



SOFTWARE INSTRUCTIONS

MIXER AMPLIFIER

A-5000 SERIES

(Ver. 1.0.0)



Thank you for purchasing TOA's Mixer Amplifier.
Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

TOA Corporation

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1. A-5000 PC SOFTWARE OUTLINE

1.1. General Description

Use the dedicated settings software when setting compression and manual mute functions for the A-5000 Series.

Settings can be performed regardless of whether the A-5000 series (referred to as “unit” hereinafter) is concurrently in communication with a PC (online mode) or not (offline mode).

Note, however, that some operations and displays can only be performed online.

The PC and unit communicate via a network. When both are online, Preset Memory can be recalled from the PC to the unit, and acoustic signal processing settings can be changed in real time. Only one unit at a time can be used with the PC software.

Set data can be stored in the PC.

1.2. System Requirements

Install the software in a PC that meets the following specifications:

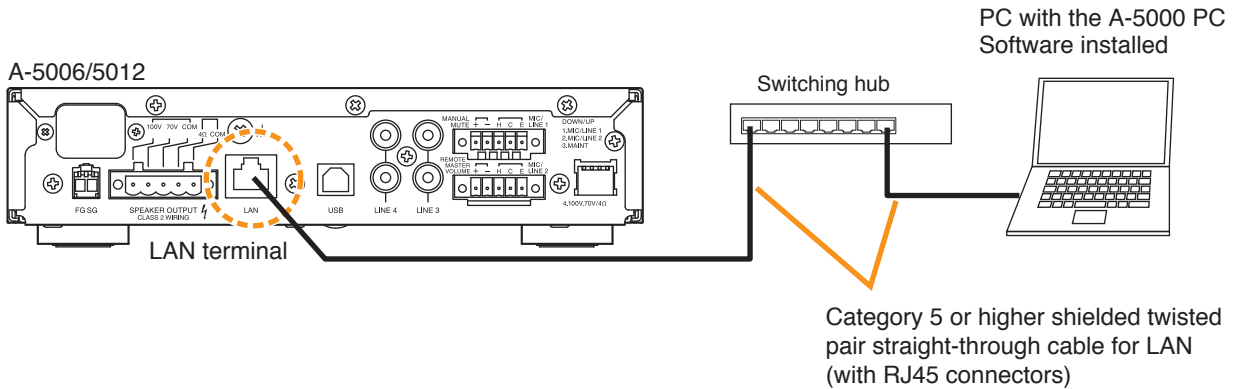
1.2.1. Recommended PC requirements

Hardware Requirements	
CPU	Intel Core™i3, 2 GHz or faster
Memory	Over 2 GB
Display	1024 x 768 resolution or higher
Free Hard Disk Space	Over 16 MB however, over 600 MB is required for the 32 bit version or over 1.5 GB for the 64 bit version when “.NET Framework” is not yet installed
Optical Drive	CD-ROM drive
LAN	100BASE-TX
Software Requirements	
OS	Following are the verified operating systems: Windows 7 Professional 32bit SP1 Windows 7 Professional 64bit SP1 Windows 8.1 Pro 32bit Windows 8.1 Pro 64bit
Required Component	.NET Framework 4 Client Profile (Internet access is required when “.NET Framework” needs to be installed)

- Intel Core is the trademark of Intel Corporation in the United States and other countries.
- Windows is the registered trademarks of Microsoft Corporation in the United States and other countries.
- Regarding other company names and products, they are also trademarks of individual companies.

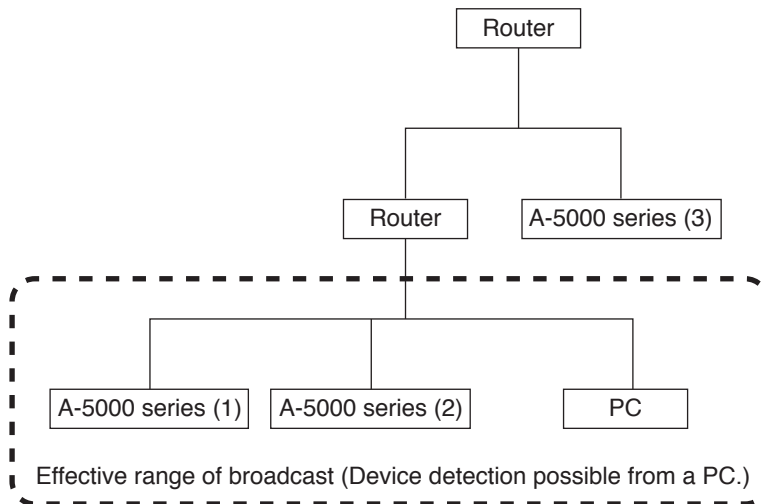
1.2.2. Connecting between the PC and the unit

Connect the unit's LAN terminal to the PC via a switching hub.
 Connect a PC and the unit to a switching hub using LAN straight-through cables individually.



1.2.3. Network

- Perform the network setting for the PC in advance following the instructions of the network administrator of the facilities where the unit is installed.
 If incorrect setting has been performed, this may adversely affect other devices connected to the same network.
- The unit that communicates with this software can be detected using the Device detection function.
 The Device detection function detects the unit connected on the local area network.
 A "Broadcast" communication method is used for detection.
 Therefore, this detection function is available only within the effective range of broadcast. Broadcast will not reach beyond the router even within the local area network.



In the network configuration shown above, the A-5000 series (3) cannot be detected if the device detection is executed from the PC.
 For the effective range of broadcast, consult your network administrator of the facilities where the unit is installed.

2. SOFTWARE SETUP

2.1. Installing the A-5000 PC Software

Terminate all other application programs in operation before installation.
Follow the procedures below to install.

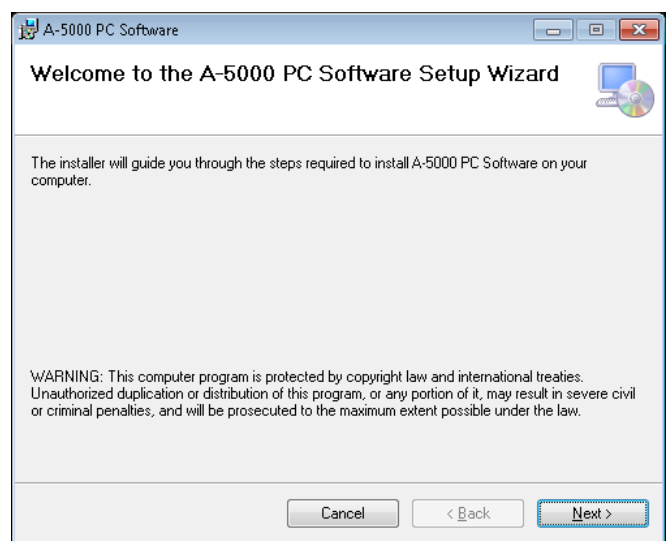
Step 1. Insert the supplied CD into the PC's CD drive.

Step 2. Open the CD drive from the "Explorer" or "My Computer."
The "English" folder, "Japanese" folder, and other contents are displayed.

Step 3. Open the "English" folder.

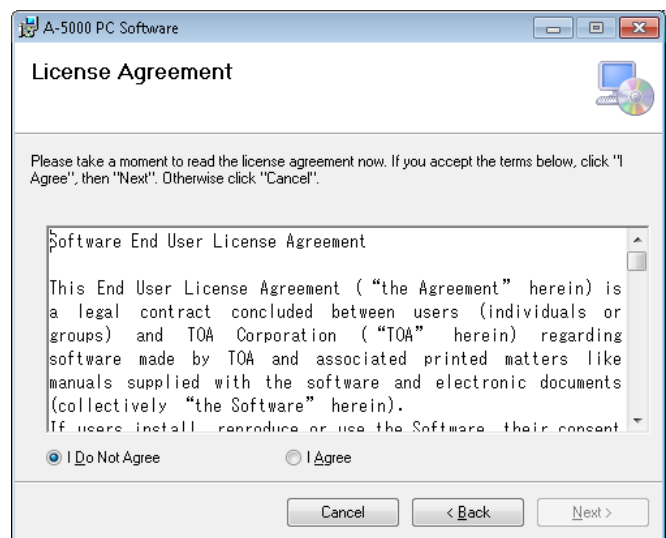
Step 4. Open the "Software" folder.

Step 5. Double-click the "setup.exe."
The window at right is displayed.



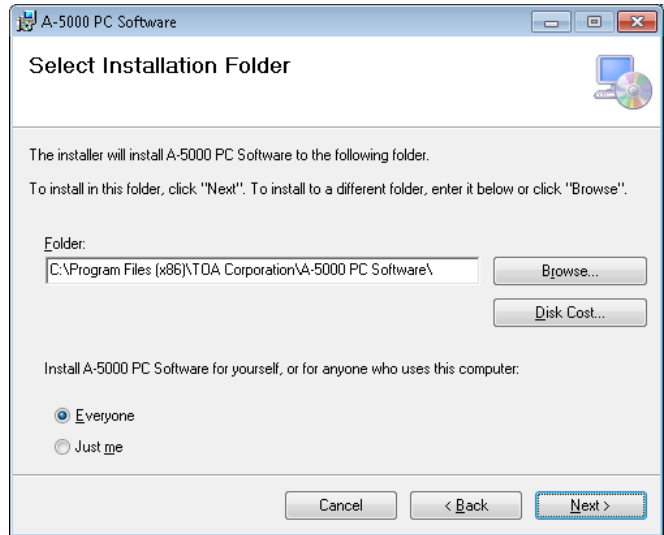
Step 6. Click the [Next] button.

The window at right is displayed.
Check the contents of the License Agreement, then choose the "I Agree" or "I Do Not Agree" radio button.
Choosing "I Agree" allows to click the [Next] button.



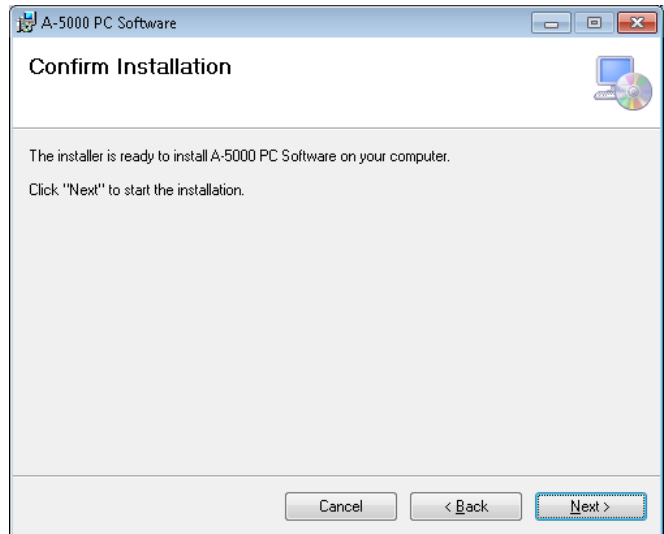
Step 7. Check the contents of the window, then click the [Next] button.

The window at right is displayed.

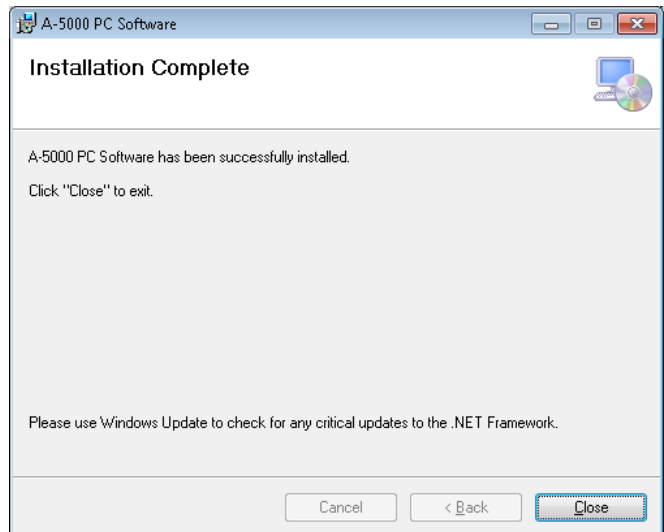


Step 8. If necessary, change the folder into which the software will be installed, then click the [Next] button.

The window at right is displayed.



Step 9. Start installation according to the instructions on the screen.



Tip

If the .NET Framework is not installed in the PC, follow the on-screen instructions to install it. Connection to the internet is required.

Step 10. Click the [Close] button after installation completion. The shortcut icon for the A-5000 GUI executable program is stored in the PC's start menu.

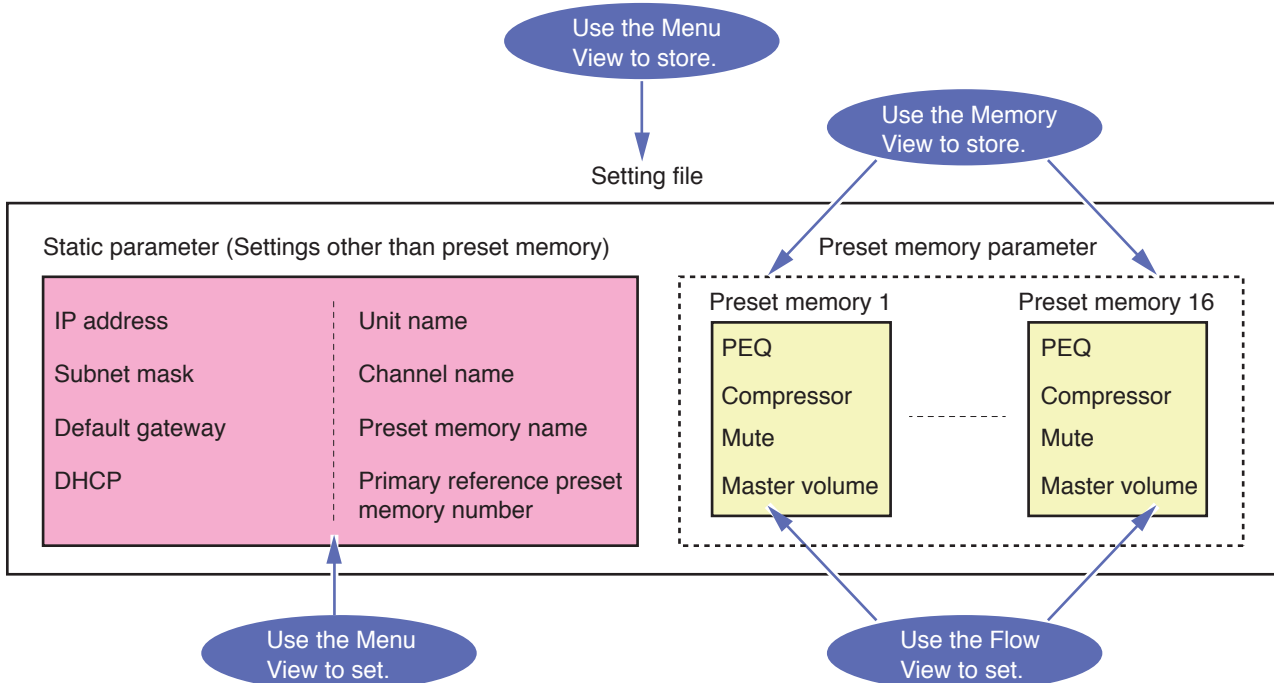
2.2. Uninstalling the A-5000 PC Software

- Step 1.** Click the Start button on the PC's desktop, and select [Setting → Control Panel].
The "Control Panel" window is displayed.
- Step 2.** Double-click the "Programs and Features" icon.
The currently installed program will then be displayed.
- Step 3.** Select "A-5000 PC Software."
- Step 4.** Click the "Uninstall."
The A-5000 PC Software is uninstalled.

3. SETTINGS FLOW

[Settings Summary]

Settings contents are broadly divided into preset memory parameter (see p. 30), where signal processing parameters are stored, and static parameter, for parameters not stored in the preset memory.



[Setting procedure example]

- Step 1.** Install the unit and set it up for audio output.
- Step 2.** Connect the unit to a PC (see p. 5).
- Step 3.** Install the A-5000 PC Software in the PC and start it (see p. 6 and p. 9).
- Step 4.** Receive data from unit and display its settings on the main screen (see p. 11).
- Step 5.** Set both unit and channel names (see p. 19).
- Step 6.** Set preset memory names and the preset memory number to be displayed when power is switched on (p. 29 and 30).
- Step 7.** Perform more detailed settings on the Flow View, actually outputting audio (see p. 21).
- Step 8.** Save settings to the preset memory (p. 32).
- Step 9.** Call up a different number of preset memory and repeat Steps 6 – 8.

4. STARTING THE SOFTWARE

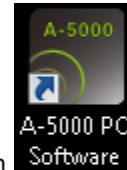
The following two different methods are available for starting the installed A-5000 PC Software:

4.1. Starting from the “Start” Menu

You can start the A-5000 PC Software from the start menu.

Click the Start button on the PC's desktop, and select [Programs → TOA Digital Audio Control → A-5000 PC Software] to start.

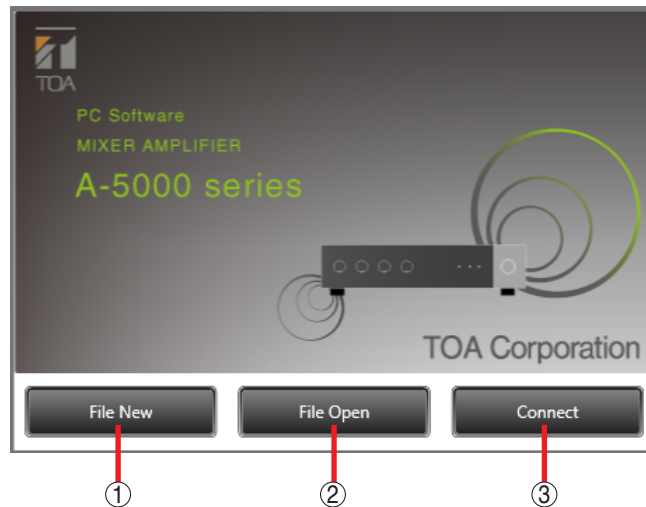
4.2. Starting from the Shortcut Icon



You can start the A-5000 PC Software by double-clicking the shortcut icon created on the desktop after installation completion.

5. MOVING FROM THE INITIAL OPERATION SELECTION SCREEN TO THE MAIN SCREEN

Connect the A-5000 Series unit to a PC and perform settings, actually outputting audio. Starting up the A-5000 PC Software displays the initial operation selection screen. Select from among [File New], [File Open], and [Connect] depending on the type of work to be done.

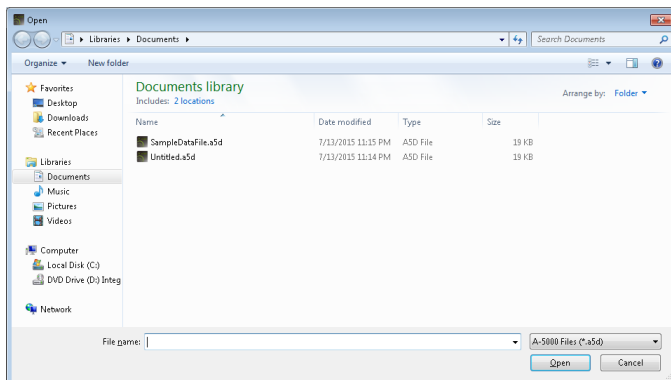


1. File New

Select this key to create a new setting file.
Clicking this key switches the screen display to the main screen (see p. 13).

2. File Open

Select this key to open a previously created settings file.
Clicking this key displays the "Open" dialog box.



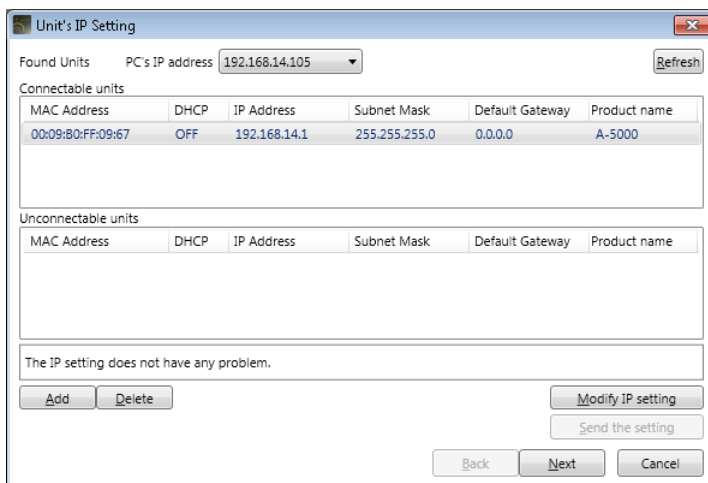
Select the desired file (extension: a5d) and click the [Open] button.
File is opened, and the screen display is switched to the main screen (see p. 13).

3. Connect

Select this key to receive the A-5000 Series unit's setting data via the LAN port and display it on the A-5000 PC Software's setting screen. Be sure the A-5000 unit is connected to the PC in advance by way of a switching hub (see p. 33.)

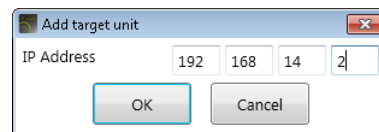
[Receiving Data]

Step 1. Click the [Connect] button on the initial operation selection screen. Units are automatically detected and the Unit's IP Setting screen is displayed.

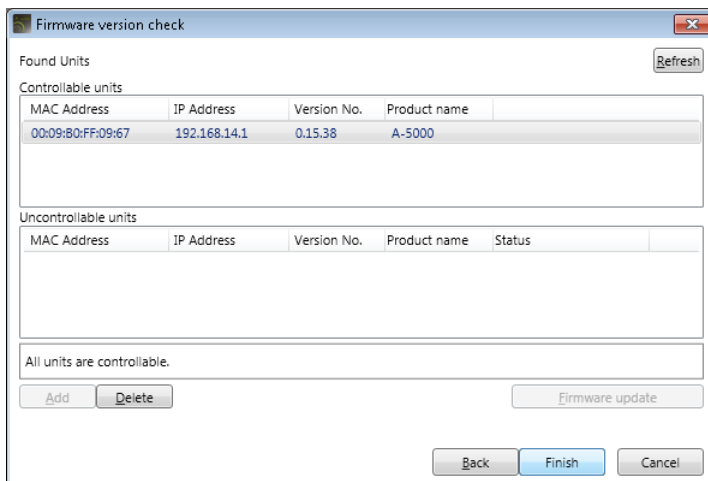


When the desired unit from which to receive data is not displayed:

The unit is not displayed in the above screen when connected via a router. Use the [Add] button to add the unit. If the [Add] button is clicked, the Add target unit screen (shown at right) for connected units is displayed. Enter the IP address of the desired connected unit.



Step 2. Select the desired unit from which to receive data, then click the [Next] button. The Firmware version check screen is displayed.

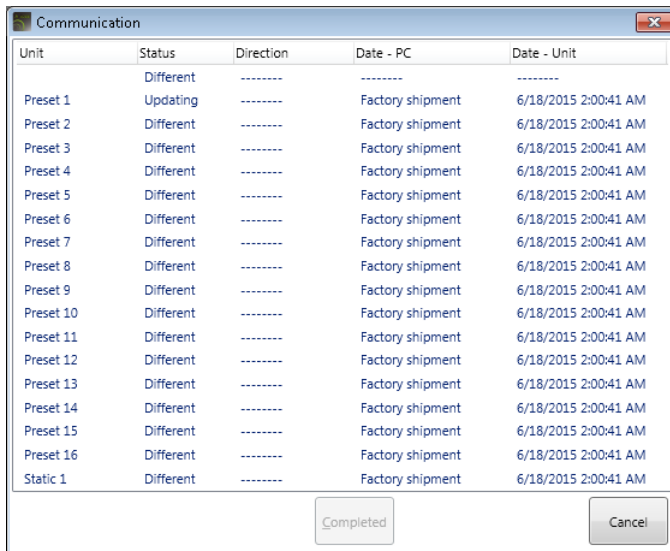


When the desired unit from which to receive data is listed among "Uncontrollable units" :

As the firmware version may be old and out of date, update the firmware using the [Firmware update] button. (See p. 36, Step 6 of "Connection Settings.") Once the firmware is updated, the unit should then be displayed among the "Controllable units."

Step 3. Select the desired unit from among the "Controllable units" and click the [Finish] button.

Data reception is started and the Communication screen is displayed.



Unit	Status	Direction	Date - PC	Date - Unit
	Different	-----	-----	-----
Preset 1	Updating	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 2	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 3	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 4	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 5	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 6	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 7	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 8	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 9	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 10	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 11	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 12	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 13	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 14	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 15	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Preset 16	Different	-----	Factory shipment	6/18/2015 2:00:41 AM
Static 1	Different	-----	Factory shipment	6/18/2015 2:00:41 AM

Completed Cancel

Tips

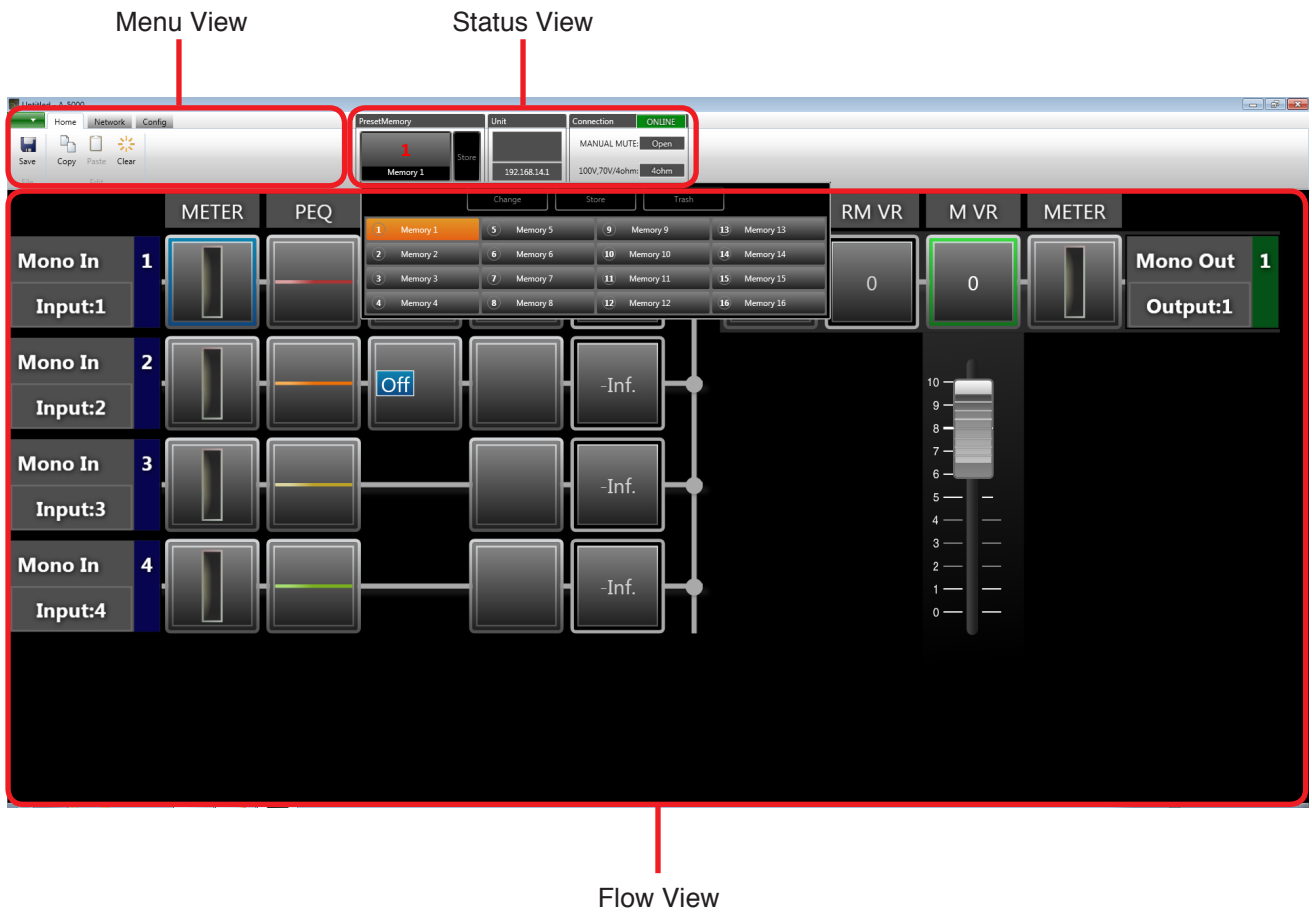
- Reception status is displayed in the Communication screen. (See p. 40 “Preset,” “Static.”)
- The display reverts to the initial operation selection screen if the [Cancel] button is clicked.

Step 4. Click the [Completed] button.

The screen display is switched to the main screen (see p. 13).

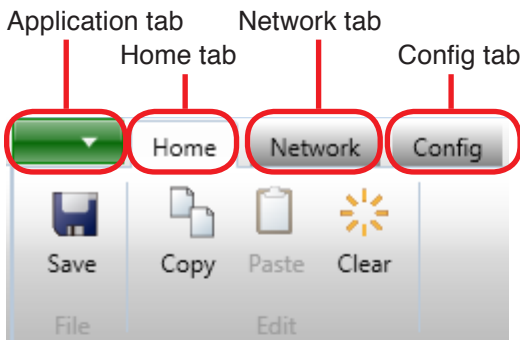
6. MAIN SCREEN AND INDIVIDUAL VIEWS

After initial operation selection settings, the Main screen is displayed. The main screen consists of the Menu View, Status View and Flow View.



6.1. Menu View

The Menu view is located in the upper left section of the Main screen. Clicking on the individual tabs in the Menu view displays the menu icons related to each corresponding function. Click on a menu icon to execute its function.



Note: Clicking the ALT key displays the shortcut keys of the ribbon menu.

6.1.1. Application

New: Creates (sets) a new data file.
Open... : Calls up the existing data file.
Save: Overwrites the file being edited.
Save As... : Saves the file being edited to the disk under a different name.
Close: Closes the file being edited.
About... : Displays the A-5000 PC Software version number.
Exit: Exits the A-5000 PC Software.

6.1.2. Home

Save: Updates the file being edited.
Copy: Copies the value set for the function box selected on the flow view (see [p. 17](#)) to the clipboard.
Paste: Pastes the data in clipboard to the function box selected on the flow view.
Clear: Initializes the value set for the function box selected on the flow view.

6.1.3. Network

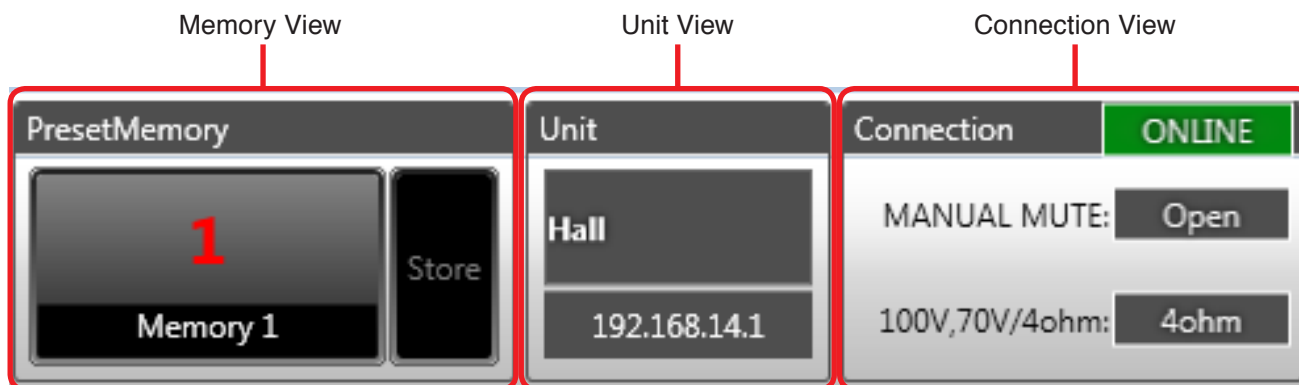
Connect: Connects the unit to a PC for online processing. (See [p. 33](#).)
Disconnect: Disconnects the unit from a PC for offline processing. (See [p. 38](#).)
Tip
The unit's setting does not change while in the offline state even if it is changed with a PC.
Connection Setting: Allows you to perform network settings and to designate the unit's IP address to which this software can access.
Auto Connect: Makes an automatic connection when the file is opened next time.

6.1.4. Config

Name: Displays the unit name setting dialog. (See [p. 19](#).)
Preset Memory Setting: Displays the preset memory setting dialog. (See [p. 29](#).)

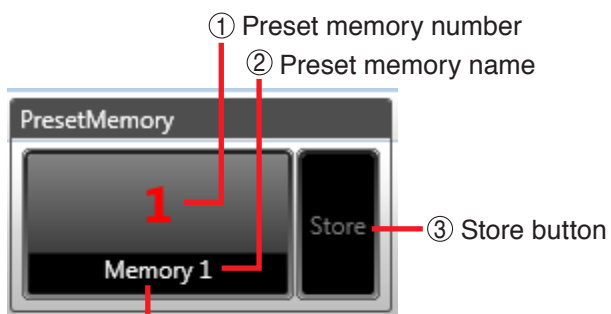
6.2. Status View

The Status view is located in the upper right section of the Main screen. The Status view consists of Memory, Unit and Connection views.

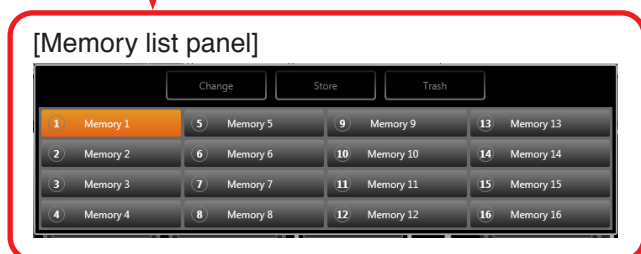


The Status view displays information related to the unit to be set.

6.2.1. Memory view



Click this button.



1. Preset memory number

Displays the number of the currently selected Preset Memory (see p. 29). Click this button to display the Memory List panel.

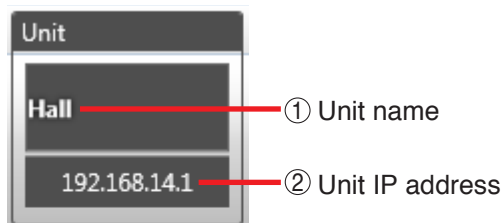
2. Preset memory name

Displays the name of the currently selected Preset Memory (see p. 29). Click this button to display the Memory List panel.

3. Store button

If this button is clicked, the contents set in the Flow View can be written to the currently selected preset memory.

6.2.2. Unit view



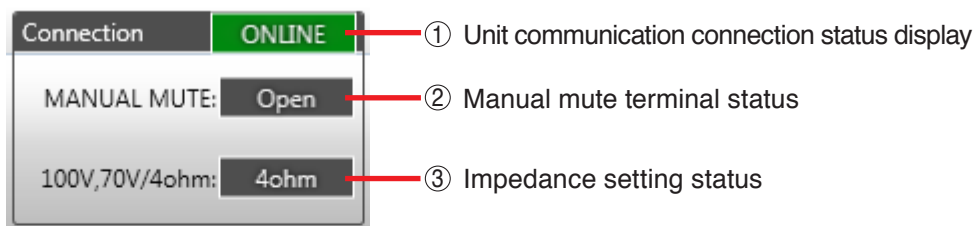
1. Unit name

Unit's name is displayed. The unit name can be set from the Menu View's "Config" tab (see p. 19).

2. Unit IP address

Unit's IP address is displayed. For the unit's IP address, please read "Connection Settings" in "Communication Settings" on p. 34.

6.2.3. Connection view



1. Unit communication connection status display

Displays the status of communication with the unit.

OFFLINE : Unconnected (offline status)

ONLINE : Connected (online status)

2. Manual mute terminal status

Displays the manual mute terminal status.

Open : Open

Close : Close (muted)

3. Impedance setting status (status of DIP SW4 on the unit's rear panel)

Displays the impedance setting status.

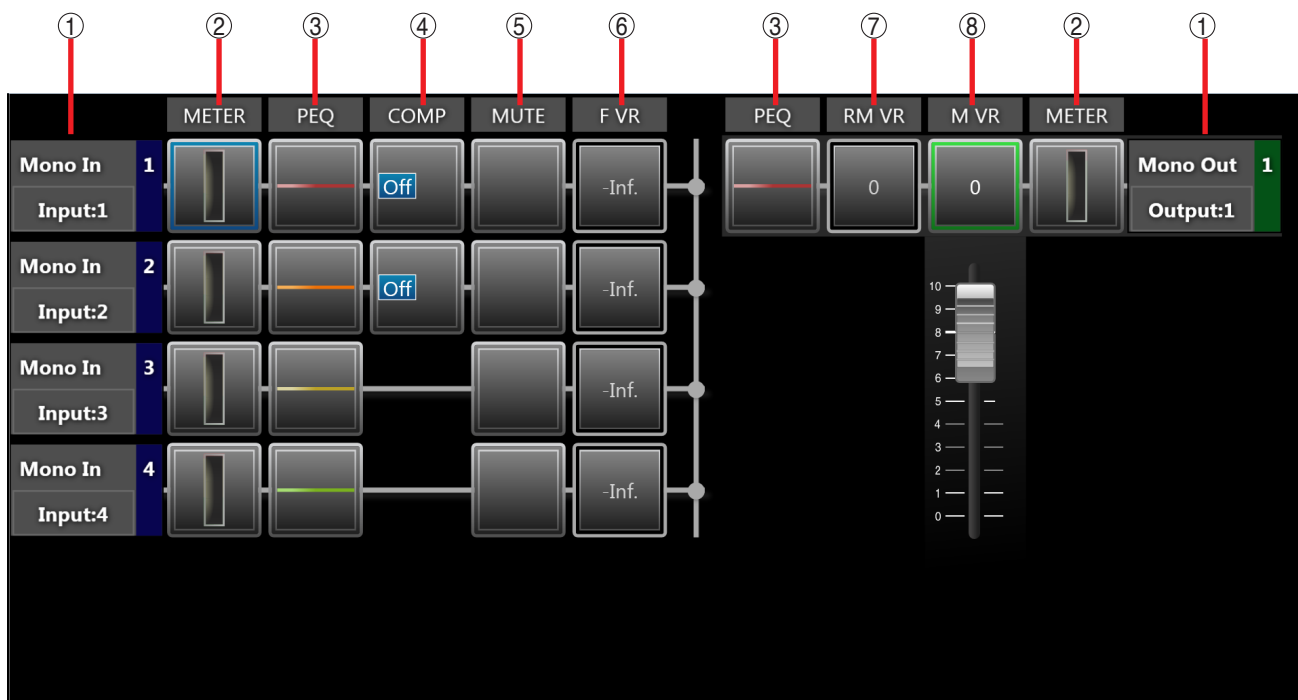
100V,70V : High impedance 100 V line or 70 V line (100 V, 70 V)

4ohm : Low impedance (4 Ω)

6.3. Flow View

Displays the unit's signal processing image.

The Flow View consists of Level Meter boxes ② and Function boxes ③–⑧ that show the unit's signal processing functions.

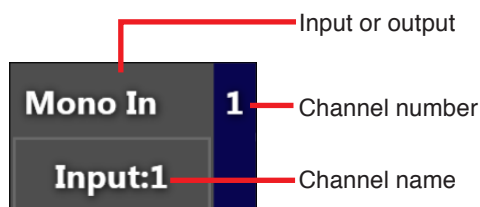


Signal input (monaural input: 4 channels)

Signal output (monaural output: 1 channel)

1. Channel information

Displays the input or output channel number and the channel name.



2. Level meter (only displayed when in online mode)

Displays the level of each input and output.



(For details, see p. 20.)

3. PEQ (Parametric Equalizer)

Roughly displays the frequency characteristics curve set with the PEQ.



Frequency characteristics are indicated by a flat straight line when all gains are set to 0 dB. (For details, see p. 27.)

4. Compressor

These function boxes are only for monaural inputs 1 and 2, and display the On/Off status of compression settings and input and output levels.

(When in online mode) (When in offline mode)



5. Mute

Displays muting status.

The display is as shown below while muting is enabled.

(When in online mode and muting is activated)

(When in offline mode or muting inactivated when in online mode)



(For details, see p. 23.)

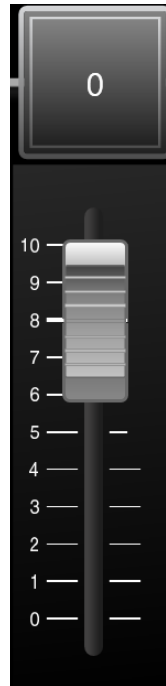
6. Front panel-mounted volume control (only displayed when in online mode)
Displays the gain value of the volume control on the front panel.



7. Remote master volume control (only displayed when in online mode)
Displays the gain value of the remote master volume output.



8. Master volume control
Allows operation of the master volume fader. The master volume's gain value display (shown in the upper part of the fader) is interlocked with the fader position.



(For details, see [p. 26.](#))

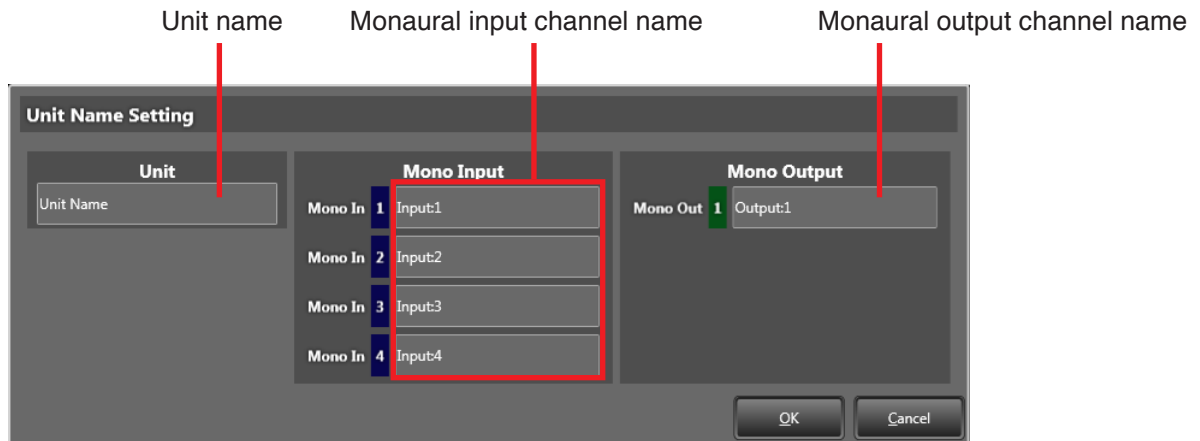
7. UNIT AND CHANNEL NAME SETTINGS

Set the names of units and each channel of monaural input and output.

Step 1. Select [Config → Name] in the Menu View.



The Unit Name Setting screen is displayed.



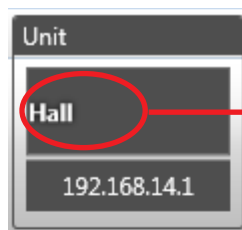
Step 2. Click a name box to enter a name.

Each name must be within 20 characters in length.

Step 3. Click the [OK] button.

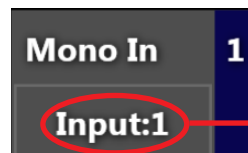
The name is set and reflected in both Unit View and Flow View.

[Unit View]



Unit name

[Flow View] (channel information display)



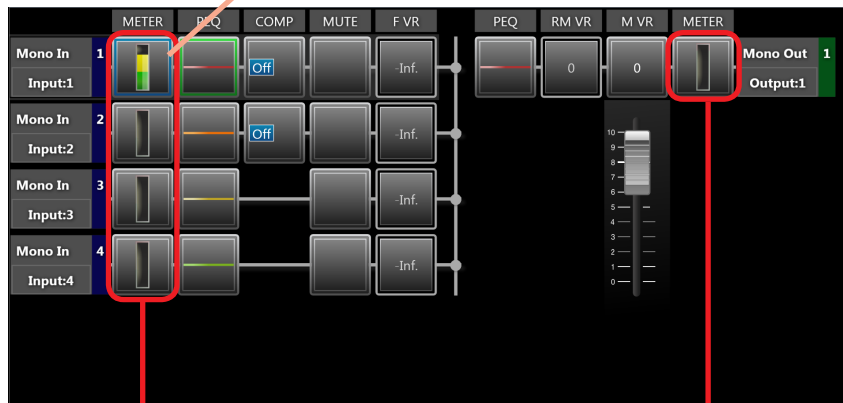
Channel name

8. INPUT AND OUTPUT LEVEL MONITORING (Only possible in online mode.)

When in online mode, clicking one of the level meter boxes displayed in Flow View displays the details of the level meters of all channels.

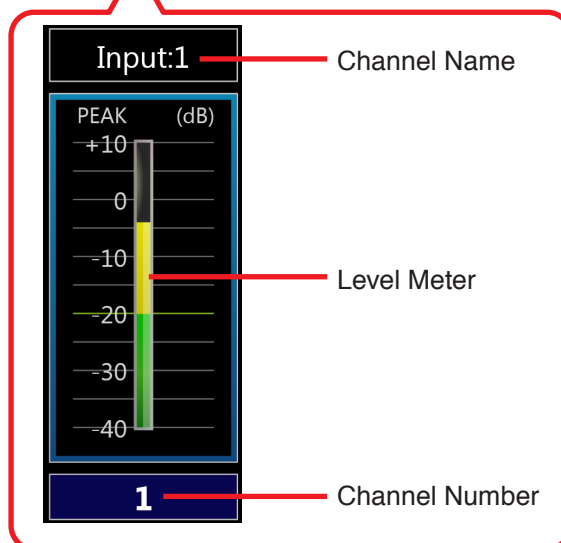
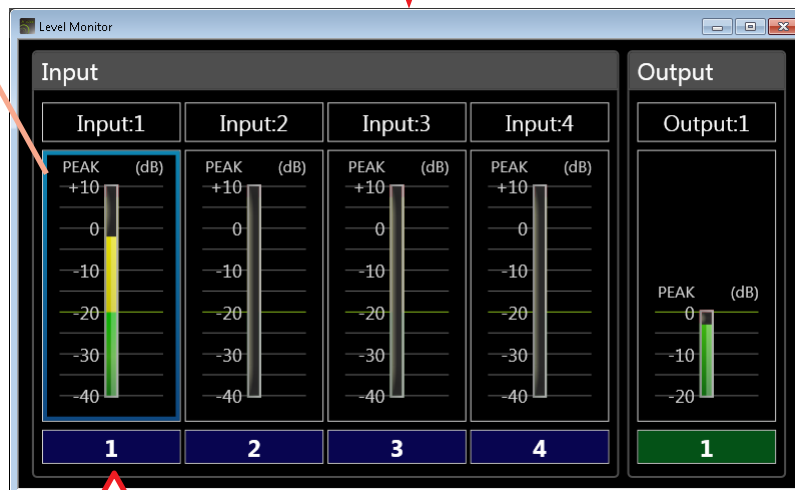
[Flow View]

Clicked boxes are highlighted by a blue frame.



The level meter corresponding to the clicked box is displayed surrounded by a blue frame.

Click the Level Meter box.



The level meter displays signal levels in a bar graph.

Set the unit for operation within a level range that is not displayed in red.

Channel Classification	Mono In 1 & 2	Mono In 3 & 4	Mono Out
Signal Level	+7 dB to +10 dB (peak): Red -20 dB to +7 dB: Yellow Under -20 dB: Green	+7 dB to +10 dB (peak): Red -10 dB to +7 dB: Yellow Under -10 dB: Green	0 dB to +3 dB (peak): Red Under 0 dB: Green

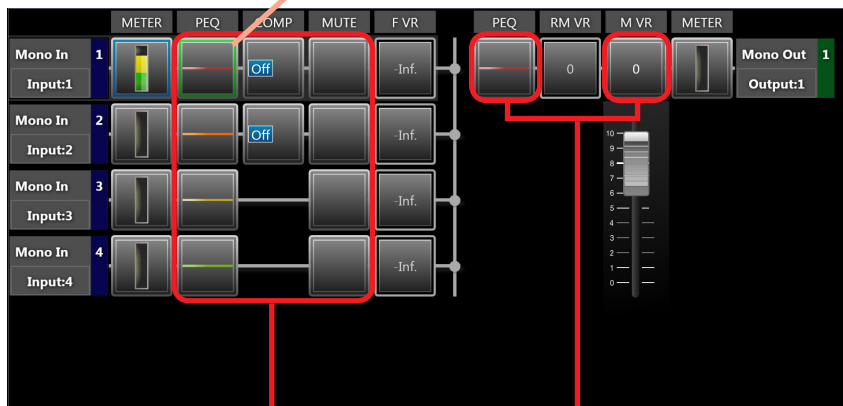
9. SIGNAL PROCESSING DETAILED SETTINGS

9.1. Basic Function Box Operation in Flow View

9.1.1. Display the Detailed Settings View to preform settings

Clicking on a signal processing function box in Flow View displays the Detailed Settings View, allowing changes in setting.

[Flow View] The clicked box is highlighted by a green frame.



Step 1. Click the function box.

Step 3. Click the [Close] button or outside the Detailed Settings View. The Detailed Settings View is closed.



Step 2. Change the setting on the Detailed Settings View.

9.1.2. Perform settings using the right-click menu or drag & drop

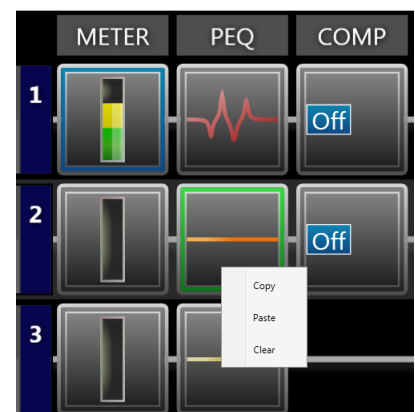
The following operations can be performed for each function box using the menu displayed by right-clicking the box.

Data can be copied and pasted by dragging and dropping the box.

Copy: Copies the parameters set for the function box selected on the operation view to the clipboard.

Paste: Pastes the data in clipboard to the function box selected on the operation view.

Clear: Initializes the parameters set for the function box selected on the operation view.



9.2. Compression Settings

9.2.1. What is compression?

Compression is a function that reduces the volume of an input signal when there is an excessive signal input. When an input signal exceeds the set threshold level, this function compresses the excessive sound volume to a predetermined ratio and controls the signal by means of a predetermined attack time (see p. 39). This function is used to prevent clipping distortion and damage to speakers.

9.2.2. Setting compression

Compression can be set for input channels 1 and 2. In Flow View, click the Compression box, displaying the Detailed Compression Settings for the selected channel.

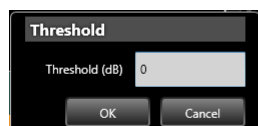


The numerical values of settings ① through ⑤ above can be increased with the UP button and decreased with the DOWN button. Clicking the central button opens the Settings dialog box. Settings are performed by either directly entering values or selecting given values.

1. Threshold

Sets the threshold value. Compression is performed on input signals that have a higher input level than the value set here.

[Threshold Settings dialog box]



2. Compression ratio

Sets the “input level increment to output level increment” compression ratio for the input signal. When compression is disabled, the ratio is “1:1”. The compression rate increases in steps of “1.1:1”, “1.2:1”..... with maximum compression at “Inf.:1”.

[Compression Ratio Setting dialog box]



3. Attack time

Sets the reaction time (unit: ms) for compression to be initiated when excessive input is detected.

[Attack Time Settings dialog box]



4. Release time

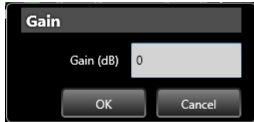
Sets the response time (unit: ms) for release of compression after the input signal drops to below the threshold level.

[Release Time Settings dialog box]



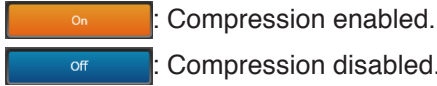
5. Gain

Sets an amplification factor.
[Gain Settings dialog box]



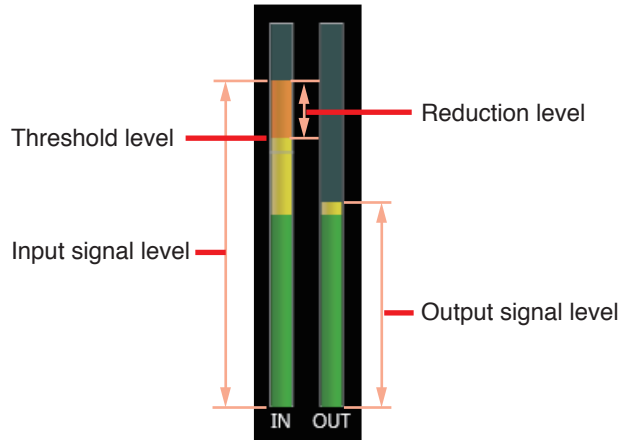
6. On/Off button

Sets to enable or disable compression.



7. Input and output level meters

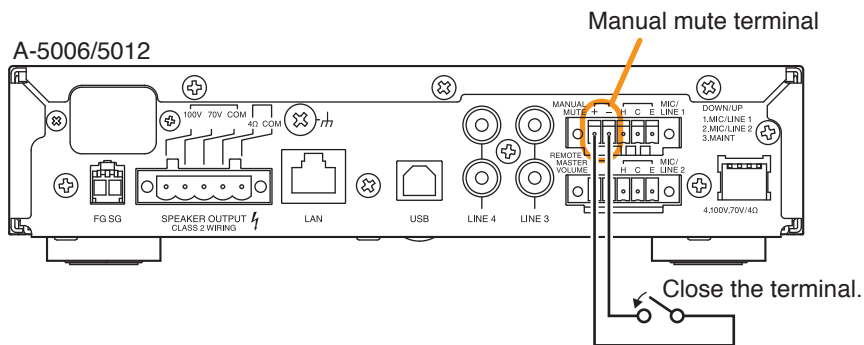
When communication is in progress between the unit and PC, the input and output signal levels, reduction level (effective degree of compression) and threshold level are displayed in the bar graph as shown below:



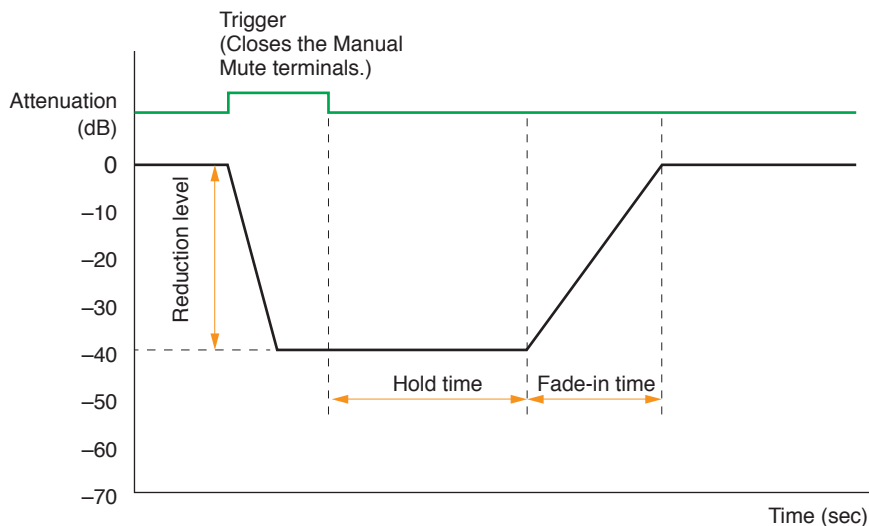
9.3. Manual Mute Settings

9.3.1. What is manual mute?

Manual Mute is used to attenuate the input signal to the A-5000 Series unit. When the Manual Mute terminals are closed, the audio of the selected input is attenuated.

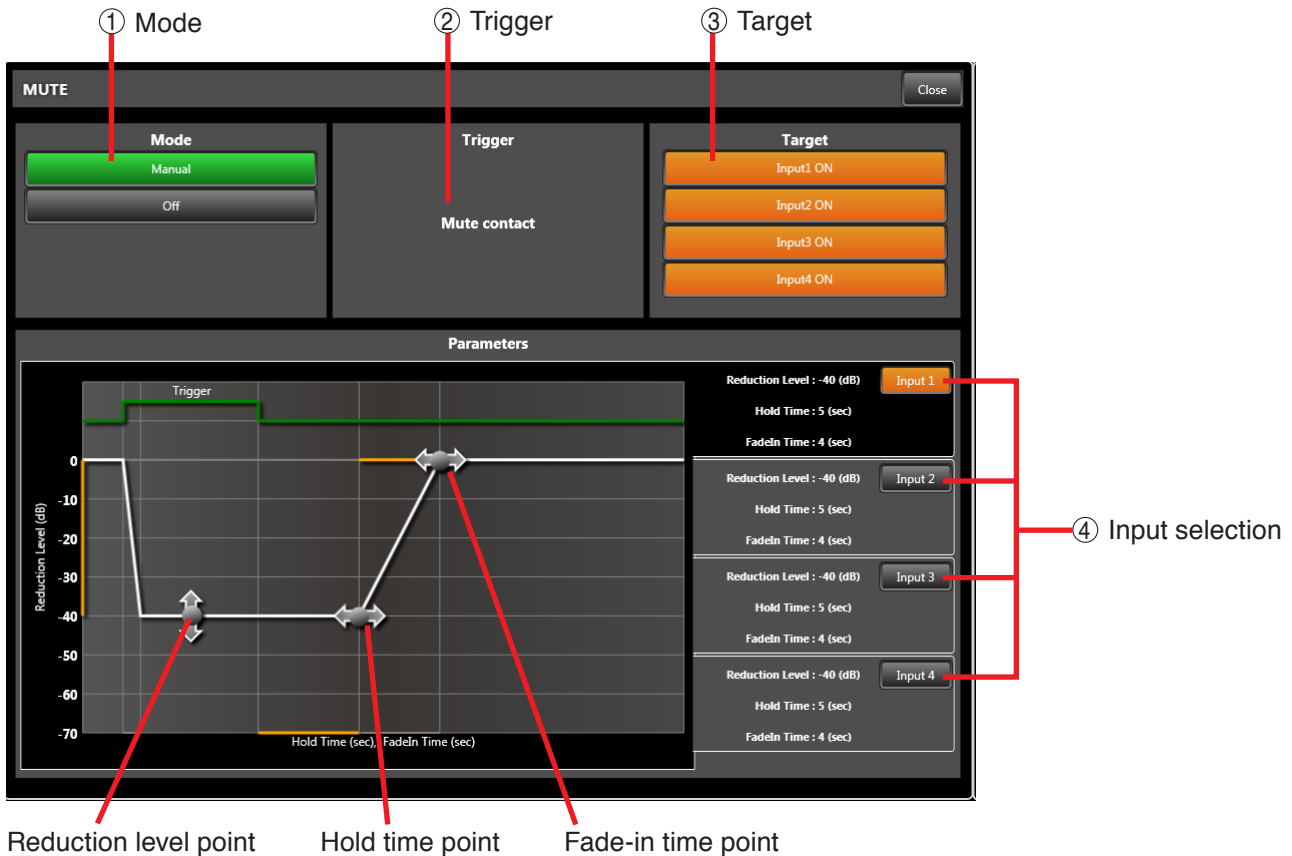


The reduction level (attenuation), hold time (time the audio attenuation is retained after being triggered) and fade-in time (time required to return to the unattenuated volume) can be independently set for each input.



9.3.2. Setting manual mute

Set manual mute for each input channel (1 – 4). (Refer to [the next page](#) for setting procedures.) Clicking the Mute box in the Flow View displays the Manual Mute Detailed Settings View.



1. Mode

Used to set to enable or disable Manual Mute.



- **If set to “Manual”:**

When the Manual Mute terminals on the rear panel receive a contact input, the audio of the input channel set to Target-ON is muted. The mute status is displayed in the Mute box (p. 17) of the Flow View.

- **If set to “Off”:**

Manual Mute is disabled.

2. Trigger

Displays the Mute activation trigger.

- **If Mode is set to “Manual”:**

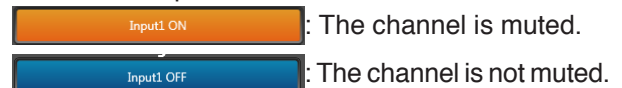
The indication “Mute contact” is displayed. The contact input to the unit’s rear panel-mounted Manual Mute terminals is a mute trigger.

- **If Mode is set to “Off”:**

Nothing is displayed.

3. Target

Selects the input to be muted.



4. Input selection

Used to set the following parameters individually for each input:

- **Reduction level**

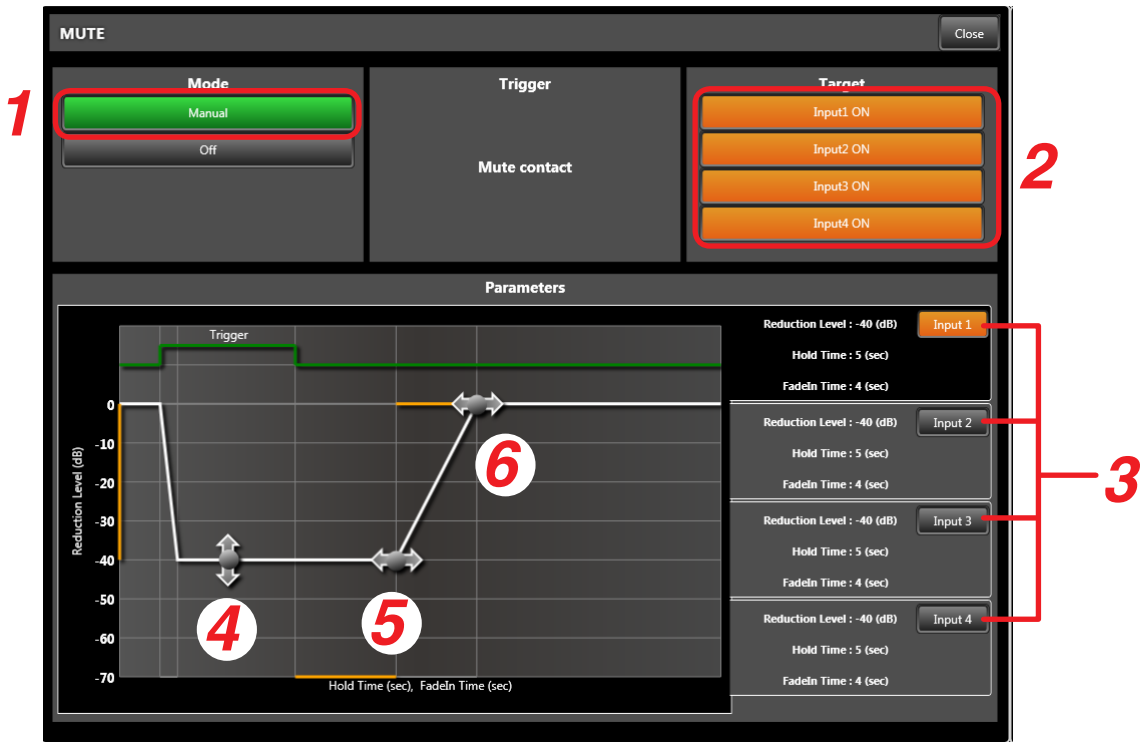
Sets the attenuation level. To set the level, drag the reduction level point up or down.

- **Hold time**

Sets the hold time by dragging the hold time point right or left.

- **Fade-in time**

Sets the fade-in time by dragging the fade-in time point right or left.



Step 1. Click the [Manual] button.

The button lights green, enabling the Mute function.

The indication “Mute contact” is displayed in the Trigger field.

Step 2. Click the input that uses the Manual Mute function.

The clicked input button lights orange, indicating that input can be muted. Multiple inputs can be selected.

Step 3. Click the input button for which detailed parameters are set.

The detailed settings for the clicked input are displayed graphically.

Step 4. Set the reduction level by dragging the reduction level point up or down.

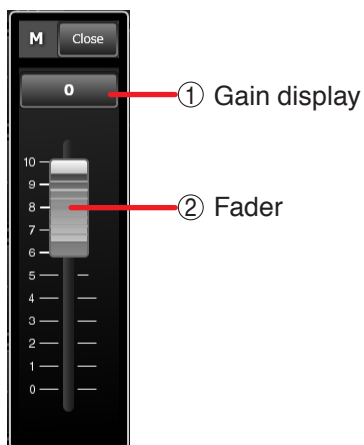
Step 5. Set the hold time by dragging the hold time point right or left.

Step 6. Set the fade-in time by dragging the fade-in time point right or left.

Step 7. Repeat **Steps 3 – 6** to perform settings for all targeted inputs.

9.4. Master Volume Settings

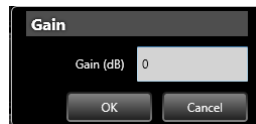
If the Master Volume function box is clicked in the Flow View, the Detailed Setting View for the Master Volume is displayed.



1. Gain display

Displays the Master Volume gain.

Clicking the Gain display opens the dialog box for gain entry.



2. Fader

Used to set the Master Volume gain. The fader knob is displayed in the position corresponding to the gain value. Drag the fader knob to adjust the setting.

9.5. PEQ Settings

If the PEQ (parametric equalizer) function box is clicked in the Flow View, the Detailed Setting View for the PEQ function is displayed. The frequency characteristics of each input and output can be corrected by a 5-point parametric equalizer.

① Filter control field

② Filter point

③ Frequency control

④ Gain control

⑤ Q control

⑥ On/Off button

⑦ Lock button

⑧ Resolution button

⑨ Q indicator button

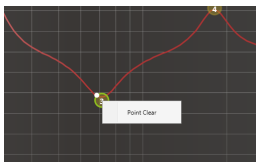
The numerical values of settings ③ through ⑤ above can be increased with the UP button and decreased with the DOWN button. Clicking the central button opens the Settings dialog box. Settings are performed by either directly entering values or selecting given values.

1. Filter control field

PEQ frequency characteristics are displayed by a graph. Each filter can be set by dragging its corresponding filter point.

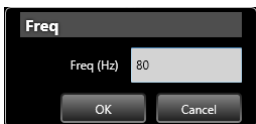
2. Filter point

Filter points are indicated by 5 yellow circles within the filter control field. Frequencies and gains can be changed by dragging the filter points. The setting value of each point can be initialized by selecting the "Point Clear" from the menu displayed when you right-click on the filter point on a graph.



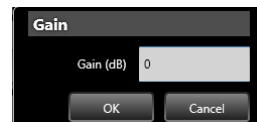
3. Frequency control

Sets each filter point's frequency. [Frequency Settings dialog box]



4. Gain control

Sets each filter point's gain. [Gain Setting dialog box]



5. Q control

Sets each filter point's Q. [Frequency Setting dialog box]

0.267	0.404	0.667	0.920	1.414	1.902	2.871	5.764
0.276	0.419	0.683	0.948	1.445	1.958	2.997	6.289
0.285	0.436	0.700	0.979	1.478	2.016	3.134	6.919
0.295	0.453	0.718	1.011	1.512	2.079	3.285	7.689
0.305	0.471	0.736	1.044	1.548	2.145	3.450	8.651
0.315	0.490	0.756	1.080	1.585	2.215	3.633	9.889
0.326	0.511	0.776	1.119	1.624	2.290	3.836	11.538
0.338	0.532	0.797	1.160	1.665	2.371	4.063	13.847
0.350	0.556	0.819	1.204	1.707	2.456	4.318	17.310
0.362	0.581	0.843	1.250	1.752	2.549	4.608	23.081
0.376	0.607	0.867	1.301	1.800	2.648	4.938	34.623
0.389	0.636	0.893	1.355	1.850	2.755	5.319	69.249

6. On/Off button

Sets each filter point to On or Off.
On: Filter is enabled (orange display).
Off: Filter is disabled (blue display).
The filter is bypassed if set to Off.

7. Lock button

Used to enable or disable the locking of frequencies or gains when dragging filter points.



Clicking "Freq. Unlock" at left changes the indication, locking the frequency.



If the frequency is locked, it becomes unchangeable even if the filter point is dragged left and right. Clicking the same button again restores the previous display and releases the lock. Clicking "Gain Unlock" at right changes the indication, locking the gain.

If the gain is locked, it becomes unchangeable even if the filter point is dragged up and down. Clicking the same button again restores the previous display and releases the lock.

Both the frequency and gain can be locked.

Note

Frequencies and gains can only be locked for the filter point operation. The frequency and gain controls can be used to change settings even while in locked mode.

8. Resolution button

Used to set the resolution for frequency and gain settings.



If "Freq. : Low" at left is clicked, the indication changes and the frequency settings resolution is set to "High."



Clicking the same button again restores the previous display and sets the frequency settings resolution to "Low." The frequency settings resolution is as follows:

Low: 1/24 octave

High: 3-digit significant figure

If "Gain: Low" at right is clicked, the indication changes and the gain settings resolution is set to "High."



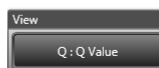
Clicking the same button again restores the previous display and sets the for gain settings resolution to "Low." The gain settings resolution is as follows:

Low: 0.5 dB

High: 0.1 dB

9. Q indicator button

Used to switch the Q display method of each filter point.



The following 3 different display methods are available:

- (1) Numerical indication
Q values are indicated by a numerical figure.
- (2) Oct/band fractional indication
The value of the octave bandwidth corresponding to the Q value is indicated by a fractional figure.
- (3) Oct/band numerical indication
The value of the octave bandwidth corresponding to the Q value is indicated by a numerical figure.

Example: When the Q value is 4.318

Numerical indication: 0.333

Oct/band fractional indication:

1/3 oct/band

Oct/band numerical indication:

4.318 oct/band

10. PRESET MEMORY-RELATED SETTINGS AND OPERATIONS

10.1. What Is the Preset Memory?

Parameters set in the Flow View can be stored as preset memory.

The following setting values are stored in the preset memory:

- PEQ gain, center frequency, Q and On/Off.
- Compression threshold, compression ratio, attack time, release time, gain and On/Off.
- Mute mode, On/Off for inputs 1 – 4, attenuation, hold time and fade-in time.
- Master volume.

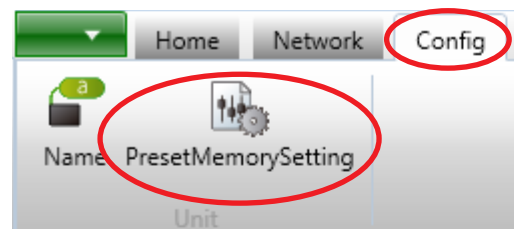
Up to 16 preset memories can be stored.

The initial preset memory number that is called up when the power is switched on can also be set.

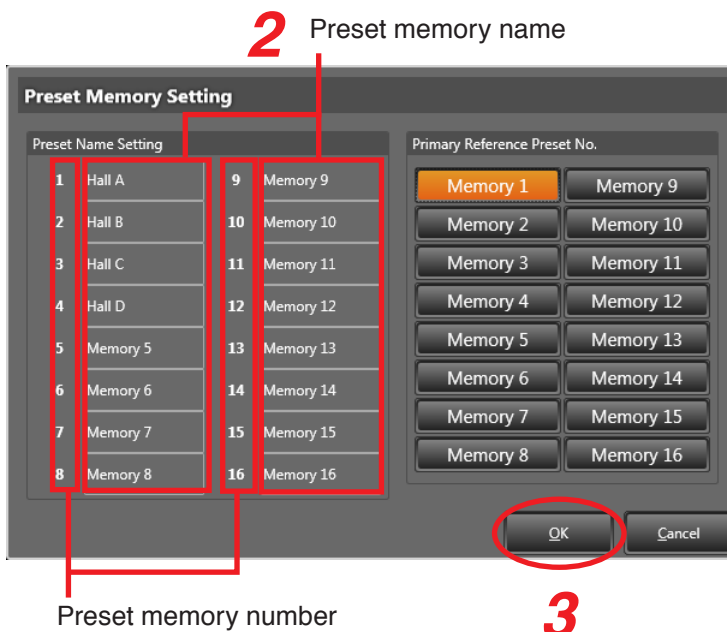
It is also possible to call up a different preset memory number and use parameters set in advance corresponding to expected usage when the unit is connected to a PC online.

10.2. Preset Memory Name Settings

Step 1. Select [Config → Preset Memory Settings] in the Menu View.



The Preset Memory Settings screen is displayed.



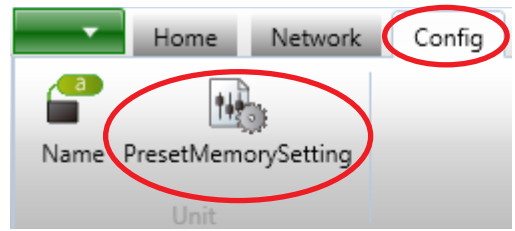
Step 2. Click the preset memory name field and enter a name of up to 20 characters.

Step 3. Click the [OK] button.

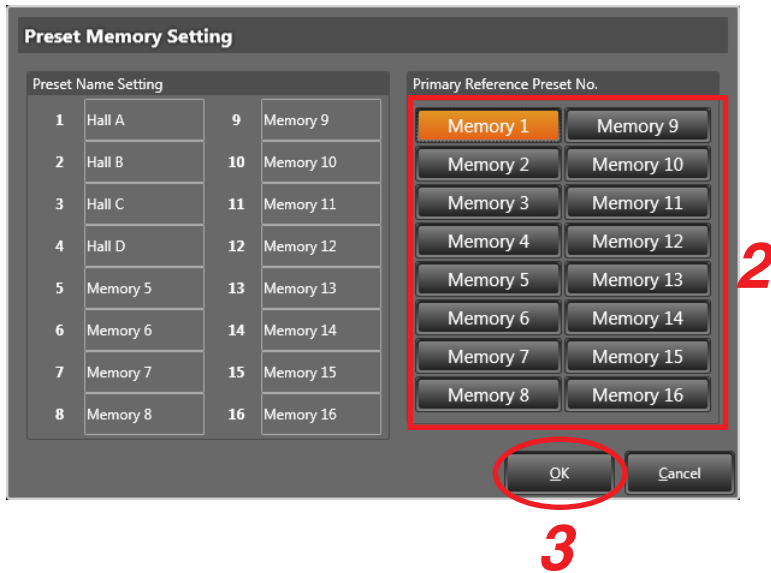
10.3. Setting the Preset Memory Number To Be Called Up When Power Is Switched On

Set the preset memory number that will be called up when the unit's power is switched on.

Step 1. Select [Config → Preset Memory Setting] in the Menu View.



The Preset Memory Setting screen is displayed.



Step 2. Click the button for the desired preset memory number to be called up when the power is switched on. The clicked button lights orange.

Step 3. Click the [OK] button.

10.4. Changing the Preset Memory Number To Be Called Up

By changing the selection of the preset memory number, a setting parameter stored under the newly selected number can be called up.

Step 1. Click the preset memory number/name button in the Memory View. Memory List panel is displayed.



[Memory List panel]



The currently selected Preset Memory button is displayed in orange.

Step 2. Click the desired preset memory number/name button on the Memory List panel. The selected button lights orange.

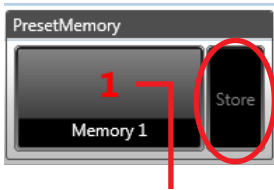


Step 3. Click the [Change] button. The setting parameters for the preset memory number selected in **Step 2** are called up.

10.5. Storing Set Parameters in Preset Memory

10.5.1. When storing in a currently-selected preset memory number:

Step: Click the [Store] button in the Memory View.
Parameters set in the Flow View are stored in the current preset memory number.



Stored in the preset memory number shown here.

10.5.2. When storing parameters in a different preset memory number:

Step 1. Click the preset memory number/name button in the Memory View.
Memory List panel is displayed.

[Memory List panel]



The currently selected Preset Memory button is displayed in orange.



Step 2. Click the desired preset memory number/name button in the Memory List panel.
The selected button lights orange.



Step 3. Click the [Store] button.
Parameters set in the Flow View are stored in the memory number selected in **Step 2**.

10.5.3. Deleting Edited Contents Without Storing Them in Preset Memory

When wishing to return the parameters edited in the Flow View back to those currently stored, delete the edit.

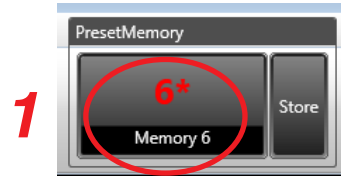
Note: Once the edit contents have been deleted, they cannot be restored.

Step 1. Click the preset memory number/name button in the Memory View. Memory List panel is displayed.

[Memory List panel]



The currently selected Preset Memory button is displayed in orange.



Step 2. Click the [Trash] button.

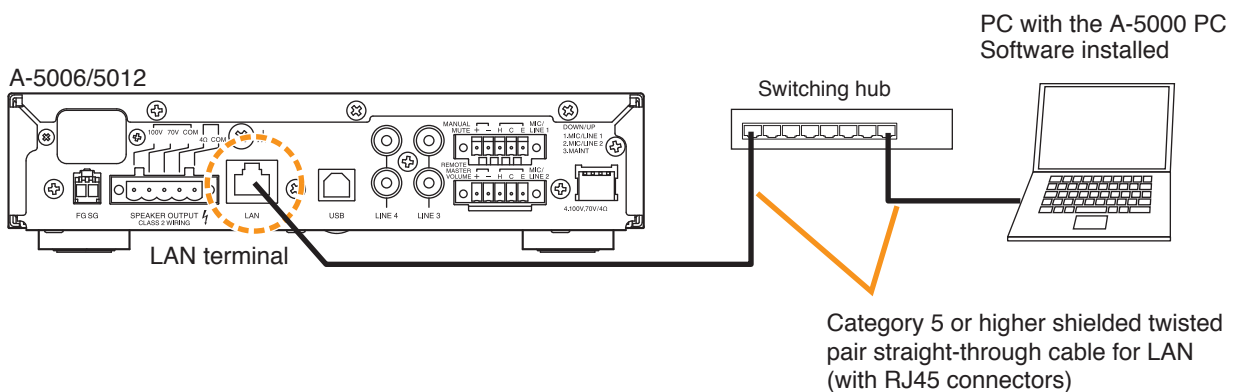
After the edited contents are deleted, the parameters stored before the edit are called up.

11. COMMUNICATION SETTINGS

11.1. Connections between the PC and the Unit

Connect the unit's LAN terminal to the PC via a switching hub.

Connect a PC and the unit to a switching hub using LAN straight-through cables individually.



11.2. Method to Enable Communications between the PC and the Unit

Step 1. Perform network settings by selecting [Network → Connection Settings] from the menu view. (See [the next page "Connection Settings."](#))

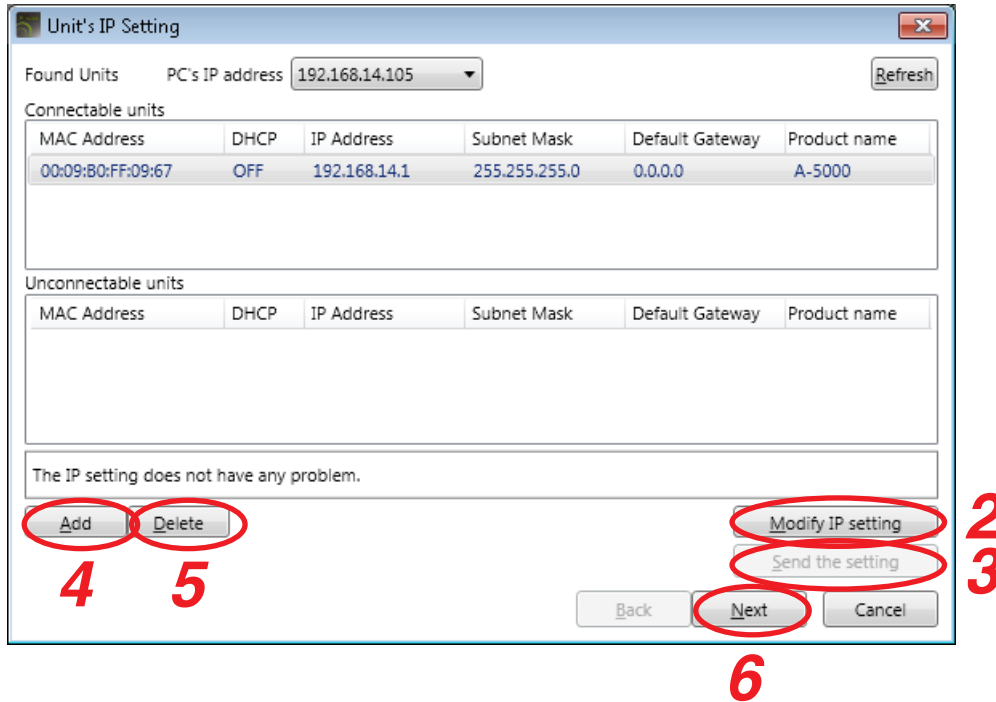
Step 2. Make Communications by selecting [Network → Connect] from the menu view. (See [p. 37 "11.4. Communications."](#))

11.3. Connection Settings

Perform settings needed to communicate with the units in this section.
Network settings can be made.

Step 1. Select [Network → Connection Setting] from the menu.
Network settings of the units found on the network are displayed.
The table below shows the factory preset settings for each unit.

IP address	192.168.14.1
Subnet mask	255.255.255.0
Default gateway	0.0.0.0
DHCP	Off



If no unit was detected:
Install the undetected unit within the reach of broadcast packet.
Communications may be interrupted when the PC is firewall-protected.

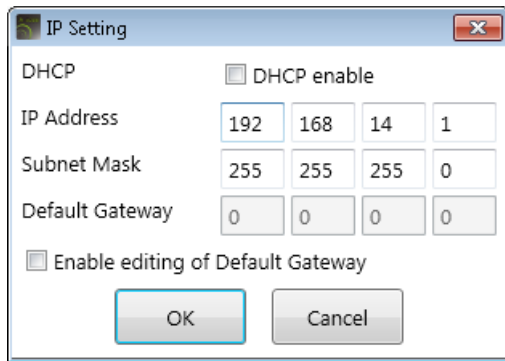
If a unit's IP address is duplicated or inappropriate network setting has been performed, such device is displayed in the Unconnectable units list.

- To change the unit's IP address setting, advance to **Step 2**.
- When transmitting the settings data changed in **Step 2** to the unit, advance to **Step 3**.
- When changing the PC's network settings, change them from the Windows Control Panel. PC network setting cannot be changed using the A-5000 PC software.
- When connecting to the unit via a router, network settings are not displayed on this screen. The unit network settings cannot be changed. Connect such unit to a LAN and perform the network settings in advance.
- If a unit needs to be connected via a router, advance to **Step 4** to add it.
- If the unit that should not be communicated with is displayed in the list, advance to **Step 5** to delete it from the list.
- Advance to **Step 6** when all the units to be connected are displayed in "Connectable units" list.
- When the PC has two or more IP addresses, select the unit and IP address to be communicated with from the PC's IP address.
- When the DHCP is set to be valid and the DHCP server is not found on the network, equipment detection cannot be performed until communications between the DHCP server and PC time out (approximately 30 seconds).

Note that the DHCP is set to be invalid by default (see **Step 2** of [the next page](#)).

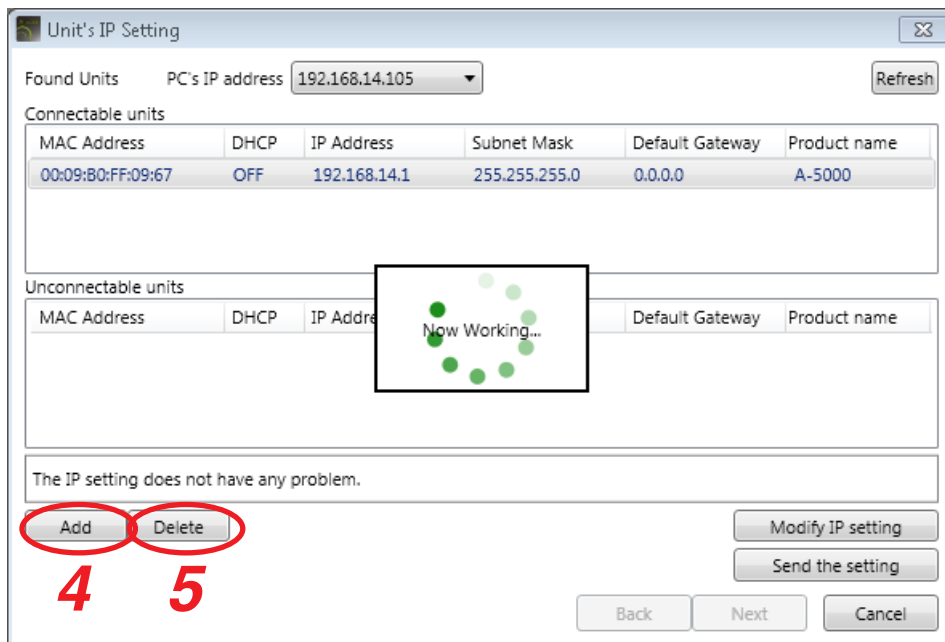
Step 2. Change the unit's network setting.

Select the unit for which you want to change the network setting, then click the [Modify IP setting] button. The IP Setting screen is displayed. Set the IP address, then click the [OK] button.

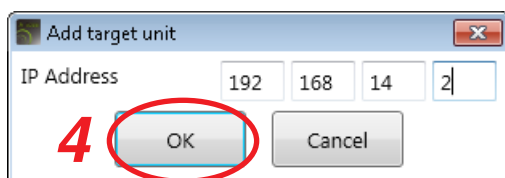


Step 3. Transmit changed setting data to the unit.

Clicking the [Send the setting] button transmits the IP settings to the corresponding unit and network setting for the unit is changed.



Step 4. Add the unit to be connected via a router in a list. Clicking the [Add] button displays the Add target unit screen. Enter the IP address of the added unit and click the [OK] button.



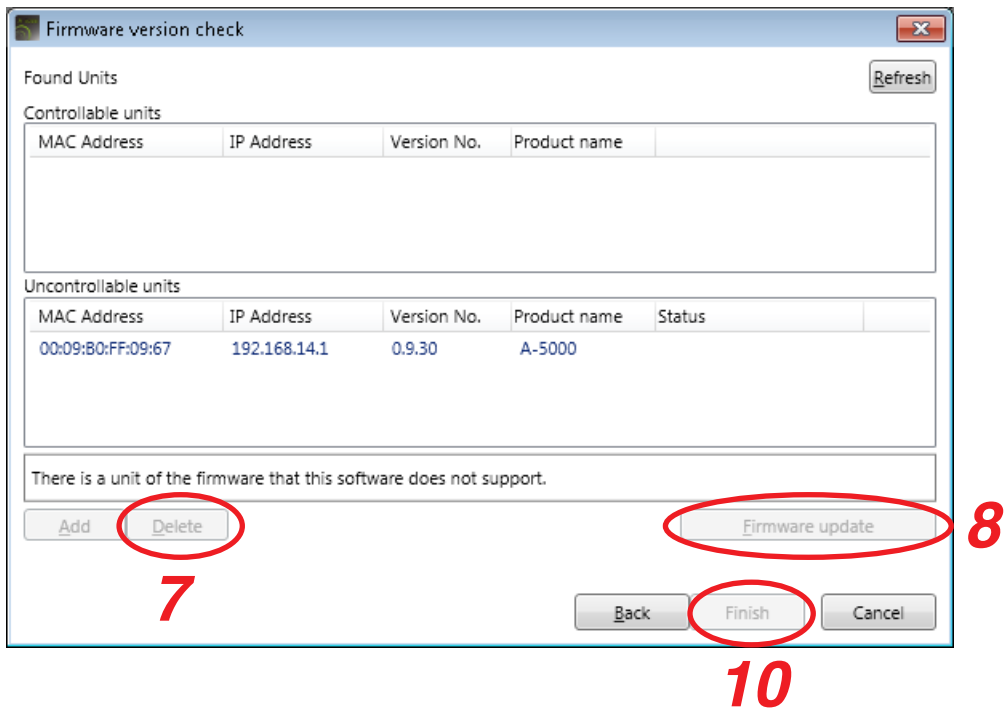
Note

Network setting for the unit to be connected via a router cannot be changed using the method described in **Step 2**.

If you need to change the network setting, connect such unit to a LAN and change the network setting in advance.

Step 5. Delete the unit from the list.
 Select the unit to be deleted, then click the [Delete] button.
 The selected unit is deleted from the list.

Step 6. Click the [Next] button, then the Firmware version check screen is displayed.



When the firmware version of the unit is older than that the A-5000 PC software supports, the unit is displayed in the Uncontrollable units list.

- If a unit that does not need to be controlled is displayed, advance to **Step 7** to delete it from the list.
- When updating firmware, advance to **Step 8**.
- If all units to be controlled are shown in the Controllable units list, advance to **Step 9**.

Step 7. Delete the unit from the list.
 Select the unit to be deleted, then click the [Delete] button.
 The selected unit is deleted from the list.

Step 8. Update the firmware.
 Select the unit from the Uncontrollable units list and click the [Firmware update] button.
 Firmware update starts.
 The unit is moved to and displayed in the Controllable units list after the firmware update is complete.

Notes

- Do not switch off the unit’s power under any circumstances during firmware update.
- Settings data is retained even if the firmware is updated.
- Firmware cannot be updated if the unit’s maintenance switch (DIP Switch 3) is in the UP position.
 Be sure that the maintenance switch is in the DOWN position and restart the unit before updating.

Step 9. Select the unit(s) from the Controllable units list.

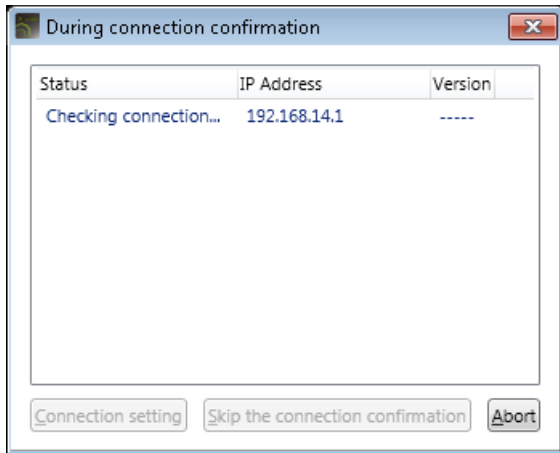
Step 10. Click the [Finish] button.
 Setting is complete.

11.4. Communications

Connect to the unit displayed “Connectable units” field in the Unit’s IP setting screen.

Step 1. Select [Network → Connect] from the menu.

While the screen below is displayed, the target unit designated with the connection settings are being detected.

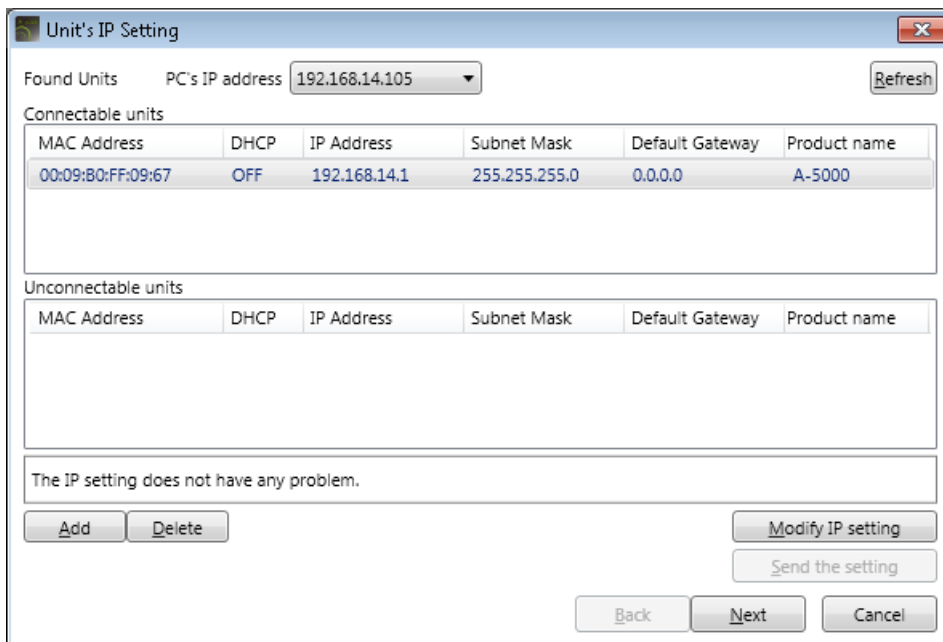


Note

If no units on the network have been set for the connection settings, the Unit’s IP Setting screen is displayed.

Perform network settings in the same manner as in the steps on p. 34, “Connection Settings.”

On completion of network settings, the units listed in “Connectable units” field start being connected.



Step 2. Match both setting data of the PC and the unit if not identical.

To enable communications between the PC and the unit, both setting data* must be the same.

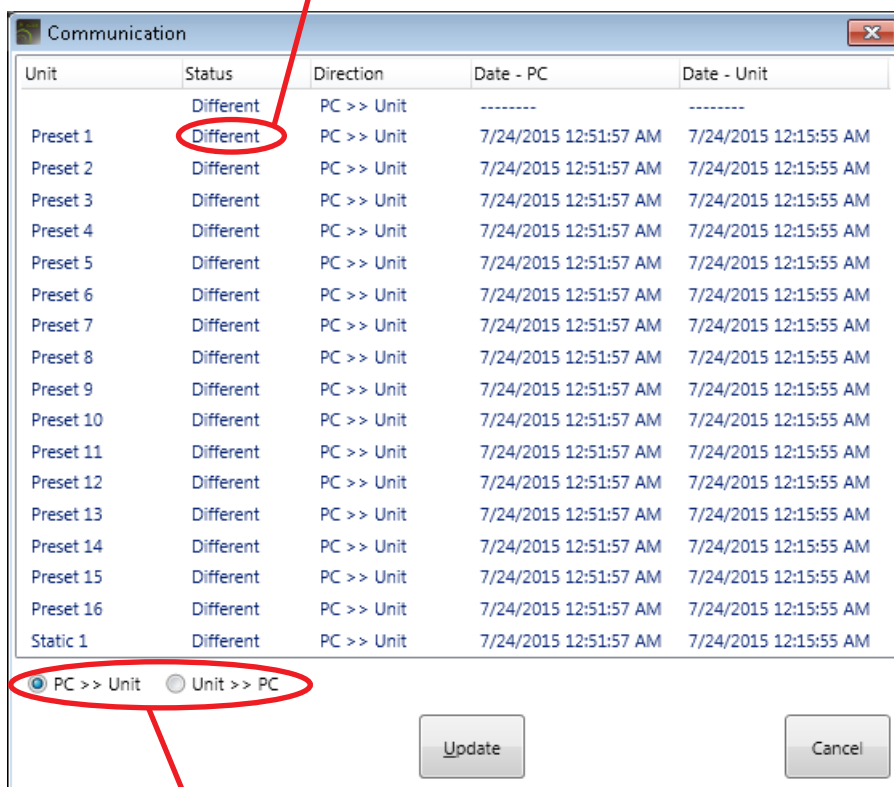
If data is different between the PC and the target unit, the Communication screen appears indicating “Different” in the Status column during connection.

Designate the transfer direction “PC >> Unit” or “Unit >> PC,” and click the [Update] button. Then, all unmatched setting data is simultaneously transferred in the designated direction.

* Set contents of preset memory Nos. 1 – 16 and parameters (static parameter) not stored in preset memory.

[Example of display that appears when the settings contents for the PC and the unit do not match]

Preset Memory 1 settings do not match.



Select the transfer method.

Step 3. Select [Network → Disconnect] from the menu.

This terminates communications between a PC and the unit.

12. GLOSSARY

12.1. PC Software Screen

12.1.1. Flow view

Displays the A-5000 series's signal processing flow, and is used to perform advanced settings of each individual signal processing function.

12.1.2. Box

Refers to the box expressing each signal processing function in the Flow view and Operation view. The Box is also termed as Function box.

12.1.3. Detail setting panel

A screen used to perform detailed parameter settings for the signal processing function box.

12.2. Signal Processing Function

12.2.1. Compressor function

Compresses the difference between the maximum sound output and minimum sound output. This function can be set for Inputs 1 and 2.

Threshold Level, Compression Ratio, Attack Time, Release Time and Gain can all be individually adjusted.

12.2.2. Manual mute function

Input signal is muted by closing the unit's Manual Mute terminals.

Mute can be individually set for each input (1 – 4).

12.2.3. Volume function

The following volume control functions are also provided:

- Input Volume Controls
Each of these front panel-mounted controls can be rotated to adjust its corresponding signal level.
- Remote Master Volume Controls
- Master Volume Controls

12.2.4. PEQ function

Performs 5-point PEQ filter processing on input and output channels.

12.3. System Function

12.3.1. Preset

Refers to the Preset memory.

12.3.2. Static

A parameter that cannot be stored in the Preset memory.

12.3.3. During editing (Edit state)

A state that even a part of the parameters to be stored in the Preset memory is currently being changed.

12.3.4. Preset resume function

A function that resumes the editing after power-on even if power is turned off while editing is in progress not completing the store into a specific Preset memory.

12.4. Communication Related Terms

12.4.1. Online state

A state that the PC and target A-5000 series unit are communicating with each other.
“When in online mode” is a state that the A-5000 series unit is in online state.

12.4.2. Offline state

A state that the PC and target A-5000 series unit are not communicating with each other.
“When in offline mode” is a state that the A-5000 series unit is in offline state.

12.5. External Control Functions

12.5.1. Manual mute function

Input signal is muted by closing the unit’s Manual Mute terminals.

12.5.2. Remote master volume control function

Adjusts the unit’s master volume with an external volume control.

12.6. Maintenance Function

12.6.1. Setting file

A file in which the setting data for a single A-5000 series unit is stored.
The file extension is “a5d.”

13. SPECIFICATIONS

13.1. Software Specification

Preset Memory: 16 memories

13.2. Setting/Display Items, Setting Ranges, and Default Settings

13.2.1. Unit data

Setting Item	Setting Range	Default Setting	Remarks	Online Setting	Storable in Preset Memory
Unit Name	20 alphanumeric characters			✓	✗
IP Address	IPv4	192.168.14.1		✓	✗
Subnet Mask	IPv4	255.255.255.0		✓	✗
Default Gateway	IPv4	0.0.0.0		✓	✗
DHCP	On, Off	Off		✓	✗

13.2.2. Channel data

Setting Item	Setting Range	Default Setting	Remarks	Online Setting	Storable in Preset Memory
Channel Name	20 alphanumeric characters	Example: Mono In: 1, Mono Out: 1		✓	✗

13.2.3. Signal processing box

[PEQ]

Setting Item	Setting Range	Default Setting	Remarks	Online Setting	Storable in Preset Memory
Gain	-15 to +15 (dB), 0.5 dB steps	0		✓	✓
Center Frequency	20 to 20 k (Hz), 1/24 octave steps	80, 200, 500, 2 k, 10 k	PEQ	✓	✓
Q	0.267 to 69.249 (96 points)	4.318		✓	✓
On/Off	On, Off	On		✓	✓

[Compressor]

Setting Item	Setting Range	Default Setting	Remarks	Online Setting	Storable in Preset Memory
Threshold	-30 to +10 (dB), 1 dB steps	0		✓	✓
Ratio	1 : 1 to ∞ : 1, 17 steps	1 : 1		✓	✓
Attack time	0.2 to 5000 (ms), 25 steps	10		✓	✓
Release time	10 to 5000 (ms), 16 steps	500		✓	✓
Gain	-20 to +10 (dB), 1 dB steps	0		✓	✓
On/Off	On, Off	On		✓	✓

[Mute]

Setting Item	Setting Range	Default Setting	Remarks	Online Setting	Storable in Preset Memory
Mute mode	Manual, Off	Manual		✓	✓
INPUT 1 – 4 On/Off	On, Off	Off		✓	✓
Attenuation	–60 to –3 (dB), 1 dB steps	–40		✓	✓
Hold Time	1 to 10 (sec), 1 sec steps	5		✓	✓
Fade-in Time	0 to 10 (sec), 1 sec steps	4		✓	✓

Display Item	Setting Range	Default Setting	Remarks	Online Setting	Storable in Preset Memory
Mute operation status	Mute enabled/ disabled	–		–	–
Manual Mute terminal status	Open/close	–	Unit's Manual Mute terminal status	–	–

[Volume control]

Display Item	Setting Range	Default Setting	Remarks	Online Setting	Storable in Preset Memory
Input volume control	–∞, –69 to +10 (dB), 1 dB steps	–		–	–
Remote master volume control	–∞, –69 to +10 (dB), 1 dB steps	–		–	–

Setting Item	Setting Range	Default Setting	Remarks	Online Setting	Storable in Preset Memory
Master volume control	–∞, –69 to +10 (dB), 1 dB steps	0		✓	✓

[Output selection switch]

Display Item	Setting Range	Default Setting	Remarks	Online Setting	Storable in Preset Memory
Output	100 V, 70 V/4 ohm	–	Use the unit's DIP switch to set.	–	–

Traceability Information for Europe

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