



## **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**

# Contents

<b>Introduction</b>	<b>4</b>
About this manual.....	4
About the software interface .....	4
Useful icons in screens .....	4
Applying settings specified in software screens.....	5
<b>Screen structure of Web GUI “RM-WAP Device Manager”</b>	<b>6</b>
<b>[HOME]</b>	<b>7</b>
① [System Status] .....	7
② [LED Indication Status].....	8
③ [Clock Synchronization Status] .....	8
④ [Microphone Charger Status].....	9
⑤ [Microphone Status].....	9
<b>[SETTINGS]</b>	<b>11</b>
[ADMIN] .....	11
① [Password Settings] .....	11
② [Security Settings] .....	12
③ [SNMP Settings] .....	12
④ [Deployment Server Settings] .....	13
⑤ [Syslog Settings] .....	13
[CHARGER] .....	14
① [Chargers] .....	14
[MICROPHONE] .....	15
① [Microphones] .....	15
[AUDIO] .....	22
① [Input Selector Settings] .....	22
② [Automixer] .....	23
③ [Dante Channels Setup].....	25
[DECT] .....	26
① [DECT] .....	26
② [DECT Synchronization] .....	27
[NETWORK] .....	28
① [Network] - [IP Address Settings] .....	28
② [Network] - [AP Name Settings] .....	29
③ [Dante Network] - [IP Address Settings].....	30
④ [802.1X Settings] .....	31
[REGION] .....	32
① [Time Settings].....	32
② [Locale] .....	33

## **[TOOLS] 35**

[SITE SURVEY] .....	35
① [Export History] .....	36
② [Import History] .....	36
[UPDATE] .....	37
① [Firmware Update] .....	38
② [Upload New Firmware] .....	39
[CONFIGURATION] .....	40
① [Export Configuration] .....	40
② [Import Configuration] .....	40
③ [Reset Defaults] .....	41
[LOGS] .....	42
① [Logs] .....	42

# Introduction

This document provides details on the functions of the Web GUI "RM-WAP 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

- This software and Operation Guide are the exclusive copyrights of Yamaha Corporation ("Yamaha").
- Copying of the software or reproduction of this Operation Guide in whole or in part by any means is expressly forbidden without the written consent of the manufacturer.
- Yamaha Corporation assumes no responsibility whatsoever for results or effects arising from the use of this software or Operation Guide.
- For the purpose of improvement, this software and Operation Guide are subject to change without notice.
- This software is not guaranteed to work with a touchscreen.
- The illustrations and screens in this Operation Guide are for instructional purposes only.
- The company names and product names in this Operation Guide are trademarks or registered trademarks of their respective companies.
- 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.

## 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.

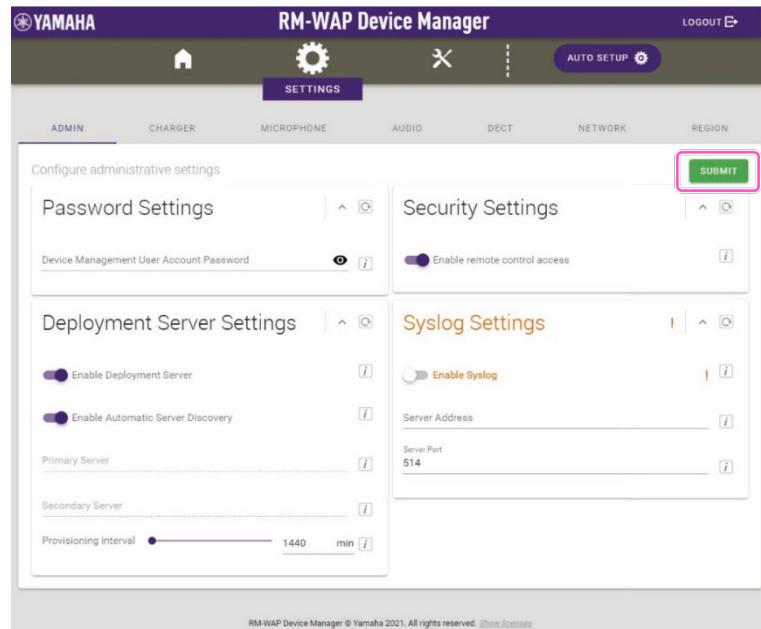
## Useful icons in screens

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
[SETTINGS]			
	[ADMIN]	[Password Settings]	11
		[Security Settings]	12
		[SNMP Settings]	12
		[Deployment Server Settings]	12
		[Syslog Settings]	13
	[CHARGER]	[Chargers]	14
	[MICROPHONE]	[Microphones]	15
	[AUDIO]	[Input Selector Settings]	22
		[Automixer]	23
		[Dante Channels Setup]	25
	[DECT]	[DECT]	26
		[DECT Synchronization]	27
	[NETWORK]	[Network]	28
		[Dante Network]	30
		[802.1X Settings]	31
	[REGION]	[Time Settings]	32
		[Locale]	33
		[Daylight Saving Settings]	34
[TOOLS]			
	[SITE SURVEY]	[Export History]	36
		[Import History]	36
	[UPDATE]	[Firmware Update]	38
		[Upload New Firmware]	39
	[CONFIGURATION]	[Export Configuration]	40
		[Import Configuration]	40
		[Reset Defaults]	41
	[LOGS]	[Logs]	42

# [HOME]

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

The screenshot shows the RM-WAP Device Manager interface with the following sections:

- System Status:** Displays basic device information:
 

Hostname:	Y001-Yamaha-RM-WAP-16-b27053
RFPI:	0357040B58, 0357040B59
MAC Address:	ac:44:f2:b2:70:53
Network IP Address:	169.254.8.158
Model:	RM-WAP-16
Main / Dante / Dect Version:	2.2.6 / 4.2.6.4 / 202
Serial Number:	Z6J001307
Region:	Japan
- Clock Synchronization Status:** Shows Dante and DECT as Leader.
- Microphone Charger Status:** Shows a single charger (01-RM-WCH-8-0357044DE8) with IP(E) 0357044DE8 and FW Status as green.
- LED Indication Status:** Shows Power and Status as OK.
- Microphone Status:** A table listing 8 microphones (Mic 1-8) with their details:
 

Mic	Mute Group	Name	Identify	Type	IP(E)	Link Quality	Audio	Dante Channel	Battery Status	Disconnect Time	Connect Time	Pw Update Status
1	-	01-RM-WOM-0357000300	█	OM	0357000300	█	█	UC	1	98%	04:24:18 pm	04:24:38 pm
2	-	02-RM-WOM-0357000400	█	OM	0357000400	█	█	UC	2	98%	04:24:18 pm	04:24:40 pm
3	-	03-RM-WOM-0357000498	█	OM	0357000498	█	█	UC	3	98%	04:24:18 pm	04:24:42 pm
4	-	04-RM-WOM-03570003E18	█	OM	03570003E18	█	█	UC	4	98%	04:24:18 pm	04:24:44 pm
5	-	05-RM-WOM-0357000408	█	OM	0357000408	█	█	UC	5	98%	04:24:18 pm	04:24:46 pm
6	-	06-RM-WOM-0357000320	█	OM	0357000320	█	█	UC	6	98%	04:24:18 pm	04:25:12 pm
7	-	07-RM-WOM-0357000268	█	OM	0357000268	█	█	UC	7	98%	04:24:18 pm	04:25:00 pm
8	-	08-RM-WOM-0357000410	█	OM	0357000410	█	█	UC	8	98%	04:24:18 pm	04:25:02 pm

## ① [System Status]

Displays basic information about the access point.

The System Status section displays the following information:

Hostname:	Y001-Yamaha-RM-WAP-8-a28e16
RFPI:	0357000D800
MAC Address:	ac:44:f2:a2:8e:16
Network IP Address:	169.254.7.181
Model:	RM-WAP-8
Main / Dante / Dect Version:	1.7.12b.125 / 4.2.6.4 / 107
Serial Number:	Z6K000103
Region:	Japan

### Item

### Description

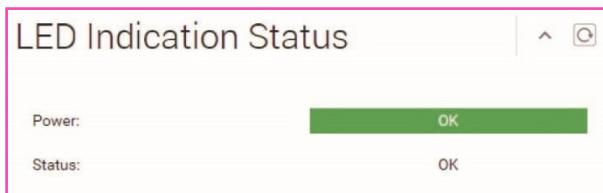
#### Hostname

Displays the hostname.

<b>RFPI</b>	Displays the identification number of the access point for DECT communication. RFPI (Radio Fixed Part Identity)
<b>MAC Address</b>	Displays the MAC address.
<b>Network IP Address</b>	Displays the network IP address.
<b>Model</b>	Displays the model name.
<b>Main / Dante / Dect Version</b>	Displays the versions of the device/Dante/DECT.
<b>Serial Number</b>	Displays the serial number.
<b>Region</b>	Displays the country or region where this unit can be used.

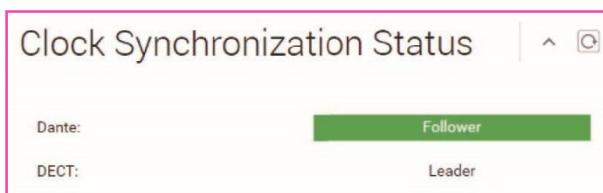
## ② [LED Indication Status]

Displays the status of the access point indicators.



Item	Indication	Unit status
<b>Power</b>	"OK" (green)	Operating
<b>Status</b>	"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
<b>Dante</b>	Displays the status of the Dante word clock. <ul style="list-style-type: none"><li>• [Leader]</li><li>• [Follower]</li></ul> 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.

Microphone Charger Status		
Charger Name	IPEI	FW Status
1 01-RM-WCH-8-0357026748	0357026748	✓

Item	Description
<b>Charger Name</b>	Displays the charger name.
<b>IPEI</b>	Identification number of the DECT module IPEI (International Portable Equipment Identity)
<b>FW Status</b>	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.

Mic	Mute Group	Name	Identify	Type	IPEI	Link Quality	Audio	Dante Channel	Battery Status	Disconnect Time	Connect Time	FW Update Status	
1	-	01-RM-WOM-035700D3D0		OM	035700D3D0		 UC LL		1 9	98%	04:24:18 pm 10/21/2024	04:24:38 pm 10/21/2024	✓
2	-	02-RM-WOM-035700C5A0		OM	035700C5A0		 UC LL		2	98%	04:24:18 pm 10/21/2024	04:24:40 pm 10/21/2024	✓
3	-	03-RM-WOM-035700D498		OM	035700D498		 UC LL		3	98%	04:24:18 pm 10/21/2024	04:24:42 pm 10/21/2024	✓
4	-	04-RM-WOM-0357063E18		OM	0357063E18		 UC LL		4	98%	04:24:18 pm 10/21/2024	04:24:44 pm 10/21/2024	✓
5	-	05-RM-WOM-035700D408		OM	035700D408		 UC LL		5	98%	04:24:18 pm 10/21/2024	04:24:46 pm 10/21/2024	✓
6	-	06-RM-WOM-035700D320		OM	035700D320		 UC LL		6	98%	04:24:18 pm 10/21/2024	04:25:12 pm 10/21/2024	✓
7	-	07-RM-WOM-035700D268		OM	035700D268		 UC LL		7	98%	04:24:18 pm 10/21/2024	04:25:00 pm 10/21/2024	✓
8	-	08-RM-WOM-035700D410		OM	035700D410		 UC LL		8	98%	04:24:18 pm 10/21/2024	04:25:02 pm 10/21/2024	✓

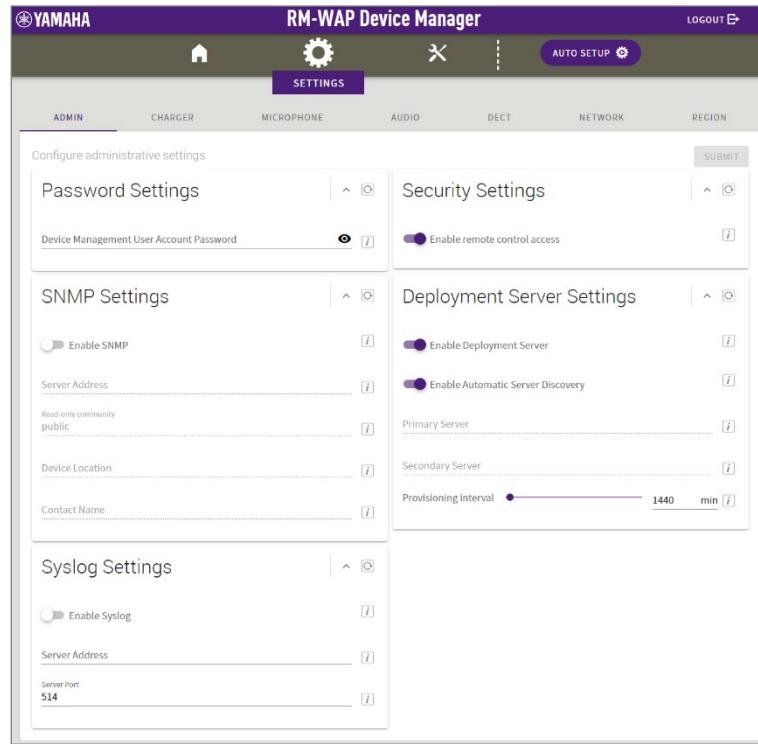
Item	Description
<b>Mic</b>	Displays the microphone number.
<b>Mute Group</b>	Displays the group number used for the group mute function of the microphones.

<b>Name</b>	Displays the microphone name. The microphone name can be changed via [SETTINGS] > [MICROPHONE] > [Microphone Name].
<b>Type</b>	Displays the microphone type. <ul style="list-style-type: none"> <li>“OM”: Omnidirectional</li> <li>“DR”: Directional</li> <li>“GL”: Gooseneck (long)</li> <li>“GS”: Gooseneck (short)</li> </ul>
<b>IPEI</b>	Identification number of the DECT module IPEI (International Portable Equipment Identity)
<b>Link Quality</b>	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
<b>Audio</b>	Click an icon  to turn on/off the microphone channel on RM-CR side. Displays the Unif.Comm (UC) and Low Latency (LL) signal levels for RM-WAP.
<b>Dante Channel</b>	Displays the Dante channel.
<b>Battery Status</b>	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
<b>Disconnect Time</b>	Displays the time at which the microphone and access point were disconnected.
<b>Connect Time</b>	Displays the time at which the microphone and access point were connected.
<b>FW Update Status</b>	Displays the firmware update status. If the firmware must be updated,  appears. Update the firmware via [TOOLS] > [UPDATE] > [Firmware Update].

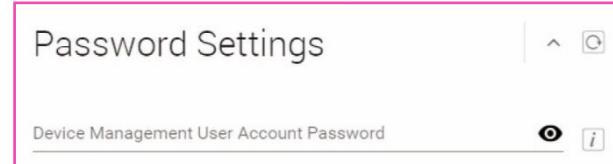
# [SETTINGS]

## [ADMIN]

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



### ① [Password Settings]



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

## ② [Security Settings]

Security Settings

Enable remote control access i

Item	Description
<b>Enable remote control access</b>	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 [SNMP Settings]

SNMP Settings

Enable SNMP i

Server Address i

Read-only community  
public i

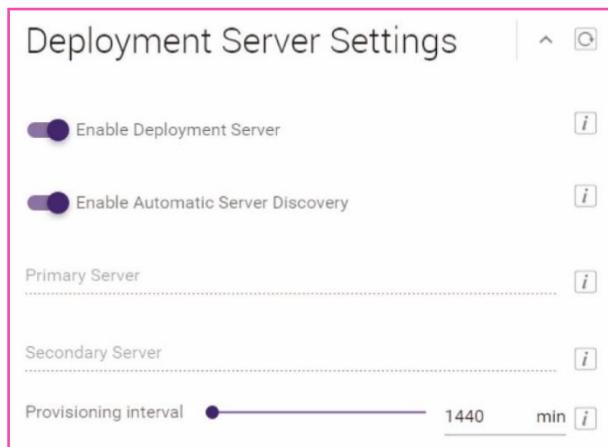
Device Location i

Contact Name i

Item	Description
<b>Enable SNMP</b>	Select whether to use SNMP. When this is activated, specify settings for the following. <ul style="list-style-type: none"> <li>• [Server Address]</li> <li>• [Read-only community]</li> <li>• [Device Location]</li> <li>• [Contact Name]</li> </ul> Default setting: Deactivated

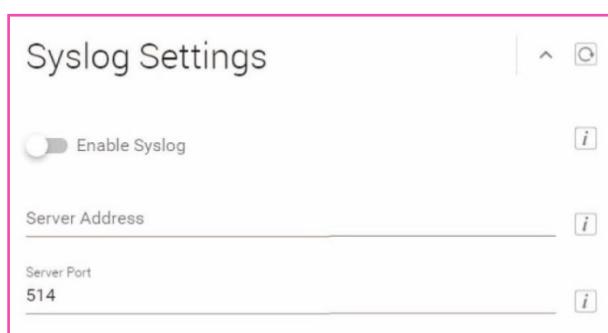
## ④ [Deployment Server Settings]

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



Item	Description
<b>Enable deployment server</b>	Select whether to use a deployment server. Default setting: Activated
<b>Enable automatic server discovery</b>	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. <ul style="list-style-type: none"> <li>• <b>[Primary server]</b></li> <li>• <b>[Secondary server]</b></li> </ul> Default setting: Activated
<b>Provisioning interval</b>	Specify the deployment server provisioning interval (in minutes). Default setting: 1,440 minutes (1 day) Setting range: 0 to 44,640 minutes (31 days)

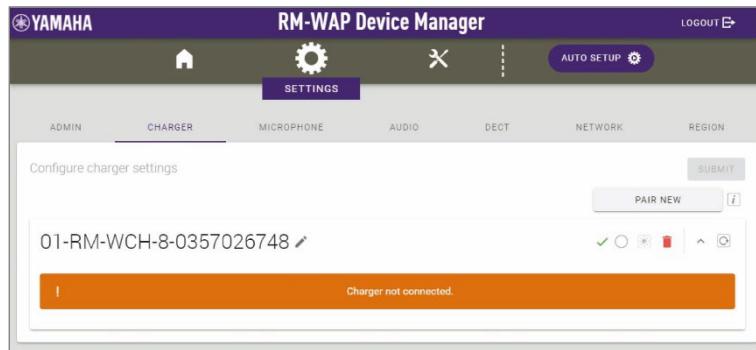
## ⑤ [Syslog Settings]



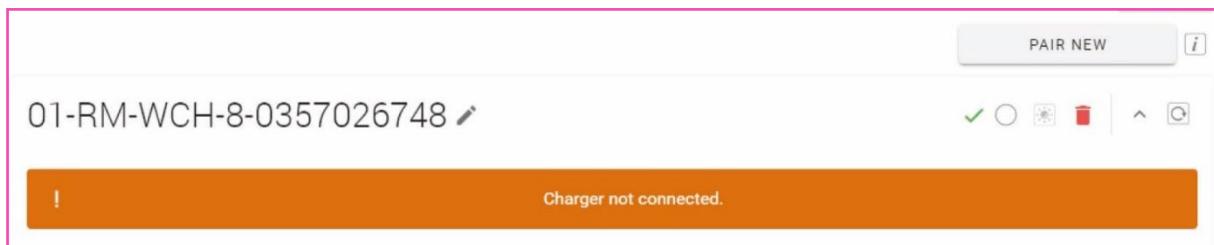
Item	Description
<b>Enable Syslog</b>	Select whether to use a syslog server. When this is activated, specify settings for the following. <ul style="list-style-type: none"> <li>• <b>[Server Address]</b></li> <li>• <b>[Server Port]</b> (Default setting: 514)</li> </ul>

## [CHARGER]

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



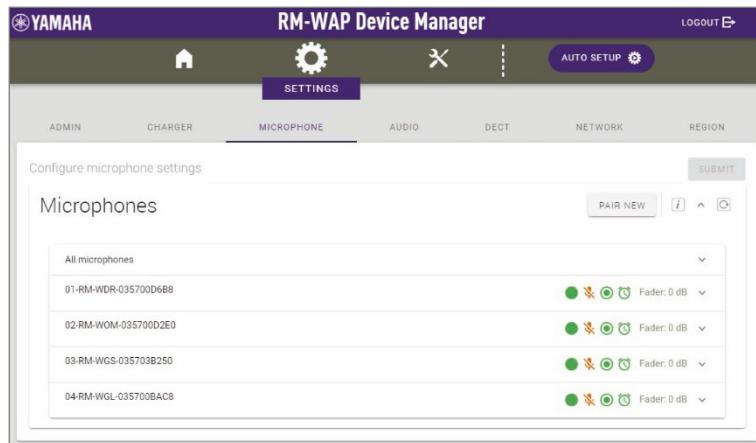
### ① [Chargers]



Item	Description
<b>PAIR NEW</b>	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.
<b>Charger name</b>	Specify the name of the charger. To change the name of the charger, click  .
 / 	Click to change the connection status of the charger. <ul style="list-style-type: none"> <li>• : Disconnect</li> <li>• : Connect</li> </ul>
	Click to cancel pairing of the charger.

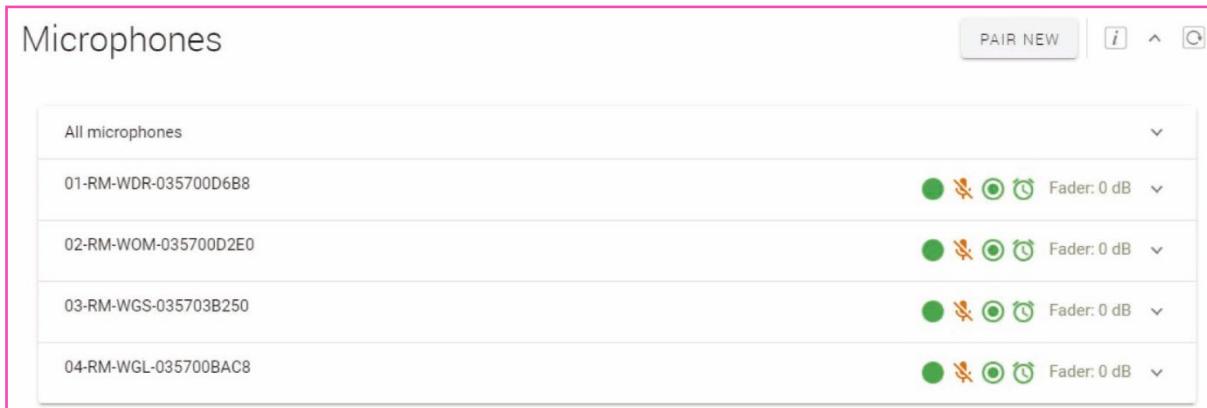
## [MICROPHONE]

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
<b>PAIR NEW</b>	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.
<b>Start Mode</b>	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.
<b>Start Mute Mode</b>	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 the "All microphones" row to expand it to a section where settings for all microphones can be configured simultaneously.

Microphones

All microphones	PAIR NEW	<i>i</i>	^			
01-RM-WOM-035700D3D0					Fader: 0 dB	
02-RM-WOM-035700C5A0					Fader: 0 dB	
03-RM-WOM-035700D498					Fader: 0 dB	

**Settings section for "All microphones"**

All microphones

Start Mode:

Start Mute Mode:

Mic Button Behavior:

Mute Settings:

Unif.Comm

Show mute status at microphone mute indicator

Low Latency

Show mute status at microphone mute indicator

Alarm when out of area:

Click a row containing the name of a microphone to expand it to a section where settings for that microphone can be configured.

### Settings section for an individual microphone

Item	Description
<b>Microphone Name</b>	Specify the microphone name.
<b>Group</b>	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.
<b>Start Mode</b>	Select the start mode of the microphone after removing it from the charger or after installing the battery. <ul style="list-style-type: none"> <li>• [START UP]</li> <li>• [STANDBY]</li> </ul>
<b>Start Mute Mode</b>	Select the mute mode that the microphone enters after it has established a wireless connection with RM-WAP. <ul style="list-style-type: none"> <li>• [MUTE ON]</li> </ul>

- [MUTE OFF]

#### Mic Button Behavior

Select the operation of the Mic button.

- [TOGGLE]
- [PUSH TO TALK] (only with RM-WGL/RM-WGS)
- [DISABLE]

#### Mute Settings

Select whether the microphone mute LED indication is synchronized with the mute status of Unif.Comm, Low Latency, or both. When this is activated, the indication is synchronized with the mute status.

#### Alarm when out of area

Select whether the Mic indicator flashes to indicate that the microphone is out of range for a DECT connection.



Click to cancel pairing.

Click the [UNIF.COMM] or [LOW LATENCY] button to configure the corresponding settings. The two can be configured independently.

[UNIF.COMM] This stands for unified communication. The Basic Audio Settings and Advanced Audio Settings appear.

[LOW LATENCY] Bypassing DSP (digital signal processing) reduces audio delay. Only the Basic Audio Settings appear.

UNIF.COMM LOW LATENCY

#### • Basic Audio Settings

Settings section for "All microphones"

Fader Level:

0 dB

High Pass Filter: NONE 110 Hz 140 Hz 175 Hz 225 Hz i

Low Pass Filter: NONE 4 KHZ 8 KHZ 12 KHZ i

Settings section for an individual microphone

Fader Level:

0 dB

High Pass Filter  
None i

Low Pass Filter  
None i

#### Item

#### Description

#### 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]

- Advanced Audio Settings

Settings section for "All microphones"

Input Gain:	OFF    LOW    MEDIUM <b>HIGH</b>	<a href="#">i</a>
Adaptive Echo Canceller:	OFF    LOW <b>MEDIUM</b> HIGH	<a href="#">i</a>
Noise Reduction:	OFF    LOW <b>MEDIUM</b> HIGH	<a href="#">i</a>
Dereverberation:	OFF    LOW <b>MEDIUM</b> HIGH	<a href="#">i</a>
AGC Type:	OFF    LOW <b>HIGH</b>	<a href="#">i</a>
AGC Speed:	<b>LOW</b> HIGH	<a href="#">i</a>

Settings section for an individual microphone

Input Gain	High(18dB)	<a href="#">i</a>
Adaptive Echo Canceller	Medium	<a href="#">i</a>
Noise Reduction	Medium	<a href="#">i</a>
Dereverberation	Medium	<a href="#">i</a>
AGC Type	High	<a href="#">i</a>
AGC Speed	High	<a href="#">i</a>

Item	Description
<b>Input Gain</b>	Select the microphone input gain. [Off (0 dB) / Low (6 dB) / Medium (12 dB) / High (18 dB)]
<b>Adaptive Echo Canceller</b>	<p>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.</p> <ul style="list-style-type: none"> <li>• [Off]: The echo canceller is not used.</li> <li>• [Low]: Suppresses echo while maintaining the quality of the original audio.</li> <li>• [Medium] (default setting): This setting provides a good balance between sound quality and echo cancellation strength.</li> <li>• [High]: Applies a strong echo canceller. Select this for rooms with long reverberation times or rooms where echoes are likely to occur.</li> </ul>

**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]:  
This setting provides well-balanced volume changes.
- [High] (default setting):  
Applies strong AGC.

**AGC Speed**

Select the reaction speed for AGC volume changes.

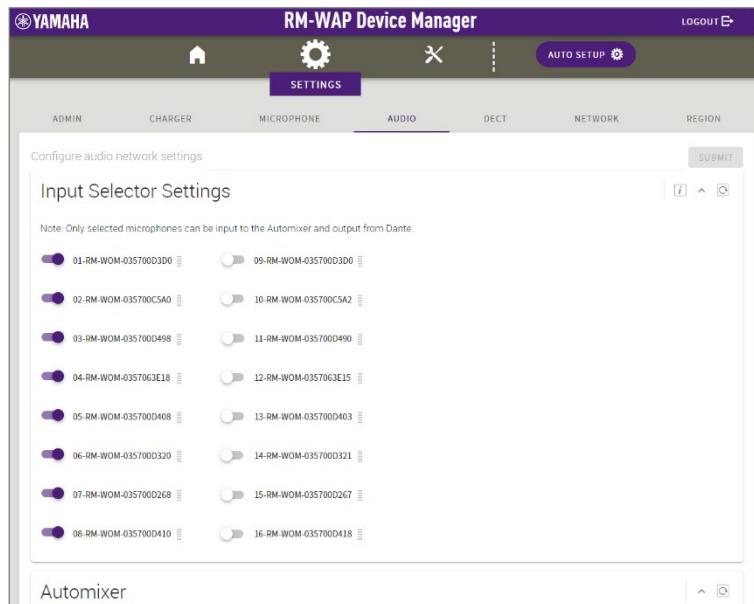
- [Low]:  
This setting provides well-balanced reaction speeds.
- [High] (default setting):  
Responds quickly to volume variations.



Item	Description
<b>Enable PEQ</b>	Select whether to activate PEQ (Parametric EQ). This is applied when another processor than RM-CR is used.
<b>Band / Type / Q / Frequency / Gain / Bypass</b>	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 select the microphones to be used, configure Automixer, and assign microphones to Dante channels.

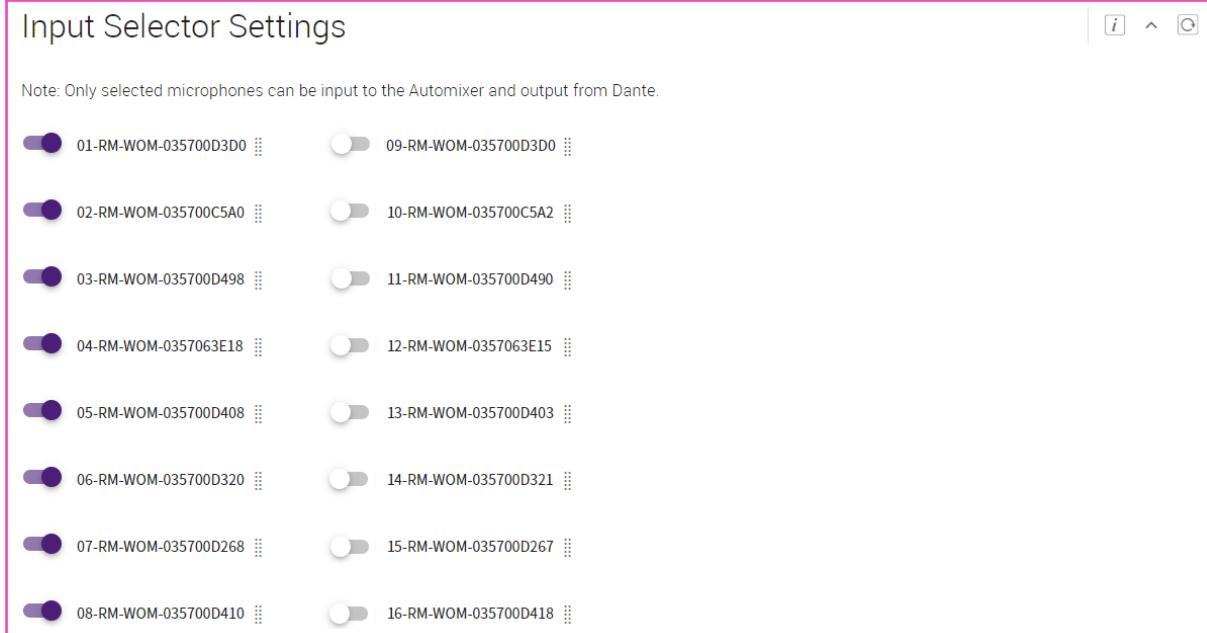


### ① [Input Selector Settings]

Displays the microphones paired with access points. Use  to select which microphones to activate. The number of microphones that can be activated differs depending on the access point.

- RM-WAP-16 : 16 microphones
- RM-WAP-8 : 8 microphones

Only audio from activated microphones can be inputted into Automixer and Dante channels.



## ② [Automixer]

Automatically adjusts the input audio levels of all activated microphones into one signal. Click the [UNIF.COMM] or [LOW LATENCY] button to configure the corresponding settings. The settings differ depending on whether [Type] is set to [Gating] or [Gain Sharing].

Type: Gain Sharing



Item	Description
<b>Type</b>	Select the processing type of the automixer. <ul style="list-style-type: none"> <li>Gain Sharing This type adjusts the gain of each channel so that the sum of the gains of multiple input audio is always equal.</li> <li>Gating This type uses an input level threshold to determine whether the input audio of a channel is subject to processing.</li> </ul>
<b>Number of Open Mic.</b>	Specify the number of activated microphones that are subject to automixing when there is overlapping speech.
<b>Ch</b>	Select the input channel to be displayed.
<b>Ch - Mic</b>	Ch: Input channel number Mic: Microphone number assigned during pairing
<b>Priority</b>	Set [Priority] to [ON] for channels with a high-priority volume level. If [Priority] has been set to [ON], the input level will be preserved during mixing. When this is deactivated, the volume level will be automixed.
<b>Weight</b>	Specify the automix level weighting. The higher the value, the higher the volume level after automixing. Input range: -30 to 15 dB Specifying a [Weight] setting has no effect on channels whose [Priority] has been set to [ON].
<b>Gain</b>	Displays the gain ratio between channels.
<b>Output</b>	Displays the output signal level.

## Type: Gating



Item	Description
<b>Type</b>	Select the processing type of the automixer. <ul style="list-style-type: none"> <li>• Gain Sharing This type adjusts the gain of each channel so that the sum of the gains of multiple input audio is always equal.</li> <li>• Gating This type uses an input level threshold to determine whether the input audio of a channel is subject to processing.</li> </ul>
<b>Last Mic On</b>	Select whether to leave the last activated microphone activated even if its input level falls below the threshold.
<b>Number of Open Mic.</b>	Specify the number of activated microphones that are subject to automixing when there is overlapping speech.
<b>Threshold[dB]</b>	Specify the input level threshold at which the gate opens. Microphones with an input level exceeding the threshold become activated microphones.
<b>Range[dB]</b>	Specify the gain applied when the gate is closed.
<b>Hold[ms]</b>	Specify how long the gate waits before closing after the input level falls below the threshold.
<b>Ch</b>	Select the input channel to be displayed.
<b>Ch - Mic</b>	Ch: Input channel number Mic: Microphone number assigned during pairing

<b>Priority</b>	Set [Priority] to [ON] for channels with a high-priority volume level. If [Priority] has been set to [ON], the input level will be preserved during mixing. When this is deactivated, the volume level will be automixed.
<b>Gain</b>	Displays the gain ratio between channels.
<b>Output</b>	Displays the output signal level.

### ③ [Dante Channels Setup]

Dante Channels Setup		
Output channel	Name	Type
1	01-RM-WOM-035700D3D0 Unif.Comm	OM
2	02-RM-WOM-035700C5A0 Unif.Comm	OM
3	03-RM-WOM-035700D498 Unif.Comm	OM
4	04-RM-WOM-0357063E18 Unif.Comm	OM
5	05-RM-WOM-035700D408 Unif.Comm	OM
6	06-RM-WOM-035700D320 Unif.Comm	OM
7	07-RM-WOM-035700D268 Unif.Comm	OM
8	08-RM-WOM-035700D410 Unif.Comm	OM
9	Automixer output for Low Latency	
10		
11		
12		
13		
14		
15		
16		
	01-RM-WOM-035700D3D0 Low Latency	OM
	02-RM-WOM-035700C5A0 Low Latency	OM
	03-RM-WOM-035700D498 Low Latency	OM
	04-RM-WOM-0357063E18 Low Latency	OM
	05-RM-WOM-035700D408 Low Latency	OM
	06-RM-WOM-035700D320 Low Latency	OM
	07-RM-WOM-035700D268 Low Latency	OM
	08-RM-WOM-035700D410 Low Latency	OM
	Automixer output for Unif.Comm	

Allows you to check the microphone channel assignments for Dante output channels.

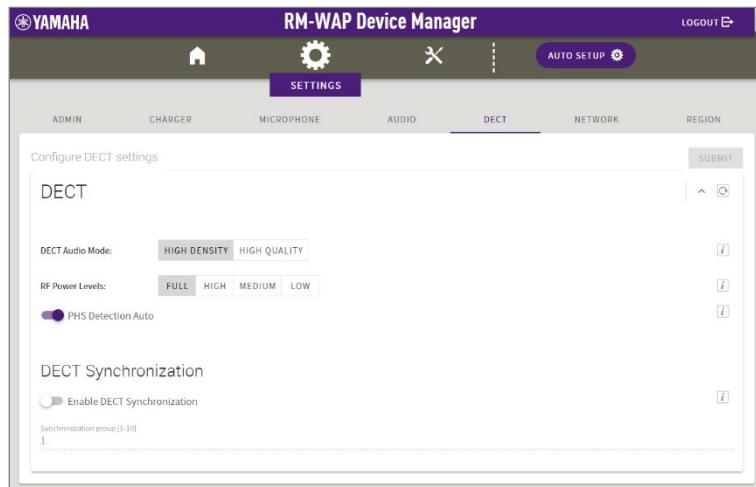
To change the assignment, drag the microphone channel name to the row of the desired Dante output channel. Microphone channels without a Dante output channel are not outputted.

The following types of microphone channels are available.

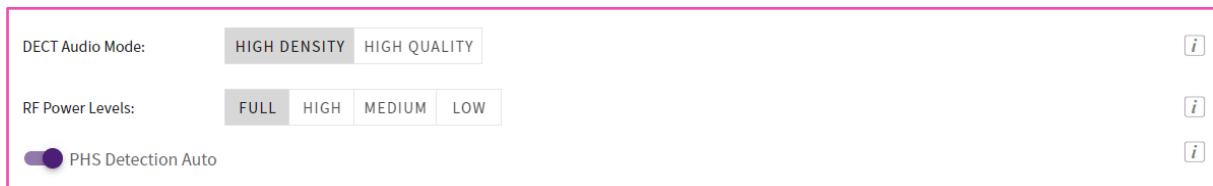
[Microphone name] Unif.Comm	Channel for individual microphone audio (Unif.Comm)
[Microphone name] Low Latency	Channel for individual microphone audio (Low Latency)
Automixer output for Unif.Comm	Channel that the audio from all activated microphones (Unif.Comm) is mixed into
Automixer output for Low Latency	Channel that the audio from all activated microphones (Low Latency) is mixed into

## [DECT]

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



### ① [DECT]



Item	Description
<b>DECT Audio Mode</b>	Select whether 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.
<b>RF Power Levels</b>	Select the signal strength. The specified distance is the approximate maximum communication distance. It may vary depending on your environment. <ul style="list-style-type: none"> <li>• [FULL]: 63.9m</li> <li>• [HIGH]: 29.6m</li> <li>• [MEDIUM]: 13.7m</li> <li>• [LOW]: 6.34m</li> </ul>
<b>PHS Detection Auto</b>	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]

## DECT Synchronization

 Enable DECT Synchronization

Synchronization group [1-10]

1

**Item****Description****Enable DECT Synchronization**

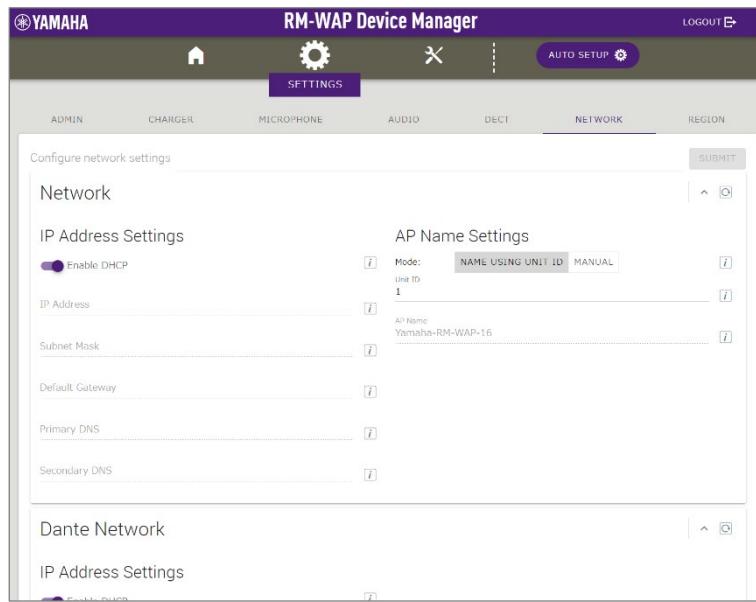
Select whether to synchronize the DECT frame across multiple access points.

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]

Network

IP Address Settings

Enable DHCP

IP Address

Subnet Mask

Default Gateway

Primary DNS

Secondary DNS

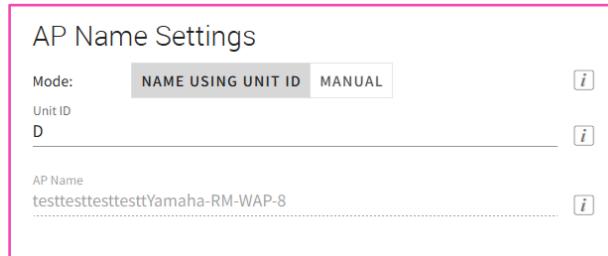
Item	Description
<b>Enable DHCP</b>	<p>Select whether to use DHCP.</p> <p>When this is activated, the IP address is specified in Auto IP mode if there is no DHCP server. If settings have been incorrectly specified, press the Reset button on the front of the RM-WAP to reset the network-related settings.</p> <p>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.)</p> <ul style="list-style-type: none"> <li>• [IP address]</li> <li>• [Subnet mask]</li> <li>• [Default gateway]</li> </ul>

- [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
<b>Mode</b>	Select whether to use the unit ID to automatically specify the hostname or to specify it manually. <ul style="list-style-type: none"> <li>• [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] &gt; [System Status]. Example: Y001-Yamaha-RM-WAP-16-a28fca</li> <li>• [MANUAL]: Specify manually. Type in the [AP Name] field.</li> </ul>
<b>Unit ID</b>	Specify the unit ID. Type single-byte hexadecimal characters. If [Manual] was selected, this is not available.
<b>AP Name</b>	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.

Dante Network

IP Address Settings

Enable DHCP [i]

IP Address [i]

Subnet Mask [i]

Default Gateway [i]

Primary DNS [i]

Item	Description
<b>Enable DHCP</b>	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.) <ul style="list-style-type: none"><li>• [IP address]</li><li>• [Subnet mask]</li><li>• [Default gateway]</li><li>• [Primary DNS]</li></ul>

## ④ [802.1X Settings]

Use these settings when manually configuring network security.

### 802.1X Settings

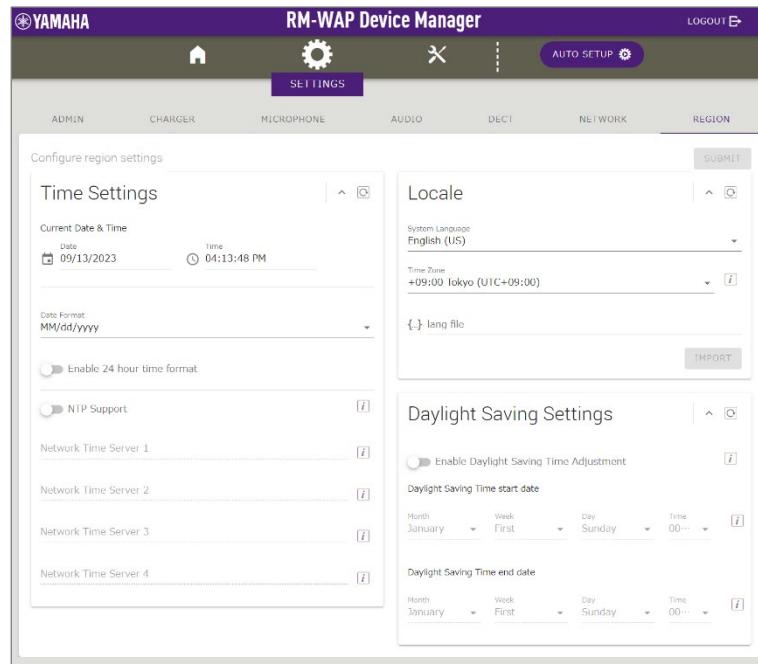
Note: Dante traffic uses a different MAC address than data traffic, even when using the same network port. 802.1X settings do not apply to the Dante communication.

<input checked="" type="checkbox"/> Enabled	<a href="#">[i]</a>
Authentication method	<a href="#">[i]</a>
EAP-MD5	<a href="#">[i]</a>
Identity	<a href="#">[i]</a>
Anonymous Identity	<a href="#">[i]</a>
Password	<input checked="" type="radio"/> <a href="#">[i]</a>
Private Key	<input type="radio"/> <a href="#">[i]</a>
Certificate	<a href="#">[i]</a>
<a href="#">[i]</a> Certificate	
<input type="button" value="UPLOAD CERTIFICATE"/> <input type="button" value="REMOVE CERTIFICATE"/>	

Item	Description
<b>Enable</b>	Select whether to use IEEE802.1X authentication.
<b>Authentication method</b>	<p>Select the authentication method.</p> <p>Specify settings for the following according to the authentication method.</p> <ul style="list-style-type: none"> <li>• [Identity]</li> <li>• [Anonymous Identity]</li> <li>• [Password]</li> <li>• [Private Key]</li> <li>• [Certificate]</li> </ul> <p>Click  icon, and then select any certificate.</p>
<b>UPLOAD CERTIFICATE</b>	Click to upload a certificate.
<b>REMOVE CERTIFICATE</b>	Click to delete a certificate.

## [REGION]

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



### ① [Time Settings]

### Time Settings

Current Date & Time

Date: 09/13/2023 Time: 04:13:48 PM

Date Format: MM/dd/yyyy

Enable 24 hour time format

NTP Support

Network Time Server 1

Network Time Server 2

Network Time Server 3

Network Time Server 4

Item	Description
<b>Current Date &amp; Time</b>	Specify the date and time.
<b>Date Format</b>	Select the date format.
<b>Enable 24 hour time format</b>	Select whether to use the 24-hour format.
<b>NTP Support</b>	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]

Locale

System Language  
English (US)

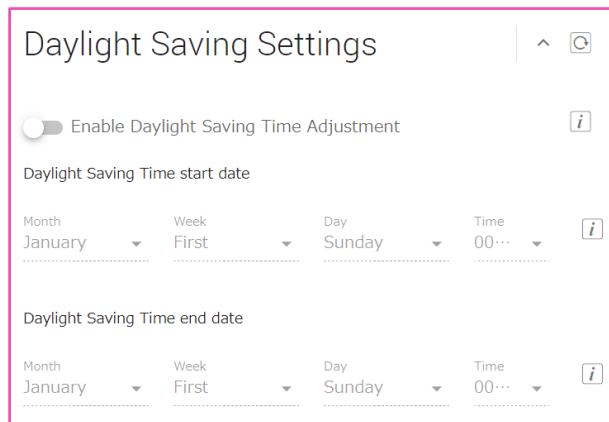
Time Zone  
+09:00 Tokyo (UTC+09:00) [i]

{...} lang file

IMPORT

Item	Description
<b>System Language</b>	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]. <ul style="list-style-type: none"> <li>• English (US)</li> <li>• Custom</li> </ul>
<b>Time zone</b>	Select the time zone.
<b>{...} lang file</b>	Imports the language file for the language of the information displayed with the information icon.

## ③ [Daylight Saving Settings]

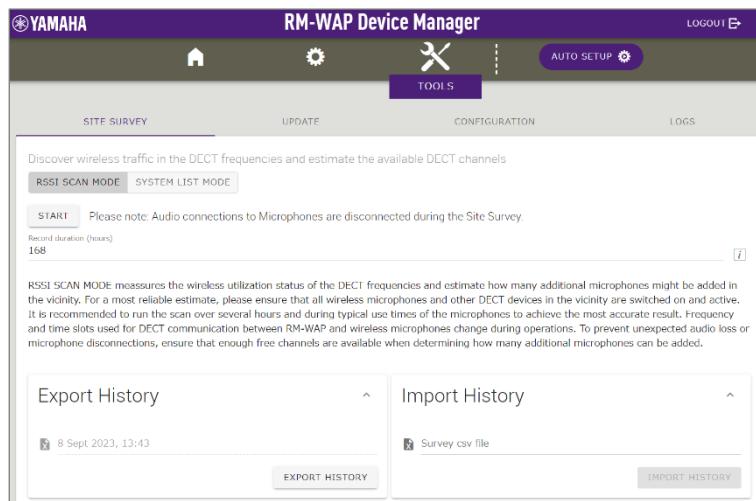


Item	Description
<b>Enable Daylight Saving Time Adjustment</b>	Select whether to use daylight saving time with this unit. When this is activated, specify settings for the daylight saving time start and end dates and times. Default setting: Deactivated

# [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
 IMPORT HISTORY	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.

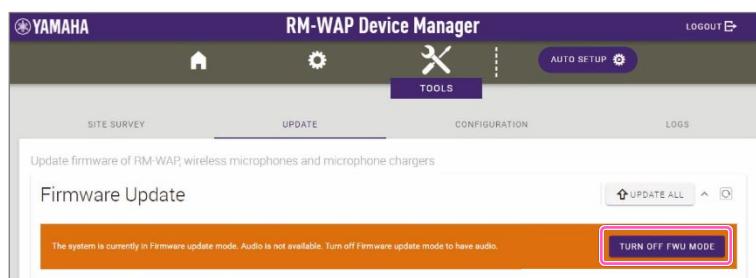
The firmware for the charger and for the microphones is included in the access point firmware. Update the firmware of the access point first ([Upload New Firmware]).

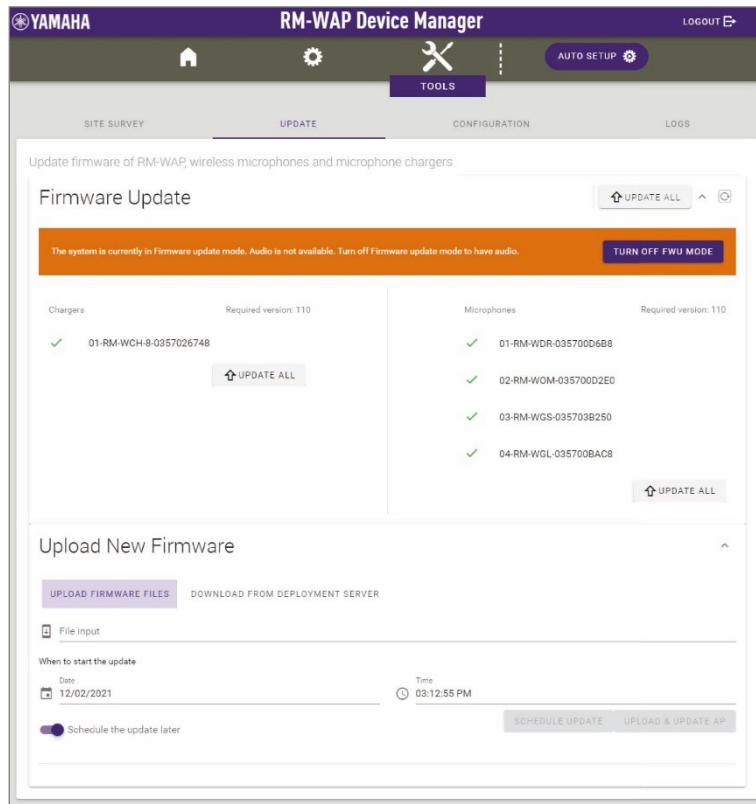
### ① Note

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



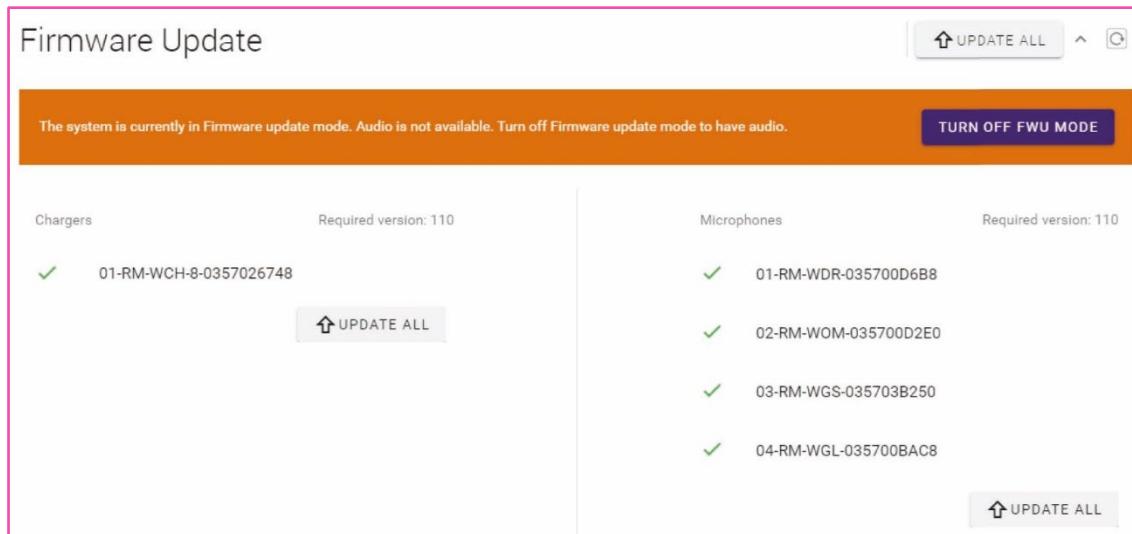
- Be sure to click the [TURN OFF FWU MODE] button after updating the firmware.





## 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 14 and 15.

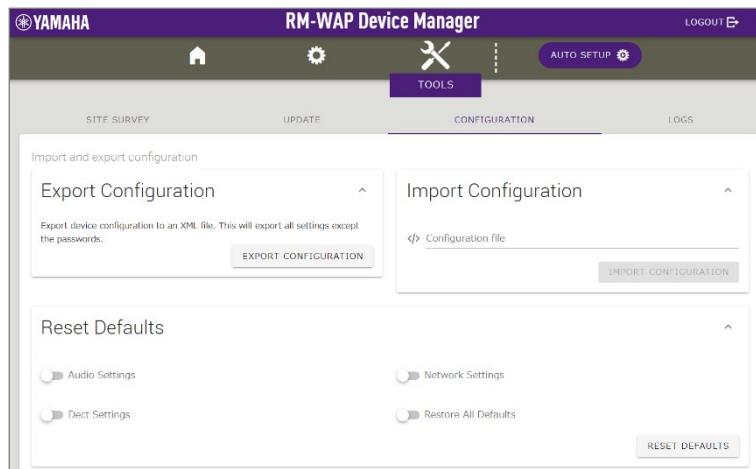
## ② [Upload New Firmware]

Allows you to update the firmware of the access point.

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

## [CONFIGURATION]

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



### ① [Export Configuration]

#### Export Configuration

Export device configuration to an XML file. This will export all settings except the passwords.

**EXPORT CONFIGURATION**

#### Item

#### Description

**EXPORT CONFIGURATION**

Click to export the settings of this unit.

### ② [Import Configuration]

#### Import Configuration

</> Configuration file

**IMPORT CONFIGURATION**

#### Item

#### Description

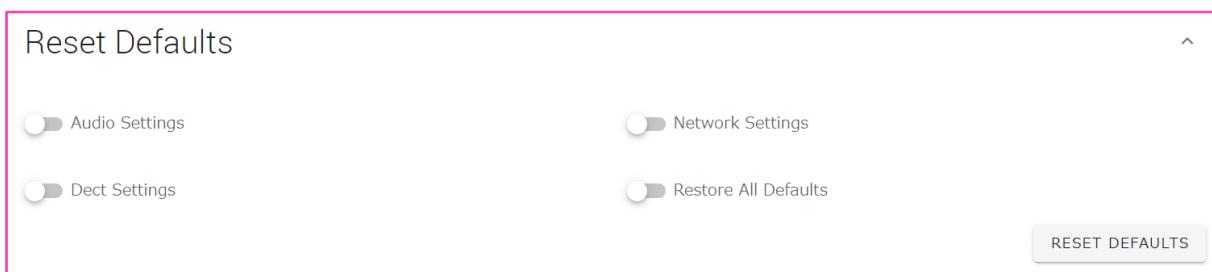
**IMPORT CONFIGURATION**

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. <ul style="list-style-type: none"><li>• [Audio Settings]: Resets the audio settings.</li><li>• [Dect Settings]: Resets the DECT settings.</li><li>• [Network Settings]: Resets the network settings.</li><li>• [Restore All Defaults]: Restores the factory default settings.</li></ul>

**Notice**

Confirm the settings to be reset before performing this operation.

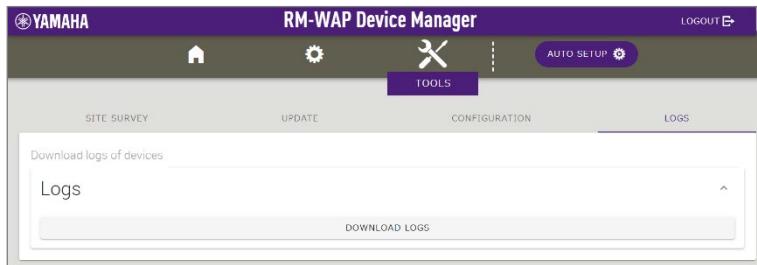
**● Note**

The settings available via [DECT] > [DECT] > [DECT Audio Mode] are reset if any of the following are selected.

- [Audio Settings]
- [Restore All Defaults]

## [LOGS]

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



### ① [Logs]

Logs

DOWNLOAD LOGS

#### Item

DOWNLOAD LOGS

#### Description

Click to download the logs.  
Logs record errors, warnings and actions.

