TOA

MAINTENANCE MANUAL

IP COMMUNICATION SYSTEM
CX-1000 SERIES

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

TABLE OF CONTENTS

1. WEB MAINTENANCE OVERVIEW 3

2. LOGGING IN TO THE WEB PAGE 3

3. LOGGING OUT 5

4. CHANGING THE DISPLAY LANGUAGE 5

5. OPERATION VIEW 6
- 5.1. Web Page Description 6
- 5.2. Audio Scene Settings 8
- 5.3. Program Timer Settings 25
- 5.4. Audio Source Settings 30
- 5.5. Operating Status Confirmation 32
- 5.6. Logs 37
- 5.7. Date and time 42

6. MAINTENANCE VIEW (Administrator and Maintenance privileges only) 43
- 6.1. Screen Description 43
- 6.2. Inspection 44
- 6.3. Network (Administrator privileges only) 47
- 6.4. Login ID (Administrator privileges only) 48

1. WEB MAINTENANCE OVERVIEW

The following operations can be completed by accessing the System Manager with a browser using a PC:

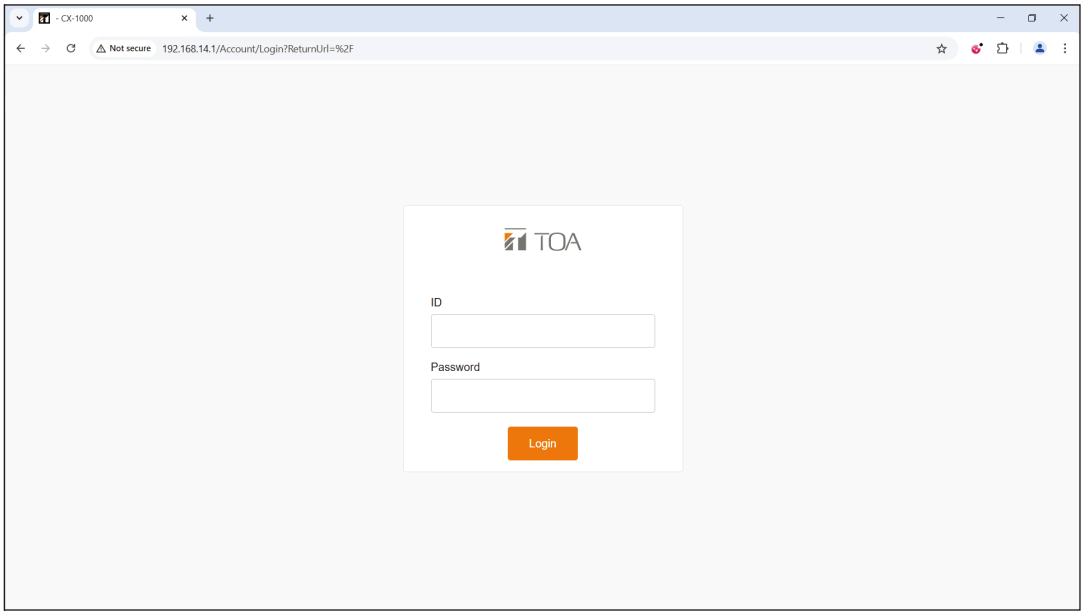
Settings	• Audio scenes, the Program timer, and the network, etc. can be set up. • Users can be managed. • Times can be set.
Maintenance	• Self-check can be set. • Self-check can be enabled, and Self-check results are displayed after the Self-check is complete.
Monitoring	• Allows system monitoring of the status of devices, conversations, broadcasts, control inputs/outputs, etc. • Operation history (operation log, failure log and stream log) can also be viewed, while log contents can be downloaded as a text file.

Note
To reflect settings changed using the web maintenance function in the CX-1000 Setting software, connect the PC installed with the CX-1000 Setting software to the System Manager online and download the settings file from the System Manager.
Tip
This function is not supported on tablet devices.

2. LOGGING IN TO THE WEB PAGE

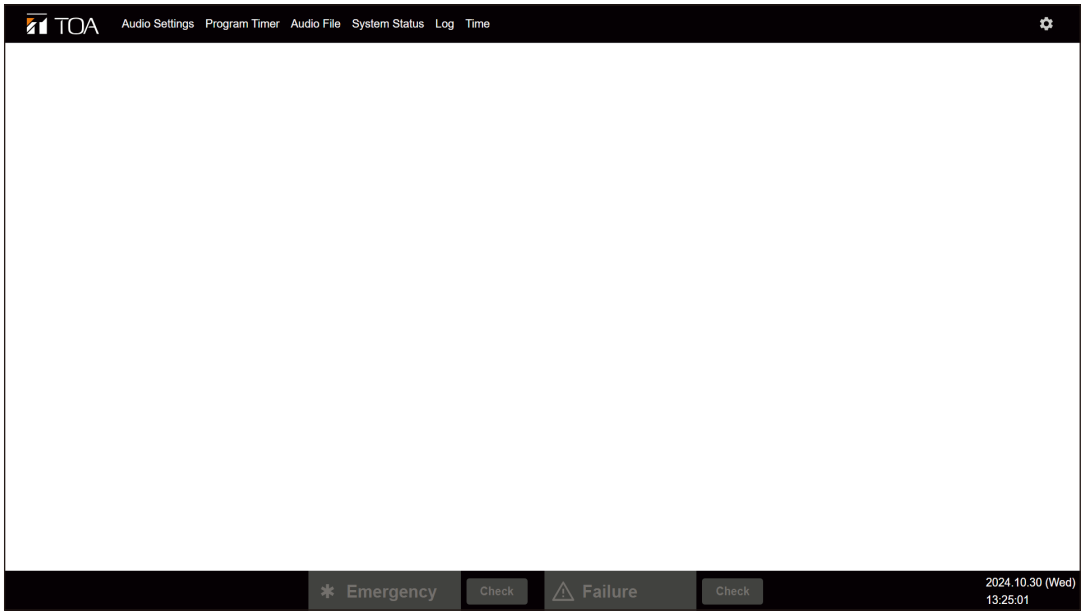
Step 1. Open the computer's browser* and access the CX-SM1000.
* Confirmed browsers: Google Chrome: 128.0.6613.138, Microsoft Edge: 128.0.2739.67
(Example) Assuming the CX-SM1000 IP address is "192.168.14.1" (factory default):
http://192.168.14.1

The top page is displayed.



Step 2. Log in with the correct ID and password.
Factory default: ID: cx-1000, password: guest
After the ID and password for each user have been set, enter only the applicable ID and password.

After successful login, the Operation view will be displayed.



Note
Available functions will differ depending on individual ID role (administrator, user, or maintenance).
Functions available for each role:

	Administrator	User	Maintenance
Audio scene setting change	✓	✓ *1,*2	✓ *2
Program timer setting change (Today's setting and calendar setting)	✓	✓	✓
Audio source change	✓	✓	✓
Operation status confirmation	✓	✓ *1	✓
Log confirmation	✓	✓ *1	✓
Current time setting	✓	✓	✓
Self-check setting and startup	✓	–	✓
Network setting (CX-SM1000 only)	✓	–	–
Login ID setting	✓	–	–

*1 The CX-1000 series features Hub functionality. When the Hub function is enabled, devices in the system can be assigned to any one of the hubs and managed by each hub. When Hub function is enabled, only those bases preset using the CX-1000 Settting software while logged in with Administrator privileges (p. 48) can be viewed or operated with User privileges. For detailed information on settings by the CX-1000 Setting software, refer to "ID/Password Settings" in the separate Setting software instruction manual.

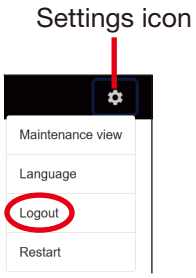
*2 When logged in with User or Maintenance privileges, it will not be possible to change the Normal mode audio scene selection, its name, or copy/paste the audio scene.

3. LOGGING OUT

When not in use, log out of the system to prevent unauthorized operation.

Step 1. Click the Settings icon in the upper-right corner of the screen.
A pull-down menu will appear.

Step 2. Select Logout.
The user will then be logged out.

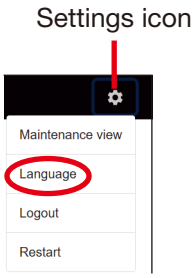


4. CHANGING THE DISPLAY LANGUAGE

When logging in for the first time, the screen display language will depend on the browser's language settings, and will be displayed in either Japanese or English. To change the display language, follow the steps below:

Step 1. Click the Settings icon in the upper-right corner of the screen.
A pull-down menu will appear.

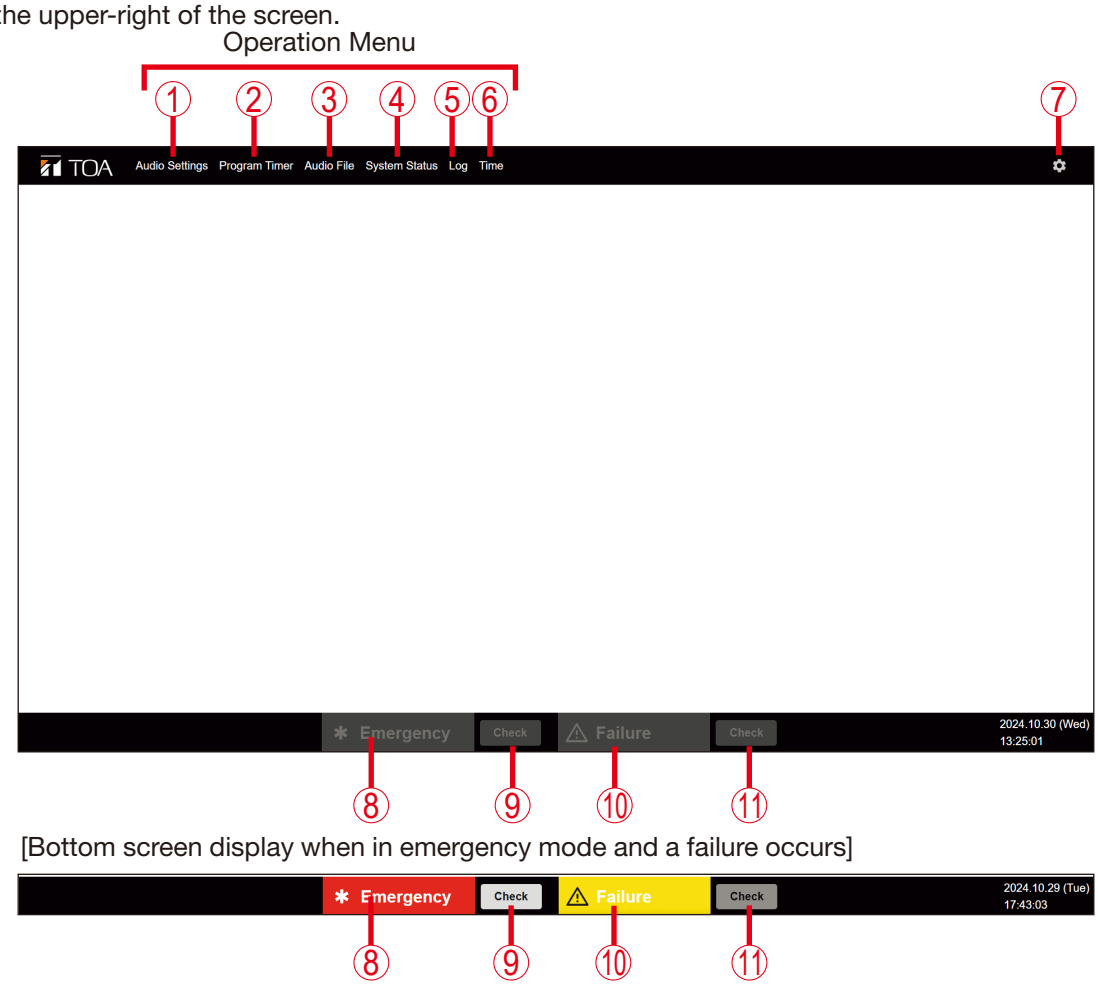
Step 2. Go to "Language" and select either "Japanese" or "English."
The display language will then change.



5. OPERATION VIEW

5.1. Web Page Description

Once logged in, the Operation view will be displayed.
It will then be possible to adjust the volume and sound quality of the device's audio input and output, check and operate the Program Timer operating status, and register audio sources, etc. In addition, it will also be possible to check the operating status of broadcasts and conversations, check logs and set the date and time, etc.
The Operations menu is displayed at the top of the screen. Selecting an item to be performed will cause a submenu to appear on the left. To switch to Maintenance view, select "Maintenance view" from the Settings icon at the upper-right of the screen.



[Bottom screen display when in emergency mode and a failure occurs]

(1) Audio Settings
Adjustment and settings of audio inputs, outputs, microphones, etc. for each device in the CX-1000 system can be made and saved to an audio scene.

(2) Program Timer
For daily programs in operation, the start time can be advanced or delayed, and the daily program can be temporarily stopped. Programs can also be set for specific dates on the calendar. Daily programs assigned to Weekly program can also be changed. Daily program settings can also be checked.

(3) Audio File
Audio sources can be registered or deleted, and previously registered audio sources can be displayed or listened to.

(4) System Status
The system's operating status can be monitored.

(5) Log
The Operation log, Failure log, and Stream log can all be checked.
However, the Stream log can only be checked using the ID set as No.1 in the CX-1000 Setting software under [Security] → [ID/Password] at the time of upload from the Setting software.
(See "SECURITY SETTINGS" in the separate Setting software instructions.)

(6) Time
The date and time can be set.

(7) Settings icon

Maintenance view*, Language, Logout and Restart can all be selected from the pull-down menu.

* Only displayed if selected with Administrator or Maintenance privileges.

Note

Selecting Restart causes the System Manager to be restarted, making it impossible for the system to be used until the restart is complete.

(8) Emergency status indicator (Only when Emergency mode is enabled)

Indicates when the system is in Emergency mode.
Turns red during Emergency mode.

(9) Check button (Only when Emergency mode is enabled)

Clicking this button allows checking of the details of Emergency status. (See p. 36.)

Note

If logged in with a User privilege ID, only information about hubs authorized for access will be displayed.

(10) Failure indicator

Indicates when a failure has occurred somewhere within the system.
Turns yellow when a failure occurs.

(11) Check button

If a failure has occurred, clicking on this button will stop the buzzer and allow failure details to be checked. (See p. 35.)

Note

If logged in with a User privilege ID, only information about hubs authorized for access will be displayed.

5.2. Audio Scene Settings

Clicking on Audio Settings in the Operation view will display the following screen.
With the CX-1000 system, independent audio scenes (sets of input/output volumes and signal processing parameters on each device) can be set for each device.
Up to 9 audio scenes can be set, including the Audio Scene Emergency and Audio Scenes 1 – 8. Note that the Audio Scene Emergency can only be applied only when Emergency mode is enabled.
In addition to audio scenes, such parameters as call quality, ANC and VOX functions can also be set for each device.

Tip

The audio scene names Audio Scene Emergency and Audio Scene 1 to 8 are default names. The names displayed on screen are those set via the Setting software.

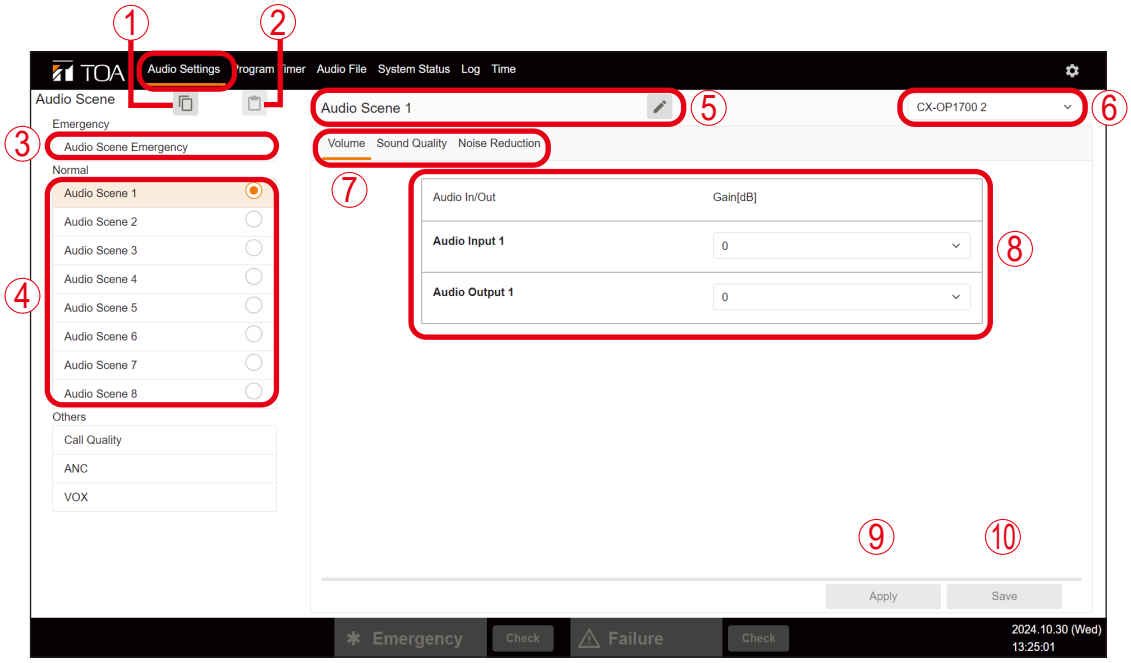
Notes

- Never move pages (by pressing ←/→ in the upper left corner of the screen), reload (by pressing ↻ in the upper left corner of the screen), or close the browser (by pressing X in the upper right corner of the screen) without first double-checking to confirm the changes. Doing so cancels the changes.



- Do not change the ANC settings while performing Reference Noise Level Measurements, "Maximum" or "Minimum" Output Level Listening.

5.2.1. Audio Scene Settings
[Screen Description]



* CX-OP1700 screen shown above.

(1) Copy button (Administrator previleges only)
Selects an audio scene and copies its settings.

(2) Paste button (Administrator previleges only)
Whenever audio scene settings copied with the Copy button (1) are pasted into a selected device's audio scene, they are automatically saved.

(3) Audio Scene Emergency (Only when Emergency mode is enabled)
This audio scene (Audio Scene Emergency) will be automatically applied to any Emergency broadcasts received after switching to Emergency mode.

Note

"Input sound quality" and "Noise reduction" are deactivated during Emergency audio scene, even if set to be enabled.
In emergencies, both "Input sound quality" and "Noise reduction" will remain the same Normal audio scene settings applied immediately beforehand.

(4) Normal Audio Scenes

Audio Scenes 1 – 8 can be set for use as Normal mode audio scenes.

Click the radio button to select the audio scene to be set for use as a Normal audio scene. (Can only be changed by an operator having Administrator privileges)

To edit an audio scene's settings, select the row of the desired audio scene. The row will change to light orange, and settings (5) through (8) of the desired audio scene will be displayed on the right side of the screen. Set the volume, sound quality, and noise reduction for each device.

Tip

Normal audio scenes in operation can be changed with either a station's Direct key or the control input.

The CX-1000 Setting software must be preset before changes can be enabled.

(5) Audio scene name

Audio scene names can also be set or changed. (Limit: 32 characters)

(6) Device selection

Select the device to be set.

(7) Setting item selection

Select the item to be set.

(8) Setting details field

Enter the setting details for the selected audio scene here.

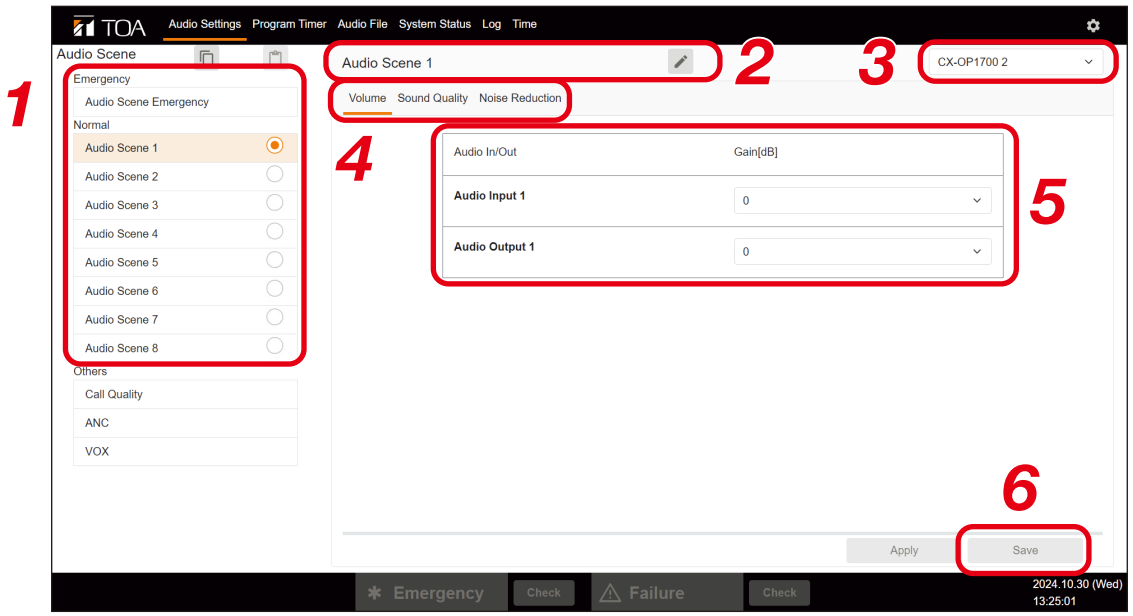
(9) Apply button

The displayed setting details are temporarily changed and applied to the device. Settings will revert to their original state if the display switches to another page or any other operation is performed, so be sure to click the Save button (10) when confirming settings.

(10) Save button

Saves the details of the displayed settings.

[Audio scene editing procedure]



Step 1. From the row of scenes at left, click on the audio scene to be edited.
The clicked item will turn light orange and its settings will be displayed on the right side of the screen.

Step 2. Change the Audio scene name if necessary.

Step 3. Select the device.

Step 4. Select the setting item.

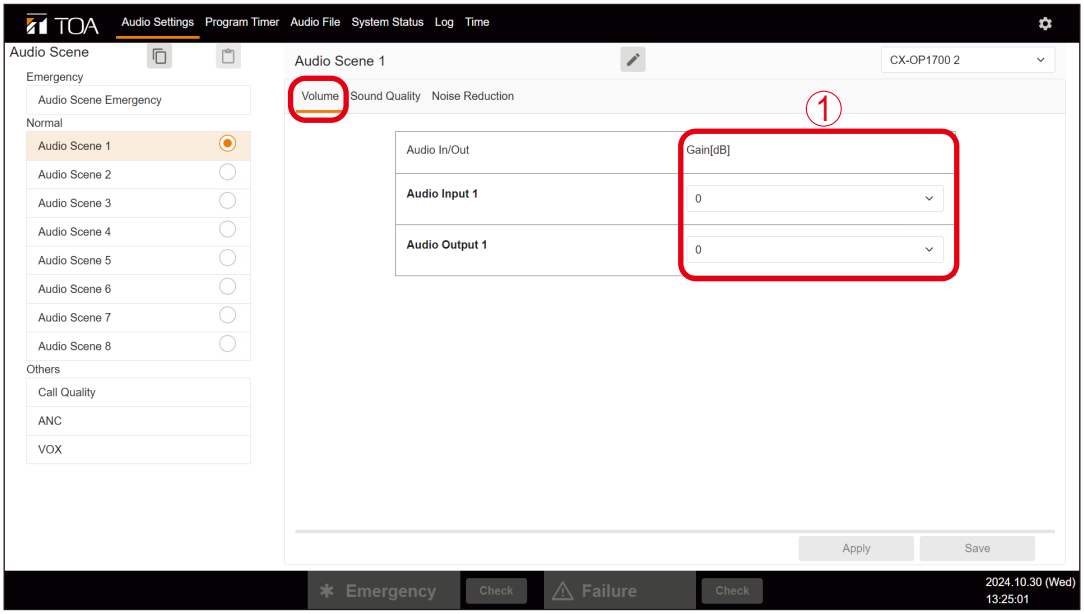
Step 5. Set the desired details.

Step 6. Save the displayed settings by clicking the Save button.

Step 7. Repeat **Steps 4** through **6** to set all items.

[Volume settings]

Select Volume to display the following screen:



(1) Gain[dB]

Select a desired value from the pull-down menu.

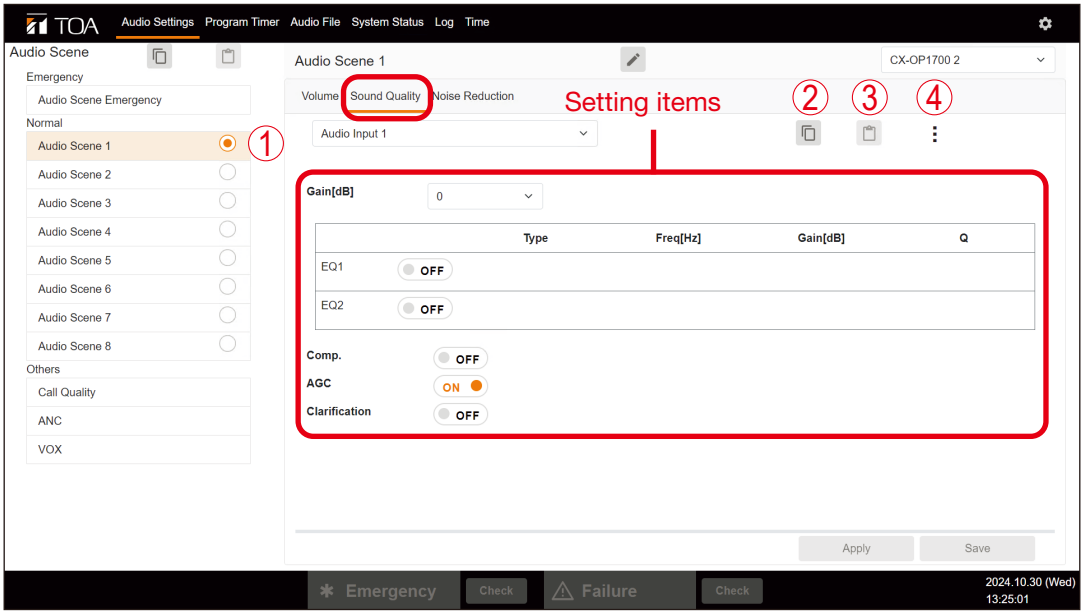
Available Settings	0 to –69, –∞ (default: 0)

Tip

The same settings can be made on the following Sound Quality screen as well.

[Sound quality settings]

When Sound Quality is selected, the screen below is displayed.
The sound quality parameters for the selected device can then be set.
Setting items will differ depending on whether Audio Input or Output is selected.



(1) Audio input/output selection

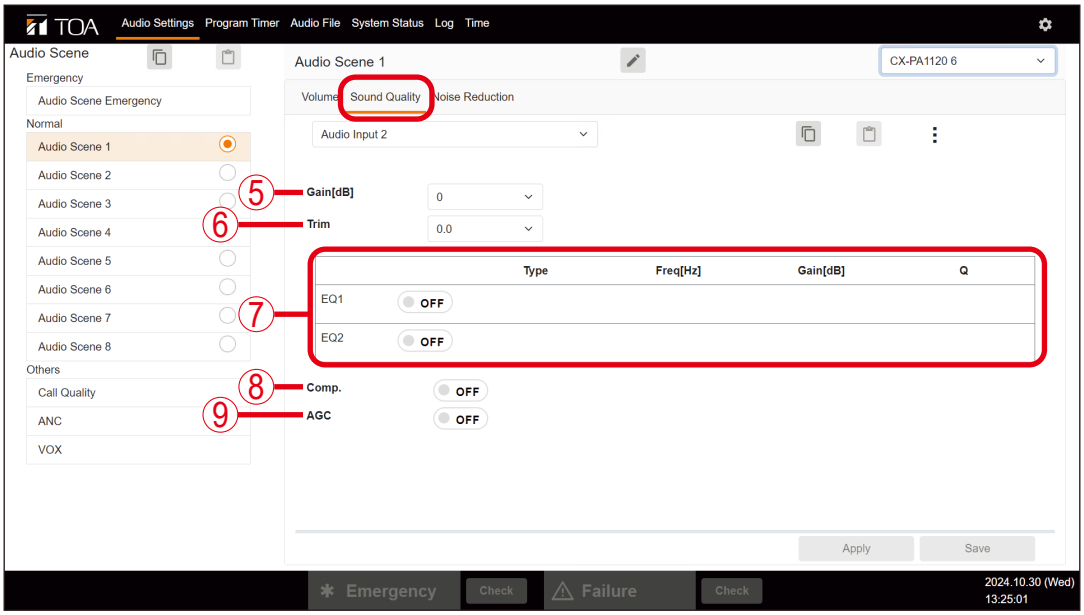
From the pulldown menu, select the Audio Input or Output to be set.

(2) Copy button
Copies the displayed settings of audio input or output.

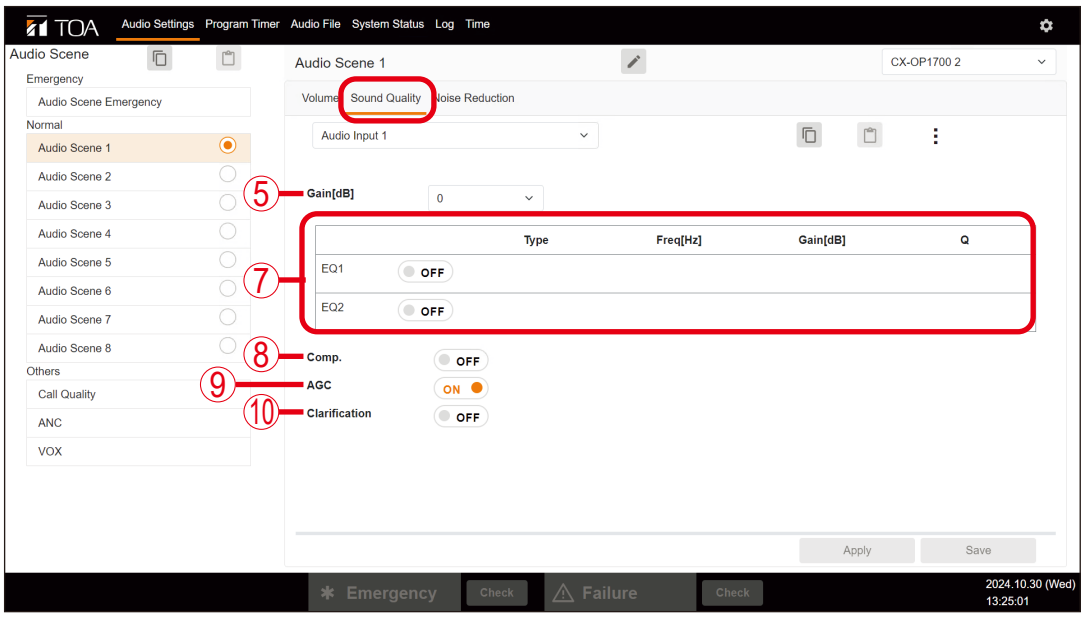
(3) Paste button
Pastes the audio input or output settings copied using the Copy button (2) into the selected audio input or output.

(4) Menu button
When clicked, the choices "Revert changes" and "Reset to default" will appear.
Selecting "Revert changes" discards the edited settings being currently displayed on the screen and reverts to the previously saved settings.
Selecting "Reset to default" will return the currently displayed screen settings to their default values.

[When Audio input is selected]



The above screen shows settings for the CX-PA1120.



The above screen shows settings for the CX-OP1700.

Setting items will differ depending on the device and audio input.
For more details regarding audio input and signal processing settings, refer to the separate Setting software instructions: "Details regarding audio input signal processing" in "Setting Audio Input Volume and Sound quality."

(5) Gain [dB] (Except CX-CL1750/CL1550)

From the pull-down menu, select the Input Gain for the currently selected audio input.

Available Settings	0 to –69, –∞ (default: 0)

(6) Trim[dB] (Applicable only to Audio Input 2 of the CX-RM1700, the CX-AF1062 or Audio Input 2 of the CX-PA1120/CX-PA1240.)

To correct the volume of the gain-adjusted input signal, select the desired setting value from the pull-down menu.

Available Settings	–15.0 to 15.0 (0.1 dB steps, default: 0)

(7) EQ

2 filters can be applied to each audio input.

Note

This can only be set for the CX-OP1700/CL1750/OP1500/CL1550 when the fixed filter is set to "None" in the CX-1000 Setting software. (See "BASIC OPERATION SETTINGS" in the separate Setting software instructions.)

- **ON/OFF**

Available Settings	ON, OFF (default)

Setting items only appear when switched ON.

- **Type**

Select the filter type.
Details may differ depending on the filter type.

Available Settings	PEQ (default), HPF6, LPF6, HPF12, LPF12, Low Shelving, High Shelving

[When "Type" is set to "PEQ"]

Frequency, Gain, and Q can be set.
Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	20.0 – 20.0k* (1/24 octave steps, default: 1.00k) * CX-OP1500 and CX-CL1550: 20.0 – 6.50k

- **Gain [dB]**

Available Settings	–15.0 to 15.0 (0.1 dB steps, default: 0)

- **Q**

Available Settings	0.267 – 69.249 (default: 4.318)

[When "Type" is set to "HPF6"]

Frequency can be set. Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	20.0 – 20.0k* (1/24 octave steps, default: 100) * CX-OP1500 and CX-CL1550: 20.0 – 6.50k

[When "Type" is set to "LPF6"]

Frequency can be set. Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	20.0 – 20.0k* (1/24 octave steps, default: 10.0k) * CX-OP1500 and CX-CL1550: 20.0 – 6.50k (default: 3.25k)

[When "Type" is set to "HPF12"]
Frequency and Q can be set. Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	20.0 – 20.0k* (1/24 octave steps, default: 100) * CX-OP1500 and CX-CL1550: 20.0 – 6.50k

- **Q**

Available Settings	0.500 – 2.563 (default: 0.500)

[When "Type" is set to "LPF12"]
Frequency and Q can be set. Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	20.0 – 20.0k* (1/24 octave steps, default: 10.0k) * CX-OP1500 and CX-CL1550 stations: 20.0 – 6.50k (default: 3.25k)

- **Q**

Available Settings	0.500 – 2.563 (default: 0.500)

[When "Type" is set to "Low Shelving"]
Frequency and Gain can be set. Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	20.0 – 500 (1/24 octave steps, default: 500)

- **Gain [dB]**

Available Settings	–15.0 to 15.0 (0.1 dB steps, default: 0)

[When "Type" is set to "High Shelving"]
Frequency and Gain can be set. Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	6.00k – 20.0k* (1/24 octave steps, default: 6.00k) * CX-OP1500 and CX-CL1550 stations: 6.00k – 6.50k

- **Gain [dB]**

Available Settings	–15.0 to 15.0 (0.1 dB steps, default: 0)

(8) Comp.
Set the Compressor function.

- **ON/OFF**

Available Settings	ON, OFF (default)

The following compressor setting details are displayed when set to ON.

- **Threshold [dB]**
Select a desired value from the pull-down menu.

Available Settings	0 to –20 (1 dB steps, default: 0)

- **Ratio**
  Select the Ratio from the pull-down menu.

Available Settings	1:1 (default), 1.1:1, 1.2:1, 1.3:1, 1.5:1, 1.7:1, 2:1, 2.3:1, 2.6:1, 3:1, 4:1, 5:1, 7:1, 8:1, 10:1, 12:1, 20:1, ∞:1

- **Knee type**
  Select the Knee type from the pull-down menu.

Available Settings	Hard (default), Middle, Soft

- **Attack time [ms]**
  Select a desired value from the pull-down menu.

Available Settings	0.2, 0.5, 0.7, 1, 1.5, 2, 3, 5, 7, 10 (default), 20, 50, 70, 100, 120, 150, 200, 250, 300, 500, 700, 1000, 2000, 3000, 5000

- **Release time [ms]**
  Select a desired value from the pull-down menu.

Available Settings	10, 20, 50, 70, 100, 120, 150, 200, 250, 300, 500 (default), 700, 1000, 2000, 3000, 5000

- **Gain [dB]**
  Select a desired value from the pull-down menu.

Available Settings	10 to –69, –∞ (default: 0)

(9) AGC

Enables/disables automatic gain adjustment relative to input level.

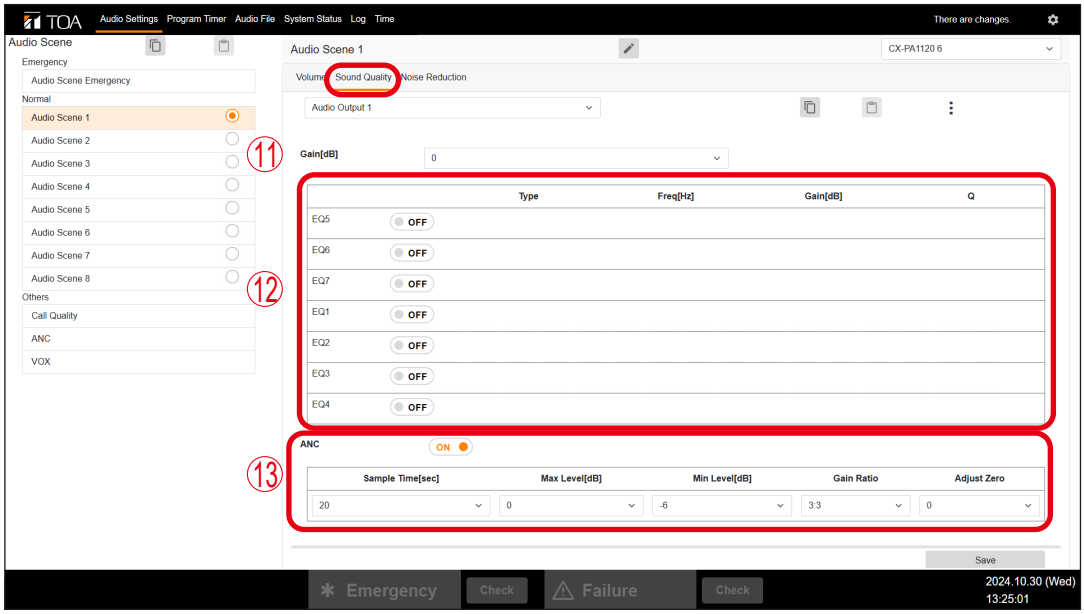
Available Settings	ON, OFF Default: ON (CX-OP1700/CL1750/OP1500/CL1550 and Audio Input 1 of the CX-RM1700) OFF (Audio Input 2 of the CX-RM1700, CX-AF1062, and Audio Input 2 of the CX-PA1120/PA1240)

(10) Speech enhancement (CX-OP1700/CL1750/OP1500/CL1550 and Audio Input 1 of the CX-RM1700 only)

This function uses built-in signal processing technology to make a speaker's voice easier to understand. Select ON to use this function.
Note, however, that sound quality may change significantly or even worsen depending on the speaker and installation environment. Therefore, use on a case-by-case basis.

Available Settings	ON, OFF (default)

[When Audio output is selected]



Setting items will differ depending on the device and audio output.
For more details regarding audio output and signal processing settings, refer to the separate Setting software instructions: "Details regarding audio output signal processing" in "Setting Audio Output Volume and Sound Quality."

(11) Gain [dB]

Select a desired value from the pull-down menu.

Available Settings	0 to –69, –∞ (1 dB steps, default: 0)

(12) EQ

Up to 7 filters can be set to each audio output.

- **ON/OFF**

Available Settings	ON, OFF (default)

Setting items only appear when switched ON.

- **Type**

Select the filter type. Details may differ depending on the filter type.

Available Settings	[CX-OP1700/CL1750/AF1062/PA1120/PA1240] PEQ (default), HPF6, LPF6, HPF12, LPF12, Low Shelving, High Shelving, All Pass, Notch, Horn EQ [CX-OP1500/CL1550] PEQ (default), HPF6, LPF6, HPF12, LPF12, Low Shelving, High Shelving, All Pass, Notch

[When "Type" is set to "PEQ"]

Frequency, Gain, and Q can be set.
Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	20.0 – 20.0k* (1/24 octave steps, default: 1.00k) * CX-OP1500 and CX-CL1550: 20.0 – 6.50k

- **Gain [dB]**

Available Settings	–15.0 to 15.0 (0.1 dB steps, default: 0)

- **Q**

Available Settings	0.267 – 69.249 (default: 4.318)

[When "Type" is set to "HPF6"]
Frequency can be set. Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	20.0 – 20.0k* (1/24 octave steps, default: 100) *CX-OP1500 and CX-CL1550: 20.0 – 6.50k

[When "Type" is set to "LPF6"]
Frequency can be set. Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	20.0 – 20.0k* (1/24 octave steps, default: 10.0k) * CX-OP1500 and CX-CL1550: 20.0 – 6.50k (default: 3.25k)

[When "Type" is set to "HPF12"]
Frequency and Q can be set. Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	20.0 – 20.0k* (1/24 octave steps, default: 100) * CX-OP1500 and CX-CL1550: 20.0 – 6.50k

- **Q**

Available Settings	0.500 – 2.563 (default: 0.500)

[When "Type" is set to "LPF12"]
Frequency and Q can be set. Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	20.0 – 20.0k* (1/24 octave steps, default: 10.0k) * CX-OP1500 and CX-CL1550: 20.0 – 6.50k (default: 3.25k)

- **Q**

Available Settings	0.500 – 2.563 (default: 0.500)

[When "Type" is set to "Low Shelving"]
Frequency and Gain can be set. Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	20.0 – 500 (1/24 octave steps, default: 500)

- **Gain [dB]**

Available Settings	–15.0 to 15.0 (0.1 dB steps, default: 0)

[When "Type" is set to "High Shelving"]
Frequency and Gain can be set. Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	6.00k – 20.0k* (1/24 octave steps, default: 6.00k) * CX-OP1500 and CX-CL1550: 6.00k – 6.50k

- **Gain [dB]**

Available Settings	–15.0 – 15.0 (0.1 dB steps, default: 0)

[When "Type" is set to "All Pass"]
Frequency and Q can be set. Select a desired value from the pull-down menu.

- **Freq. [Hz]**

Available Settings	20.0 – 20.0k* (1/24 octave steps, default: 1.00k) * CX-OP1500 and CX-CL1550: 20.0 – 6.50k

• **Q**

Available Settings	0.267 – 69.249 (default: 0.267)

[When "Type" is set to "Notch"]
Frequency and Q can be set. Select a desired value from the pull-down menu.

• **Freq. [Hz]**

Available Settings	20.0 – 20.0k* (1/24 octave steps, default: 1.00k) * CX-OP1500 and CX-CL1550: 20.0 – 6.50k

• **Q**

Available Settings	8.651 – 69.249 (default: 8.651)

[When "Type" is set to "Horn EQ" (Except CX-OP1500 and CX-CL1550)]
Gain can be set. Select a desired value from the pull-down menu.

• **Gain [dB]**

Available Settings	0.0 – 18.0 (0.5 dB steps, default: 0)

(13) ANC (Only applicable to CX-CL1750/CL1550 or the CX-PA1120/PA1240's Audio Input 1 with its application set for "ANC Microphone.")

• **ON/OFF**
Sets ON or OFF of the ANC function.

Available Settings	ON, OFF (default)

• **Sample time [s]**
Set the average time required to detect the ambient noise levels with the sensor microphone*.
The shorter this time, the quicker the output sound level follows the change of ambient noise level.
Select a desired value from the pull-down menu.
* Use the sensor microphone for the CX-PA1120/PA1240, or the hands-free microphone for the CX-CL1750/CL1550.

Available Settings	10, 20 (default), 30, 60, 300

• **Max Level [dB]**
Set the maximum output level. Select a desired value from the pull-down menu.

Available Settings	0 to –15 (1 dB steps, default: 0)

• **Min Level [dB]**
Set the minimum output level. Select a desired value from the pull-down menu.

Available Settings	(MAX level – 3) to –18 (1 dB steps, default: –6)

• **Gain Ratio [dB]**
Sets the ratio of ambient noise level variation to output level variation in the form of "Ambient noise level variation : Output level variation."
For example, if the ratio is set to be 3:3, the output volume level goes up by 3 dB when the ambient noise level increases by 3 dB.
Select a desired value from the pull-down menu.

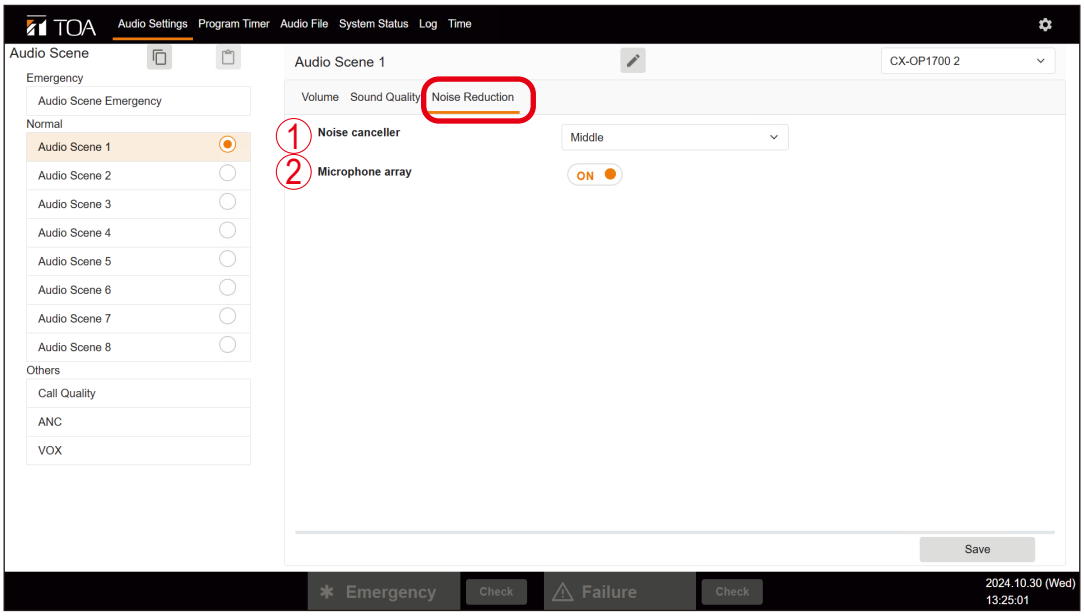
Available Settings	6:3, 5:3, 4:3, 3:3 (default), 3:4, 3:5, 3:6

• **Adjust Zero [dB]**
Normally use the default value.
When wishing to adjust the reference level, select a desired value from the pull-down menu.

Available Settings	60 to –60 (1 dB steps, default: 0)

[Noise reduction settings] (CX-OP1700/OP1500 or CX-CL1750/CL1550 only)

This screen will be displayed when Noise Reduction is selected:



(1) Noise canceller

Set the efficacy of the Noise canceller during conversations that use the hands-free microphone.
Adjust settings according to the environment in which the device is installed.

Available Settings	Hard, Middle (default), Soft, OFF

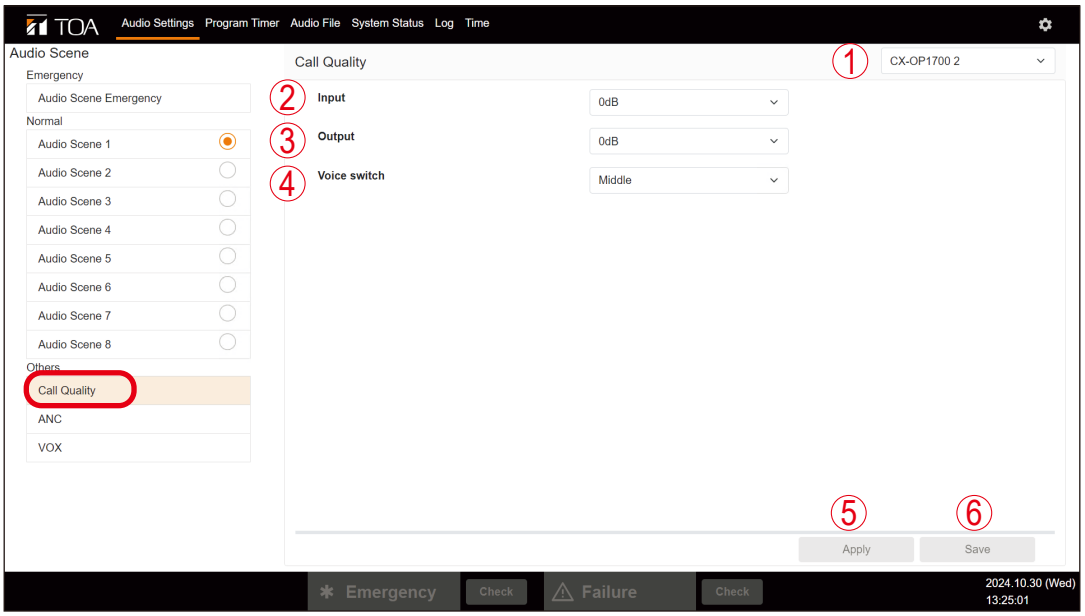
(2) Microphone array

This function makes it easier to pick up the sound of the voice nearest a station during broadcasts or conversations using a hands-free microphone by collecting sound from multiple microphones.
Turn ON this setting to use the Microphone Array function.
When set to OFF, sound is picked up from only one microphone.

Available Settings	ON (default), OFF

5.2.2. Call quality settings (CX-OP1700/OP1500/CL1750/CL1550 only)

Selecting "Call Quality" from the side menu displays the following screen:



(1) Device selection
Select the device to be set.

(2) Input
Set the input gain of audio input during conversations.

Available Settings	0 dB (default), –3 dB, –6 dB, –9 dB, –12 dB

(3) Output
Set the output gain of audio input during conversations.

Available Settings	0 dB (default), –3 dB, –6 dB, –9 dB, –12 dB, –15 dB, –18 dB, –21 dB, –24 dB, –27 dB

(4) Voice Switch
Set the voice switch sensitivity. "Hard" indicates a stronger level of attenuation, while "Soft" is weaker. "Quick" indicates that the switching time between transmission and reception is faster.

Available Settings	Hard, Middle (default), Soft, Hard (Quick), Middle (Quick), Soft (Quick), OFF

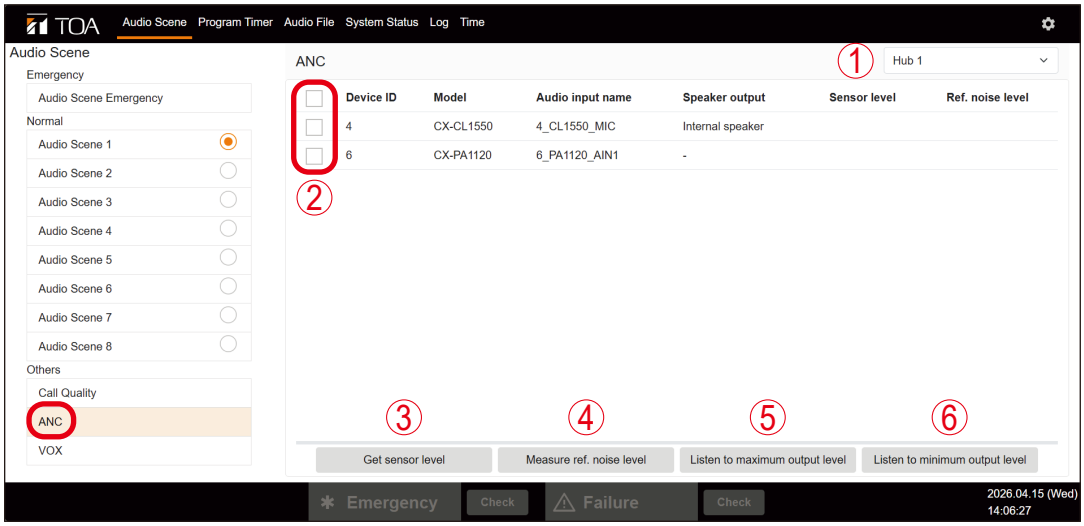
(5) Apply button
The displayed setting details are temporarily changed and applied to the device. Settings will revert to their original state if the display switches to another page or any other operation is performed, so be sure to click the Save button (6) when confirming settings.

(6) Save button
Saves the settings being currently displayed.

5.2.3. ANC settings

Selecting "ANC" from the side menu displays the following screen.
The ANC sensor level can be checked and the effect of the ANC heard on the sensor microphones of devices that have ANC enabled.

[Screen description]



(1) Hub selection (Only when Hub mode is ON)
Select the hub to be set.

(2) Device selection
The audio inputs of all connected sensor microphones are displayed.
Check the devices to be measured.
Clicking on the check box in Item row selects all devices.

(3) Get sensor level button
Retrieves the sensor and reference noise levels for each microphone.

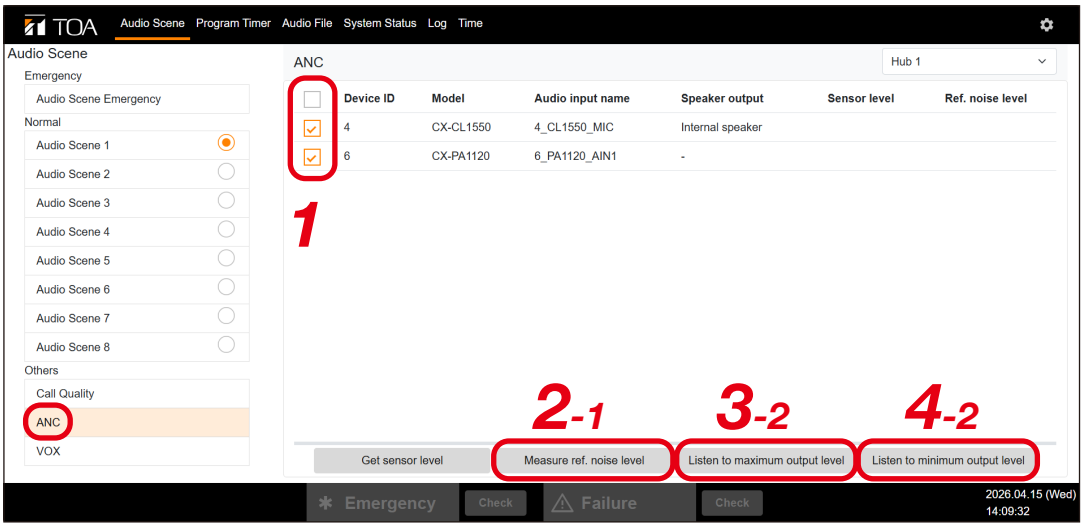
(4) Measure ref. noise level button
Measures the reference noise level using a microphone.

(5) Listen to maximum output level button
Outputs audio at the maximum ANC output level.
Automatically stops after 30 seconds.

(6) Listen to minimum output level button
Outputs audio at the minimum ANC output level.
Automatically stops after 30 seconds.

[Reference noise level measurement and preview of maximum/minimum ANC output levels]

Measure the reference ANC noise level and listen to the maximum and minimum audio output levels during ANC operation.



Step 1. Place a check mark to the measuring target for the reference value of the sensor level.

Tips

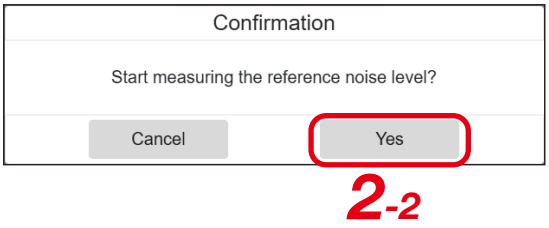
- All the channels of which Purposes have been set to ANC are set to ON by default.
- Clicking the check box in Item row allows all channels set to ANC of the target device to be turned ON or OFF simultaneously.

Step 2. Measure the reference noise level.

2-1. Click the "Measure ref. noise level" button.
A confirmation dialog will appear.

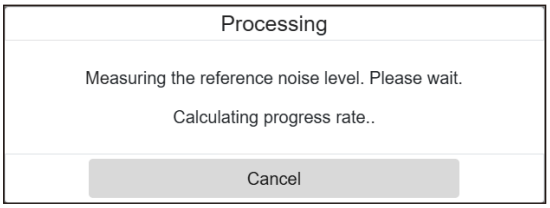
Note

Perform this operation in the quietest circumstance.



2-2. Click the Yes button.
The ambient noise level of the channel being set will be automatically measured. A processing dialog box will be displayed.

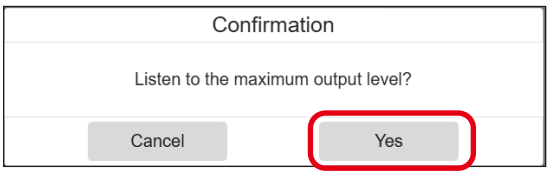
When the measurement is successfully completed, the Processing dialog box closes.



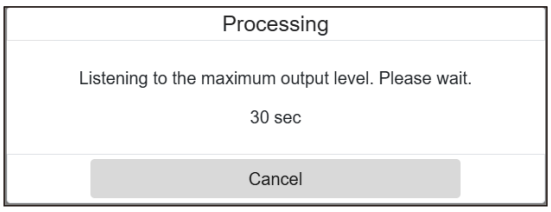
Step 3. Confirm the maximum output level.

3-1. Input the audio source to the channel of the setting target.

3-2. Click the "Listen to maximum output level" button.
A confirmation dialog will appear.



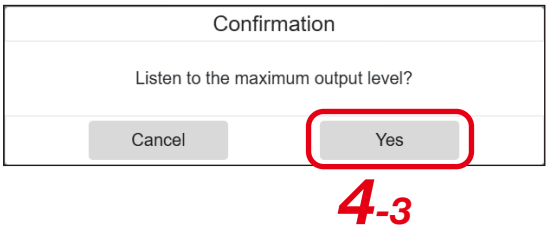
3-3. Click the Yes button.
Maximum level applies to the channel of the setting target for 30 seconds.
Confirm the output sound volume.



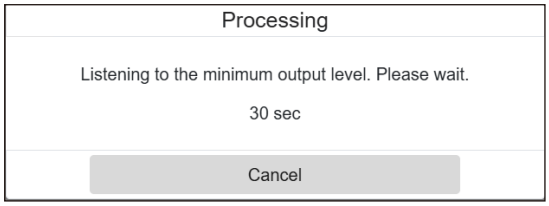
Step 4 Confirm the minimum output level.

4-1. Input the audio source to the channel of the setting target.

4-2. Click the "Listen to minimum output level" button.
A confirmation dialog will appear.



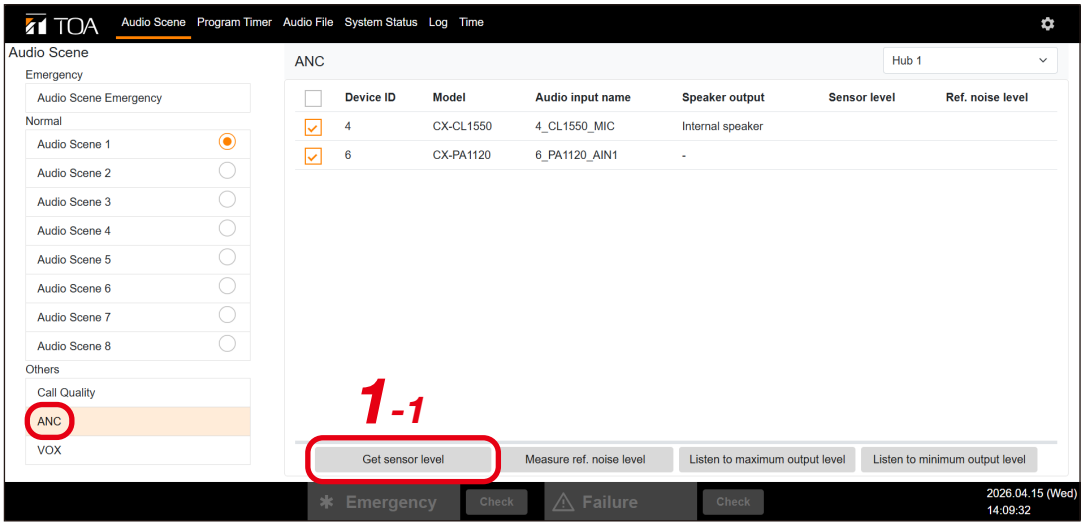
4-3. Click the Yes button.
Minimum level applies to the channel of the setting target for 30 seconds.
Confirm the output sound volume.



Step 5 If necessary, reconfigure the ANC Max Level and Min Level on the Audio Scene → Sound Quality screen. (See p. 17.)

[Fine-adjusting the reference value of the ANC sensor level]

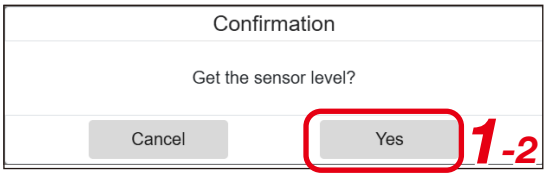
If the reference value (value measured on the "Init" screen) of the ANC sensor level differs vastly from the actual ambient noise, fine-adjust the reference value of the sensor level following the procedures below.

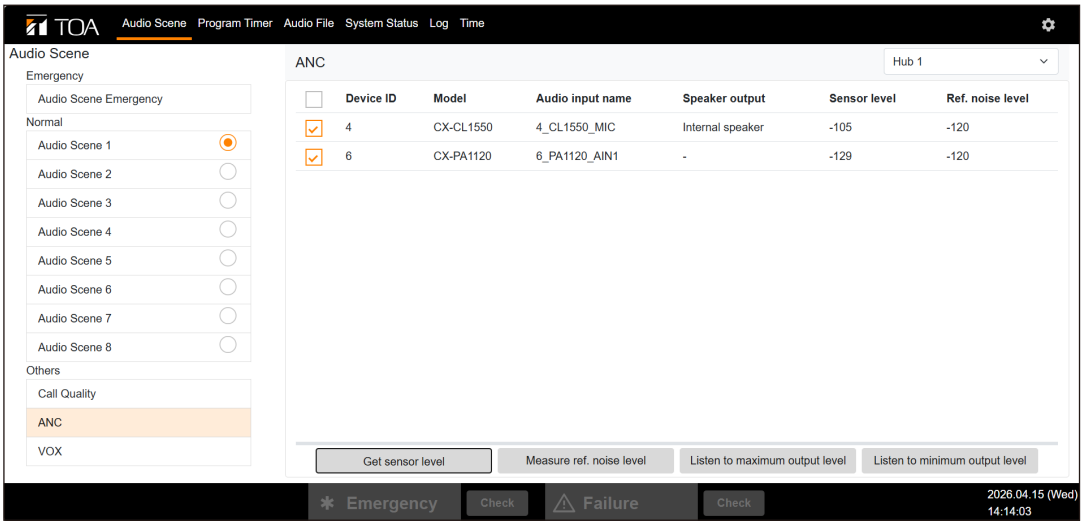


Step 1. Acquire sensor and reference noise levels.

1-1. Click the "Get sensor level" button.
A confirmation dialog box is displayed.

1-2. Click the Yes button.
The sensor and reference noise levels for each audio input are automatically retrieved and displayed on the screen.





Step 2. Based on the retrieved sensor and reference noise levels of each audio input, adjust ANC Adjust Zero on the Audio Scene → Sound Quality screen. (See p. 17.)

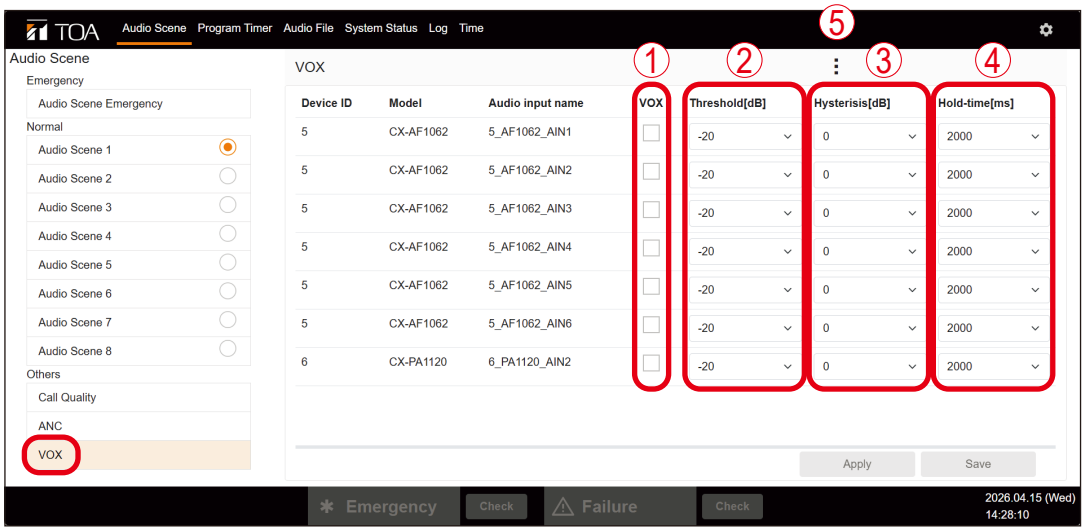
5.2.4. VOX settings

Selecting "VOX" from the side menu displays the following screen.
Set the VOX function.
The VOX (Voice Operated eXchange) function detects the audio input signal and automatically outputs it to the preset output destination. When using this function, the start and end of the broadcast can be controlled using the audio as a trigger. For details, refer to "VOX Function" in the separate Settting software instructions.

Tip

Only those broadcast destination audio outputs or inputs for which a destination broadcast pattern has been set using the CX-1000 Setting software will be displayed.

[Screen Description]



(1) VOX check box

Set whether or not to use the VOX function.
Checking the box enables VOX functions. (default: OFF)

(2) Threshold [dB]

Select a desired value.

Available Settings	0 to –20 (1 dB steps, default: –20)

(3) Hysteresis [dB]

Select a desired value.

Available Settings	0 – 10 (1 dB steps, default: 0)

(4) Hold-time [ms]

Select a desired value.

Available Settings	10, 20, 50, 70, 100, 120, 150, 200, 250, 300, 500, 700, 1000, 2000 (default), 3000, 5000, 10000

(5) Menu button

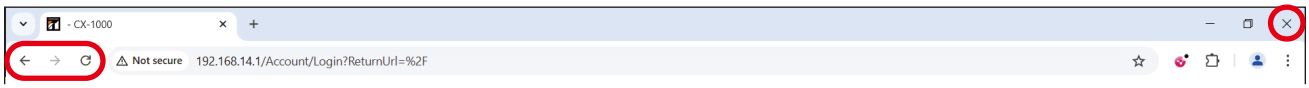
When clicked, the choices "Revert changes" and "Reset to default" will appear.
Selecting "Revert changes" discards the edited settings and reverts to the previously saved settings.
Selecting "Reset to default" will return the currently displayed screen settings to their default values.

5.3. Program Timer Settings

Clicking on Program Timer in the Operation view displays the following screen.
For daily programs that are currently in progress, operation can be moved forward or back in time, or temporarily suspended.
In the calendar settings, daily programs can be assigned to a specific date.
Furthermore, daily program settings can also be independently checked.
Select setting items from the side menu.

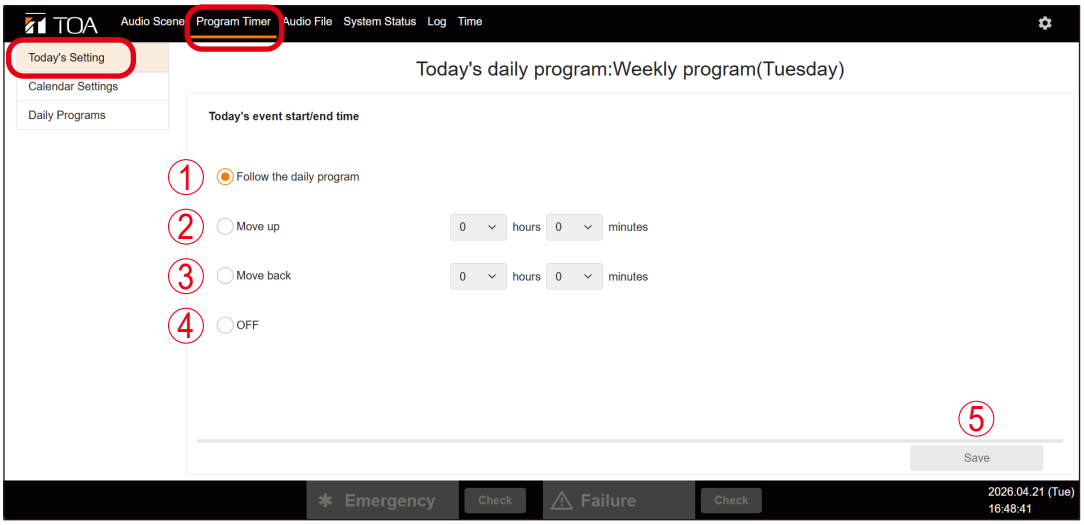
Note

Never move pages (by pressing ←/→ in the upper left corner of the screen), reload (by pressing ↻ in the upper left corner of the screen), or close the browser (by pressing X in the upper right corner of the screen) without first double-checking to confirm the changes.
Settings revert to those in place before change.



5.3.1. Today's settings

If Today's Setting is selected from the side menu, the following screen is displayed:
The way to operate the current program can be changed.



Select a radio button: (1) – (4). (Default setting: Follow the Daily Program)

(1) Follow the daily program
The Program Timer operates at set times based on the System Manager clock.

(2) Move up
The Program Timer moves forward a specified period of time based on the System Manager clock.

Settings Range	00:00 – 23:55 (5-minute intervals) (Default setting: 00:00)

(3) Move back
The Program Timer moves backward a specified period of time based on the System Manager clock.

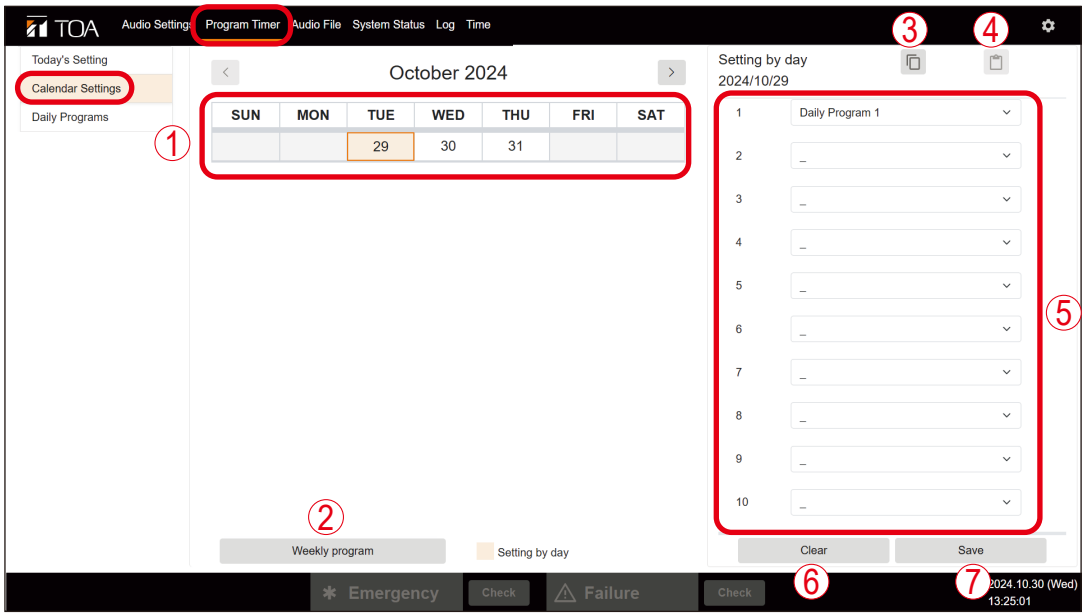
Settings Range	00:00 – 23:55 (5-minute intervals) (Default setting: 00:00)

(4) OFF
Halts today's Program Timer operation.

(5) Save button
Saves the currently displayed settings to the system.

5.3.2. Calendar Settings

If Calendar Settings is selected from the side menu, the following screen is displayed:
Weekly programs preset using the CX-1000 Setting software are assigned to each day of the week. Daily programs can be assigned using the calendar.
If a weekly program has been set for a day on which the daily program is assigned, the calendar setting takes priority.
Up to 10 daily programs can be assigned per day.
Daily programs that have been assigned to Weekly programs can also be changed.



(1) Calendar
Select the day to be set.
Days for which individual day settings have been applied are displayed in light orange.

(2) Weekly program button
When this button is clicked on, the Weekly program setting screen is displayed, allowing changes to be made to the Weekly program.

(3) Copy button
Selects a day from the calendar and copies its setting.

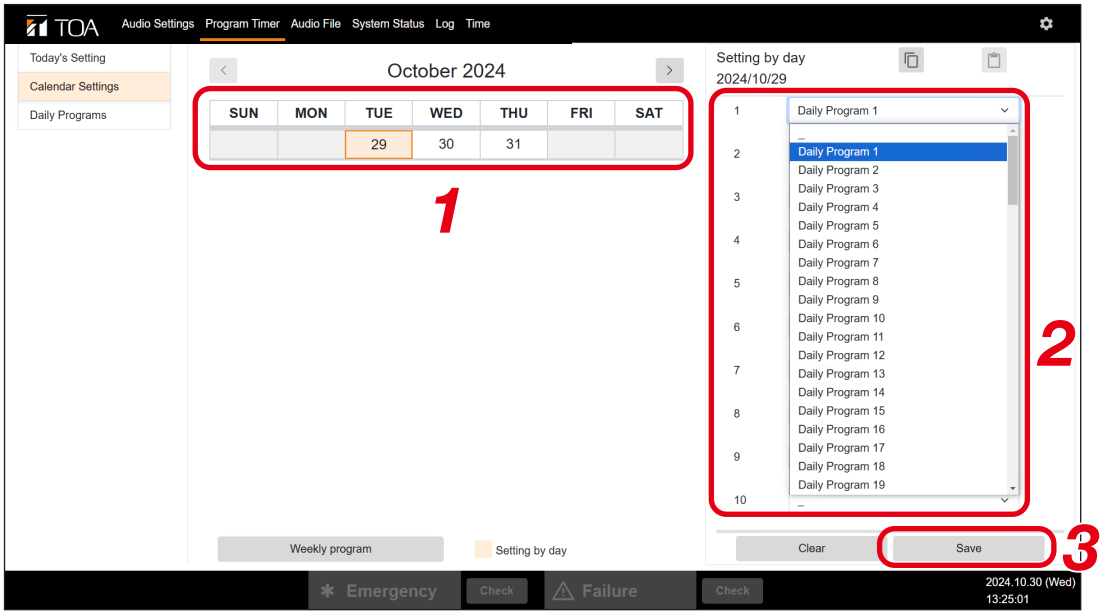
(4) Paste button
Selects a day from the calendar and pastes in the settings that were previously copied using the Copy button (3).

(5) Daily program column
Choose the Daily program to be applied to the individual day settings of a selected day.

(6) Clear button
Clears all the settings displayed in the Daily program column (5).

(7) Save button
Saves the currently displayed settings to the system.

[Individual day settings]

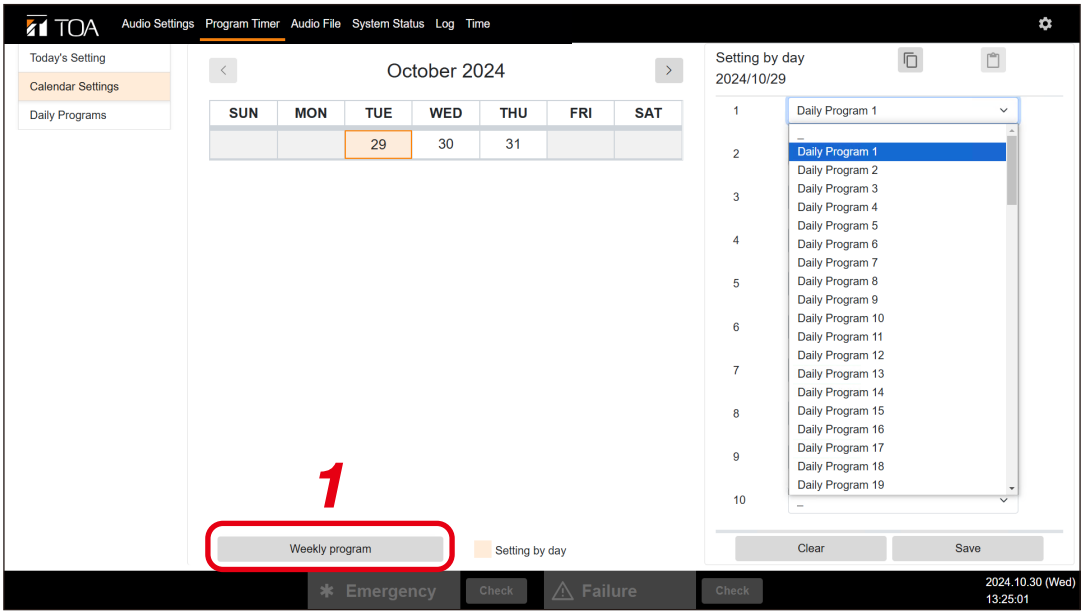


Step 1. Click on the calendar day that a Daily program is to be set.

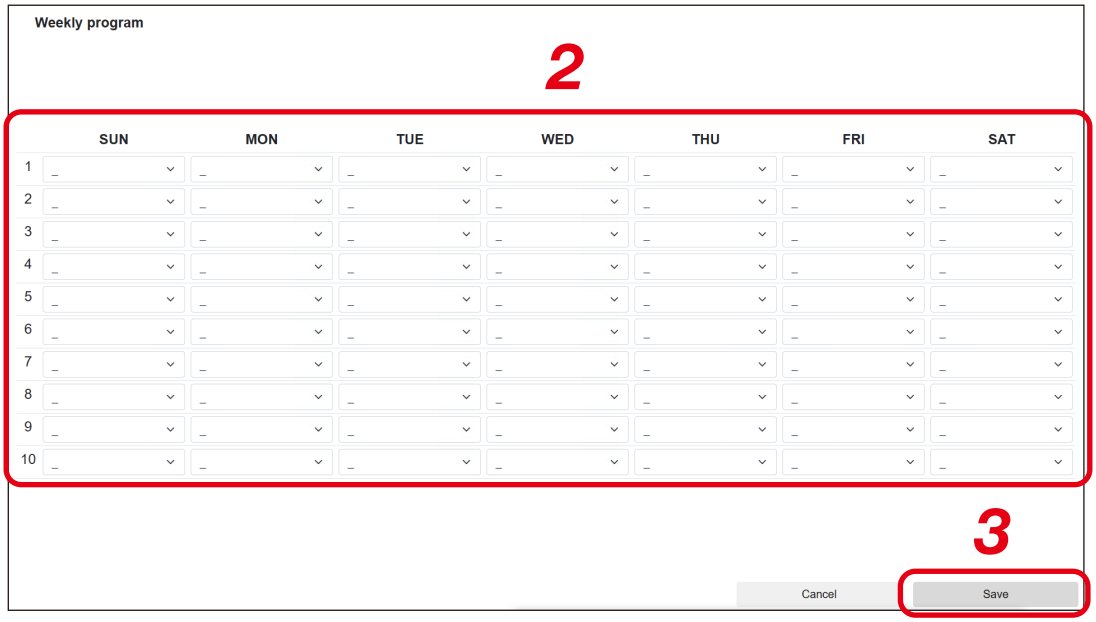
Step 2. Select a Daily program from the Daily program column.
Select a program from the pull-down menu.
Up to 10 Daily programs can be set.

Step 3. Click the Save button.
The specific details set in the Daily program column are saved as individual settings for the day selected in **Step 1**. The day selected on the calendar then turns light orange.

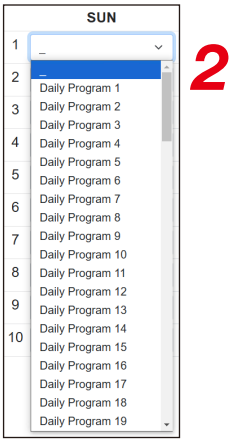
[Changing the Weekly program]



Step 1. Click the Weekly program button.
The Weekly programs screen appears.



Step 2. Set the Daily programs for each day of the week.
Select these programs from the pull-down menu. Up to 10 programs can be selected for each day of the week.

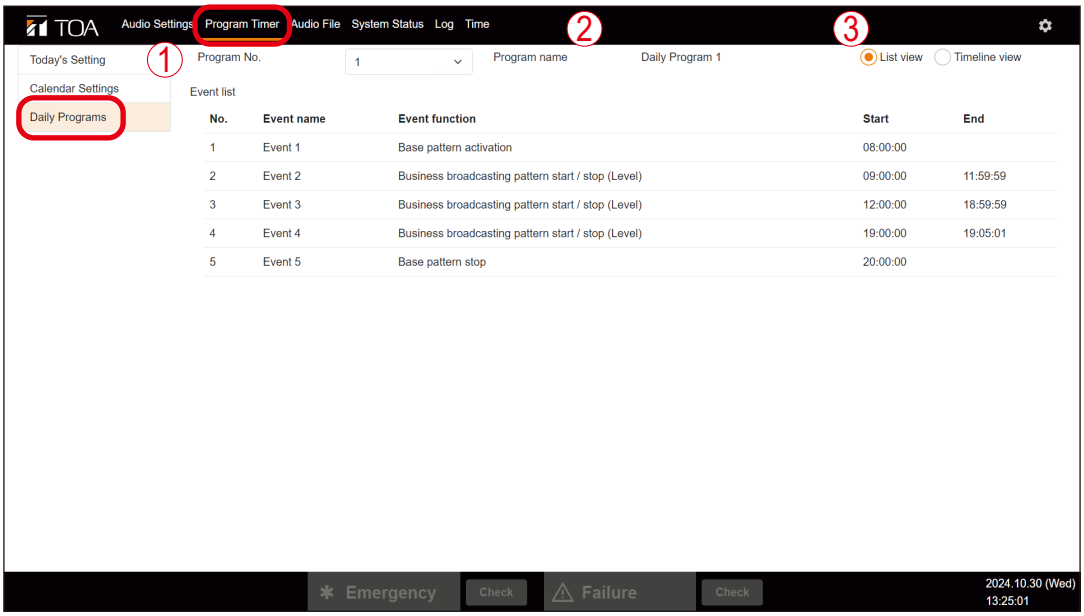


Step 3. Click the Save button.
The settings are then saved to the system.

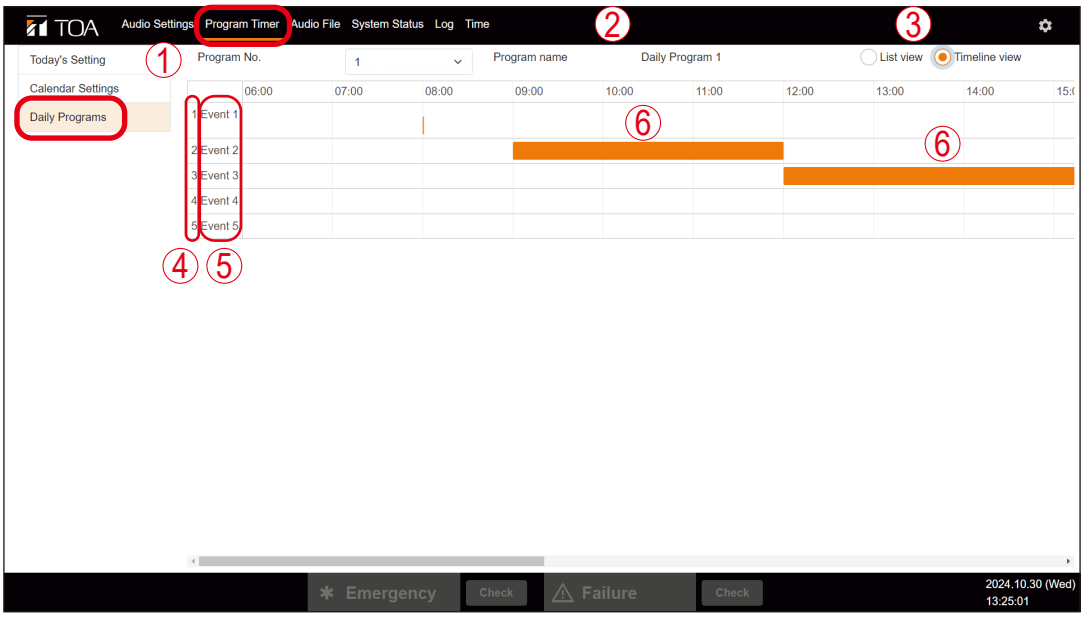
5.3.3. Confirming the Daily program

If Daily programs is selected from the side menu, the following screen is displayed.
The Daily programs must be set in advance using the CX-1000 Setting software.
All Daily program settings can be checked on this screen.

[List view]



[Timeline view]



(1) Program No.
Select the Program No.
Details about the event set for the selected program appear at the bottom of the screen.

(2) Program name
The program name is displayed.

(3) Line view/Timeline view selection button
Select the type of event details display.

(4) Event No.
The event number is displayed.

(5) Event name
The event name is displayed.

(6) Event run time
The time when the event is running is displayed in orange.

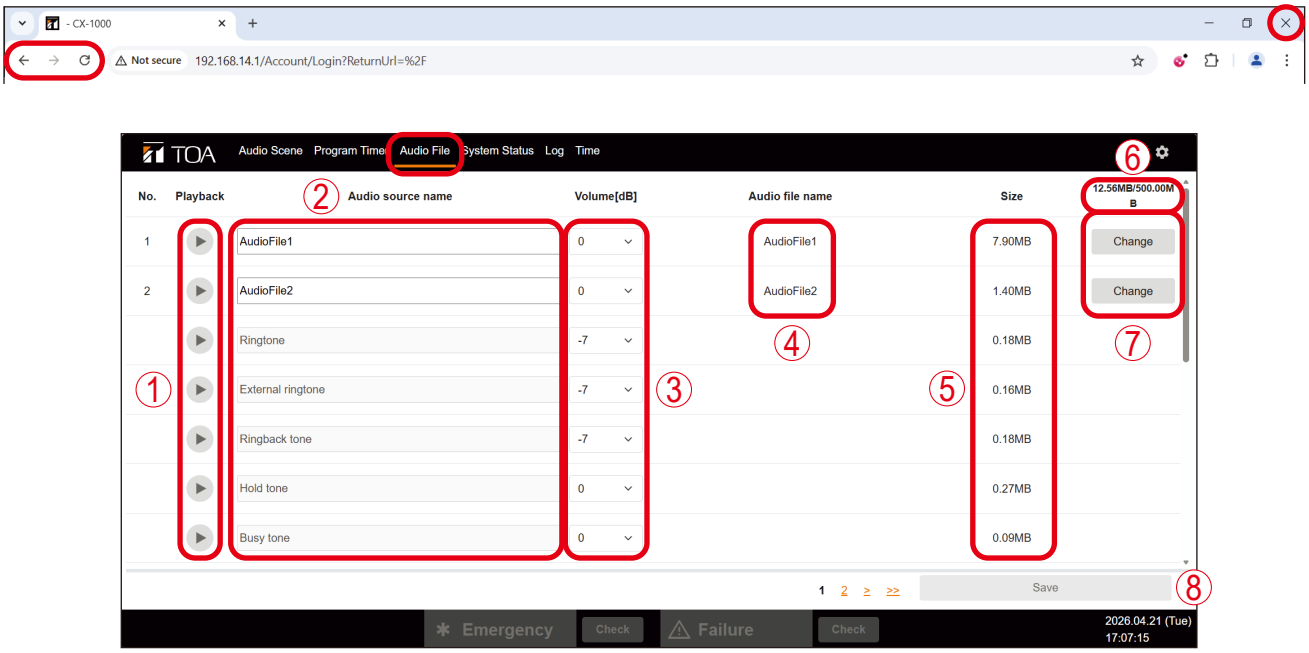
5.4. Audio Source Settings

Clicking on Audio file in the Operation view displays the following screen. The previously registered audio source can be displayed, played back or changed.

Note

Never move pages (by pressing ←/→ in the upper left corner of the screen), reload (by pressing ↻ in the upper left corner of the screen), or close the browser (by pressing X in the upper right corner of the screen) without first double-checking to confirm the changes.

Settings revert to those in place before change.



(1) Playback button

The selected audio source plays when clicked. Click again to stop playback.

(2) Audio source name

The name set for the audio source is displayed. This name can be changed at any time.

Available Settings	Up to 32 numeric characters (default: File name of the registered sound source file),

(3) Volume [dB]

Permits setting of the audio source volume.

Note

This volume control does not set the actual audio output volume. Set the volume based on the audio source's recorded audio level.

Available Settings	10 to –69 (1 dB steps), –∞ (default: 0)

(4) Audio file name

The name of the recorded audio file is displayed. This cannot be changed.

(5) Size

The size of each registered audio file.

(6) Total size of audio files

The total size of all registered audio files.

Up to 500 MB of audio files can be registered in total.

(7) Change button

Clicking this button allows the registered audio source to be changed, whether the files are saved on the PC or another device.

The requirements for the audio files that can be used are as follows:

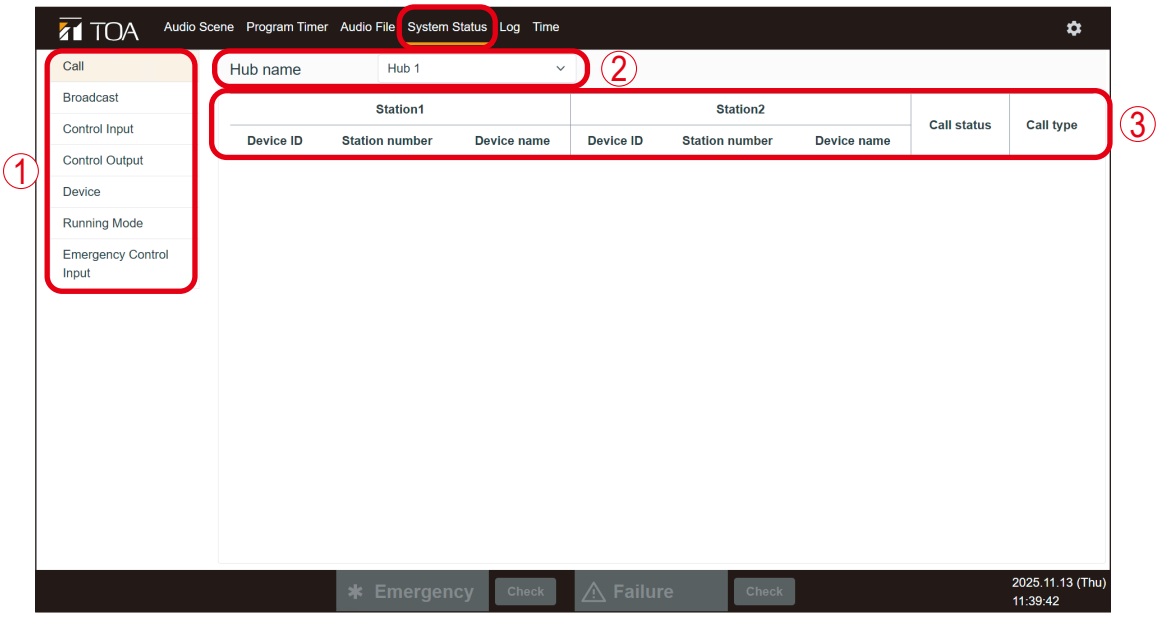
File format	WAV
File name	5 – 15 alphanumeric characters (includes .wav extension) Only 8 symbols can be used: "!", "@", "#", "$", "%", "&", "-", and "_". Blank spaces cannot be used.
Encode	PCM
Sampling frequency	16 kHz, 32 kHz, 44.1 kHz, 48 kHz
Sampling bit rate	16 bits
Stereo/Monaural	Monaural
File size	250 MB or less

(8) Save button

Saves the details of the displayed settings.

5.5. Operating Status Confirmation

When System Status in the Operation view is clicked on, the system's operating status can be monitored.



(1) Operation selection menu
Select the operation to be monitored.

(2) Hub selection (Only when Hub function is enabled)
Select the hub to be monitored.
Note
If logged in with a User privilege ID, only information about hubs authorized for access will be displayed.

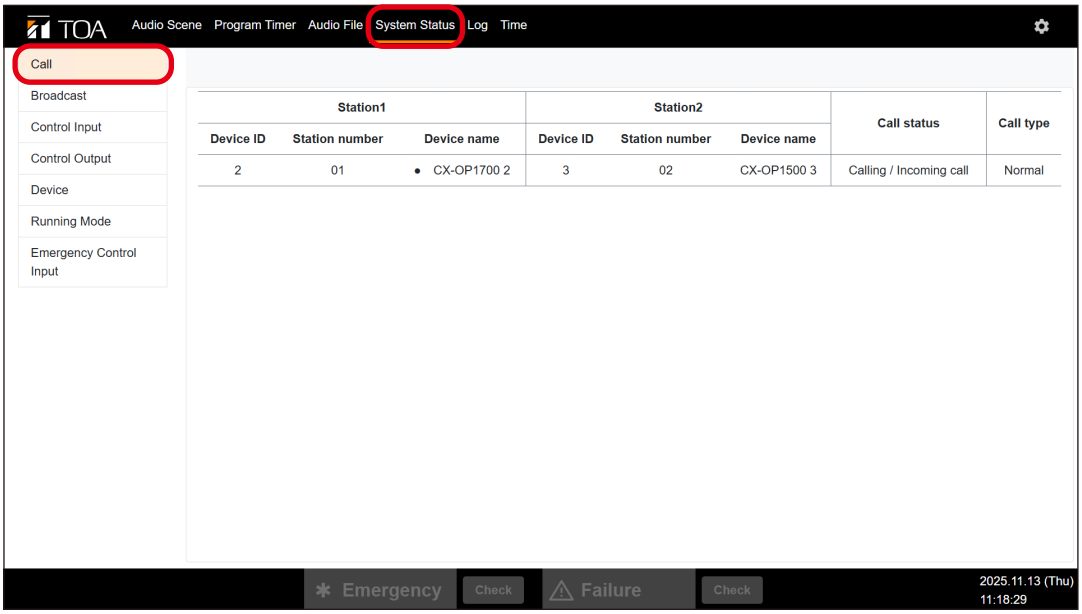
(3) Detail display field
Displays the system's operating status, as selected in Item (1).
If Hub function is disabled, all registered device conditions can be viewed.
If Hub function is enabled, only the device conditions for the hub selected in Item (2) can be viewed.

5.5.1. Call monitor

If Call is selected from the side menu, the following screen is displayed.
The call status of all the stations belonging to the selected bases are displayed.
When an outgoing call is placed or an incoming call is received, a [●] mark is displayed to the left of the calling station's device name. Only devices that are placing a call, receiving a call, or currently in a call are displayed in the list.

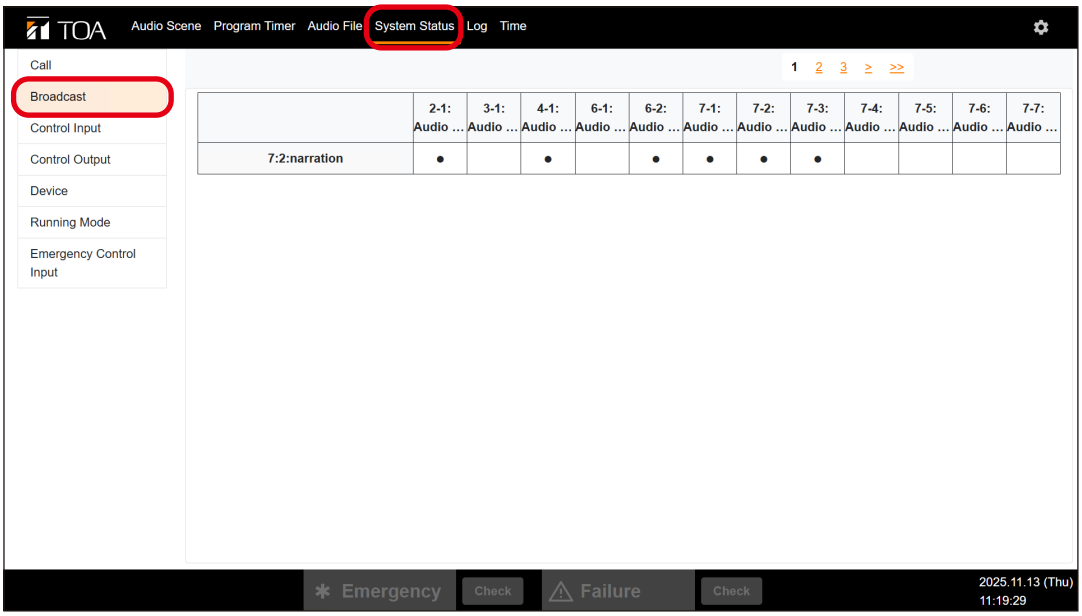
Note

When the call connects, the [●] mark disappears and no distinction is made between outgoing and incoming call stations.



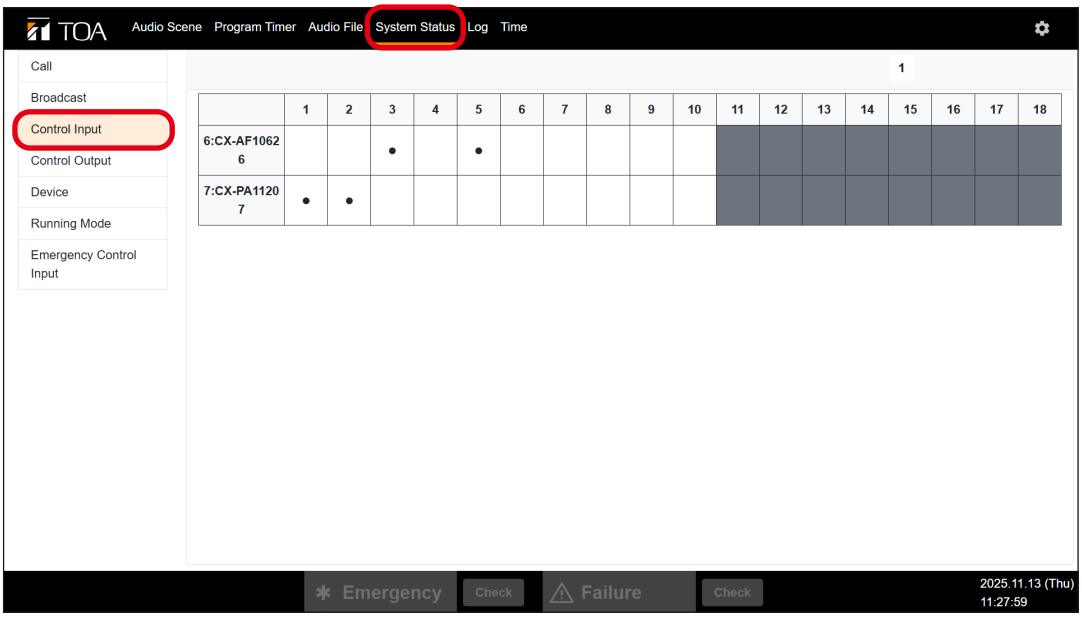
5.5.2. Broadcast monitor

If Broadcast is selected from the side menu, the following screen is displayed.
Broadcast status within the selected base can be easily monitored.
Which audio input is being broadcast to which audio outputs is displayed in tab form. Audio outputs are displayed horizontally and audio inputs are displayed vertically. However, if no broadcast is currently being made, the audio input is not displayed.
When broadcasting starts, the audio input is displayed, and the [●] mark provides an indication of the broadcast destination audio outputs.



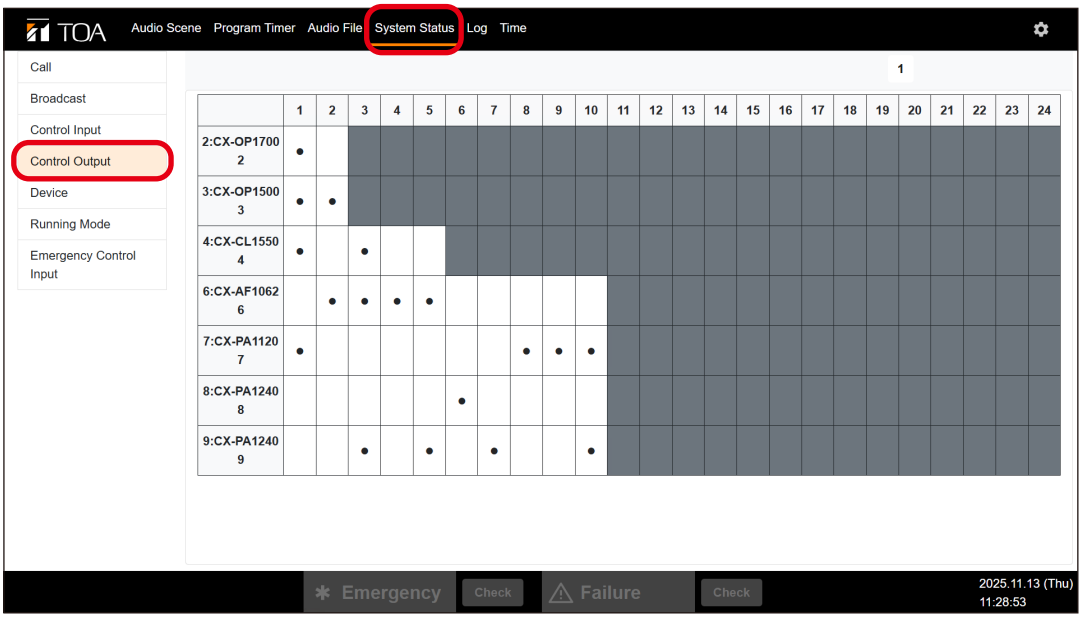
5.5.3. Control input monitor

If Control Input is selected from the side menu, the following screen is displayed.
The control input status of each connected device can be easily monitored.
Each device and its control inputs are displayed in table form. Control input numbers are shown horizontally.
Control inputs indicated by a [●] mark are closed. Only devices with closed control inputs are displayed in the list.



5.5.4. Control output monitor

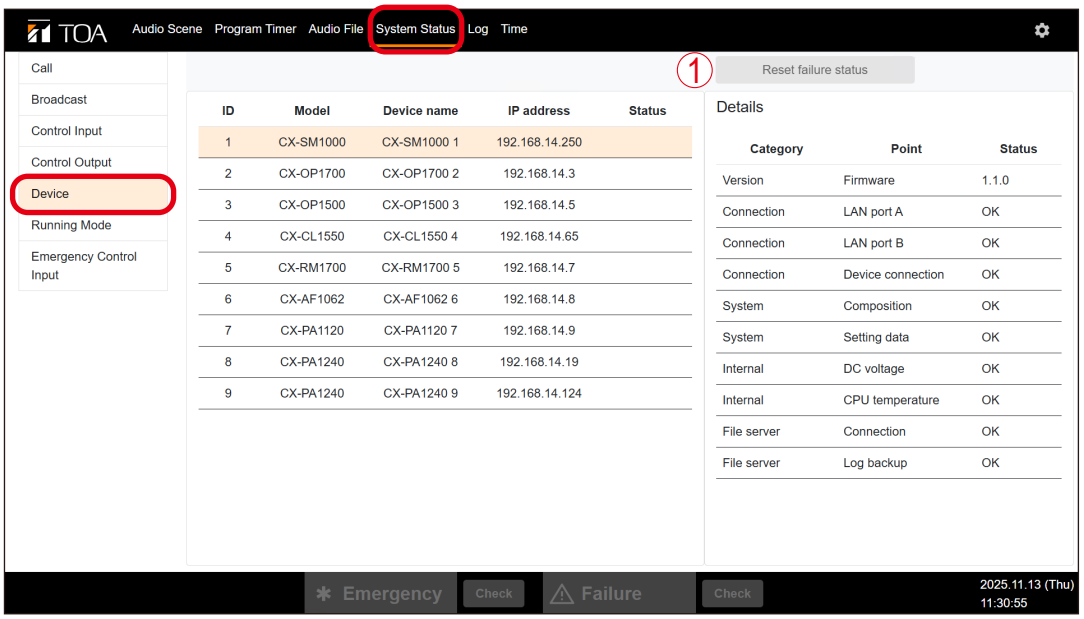
If Control Output is selected from the side menu, the following screen is displayed.
The control output status of each connected device can be easily monitored.
Each device and its control outputs are displayed in table form. Control output numbers are shown horizontally.
Control outputs indicated by a [●] mark are closed.



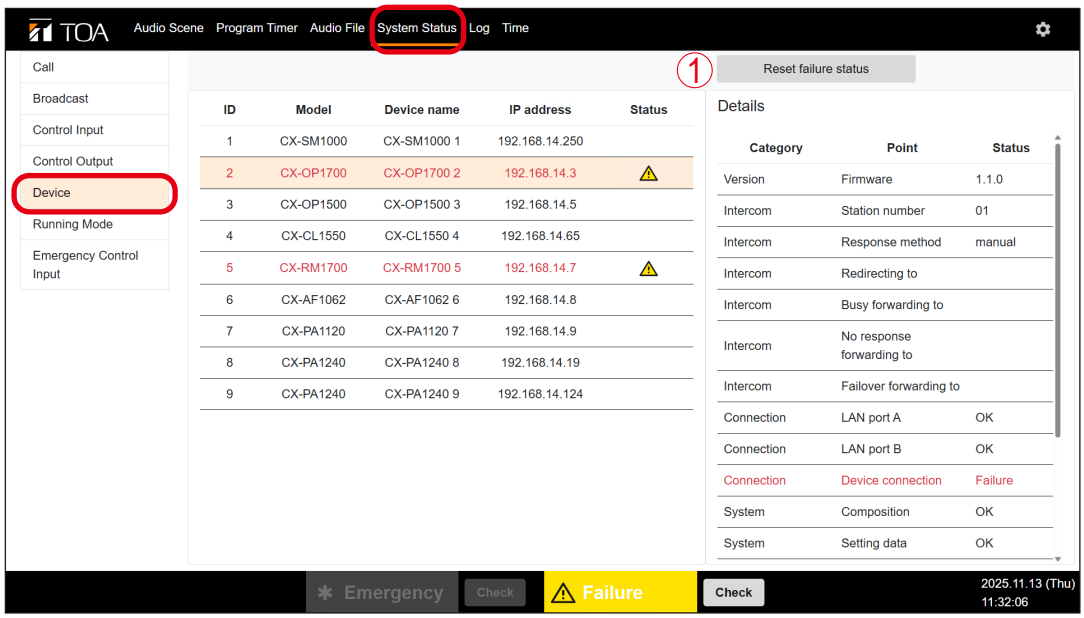
5.5.5. Device monitor

If Device is selected from the side menu, the following screen is displayed.
The status of each connected device can be monitored.
All the devices in the base are displayed in list format.
Devices that have failed are indicated in red.
Clicking on a device displays its information details on the right side of the screen.

[Normal status display]



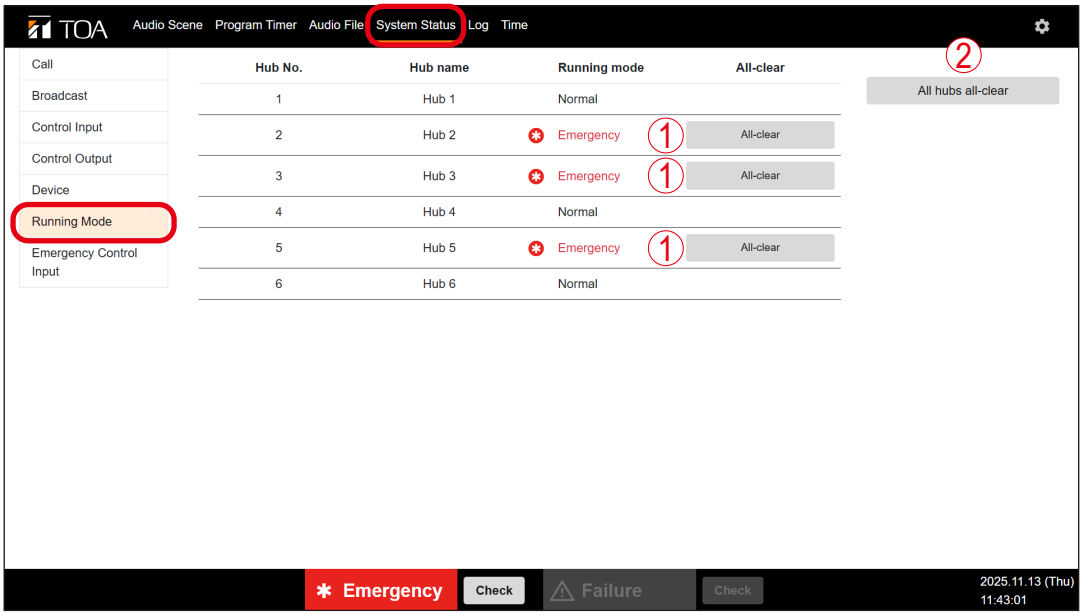
[Status display when a failure is detected]



(1) Reset failure status button
This button is enabled when a failure is detected.
Clicking on this button resets all failure information.

5.5.6. Emergency mode monitor (Only when Emergency mode is enabled)

If Emergency Mode is selected from the side menu, the following screen is displayed.
The operating mode of each hub (Normal or Emergency) can be monitored.
Emergency mode can be restored by clicking either the All-clear button or the All hubs all-clear button.

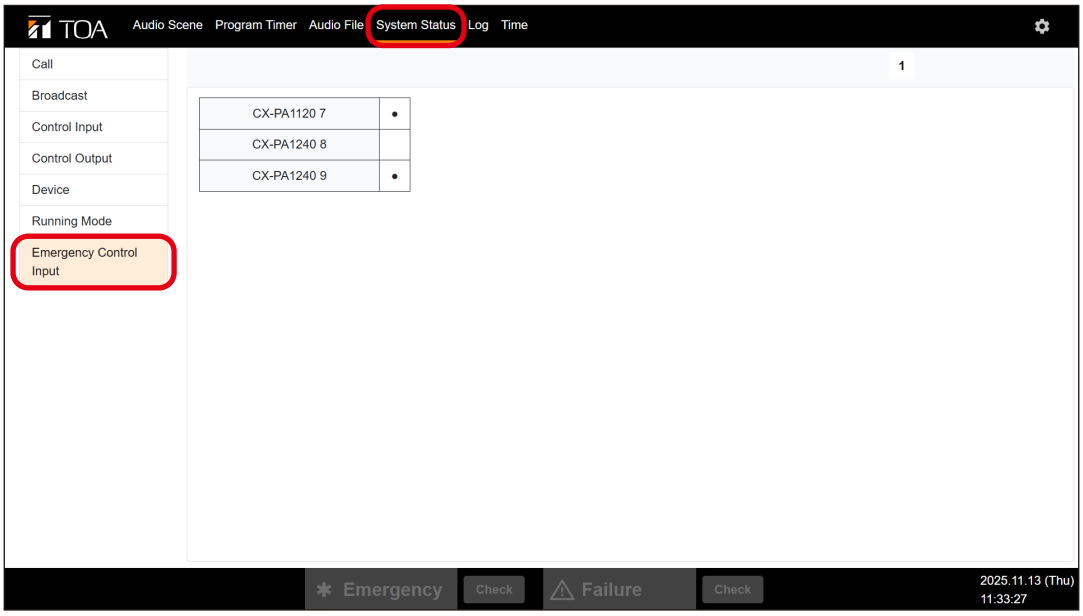


(1) All-clear button
Click on this button to restore Emergency mode. When Hub function is enabled, restoration can be done for each base.

(2) All hubs all-clear button (Only when Hub function is enabled)
Enabled whenever multiple hubs are in Emergency mode. Press this button to restore Emergency mode for all hubs.

5.5.7. Emergency control input monitor

If Emergency Control Input is selected from the side menu, the following screen is displayed.
The Emergency Control Input status of CX-PA1120/PA1240 can be monitored.
The Emergency Control Input reception status of each CX-PA1120/PA1240 is displayed in table format.
When the 24 V DC power is provided, a [●] mark is displayed. It is displayed regardless of whether the Emergency Control Input is enabled or disabled.



5.6. Logs

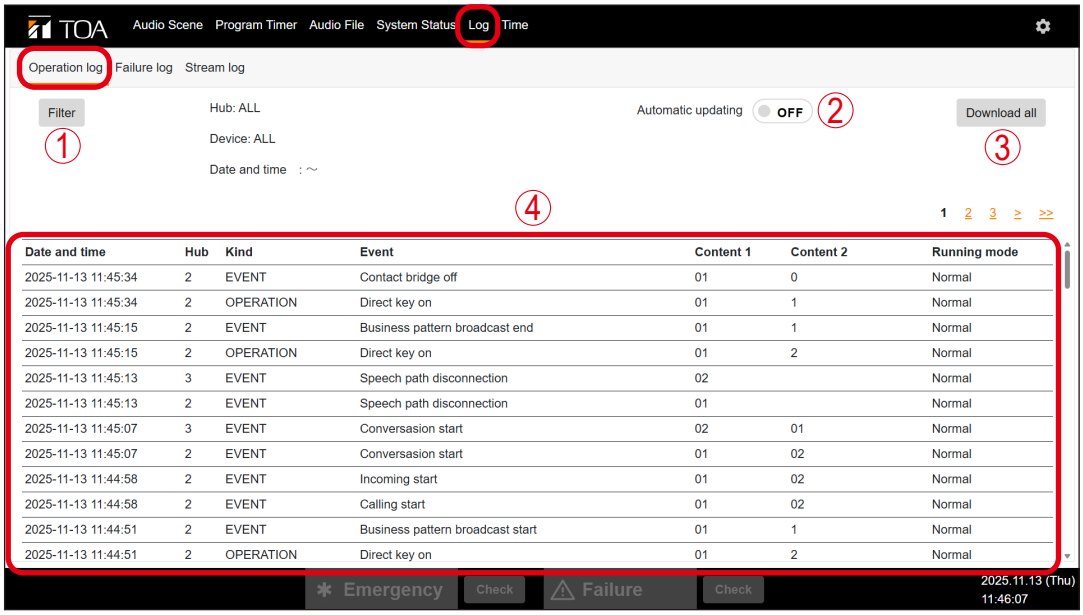
System logs can be easily confirmed whenever Log in the Operation view is clicked on. When Hub function is enabled, only hub logs for which access has been permitted in the user settings are displayed.

Three categories of Logs can be displayed. Select the category from the tab at the top of the screen.

- Operation log: Information on operations, events, changes in device or system status, and operation failures are recorded in these logs. Up to a total of 100,000 entries, including both operation and failure logs, can be displayed.
- Failure log: This log records any failures detected by the device's failure detection function. Up to a total of 100,000 entries, including both operation and failure logs, can be displayed.
- Stream log: This log is related to streaming that occurs when a broadcast or call is made. Up to 10,000 entries can be displayed.
  The Stream log can only be checked using the ID set as No.1 in the CX-1000 Setting software under [Security] → [ID/Password] at the time of upload from the Setting software.
  (See "SECURITY SETTINGS" in the separate Setting software instructions.)

5.6.1. Operation log

When Operation log is clicked on, the following screen appears:



(1) Filter button
Operation log contents displayed by hub (only when Hub function is enabled), device, and date and time can be filtered. (See "Filtering" on p. 38.)

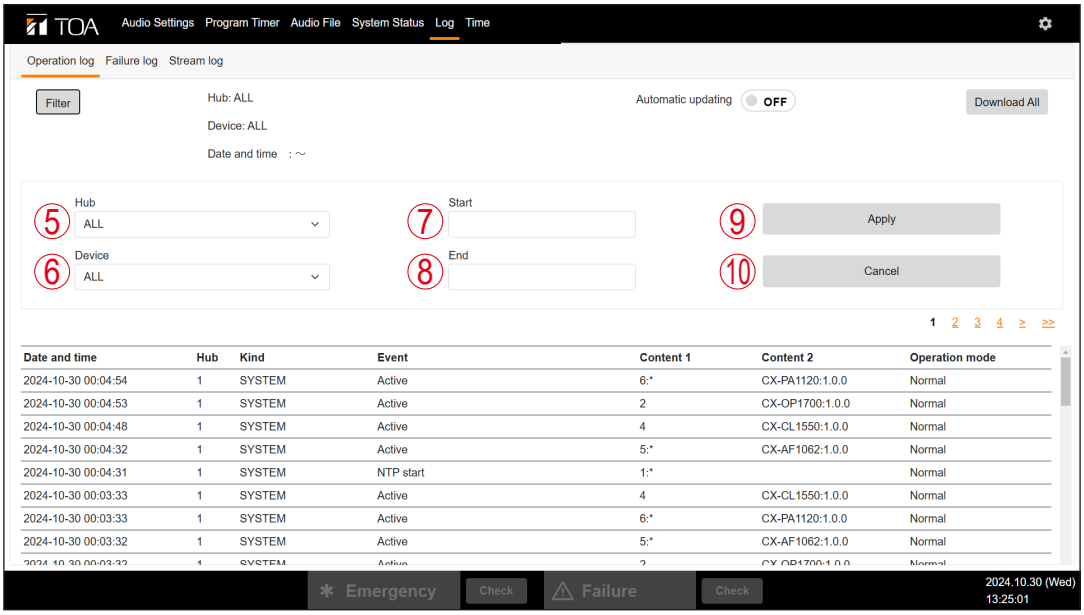
(2) Automatic updating switch
When set to ON, the display is automatically updated whenever the operation log is added while being displayed.
If set to OFF, the display is not updated, even when an operation log is added during a display.

(3) Download all button
Operation log contents can be downloaded in text file format.

(4) Operation log list
Operation logs are displayed according to the conditions of the Filter button (1) and the Automatic updating button (2).

[Filtering]

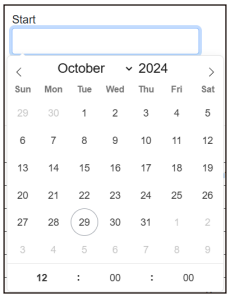
When the Filter button is clicked, the following screen is displayed for more detailed filtering settings:



(5) Hub selection (Only when Hub function is enabled)
Select Hub from the pulldown menu.

(6) Device selection
Select the device from the pull-down menu.

(7) Start selection
Click to display the calendar where the start date and time can be selected.



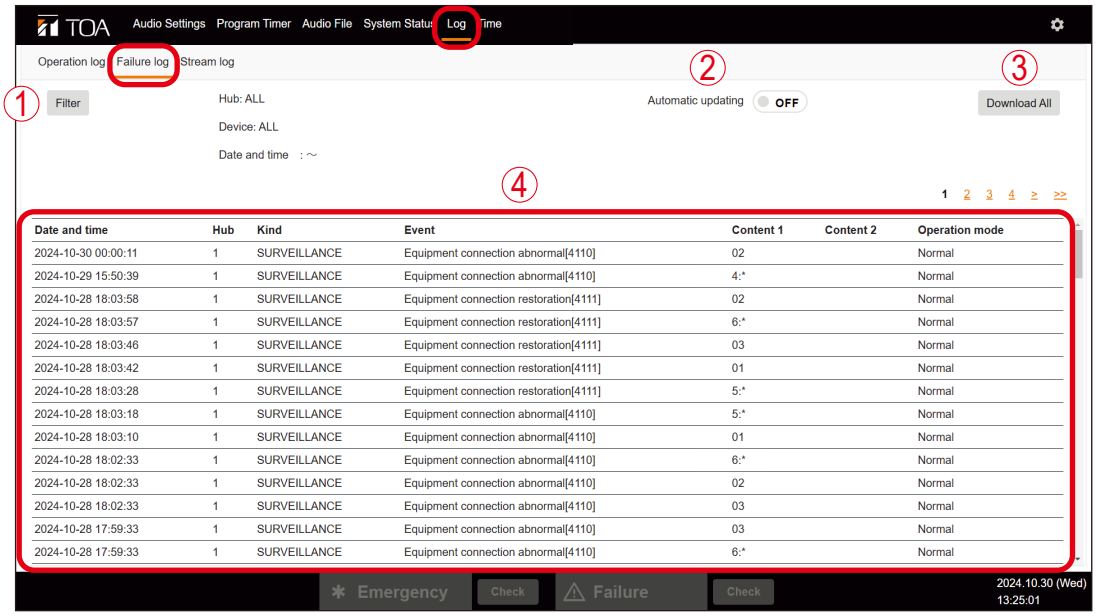
(8) End selection
Click to display the calendar where the end date and time can be selected.

(9) Apply button
Displays the operation log based on the contents selected in Items (5) – (8).

(10) Cancel button
Cancels filtering.

5.6.2. Failure log

When Failure log is clicked on, the following screen appears:
A log of any failures that may have occurred. The date and time of the failure and the date and time that the confirmation operation was performed are recorded.



(1) Filter button
Operation log contents displayed by hub (only when hub function is enabled), device, and date and time can be filtered. The filtering method is the same as for the operation log. (See "Filtering" on p. 38.)

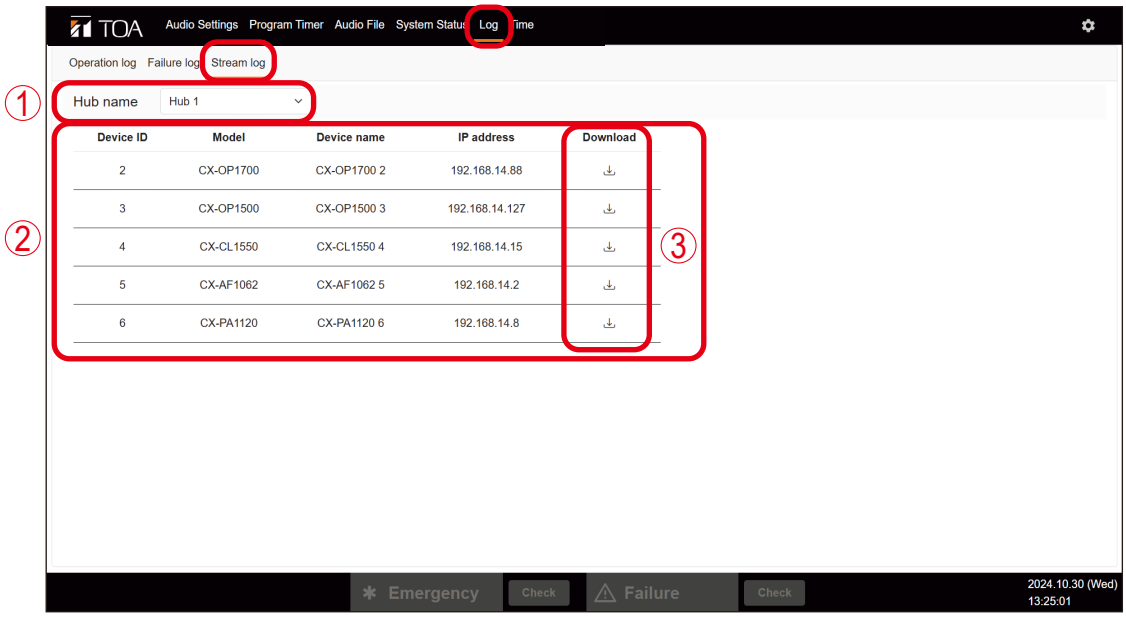
(2) Automatic updating button
When set to ON, the display is automatically updated whenever the failure log is added while being displayed.
If set to OFF, the display is not updated, even when an failure log is added during a display.

(3) Download All button
Failure log contents can be downloaded in text file format.

(4) Failure log list
Failure logs are displayed according to the conditions of the Filter button (1) and the Automatic updating button (2).

5.6.3. Stream log

When Stream log is clicked on, the following screen appears. Stream logs monitor streaming that occurs during broadcasts or calls. These can also be downloaded.



(1) Hub name selection (Only when Hub function is enabled)
Select the base to be displayed.

(2) Registered device list
The list of registered devices is displayed.

(3) Download button
Stream logs can be downloaded in text file format for each device. (See "Download Procedure" on p. 41.)

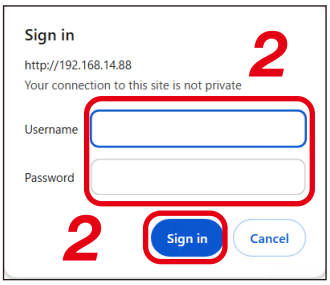
[Download Procedure]

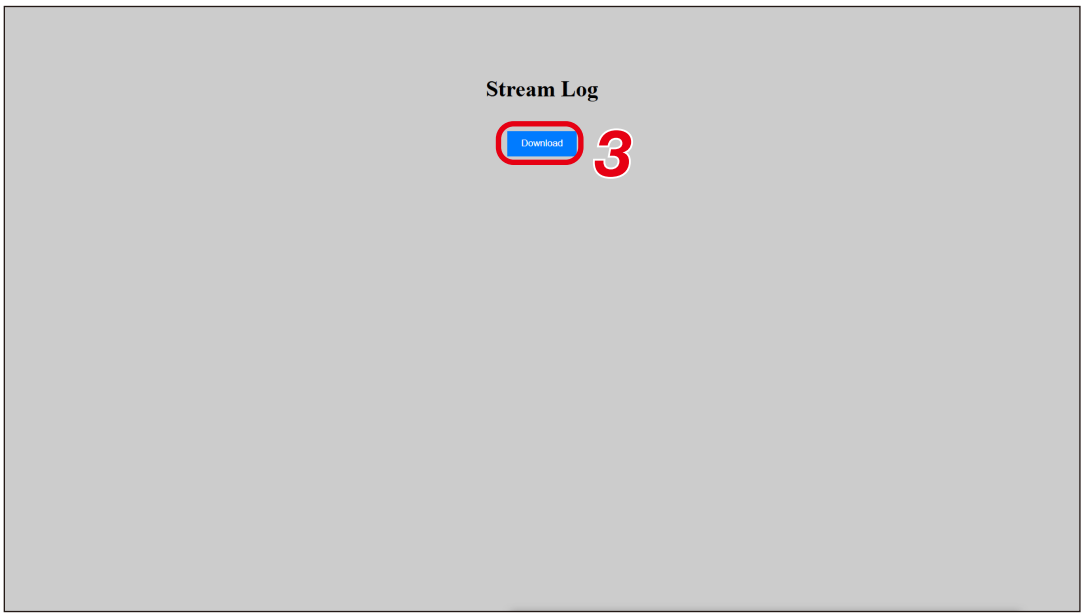
Step 1. Click the Download button.
The Sign in screen is displayed.



Step 2. Enter the user name and password and click the Sign in button.
Enter the ID (Username) and password of the No. 1 account, set when uploaded from the CX-1000 Setting software.

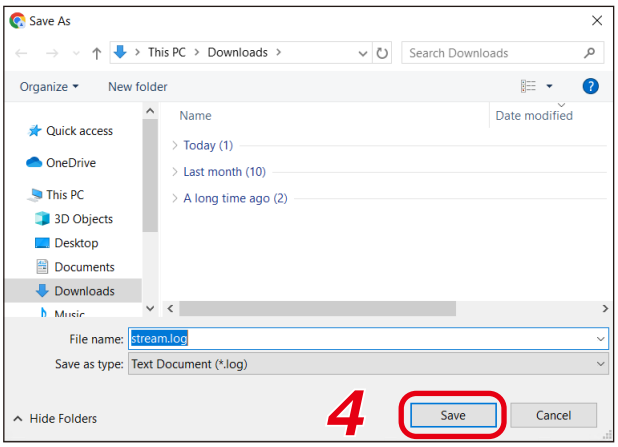
The device's stream log page opens.





Step 3. Click the Download button.
The Save As dialog appears.

Step 4. Specify the save destination and click the Save button.

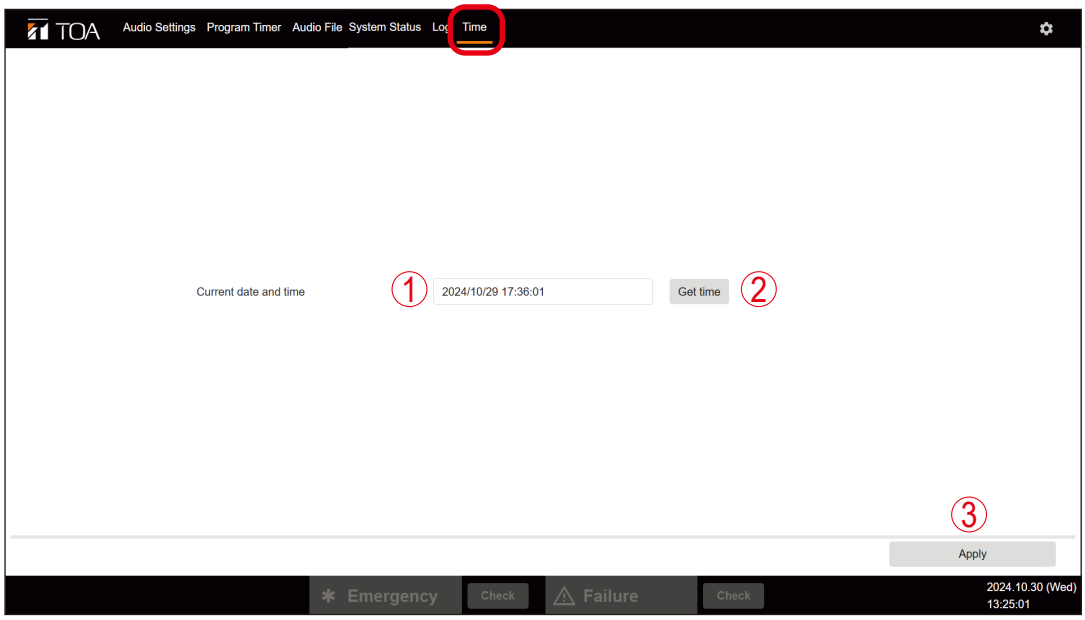


5.7. Date and time

When Time in the Operation view is clicked on, the following screen appears. The date and time of the System Manager can be displayed and set.
If an NTP server is configured for use, the date and time of the System Manager will be periodically synchronized by the NTP server.
Use the CX-1000 Setting software to set up the NTP server. For details, refer to the section DSN/NTP/ICMP Settings in the separate Setting software instructions.

Note

Do not change the date or time while a call, a broadcast, or other event is in progress. The system may not work correctly.



(1) Time input box
Any time can be entered.

(2) Get time button
Clicking this button permits you to access the clock of the PC currently displaying either the Operation or Maintenance views.

(3) Apply button
Sets the date and time displayed in Time input box (1) for the System Manager.

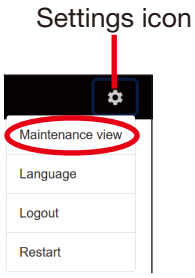
6. MAINTENANCE VIEW (Administrator and Maintenance privileges only)

6.1. Screen Description

To display, select Maintenance view from the settings icon in the upper right corner of the screen.
The Maintenance menu is displayed at the top of the screen. Select the maintenance item to be performed.
In the Maintenance view, devices can be inspected, System Manager network parameters can be set, and login IDs can be added, changed or deleted.

Note

During Maintenance privilege operation, the Maintenance view will not be displayed if the failure detection function is disabled.





(1) Self-check (Only when Failure detection function is enabled)
Set up and conduct self-checks. (See p. 44.)

(2) Network (Administrator privileges only)
Set up the System Manager's network parameters. (See p. 47.)

(3) Login ID (Administrator privileges only)
Edit the Login ID, password and privilege. (See p. 48.)

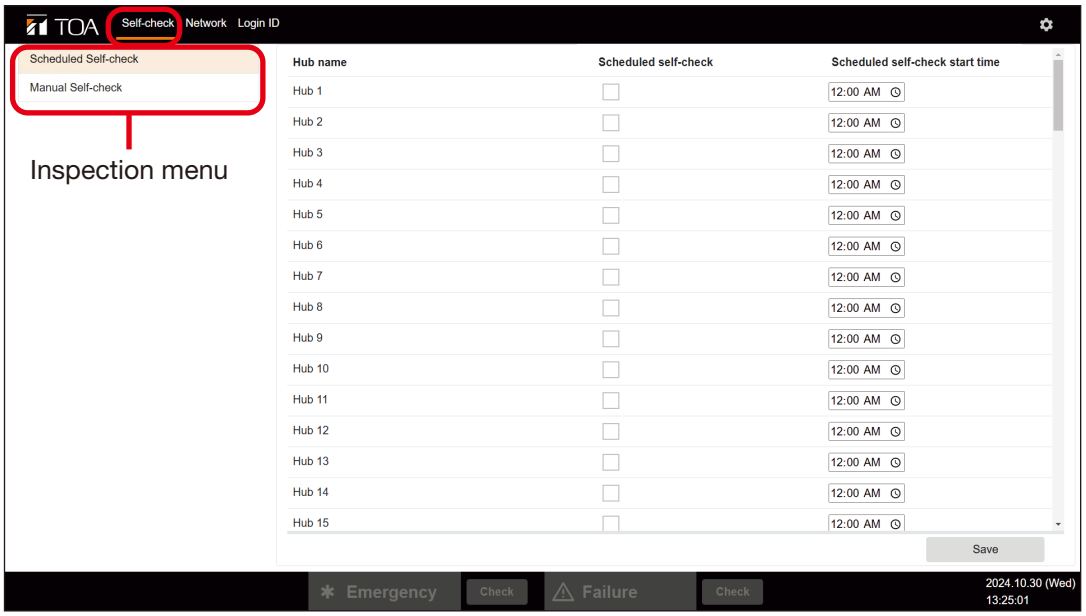
6.2. Inspection

Clicking on Self-check on the Maintenance menu displays the following screen.
Click on each item in the Inspection menu to perform settings and carry out those operations related to inspection.

Note

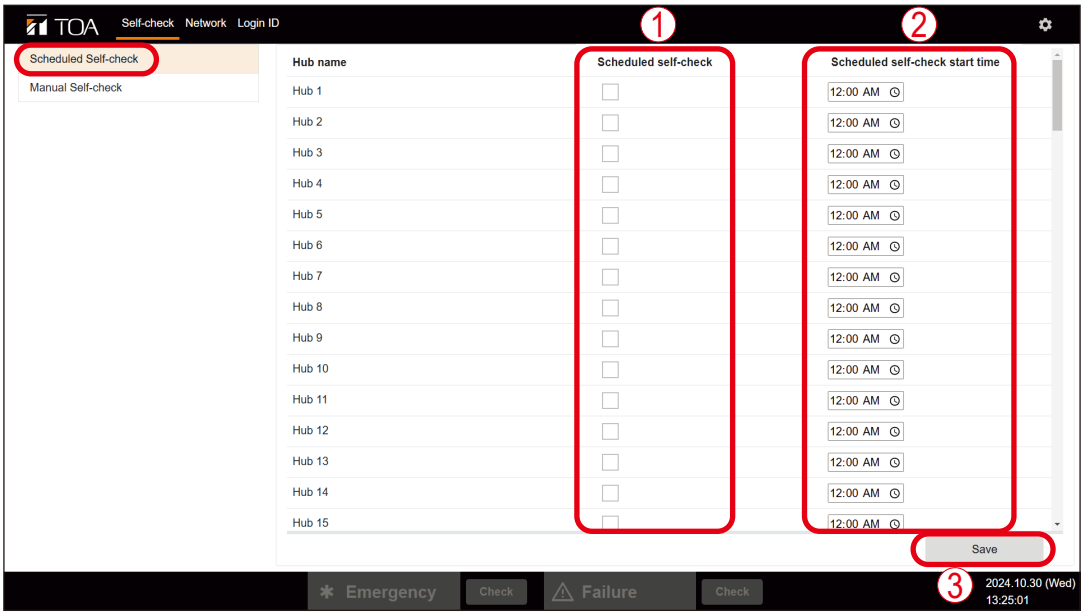
Never move pages (by pressing ←/→ in the upper left corner of the screen), reload (by pressing ↻ in the upper left corner of the screen), or close the browser (by pressing X in the upper right corner of the screen) without first double-checking to confirm the changes.
Settings revert to those in place before change.





6.2.1. Scheduled self-check

When Scheduled Self-check on the Self-check menu is clicked on, the following screen appears.
All CX-1000 series devices feature an internal self-check function.
Base self-inspection can be performed whenever the base function is enabled, along with the inspection's start time. Only those bases having at least one device attached to them are displayed.



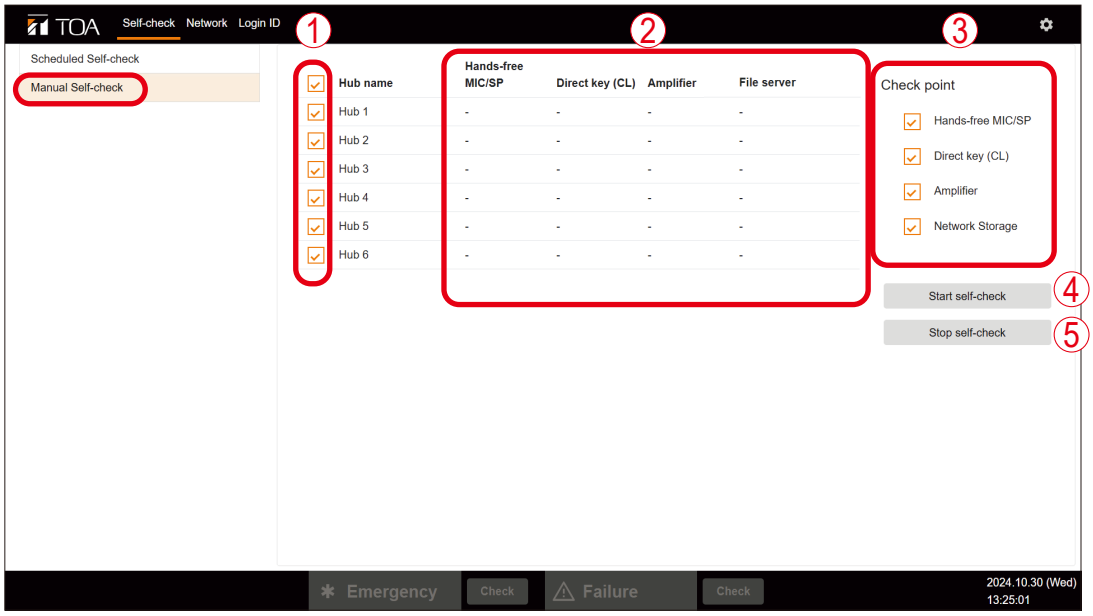
(1) Scheduled self-check checkbox
When this check box is checked, the self-check will start at the preset time set in Scheduled self-check start time (2).

(2) Scheduled self-check start time
Set the time to commence self-check.

(3) Save button
Saves all settings.

6.2.2. Manual self-check

When Manual Self-check on the Self-check menu is clicked on, the following screen is displayed.
Normally, self-checks are automatically conducted at the time specified on the preceding page, but they can also be performed manually by using this screen.



(1) Hub name checkbox
Click the checkbox corresponding to the hub to be inspected.

(2) Self-check results display
Once the self-check is finished, its result will be displayed.

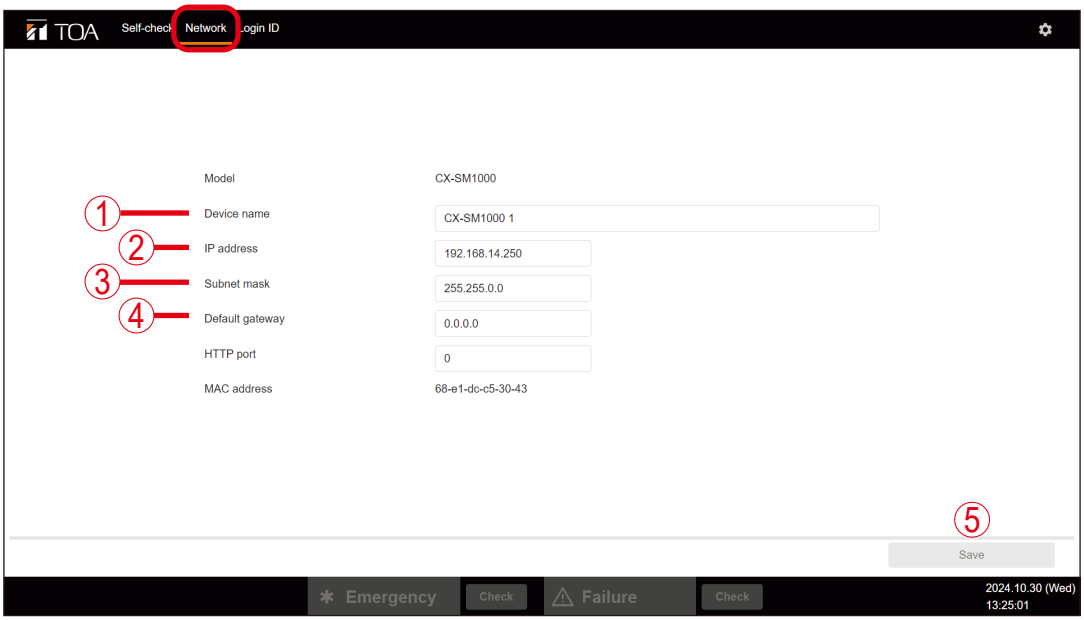
(3) Check point checkbox
Click the checkbox for the desired inspection items.

(4) Start self-check button
Clicking this button will cause each checked device on the hub to perform a self-check set in item (1).

(5) Stop self-check button
Clicking this button stops the inspection during self-check.

6.3. Network (Administrator privileges only)

Clicking on Network in the Maintenance menu displays the following screen. Here all network parameters for the System Manager can be set.



(1) Device name

Enter the name of the System Manager.

Available Settings	Up to 32 alphanumeric characters and space (default: CX-SM1000 + ID, for example, "CX-SM1000 1") Only 8 symbols can be used: "!", "@", "#", "$", "%", "&", "-", and "_".

(2) IP address

Enter the IP address for the System Manager.

Set an address that doesn't duplicate the IP address of other devices.

Available Settings	0.0.0.0 – 223.255.255.255 (default: 196.168.x.y)*

* x and y will be determined by the device ID:
  x = quotient of ID/100 + 1
  y = remainder of ID/100 + 1
  Example: 192.168.1.1 for ID 0.

(3) Subnet mask

Enter the subnet mask of the System Manager.

Available Settings	Subnet mask IP address (default: 255.255.255.0)

(4) Default gateway

Enter the default gateway of the System Manager.

Available Settings	0.0.0.0 – 223.255.255.255 (default: 0.0.0.0)

(5) Save button

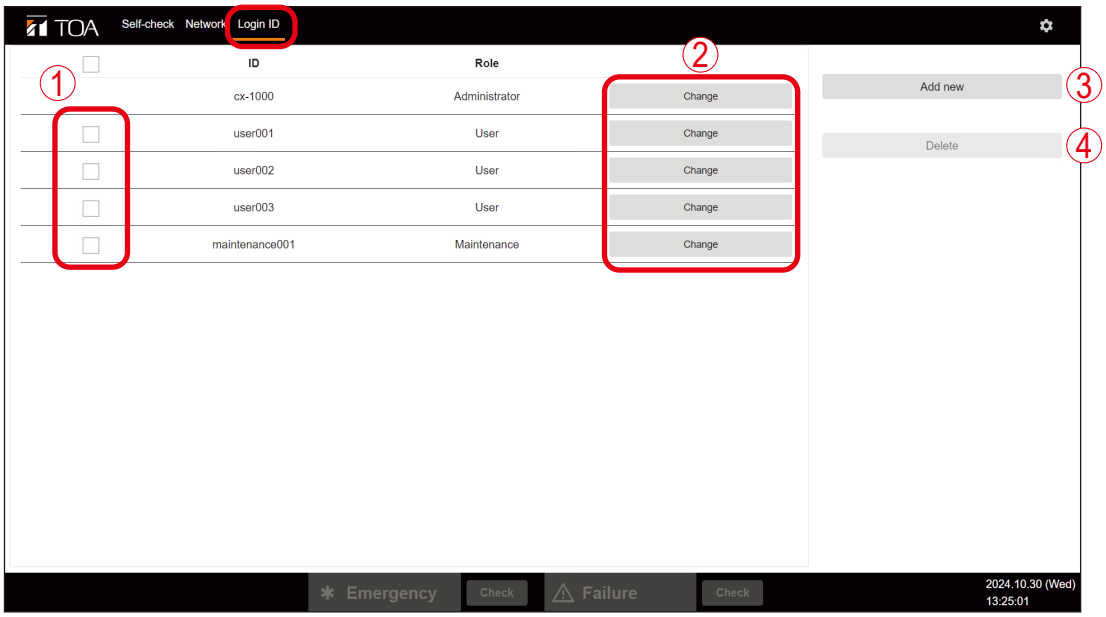
Saves all settings.

6.4. Login ID (Administrator privileges only)

Clicking on Login ID in the Maintenance menu displays the following screen.
The list of Login IDs allowing access to the System Manager is displayed.
IDs can be added, changed or deleted.

Note

The ID of the logged in Administrator cannot be deleted, nor can its privileges be changed. Although the ID and password can be changed, if the ID is changed, it will be necessary to log out once, then log in again.



(1) ID Checkboxes

Click on the corresponding checkbox to delete an ID.

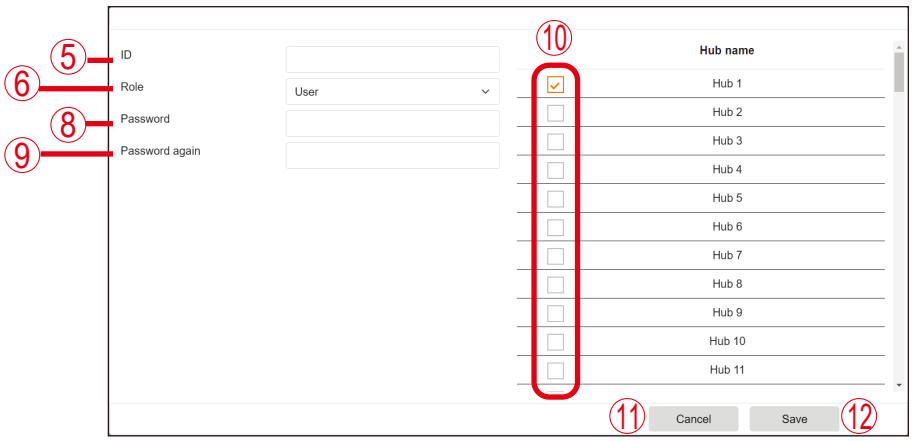
(2) Change button

Editing is enabled by clicking the Change button for the ID to be modified. The screen below appears, showing the ID parameters that can be changed.



(3) Add New button

Clicking the Add New button displays the following screen, which allows parameters to be added to the ID.



(4) Delete button

Clicking on this button deletes the ID selected in Item (1).

(5) ID

Set the ID to be used at login.

Available Settings	7 – 32 characters (default: blank) Only 8 symbols can be used: "!", "@", "#", "$", "%", "&", "-", and "_". Blank spaces cannot be used.

(6) Role

Set the privilege level for the ID.

Available Settings	Administrator, User (default), Maintenance

(7) Current Password

Enter the current ID password.

(8) Password

Enter a new ID password.

Available Settings	5 – 32 characters (default: blank) Only 8 symbols can be used: "!", "@", "#", "$", "%", "&", "-", and "_". Blank spaces cannot be used.

(9) Password again

Re-enter the password set in Item (8).

(10) Hub name

Set the hubs that can be viewed with the currently selected ID.

Available Settings	Checked, Unchecked (default: Hub No.1 only checked)

Notes

- Displayed only when Hub function is enabled.
- Can only be set when Role (6) is User.

(11) Cancel button

Cancels editing.

(12) Save button

Saves all settings.

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