1 in rotation.



[If "LOAD BANK" is selected:]



Select the scene number to be loaded from the combo box.

[If "VOLUME UP" or "VOLUME DOWN" is selected:]

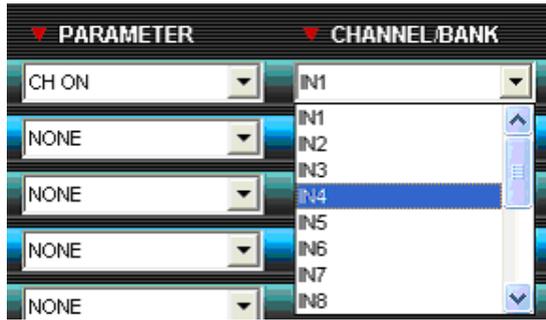
Select the channel to be operated from the combo box, then select the steps in which the volume is to be



increased or decreased.

**[If "CH ON" is selected:]**

Select the channel to be set to ON from the combo box.



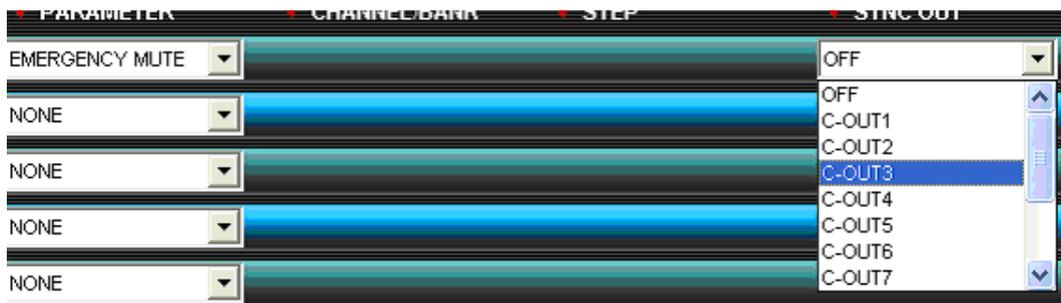
**[If "CH MUTE" is selected:]**

Select the channel to be muted from the combo box. Then select the control output channel that "makes" (closes) in synchronization when "CH MUTE" is activated from the "SYNC OUT" column.



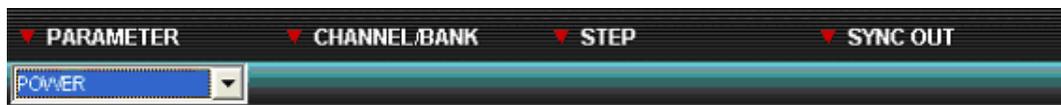
**[If "EMERGENCY MUTE" is selected:]**

Select the control output channel that "makes" (closes) in synchronization when "Emergency Mute" is activated from the "SYNC OUT" column.



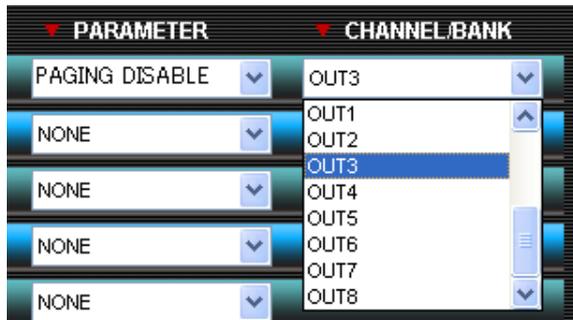
**[If "POWER" is selected:]**

There are no other settings.



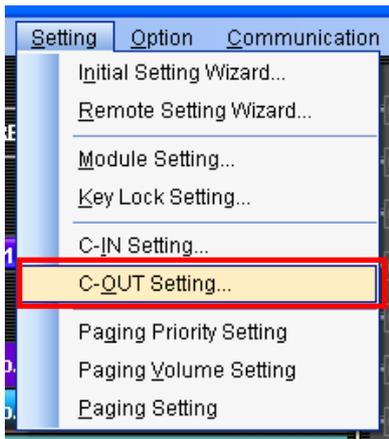
**[If "PAGING DISABLE" is selected:]**

Select the channel to be disabled from the combo box.



## 7.4. Control Output Terminal Settings

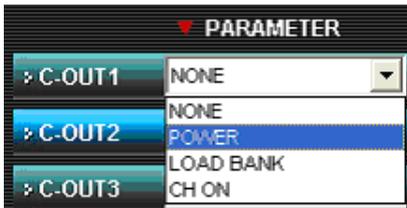
Select "Setting → C-OUT Setting..." from the menu on the main screen.



The "C-OUT" Setting dialog window is displayed.



Select the item from the PARAMETER combo box, starting with C-OUT1 in rotation.



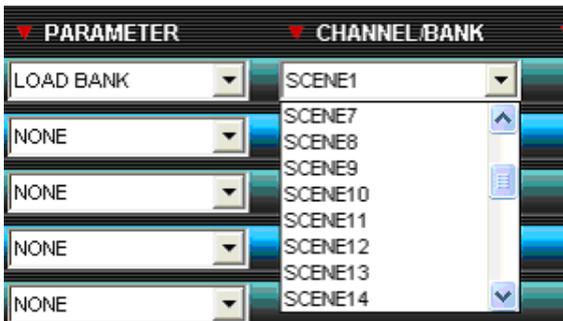
[If "POWER" is selected:]

There are no other settings.



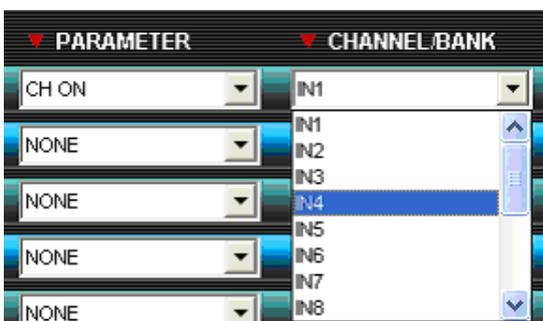
[If "LOAD BANK" is selected:]

Select the scene number to be loaded from the combo box.



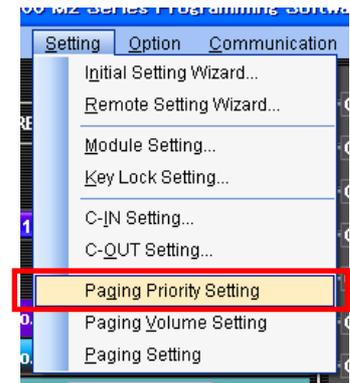
[If "CH ON" is selected:]

Select the channel to be set to ON from the combo box.



## 7.5. Paging Priority Settings

Select "Setting → Paging Priority Setting" from the menu on the main screen or click the Priority indication button in the main view. The setting screen is displayed in the Setting view.



Priority indication button

Channel	Priority	Vox	Vox Threshold	Release Time	Ducking Level
Ch.1	-	<input type="checkbox"/>	-30dB	5sec	OFF
Ch.2	-	<input type="checkbox"/>	-30dB	5sec	OFF
Ch.3	1	<input checked="" type="checkbox"/>	-30dB	5sec	OFF
Ch.4	3	<input type="checkbox"/>	-30dB	5sec	OFF
Ch.5	-	-	-	-	-
Ch.6	-	-	-	-	-
Ch.7	2	-	-	-	-20dB
Ch.8	-	-	-	-	-

**Step 1.** Select Priority 1 - 3 from the pull-down menu of the input channel to be used for paging applications. (Priority 1 is the highest.)

### Notes

- Be sure to set priorities for channels to be used for paging calls. Channels for which this priority setting is not performed cannot be used for paging calls.
- ZP (zone paging) channels cannot be set to "-."

**Step 2.** Set channels not used for paging calls to "-."

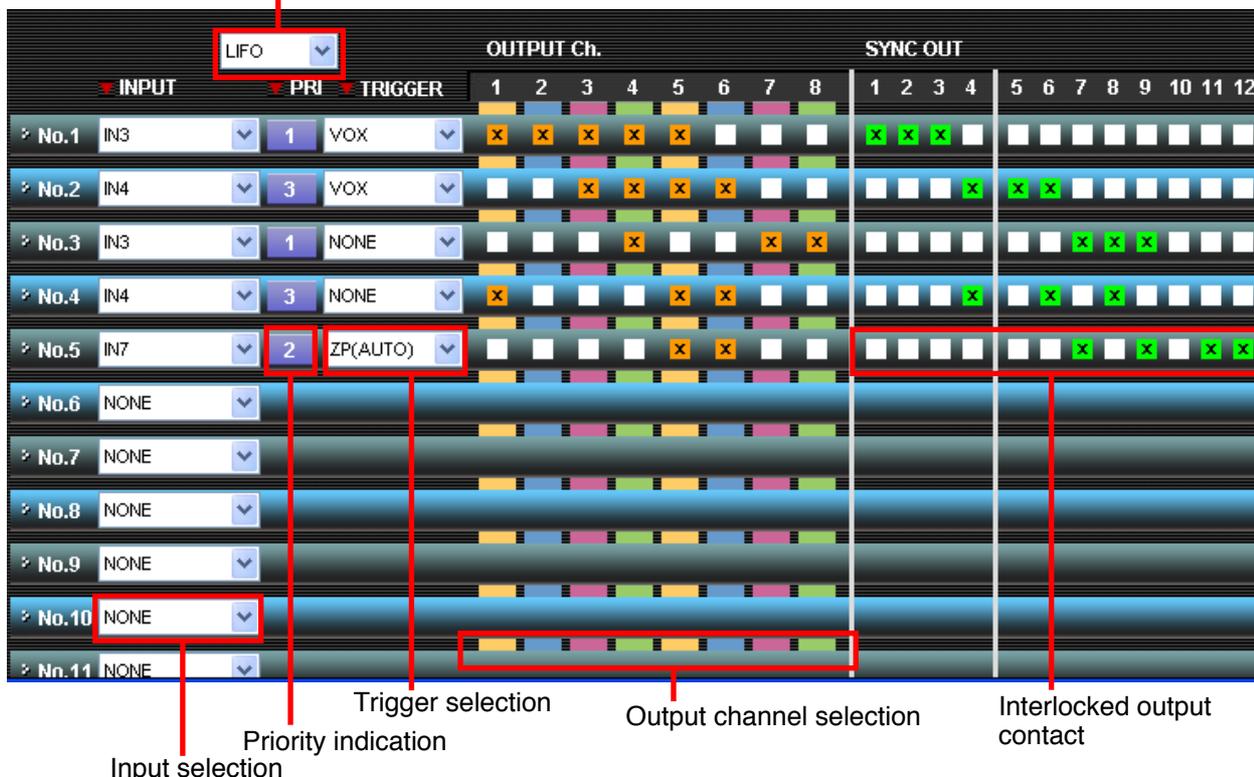
**Step 3.** Check the VOX checkbox for the channels to be used for VOX.  
 Checking the "VOX" checkbox allows the following items to be set.  
 VOX threshold: - 40 to - 5 dB, in 5 dB units  
 Release time: 1 - 8 seconds (common to the gate release time)

**Step 4.** Set the Ducking level.  
 Levels that can be set: OFF (-∞), -50 dB, -40 dB, -30 dB, -20 dB, -10 dB, 0 dB

## 7.6. Paging Settings

Clicking the "PAGING" button on the main view or selecting "Setting → Paging Setting" from the menu on the main screen causes the "Paging Setting" screen to be displayed. This screen is also displayed if priority 1 - 3 of "Pri" on the Main view is clicked.

Same priority operation setting



**Step 1.** Select the input channel from the "INPUT" selection pull-down menu. Only the channels set in the "Input Paging Priority Setting" dialog window (page 48) are displayed. Selecting the "INPUT" displays the set priorities in the "PRIORITY" indication box.

**Step 2.** Select the activation trigger from the "TRIGGER" selection box. Only those triggers that can be set are displayed.

**Step 3.** Check the output channels to be used for paging calls.

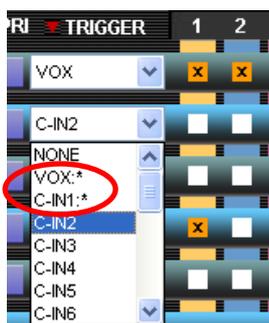
**Step 4.** Check the "SYNC OUT" checkbox for the output contacts to be closed in synchronization with the paging calls. The number of contacts that can be set: Up to 12 (up to 4 when the C-001T is not used, or up to 12 when used)

**Step 5.** Repeat Steps 1 - 4 for all required paging numbers. Up to 32 types of paging can be set.

**Step 6.** Select "LIFO," "FIFO" or "MIX" from the Same Priority Operation setting box.

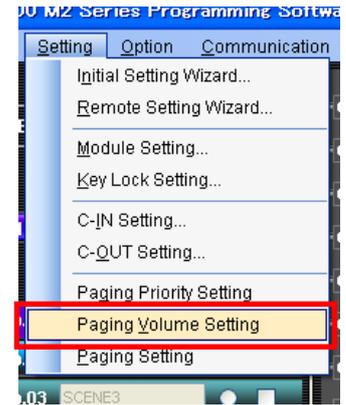
**Step 7.** Switching the setting screen to another screen without completing the current settings causes a confirmation dialog box to appear.

The (\*) suffix is added to triggers already in use.



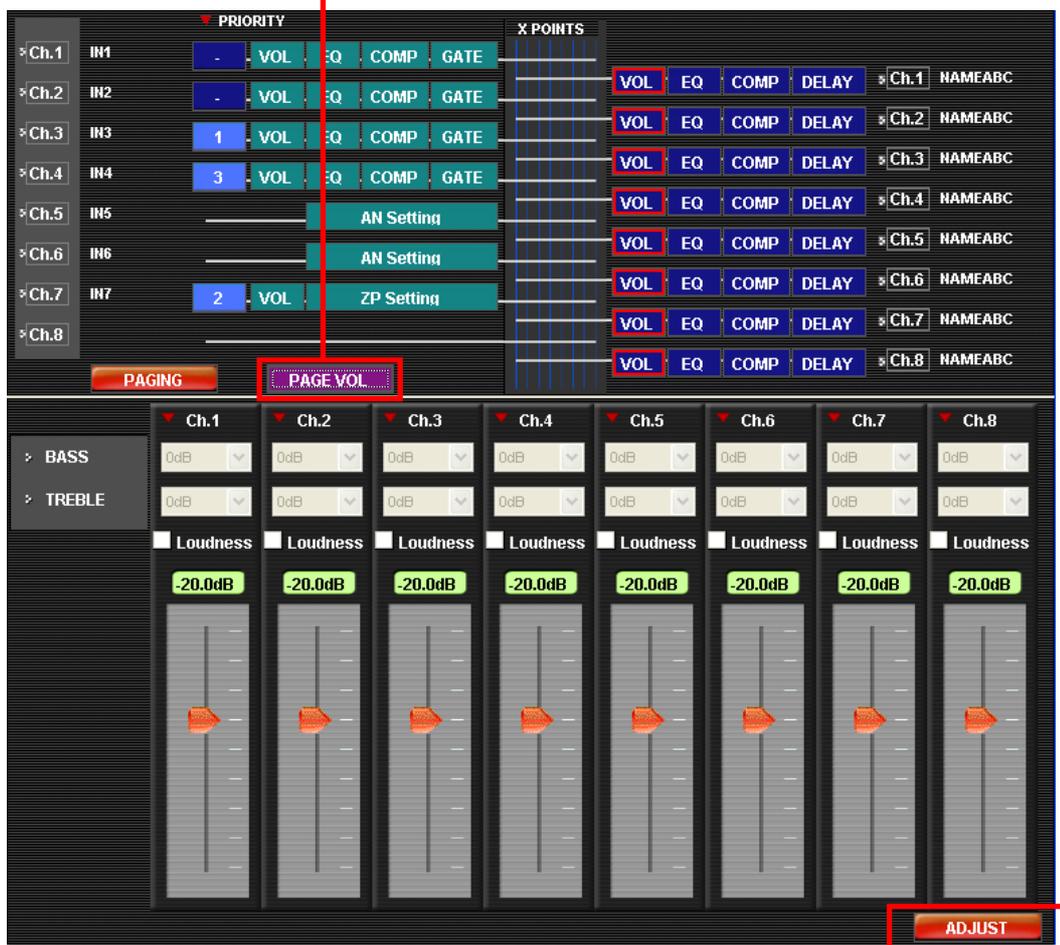
## 7.7. Paging Volume Settings

Select "Setting → Paging Volume Setting" from the menu or click the PAGE VOL button in the main view.



Paging volume settings for all output channels are displayed in the Setting view.

PAGE VOL button



Adjustment button

### [Paging Volume Settings]

**Step 1.** Adjust the volume level with the fader.

The level can be adjusted within the range of OFF or  $-70.0$  to  $+10.0$  dB in 0.5 dB units.

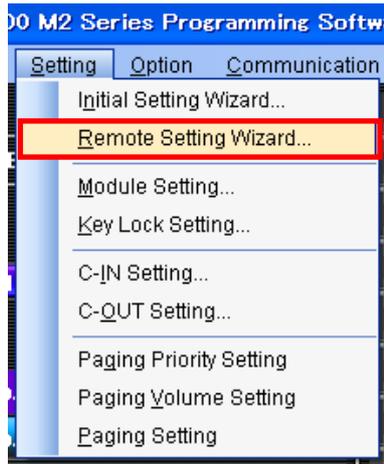
**Step 2.** Repeat Step 1 above for all channels for which the volume is set.

### Adjustment function

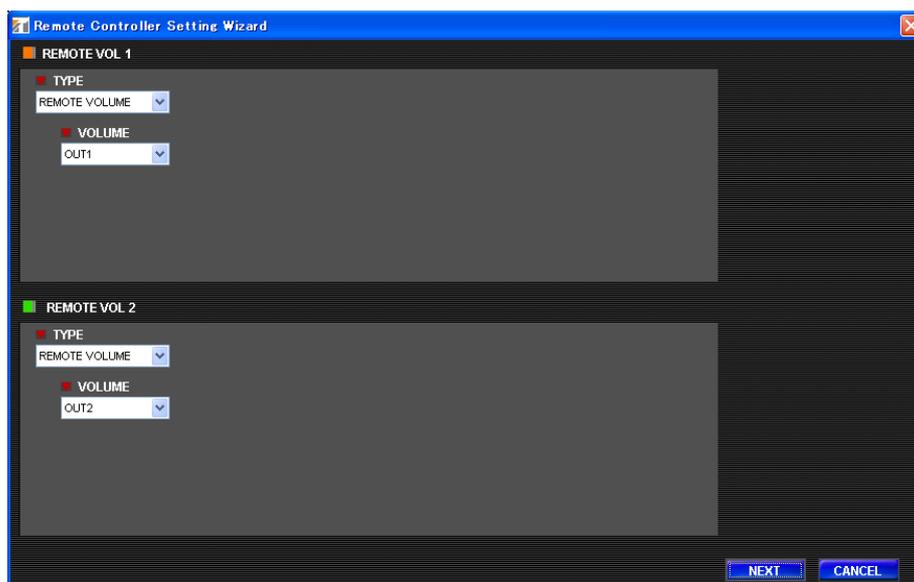
If the "ADJUST" button on each screen is clicked, the current parameters of the 9000M2 amplifier connected by way of the RS-232C cable are switched to the value set on this screen, allowing the set sound to be aurally monitored.

## 7.8. Remote Controller Settings (ZM-9011, ZM-9012, ZM-9013, ZM-9014)

Select "Setting → Remote Setting Wizard" from the menu on the main screen.



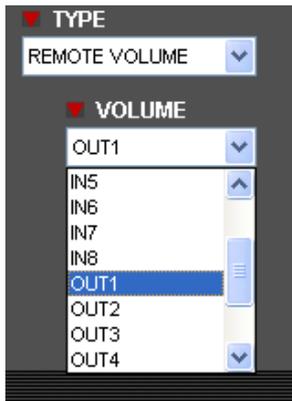
Set the devices to be connected to REMOTE terminals 1 and 2 located on the rear panel of the amplifier. Select "NONE" if these connections are not made.



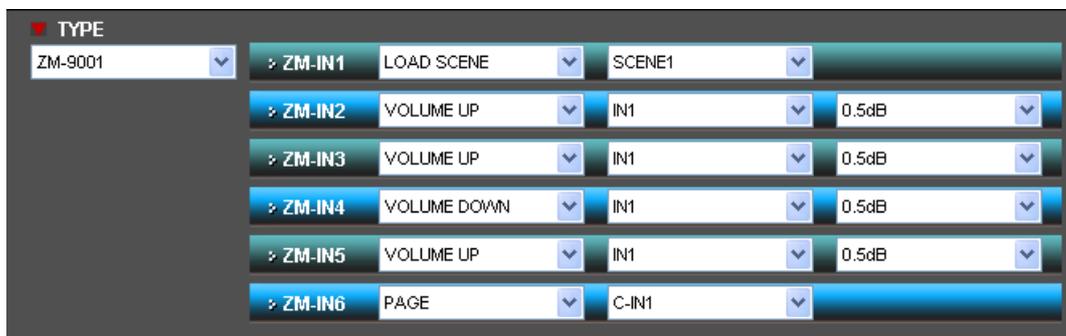
Required items are displayed as follows depending on the type of selected device.

[When "REMOTE VOLUME" is selected:]

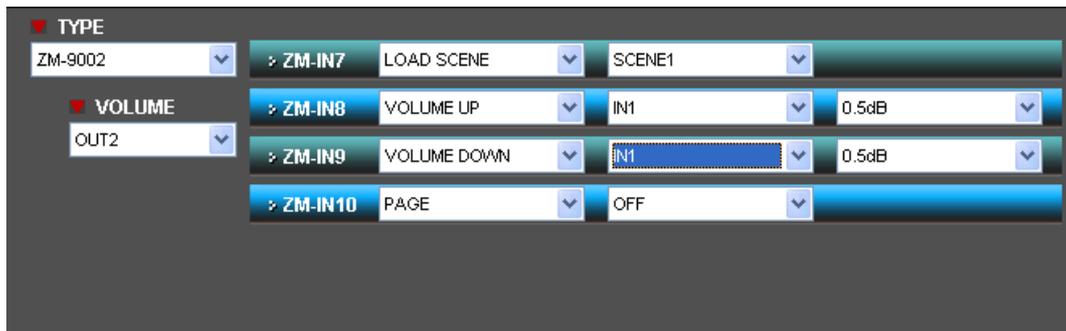
In the "VOLUME" combo box, designate which input or output channel volume to be remotely operated.



[When "ZM-9001" is selected:]



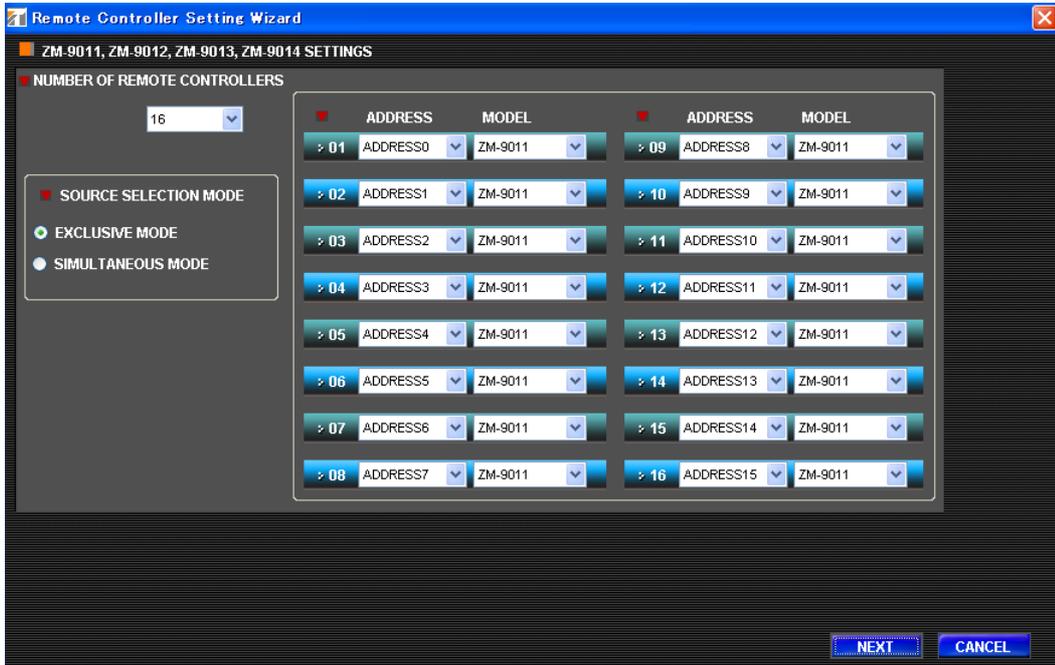
Using the combo box, select the functions to be assigned to input terminals ZM-IN1 - ZM-IN6, then select parameters from the selected functions.



[When "ZM-9002" is selected:]

Select the functions to be assigned to input terminals ZM-IN1 - ZM-IN4 from the combo box. Using the combo box, select parameters from the selected functions, then designate the channels to be assigned to VOLUME.

All settings are completed. Click the "NEXT" button to advance to the following wizard.



The wizard displays the contents set in the initial setting screen.

SOURCE SELECTION MODE sets the operation mode as described below when “CHANGE CROSS POINT” function is assigned to the function switch of the Remote Controller.

EXCLUSIVE MODE: A single cross point can be turned ON for each output channel.

SIMULTANEOUS MODE: Multiple cross points can be arbitrarily turned ON.

The mode selected here applies to all the scene memories and remote controllers.

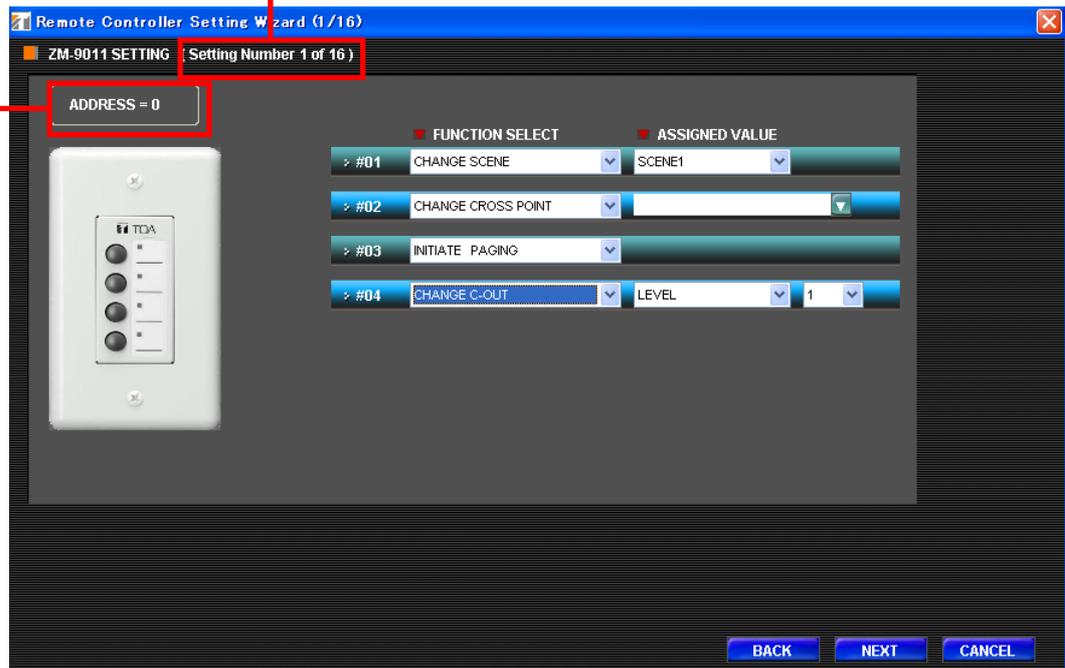
To change the remote controller configuration, change the setting using the pull-down menu, then click the "NEXT" button.

When not changing the setting, click the "CANCEL" button. The wizard will close.

### 7.8.1. ZM-9011 Remote controller settings

The number of currently set units / the number of connected units

Setting address



When two or more ZM-9011, ZM-9012, ZM-9013 or ZM-9014 Remote Controllers are connected, they are displayed on the wizard screen in ascending order. Perform settings for each unit.

Perform settings of functions assigned to the function button.

#### [When using the function button for switching scenes:]

Select "CHANGE SCENE" from the "FUNCTION SELECT" pull-down menu, as shown below, then select the scene number to be assigned from the "ASSIGNED VALUE" pull-down menu.



**[When using the function button as a cross point switch:]**

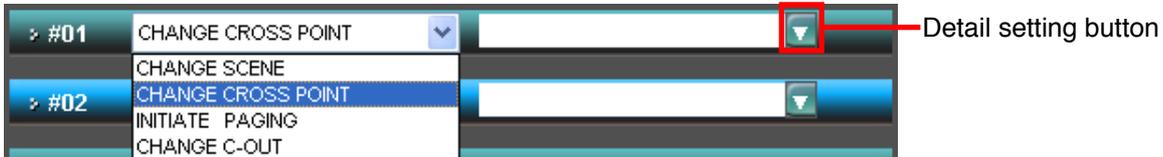
Select "CHANGE CROSS POINT" from the "FUNCTION SELECT" pull-down menu, as shown below, then click the Detail setting button at the "ASSIGNED VALUE" column to display the cross point setting dialog.

When the "EXCLUSIVE MODE" is selected in the "SOURCE SELECTION MODE," only a single cross point can be selected for each function button of the remote controller.

If a cross point between each different input channel and the same output channel is selected for other buttons, these buttons function as an input channel selector.

When the "SIMULTANEOUS MODE" is selected, multiple arbitrary points can be selected.

For the in-use indicator status of the remote controller, refer to the separate instruction manual.



Check the point to be switched ON on the cross point setting dialog screen.



After setting is complete, click the "OK" button and close the screen.

The set point is displayed in character strings as shown below.

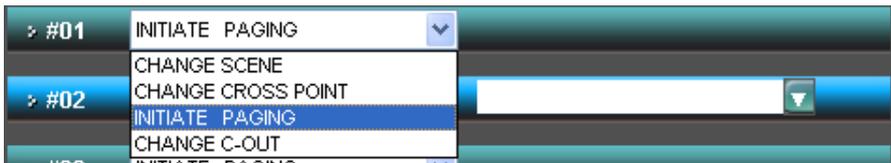


**Note**

If the character string is longer than the display box, not all cross point setting information can be displayed. In such cases, the set contents can be confirmed by clicking the detail setting button to open the cross point setting dialog screen.

**[When using the function button as a paging switch:]**

Select "INITIATE PAGING" from the "FUNCTION SELECT" pull-down menu, as shown below. The remote controller's function button can be used as a paging ON/OFF button.



**[When using the function button as a contact switch:]**

Select "CHAGE C-OUT" from the "FUNCTION SELECT" pull-down menu, as shown below. Thereafter, select the Level/Trigger combo box and the amplifier's control output contact number on the "ASSIGNED VALUE" pull-down menu.

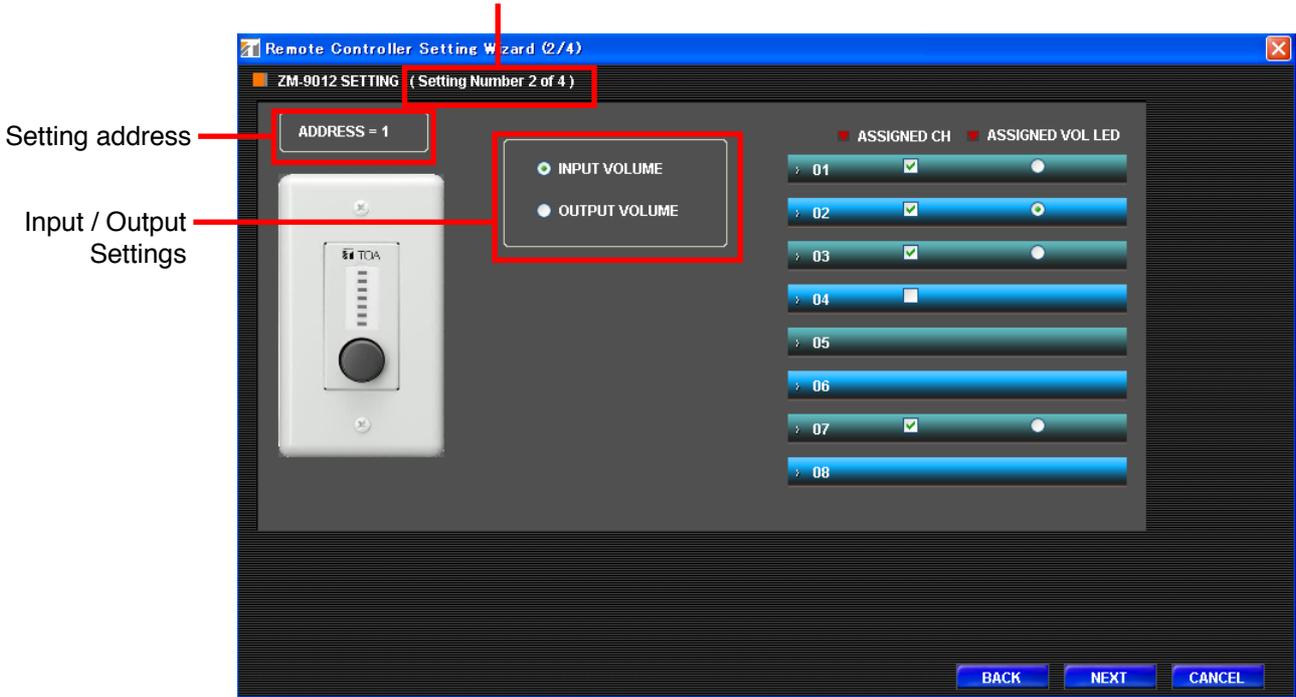


Select Level/Trigger

Click the "NEXT" button after all button settings are completed.

### 7.8.2. ZM-9012 Remote controller settings

The number of currently set units / the number of connected units



When two or more ZM-9011, ZM-9012, ZM-9013 or ZM-9014 Remote Controllers are connected, they are displayed on the wizard screen in ascending order. Perform settings for each unit.

**Step 1.** Select either Input or Output in the Input / Output Settings.

**Step 2.** Check the channel to be assigned to the volume knob at "ASSIGNED CH."

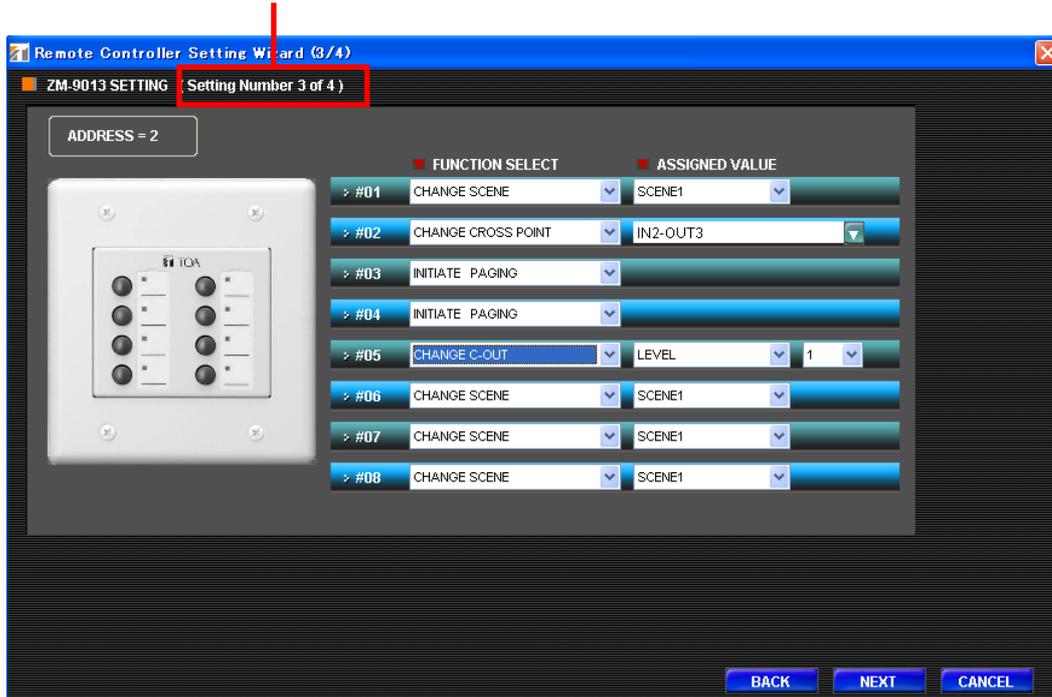


**Step 3.** Check the channel to be displayed on the volume level at "ASSIGNED VOL LED."

**Step 4.** Click "NEXT" to move to [the next page](#).

### 7.8.3. ZM-9013 Remote controller settings

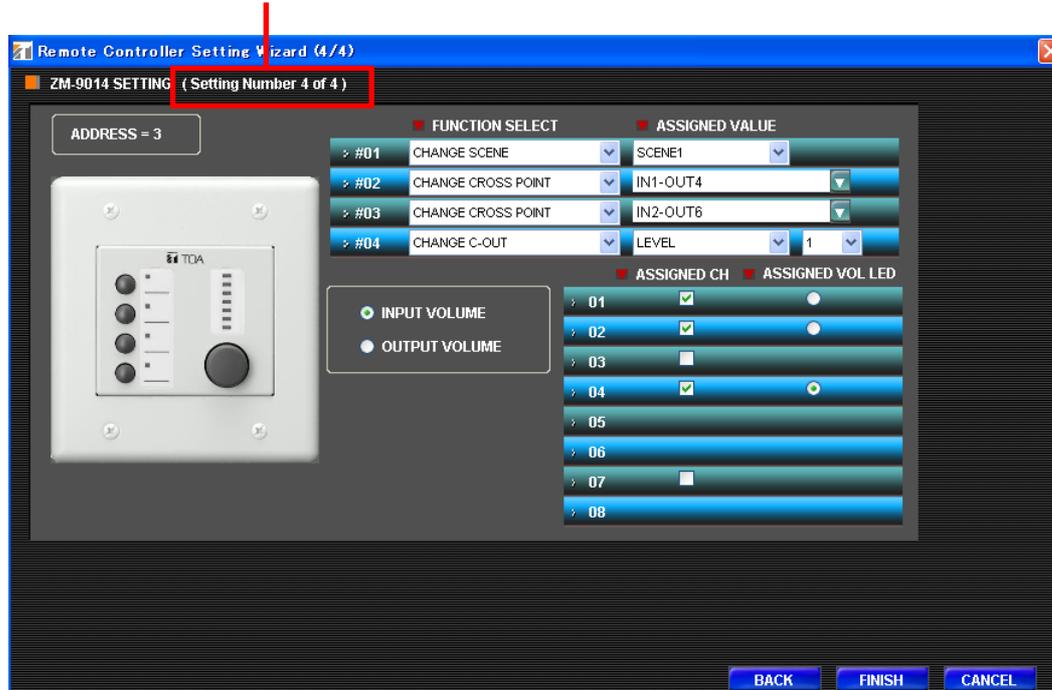
The number of currently set units / the number of connected units



Settings are the same as those described in "ZM-9011 Remote Controller Settings" on page 52. Click the "NEXT" button after setting is completed.

### 7.8.4. ZM-9014 Remote controller settings

The number of currently set units / the number of connected units

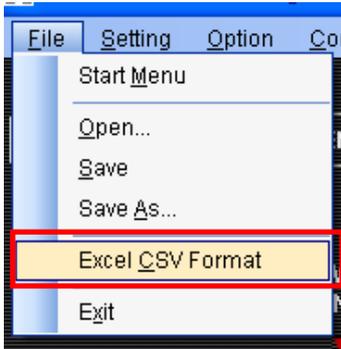


Settings are the same as those described in "ZM-9011 Remote Controller Settings" on page 52 and "ZM-9012 Remote Controller Settings" on page 55. When all wizard screens are set and the number of set units equals the number of connected units, the "FINISH" button is displayed. Clicking the "FINISH" button completes the setting.

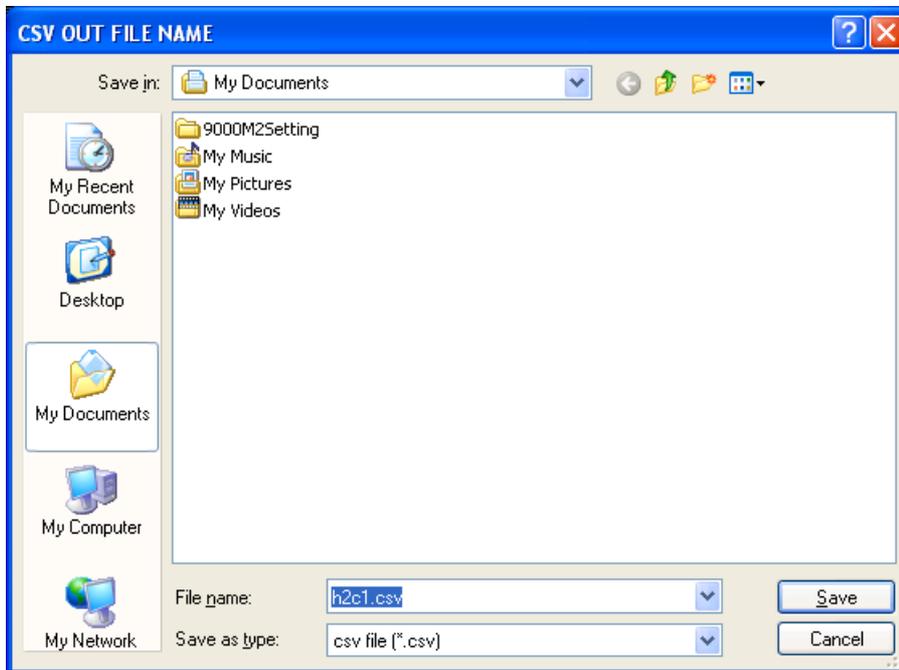
## 8. FILE OUTPUT

### 8.1. CSV-Format File Output (for printing)

Select "File → Excel CSV Format" from the menu on the main screen.



A dialog for selecting the output file is displayed.  
Enter a filename to be output and save it.



## Output File Example

```
[FileInfo]
;FileVersion,date,time,size(byte)
1.00,2008/10/22,22:32:33,12344556

;Data(CSV Format)
;Mainframe Setting
;SlotNo,DataSize,InternalInfo, . . . LastSceneInfo
8,9999999,1.01,1,0 . . .

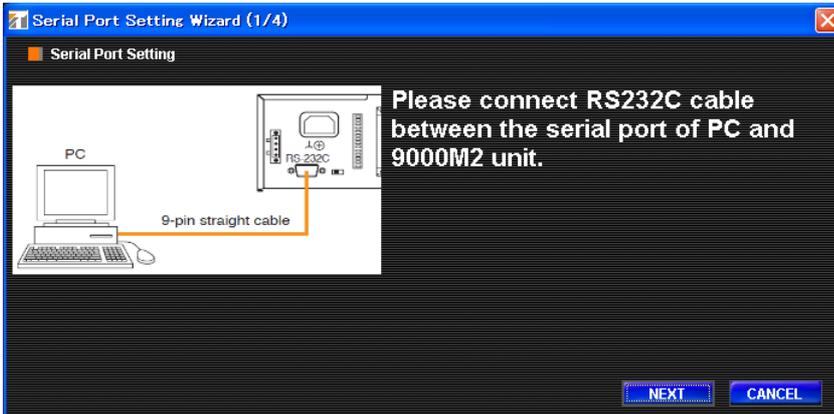
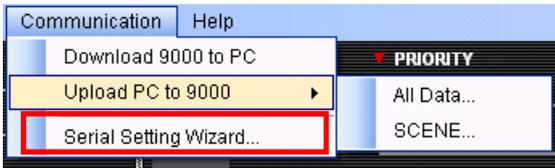
;ModuleInfo1
;SlotNo,DataSize,InternalInfo,SceneNo . . . SceneInfoLast
0,2860,v1.01, . . .
.
.
.

;ModuleInfo8
;SlotNo,DataSize,InternalInfo,SceneNo . . . SceneInfoLast
0,2860,v1.01, . . .
```

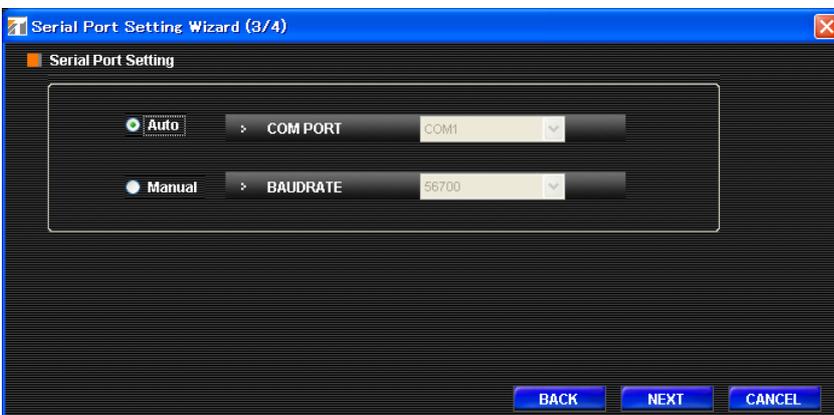
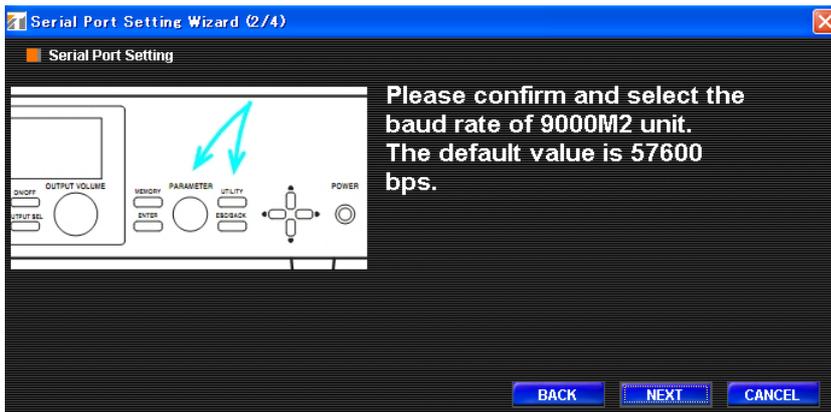
# 9. COMMUNICATIONS

## 9.1. Communication Settings

Click the "Serial Setting" button on the Start menu screen, or select "Communication → Serial Setting Wizard..." from the menu on the main screen.



Click "NEXT" in sequence according to the wizard prompts.





Shown below is the last wizard screen.



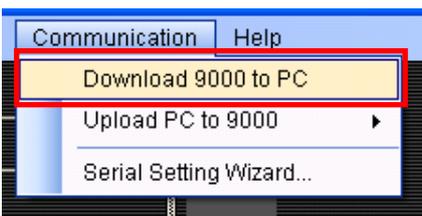
Clicking "FINISH" after setting completion completes the communication settings. To abort the settings, click "CANCEL," and the communication settings are cancelled.

If the Auto Mode is selected, each connection is checked in sequence, taking a little time to ensure that each connection is correctly established.

It is recommended that the baud rate be set to 11,520 bps.

## 9.2. Downloading Setting Data from the Amplifier

Confirm that communications are possible between the amplifier and the PC, then select "Download 9000 To PC..." from the pull-down menu.



A progress bar is displayed during communications.



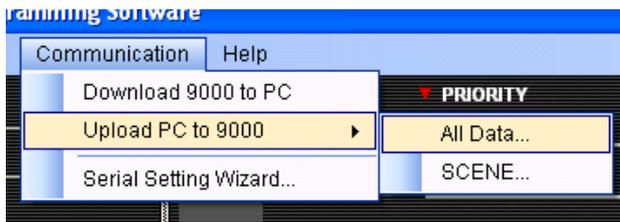
If communication is completed, the progress bar dialog is closed and downloading is completed.

### Note

When an error is detected, the error indication is displayed, returning the setting to the initial value.

### 9.3. Uploading All Setting Data to the Amplifier

Confirm that communications are possible between the amplifier and the PC, then select "Upload PC to 9000 → All Data..." from the pull-down menu.



A progress bar is displayed during communications.



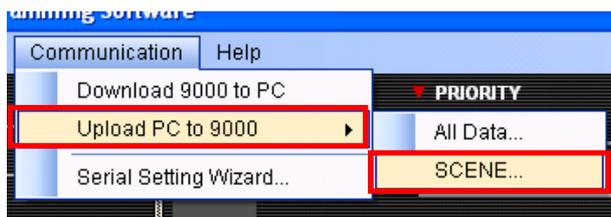
If communication is completed, the progress bar dialog is closed and uploading completed.

#### Note

When an error is detected, the error indication is displayed, returning the setting to the initial value.

## 9.4. Uploading Single Scene Data to the Amplifier

Confirm that communications are possible between the amplifier and the PC, then select "Upload PC To 9000 → SCENE..." from the pull-down menu.



Select the scene to be uploaded, then click the "START" button to start communications.



A progress bar is displayed during communications.



If communication is completed, the progress bar dialog is closed and uploading completed.

### Note

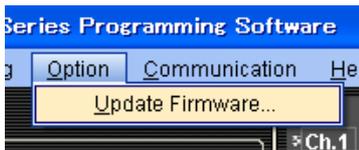
When an error is detected, the error indication is displayed, returning the setting to the initial value.

## 10. FIRMWARE UPDATE

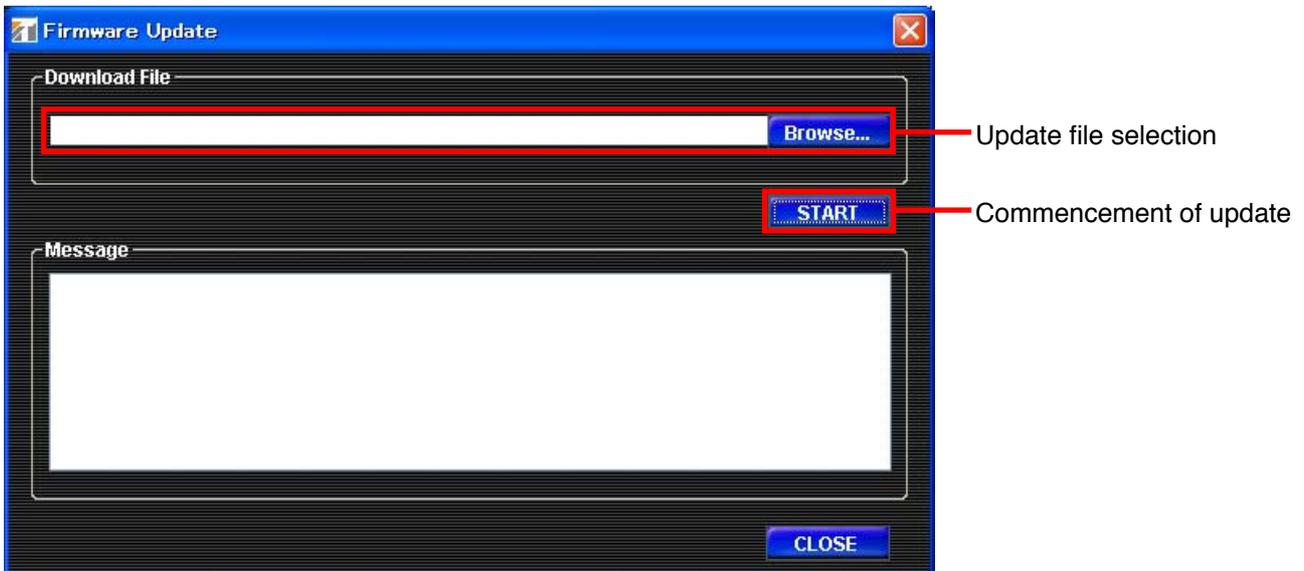
### Important

- Avoid switching OFF the power or disconnecting the cable during update.
- The update file only for 9000M2 Series can be used with this 9000M2 Series unit.
- The update file for 9000 Series can NOT be used with this 9000M2 Series unit.
- When the update file which is not allowed is used, the error message like "Failed to update firmware" is displayed.
- If the error message is displayed, please check the procedure and the update file again, then please update using a correct update file.

To update the 9000M2 amplifier's firmware, confirm that communications are possible between the amplifier and the PC, then select "Option → Update Firmware..." from the menu on the main screen.



A firmware update dialog is displayed.



**Step 1.** Switch the 9000M2 amplifier's power ON while holding down its front panel "INPUT SELECT 8" and "ESC/BACK" keys to put the amplifier in "Update" mode.

**Step 2.** Compare the amplifier version with the update file version and confirm that the update file version (the "xxxx" part of A9000M2xxxx.mot) is the latest.

**Step 3.** Click the "Browse..." button in the update file selection area to select the update file (\*.mot).

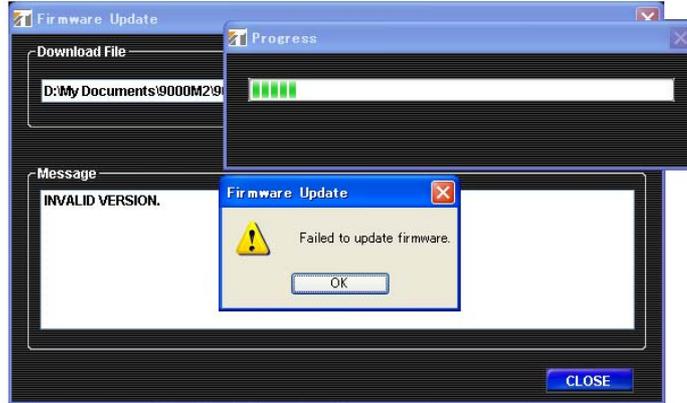
**Step 4.** Click the "START" button to start update. (Communication settings are automatically performed.)

**Step 5.** A progress bar is displayed during update.



**Note**

Once updated to firmware Ver. 2.00 or later, you cannot downgrade back to firmware Ver. 2.00 or earlier. The indication "INVALID VERSION" is displayed on the amplifier's front-mounted display (VFD) and PC's screen when attempting to perform downgrade. (Refer to the screen shot below.) The indication is displayed for a few seconds, then the amplifier restarts with the version remaining unchanged.



**Step 6.** If an error is detected, its content is displayed in the "Message" area.

**Step 7.** When the update operation is complete, the progress bar automatically closes, completing the update.

**11. TROUBLESHOOTING**

Symptom	Possible Cause	Remedy
Application not started.	Incorrect installation.	Delete currently installed application, then reinstall it.
Entire screen not displayed.	Insufficient PC resolution.	Use XGA or higher display resolution.
Slow application operation speed.	Insufficient PC specifications.	Recommended CPU: Pentium 4 equivalent or higher, Recommended memory: 1 GByte or larger
Parameter not changed even if loaded from scene memory.	Parameters, such as remote controller settings, paging volumes, etc. are not saved to scene memory.	Because parameters are saved to setting files, read necessary setting files.
Cannot upload or download.	Amplifier and PC not correctly connected via RS-232C cable.	Check the amplifier's instruction manual and make correct connections.
	Type of RS-232C cable differs.	Use 9-pin straight cable.
	Amplifier power not switched on.	Switch on amplifier power.
	When USB-RS232C conversion cable is used, driver software is not operating correctly.	Obtain the latest driver and reinstall it through correct procedures.
Excessive time required to upload or download.	Amplifier/PC setting software transmission rate set to slow speed.	Set transmission rate to high speed.
	USB-RS232C conversion cable driver does not support high-speed communications.	Replace USB-RS232C conversion cable with a cable capable of being used for high-speed communications.

