YAMAHA

RM Series Wireless Microphone System

MICROPHONE ACCESS POINT
RM-WAP-16 RM-WAP-8

WIRELESS MICROPHONE
RM-WOM RM-WDR RM-WGL RM-WGS

MICROPHONE CHARGER
RM-WCH-8

Web GUI Device Manager Operation Guide

EN

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Introduction

This document provides details on the functions of the Web GUI "RM-W Device Manager" as well as details on using this application software to configure and operate the Yamaha RM series wireless microphone system.

In addition, this document complements the Reference Manual for the RM Series Wireless Microphone System. The Reference Manual provides comprehensive details on connecting and using the device. Be sure to read that as well.

About this manual

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- The explanations in this Operation Guide are based on the latest specifications at the time of publication. The latest version can be downloaded from the Yamaha website.

  Yamaha website

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About the software interface

This software requires a browser application on a computer. Configure the device by specifying settings in the screens displayed in the browser.

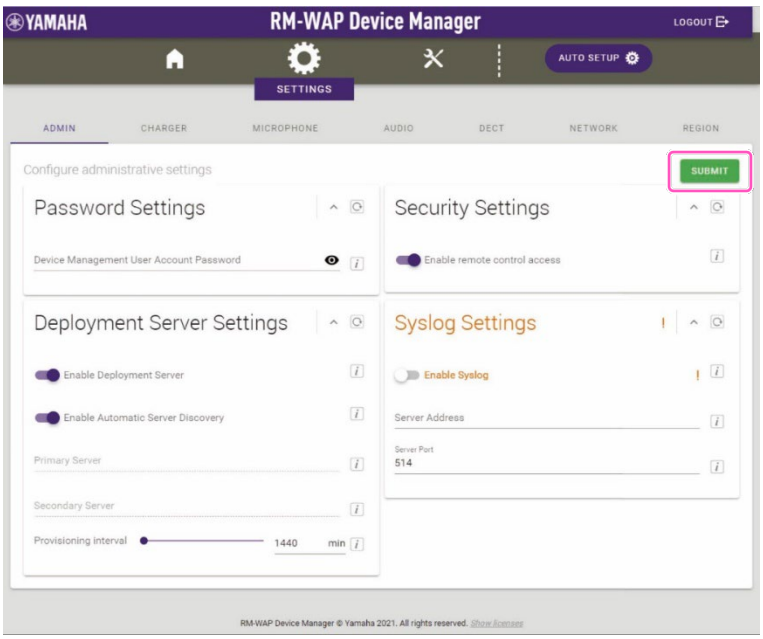
Useful icons in screens

The screens of this software have various icons that are useful for providing details on the functions and for checking the status of the device.

	Information icon	Move the pointer to this icon to see more information about the item.
	Reload button	Click to update the screen contents.
	Identify button	Click to cause the indicator of the corresponding device to flash.
	Link button	Click to go to another window for the item.

Applying settings specified in software screens

Be sure to click the [SUBMIT] button after changing settings in Device Manager. The [SUBMIT] button is always in the upper-right corner of the window.



Screen structure of Web GUI “RM-WAP Device Manager”

Refer to the page listed to the right for details on each item available in the various screens.

Menu	Tab	Item	Page
[HOME]			
		[System Status]	7
		[LED Indication Status]	8
		[Clock Synchronization Status]	8
		[Microphone Charger Status]	9
		[Microphone Status]	9
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	[NETWORK]	[Network]	22
		[Dante Network]	24
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		[Locale]	26
		[Daylight Saving Settings]	26
[TOOLS]			
	[SITE SURVEY]	[Export History]	29
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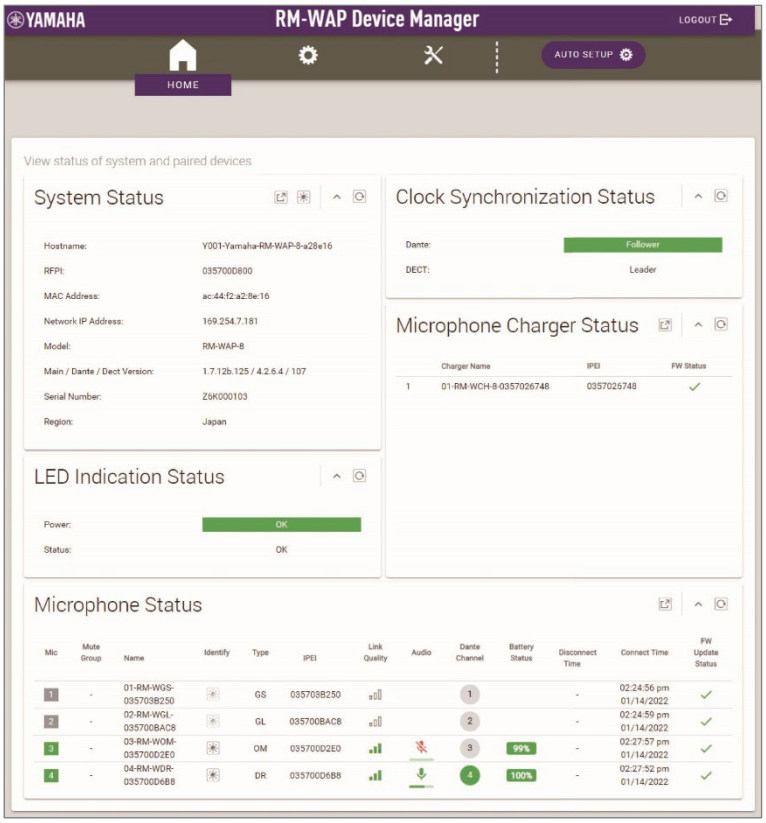
		[Upload New Firmware]	32
	[CONFIGURATION]	[Export Configuration]	33
		[Import Configuration]	33
		[Reset Defaults]	34
	[LOGS]	[Logs]	35

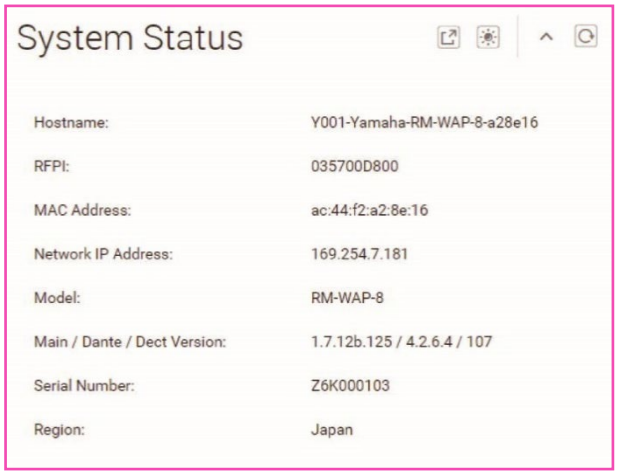
[HOME]

In the [Home] screen, you can check various status information.



① [System Status]

Displays basic information about the access point.

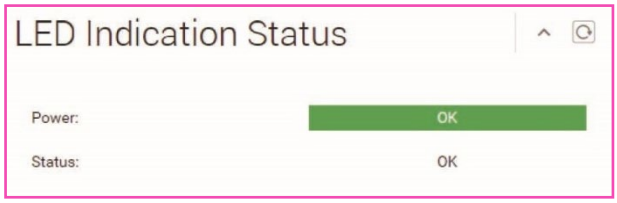


Item	Description
Hostname	Displays the hostname.
RFPI	Displays the identification number of the access point for DECT communication. RFPI（Radio Fixed Part Identity）

MAC Address	Displays the MAC address.
Network IP Address	Displays the network IP address.
Model	Displays the model name.
Main / Dante / Dect Version	Displays the versions of the device/Dante/DECT.
Serial Number	Displays the serial number.
Region	Displays the country or region where this unit can be used.

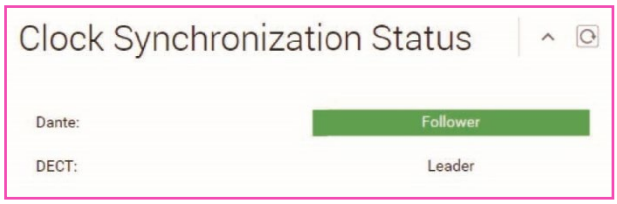
② [LED Indication Status]

Displays the status of the access point indicators.



Item	Indication	Unit status
Power	"OK" (green)	Operating
Status	"OK" (white)	Normal status
	"Firmware Updating" (white)	Firmware being updated
	"Pairing" (blue)	Pairing standby/Pairing
	"Identify" (red)	Responding to Identify function

③ [Clock Synchronization Status]



Item	Description
Dante	Displays the status of the Dante word clock. • [Leader] • [Follower] If there is an abnormality in the word clock, this appears in orange.
DECT	Displays the status of the DECT frame synchronization. • [Leader] • [Follower]

When multiple access points are set up in the same group, one will be the "Leader" and the others will be "Follower". The access point group settings can be specified via [SETTINGS] > [DECT] > [DECT Synchronization].

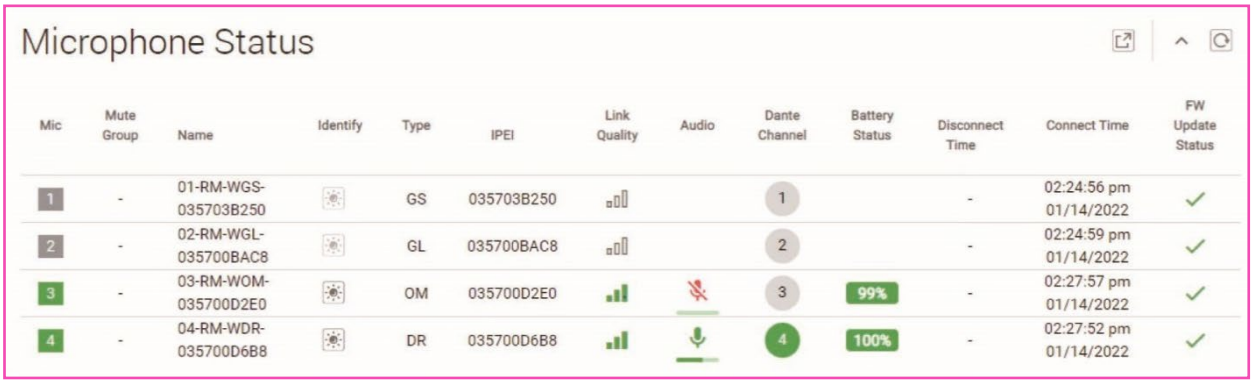
④ [Microphone Charger Status]

Displays the charger name.

Item	Description
Charger Name	Displays the charger name.
IPEI	Identification number of the DECT module IPEI（International Portable Equipment Identity）
FW Status	Displays the firmware update status. If the firmware must be updated, appears. Update the firmware via [TOOLS] > [UPDATE] > [Firmware Update].

⑤ [Microphone Status]

Displays the statuses of the microphones.



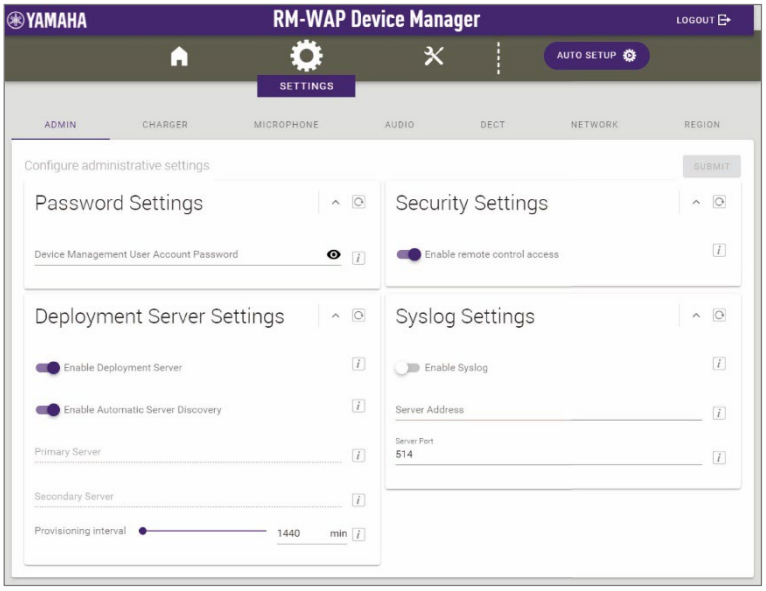
Item	Description
Mic	Displays the microphone number.
Mute Group	Displays the group number used for the group mute function of the microphones.
Name	Displays the microphone name. The microphone name can be changed via [SETTINGS] > [MICROPHONE] > [Microphone Name].
Type	Displays the microphone type. • "OM": Omnidirectional • "DR": Directional

	• "GL": Gooseneck (long) • "GS": Gooseneck (short)
IPEI	Identification number of the DECT module IPEI（International Portable Equipment Identity）
Link Quality	Displays the strength of the radio wave as one of four levels indicated by the number of bars. 3 green bars: Signal strength of –50 dBm or more 2 orange bars: Signal strength of –70 dBm to –50 dBm 1 orange bar: Signal strength of –70 dBm or less 0 white bars: Disconnected
Audio	Click the icon to turn on/off the microphone.
Dante Channel	Displays the Dante channel.
Battery Status	Indicates the remaining charge of the battery by a percentage and a color. Red: 3% to 10%, 1 to 3 hours Yellow: 10% to 50%, 3 to 15 hours Green: 50% or more, 15 hours or more
Disconnect Time	Displays the time at which the microphone and access point were disconnected.
Connect Time	Displays the time at which the microphone and access point were connected.
FW Update Status	Displays the firmware update status. If the firmware must be updated, appears. Update the firmware via [TOOLS] > [UPDATE] > [Firmware Update].

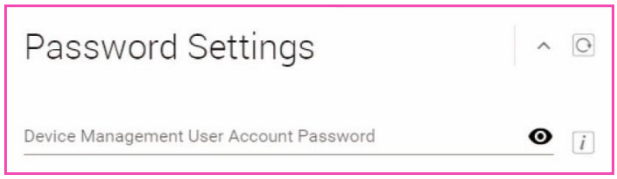
[SETTINGS]

[ADMIN]

In the [ADMIN] screen, you can specify system administration settings.

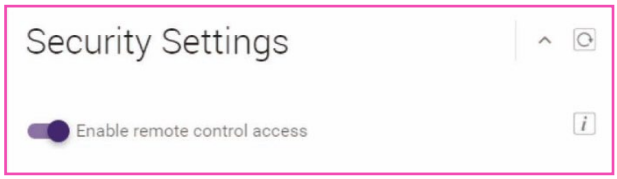


① [Password Settings]



Item	Description
Device Management User Account Password	Specify the password for logging in to RM-WAP Device Manager. (4 to 16 alphanumeric characters)

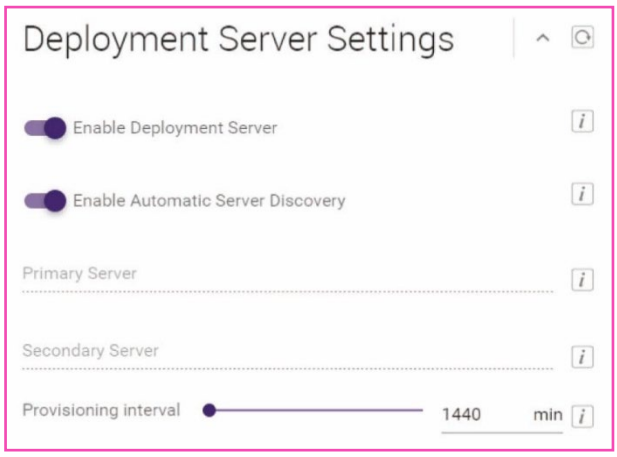
② [Security Settings]



Item	Description
Enable remote control access	Select whether to activate remote control. This must be activated for the access point to link to the RM-CR. For details on remote control, refer to the RM Series Remote Control Protocol Specifications.

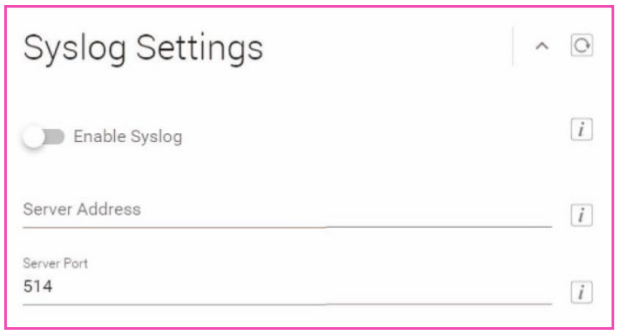
③ [Deployment Server Settings]

By using a deployment server, the device configuration file can be automatically acquired and applied to the device.



Item	Description
Enable deployment server	Select whether to use a deployment server. Default setting: Activated
Enable automatic server discovery	Select whether to use the automatic discovery feature of the deployment server. When this is not activated, specify the IP address of the deployment server. • **[Primary server]** • **[Secondary server]** Default setting: Activated
Provisioning interval	Specify the deployment server provisioning interval (in minutes). Default setting: 1,440 minutes (1 day) Setting range: 0 to 44,640 minutes (31 days)

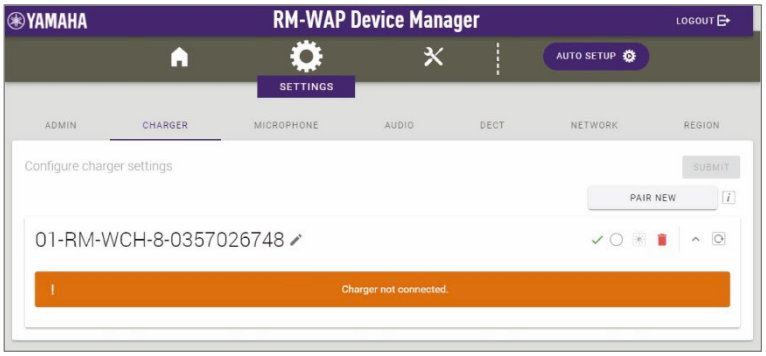
④ [Syslog Settings]



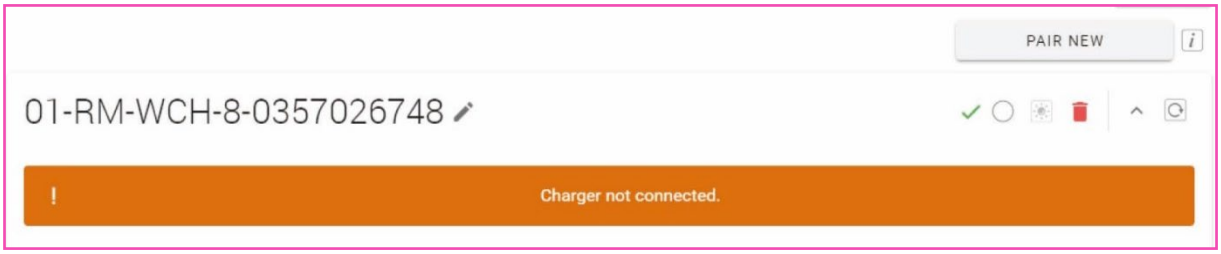
Item	Description
Enable Syslog	Select whether to use a syslog server. When this is activated, specify settings for the following. • **[Server Address]** • **[Server Port]** (Default setting: 514)

[CHARGER]

In the [CHARGER] screen, you can pair and connect the access point and charger.



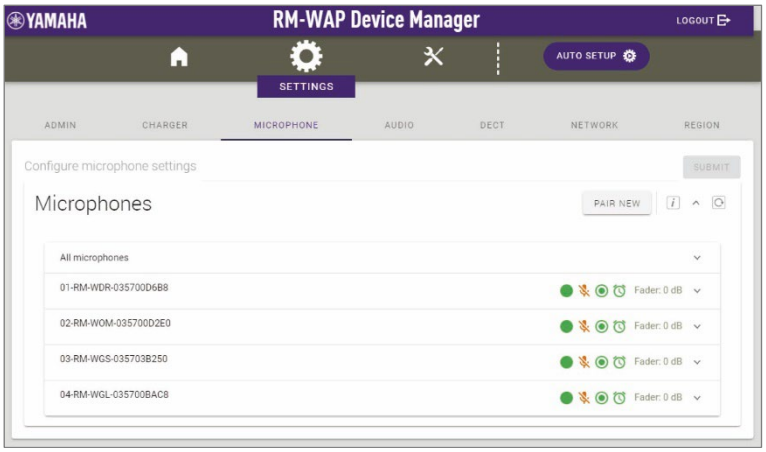
① [Chargers]



Item	Description
PAIR NEW	Click to put the access point in pairing standby mode. Then, long-press the PAIR button (on the bottom panel of the charger) for at least 2 seconds to pair. When pairing is finished, the charger name appears in the screen.
Charger name	Specify the name of the charger. To change the name of the charger, click ✎.
[○] / [●]	Click to change the connection status of the charger. • [○]: Disconnect • [●]: Connect
🗑	Click to cancel pairing of the charger.

[MICROPHONE]

In the [MICROPHONE] screen, you can pair the access point and microphones.



① [Microphones]

- Allows you to pair the access point and microphones.

Item	Description
PAIR NEW	Click to put the access point in pairing standby mode. Then, long-press the PAIR button (on the bottom panel of the microphone) for at least 2 seconds to pair. When pairing is finished, the microphone name appears in the screen.
Start Mode	Displays the start mode of the microphone after removing it from the charger or after installing the battery. : Starts up in Start Up mode. : Starts up in Standby mode.
Start Mute Mode	Displays the mute mode that the microphone enters after it has established a wireless connection with RM-WAP. : The microphone starts up with the mode turned off. : The microphone starts up with the mode turned on.
Mic Button Behavior	Displays the operation of the Mic button. : The Mic button operates in Toggle mode.

	Touch the Mic button to turn the microphone on/off. : The Mic button operates in Push to talk mode. The microphone is on while the Mic button is touched. Multiple devices cannot be used to talk at the same time. : The Mic button is deactivated. Operation of the Mic button is deactivated.
Alarm when out of area	Displays the setting that confirms (by the flashing Mic indicator) that the microphone is out of range for a DECT connection. : The alarm when out of range for DECT connection is on. : The alarm when out of range for DECT connection is off.
Fader Level	Displays the microphone fader level. Setting range: –128dB to +12dB

- Click a row containing the name of a microphone to expand the settings section.

- Allows you to check/change microphone settings.

Item	Description
Microphone Name	Specify the microphone name.
Group	Allows you to group the microphones. When grouped, all microphones with the same group number are synchronized with the one turned on/off. To use the group mute function in an environment where the RM-CR is also used, select [SETTINGS] > [Peripheral] > [DEVICE SETTINGS] > [Enable microphone group mute control] on RM-CR. As a default, this function is deactivated.
Start Mode	Select the start mode of the microphone after removing it from the charger or after installing the battery.

	• [START UP] • [STANDBY]
Start Mute Mode	Select the mute mode that the microphone enters after it has established a wireless connection with RM-WAP. • [MUTE ON] • [MUTE OFF]
Mic Button Behavior	Select the operation of the Mic button. • [TOGGLE] • [PUSH TO TALK] (only with RM-WGL/RM-WGS) • [DISABLE]
Alarm when out of area	Select whether the Mic indicator flashes to indicate that the microphone is out of range for a DECT connection.
Fader Level	Specify the microphone fader level. Setting range: –128 dB to +12 dB
High Pass Filter	Select the High Pass filter setting. [None / 110 Hz / 140 Hz / 175 Hz / 225 Hz]
Low Pass Filter	Select the Low Pass filter setting. [None / 4 kHz / 8 kHz / 12 kHz]
	Click to cancel pairing.

Item	Description
Low Latency	When [Low Latency] is activated, processing of the following Advanced Audio Settings can be bypassed to reduce audio delay. Input Gain, Adaptive Echo Canceller, Noise Reduction, Dereverberation, AGC and PEQ When this device is used in combination with RM-CR, deactivate [Low Latency]. Default setting: Deactivated

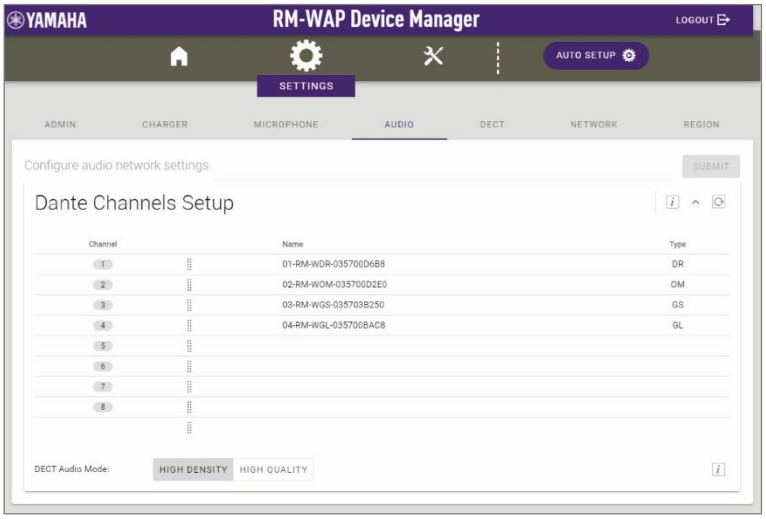
Input Gain	Select the microphone input gain. [Off (0 dB) / Low (6 dB) / Medium (12 dB) / High (18 dB)]
Adaptive Echo Canceller	This function eliminates constant noise, such as air conditioning or echoes from loudspeakers or from wall reflections, which are problematic during remote conferences. Select the strength of the echo canceller. • [Off] : The echo canceller is not used. • [Low] : Suppresses echo while maintaining the quality of the original audio. • [Medium] (default setting): This setting provides a good balance between sound quality and echo cancellation strength. • [High] : Applies a strong echo canceller. Select this for rooms with long reverberation times or rooms where echoes are likely to occur.
Noise Reduction	Select the noise reduction strength for stationary noise. • [Off] : Noise reduction is not used. • [Low] : Suppresses stationary noise while maintaining the quality of the original audio. • [Medium] (default setting): This setting provides a good balance between sound quality and noise reduction strength. • [High] : Applies strong noise reduction. Select this for a room with stationary noise from a large fan or air conditioning system.
Dereverberation	This function removes reverberation components from audio in order to make the audio clearer. Select the strength of the removal of reverberation components. • [Off] : Dereverberation is not used. • [Low] : Select this for a room with short reverberation times. • [Medium] (default setting): This setting can be used in normal environments. This setting provides a good balance between sound quality and dereverberation strength. • [High] : Applies strong dereverberation. Select this for rooms with long reverberation times, such as rooms with glass walls.
AGC Type	AGC (Auto Gain Control) is a function that automatically adjusts the output gain in order to stabilize the audio level. It increases the volume level of soft voices and decreases the volume of excessively loud voices. Select the AGC strength. • [Off] :

	AGC is not used. • [Low] (default setting): This setting provides well-balanced volume changes. • [High] : Applies strong AGC.
AGC Speed	Select the reaction speed for AGC volume changes. • [Low] (default setting): This setting provides well-balanced reaction speeds. • [High] : Responds quickly to volume variations.

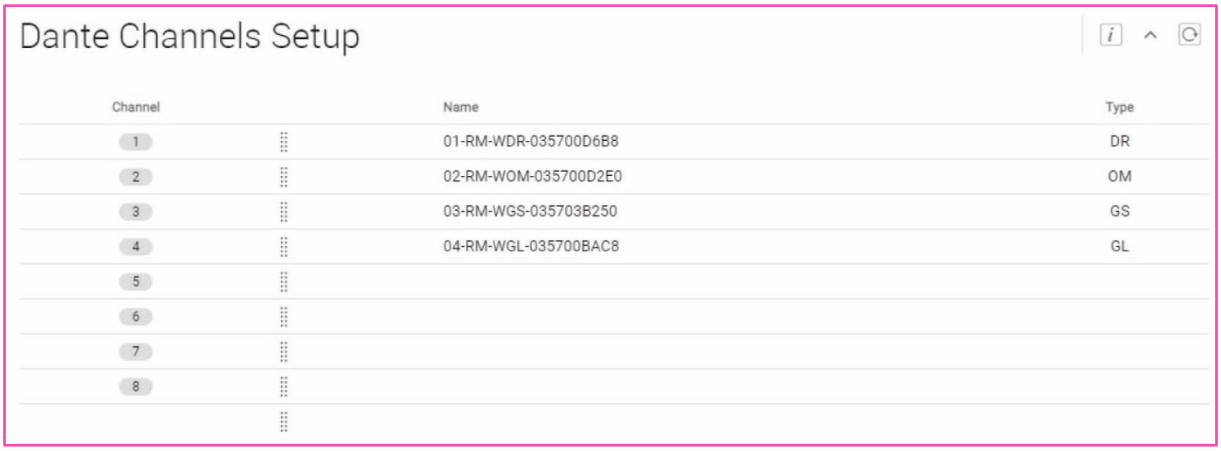
Item	Description
Enable PEQ	Select whether to activate PEQ (Parametric EQ). This is applied when another processor than RM-CR is used.
Band / Type / Q / Frequency / Gain / Bypass	Specify PEQ settings for each of the six bands. For [Type] under “Band A” or “Band F”, select one of the following: PEQ, L.SHELF-6 dB/Oct, L.SHELF-12 dB/Oct, H.SHELF-6 dB/Oct, H.SHELF-12 dB/Oct, HPF, LPF.

[AUDIO]

In the [AUDIO] screen, you can specify the Dante channel assignment for the microphones as well as the DECT audio quality mode.



① [Dante Channels Setup]



Allows you to check the Dante channel assigned to each microphone.

To change the channel assignment, drag the microphone name to the row of the desired Dante channel.

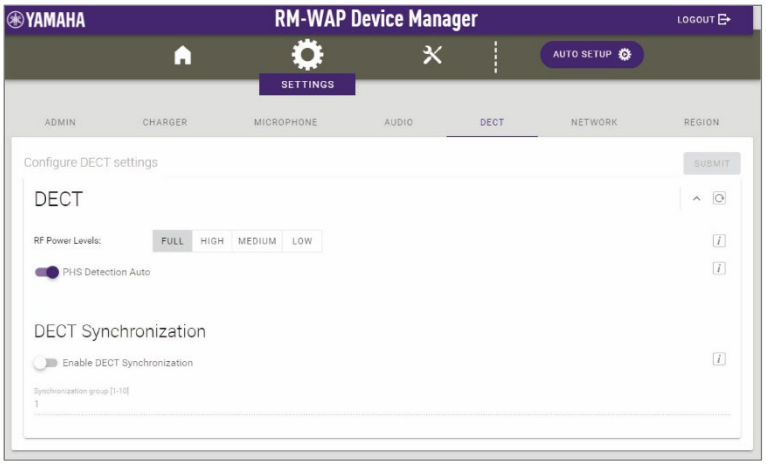
② [DECT Audio Mode]

Allows you to set the access point to High Density mode or High Quality mode.

High Quality mode has better audio quality than High Density mode, but the maximum number of microphones that can be used may be limited.

[DECT]

In the [DECT] screen, you can specify DECT communication settings.



① [DECT]

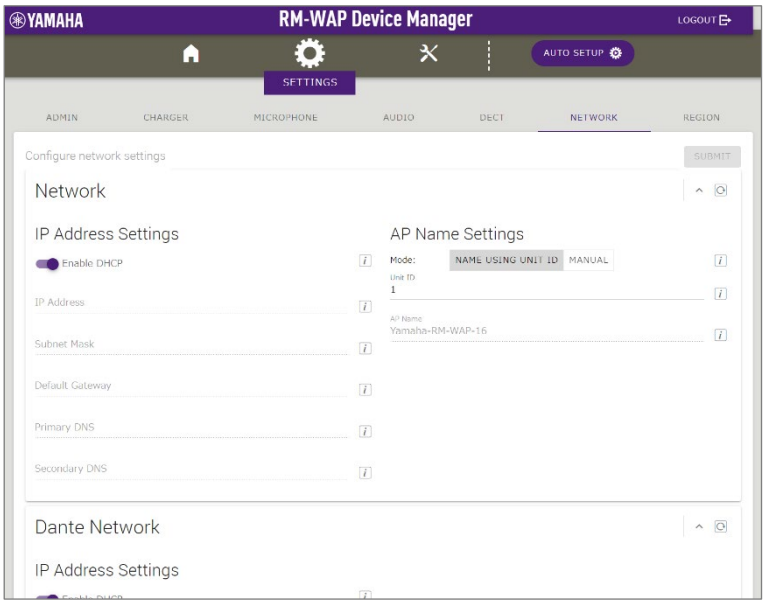
Item	Description
RF Power Levels	Select the signal strength. The specified distance is the approximate maximum communication distance. It may vary depending on your environment. • [FULL] : 63.9m • [HIGH] : 29.6m • [MEDIUM] : 13.7m • [LOW] : 6.34m
PHS Detection Auto	Select whether to detect PHS automatically. When this is activated, RM-WAP will use carriers 3 and 4 for the microphone system unless PHS is detected. When this is deactivated, RM-WAP will not use carriers 3 and 4, which may be used by PHS systems.

② [DECT Synchronization]

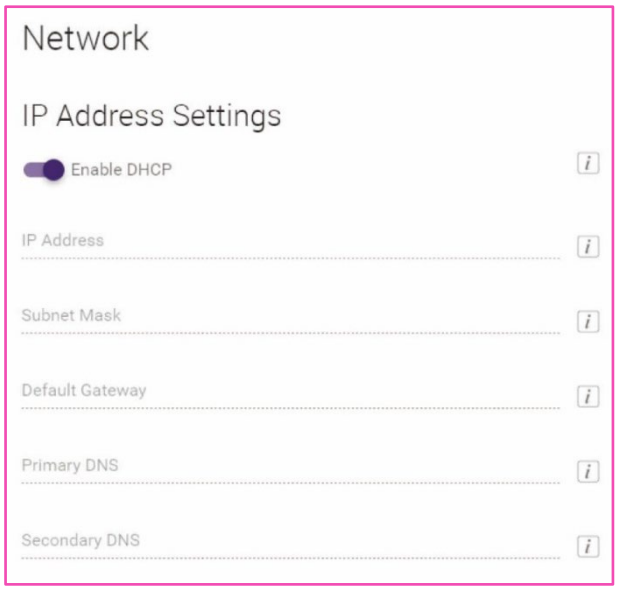
Item	Description
Enable DECT Synchronization	Select whether to synchronize the DECT frame across multiple access points. Synchronization optimizes the number of available DECT channels and reduces DECT interference between grouped systems. To synchronize, activate this, and then put all devices to be synchronized into the same group below “Synchronization group”.

[NETWORK]

In the [NETWORK] screen, you can specify settings for the network used by this unit.



① [Network] - [IP Address Settings]



Item	Description
Enable DHCP	Select whether to use DHCP. When this is activated, the IP address is specified in Auto IP mode if there is no DHCP server. If settings have been incorrectly specified, press the Reset button on the front of the RM-WAP to reset the network-related settings. To assign a static IP address, deactivate [Enable DHCP], and then specify the static IP address with the following. (Type using the "XXX.XXX.XXX.XXX" format.) • [IP address] • [Subnet mask]

- [Default gateway]
- [Primary DNS]
- [Secondary DNS]

② [Network] - [AP Name Settings]

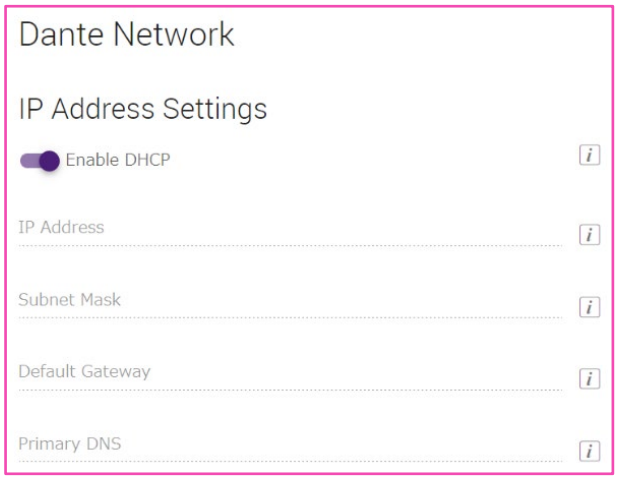
Allows you to select whether to specify the hostname of this unit automatically or manually.

The hostname is used as the device name in RM Device Finder, SNMP, and Dante.

Item	Description
Mode	Select whether to use the unit ID to automatically specify the hostname or to specify it manually. • [NAME USING UNIT ID] (automatic): The hostname is automatically generated from the unit ID, model name and part of the MAC address. The generated hostname can be viewed via [HOME] > [System Status]. Example: Y001-Yamaha-RM-WAP-16-a28fca • [MANUAL]: Specify manually. Type in the [AP Name] field.
Unit ID	Specify the unit ID. Type single-byte hexadecimal characters. If [Manual] was selected, this is not available.
AP Name	If [NAME USING UNIT ID] was selected, the hostname that was automatically generated is displayed. If [MANUAL] was selected, type in the hostname. The Dante hostname will be the hostname plus a portion of the Dante MAC address.

③ [Dante Network] - [IP Address Settings]

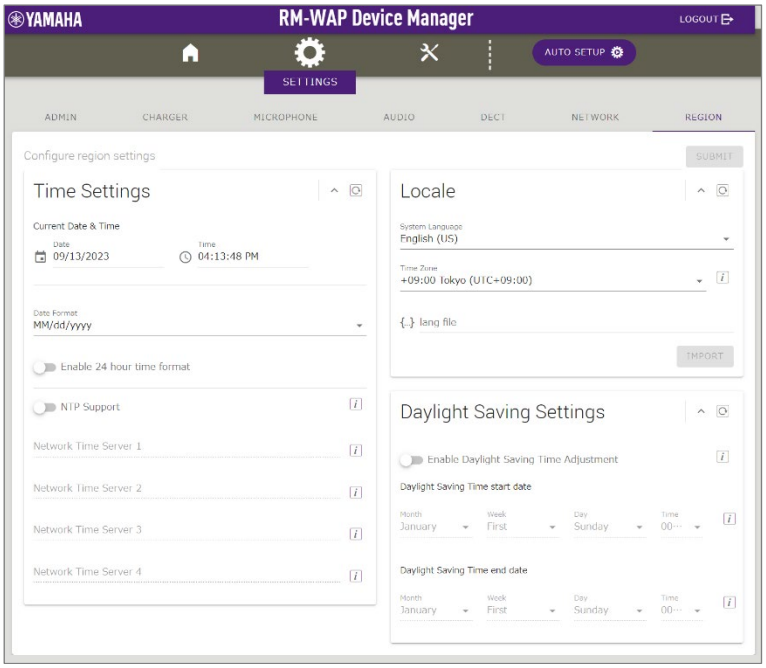
Allows you to specify settings for the network using Dante.



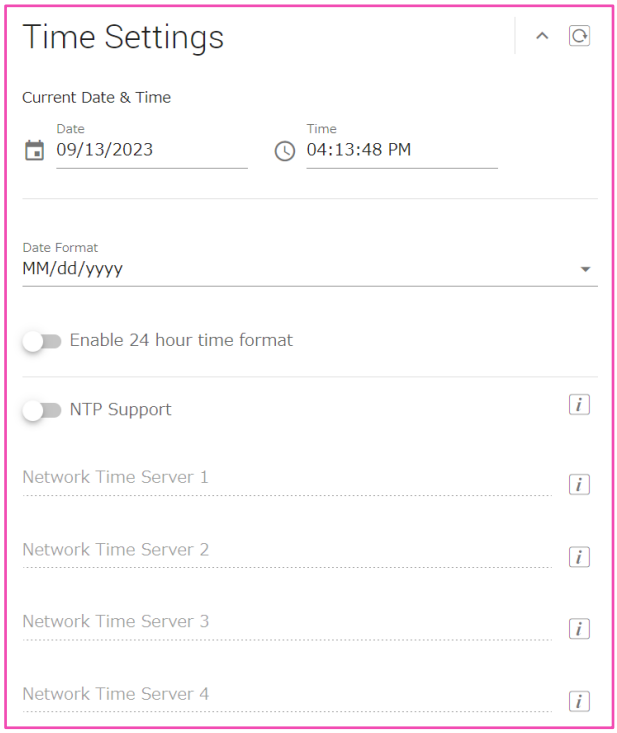
Item	Description
Enable DHCP	Select whether to use DHCP. To assign a static IP address, deactivate [Enable DHCP], and then specify the static IP address with the following. (Type using the "XXX.XXX.XXX.XXX" format.) • [IP address] • [Subnet mask] • [Default gateway] • [Primary DNS]

[REGION]

In the [REGION] screen, you can specify settings for the time and region where this unit is used.



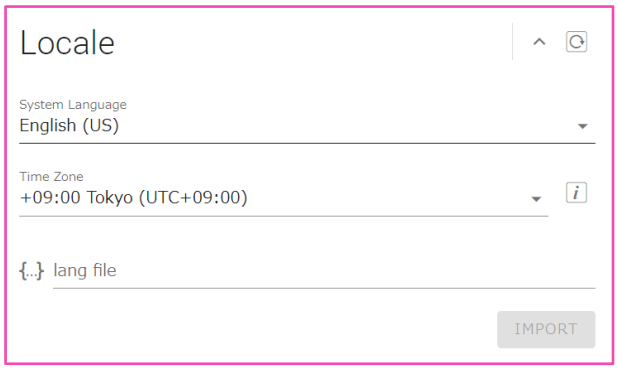
① [Time Settings]



Item	Description
Current Date＆Time	Specify the date and time.
Date Format	Select the date format.

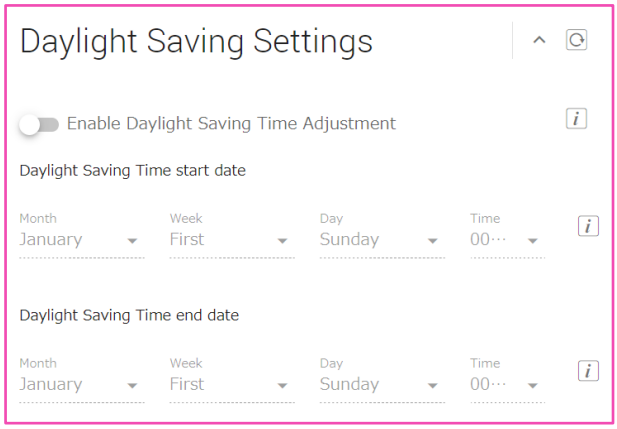
Enable 24 hour time format	Select whether to use the 24-hour format.
NTP Support	Select whether to use NTP (Network Time Protocol). When this is activated, specify a URL for [Network Time Server]. NTP allows you to obtain accurate time over the Internet. This time is used for log data and is useful when managing, monitoring and troubleshooting the system. Default setting: Activated

② [Locale]



Item	Description
System Language	When the mouse pointer is moved to the information icon, a pop-up window gives detailed information about the item. Select the display language. The default setting is [English (US)]. This setting can be changed to [Custom]. For [Custom], the language file must be imported with [{…} lang file]. • English (US) • Custom
Time zone	Select the time zone.
{…} lang file	Imports the language file for the language of the information displayed with the information icon.

③ [Daylight Saving Settings]

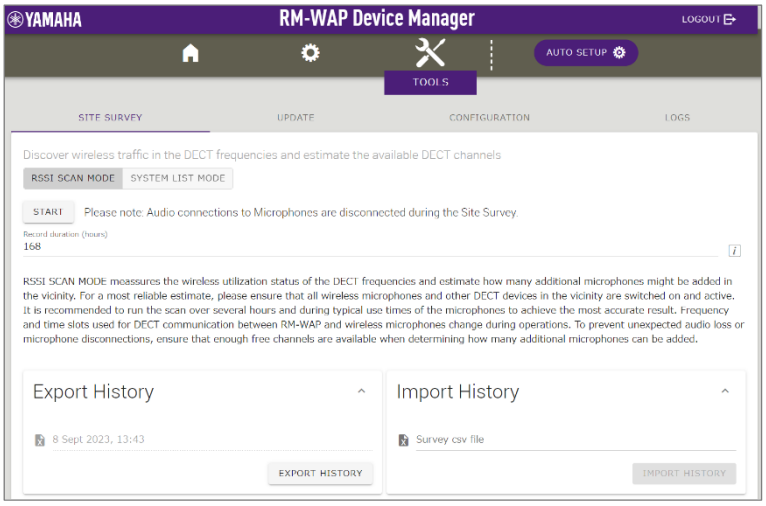


Item	Description
Enable Daylight Saving Time Adjustment	Select whether to use daylight saving time with this unit. When this is activated, specify settings for the daylight saving time start and end dates and times. Default setting: Deactivated

[TOOLS]

[SITE SURVEY]

Click the [START] button, and the access point will measure the signal strength in the installation environment as well as the channel usage status.



Notice

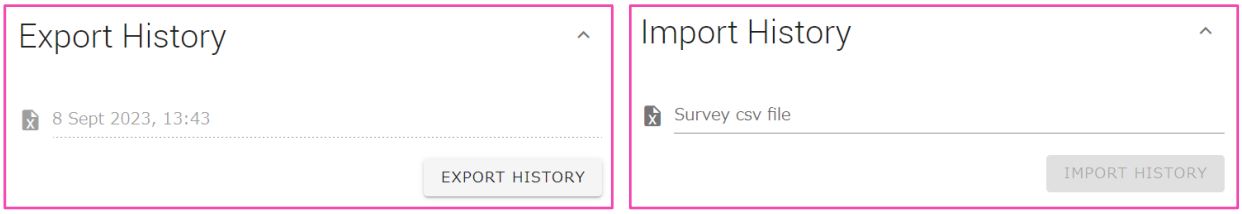
If radio frequency interference occurs, there may be no sound from the microphones or the microphone connection may be unexpectedly cut. We recommend thoroughly examining the environment before installation.

Note

For details on reading the [SITE SURVEY] screen, refer to “Understanding the [SITE SURVEY] Window” in the Reference Manual for the RM Series Wireless Microphone System.

Importing and exporting the SITE SURVEY results

The SITE SURVEY results can be saved to a file, and the saved file can be imported and displayed.



① [Export History]

Allows you to save the SITE SURVEY results to a file.

Item	Description
EXPORT HISTORY	Saves the SITE SURVEY results to a file at the destination that is specified.

② [Import History]

Allows you to import the SITE SURVEY results file.

Item	Description
	Select a SITE SURVEY results file.
IMPORT HISTORY	Imports the selected SITE SURVEY results file. The SITE SURVEY results appear.

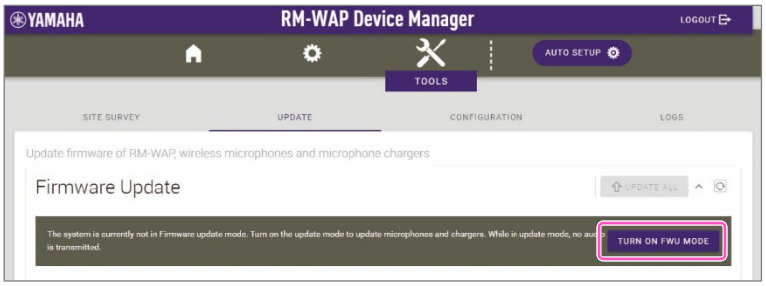
[UPDATE]

In the [UPDATE] screen, you can update the firmware of access points, microphones and chargers.

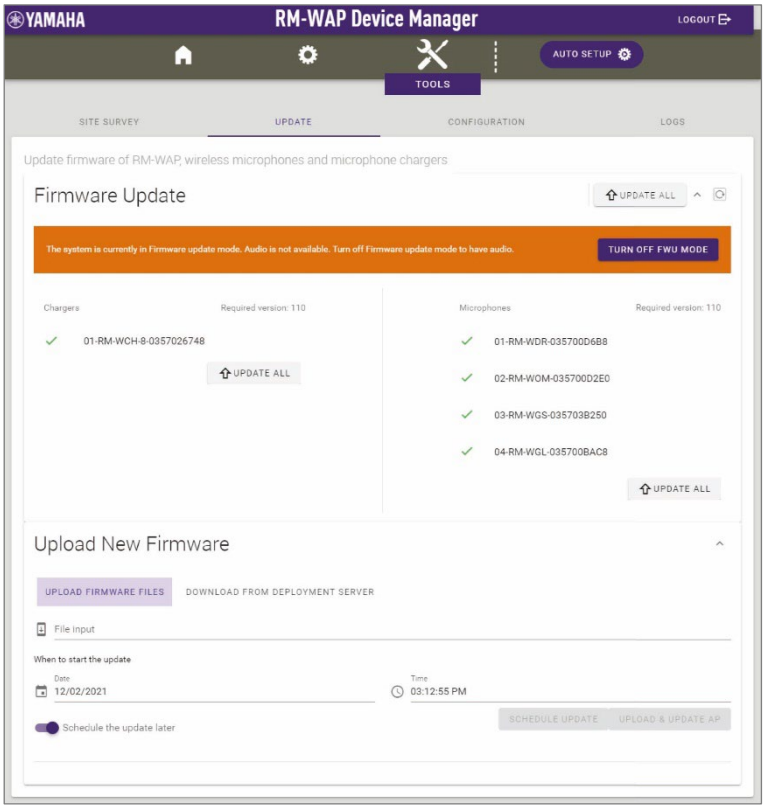
The firmware for the charger and for the microphones is included in the access point firmware. Update the firmware of the access point first ([Upload New Firmware]).

Note

- Be sure to click the [TURN ON FWU MODE] button before updating the firmware.

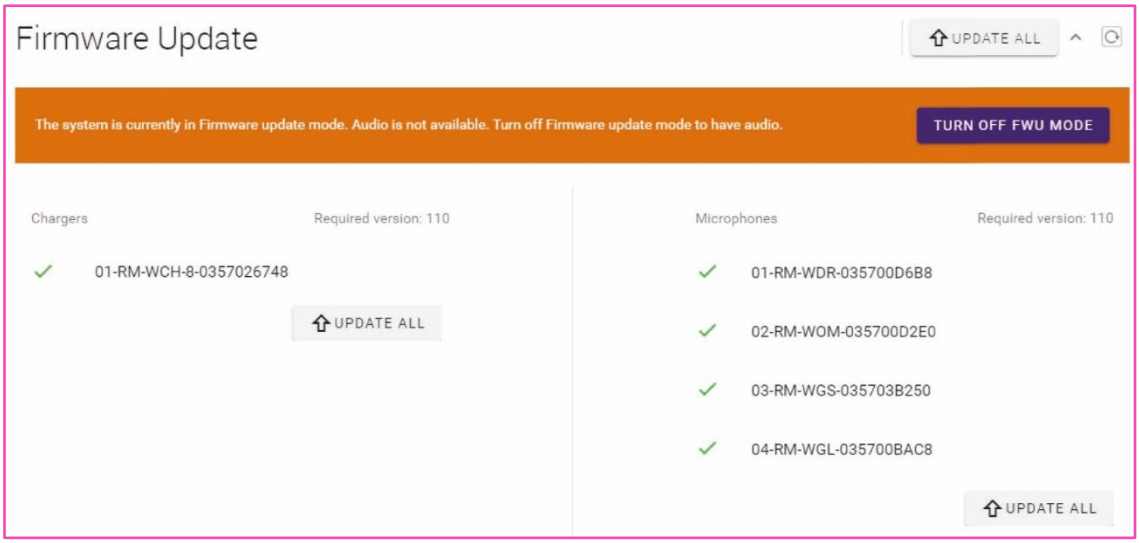


- Be sure to click the [TURN OFF FWU MODE] button after updating the firmware.



① [Firmware Update]

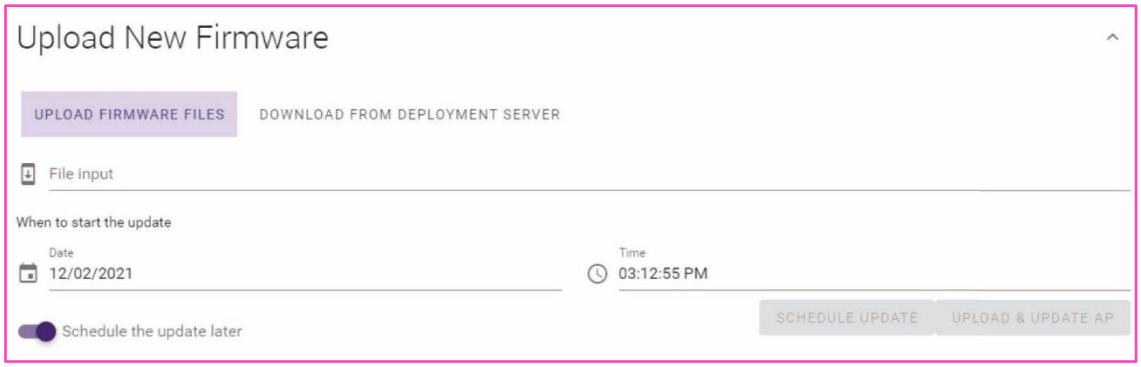
Allows you to update the firmware of the charger and microphones.



Item	Description
UPDATE ALL	Click to update the firmware of the charger and microphones. Before the firmware of the charger and microphones can be updated, they must be paired with the access point. For details on pairing, refer to pages 13 and 14.

② [Upload New Firmware]

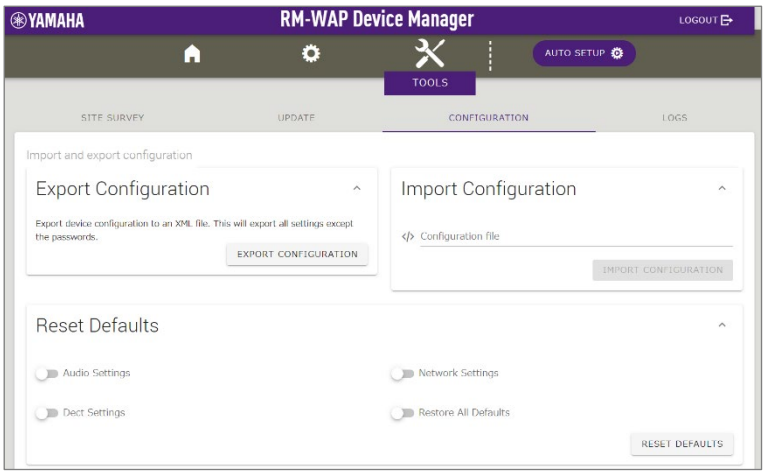
Allows you to update the firmware of the access point.



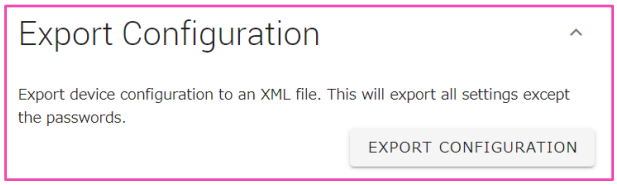
Item	Description
UPLOAD FIRMWARE FILES	Any firmware can be used in this mode. Click (“File input” icon), and then select any firmware. Alternatively, you can drag the firmware directly to the underlined area. To perform the update, click the [UPLOAD & UPDATE AP] button.
DOWNLOAD FROM DEPLOYMENT SERVER	Firmware downloaded from the deployment server is used in this mode. Click the [CHECK NOW] button to check if firmware is available. To perform the update, click the [UPDATE AP] button.
Schedule the update later	Select whether the update will be performed automatically at a specified time. Specify the date and time to start the update, and then click the [SCHEDULE UPDATE] button.

[CONFIGURATION]

In the [CONFIGURATION] screen, you can export, import or reset the settings of this unit.



① [Export Configuration]

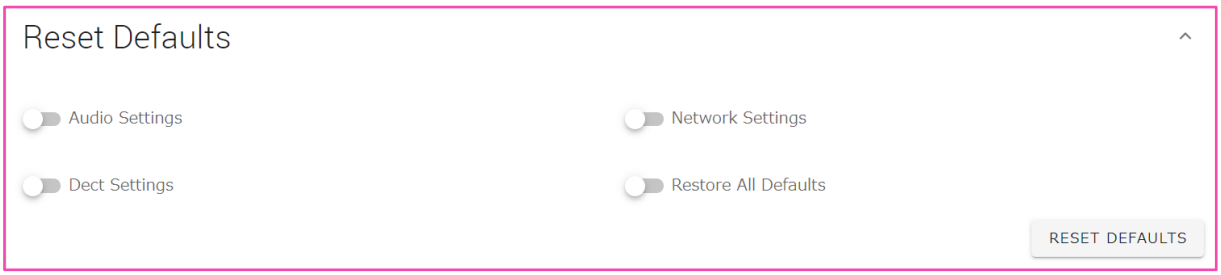


Item	Description
EXPORT CONFIGURATION	Click to export the settings of this unit.

② [Import Configuration]

Item	Description
IMPORT CONFIGURATION	Click to import the settings of this unit. Click </> to select a configuration file, and then click the [IMPORT CONFIGURATION] button. Note: • Create the configuration file to be imported, by editing the one exported in ①. • Alternatively, you can drag the configuration file to the underlined area.

③ [Reset Defaults]



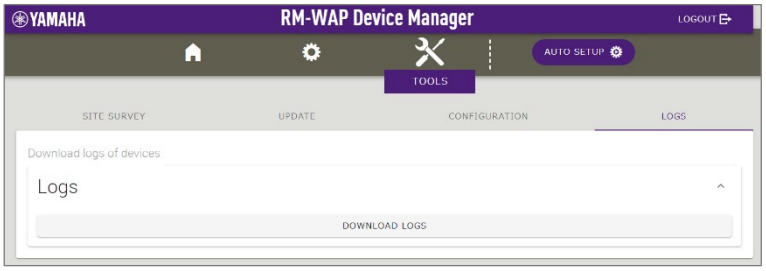
Item	Description
RESET DEFAULTS	Click to reset settings. • [Audio Settings]: Resets the audio settings. • [Dect Settings]: Resets the DECT settings. • [Network Settings]: Resets the network settings. • [Restore All Defaults]: Restores the factory default settings.

Notice

Confirm the settings to be reset before performing this operation.

[LOGS]

In the [LOGS] screen, you can download logs.



① [Logs]

Item	Description
DOWNLOAD LOGS	Click to download the logs. Logs record errors, warnings and actions. Note: For explanations on alert logs and recommended solutions, refer to “Alert log list” in the Reference Manual.

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