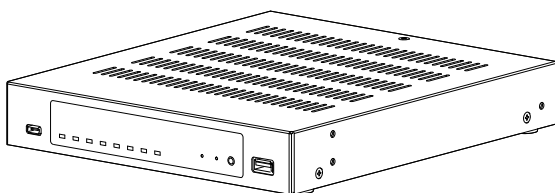




OPERATING GUIDE

WLAN TRANSCEIVER CONTROLLER **IP1100CV**



Icom Inc.

INTRODUCTION

1 TOP

2 INFORMAITON

3 NETWORK SETTINGS

4 ROUTER SETTINGS

5 TRANSCEIVER CONTROLLER

6 DESTINATION SETTINGS

7 MANAGEMENT

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.

ALL RIGHTS RESERVED. This document contains material protected under International and Domestic Copyright Laws and Treaties. Any unauthorized reprint or use of this material is prohibited. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system without express written permission from Icom Incorporated.

All stated specifications and design are subject to change without notice or obligation.

Icom and the Icom logo are registered trademarks of Icom Incorporated (Japan) in Japan, the United States, the United Kingdom, Germany, France, Spain, Russia, Australia, New Zealand, and/or other countries.

Microsoft and Windows are trademarks of the Microsoft group of companies.

3M, PELTOR, and WS are trademarks of 3M Company.

The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Icom Inc. is under license.

Other trademarks and trade names are those of their respective owners.

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.

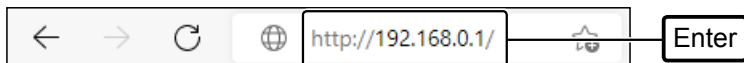
Also refer to the manual for each device, that is connected to your system.

- 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 1.08.

Accessing the Setting screen

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

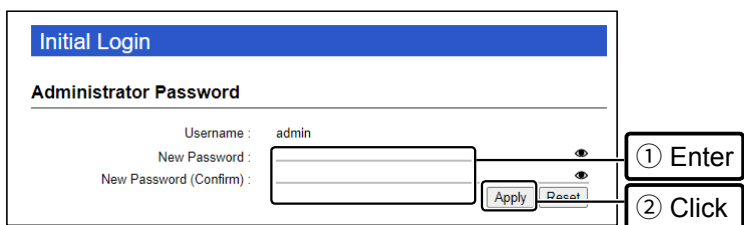
- 1 Open your Web browser.
Enter the IP address of the IP1100CV into the address bar. (Default: 192.168.0.1)



- 2 Press the [Enter] key.
 - If you access the IP1100CV for the first time, you have to set an Administrator password on the Initial Login screen. Go to Step 3.
 - Otherwise, go to Step 4.

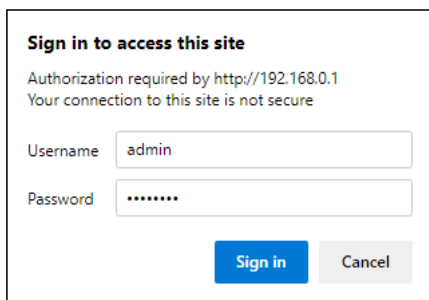
- 3 Enter a new password into both “New Password” and “New Password (Confirm),” and then click <Apply>.

① The password should be up to 31 of characters, numbers, and letters (case sensitive.)

A screenshot of the 'Initial Login' screen. It has a blue header with the text 'Initial Login'. Below it, the title 'Administrator Password' is followed by a horizontal line. There are three input fields: 'Username' with the value 'admin', 'New Password', and 'New Password (Confirm)'. To the right of the 'New Password' field is an eye icon. Below the input fields are two buttons: 'Apply' and 'Reset'. To the right of the 'Apply' button are two numbered callouts: '① Enter' pointing to the 'New Password' field and '② Click' pointing to the 'Apply' button.

- The Login Authentication screen is displayed.

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

A screenshot of the 'Sign in to access this site' screen. It has a title 'Sign in to access this site' and a subtitle 'Authorization required by http://192.168.0.1'. Below the subtitle is the text 'Your connection to this site is not secure'. There are two input fields: 'Username' with the value 'admin' and 'Password' with a masked password '*****'. Below the input fields are two buttons: 'Sign in' and 'Cancel'.

- The IP1100CV Setting screen is displayed.

TOP screen	1-2
■ System Status	1-2
■ MAC Address	1-2

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.

System Status	
Host Name	IP1100CV
Version	Copyright © 2011 Icom Inc.
IP100H Firmware Version	1.00
IP110H Firmware Version	1.00

① 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.)

MAC Address	
LAN	00-90-C7-XX-XX-XX
WAN	00-90-C7-XX-XX-XX

① 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).

① The MAC addresses are also printed on the label on the bottom of the Controller.

Network Status screen	2-2
■ Interface List.....	2-2
■ Ethernet Port Connection Status	2-2
■ DHCP Lease Status	2-2
SYSLOG screen	2-3
■ SYSLOG	2-3

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-XXXXXX	1000BASE-T full-duplex
WAN	00-90-C7-XXXXXX	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
XXXXXXXXXX	00-90-C7-XXXXXX	192.168.0.30	XXXXXXXXXX

SYSLOG screen

Information > SYSLOG

■ SYSLOG

Displays the log of the Controller.

The screenshot shows the SYSLOG interface. At the top, it says 'SYSLOG'. Below that, 'Current Time : [redacted] (Uptime: 7 days 09:35:57)'. Under 'Severity :', there are three checkboxes: 1. ☒ DEBUG, ☒ INFO, and ☒ NOTICE. Below that, 'Display Filter : 2. [text input] Include' with a dropdown arrow. To the right are three buttons: 3. Refresh, 4. Save, and 5. Clear. At the bottom is a table with three columns: 'Date (Month-Day) and Time', 'Severity', and 'Description'.

1 **Severity**

Select one or more log types that you want to list.

① Remove the check mark to hide the entries.

① The selection is not stored, and will reset when you leave this screen.

2 **Display Filter**

Enter a keyword (for example: dhcp) and select "Include" or "Exclude" to narrow down the list.

3 **<Refresh>**

Click to reload the list. Up to the last 1000 logs are listed.

4 **<Save>**

Click to save a log to a text (.txt) file.

5 **<Clear>**

Click to clear all the logs.

IP Address screen	3-2
■ Host Name	3-2
■ IP Address	3-3
DHCP Server screen	3-4
■ DHCP Server	3-4
■ Static DHCP	3-6
■ List of Static DHCP Settings	3-6
Static Routing Screen	3-7
■ Routing Table	3-7
■ Static Routing	3-8
■ List of Static Routing Entries	3-8
Policy Routing screen	3-9
■ Source Address Routing	3-9
■ List of Source Address Routing Entries	3-9
QoS screen	3-10
■ QoS Setting	3-10
■ QoS Rule	3-10
■ QoS Rule List	3-11

IP Address screen

Network Settings > IP Address

■ Host Name

Enter the host name.

Host Name	
Host Name :	IP1100CV

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.

① The usable characters are: "a" ~ "z", "A" ~ "Z", "0" ~ "9", and "-."

① 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.

IP Address

IP Address : ① 192.168.0.1

Subnet Mask : ② 255.255.255.0

Default Gateway : ③

Primary DNS Server : ④

Secondary DNS Server : ⑤

These DNS servers are used only when WAN is disabled.

⑥ Apply ⑦ Reset

- | | |
|-----------------------------------|--|
| ① IP Address | Enter the LAN IP address according to your network environment.
(Default: 192.168.0.1)
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.
① You cannot reset after clicking <Apply>. |

DHCP Server screen

Network Settings > DHCP Server

■ DHCP Server

Configure the DHCP Server function.

- 1 DHCP 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.
- 2 IP 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.
- 3 Pool 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.
- 4 Subnet Mask** Enter the subnet mask for the IP Pool Start address set in the "IP Pool Start Address." (Default: 255.255.255.0)
- 5 Lease Time** Enter the lease time period. (Default: 72)
Range: 1 ~ 9999 (hours)
- 6 Domain Name** Enter a network address domain name of up to 253 characters.
- 7 Default Gateway** Enter the default gateway IP address.
When the DHCP Server function is used, this IP address is sent to a client.
① When this item is blank, the Controller's IP address is sent.

DHCP Server screen

Network Settings > DHCP Server

■ DHCP Server

① The screen above shows when “DNS Proxy” (8) is set to “Disable.”

- | | |
|-------------------------------------|---|
| 8 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. |
| 9 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. |
| 10 Secondary DNS Server ... | (Displayed only when the DNS Proxy is disabled)
If you have two DNS server addresses, enter the secondary DNS server address. |
| 11 Primary WINS Server | Enter the WINS server’s address. If you have two WINS server addresses, enter the primary WINS server address. |
| 12 Secondary WINS Server ... | If you have two WINS server addresses, enter the secondary WINS server address. |
| 13 <Apply> | Click to apply the entries. |
| 14 <Reset> | Click to reset the settings.
① 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.

① You can enter up to 32 entries.

Static DHCP		
MAC Address	IP Address	
		Add

Static DHCP

Enter the MAC and IP addresses, and then click <Add>.

① This setting is useful when the DHCP Server function is used. See page 3-4 for details of the DHCP Server function.

① Sets a different IP address from the IP address that the DHCP Server function automatically assigns.

① 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.

List of Static DHCP Settings		
MAC Address	IP Address	
08:00:27:00:00:00	192.168.0.150	Delete

<Delete>

Click to delete the entry.

① You cannot restore after clicking <Delete>.

Static Routing Screen

Network Settings > Static Routing

■ Routing Table

Displays the valid routing information for packet transmission.

Routing Table			
Destination ①	Subnet Mask ②	Gateway ③	Interface ④
192.168.0.0	255.255.255.0		br-lan
192.168.10.0	255.255.255.0	192.168.0.254	br-lan

- ① **Destination** The network address of the route's destination network.
- ② **Subnet Mask** The subnet mask of the route's destination network.
- ③ **Gateway** The route's gateway address.
- ④ **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.

① You can enter up to 32 entries.

Static Routing				
Destination ①	Subnet Mask ②	Gateway ③	Interface ④	⑤
192.168.12.0	255.255.255.0	192.168.0.254	Set the gateway ▾	Add

- ① **Destination** Set the network address of the route's destination network.
- ② **Subnet Mask** Set the subnet mask of the route's destination network.
- ③ **Gateway** (Only when the [Interface] is set to "Set the gateway")
Set the route's gateway address.
- ④ **Interface** Select the routing interface.
 • Set the gateway
 • ppp0 (WAN01) ~ ppp7 (WAN08)
 • vti0 ~ vti31
- ⑤ **<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.

① You can enter up to 32 entries.

List of Static Routing Entries				
Destination	Subnet Mask	Gateway	Interface	① ②
192.168.10.0	255.255.255.0	192.168.0.254		① Edit ② Delete

- ① **<Edit>** Click to edit the entry.
- ② **<Delete>** Click to delete the entry.
① 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.)

① You can enter up to 32 entries.

Source Address Routing				
Source Address ①	Subnet Mask ②	Gateway ③	Interface ④	⑤
192.168.10.20	255.255.255.255		Set the gateway ▾	Add

- 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.

List of Source Address Routing Entries				
Source Address	Subnet Mask	Gateway	Interface	① ②
192.168.0.20	255.255.255.255		ppp1 (WAN02)	① Edit ② Delete

- ① **<Edit>** Click to edit the entry.
- ② **<Delete>** Click to delete the entry.
① 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.

- 1 QoS** 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.
- 2 <Apply>** Click to apply the entries.
- 3 <Reset>** Click to reset the settings.
① You cannot reset after clicking <Apply>.

Network Settings > QoS

■ QoS Rule

You can set up to 8 QoS rules.

- 1 No.** You can set up to 8 QoS rules.
Select a rule number between 1 to 8.
- 2 DSCP** Enter a DSCP value between 0 to 63.
- 3 <Add>** Click to add the entry or apply the change.
The entry will be added to the [QoS Rule List].
- 4 <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.

QoS Rule List			
No.	DSCP	HEX	
1	56	E0	1 EditDelete
2	48	C0	2 EditDelete

1 <Edit>

Click to edit the entry.

2 <Delete>

Click to delete the entry.
① You cannot restore after clicking <Delete>.

WAN screen	4-2
■ Connection Status	4-2
■ Connection Type	4-6
■ Connection Settings	4-7
■ List of Connection Settings	4-11
NAT screen	4-12
■ NAT	4-12
■ DMZ Host	4-12
■ Port Forwarding	4-13
■ List of Port Forwarding Entries	4-14
IP Filter screen	4-15
■ General Settings	4-15
■ IP Filter	4-16
■ List of IP Filter Entries	4-21
Simple DNS screen	4-22
■ Simple DNS Server Settings	4-22
■ List of Simple DNS Server Settings	4-22
VPN screen	4-23
■ IPsec Settings	4-23
■ IPsec Tunnel Settings.....	4-24
■ List of IPsec Tunnel Settings.....	4-26

WAN screen

Router Settings > WAN

■ Connection Status

The WAN connection status is displayed.

Connection Type:
No Connection

Connection Status

①	Connection Status	
②	Connection Type	No Connection
③	IP Address	
④	Peer IP Address	
⑤	DNS Server	

- ① **Connection Status**..... Nothing is displayed.
- ② **Connection Type** The WAN connection type is displayed.
- ③ **IP Address** Nothing is displayed.
- ④ **Peer IP Address** Nothing is displayed.
- ⑤ **DNS Server** Nothing is displayed.

WAN screen

Router Settings > WAN

■ Connection Status

**Connection Type:
DHCP Client**

Connection Status		
1	Connection Status	Unplugged
2	Connection Type	DHCP Client
3	IP Address	
4	Peer IP Address	
5	DNS Server	

- 1 **Connection Status**..... The connection status to the Internet line is displayed as “Unplugged,” “Connecting,” or “Connected.”
- 2 **Connection Type** The WAN connection type is displayed.
- 3 **IP Address** The Controller’s IP address is displayed.
- 4 **Peer IP Address** The default Gateway IP address specified by your service provider is displayed.
- 5 **DNS Server** The DNS server’s IP address is displayed.

WAN screen

Router Settings > WAN

■ Connection Status

**Connection Type:
Static IP**

Connection Status		
1	Connection Status	Unplugged
2	Connection Type	Static IP
3	IP Address	
4	Peer IP Address	
5	DNS Server	

- 1 **Connection Status**..... The connection status to the Internet line is displayed as “Unplugged,” or “Connected.”
- 2 **Connection Type** The WAN connection type is displayed.
- 3 **IP Address** The Controller’s IP address is displayed.
- 4 **Peer IP Address** The default Gateway IP address specified by your service provider is displayed.
- 5 **DNS Server** The DNS server’s IP address is displayed.

WAN screen

Router Settings > WAN

■ Connection Status

① Up to 2 PPPoE sessions can be connected from the registered PPPoE destination.

① The first session is set to the default gateway.

① To use a second session, set the Static Routing and the Policy Routing.

Connection Type:
PPPoE

Connection Status		
① PPPoE Session	Session 1	Session 2
② Destination	WAN01 (ppp0) Disconnect	None Connect
③ Connection Status	Connected	
④ Connection Type	PPPoE	PPPoE
⑤ IP Address	192.168.1.100	
⑥ Peer IP Address	192.168.1.1	
⑦ DNS Server	192.168.1.1, 192.168.1.1	
⑧ Uptime	1:00:00:00	

① PPPoE Session

The first session and the second session are displayed respectively.

② Destination

Select the destination from the WAN connection set in the [Connection Settings] setting (Router Settings > WAN > Connection Settings).

① You cannot select while connecting the line.

<Connect>/<Disconnect>

Click to manually connect or disconnect the selected WAN.

① <Disconnect> is displayed when the line is connected.

① If "Connecting" is not displayed in [Connection Status] when the line is connected, check the cable connection and network configuration.

③ Connection Status.....

The connection status to the Internet line is displayed as "Unplugged," "Disconnect," "Connecting," or "Connected."

④ Connection Type

The WAN connection type is displayed.

⑤ IP Address

The Controller's IP address is displayed.

⑥ Peer IP Address

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

⑦ DNS Server

The DNS server's IP address is displayed.

⑧ 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

Connection Type : No Connection 

Apply Reset

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

Connection Settings

Nickname : 1
Primary DNS Server : 2
Secondary DNS Server : 3

45
ApplyReset

- 1 Nickname

Enter your service provider's name of up to 31 characters.
- 2 Primary DNS Server

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

If you have two DNS server addresses, enter the secondary DNS server address.
- 4 <Apply>

Click to apply the entries.
- 5 <Reset>

Click to reset the settings.
① You cannot reset after clicking <Apply>.

WAN screen

Router Settings > WAN

■ Connection Settings

Connection Type:
Static IP

Connection Settings

Nickname : 1
IP Address : 2
Subnet Mask : 3
Default Gateway : 4
Primary DNS Server : 5
Secondary DNS Server : 6

7 Apply
8 Reset

- | | |
|----------------------------|---|
| 1 Nickname | Enter your service provider's name of up to 31 characters. |
| 2 IP Address | Enter the WAN IP address. |
| 3 Subnet Mask | Enter the WAN Subnet Mask. |
| 4 Default Gateway | Enter the WAN Default Gateway. |
| 5 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. |
| 6 Secondary DNS Server ... | If you have two DNS server addresses, enter the secondary DNS server address. |
| 7 <Apply> | Click to apply the entries. |
| 8 <Reset> | Click to reset the settings.
① You cannot reset after clicking <Apply>. |

WAN screen

Router Settings > WAN

■ Connection Settings

Connection Type:
PPPoE

Connection Settings

Select Connection : ① WAN01 (ppp0) ▼

Nickname : ② WAN01

Username : ③

Password : ④ ▼

Reconnect Mode : ⑤ Always-ON ▼

IP Address : ⑥

Primary DNS Server : ⑦

Secondary DNS Server : ⑧

Authentication Protocol : ⑨ Automatic ▼

MSS Limit : ⑩ 1322

⑪ Apply ⑫ Reset

- ① **Select Connection** Select the WAN connection. (Up to 8 settings can be set.)
(Default: WAN01(ppp0))
- ② **Nickname** Enter or edit your service provider's name of up to 31 characters.
① The nickname set in [Select Connection] is displayed.
- ③ **Username**..... Enter the login user name or the account name.
- ④ **Password** Enter a login password.
The entered characters are displayed as * (asterisk) or ● (black circle.)
① You can check the entered characters by clicking the eye icon to the right.
- ⑤ **Reconnect Mode** Select the PPPoE connection method. (Default: Always-ON)
 - **Manual:** The PPPoE line can be manually connected, by clicking <Connect>/<Disconnect>
① 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].
① The network is already connected when the Controller is booted.
① 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

Connection Settings

Select Connection : ① WAN01 (ppp0) ▼

Nickname : ② WAN01

Username : ③

Password : ④ ▼

Reconnect Mode : ⑤ Always-ON ▼

IP Address : ⑥

Primary DNS Server : ⑦

Secondary DNS Server : ⑧

Authentication Protocol : ⑨ Automatic ▼

MSS Limit : ⑩ 1322

⑪ Apply

⑫ Reset

- 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.
① 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)

List of Connection Settings			
Nickname	Username	Reconnect Mode	
WAN01(ppp0)		Always-ON	Delete

<Delete>

Click to delete an entry.

① You cannot restore after clicking <Delete>.

NAT screen

Router Settings > NAT

■ NAT

Set the NAT.

① 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.

① This function can be set when [Connection Type] on the WAN screen is set to other than “No Connection.”

- 1 DMZ Host IP Address**

2 <Apply>

3 <Reset>

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.

① When the DMZ Host function and Port Forwarding are used at the same time, Port Forwarding is prioritized.

① Icom is not responsible for any results caused by a decline in security.

Click to apply the entries.

Click to reset the settings.

① 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.

Port Forwarding

WAN Port 1	LAN IP Address 2	LAN Port 3	Protocol 4	5
Custom ▾		Custom ▾	TCP ▾	Add

- 1 WAN 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).
- 2 LAN IP Address

Enter the private IP address.
- 3 LAN 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).
- 4 Protocol

Select the protocol from “TCP,” “UDP,” “TCP/UDP,” “GRE,” and “ESP.”
- 5 <Add>

Click to add the entry.
① Up to 32 masquerade IP addresses can be registered.

NAT screen

Router Settings > NAT

■ List of Port Forwarding Entries

Lists the Port Forwarding Entries.

List of Port Forwarding Entries					
WAN Port	LAN IP Address	LAN Port	Protocol	①	②
FTP	192.168.0.200	FTP	TCP/UDP	Edit	Delete
Web	192.168.0.100	Web	TCP/UDP	Edit	Delete

① <Edit>

Click to edit the entry.

① The registered entries are displayed in [Port Forwarding].

② <Delete>

Click to delete the entry.

① 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.

① Icom is not responsible for any results caused by a decline in security due to changing the IP filter.

General Settings

Block Action : ① ☒ Drop ☐ Reject

Syslogging Unmatched Packets : ② ☒ Disable ☐ Enable

③ Apply

④ Reset

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)
 ① 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.
 ① 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.

① When [LAN Port] is set in Connection type, this setting cannot be changed.

① Icom is not responsible for any results caused by a decline in security due to changing the IP filter.

IP Filter

No. : 1

Entry : ☒ Disable ☐ Enable

Action : ☐ Block ☒ Pass

Direction : ☒ In ☐ Out

Source IP Address : Mask : 32

Destination IP Address : Mask : 32

Protocol : TCP Custom Value :

Source Port : Any Custom Value : -

Destination Port : Any Custom Value : -

TCP Flags : ☐ URG ☐ ACK ☐ PSF ☐ RST ☐ SYN ☐ FIN

SYSLOG : ☒ Disable ☐ Enable

Apply Reset

① This is an example of setting "TCP" as the protocol.

① No.

Select the filtering order.

Range: 1 ~ 64

① 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].

② Entry

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].

① This is an example when number "1" is disabled.

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

③ Action

Select the filtering method.

(Default: Pass)

• **Block:** Blocks all packets that match the filtering settings.

• **Pass:** Passes all packets that match the filtering settings.

4 ROUTER SETTINGS

IP Filter screen

Router Settings > IP Filter

■ IP Filter

IP Filter

No. : 1

Entry : 2 ☒ Disable ☐ Enable

Action : 3 ☐ Block ☒ Pass

Direction : 4 ☒ In ☐ Out

Source IP Address : 5 Mask : 32

Destination IP Address : 6 Mask : 32

Protocol : 7 TCP Custom Value :

Source Port : 8 Any Custom Value : -

Destination Port : 9 Any Custom Value : -

TCP Flags : 10 ☐ URG ☐ ACK ☐ PSH ☐ RST ☐ SYN ☐ FIN

SYSLOG : 11 ☒ Disable ☐ Enable

12 Apply 13 Reset

① 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

① This is an example of setting “TCP” as the protocol.

7 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.

① When the type is not specified, all header types are filtered.

[Code]

Enter the type of ICMP code to filter between 0 and 255.

① 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

① This is an example of setting “TCP” as the protocol.

8 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.

① When “Any” is selected, all of the port number types are filtered.

9 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.

① When “Any” is selected, all of the port number types are filtered.

4 ROUTER SETTINGS

IP Filter screen

Router Settings > IP Filter

■ IP Filter

IP Filter

No. : 1

Entry : 2 ☒ Disable ☐ Enable

Action : 3 ☐ Block ☒ Pass

Direction : 4 ☒ In ☐ Out

Source IP Address : 5 Mask : 32

Destination IP Address : 6 Mask : 32

Protocol : 7 TCP Custom Value :

Source Port : 8 Any Custom Value :

Destination Port : 9 Any Custom Value :

TCP Flags : 10 ☐ URG ☐ ACK ☐ PSH ☐ RST ☐ SYN ☐ FIN

SYSLOG : 11 ☒ Disable ☐ Enable

12 Apply 13 Reset

10 TCP Flags.....

Select a TCP flags. (Default: None)
You can select the TCP flags from “URG,” “ACK,” “PSH,” “RST,” “SYN,” and “FIN.”

- ① 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		(*)			
			*			
			(*)			

- ① When no TCP flag is selected, the TCP flag is not set as the filtering criteria.

11 SYSLOG

Select “Enable” to output the SYSLOG. (Default: Disable)

- ① The log information is displayed on the SYSLOG screen.
(Information > SYSLOG)
① 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.

12 <Apply>

Click to apply the entries.

13 <Reset>

Click to reset the settings.

- ① 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	Protocol (TCP Flags)	Source IP Address (Source Port)	SYSLOG	1 2
	Direction		Destination IP Address (Destination Port)		
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)		

① 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.

① The * mark matches all the values.

1 <Edit>

Click to edit the entry.

① The entry contents are loaded to the IP Filter Setting.

2 <Delete>

Click to delete the entry.

① 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.

Simple DNS Server Settings		
* A DNS Proxy must be enabled in the DHCP Server settings to use this function.		
IP Address	DNS Host Name	
		Add

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.

- ① Up to 32 combinations can be registered.
- ① This setting is effective when using the DNS proxy response function of the Controller.
- ① 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.
- ① 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.

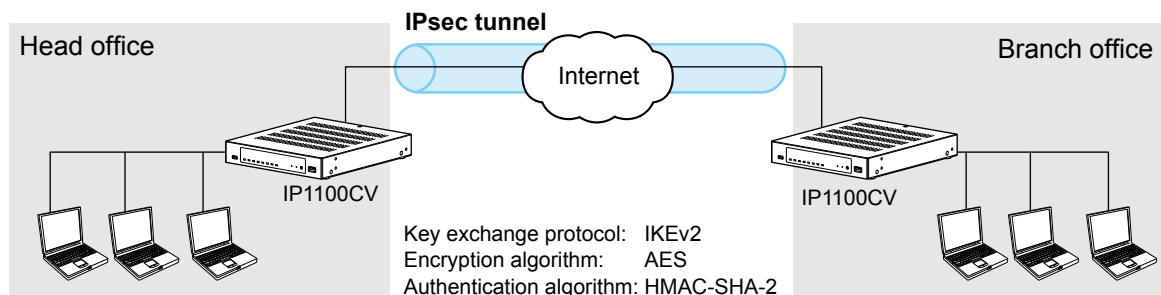
List of Simple DNS Server Settings		
IP Address	DNS Host Name	
192.168.0.4	192.168.0.4	Delete

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 June, 2023)

① 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.

IPsec Settings

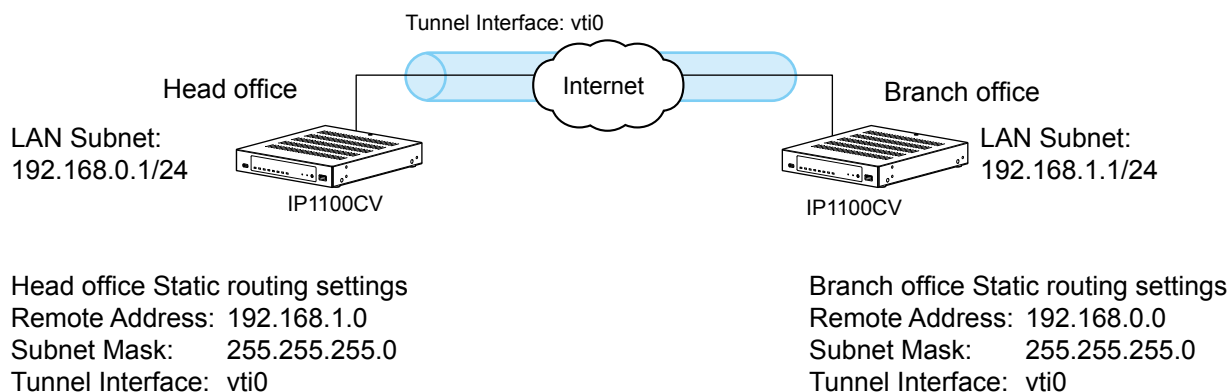
IPsec: 1 ☒ Disable ☐ Enable

2 3
Apply Reset

- ① IPsec** Set the IPsec function. (Default: Disable)
When “Enable” is set, a VPN connection using the IPsec tunnel can be used.
- ② <Apply>** Click to apply the entries.
- ③ <Reset>** Click to reset the settings.
① You cannot reset after clicking <Apply>.

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

Static Routing Settings example:



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)
 ① "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.
 - ① If this item is not set, the Controller only works as a responder that waits for a connection from a destination.
 - ① 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

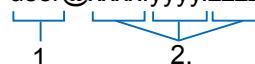
■ IPsec Tunnel Settings

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.

① You cannot reset after clicking <Apply>.

VPN screen

Router Settings > VPN

■ List of IPsec Tunnel Settings

Lists the connections settings.

List of IPsec Tunnel Settings						
1 Tunnel Interface	2 Interface	3 Status	4 Remote Address	5 Remote ID	6 Local ID	7 8
vti0 (Sales)	ppp0 (WAN01)	Connecting		IP Address	IP Address	Edit Delete

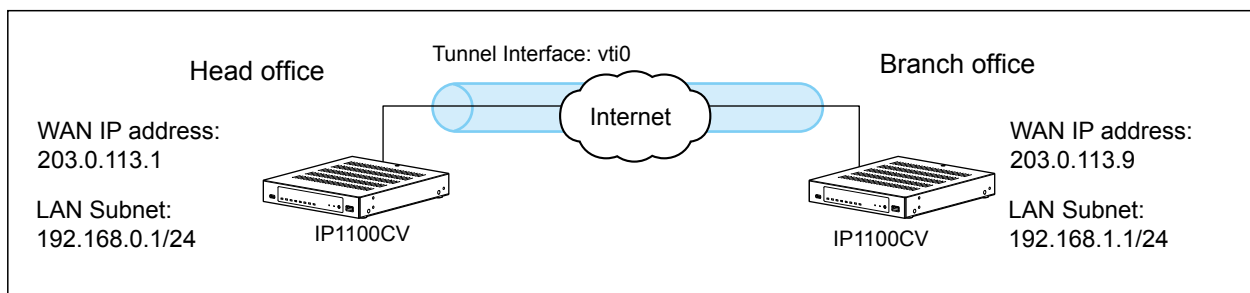
- 1 Tunnel Interface** The interface name (tunnel name) is displayed.
- 2 Interface** The WAN interface name on which the tunnel is created is displayed.
- 3 Status**
- **Connected:** Connected.
 - **Waiting:** Connection ready.
 - **Connecting:** Connection in progress.
 - **Disable:** IPsec is enable but Tunnel Setting is disable.
 - **IPsec is Disabled:** The Controller's IPsec function is disabled.
- 4 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.
 ① When a VPN connection is made while the Responder function is ON, the Remote Address is displayed in parentheses, as in (172.16.***.***).
- 5 Remote ID** The peer ID is displayed.
- 6 Local ID** The local ID is displayed.
- 7 <Edit>** Click to edit the entry.
- 8 <Delete>**
- Click to delete the entry.
 ① 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:



① The Static routing to the IPsec Tunnel is also required. (P.3-8, P.4-23)

Settings at the Head office

IPsec Settings	
IPsec :	☐ Disable ☒ Enable
IPsec Tunnel Settings	
Tunnel Interface :	vti0
Tunnel :	☐ Disable ☒ Enable
Tunnel Name :	Branch
Interface :	① ppp0 (WAN01)
Authentication Key (Pre-Shared Key) :	②
Remote Address :	③ 203.0.113.9
Remote ID :	④ KEYID ▼ osaka
Local ID :	KEYID ▼ tokyo

- 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

IPsec Settings	
IPsec :	☐ Disable ☒ Enable
IPsec Tunnel Settings	
Tunnel Interface :	vti0
Tunnel :	☐ Disable ☒ Enable
Tunnel Name :	Head office
Interface :	① ppp0 (WAN01)
Authentication Key (Pre-Shared Key) :	②
Remote Address :	③ 203.0.113.1
Remote ID :	④ KEYID ▼ tokyo
Local ID :	KEYID ▼ osaka

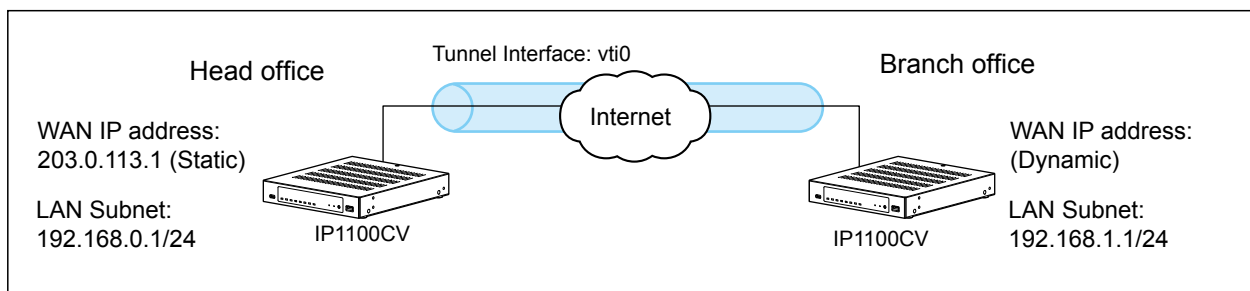
- ① Select the PPPoE setting.
- ② Enter the same key to both the Head office and the Branch office.
- ③ Enter the WAN IP address of the Head office.
- ④ Enter the Local ID of the Head office.

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:



① The Static routing to the IPsec Tunnel is also required. (P.3-8, P.4-23)

Settings at the Head office

IPsec Settings	
IPsec :	☐ Disable ☒ Enable
IPsec Tunnel Settings	
Tunnel Interface :	vti0
Tunnel :	☐ Disable ☒ Enable
Tunnel Name :	Branch
Interface :	① ppp0 (WAN01)
Authentication Key (Pre-Shared Key) :	②
Remote Address :	③
Remote ID :	④ KEYID ▼ osaka
Local ID :	KEYID ▼ tokyo

- 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

IPsec Settings	
IPsec :	☐ Disable ☒ Enable
IPsec Tunnel Settings	
Tunnel Interface :	vti0
Tunnel :	☐ Disable ☒ Enable
Tunnel Name :	Head office
Interface :	① ppp0 (WAN01)
Authentication Key (Pre-Shared Key) :	②
Remote Address :	③ 203.0.113.1
Remote ID :	④ KEYID ▼ tokyo
Local ID :	KEYID ▼ osaka

- 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.

RoIP Settings screen	5-3
■ Additional Controller Settings	5-3
■ Advanced Settings	5-4
Tenant (Fleet) Settings screen	5-7
■ Tenant (Fleet)	5-7
RoIP Server screen	5-8
■ Call Type Priority	5-8
Telephone Gateway Interconnect screen	5-9
■ Telephone Gateway Interconnection	5-9
■ Telephone Gateway Interconnection Entry List	5-10
■ Telephone Gateway Interconnection Group	5-11
■ Telephone Gateway Interconnection Group Entry List	5-12
Additional Controller Link screen	5-13
■ Link Setting	5-13
■ Linked Controller List	5-14
Area Call screen	5-15
■ Area Setting	5-15
■ Access Point Search	5-16
■ Area Entry List	5-18
Transceiver Management screen	5-19
■ Transceiver Management	5-19
Transceiver Registration screen	5-21
■ Transceiver Settings	5-21
■ Transceiver Setting Entry List	5-23
■ TRX Batch Setting	5-24
Transceiver Settings screen	5-25
■ Transceiver Settings [IP100H]	5-25
■ Transceiver Settings [IP110H]	5-57
■ Certificate Management [IP110H].....	5-103
■ Copy Transceiver Settings.....	5-104
■ Transceiver Setting List	5-104
Wireless LAN screen	5-105
■ Wireless LAN	5-105
■ List of Wireless LAN Entries	5-116

ID List screen	5-117
■ ID List Common Settings	5-117
■ ID List Advanced Settings	5-117
■ Save or Write the ID List Setting	5-118
■ ID List	5-120
■ ID List Entries	5-122
Messages screen	5-123
■ Message Group	5-123
■ Message Group Detail	5-123
■ Save or Write the Message Setting	5-124
■ Message List	5-126
Status screen	5-127
■ Status Settings.....	5-127
Profile screen	5-128
■ Profile List.....	5-128
■ Profile	5-129
■ Profile Batch Setting	5-139
Call Recording screen	5-140
■ Common Setting	5-140
■ Recorder Setting	5-141
■ List of Recording Box Entries	5-143

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.

Additional Controller Settings	
Controller Mode:	☒ Sub ☐ Master
Service Port Number:	32000

① 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.

② 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.

① This number is also used for the caller port number.

① 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.

The figure shows three examples of the 'Advanced Settings' screen for RoIP, each corresponding to a different 'TOS Type' setting. The settings are numbered 1 through 6 for reference.

- TOS Type: Not Used:**
 - Buffering Type (1): ☒ Static ☐ Dynamic
 - Receive Buffer Size (2): 40 (unit: milliseconds)
 - TOS Type (3): Not Used
 - Buttons (5, 6): Apply, Reset
- TOS Type: TOS:**
 - Buffering Type (1): ☒ Static ☐ Dynamic
 - Receive Buffer Size (2): 40 (unit: milliseconds)
 - TOS Type (3): TOS
 - Media (RTP) Priority Level (4): 7
 - Media (RTP) Service Type: 0
 - Media (RTP) (HEX): E0
 - Buttons (5, 6): Apply, Reset
- TOS Type: Diffserv:**
 - Buffering Type (1): ☒ Static ☐ Dynamic
 - Receive Buffer Size (2): 40 (unit: milliseconds)
 - TOS Type (3): Diffserv
 - Media (RTP) DSCP (4): 56
 - Media (RTP) (HEX): E0
 - Buttons (5, 6): Apply, Reset

① 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.
- ① This item is displayed when [Buffering Type] is set to "Static."

RoIP Settings screen

Transceiver Controller > RoIP Settings

■ Advanced Settings

TOS Type:
Not Used

Advanced Settings

Buffering Type ① ☒ Static ☐ Dynamic
 Receive Buffer Size ② 40 ▼ milliseconds
 TOS Type ③ Not Used ⑤ ⑥ ▼
Apply Reset

TOS Type:
TOS

Advanced Settings

Buffering Type ① ☒ Static ☐ Dynamic
 Receive Buffer Size ② 40 ▼ milliseconds
 TOS Type ③ TOS ▼
 Media (RTP) Priority Level ④ 7
 Media (RTP) Service Type : 0
 Media (RTP) (HEX) : E0 ⑤ ⑥ ▼
Apply Reset

TOS Type:
Diffserv

Advanced Settings

Buffering Type ① ☒ Static ☐ Dynamic
 Receive Buffer Size ② 40 ▼ milliseconds
 TOS Type ③ Diffserv ▼
 Media (RTP) DSCP ④ 56
 Media (RTP) (HEX) : E0 ⑤ ⑥ ▼
Apply Reset

① These are examples of when the [Buffering Type] is set to "Static."

③ 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	Advanced Settings Buffering Type ① ☒ Static ☐ Dynamic Receive Buffer Size ② 40 ▼ milliseconds TOS Type ③ Not Used ⑤ ⑥ ▼ Apply Reset
	Advanced Settings Buffering Type ① ☒ Static ☐ Dynamic Receive Buffer Size ② 40 ▼ milliseconds TOS Type ③ TOS ▼ Media (RTP) Priority Level ④ 7 Media (RTP) Service Type : 0 Media (RTP) (HEX) : E0 ⑤ ⑥ Apply Reset
	Advanced Settings Buffering Type ① ☒ Static ☐ Dynamic Receive Buffer Size ② 40 ▼ milliseconds TOS Type ③ Diffserv ▼ Media (RTP) DSCP ④ 56 Media (RTP) (HEX) : E0 ⑤ ⑥ Apply Reset

① 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.

① 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)

① The terminals cannot communicate among different tenants (fleets).

① Select the tenant (fleet) number between 1 to 10.

① All WLAN transceivers and IP100FSs that belong to the Controller are activated in one tenant (fleet).

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

2 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

RoIP Server (Tenant1)

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

3 <Apply> Click to apply the entries.

4 <Reset> Click to reset the settings.
① 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.

Call Type Priority

Call type Priority (High to low) :

1

Telephone - All - Individual - Group

2

3

▼

Apply

Reset

1 Call type Priority (High to low)

Select the priority level of the call types.

(Default: Telephone – All – Individual – Group)

① The setting value are as shown below:

Call Type Priority

Call type Priority (High to low) :

Telephone - All - Individual - Group

Telephone - All - Individual - Group

Telephone - All - Group - Individual

Telephone - Individual - All - Group

Telephone - Individual - Group - All

Telephone - Group - All - Individual

Telephone - Group - Individual - All

2 <Apply>

Click to apply the entries.

3 <Reset>

Click to reset the settings.

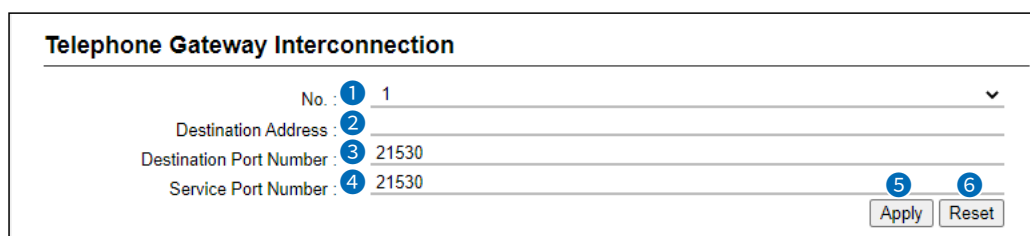
① You cannot reset after clicking <Apply>.

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)
① 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) |
-
- ① **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.
① 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.

Telephone Gateway Interconnection Entry List					
No.	Destination Address	Destination Port Number	Service Port Number	①	②
1	192.168.0.2	21530	21530	Edit	Delete
2	192.168.0.4	21532	21532	Edit	Delete
3	192.168.1.2	21534	21534	Edit	Delete
				③ Delete All	

① <Edit> Click to edit the setting on the [Telephone Gateway Interconnection].

② <Delete> Click to delete the selected entry.
 ⓘ After clicking <Delete>, the content cannot be recalled.

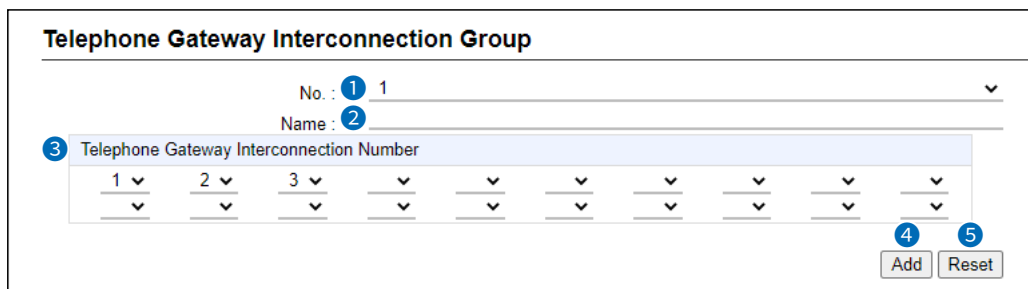
③ <Delete All> Click to delete all the entries.
 ⓘ After clicking <Delete All>, the contents cannot be recalled.

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.



- 1 **No.** Select the number that is registered to a group.
Up to 20 groups can be registered.
- 2 **Name** Enter the group name. (Up to 31 characters)
- 3 **Telephone Gateway
Interconnection Number ...** Select the Telephone Gateway Interconnection to register to the group.
- 4 **<Add>** Click to add the entries.
- 5 **<Reset>** Click to restore the settings.
 ① 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.

Telephone Gateway Interconnection Group Entry List			
No.	Name	Telephone Gateway Interconnection Number	
1	VE-PG3 Bridge	1 2 3	1 2 Edit Delete

3

Delete All

1 <Edit>

Click to edit the setting on the [Telephone Gateway Interconnection Group] field.

2 <Delete>

Click to delete the selected entry.

① After clicking <Delete>, the content cannot be recalled.

3 <Delete All>

Click to delete all the entries.

① 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).

- | | |
|--------------------------------------|--|
| ① No. | Select a number between 1 and 100 to register the other transceiver controllers.
(Default: 1) |
| ② Name | Enter the group name of up to 31 characters. |
| ③ Destination Address | Enter the destination device's IP address or domain name of up to 63 characters. |
| ④ Destination Port Number ... | Enter the destination controller's service port number in [Additional Controller Link].
(Default: 32000)
• Range: 2 ~ 65534 (only even numbers)
① The set port number (RTP) and the port number +1 (RTCP) are used for communication. |
| ⑤ <Apply> | Click to apply the entries.
① The entries are displayed in [Linked Controller List]. |
| ⑥ <Reset> | Click to reset the settings.
① 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.

Linked Controller List					
No.	Name	Destination Address	Destination Port Number	1	2
1	Office1 (Master)	192.168.0.1	32000	Edit	Delete
2	Office2 (Sub)	192.168.0.77	32000	Edit	Delete
3	VE-PG3 (Area-A)	192.168.0.2	32010	Edit	Delete
				3 Delete All	

1 <Edit>

Click to edit the entry in [Link Setting].

2 <Delete>

Click to delete the selected entry.

① After clicking <Delete>, the entry cannot be recalled.

3 <Delete All>

Click to delete all the entries.

① After clicking <Delete All>, the entries cannot be recalled.

Area Call screen

Transceiver Controller > RoIP Server Settings > Area Call

■ Area Setting

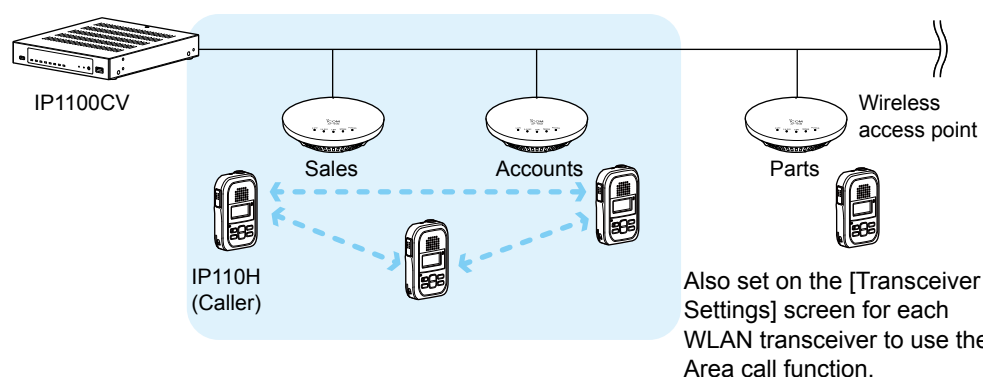
With the Area call function, you can communicate with the devices within the specified area.
When the WLAN transceiver uses the Area call function to make an All call or Group call, it will call other WLAN transceivers or IP100FSs that accesses the wireless access points in the same area as the caller.
① If you want to use Area call from an IP100FS, select the access points to specify the area.

The screenshot shows the 'Area Setting' configuration page. It includes a dropdown for 'No.' set to 1, a text field for 'Name', and a table for 'BSSID' with columns for BSSID and Name. At the bottom right are 'Apply' and 'Reset' buttons.

- ① **No.** Select the number that you want to register the Area call. (Default: 1)
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.
① Up to 20 access points can be registered to an area.
- ④ **<Apply>** Click to add the entries.
① The entries will be displayed in [Area Entry List].
- ⑤ **<Reset>** Click to reset the settings.
① 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.



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.

① Icom guarantees this function only for the AP-90M and AP-95M. (As of June, 2023)

Access Point Search

*Searches and lists access points that support this function.

IP Address Range : ① _____ - _____ Search

② ☐ All	Host Name	IP Address	BSSID	Name ③	No ④	⑤
☐	AP-95M	192.168.0.6	00-90-C7-XXXXXX	Sales 1	1	Add
☐	AP-95M	192.168.0.7	00-90-C7-XXXXXX	Sales 2	2	Add

⑥ Apply selection

① IP 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.

① You can search only with the IP start address.

① If BSSID is already registered in the Area Entry List, it is not displayed.

① 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.

Area Settings

Interface : ath0

BSSID : 00-90-C7-XXXXXX

Tenant Number	Notification	Name
1	☐ Disable ☒ Enable	Sales1
2	☐ Disable ☒ Enable	

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

② Check Box

Click a Check Box to add a check mark for registering a found access point.

① You can select or cancel all access points in the list by clicking [All].

③ Name

The name that is set in [IP Advanced Radio System] of an access point is displayed.

① The area name is registered to [Number] in [Area Setting].

Area Call screen

Transceiver Controller > RoIP Server Settings > Area Call

■ Access Point Search

Access Point Search

*Searches and lists access points that support this function.

IP Address Range : ① _____ - _____

Search

② ☐ All	Host Name	IP Address	BSSID	Name ③	No ④	⑤
☐	AP-95M	192.168.0.6	00-90-C7-██████	Sales 1	1 ▼	Add
☐	AP-95M	192.168.0.7	00-90-C7-██████	Sales 2	2 ▼	Add

⑥ Apply selection

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.

① You cannot select the area number that has already been registered in [Area Call].

① 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].

Area Entry List				
No.	Name	BSSID	①	②
1	Sales 1	06-90-C7-██████	Edit	Delete
2	Sales 2	06-90-C7-██████	Edit	Delete
				③ Delete All

① <Edit>

Click to edit the setting in [Area Setting].

② <Delete>

Click to delete the selected entry.

① After clicking <Delete>, the entry cannot be recalled.

③ <Delete All>

Click to delete all the entries.

① 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.

Transceiver Management										
1	2	3	4	5	6	7				
☐ All	TRX No.	Transceiver Model	Name	Unit ID	Registration Status	IP Address	Current Status	Talkgroup	Location	Version
☐	1	IP100H	Sales1	00101	Connected	192.168.0.1	Meeting	-	00-90-C7-11111111	Ver. 1.0.0
☐	2	IP100H	Sales2	00102	Connected	192.168.0.2	Waiting	-	00-90-C7-22222222	Ver. 1.0.0
☐	3	IP110H	Sales3	00103	Connected	192.168.0.3	Working	-	00-90-C7-33333333	Ver. 1.0.0
☐	4	IP100FS	IP100FS	00050	Disconnected	-	-	-	-	-

Manual Reboot

Manual Update : 8 ☒ Disable ☐ Enable

Manual Reboot : 9

① A WLAN transceiver is displayed in bold when a setting is changed and a reboot is required.

1 Check Box

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

① You cannot select an IP100FS, or a WLAN transceiver that has "Disconnected" displayed in [Registration Status].

① By clicking the [All] box, you can select or cancel all WLAN transceivers in the list.

2 Registration Status

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

① Displays "Disconnected" if the WLAN transceiver is turned OFF or the IP100FS's application is not running.

① 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."

3 IP Address

Displays the IP Addresses of the WLAN transceivers or IP100FSs.

① When [Registration Status] displays "Disconnected," "-" is displayed.

4 Current Status

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

① 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

Transceiver Management

1	2	3	4	5	6	7				
☐ All	TRX No.	Transceiver Model	Name	Unit ID	Registration Status	IP Address	Current Status	Talkgroup	Location	Version
☐	1	IP100H	Sales1	00101	Connected	192.168.0.1	Meeting	-	00-90-C7-12345678	Ver. 1.0.0
☐	2	IP100H	Sales2	00102	Connected	192.168.0.2	Waiting	-	00-90-C7-12345678	Ver. 1.0.0
☐	3	IP110H	Sales3	00103	Connected	192.168.0.3	Working	-	00-90-C7-12345678	Ver. 1.0.0
☐	4	IP100FS	IP100FS	00050	Disconnected	-	-	-	-	-

Manual Reboot

Manual Update : 8 ☒ Disable ☐ Enable

Manual Reboot : 9

① 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.

① When a Talkgroup name is registered, a Talkgroup number (name) is displayed.

① 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.

① When [Registration Status] displays "Disconnected," "-" is displayed.

7 Version

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

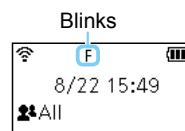
① When [Registration Status] displays "Disconnected," "-" is displayed.

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)



① 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.

① After the registration is completed, you must reboot the WLAN transceiver.

1 TRX No. Selects the number that the WLAN transceiver or IP100FS is registered to. (Default: 1)

① Up to 300 terminals can be registered.

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

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

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

Security

5 Password Enter a password to access to the Controller. (Default: iptrx)
① Up to 12 characters, lower or upper letters, numbers, and symbols can be used.

Connection Port

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

① 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

Transceiver Settings

TRX No.: 1

Transceiver Model: IP100H

Name: Sales1

Unit ID: 00001

Security

Password: iptrx

Connection Port

Transceiver Port Number: 30000

Server Port Number: 30000

Profile

Profile: 1 (Sales group)

Add Reset

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.

① 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)

① The numbers 1 to 300 are selectable.

① 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.

① The entries are displayed in [Transceiver Setting Entry List].

10 <Reset>

Click to reset the settings.

① 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.

Transceiver Setting Entry List

① ☐ All	TRX No.	Transceiver Model	Name	Unit ID	Password	Connection Port		Profile	ID List	Message List	②
						Transceiver	Server				
☐	1	IP100H ▾	Sales1	00101	iptrx	30000	30000	1 ▾	1	1 (Sales group1)	Delete
☐	2	IP100H ▾	Sales2	00102	iptrx	30002	30002	1 ▾	1	1 (Sales group1)	Delete
☐	3	IP110H ▾	Sales3	00103	iptrx	30004	30004	1 ▾	1	1 (Sales group1)	Delete
☐	4	IP100FS ▾	IP100FS	00050	iptrx	-	30006	1 ▾	1	1 (Sales group1)	Delete

③ ④ ⑤ ⑥

① Check Box

Click a Check Box to add a check mark to delete an entry.

① By clicking the [All] box, you can select or cancel all entries in the list.

② <Delete>

Click to delete the selected entry.

① After clicking <Delete>, the entry cannot be recalled.

③ <Apply>

Click to apply the entries.

① The entries that are edited in [Transceiver Setting Entry List] are registered.

④ <Reset>

Click to reset the settings.

① You cannot reset after clicking <Apply>.

⑤ <Delete Selected>

Click to delete an entry that you select in the Check Box.

① After clicking <Delete Selected>, the entry cannot be recalled.

⑥ <Delete All>

Click to delete all the entries.

① 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.

TRX Batch Setting

Range : ① _____ - _____
 * Enter Unit ID range.

Refer to : ② Default ▼
 * [Transceiver Settings] applies the initial value.

Profile : ③ 1 (Sales group) ▼

① Range

Enter a range of collective Destination IDs.

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

① If a Destination ID is already registered, “Overwrite the following entry” is displayed.

② Refer to

Select the default settings or the programmed settings to refer to.

(Default: Default)

③ Profile

Select the profile number that WLAN transceivers or IP100FSs belong to.

(Default: 1)

① The numbers 1 to 300 are selectable.

① 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.

① After the setting is completed, you must reboot the IP100H.

Transceiver Settings

Unit ID : ① 00101 (Sales1) ▼

Transceiver Model : IP100H

Display

Display Item : ② ☒ Date and Time ☐ Name

Back Light : ③ Auto ▼

Transmission

TX Inhibit : ④ ☒ Disable ☐ Enable

PTT Lock : ⑤ ☒ Disable ☐ Enable

Destination ID

PTT Call at Stand-by : ⑥ ☐ Disable ☒ Enable * The last-used ID display is hidden, if disabl

Use ID List : ⑦ ☐ Disable ☒ Enable

Default Destination ID : All ▼

Add All Call to ID List : ⑧ ☐ Disable ☒ Enable

Default Talkgroup : ⑨ ☒ Disable ☐ Enable

① The screen shows when [Use ID List] is set to "Enable."

① Unit ID

Select the IP100H's Individual number (Name) that you want to edit.

① Only the individual numbers of the WLAN transceiver are selectable.

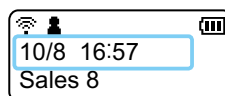
The individual number that the [Transceiver Model] on the [Transceiver Registration] screen is set to "IP100FS," cannot be selected.

Display

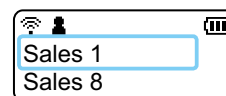
② Display Item

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

① 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)

③ 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

④ TX Inhibit

Select "Enable" to inhibit the IP100H's transmission. (Default: Disable)

① 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]

Transceiver Settings

Unit ID : ① 00101 (Sales1) ▼

Transceiver Model : IP100H

Display

Display Item : ② ☒ Date and Time ☐ Name

Back Light : ③ Auto ▼

Transmission

TX Inhibit : ④ ☒ Disable ☐ Enable

PTT Lock : ⑤ ☒ Disable ☐ Enable

Destination ID

PTT Call at Stand-by : ⑥ ☐ Disable ☒ Enable * The last-used ID display is hidden, if disabl

Use ID List : ⑦ ☐ Disable ☒ Enable

Default Destination ID : All ▼

Add All Call to ID List : ⑧ ☐ Disable ☒ Enable

Default Talkgroup : ⑨ ☒ Disable ☐ Enable

① 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)

① 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.

① 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.

① 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]

Transceiver Settings

Unit ID : ① 00101 (Sales1) ▼

Transceiver Model : IP100H

Display

Display Item : ② ☒ Date and Time ☐ Name

Back Light : ③ Auto ▼

Transmission

TX Inhibit : ④ ☒ Disable ☐ Enable

PTT Lock : ⑤ ☒ Disable ☐ Enable

Destination ID

PTT Call at Stand-by : ⑥ ☐ Disable ☒ Enable * The last-used ID display is hidden, if disabl

Use ID List : ⑦ ☐ Disable ☒ Enable

Default Destination ID : All ▼

Add All Call to ID List : ⑧ ☐ Disable ☒ Enable

Default Talkgroup : ⑨ ☒ Disable ☐ Enable

① 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 key on the IP100H.

- ① If you set the Call Type to "Individual" or "Group," enter a destination ID between 1 to 60000 in the [Destination ID]. (Default: All)
- ① Even if "Disable" is selected, the IP100H displays a received ID in the ID list.

Use ID List : ☒ Disable ☐ Enable

Call Type : All ▼

• Enable:

The call type is changed by pushing the 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].

- ① The ID list is selected on the [Common Settings] screen.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]

Transceiver Settings

Unit ID : ① 00101 (Sales1) ▼

Transceiver Model : IP100H

Display

Display Item : ② ☒ Date and Time ☐ Name

Back Light : ③ Auto ▼

Transmission

TX Inhibit : ④ ☒ Disable ☐ Enable

PTT Lock : ⑤ ☒ Disable ☐ Enable

Destination ID

PTT Call at Stand-by : ⑥ ☐ Disable ☒ Enable * The last-used ID display is hidden, if disabl

Use ID List : ⑦ ☐ Disable ☒ Enable

Default Destination ID : All ▼

Add All Call to ID List : ⑧ ☐ Disable ☒ Enable

Default Talkgroup : ⑨ ☒ Disable ☐ Enable

① 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.

① When "Disable" is selected in [Add All Call to ID List], you cannot select an All call using the [☐] key.

• Enable

① 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.

① When [Use ID List] is set to "Disable," this item is not displayed.

Default Talkgroup : ☐ Disable ☒ Enable

Call ID : 13 (TG1) ▼

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]

① 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)

① When this setting set to "0," the notification beep does not sound.

① 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]

Transceiver Settings	
Ringer Settings	
Volume ⑩	10
Ringer and Vibration ⑪	Notification Beep
Notice Tone(Except Reception Notice)	
Volume ⑫	10
Function Settings	
Communication Method ⑬	☐ Simplex ☒ Full-Duplex
Priority Call ⑭	☒ Disable ☐ Enable
Area Call ⑮	☒ Disable ☐ Enable
Message ⑯	☐ Disable ☒ Enable
Default Message :	1 (Gather immediately.)
Status ⑰	☒ Disable ☐ Enable
Mixing of Low Priority Call ⑱	☒ Disable ☐ Enable

⑩ 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)

⑩ When this setting is set to "0," the notification beep will not sound.

⑩ 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.

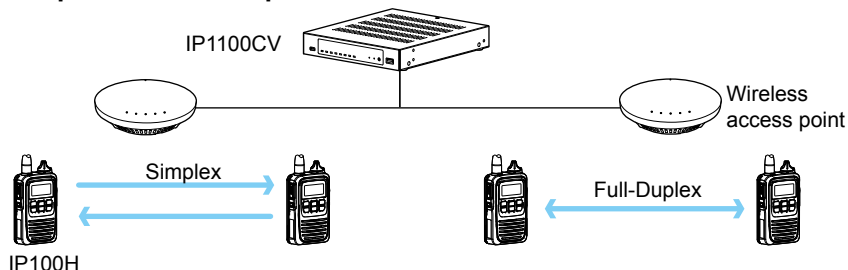
(Default: Full-Duplex)

• **Simplex:** Toggles the transmission (Talker) and reception (Listener) for communication.

• **Full-Duplex:** Simultaneously transmits and receives, like a telephone.

⑩ 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]

Transceiver Settings	
Ringer Settings	
Volume ⑩	10
Ringer and Vibration ⑪	Notification Beep
Notice Tone(Except Reception Notice)	
Volume ⑫	10
Function Settings	
Communication Method ⑬	☐ Simplex ☒ Full-Duplex
Priority Call ⑭	☒ Disable ☐ Enable
Area Call ⑮	☒ Disable ☐ Enable
Message ⑯	☐ Disable ☒ Enable
Default Message :	1 (Gather immediately.)
Status ⑰	☒ Disable ☐ Enable
Mixing of Low Priority Call ⑱	☒ Disable ☐ Enable

⑩ 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 ↑ ↓ Low	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	—
		Group Call (Normal)	Disable	Includes the Area Call

* Selectable in the [Call Type Priority].

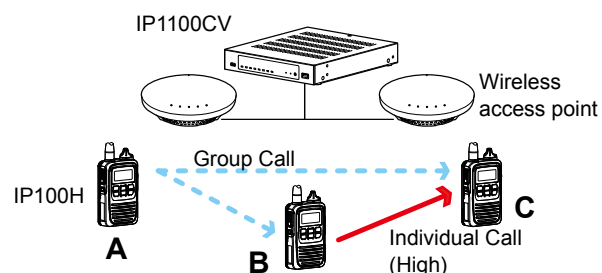
(Transceiver Controller > RoIP Server Settings > RoIP Server)

① Priority is given to the first call between calls with the same priority level.

① 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]

Transceiver Settings	
Ringer Settings	
Volume	10
Ringer and Vibration	Notification Beep
Notice Tone(Except Reception Notice)	
Volume	10
Function Settings	
Communication Method	☐ Simplex ☒ Full-Duplex
Priority Call	☒ Disable ☐ Enable
Area Call	☒ Disable ☐ Enable
Message	☐ Disable ☒ Enable
Default Message :	1 (Gather immediately.)
Status	☒ Disable ☐ Enable
Mixing of Low Priority Call	☒ Disable ☐ Enable

① The screen shows when [Message] is set to "Enable."

Function Settings

15 Area Call

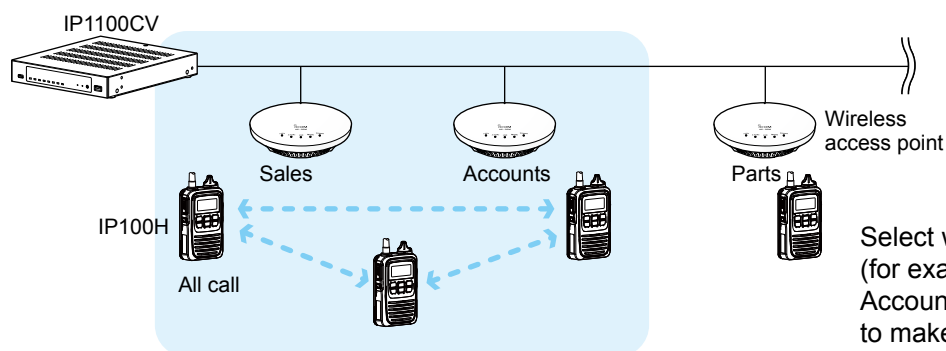
Select whether or not the IP100H uses Area Call.

(Default: Disable)

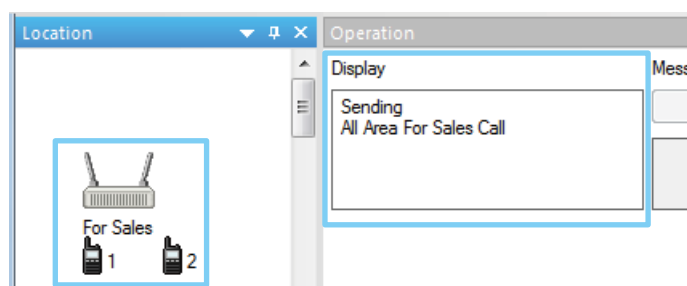
When the IP100H calls All Call or Group Call using the Area Call function, it calls only other IP100Hs or IP100FSs in the area that is connected to the same wireless access point.

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]

Transceiver Settings	
Ringer Settings	
Volume 10	10
Ringer and Vibration 11	Notification Beep
Notice Tone(Except Reception Notice)	
Volume 12	10
Function Settings	
Communication Method 13	☐ Simplex ☒ Full-Duplex
Priority Call 14	☒ Disable ☐ Enable
Area Call 15	☒ Disable ☐ Enable
Message 16	☐ Disable ☒ Enable
Default Message :	1 (Gather immediately.)
Status 17	☒ Disable ☐ Enable
Mixing of Low Priority Call 18	☒ Disable ☐ Enable

① The screen shows when [Message] is set to "Enable."

Function Settings

16 Message

Select whether or not the IP100H can send messages.

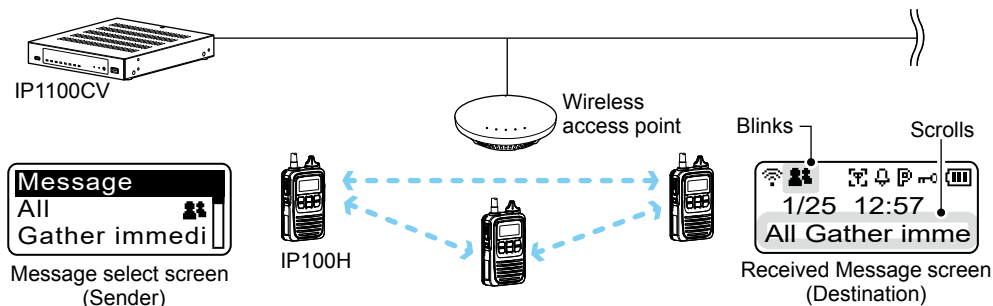
(Default: Disable)

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

① Up to 10 messages of 32 characters or less can be programmed on the [Messages] screen in the [Common Settings] menu.

① 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

Operation	
Display	Message
All	Gather immediate
Displays Call Type	Selected or edited message
	Remote Lock
	Remote Unlock
	Remote Monitor

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]

Transceiver Settings

Ringer Settings

Volume 10 10

Ringer and Vibration 11 Notification Beep

Notice Tone(Except Reception Notice)

Volume 12 10

Function Settings

Communication Method 13 ☐ Simplex ☒ Full-Duplex

Priority Call 14 ☒ Disable ☐ Enable

Area Call 15 ☒ Disable ☐ Enable

Message 16 ☐ Disable ☒ Enable

Default Message : 1 (Gather immediately.)

Status 17 ☒ Disable ☐ Enable

Mixing of Low Priority Call 18 ☒ Disable ☐ Enable

① 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)

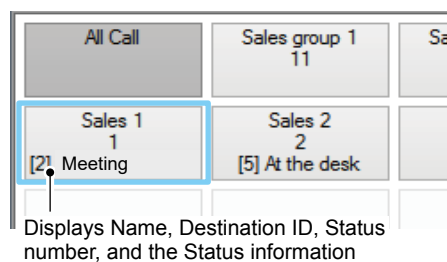
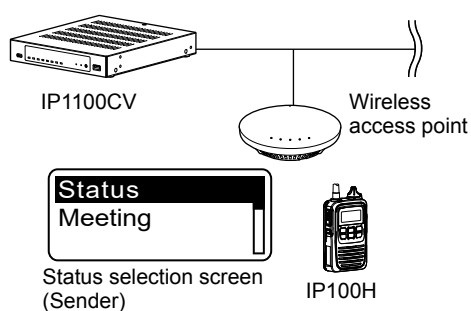
(Default: Disable)

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

① Up to 10 statuses of 32 characters or less can be entered on the [Status] screen in the [Common Settings] menu.

① 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

Transceiver Management										
☐ All	TRX No.	Transceiver Model	Name	Unit ID	Registration Status	IP Address	Current Status	Talkgroup	Location	Version
☒	1	IP100H	Sales1	00101	Connected	192.168.1.1	Meeting	-	00-90-C7-11111111	Ver. 1.0
☐	2	IP110H	Sales2	00102	Connected	192.168.1.2	Away from the desk	-	00-90-C7-11111111	Ver. 1.0
☐	3	IP100H	Sales3	00103	Connected	192.168.1.3	Working	-	00-90-C7-11111111	Ver. 1.0
☐	4	IP100H	Sales4	00104	Connected	192.168.1.4	Waiting	-	00-90-C7-11111111	Ver. 1.0

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]

Transceiver Settings	
Ringer Settings	
Volume 10	10
Ringer and Vibration 11	Notification Beep
Notice Tone(Except Reception Notice)	
Volume 12	10
Function Settings	
Communication Method 13	☐ Simplex ☒ Full-Duplex
Priority Call 14	☒ Disable ☐ Enable
Area Call 15	☒ Disable ☐ Enable
Message 16	☐ Disable ☒ Enable
Default Message :	1 (Gather immediately.)
Status 17	☒ Disable ☐ Enable
Mixing of Low Priority Call 18	☒ Disable ☐ Enable

① 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.

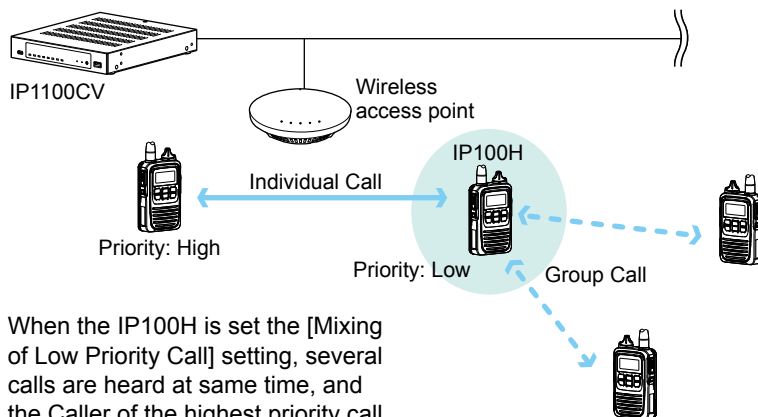
(Default: Disable)

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

① 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]

Transceiver Settings	
Fix Call Destination	Fix Call Destination : 19 Disable
Key Assignment	Option Key : 20 No Function
Clear Down during Telephone Call	21 ☐ Disable ☒ Enable
Target Availability Check	Target Availability Check : 22 ☐ Disable ☒ Enable

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.

	2nd line 3rd line
--	----------------------

Call type is set to All

Fix Call Destination	
Fix Call Destination :	PTT
Call Type :	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.

	2nd line 3rd line
--	----------------------

Call type is set to Group

Fix Call Destination	
Fix Call Destination :	Earphone Mic or Headset
Call Type :	Group
Destination ID :	00001

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

① 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]

Transceiver Settings	
Fix Call Destination	Fix Call Destination : 19 Disable
Key Assignment	Option Key : 20 No Function
Clear Down during Telephone Call	21 ☐ Disable ☒ Enable
Target Availability Check	Target Availability Check : 22 ☐ Disable ☒ Enable

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)

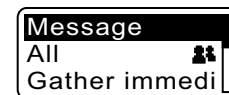
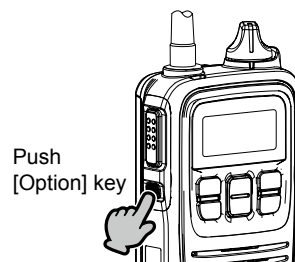
① When this setting is set to "No Function," nothing changes by pushing the [Option] key on the IP100H in the standby mode.

• Message

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

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

Key Assignment	
Option Key :	Message
Message No. :	1 (Gather immediately.)



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]

Transceiver Settings	
Fix Call Destination	Fix Call Destination : 19 Disable
Key Assignment	Option Key : 20 No Function
Clear Down during Telephone Call	21 ☐ Disable ☒ Enable
Target Availability Check	Target Availability Check : 22 ☐ Disable ☒ Enable

Key Assignment

20 Option Key

• One Touch

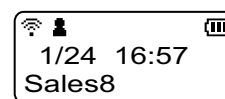
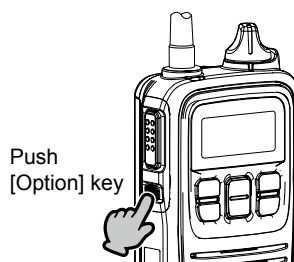
Pushing the [Option] key on the IP100H selects a specified Call type and destination ID or phone number.

Select the "Individual," "Group," "All," or "Telephone" Call type.

① When "Individual" or "Group" is selected, enter the Individual ID or Group ID between 00001 to 60000 in the [Destination ID].

① When "Telephone" is selected, enter up to 31 numbers and symbols (#, *) in the [Destination Phone Number].

Key Assignment	
Option Key :	One Touch
Call Type :	All
Clear Down during Telephone Call :	Individual
Target Availability Check	Group
Target Availability Check :	All
Key-Touch Beep	Telephone



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]

Transceiver Settings	
Fix Call Destination	Fix Call Destination : 19 Disable
Key Assignment	Option Key : 20 No Function
Clear Down during Telephone Call	21 ☐ Disable ☒ Enable
Target Availability Check	Target Availability Check : 22 ☐ Disable ☒ Enable

Key Assignment

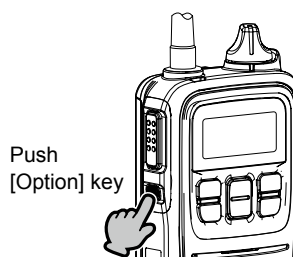
20 Option Key

• Clear Down

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

① You can assign another function if you select “Enable” on [Clear Down during Telephone Call] (21).

Key Assignment	
Option Key :	Clear Down



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

① 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]

Transceiver Settings	
Fix Call Destination	Fix Call Destination : 19 Disable
Key Assignment	Option Key : 20 No Function
Clear Down during Telephone Call	21 ☐ Disable ☒ Enable
Target Availability Check	Target Availability Check : 22 ☐ Disable ☒ Enable

Key Assignment

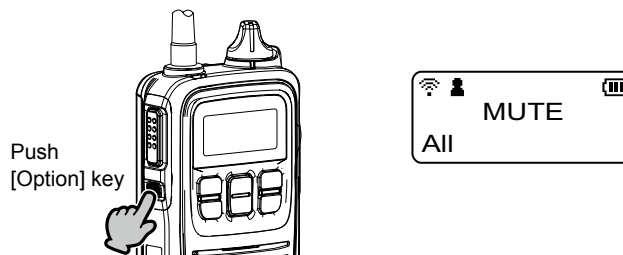
20 Option Key

• 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.

- ① You can turn OFF the Mute function by pushing [PTT]. However, selecting "Enable" in the [Clear Down during Telephone Call], terminates the phone call.
- ① 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))

Key Assignment	
Option Key :	Mute
Mute Automatic Release :	☐ Disable ☒ Enable
Mute Automatic Release Timer :	60



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]

Transceiver Settings	
Fix Call Destination	Fix Call Destination : 19 Disable
Key Assignment	Option Key : 20 No Function
Clear Down during Telephone Call	21 ☐ Disable ☒ Enable
Target Availability Check	Target Availability Check : 22 ☐ Disable ☒ Enable

Key Assignment

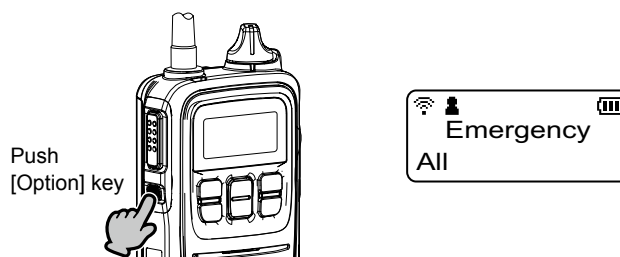
20 Option Key

• 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.

① 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]

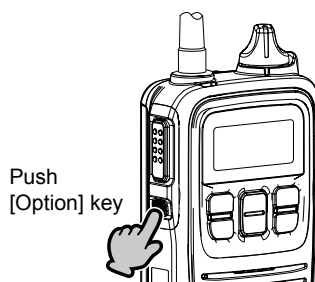
Transceiver Settings	
Fix Call Destination	Fix Call Destination : 19 Disable
Key Assignment	Option Key : 20 No Function
Clear Down during Telephone Call	21 ☐ Disable ☒ Enable
Target Availability Check	Target Availability Check : 22 ☐ Disable ☒ Enable

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)

① 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.

① 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.

① When the target station is out of range, "No response" is displayed.

① 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]

Transceiver Settings

Key-Touch Beep: 23 ☐ Disable ☒ Enable
 Key-Touch Beep Level: 10

Microphone: 24 Gain: 0 dB

Earphone Mic: 25 ☒ Disable ☐ Enable

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.

- ① When “0” is selected in this setting, the IP100H does not sound any beep, even if the volume level is set.
- ① 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.

- ① 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)

- ① When “0” is set, your voice is not heard from an earphone microphone, regardless of the audio setting in the IP100H.
- ① 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]

Transceiver Settings	
Headset	
VOX: 26	☐ Disable ☒ Enable
Attack Time: 27	50 milliseconds
Release Time: 28	200 milliseconds
Voice Delay: 29	200 milliseconds
VOX Threshold: 30	40 %
Sidetone: 31	☐ Disable ☒ Enable
Sidetone Volume: 32	10 ▼

① This is an example of when the [VOX] is set to “Enable.”

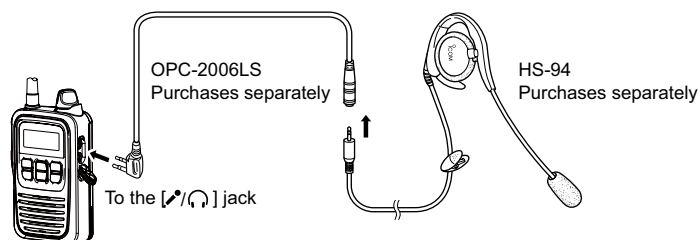
Headset

26 VOX

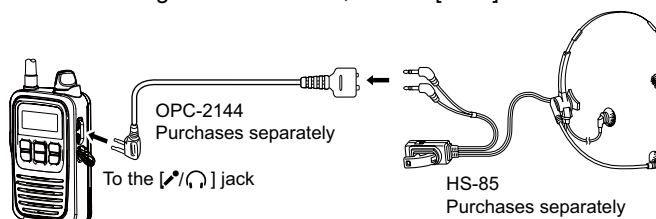
Select whether or not the IP100H can use the VOX (voice operated transmission) function. (Default: Disable)
The transceiver has a VOX function, which allows hands-free operation.

① 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]

Transceiver Settings

Headset

VOX: **26** ☐ Disable ☒ Enable

Attack Time: **27** 50 milliseconds

Release Time: **28** 200 milliseconds

Voice Delay: **29** 200 milliseconds

VOX Threshold: **30** 40 %

Sidetone: **31** ☐ Disable ☒ Enable

Sidetone Volume: **32** 10 ▼

① 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 (%)

① 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]

Transceiver Settings

Emergency Settings

Emergency: 33 ☐ Disable ☒ Enable

Assign Emergency to Log Key (long press): 34 ☐ Disable ☒ Enable

Emer SW ON Timer: 35 5 seconds

Emer SW OFF: 36 ☐ Disable ☒ Enable

Emer SW OFF Timer: 2 seconds

Emergency Alert Tone: 37 ☐ Disable ☒ Enable

Emergency Alert Tone Volume: 32

Call Type: 38 All

Cancel on Reply: 39 ☐ Disable ☒ Enable

Cancel by Time: 40 ☐ Disable ☒ Enable

Time: 60 seconds

① 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]

Transceiver Settings

Emergency Settings

Emergency: 33 ☐ Disable ☒ Enable

Assign Emergency to Log Key (long press): 34 ☐ Disable ☒ Enable

Emer SW ON Timer: 35 5 seconds

Emer SW OFF: 36 ☐ Disable ☒ Enable

Emer SW OFF Timer: 2 seconds

Emergency Alert Tone: 37 ☐ Disable ☒ Enable

Emergency Alert Tone Volume: 32

Call Type: 38 All

Cancel on Reply: 39 ☐ Disable ☒ Enable

Cancel by Time: 40 ☐ Disable ☒ Enable

Time: 60 seconds

① 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]

① 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)

① 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

① 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]

Transceiver Settings

RX Emergency Settings

Alert Tone : 41 ☐ Disable ☒ Enable

Alert Tone Volume : 32

Alert Tone Action : Notification Beep + Vibration

Lone Worker Settings

Lone Worker : 42 ☐ Disable ☒ Enable

Lone Worker ON Timer : 43 60 minutes

Lone Worker Reminder Timer : 44 60 seconds

PTT Delay : 45 ☐ Disable ☒ Enable

PTT Delay Timer : 10 x100 milliseconds

① 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

① When the transceiver is operated by the [Emergency] function activation, [Lone Worker ON Timer] and [Lone Worker Reminder Timer] are reset.

① 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)

① 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.

① 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]

Transceiver Settings	
V/RoIP Settings	
Buffering Type :	46 ☐ Static ☒ Dynamic
TOS Type :	47 TOS
Media (RTP) Priority Level :	48 7
Media (RTP) Service Type :	0
Media (RTP) (HEX) :	E0
Antenna	
Antenna Type :	49 Transceiver's Setting
IP Address	
IP Address Settings :	50 Transceiver's Setting

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.

V/RoIP Settings	
Buffering Type :	☒ Static ☐ Dynamic
Receive Buffer Size :	40
TOS Type :	TOS

• Dynamic

The buffer time changes according to the audio fluctuation.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]

Transceiver Settings	
V/RoIP Settings	
Buffering Type :	46 ☐ Static ☒ Dynamic
TOS Type :	47 TOS
Media (RTP) Priority Level :	48 7
Media (RTP) Service Type :	0
Media (RTP) (HEX) :	E0
Antenna	
Antenna Type :	49 Transceiver's Setting
IP Address	
IP Address Settings :	50 Transceiver's Setting

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]

Transceiver Settings	
V/RoIP Settings	
Buffering Type :	46 ☐ Static ☒ Dynamic
TOS Type :	47 TOS
Media (RTP) Priority Level :	48 7
Media (RTP) Service Type :	0
Media (RTP) (HEX) :	E0
Antenna	
Antenna Type :	49 Transceiver's Setting
IP Address	
IP Address Settings :	50 Transceiver's Setting

V/RoIP Settings

48 Media (RTP).....

Select the Priority level and Service type of the sent VoIP packets.

① 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."

V/RoIP Settings	
Buffering Type :	☐ Static ☒ Dynamic
TOS Type :	Diffserv
Media (RTP) DSCP :	56
Media (RTP) (HEX) :	E0

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP100H]

Transceiver Settings	
V/RoIP Settings	
Buffering Type :	46 ☐ Static ☒ Dynamic
TOS Type :	47 TOS
Media (RTP) Priority Level :	48 7
Media (RTP) Service Type :	0
Media (RTP) (HEX) :	E0
Antenna	
Antenna Type :	49 Transceiver's Setting
IP Address	
IP Address Settings :	50 Transceiver's Setting

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]

Transceiver Settings	
V/RoIP Settings	
Buffering Type :	46 ☐ Static ☒ Dynamic
TOS Type :	47 TOS
Media (RTP) Priority Level :	48 7
Media (RTP) Service Type :	0
Media (RTP) (HEX) :	E0
Antenna	
Antenna Type :	49 Transceiver's Setting
IP Address	
IP Address Settings :	50 Transceiver's Setting

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.

IP Address	
IP Address Settings :	DHCP Client
Primary DNS Server :	
Secondary DNS Server :	

① 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.

IP Address	
IP Address Settings :	Static IP
IP Address :	
Subnet Mask :	
Default Gateway :	
Primary DNS Server :	
Secondary DNS Server :	

① Enter the default gateway address, if your network connects to a different network.

① 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.

① 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)

① The IP1000C, IP1100CV, and VE-PG4 are compatible with this function. (As of June, 2023)

53 SNTP Server

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

① 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.

① 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.

① 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.

① 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)

① 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.

① 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.

① 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.

① After the setting is completed, you must reboot the IP110H.

Transceiver Settings

Unit ID : ① 00103 (Sales3) ▼

Transceiver Model : IP110H

Display

Display Item : ② ☒ Date and Time ☐ Name

Back Light : ③ Auto ▼

Back Light Brightness : ④ ☐ Dark ☒ Bright

Contrast : ⑤ 8 ▼

Name for All Call : ⑥

Startup Comment : ⑦

① Unit ID

Select the IP110H's Individual number (Name) that you want to edit.

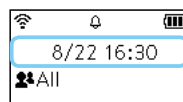
① Only the individual numbers of the WLAN transceiver are selectable.

The individual number that the [Transceiver Model] on the [Transceiver Registration] screen is set to "IP100FS," cannot be selected.

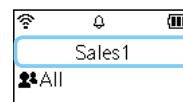
Display

② Display 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

① 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.

③ Back 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.

④ Back Light Brightness

Select the screen backlight brightness from Dark and Bright. (Default: Bright)

⑤ Contrast

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

⑥ Name for All Call

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

⑦ Startup 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]

Transceiver Settings

Transmission

TX Inhibit : 8 ☒ Disable ☐ Enable

PTT Lock : 9 ☒ Disable ☐ Enable

One Touch PTT : 10 ☒ Disable ☐ Enable

Transmission

8 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.

9 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.

10 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**11 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.
① 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.
① When the PTT on the IP110H is pushed, the IP110H calls the displayed ID (Call type).

12 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.
① If you set the Call Type to "Individual" or "Group," enter a destination ID between 1 to 60000 in the [Destination ID]. (Default: All)
① 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].
① The ID list is selected on the [Common Setting] screen.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings	
Destination ID	
PTT Call at Stand-by :	11 ☐ Disable ☒ Enable * The last-used ID display is hidden, if disabled.
Use ID List :	12 ☐ Disable ☒ Enable
Default Destination ID :	All ▼
Add All Call to ID List :	13 ☐ Disable ☒ Enable
Default Talkgroup :	14 ☒ Disable ☐ Enable
Ringer Settings	
Volume :	15 10 ▼
Ringer and Vibration :	16 Notification Beep ▼
Notice Tone(Except Reception Notice)	
Volume :	17 10 ▼

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.

① When "Disable" is selected in [Add All Call to ID List], you cannot select an All call using the [CLR] key.

• Enable

① 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.

① When [Use ID List] is set to "Disable," this item is not displayed.

Default Talkgroup :	☐ Disable ☒ Enable
Call ID :	13 (TG1) ▼

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Ringer Settings

15 Volume

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

① When this setting set to "0," the notification beep is turned OFF.

① The notification beep is individually set for the Call type or message in [Notification Tone] settings.

(Transceiver Controller > Common Settings > Profile)

16 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)

17 Volume

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

① When this setting is set to "0," the notification beep is turned OFF.

① 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]

Transceiver Settings

Function Settings

Communication Method : 18 ☐ Simplex ☒ Full-Duplex

Priority Call : 19 ☒ Disable ☐ Enable

Area Call : 20 ☒ Disable ☐ Enable

Message : 21 ☐ Disable ☒ Enable

Default Message : 1 (Gather immediately.)

Status : 22 ☒ Disable ☐ Enable

Minimum Audio Level : 23 0

Mixing of Low Priority Call : 24 ☒ Disable ☐ Enable

Bluetooth : 25 ☐ Disable ☒ Enable

Bluetooth Auto Connect : 26 ☐ Disable ☒ Enable

Voice Recording : 27 ☒ Disable ☐ Enable

Function Settings

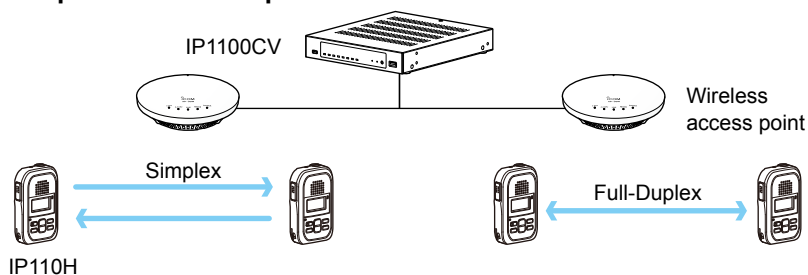
18 Communication Method ...

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.
① 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]

Transceiver Settings	
Function Settings	
Communication Method : 18	☐ Simplex ☒ Full-Duplex
Priority Call : 19	☒ Disable ☐ Enable
Area Call : 20	☒ Disable ☐ Enable
Message : 21	☐ Disable ☒ Enable
Default Message :	1 (Gather immediately.)
Status : 22	☒ Disable ☐ Enable
Minimum Audio Level : 23	0
Mixing of Low Priority Call : 24	☒ Disable ☐ Enable
Bluetooth : 25	☐ Disable ☒ Enable
Bluetooth Auto Connect : 26	☐ Disable ☒ Enable
Voice Recording : 27	☒ Disable ☐ Enable

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 ↑ ↓ Low	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	—
		Group Call (Normal)	Disable	Includes the Area Call

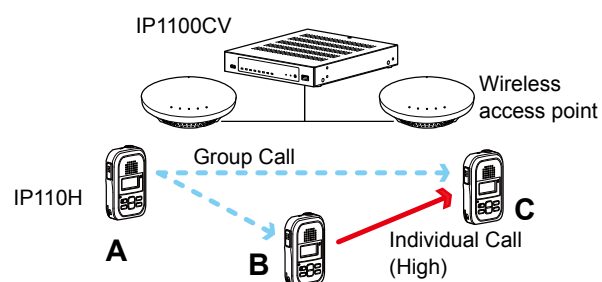
* Selectable in the Call Type Priority in the [RoIP Server] screen in the [RoIP Server Settings] menu.

① Priority is given to the first call between calls with the same priority level.

① 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]

Transceiver Settings

Function Settings

Communication Method : 18 ☐ Simplex ☒ Full-Duplex

Priority Call : 19 ☒ Disable ☐ Enable

Area Call : 20 ☒ Disable ☐ Enable

Message : 21 ☐ Disable ☒ Enable

Default Message : 1 (Gather immediately.)

Status : 22 ☒ Disable ☐ Enable

Minimum Audio Level : 23 0

Mixing of Low Priority Call : 24 ☒ Disable ☐ Enable

Bluetooth : 25 ☐ Disable ☒ Enable

Bluetooth Auto Connect : 26 ☐ Disable ☒ Enable

Voice Recording : 27 ☒ Disable ☐ Enable

Function Settings

20 Area Call

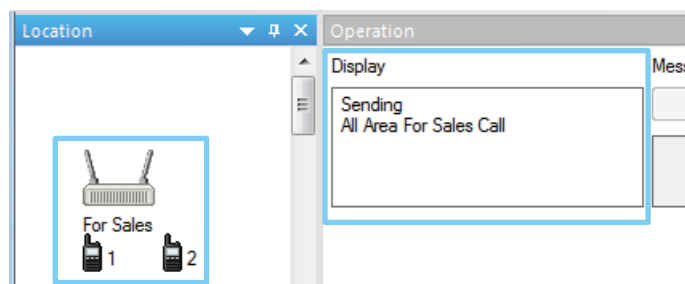
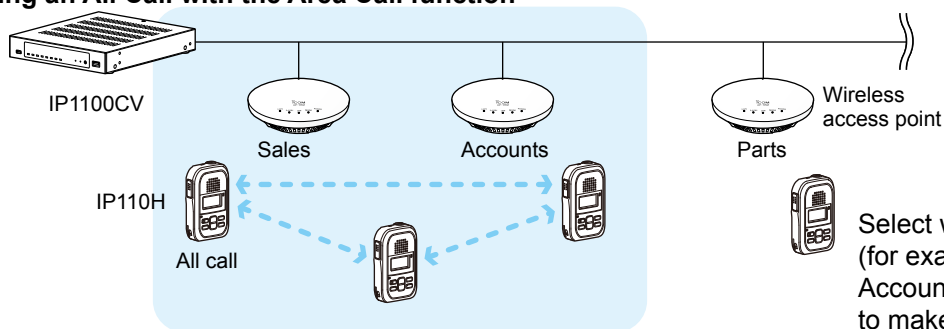
Select whether or not the IP110H uses Area Call.

(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



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]

Transceiver Settings

Function Settings

Communication Method: 18 ☐ Simplex ☒ Full-Duplex

Priority Call: 19 ☒ Disable ☐ Enable

Area Call: 20 ☒ Disable ☐ Enable

Message: 21 ☐ Disable ☒ Enable

Default Message: 1 (Gather immediately.)

Status: 22 ☒ Disable ☐ Enable

Minimum Audio Level: 23 0

Mixing of Low Priority Call: 24 ☒ Disable ☐ Enable

Bluetooth: 25 ☐ Disable ☒ Enable

Bluetooth Auto Connect: 26 ☐ Disable ☒ Enable

Voice Recording: 27 ☒ Disable ☐ Enable

Function Settings

21 Message

Select whether or not the IP110H can send messages.

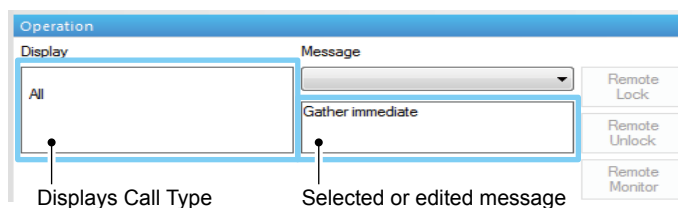
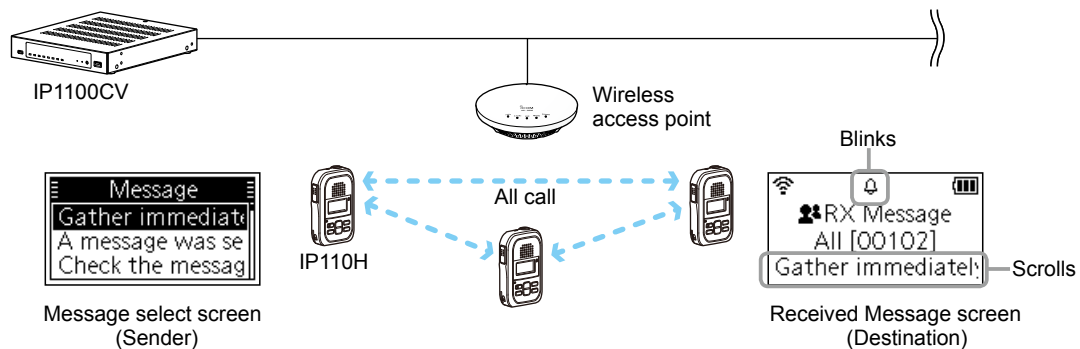
(Default: Disable)

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

① Up to 10 messages of 32 characters or less can be programmed on the [Messages] screen in the [Common Settings] menu.

① 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]

Transceiver Settings

Function Settings

Communication Method : 18 ☐ Simplex ☒ Full-Duplex

Priority Call : 19 ☒ Disable ☐ Enable

Area Call : 20 ☒ Disable ☐ Enable

Message : 21 ☐ Disable ☒ Enable

Default Message : 1 (Gather immediately.)

Status : 22 ☒ Disable ☐ Enable

Minimum Audio Level : 23 0

Mixing of Low Priority Call : 24 ☒ Disable ☐ Enable

Bluetooth : 25 ☐ Disable ☒ Enable

Bluetooth Auto Connect : 26 ☐ Disable ☒ Enable

Voice Recording : 27 ☒ Disable ☐ Enable

Function Settings

22 Status

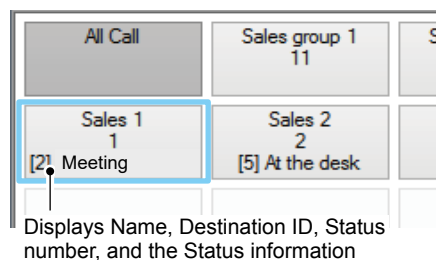
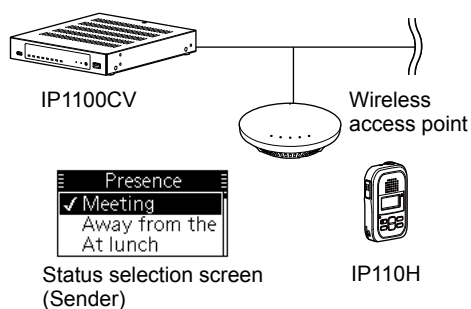
Select whether or not the IP110H can send Status information.
(Example: At lunch, Meeting, Waiting) (Default: Disable)

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.

① 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	192.168.1.1	Meeting	-	00-90-C7-11111111	Ver. 1.0	
☐	2	IP110H	Sales2	00102	Connected	192.168.1.2	Away from the desk	-	00-90-C7-11111111	Ver. 1.0	
☐	3	IP100H	Sales3	00103	Connected	192.168.1.3	Working	-	00-90-C7-11111111	Ver. 1.0	
☐	4	IP100H	Sales4	00104	Connected	192.168.1.4	Waiting	-	00-90-C7-11111111	Ver. 1.0	

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings

Function Settings

Communication Method : 18 ☐ Simplex ☒ Full-Duplex

Priority Call : 19 ☒ Disable ☐ Enable

Area Call : 20 ☒ Disable ☐ Enable

Message : 21 ☐ Disable ☒ Enable

Default Message : 1 (Gather immediately.) ▼

Status : 22 ☒ Disable ☐ Enable

Minimum Audio Level : 23 0 ▼

Mixing of Low Priority Call : 24 ☒ Disable ☐ Enable

Bluetooth : 25 ☐ Disable ☒ Enable

Bluetooth Auto Connect : 26 ☐ Disable ☒ Enable

Voice Recording : 27 ☒ Disable ☐ Enable

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

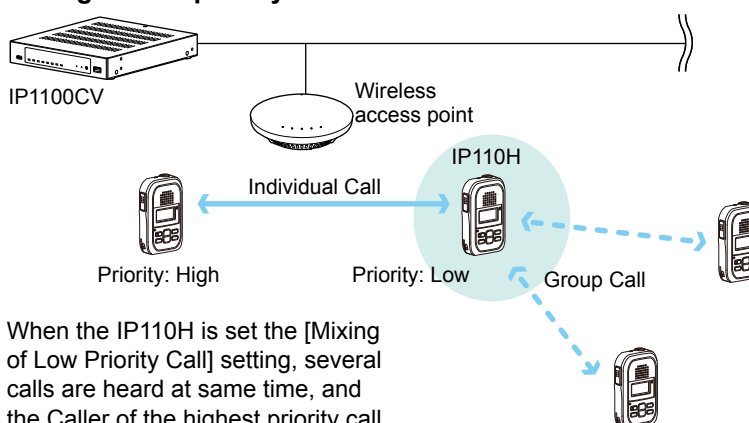
Select whether or not the IP110H receives Mixed audio.
(Default: Disable)

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

① 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]

Transceiver Settings

Function Settings

Communication Method : 18 ☐ Simplex ☒ Full-Duplex

Priority Call : 19 ☒ Disable ☐ Enable

Area Call : 20 ☒ Disable ☐ Enable

Message : 21 ☐ Disable ☒ Enable

Default Message : 1 (Gather immediately.)

Status : 22 ☒ Disable ☐ Enable

Minimum Audio Level : 23 0

Mixing of Low Priority Call : 24 ☒ Disable ☐ Enable

Bluetooth : 25 ☐ Disable ☒ Enable

Bluetooth Auto Connect : 26 ☐ Disable ☒ Enable

Voice Recording : 27 ☒ Disable ☐ Enable

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.

Voice Recording : ☐ Disable ☒ Enable

Recording Call Type : Individual Call

Fix Call Destination : Individual Call

Fix Call Destination : All

- ① The maximum record time is 4 minutes, and up to 10 files can be saved.
- ① For full-Duplex calls, only the received audio is recorded.
- ① You cannot download the audio data from the transceiver.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings	
Voice Recording :	☒ Disable ☐ Enable
Fix Call Destination	Fix Call Destination : 28 Disable ▼
Programmable Key Settings	P1 : No Function ▼

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.

Fix Call Destination	
Fix Call Destination :	PTT
Call Type :	All

(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.

Fix Call Destination	
Fix Call Destination :	Earphone Mic or Headset
Call Type :	Group
Destination ID :	00001

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

① 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]

Transceiver Settings	
Programmable Key Settings	
P1 :	No Function
P2 :	No Function
P3 :	No Function
P4 :	No Function
P5 :	No Function
Clear Down during Telephone Call :	☐ Disable ☒ Enable
Target Availability Check :	☐ Disable ☒ Enable
Key-Touch Beep :	☐ Disable ☒ Enable
Key-Touch Beep Level :	10
Microphone Gain :	0 dB

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)

• 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.

- ① Select the message number 1 to 10 in the “Message No.” item that registered on the [Message] screen.

Programmable Key Settings	
P1 :	Message
Message No. :	1 (Gather immediately.)

• One Touch

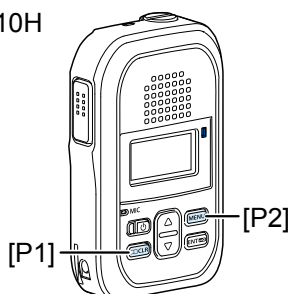
Holding the programmable key for 1 second selects a specified Call type and destination ID or phone number.

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

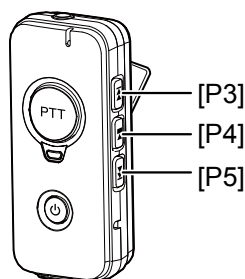
- ① When “Individual” or “Group” is selected, enter the Individual ID (00001 ~ 60000) or Group ID (00001 ~ 60000) in the “Destination ID” item.
- ① When “Telephone” is selected, enter up to 31 numbers and symbols (#, *) in the “Destination Phone Number” item.

Programmable Key Settings	
P1 :	One Touch
Call Type :	All
P2 :	Individual
P3 :	Group
P4 :	All
P5 :	Telephone

IP110H



VS-3



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings	
Programmable Key Settings	
P1 :	No Function
P2 :	No Function
P3 :	No Function
P4 :	No Function
P5 :	No Function
Clear Down during Telephone Call : ☐ Disable ☒ Enable	
Target Availability Check	
Target Availability Check : ☐ Disable ☒ Enable	
Key-Touch Beep	
Key-Touch Beep : ☐ Disable ☒ Enable	
Key-Touch Beep Level : 10	
Microphone	
Gain :	0 dB

Programmable Key Settings

29 [P1] ~ [P5]

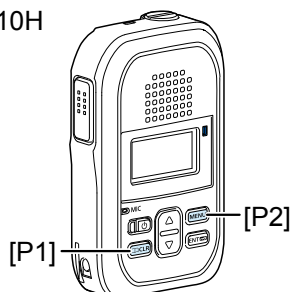
• Clear Down

Holding the programmable key for 1 second terminates the phone call with an IP phone.

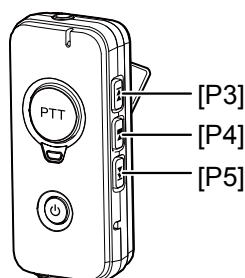
① You can assign another function, if you select “Enable” on the [Clear Down during Telephone Call] (p. 5-74) item.

Key Assignment	
Option Key :	Clear Down

IP110H



VS-3



• 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.

① 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.

① 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)

Programmable Key Settings	
P1 :	Mute
P2 :	No Function
P3 :	No Function
P4 :	No Function
P5 :	No Function
Mute Automatic Release : ☐ Disable ☒ Enable	
Mute Automatic Release Timer : 60	

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings	
Programmable Key Settings	
P1 :	No Function
P2 :	No Function
P3 :	No Function
P4 :	No Function
P5 :	No Function
Clear Down during Telephone Call :	☐ Disable ☒ Enable
Target Availability Check	
Target Availability Check :	☐ Disable ☒ Enable
Key-Touch Beep	
Key-Touch Beep :	☐ Disable ☒ Enable
Key-Touch Beep Level :	10
Microphone	
Gain :	0

Programmable Key Settings

29 [P1] ~ [P5]

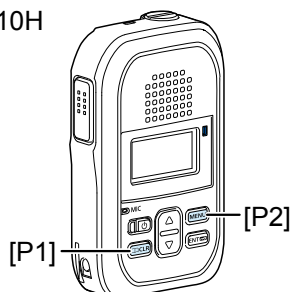
• Emergency

Hold down the programmable key until “Emergency” is displayed to send an emergency call.

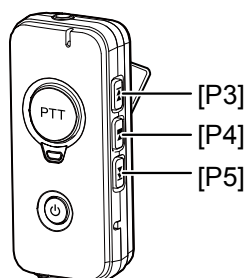
When the emergency call is sent, an alarm sounds. The emergency call is canceled and the alarm stops when the transceiver receives a response or the programmable key of the transceiver is held down.

① 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).

IP110H



VS-3



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.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings	
Programmable Key Settings	
P1 :	No Function
P2 :	No Function
P3 :	No Function
P4 :	No Function
P5 :	No Function
Clear Down during Telephone Call : ☐ Disable ☒ Enable	
Target Availability Check	
Target Availability Check : ☐ Disable ☒ Enable	
Key-Touch Beep	
Key-Touch Beep : ☐ Disable ☒ Enable	
Key-Touch Beep Level : 10	
Microphone	
Gain :	0 dB

Programmable Key Settings

29 [P1] ~ [P5]

• Playback Recording

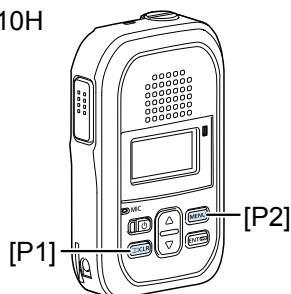
Holding down the programmable key for 1 second displays the recorded log screen. Select and push [ENT] on the IP110H to start playing back the recorded audio.

• 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.

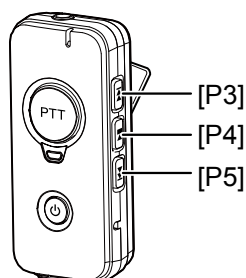
Select the increasing or decreasing level to between “-32” and “+32” or “0” (disabled).

IP110H



Programmable Key Settings	
P1 :	Temporary Audio Level
Temporary Audio Level :	0

VS-3



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings	
Programmable Key Settings	
P1 :	No Function
P2 :	No Function
P3 :	No Function
P4 :	No Function
P5 :	No Function
Clear Down during Telephone Call : ☐ Disable ☒ Enable	
Target Availability Check	
Target Availability Check : ☐ Disable ☒ Enable	
Key-Touch Beep	
Key-Touch Beep : ☐ Disable ☒ Enable	
Key-Touch Beep Level : 10	
Microphone	
Gain :	0 dB

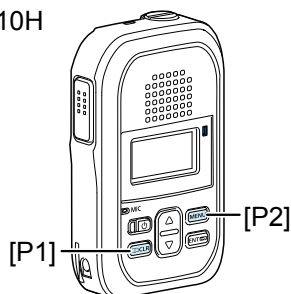
Programmable Key Settings

30 Clear Down during Telephone Call

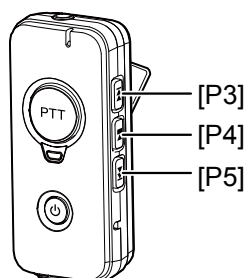
Select "Enable," if you want to terminate a phone call by pushing the IP110H's programmable key. (Default: Enable)

- ① When the programmable key is set to "Clear Down," this item will not be displayed.
- ① Before the target telephone is picked up, or during phone call, pushing the programmable key terminates the phone call.
- ① 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]

Transceiver Settings	
Programmable Key Settings	
P1 :	No Function
P2 :	No Function
P3 :	No Function
P4 :	No Function
P5 :	No Function
Clear Down during Telephone Call : ☐ Disable ☒ Enable	
Target Availability Check	
Target Availability Check : ☐ Disable ☒ Enable	
Key-Touch Beep	
Key-Touch Beep : ☐ Disable ☒ Enable	
Key-Touch Beep Level : 10	
Microphone	
Gain :	0 dB

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.

① When the target station is out of range, “No response” is displayed.

① 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.

① When “0” is selected in this setting, the IP110H does not sound any beep, even if the volume level is set.

① 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]

Transceiver Settings	
Programmable Key Settings	
P1 :	No Function
P2 :	No Function
P3 :	No Function
P4 :	No Function
P5 :	No Function
Clear Down during Telephone Call : ☐ Disable ☒ Enable	
Target Availability Check	
Target Availability Check : ☐ Disable ☒ Enable	
Key-Touch Beep	
Key-Touch Beep : ☐ Disable ☒ Enable	
Key-Touch Beep Level : 10	
Microphone	
Gain :	0

Microphone

33 Gain

Adjust the microphone sensitivity.

(Default: 0)

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

① 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]

Transceiver Settings

Headset/Earphone Mic

Noise Canceller: 34 ☐ Disable ☒ Enable

VOX: 35 Earphone Mic ▼

* The VOX will be disabled when the Internal Mic. is selected during the duplex communication.

Attack Time: 36 50 milliseconds

Release Time: 37 200 milliseconds

Voice Delay: 38 200 milliseconds

VOX Threshold: 39 40 %

Sidetone: 40 ☒ Disable ☐ Enable

Echo Canceller: 41 ☐ Disable ☒ Enable

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.

- ① Turn OFF the IP110H before connecting and disconnecting the earphone microphone or headset.
- ① When you select other than "Disable," the setting items from "Attack Time" to "VOX Threshold" are displayed.
- ① 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 (%)

① The lower values make the VOX function more sensitive to your voice.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings

Headset/Earphone Mic

Noise Canceller : 34 ☐ Disable ☒ Enable

VOX : 35 Earphone Mic

* The VOX will be disabled when the Internal Mic. is selected during the duplex communication.

Attack Time : 36 50 milliseconds

Release Time : 37 200 milliseconds

Voice Delay : 38 200 milliseconds

VOX Threshold : 39 40 %

Sidetone : 40 ☒ Disable ☐ Enable

Echo Canceller : 41 ☐ Disable ☒ Enable

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)

Sidetone : ☐ Disable ☒ Enable

Sidetone Volume : 10

① 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)

① The Sidetone function and echo canceller function cannot be used together.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings

Bluetooth Mic Settings

- Synchronous Volume: 42 ☐ Disable ☒ Enable
- Mic Line Switch: 43 Auto
- AF Output: 44 ☒ Only Headset ☐ Headset+Speaker
- Auto Disconnect: 45 ☒ Disable ☐ Enable
- Mic Level Offset: 46 10
- AF Level Offset: 47 15
- Echo Cancellation: 48 ☐ Disable ☒ Enable
- Input Gain: 49 0 dB
- Voice Delay: 50 35 milliseconds
- Noise Cancellation: 51 ☐ Disable ☒ Enable
- Power Save (for ICOM Option): 52 ☒ Disable ☐ Enable
- One Touch PTT (for ICOM Option): 53 ☒ Disable ☐ Enable
- Show One Touch PTT (for ICOM Option): 54 ☒ Disable ☐ Enable
- PTT Beep (for ICOM Option): 55 ☒ Disable ☐ Enable

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.

- ① No audio may be transmitted, depending on the type of connected microphone and the transceiver settings.
- ① 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]

Transceiver Settings

Bluetooth Mic Settings

Synchronous Volume: 42 ☐ Disable ☒ Enable

Mic Line Switch: 43 Auto

AF Output: 44 ☒ Only Headset ☐ Headset+Speaker

Auto Disconnect: 45 ☒ Disable ☐ Enable

Mic Level Offset: 46 10

AF Level Offset: 47 15

Echo Cancellor: 48 ☐ Disable ☒ Enable

Input Gain: 49 0 dB

Voice Delay: 50 35 milliseconds

Noise Cancellor: 51 ☐ Disable ☒ Enable

Power Save (for ICOM Option): 52 ☒ Disable ☐ Enable

One Touch PTT (for ICOM Option): 53 ☒ Disable ☐ Enable

Show One Touch PTT (for ICOM Option): 54 ☒ Disable ☐ Enable

PTT Beep (for ICOM Option): 55 ☒ Disable ☐ Enable

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 Cancellor

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 Cancellor

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]

Transceiver Settings

Bluetooth Mic Settings

Synchronous Volume : 42 ☐ Disable ☒ Enable

Mic Line Switch : 43 Auto ▼

AF Output : 44 ☒ Only Headset ☐ Headset+Speaker

Auto Disconnect : 45 ☒ Disable ☐ Enable

Mic Level Offset : 46 10 ▼

AF Level Offset : 47 15 ▼

Echo Canceller : 48 ☐ Disable ☒ Enable

Input Gain : 49 0 ▼ dB

Voice Delay : 50 35 milliseconds

Noise Canceller : 51 ☐ Disable ☒ Enable

Power Save (for ICOM Option) : 52 ☒ Disable ☐ Enable

One Touch PTT (for ICOM Option) : 53 ☒ Disable ☐ Enable

Show One Touch PTT (for ICOM Option) : 54 ☒ Disable ☐ Enable

PTT Beep (for ICOM Option) : 55 ☒ Disable ☐ Enable

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)

① The power saving function is temporarily disabled when a call has been received.

① 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)

① 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]

Transceiver Settings	
Emergency Settings	
Emergency : 56	☐ Disable ☒ Enable
Emer SW ON Timer : 57	5 seconds
Emer SW OFF : 58	☐ Disable ☒ Enable
Emer SW OFF Timer :	2 seconds
Emergency Alert Tone : 59	☐ Disable ☒ Enable
Emergency Alert Tone Volume : 60	32
Call Type : 61	All
Cancel on Reply : 62	☐ Disable ☒ Enable
Cancel by Time : 63	☐ Disable ☒ Enable
Time :	60 seconds
RX Emergency Settings	
Alert Tone : 64	☐ Disable ☒ Enable
Alert Tone Volume : 65	32
Alert Tone Action : 66	Notification Beep + Vibration

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]

Transceiver Settings

Emergency Settings

Emergency : 56 ☐ Disable ☒ Enable

Emer SW ON Timer : 57 5 seconds

Emer SW OFF : 58 ☐ Disable ☒ Enable

Emer SW OFF Timer : 2 seconds

Emergency Alert Tone : 59 ☐ Disable ☒ Enable

Emergency Alert Tone Volume : 60 32

Call Type : 61 All

Cancel on Reply : 62 ☐ Disable ☒ Enable

Cancel by Time : 63 ☐ Disable ☒ Enable

Time : 60 seconds

RX Emergency Settings

Alert Tone : 64 ☐ Disable ☒ Enable

Alert Tone Volume : 65 32

Alert Tone Action : 66 Notification Beep + Vibration

Emergency Settings

61 Call Type

Emergency: Enable

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

① 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)

① 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]

Transceiver Settings

Man Down Settings

Man Down : 67 ☐ Disable ☒ Enable

Monitoring : 68 ☐ Disable ☒ Enable

ON Timer : 10 seconds

Warning : 69 ☐ Disable ☒ Enable

Reminder Timer : 10 seconds

Angle : 70 45 degrees

With Stationary : 71 ☒ Disable ☐ Enable

Man Down Settings

67 Man Down

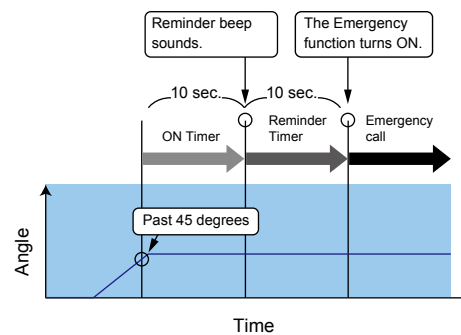
Select whether or not to use the Man Down function. (Default: Disable)
 If the Man Down function is activated, the Emergency function is automatically turned ON after the set period of time has passed with the transceiver leaning past the preset angle.

Example:

ON Timer: 10 seconds

Reminder Timer: 10 seconds

Angle: 45 degrees



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings	
Man Down Settings	
Man Down : 67	☐ Disable ☒ Enable
Monitoring : 68	☐ Disable ☒ Enable
ON Timer : 10	seconds
Warning : 69	☐ Disable ☒ Enable
Reminder Timer : 10	seconds
Angle : 70	45 degrees
With Stationary : 71	☒ Disable ☐ Enable

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)

- ① 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.
- ① 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.

- ① Countdown beeps sound during the timer period.
- ① 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]

Transceiver Settings

Man Down Settings

Man Down : 67 ☐ Disable ☒ Enable

Monitoring : 68 ☐ Disable ☒ Enable

ON Timer : 10 seconds

Warning : 69 ☐ Disable ☒ Enable

Reminder Timer : 10 seconds

Angle : 70 45 degrees

With Stationary : 71 ☒ Disable ☐ Enable

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.

① The stationary status is detected by Stationary Sensitivity.

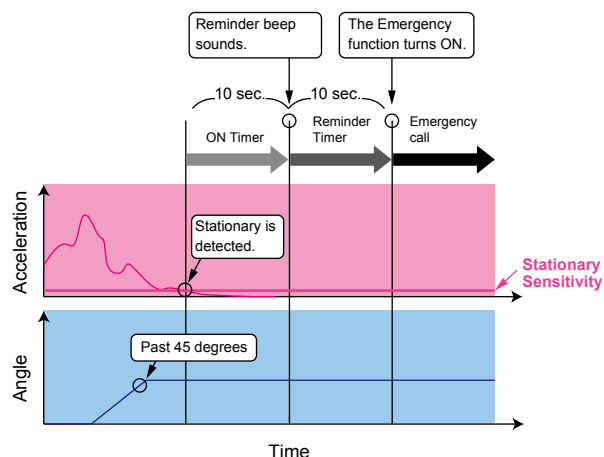
① When the transceiver is raised back from the preset angle towards the vertical position, or when the user moves the transceiver during the Reminder Timer period of time, Man Down's ON Timer and Reminder Timer are reset.

Example:

ON Timer: 10 seconds

Reminder Timer: 10 seconds

Angle: 45 degrees



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings	
Lone Worker Settings	
Lone Worker :	☐ Disable ☒ Enable
Lone Worker ON Timer :	60 minutes
Lone Worker Reminder Timer :	60 seconds
PTT Delay :	☐ Disable ☒ Enable
PTT Delay Timer :	10 x100 milliseconds
With Stationary :	☒ Disable ☐ Enable

Lone Worker Settings

72 Lone Worker

Select whether or not to use the Lone Worker function.

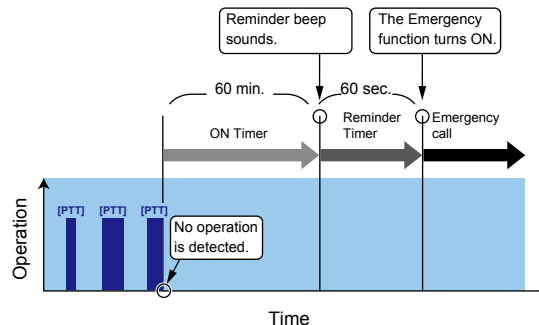
(Default: Disable)

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]

Transceiver Settings

Lone Worker Settings

Lone Worker : ☒ Disable ☒ Enable

Lone Worker ON Timer : 60 minutes

Lone Worker Reminder Timer : 60 seconds

PTT Delay : ☒ Disable ☒ Enable

PTT Delay Timer : 10 x100 milliseconds

With Stationary : ☒ Disable ☐ Enable

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)

① When the IP110H is operated within this set period of time, Lone Worker's ON Timer is reset.

① 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.

① Countdown beeps sound during the timer period.

① 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.

① 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.

① 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]

Transceiver Settings	
Lone Worker Settings	
Lone Worker :	72 ☐ Disable ☒ Enable
Lone Worker ON Timer :	73 60 minutes
Lone Worker Reminder Timer :	74 60 seconds
PTT Delay :	75 ☐ Disable ☒ Enable
PTT Delay Timer :	10 x100 milliseconds
With Stationary :	76 ☒ Disable ☐ Enable

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.

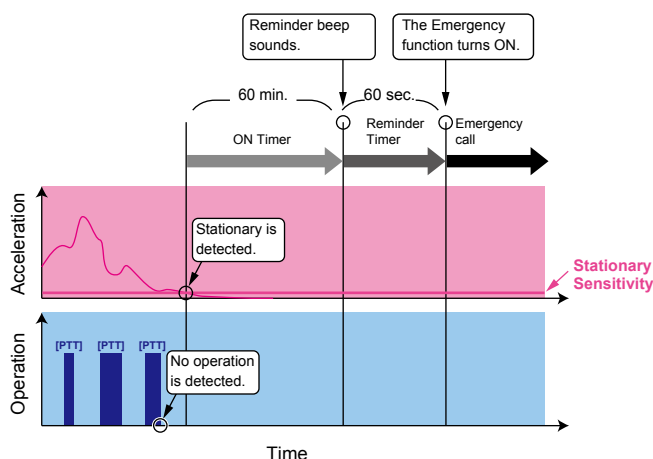
① The stationary status is detected by Stationary Sensitivity (p. 5-92).

① 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]

Transceiver Settings	
Stationary Detection	
Stationary Detection : 77	☐ Disable ☒ Enable
ON Timer : 78	60 seconds
Reminder Timer : 79	60 seconds
Motion Detection	
Motion Detection : 80	☐ Disable ☒ Enable
Motion Detection Timer : 81	10 seconds
Reminder Timer : 82	10 seconds
Detection Sensitivity	
Stationary Sensitivity : 83	2 ▼
Motion Sensitivity : 84	7 ▼

Stationary Detection

77 Stationary Detection

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

78 ON Timer

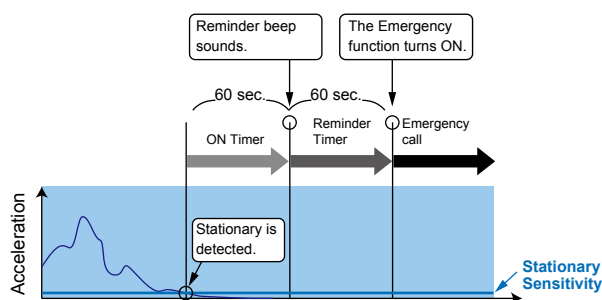
Set the period of time to activate the Stationary Detection function to between 1 and 255 seconds.
(Default: 60)

- ① When the user is detected as stationary for this set period of time, the Stationary Detection's Reminder Timer starts.
- ① 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.

- ① Countdown beeps sound during the timer period.
- ① 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]

Transceiver Settings	
Stationary Detection	
Stationary Detection :	77 ☐ Disable ☒ Enable
ON Timer :	78 60 seconds
Reminder Timer :	79 60 seconds
Motion Detection	
Motion Detection :	80 ☐ Disable ☒ Enable
Motion Detection Timer :	81 10 seconds
Reminder Timer :	82 10 seconds
Detection Sensitivity	
Stationary Sensitivity :	83 2 ▼
Motion Sensitivity :	84 7 ▼

Motion Detection80 **Motion Detection**

Select whether or not to use the Motion Detection function.

(Default: Disable)

81 **Motion Detection Timer** ...

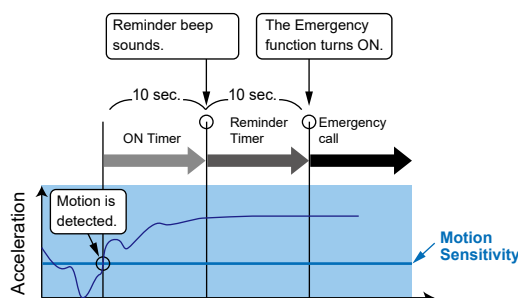
Set the period of time to activate the Motion Detection function to between 1 and 255 seconds. (Default: 10)

- ① When the user continuously moves the transceiver for this set period of time, Motion Detection's Reminder Timer starts.
- ① 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.

- ① Countdown beeps sound during the timer period.
- ① 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]

Transceiver Settings	
Stationary Detection	
Stationary Detection :	☐ Disable ☒ Enable
ON Timer :	60 seconds
Reminder Timer :	60 seconds
Motion Detection	
Motion Detection :	☐ Disable ☒ Enable
Motion Detection Timer :	10 seconds
Reminder Timer :	10 seconds
Detection Sensitivity	
Stationary Sensitivity :	2 ▼
Motion Sensitivity :	7 ▼

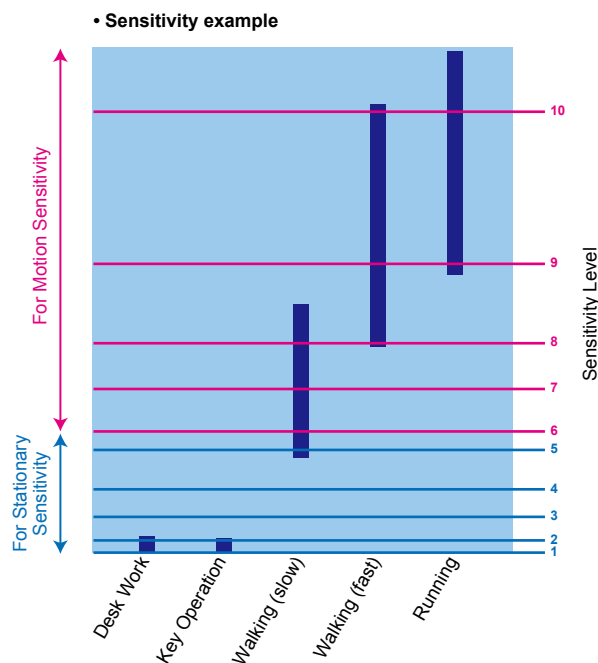
Detection Sensitivity**83 Stationary Sensitivity**

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).



Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings		
Stationary Detection		
Stationary Detection :	77 ☐ Disable ☒ Enable	
ON Timer :	78 60	seconds
Reminder Timer :	79 60	seconds
Motion Detection		
Motion Detection :	80 ☐ Disable ☒ Enable	
Motion Detection Timer :	81 10	seconds
Reminder Timer :	82 10	seconds
Detection Sensitivity		
Stationary Sensitivity :	83 2	▼
Motion Sensitivity :	84 7	▼

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]

The image shows three examples of the Transceiver Settings screen for IP110H, each with a different TOS Type. Each example is titled 'Transceiver Settings' and contains a section for 'V/RoIP Settings'.

- TOS Type: Not Used:**
 - Buffering Type: 85 ☒ Static ☐ Dynamic
 - Receive Buffer Size: 86 40 milliseconds
 - TOS Type: 87 Not Used
- TOS Type: TOS:**
 - Buffering Type: 85 ☒ Static ☐ Dynamic
 - Receive Buffer Size: 86 40 milliseconds
 - TOS Type: 87 TOS
 - Media (RTP) Priority Level: 88 7
 - Media (RTP) Service Type: 0
 - Media (RTP) (HEX): E0
- TOS Type: Diffserv:**
 - Buffering Type: 85 ☒ Static ☐ Dynamic
 - Receive Buffer Size: 86 40 milliseconds
 - TOS Type: 87 Diffserv
 - Media (RTP) DSCP: 88 56
 - Media (RTP) (HEX): E0

① 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.

① This item is displayed when [Buffering Type] is set to "Static."

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings	
TOS Type: Not Used	V/RoIP Settings Buffering Type : 85 ☒ Static ☐ Dynamic Receive Buffer Size : 86 40 ▼ milliseconds TOS Type : 87 Not Used ▼
TOS Type: TOS	V/RoIP Settings Buffering Type : 85 ☒ Static ☐ Dynamic Receive Buffer Size : 86 40 ▼ milliseconds TOS Type : 87 TOS ▼ Media (RTP) Priority Level : 88 7 Media (RTP) Service Type : 0 Media (RTP) (HEX) : E0
TOS Type: Diffserv	V/RoIP Settings Buffering Type : 85 ☒ Static ☐ Dynamic Receive Buffer Size : 86 40 ▼ milliseconds TOS Type : 87 Diffserv ▼ Media (RTP) DSCP : 88 56 Media (RTP) (HEX) : E0

① 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]

Transceiver Settings	
TOS Type: Not Used	V/RoIP Settings Buffering Type : 85 ☒ Static ☐ Dynamic Receive Buffer Size : 86 40 ▼ milliseconds TOS Type : 87 Not Used ▼
TOS Type: TOS	V/RoIP Settings Buffering Type : 85 ☒ Static ☐ Dynamic Receive Buffer Size : 86 40 ▼ milliseconds TOS Type : 87 TOS ▼ Media (RTP) Priority Level : 88 7 Media (RTP) Service Type : 0 Media (RTP) (HEX) : E0
TOS Type: Diffserv	V/RoIP Settings Buffering Type : 85 ☒ Static ☐ Dynamic Receive Buffer Size : 86 40 ▼ milliseconds TOS Type : 87 Diffserv ▼ Media (RTP) DSCP : 88 56 Media (RTP) (HEX) : E0

① 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.

① 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)

① This item is displayed when the [TOS Type] is set to “Diffserv.”

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings	
IP Address	IP Address Settings : 89 Transceiver's Setting ▼
Maintenance	Provisioning Server : 90
Accept Reboot Command from Other than the Master Controller :	91 ☒ Disable ☐ Enable
SNTP Server :	92
Automatic Firmware Updating at Power ON :	93 Enable (with Automatic Reboot) ▼
Firmware Server :	94
SYSLOG Host IP Address :	95
SYSLOG Severity :	96 ☐ DEBUG ☐ INFO ☐ NOTICE
Security	Read/Write Password : 97

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.

IP Address	
IP Address Settings :	DHCP Client
Primary DNS Server :	
Secondary DNS Server :	

① 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.

IP Address	
IP Address Settings :	Static IP
IP Address :	
Subnet Mask :	
Default Gateway :	
Primary DNS Server :	
Secondary DNS Server :	

① Enter the default gateway address, if your network connects to a different network.

① If necessary, enter the [Primary DNS Server] or [Secondary DNS Server] settings.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

Transceiver Settings

IP Address
IP Address Settings : 99 Transceiver's Setting ▼

Maintenance
Provisioning Server : 90
Accept Reboot Command from Other than the Master Controller : 91 ☒ Disable ☐ Enable
SNTP Server : 92
Automatic Firmware Updating at Power ON : 93 Enable (with Automatic Reboot) ▼
Firmware Server : 94
SYSLOG Host IP Address : 95
SYSLOG Severity : 96 ☐ DEBUG ☐ INFO ☐ NOTICE
Security
Read/Write Password : 97

Maintenance90 **Provisioning Server**

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

① 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)

① The VE-PG4, IP1000C, IP1100CV are compatible with this function. (As of June, 2023)

92 **SNTP Server**

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

① 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.
- ① 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.

① 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.

① 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)

① 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)

① Enter a check mark to initialize.

Transceiver Settings screen

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Settings [IP110H]

No.	Name	Authentication Method	Username	Password	External Authentication Username	Client Certificate	
1		EAP-TLS				1 (Not Set)	Delete
2		EAP-TLS				1 (Not Set)	Delete
3		EAP-TLS				1 (Not Set)	Delete
4		EAP-TLS				1 (Not Set)	Delete
5		EAP-TLS				1 (Not Set)	Delete
6		EAP-TLS				1 (Not Set)	Delete
7		EAP-TLS				1 (Not Set)	Delete
8		EAP-TLS				1 (Not Set)	Delete
9		EAP-TLS				1 (Not Set)	Delete
10		EAP-TLS				1 (Not Set)	Delete

Apply Reset

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.
 ① 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.
 ① 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.
 ① This item can be set when [Authentication Method] is set to "PEAP (MSCHAPv2)" or "EAP-TTLS (MSCHAPv2)."
 ① 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]

Transceiver Settings

EAP Preset

No.	Name	Authentication Method	Username	Password	External Authentication Username	Client Certificate	
1		EAP-TLS				1 (Not Set)	Delete
2		EAP-TLS				1 (Not Set)	Delete
3		EAP-TLS				1 (Not Set)	Delete
4		EAP-TLS				1 (Not Set)	Delete
5		EAP-TLS				1 (Not Set)	Delete
6		EAP-TLS				1 (Not Set)	Delete
7		EAP-TLS				1 (Not Set)	Delete
8		EAP-TLS				1 (Not Set)	Delete
9		EAP-TLS				1 (Not Set)	Delete
10		EAP-TLS				1 (Not Set)	Delete

Apply Reset

EAP Preset

⑩④ Client Certificate

Select one of the certificates that have been registered in [Certificate Management].

① 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.

① 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.

① 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.

No.	File Format ①	Name ②	Certificate File ③	Password ④	⑤	⑥
Certificate information						
1	PKCS12 ▼		Choose File No ...en		⑤	⑥
Certificate is not registered.					Apply	Delete
2	PKCS12 ▼		Choose File No ...en		Apply	Delete
Certificate is not registered.						
3	PKCS12 ▼		Choose File No ...en		Apply	Delete
Certificate is not registered.						
4	PKCS12 ▼		Choose File No ...en		Apply	Delete
Certificate is not registered.						

- 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.
 ① This item can be set when [File Format] is set to "PKCS12."
- ⑤ **<Apply>** Click to regist the certificates.
 ① 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.

① IP address settings are not copied.

① **Check Box**

Enter a check mark to [All] or the [Unit ID] that you want to copy the settings to.

② **<Apply>**

Click to apply the entries.

① The entries in the [Transceiver Settings] of the Source Transceiver are copied to the transceiver settings that have a check mark in [Check Box].

③ **<Reset>**

Click to reset the settings.

① You cannot reset, after clicking <Apply>.

Transceiver Controller > Transceiver Settings > Transceiver Settings

■ Transceiver Setting List

Display the list of the registered WLAN transceivers.

① When verifying the contents, or editing the settings, select the individual number in the Unit ID.

Transceiver Setting List						
Transceiver Model	Name	Unit ID	Use ID List	Area Call	Message	Status
IP100H	Sales1	00101	Enable	Disable	Enable	Enable
IP100H	Sales2	00102	Enable	Disable	Enable	Enable
IP110H	Sales3	00103	Enable	Disable	Enable	Enable

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.

Wireless LAN

* Remotely changes transceiver's Wireless LAN settings.

No. : 1

Name : Sales

Scan Mode : ☒ 11g ☒ 11a

Power Level : High

Roaming Threshold : -75 dBm

IP110H

* Clearing SSID will also clear other related settings.

SSID	Authentication	Encryption	WEP Encryption Key or PSK(Pre-Shared Key)	Advanced Settings
IP110HWP	WPA-PSK/WPA2-PSK	TKIP/AES	PSK:	Advanced
IP110HPSK	Open System/Shared Key	TKIP/AES	PSK:	
	Open System/Shared Key	None	WEP:	

- 1 No. Select a group number between 1 and 20 to assign to the WLAN transceivers.
Up to 20 groups can be registered. (Default: 1)
- 2 Name Enter a Group name of up to 31 characters. (Default: Blank)
- 3 Scan Mode Select the frequency band that the WLAN transceiver uses.
(Default: ☒ 11g, ☒ 11a)
Selecting "11g" includes "11b."
① Access points that comply with the wireless LAN standards can be used with the WLAN transceiver.
- 4 Power Level..... Set the WLAN transceiver transmit power level to High, Middle, or Low.
(Default: High)
① 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.
① 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

Wireless LAN

* Remotely changes transceiver's Wireless LAN settings.

No. : ① 1

Name : ② Sales

Scan Mode : ③ ☒ 11g
☒ 11a

Power Level : ④ High

Roaming Threshold : ⑤ -75 dBm

IP110H

* Clearing SSID will also clear other related settings.

SSID ⑥	Authentication ⑦	Encryption ⑧	WEP Encryption Key or PSK(Pre-Shared Key) ⑨	Advanced Settings ⑩
IP110HWP	WPA-PSK/WPA2-PSK	TKIP/AES	PSK:	Advanced
IP110HPSK	Open System/Shared Key	TKIP/AES	PSK:	
	Open System/Shared Key	None	WEP:	

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))

① 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.

① 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

Wireless LAN

* Remotely changes transceiver's Wireless LAN settings.

No. : ① 1

Name : ② Sales

Scan Mode : ③ ☒ 11g
☒ 11a

Power Level : ④ High

Roaming Threshold : ⑤ -75 dBm

IP110H

* Clearing SSID will also clear other related settings.

SSID ⑥	Authentication ⑦	Encryption ⑧	WEP Encryption Key or PSK(Pre-Shared Key) ⑨	Advanced Settings ⑩
IP110HWP	WPA-PSK/WPA2-PSK	TKIP/AES	PSK:	Advanced
IP110HPSK	Open System/Shared Key	TKIP/AES	PSK:	
	Open System/Shared Key	None	WEP:	

IP110H

⑦ Authentication

Select the authentication method that is the same as that of the wireless access point. (Default: Open System/Shared Key)

① 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

Wireless LAN

* Remotely changes transceiver's Wireless LAN settings.

No. : ① 1

Name : ② Sales

Scan Mode : ③ ☒ 11g
☒ 11a

Power Level : ④ High

Roaming Threshold : ⑤ -75 dBm

IP110H

* Clearing SSID will also clear other related settings.

SSID ⑥	Authentication ⑦	Encryption ⑧	WEP Encryption Key or PSK(Pre-Shared Key) ⑨	Advanced Settings ⑩
IP110HWP	WPA-PSK/WPA2-PSK	TKIP/AES	PSK:	Advanced
IP110HPSK	Open System/Shared Key	TKIP/AES	PSK:	
	Open System/Shared Key	None	WEP:	

IP110H

⑧ Encryption

Select the encryption type that is the same as that of the wireless access point. (Default: None)

① 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.

① 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.

① You can set the encryption key length to between 64 (40) and 128 (104) bits.

① 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.

① 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

Wireless LAN

* Remotely changes transceiver's Wireless LAN settings.

No. : ① 1

Name : ② Sales

Scan Mode : ③ ☒ 11g
☒ 11a

Power Level : ④ High

Roaming Threshold : ⑤ -75 dBm

IP110H

* Clearing SSID will also clear other related settings.

SSID ⑥	Authentication ⑦	Encryption ⑧	WEP Encryption Key or PSK(Pre-Shared Key) ⑨	Advanced Settings ⑩
IP110HWP	WPA-PSK/WPA2-PSK	TKIP/AES	PSK:	Advanced
IP110HPSK	Open System/Shared Key	TKIP/AES	PSK:	
	Open System/Shared Key	None	WEP:	

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.

Authentication	Encryption	WEP Encryption Key or PSK(Pre-Shared Key)
Open System/Sharec	WEP RC4 64 (40)	WEP:

① This option can be selected when [Authentication] is set to "Open System" or "Open System/Shared Key."

① 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.

Authentication	Encryption	WEP Encryption Key or PSK(Pre-Shared Key)
WPA-PSK/WPA2-PSK	TKIP/AES	PSK:

① This option can be selected when [Authentication] is set to "WPA-PSK/WPA2-PSK."

① 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

Wireless LAN

* Remotely changes transceiver's Wireless LAN settings.

No. : ① 1

Name : ② Sales

Scan Mode : ③ ☒ 11g
☒ 11a

Power Level : ④ High

Roaming Threshold : ⑤ -75 dBm

IP110H

* Clearing SSID will also clear other related settings.

SSID ⑥	Authentication ⑦	Encryption ⑧	WEP Encryption Key or PSK(Pre-Shared Key) ⑨	Advanced Settings ⑩
IP110HWP	WPA-PSK/WPA2-PSK	TKIP/AES	PSK:	Advanced
IP110HPSK	Open System/Shared Key	TKIP/AES	PSK:	
	Open System/Shared Key	None	WEP:	

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 Advanced Settings

TRX No.	Name	EAP Preset No.	Authentication Method	Username	External Certification Username	Client Certificate
3	Sales3	1	EAP-TLS			1 (Not Set)

Apply Reset

Wireless LAN screen

Transceiver Controller > Common Settings > Wireless LAN

■ Wireless LAN

Wireless LAN

IP100H
* Clearing SSID will also clear other related settings.

SSID 11	Authentication 12	Encryption 13	WEP Encryption Key or PSK(Pre-Shared Key) 14
IP100HPSK	WPA-PSK/WPA2-PSK ▼	TKIP/AES ▼	PSK: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍

15 16
Apply Reset

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.

① 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

Wireless LAN

IP100H

* Clearing SSID will also clear other related settings.

SSID 11	Authentication 12	Encryption 13	WEP Encryption Key or PSK(Pre-Shared Key) 14
IP100HPSK	WPA-PSK/WPA2-PSK	TKIP/AES	PSK:
	Open System/Shared Key	None	WEP:
	Open System/Shared Key	None	WEP:
	Open System/Shared Key	None	WEP:
	Open System/Shared Key	None	WEP:
	Open System/Shared Key	None	WEP:
	Open System/Shared Key	None	WEP:
	Open System/Shared Key	None	WEP:
	Open System/Shared Key	None	WEP:
	Open System/Shared Key	None	WEP:
	Open System/Shared Key	None	WEP:

15

16

Apply

Reset

IP100H

12 Authentication

Select the authentication method that is the same as that of the wireless access point. (Default: Open System/Shared Key)

① 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

Wireless LAN

IP100H
* Clearing SSID will also clear other related settings.

SSID ⑪	Authentication ⑫	Encryption ⑬	WEP Encryption Key or PSK(Pre-Shared Key) ⑭
IP100HPSK	WPA-PSK/WPA2-PSK ▼	TKIP/AES ▼	PSK: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍

⑮ Apply ⑯ Reset

IP100H

⑬ Encryption

Select the encryption type that is the same as that of the wireless access point. (Default: None)

① 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.

① This option can be selected when [Authentication] (⑫) 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.

① You can set the encryption key length to between 64 (40) and 128 (104) bits.

① 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.

① 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

Wireless LAN

IP100H
* Clearing SSID will also clear other related settings.

SSID ⑪	Authentication ⑫	Encryption ⑬	WEP Encryption Key or PSK(Pre-Shared Key) ⑭
IP100HPSK	WPA-PSK/WPA2-PSK ▼	TKIP/AES ▼	PSK: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍

⑮ Apply ⑯ Reset

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.

Authentication	Encryption	WEP Encryption Key or PSK(Pre-Shared Key)
Open System/Sharec ▼	WEP RC4 64 (40) ▼	WEP: 🔍

① This option can be selected when [Authentication] is set to “Open System” or “Open System/Shared Key.”

① 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.

Authentication	Encryption	WEP Encryption Key or PSK(Pre-Shared Key)
WPA-PSK/WPA2-PSK ▼	TKIP/AES ▼	PSK: 🔍

① This option can be selected when [Authentication] is set to “WPA-PSK/ WPA2-PSK.”

① 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

Wireless LAN

IP100H
* Clearing SSID will also clear other related settings.

SSID ⑪	Authentication ⑫	Encryption ⑬	WEP Encryption Key or PSK(Pre-Shared Key) ⑭
IP100HPSK	WPA-PSK/WPA2-PSK ▼	TKIP/AES ▼	PSK: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍
	Open System/Shared Key ▼	None ▼	WEP: 🔍

⑮ ⑯
Apply Reset

⑮ <Apply>

Click to apply the entries.

① The entries are displayed in [List of Wireless LAN Entries].

⑯ <Reset>

Click to reset the settings.

① 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.

List of Wireless LAN Entries					
No.	Name	SSID(IP110H)	SSID(IP100H)	1	2
1	Sales	IP110HWPAP110HPSK	IP100HPSK	Edit	Delete
				3 Delete All	

1 <Edit>

Click to edit the entries in [Wireless LAN].

2 <Delete>

Click to delete the selected entry.

① After clicking <Delete>, the entry cannot be recalled.

3 <Delete All>

Click to delete all the entries.

① 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.

- ① You can individually specify an ID list to the groups that the WLAN transceivers belong to in [Profile] on the [Common Settings] screen.
- ① If any entries on this screen have been changed, you must reboot the WLAN transceiver.

ID List Common Settings	
ID List Common Setting Number :	1 (0 Entries) ▼
* If you change this item, the screen automatically updates to the selected list.	

ID List Common Setting Number

Select the group number between 1 and 300, and then enter IDs that the WLAN transceivers will use.

- ① When the group name or IDs are registered in the group, they are displayed as shown below.

ID List Common Setting Number :	1 (Sales / 5 Entries)
* If you change this item, the screen automatically updates to the selected list.	

Transceiver Controller > Common Settings > ID List

■ ID List Advanced Settings

Enter a name of the group that is selected in [ID List Common Settings].

ID List Advanced Settings	
Name ①	Sales ② ③
Apply Reset	

① 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.

② <Apply>

Click to apply the entries.

③ <Reset>

Click to reset the settings.

- ① 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.

① If any WLAN transceiver settings have been changed, you must reboot it.

① 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.

① Load 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].

① When the file is loaded, the previous data in [ID List Entries] is deleted.

① If you select the file that is saved on the [Settings Restore] screen in the [Management] menu, the setting will be overwritten.

② Save 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.

① 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. 1.00					
3	#	File Ver. 1.00					
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. ① 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].

① You can enter up to 500 target IDs in each group.

ID List(Sales)

Add Type : ① ☒ Enter Individually ☐ Select From List

No. : ② 1

Name : ③

Nickname : ④

Call Type : ⑤ Individual

Destination ID : ⑥ 00001

⑦ Apply ⑧ Reset

① 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.

① 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.

① By selecting [All], you can select or cancel all entries in the list.

① When [Select From List] is selected, you can enter a name of up to 32 characters.

ID List(Sales)

Add Type : ☐ Enter Individually ☒ Select From List

☐ All	Name	Call Type	Destination ID/Phone Number
☐	Group01002	Talkgroup	01002
☐	Group01003	Talkgroup	01003
☐	Group01004	Talkgroup	01004
☐	Sales1	Individual	00011
☐	Sales2	Individual	00012
☐	Sales3	Individual	00013

② No.

Select a number to register the destination.

Up to 500 destinations can be registered to a group.

① Only 50 destinations are saved into the IP100H, from address numbers 1 to 50.

③ Name

Enter a destination name of up to 32 characters.

④ Nickname

Enter a nickname of up to 32 characters, if necessary.

ID List screen

Transceiver Controller > Common Settings > ID List

■ ID List

① 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.
① The entries are displayed in [ID List Entries].
- 8 <Reset>** Click to reset the settings.
① 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.

ID List Entries(Sales)

* You can register only 50 of IP100Hs from address numbers 1 to 50.

No.	Name	Nickname	Call Type	Destination ID/Phone Number	1	2
1	Sales1		Individual	00101	Edit	Delete
2	Sales2		Individual	00102	Edit	Delete
3	Group1		Group	00001	Edit	Delete

3
Delete All

① 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.

- ① **<Edit>** Click to edit the entries in [ID List].
- ② **<Delete>** Click to delete the selected entry.
① After clicking <Delete>, the entry cannot be recalled.
- ③ **<Delete All>** Click to delete all the entries.
① 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.

① 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)

① If any entries on this screen have been changed, you must reboot the WLAN transceiver.

Message Group	
Message Group Number :	1 (0 Messages) 
* If you change this item, the screen automatically updates to the selected list.	

Message Group Number

Select a group number between 1 and 50, and then enter the messages that the WLAN transceivers will use.

① When the group name or messages are registered in the group, they are displayed as shown below.

Message Group Number :	1 (Sales / 10 Messages)
* If you change this item, the screen automatically updates to the selected list.	

Transceiver Controller > Common Settings > Messages

■ Message Group Detail

Enter the group name that is selected in [Message Group].

Message Group Detail	
Name : 	 
	 

① Name

Enter a group name of up to 31 characters.

The group is selected in [Message Group] on the [Message] screen.

① When the group is selected on the [Messages] screen and [Profile] screen, the group name is displayed.

② <Apply>

Click to apply the entries.

③ <Reset>

Click to reset the settings.

① 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.

① If any WLAN transceiver settings have been changed, you must reboot it.

① This is an example of when Group 1 is selected in [Message Group].

① When a name is registered to a group, the name is also displayed.

① Load 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].

① The previous data in [Messages] is overwritten the loaded data.

① If you select the file that is saved on the Settings Restore screen in the [Management] menu, the setting is overwritten.

② Save 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.

① 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. 1.00		
3	#	File Ver. 1.00		
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.

① You can enter up to 10 messages in each message group.

Message List

No.	Fixed Message
1	Gather immediately.
2	A message was sent.
3	Check the message.
4	Is it no problem?
5	Give me a reply.
6	Give me a reply immediately.
7	Please disperse there.
8	Back to the office ASAP.
9	The parcel arrived.
10	The work finished.

① ②

① When a name is registered to a group, the name is also displayed.

① <Apply>

Click to apply the entries.

② <Reset>

Click to reset the settings.

① 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.

① You can enter up to 10 statuses of up to 32 characters.

① If any entries on this screen have been changed, you must reboot the WLAN transceiver.

Status Settings

①

☒ All

Status No.	Status Name
☒ 1	Meeting
☒ 2	Away from the desk
☒ 3	At lunch
☒ 4	Under a round
☒ 5	At the desk
☒ 6	Working
☒ 7	Waiting
☒ 8	Under preparation
☒ 9	In progress
☒ 10	Under a break

②

③

Apply

Reset

① Check Box

Click a Check Box to display a status name on the WLAN transceiver.

① 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.

① You can check or uncheck them all at once by clicking [All].

② <Apply>

Click to apply the entries.

③ <Reset>

Click to reset the settings.

① You cannot reset after clicking <Apply>.

Profile screen

Transceiver Controller > Common Settings > Profile

■ Profile List

Displays the entries that are entered in [Common Settings].

No.	Name	Wireless LAN	ID List Number	Common Message Group		
1	Sales group	Transceiver's Setting	1 (Sales)	1 (Sales)	Edit	Delete
2						

Add

Delete All

- ① <Add> Click to add an new profile.
- ② <Edit> Click to edit the entries in [Profile].
- ③ <Delete> Click to delete the selected entry.
① After clicking <Delete>, the entry cannot be recalled.
- ④ <Delete All> Click to delete all the entries.
① 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.

① After the setting is completed, you must reboot the WLAN transceiver.

Profile	
No. : ①	1 (Sales group) ▼ * If you change this item, the screen automatically updates to the selected profile.
Name : ②	Sales group
Wireless LAN : ③	Transceiver's Setting ▼
Common Settings : ④	ID List : 1 (Sales) ▼
	Message List : ⑤ 1 (Sales) ▼

① No.

Select a profile between 1 and 300, to assign to the group that WLAN transceiver belongs to.

② Name

Enter a profile name of up to 31 characters.
The profile name is displayed in [Profile List] on the [Profile] screen.

Wireless LAN

③ 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

④ ID List

Select an ID list that is commonly used by the WLAN transceivers in the group. (Default: Disable)

① Select an ID number that is registered on the [ID list] screen.

⑤ Message List

Select a Message list that is commonly used by the WLAN transceivers in the group. (Default: Disable)

① Select a message number that is registered in [Messages].

Profile screen

Transceiver Controller > Common Settings > Profile

■ Profile

Profile	
Registration	
Controller IP Address Notify	6
Registration Interval	7 60 seconds
Registration Retry Interval (If failed)	8 10 seconds
Number of Registration Retries (If failed)	9 2
Expire Time	10 180 seconds
Calling Notice Tone	
Individual Call	11 Tone 1
Group Call	Tone 1
All Call	Tone 1
Telephone	Tone 1

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.

① 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

① Generally use the default setting.

① 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)

① Generally use the default setting.

① 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

① 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

Profile

Connection Notice Tone

Success: 12 ☐ Disable ☒ Enable

Failure: 13 ☐ Disable ☒ Enable

Ringer Settings (Individual Call)

Notification Tone: 14 Tone 1

Ringer Setting: 15 P-Bell

Number of Notifications: 16 3

Ringer Settings (Group Call)

Courtesy Beep

Individual Call: 17 Tone 1

Group Call: Tone 1

All Call: Tone 1

Telephone: Tone 1

Connection Notice Tone**12 Success**

Select a notice tone for a successful connection. (Default: Enable)

① When an Individual call, Message call, Status call or telephone call connection is successful, the Notice Tone sounds.

① 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)

① When an Individual call, Message call, Status call or telephone call connection fails, the Notice Tone sounds.

① 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

① 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

Profile

Connection Notice Tone

Success: 12 ☐ Disable ☒ Enable

Failure: 13 ☐ Disable ☒ Enable

Ringer Settings (Individual Call)

Notification Tone: 14 Tone 1 ▼

Ringer Setting: 15 P-Bell ▼

Number of Notifications: 16 3 ▼

Ringer Settings (Group Call)

Courtesy Beep

Individual Call: 17 Tone 1 ▼

Group Call: Tone 1 ▼

All Call: Tone 1 ▼

Telephone: Tone 1 ▼

Out of Service Area Notice

Out of Service Area Notice Tone: 18 ☒ Disable ☐ Enable

Sidetone Mute: 19 ☒ Disable ☐ Enable

Ringer Settings

15 Ringer Setting.....

Select a notice type between “Pocket Beep” and “P-Bell.”

(Default: P-Bell)

① This item can be selected when [Notification Tone] is set to “Tone 1” to “Tone 8.”

① You cannot select this item for a Message call.

• Pocket Beep

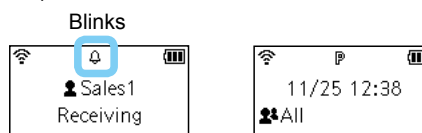
When a specified call is received, the WLAN transceiver sounds the Notification Tone, and the notification icon blinks.

• 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.

① After pushing [PTT] on the WLAN transceiver, the mute will be released.
(Example: IP110H)



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

① You can select this item when [Notification Tone] is set to “Tone 1” to “Tone 8.”

① 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)

① This tone can be individually assigned to each call type, "Individual Call," "Group Call," "All Call," and "Telephone."

① You can select "Not Use" or "Tone 1" to "Tone 8."

① 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.

① 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

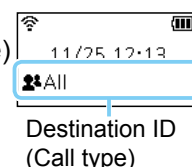
Profile	
Destination ID : 20 Disable	
Caller ID Display (for All and Group Calls) :	21 ☒ Disable ☐ Enable
Date Format :	22 MM/DD
History Display :	23 ☐ Disable ☒ Enable
Talkgroup Selection :	24 ☒ Function Key (FUNC Key / Menu) ☐ ID LIST Key
TalkBack :	25 ☐ Disable ☒ Enable
TalkBack Timer :	26 5 seconds
TalkBack Timer (Telephone) :	27 15 seconds
TalkBack Lock :	28 ☐ Disable ☒ Enable

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.



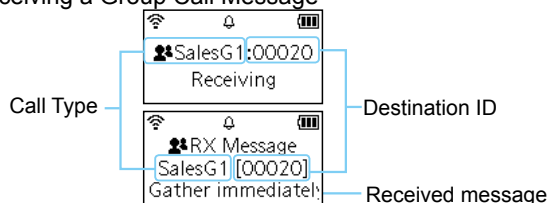
21 Caller ID Display (for All and Group Calls) ...

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

Profile

Display

Destination ID : 20 Disable

Caller ID Display (for All and Group Calls) : 21 ☒ Disable ☐ Enable

Date Format : 22 MM/DD

History Display : 23 ☐ Disable ☒ Enable

Talkgroup Selection : 24 ☒ Function Key (FUNC Key / Menu) ☐ ID LIST Key

TalkBack

TalkBack : 25 ☐ Disable ☒ Enable

TalkBack Timer : 5 seconds

TalkBack Timer (Telephone) : 26 15 seconds

TalkBack Lock : 27 ☐ Disable ☒ Enable

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)

Date Format : MM/DD

- MM/DD
- DD/MM
- MM-DD
- DD-MM
- MM.DD
- DD.MM

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 [F3] 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 [ID] key on the IP100H or by pushing the [ID 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)

① 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)

① 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)
- ① When “Enable” is selected, the [TOT Timer], [Penalty Timer], [TOT Beep], [TOT on Telephone Call] are displayed.
 - ① 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)
 - ① 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)
- ① 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)
- ① 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.
① 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.

Profile Batch Setting

Range : ① -

* Select Profile No. range.

Refer to : ②

① Range

Sets a range of collective Profiles.

Click <Add> to register consecutive Profiles collectively.

① If a Profile is already registered, "Overwrite the entry" is displayed.

② Refer 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.

Common Setting

Silence Recording : ① ○ Disable ● Enable

Silence Period to End Recording : ② 5 seconds

Overwriting the Oldest Files : ③ ● Disable ○ Enable

④ Apply ⑤ Reset

- | | |
|---|---|
| <p>① Silence Recording</p> | <p>Select whether or not to record a communication during there is no communication.</p> <p>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.</p> <p>The second communication that begins while recording will be continuously recorded within the same file. (Default: Enable)</p> |
| <p>② Silence Period to End Recording</p> | <p>Set the period of time to stop recording when there is no communication. (Default: 5)</p> <ul style="list-style-type: none"> • Range: 1 ~ 30 seconds |
| <p>③ Overwriting the Oldest Files</p> | <p>Select whether or not to record and overwrite the older data, when the disk is full. (Default: Disable)</p> |
| <p>④ <Apply></p> | <p>Click to apply the settings.</p> |
| <p>⑤ <Reset></p> | <p>Click to reset the settings.</p> <p>① You cannot reset after clicking <Apply>.</p> |

Call Recording screen

Transceiver Controller > Call Recording

Recorder Setting

Records communication audio of the linked transceivers.

Target: Disable

Recorder Setting

Index : ① 1 ▼

Mode : ② Recording ▼

Target : ③ ☒ Disable ☐ Enable

Call Type : ④ Group ▼

Call ID : 00101

Apply Reset

① This is an example when the [Call Type] is set to "Group."

Target: Enable

Target : ③ ☐ Disable ☒ Enable

Unit ID : 00101 (Sales1) ▼

- 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)
- ① 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.
- ① When you select "Individual" or "Group," also set the Call ID from the list.

Call Recording screen

Transceiver Controller > Call Recording

■ Recorder Setting

① 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.
① 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	6-2
■ Destination Settings (All)	6-2
■ Destination Settings (Group)	6-4
■ Destination Settings (Talkgroup)	6-7
■ Destination Settings (Individual)	6-12
■ Destination Settings (Telephone)	6-13
■ List of Destination Setting Entries (All Call)	6-14
■ List of Destination Setting Entries (Group Call)	6-14
■ List of Destination Setting Entries (Talkgroup Call)	6-15
■ List of Destination Setting Entries (Multiplex Talkgroup Call)	6-16
■ List of Destination Setting Entries (Individual Call)	6-17
■ List of Destination Setting Entries (Telephone)	6-18
■ Destination Batch Setting	6-19

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.

① This screen is displayed when clicking <Edit> of [List of Destination Setting Entries (All Call)].

① This is an example of setting "All" as [Call Type].

Destination

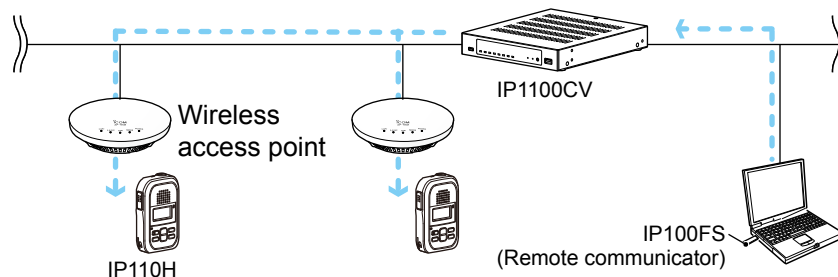
① Communication Type

Select "Simplex" or "Full-Duplex."

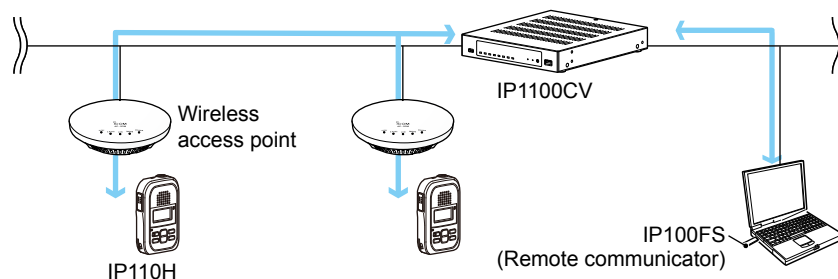
(Default: Full-Duplex)

• Simplex operation

① 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)

① This is an example of setting “All” as [Call Type].

2 All Call for Talkgroup Select whether or not the All call includes the WLAN transceivers and IP100FS that belong to the Talkgroup. (Default: Enable)

3 Additional Controller Select the additional controller when configuring several controllers, and the All call calls between the different controllers.
 ① By clicking “All,” you can select or cancel all entries in the list.
 ① 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.

4 <Apply> Click to apply the entries.
 ① The registered contents are displayed in [List of Destination Setting Entries (All Call)].

5 <Reset> Click to reset the settings.
 ① 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.

① The displayed contents are changed according to [Call Type] setting.

Destination Settings

No. : ① 1

Name : ②

Call Type : ③ Group

Destination ID : ④ 00001

Group Priority : ⑤ ☒ Normal ☐ High

Destination

Communication Type : ⑥ ☐ Simplex ☒ Full-Duplex

⑦ WLAN Transceivers

☐ All ☐ 00101(Sales1) ☐ 00102(Sales2) ☐ 00103(Sales3) ☐ 00050(IP100FS)

⑧ Additional Controller

☐ All ☐ 1(Office1 (Master)) ☐ 2(Office2 (Sub))

⑨ Apply ⑩ Reset

① 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)
- ① This item can be selected when [Call Type] is set to “Group.”

Destination Settings screen

Destination Settings > Destination Settings

■ Destination Settings (Group)

Destination Settings

No. : 1
Name :
Call Type : Group
Destination ID : 00001
Group Priority : ☒ Normal ☐ High

Destination
Communication Type : ☐ Simplex ☒ Full-Duplex

WLAN Transceivers
☐ All ☐ 00101(Sales1) ☐ 00102(Sales2) ☐ 00103(Sales3) ☐ 00050(IP100FS)

Additional Controller
☐ All ☐ 1(Office1 (Master)) ☐ 2(Office2 (Sub))

Apply Reset

① This is an example of setting "Group" as [Call Type].

Destination

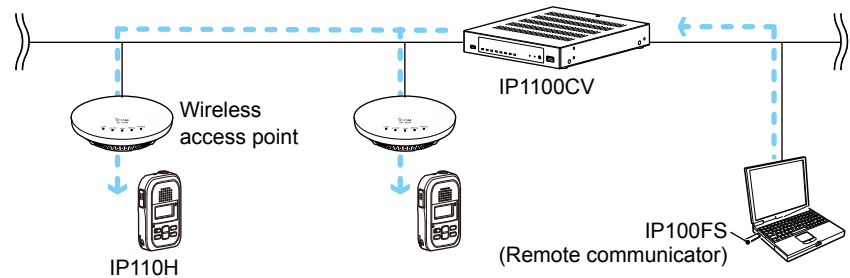
⑥ Communication Type

Select "Simplex" or "Full-Duplex."

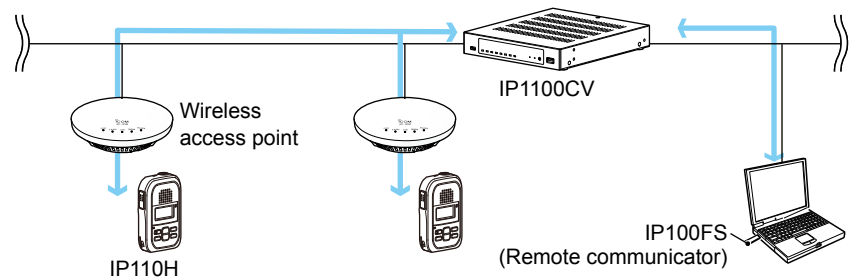
(Default: Full-Duplex)

• Simplex operation

① 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)

Destination Settings

No. : ① 1

Name : ②

Call Type : ③ Group

Destination ID : ④ 00001

Group Priority : ⑤ ☒ Normal ☐ High

Destination

Communication Type : ⑥ ☐ Simplex ☒ Full-Duplex

⑦ **WLAN Transceivers**

☐ All ☐ 00101(Sales1) ☐ 00102(Sales2) ☐ 00103(Sales3) ☐ 00050(IP100FS)

⑧ **Additional Controller**

☐ All ☐ 1(Office1 (Master)) ☐ 2(Office2 (Sub))

⑨ Apply ⑩ Reset

① 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.

① The WLAN transceivers and IP100FS added in [Transceiver Registration] are displayed.

① 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.

① By clicking "All," you can select or cancel all entries in the list.

① 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.

Additional Controller : None

None

1(Office1 (Master))

2(Office2 (Sub))

⑨ **<Apply>**

Click to apply the entries.

① The registered contents are displayed in [List of Destination Setting Entries (Group Call)].

⑩ **<Reset>**

Click to reset the settings.

① 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.

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

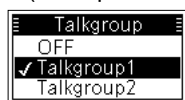
Destination Settings (Talkgroup)

The settings to call the registered Talkgroup through the IP network.

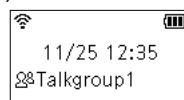
① The displayed contents are changed according to [Call Type] setting.

① This is an example of setting “Talkgroup” as [Call Type] and “Appointment” as [Callee ID for IP100FS].

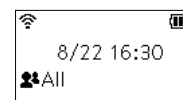
- ① **No.** Select the number to register the destination Talkgroup.
Up to 1990 destinations can be registered.
- ② **Name** Enter a destination name of up to 31 characters.
- ③ **Call Type** Select “Talkgroup” for Talkgroup calls.
- ④ **Destination ID** Enter a destination number.
• Range: 00001 ~ 60000
① This number must also be registered in the [ID List] setting (Transceiver Controller > Common Settings > ID List > ID List).
① 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)

Destination Settings

No. : 1

Name :

Call Type : Talkgroup

Destination ID : 01001

Talkgroup Type : ☒ Normal ☐ Multiplex Talkgroup

Destination

Communication Type : ☐ Simplex ☒ Full-Duplex

Talkgroup Call for IP100FS : ☐ Disabled ☒ Enable

Callee ID for IP100FS : ☐ All ☒ Appointment

Destination ID :

Additional Controller

☐ All
☐ 1(Office1 (Master))
☐ 2(Office2 (Sub))

Apply

Reset

① 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.

Talkgroup Type : ☐ Normal ☒ Multiplex Talkgroup

Linked Talkgroup				
01002	01003			

- ① This setting can be selected when [Call Type] is set to “Talkgroup.”
- ① You cannot register the Multiplex Talkgroup in other Multiplex Talkgroups.
- ① 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.

```

graph TD
    TG1001[Talkgroup1001 (Multiplex Talkgroup)]
    TG1002[Talkgroup1002 (Normal)]
    TG1003[Talkgroup1003 (Normal)]
    TG1001 --> TG1002
    TG1001 --> TG1003
    TG1002 <--> TG1003
    style TG1002 fill:#fff,stroke:#000
    style TG1003 fill:#fff,stroke:#000
    style TG1002 linkStyle 0 stroke:#f00,stroke-width:2px
    style TG1003 linkStyle 0 stroke:#f00,stroke-width:2px
  
```

6-8

Destination Settings screen

Destination Settings > Destination Settings

■ Destination Settings (Talkgroup)

Destination Settings

No. : 1
Name :
Call Type : Talkgroup
Destination ID : 01001
Talkgroup Type : ☒ Normal ☐ Multiplex Talkgroup

Destination

Communication Type : ☐ Simplex ☒ Full-Duplex
Talkgroup Call for IP100FS : ☐ Disabled ☒ Enable
Callee ID for IP100FS : ☐ All ☒ Appointment
Destination ID :

Additional Controller
☐ All ☐ 1(Office1 (Master)) ☐ 2(Office2 (Sub))

Apply Reset

① This is an example of setting “Talkgroup” as [Call Type] and “Appointment” as [Callee ID for IP100FS].

Destination

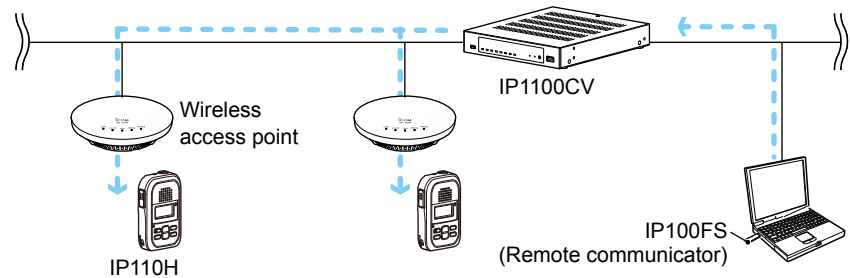
⑥ Communication Type

Select “Simplex” or “Full-Duplex.”

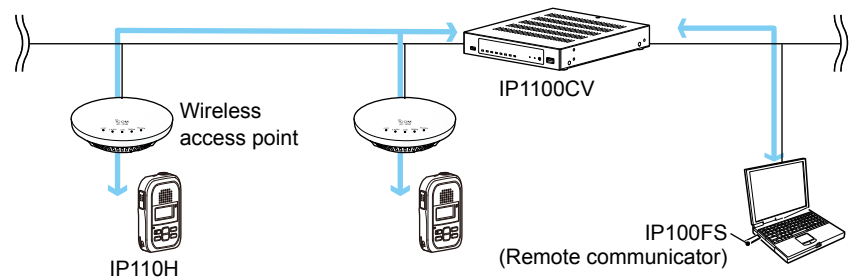
(Default: Full-Duplex)

• Simplex operation

① 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)

Destination Settings

No. : 1

Name :

Call Type : Talkgroup

Destination ID : 01001

Talkgroup Type : ☒ Normal ☐ Multiplex Talkgroup

Destination

Communication Type : ☐ Simplex ☒ Full-Duplex

Talkgroup Call for IP100FS : ☐ Disabled ☒ Enable

Callee ID for IP100FS : ☐ All ☒ Appointment

Destination ID :

Additional Controller

☐ All ☐ 1(Office1 (Master)) ☐ 2(Office2 (Sub))

Apply Reset

① 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)

① When “Appointment” is selected, you can register up to 5 IP100FS's destination IDs (00001 ~ 60000).

① This item is displayed only when [Talkgroup Call for IP100FS] is set to “Disabled.”

① 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.

① By clicking “All,” you can select or cancel all entries in the list.

① 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.

Additional Controller :

- None
- 1(Office1 (Master))
- 2(Office2 (Sub))

Destination Settings screen

Destination Settings > Destination Settings

■ Destination Settings (Talkgroup)

Destination Settings

No. : 1

Name :

Call Type : Talkgroup

Destination ID : 01001

Talkgroup Type : ☒ Normal ☐ Multiplex Talkgroup

Destination

Communication Type : ☐ Simplex ☒ Full-Duplex

Talkgroup Call for IP100FS : ☐ Disabled ☒ Enable

Callee ID for IP100FS : ☐ All ☒ Appointment

Destination ID :

9 Additional Controller

☐ All ☐ 1(Office1 (Master)) ☐ 2(Office2 (Sub))

10 Apply 11 Reset

① 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.

① 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.

① The displayed contents are changed according to [Call Type] setting.

The screenshot shows the 'Destination Settings' screen. It has a title bar 'Destination Settings'. Below it, there are several input fields: 'No.' with a dropdown arrow, 'Name' with a text input field, 'Call Type' with a dropdown arrow, 'Destination ID' with a text input field, and 'Additional Controller' with a dropdown arrow. The 'Destination' label is on the left. At the bottom right, there are 'Apply' and 'Reset' buttons. Numbered callouts 1 through 7 point to specific elements: 1 points to the 'No.' dropdown, 2 to the 'Name' field, 3 to the 'Call Type' dropdown, 4 to the 'Destination ID' field, 5 to the 'Additional Controller' dropdown, 6 to the 'Apply' button, and 7 to the 'Reset' button.

① This is an example of setting "Individual" 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 "Individual" for Individual calls.

④ **Destination ID** Enter a destination number.
• Range: 00001 ~ 60000

Destination

⑤ **Additional Controller** Select the additional controller when configuring several controllers,
and the Individual call calls between the different controllers.

⑥ **<Apply>** Click to apply the entries.
① The registered contents are displayed in [List of Destination Setting Entries
(Individual Call)].

⑦ **<Reset>** Click to reset the settings.
① 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.

① The displayed contents are changed according to [Call Type] setting.

Destination Settings

No. : ① 1

Name : ②

Call Type : ③ Telephone

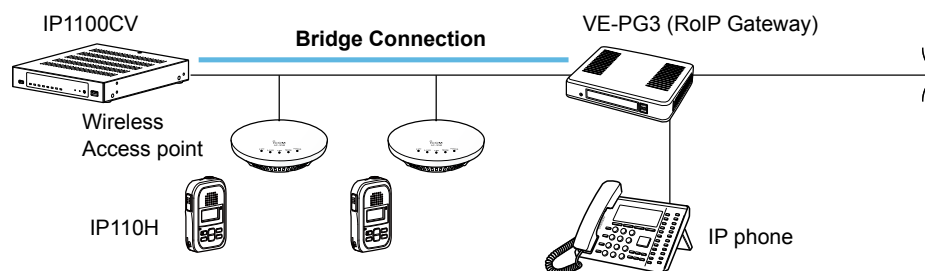
Destination Phone Number : ④

Telephone Gateway Interconnection Number : ⑤ 1

⑥ Apply ⑦ Reset

① 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.
① 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.
① 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.
① The registered contents are displayed in [List of Destination Setting Entries (Telephone)].
- ⑦ **<Reset>** Click to reset the settings.
① 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.

① Click <Edit> to edit the entry.

List of Destination Setting Entries (All Call)			
Communication Type	All Call for Talkgroup	Additional Controller	
Full-Duplex	Enable	Not Set	Edit

Destination Settings > Destination Settings

List of Destination Setting Entries (Group Call)

Lists the destination setting entries for Group Calls.

List of Destination Setting Entries (Group Call)							
① ☐ All	No.	Name	Destination ID	Group Priority	Number of WLAN Transceivers	Additional Controller	② Edit ③ Delete
☐	1	Sales	00001	Normal	-	Set	
						④ Delete Selected	⑤ Delete All

① **Check Box**

Click to add a check mark to delete the entry.

① By clicking <All>, you can select or cancel all the entries.

② **<Edit>**

Click to edit the entry.

③ **<Delete>**

Click to delete the entry.

① You cannot restore after clicking <Delete>.

④ **<Delete Selected>**

Click to delete the selected entries.

① You cannot restore after clicking <Delete Selected>.

⑤ **<Delete All>**

Click to delete all of the entries.

① 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.

List of Destination Setting Entries (Talkgroup Call)

1 ☐ All	No.	Name	Destination ID	Additional Controller	2 Edit	3 Delete
☐	3		01002	Not Set	Edit	Delete
☐	4		01003	Not Set	Edit	Delete

4 5

1 **Check Box**

Click to add a check mark to delete the entry.
 ⓘ By clicking <All>, you can select or cancel all the entries.

2 **<Edit>**

Click to edit the entry.

3 **<Delete>**

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

4 **<Delete Selected>**

Click to delete the selected entries.
 ⓘ You cannot restore after clicking <Delete Selected>.

5 **<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.

List of Destination Setting Entries (Multiplex Talkgroup Call)							
1	☐ All	No.	Name	Destination ID	Linked Talkgroup	2	3
	☐	5		01004	01002 01003	Edit	Delete
						4	5
						Delete Selected	Delete All

1 Check Box

Click to add a check mark to delete the entry.

① By clicking <All>, you can select or cancel all the entries.

2 <Edit>

Click to edit the entry.

3 <Delete>

Click to delete the entry.

① You cannot restore after clicking <Delete>.

4 <Delete Selected>

Click to delete the selected entries.

① You cannot restore after clicking <Delete Selected>.

5 <Delete All>

Click to delete all of the entries.

① 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.

List of Destination Setting Entries (Individual Call)						
1 ☐ All	No.	Name	Destination ID	Additional Controller	2 Edit	3 Delete
☐	11	Sales1	00011	1(Office1 (Master))	Edit	Delete
☐	12	Sales2	00012	1(Office1 (Master))	Edit	Delete
☐	13	Sales3	00013	2(Office2 (Sub))	Edit	Delete
					4 Delete Selected	5 Delete All

- 1 **Check Box** Click to add a check mark to delete the entry.
 ① By clicking <All>, you can select or cancel all the entries.
- 2 **<Edit>** Click to edit the entry.
- 3 **<Delete>** Click to delete the entry.
 ① You cannot restore after clicking <Delete>.
- 4 **<Delete Selected>** Click to delete the selected entries.
 ① You cannot restore after clicking <Delete Selected>.
- 5 **<Delete All>** Click to delete all of the entries.
 ① 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.

List of Destination Setting Entries (Telephone)					
1 ☐ All	No.	Name	Destination Phone Number	Telephone Gateway Interconnection Number	2 3
☐	6	UT-136-31	31	1	Edit Delete
☐	7	UT136-32	32	1	Edit Delete
				4 Delete Selected	5 Delete All

- 1 **Check Box** Click to add a check mark to delete the entry.
 ⓘ By clicking <All>, you can select or cancel all the entries.
- 2 **<Edit>** Click to edit the entry.
- 3 **<Delete>** Click to delete the entry.
 ⓘ You cannot restore after clicking <Delete>.
- 4 **<Delete Selected>** Click to delete the selected entries.
 ⓘ You cannot restore after clicking <Delete Selected>.
- 5 **<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.

Destination Batch Setting

Call Type : ① Group

Destination ID : ②

* Enter Unit ID range.

Add

Refer to : ③ 00001(Group0001)

① Call Type

Select the Call Type from “Individual,” “Group,” or “Talkgroup.”

② 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.

① When the entered Destination ID number is already registered. “Override the settings” is displayed.

③ Refer to

Select the registered setting for reference.

Administrator screen	7-2
■ Administrator Password	7-2
Date and Time screen	7-3
■ Date and Time	7-3
■ Time Zone	7-4
■ NTP	7-5
■ SNTP Server	7-6
SYSLOG screen	7-7
■ SYSLOG	7-7
SNMP screen	7-8
■ SNMP	7-8
■ SNMPv3	7-9
Management Tools screen	7-10
■ USB	7-10
■ HTTP/HTTPS	7-12
■ If you cannot access the setting screen	7-13
■ Telnet/SSH	7-14
■ Unit ID Confirmation	7-15
Network Test screen	7-16
■ Ping Test	7-16
■ Traceroute Test	7-17
Reboot screen	7-18
■ Reboot	7-18
Settings Backup/Restore screen	7-19
■ Settings Backup	7-19
■ Settings Restore	7-19
■ List of Settings	7-20
Factory Defaults screen	7-21
■ Factory Defaults	7-21
Firmware Update screen	7-22
■ Firmware Status	7-22
■ Online Update	7-23
■ Automatic Update	7-24
■ Manual Update	7-24
Transceiver Firmware Update screen	7-25
■ Transceiver Firmware Status	7-25
■ Online Update	7-26

Administrator screen

Management > Administrator

Administrator Password

Set a password for accessing the setting screen.

- | | |
|-------------------------------------|--|
| 1 Username | Displays the administrator login ID ("admin").
① You cannot change the Username. |
| 2 Current Password | Enter the current password, when you change it. (Default: (Blank))
① 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 up to 31 characters.
① 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.
① 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.)

- | | |
|----------------------------------|---|
| ① Current Time | Displays the current time. |
| ② Manually Set Time | Displays the time when you opened this screen.
① Refresh the browser screen to refresh the time. |
| ③ <Set> | Click to set the internal clock to the time displayed in the [Manually Set Time].
① Before clicking <Set>, refresh the browser screen. |

Date and Time screen

Management > Date and Time

■ Time Zone

Select the appropriate Time Zone.

Time Zone

Time Zone : ① UTC

Use Daylight Savings Time : ② ☐ Disable ☒ Enable

① **Time Zone** Select the appropriate Time Zone. (Default: UTC)

② **Use Daylight Savings Time** Select "Disable" if not necessary. (Default: Enable)

① If "Enable" is selected, the Controller automatically adjusts the time according to your time zone.

① 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).

① To use this function, an Internet connection and default gateway settings are necessary.

NTP	
NTP Client :	① ☐ Disable ☒ Enable
NTP Server 1 :	② 210.173.160.27
NTP Server 2 :	③ 210.173.160.57
NTP Status :	④ Not synchronized (210.173.160.27, 210.173.160.57 is not responding.)

- | | |
|----------------------|--|
| ① NTP Client | <p>Select whether or not to use the Automatic Clock Synchronize function.
(Default: Disable)</p> <ul style="list-style-type: none"> • Disable: Not used. • Enable: Set to the internal clock automatically by accessing the NTP. |
| ② NTP Server 1 | <p>Enter the time management server's IP address.
(Default: 210.173.160.27)</p> <p>If the Controller cannot access this address, the address set in [NTP Server 2] will be used.</p> |
| ③ NTP Server 2 | <p>Enter the second time management server's IP address.
(Default: 210.173.160.57)</p> |
| ④ NTP Status | <p>Displays the status whether or not to synchronize with the NTP Server or the transceiver module.</p> |

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)

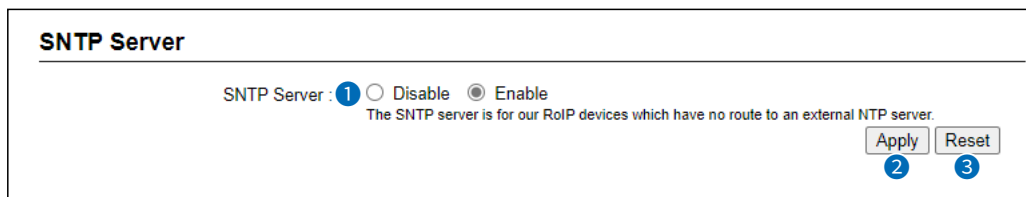
Date and Time screen

Management > Date and Time

■ SNTP Server

The SNTP server is for other RoIP devices that have no route to an external Time server (NTP).

① To use this function, an Internet connection and default gateway settings are necessary.



- | | |
|------------------------------|--|
| ① SNTP 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.
① This function can be used only for Icom RoIP devices, which cannot set the route to the external NTP server.
① Set the Date and Time screen before using this function. |
| ② <Apply> | Click to apply the entries set on Time Zone, NTP, and SNTP Server. |
| ③ <Reset> | Click to reset the settings when you change the settings on Time Zone, NTP, and SNTP Server.
① You cannot reset after clicking <Apply>. |

SYSLOG screen

Management > SYSLOG

■ SYSLOG

Select the information to be saved to the SYSLOG host.

- | | |
|--------------------------------|---|
| 1 DEBUG | Select "Enable" to display the debug information in Host IP Address (4).
(Default: Disable) |
| 2 INFO | Select "Enable" to display the INFO messages in Host IP Address (4).
(Default: Enable) |
| 3 NOTICE..... | Select "Enable" to display the NOTICE messages in Host IP Address (4).
(Default: Enable) |
| 4 Host IP Address | Enter the SYSLOG host's address.
① The host device must have the SYSLOG server function. |
| 5 <Apply> | Click to apply the entries. |
| 6 <Reset> | Click to reset the settings.
① 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.

SNMP

SNMP: ① ☐ Disable ☒ Enable

Community Name (GET): ②

System Location: ③

System Contact: ④

- | | |
|-----------------------------------|---|
| ① SNMP | Select "Enable" to manage the setting information in the SNMP management tool.
(Default: Enable) |
| ② Community Name (GET) ... | Enter the Community name to get the SNMP community string. (Up to 31 characters)
(Default: public) |
| ③ System Location | Enter the SNMP system location. (Up to 127 characters) |
| ④ 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.

The image shows a web-based configuration interface for SNMPv3. It has a title 'SNMPv3' at the top left. Below it are three text input fields: 'User Name' (labeled with a blue circle 1), 'Authentication Password' (labeled with a blue circle 2), and 'Privacy Password' (labeled with a blue circle 3). To the right of the 'Authentication Password' and 'Privacy Password' fields are eye icons (labeled with blue circles 4 and 5 respectively) to toggle password visibility. At the bottom right are two buttons: 'Apply' and 'Reset'.

- | | |
|----------------------------------|--|
| ① User Name | Select "Enable" to manage the setting information in the SNMP management tool. |
| ② Authentication Password | Enter the Community name to get the SNMP community string. (Up to 31 characters) |
| ③ Privacy Password | Enter the SNMP system location. (Up to 127 characters) |
| ④ <Apply> | Click to apply the entries. |
| ⑤ <Reset> | Click to reset the settings.
① 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.

- | | |
|-------------------------------------|---|
| ① USB Flash Drive | Select “Enable” to use a USB flash drive. (Default: Enable)
① If you use the Automatic firmware update function, or Automatic Setting Load function, select “Enable.” |
| ② USB Access Permission ... | Select the USB flash drive access option.
(Default: ☒ Firmware Update
☒ Settings Backup/Restore)
<ul style="list-style-type: none"> • Firmware Update (p.7-22) • Settings Backup/Restore (p.7-19) |
| ③ USB Authentication Key ... | Enter a USB Authentication Key of up to 64 characters to import to and export from the USB flash drive.

① This Key can restrict access to the Firmware Update function and Settings Backup/Restore function.
① After entering the characters, click <Apply> in the Management Tools.
① 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

USB

USB Flash Drive : ① ☐ Disable ☒ Enable

USB Access Permission : ② ☒ Firmware Update
☒ Settings Backup/Restore

USB Authentication Key: ③

Write USB Authentication Key: ④

④ Write 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.

If you have inserted a flash drive in which an authentication key is already saved, “An authentication key already exists on the USB flash drive. If you want to overwrite the key, click the “Next” button.” is displayed.

Write USB Authentication Key

This wizard allows you to write the authentication key to a USB flash drive. Insert a USB flash drive to the system, and click the “Next” button if you are ready.



Write USB Authentication Key

The authentication key has been written to the USB flash drive.

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.

192.168. says

The USB authentication key has been changed.
Write the key after saving it with the Apply button.

Management Tools screen

Management > Management Tools

■ HTTP/HTTPS

HTTP and HTTPS are the protocols to access from a web browser.

① When you set HTTP settings and HTTPS settings to “Enable,” you can not access the setting screen using a browser.

HTTP/HTTPS	
HTTP:	① ☐ Disable ☒ Enable
HTTP Port:	② 80
HTTPS:	③ ☒ Disable ☐ Enable
HTTPS Port:	④ 443

- | | |
|--------------------|---|
| ① HTTP | Select whether to allow access using the HTTP protocol.
(Default: Enable) |
| ② HTTP Port..... | Enter the HTTP Port number
(Default: 80)
<ul style="list-style-type: none"> • Range: 80, or 1024 ~ 65535. • Some of the Controller's ports cannot access HTTP. ① Enter a different port number from HTTPS, Telnet or SSH. |
| ③ HTTPS | Select whether to allow access using the HTTPS protocol.
(Default: Disable)
① HTTPS access is more secure than Telnet or HTTP access because the passwords and data are encrypted. |
| ④ HTTPS Port | Enter the HTTPS Port number.
(Default: 443)
<ul style="list-style-type: none"> • Range: 443, or 1024 ~ 65535. • Some of the Controller's ports cannot access HTTPS. ① Enter a port number different from HTTP, Telnet or SSH. |

Management Tools screen

Management > Management Tools

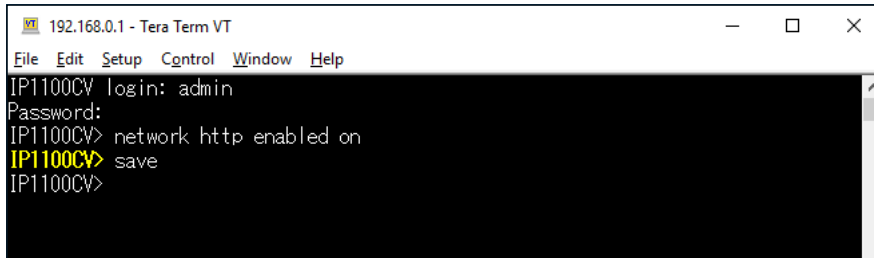
■ If you cannot access the setting screen

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.



```
192.168.0.1 - Tera Term VT
File Edit Setup Control Window Help
IP1100CV login: admin
Password:
IP1100CV> network http enabled on
IP1100CV> save
IP1100CV>
```

Management Tools screen

Management > Management Tools

■ Telnet/SSH

Set for accessing the Controller using Telnet or SSH.

- 1 Telnet** Select whether or not to allow access to the Controller using Telnet.
(Default: Disable)
- 2 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.
- 3 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.
- 4 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.
- 5 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.
- 6 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.

Unit ID Confirmation

Check Status : 1 Stop

Confirmation State : 2 Start

3 Apply 4 Reset

- | | |
|-----------------------------------|---|
| 1 Check Status | <p>Display the status of the Unit ID.</p> <ul style="list-style-type: none"> • Checking: Checking the Unit ID and [POWER] blinks red. • Stop: Does not check. |
| 2 Confirmation State | <p>Click <Start> to start checking.</p> <ul style="list-style-type: none"> • [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> | <p>Click to apply the entries set on the Management Tool screen.</p> |
| 4 <Reset> | <p>Click to reset the settings, when you change the settings on the "Management Tools" screen.</p> <p>① You cannot reset after clicking <Apply>.</p> |

Network Test screen

Management > Network Test

■ Ping Test

Verifies that a particular IP address exists and can accept requests.

Ping Test

Host : ① _____

Number of times : ② 4

Packet Size : ③ 64

Timeout : ④ 1000

⑤ Ping

- ① **Host** Enter the IP address or Domain Name of up to 64 characters to send the Ping packets to.
- ② **Number of Times** Select the number of times to send. (Default: 4)
• Options: 1, 2, 4, 8
- ③ **Packet Size** Select the size of the packet's data. (Default: 64)
• Options: 32, 64, 128, 256, 512, 1024, 1448, 1500, 2048 (bytes)
- ④ **Timeout**..... 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)
- ⑤ **<Ping>** Click to run the Ping test.

① The test result is displayed as shown below.

Ping Result

```
PING ( ) 56(84) bytes of data.
64 bytes from : icmp_req=1 ttl=64 time=0.153 ms
64 bytes from : icmp_req=2 ttl=64 time=0.115 ms
64 bytes from : icmp_req=3 ttl=64 time=0.119 ms
64 bytes from : icmp_req=4 ttl=64 time=0.110 ms

--- ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3003ms
rtt min/avg/max/mdev = 0.110/0.124/0.153/0.018 ms
```

Save Back

① 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."

① 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.

Traceroute Test

Node : ① _____

Maximum Hop Count : ② 16

Timeout : ③ 3 seconds

DNS Lookup : ④ ☐ Disable ☒ Enable

⑤ **Traceroute**

- 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.

Traceroute Result

```

traceroute to 192.168.100.1 (192.168.100.1), 16 hops max, 38 byte packets
 1 192.168.100.1 1.885 ms 2.101 ms 2.248 ms
 2 192.168.100.1 20.590 ms 32.736 ms 5.745 ms
 3 192.168.54.1 17.774 ms 4.630 ms 4.497 ms
 4 192.168.53.4 5.841 ms 4.537 ms 7.152 ms
 5 192.168.100.3 10.446 ms 8.165 ms 8.240 ms
 6 192.168.100.1 10.473 ms 8.243 ms 8.037 ms
  
```

Save Back

- 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.

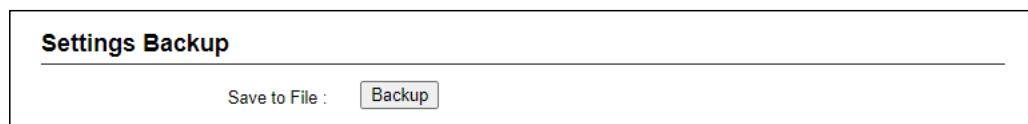
Reboot
Reboot Now : Reboot

Settings Backup/Restore screen

Management > Settings Backup/Restore

■ Settings Backup

Save the Controller's settings to a PC as a backup.



Settings Backup

Save to File :

Save to File

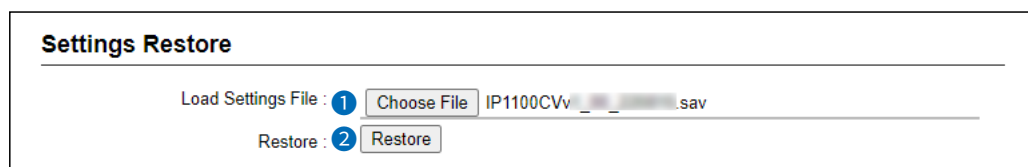
Click <Backup> to save the settings to a PC as a backup file (Extension: sav).
See the topic below to load the saved file into the Controller.

Management > Settings Backup/Restore

■ Settings Restore

Load the setting file (Extension: "sav") into the Controller.

① Loading takes a few minutes.



Settings Restore

Load Settings File : ① IP1100CVv _ _ _ .sav

Restore : ②

① Load Settings File

Click <Choose File> to select the setting file.

② Restore

Click <Restore> to load the setting into the Controller.

① The Controller's settings are overwritten.

① 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.

① If you forget the IP address and the Administrator's password, see Section 3 in the Installation guide.

Factory Defaults

All Settings : ① ☒ Restore all settings to factory defaults.

V/RoIP Settings : ② ☐ Restore to factory defaults without [Network Settings], [Router Settings], [Management]. ③

① All Settings

Select to return all settings to the factory defaults.

① After the Controller is initialized, the IP address is returned to the default (192.168.0.1).

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.

② V/RoIP Settings

Select to return the settings to the factory defaults except for the Network Settings, the Router Settings, and the Management Settings.

③ 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.
- ① Ask your dealer for updated function or specification details.

■ Firmware Status

Displays the firmware version.

Firmware Status

Version : IP1100CV Ver.  Copyright  Icom Inc.

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.

Online Update

Check for Updates :

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.

Online Firmware Update

Firmware Information

Status	Succeeded in gathering information.
Version	1.0.0
Changes	2017-01-01 10:00:00

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.

① 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.

- 1 Automatic Update** Select “Enable” to use the Automatic Update function. (Default: Enable)
 ① Select “Disable” if you do not want to automatically update the firmware.
- 2 <Apply>** Click to apply the entries.
- 3 <Reset>** Click to reset the settings.
 ① You cannot reset after clicking <Apply>.

■ Manual Update

The firmware can be updated using the saved firmware.

- 1 Select the update file** Click <Choose File> to select the firmware file (extension: “dat”).
 ① The selected file appears in the “Update Firmware using File” item.
- 2 Firmware 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.

① 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.
- ① 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 Status	
Transceiver Model	Version
IP110H	

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.

Online Update

Transceiver Model : ①

Check for Updates : ②

① **Transceiver Model** Select the model name that you want to update the firmware. in the Controller.

① As of June, 2023, only the IP110H is selectable.

② **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.

Online Transceiver Firmware Update

Transceiver Firmware Status

Status	Succeeded in gathering information.
Version	1.1.1
Changes	Firmware already up-to-date

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.

① Ask your dealer for updated function or specification details.

