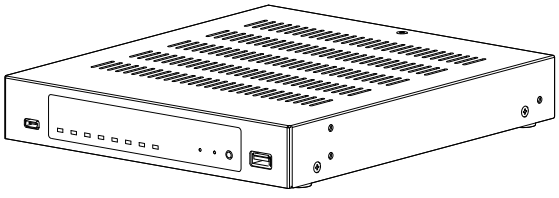
OPERATING GUIDE

WLAN TRANSCEIVER
CONTROLLER

IP1100CV



Icom Inc.

INTRODUCTION

Thank you for choosing this Icom product. The IP1100CV WLAN TRANSCEIVER CONTROLLER is designed and built with Icom's IP network technology.

With proper care, this product should provide you with years of trouble-free operation.

Icom is not responsible for the destruction, damage to, or performance of any Icom or non-Icom equipment, if the malfunction is because of:
- Force majeure, including, but not limited to, fires, earthquakes, storms, floods, lightning, other natural disasters, disturbances, riots, war, or radioactive contamination.
- The use of Icom transceivers with any equipment that is not manufactured or approved by Icom.

About the construction of the manual

You can use the following manuals to understand and operate this WLAN transceiver controller (described as “Controller” in this manual).

INSTRUCTIONS (Comes with the Controller)
Instructions for the connections, initialization, and precautions.

Installation guide (PDF type)
Instructions for the system requirements, the system setup basics, maintenance, and the specifications.
It can be downloaded from the Icom website.

Operating guide (This manual, PDF type)
The detailed references for the settings on the Controller setting screen.
It can be downloaded from the Icom website.

Also refer to the manual for each device, that is connected to your system.

• The screen captures in this manual are examples of using Windows 10.
• In this manual, the IP1100CV is described as “Controller.”
• This document is described based on the IP1100CV firmware version 1.09.

Accessing the Setting screen

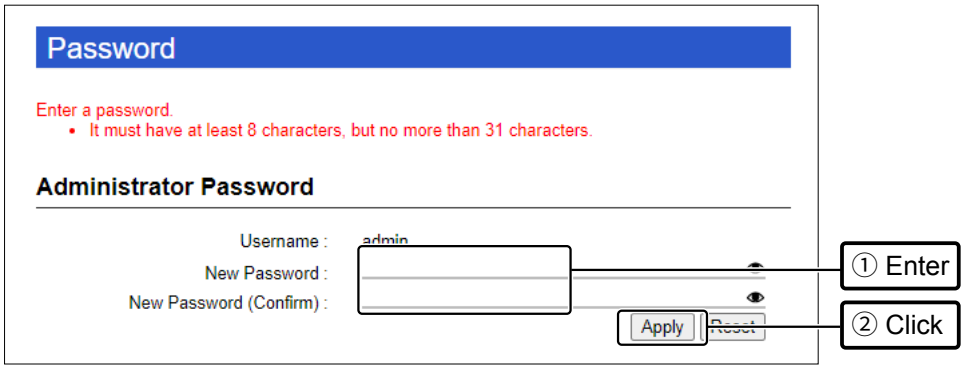
You can access the IP1100CV setting screen with the web browser on your PC.

1 Open your Web browser.
Enter the IP address of the IP1100CV into the address bar. (Default: 192.168.0.1)

2 Press the [Enter] key.

- The Login Authentication screen is displayed.
  When you access the IP1100CV for the first time, you have to set an Administrator password on the Password screen. Go to Step 3.
  Otherwise, go to Step 4.

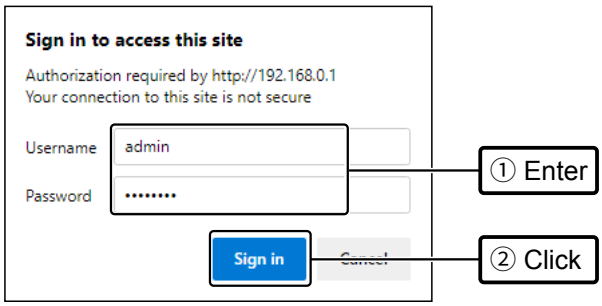
3 Enter a new password into both “New Password” and “New Password (Confirm),” and then click <Apply>.



ⓘ The password should be 8 to 31 of characters, numbers, and letters (case sensitive.)
ⓘ You can check the entered characters by clicking the eye icon to the right.

- The Login Authentication screen is displayed.

4 Enter the username “admin” (fixed username) and the password set in Step 3, and then click <Sign in>.



- The IP1100CV Setting screen is displayed.

TOP

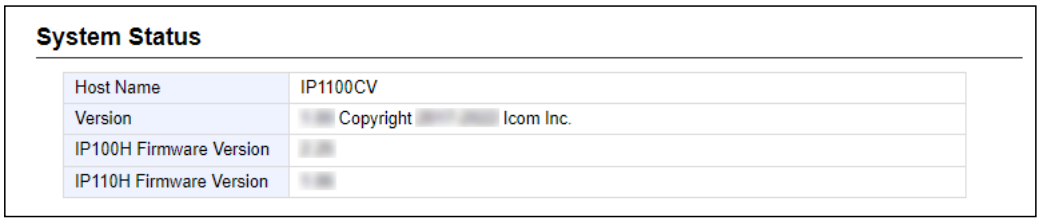
Section 1

TOP screen

TOP

■ System Status

Displays the host name, the firmware version of the Controller, and the WLAN transceiver firmware versions that are embedded on the Controller.

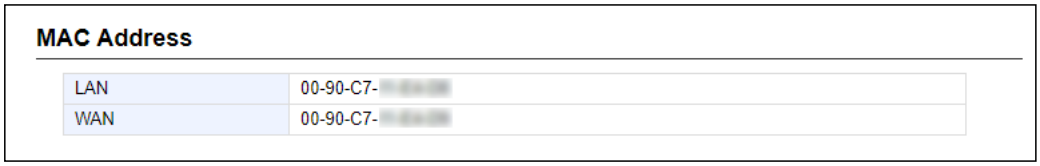


ⓘ See “Transceiver Management” screen in this manual for details on the firmware version of each WLAN transceiver that is registered to the Controller. (Transceiver Controller > Transceiver Settings > Transceiver Management)

TOP

■ MAC Address

Displays the MAC Address (LAN/WAN.)



ⓘ The MAC address is the peculiar number that is assigned to a networking device.
It is displayed in 12 hexadecimal (00-90-C7-XX-XX-XX).
ⓘ The MAC addresses are also printed on the label on the bottom of the Controller.

INFORMATION

Section 2

Network Status screen

Information > Network Status

■ Interface List

Displays the details of the Interface Setting.
(Network Settings > Static Routing > Routing Table > Interface)

Interface List

Interface	IP Address	Subnet Mask
br-lan	192.168.0.1	255.255.255.0

Information > Network Status

■ Ethernet Port Connection Status

Displays the transfer speed and the transfer type for the Ethernet Port.
This is an example setting the WAN connection type as [No Connection].

Ethernet Port Connection Status

Interface	MAC Address	Link Status
LAN	00-90-C7-	1000BASE-T full-duplex
WAN	00-90-C7-	Link down

TIP:
- The Controller's [LAN] port is auto-negotiation enabled, and can automatically select the optimal speed and duplex mode if the peer devices are auto-negotiation enabled as well.
- We recommend that you always enable auto-negotiation on the peer devices.
  If a peer device is fixed to full-duplex mode, auto-negotiation enabled devices (including the Controller) may generally take it for half-duplex mode, and cannot communicate properly.

Information > Network Status

■ DHCP Lease Status

Displays the IP Address and Lease Time assigned to the connected devices.

DHCP Lease Status

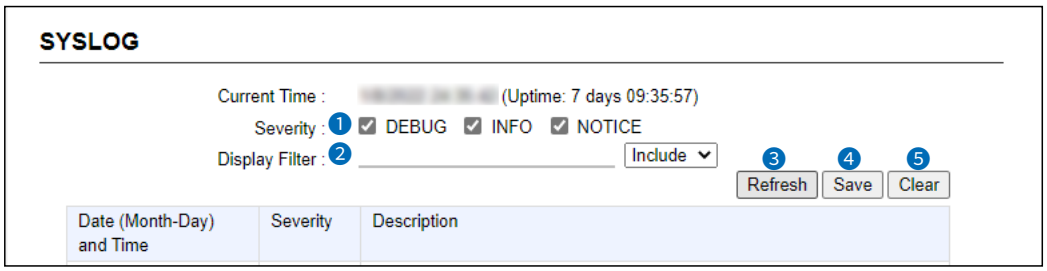
Host Name	MAC Address	IP Address	Lease Time
		192.168.0.30	

SYSLOG screen

Information > SYSLOG

■ SYSLOG

Displays the log of the Controller.



❶ Severity ..... Select one or more log types that you want to list.
ⓘ Remove the check mark to hide the entries.
ⓘ The selection is not stored, and will reset when you leave this screen.

❷ Display Filter ..... Enter a keyword (for example: dhcp) and select “Include” or “Exclude” to narrow down the list.

❸ <Refresh> ..... Click to reload the list. Up to the last 1000 logs are listed.

❹ <Save> ..... Click to save a log to a text (.txt) file.

❺ <Clear> ..... Click to clear all the logs.

NETWORK SETTINGS

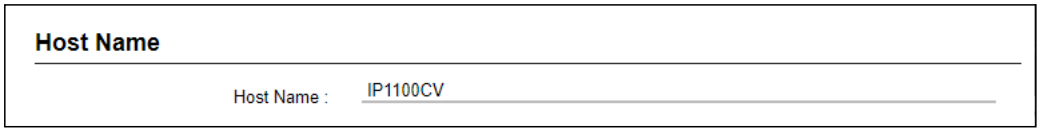
Section 3

IP Address screen

Network Settings > IP Address

■ Host Name

Enter the host name.



Host Name ..... Enter a host name of up to 31 characters. (Default: IP1100CV)
When the Controller connects to Telnet/SSH, this host name is displayed.

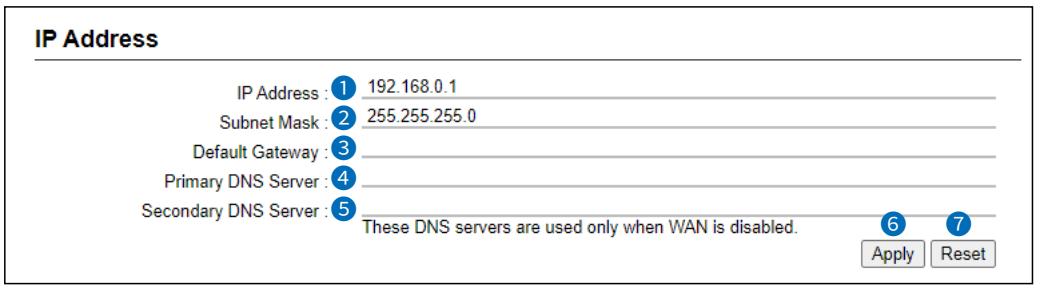
- ⓘ The usable characters are: “a” ~ “z”, “A” ~ “Z”, “0” ~ “9”, and “-.”
- ⓘ The name must start with an alphanumeric character, and must NOT start or end with a “–.”

IP Address screen

Network Settings > IP Address

■ IP Address

Enter the Controller's IP Address.



1 IP Address ..... Enter the LAN IP address according to your network environment. (Default: 192.168.0.1)

ⓘ When using the DHCP Server function, the network part of the IP address must be the same as that set in the "IP Pool Start Address" item in the [DHCP Server] menu.

2 Subnet Mask ..... Enter the subnet mask according to your network environment. (Default: 255.255.255.0)

3 Default Gateway..... If a default gateway device, such as a router, is connected to the LAN port, enter the device's IP address.

4 Primary DNS Server ..... Enter the DNS server address specified by your service provider. If you have two DNS server addresses, enter the primary DNS server address.

5 Secondary DNS Server ... If you have two DNS server addresses, enter the secondary DNS server address.

6 <Apply> ..... Click to apply the entries.

7 <Reset> ..... Click to reset the settings.

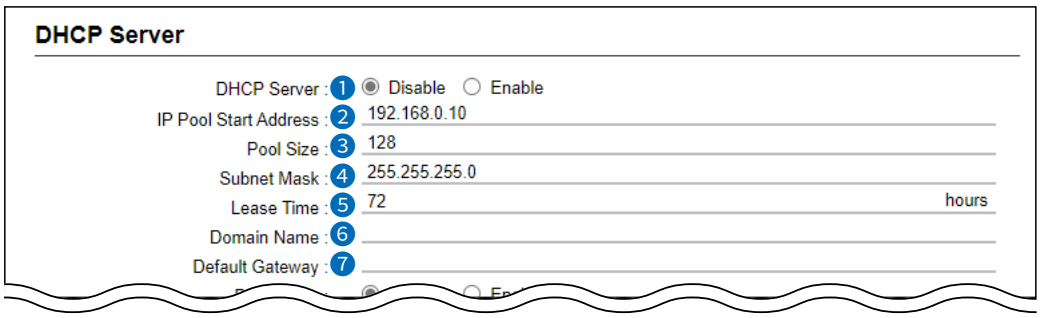
ⓘ You cannot reset after clicking <Apply>.

DHCP Server screen

Network Settings > DHCP Server

■ DHCP Server

Configure the DHCP Server function.



❶DHCP Server ..... Select “Enable” to use the DHCP Server function. (Default: Disable)
The DHCP Server is activated, depending on the IP Pool Start Address and Pool Size items.

❷IP Pool Start Address ..... Enter the IP Pool Start address. (Default: 192.168.0.10)
An IP address is automatically assigned to a device that the Controller connects to, from this IP Pool Start address.

❸Pool Size ..... Entry the number of an IP address that can be automatically assigned. (Default: 30)
Up to 128 addresses can be automatically assigned by the DHCP server function. Another 32 addresses can be manually assigned.

❹Subnet Mask ..... Enter the subnet mask for the IP Pool Start address set in the “IP Pool Start Address.” (Default: 255.255.255.0)

❺Lease Time ..... Enter the lease time period. (Default: 72)
Range: 1 ~ 9999 (hours)

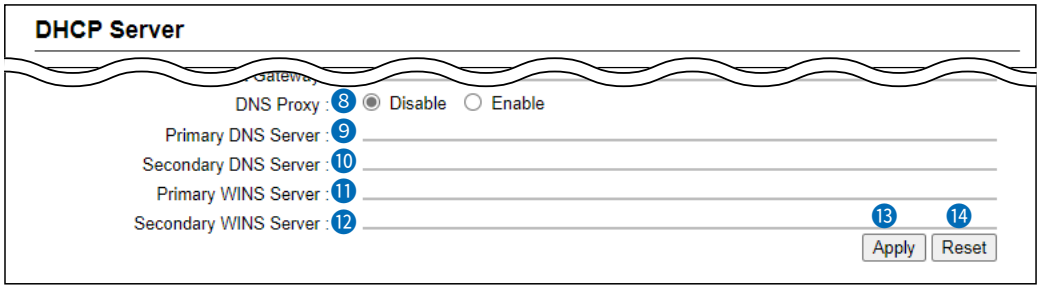
❻Domain Name ..... Enter a network address domain name of up to 253 characters.

❼Default Gateway..... Enter the default gateway IP address.
When the DHCP Server function is used, this IP address is sent to a client.
ⓘ When this item is blank, the Controller’s IP address is sent.

DHCP Server screen

Network Settings > DHCP Server

■ DHCP Server



ⓘ The screen above shows when “DNS Proxy” (❽) is set to “Disable.”

❽ DNS Proxy ..... Selects whether or not to use a DNS proxy. (Default: Enable)
When this option is set to “Enable,” the terminals can assign the Controller as the DNS server.

❾ Primary DNS Server ..... (Displayed only when the DNS Proxy is disabled)
Enter the DNS server address specified by your service provider.
If you have two DNS server addresses, enter the primary address.

❿ Secondary DNS Server ... (Displayed only when the DNS Proxy is disabled)
If you have two DNS server addresses, enter the secondary DNS server address.

⓫ Primary WINS Server ..... Enter the WINS server’s address. If you have two WINS server addresses, enter the primary WINS server address.

⓬ Secondary WINS Server ... If you have two WINS server addresses, enter the secondary WINS server address.

⓭ <Apply> ..... Click to apply the entries.

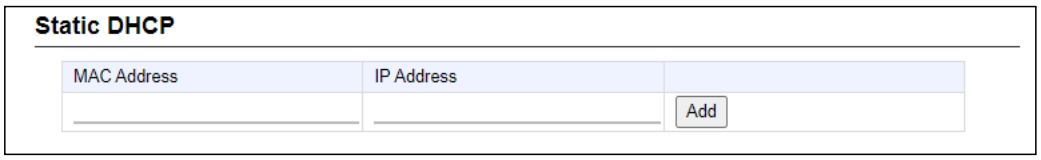
⓮ <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

DHCP Server screen

Network Settings > DHCP Server

■ Static DHCP

Enter the MAC and static IP addresses of the DHCP server.
ⓘ You can enter up to 32 entries.

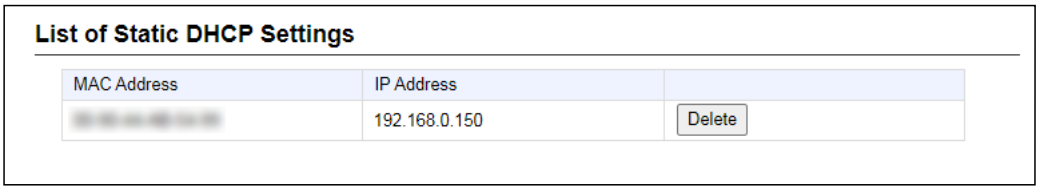


Static DHCP ..... Enter the MAC and IP addresses, and then click <Add>.
ⓘ This setting is useful when the DHCP Server function is used. See page 3-4 for details of the DHCP Server function.
ⓘ Sets a different IP address from the IP address that the DHCP Server function automatically assigns.
ⓘ Make sure that the addresses of the devices on the network do not overlap or conflict.
If a DHCP server is already connected to the network, and there is an address conflict, a network problem will occur.

Network Settings > DHCP Server

■ List of Static DHCP Settings

Displays the static DHCP entries.



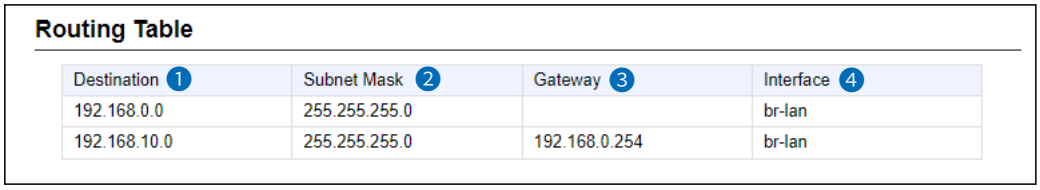
<Delete> ..... Click to delete the entry.
ⓘ You cannot restore after clicking <Delete>.

Static Routing Screen

Network Settings > Static Routing

■ Routing Table

Displays the valid routing information for packet transmission.



❶ **Destination** ..... The network address of the route's destination network.

❷ **Subnet Mask** ..... The subnet mask of the route's destination network.

❸ **Gateway** ..... The route's gateway address.

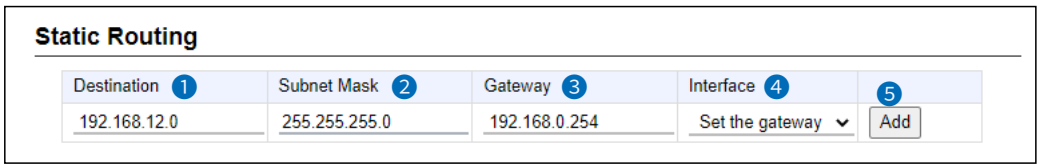
❹ **Interface** ..... The routing interface.
- **br-lan:** LAN
- **eth0:** WAN
- **ppp0 ~ ppp7:** PPPoE (WAN)
- **vti0 ~ vti 31:** IPsec Tunnel

Static Routing Screen

Network Settings > Static Routing

■ Static Routing

Enter the static routing destinations.
ⓘ You can enter up to 32 entries.



❶ Destination ..... Set the network address of the route's destination network.

❷ Subnet Mask ..... Set the subnet mask of the route's destination network.

❸ Gateway ..... (Only when the [Interface] is set to "Set the gateway")
Set the route's gateway address.

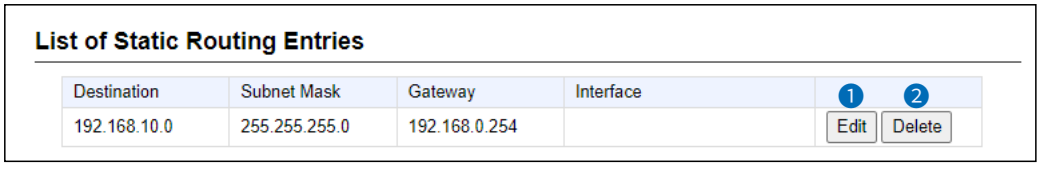
❹ Interface ..... Select the routing interface.
- Set the gateway
- ppp0 (WAN01) ~ ppp7 (WAN08)
- vti0 ~ vti31

❺ <Add> ..... Click to add the entry.
The entry is added to the [List of Static Routing Entries].

Network Settings > Static Routing

■ List of Static Routing Entries

Displays the static routing destinations.
ⓘ You can enter up to 32 entries.



❶ <Edit> ..... Click to edit the entry.

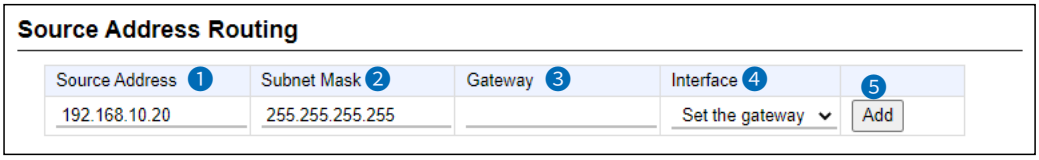
❷ <Delete> ..... Click to delete the entry.
ⓘ You cannot restore after clicking <Delete>.

Policy Routing screen

Network Settings > Policy Routing

■ Source Address Routing

Enter the packet source routing from the specified network address of the source terminal (such as a PC.)
ⓘ You can enter up to 32 entries.



1 Source Address ..... Set the network address of the source terminal.

2 Subnet Mask ..... Set the subnet mask of the source network address.

3 Gateway ..... (Only when the [Interface] is set to “Set the gateway”)
Set the route’s gateway address.

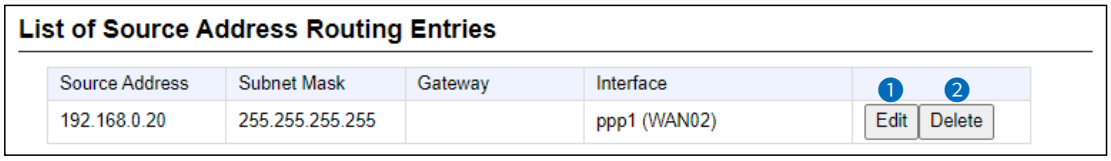
4 Interface ..... The routing target interface from:
- Set the gateway
- ppp0 (WAN01) ~ ppp7 (WAN08)
- vti0 ~ vti31

5 <Add> ..... Click to add the entry.
The entry is added to the [List of Source Address Routing Entries].

Network Settings > Policy Routing

■ List of Source Address Routing Entries

Displays the entered packet source routing settings.



1 <Edit> ..... Click to edit the entry.

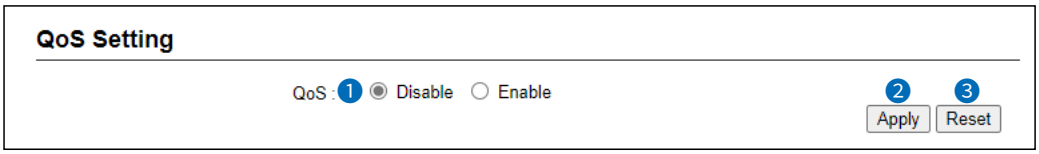
2 <Delete> ..... Click to delete the entry.
ⓘ You cannot restore after clicking <Delete>.

QoS screen

Network Settings > QoS

■ QoS Setting

QoS prioritizes the specified packet communication. Therefore, other data communication between WAN and LAN may be restricted if the packet communication increases.



❶QoS ..... Select whether or not to use the QoS function. (Default: Disable)
If enabled, the entered rules in [QoS Rule List] (pP.3-11) are applied, and the other communication than the packet communication are restricted.

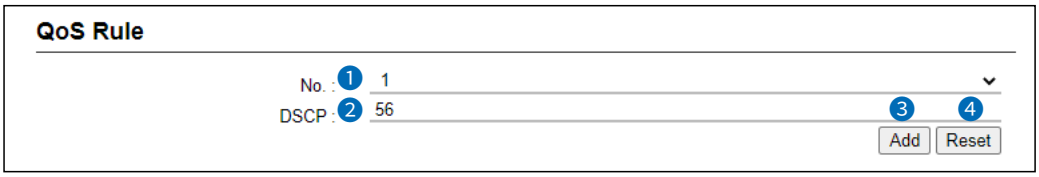
❷<Apply> ..... Click to apply the entries.

❸<Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

Network Settings > QoS

■ QoS Rule

You can set up to 8 QoS rules.



❶No. ..... You can set up to 8 QoS rules.
Select a rule number between 1 to 8.

❷DSCP ..... Enter a DSCP value between 0 to 63.

❸<Add> ..... Click to add the entry or apply the change.
The entry will be added to the [QoS Rule List].

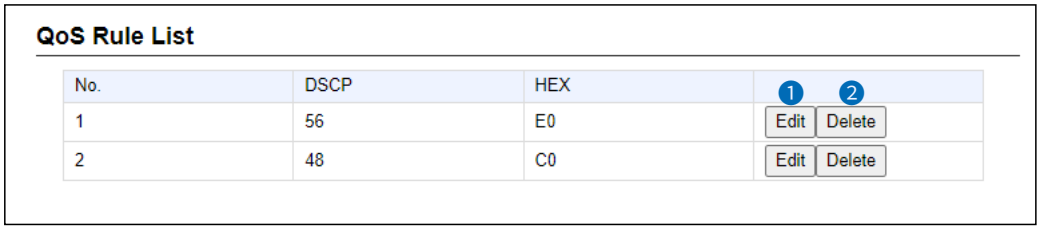
❹<Reset> ..... Click to reset the settings.

QoS screen

Network Settings > QoS

■ QoS Rule List

Displays the entered QoS Rules.
The 2 entries are set as the default.



❶ **<Edit>** ..... Click to edit the entry.

❷ **<Delete>** ..... Click to delete the entry.
ⓘ You cannot restore after clicking <Delete>.

ROUTER SETTINGS

Section 4

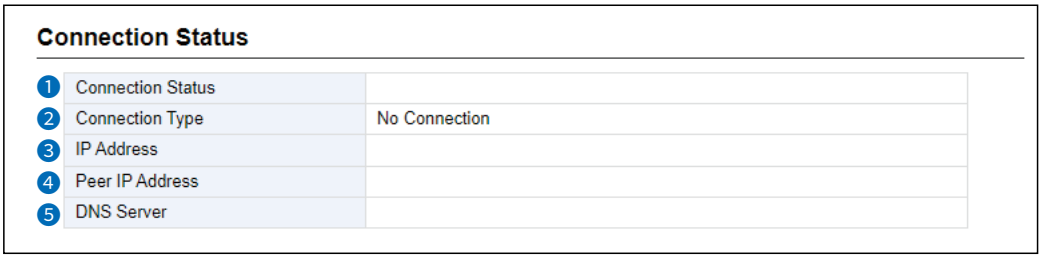
WAN screen

Router Settings > WAN

■ Connection Status

The WAN connection status is displayed.

Connection Type: No Connection



❶ **Connection Status**..... Nothing is displayed.

❷ **Connection Type** ..... The WAN connection type is displayed.

❸ **IP Address** ..... Nothing is displayed.

❹ **Peer IP Address** ..... Nothing is displayed.

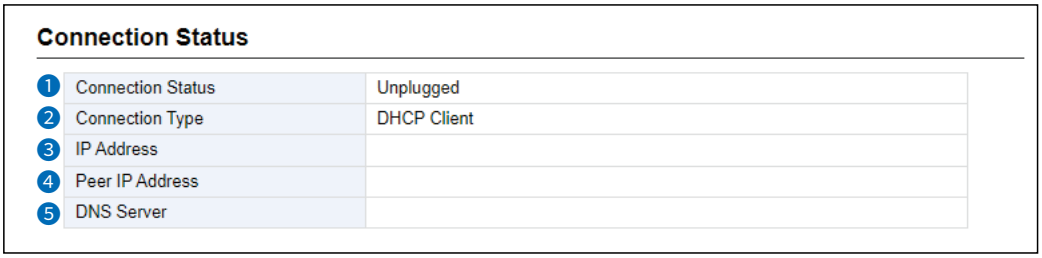
❺ **DNS Server** ..... Nothing is displayed.

WAN screen

Router Settings > WAN

■ Connection Status

Connection Type: DHCP Client



❶ **Connection Status**..... The connection status to the Internet line is displayed as “Unplugged,” “Connecting,” or “Connected.”

❷ **Connection Type** ..... The WAN connection type is displayed.

❸ **IP Address** ..... The Controller’s IP address is displayed.

❹ **Peer IP Address** ..... The default Gateway IP address specified by your service provider is displayed.

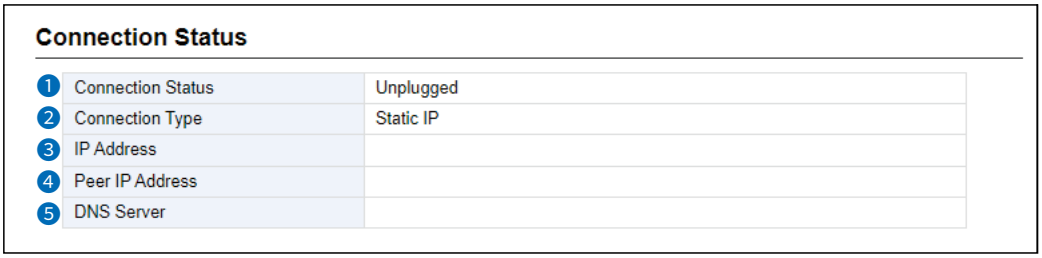
❺ **DNS Server** ..... The DNS server’s IP address is displayed.

WAN screen

Router Settings > WAN

■ Connection Status

Connection Type: Static IP



❶ **Connection Status**..... The connection status to the Internet line is displayed as “Unplugged,” or “Connected.”

❷ **Connection Type** ..... The WAN connection type is displayed.

❸ **IP Address** ..... The Controller’s IP address is displayed.

❹ **Peer IP Address** ..... The default Gateway IP address specified by your service provider is displayed.

❺ **DNS Server** ..... The DNS server’s IP address is displayed.

WAN screen

Router Settings > WAN

■ Connection Status

ⓘ Up to 2 PPPoE sessions can be connected from the registered PPPoE destination.
ⓘ The first session is set to the default gateway.
ⓘ To use a second session, set the Static Routing and the Policy Routing.

Connection Type: PPPoE

Connection Status

❶	PPPoE Session	Session 1	Session 2
❷	Destination	WAN01 (ppp0) Disconnect	None Connect
❸	Connection Status	Connected	
❹	Connection Type	PPPoE	PPPoE
❺	IP Address	[redacted]	
❻	Peer IP Address	[redacted]	
❼	DNS Server	[redacted]	
❽	Uptime	[redacted]	

❶ PPPoE Session ..... The first session and the second session are displayed respectively.

❷ Destination ..... Select the destination from the WAN connection set in the [Connection Settings] setting (Router Settings > WAN > Connection Settings).
ⓘ You cannot select while connecting the line.

<Connect>/<Disconnect>
Click to manually connect or disconnect the selected WAN.
ⓘ <Disconnect> is displayed when the line is connected.
ⓘ If “Connecting” is not displayed in [Connection Status] when the line is connected, check the cable connection and network configuration.

❸ Connection Status..... The connection status to the Internet line is displayed as “Unplugged,” “Disconnect,” “Connecting,” or “Connected.”

❹ Connection Type ..... The WAN connection type is displayed.

❺ IP Address ..... The Controller’s IP address is displayed.

❻ Peer IP Address ..... The default Gateway IP address specified by your service provider is displayed.

❼ DNS Server ..... The DNS server’s IP address is displayed.

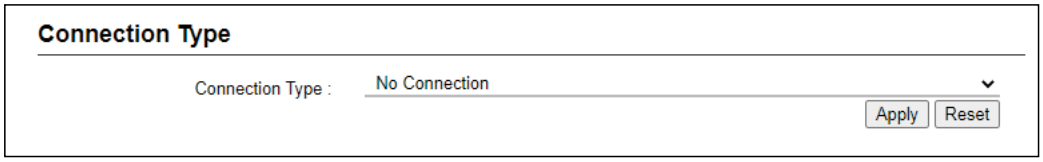
❽ Uptime ..... The elapsed time the Controller has been connected to the network is displayed.

WAN screen

Router Settings > WAN

■ Connection Type

Select the type of WAN connection.



Connection Type …… Select the WAN connection type as specified by your service provider. (Default: No Connection)

When you set to other than the “No Connection,” the router function of the Controller will be enabled, and you connect to an upstream network through the [WAN] port.

- **No Connection:** Does not use the WAN connection.
- **DHCP Client:** The WAN IP address is automatically obtained by a DHCP server.
- **Static IP:** The WAN IP address is specified by your service provider.
- **PPPoE:** The WAN IP address is specified by your service provider using the PPPoE method.

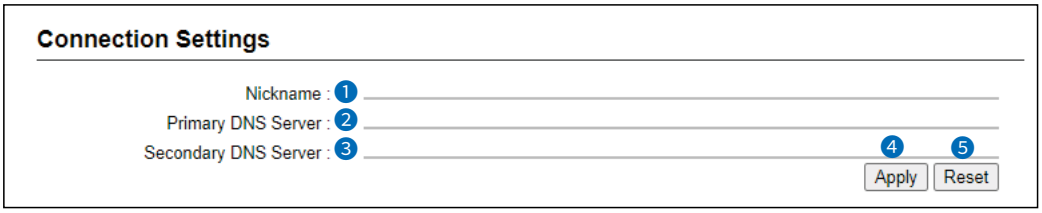
WAN screen

Router Settings > WAN

■ Connection Settings

Set the WAN connection details.

Connection Type: DHCP Client



❶Nickname ..... Enter your service provider's name of up to 31 characters.

❷Primary DNS Server ..... Enter the DNS server address specified by your service provider. If you have two DNS server addresses, enter the primary address.

❸Secondary DNS Server ... If you have two DNS server addresses, enter the secondary DNS server address.

❹<Apply> ..... Click to apply the entries.

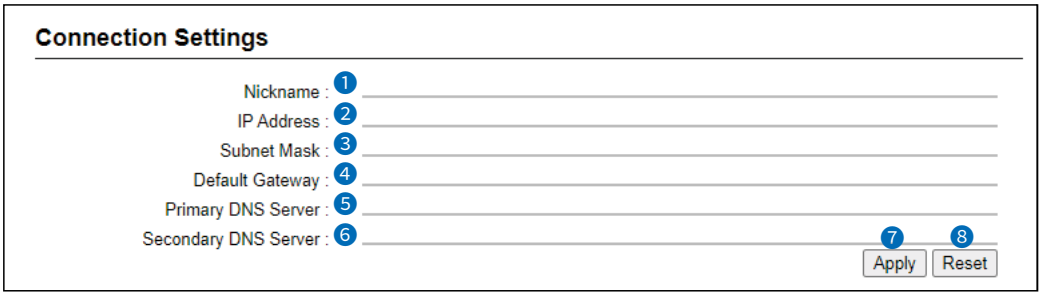
❺<Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

WAN screen

Router Settings > WAN

■ Connection Settings

Connection Type: Static IP



❶ Nickname ..... Enter your service provider's name of up to 31 characters.

❷ IP Address ..... Enter the WAN IP address.

❸ Subnet Mask ..... Enter the WAN Subnet Mask.

❹ Default Gateway..... Enter the WAN Default Gateway.

❺ Primary DNS Server ..... Enter the DNS server address specified by your service provider. If you have two DNS server addresses, enter the primary DNS server address.

❻ Secondary DNS Server ... If you have two DNS server addresses, enter the secondary DNS server address.

❼ <Apply> ..... Click to apply the entries.

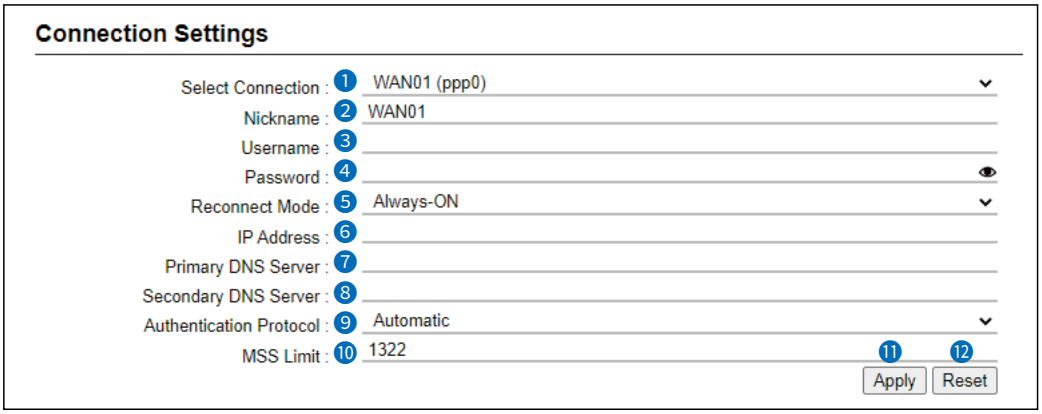
❽ <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

WAN screen

Router Settings > WAN

■ Connection Settings

Connection Type: PPPoE



❶ Select Connection ..... Select the WAN connection. (Up to 8 settings can be set.) (Default: WAN01(ppp0))

❷ Nickname ..... Enter or edit your service provider's name of up to 31 characters.
ⓘ The nickname set in [Select Connection] is displayed.

❸ Username..... Enter the login user name or the account name.

❹ Password ..... Enter a login password.
The entered characters are displayed as * (asterisk) or ● (black circle.)
ⓘ You can check the entered characters by clicking the eye icon to the right.

❺ Reconnect Mode ..... Select the PPPoE connection method. (Default: Always-ON)

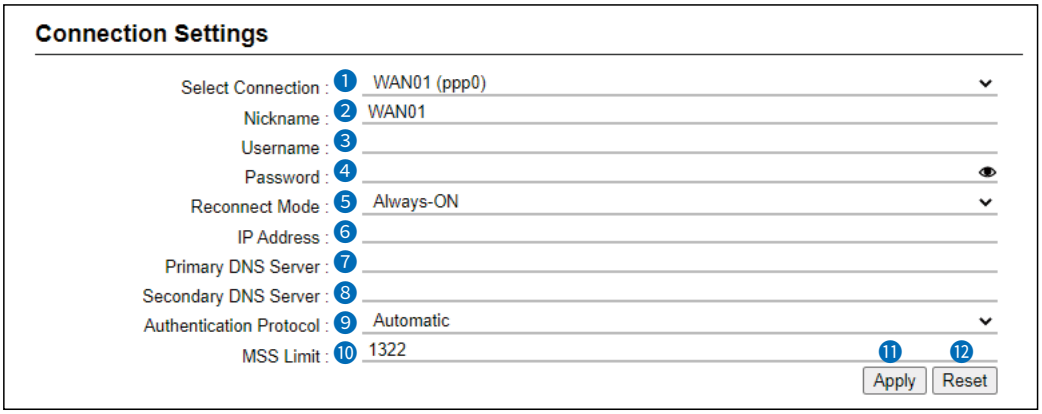
- **Manual:** The PPPoE line can be manually connected, by clicking <Connect>/<Disconnect>
  ⓘ The network is disconnected, when the Controller is booted.
- **Always-ON:** The PPPoE line is always connected to the destination set in the [Select Connection].
  ⓘ The network is already connected when the Controller is booted.
  ⓘ You can manually connect or disconnect by clicking <Connect> or <Disconnect> in the "Connection Status" setting (Router Settings > WAN > Connection Status).

WAN screen

Router Settings > WAN

■ Connection Settings

Connection Type: PPPoE



⑥ IP Address ..... Enter the WAN IP address only if it is specified by your service provider.

⑦ Primary DNS Server ..... Enter the DNS server address specified by your service provider. If you have two DNS server addresses, enter the primary DNS server address.

⑧ Secondary DNS Server ... If you have two DNS server addresses, enter the secondary DNS server address.

⑨ Authentication Protocol ... Enter the authentication protocol specified by your service provider. Select “Automatic” if not specified. (Default: Automatic)

- **Automatic:** Change PAP/CHAP automatically according to the destination’s request.
- **PAP:** Use a password for the authentication. Note that the password is not encrypted.
- **CHAP:** The authentication information is encrypted. It is more secure than PAP.

⑩ MSS Limit..... Enter the MSS Limit, if specified by your service provider. (Default: 1322)

• Range: 536 ~ 1452 (byte)

⑪ <Apply> ..... Click to apply the entries.

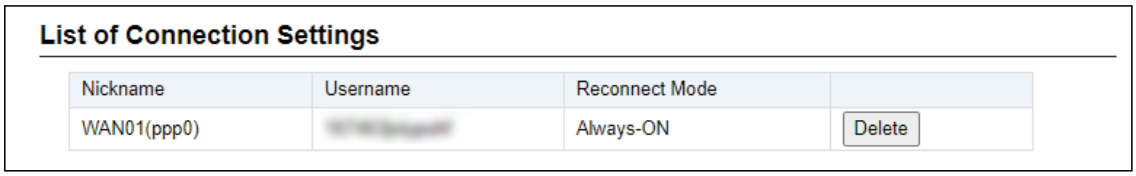
⑫ <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

WAN screen

Router Settings > WAN

■ List of Connection Settings

Displayed when “Connection Type” is set to “PPPoE.”
Lists the connection destinations registered in “Connecting Settings.”
(Router Settings > WAN > Connection Settings)



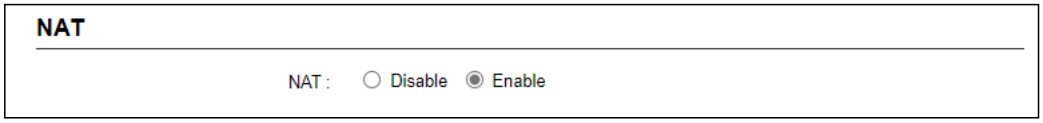
<Delete> ..... Click to delete an entry.
ⓘ You cannot restore after clicking <Delete>.

NAT screen

Router Settings > NAT

■ NAT

Set the NAT.
ⓘ This function can be set when [Connection Type] on the WAN screen is set to other than “No Connection.”

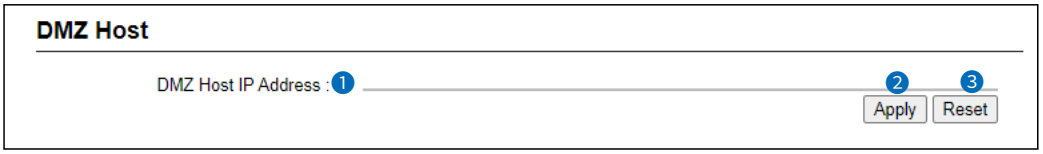


NAT..... Select “Enable” to use the NAT function. (Default: Enable)
The NAT function converts the WAN global address into a private address.

Router Settings > NAT

■ DMZ Host

Set the DMZ Host function.
ⓘ This function can be set when [Connection Type] on the WAN screen is set to other than “No Connection.”



1 DMZ Host IP Address ..... Enter the DMZ Host IP address.
The DMZ Host function (DeMilitarized Zone) transfers an unknown IP frame from the WAN (Internet) to the specified IP address on the LAN. But you need to pay attention because it also decreases the security of the IP address, which is specified as the transfer destination.
ⓘ When the DMZ Host function and Port Forwarding are used at the same time, Port Forwarding is prioritized.
ⓘ Icom is not responsible for any results caused by a decline in security.

2 <Apply> ..... Click to apply the entries.

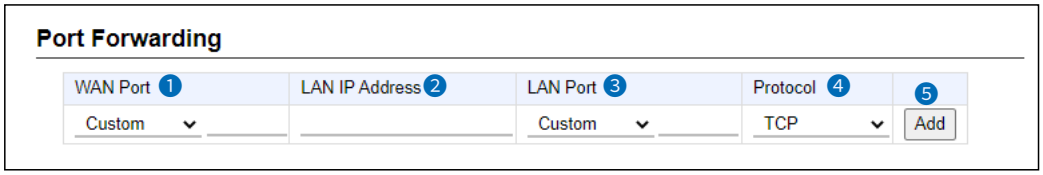
3 <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

NAT screen

Router Settings > NAT

■ Port Forwarding

The Port Forwarding function forwards the packets from a masquerade IP (Router Global IP) address to a private IP address.



❶WAN Port ..... Select “Custom” if you select the WAN port by its number.
If you don’t select the port by number, select the port by the mnemonic (DNS, Finger, FTP, Gopher, NEWS, POP3, SMTP, Telnet, Web, or Whois).

❷LAN IP Address ..... Enter the private IP address.

❸LAN Port ..... Select “Custom” if you select the LAN port by its number.
If you don’t select the port by number, select the port by the mnemonic (DNS, Finger, FTP, Gopher, NEWS, POP3, SMTP, Telnet, Web, or Whois).

❹Protocol ..... Select the protocol from “TCP,” “UDP,” “TCP/UDP,” “GRE,” and “ESP.”

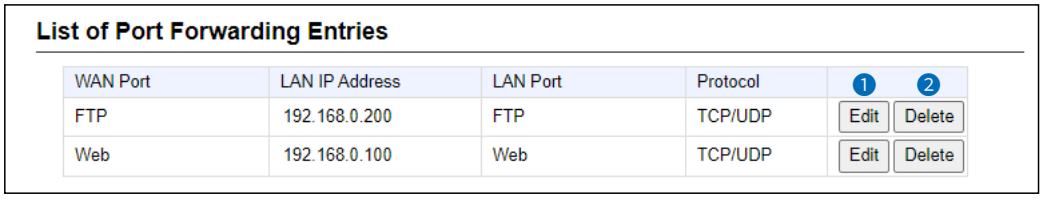
❺<Add> ..... Click to add the entry.
ⓘ Up to 32 masquerade IP addresses can be registered.

NAT screen

Router Settings > NAT

■ List of Port Forwarding Entries

Lists the Port Forwarding Entries.



❶<Edit> ..... Click to edit the entry.
ⓘ The registered entries are displayed in [Port Forwarding].

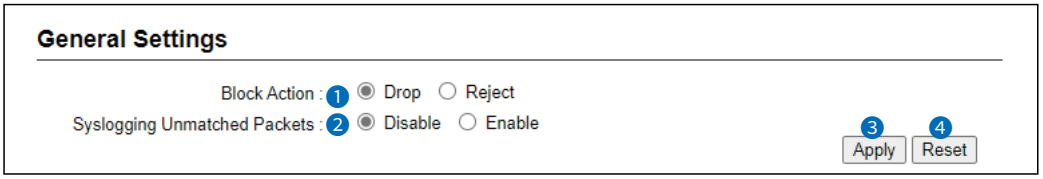
❷<Delete> ..... Click to delete the entry.
ⓘ You cannot restore after clicking <Delete>.

IP Filter screen

Router Settings > IP Filter

■ General Settings

The settings to pass or block the packets that match the registered filtering settings.
ⓘ Icom is not responsible for any results caused by a decline in security due to changing the IP filter.



1 Block Action ..... Select the operation when blocking the packet. (Default: Drop)

- **Drop**: Dropping the packet without any response.
- **Reject**: Sending the denied packet.

2 Syslogging Unmatched Packets ..... Select whether or not to log the packets started from the WAN and blocked due to not matching any IP filter. (Default: Disable)
ⓘ Processing a large number of logs may decrease the processing speed.

3 <Apply> ..... Click to apply the settings.

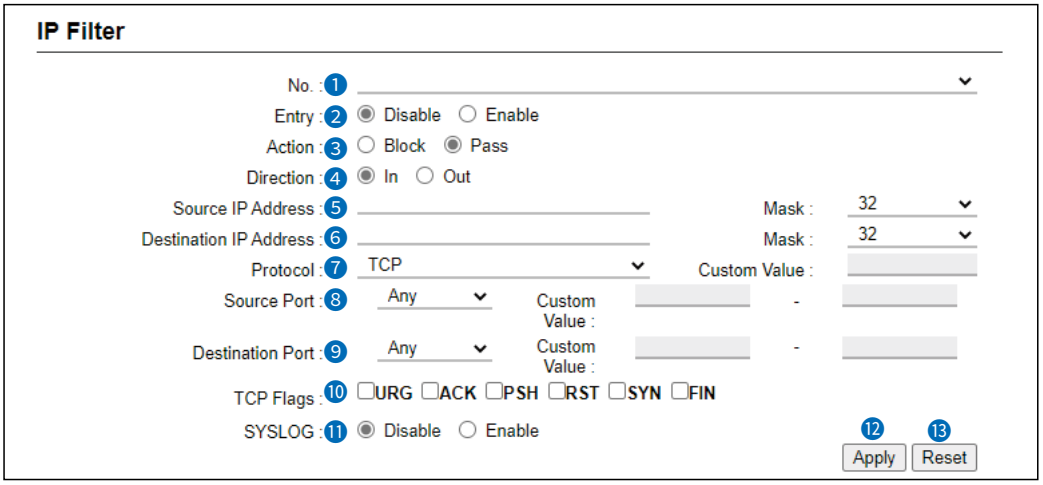
4 <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

IP Filter screen

Router Settings > IP Filter

■ IP Filter

The settings to pass or block the packets that match the registered filtering settings.
ⓘ When [LAN Port] is set in Connection type, this setting cannot be changed.
ⓘ Icom is not responsible for any results caused by a decline in security due to changing the IP filter.



ⓘ This is an example of setting “TCP” as the protocol.

❶No. ..... Select the filtering order.
Range: 1 ~ 64
ⓘ The number registered in [List of IP Filter Entries] cannot be selected.
The filter function checks the packets in the selected order according to the filter setting in [List of IP Filter Entries].

❷Entry ..... Select “Enable” to apply the filter setting. (Default: Disable)
Select “Disable” in the unused filter entry.
If the filter is registered in “Disable,” “(off)” is displayed in [No.] of [List of IP Filter Entries].
ⓘ This is an example when number “1” is disabled.

No.	Action / Direction	Protocol (TCP Flags)	Source IP Address (Source Port) / Destination IP Address (Destination Port)	SYSLOG	
1 (off)	Pass / In	TCP (Any Flag)	* (*) / * (*)	Disable	Edit Delete

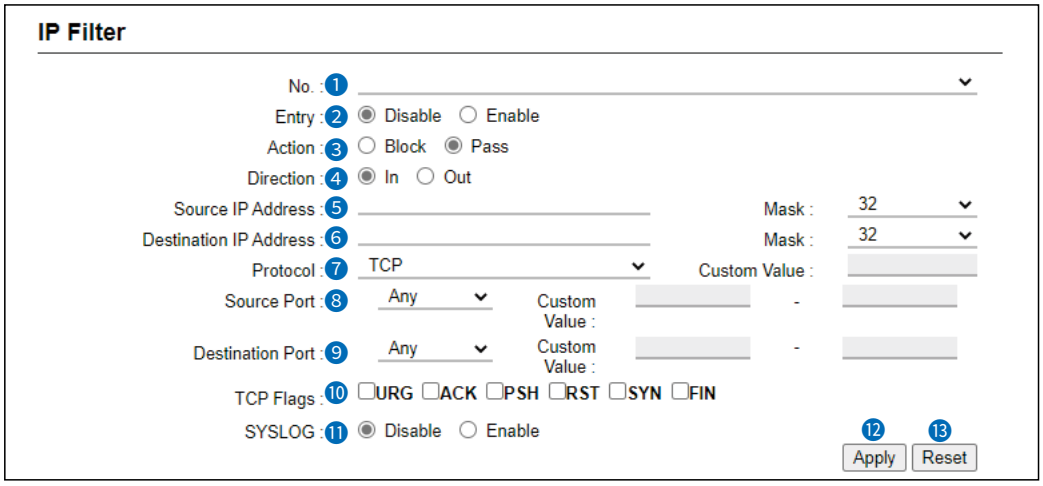
❸Action ..... Select the filtering method. (Default: Pass)

- **Block:** Blocks all packets that match the filtering settings.
- **Pass:** Passes all packets that match the filtering settings.

IP Filter screen

Router Settings > IP Filter

■ IP Filter



ⓘ This is an example of setting “TCP” as the protocol.

4 Direction ..... Set the filtering direction. (Default: In)

- **In**: Filters the incoming packets from the WAN interfaces.
- **Out**: Filters the outgoing packets to the WAN interfaces.

5 Source IP Address..... Enter the source IP address (and mask) to filter.
All the packets sent from the entered IP address are filtered (blocked or passed.)

- Mask range: 1 ~ 32

6 Destination IP Address ... Enter the destination IP address (and mask) to filter.
All the packets sent to the entered IP address are filtered (blocked or passed).

- Mask range: 1 ~ 32

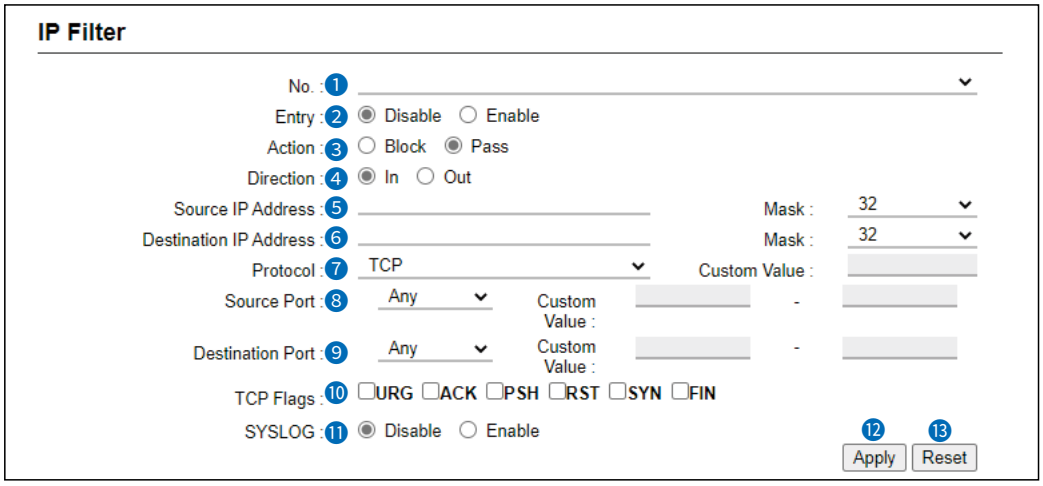
7 Protocol ..... Select the transport layer protocol of the packet targeted to be filtered. (Default: Any)

- **Any:** All protocols.
- **TCP:** Only TCP.
  Enter [Source Port], [Destination Port], and [TCP Flags].
- **UDP:** Only UDP.
  Enter [Source Port] and [Destination Port].

IP Filter screen

Router Settings > IP Filter

■ IP Filter

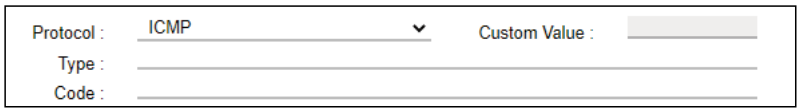


ⓘ This is an example of setting “TCP” as the protocol.

8 Protocol (Continued) .....

- **TCP/UDP:** TCP and UDP.
  Enter [Source Port] and [Destination Port].

- **ICMP:** Only ICMP.
  Enter [Type] and [Code].



[Type]
Enter the type of ICMP header to filter between 0 and 255.
ⓘ When the type is not specified, all header types are filtered.

[Code]
Enter the type of ICMP code to filter between 0 and 255.
ⓘ When the type is not specified, all code types are filtered.

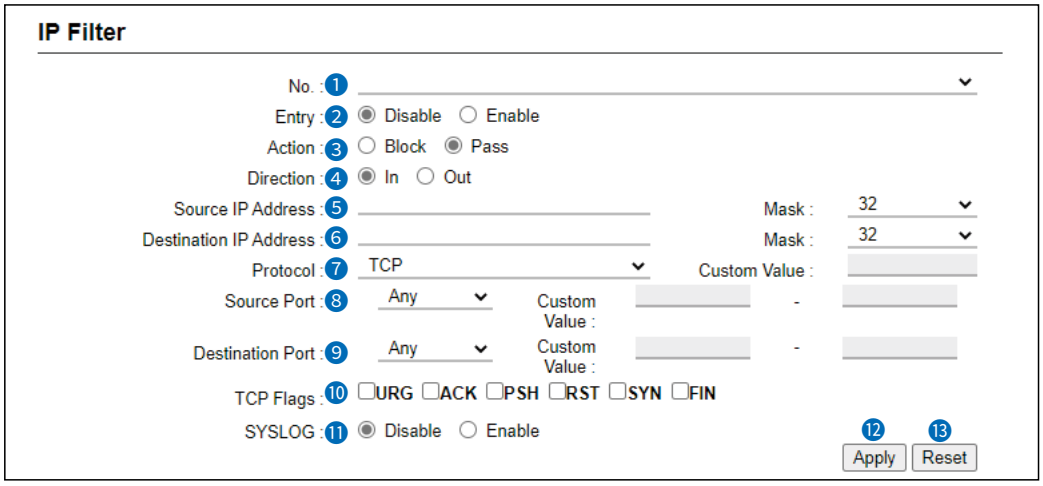
- **IGMP:** Only IGMP.

- **Custom:** Specified by the protocol number.
  Enter the upper IP layer protocol number into the [Custom Value].
  Range: 0 ~ 255

IP Filter screen

Router Settings > IP Filter

■ IP Filter



ⓘ This is an example of setting “TCP” as the protocol.

9 Source Port ..... Specify the source port, or enter the TCP/UDP source port number. (Default: Any)

There are 2 ways to specify the port number.

• **Specifying by number**

1. Select “Custom.”
2. Enter the custom port number in “Custom Value:[(Start)] - [(End)].” When you use a specific port, enter only the “[(Start)]”, or enter the same number in both the “[(Start)]” and the “[(End)].” Port number range: 1 ~ 65535

• **Specifying by mnemonic**

Select a source port other than “Any” or “Custom.” “DNS,” “Finger,” “FTP,” “Gopher,” “NEWS,” “POP3,” “SMTP,” “Telnet,” “Web,” “Whois” are selectable.

ⓘ When “Any” is selected, all of the port number types are filtered.

10 Destination Port ..... Select the destination port, or enter the TCP/UDP destination port number. (Default: Any)

There are 2 ways to specify the port number.

• **Specifying by number**

1. Select “Custom.”
2. Enter the custom port number in “Custom Value:[(Start)] - [(End)].” When you use a specific port, enter only the “[(Start)]”, or enter the same number in both the “[(Start)]” and the “[(End)].” Port number range: 1 ~ 65535

• **Specifying by mnemonic**

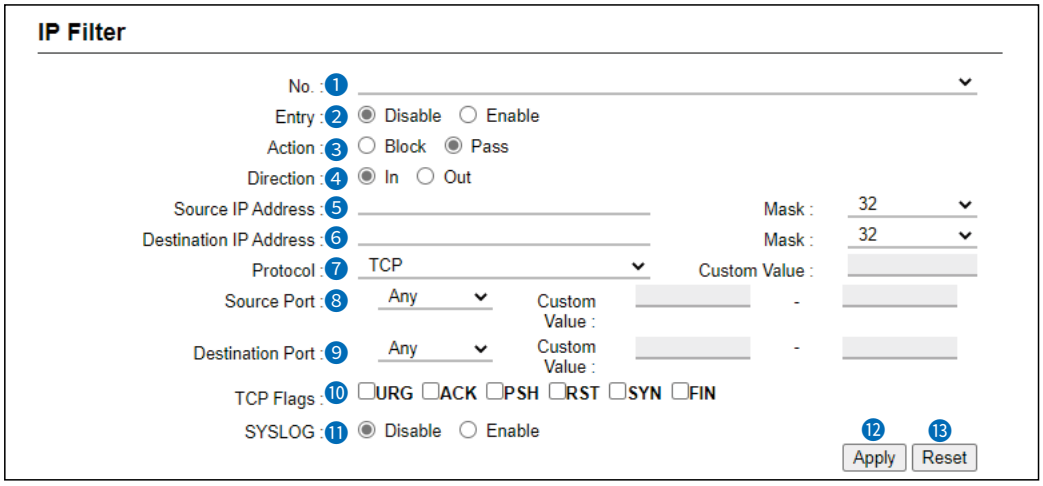
Select a source port other than “Any” or “Custom.” “DNS,” “Finger,” “FTP,” “Gopher,” “NEWS,” “POP3,” “SMTP,” “Telnet,” “Web,” “Whois” are selectable.

ⓘ When “Any” is selected, all of the port number types are filtered.

IP Filter screen

Router Settings > IP Filter

■ IP Filter



⓫ TCP Flags..... Select a TCP flags. (Default: None)
You can select the TCP flags from “URG,” “ACK,” “PSH,” “RST,” “SYN,” and “FIN.”
ⓘ The selected flag’s first character is displayed in [List of IP Filter Entries].
(Example: RST is selected)

2	Pass	TCP (R)	* (*)	Disable	Edit Delete
	In		* (*)		

ⓘ When no TCP flag is selected, the TCP flag is not set as the filtering criteria.

⓬ SYSLOG ..... Select “Enable” to output the SYSLOG. (Default: Disable)
ⓘ The log information is displayed on the SYSLOG screen.
(Information > SYSLOG)
ⓘ Processing a large number of logs may decrease the processing speed. Do not use this function except for the operation check and the test operation to ensure the call quality.

⓭ <Apply> ..... Click to apply the entries.

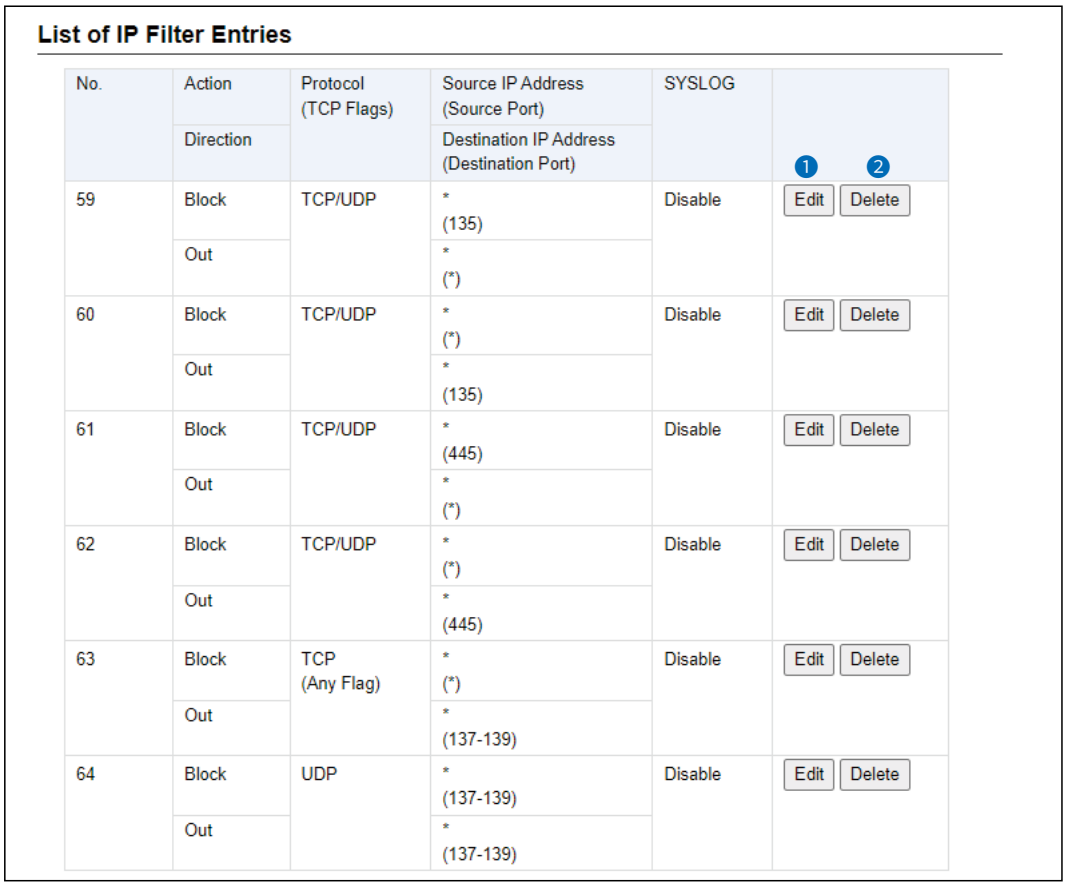
⓮ <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

IP Filter screen

Router Settings > IP Filter

■ List of IP Filter Entries

Lists the IP filter entries registered in [IP filter] setting.



List of IP Filter Entries

No.	Action / Direction	Protocol (TCP Flags)	Source IP Address (Source Port) / Destination IP Address (Destination Port)	SYSLOG	❶ ❷
59	Block	TCP/UDP	* (135)	Disable	Edit Delete
	Out		* (*)		
60	Block	TCP/UDP	* (*)	Disable	Edit Delete
	Out		* (135)		
61	Block	TCP/UDP	* (445)	Disable	Edit Delete
	Out		* (*)		
62	Block	TCP/UDP	* (*)	Disable	Edit Delete
	Out		* (445)		
63	Block	TCP (Any Flag)	* (*)	Disable	Edit Delete
	Out		* (137-139)		
64	Block	UDP	* (137-139)	Disable	Edit Delete
	Out		* (137-139)		

ⓘ The screen above is only an example.

About the default IP filter packets

• No. 59–64: These filtering conditions prevent the Windows applications from the remote access and leaking information caused by the File Sharing.
ⓘ The * mark matches all the values.

❶ **<Edit>** ..... Click to edit the entry.
ⓘ The entry contents are loaded to the IP Filter Setting.

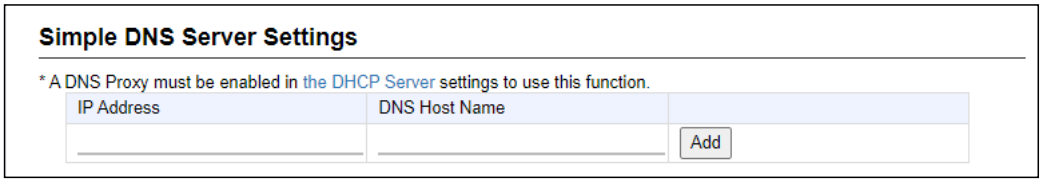
❷ **<Delete>** ..... Click to delete the entry.
ⓘ You cannot restore after clicking <Delete>.

Simple DNS screen

Router Settings > Simple DNS

■ Simple DNS Server Settings

The settings to use the Controller as a simple DNS server.



Enter the combination of the terminal host name and the IP address corresponding to the host, and then click <Add>.
When the combination is registered, the Controller can respond to both DNS forward lookup and DNS reverse lookup.

ⓘ Up to 32 combinations can be registered.
ⓘ This setting is effective when using the DNS proxy response function of the Controller.
ⓘ We recommend that you use a static DHCP server to fix the combination of the MAC address and the IP address when registering the local IP address and its host name.
ⓘ If you register “Host Name.Domain Name” as the host name, the Controller can respond to the request, even if only the host name matches.

Router Settings > Simple DNS

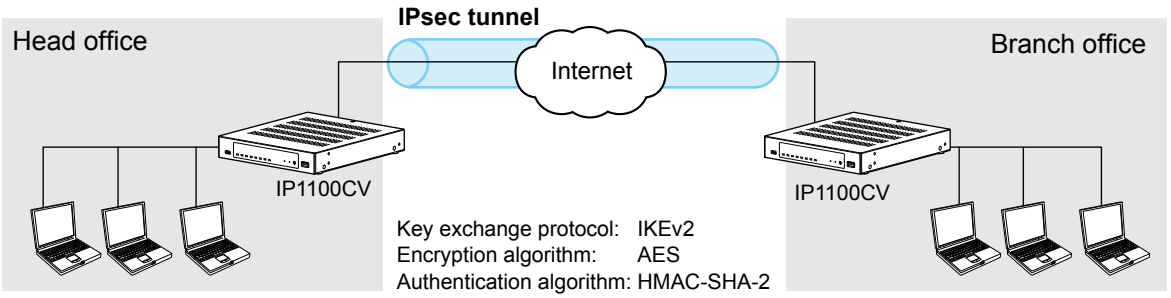
■ List of Simple DNS Server Settings

Lists the simple DNS Server entries.
Click <Delete> to delete the entry.

VPN screen

VPN (Virtual Private Network) enables a host computer to send and receive data over the shared or public networks like the Internet as if it were a private network. (Default: Disable)
The VPN function on the IP1100CV is compatible with the VE-PG4. (As of April 2024)

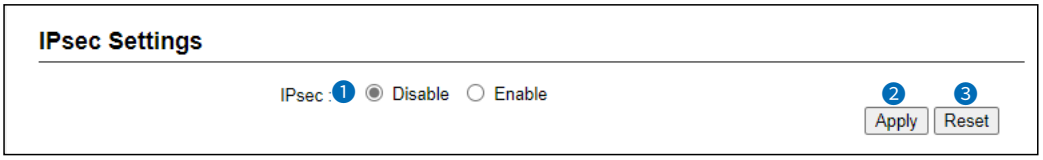
ⓘ To use the VPN function, connect the WAN line to the [WAN] port, and then configure the IPsec tunnel.
(Router Settings > VPN IPsec Tunnel Settings)



Router Settings > VPN

■ IPsec Settings

Set the virtual private network (VPN) connection using the IPsec protocol.



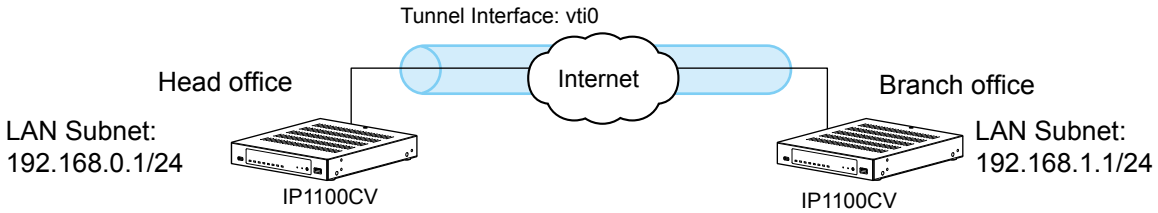
❶IPsec ..... Set the IPsec function. (Default: Disable)
When “Enable” is set, a VPN connection using the IPsec tunnel can be used.

❷<Apply> ..... Click to apply the entries.

❸<Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

To use the VPN function, connect the Controller to an upstream network though the [WAN] port, and then set [Router Settings] (Connection Type) and [Static Routing] according to your network environment.

Static Routing Settings example:



Head office Static routing settings
Remote Address: 192.168.1.0
Subnet Mask: 255.255.255.0
Tunnel Interface: vti0

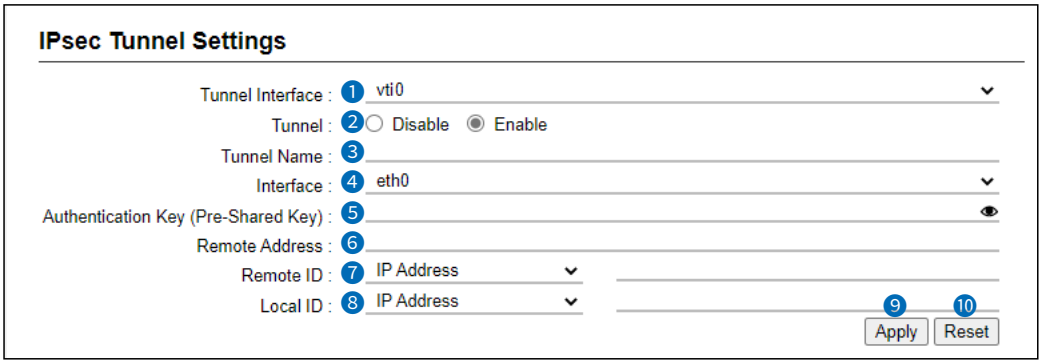
Branch office Static routing settings
Remote Address: 192.168.0.0
Subnet Mask: 255.255.255.0
Tunnel Interface: vti0

VPN screen

Router Settings > VPN

■ IPsec Tunnel Settings

Set the virtual private network (VPN) connection using the IPsec tunnel.



1 Tunnel Interface ..... Specifying the interface to register the IPsec tunnel.
Range: vti0 ~ vti31

2 Tunnel ..... Select “Enable” to use the IPsec tunnel to register. (Default: Enable)
Select “Disable” when it is registered but not used.

3 Tunnel Name ..... Enter the name to identify the IPsec tunnel of up to 31 characters.

4 Interface ..... Select the interface to connect with Remote Address. (Default: eth0)

- **eth0**
  Select this interface when “Static IP” or “DHCP Client” is set in [Connection Type]. (Router Settings > WAN > Connection Type)

- **ppp0(WAN01) ~ ppp7(WAN08)**
  Select this interface when “PPPoE” is set in [Connection Type]. (Router Settings > WAN > Connection Type)

ⓘ “WAN01 ~ WAN08” are the nicknames.

5 Authentication Key (Pre-Shared Key) ..... To authenticate the VPN Remote peer, enter the same character strings as the connected device of up to 128 alphanumeric characters.

6 Remote Address ..... Enter the IP address or the host name of the VPN connection destination.

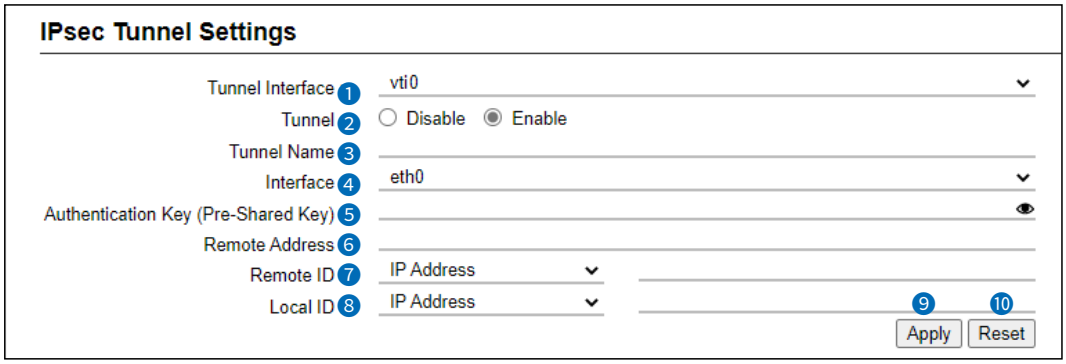
ⓘ If this item is not set, the Controller only works as a responder that waits for a connection from a destination.

ⓘ If the WAN IP addresses assigned to both devices are dynamic, one of them must be registered with the dynamic DNS service to obtain a host name.

VPN screen

Router Settings > VPN

■ IPsec Tunnel Settings



7 Remote ID .....

Set the ID to identify the remote device.
Select the ID type from “IP Address,” “KEYID,” “FQDN,” or “USER-FQDN.”

(Default: IP Address)

- **IP Address:** IP address format
- **KEYID:** Up to 256 alphanumeric characters
- **FQDN:** Domain name up to 253 characters
- **USER-FQDN:** Mail address format up to 254 characters
  Example: user@xxxx.yyyy.zzzz

1. Up to 64 characters
2. Up to 63 characters for each part

8 Local ID .....

Set the ID to identify the local device.
Select the ID type from “IP Address,” “KEYID,” “FQDN,” or “USER-FQDN.”

(Default: IP Address)

- **IP Address:** IP address format
- **KEYID:** Up to 256 alphanumeric characters
- **FQDN:** Domain name up to 253 characters
- **USER-FQDN:** Mail address format up to 254 characters
  Example: user@xxxx.yyyy.zzzz

1. Up to 64 characters
2. Up to 63 characters for each part

9 <Apply> .....

Click to apply the entries.

10 <Reset> .....

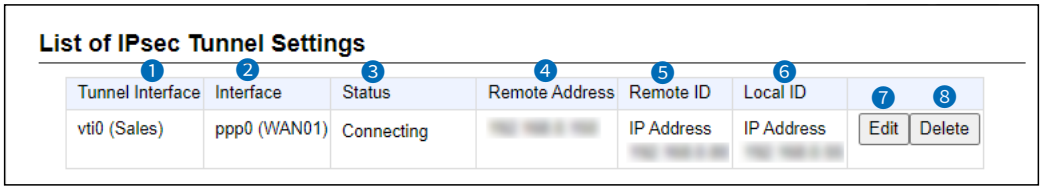
Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

VPN screen

Router Settings > VPN

■ List of IPsec Tunnel Settings

Lists the connections settings.



❶ Tunnel Interface ..... The interface name (tunnel name) is displayed.

❷ Interface ..... The WAN interface name on which the tunnel is created is displayed.

❸ Status ..... The IPsec tunnel status is displayed.

- **Connected:** Connected.
- **Waiting:** Connection ready.
- **Connecting:** Connection in progress.
- **Disable:** IPsec is enable but Tunnel Setting is disable.
- **IPsec is Disabled:** The Controller's IPsec function is disabled.

❹ Remote Address ..... The IP address set as the connection destination or the host name is displayed.
"–" is displayed when this item is not set in a Responder.
The destination IP address is displayed while connecting.
ⓘ When a VPN connection is made while the Responder function is ON, the Remote Address is displayed in parentheses, as in (172.16.***.***).

❺ Remote ID ..... The peer ID is displayed.

❻ Local ID ..... The local ID is displayed.

❼ <Edit> ..... Click to edit the entry.

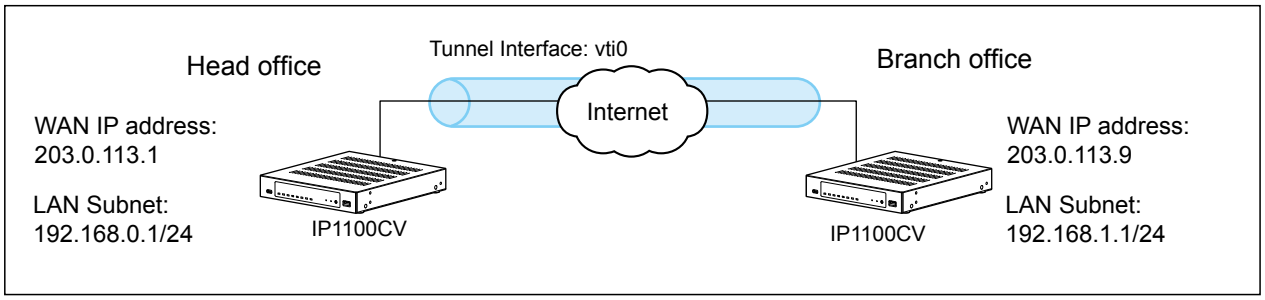
❽ <Delete> ..... Click to delete the entry.
ⓘ You cannot restore after clicking <Delete>.

VPN screen

Router Settings > VPN

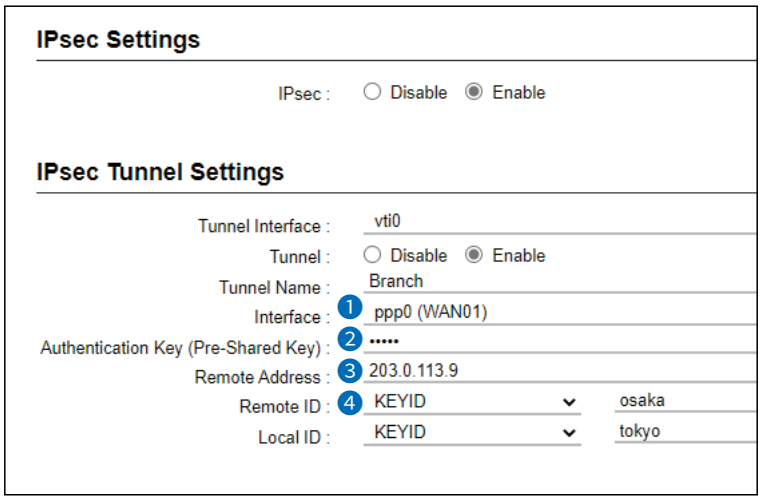
The IPsec Tunnel setting example (1)

In case that [Connection Type] is “PPPoE” and connects between Static IP addresses:



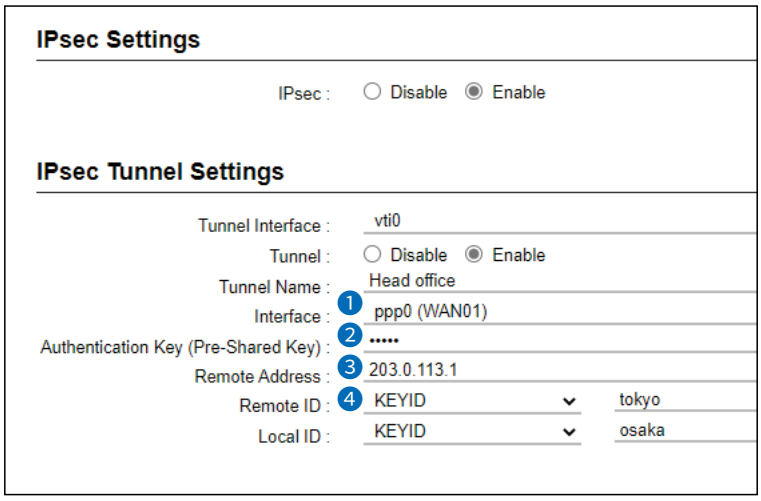
ⓘ The Static routing to the IPsec Tunnel is also required. (P.3-8, P.4-23)

Settings at the Head office



1. Select the PPPoE setting.
2. Enter the same key to both the Head office and the Branch office.
3. Enter the WAN IP address of the branch office.
4. Enter the Local ID of the Branch.

Settings at the Branch office



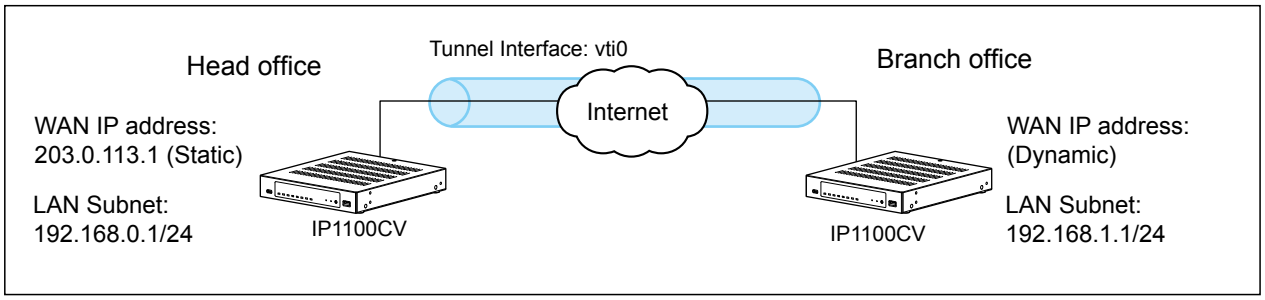
1. Select the PPPoE setting.
2. Enter the same key to both the Head office and the Branch office.
3. Enter the WAN IP address of the Head office.
4. Enter the Local ID of the Head office.

VPN screen

Router Settings > VPN

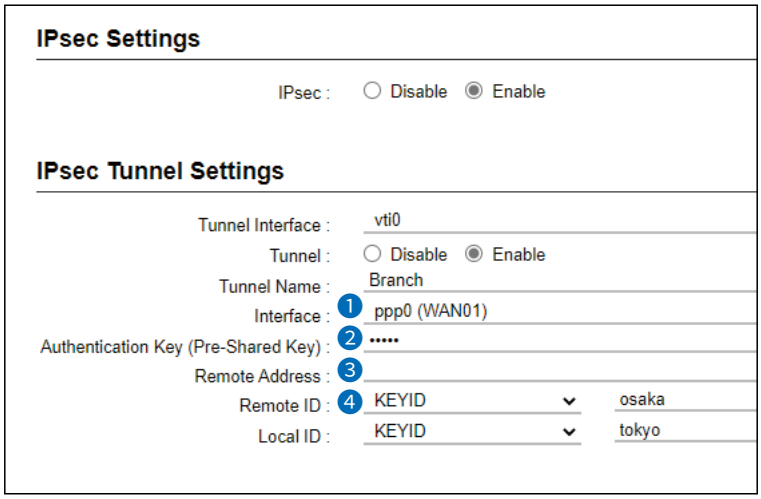
The IPsec Tunnel setting example (2)

In case that [Connection Type] is “PPPoE” and connects between Static IP address and Dynamic IP address:



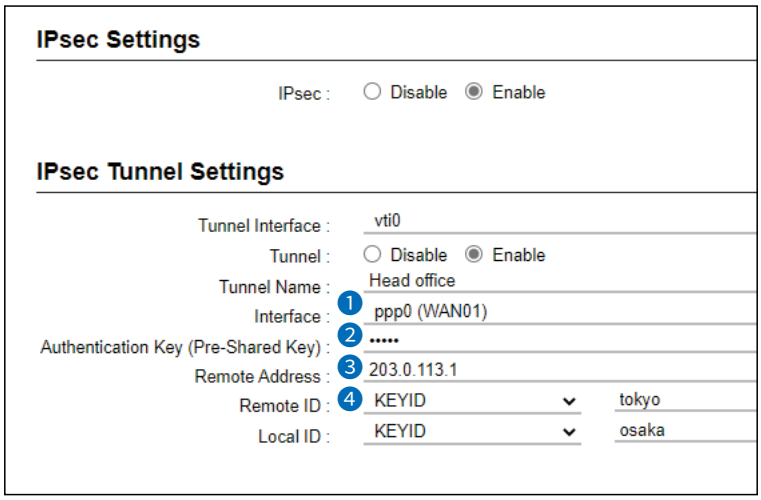
ⓘ The Static routing to the IPsec Tunnel is also required. (P.3-8, P.4-23)

Settings at the Head office



1. Select the PPPoE setting.
2. Enter the same key to both the Head office and the Branch office.
3. Blank
4. Enter the Local ID of the Branch office.

Settings at the Branch office



1. Select the PPPoE setting.
2. Enter the same key to both the Head office and the Branch office.
3. Enter the WAN IP address of the Head office.
4. Enter the Local ID of the Head office.

TRANSCEIVER CONTROLLER

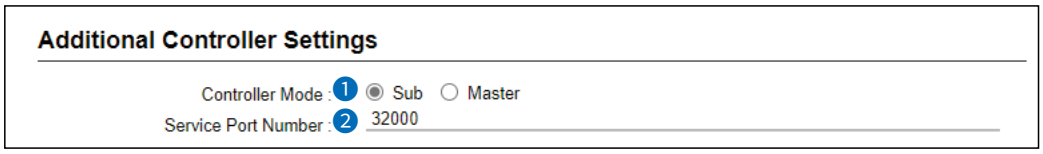
Section 5

RoIP Settings screen

Transceiver Controller > RoIP Settings

■ Additional Controller Settings

Configure the Additional Controller Settings.
You can communicate with the WLAN transceivers and the IP100FS that are registered to additional controllers.



❶ Controller Mode …… Select “Master” for one Master Controller. Select “Sub” for the other Controllers (up to 10 Sub Controllers can be set up). (Default: Sub)
When several Controllers are linked, and use All call or Group call between the controllers, set a controller as shown below.

- **Sub**: One Master Controller can be set up.
- **Master**: Up to 10 Sub Controllers can be set up.

❷ Service Port Number …… Enter the port number for receiving audio signals. (Default: 32000)

- Range: 1024 ~ 65534 (only even numbers)

The port number (RTP) and the port number +1 (RTCP) are used for communication.
ⓘ This number is also used for the caller port number.
ⓘ Do not set a port number that has already been used by another connection setting.

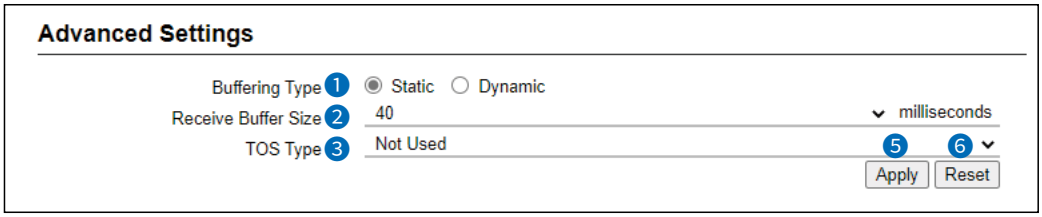
RoIP Settings screen

Transceiver Controller > RoIP Settings

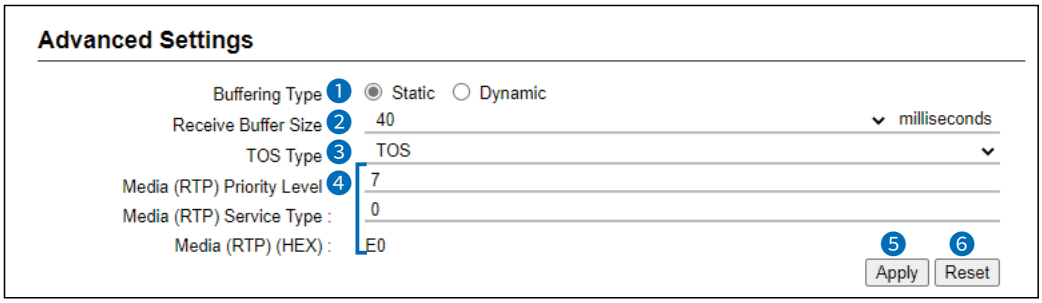
■ Advanced Settings

Set the V/RoIP details.
The items on the RoIP Settings screen differ, depending on the TOS type setting.

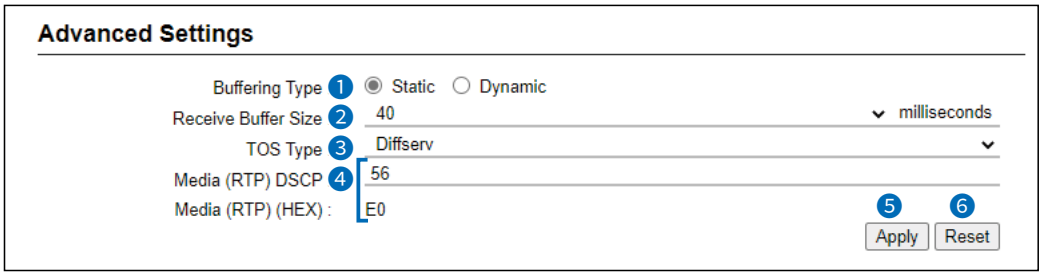
TOS Type: Not Used



TOS Type: TOS



TOS Type: Diffserv



ⓘ These are examples of when the [Buffering Type] is set to “Static.”

1 Buffering Type ..... Select the buffer type to control any interrupted sound.
(Default: Dynamic)

- **Static**: The buffer time is set in [Receive Buffer Size].
- **Dynamic**: The buffer time changes, depending on the audio fluctuation.

2 Receive Buffer Size ..... Select the buffer time to keep the audio from breaking up.
(Default: 40)

- Range: 20 ~ 1000 (milliseconds)

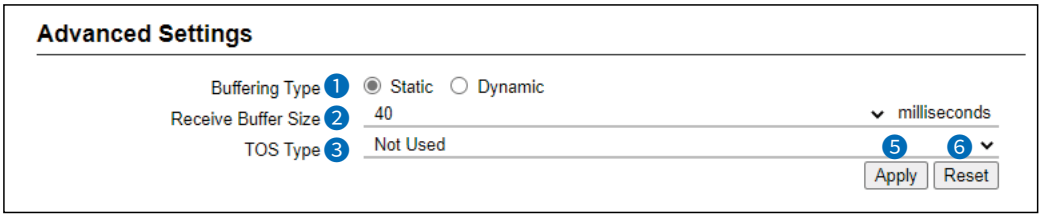
A shorter value improves the delay, but it may frequently break the audio signal.
ⓘ This item is displayed when [Buffering Type] is set to “Static.”

RoIP Settings screen

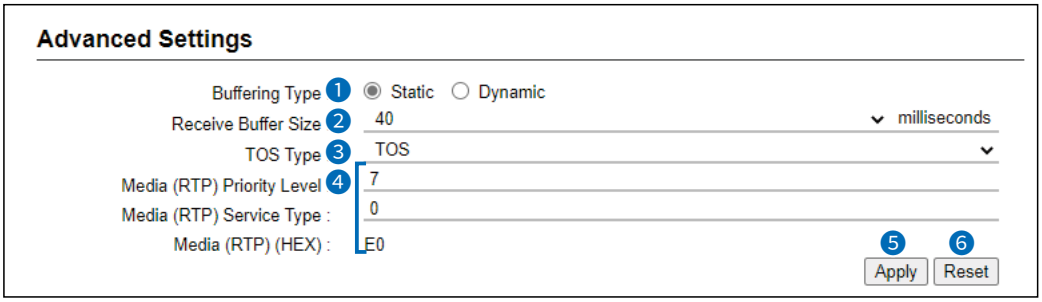
Transceiver Controller > RoIP Settings

■ Advanced Settings

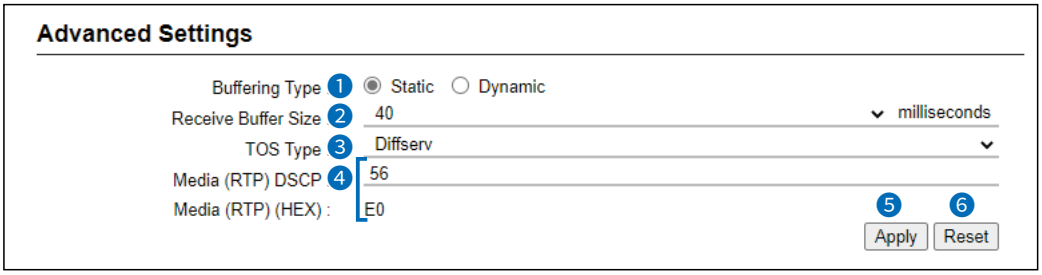
TOS Type: Not Used



TOS Type: TOS



TOS Type: Diffserv



ⓘ These are examples of when the [Buffering Type] is set to “Static.”

❸ TOS Type ..... Select the TOS (Type-Of Service) format. (Default: Not Used)

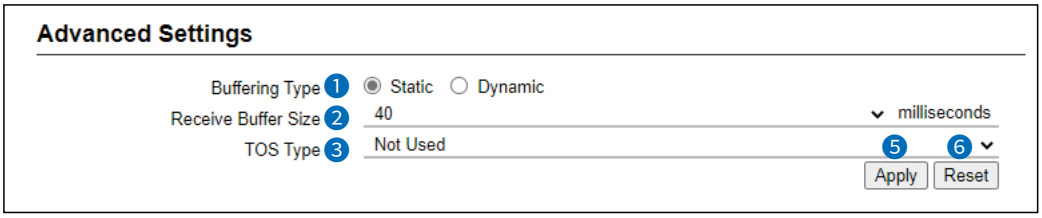
- **Not Used**: Does not use the TOS function.
- **TOS:** Sends the VoIP packets to the TOS field (8 bits) in the IP header using the TOS format.
  Sets to between 1 (lowest) and 3 bits (Priority level) or 4 and 7 (highest) bits (Type of Service) based on the RFC1349. The 1 bit remaining is not used and is fixed as 0.
- **Diffserv:** Sends the VoIP packets to the TOS field (8 bits) in the IP header using the Diffserv (Differentiated Service) format.
  Sets to between 1 and 6 bits (DSCP). The 2 bits remaining are not used and are fixed as 0.

RoIP Settings screen

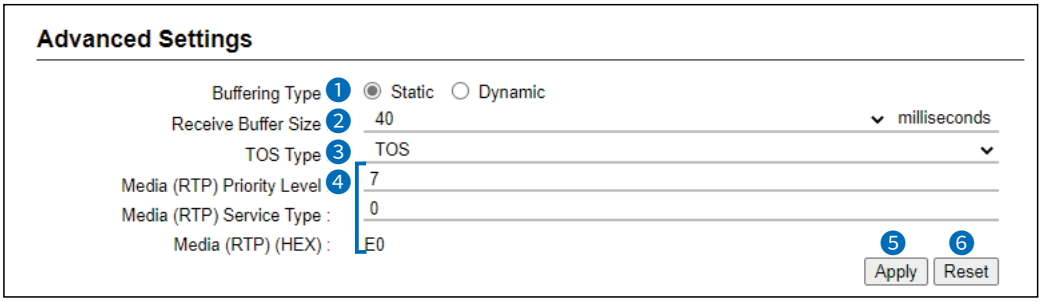
Transceiver Controller > RoIP Settings

■ Advanced Settings

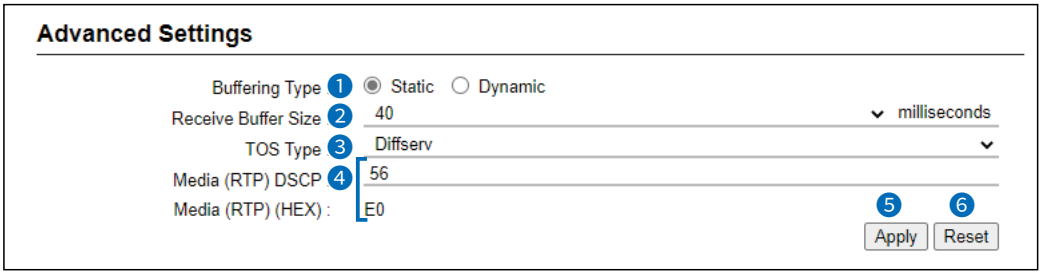
TOS Type: Not Used



TOS Type: TOS



TOS Type: Diffserv



ⓘ These are examples of when the [Buffering Type] is set to “Static.”

4 Media (RTP) ..... Select the Priority level and Service type of the sent VoIP packets.

- **Media (RTP) Priority Level**
  Set the TOS priority level to between 0 (lowest) and 7 (highest). (Default: 7)
- **Media (RTP) Service Type**
  Set the TOS service type code to between 0 and 15. (Default: 0)
- **Media (RTP) DSCP**
  Set the DSCP (Differentiated Services Code Point) code to between 0 and 63. (Default: 56)

5 <Apply> ..... Click to apply the entries.

6 <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

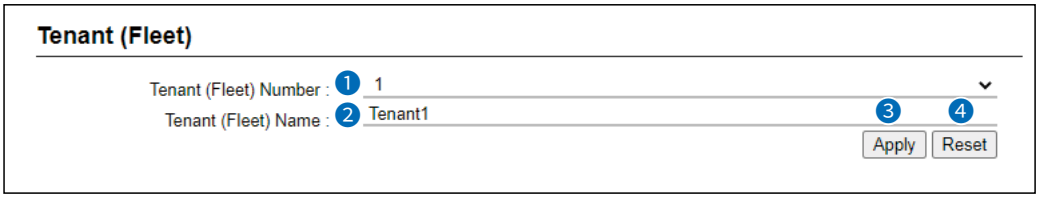
Tenant (Fleet) Settings screen

Transceiver Controller > Tenant (Fleet) Settings

■ Tenant (Fleet)

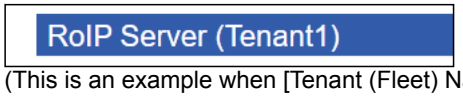
The tenant (fleet) divides the WLAN transceivers or IP100FSs that belong to the Controller, for system management purposes. (Example: Security company/Management company)

ⓘ The terminals cannot communicate among different tenants (fleets).
ⓘ Select the tenant (fleet) number between 1 to 10.
ⓘ All WLAN transceivers and IP100FSs that belong to the Controller are activated in one tenant (fleet).



❶ Tenant (Fleet) Number …… Select the tenant (fleet) number that is used. (Default: 1)

❷ Tenant (Fleet) Name …… Enter the tenant (fleet) name of up to 31 characters. (Default: Tenant1)
The tenant (fleet) name is displayed in the following menus.
- RoIP Server Settings
- Transceiver Settings
- Common Settings (Except Wireless LAN menu)
- Destination Settings



(This is an example when [Tenant (Fleet) Name] is set to “Tenant1.”)

❸ <Apply> …… Click to apply the entries.

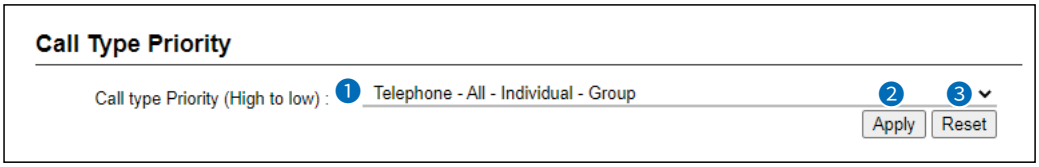
❹ <Reset> …… Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

RoIP Server screen

Transceiver Controller > RoIP Server Settings > RoIP Server

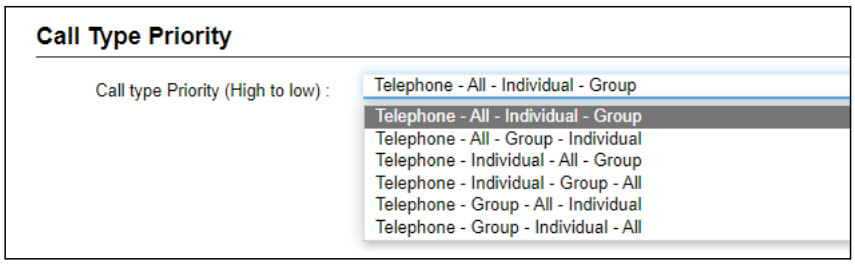
■ Call Type Priority

Select the priority level of the call types.



❶ Call type Priority (High to low) Select the priority level of the call types.
(Default: Telephone – All – Individual – Group)

ⓘ The setting value are as shown below:



❷ <Apply> ..... Click to apply the entries.

❸ <Reset> ..... Click to reset the settings.

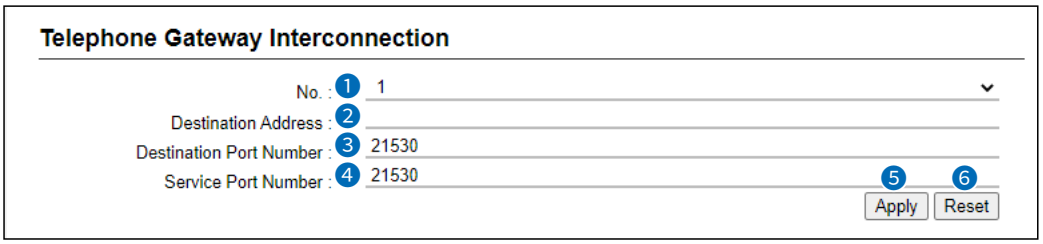
ⓘ You cannot reset after clicking <Apply>.

Telephone Gateway Interconnect screen

Transceiver Controller > Telephone Gateway Interconnect

■ Telephone Gateway Interconnection

Set the Telephone Gateway Interconnection with a VE-PG3.



1 No. ..... Select the number that is registered to a device.
Up to 20 devices can be registered.

2 Destination Address ..... Enter the destination device's IP address or domain name of up to 63 characters.

3 Destination Port Number... Enter the destination VE-PG3's port number.
• Range: 2 ~ 65534 (only even numbers)
ⓘ The set port number (RTP) and the port number +1 (RTCP) are used for the communication.

4 Service Port Number ..... Enter the port number for receiving audio signals.
• Range: 2 ~ 65534 (only even numbers)

ⓘ Information
• The set port number (RTP) and the port number +1 (RTCP) are used for the communication.
• This number is also used for the caller port number.
• Do not set the port number which has already been used by another connection setting.

5 <Apply> ..... Click to apply the entries.

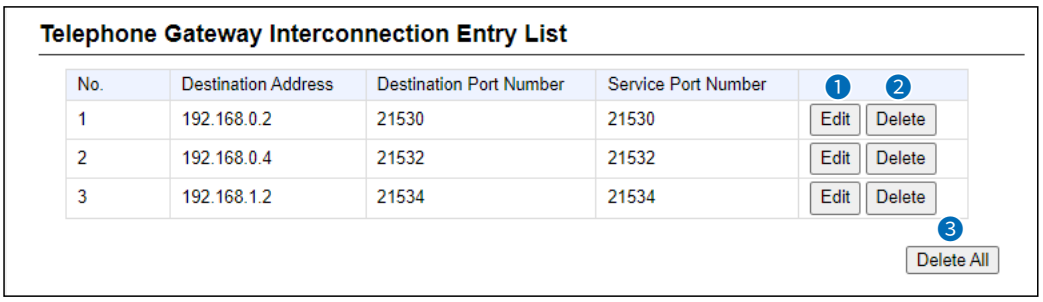
6 <Reset> ..... Click to restore the settings.
ⓘ You cannot restore after clicking <Apply>.

Telephone Gateway Interconnect screen

Transceiver Controller > Telephone Gateway Interconnect

■ Telephone Gateway Interconnection Entry List

Displays the list of the registered device for the Telephone Gateway Interconnection.



❶ **<Edit>** ..... Click to edit the setting on the [Telephone Gateway Interconnection].

❷ **<Delete>** ..... Click to delete the selected entry.
ⓘ After clicking <Delete>, the content cannot be recalled.

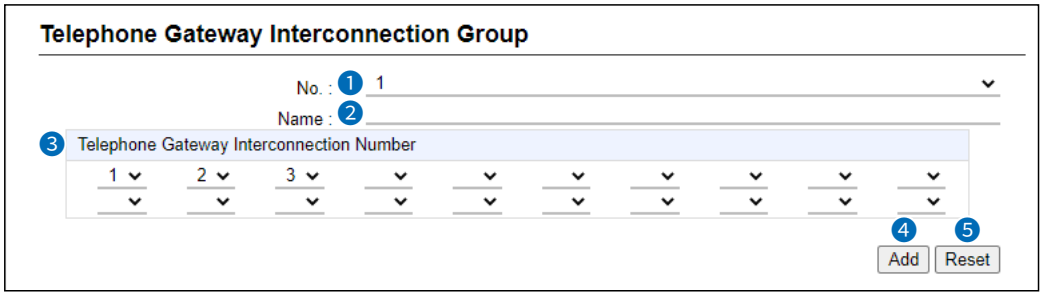
❸ **<Delete All>** ..... Click to delete all the entries.
ⓘ After clicking <Delete All>, the contents cannot be recalled.

Telephone Gateway Interconnect screen

Transceiver Controller > Telephone Gateway Interconnect

■ Telephone Gateway Interconnection Group

If the courses of the Telephone Gateway Interconnection to the VE-PG3s are made into a group, the unused course in the group can be selected to dispatch.



❶No. ..... Select the number that is registered to a group.
Up to 20 groups can be registered.

❷Name ..... Enter the group name. (Up to 31 characters)

❸Telephone Gateway Interconnection Number ... Select the Telephone Gateway Interconnection to register to the group.

❹<Add> ..... Click to add the entries.

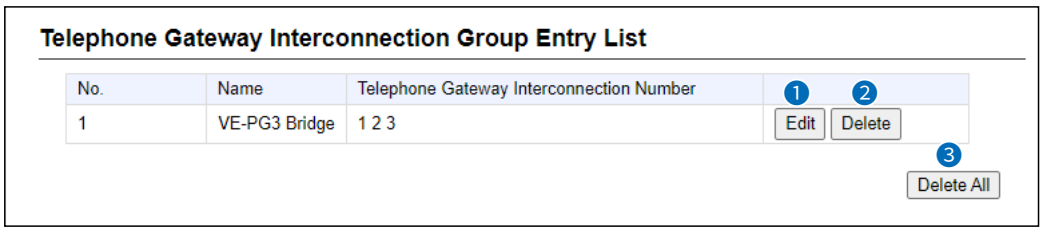
❺<Reset> ..... Click to restore the settings.
ⓘ You cannot restore after clicking <Add>.

Telephone Gateway Interconnect screen

Transceiver Controller > Telephone Gateway Interconnect

■ Telephone Gateway Interconnection Group Entry List

Displays the list of the registered Telephone Gateway Interconnection groups.



❶ <Edit> ..... Click to edit the setting on the [Telephone Gateway Interconnection Group] field.

❷ <Delete> ..... Click to delete the selected entry.
ⓘ After clicking <Delete>, the content cannot be recalled.

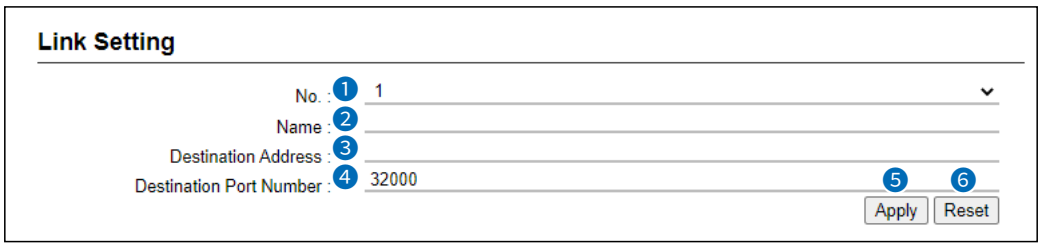
❸ <Delete All> ..... Click to delete all the entries.
ⓘ After clicking <Delete All>, the contents cannot be recalled.

Additional Controller Link screen

Transceiver Controller > RoIP Server Settings > Additional Controller Link

■ Link Setting

This is a setting to link with other WLAN transceiver controllers or VE-PG3 (Bridge mode).



❶ No. ..... Select a number between 1 and 100 to register the other transceiver controllers. (Default: 1)

❷ Name ..... Enter the group name of up to 31 characters.

❸ Destination Address ..... Enter the destination device's IP address or domain name of up to 63 characters.

❹ Destination Port Number ... Enter the destination controller's service port number in [Additional Controller Link]. (Default: 32000)
• Range: 2 ~ 65534 (only even numbers)
ⓘ The set port number (RTP) and the port number +1 (RTCP) are used for communication.

❺ <Apply> ..... Click to apply the entries.
ⓘ The entries are displayed in [Linked Controller List].

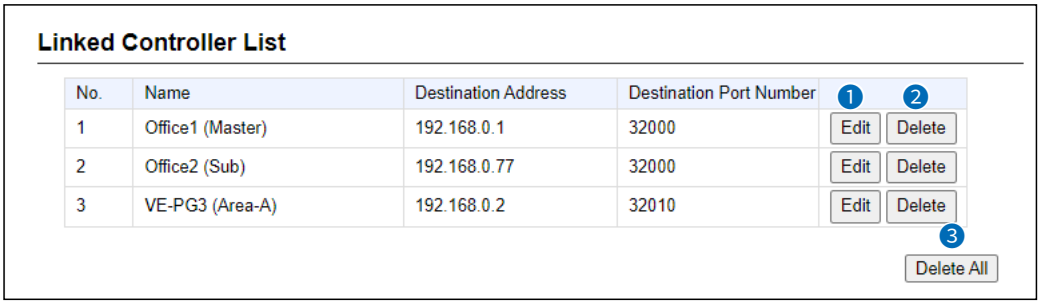
❻ <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

Additional Controller Link screen

Transceiver Controller > RoIP Server Settings > Additional Controller Link

■ Linked Controller List

Displays a list of the destination addresses and destination port numbers registered to the Controller.



❶ **<Edit>** ..... Click to edit the entry in [Link Setting].

❷ **<Delete>** ..... Click to delete the selected entry.
ⓘ After clicking <Delete>, the entry cannot be recalled.

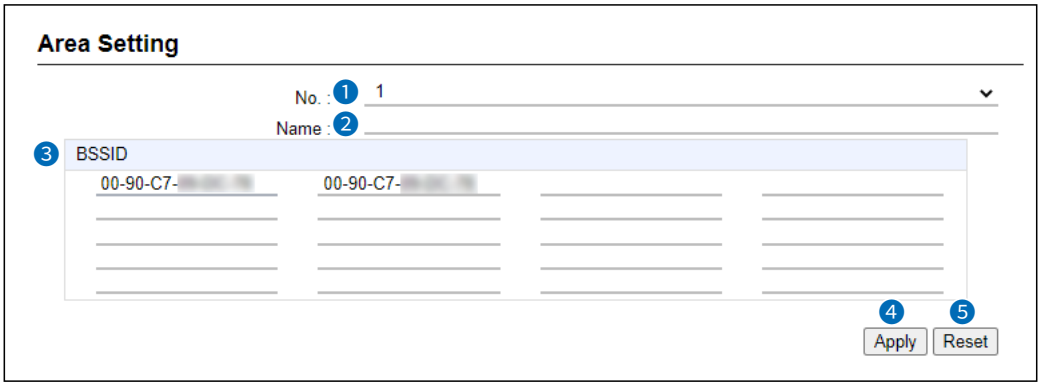
❸ **<Delete All>** ..... Click to delete all the entries.
ⓘ After clicking <Delete All>, the entries cannot be recalled.

Area Call screen

Transceiver Controller > RoIP Server Settings > Area Call

■ Area Setting

With the Area call function, you can communicate with the devices within the specified area.
When the WLAN transceiver uses the Area call function to make an All call or Group call, it will call other WLAN transceivers or IP100FSs that accesses the wireless access points in the same area as the caller.
ⓘ If you want to use Area call from an IP100FS, select the access points to specify the area.



1 No. ..... Select the number that you want to register the Area call. (Default: 1)
ⓘ Up to 20 calls can be registered.

2 Name ..... Enter the area name of up to 31 characters.

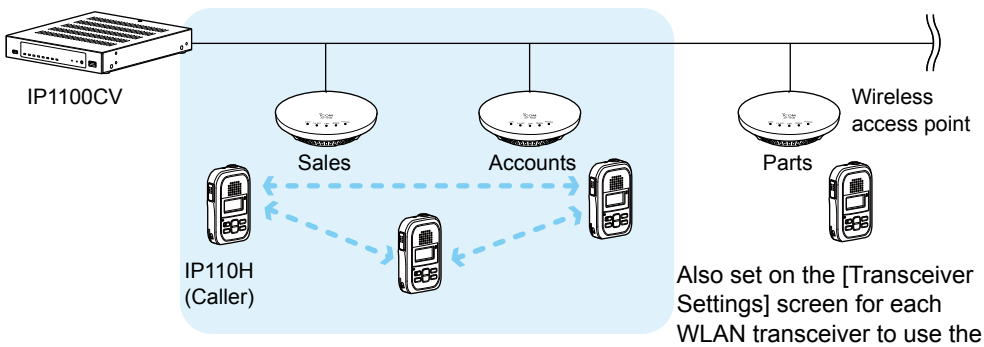
3 BSSID ..... Enter the 12 digit BSSID of the wireless access point in the area.
When several access points are added, they will be recognized as one area.
ⓘ Up to 20 access points can be registered to an area.

4 <Apply> ..... Click to add the entries.
ⓘ The entries will be displayed in [Area Entry List].

5 <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

Example: Making an All call with Area call function

Example: The wireless access points “Sales” and “Accounts” are registered in the same area, but the access point “Parts” is not registered.
In that case, two WLAN transceivers in the same area can receive the call, but the WLAN transceiver in a different area will not receive it.



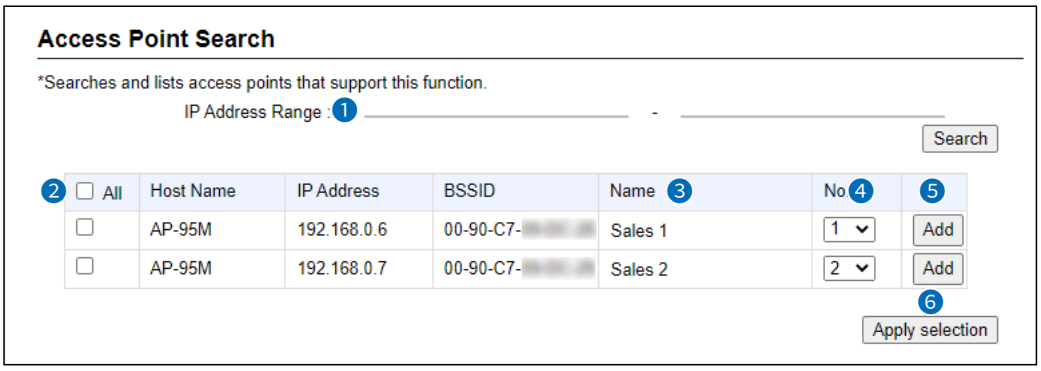
Also set on the [Transceiver Settings] screen for each WLAN transceiver to use the Area call function.

Area Call screen

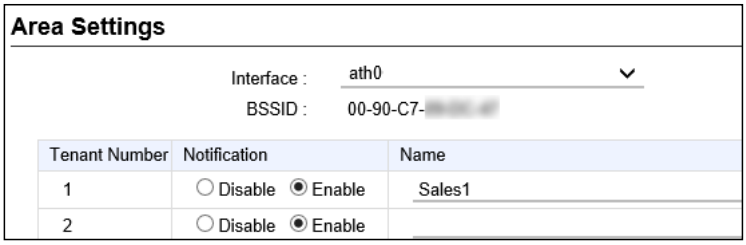
Transceiver Controller > RoIP Server Settings > Area Call

■ Access Point Search

The Controller can search for access points the network, and register access points for Area Calls.
ⓘ Icom guarantees this function only for the AP-90M and AP-95M. (As of April 2024)



❶IP Address Range ..... Searches the access points in the specified IP address range. Enter the IP address range of the access points, and then click <Search>.
When starting a search, the button changes to both <Refresh> and <Cancel>.
The found access points will be displayed in the list.
ⓘ You can search only with the IP start address.
ⓘ If BSSID is already registered in the Area Entry List, it is not displayed.
ⓘ If you set the [Notification] field for the same Tenant number as this Controller in [IP Advanced Radio System] of the wireless access point to "Enable" and register the name, you can search for the BSSID and its name in the Access Point Search.
If the [Notification] field for the same Tenant number as this Controller is set to "Disable," it cannot be searched from the Controller.



(AP-95M Wireless LAN1 IP Advanced Radio System screen)

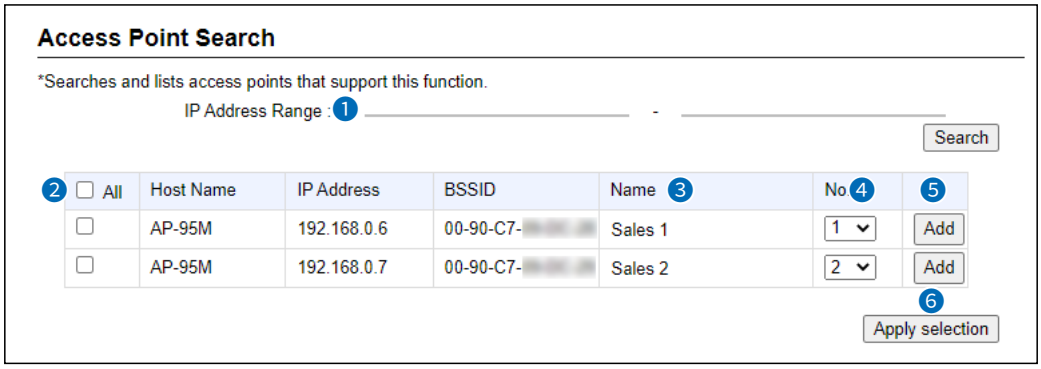
❷Check Box ..... Click a Check Box to add a check mark for registering a found access point.
ⓘ You can select or cancel all access points in the list by clicking [All].

❸Name ..... The name that is set in [IP Advanced Radio System] of an access point is displayed.
ⓘ The area name is registered to [Number] in [Area Setting].

Area Call screen

Transceiver Controller > RoIP Server Settings > Area Call

■ Access Point Search



4 No. ..... Select an area number from [No.] in [Area Setting] that you want to register to.
When an area number that has already registered is selected, BSSID will be added to the area number.

ⓘ You cannot select the area number that has already been registered in [Area Call].

ⓘ An area number is selected, depending on the name that is registered with the same Tenant (Fleet) Number in [IP Advanced Radio System] of an access point, as shown below.

- When the area number's name is already registered in [Area Setting], the area number is selected (A blank is also recognized as a part of the name).
- When the area number's name is not registered in [Area Setting], an unused and initial area number is selected.

5 <Add> ..... Click to register a found access point in [Access Point Search].

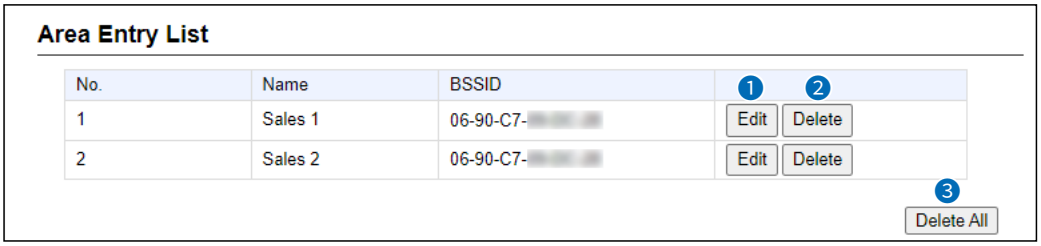
6 <Apply selection> ..... Click to register a selected access point in [Check Box].

Area Call screen

Transceiver Controller > RoIP Server Settings > Area Call

■ Area Entry List

Display the list of the registered [Area Setting] or [Access Point Search].



❶ **<Edit>** ..... Click to edit the setting in [Area Setting].

❷ **<Delete>** ..... Click to delete the selected entry.
ⓘ After clicking <Delete>, the entry cannot be recalled.

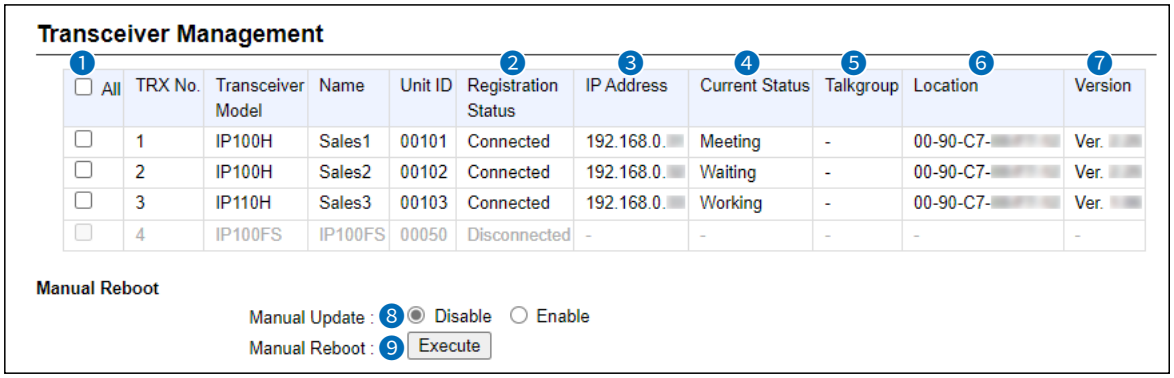
❸ **<Delete All>** ..... Click to delete all the entries.
ⓘ After clicking <Delete All>, the entries cannot be recalled.

Transceiver Management screen

Transceiver Controller > Transceiver Settings > Transceiver Management

■ Transceiver Management

The Controller can monitor the registered WLAN transceivers and IP100FSs. And if necessary, the Controller can reboot all the registered WLAN transceivers.



ⓘ A WLAN transceiver is displayed in bold when a setting is changed and a reboot is required.

❶ Check Box .....

Click a Check Box to add a check mark to the WLAN transceiver that you want to reboot.

ⓘ You cannot select an IP100FS, or a WLAN transceiver that has "Disconnected" displayed in [Registration Status].

ⓘ By clicking the [All] box, you can select or cancel all WLAN transceivers in the list.

❷ Registration Status .....

Displays the WLAN transceivers' or IP100FSs' Registration Status as either "Connected" or "Disconnected."

ⓘ Displays "Disconnected" if the WLAN transceiver is turned OFF or the IP100FS's application is not running.

ⓘ When the Controller sends the reboot command to a WLAN transceiver from the [Transceiver Management] menu, the following status are displayed: "Receiving reboot command," "Reboot command reception success," "Reboot command reception failed," "Ready to reboot," "Rebooting," "Updating," "Update failed," "Downloading," "Status notification failed," "Low battery," and "Programming with software."

❸ IP Address .....

Displays the IP Addresses of the WLAN transceivers or IP100FSs.

ⓘ When [Registration Status] displays "Disconnected," "–" is displayed.

❹ Current Status .....

Displays the Current Status of the WLAN transceivers. (Example: Meeting)

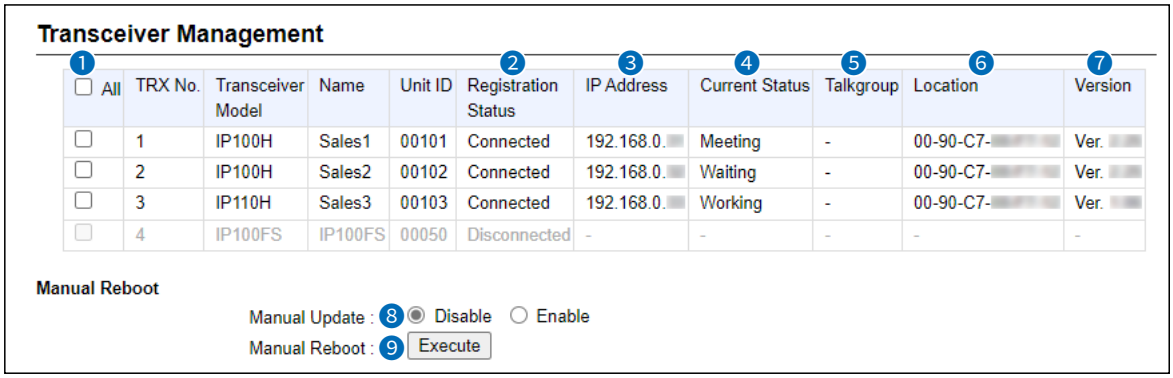
ⓘ Information

- If the Status function is set to OFF, "–" is displayed.
- When the WLAN transceiver is remotely locked by the IP100FS, and it cannot communicate with others or cannot transmit, "Transmit and receive disabled" or "Transmit disabled" is displayed.
- If the WLAN transceiver is sending an emergency call, "Emergency" is displayed.

Transceiver Management screen

Transceiver Controller > Transceiver Settings > Transceiver Management

■ Transceiver Management



ⓘ A WLAN transceiver is displayed in bold when a setting is changed and a reboot is required.

5 Talkgroup ..... Displays the Talkgroup IDs that are selected by the WLAN transceivers or IP100FSs.

ⓘ When a Talkgroup name is registered, a Talkgroup number (name) is displayed.

ⓘ While a WLAN transceiver or IP100FS does not select a Talkgroup, or [Registration Status] displays “Disconnected,” “–” is displayed.

6 Location ..... Displays the BSSIDs of the wireless access points that the WLAN transceivers are connected to.

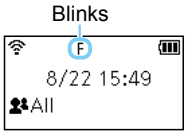
ⓘ When [Registration Status] displays “Disconnected,” “–” is displayed.

7 Version ..... Displays the version of the WLAN transceivers or IP100FSs that are registered to the Controller.

ⓘ When [Registration Status] displays “Disconnected,” “–” is displayed.

Manual Reboot

8 Manual Update ..... Enable to manually update the WLAN transceiver firmware when the Controller sends a Manual Reboot to the WLAN transceiver.
When the WLAN transceiver is ready to update the firmware, “F” blinks on the display, and then the WLAN transceiver automatically reboots and starts the firmware update. (Example: IP110H)



ⓘ When the WLAN transceiver has failed to prepare a firmware update, it does not automatically reboot. If necessary, send a reboot command to the WLAN transceiver.

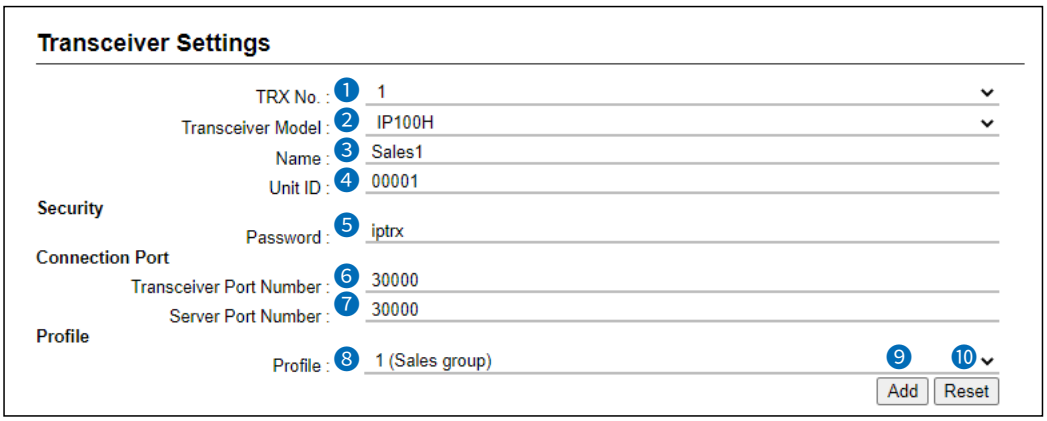
9 Manual Reboot ..... Click <Execute> to manually reboot all of the WLAN transceivers that are selected in [Check Box].

Transceiver Registration screen

Transceiver Controller > Transceiver Settings > Transceiver Registration

■ Transceiver Settings

Registers the WLAN transceivers and IP100FS settings.
ⓘ After the registration is completed, you must reboot the WLAN transceiver.



❶ TRX No. ..... Selects the number that the WLAN transceiver or IP100FS is registered to. (Default: 1)
ⓘ Up to 300 terminals can be registered.

❷ Transceiver Model ..... Select a WLAN transceiver model. (Default: IP100H)

❸ Name ..... Enter a transceiver name of up to 31 characters.

❹ Unit ID ..... Enter an individual number between 00001 and 60000. (Default: 00001)

Security

❺ Password ..... Enter a password to access to the Controller. (Default: iptrx)
ⓘ Up to 12 characters, lower or upper letters, numbers, and symbols can be used.

Connection Port

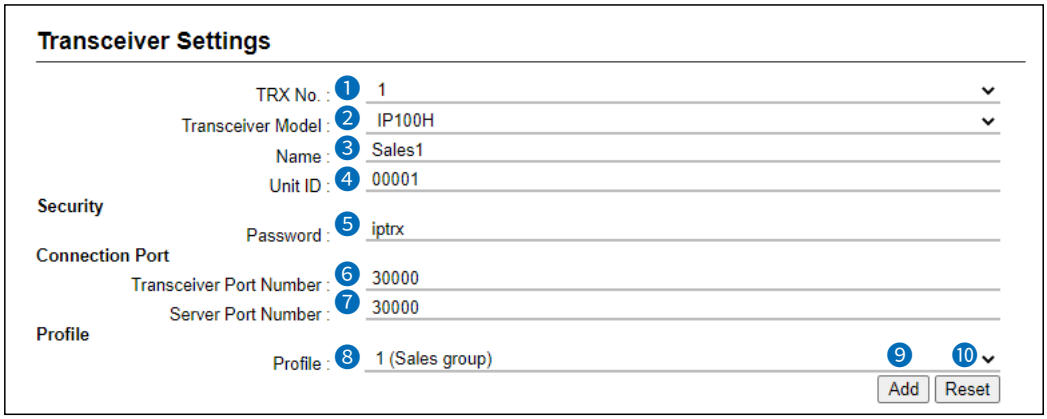
❻ Transceiver Port Number Enter the port number (UDP port) that the WLAN transceiver will use to communicate with the Controller.

ⓘ **Information**
- The set port number (RTP) and the port number +1 (RTCP) are used for communication.
- We basically recommend that you use the default port number.
- The default number differs, depending on [TRX No.], as shown below.
  Default: TRX No. 1 (30000), TRX No. 2 (30002), TRX No. 3 (30004),
  TRX No. 4 (30006), ..., TRX No. 50 (30098)
- Setting range: Even numbers between 2 and 59998.
  Some numbers may not be usable.
- Do not set the port number that has already been used by another connection setting.
- When [Transceiver Model] is set to “IP100FS,” this item is not displayed.

Transceiver Registration screen

Transceiver Controller > Transceiver Settings > Transceiver Registration

■ Transceiver Settings



Connection Port

⑦ Server Port Number ..... Enter a port number (UDP port) that the Controller will use to communicate with the WLAN transceiver or IP100FS.

ⓘ Information
- The set port number (RTP) and the port number +1 (RTCP) are used for communication.
- We basically recommend that you use the default port numbers.
- The default number differs, depending on the [TRX No.] as shown below.
  Default: TRX No. 1 (30000), TRX No. 2 (30002), TRX No. 3 (30004),
  TRX No. 4 (30006), ..., TRX No. 50 (30098)
- Setting range: Even numbers between 2 and 65534.
  Some numbers may not be usable.
- Do not set a port number that has already been used by another connection setting.

Profile

⑧ Profile ..... Select the Profile number that the WLAN transceiver or IP100FS belongs to. (Default: 1)
ⓘ The numbers 1 to 300 are selectable.
ⓘ Set the Profile setting in the [Common Settings] menu, such as ID list, message, or Receive notification tone settings.

⑨ <Add> ..... Click to add the entries.
ⓘ The entries are displayed in [Transceiver Setting Entry List].

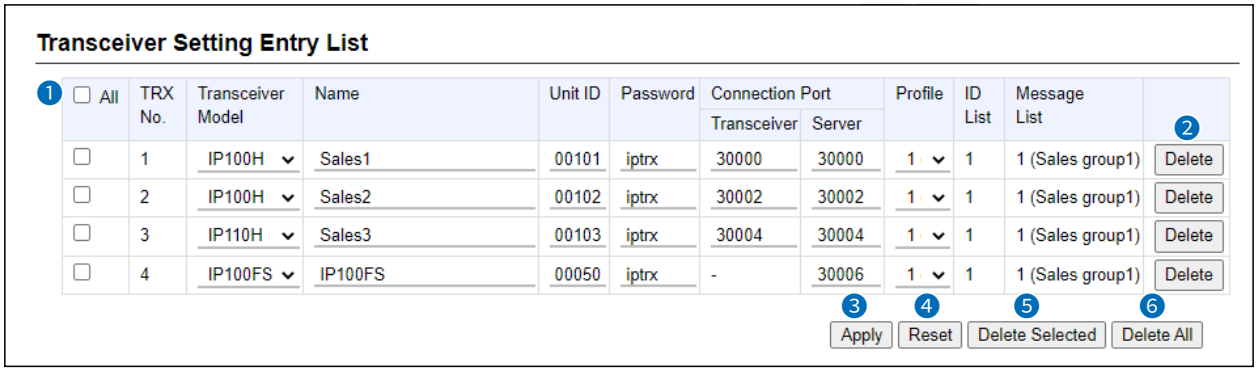
⑩ <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Add>.

Transceiver Registration screen

Transceiver Controller > Transceiver Settings > Transceiver Registration

■ Transceiver Setting Entry List

The list of the registered WLAN transceivers or IP100FSs.



❶ Check Box ..... Click a Check Box to add a check mark to delete an entry.
ⓘ By clicking the [All] box, you can select or cancel all entries in the list.

❷ <Delete> ..... Click to delete the selected entry.
ⓘ After clicking <Delete>, the entry cannot be recalled.

❸ <Apply> ..... Click to apply the entries.
ⓘ The entries that are edited in [Transceiver Setting Entry List] are registered.

❹ <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

❺ <Delete Selected> ..... Click to delete an entry that you select in the Check Box.
ⓘ After clicking <Delete Selected>, the entry cannot be recalled.

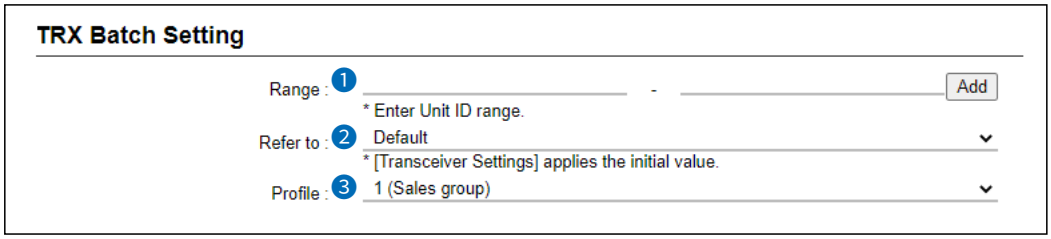
❻ <Delete All> ..... Click to delete all the entries.
ⓘ After clicking <Delete All>, the entries cannot be recalled.

Transceiver Registration screen

Transceiver Controller > Transceiver Settings > Transceiver Registration

■ TRX Batch Setting

You can register consecutive Destination IDs collectively. You can also copy the Destination ID contents to another ID.



❶ Range ..... Enter a range of collective Destination IDs.

Click <Add> to register consecutive Destination IDs collectively in the box.

ⓘ If a Destination ID is already registered, “Overwrite the following entry” is displayed.

❷ Refer to ..... Select the default settings or the programmed settings to refer to. (Default: Default)

❸ Profile ..... Select the profile number that WLAN transceivers or IP100FSs belong to. (Default: 1)

ⓘ The numbers 1 to 300 are selectable.

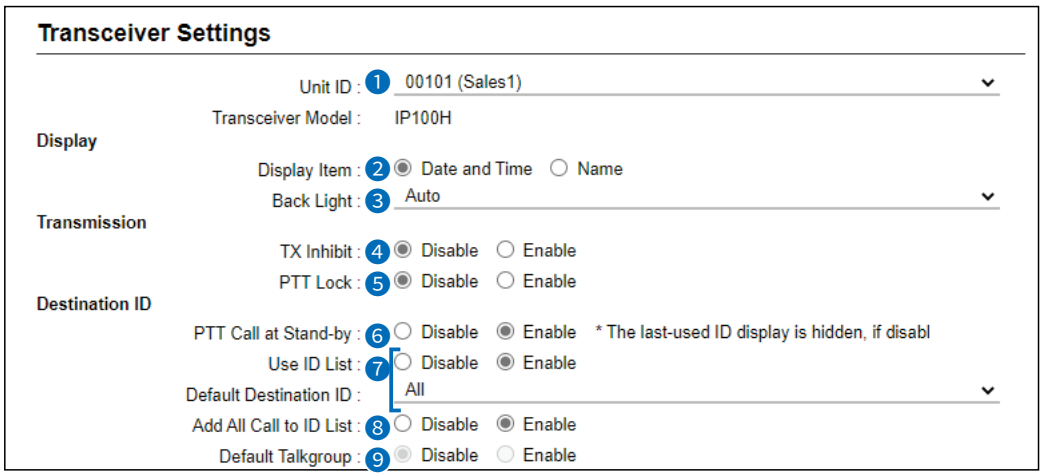
ⓘ You can set an ID List, Message List, or Notification beep setting for each profile in the [Common Settings] menu.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]

Individually assign the functions, or set the receive notification tone to a registered IP100H.
ⓘ After the setting is completed, you must reboot the IP100H.



ⓘ The screen shows when [Use ID List] is set to “Enable.”

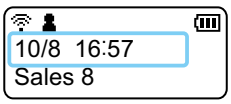
❶ Unit ID ..... Select the IP100H’s Individual number (Name) that you want to edit.

ⓘ Only the individual numbers of the WLAN transceiver are selectable. The individual number that the [Transceiver Model] on the [Transceiver Registration] screen is set to “IP100FS,” cannot be selected.

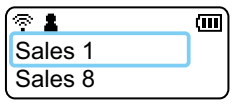
Display

❷ Display Item ..... Select whether or not the IP100H displays the Date and Time or its Name in the standby mode. (Default: Date and Time)

ⓘ If the [Name] on the [Transceiver Registration] screen has not been entered, and this setting is set to [Name], the IP100H displays the individual number.



(Date and Time)



(Name)

❸ Back Light ..... Select the IP100H backlight function. (Default: Auto)

- **OFF**: The backlight does not light.
- **ON**: The backlight lights continuously.
- **Auto**: The backlight lights when an operation is performed, and goes out after 5 seconds.

Transmission

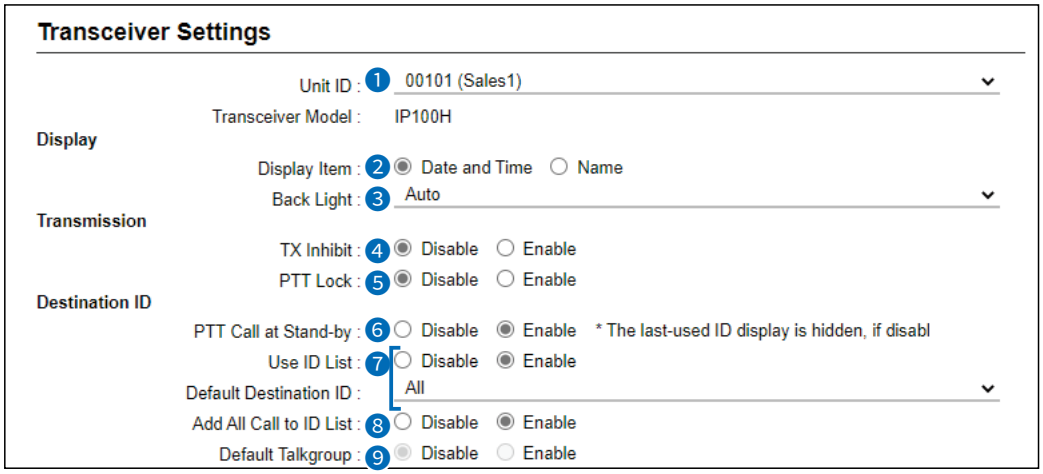
❹ TX Inhibit ..... Select “Enable” to inhibit the IP100H’s transmission. (Default: Disable)

ⓘ When this setting is set to “Enable,” the IP100H also cannot transmit with an optional microphone, or using the VOX function.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ The screen shows when [Use ID List] is set to “Enable.”

Transmission

5 PTT Lock ..... Select “Enable” to lock the IP100H’s PTT switch. (Default: Disable)

ⓘ When this setting is set to “Enable,” the IP100H cannot transmit by holding down its PTT switch, but it can transmit with an optional microphone or using the VOX function as well.

Destination ID

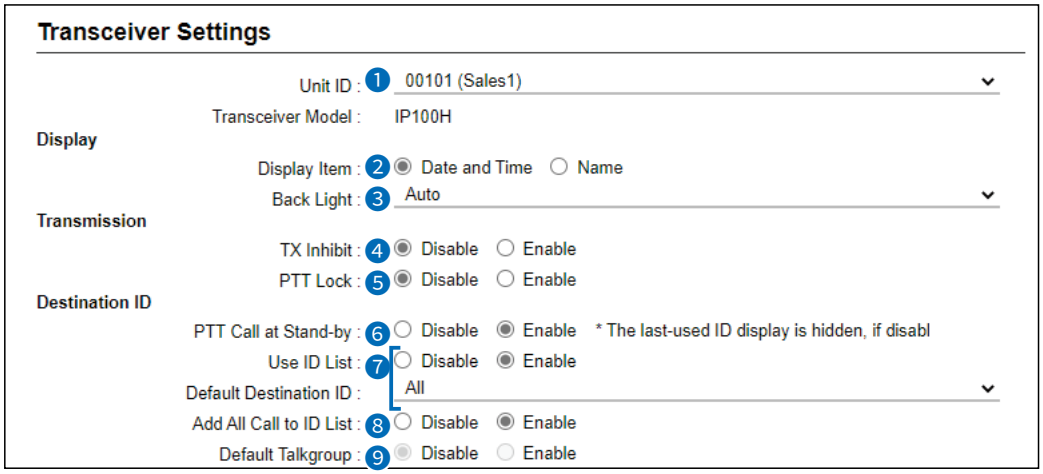
6 PTT Call at Stand-by ..... Select whether or not the IP100H displays the Destination ID (Call type) in the standby mode. (Default: Enable)

- **Disable:** The Destination ID (Call type) is not displayed in the standby mode.
  ⓘ The Destination ID (Call type) is displayed when you select the ID using the function keys.
- **Enable:** The Destination ID (Call type) is displayed in the standby mode.
  ⓘ When the PTT on the IP100H is pushed, the IP100H calls the displayed ID (Call type).

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ The screen shows when [Use ID List] is set to “Enable.”

Destination ID

7 Use ID List ..... Select whether or not the IP100H uses the ID list. (Default: Disable)

(Address) key

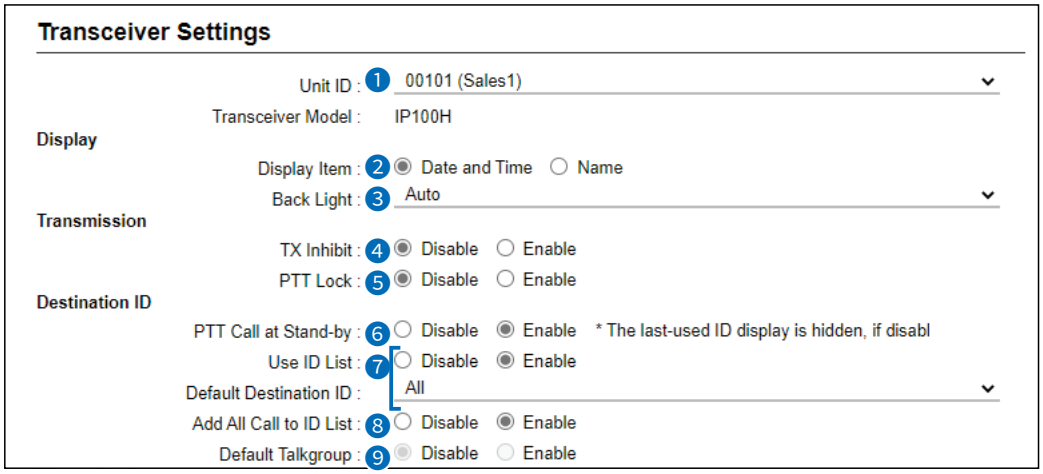
- **Disable:**
  The call type is fixed to that which is selected in the [Call Type], as shown below, even if you push the [(Address) key] key on the IP100H.
  ⓘ If you set the Call Type to “Individual” or “Group,” enter a destination ID between 1 to 60000 in the [Destination ID]. (Default: All)
  ⓘ Even if “Disable” is selected, the IP100H displays a received ID in the ID list.

- **Enable:**
  The call type is changed by pushing the [(Address) key] key on the IP100H. Select First Call ID from All, or an ID number (1 to 500) that is displayed when the IP100H is turned ON, in [Call Type].
  ⓘ The ID list is selected on the [Common Settings] screen.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ The screen shows when [Use ID List] is set to “Enable.”

Destination ID

8 Add All Call to ID List …… Select whether or not to display All Call in the ID list of the IP100H. (Default: Enable)

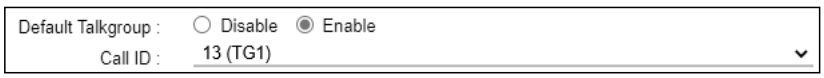
- **Disable**
  Does not display “All” in the ID list.
  ⓘ When “Disable” is selected in [Add All Call to ID List], you cannot select an All call using the [📖] key.

- **Enable**
  ⓘ When [Use ID List] is set to “Enable,” set [Add All Call to ID List] and [Default Talkgroup].

9 Default Talkgroup …… Select a Talkgroup if you want to set the IP100H to join a Talkgroup when it is turned ON. (Default: Disable)

- **Disable**
  The IP100H starts up without joining any Talkgroup. The ID that is set in the “Default Destination ID” in [Use ID List] is displayed when the IP100H is turned ON.

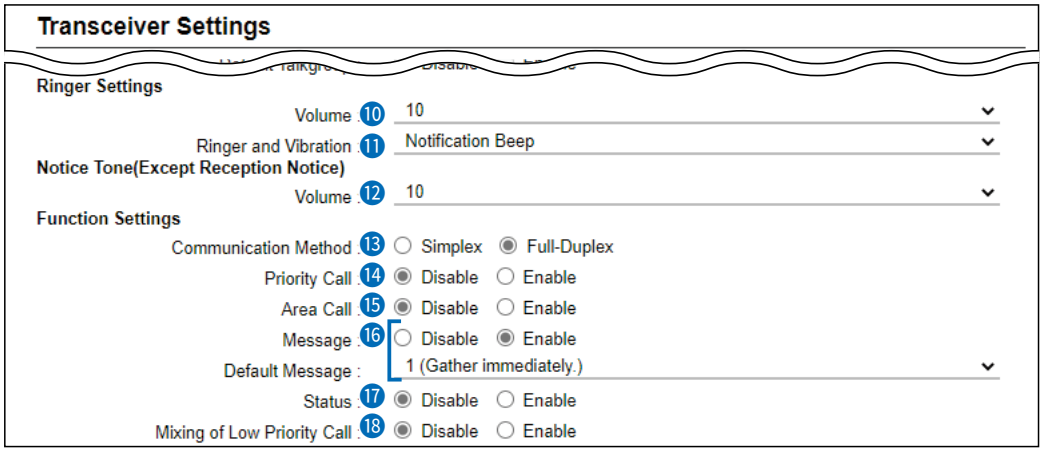
- **Enable**
  The IP100H joins the selected Talkgroup when it is turned ON.
  ⓘ When [Use ID List] is set to “Disable,” this item is not displayed.



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ The screen shows when [Message] is set to “Enable.”

Ringer Settings

⑩ Volume ..... Set the beep level when the IP100H receives a Call or message to between 0 and 32. (Default: 10)

ⓘ When this setting set to “0,” the notification beep does not sound.

ⓘ The notification beep is individually set for the Call type or message in [Notification Tone] settings.
(Transceiver Controller > Common Settings > Profile)

⑪ Ringer and Vibration..... Set the action when the IP100H receives a Call or message to “Notification Beep,” “Vibration” or “Notification Beep + Vibration.” (Default: Notification Beep)

- **Notification Beep**
  When the IP100H receives a Call or message, the specified Notification beep sounds, depending on the Call or message.
  The notification beep is individually set for the Call type or message in [Notification Tone] settings.
  (Transceiver Controller > Common Settings > Profile)

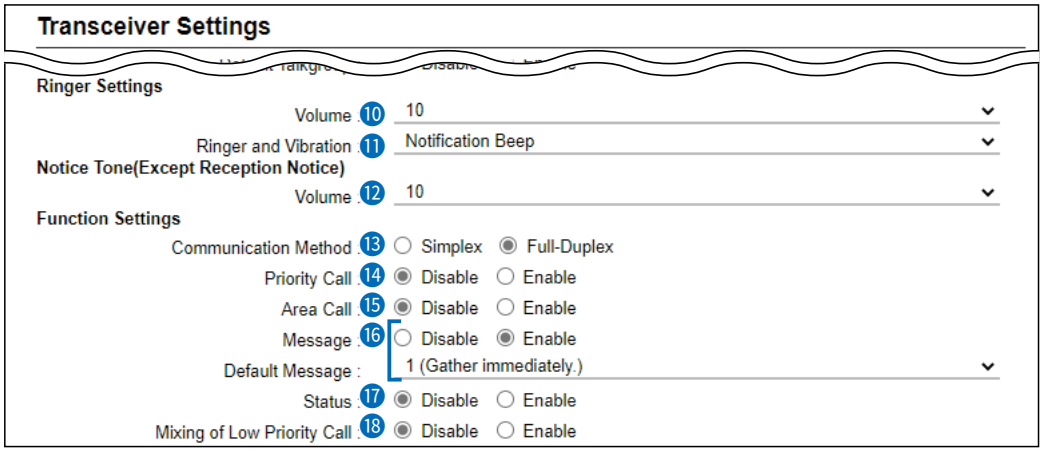
- **Vibration**
  When the IP100H receives a Call or message, it vibrates for notification.

- **Notification Beep + Vibration**
  When the IP100H receives a Call or message, it vibrates and the Notification beep sounds for notification.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ The screen shows when [Message] is set to “Enable.”

Notice Tone (Except Reception Notice)

⑫ Volume …… Set the beep level when the IP100H is transmitting a Call or connecting to the Controller, to between 0 and 32. (Default: 10)

ⓘ When this setting is set to “0,” the notification beep will not sound.

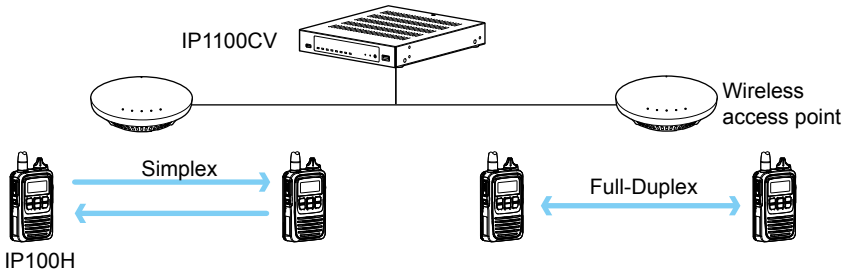
ⓘ Depending on the [Common Settings], the IP100H sounds a beep when the IP100H is transmitting or connecting to the Controller.

Function Settings

⑬ Communication Method … Select the communication method that the IP100H uses. (Default: Full-Duplex)

- **Simplex:** Toggles the transmission (Talker) and reception (Listener) for communication.
- **Full-Duplex:** Simultaneously transmits and receives, like a telephone.
  ⓘ When connecting the optional microphone to the IP100H, you can operate the IP100H like a telephone.

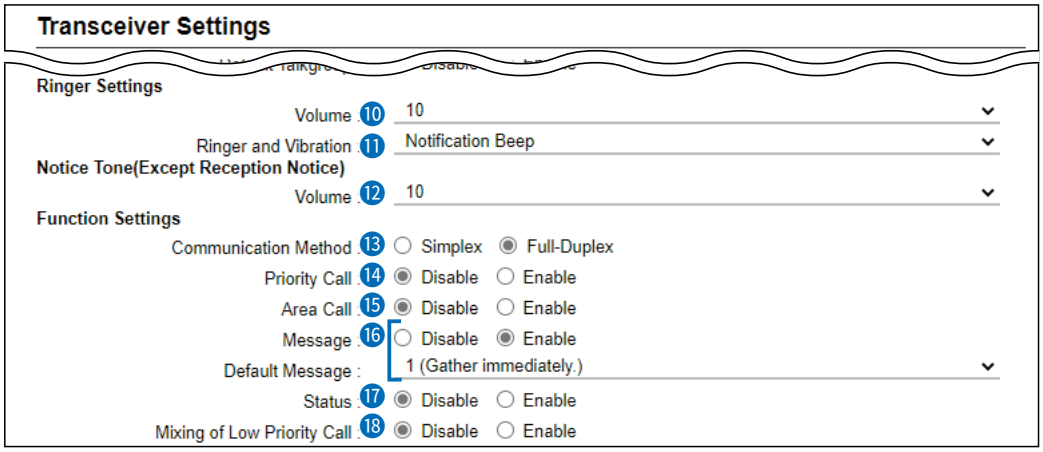
Simplex and Full-Duplex Communication



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ The screen shows when [Message] is set to “Enable.”

Function Settings

⑭ Priority Call ..... Select whether or not the IP100H uses Priority Call.

(Default: Disable)

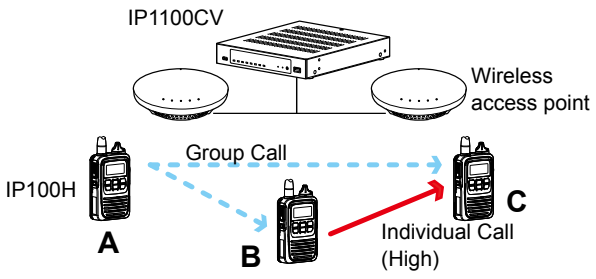
The priority levels of the Call types are in the following order.

Priority level	Priority	Call type	Priority Call	Remarks
High ↑	Fixed	Telephone	—	For telephone communication
		Emergency (High)	Enable	—
		Emergency (Normal)	Disable	—
	Selectable *	All Call (High)	Enable	Includes the Area Call or using an IP100FS
		Individual Call (High)	Enable	Includes using an IP100FS
		Group Call (High)	Enable	Includes the Area Call or using an IP100FS
		All Call (Normal)	Disable	Includes the Area Call
		Individual Call (Normal)	Disable	—
↓ Low		Group Call (Normal)	Disable	Includes the Area Call

* Selectable in the [Call Type Priority].
(Transceiver Controller > RoIP Server Settings > RoIP Server)

ⓘ Priority is given to the first call between calls with the same priority level.
ⓘ When a call is taken, priority is given to the setting of the caller.

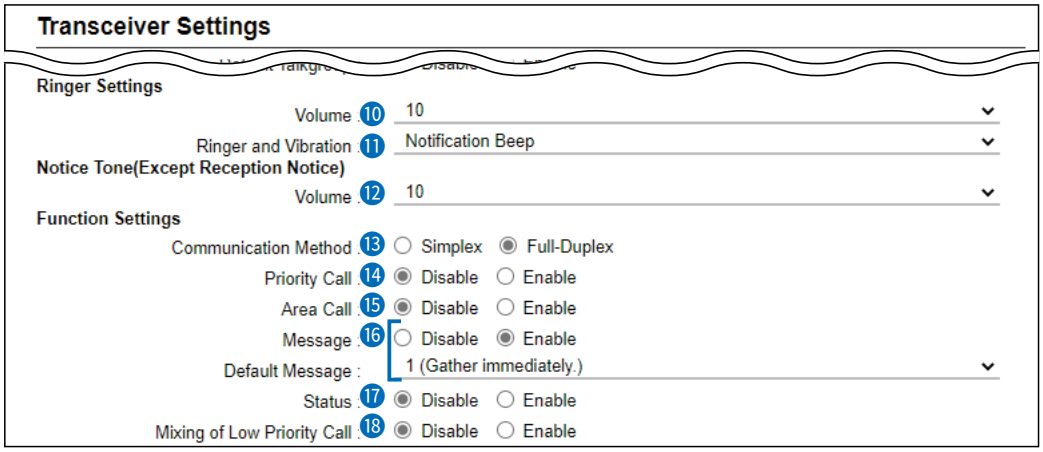
Example:
Even while B and C are talking on a Group Call from A,
B can make an Individual Call (High) to C.
In this case, the Group Call will be canceled.



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ The screen shows when [Message] is set to “Enable.”

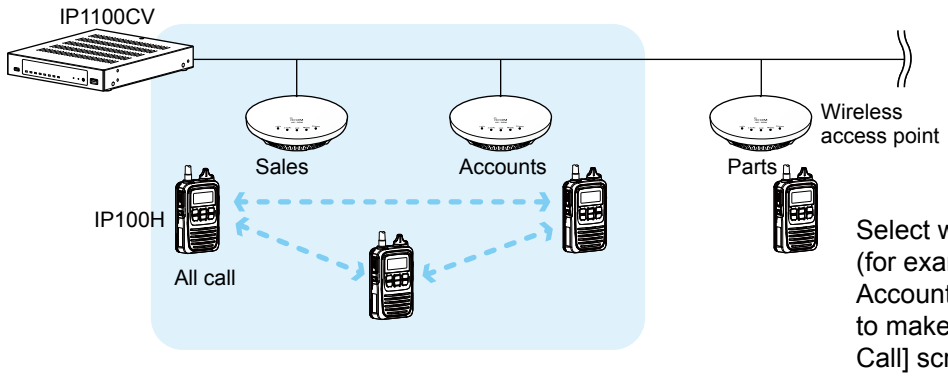
Function Settings

15 Area Call ..... Select whether or not the IP100H uses Area Call.

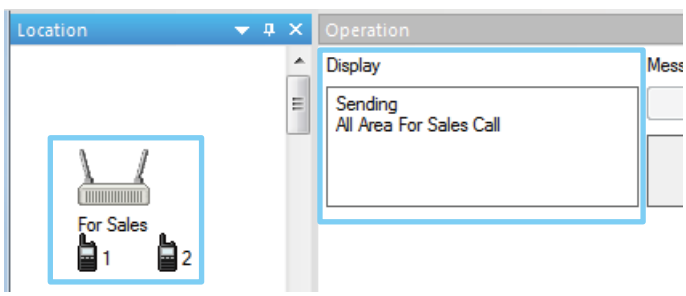
(Default: Disable)

When the IP100H calls All Call or Group Call using the Area Call function, it calls only other IP100Hs or IP100FSs in the area that is connected to the same wireless access point.
When the BSSID that IP100H is connecting is registered in [Area Setting] (Transceiver Controller > RoIP Server Settings > Area Call), this function is activated.

Making an All Call with the Area Call function



Select wireless access points (for example, Sales and Accounts) that the IP100H uses to make Area calls, on the [Area Call] screen.

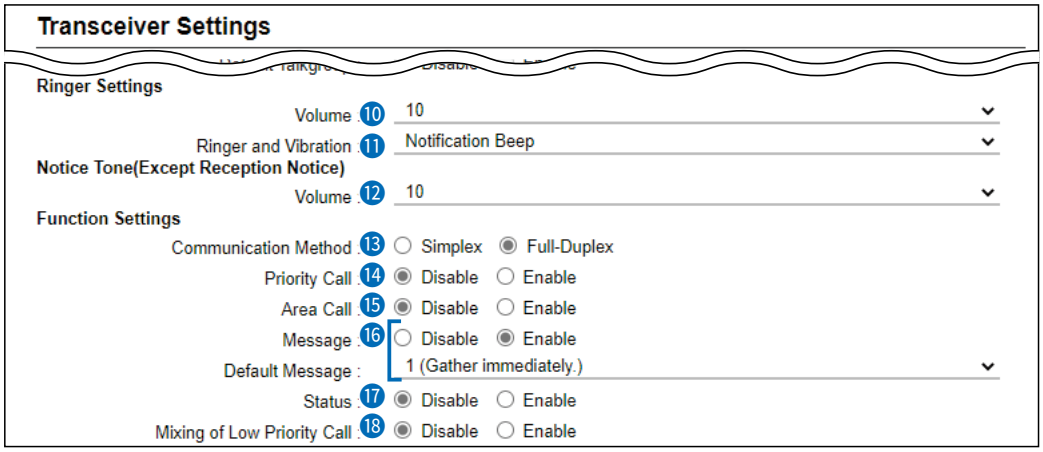


On the IP100FS, you can make an Area Call to the WLAN transceivers that belongs to the specified wireless access point. Select an access point in [Location], and then Call Type (Individual, Group, All, Area, or Telephone) and the name of the destination will be displayed.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ The screen shows when [Message] is set to “Enable.”

Function Settings

⑯ Message ..... Select whether or not the IP100H can send messages.

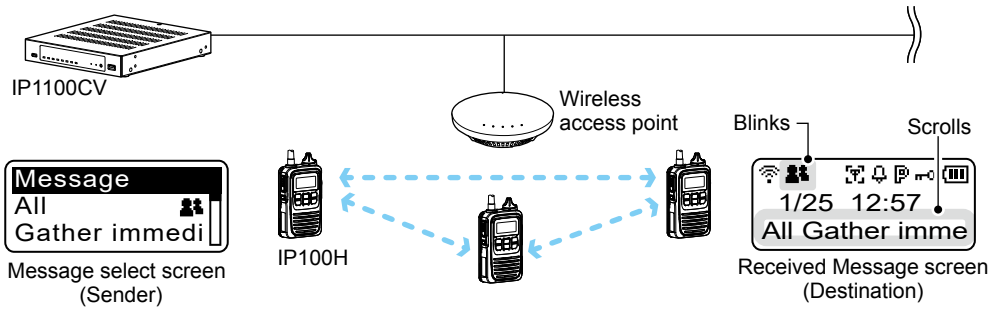
(Default: Disable)

When “Enable” is selected, push the [FUNC] key on the IP100H once to enter the Message selection screen.

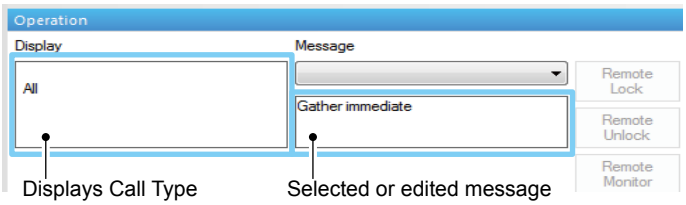
ⓘ Up to 10 messages of 32 characters or less can be programmed on the [Messages] screen in the [Common Settings] menu.

ⓘ Select the message number 1 to 10 in [Default Message] that is registered on the [Message] screen.

Sending a Message on the IP100H



Sending a Message on the IP100FS

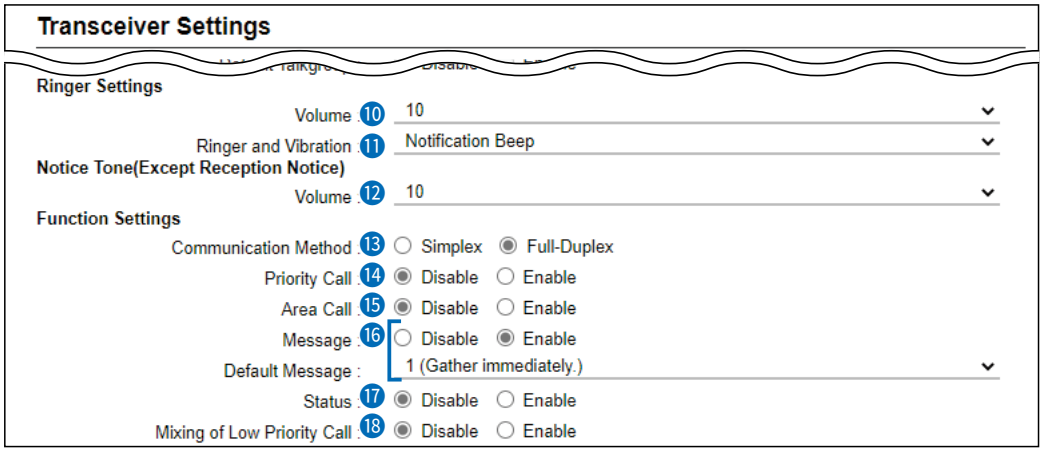


The IP100FS can store up to 100 messages in each site.
You can edit the stored messages.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ The screen shows when [Message] is set to “Enable.”

Function Settings

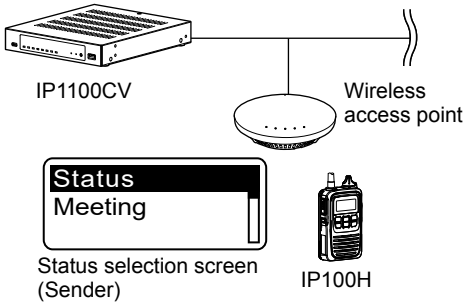
⑰ Status ..... Select whether or not the IP100H can send Status information. (Example: At lunch, Meeting, Waiting) (Default: Disable)

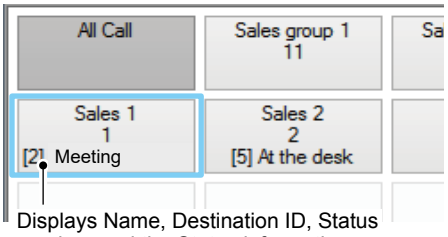
When “Enable” is selected, push the [FUNC] key on the IP100H twice to enter the Status selection screen.

ⓘ Up to 10 statuses of 32 characters or less can be entered on the [Status] screen in the [Common Settings] menu.

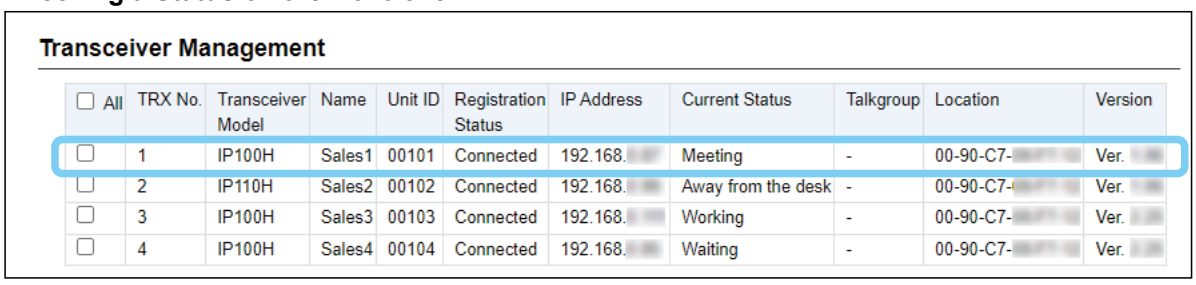
ⓘ The status that the IP100H sends can be displayed on the [Transceiver Management] screen in the [Transceiver Settings] menu or the One-Touch button of the IP100FS.

Sending a Status on the IP100H





Checking a Status on the Controller

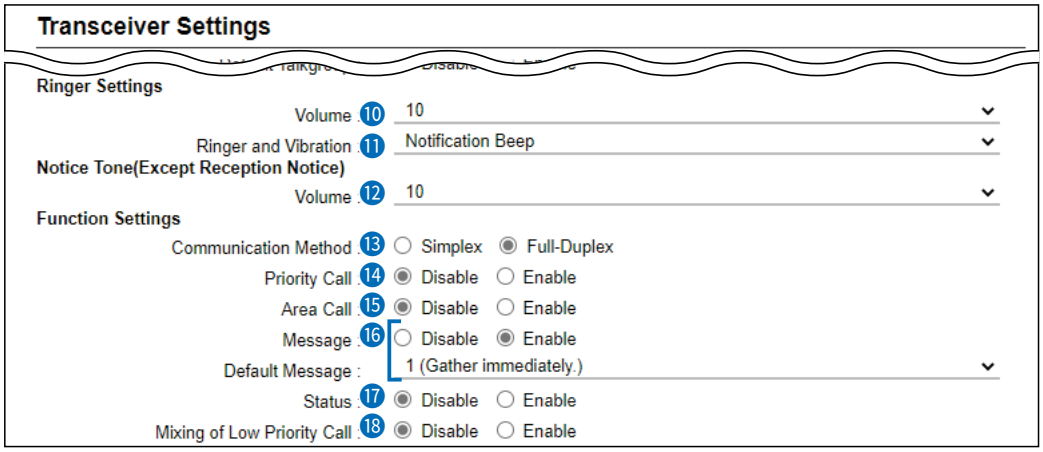


All	TRX No.	Transceiver Model	Name	Unit ID	Registration Status	IP Address	Current Status	Talkgroup	Location	Version
☐	1	IP100H	Sales1	00101	Connected	192.168.	Meeting	-	00-90-C7-	Ver.
☐	2	IP110H	Sales2	00102	Connected	192.168.	Away from the desk	-	00-90-C7-	Ver.
☐	3	IP100H	Sales3	00103	Connected	192.168.	Working	-	00-90-C7-	Ver.
☐	4	IP100H	Sales4	00104	Connected	192.168.	Waiting	-	00-90-C7-	Ver.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ The screen shows when [Message] is set to “Enable.”

Function Settings

⑱ Mixing of Low Priority Call

Select whether or not the IP100H receives Mixed audio.

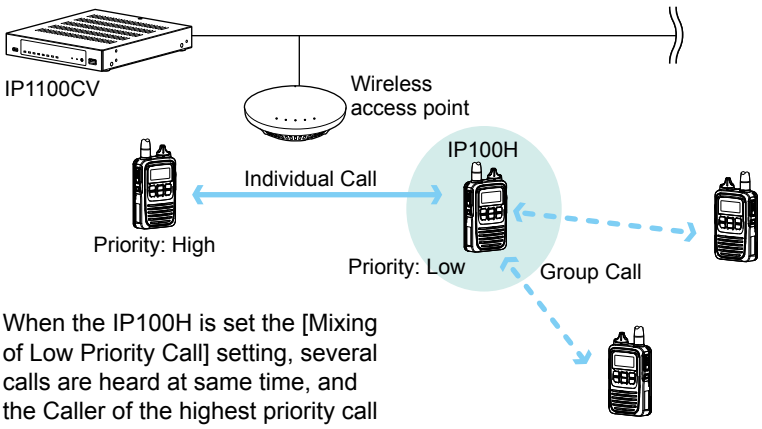
(Default: Disable)

When this setting is set to “Enable,” the Controller sends the mixed audio of all calls that call the IP100H.

ⓘ The IP100H displays the called station that has the highest priority in the mixed audio.

See page 5-31 for details of the Priority level.

Mixing of Low priority call

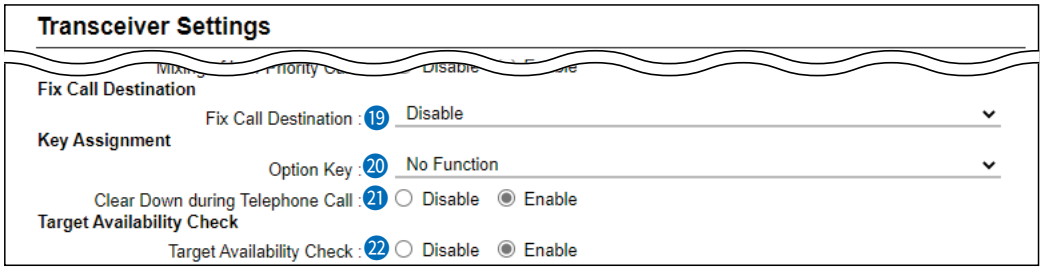


When the IP100H is set the [Mixing of Low Priority Call] setting, several calls are heard at same time, and the Caller of the highest priority call is displayed on the IP100H.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



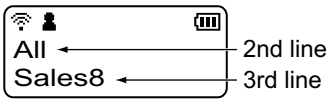
Fix Call Destination

19 Fix Call Destination ..... Select whether or not the IP100H uses the Fix Call Destination function. (Default: Disable)

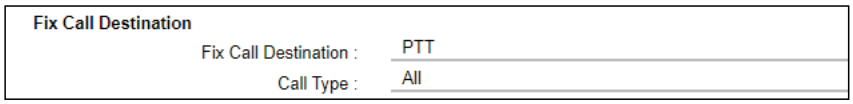
When this setting is set to other than “Disable,” the IP100H calls the preset destination instead of the selected destination that is displayed on the third line. The Fix Call Destination function separates the fixed call from the general calls by the specified method to start transmission.

- **Disable**
  The Fix Call Destination is not specified, and the IP100H calls the selected destination.

- **PTT**
  The Fix Call Destination is specified as PTT transmission.
  When [PTT] is held down, the IP100H calls the preset destination.

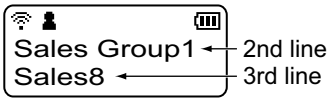


Call type is set to All

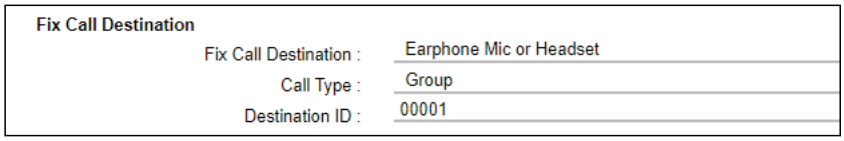


(Example: Sending an All call by the [PTT] operation)

- **Earphone Mic or Headset**
  The Fix Call Destination is specified as the external Mic transmission.
  When the external microphone’s PTT switch is held down, or its VOX function is active, the IP100H calls the preset destination.



Call type is set to Group



(Example: Sending a Group call on the Earphone Mic or Headset)

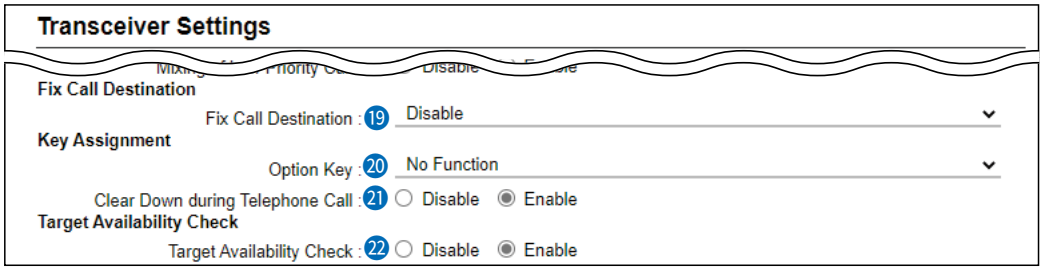
ⓘ Information

- Set the Call type to “Individual,” “Group,” or “All.”
- When the “Call Type” is set to “Individual” or “Group,” enter the Individual ID or Group ID between 00001 to 60000 in the [Destination ID].
- The Destination ID, Name (if [Name] is selected in the [Display Item]) or Call type of the Fix Call Destination is displayed on the 2nd line.
  (Usually Date and Time or Own Name is displayed on the 2nd line.)
- When the IP100H receives a call with this setting, it does not display the Caller’s ID or Call type on the 3rd line.
- When both of the IP100H’s [PTT] and external microphone’s PTT switch are held down, the external PTT has priority and the internal microphone will be muted.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



Key Assignment

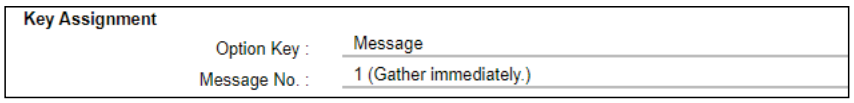
⑳ Option Key ..... Assign “Message,” “One Touch,” “Clear Down,” “Mute,” “Emergency,” or “No Function” to the IP100H’s [Option] key. (Default: No Function)

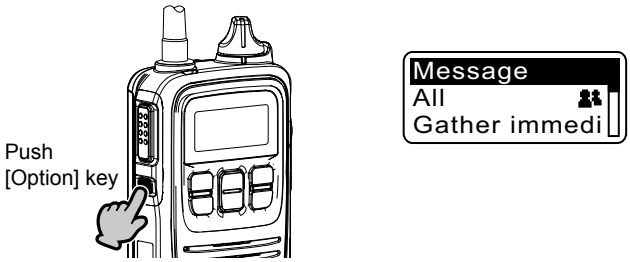
ⓘ When this setting is set to “No Function,” nothing changes by pushing the [Option] key on the IP100H in the standby mode.

- **Message**

  Pushing the [Option] key on the IP100H displays the Message selection screen.

  ⓘ Select the message number 1 to 10 in the [Message No.] that is displayed on the [Message] screen.

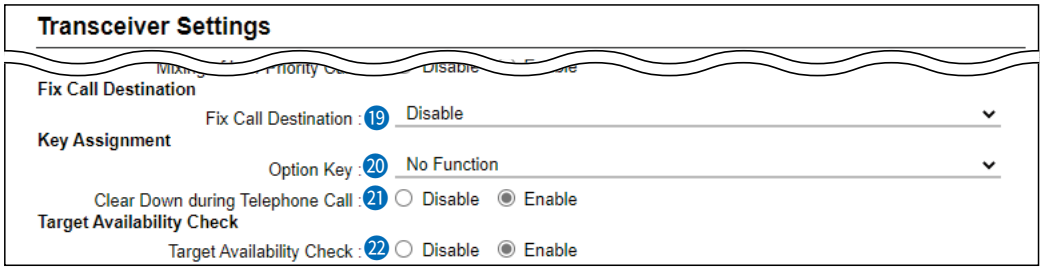




Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



Key Assignment

⑳ Option Key ……

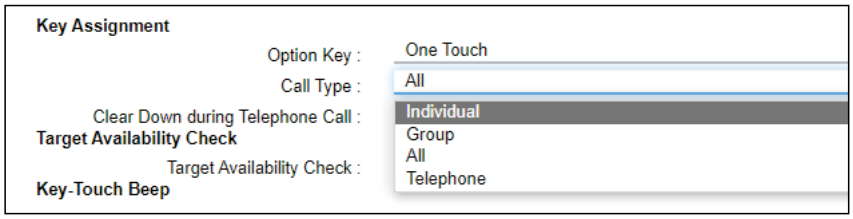
- **One Touch**

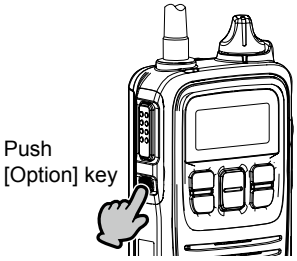
  Pushing the [Option] key on the IP100H selects a specified Call type and destination ID or phone number.

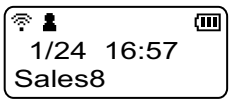
  Select the “Individual,” “Group,” “All,” or “Telephone” Call type.

  ⓘ When “Individual” or “Group” is selected, enter the Individual ID or Group ID between 00001 to 60000 in the [Destination ID].

  ⓘ When “Telephone” is selected, enter up to 31 numbers and symbols (#, ＊) in the [Destination Phone Number].



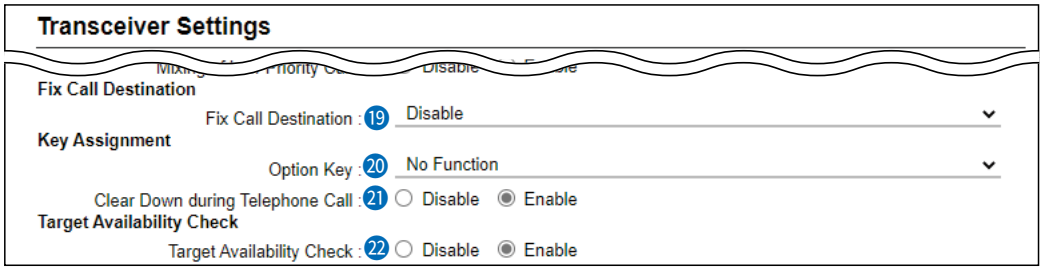




Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



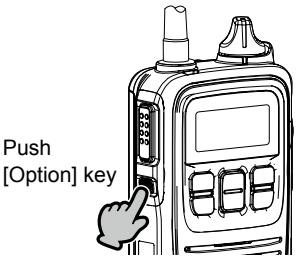
Key Assignment

⑳ Option Key ……

- **Clear Down**

  Pushing the [Option] key on the IP100H terminates the phone call with an IP phone.

  ⓘ You can assign another function if you select “Enable” on [Clear Down during Telephone Call] (㉑).



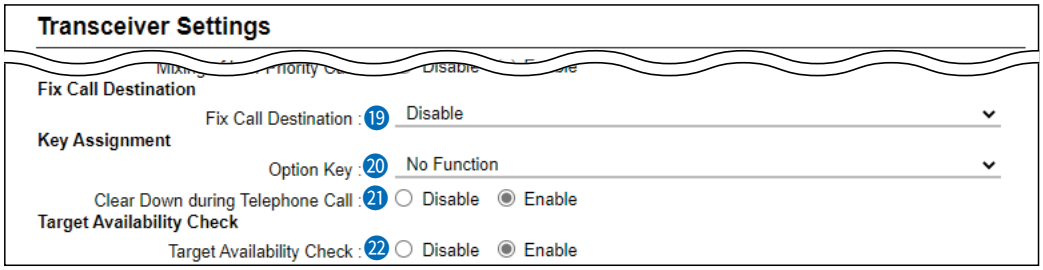
When the [Option] key is pushed before a phone call is received, or during telephone call, the phone call is terminated.

ⓘ The phone call is terminated from the IP100H, only when the IP100H is individually called from a telephone, or when the IP100H calls a telephone.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



Key Assignment

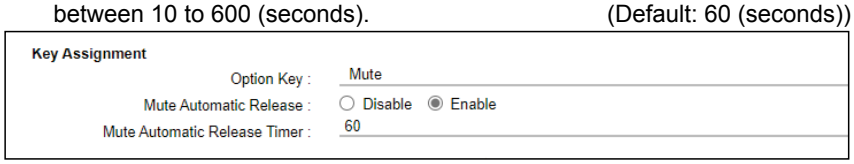
⑳ Option Key ……

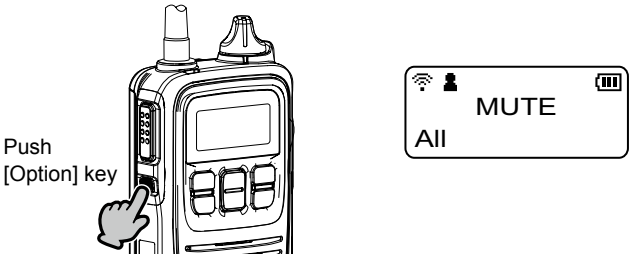
- **Mute**

  Hold down the [Option] key for 1 second on the IP100H when you want to mute the received audio. (The Notification beep cannot be muted.)
  Hold down the [Option] key for 1 second to turn the Mute function ON or OFF.

  ⓘ You can turn OFF the Mute function by pushing [PTT]. However, selecting "Enable" in the [Clear Down during Telephone Call], terminates the phone call.

  ⓘ If you select "Enable" in [Mute Automatic Release], turn OFF the Mute function after a specified period of time has passed. (Default: Disable)
  If you select "Enable," set the period of time to release the Mute function to between 10 to 600 (seconds). (Default: 60 (seconds))

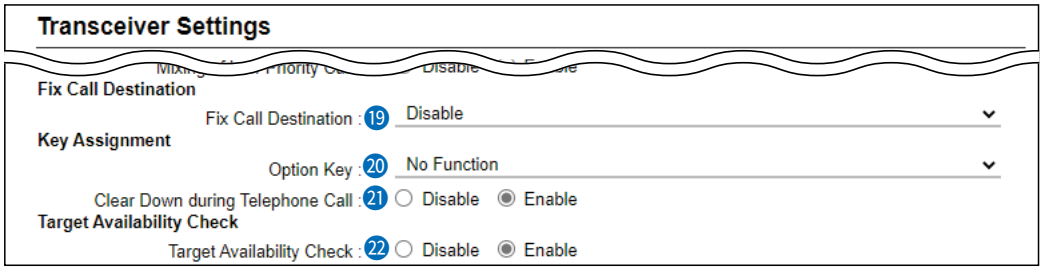




Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

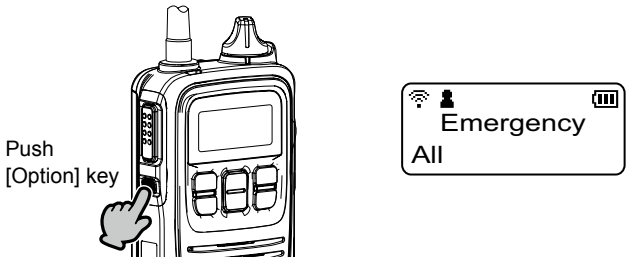
■ Transceiver Settings [IP100H]



Key Assignment

⑳ Option Key ……

- **Emergency**
  Hold down the [Option] key until “Emergency” is displayed to send an Emergency call.
  When the Emergency call is sent, an alarm sounds. The Emergency call is canceled and the alarm stops when the transceiver receives a response, or the [Option] key of the transceiver is held down.
  ⓘ The [Option] key operation can be used only when [Emer SW OFF] is set to “Enable.”

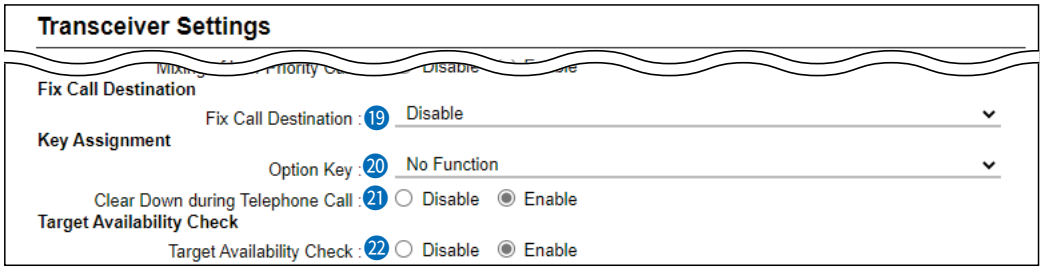


NOTE:
The Controller should not be used when high reliability is necessary.
The communication cannot be made, depending on the environment around the Controller, such as the consumption of a battery, the signal environment, or the access point or network status.
Use the [Emergency] and [Lone Worker] functions as a supplementary function.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]

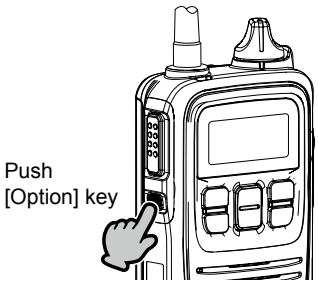


Key Assignment

21 Clear Down during Telephone Call .....

Select “Enable,” if you want to terminate a phone call by pushing the IP100H’s [Option] key. (Default: Enable)

ⓘ When “Clear Down” is selected on the [Option Key], this item is not displayed.



Before the target telephone is picked up, or during a phone call, pushing the [Option] key terminates the phone call.

ⓘ The IP100H can terminate the phone call, when a telephone calls the IP100H individually, or when the IP100H calls a telephone.

Target Availability Check

22 Target Availability Check ...

Select whether or not the IP100H displays a confirmation after it makes an Individual Call. (Default: Enable)

When “Enable” is selected, the IP100H displays the “Connected,” “Busy” or “No response” connection status.

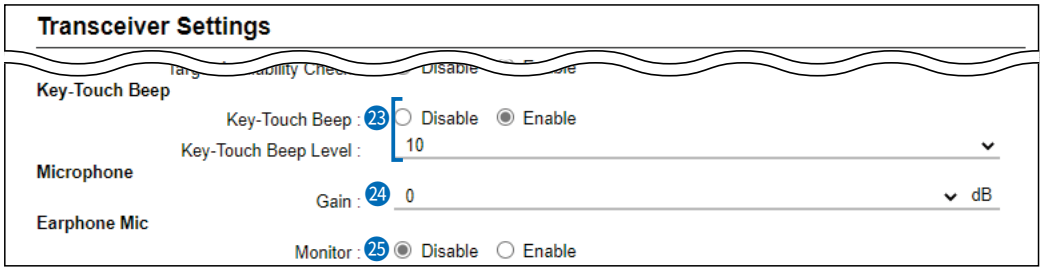
ⓘ When the target station is out of range, “No response” is displayed.

ⓘ If the [Connection Notice Tone] is set to “Enable,” the Success Tone or Failure Tone sounds to notify its connection status.
(Transceiver Controller > Common Settings > Profile > Profile > Connection Notice Tone)

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



Key-Touch Beep

23 Key-Touch Beep.....

Select whether or not the IP100H sounds the Key-Touch beep. (Default: Enable)

When “Disable” is selected, the IP100H does not sound the confirmation beep when a key is pushed.

- **Key-Touch Beep Level**

  Set the volume level of the notification beeps when the IP100H’s key is pushed. (Default: 10)

  The selectable range is between 0 and 32.

  ⓘ When “0” is selected in this setting, the IP100H does not sound any beep, even if the volume level is set.

  ⓘ When “Disable” is selected, this setting is grayed out and the volume level cannot be changed.

Microphone

24 Gain .....

Adjust the microphone sensitivity. (Default: 0)

- Range: –12 (low) ~ 12 (high) dB, in 3 dB steps.

ⓘ When the noise level around the IP100H is high, set to low sensitivity and speak in a slightly louder voice that makes listening easier. Or when the noise level around the IP100H is quiet, set to high sensitivity and speak in smaller voice that makes listening easier.

Earphone Mic

25 Monitor .....

Select whether or not the IP100H with an earphone microphone uses the Monitor function. (Default: Disable)

When this setting is set to “Enable,” you can hear your transmit audio from the earphone. Set the monitor level to between 0 and 32. (Default: 10)

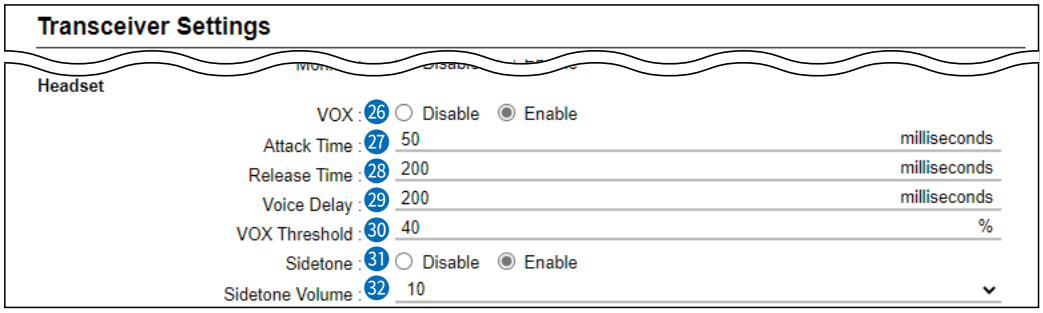
ⓘ When “0” is set, your voice is not heard from an earphone microphone, regardless of the audio setting in the IP100H.

ⓘ To prevent howling, set this setting to “Disable” when using a speaker microphone, such as the HM-186LS.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ This is an example of when the [VOX] is set to “Enable.”

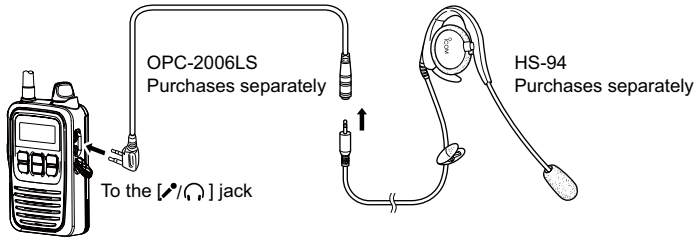
Headset

26 VOX .....

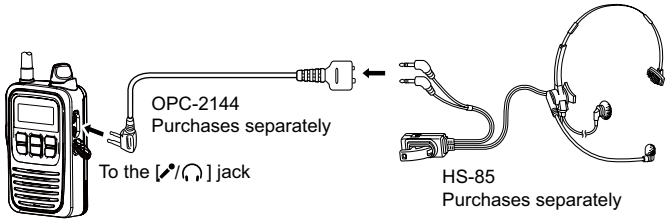
Select whether or not the IP100H can use the VOX (voice operated transmission) function. (Default: Disable)
The transceiver has a VOX function, which allows hands-free operation.

ⓘ Information

- The VOX function requires an optional headset and connection cable, such as the HS-94, HS-95, or HS-97 headset and OPC-2006LS cable, or the HS-102 headset and OPC-2359 cable.
- The VOX function starts transmission when you speak into the microphone, without needing to push [PTT]; then, automatically returns to reception when you stop speaking.
- Be sure to turn OFF the IP100H’s power, before connecting or disconnecting optional equipment to or from the [🎤/🎧] jack.
- When “Enable” is selected, the [Attack Time] through [Sidetone Volume] is displayed.



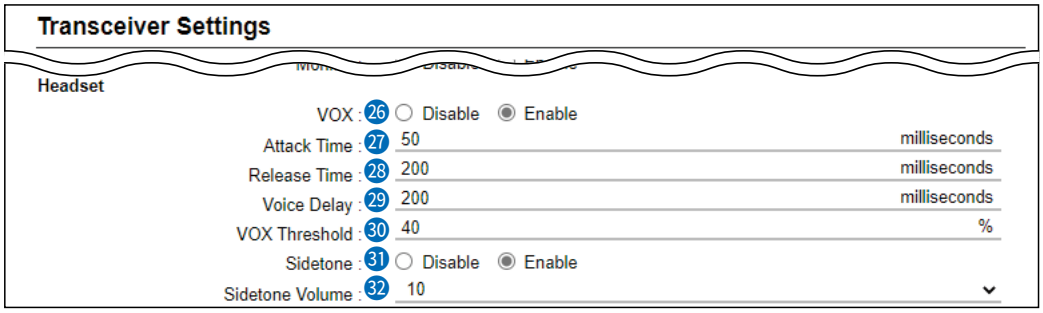
- The HS-85 (discontinued) has the VOX function, so if you connect the HS-85 to the IP100H through the OPC-2144, set the [VOX] to “Disable.”



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ This is an example of when the [VOX] is set to “Enable.”

Headset

27 Attack Time .....
VOX: Enable

Adjust the Attack time. (Default: 50)
• Range: 5 ~ 2000 (milliseconds) in 5 millisecond steps
When audio from a headset microphone is input for this specified time, the IP100H starts transmitting.

28 Release Time .....
VOX: Enable

Adjust the Release time. (Default: 200)
• Range: 5 ~ 2000 (milliseconds) in 5 millisecond steps
The release time is amount of time the transmitter stays ON after you stop speaking.

29 Voice Delay .....
VOX: Enable

Adjust the Voice Delay time to prevent clipping of the first few syllables after you begin speaking. (Default: 200)
• Range: 0 ~ 500 (milliseconds) in 5 millisecond steps

30 VOX Threshold .....
VOX: Enable

Adjust the VOX Threshold level. (Default: 40)
• Range: 0 ~ 100 (%)
ⓘ The lower values make the VOX function more sensitive to your voice.

31 Sidetone .....
VOX: Enable

Select whether or not to use the Sidetone function. (Default: Disable)
When “Enable” is selected, you can hear your voice from the headset.

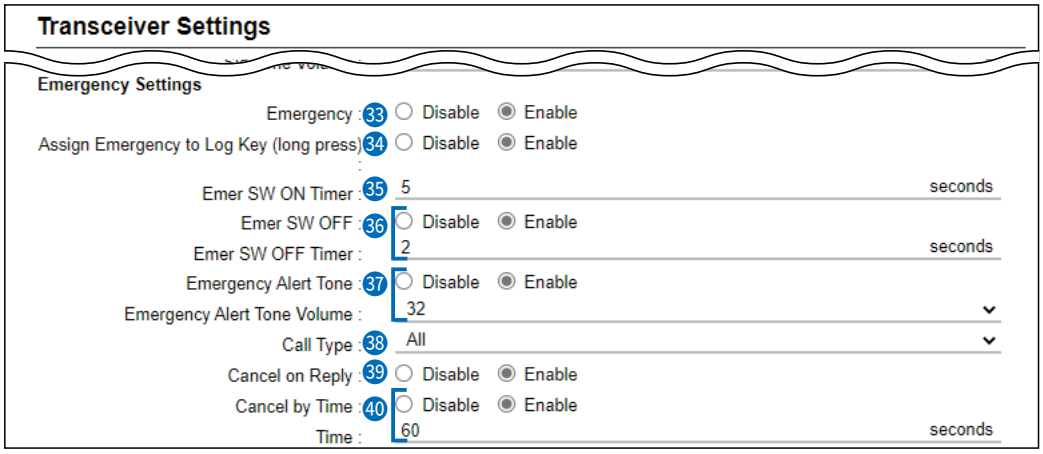
32 Sidetone Volume .....
VOX: Enable

Adjust the Sidetone level. (Default: 10)
• Range: 0 (minimum) ~ 32 (maximum)

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ This is an example of when the [Emergency], [Emer SW OFF], and [Cancel by Time] is set to “Enable.”

Emergency Settings

33 Emergency .....

Select whether or not to use the Emergency function. (Default: Disable)
- This function is usable only when [Option Key] (p. 5-41) or [Assign Emergency to Log Key (long press)] is set to “Enable.”
- Holding down the [Option Key] or [Assign Emergency to Log Key (long press)] until “Emergency” is displayed turns ON the Emergency function, and sends an Emergency call to the previously set User ID.
- The Emergency call is canceled when an RX code is received, or holding down the [Option] key or [Log] key for a set period of time in the [Emer SW OFF Timer].
- The period of time that the key must be held down to turn the Emergency function ON or OFF is set in the [Emer SW ON Timer] or in the [Emer SW OFF Timer].

34 Assign Emergency to Log Key (long press) .....

Emergency: Enable

Select whether or not to use the [☞] key to send an Emergency call. (Default: Enable)

35 Emer SW ON Timer .....

Emergency: Enable

Enter the period of time for which the [Option] key or [Log] key must be held down to turn the Emergency function ON.
- Range: 0 ~ 10 (seconds) (Default: 5)

36 Emer SW OFF .....

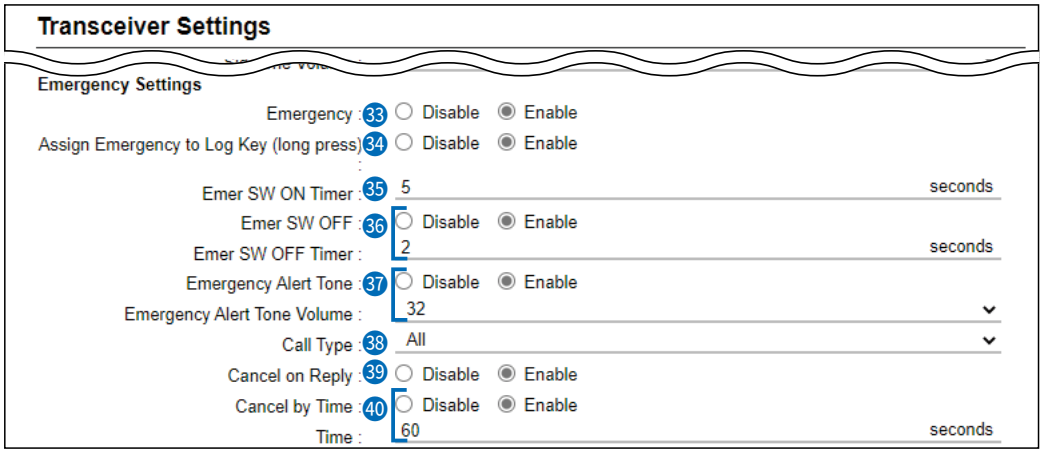
Emergency: Enable

Select whether or not to cancel the Emergency call by pushing the [Option] key or [Log] key. (Default: Disable)
When “Enable” is selected, enter the period of time for which the [Option] or [Log] key must be held down to turn OFF the Emergency function. (Default: 2)
- Range: 0 ~ 10 (seconds)

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ This is an example of when the [Emergency], [Emer SW OFF], and [Cancel by Time] is set to “Enable.”

Emergency Settings

37 Emergency Alert Tone ……

Emergency: Enable

Select whether or not to sound an alarm when an Emergency call is sent. When this item is set to “Disable,” “Emergency” is not displayed on the screen, and IP100H sends the Emergency call. (Default: Enable)

When “Enable” is selected, set the [Emergency Alert Tone Volume] (audio level) of the alarm to between 0 and 32. (Default: 32)

38 Call Type ……

Emergency: Enable

Select the call type of Emergency call from Individual, Group, All, or Telephone. (Default: All)
If you select “Individual” or “Group,” enter the Destination ID between 00001 to 60000. If you select “Telephone,” enter a Destination Phone Number of up to 31 characters (0–9, #, and *).

39 Cancel on Reply……

Emergency: Enable

Select whether or not to cancel the Emergency call when any RX code is received. (Default: Enable)

40 Cancel by Time ……

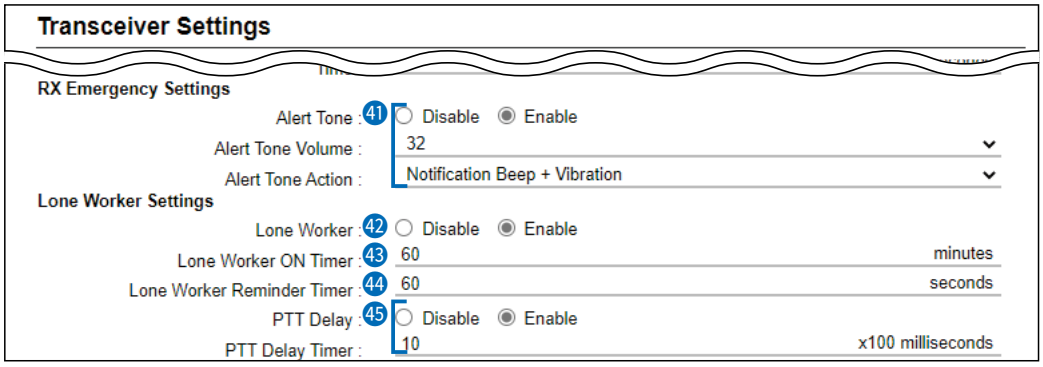
Emergency: Enable

Select whether or not to cancel the Emergency call after the set period of time has passed. (Default: Disable)
If you select “Enable,” enter a period of time.
• Range: 1 ~ 255 (seconds) (Default: 60)

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ This is an example of when the [Lone Worker] is set to “Enable.”

RX Emergency Settings

41 Alert Tone……

Emergency: Enable

Select whether or not to cancel an Emergency call after the set period of time has passed. (Default: Enable)
If you select “Enable,” set the Volume (audio level) to between 0 and 32, and select the action. (Default: 32, Notification Beep+Vibration)

ⓘ In the [Alert Tone Action], select “Notification Beep,” “Vibration,” or “Notification Beep + Vibration” to activate when an Emergency call is received.

Lone Worker Settings

42 Lone Worker ……

Emergency: Enable

If the Lone Worker function is activated, the Emergency function is automatically turned ON after the set period of time has passed with no operation. (Default: Disable)

43 Lone Worker ON Timer……

Lone Worker: Enable

Enter the period of time for starting the Lone Worker function. (Default: 60)

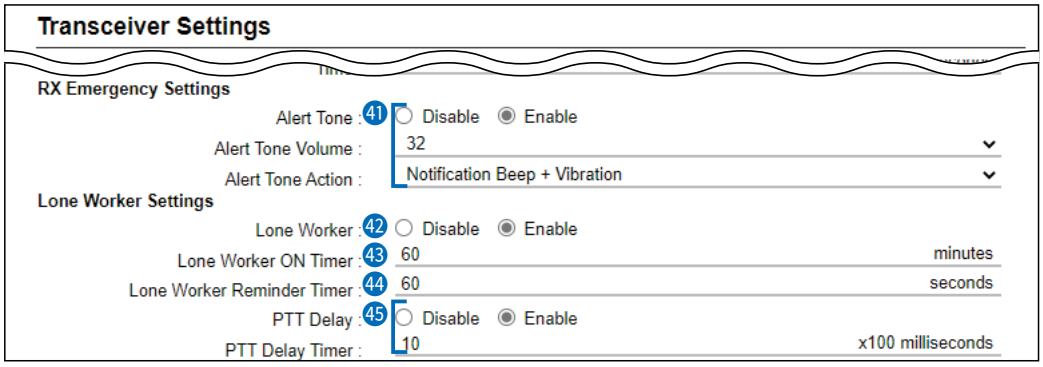
- Range: 1 ~ 255 (minutes) in 1 minute steps

ⓘ When the IP100H is operated within the period of time in this item, the times for [Lone Worker ON Timer] and [Lone Worker Reminder Timer] are reset.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



ⓘ This is an example of when the [Lone Worker] is set to “Enable.”

Lone Worker Settings

44 Lone Worker Reminder Timer

Lone Worker: Enable

Enter the period of time to start the Emergency call transmission after the period of time that is set in [Lone Worker ON Timer] has passed. (Default: 60)

When the transceiver is not operated after the period of time has passed, the Emergency call automatically starts.

• Range: 1 ~ 255 (seconds) in 1 second steps

ⓘ When the transceiver is operated by the [Emergency] function activation, [Lone Worker ON Timer] and [Lone Worker Reminder Timer] are reset.

ⓘ When the [Lone Worker Reminder Timer] is activated, beeps sound every 2 seconds until the timer is reset.

45 PTT Delay.....

Lone Worker: Enable

Enter the period of time for the delay time to transmit by pushing [PTT] while [Lone Worker ON Timer] and [Lone Worker Reminder Timer] are activated. (Default: Enable, 10)

• Range: 1 ~ 255 (×100 milliseconds)

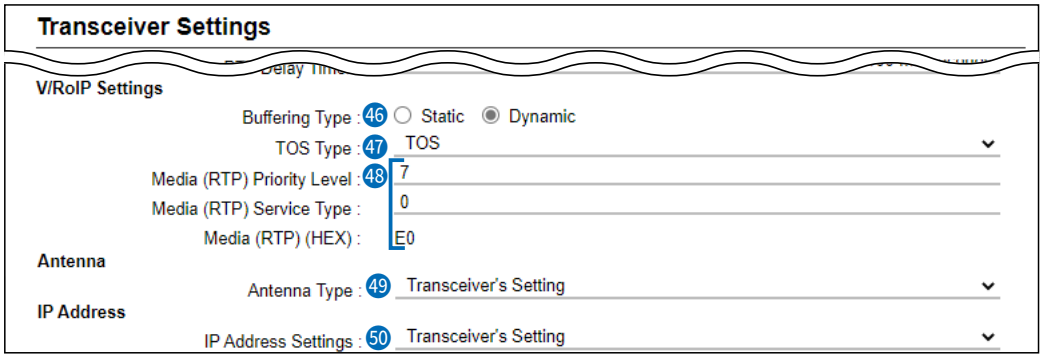
ⓘ If this item is set to a longer period of time, you can reset [Lone Worker ON Timer] and [Lone Worker Reminder Timer] by momentary pushing [PTT] without transmitting.

ⓘ Hold down [PTT] for more than the set period of time in this item to transmit.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

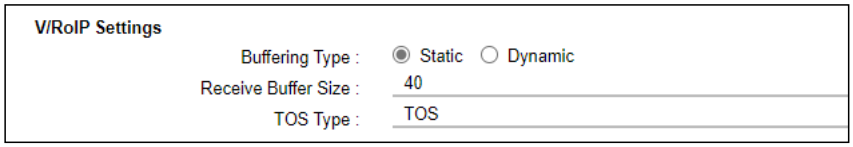
■ Transceiver Settings [IP100H]



V/RoIP Settings

46 Buffering Type ..... Select the buffer type to control any interrupted sound.
(Default: Dynamic)

- **Static**
  The buffer time is set [Receive Buffer Size].
  Set the buffer time to between 20 and 500 milliseconds to keep the audio from breaking up. A shorter value improves the delay, but it may frequently break the audio signal.

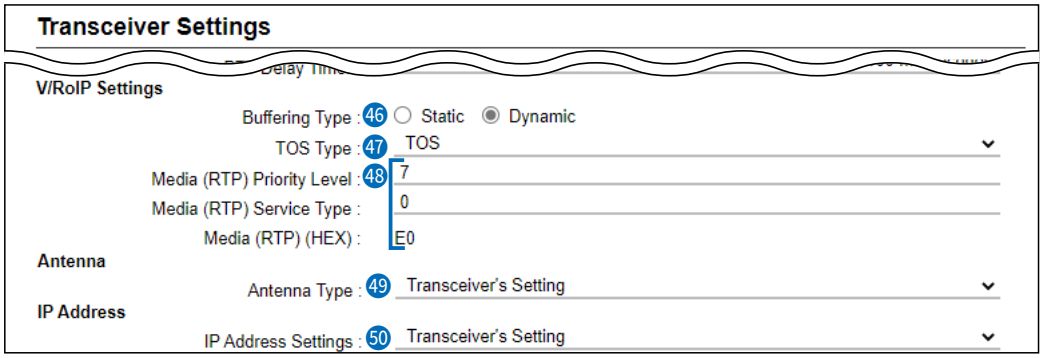


- **Dynamic**
  The buffer time changes according to the audio fluctuation.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



V/RoIP Settings

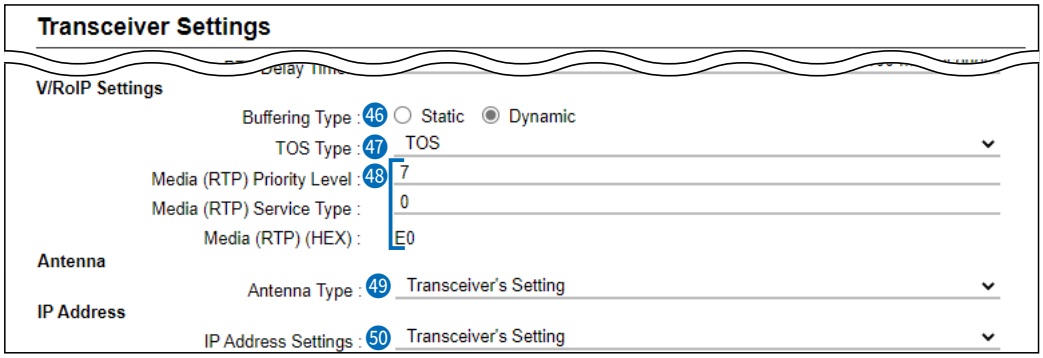
47 **TOS Type** ..... Select the TOS (Type-Of Service) format. (Default: TOS)

- **Not Used:** The TOS function is disabled.
- **TOS:** Sends the 8 bit VoIP packets to the TOS field in the IP header using the TOS format. Sets to between 1 (lowest) and 3 bits (Priority level) or 4 and 7 (highest) bits (Type of Service), based on the RFC1349. The 1 bit remaining is not used, and is fixed as 0.
- **Diffserv:** Sends the 8 bit VoIP packets to the TOS field in the IP header using the Diffserv (Differentiated Service) format. Sets to between 1 and 6 bits (DSCP). The 2 bits remaining are not used, and are fixed as 0.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



V/RoIP Settings

48 Media (RTP).....

Select the Priority level and Service type of the sent VoIP packets.
ⓘ The item is not displayed when [TOS Type] is set to “Not Used.”

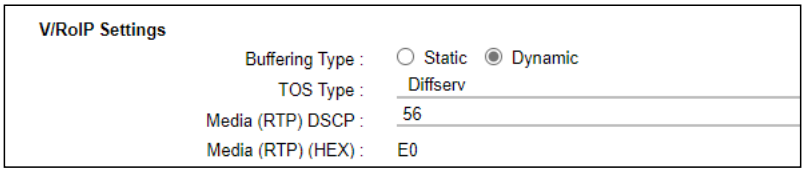
TOS Type: TOS

- **Media (RTP) Priority Level**
  Set the TOS priority level to between 0 (lowest) and 7 (highest). (Default: 7)

- **Media (RTP) Service Type**
  Set the TOS service type code to between 0 and 15. (Default: 0)

TOS Type: Diffserv

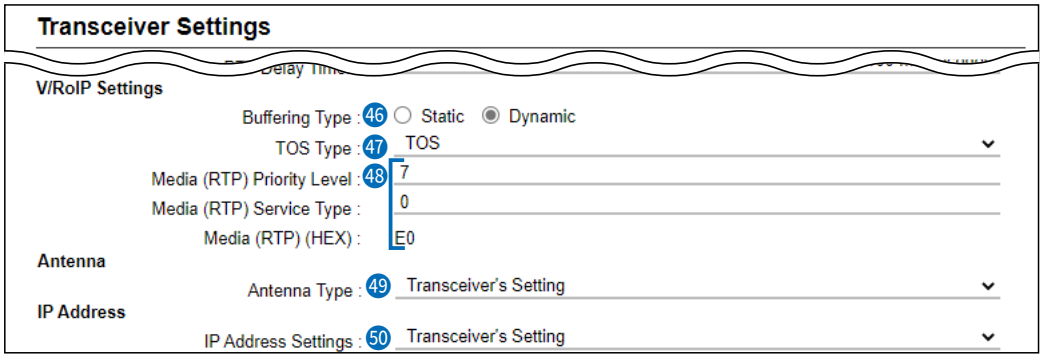
- **Media (RTP) DSCP**
  Set the DSCP (Differentiated Services Code Point) code to between 0 and 63. (Default: 56)
  - This item is displayed when the [TOS Type] is set to “Diffserv.”



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



Antenna

49 Antenna Type ..... Select the antenna that the IP100H will use.
(Default: Transceiver's Setting)

- **Transceiver's Setting**
  Uses the last antenna set by the CS-IP100H or the Controller.

- **Internal Antenna**
  Uses the internal antenna when you want to:

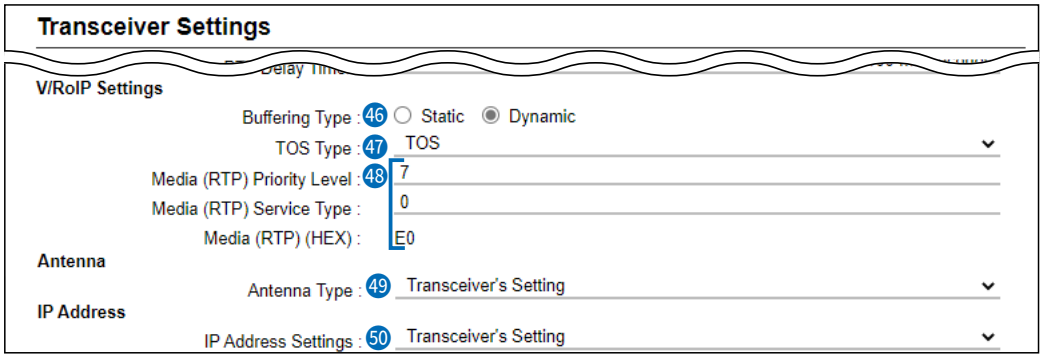
  - Reduce the communication range.
  - Limit the communication area and improve security.
  - Reduce electrical interference among WLAN transceivers.
  - Control the communication speed in an environment where some access points are installed in a comparatively small area.

- **External Antenna**
  Uses the external antenna.
  The external antenna extends the communication range.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]

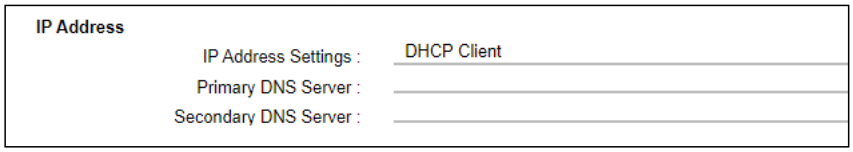


IP Address

50 IP Address Settings ..... Select the IP100H's IP settings. (Default: Transceiver's Setting)

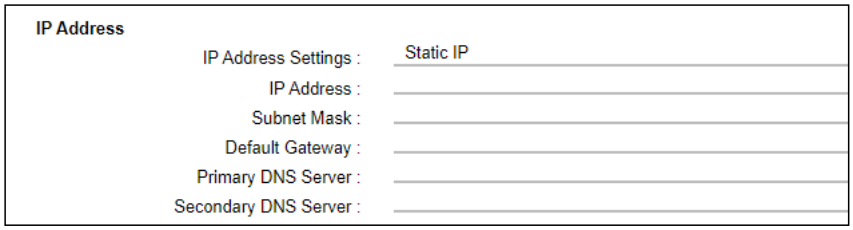
- **Transceiver's Setting**
  Uses the last IP setting set by the CS-IP100H or the Controller.

- **DHCP Client**
  Selects the DHCP Client when the IP address is automatically obtained by a DHCP server.



ⓘ If necessary, enter the [Primary DNS Server] or [Secondary DNS Server] settings.

- **Static IP**
  Selects the Static IP address, if it is specified, according to your network environment.

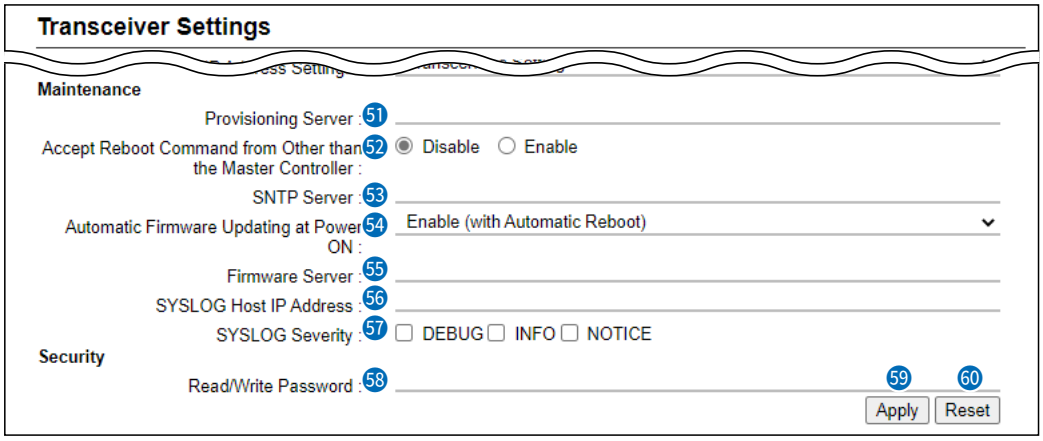


ⓘ Enter the default gateway address, if your network connects to a different network.
ⓘ If necessary, enter the [Primary DNS Server] and [Secondary DNS Server] settings.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



Maintenance

51 Provisioning Server ..... Enter an IP address or Host name of the Provisioning Server for the IP100H, of up to 63 characters.

ⓘ When the Controller is used as its Provisioning Server, this entry is not necessary.

52 Accept Reboot Command from Other than the Master Controller Select whether or not the IP100Hs can be rebooted by the other than the specified Provisioning Server. (Default: Disable)

ⓘ The IP1000C, IP1100CV, and VE-PG4 are compatible with this function. (As of April 2024)

53 SNTP Server ..... Enter the IP address of the device that is specified as the SNTP Server for the IP100H.

ⓘ When the Controller is used as its SNTP Server, this entry is not necessary.

54 Automatic Firmware Updating at Power ON ..... Select whether or not the IP100H will use the Automatic Update function. (Default: Enable (with Automatic Reboot))

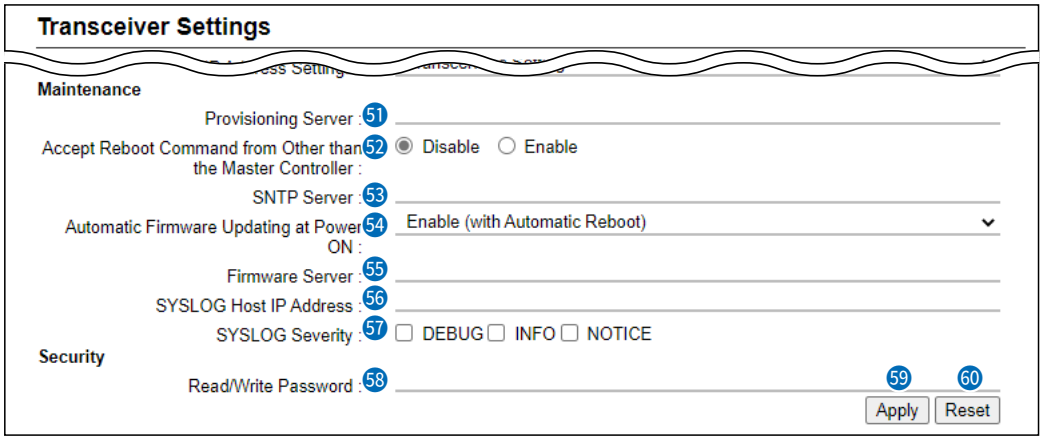
- **Disable**
  Disables the automatic firmware updating when the IP100H is turned ON.
- **Enable (without Automatic Reboot)**
  When this setting is set to “Enable (without Automatic Reboot),” the IP100H works as follows.
  1. The IP100H confirms the latest firmware in the Controller when it is turned ON.
  2. The IP100H automatically downloads the firmware if it needs to be updated.
  3. The IP100H will be updated when it is turned ON again.
- **Enable (with Automatic Reboot)**
  When this setting is set to “Enable (with Automatic Reboot),” the IP100H works as follows.
  1. The IP100H confirms the latest firmware in the Controller when it is turned ON.
  2. The IP100H automatically downloads the firmware if it needs to be updated.
  3. The IP100H is updated automatically, and then it is rebooted.

  ⓘ You can check the firmware version of the IP100H in the [TOP] menu.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]



Maintenance

55 Firmware Server.....
Enter an IP Address or Host name of the Firmware Server for the IP100H, of up to 63 characters.
ⓘ When the Controller is used as its Firmware Server, this entry is not necessary.

56 SYSLOG Host IP Address
Enter the SYSLOG host's address.
ⓘ The host device must have the SYSLOG server function.

57 SYSLOG Severity .....
Select the log information to send to the SYSLOG host. The SYSLOG host is sent to another host that is set in the [SYSLOG Host IP Address]. (Default: ☐ DEBUG ☐ INFO ☐ NOTICE)
ⓘ Enter a check mark to send the log entries.

Security

58 Read/Write Password .....
Enter a password of up to 16 characters. The password is used when reading from, or writing to the IP100H, or updating the firmware using the CS-IP100H*.
* CS-IP100H is the cloning software for the IP100H, and can be downloaded from the Icom website.

59 <Apply> .....
Click to apply the entries.
ⓘ Some parts of the entries are displayed in [Transceiver Setting List], such as the Transceiver Model, Name, Unit ID, Use ID List, Area Call, Message, and Status.

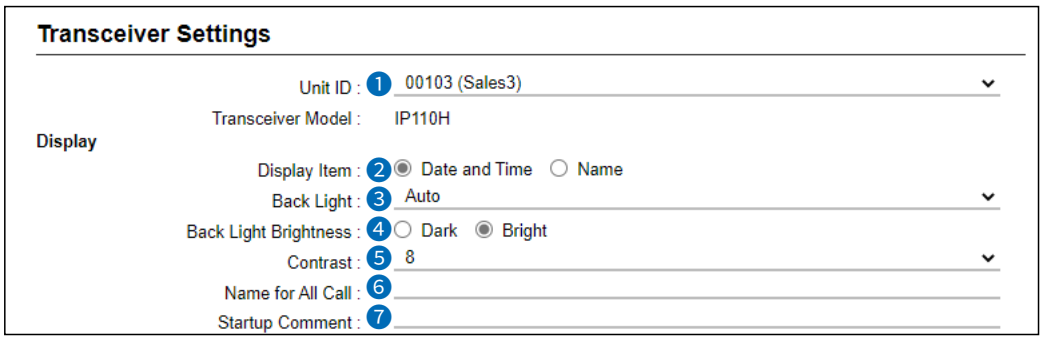
60 <Reset> .....
Click to reset the settings.
ⓘ You cannot recalled after clicking <Apply>.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

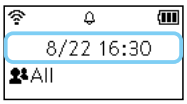
Individually assign the functions, or set the receive notification tone to a registered IP110H.
ⓘ After the setting is completed, you must reboot the IP110H.



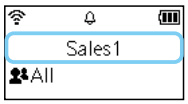
❶Unit ID ..... Select the IP110H's Individual number (Name) that you want to edit.
ⓘ Only the individual numbers of the WLAN transceiver are selectable. The individual number that the [Transceiver Model] on the [Transceiver Registration] screen is set to "IP100FS," cannot be selected.

Display

❷Display Item ..... Select whether or not the IP110H displays the Date and Time or its Name in the standby mode. (Default: Date and Time)



Date and Time



Name

ⓘ If the [Name] on the [Transceiver Registration] screen has not been entered, and this setting is set to [Name], the IP110H displays the individual number.

❸Back Light ..... Select the IP110H backlight function. (Default: Auto)

- **OFF**: The backlight does not light.
- **ON**: The backlight lights continuously.
- **Auto**: The backlight lights when an operation is performed, and goes out after 5 seconds.

❹Back Light Brightness ..... Select the screen backlight brightness from Dark and Bright. (Default: Bright)

❺Contrast ..... Set the screen contrast to between 1 (the lowest) and 16 (the highest). (Default: 8)

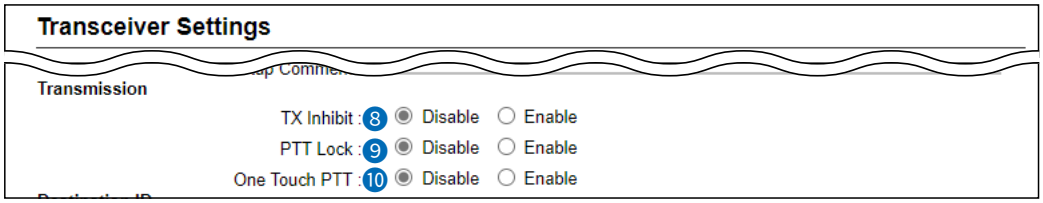
❻Name for All Call ..... Enter a name for All call of up to 5 characters, if necessary.

❼Startup Comment ..... Enter a comment of up to 8 characters. The comment is displayed when the IP110H boots up.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Transmission

❽ TX Inhibit ..... Select “Enable” to inhibit the IP110H’s transmission. (Default: Disable)

ⓘ When this setting is set to “Enable,” the IP110H also cannot transmit with an optional microphone, or using the VOX function.

❾ PTT Lock ..... Select “Enable” to lock the IP110H’s PTT switch. (Default: Disable)

ⓘ When this setting is set to “Enable,” the IP110H cannot transmit by holding down its PTT switch, but it can transmit with an optional microphone or using the VOX function as well.

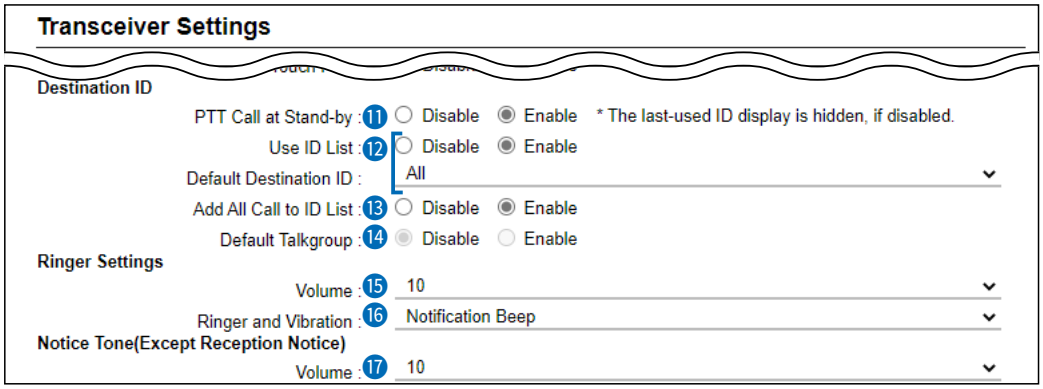
❿ One Touch PTT ..... Select whether or not to enable the One Touch PTT function. (Default: Disable)

This function enables you to push [PTT] to transmit and push again to standby, so you can transmit without continuously holding down [PTT].

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Destination ID

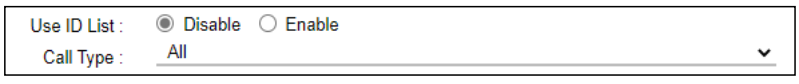
⓫ PTT Call at Stand-by ..... Select whether or not the IP110H displays the Destination ID (Call type) in the standby mode. (Default: Enable)

- **Disable:** The Destination ID (Call type) is not displayed in the standby mode.
  ⓘ The Destination ID (Call type) is displayed when you select the ID using the function keys.

- **Enable:** The Destination ID (Call type) is displayed in the standby mode.
  ⓘ When the PTT on the IP110H is pushed, the IP110H calls the displayed ID (Call type).

⓬ Use ID List ..... Select whether or not the IP110H uses the ID list. (Default: Disable)

- **Disable:**
  The call type is fixed to that which is selected in the [Call Type], as shown below, even if you push the [🕮 CLR] key on the IP110H.
  ⓘ If you set the Call Type to “Individual” or “Group,” enter a destination ID between 1 to 60000 in the [Destination ID]. (Default: All)
  ⓘ Even if “Disable” is selected, the IP110H displays a received ID in the ID list.

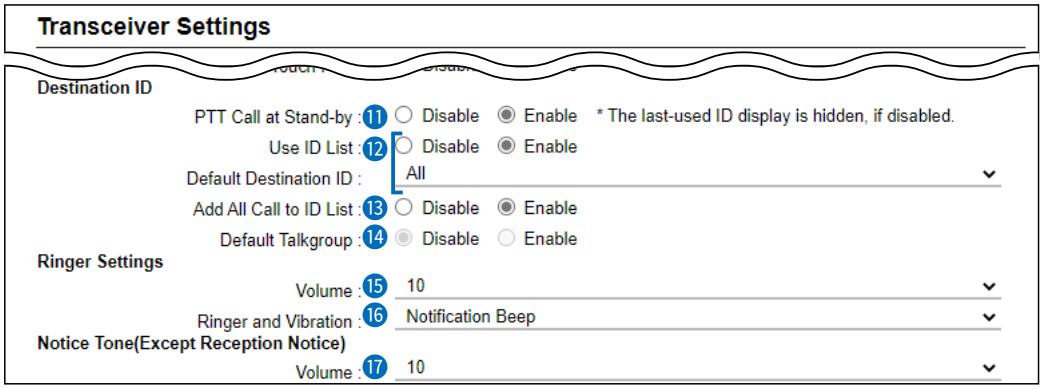


- **Enable:**
  The call type is changed by pushing the [🕮 CLR] key or selecting in the menu screen on the IP110H.
  Select Default Destination ID from All, or an ID number (1 to 500) that is displayed when the IP110H is turned ON, in [Call Type].
  ⓘ The ID list is selected on the [Common Setting] screen.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Destination ID

⑬ Add All Call to ID List …… Select whether or not to display All Call in the ID list of the IP110H. (Default: Enable)

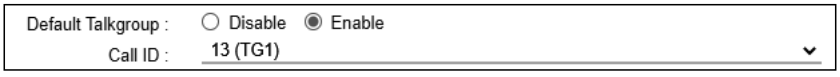
- **Disable**
  Does not display “All” in the ID list.
  ⓘ When “Disable” is selected in [Add All Call to ID List], you cannot select an All call using the [🕮 CLR] key.

- **Enable**
  ⓘ When [Use ID List] is set to “Enable,” set [Add All Call to ID List] and [Default Talkgroup].

⑭ Default Talkgroup …… Select a Talkgroup if you want to set the IP110H to join a Talkgroup when it is turned ON. (Default: Disable)

- **Disable**
  The IP110H starts up without joining any Talkgroup. The ID that is set in the “Default Destination ID” in [Use ID List] is displayed when the IP110H is turned ON.

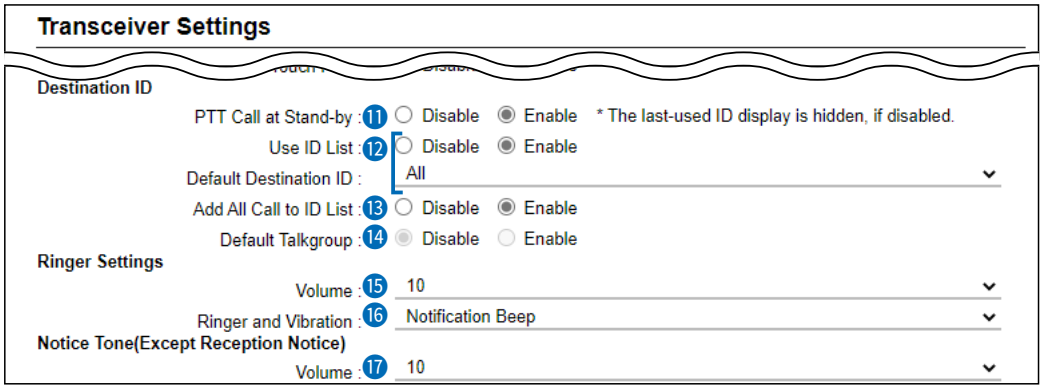
- **Enable**
  The IP110H joins the selected Talkgroup when it is turned ON.
  ⓘ When [Use ID List] is set to “Disable,” this item is not displayed.



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Ringer Settings

⓯ Volume ..... Set the beep level when the IP110H receives a Call or message to between 0 and 32. (Default: 10)

ⓘ When this setting set to “0,” the notification beep is turned OFF.

ⓘ The notification beep is individually set for the Call type or message in [Notification Tone] settings.
(Transceiver Controller > Common Settings > Profile)

⓰ Ringer and Vibration..... Set the action when the IP110H receives a Call or message to “Notification Beep,” “Vibration” or “Notification Beep + Vibration.” (Default: Notification Beep)

- **Notification Beep**
  When the IP110H receives a Call or message, the specified Notification beep sounds, depending on the Call or message.
  The notification beep is individually set for the Call type or message in [Notification Tone] settings.
  (Transceiver Controller > Common Settings > Profile)

- **Vibration**
  When the IP110H receives a Call or message, it vibrates for notification.

- **Notification Beep + Vibration**
  When the IP110H receives a Call or message, it vibrates and the Notification beep sounds for notification.

Notice Tone (Except Reception Notice)

⓱ Volume ..... Set the beep level when the IP110H is transmitting a Call or connecting to the Controller, to between 0 and 32. (Default: 10)

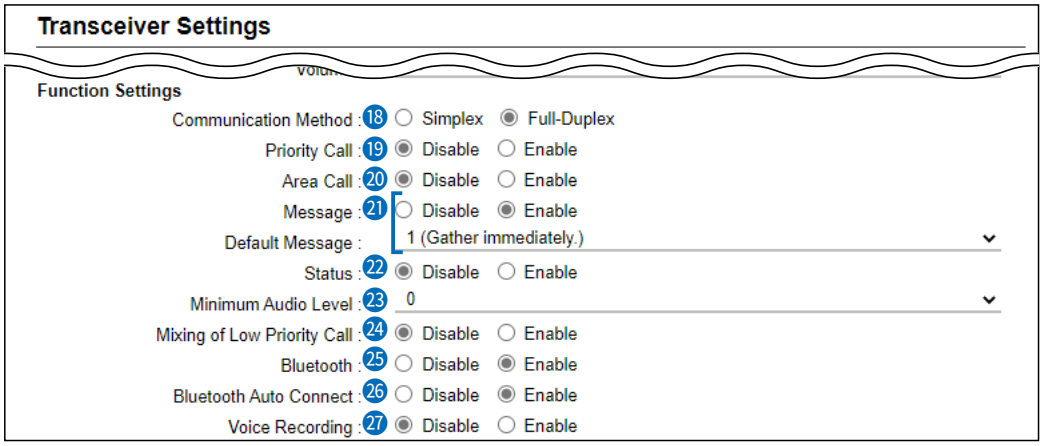
ⓘ When this setting is set to “0,” the notification beep is turned OFF.

ⓘ Depending on the [Common Settings], the IP110H sounds a beep when the IP110H is transmitting or connecting to the Controller.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



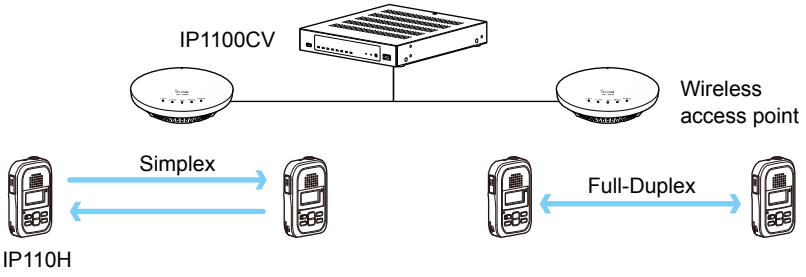
Function Settings

⑱ Communication Method … Select the communication method that the IP110H uses.

(Default: Full-Duplex)

- **Simplex:** Toggles the transmission (Talker) and reception (Listener) for communication.
- **Full-Duplex:** Simultaneously transmits and receives, like a telephone.
  ⓘ With the Full-Duplex communication, you can transmit and receive like a telephone, even while the destination is transmitting.

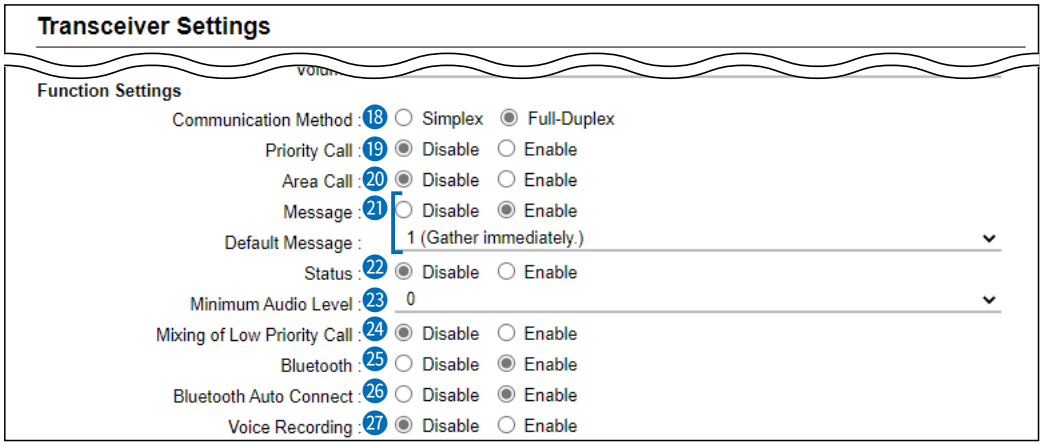
Simplex and Full-Duplex Communication



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Function Settings

⑲ Priority Call ..... Select whether or not the IP110H uses Priority Call.

(Default: Disable)

The priority levels of the Call types are in the following order.

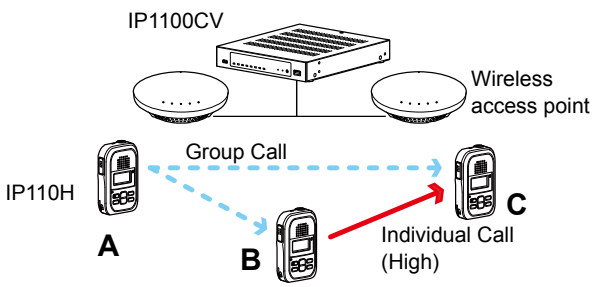
Priority level	Priority	Call type	Priority Call	Remarks
High ↑	Fixed	Telephone	—	For telephone communication
		Emergency (High)	Enable	—
		Emergency (Normal)	Disable	—
	Selectable*	All Call (High)	Enable	Includes the Area Call or using an IP100FS
		Individual Call (High)	Enable	Includes using an IP100FS
		Group Call (High)	Enable	Includes the Area Call or using an IP100FS
		All Call (Normal)	Disable	Includes the Area Call
		Individual Call (Normal)	Disable	—
↓ Low		Group Call (Normal)	Disable	Includes the Area Call

* Selectable in the Call Type Priority in the [RoIP Server] screen in the [RoIP Server Settings] menu.

ⓘ Priority is given to the first call between calls with the same priority level.

ⓘ When a call is taken, priority is given to the setting of the caller.

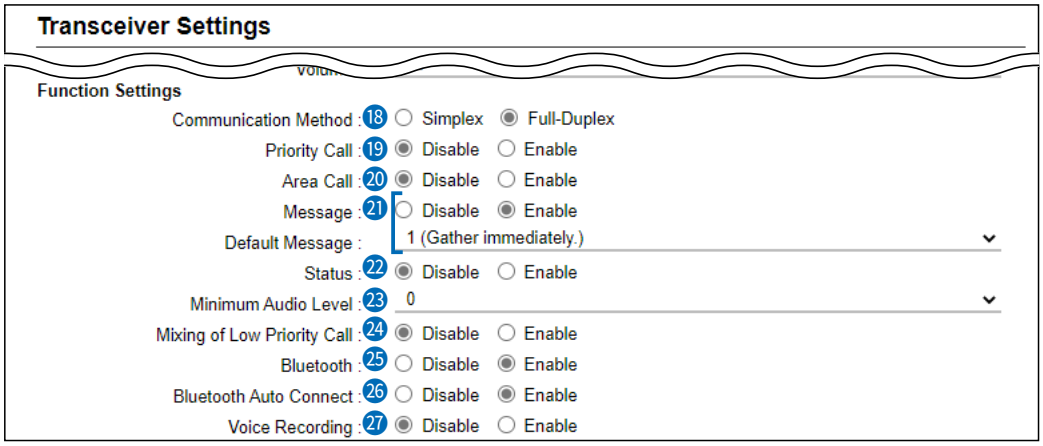
Example:
Even while B and C are talking on a Group Call from A, B can make an Individual Call (High) to C.
In this case, the Group Call will be canceled.



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Function Settings

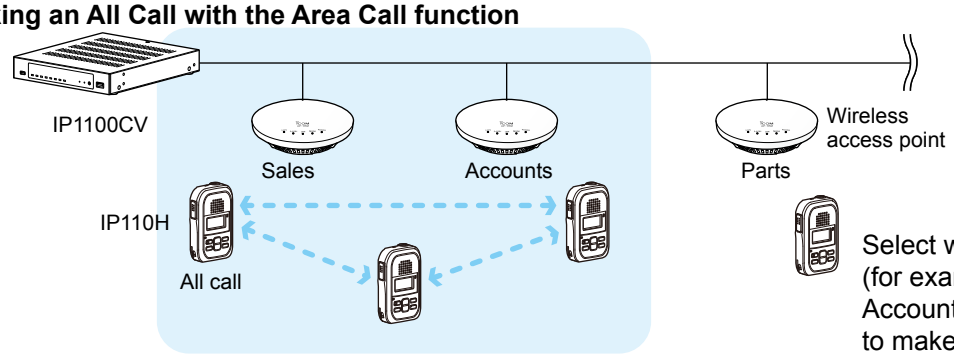
⑳ **Area Call** ..... Select whether or not the IP110H uses Area Call.

(Default: Disable)

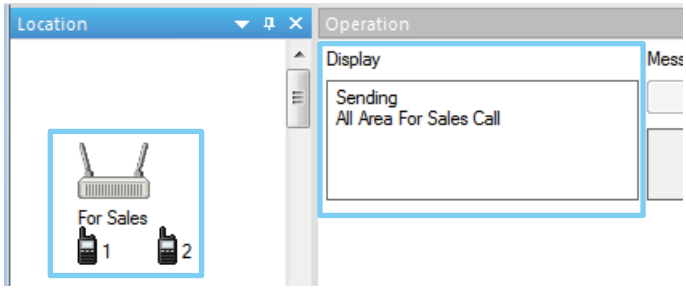
When the IP110H calls All Call or Group Call using the Area Call function, it calls only other IP110Hs in the area that is connected to the same wireless access point.

When the BSSID that IP110H is connecting is registered in [Area Setting] (Transceiver Controller > RoIP Server Settings > Area Call), this function is activated.

Making an All Call with the Area Call function



Select wireless access points (for example, Sales and Accounts) that the IP110H uses to make Area calls, on the [Area Call] screen.

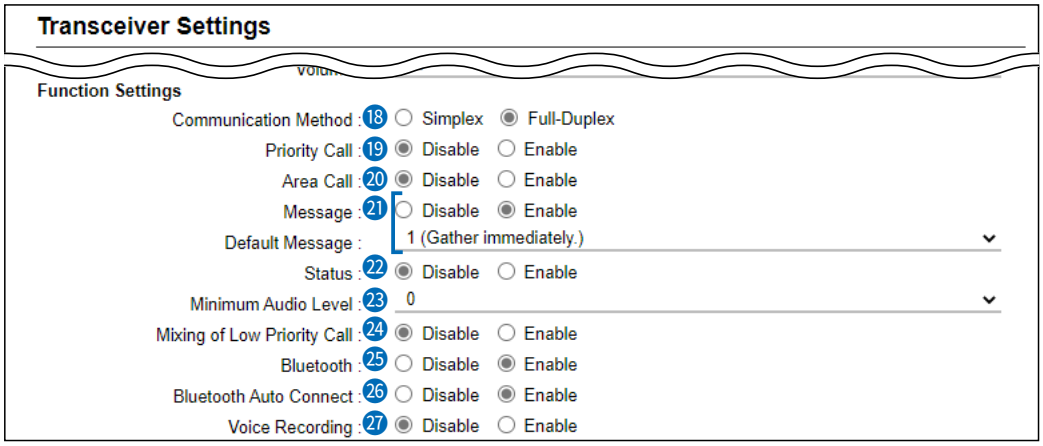


On the IP100FS, you can make an Area Call to the WLAN transceivers that belongs to the specified wireless access point. Select an access point in [Location], and then Call Type (Individual, Group, All, Area, or Telephone) and the name of the destination will be displayed.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Function Settings

21 Message ..... Select whether or not the IP110H can send messages.

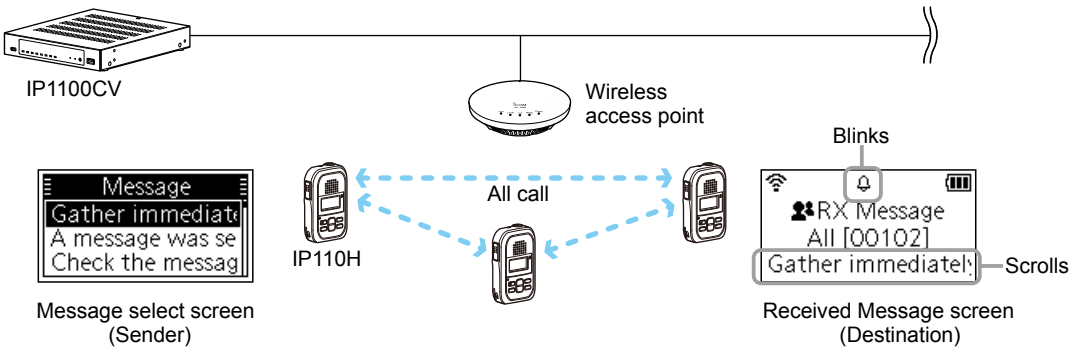
(Default: Disable)

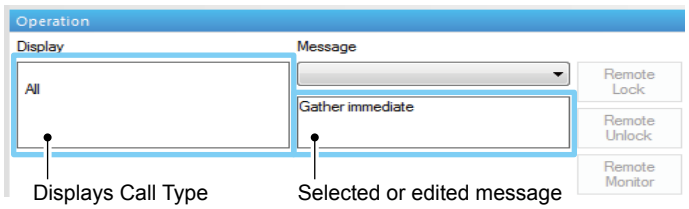
When “Enable” is selected, you can select a message from the menu screen on the IP110H.

ⓘ Up to 10 messages of 32 characters or less can be programmed on the [Messages] screen in the [Common Settings] menu.

ⓘ Select the message number 1 to 10 in [Default Message] that is registered on the [Message] screen.

Example: Sending a message with All Call



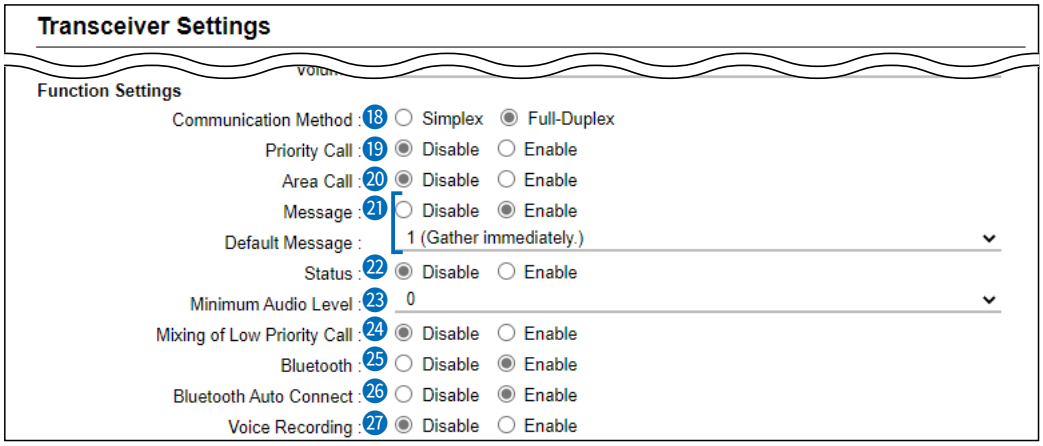


The IP100FS can store up to 100 messages in each site.
You can edit the stored messages.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Function Settings

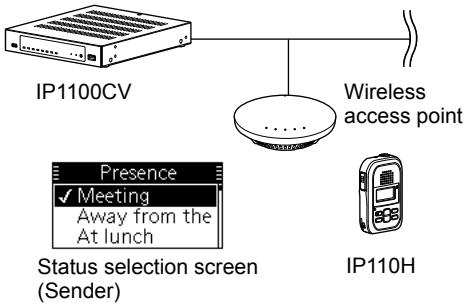
22 Status ..... Select whether or not the IP110H can send Status information. (Example: At lunch, Meeting, Waiting) (Default: Disable)

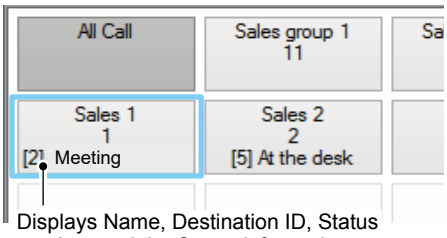
When “Enable” is selected, you can select a status from the menu screen on the IP110H.

Up to 10 statuses of 32 characters or less can be entered on the [Status] screen in the [Common Settings] menu.

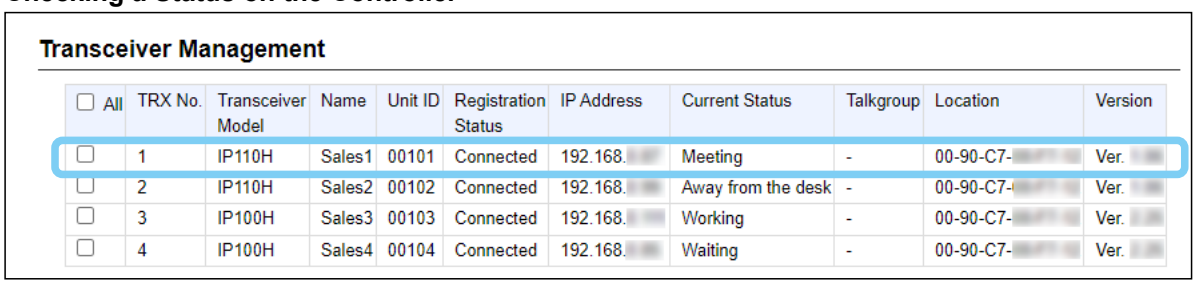
ⓘ The status that the IP110H sends can be displayed on the [Transceiver Management] screen in the [Transceiver Settings] menu or the One-Touch button of the IP100FS.

Sending a Status on the IP110H





Checking a Status on the Controller



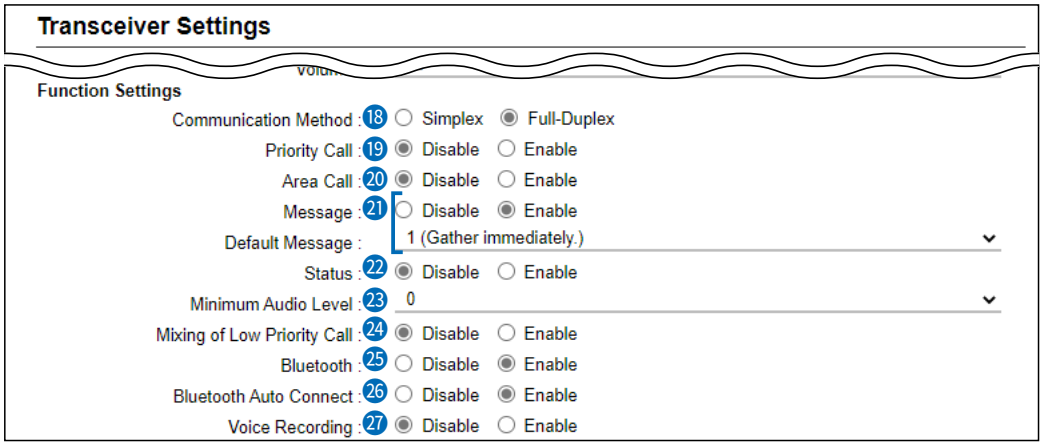
Transceiver Management

All	TRX No.	Transceiver Model	Name	Unit ID	Registration Status	IP Address	Current Status	Talkgroup	Location	Version
☐	1	IP110H	Sales1	00101	Connected	192.168.	Meeting	-	00-90-C7-	Ver.
☐	2	IP110H	Sales2	00102	Connected	192.168.	Away from the desk	-	00-90-C7-	Ver.
☐	3	IP100H	Sales3	00103	Connected	192.168.	Working	-	00-90-C7-	Ver.
☐	4	IP100H	Sales4	00104	Connected	192.168.	Waiting	-	00-90-C7-	Ver.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Function Settings

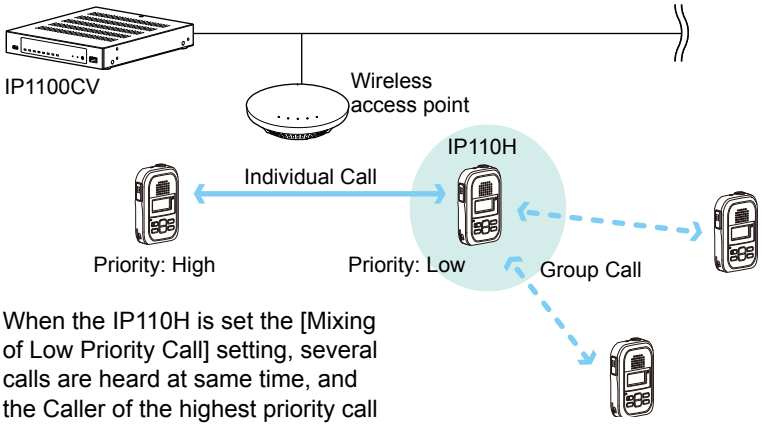
㉓ Minimum Audio Level …… Set the settable minimum audio level on the IP110H to between 0 and 32. (Default: 0)

㉔ Mixing of Low Priority Call Select whether or not the IP110H receives Mixed audio. (Default: Disable)

When this setting is set to “Enable,” the Controller sends the mixed audio of all calls that call the IP110H.

ⓘ The IP110H displays the called station that has the highest priority in the mixed audio.
See page 5-63 for details of the Priority level.

Mixing of Low priority call

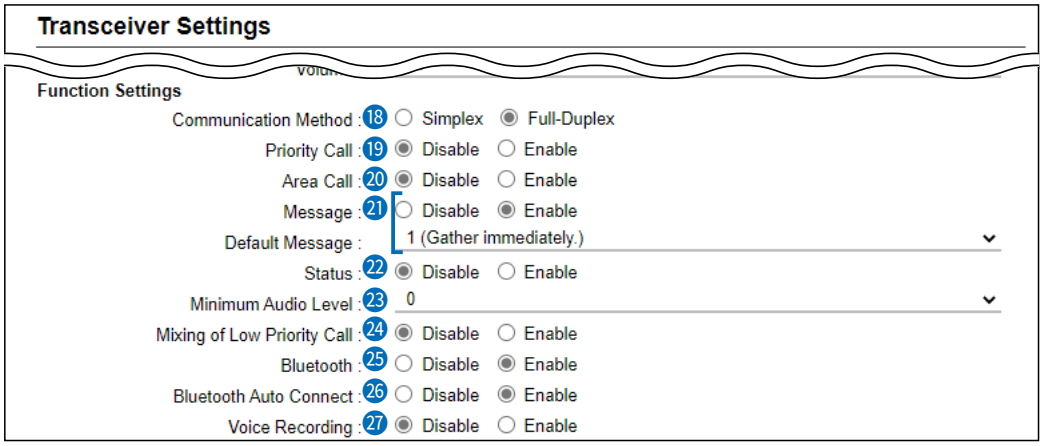


When the IP110H is set the [Mixing of Low Priority Call] setting, several calls are heard at same time, and the Caller of the highest priority call is displayed on the IP110H.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

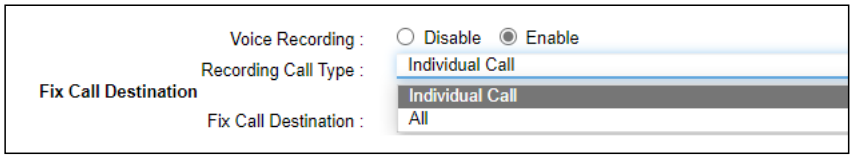


Function Settings

25 Bluetooth ..... Select whether or not to use the Bluetooth function. (Default: Disable)

26 Bluetooth Auto Connect ... If [Bluetooth] is set to “Enable,” select whether or not to use the automatic connection with the paired Bluetooth devices.
(Default: Enable)

27 Voice Recording..... Select whether or not to record the transmitted and received audio.
(Default: Disable)
If enabled, you can turn the recording function ON or OFF from the menu screen on the IP110H.
Set also the type of call to be recorded, only Individual calls or All calls.

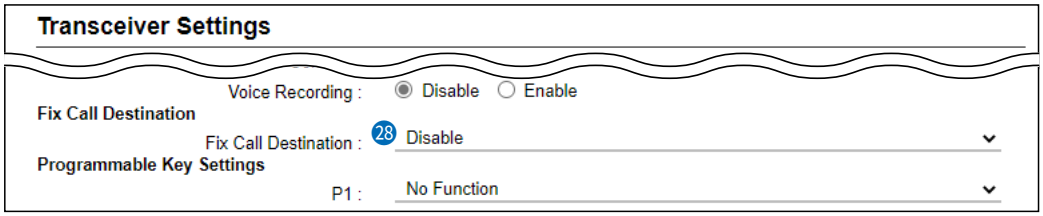


ⓘ The maximum record time is 4 minutes, and up to 10 files can be saved.
ⓘ For full-Duplex calls, only the received audio is recorded.
ⓘ You cannot download the audio data from the transceiver.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



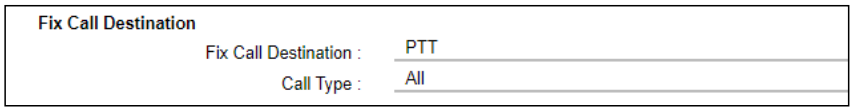
Fix Call Destination

28 Fix Call Destination ..... Select whether or not the IP110H uses the Fix Call Destination function. (Default: Disable)

When this setting is set to other than “Disable,” the IP110H calls the preset destination instead of the selected destination that is displayed on the third line. The Fix Call Destination function separates the fixed call from the general calls by the specified method to start transmission.

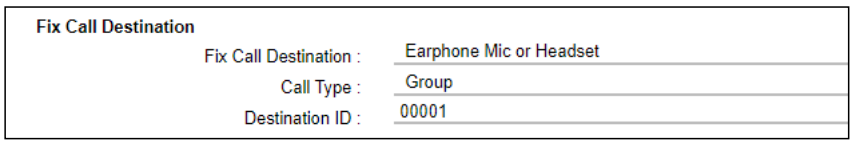
- **Disable**
  The Fix Call Destination is not specified, and the IP110H calls the selected destination.

- **PTT**
  The Fix Call Destination is specified as PTT transmission.
  When [PTT] is held down, the IP110H calls the preset destination.



(Example: All call is specified to the PTT)

- **Earphone Mic or Headset**
  The Fix Call Destination is specified as the external Mic transmission.
  When the external microphone’s PTT switch is held down, or its VOX function is active, the IP110H calls the preset destination.



(Example: Group call is specified to the Earphone Mic or Headset)

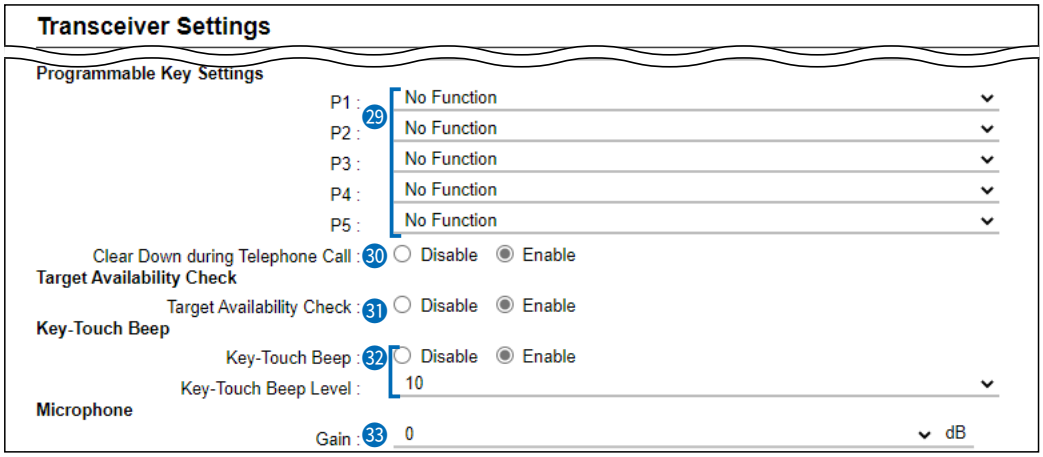
ⓘ Information

- Set the Call type to “Individual,” “Group,” or “All.”
- When the “Call Type” is set to “Individual” or “Group,” enter the Individual ID or Group ID between 00001 to 60000 in the [Destination ID].
- The Destination ID, Name (if [Name] is selected in the [Display Item]) or Call type of the Fix Call Destination is always displayed on the above of the Default call destination.
- When both of the IP110H’s [PTT] and the PTT switch of an external microphone such as an optional microphone or a Bluetooth headset are held down, the external PTT has priority and the internal microphone will be muted.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

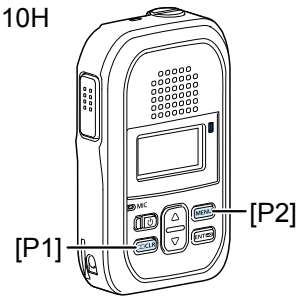


Programmable Key Settings

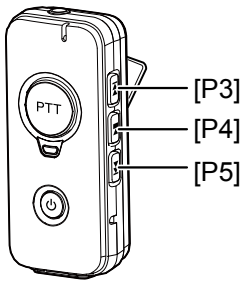
29 [P1] ~ [P5] .....

Assign “Message,” “One Touch,” “Clear Down,” “Mute,” “Emergency,” “Playback Recording,” “Temporary Audio Level,” or “No Function” to a IP110H’s Programmable key ([P1] to [P5]). (Default: No Function)

IP110H



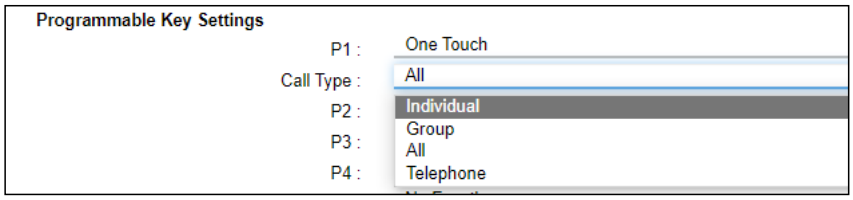
VS-3



- **No Function**
  Does not assign any function. Nothing changes by holding down the programmable key in the standby mode.

- **Message**
  Holding the programmable key for 1 second displays the Message selection screen.
  ⓘ Select the message number 1 to 10 in the “Message No.” item that registered on the [Message] screen.

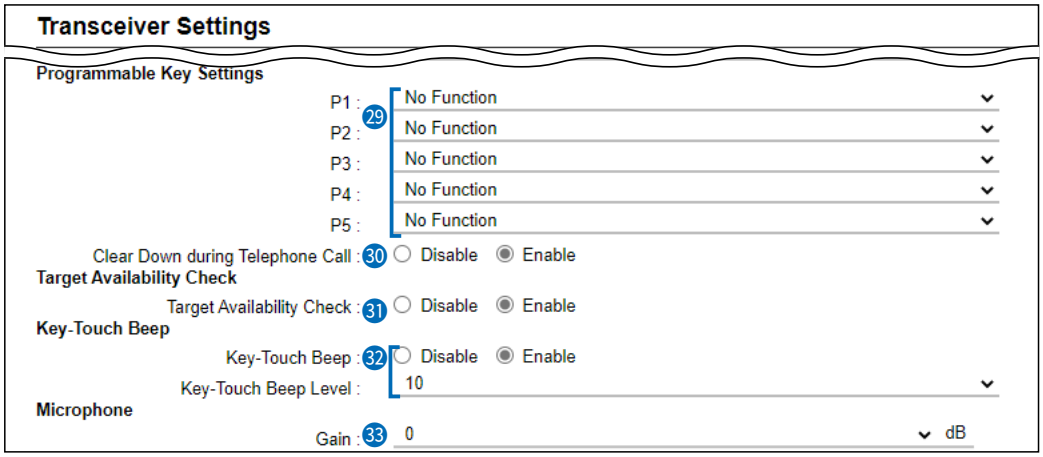
- **One Touch**
  Holding the programmable key for 1 second selects a specified Call type and destination ID or phone number.
  Specify the “Individual,” “Group,” “All,” or “Telephone” Call type.
  ⓘ When “Individual” or “Group” is selected, enter the Individual ID (00001 ~ 60000) or Group ID (00001 ~ 60000) in the “Destination ID” item.
  ⓘ When “Telephone” is selected, enter up to 31 numbers and symbols (#, ∗) in the “Destination Phone Number” item.



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

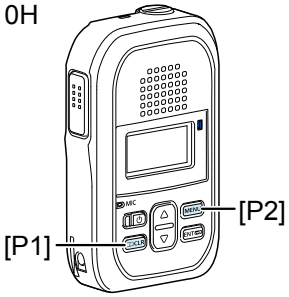
■ Transceiver Settings [IP110H]



Programmable Key Settings
29 [P1] ~ [P5] .....

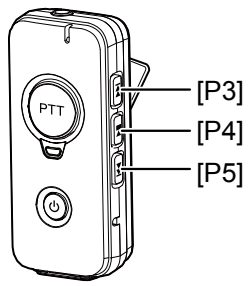
- **Clear Down**
  Holding the programmable key for 1 second terminates the phone call with an IP phone.
  ⓘ You can assign another function, if you select “Enable” on the [Clear Down during Telephone Call] (p. 5-74) item.

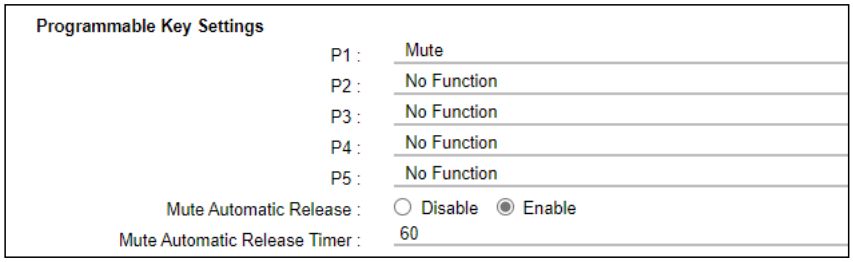
IP110H



- **Mute**
  Hold down the programmable key for 1 second when you want to mute the received audio. (The Notification beep cannot be muted.)
  Hold down a programmable key for 1 second to turn the mute function ON or OFF.
  ⓘ You can turn OFF the mute function by pushing [PTT]. However, if you select “Enable” in the [Clear Down during Telephone Call] (p. 5-74), pushing [PTT] terminates the call during a telephone call.
  ⓘ If you select “Enable” in the [Mute Automatic Release] item, turn OFF the mute function after specified time period has passed. (Default: Disable)
  If you select “Enable,” set the time period to release the mute function to between 10 to 600 (seconds). (Default: 60)

VS-3

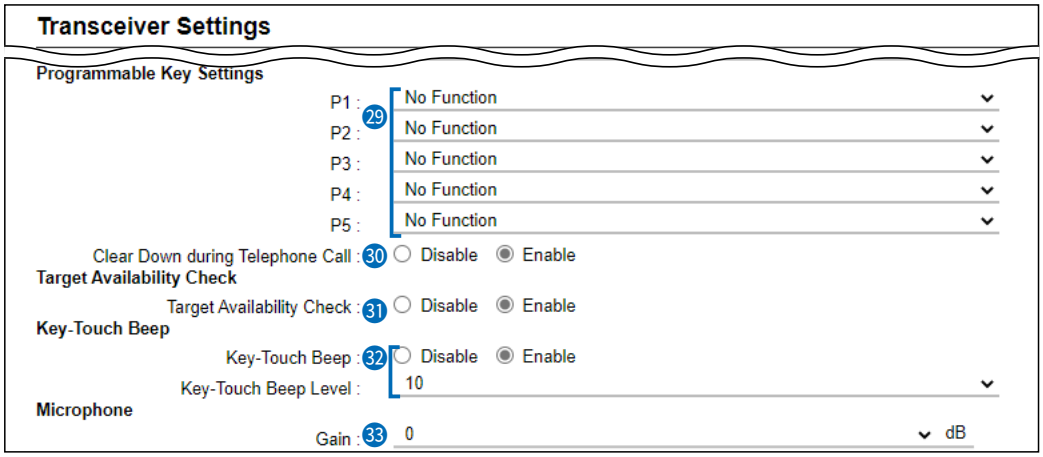




Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

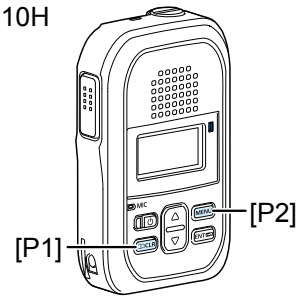


Programmable Key Settings
29 [P1] ~ [P5] .....

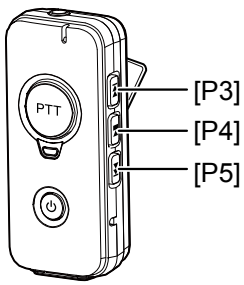
- **Emergency**
  Hold down the programmable key until “Emergency” is displayed to send an emergency call.
  When the emergency call is sent, an alarm sounds. The emergency call is canceled and the alarm stops when the transceiver receives a response or the programmable key of the transceiver is held down.
  ⓘ The time of period for which the key must be held down to turn the emergency function ON or OFF is set in the [Emer SW ON Timer] item or [Emer SW OFF Timer] item (p. 5-82).

NOTE:
This function should not be used when high reliability is necessary. The communication cannot be made, depending on the environment around the transceivers, such as the consumption of a battery, the signal environment, or the access point or network status.
Use the [Emergency] and [Lone Worker] functions as a supplementary function.

IP110H



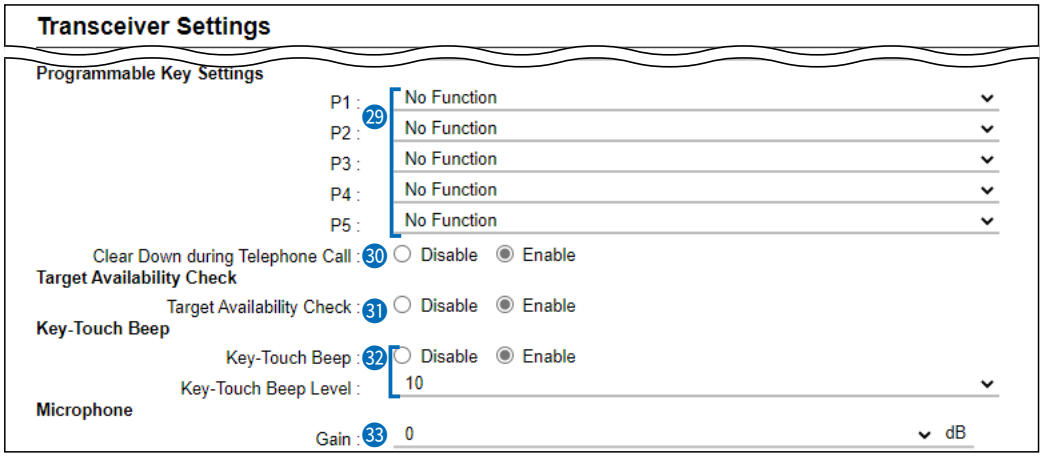
VS-3



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



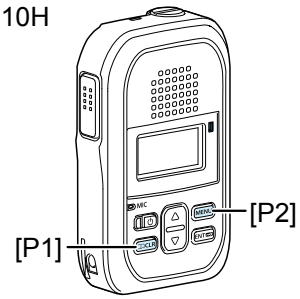
Programmable Key Settings

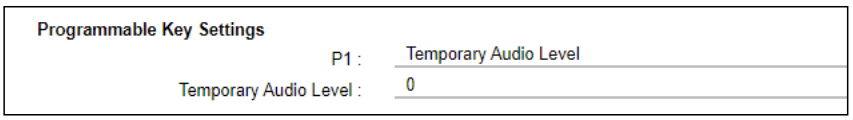
29 [P1] ~ [P5] .....

- **Playback Recording**
  Holding down the programmable key for 1 second displays the recorded log screen. Select and push [ENT] on the IP110H to start playing back the recorded audio.

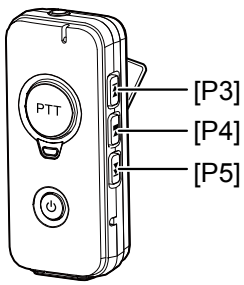
- **Temporary Audio Level**
  Holding down the programmable key for 1 second increases or decreases the Audio output volume, based on the current volume on the IP110H.
  Select the increasing or decreasing level to between “–32” and “+32” or “0” (disabled).

IP110H





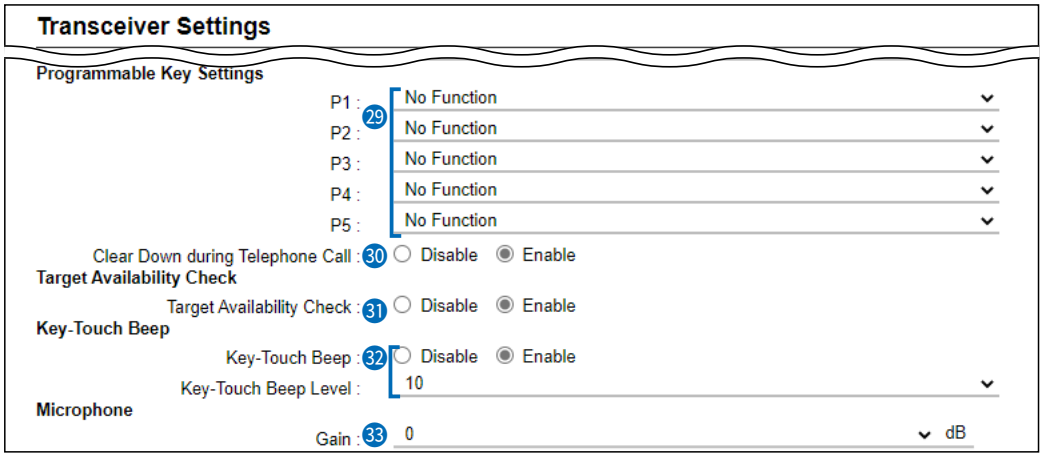
VS-3



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



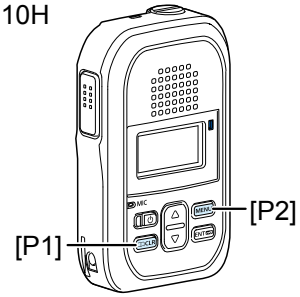
Programmable Key Settings

30 Clear Down during Telephone Call

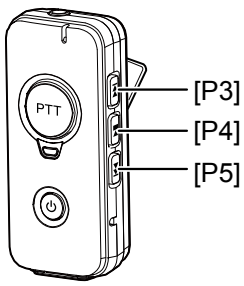
Select “Enable,” if you want to terminate a phone call by pushing the IP110H’s programmable key. (Default: Enable)

- ⓘ When the programmable key is set to “Clear Down,” this item will not be displayed.
- ⓘ Before the target telephone is picked up, or during phone call, pushing the programmable key terminates the phone call.
- ⓘ The IP110H can terminate the phone call only when a telephone calls the IP110H individually, or when the IP110H calls a telephone.

IP110H



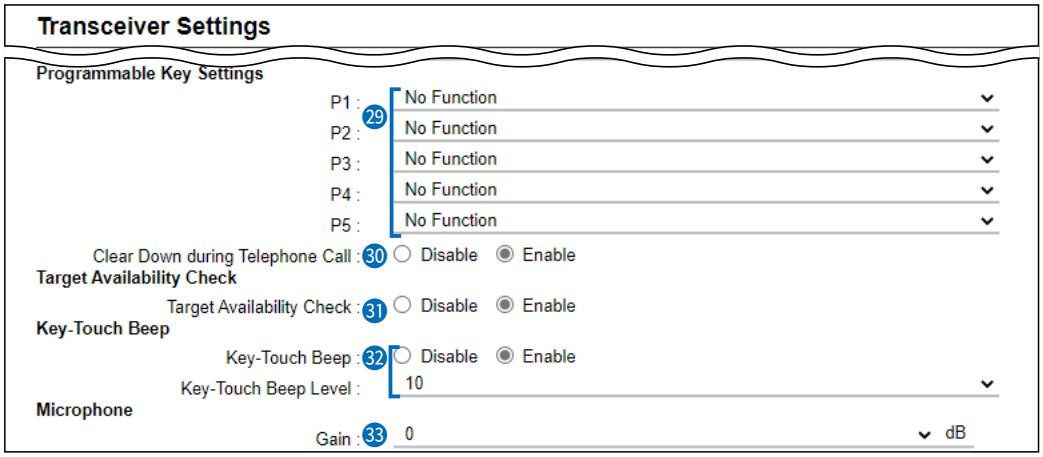
VS-3



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Target Availability Check

31 Target Availability Check… Select whether or not the IP110H displays a confirmation after it makes an Individual Call. (Default: Enable)
When “Enable” is selected, the IP110H displays the “Connected,” “Busy,” or “No response” connection status.
ⓘ When the target station is out of range, “No response” is displayed.
ⓘ If the [Connection Notice Tone] is set to “Enable,” the Success Tone or Failure Tone sounds to notify its connection status.
(Transceiver Controller > Common Settings > Profile > Profile > Connection Notice Tone)

Key-Touch Beep

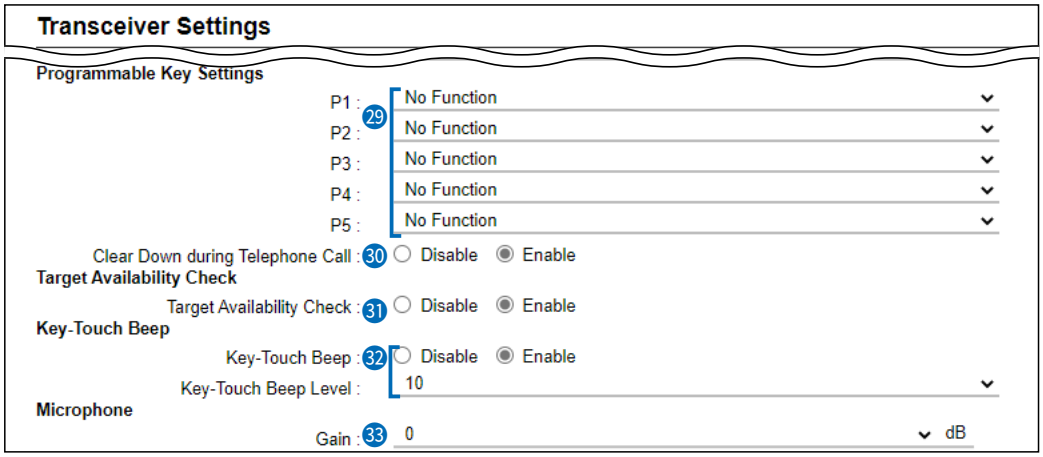
32 Key-Touch Beep…… Select whether or not the IP110H sounds the Key-Touch beep. (Default: Enable)
When “Disable” is selected, the IP110H does not sound the confirmation beep when a key is pushed.

- **Key-Touch Beep Level**
  Set the volume level of the notification beeps when the IP110H’s key is pushed. (Default: 10)
  The selectable range is between 0 and 32.
  ⓘ When “0” is selected in this setting, the IP110H does not sound any beep, even if the volume level is set.
  ⓘ When “Disable” is selected, this setting is grayed out and the volume level cannot be changed.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Microphone

33 Gain ..... Adjust the microphone sensitivity. (Default: 0)

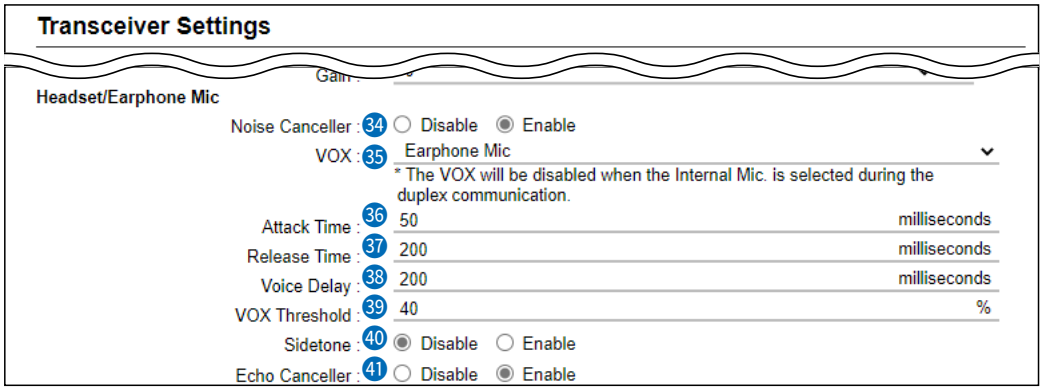
- Range: –12 (low) ~ 12 (high) dB, in 3 dB steps.

ⓘ When the noise level around the IP110H is high, set to low sensitivity and speak in a slightly louder voice that makes listening easier. Or when the noise level around the IP110H is quiet, set to high sensitivity and speak in smaller voice that makes listening easier.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Headset/Earphone Mic

34 Noise Canceller .....
Select whether or not to use the noise canceller function. The function reduces the environmental noise and the destination can hear your voice clearer.
This setting commonly effects to the internal microphone, earphone microphone, and headset. (Default: Enable)

35 VOX .....
Select whether or not the IP110H can use the VOX (voice operated transmission) function. (Default: Disable)
The transceiver has a VOX function, which allows hands-free operation.
ⓘ Turn OFF the IP110H before connecting and disconnecting the earphone microphone or headset.
ⓘ When you select other than “Disable,” the setting items from “Attack Time” to “VOX Threshold” are displayed.
ⓘ The VOX function is not usable when you select “Internal Mic” for the transceiver that is set to the Full-duplex communication.

36 Attack Time .....
VOX: Enable
Adjust the Attack time. (Default: 50)
• Range: 5 ~ 2000 (milliseconds) in 5 millisecond steps
When audio from a headset microphone is input for this specified time, the IP110H starts transmitting.

37 Release Time .....
VOX: Enable
Adjust the Release time. (Default: 200)
• Range: 5 ~ 2000 (milliseconds) in 5 millisecond steps
The release time is amount of time the transmitter stays ON after you stop speaking.

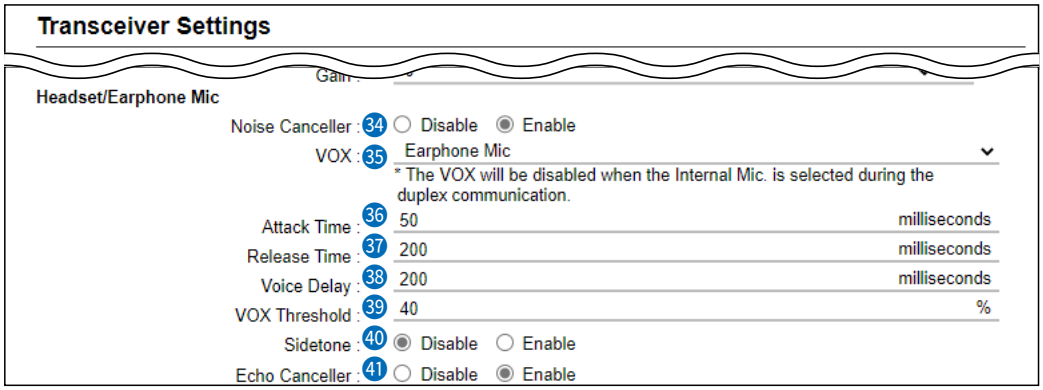
38 Voice Delay .....
VOX: Enable
Adjust the Voice Delay time to prevent clipping of the first few syllables after you begin speaking. (Default: 200)
• Range: 0 ~ 500 (milliseconds) in 5 millisecond steps

39 VOX Threshold .....
VOX: Enable
Adjust the VOX Threshold level. (Default: 40)
• Range: 0 ~ 100 (%)
ⓘ The lower values make the VOX function more sensitive to your voice.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Headset/Earphone Mic

40 Sidetone ..... Select whether or not to use the Sidetone function. (Default: Disable) When "Enable" is selected, you can hear your voice from the headset. If enabled, adjust the Sidetone Volume level to between 0 (minimum) and 32 (maximum). (Default: 10)

ⓘ The Sidetone function and Echo Canceller function cannot be used together.

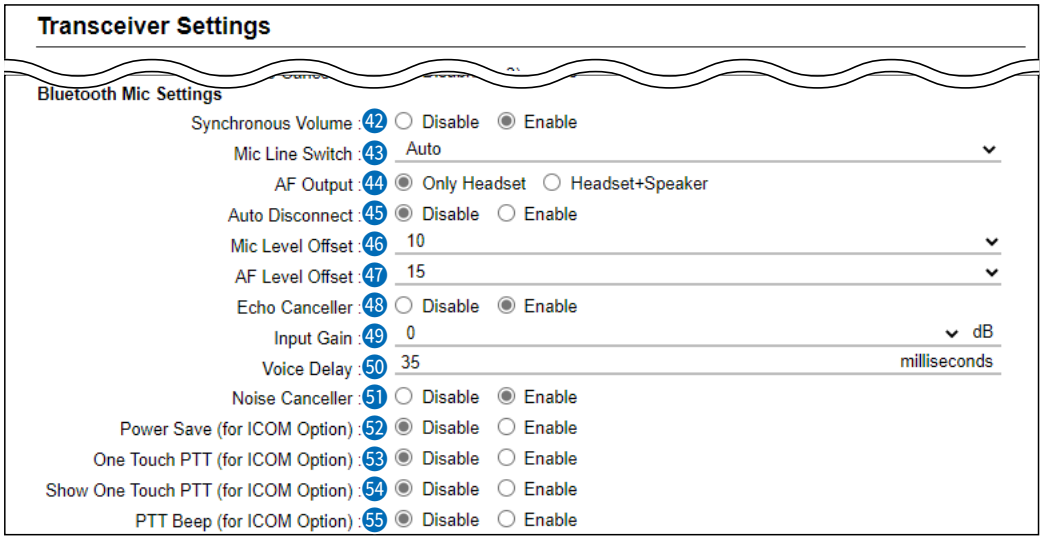
41 Echo Canceller ..... Select whether or not to enable the echo canceller function. The function reduces caused during duplex communication. (Default: Enable)

ⓘ The Sidetone function and echo canceller function cannot be used together.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Bluetooth Mic Settings

42 Synchronous Volume ……

Select whether or not to synchronize the audio volume level of the Bluetooth headset with the setting of IP110H. (Default: Enable)
When this function is enabled, you can adjust the headset audio volume on the IP110H.

43 Mic Line Switch ……

Select which microphone to use while the Bluetooth headset is connected. (Default: Auto)

- **Auto:**
  Transmits the audio from the device whose [PTT] is pushed.

- **Radio Mic:**
  When pushing the Bluetooth headset's [PTT], the IP110H transmits the audio from the optional microphone, if connected, or the transceiver's microphone if no optional microphone is connected.
  ⓘ No audio may be transmitted, depending on the type of connected microphone and the transceiver settings.
  ⓘ When pushing [PTT] on other than the Bluetooth headset, transmits the audio from the device whose [PTT] is pushed.

- **Bluetooth Mic:**
  Transmits the audio from the Bluetooth headset's microphone, no matter which [PTT] is pushed.

44 AF Output ……

Set the audio output device while using the Bluetooth headset. (Default: Only Headset)

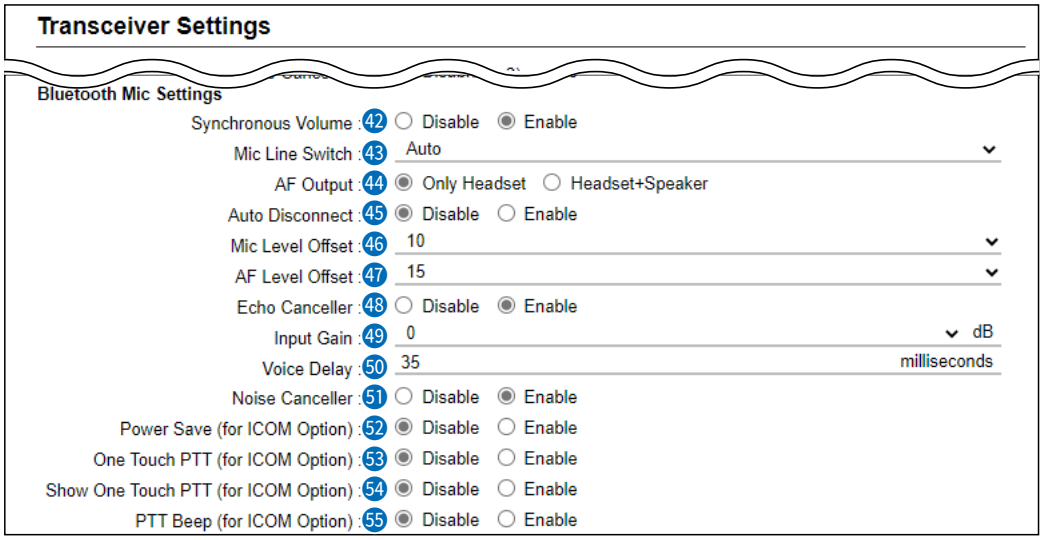
- **Only Headset:**
  Outputs the audio only to the Bluetooth device.

- **Headset+Speaker:**
  Outputs the audio to both the IP110H and the Bluetooth device.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Bluetooth Mic Settings

45 Auto Disconnect ..... Select whether or not to terminate the SCO (Synchronous Connection-Oriented) with the Bluetooth headset. (Default: Disable)
If enabled, the IP110H automatically disconnect the SCO link to the headset when the set period time has passed without voice input or output from the headset. Set Auto Disconnect Time between 0 and 10 (seconds.) (Default: 2)

46 Mic Level Offset ..... Adjust the microphone level of a Bluetooth device to between 0 and 20 if the sensitivity of the device is extremely higher or lower than the transceiver or external microphone. (Default: 10)

47 AF Level Offset ..... Adjust the audio output level of a Bluetooth device to between 0 and 22 if the output from the device is extremely higher or lower than the transceiver or external speaker. (Default: 15)

48 Echo Canceller ..... Select whether or not to enable the echo canceller function. The function reduces caused during duplex communication. (Default: Enable)

49 Input Gain ..... Set the signal echo canceller input gain when using a Bluetooth device to between –40 and 40 (dB). (Default: 0)

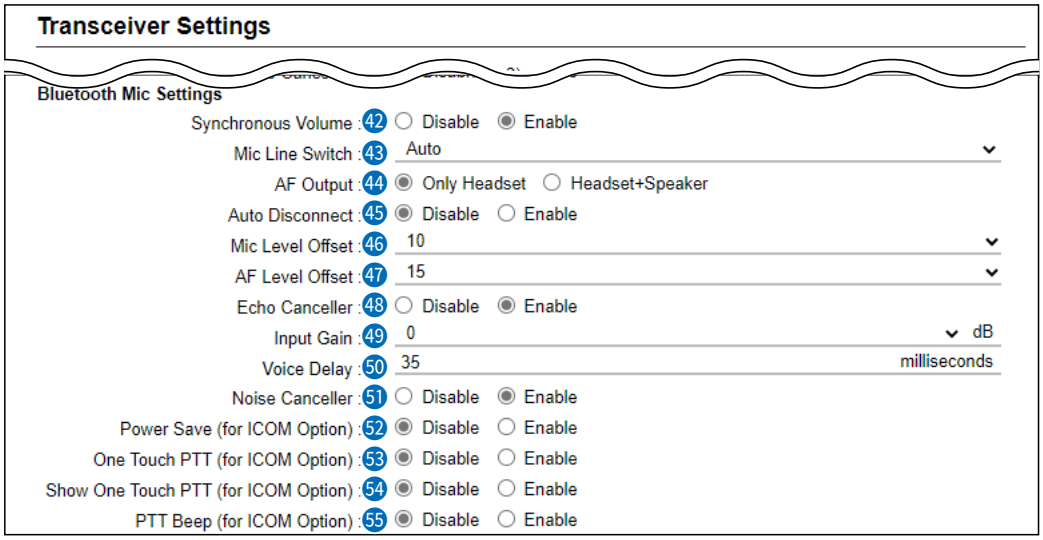
50 Voice Delay ..... Adjust the Voice Delay time when using a Bluetooth device to prevent clipping of the first few syllables after you begin speaking. (Default: 35 (milliseconds))
The adjustable range is between 0 and 160 milliseconds.

51 Noise Canceller ..... Select whether or not to use the noise canceller function when using a Bluetooth device. The function reduces the environmental noise and the destination can hear your voice clearer. (Default: Enable)

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Bluetooth Mic Settings

52 Power Save (for ICOM Option) .....

Select whether or not to use the power saving function when using a Bluetooth device. (Default: Disable)

ⓘ The power saving function is temporarily disabled when a call has been received.

ⓘ When transmitting, push [PTT] to cancel the power saving function (a beep sounds) and then push [PTT] again to transmit.

53 One Touch PTT (for ICOM Option) .....

Select whether or not to use the one touch PTT function when using a Bluetooth device. (Default: Disable)

This function enables you to push [PTT] to transmit and push again to standby, so you can transmit without continuously holding down [PTT].

54 Show One Touch PTT (for ICOM Option) .....

Select whether or not to display “One Touch PTT” on the transceiver’s Bluetooth menu screen. (Default: Disable)

ⓘ Icom has checked the PTT operation with some 3M Peltor headsets, such as the WS Headset XP, WS ProTac XP and WS Alert XP, however, compatibility is not guaranteed.

55 PTT Beep (for ICOM Option) .....

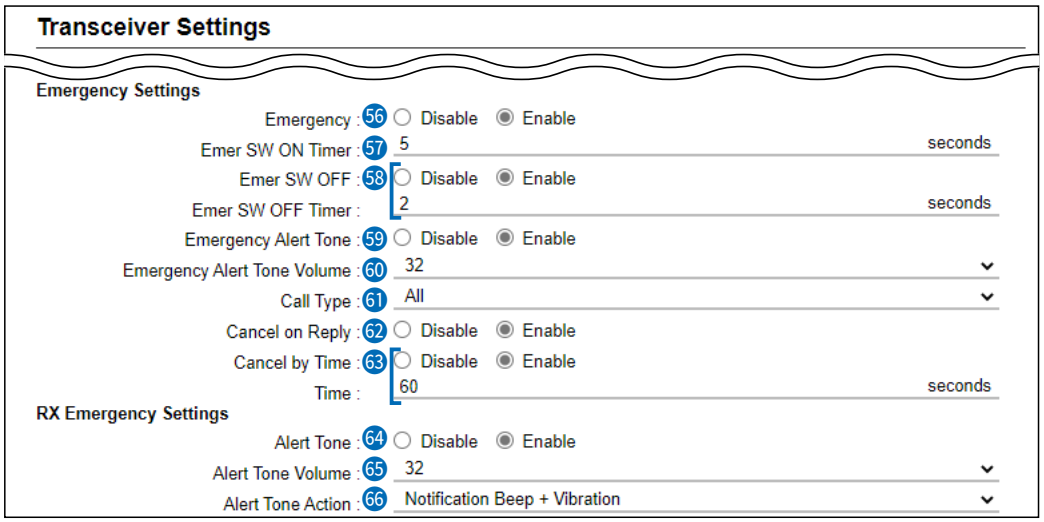
Select whether or not to use the PTT beep function when using a Bluetooth device. (Default: Disable)

When the function is enabled, a beep “Pi-Pa” sounds by pushing [PTT] on the Bluetooth microphone.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Emergency Settings

56 Emergency .....

Select whether or not to use the emergency function. (Default: Disable)
This function is usable only when the emergency function is assigned to a programmable key. (p. 5-70)
Holding down the programmable key that the emergency function is assigned to until "Emergency" is displayed turns ON the Emergency function, and sends an emergency call to the previously set User ID.
The emergency call is canceled when an RX code is received, or by holding down the programmable key for set period of time in "Emer SW OFF Timer" (See below).

- The time of period for which the key must be held to turn the emergency function ON or OFF is set in [Emer SW ON Timer] or [Emer SW OFF Timer].

57 Emer SW ON Timer .....

Emergency: Enable

Enter the time period for which the programmable key must be held to turn the emergency function ON, between 1 and 10 seconds. (Default: 5)

58 Emer SW OFF .....

Emergency: Enable

Select whether or not to cancel the Emergency call by pushing the programmable key. (Default: Disable)

When "Enable" is selected, enter the period of time for which the programmable key must be held down to turn OFF the Emergency function, between 1 and 10 seconds. (Default: 2)

59 Emergency Alert Tone .....

Emergency: Enable

Select whether or not to sound an alarm when the emergency call is sent.
When this item is set to "Disable," IP110H sends the emergency call silently, without any alert on itself. (Default: Enable)

60 Emergency Alert Tone Volume

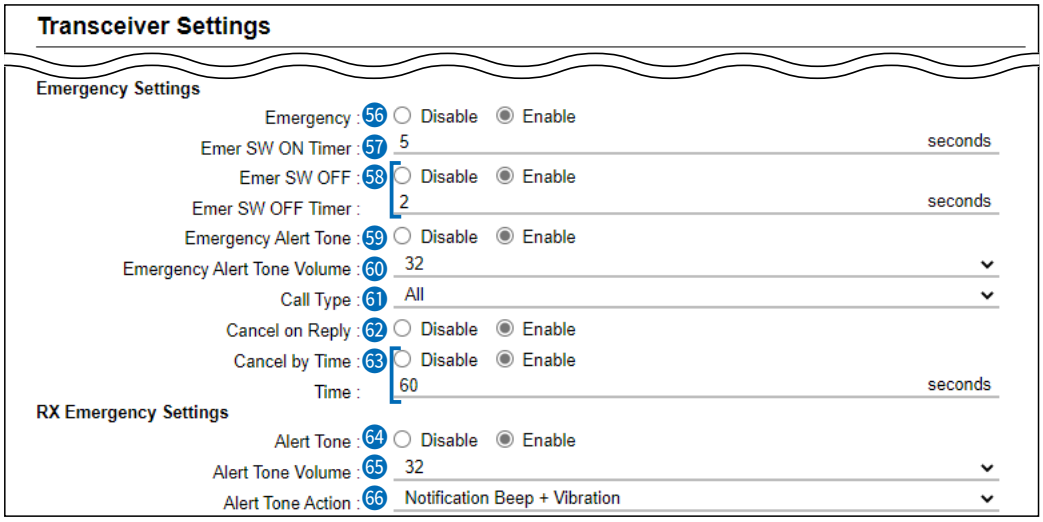
Emergency: Enable

Set the audio level of the alarm to between 0 and 32. (Default: 32)

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Emergency Settings

61 Call Type .....

Emergency: Enable

Select the call type of emergency call from Individual, Group, All, or Telephone. (Default: All)

ⓘ If you select “Individual” or “Group,” enter the destination ID (00001 ~ 60000). If you select “Telephone,” enter a Destination Phone Number of up to 31 characters (0–9, #, and *).

62 Cancel on Reply.....

Emergency: Enable

Select whether or not to cancel the emergency call when any RX code is received. (Default: Enable)

63 Cancel by Time .....

Emergency: Enable

Select whether or not to cancel the emergency call after the set period of time has passed. (Default: Disable)

If you select “Enable,” enter a time period to between 1 and 255 seconds. (Default: 60)

RX Emergency Settings

64 Alert Tone.....

Emergency: Enable

Select whether or not to sound an alarm when an emergency call is received. (Default: Enable)

65 Alert Tone Volume .....

Emergency: Enable

Enter the audio level of the alarm when the emergency call is received to between 0 and 32. (Default: 32)

66 Alert Tone Action .....

Emergency: Enable

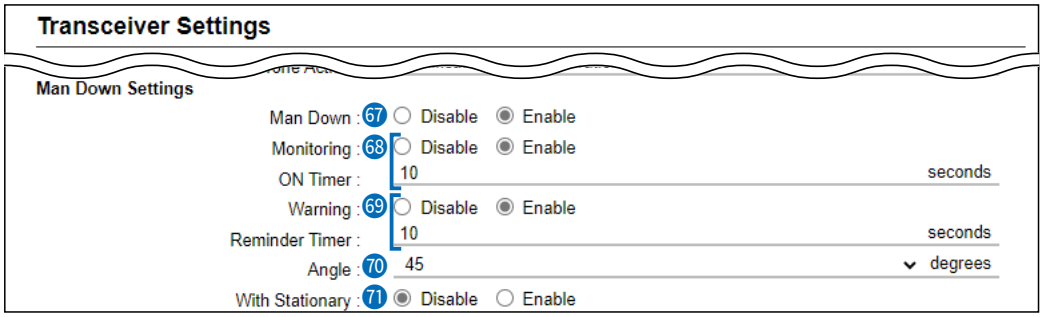
Select the Action when an emergency call is received. (Default: Notification Beep+Vibration)

ⓘ In the [Alert Tone Action], select “Notification Beep,” “Vibration,” or “Notification Beep + Vibration” to activate when an Emergency call is received.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

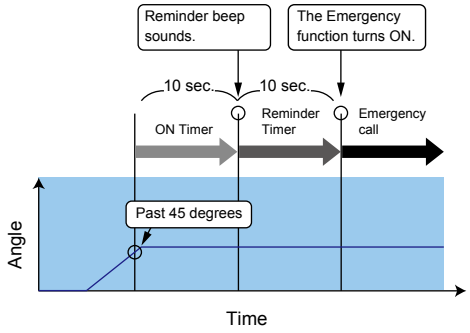
■ Transceiver Settings [IP110H]



Man Down Settings

67 Man Down ..... Select whether or not to use the Man Down function. (Default: Disable) If the Man Down function is activated, the Emergency function is automatically turned ON after the set period of time has passed with the transceiver leaning past the preset angle.

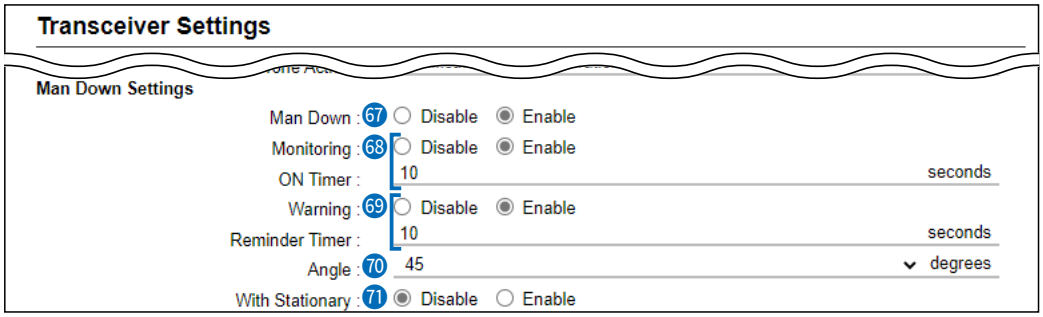
Example:
ON Timer: 10 seconds
Reminder Timer: 10 seconds
Angle: 45 degrees



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Man Down Settings

68 **Monitoring/ ON Timer .....** Select whether or not to monitor for the set period of time until activating the Man Down function. If [Monitoring] is set to "Enable," set On Timer between 1 and 255 seconds. (Default: 10)

ⓘ When the transceiver is raised back from the preset angle towards the vertical position within this set period of time, Man Down's ON Timer is reset.

ⓘ After this set period of time has passed with the transceiver leaning past the preset angle, Man Down's Reminder Timer starts.

69 **Warning/ Reminder Timer .....** Select whether or not to countdown for set the period of time to start an emergency call transmission. If [Warning] is set to "Enable," set Reminder Timer between 1 and 255 seconds. (Default: 10)
An emergency call is transmitted after this set period has passed.

ⓘ Countdown beeps sound during the timer period.

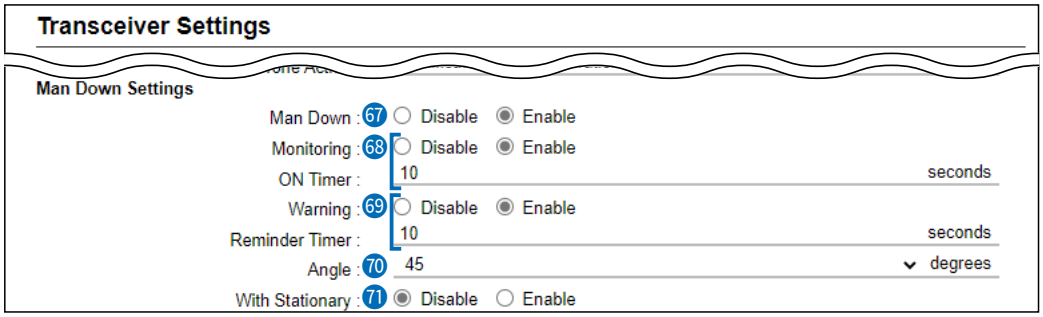
ⓘ When the transceiver is raised back from the preset angle towards the vertical position during the countdown, Man Down's ON Timer and Reminder Timer are reset.

70 **Angle .....** Set the angle for the Man Down function. (Default: 45)
If the transceiver leans past the set angle for the Man Down's ON Timer period, Reminder Timer starts.
Select 45, 60, or 75 degrees.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Man Down Settings

71 With Stationary .....

Select whether or not to use the Man Down function with the Stationary function option. (Default: Disable)

If this item is set to “Enable,” Reminder Timer starts when:

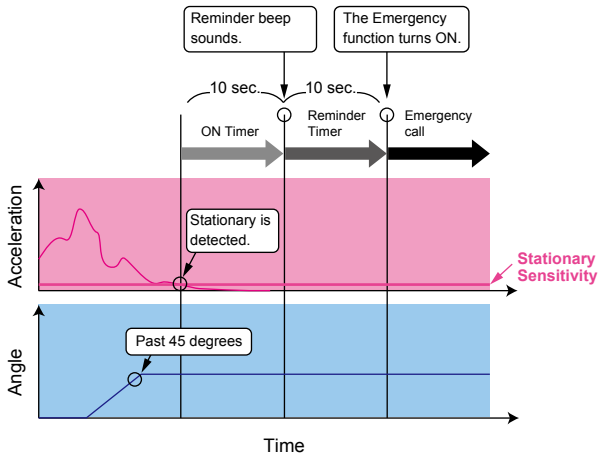
- The IP110H leans past the set angle for the Man Down’s ON Timer period.
  AND
- The user is detected as stationary for the Man Down’s ON Timer period.

After the Reminder Timer period ends, an emergency call is transmitted.

ⓘ The stationary status is detected by Stationary Sensitivity.

ⓘ When the transceiver is raised back from the preset angle towards the vertical position, or when the user moves the transceiver during the Reminder Timer period of time, Man Down’s ON Timer and Reminder Timer are reset.

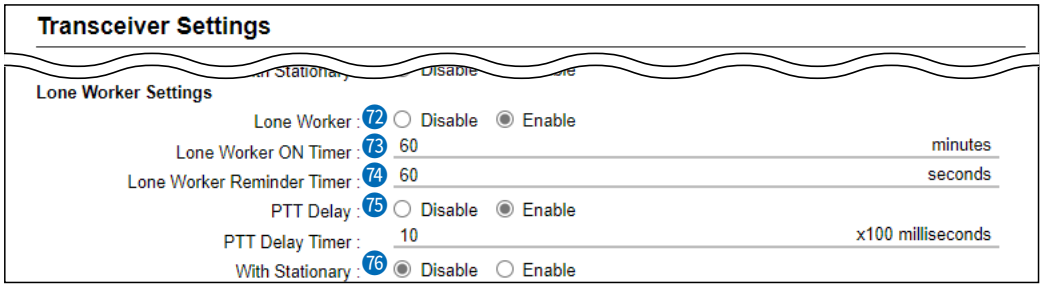
Example:
ON Timer: 10 seconds
Reminder Timer: 10 seconds
Angle: 45 degrees



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



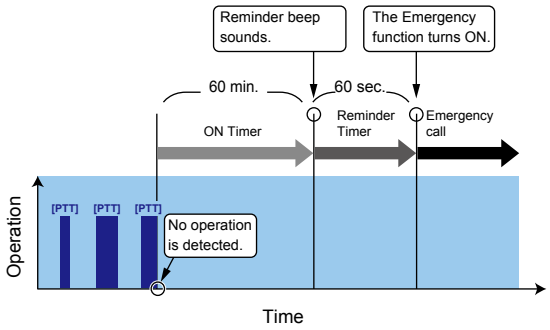
Lone Worker Settings

72 Lone Worker ..... Select whether or not to use the Lone Worker function.

(Default: Disable)

If the Lone Worker function is activated, the Emergency function is automatically turned ON after the set period of time has passed with no operation.

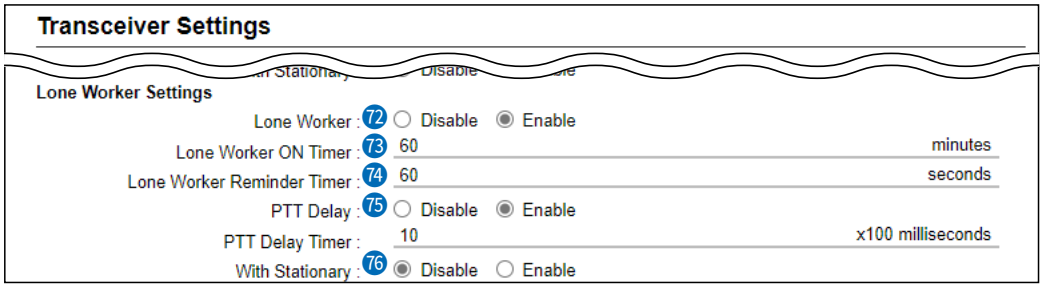
Example:
ON Timer: 60 minutes
Reminder Timer: 60 seconds



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Lone Worker Settings

73 Lone Worker ON Timer…… Set the period of time to activate the Lone Worker function to between 1 and 255 minutes in 1 minute steps. (Default: 60)

- ⓘ When the IP110H is operated within this set period of time, Lone Worker's ON Timer is reset.
- ⓘ After this set period of time has passed with no operation, Lone Worker's Reminder Timer starts.

74 Lone Worker Reminder Timer Set the period of time to start an emergency call transmission to between 1 and 255 seconds in 1 second steps. (Default: 60)
An emergency call is transmitted after this set period has passed.

- ⓘ Countdown beeps sound during the timer period.
- ⓘ When the IP110H is operated during the countdown, Lone Worker's ON Timer and Reminder Timer are reset.

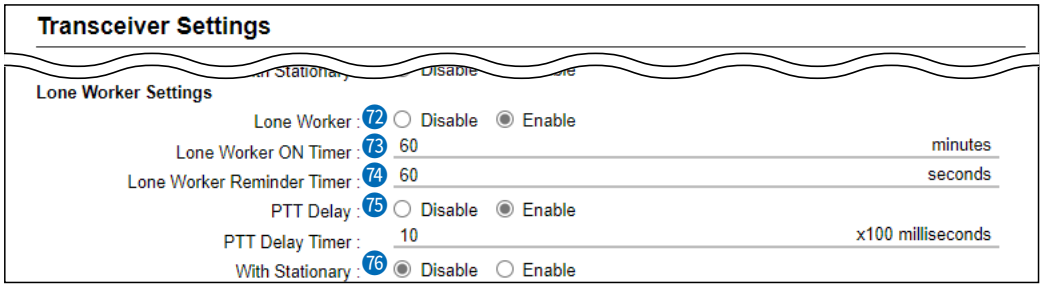
75 PTT Delay/ PTT Delay Timer…… Set the period of time for the delay time to transmit by pushing [PTT] while Lone Worker's ON Timer and Reminder Time are activated. (Default: 10)
Set a time between 1 and 255 (×100 milliseconds) in 100 millisecond steps.

- ⓘ If this item is set to a long period of time, you can reset Lone Worker's ON Timer and Reminder Timer by momentarily pushing [PTT] (for a period of time less than the set time), without transmitting.
- ⓘ Hold down [PTT] for more than the selected period of time to transmit.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Lone Worker Settings

76 With Stationary .....

Select whether or not to use the Lone Worker function with the Stationary function option. (Default: Disable)

If this item is set to "Enable," Reminder Timer is started when:

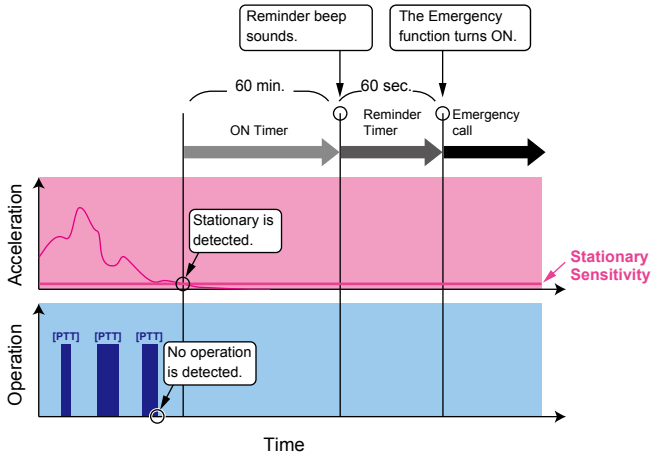
- No operation occurs for Lone Worker's ON Timer (p. 5-88) period.
  AND
- The user is detected as stationary for the Lone Worker's ON Timer period.

After the Reminder Timer (p. 5-90) period ends, the emergency call is transmitted.

ⓘ The stationary status is detected by Stationary Sensitivity (p. 5-92).

ⓘ When the transceiver is operated, or when the user moves the transceiver during the Reminder Timer period, Lone Worker's ON Timer and Reminder Timer are reset.

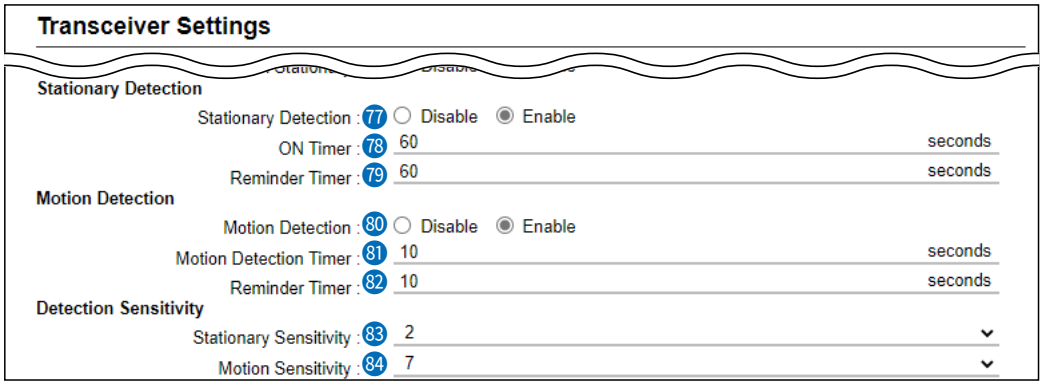
Example:
ON Timer: 60 minutes
Reminder Timer: 60 seconds



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



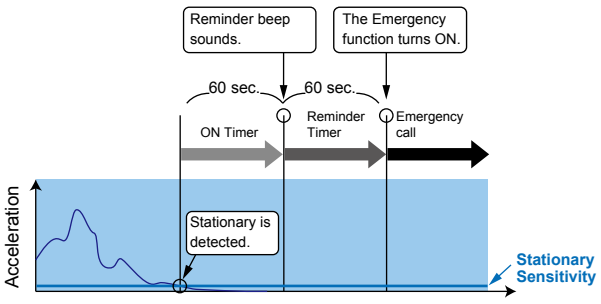
Stationary Detection

77 Stationary Detection ..... Select whether or not to use the Stationary Detection function. (Default: Disable)

78 ON Timer ..... Set the period of time to activate the Stationary Detection function to between 1 and 255 seconds. (Default: 60)

- ⓘ When the user is detected as stationary for this set period of time, the Stationary Detection's Reminder Timer starts.
- ⓘ The stationary status is detected by Stationary Sensitivity.

Example:
ON Timer: 60 seconds
Reminder Timer: 60 seconds



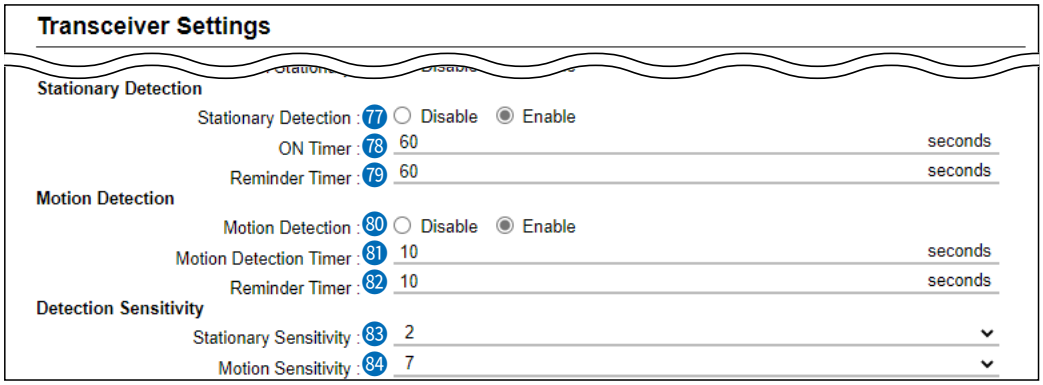
79 Reminder Timer ..... Set the period of time to start an emergency call transmission to between 1 and 255 seconds. (Default: 60 seconds)
An emergency call is transmitted after this set period has passed.

- ⓘ Countdown beeps sound during the timer period.
- ⓘ If the user moves the transceiver during the countdown, Stationary Detection's ON Timer and Reminder Timer are reset.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



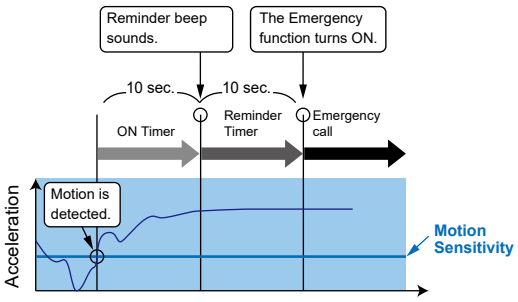
Motion Detection

80 Motion Detection ..... Select whether or not to use the Motion Detection function. (Default: Disable)

81 Motion Detection Timer ... Set the period of time to activate the Motion Detection function to between 1 and 255 seconds. (Default: 10)

- ⓘ When the user continuously moves the transceiver for this set period of time, Motion Detection's Reminder Timer starts.
- ⓘ The motion status is detected by Motion Sensitivity.

Example:
Motion Detection Timer: 10 seconds
Reminder Timer: 10 seconds



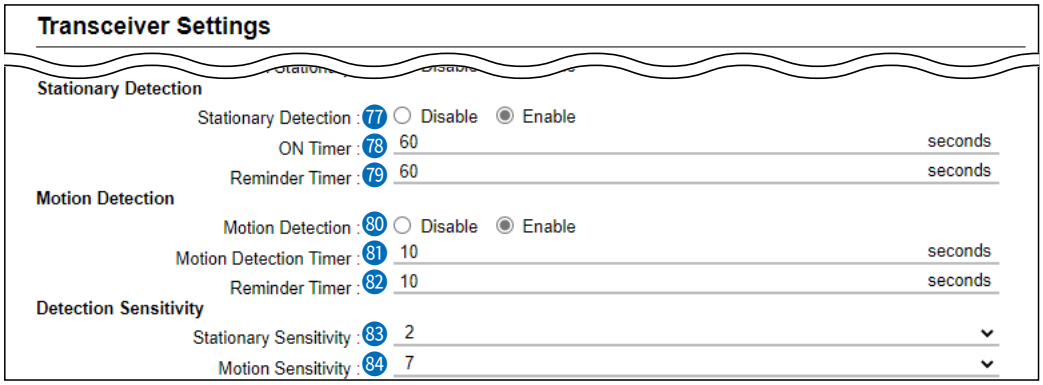
82 Reminder Timer ..... Set the period of time to start an emergency call transmission to between 1 and 255 seconds. (Default: 10)
An emergency call is transmitted after this set period has passed.

- ⓘ Countdown beeps sound during the timer period.
- ⓘ When the user stops moving the transceiver during the countdown, Motion Detection Timer and Reminder Timer are reset.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

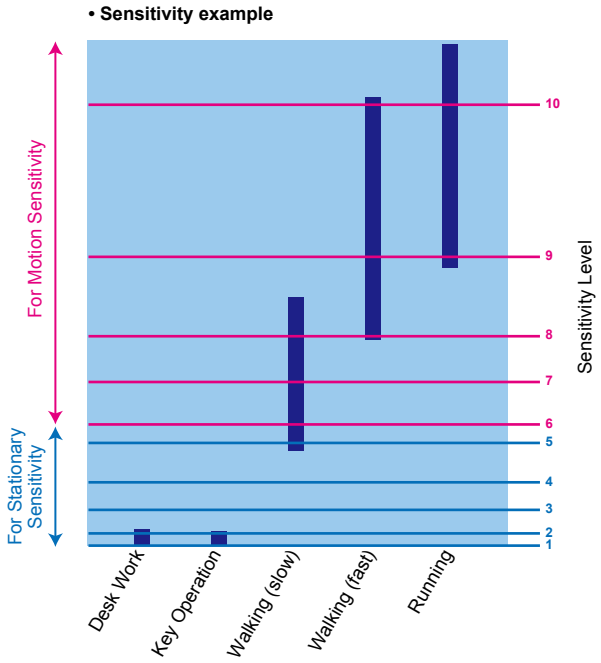
■ Transceiver Settings [IP110H]



Detection Sensitivity

83 Stationary Sensitivity …… Set the acceleration sensor sensitivity to detect if the user is stationary or not for the Stationary Detection function. (Default: 2)
This setting is used for the Stationary Detection function, and it determines the acceleration threshold level to activate the Stationary Detection's ON Timer.
If you set at higher level, the Emergency function is more easily activated.
Select a level between 1 (high sensitivity) and 10 (low sensitivity).

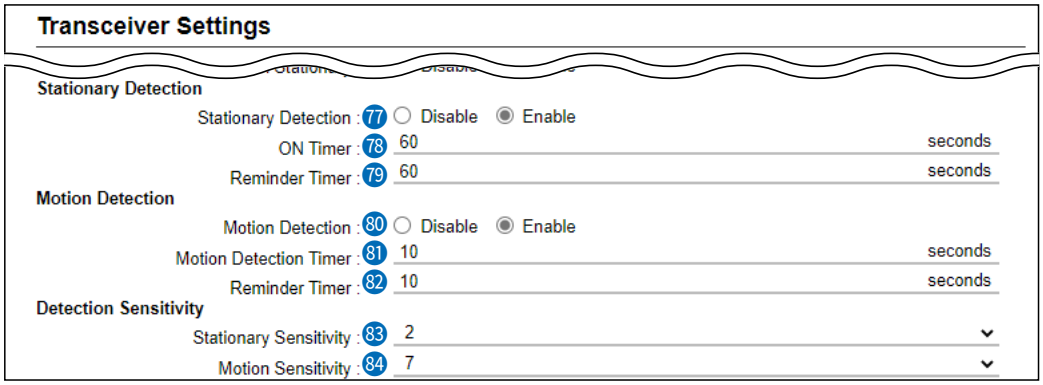
• **Sensitivity example**



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Detection Sensitivity

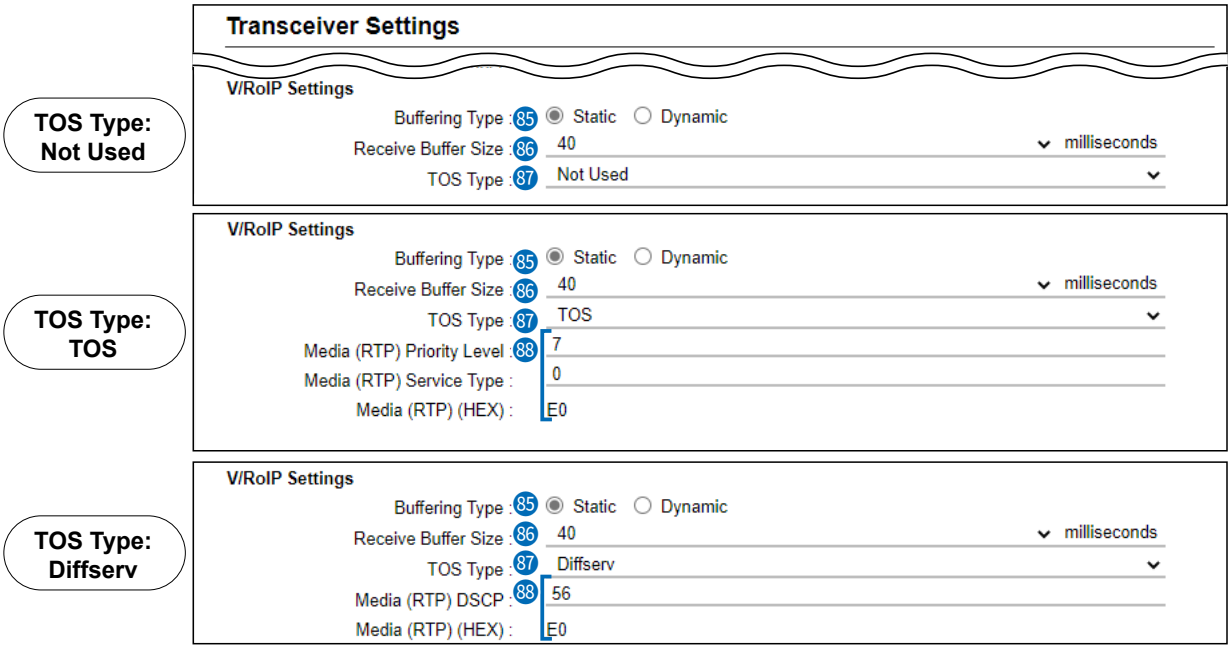
84 **Motion Sensitivity ……**

Set the acceleration sensor sensitivity to detect whether the user is moving or not, for the Motion Detection function. (Default: 7)
This setting is for the Motion Detection function, and it determines the acceleration threshold level to activate Motion Detection Timer.
If you set a lower level, the Emergency function is more easily activated.
Select a level between 1 (high sensitivity) and 10 (low sensitivity).

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



ⓘ These are examples of when the [Buffering Type] is set to “Static.”

V/RoIP Settings

85 Buffering Type ..... Select the buffer type to control any interrupted sound.
(Default: Dynamic)

- **Static**
  Keeps the audio for the set period time in [Receive Buffer Size] from breaking up.

- **Dynamic**
  The buffer time changes according to the audio fluctuation.

86 Receive Buffer Size ..... Set the buffer time to keep the audio from breaking up. A shorter value improves the delay, but it may frequently break the audio signal.
(Default: 40)

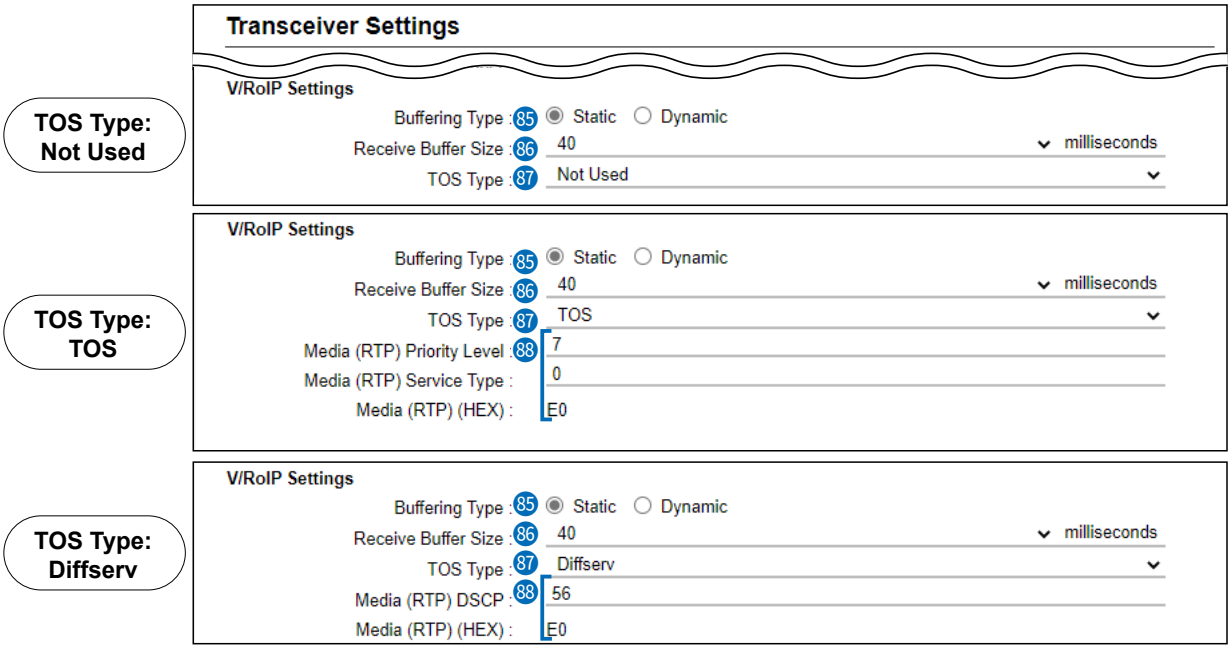
- Range: 40 ~ 480 (milliseconds) in 40 millisecond steps

A shorter value improves the delay, but it may frequently break the audio signal.
ⓘ This item is displayed when [Buffering Type] is set to “Static.”

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



ⓘ These are examples of when the [Buffering Type] is set to “Static.”

V/RoIP Settings

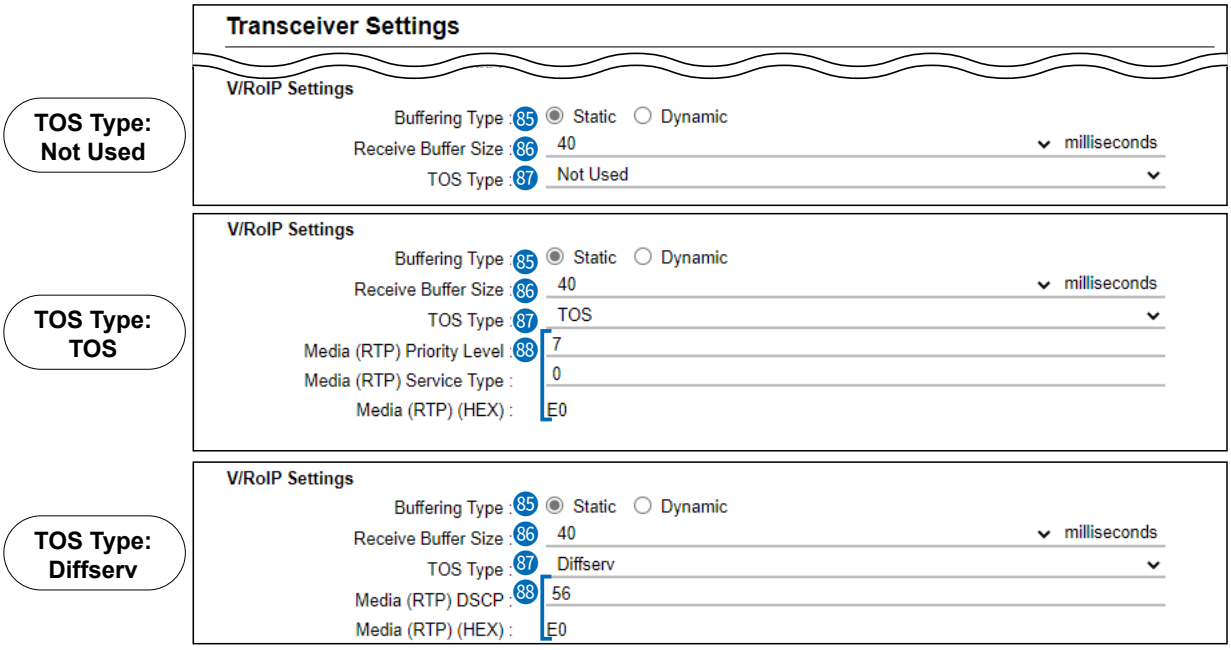
87 TOS Type ..... Select the TOS (Type-Of Service) format. (Default: TOS)

- **Not Used:** The TOS function is disabled.
- **TOS:** Sends the 8 bit VoIP packets to the TOS field in the IP header using the TOS format. Sets to between 1 (lowest) and 3 bits (Priority level) or 4 and 7 (highest) bits (Type of Service), based on the RFC1349. The 1 bit remaining is not used, and is fixed as 0.
- **Diffserv:** Sends the 8 bit VoIP packets to the TOS field in the IP header using the Diffserv (Differentiated Service) format. Sets to between 1 and 6 bits (DSCP). The 2 bits remaining are not used, and are fixed as 0.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



ⓘ These are examples of when the [Buffering Type] is set to “Static.”

V/RoIP Settings

88 Media (RTP).....

Select the Priority level and Service type of the sent VoIP packets.
ⓘ The item is not displayed when [TOS Type] is set to “Not Used.”

TOS Type: TOS

- **Media (RTP) Priority Level**
  Set the TOS priority level to between 0 (lowest) and 7 (highest). (Default: 7)

- **Media (RTP) Service Type**
  Set the TOS service type code to between 0 and 15. (Default: 0)

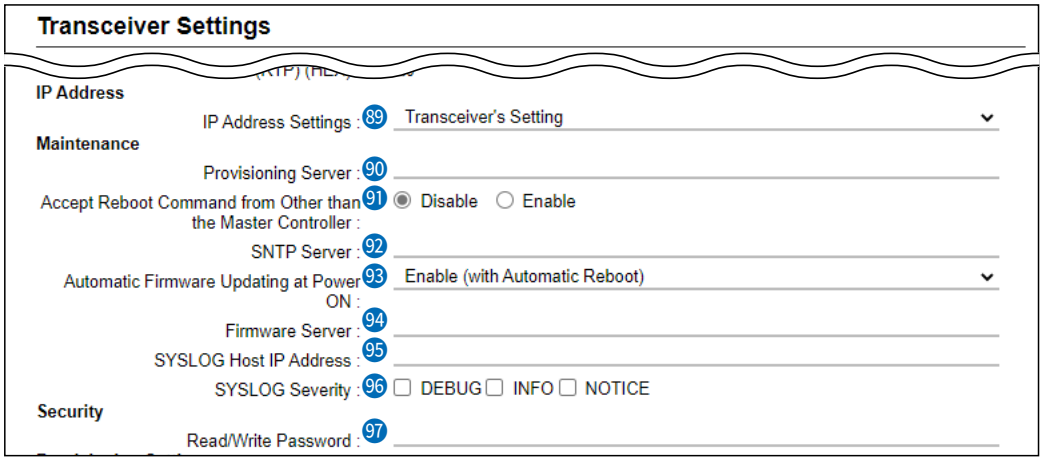
TOS Type: Diffserv

- **Media (RTP) DSCP**
  Set the DSCP (Differentiated Services Code Point) code to between 0 and 63. (Default: 56)
  ⓘ This item is displayed when the [TOS Type] is set to “Diffserv.”

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

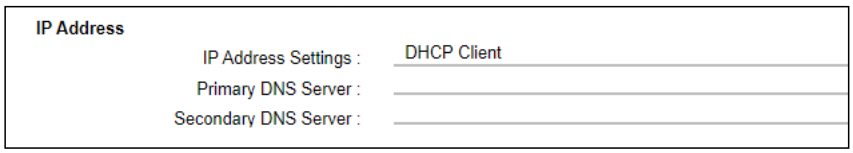


IP Address

89 IP Address Settings ..... Select the IP110H's IP settings. (Default: Transceiver's Setting)

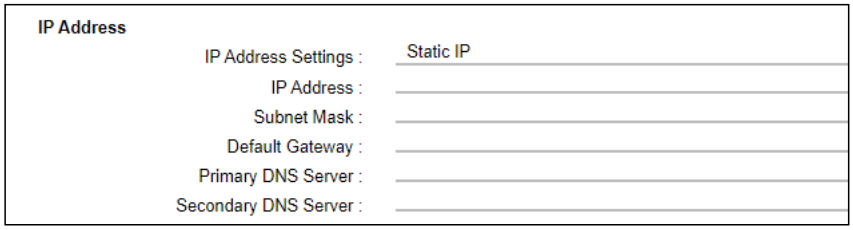
- **Transceiver's Setting**
  Uses the last IP setting set by the CS-IP110H or the Controller.

- **DHCP Client**
  Selects the DHCP Client when the IP address is automatically obtained by a DHCP server.



ⓘ If necessary, enter the [Primary DNS Server] or [Secondary DNS Server] settings.

- **Static IP**
  Selects the Static IP address, if it is specified, according to your network environment.

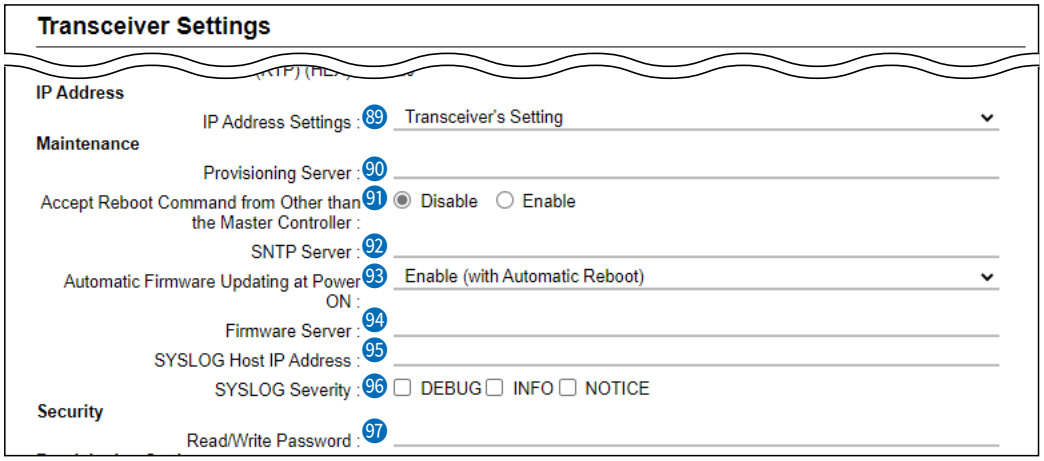


ⓘ Enter the default gateway address, if your network connects to a different network.
ⓘ If necessary, enter the [Primary DNS Server] or [Secondary DNS Server] settings.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Maintenance

90 Provisioning Server ..... Enter an IP address or Host name of the Provisioning Server for the IP110H, of up to 63 characters.

ⓘ When the Controller is used as its Provisioning Server, this entry is not necessary.

91 Accept Reboot Command from Other than the Master Controller Select whether or not the IP110Hs can be rebooted by the other than the specified in [Provisioning Server]. (Default: Disable)

ⓘ The VE-PG4, IP1000C, IP1100CV are compatible with this function. (As of April 2024)

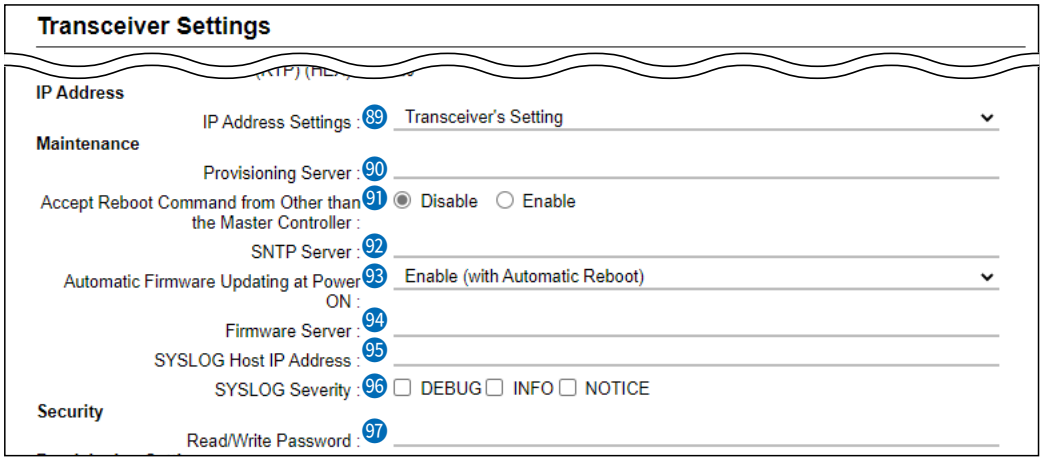
92 SNTP Server ..... Enter the IP address of the device that is specified as the SNTP Server for the IP110H.

ⓘ When the Controller is used as its SNTP Server, this entry is not necessary.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Maintenance

93 Automatic Firmware Updating at Power ON ..... Select whether or not the IP110H will use the Automatic Update function. (Default: Enable (with Automatic Reboot))

- **Disable**
  Disables the automatic firmware updating when the IP110H is turned ON.

- **Enable (without Automatic Reboot)**
  When this setting is set to “Enable (without Automatic Reboot),” the IP110H works as follows.
  1. The IP110H confirms the latest firmware in the Controller when it is turned ON.
  2. The IP110H automatically downloads the firmware if it needs to be updated.
  3. The IP110H will be updated when it is turned ON again.

- **Enable (with Automatic Reboot)**
  When this setting is set to “Enable (with Automatic Reboot),” the IP110H works as follows.
  1. The IP110H confirms the latest firmware in the Controller when it is turned ON.
  2. The IP110H automatically downloads the firmware if it needs to be updated.
  3. The IP110H is updated automatically, and then it is rebooted.

  ⓘ You can check the firmware version of the IP110H on the [TOP] menu.

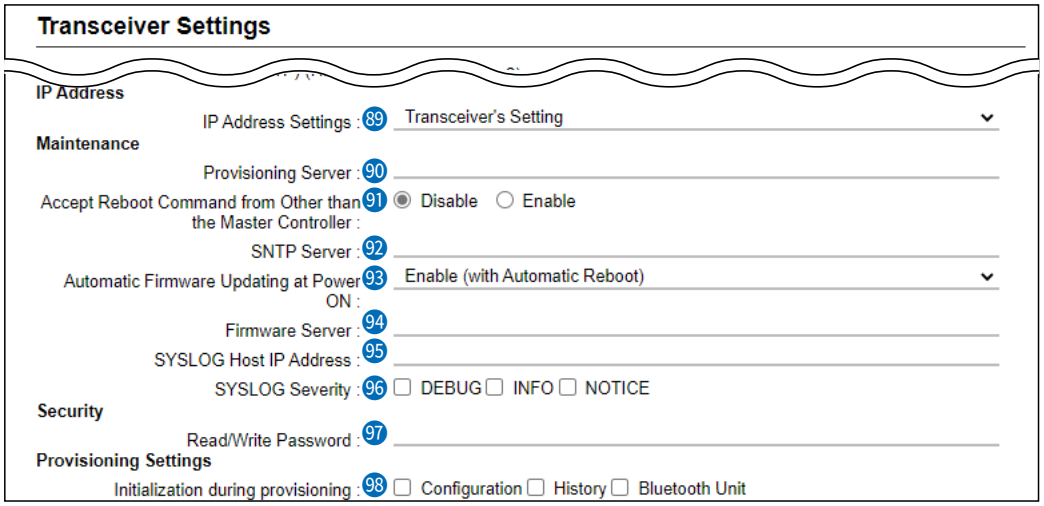
94 Firmware Server..... Enter an IP Address or Host name of the Firmware Server for the IP110H, of up to 63 characters.

ⓘ When the Controller is used as its Firmware Server, this entry is not necessary.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



Maintenance

95 SYSLOG Host IP Address

Enter the SYSLOG host's address.

ⓘ The host device must have the SYSLOG server function.

96 SYSLOG Severity .....

Select the log information to send to the SYSLOG host. The SYSLOG host is sent to another host that is set in the [SYSLOG Host IP Address]. (Default: ☐ DEBUG ☐ INFO ☐ NOTICE)

ⓘ Enter a check mark to send the log entries.

Security

97 Read/Write Password .....

Enter a password of up to 16 characters. The password is used when reading from, or writing to the IP110H, or updating the firmware using the CS-IP110H*.

* CS-IP110H is the programming software for the IP110H, and can be downloaded from the Icom website.

Provisioning Settings

98 Initialization during provisioning .....

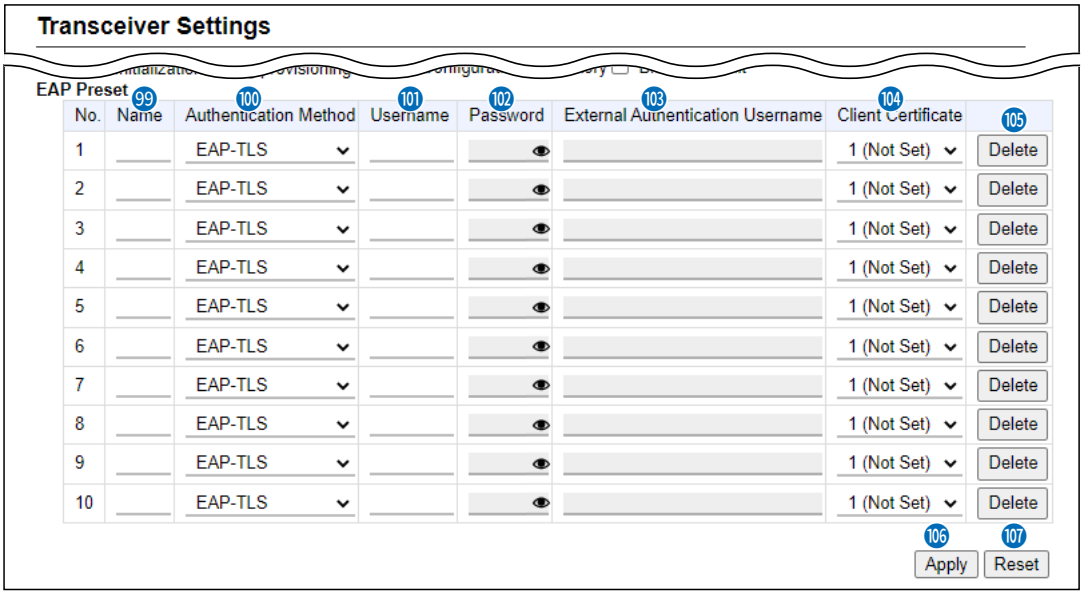
Select the item that you want to initialize the setting during provisioning. (Default: ☐ Configuration ☐ History ☐ Bluetooth Unit)

ⓘ Enter a check mark to initialize.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



EAP Preset

You can register up to 10 EAP Authentication settings that are used on the IP110H.

99 Name ..... Enter a name of up to 31 characters.

100 Authentication Method..... Set a authentication method to “PEAP (MSCHAPv2),” “EAP-TTLS (MSCHAPv2),” or “EAP-TLS.” (Default: EAP-TLS)

101 Username..... Enter a user name for the EAP authentication of up to 63 characters.

ⓘ When authenticating via Windows Active Directory, enter in the “NT domain name\account name” format.

102 Password ..... Enter a password of up to 63 characters.

ⓘ This item can be set when [Authentication Method] is set to “PEAP (MSCHAPv2)” or “EAP-TTLS (MSCHAPv2).”

103 External Authentication Username..... If you use a different name for the external authentication from it for the internal authentication, enter a name of up to 63 characters.

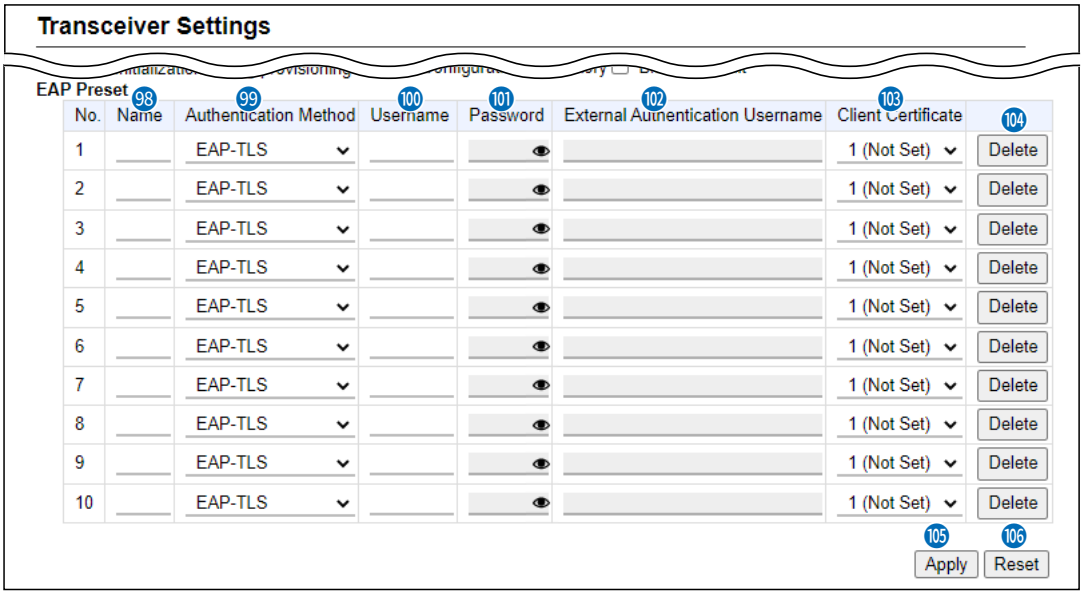
ⓘ This item can be set when [Authentication Method] is set to “PEAP (MSCHAPv2)” or “EAP-TTLS (MSCHAPv2).”

ⓘ When this item is not set, the name set in [Username] is used for the internal authentication and external authentication.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]



EAP Preset

104 Client Certificate ..... Select one of the certificates that have been registered in [Certificate Management].
ⓘ This item can be set when [Authentication Method] is set to “EAP-TLS.”

105 <Delete> ..... Click to delete the EAP preset.

106 <Apply> ..... Click to apply the entries.
ⓘ Some parts of the entries are displayed in [Transceiver Setting List], such as the Transceiver Model, Name, Unit ID, Use ID List, Area Call, Message, and Status.

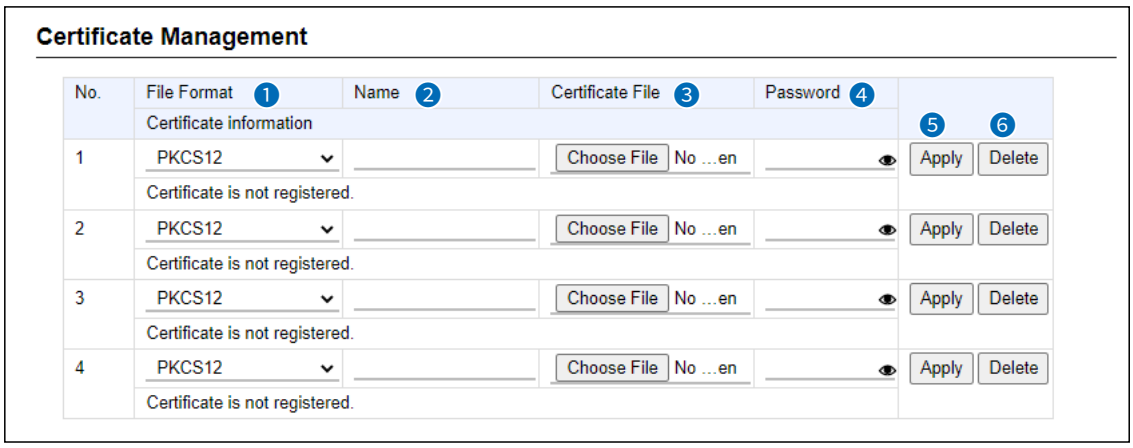
107 <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Certificate Management [IP110H]

Set the certificate to use the EAP Preset settings.



1 File Format ..... Select the certificate file format. (Default: PKCS12)
- **PKCS12:** Root Certificate and Client Certificate
- **PEM (Only Root Certificate):** Root Certificate

2 Name ..... Enter a name of up to 31 characters.

3 Certificate File ..... Click to <Choose File> to select a certificate.

4 Password ..... Enter a password of up to 127 characters.
ⓘ This item can be set when [File Format] is set to “PKCS12.”

5 <Apply> ..... Click to register the certificates.
ⓘ The previous certificates are overwritten new certificates.

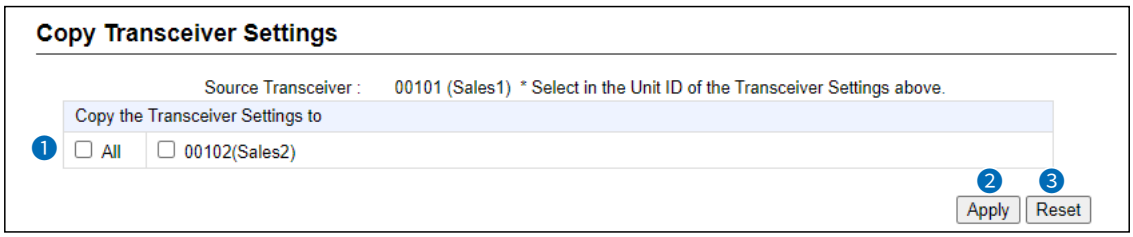
6 <Delete> ..... Click to delete the registered certificate.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Copy Transceiver Settings

The individual settings in the [Transceiver Settings] screen can be copied to another WLAN transceiver.
ⓘ IP address settings are not copied.



❶ Check Box ..... Enter a check mark to [All] or the [Unit ID] that you want to copy the settings to.

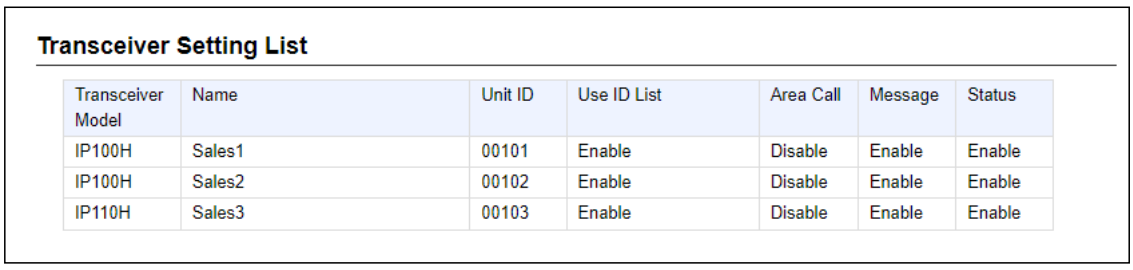
❷ <Apply> ..... Click to apply the entries.
ⓘ The entries in the [Transceiver Settings] of the Source Transceiver are copied to the transceiver settings that have a check mark in [Check Box].

❸ <Reset> ..... Click to reset the settings.
ⓘ You cannot reset, after clicking <Apply>.

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Setting List

Display the list of the registered WLAN transceivers.
ⓘ When verifying the contents, or editing the settings, select the individual number in the Unit ID.

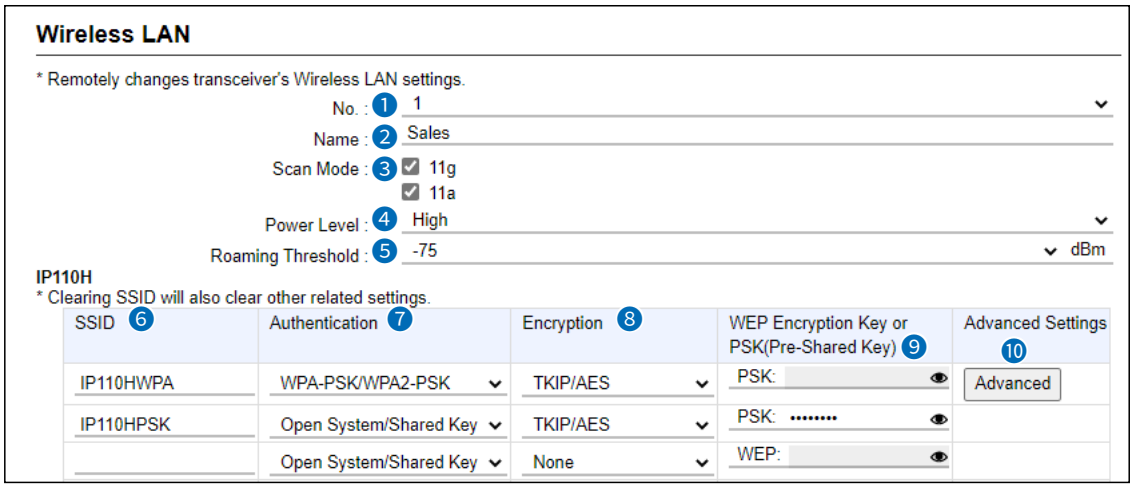


Wireless LAN screen

Transceiver Controller > Common Settings > Wireless LAN

■ Wireless LAN

Register wireless LAN settings that are commonly used by the WLAN transceivers.
You can individually set the common settings to each registered group in [Profile] on the [Common Settings] screen.
If any setting in this screen has been changed, you must reboot the WLAN transceivers.



❶ No. ..... Select a group number between 1 and 20 to assign to the WLAN transceivers.
Up to 20 groups can be registered. (Default: 1)

❷ Name ..... Enter a Group name of up to 31 characters. (Default: Blank)

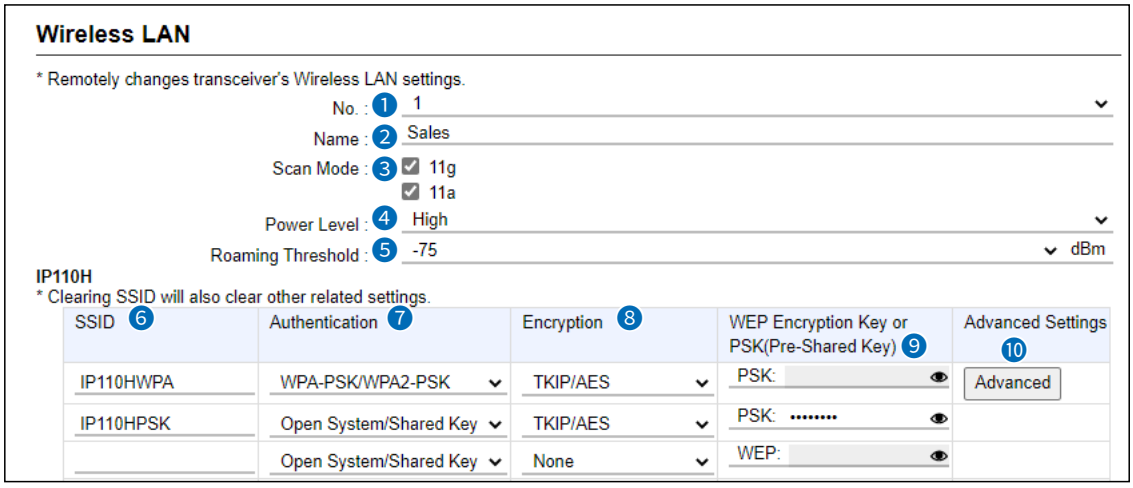
❸ Scan Mode ..... Select the frequency band that the WLAN transceiver uses.
(Default: ☑ 11g, ☑ 11a)
Selecting “11g” includes “11b.”
ⓘ Access points that comply with the wireless LAN standards can be used with the WLAN transceiver.

❹ Power Level..... Set the WLAN transceiver transmit power level to High, Middle, or Low.
(Default: High)
ⓘ When “High” is set, the transmission distance of the WLAN transceiver is maximum.
Or when setting to a lower level, the distance will be reduced.
ⓘ Power Level is set to a lower level when you want to:
- Reduce the communication range.
- Limit the communication area and improve security.
- Reduce electrical interference among WLAN transceivers.
- Control the communication speed in an environment where some access points are installed in a comparatively small area.

Wireless LAN screen

Transceiver Controller > Common Settings > Wireless LAN

■ Wireless LAN



5 Roaming Threshold .....

Set the received signal strength level when the WLAN transceiver starts roaming.
The settable level is between –1 and –100 dBm. (Default: –75 (dBm))

ⓘ When setting to a high level (example: –50 dBm), it becomes easy to start roaming. Or when setting to a low level (example: –90 dBm), it becomes difficult to start roaming.

IP110H

6 SSID .....

Enter an SSID that is the same as that of the wireless access point.
Enter up to 32 characters, using numbers, symbols and letters (both lower and upper case).
Be careful of the difference between lower and upper case letters.

ⓘ Information

- Up to 10 SSIDs can be registered.
- The SSID is used to separate the wireless network groups. You cannot connect to different SSID groups.
- If two or more wireless access points exist in the same area, each wireless network group is identified by the SSID (wireless network name).
- If you register two or more SSIDs, the WLAN transceiver connects to the SSID which has the strongest radio signal.
- For any other wireless device, this may be called ESSID.
- The setting data before version 2.04 automatically moves to the top of the SSID setting.

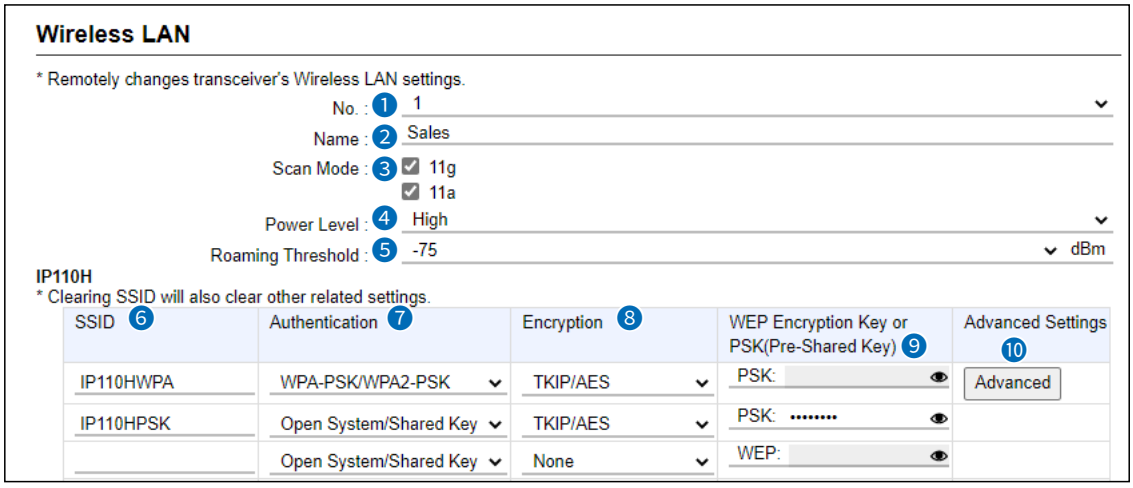
NOTE:
You cannot apply the Wireless LAN settings when:

- The setting for the [SSID] and [Encryption] that you entered already exists.
- The beginning of the [SSID] setting overlaps with another Wireless LAN (a different value is set in [No.]) settings.

Wireless LAN screen

Transceiver Controller > Common Settings > Wireless LAN

■ Wireless LAN



IP110H

7 Authentication ..... Select the authentication method that is the same as that of the wireless access point. (Default: Open System/Shared Key)

ⓘ Be sure to verify the Access point setting, because the terminals and access points cannot communicate using different authentication methods.

About authentication methods

- **Open System/Shared Key**
  When accessing a wireless access point, “Open System” and “Shared Key” are automatically recognized. If the Encryption key matches the key in the Access point, they can communicate.

- **Open System**
  When accessing a wireless access point, confirming the encryption is not necessary.

- **WPA/WPA2**
  The “WPA” and “WPA2” authentications are automatically recognized.

- **WPA-PSK/WPA2-PSK**
  The “WPA-PSK” and “WPA2-PSK” authentications are automatically recognized.

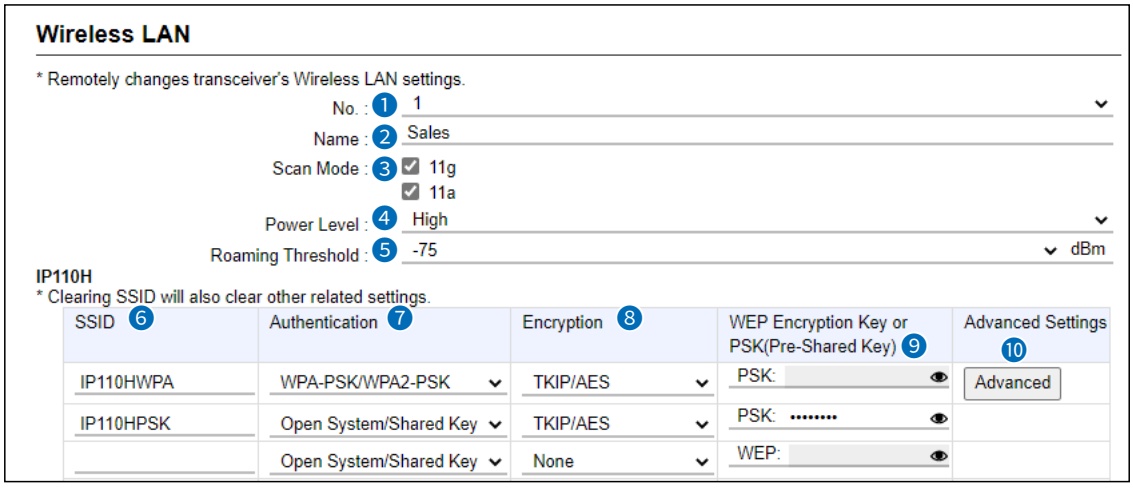
The combination of the Authentication and Encryption

	Open System	Open System/ Shared Key	WPA WPA2	WPA-PSK WPA2-PSK
None	✔	✔	–	–
WEP RC4	✔	✔	–	–
TKIP/AES	–	–	✔	✔

Wireless LAN screen

Transceiver Controller > Common Settings > Wireless LAN

■ Wireless LAN



IP110H

8 Encryption .....

Select the encryption type that is the same as that of the wireless access point. (Default: None)

ⓘ Be sure to verify the access point setting, because the terminals and access points cannot communicate using different encryption.

About the encryption types

- **None**

  No data is encrypted.

  ⓘ This option can be selected when [Authentication] is set to “Open System” or “Open System/Shared Key.”

- **WEP RC4**

  It is an encryption type that can communicate when the encryption keys match.

  ⓘ You can set the encryption key length to between 64 (40) and 128 (104) bits.

  ⓘ You can select this option when [Authentication] is set to “Open System” or “Open System/Shared Key.”

- **TKIP/AES**

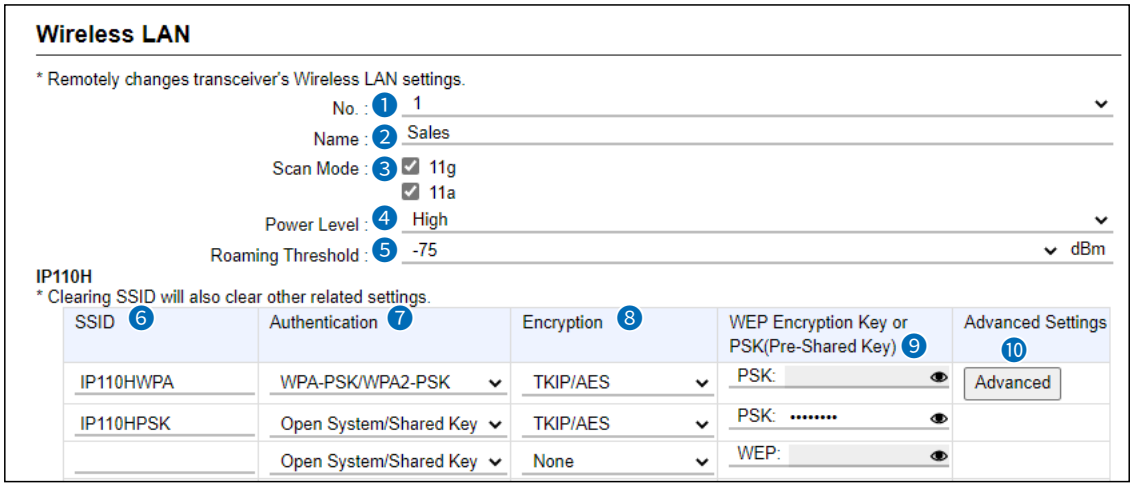
  Either the “TKIP” or “AES” encryptions are automatically recognized when connecting to a wireless access point.

  ⓘ You can select this option when [Authentication] is set to “WPA/WPA2” or “WPA-PSK/WPA2-PSK.”

Wireless LAN screen

Transceiver Controller > Common Settings > Wireless LAN

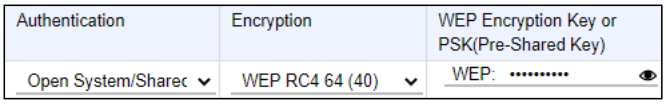
■ Wireless LAN



IP110H

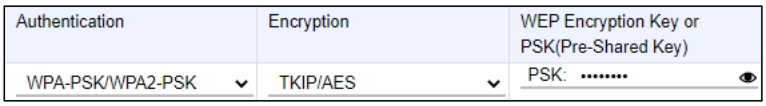
9 WEP Encryption Key or PSK (Pre-Shared Key) ……

- **WEP Encryption Key**
  Enter the encryption key that is the same as that of the wireless access point.



ⓘ This option can be selected when [Authentication] is set to “Open System” or “Open System/Shared Key.”
ⓘ Enter hexadecimal numbers with numbers (0 to 9) and letters (A to F). Or enter ASCII characters. The key length is same as the displayed digits, 10 or 26 using hexadecimal numbers, or half of the displayed digits, 5 or 13 characters using ASCII characters.

- **PSK (Pre-Shared Key)**
  Enter the pre-shared key that is the same as that of the wireless access point.

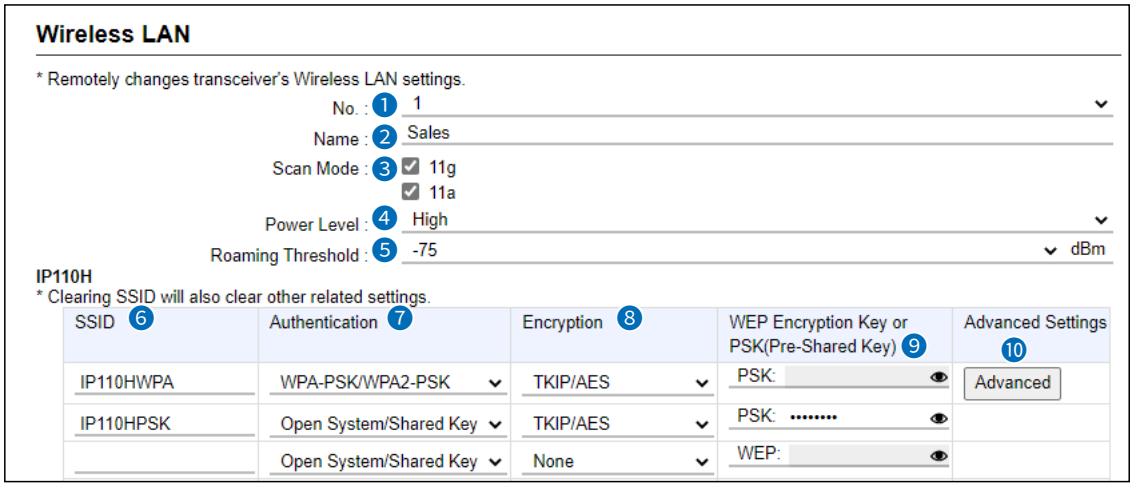


ⓘ This option can be selected when [Authentication] is set to “WPA-PSK/WPA2-PSK.”
ⓘ Enter hexadecimal numbers with numbers (0 to 9) and letters (A to F). Or enter ASCII characters. The key length is 64 digits using hexadecimal number, or 8 to 63 characters using ASCII characters.

Wireless LAN screen

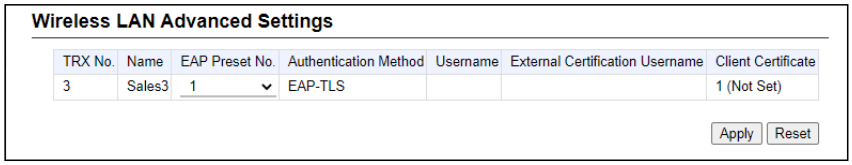
Transceiver Controller > Common Settings > Wireless LAN

■ Wireless LAN



IP110H

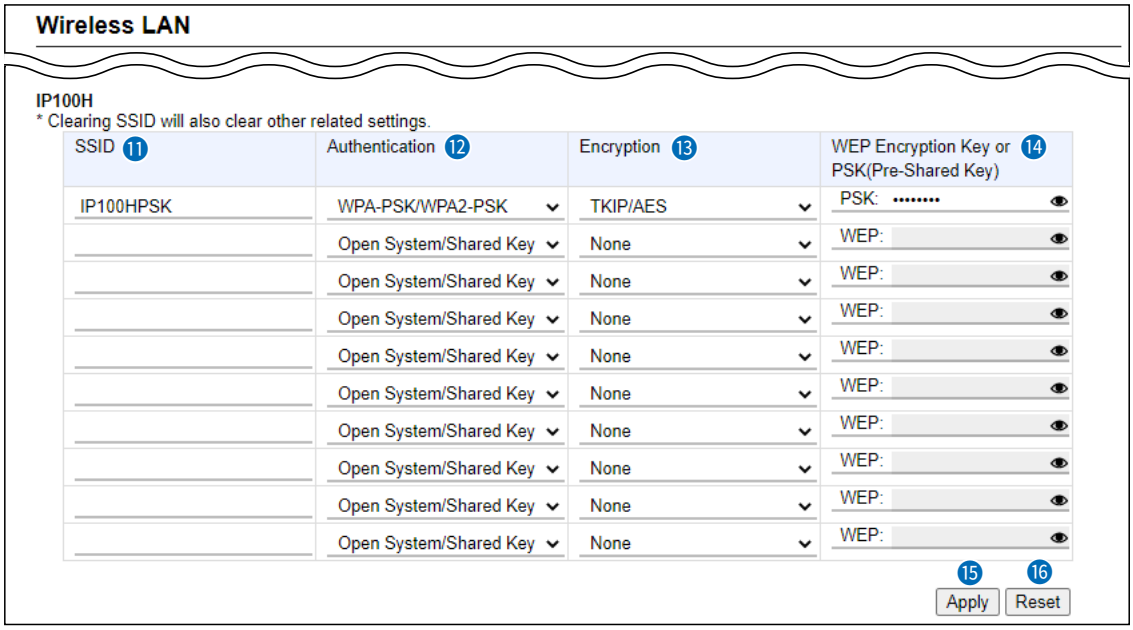
⑩ Advanced Settings ..... Displayed only when [Authentication] is set to "WPA/WPA2."
Click <Advanced> to display the Wireless LAN Advanced Settings window.
Select "EAP Preset No." for each IP110Hs registered on the Transceiver Settings screen, and then click <Apply>.



Wireless LAN screen

Transceiver Controller > Common Settings > Wireless LAN

■ Wireless LAN



IP100H

11 SSID .....

Enter an SSID that is the same as that of the wireless access point.
Enter up to 32 characters, using numbers, symbols and letters (both lower and upper case).
Be careful of the difference between lower and upper case letters.

ⓘ Information

- Up to 10 SSIDs can be registered.
- The SSID is used to separate the wireless network groups. You cannot connect to different SSID groups.
- If two or more wireless access points exist in the same area, each wireless network group is identified by the SSID (wireless network name).
- If you register two or more SSIDs, the WLAN transceiver connects to the SSID which has the strongest radio signal.
- For any other wireless device, this may be called ESSID.
- The setting data before version 2.04 automatically moves to the top of the SSID setting.

NOTE:

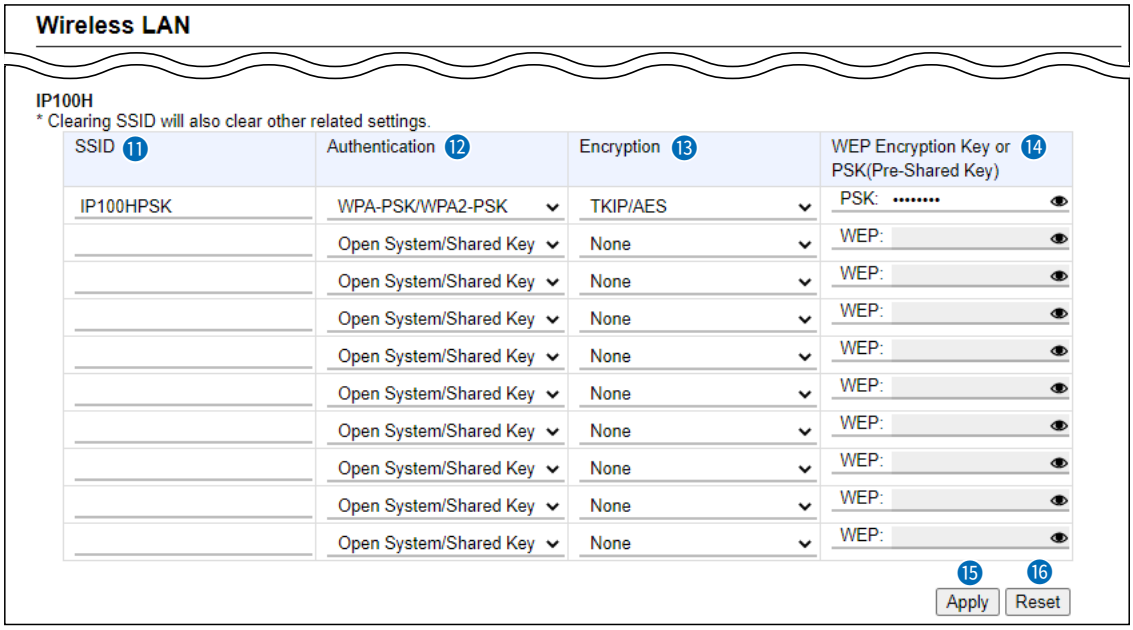
You cannot apply the Wireless LAN settings when:

- The setting for the [SSID] and [Encryption] that you entered already exists.
- The beginning of the [SSID] setting overlaps with another Wireless LAN (a different value is set in [No.]) settings.

Wireless LAN screen

Transceiver Controller > Common Settings > Wireless LAN

■ Wireless LAN



IP100H

⓬ Authentication .....

Select the authentication method that is the same as that of the wireless access point. (Default: Open System/Shared Key)

ⓘ Be sure to verify the Access point setting, because the terminals and access points cannot communicate using different authentication methods.

About authentication methods

- **Open System/Shared Key**
  When accessing a wireless access point, “Open System” and “Shared Key” are automatically recognized. If the Encryption key matches the key in the Access point, they can communicate.

- **Open System**
  When accessing a wireless access point, confirming the encryption is not necessary.

- **WPA-PSK/WPA2-PSK**
  The “WPA-PSK” and “WPA2-PSK” authentications are automatically recognized.

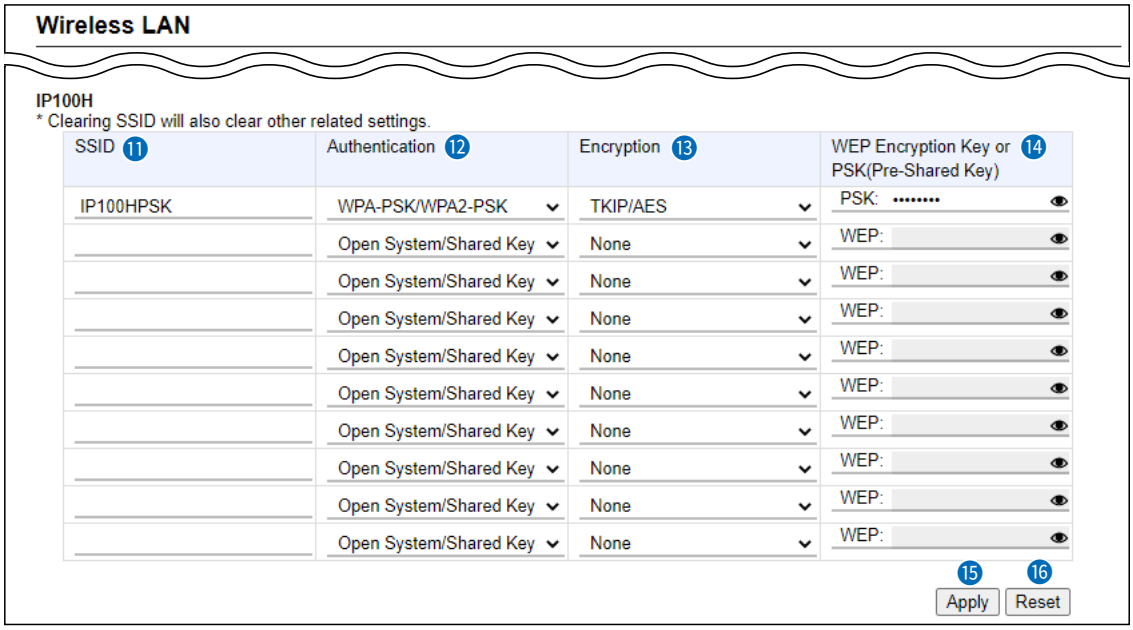
The combination of the Authentication and Encryption

	Open System	Open System/ Shared Key	WPA-PSK WPA2-PSK
None	✔	✔	–
WEP RC4	✔	✔	–
TKIP/AES	–	–	✔

Wireless LAN screen

Transceiver Controller > Common Settings > Wireless LAN

■ Wireless LAN



IP100H

⓭ Encryption .....

Select the encryption type that is the same as that of the wireless access point. (Default: None)

ⓘ Be sure to verify the access point setting, because the terminals and access points cannot communicate using different encryption.

About the encryption types

- **None**
  No data is encrypted.
  ⓘ This option can be selected when [Authentication] (⓬) is set to “Open System” or “Open System/Shared Key.”

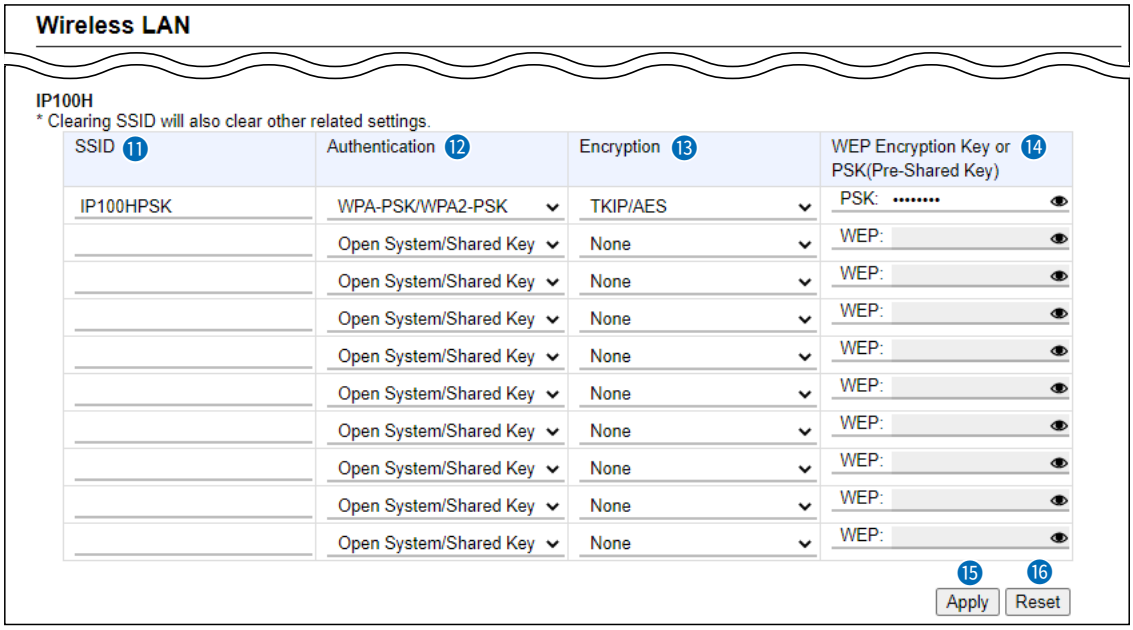
- **WEP RC4**
  It is an encryption type that can communicate when the encryption keys match.
  ⓘ You can set the encryption key length to between 64 (40) and 128 (104) bits.
  ⓘ You can select this option when [Authentication] is set to “Open System” or “Open System/Shared Key.”

- **TKIP/AES**
  Either the “TKIP” or “AES” encryptions are automatically recognized when connecting to a wireless access point.
  ⓘ You can select this option when [Authentication] is set to “WPA-PSK/WPA2-PSK.”

Wireless LAN screen

Transceiver Controller > Common Settings > Wireless LAN

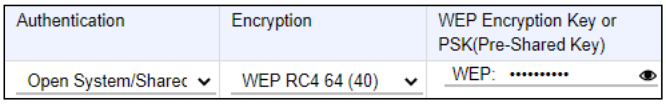
■ Wireless LAN



IP100H

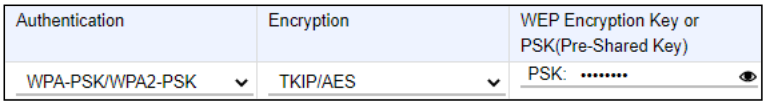
14 WEP Encryption Key or PSK (Pre-Shared Key) ……

- **WEP Encryption Key**
  Enter the encryption key that is the same as that of the wireless access point.



ⓘ This option can be selected when [Authentication] is set to “Open System” or “Open System/Shared Key.”
ⓘ Enter hexadecimal numbers with numbers (0 to 9) and letters (A to F). Or enter ASCII characters. The key length is same as the displayed digits, 10 or 26 using hexadecimal numbers, or half of the displayed digits, 5 or 13 characters using ASCII characters.

- **PSK (Pre-Shared Key)**
  Enter the pre-shared key that is the same as that of the wireless access point.

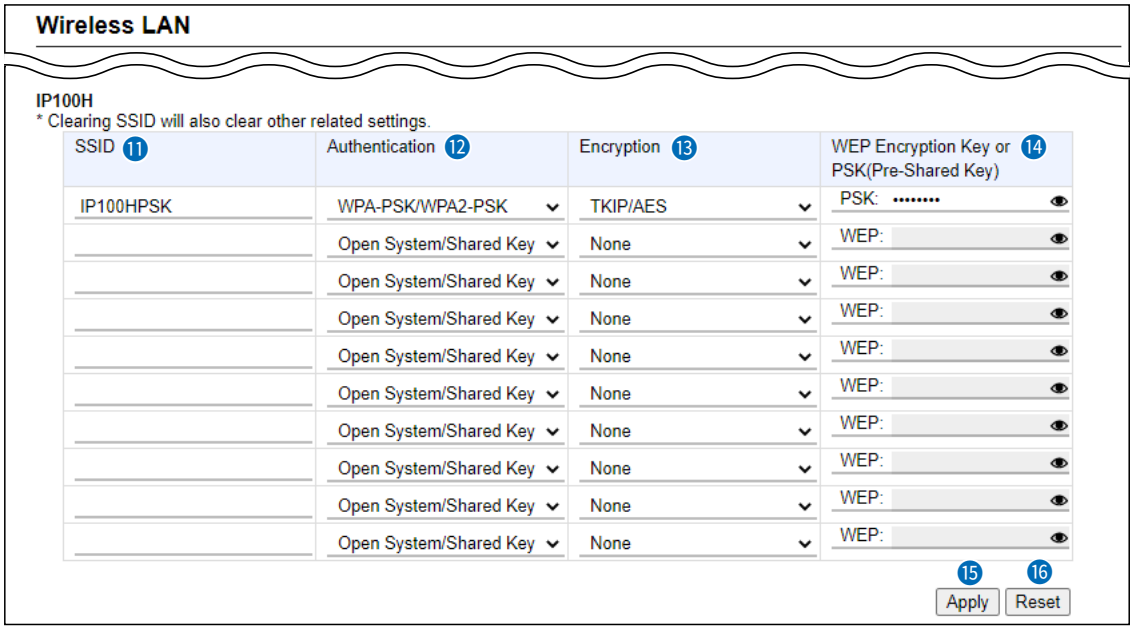


ⓘ This option can be selected when [Authentication] is set to “WPA-PSK/WPA2-PSK.”
ⓘ Enter hexadecimal numbers with numbers (0 to 9) and letters (A to F). Or enter ASCII characters. The key length is 64 digits using hexadecimal number, or 8 to 63 characters using ASCII characters.

Wireless LAN screen

Transceiver Controller > Common Settings > Wireless LAN

■ Wireless LAN



⓯ **<Apply>** ..... Click to apply the entries.
ⓘ The entries are displayed in [List of Wireless LAN Entries].

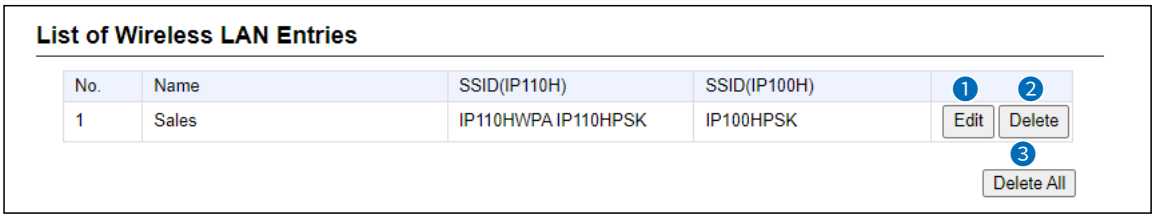
⓰ **<Reset>** ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

Wireless LAN screen

Transceiver Controller > Common Settings > Wireless LAN

■ List of Wireless LAN Entries

Displays the list of the wireless LAN settings.



❶ **<Edit>** ..... Click to edit the entries in [Wireless LAN].

❷ **<Delete>** ..... Click to delete the selected entry.
ⓘ After clicking <Delete>, the entry cannot be recalled.

❸ **<Delete All>** ..... Click to delete all the entries.
ⓘ After clicking <Delete All>, the entries cannot be recalled.

ID List screen

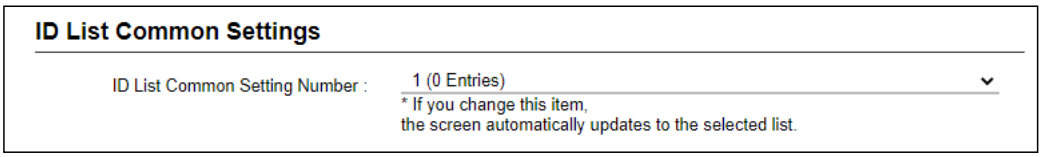
Transceiver Controller > Common Settings > ID List

■ ID List Common Settings

Select an ID list that the WLAN transceivers will use.

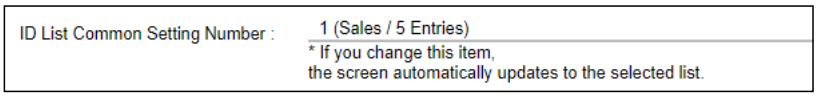
ⓘ You can individually specify an ID list to the groups that the WLAN transceivers belong to in [Profile] on the [Common Settings] screen.

ⓘ If any entries on this screen have been changed, you must reboot the WLAN transceiver.



ID List Common Setting Number Select the group number between 1 and 300, and then enter IDs that the WLAN transceivers will use.

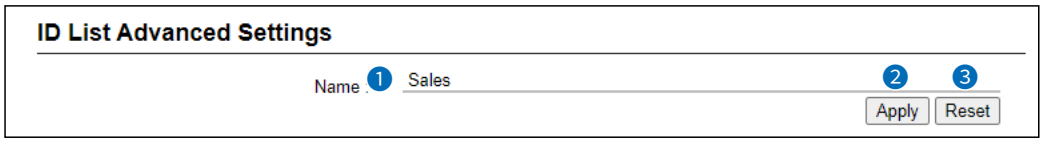
ⓘ When the group name or IDs are registered in the group, they are displayed as shown below.



Transceiver Controller > Common Settings > ID List

■ ID List Advanced Settings

Enter a name of the group that is selected in [ID List Common Settings].



❶ **Name** ..... Enter a group name of up to 31 characters.
The group is selected in [ID List Common Setting] on the [ID List] screen.
When selecting a group on the [ID List] and [Profile] screens, the group name will be displayed.

❷ **<Apply>** ..... Click to apply the entries.

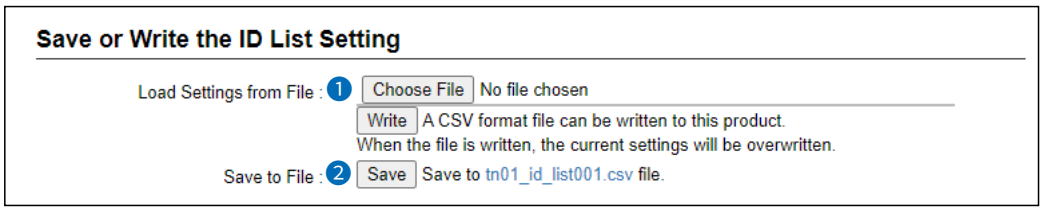
❸ **<Reset>** ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

ID List screen

Transceiver Controller > Common Settings > ID List

■ Save or Write the ID List Setting

You can save an ID list file on your PC, or load an ID list file to the Controller.
ⓘ If any WLAN transceiver settings have been changed, you must reboot it.



ⓘ This is an example of when Group 1 is selected in [ID List Common Setting].
When a name is registered in a group, the name is also displayed.

❶Load Settings from File … Load an ID list file, which is saved on [Save to File], to the Controller.
Click <Choose File> to select the file to load.
Select the target file on screen, and click <Open>. The selected file is displayed in [Load Settings from File].
Click <Write> after selecting the target file. Then, the selected file is loaded to [ID List Entries].
ⓘ When the file is loaded, the previous data in [ID List Entries] is deleted.
ⓘ If you select the file that is saved on the [Settings Restore] screen in the [Management] menu, the setting will be overwritten.

❷Save to File …… Save an ID list file, which is listed in [ID List Entries], to your PC.
Click <Save>, and then <Save> on the box to save an ID list file (a CSV file) to your PC.
ⓘ A file name varies, depending on the group number in [ID List Common Settings]. For example, the file name becomes “tn01_id_list001.csv” when Group 1 of Tenant 1 is selected.

ID List screen

Transceiver Controller > Common Settings > ID List

■ Save or Write the ID List Setting

❍ **About the rules of a CSV file for the ID list**

Icom is not responsible for writing another ID list file except a saved ID list file or an ID list file that is edited, as shown below.

Format of a CSV file for the ID list file

	A	B	C	D	E	F	G
1	#	IP1100CV	ID List Settings	ID List file			
2	#	Firm Ver.					
3	#	File Ver.					
4	#Group Name	Sales					
5	#Index	Name	Call type(indi=Individual group=Group tel=Telephone)	Destination ID	Destination Phone Number	Talkgroup	Nickname
6	1	Sales1	indi	101		0	
7	2	Sales2	indi	102		0	
8	3	Sales3	indi	103		0	
9	4	Group00001	group	1001		1	TG1

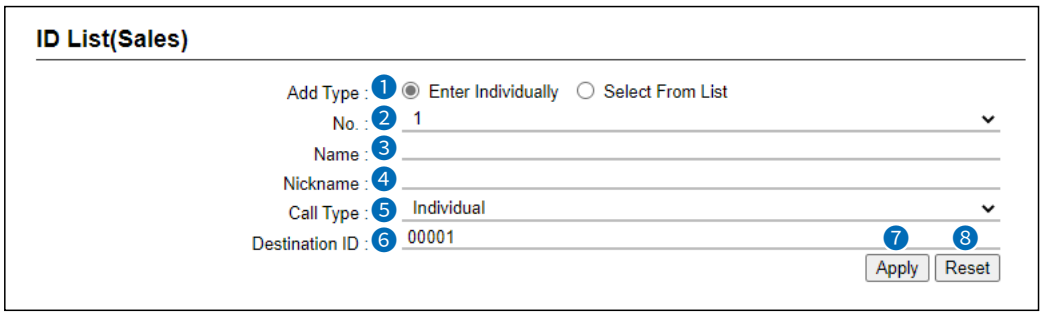
Column	Title	Description
A	Index	Group name: Up to 31 characters, No.: 1 ~ 500 Do not duplicate the number. ⓘ Only 50 destinations are saved into the IP100H, from address numbers 1 to 50.
B	Name	Up to 32 characters
C	Call Type	indi: Individual, group: Group, tel: Telephone
D	Destination ID (Individual/Group)	1 ~ 60000
E	Destination ID (Telephone)	Up to 31 digits using numbers and symbols (#, ✳)
F	Talkgroup	0: Disable, 1: Enable
G	Nickname	Up to 32 characters

ID List screen

Transceiver Controller > Common Settings > ID List

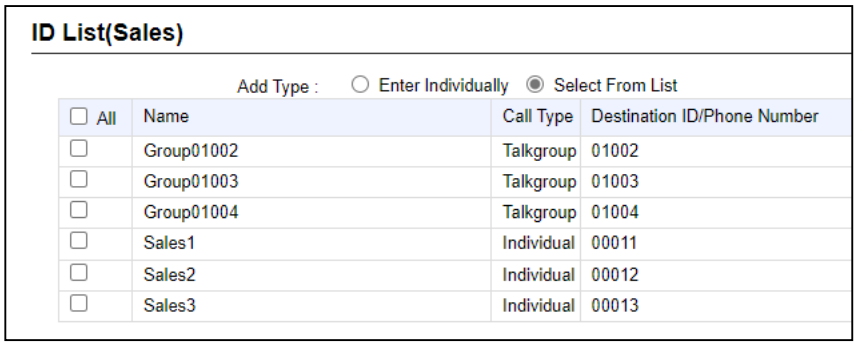
■ ID List

Enter target IDs in the group that is selected in [ID List Common Settings].
ⓘ You can enter up to 500 target IDs in each group.



ⓘ This is an example of when “Enter individually” is selected in [Add Type].
When a name is registered in a group, the name is also displayed.

❶ Add Type ..... Select [Enter Individually] or [Select From List] in the [Add Type].
When [Select From List] is selected, the Destination IDs that are registered on the [Transceiver Registration] screen or [Destination Settings] screen, are displayed.
ⓘ By selecting [All], you can select or cancel all entries in the list.
ⓘ When [Select From List] is selected, you can enter a name of up to 32 characters.



❷ No. ..... Select a number to register the destination.
Up to 500 destinations can be registered to a group.
ⓘ Only 50 destinations are saved into the IP100H, from address numbers 1 to 50.

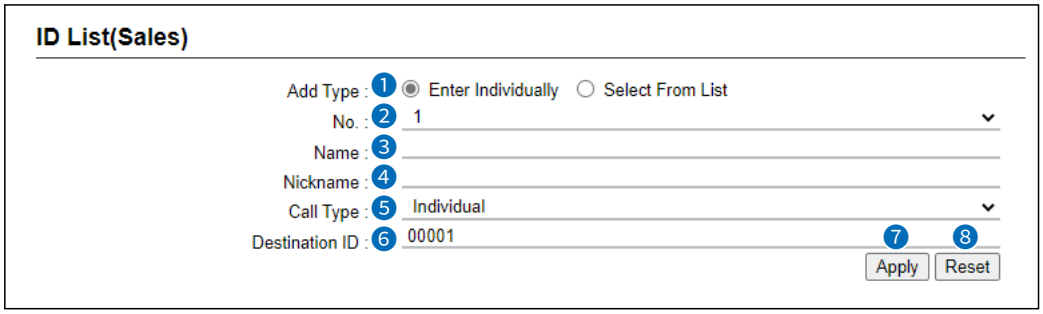
❸ Name ..... Enter a destination name of up to 32 characters.

❹ Nickname ..... Enter a nickname of up to 32 characters, if necessary.

ID List screen

Transceiver Controller > Common Settings > ID List

■ ID List



ⓘ This is an example of when “Enter individually” is selected in [Add Type].
When a name is registered in a group, the name is also displayed.

5 Call Type ..... Select the Call type.
Options: Individual, Group, Talkgroup, or Telephone

6 Destination ID ..... Enter a target individual ID, group ID, or talkgroup ID (00001 ~ 60000). When “Telephone” is selected as [Call Type], enter a target phone number of up to 31 digits using numbers and symbols (#, ∗).

7 <Apply> ..... Click to apply the entries.
ⓘ The entries are displayed in [ID List Entries].

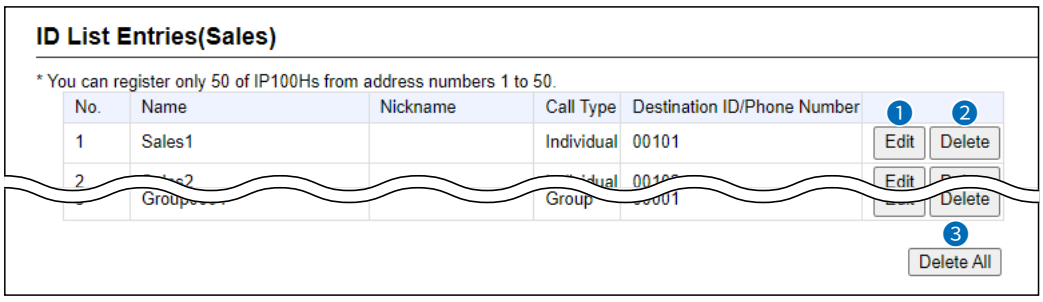
8 <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

ID List screen

Transceiver Controller > Common Settings > ID List

■ ID List Entries

Displays the list of entered Group Calls.



ⓘ This is an example of when Group 1 is selected in [ID List Common Settings].
When a name is registered in a group, the name is also displayed.

❶ **<Edit>** ..... Click to edit the entries in [ID List].

❷ **<Delete>** ..... Click to delete the selected entry.
ⓘ After clicking <Delete>, the entry cannot be recalled.

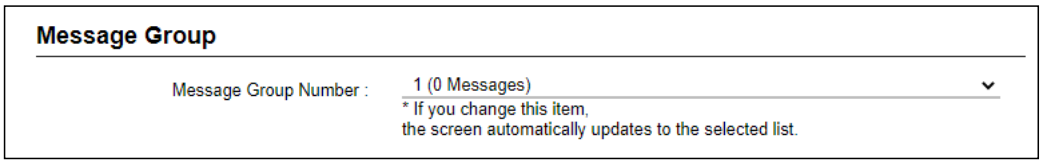
❸ **<Delete All>** ..... Click to delete all the entries.
ⓘ After clicking <Delete All>, the entries cannot be recalled.

Messages screen

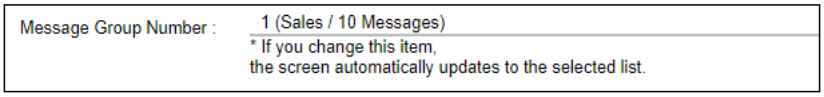
Transceiver Controller > Common Settings > Messages

■ Message Group

Select to register a message that the WLAN transceivers will use.
ⓘ You can individually specify the message group that the WLAN transceivers belong to in “Message List” in [Profile] on the Profile screen.
(Transceiver Controller > Common Settings > Profile > Profile > Message List)
ⓘ If any entries on this screen have been changed, you must reboot the WLAN transceiver.



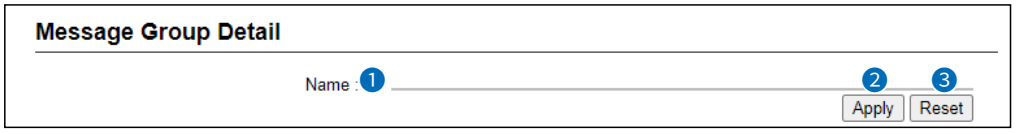
Message Group Number …… Select a group number between 1 and 50, and then enter the messages that the WLAN transceivers will use.
ⓘ When the group name or messages are registered in the group, they are displayed as shown below.



Transceiver Controller > Common Settings > Messages

■ Message Group Detail

Enter the group name that is selected in [Message Group].



❶ Name …… Enter a group name of up to 31 characters.
The group is selected in [Message Group] on the [Message] screen.
ⓘ When the group is selected on the [Messages] screen and [Profile] screen, the group name is displayed.

❷ <Apply> …… Click to apply the entries.

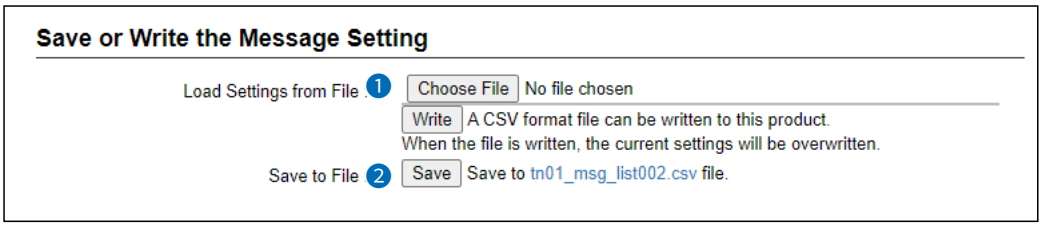
❸ <Reset> …… Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

Messages screen

Transceiver Controller > Common Settings > Messages

■ Save or Write the Message Setting

You can save a message file on your PC, or load a message file to the Controller.
ⓘ If any WLAN transceiver settings have been changed, you must reboot it.



ⓘ This is an example of when Group 1 is selected in [Message Group].
ⓘ When a name is registered to a group, the name is also displayed.

❶Load Settings from File … Load a message file, which is saved on [Save to File], to the Controller.
Click <Choose File> to select the file to load.
Select the target file on screen, and click <Open>. The selected file is displayed in [Load Settings from File]. Click <Write> after selecting the target file. Then, the selected file is loaded to [Messages].
ⓘ The previous data in [Messages] is overwritten the loaded data.
ⓘ If you select the file that is saved on the Settings Restore screen in the [Management] menu, the setting is overwritten.

❷Save to File …… Save a message file, which is listed in the [Message], to your PC.
Click <Save>, and then <Save> on the box to save a message file (a CSV file) to your PC.
ⓘ The file name depends on the group number in [Message Group]. For example, the file is named “tn01_msg_list001.csv” when Group 1 of Tenant 1 is selected.

Messages screen

Transceiver Controller > Common Settings > Messages

■ Save or Write the Message Setting

❍ **About the rules of a CSV file for the message file**

Icom is not responsible for writing another message file except a saved message file or a message file that is edited as shown below.

Format of a CSV file for the message file

	A	B	C	D
1	#	IP1100CV	Message Settings	Message file
2	#	Firm Ver.		
3	#	File Ver.		
4	#Group Name	Sales		
5	#Index	Message		
6	1	Gather immediately.		
7	2	A message was sent.		
8	3	Check the message.		
9	4	Is it no problem?		
10	5	Give me a reply.		
11	6	Give me a reply immediately.		
12	7	Please disperse there.		
13	8	Back to the office ASAP.		
14	9	The parcel arrived.		
15	10	The work finished.		

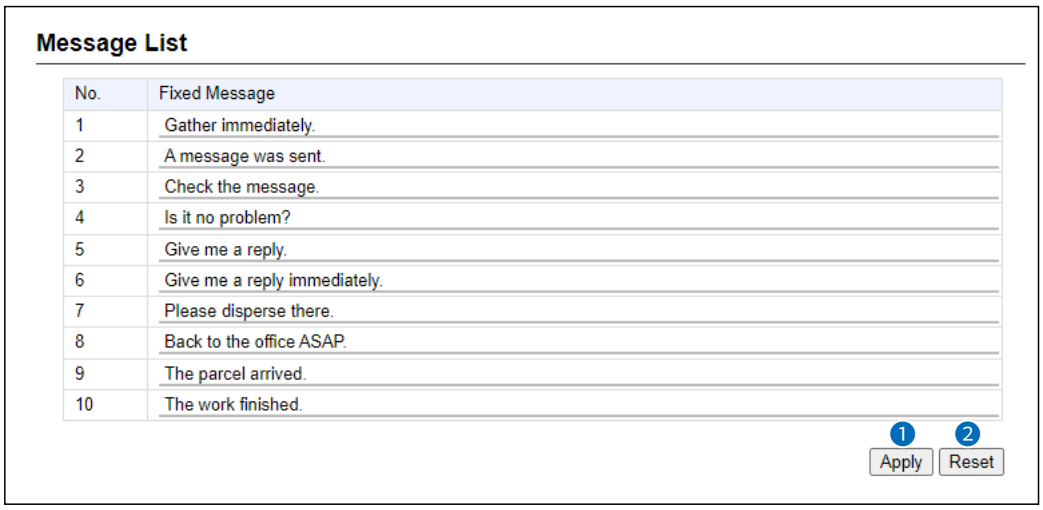
Column	Title	Description
A	Index	Group name: Up to 31 characters, No.: 1 ~ 10 Do not duplicate the number
B	Message	Up to 32 characters

Messages screen

Transceiver Controller > Common Settings > Messages

■ Message List

Enter messages in the group that is selected in [Message Group].
You can transmit fixed message of up to 32 characters.
ⓘ You can enter up to 10 messages in each message group.



ⓘ When a name is registered to a group, the name is also displayed.

❶ **<Apply>** ..... Click to apply the entries.

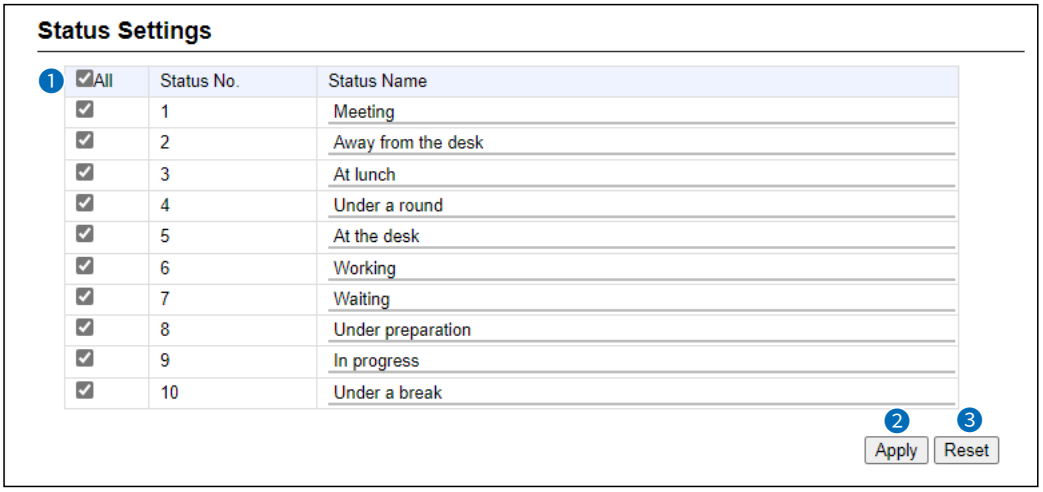
❷ **<Reset>** ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

Status screen

Transceiver Controller > Common Settings > Status

■ Status Settings

Select to register a status that the WLAN transceivers use.
ⓘ You can enter up to 10 statuses of up to 32 characters.
ⓘ If any entries on this screen have been changed, you must reboot the WLAN transceiver.



❶Check Box ..... Click a Check Box to display a status name on the WLAN transceiver.
ⓘ When the box is not checked, the status name is not displayed on the WLAN transceiver, even if you entered it.
When the status name is not entered, the status number is displayed on the WLAN transceiver only if the box is checked.
ⓘ You can check or uncheck them all at once by clicking [All].

❷<Apply> ..... Click to apply the entries.

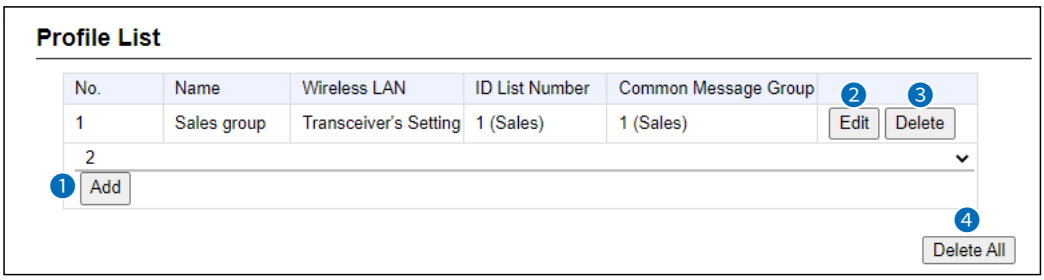
❸<Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

Profile screen

Transceiver Controller > Common Settings > Profile

■ Profile List

Displays the entries that are entered in [Common Settings].



❶ **<Add>** ..... Click to add an new profile.

❷ **<Edit>** ..... Click to edit the entries in [Profile].

❸ **<Delete>** ..... Click to delete the selected entry.
ⓘ After clicking <Delete>, the entry cannot be recalled.

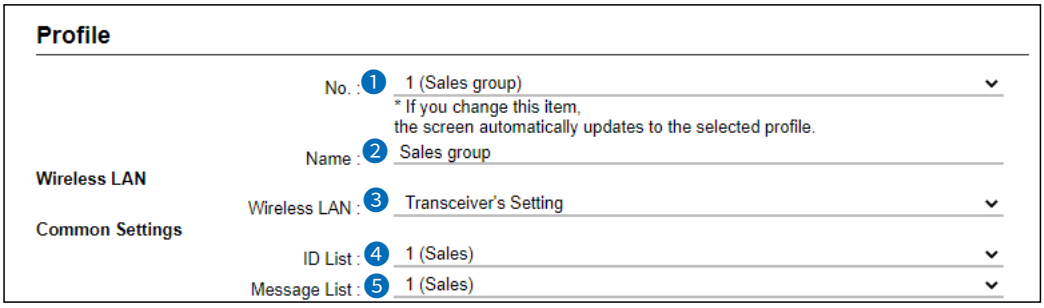
❹ **<Delete All>** ..... Click to delete all the entries.
ⓘ After clicking <Delete All>, the entries cannot be recalled.

Profile screen

Transceiver Controller > Common Settings > Profile

■ Profile

Individually assign an ID list, message list or receive notification tone to the group that the WLAN transceiver belongs to.
ⓘ After the setting is completed, you must reboot the WLAN transceiver.



❶ No. ..... Select a profile between 1 and 300, to assign to the group that WLAN transceiver belongs to.

❷ Name ..... Enter a profile name of up to 31 characters.
The profile name is displayed in [Profile List] on the [Profile] screen.

Wireless LAN

❸ Wireless LAN ..... Select the wireless LAN setting that is commonly used by the WLAN transceivers in the group. (Default: Transceiver's Setting)

- **Transceiver's Setting**
  Uses the last wireless LAN setting that was set by the CS-IP100H, CS-IP110H, or the Controller.
- **1 (Name) to 20 (Name)**
  Select a number that was entered on the [Wireless LAN] screen.

Common Settings

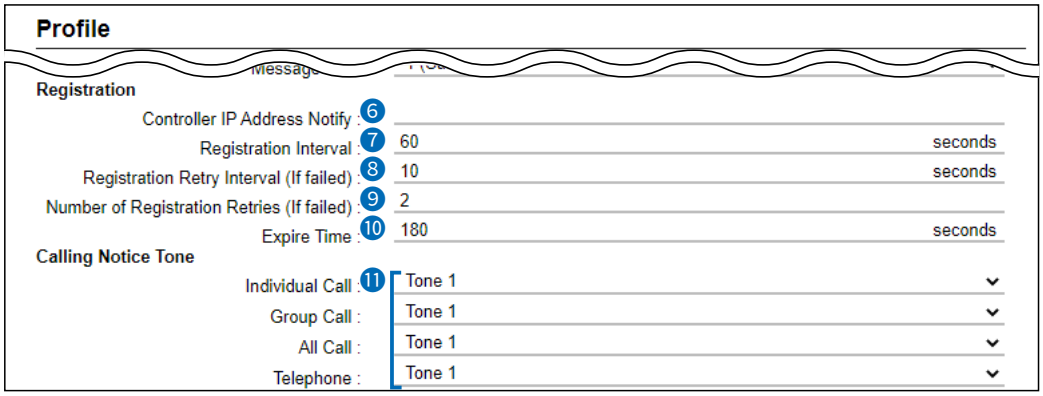
❹ ID List ..... Select an ID list that is commonly used by the WLAN transceivers in the group. (Default: Disable)
ⓘ Select an ID number that is registered on the [ID list] screen.

❺ Message List ..... Select a Message list that is commonly used by the WLAN transceivers in the group. (Default: Disable)
ⓘ Select a message number that is registered in [Messages].

Profile screen

Transceiver Controller > Common Settings > Profile

■ Profile



Registration

⑥ Controller IP Address Notify

Enter the IP address or host name of the controller that is selected as the server of WLAN transceiver.
Enter an IP address or host name of up to 63 characters.
ⓘ If you use the Controller as a server, you must not set this item.

⑦ Registration Interval .....

Enter the transmit interval for the registration information that the WLAN transceivers will use. (Default: 60)
• Range: 30 ~ 300 (seconds) in 1 second steps
ⓘ Generally use the default setting.
ⓘ When the interval period is short, and a WLAN transceiver goes out of the communication area, the WLAN transceiver registration on the Controller can be updated earlier. Therefore, if the WLAN transceiver receives an Individual call, the Controller can quickly reply “No response” as a Target availability check.

⑧ Registration Retry Interval (If failed) .....

Enter a retry interval when the WLAN transceiver fails to register to the Controller. (Default: 10)
• Range: 1 ~ 30 (seconds)

⑨ Number of Registration Retries (If failed) .....

Enter a number of registration retries if the WLAN transceiver fails to register to the Controller. (Default: 2)
• Range: 1 ~ 10

⑩ Expire Time .....

The Controller check the WLAN transceivers connection status in this interval. (Default: 180)
• Range: [Registration Interval] setting +1 ~ 900 (seconds)
ⓘ Generally use the default setting.
ⓘ You cannot set this setting to shorter than the [Registration Interval] setting.

Calling Notice Tone

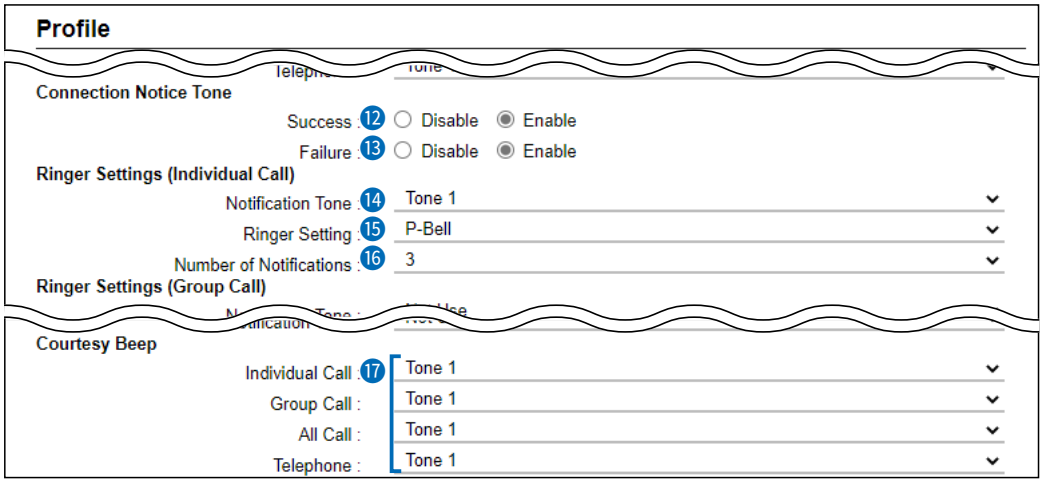
⑪ Calling Notice Tone .....

Select a notice tone for calling. (Default: Tone 1)
• Options: Not Use, or Tone 1 ~ Tone 8
ⓘ This tone can be individually assigned to each call type, “Individual Call,” “Group Call,” “All Call,” and “Telephone.”

Profile screen

Transceiver Controller > Common Settings > Profile

■ Profile



Connection Notice Tone

⑫ Success ..... Select a notice tone for a successful connection. (Default: Enable)

ⓘ When an Individual call, Message call, Status call or telephone call connection is successful, the Notice Tone sounds.

ⓘ When [Target Availability Check] on the [Transceiver Settings] screen is set to “Disable,” the Notice Tone will not sound.

⑬ Failure ..... Select a notice tone for connection failure. (Default: Enable)

ⓘ When an Individual call, Message call, Status call or telephone call connection fails, the Notice Tone sounds.

ⓘ When [Target Availability Check] on the [Transceiver Settings] screen is set to “Disable,” the Notice Tone will not sound.

Ringer Settings

⑭ Notification Tone ..... Select a notice tone when a call is received. (Default: Not Use)

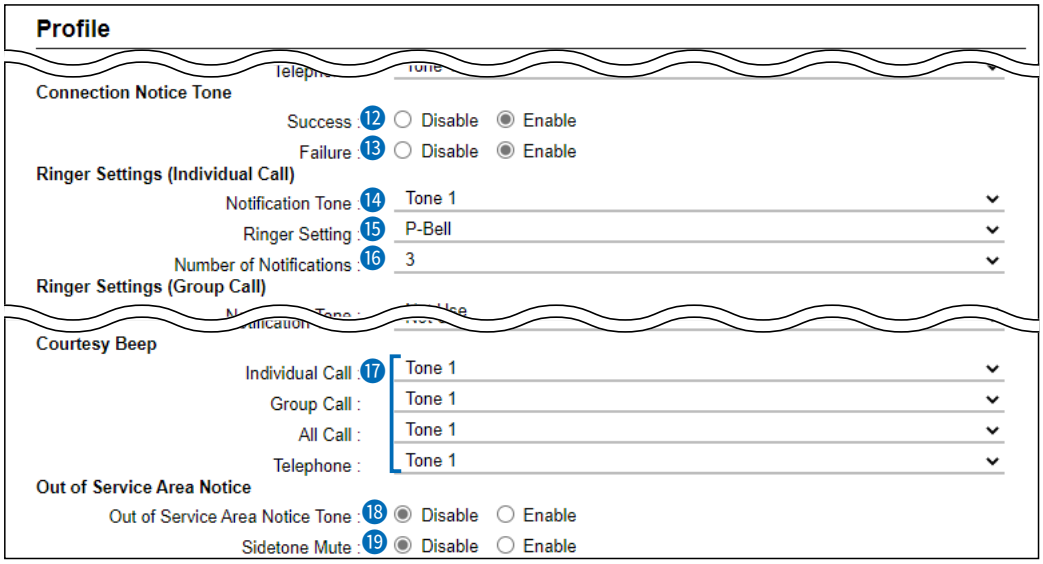
• Options: Not Use, or Tone 1 ~ Tone 8

ⓘ This tone can be individually assigned to each call type, “Individual Call,” “Group Call,” “All Call,” “Telephone,” and “Message.”

Profile screen

Transceiver Controller > Common Settings > Profile

■ Profile



Ringer Settings

15 Ringer Setting…… Select a notice type between “Pocket Beep” and “P-Bell.” (Default: P-Bell)

ⓘ This item can be selected when [Notification Tone] is set to “Tone 1” to “Tone 8.”

ⓘ You cannot select this item for a Message call.

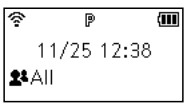
- **Pocket Beep**
  When a specified call is received, the WLAN transceiver sounds the Notification Tone, and the notification icon blinks.

- **P-Bell**
  When a specified call is received, the WLAN transceiver sounds the Notification Tone.
  The received audio is muted until you reply to the call.

ⓘ After pushing [PTT] on the WLAN transceiver, the mute will be released.
(Example: IP110H)

Blinks

When the Pocket Beep is active



When the P-Bell is ON

16 Number of Notifications … Select a notification number of “Continuous.” (Default: 3)

- Options: 1, 3, 10, or 20

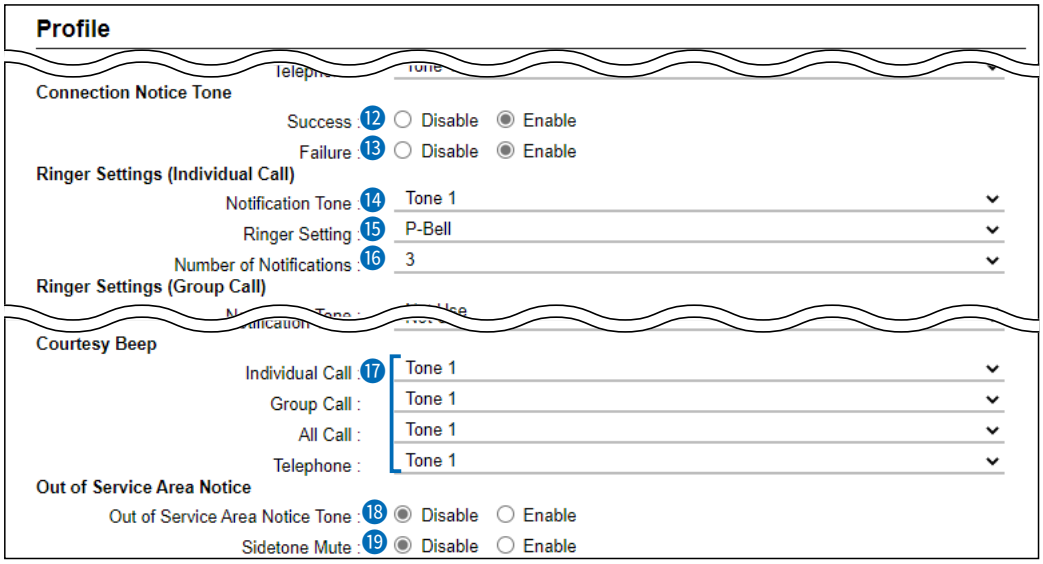
ⓘ You can select this item when [Notification Tone] is set to “Tone 1” to “Tone 8.”

ⓘ You cannot select this item for a Message call.

Profile screen

Transceiver Controller > Common Settings > Profile

■ Profile



Courtesy Beep

⑰ Courtesy Beep ..... Select a Notice Tone when a received call is finished. (Default: Tone 1)

- ⓘ This tone can be individually assigned to each call type, “Individual Call,” “Group Call,” “All Call,” and “Telephone.”
- ⓘ You can select “Not Use” or “Tone 1” to “Tone 8.”
- ⓘ After each received call is completed, the WLAN transceiver will sound the specified tone.

Out of Service Area Notice

⑱ Out of Service Area Notice Tone ..... Select whether or not the WLAN transceiver sounds the Out of Service Area Notice Tone. (Default: Disable)
When “Enable” is selected, the WLAN transceiver sounds the Notice Tone when it goes out the service area or returns to the service area.

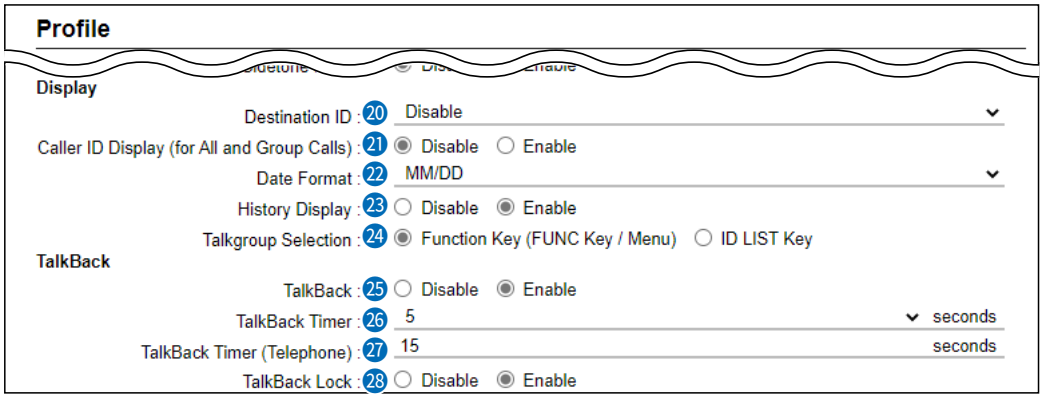
⑲ Sidetone Mute..... Select whether or not the WLAN transceiver uses the Sidetone Mute function. (Default: Disable)
When “Enable” is selected, the WLAN transceiver mutes the sidetone or monitor audio when it goes out the service area. At that time, you cannot hear your voice from a headset or earphone speaker.

- ⓘ When “Monitor” or “Sidetone” is set to “Disable” in the Transceiver Settings menu, this function is not activated.

Profile screen

Transceiver Controller > Common Settings > Profile

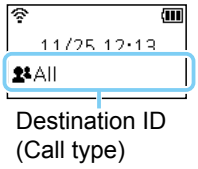
■ Profile



Display

20 Destination ID .....

Select a destination ID that will be displayed after returning to the standby mode. (Default: Disable)



- **Disable:** Displays the destination ID or call type that is specified in [Destination ID] on the [Transceiver Settings] screen.
- **Transmit:** Displays the IDs that the WLAN transceiver recently called.
- **Transmit and Receive:** Displays either IDs that the WLAN transceiver recently called or was called by.
- **All Operations:** Displays either IDs that the WLAN transceiver recently called, was called by or displays the ID list/ History.

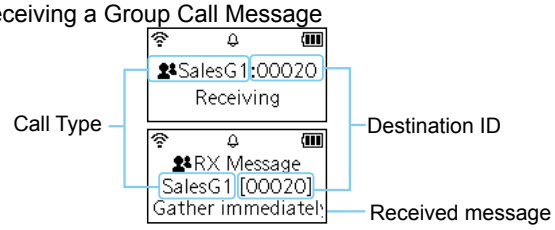
21 Caller ID Display (for All and Group Calls) ...

Select whether or not the WLAN transceiver displays the Caller ID in the All call or Group call. (Default: Disable)

- **Disable**: When the WLAN transceiver or IP100FS receives an All call or Group call, only the Call type is displayed.
- **Enable:** When the WLAN transceiver or IP100FS receives an All call or Group call, both Call type and Caller ID are displayed.

(Example: IP110H)

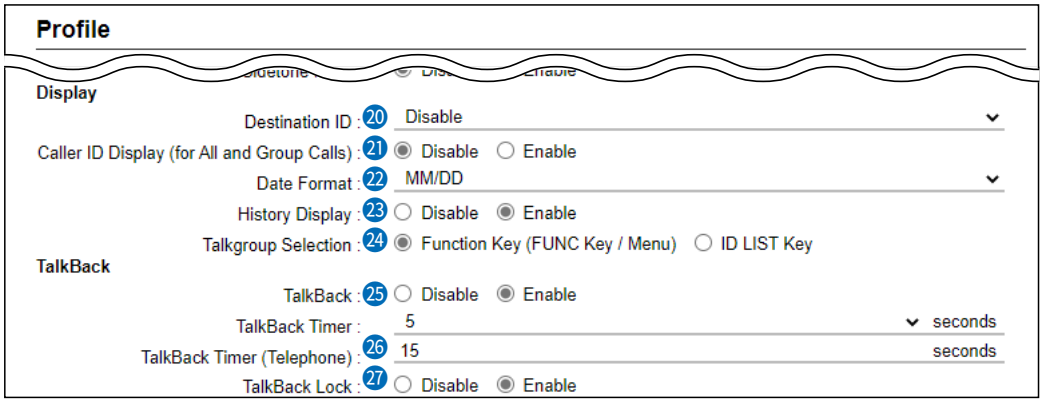
Receiving a Group Call Message



Profile screen

Transceiver Controller > Common Settings > Profile

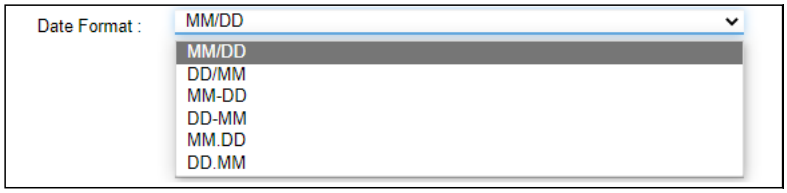
■ Profile



Display

22 Date Format..... Select a date format to display on the WLAN transceiver's standby screen. (Default: MM/DD)

You can select "MM/DD," "DD/MM," "MM-DD," "DD-MM," "MM.DD," or "DD. MM." (MM: Month, DD: Day)



23 History Display ..... Set the call history display. (Default: Enable)

- **Disable:** Call histories are not displayed on the WLAN transceiver.
- **Enable:** Call histories are displayed on the WLAN transceiver by pushing the [📖] key on the IP100H or the menu operation on the IP110H.

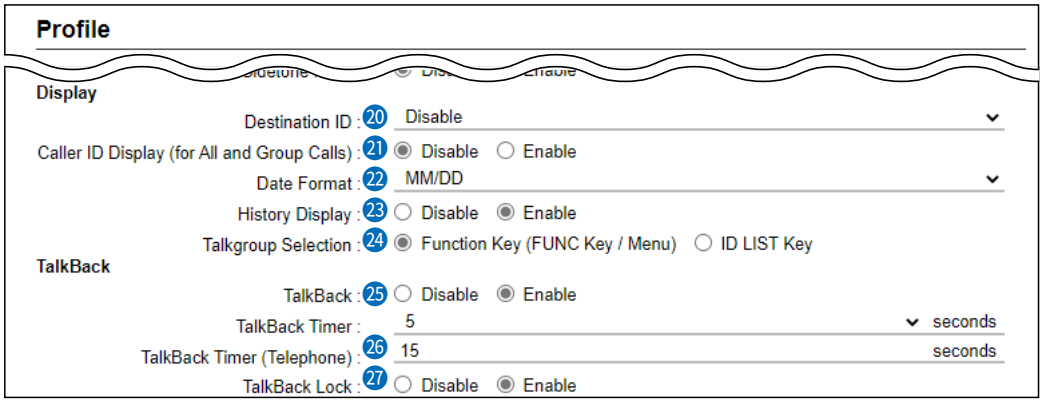
24 Talkgroup Selection ..... Set the key to select the Talkgroup. (Default: Function Key (FUNC Key / Menu))

- **Function Key (FUNC Key / Menu):** Select the Talkgroup by pushing the [FUNC] key on the IP100H or the menu operation on the IP110H.
- **ID LIST Key:** Select the Talkgroup by pushing the [📖] key on the IP100H or by pushing the [📖 CLR] on the IP110H.

Profile screen

Transceiver Controller > Common Settings > Profile

■ Profile



TalkBack

25 TalkBack ..... Select whether or not to use the TalkBack timer. (Default: Enable)
If enabled, enter a time to [TalkBack Timer] between 1 and 30 seconds that the WLAN transceiver will return to the standby mode after a received signal disappears. (Default: 5)

ⓘ When “Disable” is selected, the WLAN transceiver returns to the standby mode (standby screen) as soon as the status indicator goes out.

26 TalkBack Timer (Telephone) Enter a time between 0 and 600 seconds that the WLAN transceiver will return to the standby mode after a received signal from a telephone disappears. (Default: 15)

ⓘ When “0” is selected, the TalkBack timer (Telephone) is disabled. In that case, the connection does not terminate until the telephone hangs up, or the WLAN transceiver terminates the call by pushing the [Option] key or Programmable key.

27 TalkBack Lock ..... Select whether or not to accept a new call during the TalkBack timer is active.

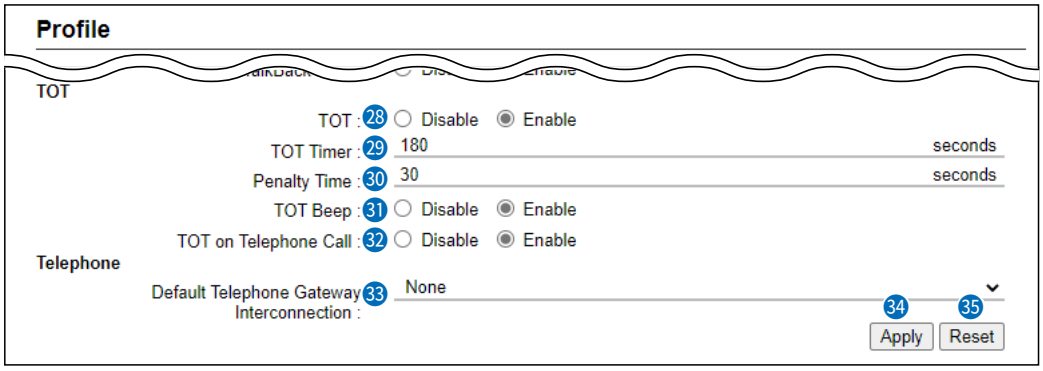
(Default: Enable)

- **Enable:** The WLAN transceiver accepts a new call only if it is a higher priority than the terminated call and refuses calls with the same priority or lower than the terminated call until the TalkBack Timer expires.
- **Disable:** Accepts a new call regardless of the TalkBack timer status.

Profile screen

Transceiver Controller > Common Settings > Profile

■ Profile



TOT

28 TOT ..... Select whether or not the WLAN transceiver uses the Time-out timer. (Default: Disable)

ⓘ When “Enable” is selected, the [TOT Timer], [Penalty Timer], [TOT Beep], [TOT on Telephone Call] are displayed.

ⓘ This function is useful when the WLAN transceiver’s PTT switch has accidentally been held down.

29 TOT Timer ..... Set the Time-out timer. The timer limits the WLAN transceiver’s continuous transmission. (Default: 180)

• Range: 11 and 600 (seconds)

ⓘ When the period of time has passed, transmitting automatically stops.

30 Penalty Time ..... Set the TOT Penalty time. After the [TOT Timer] period ends, the TOT Penalty timer starts and inhibits the user from transmitting during the penalty period. (Default: 30)

• Range: 1 ~ 600 (seconds)

31 TOT Beep ..... Select whether or not the WLAN transceiver uses the TOT beep function. (Default: Enable)

ⓘ When “Enable” is selected, a beep sounds 10 seconds before the period of time that is set in the [TOT Timer] ends.

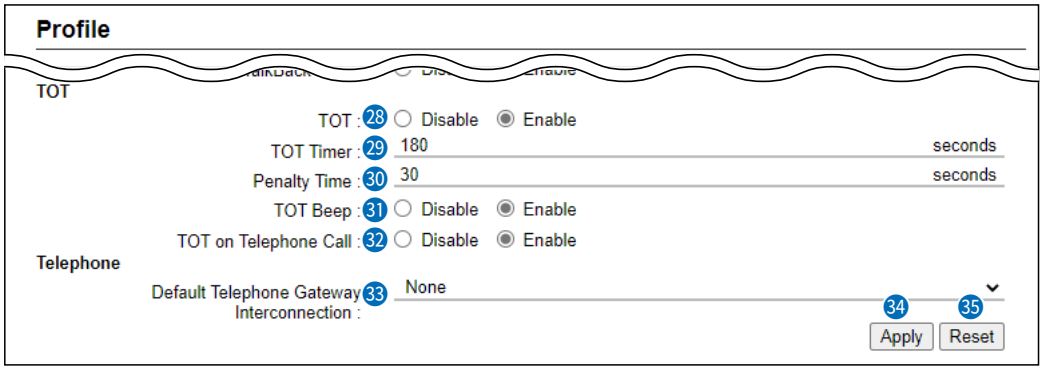
32 TOT on Telephone Call..... Select whether or not the WLAN transceiver uses the Time-out timer on Telephone Call. (Default: Enable)

ⓘ When “Disable” is set, transmitting does not stop, even if the period of time that is set in the [TOT Timer] has passed during a telephone call.

Profile screen

Transceiver Controller > Common Settings > Profile

■ Profile



Telephone

33 Default Telephone Gateway Interconnection ..... When the WLAN transceiver make a Telephone call and the callee phone number is not registered its Telephone Gateway Interconnection in the [Destination Settings] screen on the [Destination Settings] menu, the Controller uses this default Telephone Gateway Interconnection. (p.6-13) (Default: None)
Selectable number or group number are only registered in the [Destination Settings] screen on the [Destination Settings] menu.

34 <Apply> ..... Click to apply the entries.

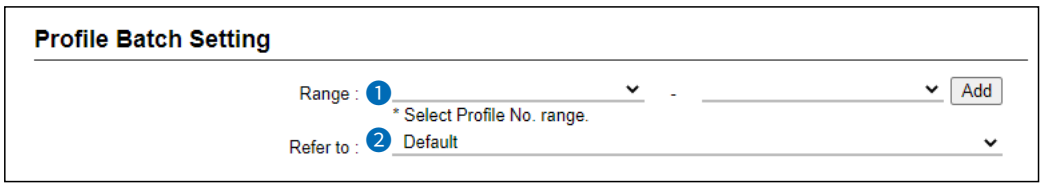
35 <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

Profile screen

Transceiver Controller > Common Settings > Profile

■ Profile Batch Setting

You can register consecutive Profiles collectively. Or you can copy the Profile contents to the other Profile.



❶Range ..... Sets a range of collective Profiles.

Click <Add> to register consecutive Profiles collectively.
ⓘ If a Profile is already registered, “Overwrite the entry” is displayed.

❷Refer to..... Selects the default settings or the programmed settings to refer to.
(Default: Default)

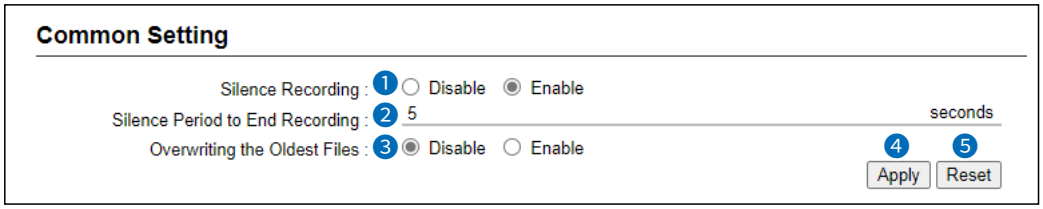
Call Recording screen

Transceiver Controller > Call Recording

■ Common Setting

Set for recording the audio communication between the transceivers.
The audio is saved in a file in each transmitting or receiving.

NOTE: To record the communication audio, A USB flash must be connected to the [USB] port of the Controller.



❶ Silence Recording ..... Select whether or not to record a communication during there is no communication.
When enabling this option, the Controller continues recording for the set period of time in “Silence Period to End Recording,” after the communication has been terminated.
The second communication that begins while recording will be continuously recorded within the same file. (Default: Enable)

❷ Silence Period to End Recording Set the period of time to stop recording when there is no communication. (Default: 5)
• Range: 1 ~ 30 seconds

❸ Overwriting the Oldest Files Select whether or not to record and overwrite the older data, when the disk is full. (Default: Disable)

❹ <Apply> ..... Click to apply the settings.

❺ <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

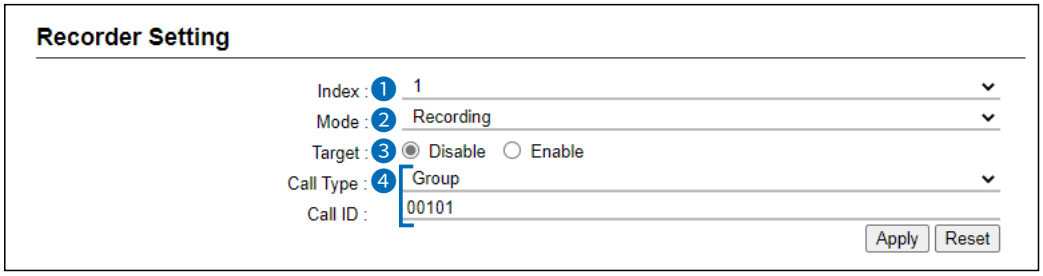
Call Recording screen

Transceiver Controller > Call Recording

■ Recorder Setting

Records communication audio of the linked transceivers.

Target: Disable



ⓘ This is an example when the [Call Type] is set to “Group.”

Target: Enable

1 Index ..... Select an index. You can enter up to 4 recording boxes. (Default: 1)

2 Mode ..... Select the recording/monitor mode. (Default: Disable)

- **Disable**: Does not record or monitors communication audio.
- **Recording**: Records the communication audio to an external storage device.
- **Monitor**: Outputs the specified communication audio to a particular port.
- **Monitor + Recording**: Simultaneously records and monitors.

3 Target ..... Select whether or not to set WLAN transceivers as recording targets. When enabling this option, select a target WLAN transceiver in Unit ID. (Default: Disable)

ⓘ When the target transceiver is deleted on the Transceiver Registration screen, the recording settings are disabled.
(Transceiver Controller > Transceiver Settings > Transceiver Registration)

4 Call Type ..... Select the type of call to record or monitor. (Default: All)

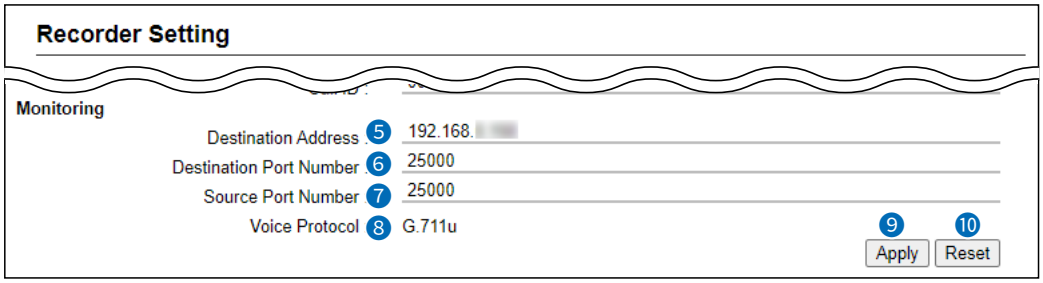
- **Individual**: Individual Calls from or to the specified Call ID.
- **Group**: Group Calls to the specified Group.
- **All**: The All Calls.

ⓘ When you select “Individual” or “Group,” also set the Call ID from the list.

Call Recording screen

Transceiver Controller > Call Recording

■ Recorder Setting



ⓘ The Monitoring items are displayed when [Mode] is set to “Monitor” or “Monitor + Recording.”

Monitoring

5 Destination Address ..... Enter the IP address of the destination to be monitored.

6 Destination Port Number Enter the port number of the destination to be monitored.
(Default: 1: 25000
2: 25002
3: 25004
4: 25006)

7 Source Port Number ..... Enter the number of the source port that is connected to the destination to be monitored. (Default: 1: 25000
2: 25002
3: 25004
4: 25006)

8 Voice Protocol ..... Displays the voice protocol. (Fixed to “G.711u”)

9 <Apply> ..... Click to apply the settings.

10 <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

Call Recording screen

Transceiver Controller > Call Recording

■ List of Recording Box Entries

Displays the recording box entries.

List of Recording Box Entries

Index	Mode	Unit ID	Call Type	Call ID	Destination Address	Destination Port Number	Source Port Number	Voice Protocol
1	Recording	00101 (Sales1)	-	-	-	-	-	-
2	Monitor + Recording	00103 (Sales3)	-	-	192.168.0.10	25002	25002	G.711u
3	Disable	-	-	-	-	-	-	-
4	Disable	-	-	-	-	-	-	-

The example in above shows:
1: Recording the communication of the Unit ID 00101.
2: Transmitting the communication audio of the Unit ID 00103 toward the port 25002 of 192.168.0.10 while recording it.

DESTINATION SETTINGS

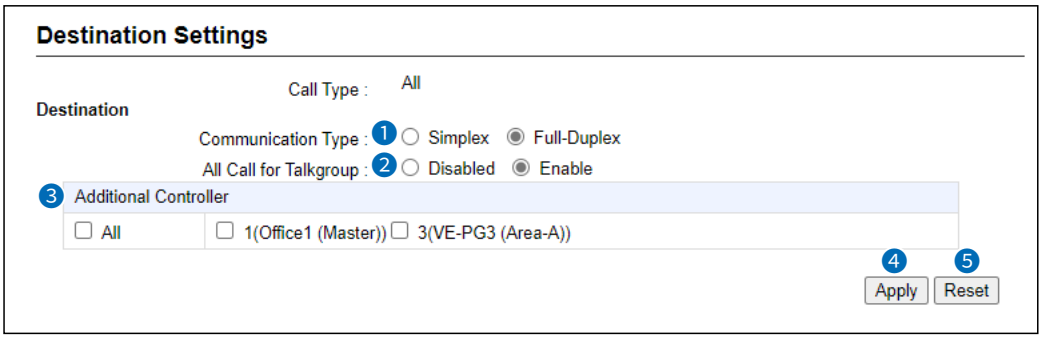
Section 6

Destination Settings screen

Destination Settings > Destination Settings

■ Destination Settings (All)

The settings to call all the registered WLAN transceivers and IP100FS.
If necessary, you can include other bases connections.
ⓘ This screen is displayed when clicking <Edit> of [List of Destination Setting Entries (All Call)].



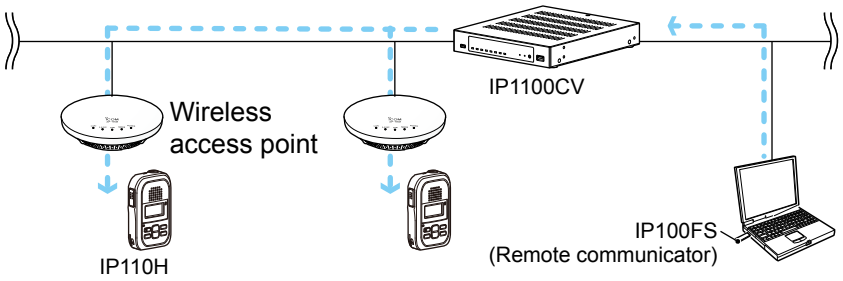
ⓘ This is an example of setting “All” as [Call Type].

Destination

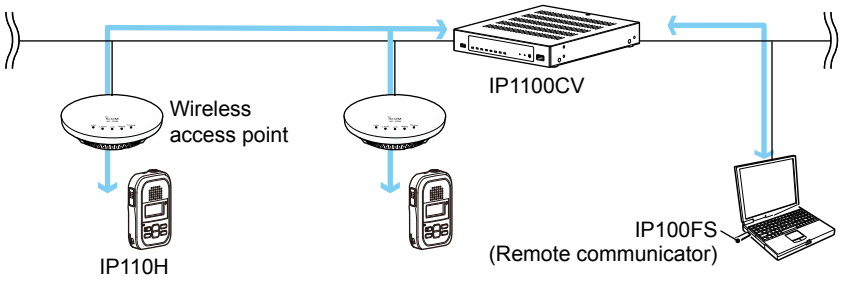
❶ Communication Type …… Select “Simplex” or “Full-Duplex.” (Default: Full-Duplex)

- **Simplex operation**

ⓘ When “Simplex” is selected, the called station cannot reply until the caller station stops transmitting.



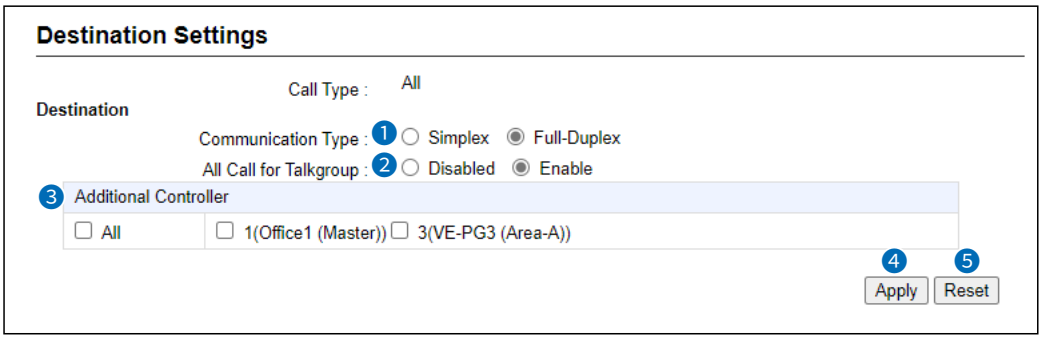
- **Full-Duplex operation**



Destination Settings screen

Destination Settings > Destination Settings

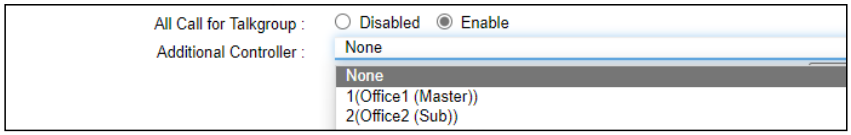
■ Destination Settings (All)



ⓘ This is an example of setting “All” as [Call Type].

❷ All Call for Talkgroup ..... Select whether or not the All call includes the WLAN transceivers and IP100FS that belong to the Talkgroup. (Default: Enable)

❸ Additional Controller ..... Select the additional controller when configuring several controllers, and the All call calls between the different controllers.
ⓘ By clicking “All,” you can select or cancel all entries in the list.
ⓘ When “Sub” is selected in the [Additional Controller Settings] setting (Transceiver Controller > RoIP Settings > Additional Controller Settings), specify the master controller as the connection destination, as shown below.



❹ <Apply> ..... Click to apply the entries.
ⓘ The registered contents are displayed in [List of Destination Setting Entries (All Call)].

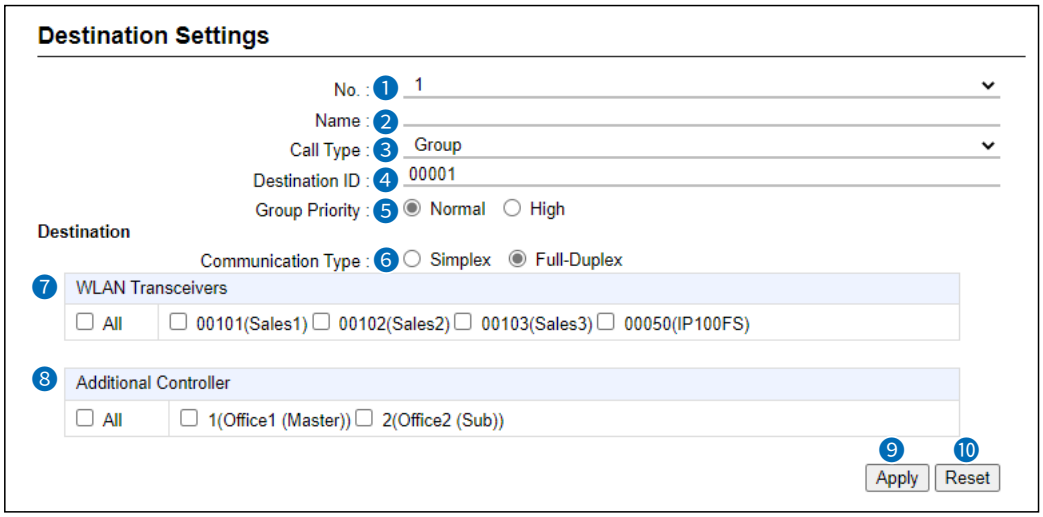
❺ <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>

Destination Settings screen

Destination Settings > Destination Settings

■ Destination Settings (Group)

The settings to call the registered group through the IP network.
ⓘ The displayed contents are changed according to [Call Type] setting.



ⓘ This is an example of setting “Group” as [Call Type].

1 No. ..... Select the number to register the destination Group.
Up to 1990 destinations can be registered.

2 Name ..... Enter a destination name of up to 31 characters.

3 Call Type ..... Select “Group” for Group calls.

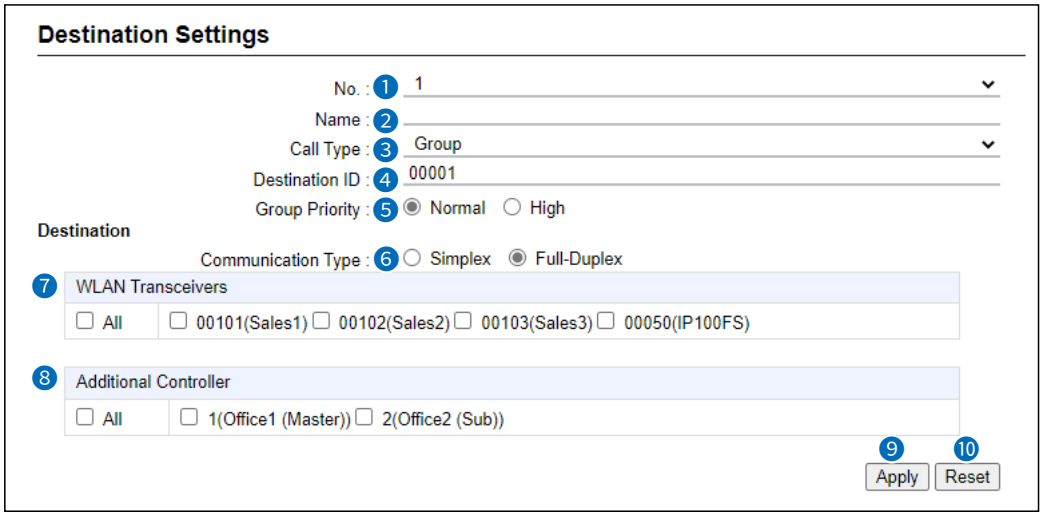
4 Destination ID ..... Enter a destination number.
• Range: 00001 ~ 60000

5 Group Priority ..... Select “Normal” or “High” to set the priority in the Group call.
(Default: Normal)
ⓘ This item can be selected when [Call Type] is set to “Group.”

Destination Settings screen

Destination Settings > Destination Settings

■ Destination Settings (Group)



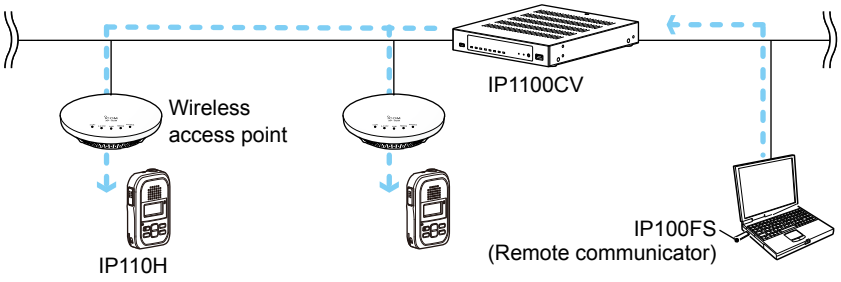
ⓘ This is an example of setting “Group” as [Call Type].

Destination

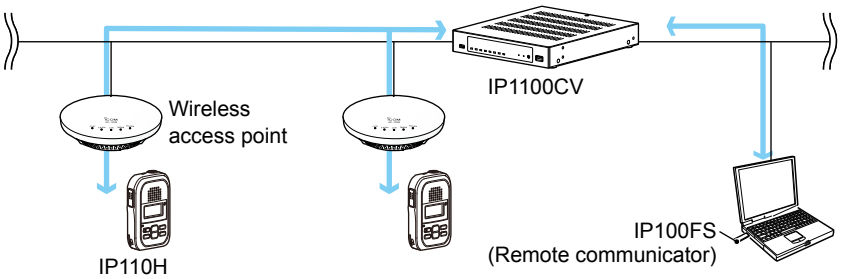
6 Communication Type …… Select “Simplex” or “Full-Duplex.” (Default: Full-Duplex)

- **Simplex operation**

ⓘ When “Simplex” is selected, the called station cannot reply until the caller station stops transmitting.



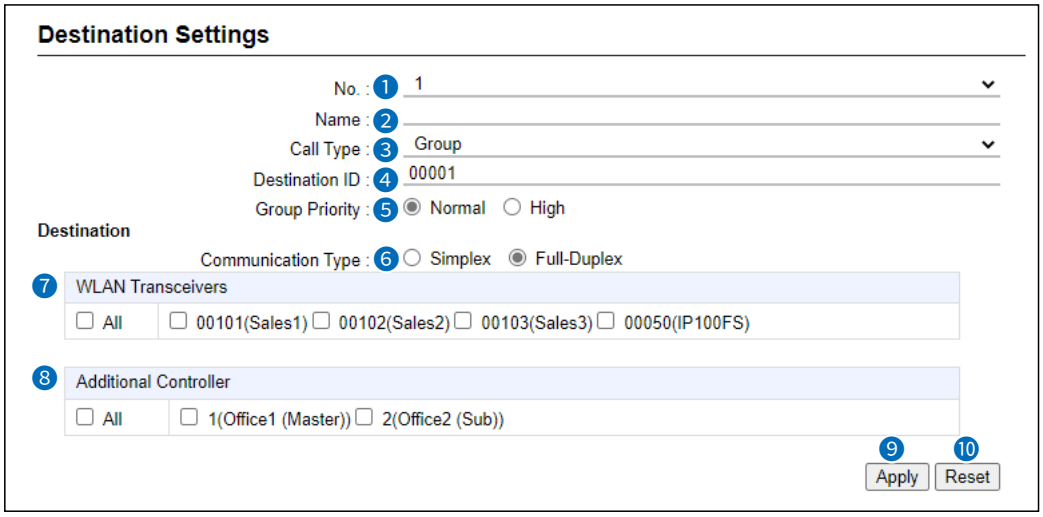
- **Full-Duplex operation**



Destination Settings screen

Destination Settings > Destination Settings

■ Destination Settings (Group)



ⓘ This is an example of setting “Group” as [Call Type].

7 WLAN Transceivers ..... Select the WLAN transceivers and IP100FS that belong the group from the list.

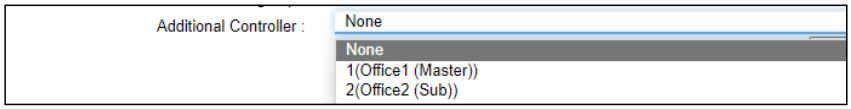
ⓘ The WLAN transceivers and IP100FS added in [Transceiver Registration] are displayed.

ⓘ By clicking “All,” you can select or cancel all at once.

8 Additional Controller ..... Select the additional controller when configuring several controllers, and the Group call calls between the different controllers.

ⓘ By clicking “All,” you can select or cancel all entries in the list.

ⓘ When “Sub” is selected in the [Additional Controller Settings] setting (Transceiver Controller > RoIP Settings > Additional Controller Settings), specify the master controller as the connection destination, as shown below.



9 <Apply> ..... Click to apply the entries.

ⓘ The registered contents are displayed in [List of Destination Setting Entries (Group Call)].

10 <Reset> ..... Click to reset the settings.

ⓘ You cannot reset after clicking <Apply>.

NOTE: When using the Additional Controller Link function, set the other bases to be paired in the [Area Entry List] setting (Transceiver Controller > RoIP Server Settings > Area Call > Area Entry List).
For example, in case of the destination setting of Group 1 in the Additional Controller 1 is set to Additional Controller 2, the destination setting of Group 1 in the Additional Controller 2 must be set to Additional Controller 1.

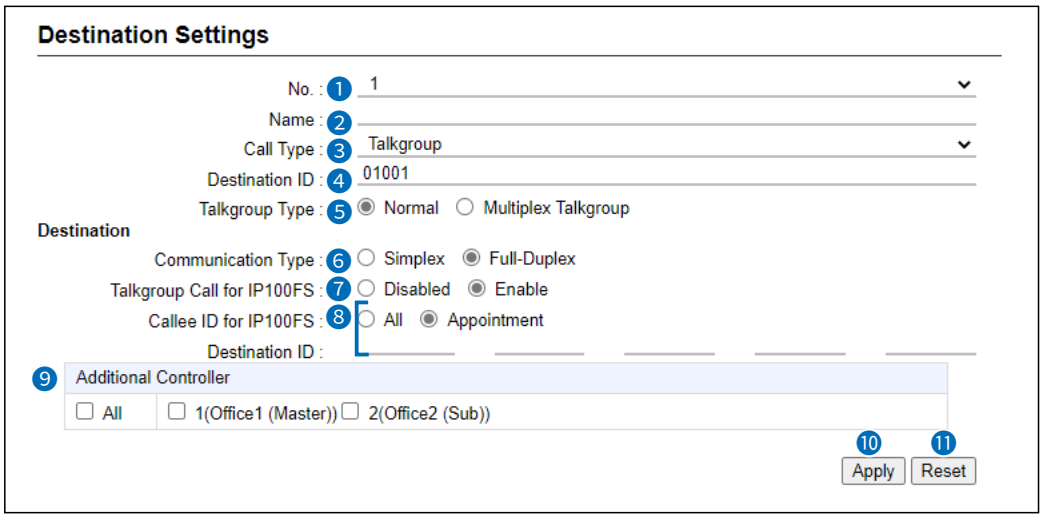
ⓘ The same applies in the case when the connection configuration between the other bases consists of the master controller and the multiple sub controllers.

Destination Settings screen

Destination Settings > Destination Settings

■ Destination Settings (Talkgroup)

The settings to call the registered Talkgroup through the IP network.
ⓘ The displayed contents are changed according to [Call Type] setting.



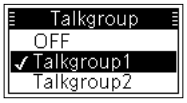
ⓘ This is an example of setting “Talkgroup” as [Call Type] and “Appointment” as [Callee ID for IP100FS].

1 No. ..... Select the number to register the destination Talkgroup.
Up to 1990 destinations can be registered.

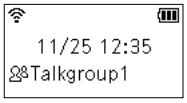
2 Name ..... Enter a destination name of up to 31 characters.

3 Call Type ..... Select “Talkgroup” for Talkgroup calls.

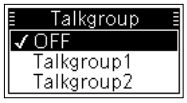
4 Destination ID ..... Enter a destination number.
• Range: 00001 ~ 60000
ⓘ This number must also be registered in the [ID List] setting (Transceiver Controller > Common Settings > ID List > ID List).
ⓘ When “Function Key (FUNC Key / Menu)” in the [Talkgroup Selection] setting (Transceiver Controller > Common Settings > Profile > Profile > Talkgroup Selection) is selected, the WLAN transceiver can call to members in the same Talkgroup.
Select “OFF” on the WLAN transceiver to return to the usual standby mode screen.
(Example: IP110H)



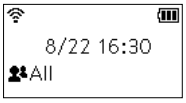
Talkgroup selected



Talkgroup selected Standby screen



Talkgroup OFF

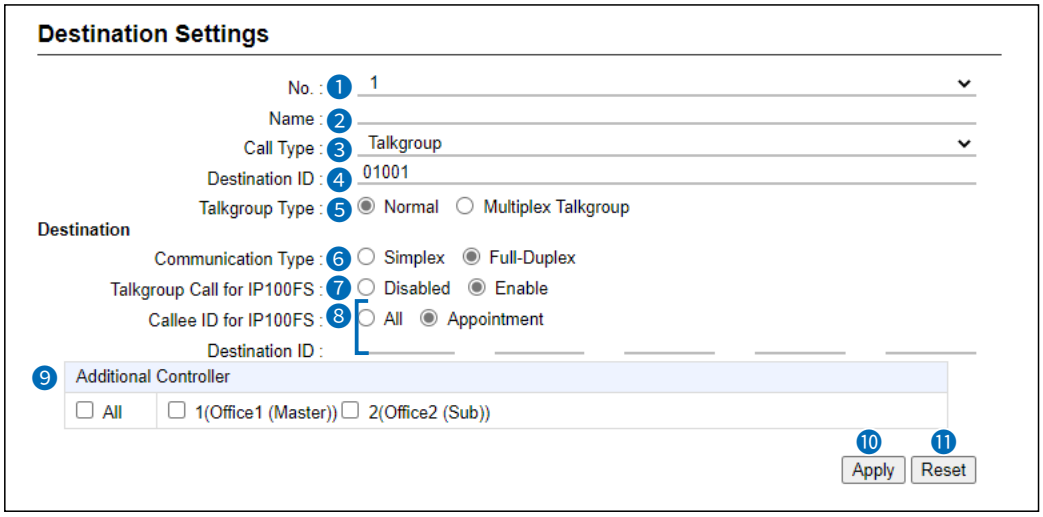


Talkgroup OFF Standby screen

Destination Settings screen

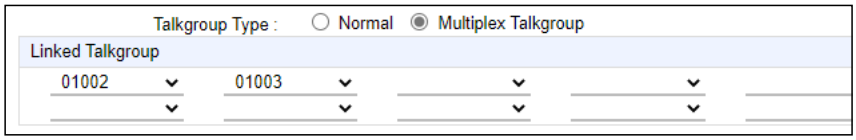
Destination Settings > Destination Settings

■ Destination Settings (Talkgroup)



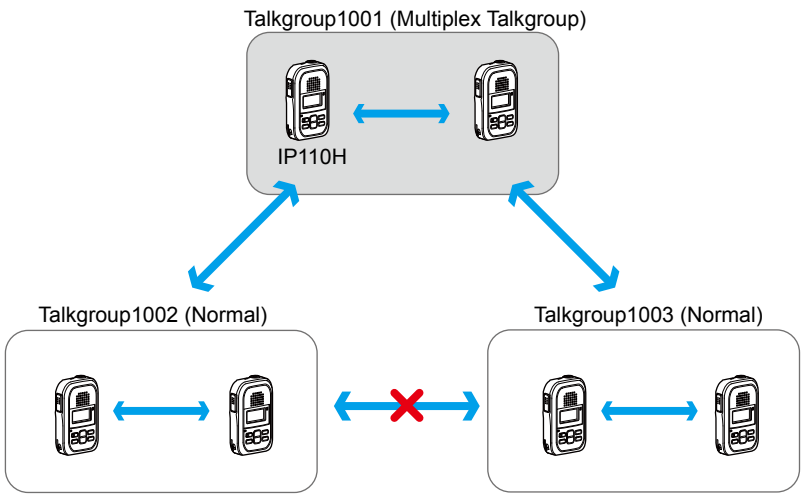
ⓘ This is an example of setting “Talkgroup” as [Call Type] and “Appointment” as [Callee ID for IP100FS].

5 Talkgroup Type ..... When “Multiplex Talkgroup” is selected, you can talk to multiple Talkgroups.



ⓘ This setting can be selected when [Call Type] is set to “Talkgroup.”
ⓘ You cannot register the Multiplex Talkgroup in other Multiplex Talkgroups.
ⓘ The normal Talkgroup can only belong to 1 Multiplex Talkgroup.

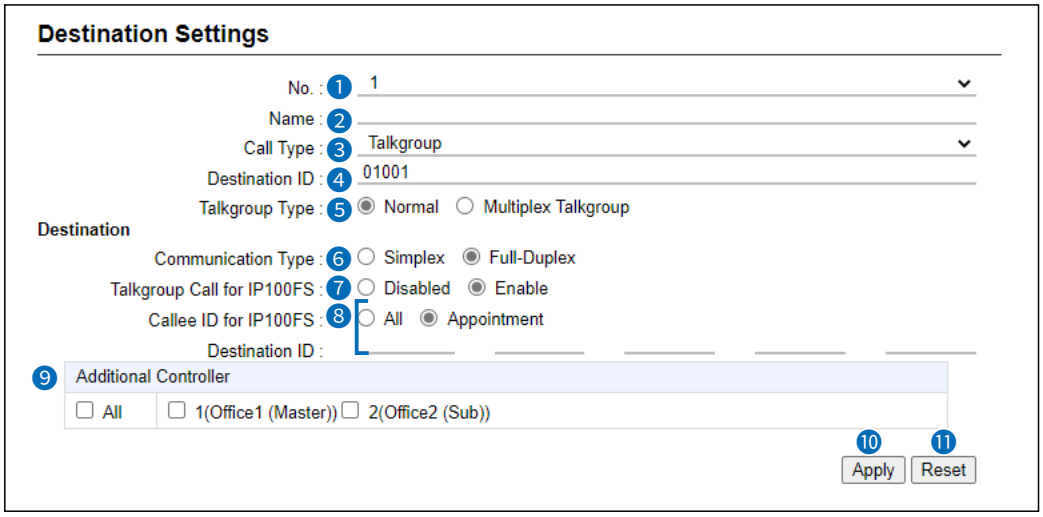
Example: When Talkgroup1002 (Normal) and Talkgroup1003 (Normal) belong to Talkgroup1001 (Multiplex).
- Talkgroup1001 can call to Talkgroup1001, Talkgroup1002, and Talkgroup1003.
- Talkgroup1002 can call to Talkgroup1001 and Talkgroup1002.
- Talkgroup1003 can call to Talkgroup1001 and Talkgroup1003.



Destination Settings screen

Destination Settings > Destination Settings

■ Destination Settings (Talkgroup)



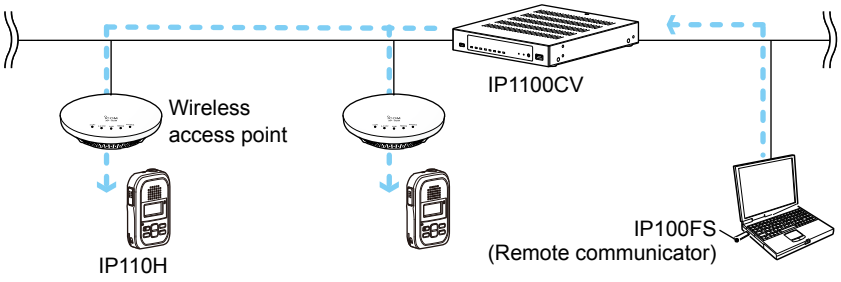
ⓘ This is an example of setting “Talkgroup” as [Call Type] and “Appointment” as [Callee ID for IP100FS].

Destination

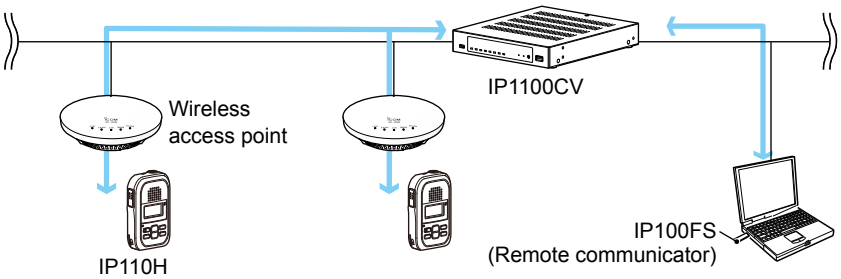
6 Communication Type …… Select “Simplex” or “Full-Duplex.” (Default: Full-Duplex)

- **Simplex operation**

ⓘ When “Simplex” is selected, the called station cannot reply until the caller station stops transmitting.



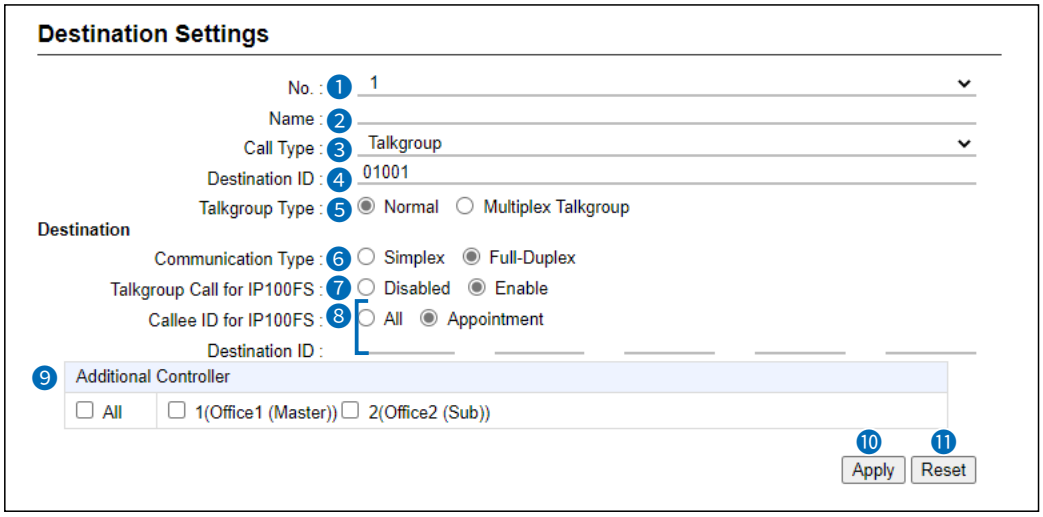
- **Full-Duplex operation**



Destination Settings screen

Destination Settings > Destination Settings

■ Destination Settings (Talkgroup)



ⓘ This is an example of setting “Talkgroup” as [Call Type] and “Appointment” as [Callee ID for IP100FS].

Destination

7 Talkgroup Call for IP100FS Select whether or not the Talkgroup Call includes the IP100FS. (Default: Enable)

8 Callee ID for IP100FS …… Select the IP100FS to be called when “Enable” is selected in [Talkgroup Call for IP100FS]. (Default: All)

ⓘ When “Appointment” is selected, you can register up to 5 IP100FS’s destination IDs (00001 ~ 60000).

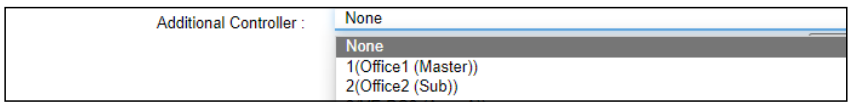
ⓘ This item is displayed only when [Talkgroup Call for IP100FS] is set to “Disabled.”

ⓘ In the Multiplex Talkgroup, the settings for the IP100FS must be the same for all the Talkgroups.

9 Additional Controller …… Select the additional controller when configuring several controllers, and the Talkgroup call calls between the different controllers.

ⓘ By clicking “All,” you can select or cancel all entries in the list.

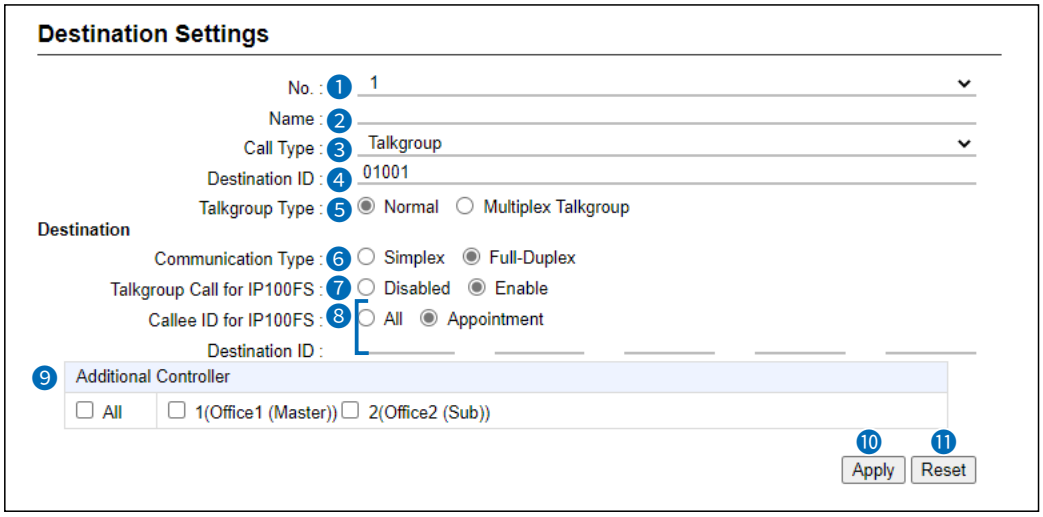
ⓘ When “Sub” is selected in the [Additional Controller Settings] setting (Transceiver Controller > RoIP Settings > Additional Controller Settings), specify the master controller as the connection destination, as shown below.



Destination Settings screen

Destination Settings > Destination Settings

■ Destination Settings (Talkgroup)



ⓘ This is an example of setting “Talkgroup” as [Call Type] and “Appointment” as [Callee ID for IP100FS].

⑩ **<Apply>** ..... Click to apply the entries.

• **When [Talkgroup Type] is set to “Normal”:**
The entries are displayed in [List of Destination Setting Entries (Talkgroup Call)].

• **When [Talkgroup Type] is set to “Multiplex Talkgroup”:**
The entries are displayed in [List of Destination Setting Entries (Multiplex Talkgroup Call)].

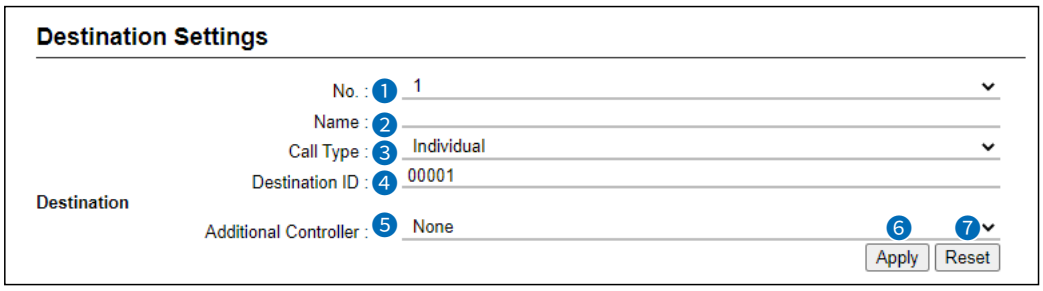
⑪ **<Reset>** ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

Destination Settings screen

Destination Settings > Destination Settings

■ Destination Settings (Individual)

The settings to call the registered destination station through the IP network.
ⓘ The displayed contents are changed according to [Call Type] setting.



ⓘ This is an example of setting “Individual” as [Call Type].

❶ No. ..... Select the number to register the destination station.
Up to 1990 destinations can be registered.

❷ Name ..... Enter a destination name of up to 31 characters.

❸ Call Type ..... Select “Individual” for Individual calls.

❹ Destination ID ..... Enter a destination number.
• Range: 00001 ~ 60000

Destination
❺ Additional Controller ..... Select the additional controller when configuring several controllers, and the Individual call calls between the different controllers.

❻ <Apply> ..... Click to apply the entries.
ⓘ The registered contents are displayed in [List of Destination Setting Entries (Individual Call)].

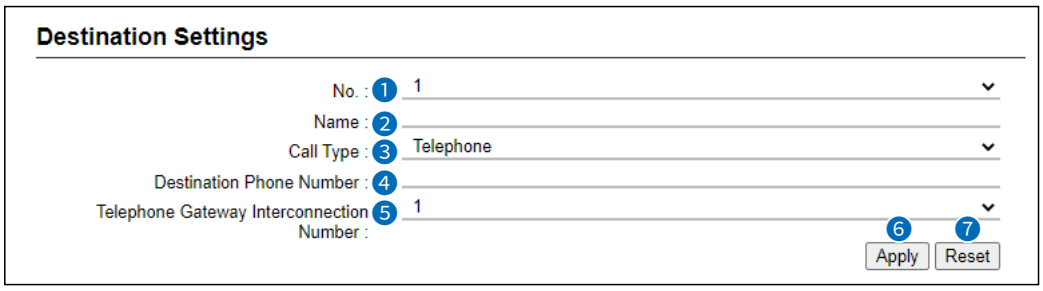
❼ <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

Destination Settings screen

Destination Settings > Destination Settings

■ Destination Settings (Telephone)

The settings to call the registered telephone through the IP network.
ⓘ The displayed contents are changed according to [Call Type] setting.



ⓘ This is an example of setting “Telephone” as [Call Type].

1 No. ..... Select the number to register the destination station.
Up to 1990 destinations can be registered.

2 Name ..... Enter a destination name of up to 31 characters.

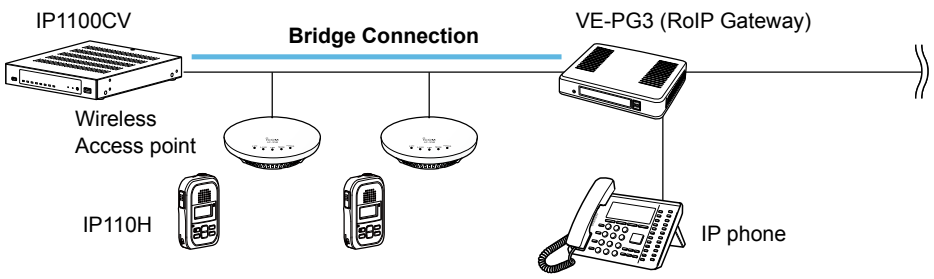
3 Call Type ..... Select “Telephone” for Telephone calls.
ⓘ This Call Type includes the transceivers connected by the Bridge Connection through a VE-PG3.

4 Destination Phone Number Enter a destination phone number of up to 31 digit numbers and characters (# or *).

5 Telephone Gateway Interconnection Number ... Select the bridge connection device (VE-PG3) to call the IP phone.
ⓘ It is necessary to complete the bridge connection setting between the Controller and the VE-PG3s that are registered in the [Telephone Gateway Interconnect] screen on the [RoIP Server Setting] menu.

6 <Apply> ..... Click to apply the entries.
ⓘ The registered contents are displayed in [List of Destination Setting Entries (Telephone)].

7 <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.



Destination Settings screen

Destination Settings > Destination Settings

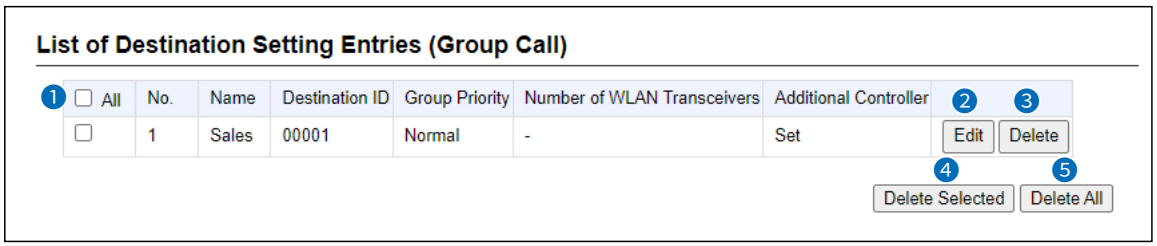
■ List of Destination Setting Entries (All Call)

Lists the destination setting entries for All Calls.
ⓘ Click <Edit> to edit the entry.

Destination Settings > Destination Settings

■ List of Destination Setting Entries (Group Call)

Lists the destination setting entries for Group Calls.



❶Check Box ..... Click to add a check mark to delete the entry.
ⓘ By clicking <All>, you can select or cancel all the entries.

❷<Edit> ..... Click to edit the entry.

❸<Delete> ..... Click to delete the entry.
ⓘ You cannot restore after clicking <Delete>.

❹<Delete Selected> ..... Click to delete the selected entries.
ⓘ You cannot restore after clicking <Delete Selected>.

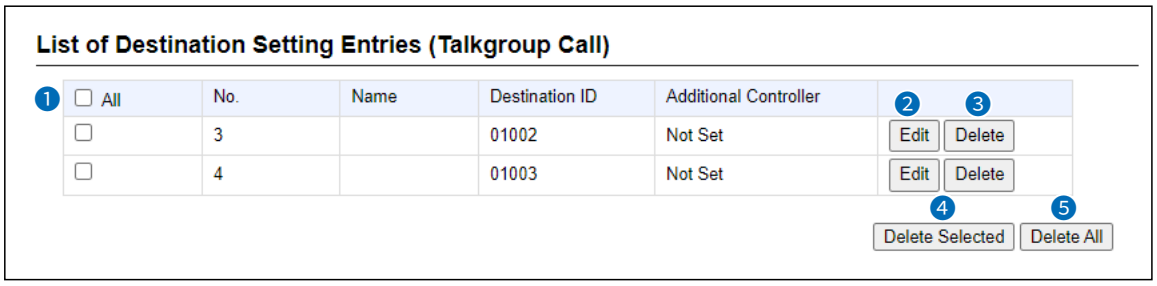
❺<Delete All> ..... Click to delete all of the entries.
ⓘ You cannot restore after clicking <Delete All>.

Destination Settings screen

Destination Settings > Destination Settings

■ List of Destination Setting Entries (Talkgroup Call)

Lists the destination setting entries for Talkgroup Calls.



❶ Check Box ..... Click to add a check mark to delete the entry.
ⓘ By clicking <All>, you can select or cancel all the entries.

❷ <Edit> ..... Click to edit the entry.

❸ <Delete> ..... Click to delete the entry.
ⓘ You cannot restore after clicking <Delete>.

❹ <Delete Selected> ..... Click to delete the selected entries.
ⓘ You cannot restore after clicking <Delete Selected>.

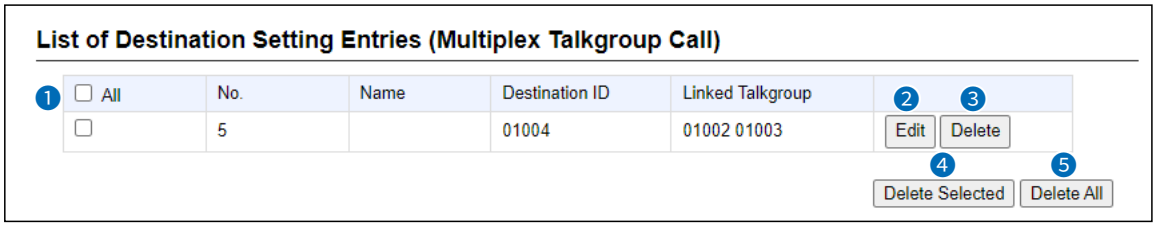
❺ <Delete All> ..... Click to delete all of the entries.
ⓘ You cannot restore after clicking <Delete All>.

Destination Settings screen

Destination Settings > Destination Settings

■ List of Destination Setting Entries (Multiplex Talkgroup Call)

Lists the destination setting entries for Multiplex Talkgroup Calls.



❶ Check Box ..... Click to add a check mark to delete the entry.
ⓘ By clicking <All>, you can select or cancel all the entries.

❷ <Edit> ..... Click to edit the entry.

❸ <Delete> ..... Click to delete the entry.
ⓘ You cannot restore after clicking <Delete>.

❹ <Delete Selected> ..... Click to delete the selected entries.
ⓘ You cannot restore after clicking <Delete Selected>.

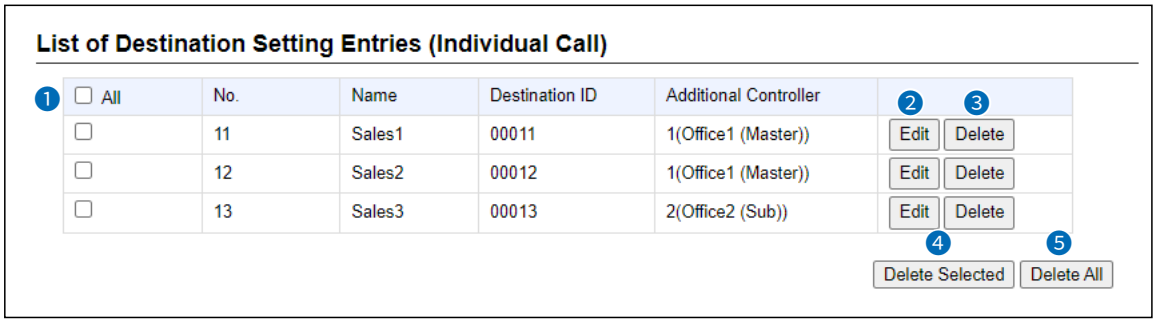
❺ <Delete All> ..... Click to delete all of the entries.
ⓘ You cannot restore after clicking <Delete All>.

Destination Settings screen

Destination Settings > Destination Settings

■ List of Destination Setting Entries (Individual Call)

Lists the destination setting entries for Individual Calls.



❶Check Box ..... Click to add a check mark to delete the entry.
ⓘ By clicking <All>, you can select or cancel all the entries.

❷<Edit> ..... Click to edit the entry.

❸<Delete> ..... Click to delete the entry.
ⓘ You cannot restore after clicking <Delete>.

❹<Delete Selected> ..... Click to delete the selected entries.
ⓘ You cannot restore after clicking <Delete Selected>.

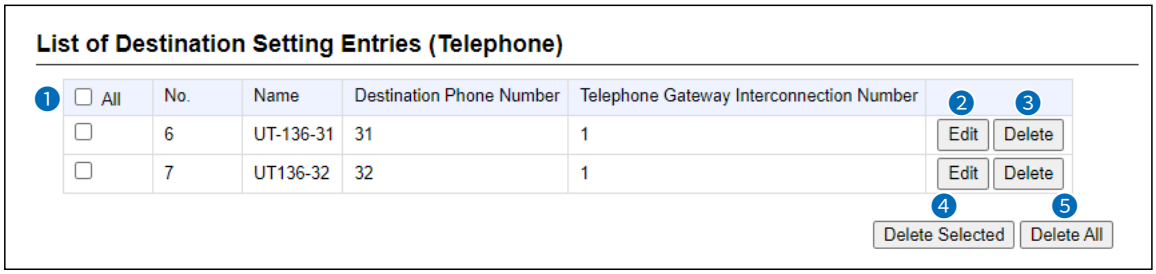
❺<Delete All> ..... Click to delete all of the entries.
ⓘ You cannot restore after clicking <Delete All>.

Destination Settings screen

Destination Settings > Destination Settings

■ List of Destination Setting Entries (Telephone)

Lists the destination setting entries for Telephone Calls.



❶Check Box ..... Click to add a check mark to delete the entry.
ⓘ By clicking <All>, you can select or cancel all the entries.

❷<Edit> ..... Click to edit the entry.

❸<Delete> ..... Click to delete the entry.
ⓘ You cannot restore after clicking <Delete>.

❹<Delete Selected> ..... Click to delete the selected entries.
ⓘ You cannot restore after clicking <Delete Selected>.

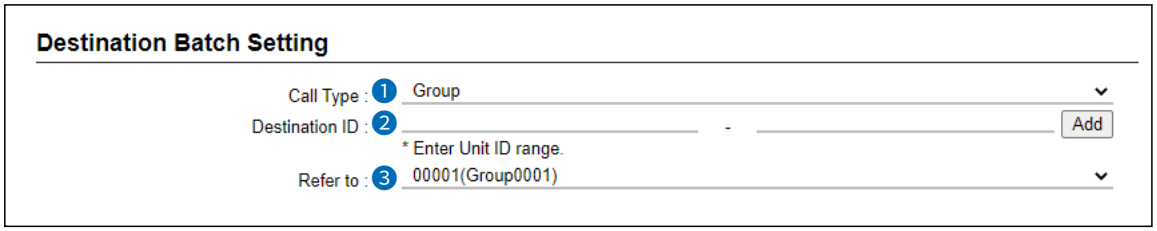
❺<Delete All> ..... Click to delete all of the entries.
ⓘ You cannot restore after clicking <Delete All>.

Destination Settings screen

Destination Settings > Destination Settings

■ Destination Batch Setting

In this settings, you can register the Destination IDs all at once by serial number, or copy the registered settings to other destinations.



❶ Call Type ..... Select the Call Type from “Individual,” “Group,” or “Talkgroup.”

❷ Destination ID ..... Enter the range of Destination ID number.
- **<Add>**

By clicking <Add> after [Refer to] is set, the entered Destination ID range is registered to the selected reference.

ⓘ When the entered Destination ID number is already registered. “Override the settings” is displayed.

❸ Refer to ..... Select the registered setting for reference.

MANAGEMENT

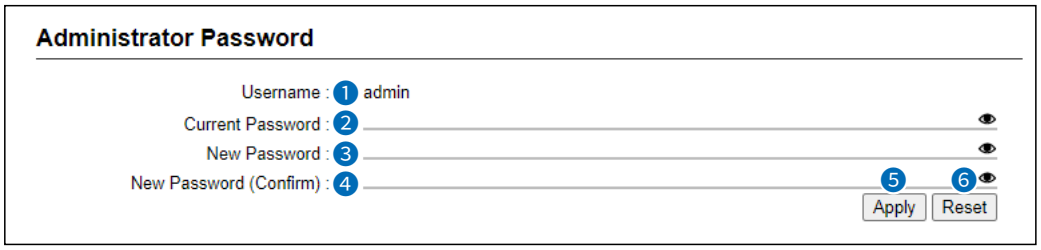
Section 7

Administrator screen

Management > Administrator

■ Administrator Password

Set a password for accessing the setting screen.



1 Username..... Displays the administrator login ID (“admin”).
ⓘ You cannot change the Username.

2 Current Password ..... Enter the current password, when you change it. (Default: (Blank))
ⓘ The entered characters are displayed as an * (asterisk) or a • (dot).
You can check the entered characters by clicking the eye icon to the right.

3 New Password ..... Enter a new password of 8 to 31 characters.
ⓘ The entered characters are displayed as an * (asterisk) or a • (dot).
You can check the entered characters by clicking the eye icon to the right.

4 New Password (Confirm)... Enter the new password again.

5 <Apply> ..... Click to apply the entries.

6 <Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

CAUTION: If you have forgotten the password, you cannot access the Controller’s setting screen.
In this case, you have to initialize the Controller. See the Section 3 of the Installation guide for details.

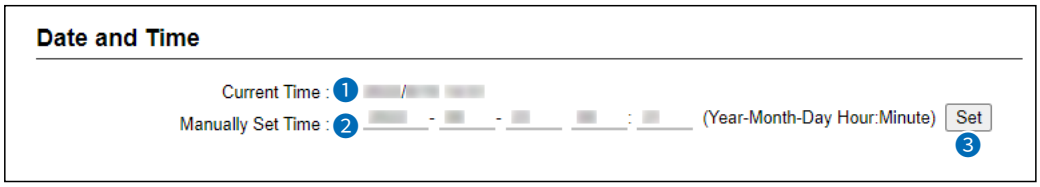
To prevent unauthorized access
You must be careful when choosing your password.
• Choose one that is not easy to guess.
• Use numbers, characters, and letters (case sensitive).

Date and Time screen

Management > Date and Time

■ Date and Time

You can set the Controller internal clock time. (See Section 3 for details.)



❶ Current Time ..... Displays the current time.

❷ Manually Set Time ..... Displays the time when you opened this screen.
ⓘ Refresh the browser screen to refresh the time.

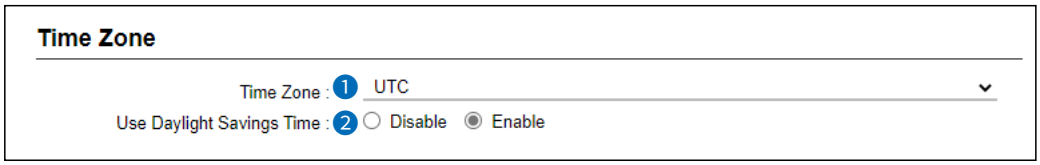
❸ <Set> ..... Click to set the internal clock to the time displayed in the [Manually Set Time].
ⓘ Before clicking <Set>, refresh the browser screen.

Date and Time screen

Management > Date and Time

■ Time Zone

Select the appropriate Time Zone.



1 Time Zone ..... Select the appropriate Time Zone. (Default: UTC)

2 Use Daylight Savings Time Select “Disable” if not necessary. (Default: Enable)

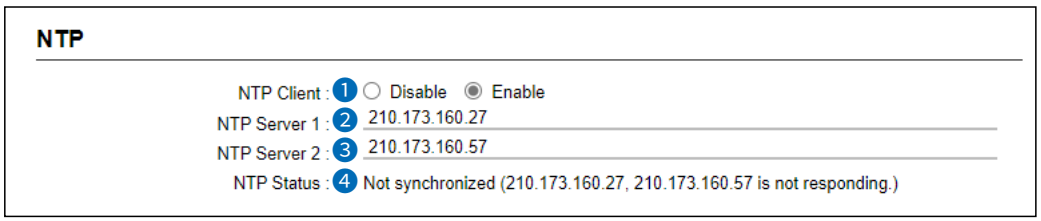
ⓘ If “Enable” is selected, the Controller automatically adjusts the time according to your time zone.
ⓘ If Daylight Savings Time is not used in your area, set to “Disable.”

Date and Time screen

Management > Date and Time

■ NTP

The Automatic Clock Synchronize function automatically synchronizes the internal clock with the time server (NTP).
ⓘ To use this function, an Internet connection and default gateway settings are necessary.



❶NTP Client ..... Select whether or not to use the Automatic Clock Synchronize function.
(Default: Disable)

- **Disable**: Not used.
- **Enalbe**: Set to the internal clock automatically by accessing the NTP.

❷NTP Server 1 ..... Enter the time management server's IP address.
(Default: 210.173.160.27)
If the Controller cannot access this address, the address set in [NTP Server 2] will be used.

❸NTP Server 2 ..... Enter the second time management server's IP address.
(Default: 210.173.160.57)

❹NTP Status ..... Displays the status whether or not to synchronize with the NTP Server or the transceiver module.

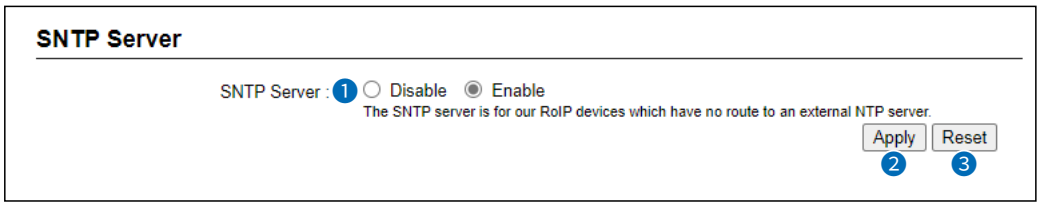
CAUTION: When you select NTP Client as NTP, you must set the Interface for the NTP server.
(Network Settings > IP Address > IP Address > Default Gateway)
(Network Settings > Static Routing > Static Routing)

Date and Time screen

Management > Date and Time

■ SNTP Server

The SNTP server is for other RoIP devices that have no route to an external Time server (NTP).
ⓘ To use this function, an Internet connection and default gateway settings are necessary.



❶SNTP Server ..... Select “Enable” to use the SNTP function. (Default: Enable)
When you select ‘Enable’, the RoIP devices function as an NTP server and set the internal clock time of the Controller.
ⓘ This function can be used only for Icom RoIP devices, which cannot set the route to the external NTP server.
ⓘ Set the Date and Time screen before using this function.

❷<Apply> ..... Click to apply the entries set on Time Zone, NTP, and SNTP Server.

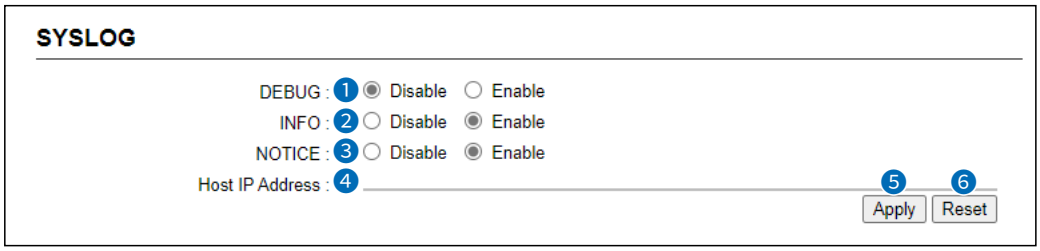
❸<Reset> ..... Click to reset the settings when you change the settings on Time Zone, NTP, and SNTP Server.
ⓘ You cannot reset after clicking <Apply>.

SYSLOG screen

Management > SYSLOG

■ SYSLOG

Select the information to be saved to the SYSLOG host.



❶DEBUG ..... Select “Enable” to display the debug information in Host IP Address (❹). (Default: Disable)

❷INFO ..... Select “Enable” to display the INFO messages in Host IP Address (❹). (Default: Enable)

❸NOTICE ..... Select “Enable” to display the NOTICE messages in Host IP Address (❹). (Default: Enable)

❹Host IP Address ..... Enter the SYSLOG host’s address.
ⓘ The host device must have the SYSLOG server function.

❺<Apply> ..... Click to apply the entries.

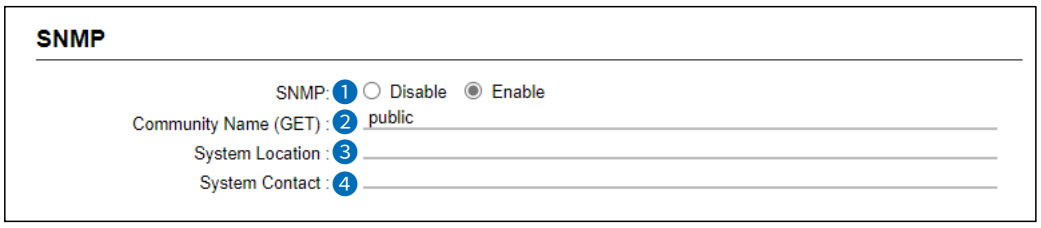
❻<Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

SNMP screen

Management > SNMP

■ SNMP

Configure the SNMP function, that is information on the Controller for being collected by each host in the IP network for their network management.



❶ SNMP..... Select “Enable” to manage the setting information in the SNMP management tool. (Default: Enable)

❷ Community Name (GET) ... Enter the Community name to get the SNMP community string. (Up to 31 characters) (Default: public)

❸ System Location ..... Enter the SNMP system location. (Up to 127 characters)

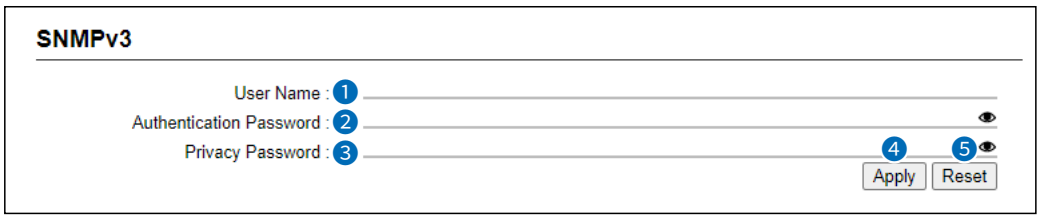
❹ System Contact ..... Enter the SNMP system contact. (Up to 127 characters)

SNMP screen

Management > SNMP

■ SNMPv3

Configure the SNMPv3 function, that is information on the Controller for being collected by each host in the IP network for their network management.



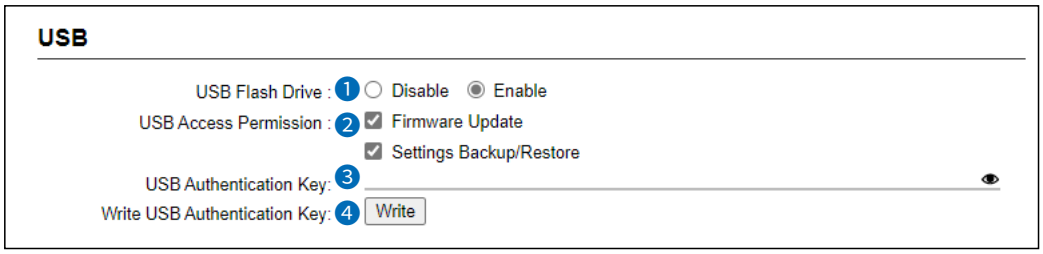
❶ **User Name**	Select “Enable” to manage the setting information in the SNMP management tool.
❷ **Authentication Password**	Enter the Community name to get the SNMP community string. (Up to 31 characters)
❸ **Privacy Password**	Enter the SNMP system location. (Up to 127 characters)
❹ **<Apply>**	Click to apply the entries.
❺ **<Reset>**	Click to reset the settings. ⓘ You cannot reset after clicking <Apply>.

Management Tools screen

Management > Management Tools

■ USB

Settings for USB flash drives that will be connected to the USB ports.



❶USB Flash Drive…… Select “Enable” to use a USB flash drive. (Default: Enable)

ⓘ If you use the Automatic firmware update function, or Automatic Setting Load function, select “Enable.”

❷USB Access Permission … Select the USB flash drive access option.

(Default: ☑ Firmware Update
☑ Settings Backup/Restore)

- Firmware Update (p.7-22)
- Settings Backup/Restore (p.7-19)

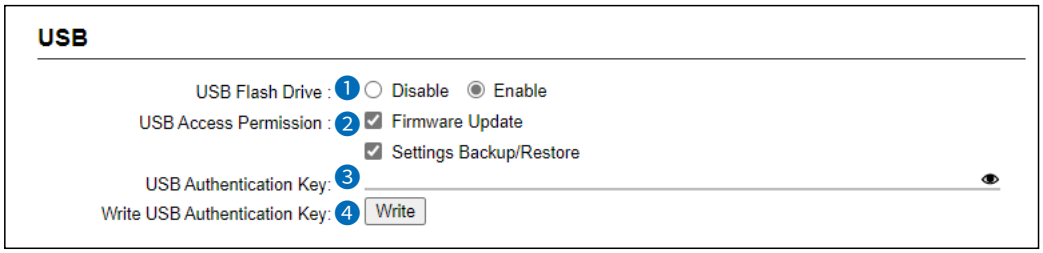
❸USB Authentication Key … Enter a USB Authentication Key of up to 64 characters to import to and export from the USB flash drive.

ⓘ This Key can restrict access to the Firmware Update function and Settings Backup/Restore function.
ⓘ After entering the characters, click <Apply> in the Management Tools.
ⓘ If you set the USB Authentication Key, the Controller can verify the USB authentication key written in the USB flash drive.

Management Tools screen

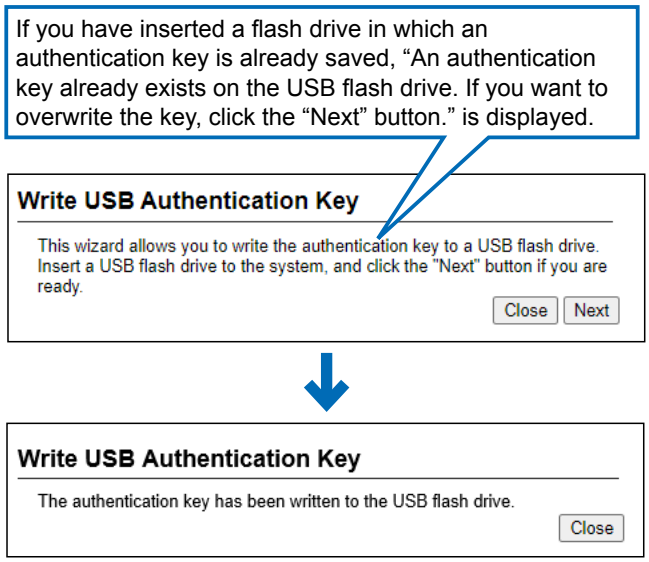
Management > Management Tools

■ USB

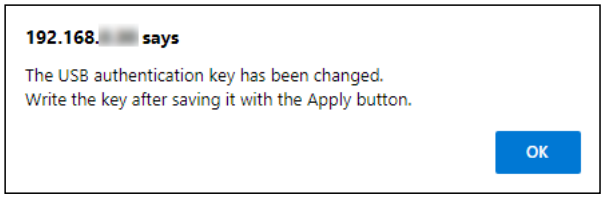


❹Write USB Authentication Key

Click to write the USB Authentication Key to the USB flash drive that is inserted in the [USB] port.
Click <Write>, then continue as shown below.



When the “The USB Authentication Key has been changed. Write the key after saving it by pushing the Apply button.” window is displayed, click <OK> and then click <Apply> in the Management Tools screen.

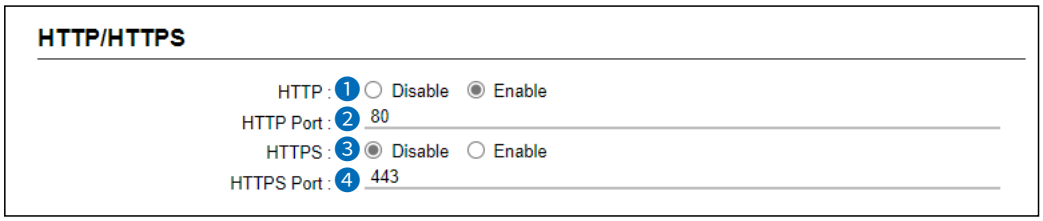


Management Tools screen

Management > Management Tools

■ HTTP/HTTPS

HTTP and HTTPS are the protocols to access from a web browser.
ⓘ When you set HTTP settings and HTTPS settings to “Enable,” you can not access the setting screen using a browser.



❶HTTP ..... Select whether to allow access using the HTTP protocol.
(Default: Enable)

❷HTTP Port..... Enter the HTTP Port number (Default: 80)
- Range: 80, or 1024 ~ 65535.
- Some of the Controller’s ports cannot access HTTP.

ⓘ Enter a different port number from HTTPS, Telnet or SSH.

❸HTTPS ..... Select whether to allow access using the HTTPS protocol.
(Default: Disable)

ⓘ HTTPS access is more secure than Telnet or HTTP access because the passwords and data are encrypted.

❹HTTPS Port ..... Enter the HTTPS Port number. (Default: 443)
- Range: 443, or 1024 ~ 65535.
- Some of the Controller’s ports cannot access HTTPS.

ⓘ Enter a port number different from HTTP, Telnet or SSH.

Management Tools screen

Management > Management Tools

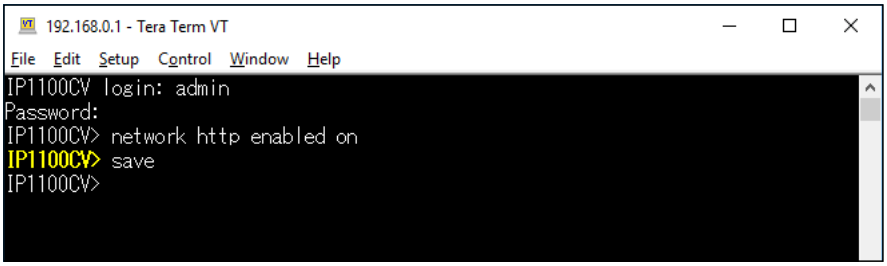
■ If you cannot access the setting screen

Access Telnet or SSH (Example:192.168.0.1).

- See the INSTALLATION GUIDE Section 6 for details.
- Set to default, the Controller can not be accessed from a Telnet client because the Telnet setting is set to “Disable.”(Management > Management Tools > Telnet/SSH > Telnet) (See page 7-14.)

After entering “IP1100CV>,” enter the letters written in bold as follows, and then press [Enter].

1. Enter “**network http enabled on**,” and then press [Enter].
2. Enter “**save**,” and then press [Enter].
   - The setting is applied.
3. Check if you can access the setting screen.

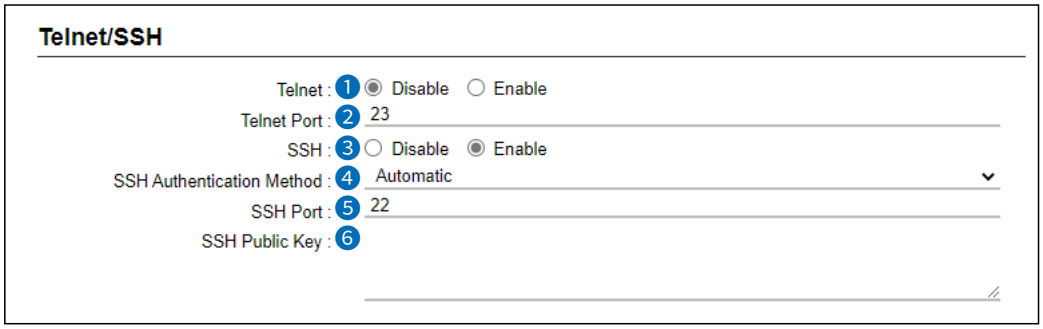


Management Tools screen

Management > Management Tools

■ Telnet/SSH

Set for accessing the Controller using Telnet or SSH.



❶ Telnet ..... Select whether or not to allow access to the Controller using Telnet. (Default: Disable)

❷ Telnet Port ..... Enter the Telnet Port number. (Default: 23)
- Range: 23, or between 1024 and 65535.
- Some of the Controller's ports cannot access Telnet.

ⓘ Enter a different port number different than HTTP, HTTPS, or SSH.

❸ SSH ..... Select whether to allow to access by the SSH protocol.(Default: Enable)

ⓘ By using SSH, you can encrypt the contents to be set using the SSH client program.

ⓘ This product supports only the SSH protocol Version 2.

ⓘ Prepare an SSH client to use SSH.

❹ SSH Authentication Method Select the SSH Authentication Method to access the Controller when you set SSH Settings to "Enable." (Default: Automatic)
- **Password**: Authenticating with the password.
- **Public Key**: Authenticating with the Public Key.
- **Automatic**: Automatically authenticating with the password or the Public Key.

❺ SSH Port ..... Enter the SSH Port number. (Default: 22)
- Range: 22, or between 1024 and 65535.
- Some of the Controller's ports cannot access SSH.

ⓘ Enter a port number that is different from HTTP, Telnet, or HTTPS.

❻ SSH Public Key ..... Set the Public Key for accessing.

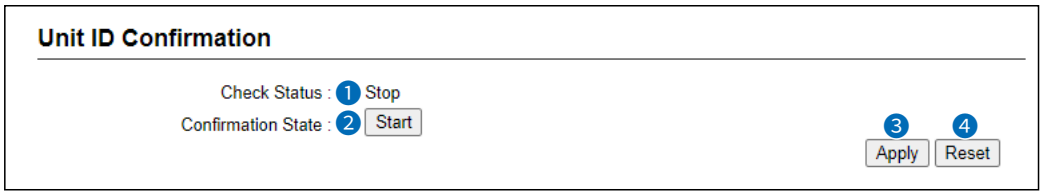
ⓘ Displayed only when the SSH setting is set to "Enable" and SSH Authentication Method is set to "Public" or "Automatic."

Management Tools screen

Management > Management Tools

■ Unit ID Confirmation

You can know which IP1100CV is the current Controller by the blinking lights on it.



1 Check Status ..... Display the status of the Unit ID.
- **Checking**: Checking the Unit ID and [POWER] blinks red.
- **Stop**: Does not check.

2 Confirmation State ..... Click <Start> to start checking.
- [POWER] blinks red.
- While checking, the <Start> button changes to the <Stop> button.
- This function automatically stops in 2 minutes, but you can also manually stop the check by clicking <Stop>.

3 <Apply> ..... Click to apply the entries set on the Management Tool screen.

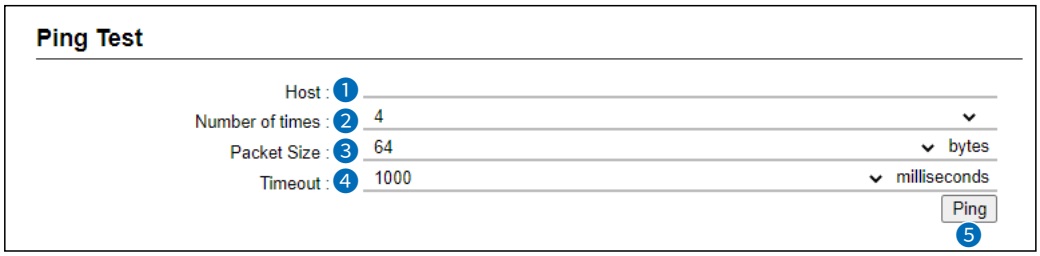
4 <Reset> ..... Click to reset the settings, when you change the settings on the "Management Tools" screen.
ⓘ You cannot reset after clicking <Apply>.

Network Test screen

Management > Network Test

■ Ping Test

Verifies that a particular IP address exists and can accept requests.



❶Host ..... Enter the IP address or Domain Name of up to 64 characters to send the Ping packets to.

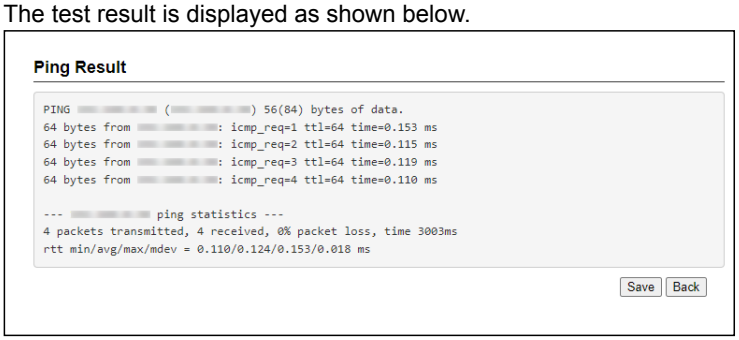
❷Number of Times ..... Select the number of times to send. (Default: 4)
- Options: 1, 2, 4, 8

❸Packet Size ..... Select the size of the packet's data. (Default: 64)
- Options: 32, 64, 128, 256, 512, 1024, 1448, 1500, 2048 (bytes)

❹Timeout..... Select the Ping response time. (Default: 1000)
Note: If there is no response within the selected time, a time out error is returned.
- Options: 500, 1000, 5000 (milliseconds)

❺<Ping> ..... Click to run the Ping test.

ⓘ The test result is displayed as shown below.



ⓘ Click <Save> to save the result to a PC as a text file (extension: "txt").
Note: The file is saved as "ping_*host's address*.txt."

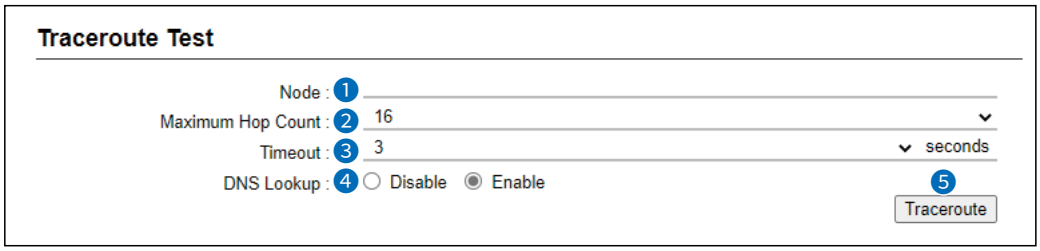
ⓘ Click <Back> to return to the Ping Test screen.

Network Test screen

Management > Network Test

■ Traceroute Test

Executes a traceroute test against a particular node.



1 Node ..... Enter the node's (device's) IP address or Domain Name of up to 64 characters.

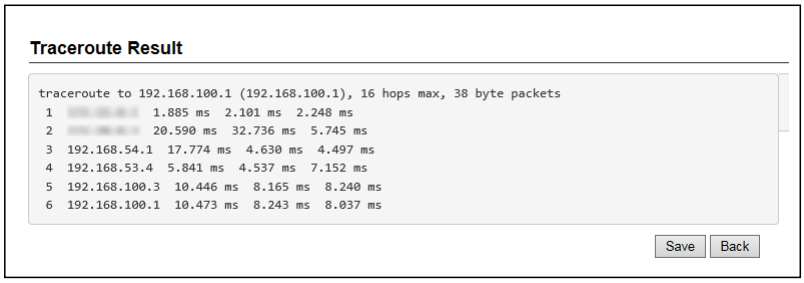
2 Maximum Hop Count ..... Select the maximum hop number. (Default: 16)
- Options: 4, 8, 16, 32

3 Timeout..... Select the response time. (Default: 3)
Note: If there is no response within the selected time, a time out error is returned.
- Options: 1, 3, 5 (seconds)

4 DNS Lookup ..... Select "Enable" to convert the node's (device's) IP address into the host name. (DNS name resolution) (Default: Enable)

5 <Traceroute> ..... Click to run the traceroute test.

- The test result is displayed as shown below.



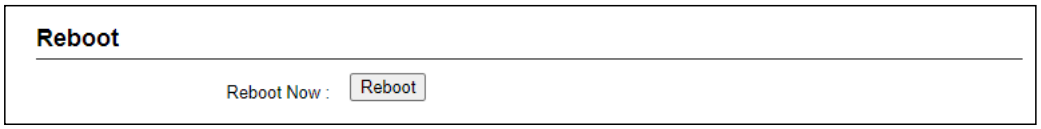
- Click to save the result to a PC as a text file (extension: "txt").
- The file is saved as "tracert_*node's address*.txt."
- Click <Back> to return to the Traceroute Test screen.

Reboot screen

Management > Reboot

■ Reboot

Click <Reboot> to reboot the Controller.

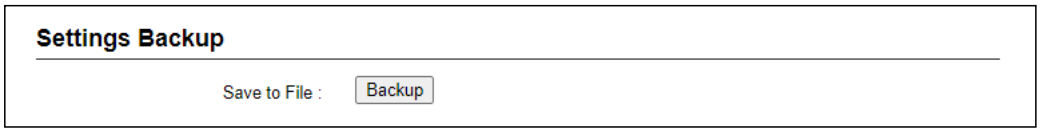


Settings Backup/Restore screen

Management > Settings Backup/Restore

■ Settings Backup

Save the Controller's settings to a PC as a backup.

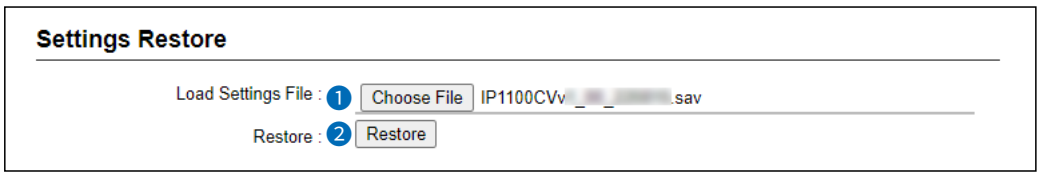


Save to File ..... Click <Backup> to save the settings to a PC as a backup file (Extension: sav).
See the topic below to load the saved file into the Controller.

Management > Settings Backup/Restore

■ Settings Restore

Load the setting file (Extension: "sav") into the Controller.
ⓘ Loading takes a few minutes.



❶ Load Settings File ..... Click <Choose File> to select the setting file.

❷ Restore ..... Click <Restore> to load the setting into the Controller.
ⓘ The Controller's settings are overwritten.
ⓘ After loading, the Controller automatically reboots.

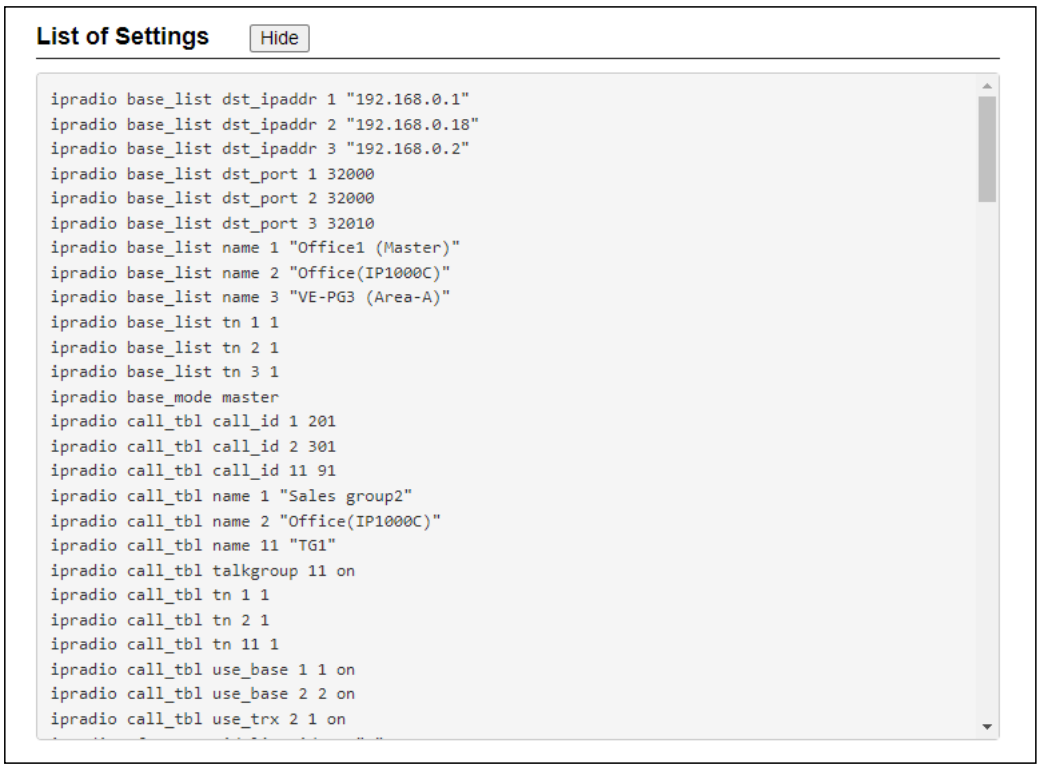
CAUTION: Do not modify the settings other than the IP1100CV.

Settings Backup/Restore screen

Management > Settings Backup/Restore screen

■ List of Settings

Click <Show> to display the changed settings, and click <Hide> to hide them.
Note: The list is cleared when the Controller is initialized.



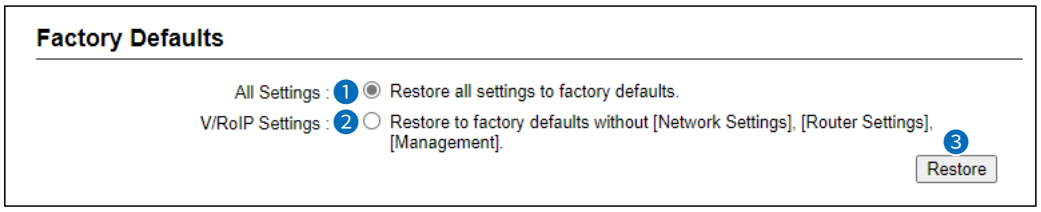
(This is only an example.)

Factory Defaults screen

Management > Factory Defaults

■ Factory Defaults

You can reload the Controller settings to the factory defaults.
ⓘ If you forget the IP address and the Administrator's password, see Section 3 in the Installation guide.



❶ All Settings ..... Select to return all settings to the factory defaults.
ⓘ After the Controller is initialized, the IP address is returned to the default (192.168.0.1).
ⓘ If the network part of the PC IP address is different from that of the Controller, you cannot access the Controller setting screen.
In such case, change the PC IP address according to your network environment.

❷ V/RoIP Settings ..... Select to return the settings to the factory defaults except for the Network Settings, the Router Settings, and the Management Settings.

❸ Restore ..... Click to restore the settings.

Firmware Update screen

Management > Firmware Update

NOTE:
- NEVER turn OFF the power until the update has been completed. Otherwise, the Controller may be damaged.
- While updating, all connections are temporarily disabled.

ⓘ Ask your dealer for updated function or specification details.

■ Firmware Status

Displays the firmware version.

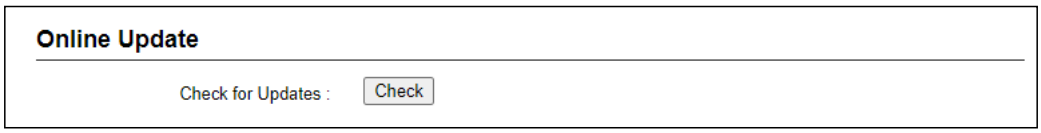
Firmware Update screen

Management > Firmware Update

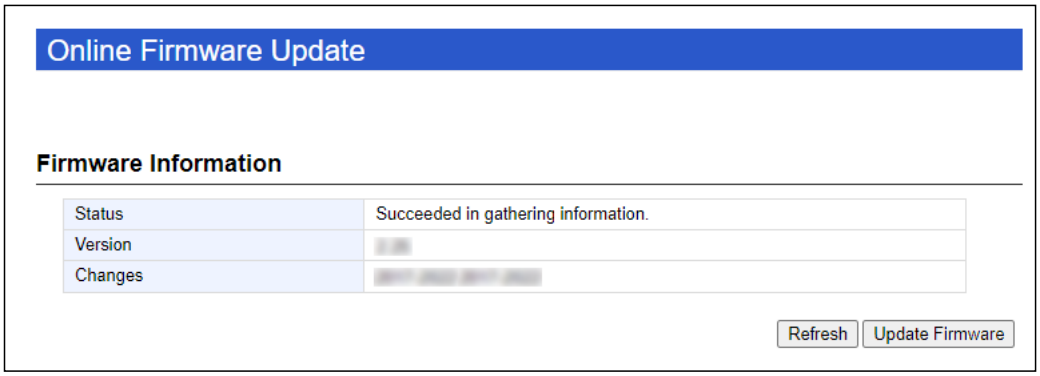
■ Online Update

Downloads the firmware through the Internet, and automatically updates it.

NOTE: To use this function, an Internet connection is required.



Check for Updates ..... Click <Check> to access the update management server. When the Controller has successfully accessed the server, the latest firmware version is displayed, as shown below.



About the firmware information:

- When there is a new firmware update available, the <Update Firmware> button is displayed.
- When there is no firmware update, “Firmware already up-to-date” is displayed.
- When an error message is displayed, check the network connection so that you can access the update management server, as follows:
  - Confirm that the default gateway and DNS server address are properly set to the Controller. (Network Settings > IP Address)
  - Ask your network administrator if a web transmission from the Controller is blocked.

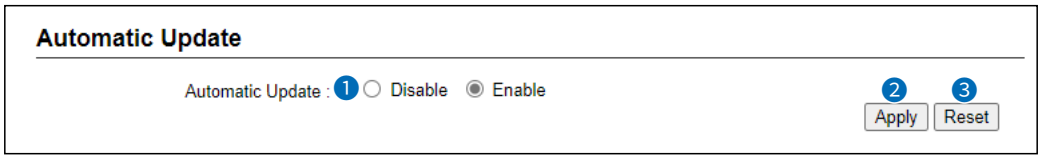
CAUTION: Do not turn OFF the power until the firmware update is completed.
ⓘ Ask your dealer for updated function or specification details.

Firmware Update screen

Management > Firmware Update

■ Automatic Update

The firmware can be automatically downloaded and updated.



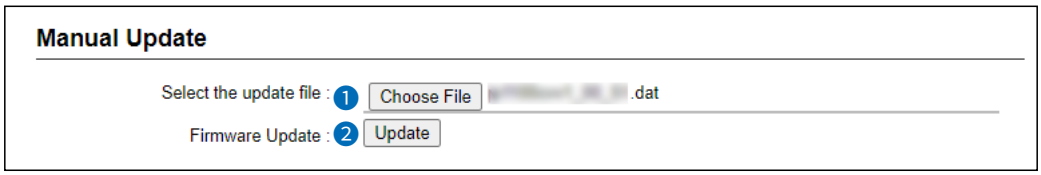
❶Automatic Update ..... Select “Enable” to use the Automatic Update function. (Default: Enable)
ⓘ Select “Disable” if you do not want to automatically update the firmware.

❷<Apply> ..... Click to apply the entries.

❸<Reset> ..... Click to reset the settings.
ⓘ You cannot reset after clicking <Apply>.

■ Manual Update

The firmware can be updated using the saved firmware.



❶Select the update file ..... Click <Choose File> to select the firmware file (extension: “dat”).
ⓘ The selected file appears in the “Update Firmware using File” item.

❷Firmware Update ..... Click <Update> to update the firmware.
Note: After updating, the Controller automatically reboots.

CAUTION: DO NOT turn OFF the power until the firmware update is completed.
ⓘ Ask your dealer for updated function or specification details.

Transceiver Firmware Update screen

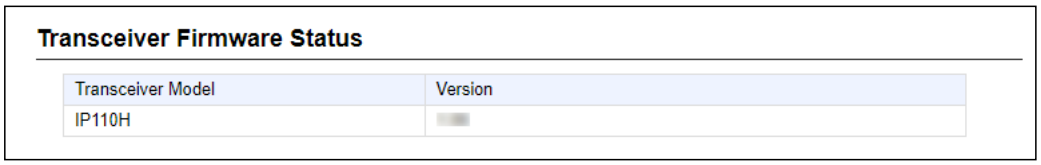
Management > Transceiver Firmware Update

NOTE:
- NEVER turn OFF the power until the update has been completed. Otherwise, the Controller and the transceivers may be damaged.
- While updating, all connections are temporarily disabled.

ⓘ Ask your dealer for updated function or specification details.

■ Transceiver Firmware Status

Displays the built-in firmware for the WLAN transceiver. The model name and the version of the firmware are listed.



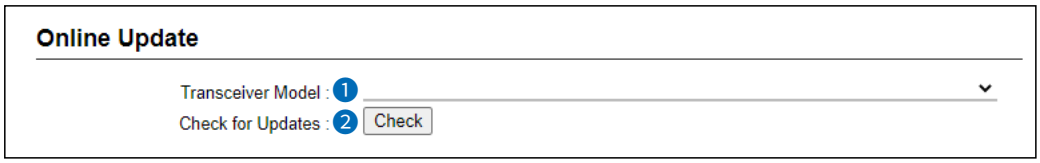
Transceiver Firmware Update screen

Management > Transceiver Firmware Update

■ Online Update

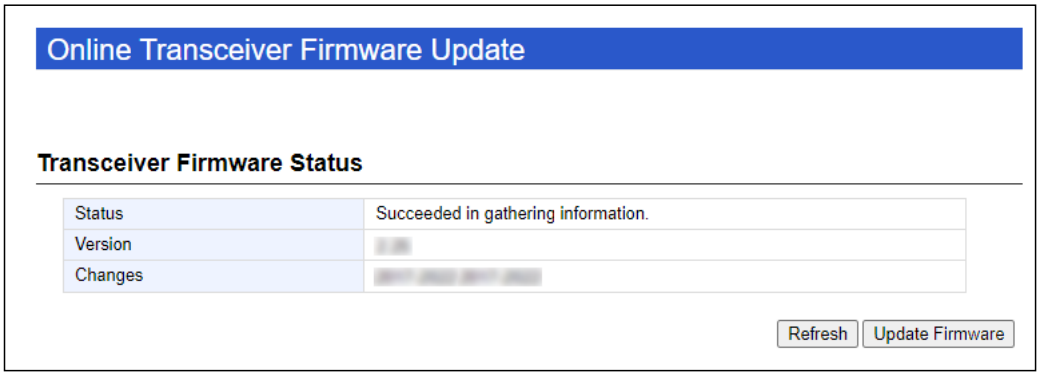
Downloads the built-in firmware for the WLAN transceivers through the Internet, and automatically updates it.

NOTE: To use this function, an Internet connection is required.



❶ Transceiver Model ..... Select the model name that you want to update the firmware. in the Controller.
ⓘ As of April 2024, only the IP110H is selectable.

❷ Check for Updates..... Click <Check> to connect to the update management server. When the Controller has successfully connected, the latest firmware status is displayed, as shown below.

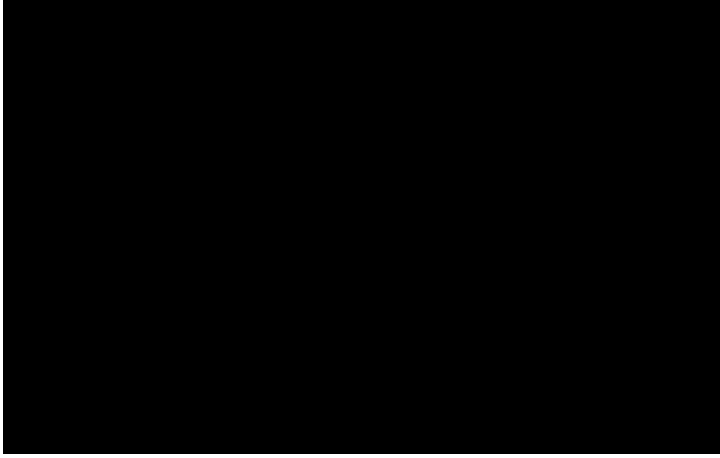


About the firmware information:

- When there is a new firmware update available, the <Update Firmware> button is displayed.
- When there is no firmware update, “Firmware already up-to-date” is displayed.
- When an error message is displayed, check the network connection so that you can access the update management server, as follows:
  - Confirm that the default gateway and DNS server address are properly set to the Controller. (Network Settings > IP Address)
  - Ask your network administrator if a web transmission from the Controller is blocked.

CAUTION: DO NOT turn OFF the Controller until the firmware update is completed.
ⓘ Ask your dealer for updated function or specification details.

How the World Communicates



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