

# IXW-PBXA

## Programming Guide



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## Overview

This guide covers how to configure the IXW-PBXA to work with IX|IXG Series stations programmed by IXG Support Tool. These instructions assume that the stations have already been programmed and are otherwise operational, and that IXG Support Tool is already installed on the programming PC. If this is not the case, use the links below to get started.

IXG Support Tool download: <https://www.aiphone.com/IXG-SupportTool>

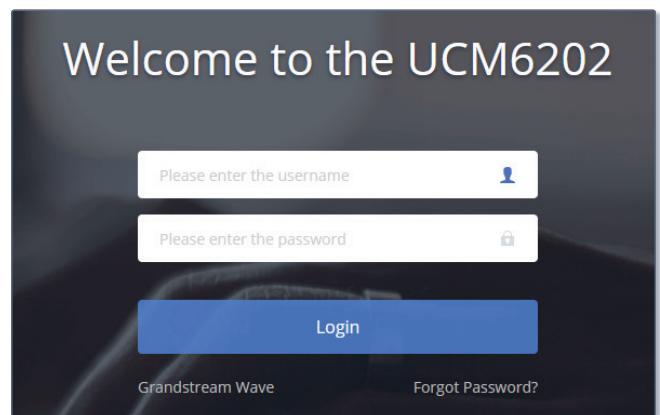
IX|IXG Series Quick Start Guide: <https://www.aiphone.com/IXG-Series-QuickStartGuide>

IX|IXG Series Network Security Summary: <https://aiphone.com/ix-ixg-network-security-summary>

## Login Information

Access the IXW-PBXA by entering its IP address and port in a web browser on a PC set to the same IP scheme. The IP address of the IXW-PBXA will be shown on its LCD screen, and the port used is 8089. Use the password printed on the sticker at the base of the IXW-PBXA for the first login.

Example: <https://192.168.1.120:8089>



## Setup Wizard

After logging in, the setup wizard will launch to assist with initial setup.

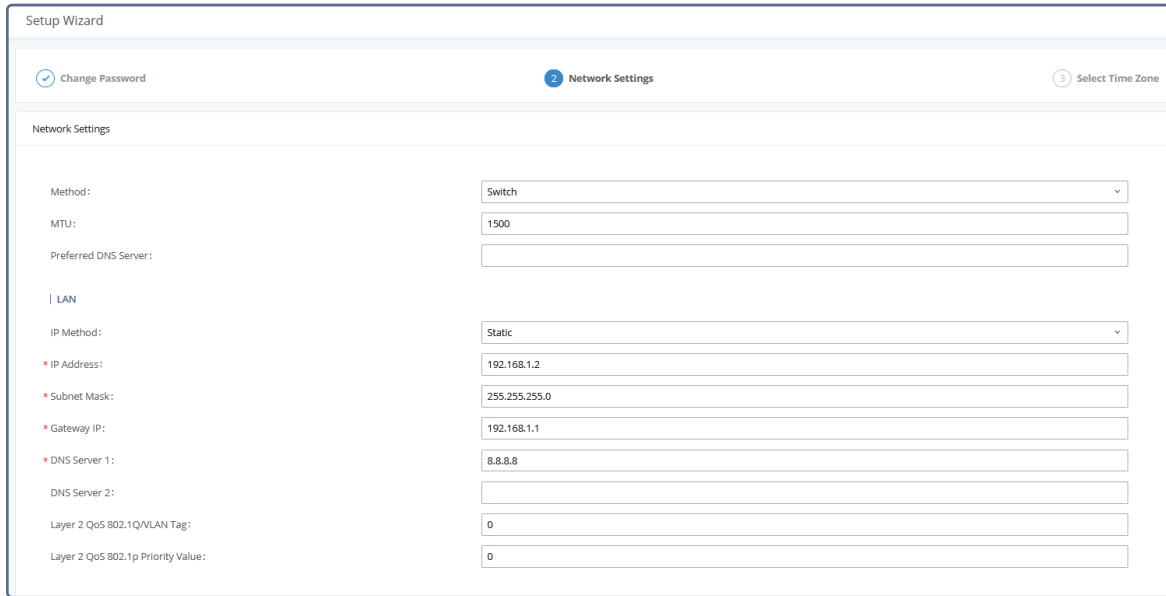
### Change Password

A prompt will appear to create a new password, as well as enter an email address. Fill these in and record them for future reference. Click **Next**.

**i** An email address is required to recover the IXW-PBXA if the password is lost.

## Network Settings

Change the network settings for the IXW-PBXA so that it can communicate with the site's IX|IXG Series stations. Change the **Method** to Switch. The LAN settings will need to match the local network and be in a range that the IX|IXG Series stations can reach. Consult the site's network administrator for more information. Click **Next**.

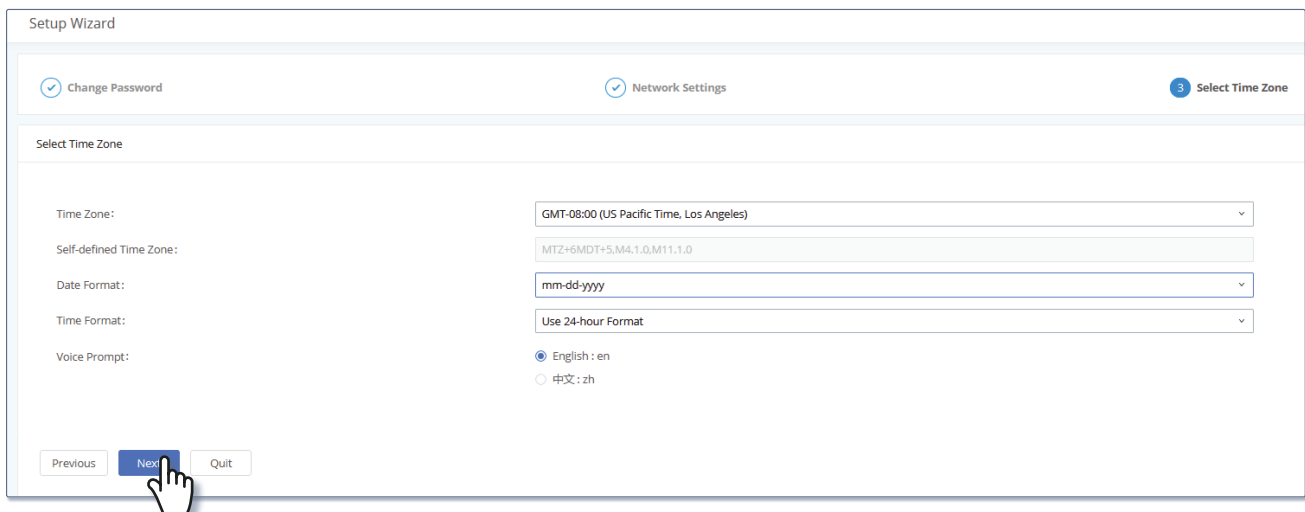


The screenshot shows the 'Setup Wizard' interface with three steps: 'Change Password', 'Network Settings' (current), and 'Select Time Zone'. The 'Network Settings' section is titled 'Network Settings' and contains the following fields:

- Method: Switch (dropdown)
- MTU: 1500 (text input)
- Preferred DNS Server: (text input)
- LAN section:
  - IP Method: Static (dropdown)
  - \* IP Address: 192.168.1.2 (text input)
  - \* Subnet Mask: 255.255.255.0 (text input)
  - \* Gateway IP: 192.168.1.1 (text input)
  - \* DNS Server 1: 8.8.8.8 (text input)
  - DNS Server 2: (text input)
  - Layer 2 QoS 802.1Q/VLAN Tag: 0 (text input)
  - Layer 2 QoS 802.1p Priority Value: 0 (text input)

## Time Zone

Change the **Time Zone** to match the location of the site's IX|IXG Series stations. The date and time formats can also be changed based on preference. Click **Next**.



The screenshot shows the 'Setup Wizard' interface with three steps: 'Change Password', 'Network Settings', and 'Select Time Zone' (current). The 'Select Time Zone' section is titled 'Select Time Zone' and contains the following fields:

- Time Zone: GMT-08:00 (US Pacific Time, Los Angeles) (dropdown)
- Self-defined Time Zone: MTZ+6MDT+5,M4.1.0,M11.1.0 (text input)
- Date Format: mm-dd-yyyy (dropdown)
- Time Format: Use 24-hour Format (dropdown)
- Voice Prompt:
  - ☒ English : en
  - ☐ 中文 : zh

At the bottom, there are three buttons: 'Previous', 'Next' (highlighted with a hand cursor), and 'Quit'.

## Extensions

Each IX|IXG Series station will be assigned an extension in the IXW-PBXA. Leave **Disable Extension Range** checked and set the **Start Extension** to the first IX|IXG Series station's station number. This can be seen in IXG Support Tool under **Station Information**, Identification on the side menu. Record the station numbers and names for future steps.

Set **Create Number** to 1 and set a custom **SIP Password** that will be assigned to all extensions. Record the password for future steps. Click **Next**.

Setup Wizard

Change Password Network Settings Select Time Zone

Extensions

Can only set SIP extensions.  
Disable Extension Range: ☒

Start Extension: 1000

Create Number: 1

SIP Password: ☐ Use Random Password ☒ Use  as Password

Previous Next Quit

## Trunks & Routes

The **Trunks / Routes** setting will be configured in later steps of this guide with more in-depth information. Do not make any changes and click **Next**.

## Summary

Review the information from each of the previous steps and click **Save** to exit the setup wizard.

## SIP Settings

Expand **PBX Settings** in the left menu and select SIP Settings. Select the NAT tab and enter the IXW-PBXA's network address in the field labeled **Local Network Address**. Click **Add** to enter the address, then click **Save** in the top right corner of the page.

If Local Network Address is not configured, External Host will not take effect.

External Host:

Use IP address in SDP: ☒

\* External UDP Port: 5060

\* External TCP Port: 5060

\* External TLS Port: 5061

Local Network Address: 192.168.1.0 / 24

LOCAL NETWORK ADDRESS	SUBNET MASK	OPTIONS
192.168.5.0	24	

Add Save

## Setting & Adding Extensions

Each IX|IXG Series station needs to be registered to the IXW-PBXA as a separate extension. The extension number will be assigned to the station in IXG Support Tool in a later step. Expand the **Extension / Trunk** menu and select Extensions. Click the pencil symbol to make changes to the extension.

Set the **Extension** to match the Station Name in IXG Support Tool for consistency. For the **SIP / IAX Password**, enter the SIP **Password** created on the wizard's **Extensions** screen. Set a first and last name under **User Settings**. Set the **Permission** level and make note of it for a future step. Fill in all settings marked with a red asterisk, and any required by the site's network administrator. Click **Save** to finish creating the extension.

The screenshot shows the 'Create New Extension' form with the 'Basic Settings' tab selected. The form includes the following fields:

- Select Extension Type:** A dropdown menu with 'SIP Extension' selected.
- Select Add Method:** A dropdown menu with 'Single' selected.
- General** section containing:
  - \* Extension:** A text field with '1000' entered.
  - \* Permission:** A dropdown menu with 'Local' selected.
  - AuthID:** An empty text field.
  - \* Voicemail Password:** A text field with '392372' entered.

**i** If the extension's destination is an external number, set the permission to **National**.

Two buttons are shown: 'Cancel' and 'Save'. A hand icon is pointing at the 'Save' button.

Click **+ Add** on the **Extensions** page to create more extensions, then repeat the above settings to configure them.

The screenshot shows the 'Extensions' management page. At the top, there are buttons: '+ Add', 'Edit', 'Delete', 'Reset', 'Edit All SIP', and 'More'. Below these buttons is a table with a 'STATUS' column and a 'PRESENCE STATUS' column. A hand icon is pointing at the '+ Add' button.

## Phone Line Trunk Settings

The IXW-PBXA can connect to SIP or analog phone line trunks to place outbound calls.

### SIP Trunk Settings

Navigate to **Extension / Trunk**, VoIP Trunks on the side menu. Click **+ Add SIP Trunk**.

Select the drop-down menu next to **Type** and select Register SIP Trunk.

The screenshot shows the 'VoIP Trunks' configuration page. On the left is a 'Menus' sidebar with 'VoIP Trunks' selected. The main content area has a 'VoIP Trunks' header and a 'Trunk Group' sub-header. Below this are two buttons: '+ Add SIP Trunk' and '+ Add IAX Trunk'. A hand icon is pointing at the '+ Add SIP Trunk' button. Below the buttons is a 'PROVIDER NAME' label and an empty text field.

Enter the **Provider** and **Host Name** of the SIP trunk service provider. If issues arise, confirm this information with the provider of the SIP trunk. Fill in all settings marked with a red asterisk, as well as any required by the site's network administrator. Click **Save**.

**i** If issues arise after deployment, check that the information entered on this page is correct.

Cancel Save **2**

## Analog Trunk Settings

Plug the POTS line into one of the FXO ports on the back of the device. Navigate to **Extension / Trunk**, **Analog Trunks** on the side menu. Click **+ Add**.

Select the drop-down menu next to **Type** and select Register SIP Trunk.

Use the checkbox to mark which **FXO Port** was connected. Add a **Trunk Name**. Fill in or verify all settings marked with a red asterisk, as well as any required by the site's network administrator. Click **Save**.

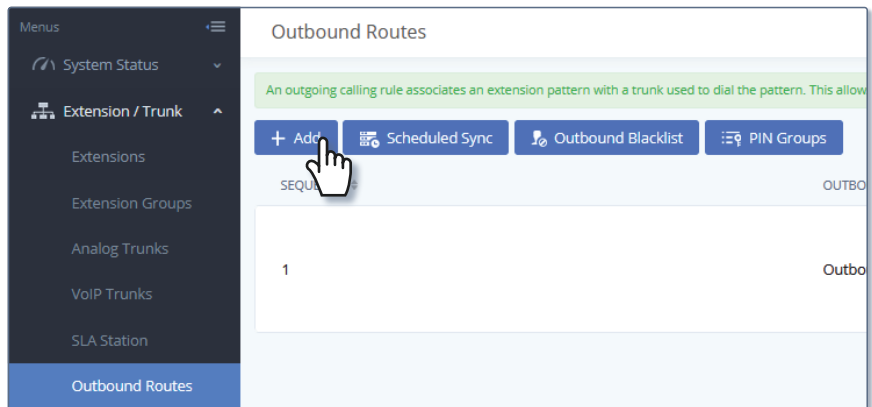
Cancel Save **2**

**i** If issues arise after deployment, check that the information entered on this page is correct.

# Outbound Routes

An outbound route rule is required for an IX|IXG Series station to call out to its registered phone number.

To configure a rule, select **Extension / Trunk**, Outbound Routes on the side menu. Click **Add**.



Set an **Outbound Rule Name**. This is required, but it can be any alphanumeric name that seems descriptive.

The **Pattern** can usually be set to **\_X!**. This variable will allow any number of digits to be entered as a call destination from the VoIP or analog trunk.

A screenshot of the 'Edit Outbound Rule: Outbound\_Dialing\_Plan' form. The 'General' tab is selected. The form contains the following fields: 'Calling Rule Name' with the value 'Outbound\_Dialing\_Plan', 'Pattern' with two lines of input 'XXX' and 'XXXXXXXXXX', 'PIN Groups' with the value 'None', and an empty 'Password' field.

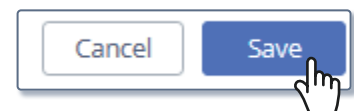
If both a VoIP and an analog trunk are used, more specific rules may be needed. Multiple rules can be active simultaneously. VoIP extensions would fit the pattern **XXX**, with the number of characters depending on the length of the extensions. Full ten digit numbers would be rendered as **XXXXXXXXXX** for the analog trunk. If using multiple rules, set each on a separate line.

**Example:** The VoIP line will call extension 345, and the analog line will call 1-555-123-4567. So, it would be entered in the **Pattern** field as:

XXX  
XXXXXXXXXX

Use the drop-down menu next to **Permission Level** to match the settings created for the extensions on page X. If these do not match, the call will not go through.

Once everything is configured, click **Save**.

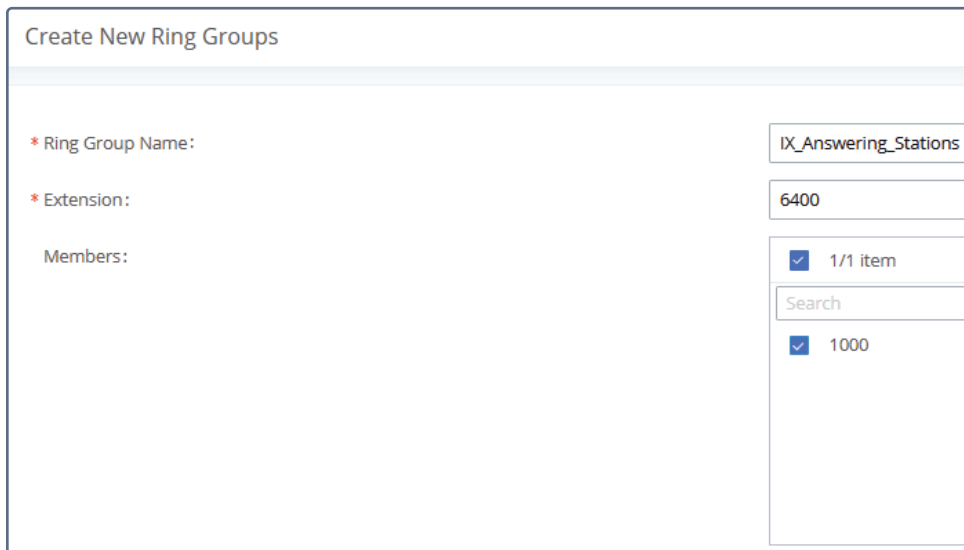


# Calling Multiple Extensions At Once

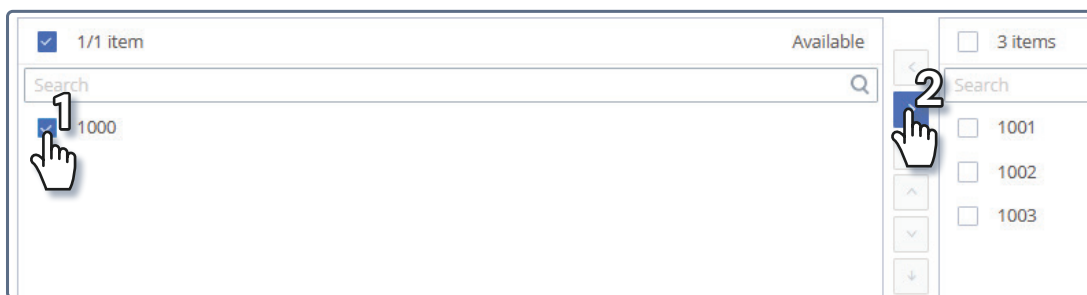
Normally, IX|IXG Series stations are not able to call more than one extension at a time. Ring groups can be set on the IXW-PBXA, allowing a single call destination that the IXW-PBXA routes to multiple destinations.

Navigate to **Call Features**, Ring Groups on the left side menu. Click **+ Create New Ring Group**.

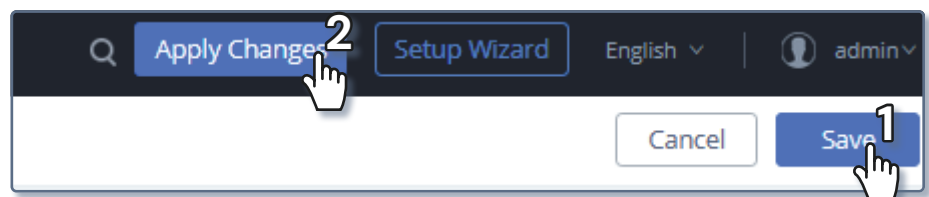
Assign the ring group a name and a unique extension. Find the **Members** section.



Use the checkboxes under **Available** to select the desired extensions. Click **>** to add them to **Selected**. To remove an extension from the group, check its box under **Selected** and click **<**.



Click **Save**, then click **Apply Changes**.

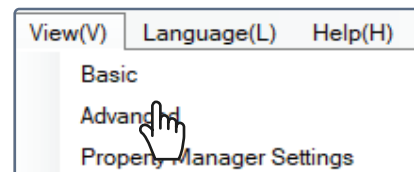


This will complete the steps needed to register the stations in the IXW-PBXA's interface. The stations' settings in IXG Support Tool will need to be configured next.



# IXG Support Tool Settings

Open IXG Support Tool, log in, and select the appropriate site. On the top menu, select **View(V)**, Advanced.



## Registering the IXW-PBXA

To register the IXW-PBXA with the system, navigate to **Network Settings**, SIP on the side menu. For each station to be registered, enter its extension under the ID column, the SIP password under Password, and the IXW-PBXA's IP address under IIPv4 Address. Click **Save** in the top left corner of IXG Support Tool.

Building Nu	Unit Number	Station Name	SIP				
			SIP Connections		Primary Server		
			SIP Signaling Po	User Agent	ID	Password	IPv4 Address
01	1001	Master Station1	5060		105	*****	192.168.1.26
01	1003	Video Door Station1	5060		107	*****	192.168.1.26

## Adding VoIP Phones to Units

The VoIP phones in an IX|IXG Series system are added to units as a type of answering station. To assign the extension to a unit, navigate to **Site Settings**, Units / Stations on the side menu. Select a commercial or guard unit to contain the VoIP phone. If a unit does not exist, create one by filling in the building number, assigning a unit number, and clicking **Select** to choose a unit type.

Building Nu	Unit Number	Unit Type	
01	1000	Entrance	Select
01	1001	Commercial	Select

If there is not a free slot under one of the Master / Tenant Station columns, use the **Display Settings** menu at the top of the page to increase the number of master stations and click **Apply**.

Display Settings

☒ First Name / Last Name
Number of Master Stations
1

Number of Door / Entrance Stations
1

Site Settings
Units / Stations

Once a spot has been chosen, click **Select** under one of the Master / Tenant Station columns and select **VoIP Phone** as the station type.

Repeat these steps for each extension. Once all VoIP phones have been added, click **Save**.

**i** Each unit can only contain one VoIP phone. If multiple phones need to be called at once, create a separate unit for each phone and use the steps on page 8 to create a Ring Group.

IXG Support Tool - [01] - [1001] - [Master / Tena...

Master / Tenant S

Select Station

IX-MV7-\*

IX-SOFT

IX-RS-\*

VoIP Phone

Delete

Cancel

Select

Select

Select

Select

Select

Select

Select

Select

## Assigning Extensions to VoIP Phones

To assign an extension to the VoIP phones, navigate to **Station Information, Identification** on the side menu. Change the Station Number of each VoIP phone to match the desired extension.

If any IX|IXG Series stations have a different station number than their assigned extension in the IXW-PBXA, adjust those as well. Click **Save**.

Building Nu	Unit Number	Station Type	Identification	
			Station Nu	Station Name
01	1000	IXG-DM7(-*)	10060	Entrance Station1
01	1001	IX-MV7-*	105	Master Station1
01	1001	VoIP Phone	1000	VoIP Phone2
01	1002	IXG-MK	10020	Guard Station1
01	1002	VoIP Phone	1001	VoIP Phone2
01	1003	IX-DVM	107	Video Door Station1
01	1004	IXG-2C7(-*)	10040	Tenant Station1
		IXGW-(T)GW	00012995	Gateway Adaptor1

## Adding VoIP Phones to Door Station Call Settings

Navigate to **Call Settings, Called Stations (Door/Sub Stations)** on the side menu. To assign a door station to call a VoIP phone, find the cell where the door station row and VoIP phone column intersect in the table. Use the drop-down menu in the cell and select **U**. Do this for all desired door stations and click **Save**.

Building Nu	Unit Number	Station Name	Total	Called Stations (Door/Sub Stations)		
				Group 01		
				Select Unit	Building Number / Unit Number / Station Number / Station Name / Station Type	
					01 / 1000 / 10060 / Entrance Station1 / IXG-D	01 / 1001 / 105 / Master Station1 / IX-MV7-*
01	1003	Video Door Station1	1	Select		U

## Assigning Door Release Codes (optional)

Door and entrance stations are automatically assigned a twenty digit Door Release Key when they are created. The key can be entered manually into the keypad on a telephone to unlock the door. To shorten the key, navigate to **Option Input / Relay Output, Relay Output** on the side menu. Scroll right and find the Door Release Key column. Replace the key for the desired door stations and click **Save**.

Next, the answering stations that release the door will need to have their settings adjusted. Navigate to **Function Settings, Door Release**. Use the **Display** menu to select the building and group of stations that includes the door stations. Click **Apply**.

Building Nu	Unit Number	Station Name	Relay Output
			Relay Output 1 (Output Time)
			Door Release Key
01	1000	Entrance Station1	85558529392049745588
01	1001	Master Station1	62098581848829485359
01	1002	Guard Station1	44013452724667605806
01	1003	Video Door Station1	9
01	1004	Tenant Station1	88950927556786148848

Display  
 Building Number / Building Name 01/Building1 ▼ Apply  
 Station Number 10020 - 107 ▼

Find the column for the door or entrance station. Replace the key wherever it intersects with an answering station that needs to unlock it. Repeat these steps for all door and entrance stations that were adjusted. Click **Save**.

Unit Number	Unit Name	Door Release Assignment			
		1000 / 1C	1001 / 105 / Master Station1 / IX-MV7-*	1003 / 107 / Video Door Station1 / IX-DVM	
		Contact Assignment	Door Release Key	Option Output Key	Contact Assignment Door Release Key
1001	Commercial200		-	-	
1002	Commercial201		Destination Station 62098581848829485359	-	Destination Station 9
1004	Commercial203				

## Configuring a Door Station to Answer Calls (Optional)

Door stations registered to the IXW-PBXA can receive calls from VoIP phones, but they are not able to auto-answer. The station's call button will need to be configured to answer calls.

Navigate to **Call Settings**, **Station Information** on the side menu. Adjust the **Call Button Function** to **Call, Answer Call, End Communication**. Click **Save**.

Building Nu	Unit Number	Station Name	Station Information
01	200	Audio Door Station1	Call Button Function <div>             Call             <div>               Call, Answer Call, End Communication                Call, Answer Call, End Communication             </div> </div>

## Uploading Settings to Stations

To upload settings to the stations, navigate to **Connection(S)**, **Upload Settings** on the top menu.

Select each station by placing a check mark next to it, or click **Select** to select all stations at once. Click **Settings** to upload station settings, which will complete the programming steps.

Setting File Upload

Select the station(s) to upload the Setting File(s):

Station List

Select	Building Nu	Unit Number	Station Name	Station Type	Status
<input checked="" type="checkbox"/>	01	1000	Entrance Station1	IXG-DM7(-*)	-
<input checked="" type="checkbox"/>	01	1001	Tenant Station1	IXG-2C7(-*)	-
<input checked="" type="checkbox"/>	01	1002	Guard Station1	IXG-MK	-
<input checked="" type="checkbox"/>	01	1003	Master Station1	IX-MV7-*	-
<input checked="" type="checkbox"/>	01	1003	Video Door Station1	IX-EA,IX-EAU	-
<input checked="" type="checkbox"/>	01	1004	Video Door Station1	IX-DVM	-
<input checked="" type="checkbox"/>	01	1004	Video Door Station2	IX-DV,IX-DVF(-*)	-
<input checked="" type="checkbox"/>			Gateway Adaptor1	IXGW-(T)GW	-
<input checked="" type="checkbox"/>			I/O Adaptor1	IXW-MA	-

Select Station by Type.

All

1 Select

Unselect

Select file type to be uploaded.

2 Settings

Sounds

Images

Schedules

# Exporting System Configuration

Once the upload is complete, it is best practice to create a copy of the system configuration. This allows the settings to be restored, or moved to a new programming PC as needed.

Select **File(F)** from the top menu and click Export System Configuration. Click **Export** on the new window that appears. If the configuration file needs to be emailed, compress the folder first.

## Troubleshooting Tips

Once the settings have been uploaded to the stations, place a test call from the door station. The door should be able to reach the programmed extension. Answer the call and verify there is two-way communication between the phone extension and door station. If there is not, verify the settings on the IXW-PBXA and in IXG Support Tool.

### Enabling Video (Optional)

Door and entrance stations will send video to compatible SIP phones. If the video shows up on answering stations, but not on the site's SIP phones, changing the video profile can resolve this issue.

Navigate to **Network Settings**, Video on the side menu. Scroll right to **Select Profile**. Use the drop-down menu to change the door and entrance stations' profile to **Baseline**. Click **Save**, then upload settings to all stations again.

Unit Number	Station Name	Video					
		SIP Channel					
		Video Streamin	Video Codec	Resolution	Wide View	Frame Rate [fps]	Select Profile
100	Master Station1	Enable	H.264/AVC			15	Main
							Baseline
							Main
							High