AIPHONE®

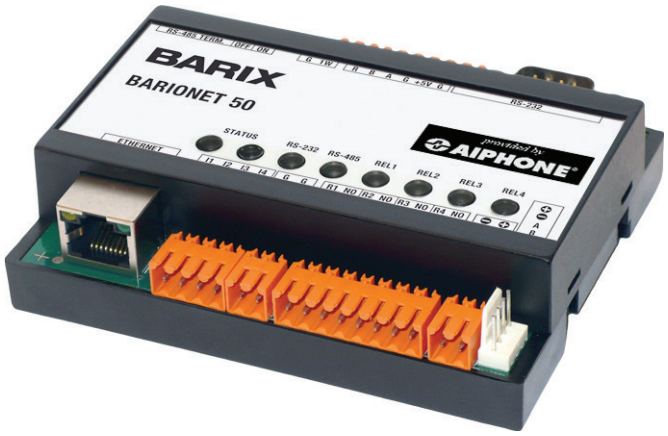
1218

RY-IP44

Input/Output Network Adaptor

Programming Manual

For use with IX Series



For instructions on how to program the RY-IP44 with the IS IP Series, please go to www.aiphone.com/ISIP-RYIP44

For instructions on how to program the RY-IP44 with the IPW-1A, please go to www.aiphone.com/IPW1A-RYIP44

ATTENTION:

This manual is for programming the RY-IP44 with the IX Series 2 system only. Refer to the IX Series 2 Installation and Setting Manuals for complete installation/programming information.

Package Contents

- RY-IP44
- 6 Screw Terminal Blocks
- MAC Address Label

Installation Requirements

- General understanding of IX Series programming
- 9-30V DC power supply (sold separately)
- Unique IP address for each adaptor

Overview / Description

The RY-IP44 is a Barix “Barionet 50” with proprietary Aiphone firmware for use with IPW-1A, IS, or IX Series Stations.

The 4 individually programmable contact outputs can be used to trigger remote door release or external signaling, triggering a contact closure while calling, communicating, or both calling and communicating.

The 4 individually programmable contact inputs can be used to trigger a call between two IX Series stations. For example, use this function to trigger during an invalid card swipe, motion detector activation, or selective calling from multiple call buttons.

The RY-IP44 is also used as the Mobile App Server for IX Mobile. An RY-IP44 is needed for every 8 instances of IX Mobile and is used to alert the mobile device if it goes out of wireless network range.

When using the RY-IP44 only as a Mobile App Server for IX Mobile, begin on page 4 as SIF and CGI are not used in this instance. Refer to pages 7-11 for steps on adding IX Mobile to a system and configuring IX Mobile.

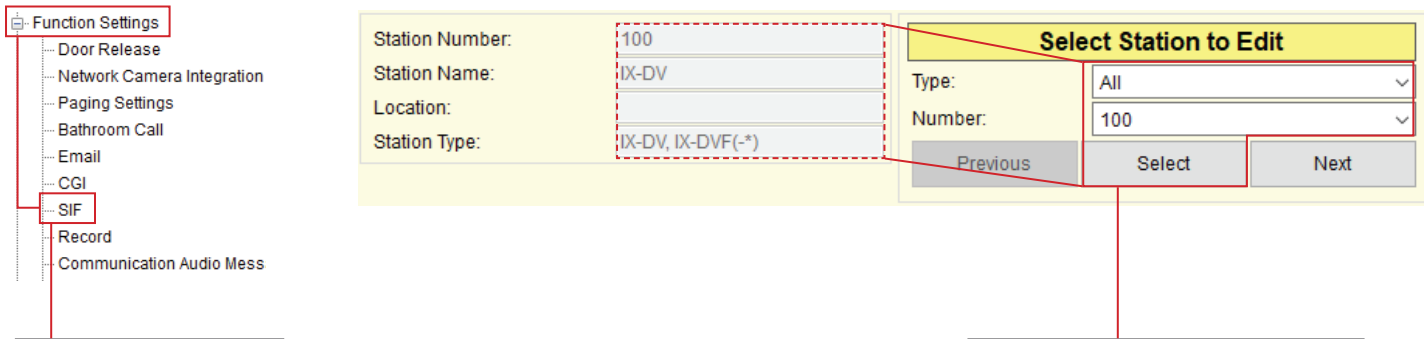
Note that the RY-IP44 is not a PoE device, and requires a separate 9-30v DC power supply. It is recommend to use the Aiphone PS-1208UL.

Enabling CGI & SIF on IX Stations

Important:
The intercom system should be fully programmed and operational prior to programming for the RY-IP44 adaptor integration.

IX Series stations use **SIF** events to interact with and trigger the contact outputs of the RY-IP44, and **CGI** is used when the RY-IP44 interacts with a station using the contact inputs. Enabling both **SIF** and **CGI** for each station and then configuring their settings are required. Once these parameters are set, the event triggers are configured. Each of these steps are shown below using the IX Support Tool software.

Open IX Support Tool and select a system program file by clicking **File** > **Selecting Existing System**.
Change IX Support Tool to Station View.



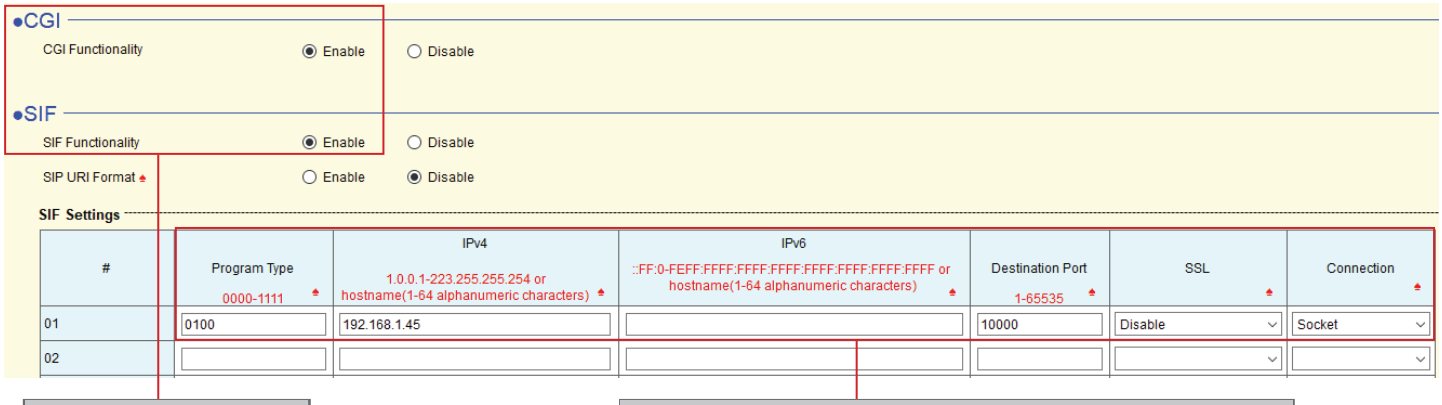
Step 1

Expand Function Settings and select SIF from menu on left.

Step 2

Use the Number drop-down under Select Station to Edit and choose the door station. Click Select and ensure that the door station is shown in upper left of the screen.

Enabling CGI & SIF on IX Stations *(continued)*



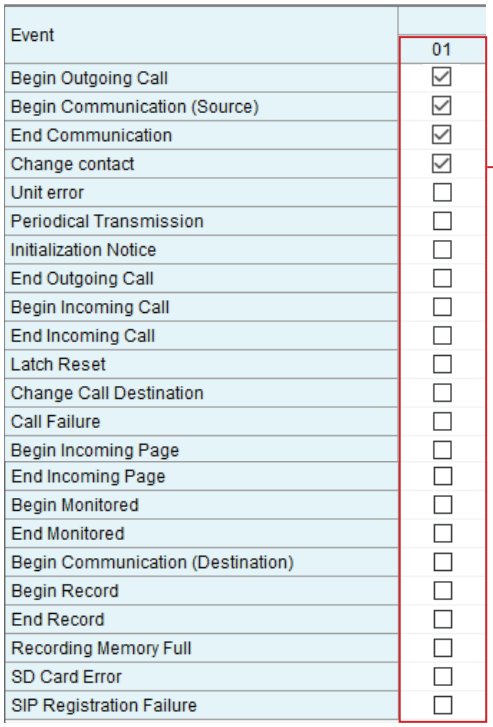
Step 3

Select the Enable radio buttons for CGI and SIF Functionality

Step 4

Under SIF Settings, enter a ProgramType, the IP Address, and Destination Port for the RY-IP44 relay. Use a separate line for each RY-IP44 being used.

Program Type: Any binary number between 0100 and 1111
IPv4: IPv4 Address assigned to RY-IP44
IPv6: IPv6 Address assigned to RY-IP44
Destination Port: Port number assigned to RY-IP44 (10000 is default)
SSL: Select if SSL will be Enabled or Disabled (Set to disable)
Connection: Select if connection is Socket or HTTP (Set to socket)



Event	01
Begin Outgoing Call	☑
Begin Communication (Source)	☑
End Communication	☑
Change contact	☑
Unit error	☐
Periodical Transmission	☐
Initialization Notice	☐
End Outgoing Call	☐
Begin Incoming Call	☐
End Incoming Call	☐
Latch Reset	☐
Change Call Destination	☐
Call Failure	☐
Begin Incoming Page	☐
End Incoming Page	☐
Begin Monitored	☐
End Monitored	☐
Begin Communication (Destination)	☐
Begin Record	☐
End Record	☐
Recording Memory Full	☐
SD Card Error	☐
SIP Registration Failure	☐

Step 5

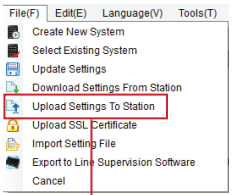
Choose the Transmission Trigger Events that this station will need to send to the RY-IP44. The **Begin Outgoing Call**, **Begin Communication (Source)**, **End Communication**, and **Change contact** events are the most common and will cover most aspects of RY-IP44 integration.

Step 6

Click Update to save changes.

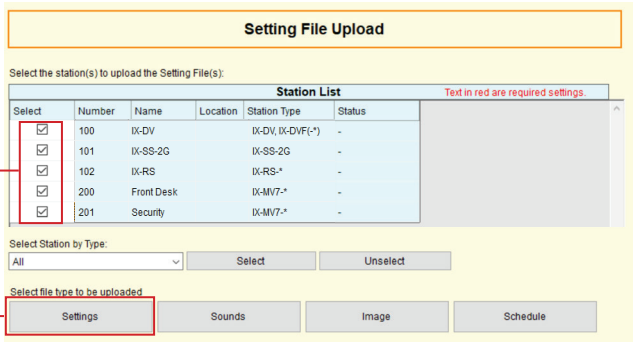
Repeat Steps 2-6 for each station interacting with the RY-IP44 relay.

Upload Settings to Station



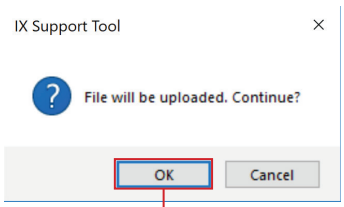
Step 1

Click **File**, **Upload Settings to Station**



Step 2

Check the box beside each station that was modified, then click **Settings** under “Select file type to be uploaded”

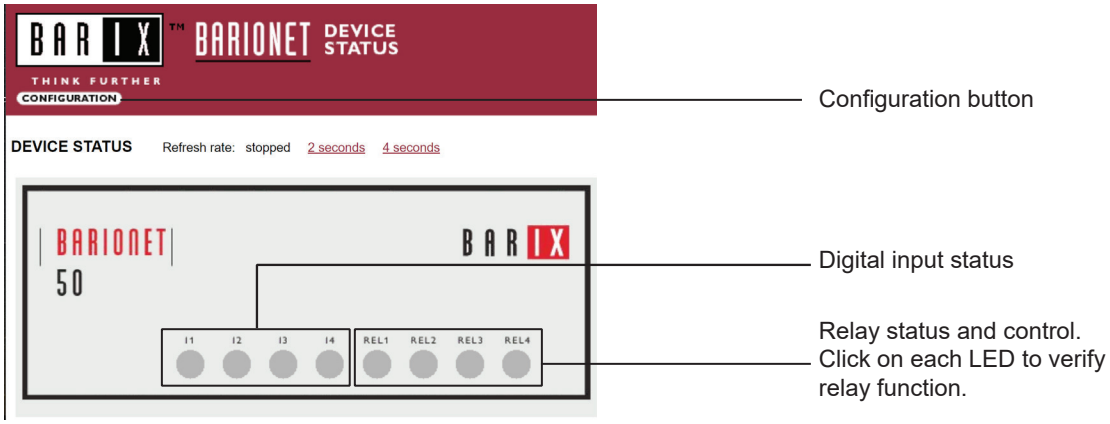


Step 3

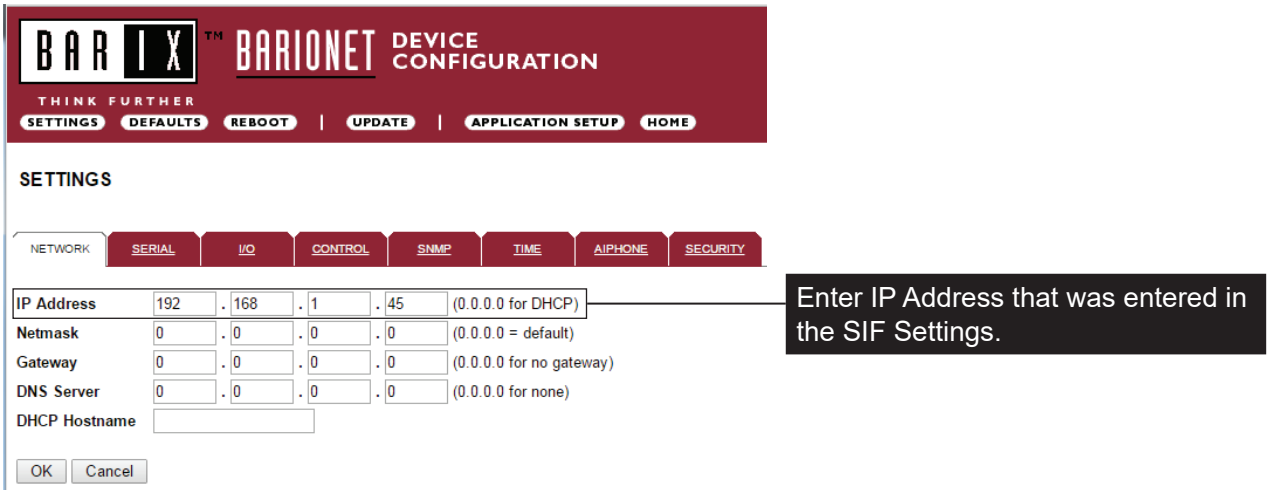
You will be asked if you want to continue. Click OK.
Confirm Success/Failed in the Status Column.

Configuring the RY-IP44

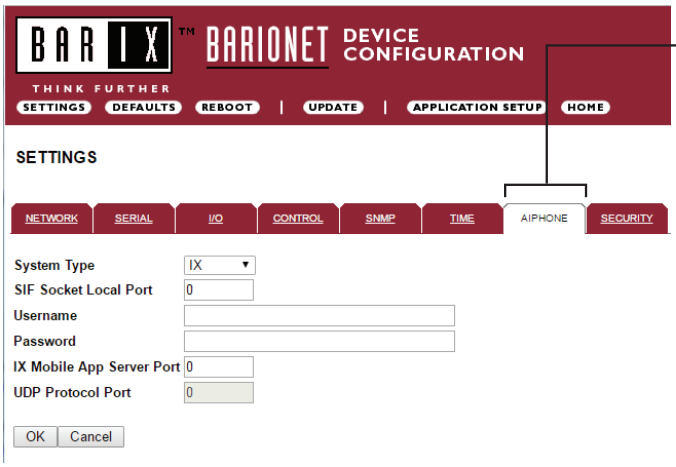
Using a web browser, access the RY-IP44 using its default IP address of 192.168.1.45. The landing page will be the **Device Status** screen.



Click the **CONFIGURATION** button to open the **Device Configuration** screen. This is where a unique **IP Address**, **Netmask**, and **Gateway** can be assigned to the adaptor.



The Aiphone system type that the adaptor is being integrated with will need to be selected. Click the **AIPHONE** tab. Use the drop down by **System Type** to select IX.



System Type: Select IX

SIF Socket Local Port: If left at 0, the default value of 10000 will be used. Ensure that the port entered here is the same port used when configuring the SIF settings on Page 3.

Username & Password: Enter system's username and password. If left blank, the default value of "admin" is used.

IX Mobile App Server Port: Enter the App Server port configured in IX Mobile. If left blank, the default value of 5061 is used.

IX Series: Relay Output Programming

From the **DEVICE CONFIGURATION** screen, click **APPLICATION SETUP**.

APPLICATION SETUP button

Relay Action options:

- Door Release - Normally-Open
- Door Release - Normally-Closed

} Relay will trigger when the associated station's door release contact is triggered.

- Active while Calling from Source
- Active while Communicating
- Active during Calling and Communicating

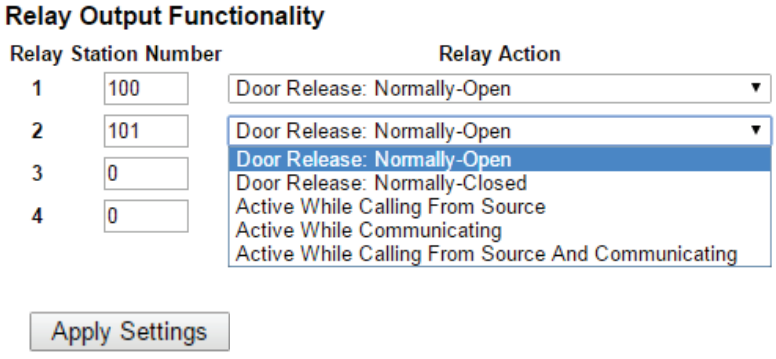
} Relay will trigger when the associated station calls or communicates.

When the relay action is set for one of the "Door Release" options, the relay on the RY-IP44 will trigger when the associated station's door release contact is triggered.

When the relay action is set for any of the "Active While" options, the relay will trigger when the associated station calls or communicates at any priority level.

When the relay action is set for Door Release, the station number to be entered will always be that of the door station. The door station is the device that will be sending the SIF command/event to the RY-IP44 adaptor that its relay status has changed.

- Enter the **Station number** of the station sending the SIF event to the RY-IP44 to be associated with this output.
- Select the relay condition from the **Relay Action** drop down menu.
- Click on **Apply Settings,** then click **Reboot** to restart the adaptor with the saved changes.

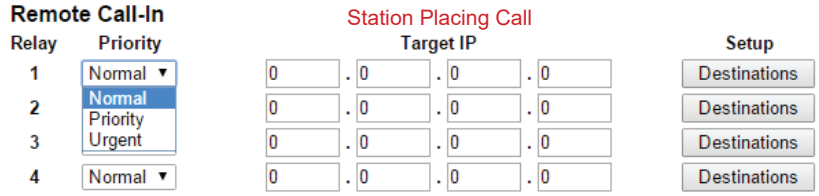


When the entered station is active, the associated relay will trigger based on the Relay Action settings.

IX Series: Input Programming

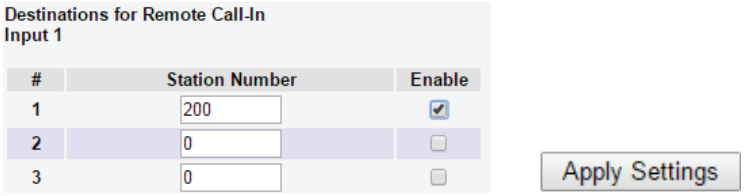
Note: The RY-IP44 inputs can have different calling rules than the default calling rule set for a station during the IX Series programming.

- Select the call-in priority level for each input using the **Priority** drop down menu.
- Enter the target IP address of the station to place the call.
- Click **Apply Settings** to save the changes. Do not reboot the adaptor at this time.
- Click **APPLICATION SETUP** to return to the Application Configuration Screen.



- Click on **Destinations** next to the input being configured. In the new window, enter the station number of the master station(s) to be called when the input is triggered.
- When the target IP address is a door station, a maximum of 20 master stations can be entered.
- When the target IP address is a master station, a maximum of 20 master stations or 1 group can be entered. A group can consist of up to 50 master stations and must be created using the IX Support Tool.
- Check the **Enable** box beside each station entered.

Click on **Apply Settings,** then click **Reboot** to restart the adaptor with the changes.



IX Mobile

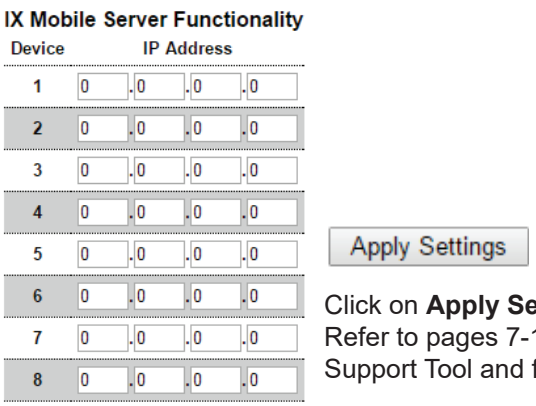
IX Mobile is an app for iOS (v8.0 – v12.1) and Android (v4.1+) turning a mobile device into an IX Series sub master station, allowing for 2-way audio communication, video, and door release. 4 programmable shortcut buttons can be configured to initiate a call to specific stations, groups, or page.

The following steps assist in the configuration of an IX Series system with IX Mobile and the configuration of IX Mobile on a mobile device.

Requirements: A system must contain at least one IX-MV or MV-7-* when using IX Mobile and one RY-IP44 for every 8 instances of IX Mobile. IX Mobile also requires a constant connection to the network the IX Series system is deployed to, utilizing either a Wi-Fi connection or a VPN.

Configuring the IX Mobile Server

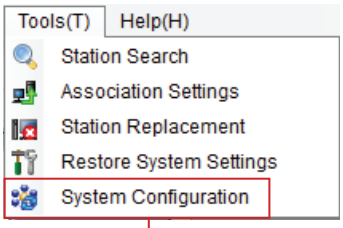
Set the RY-IP44 for use with the IX Series (refer to page 4).
Enter the Static IP address for each of the mobile devices in the **IX Mobile Server Functionality** table.
If DHCP is required, static reservations will be required for each mobile device.



Click on **Apply Settings,** then click **Reboot** to restart the adaptor with the changes.
Refer to pages 7-11 for steps on adding a mobile device to the IX system using the IX Support Tool and for setting up the mobile device.

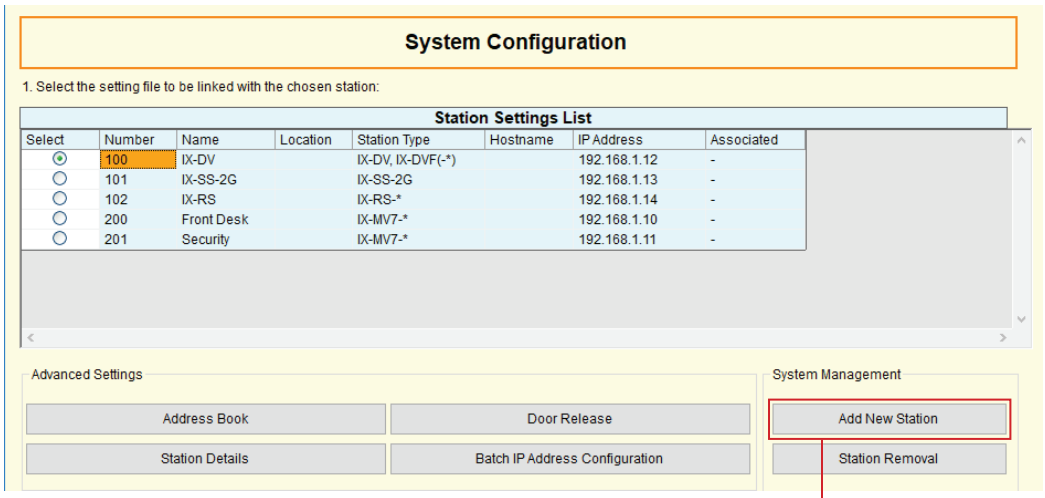
Adding a Mobile Device to the IX Support Tool

IX Mobile will be treated like an ***IX-MV*** master station and will need to be added to the system using the IX Support Tool. Open IX Support Tool and select the system to be edited.



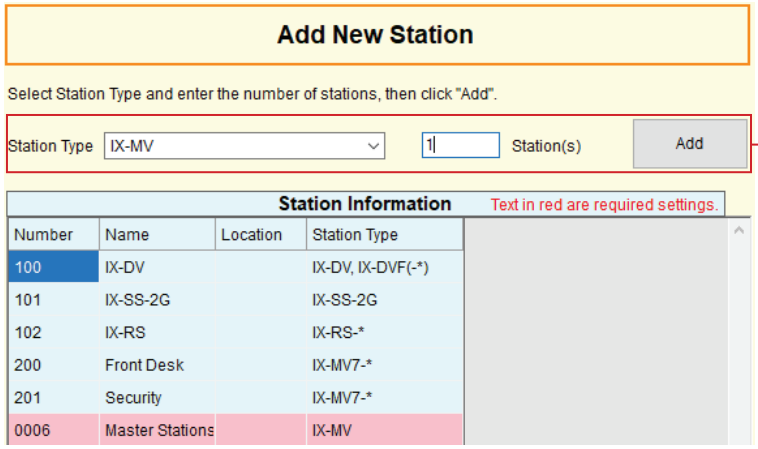
Step 1

Click **Tools** from the top menu bar and select **System Configuration**.



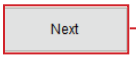
Step 2

The System Configuration screen will open showing the station number, name, and IP address for each station. Click the **Add New Station** button.



Step 3

The **Add New Station** screen will open. Use the **Station Type** drop-down and select IX-MV from the list. Enter the number of IX Mobile stations to be added, then click **Add**. The added station will appear in the list below showing a generic number and name.

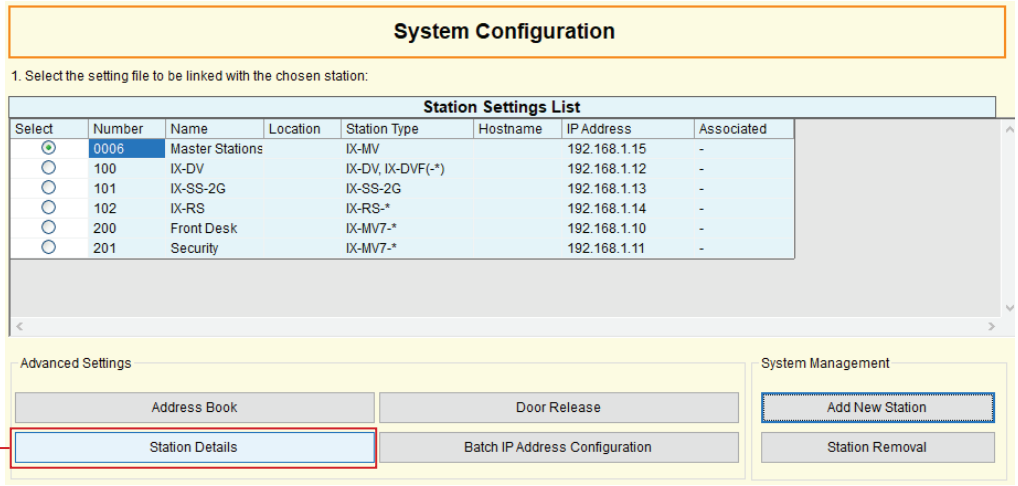


Step 4

Click **Next** when done.

Step 5

The **System Configuration** screen will open again showing the newly added station in the list. Click **Station Details** to edit the station number and station name.

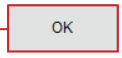


Adding a Mobile Device to the IX Support Tool *(continued)*

#	Station Information					Network Settings											
	Expanded System	Identification				IP Address			IPv4 Address								
		Number	Name	Location	Station Type	Hostname	IP Version	Static / DHCP	IP Address				Subnet Mask				
									1	2	3	4	1	2	3	4
0001	☐	202	Mobile		IX-MV		IPv4	Static	192	168	1	15	255	255	255	0
0002	☐	100	IX-DV		IX-DV, IX-DVF(-*)		IPv4	Static	192	168	1	12	255	255	255	0
0003	☐	101	IX-SS-2G		IX-SS-2G		IPv4	Static	192	168	1	13	255	255	255	0
0004	☐	102	IX-RS		IX-RS-*		IPv4	Static	192	168	1	14	255	255	255	0
0005	☐	200	Front Desk		IX-MV7-*		IPv4	Static	192	168	1	10	255	255	255	0
0006	☐	201	Security		IX-MV7-*		IPv4	Static	192	168	1	11	255	255	255	0

Step 6

The **Station Details** page will open. Enter a unique station number and name for the newly added station. The IP address will default to the next IP address in the subnet the rest of the system is programmed in. Make IP address changes if needed. When done click **OK**.



Note Station Information here to refer to later

Number	Name	IP Address
		. . .
		. . .
		. . .
		. . .
		. . .
		. . .
		. . .
		. . .

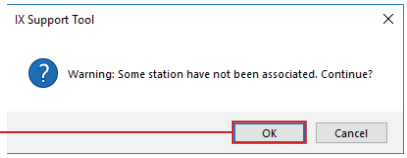
* ***For Programmers/Installers:***
We recommend writing the station Number, Name, and IP Address of each IX Mobile station into this table for reference when setting up the IX Mobile app.

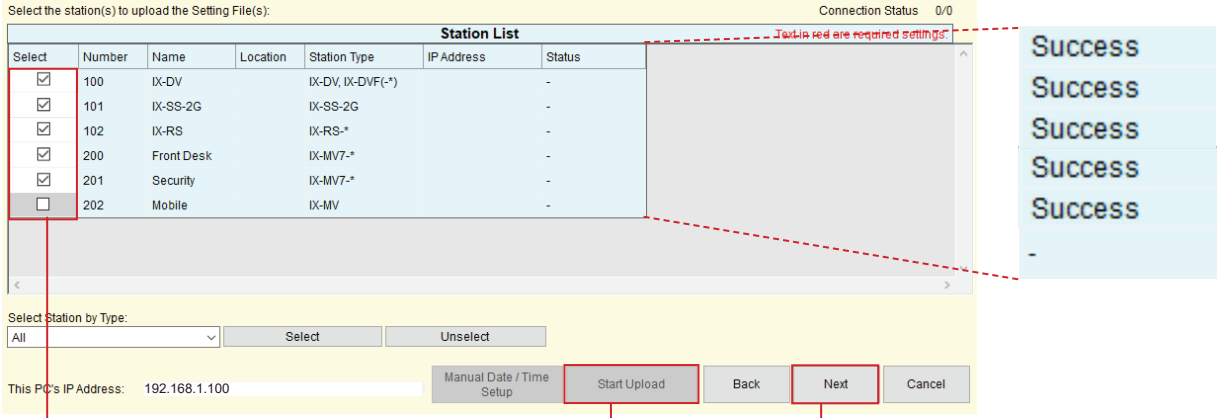
Station Settings List

Select	Number	Name	Location	Station Type	Hostname	IP Address	Associated
◉	100	IX-DV		IX-DV, IX-DVF(-*)		192.168.1.12	-
○	101	IX-SS-2G		IX-SS-2G		192.168.1.13	-
○	102	IX-RS		IX-RS-*		192.168.1.14	-
○	200	Front Desk		IX-MV7-*		192.168.1.10	-
○	201	Security		IX-MV7-*		192.168.1.11	-
○	202	Mobile		IX-MV		192.168.1.15	-

Step 7

The **System Configuration** screen will open again showing the Station Number, Name, and IP Address assigned to the newly added station. Scroll to the bottom of the System Configuration screen and click **Next**. A pop-up will appear warning that all stations have not been associated and asking to Continue. Click **Ok**.
Note: The IX Mobile stations can not be associated using IX Support Tool.

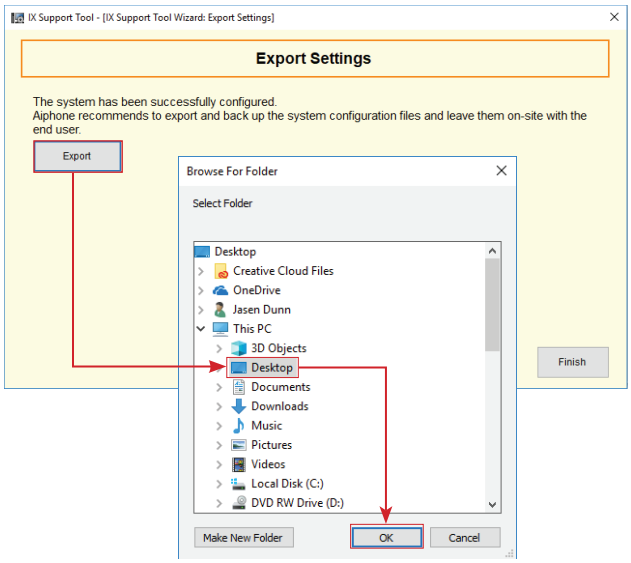




Step 8

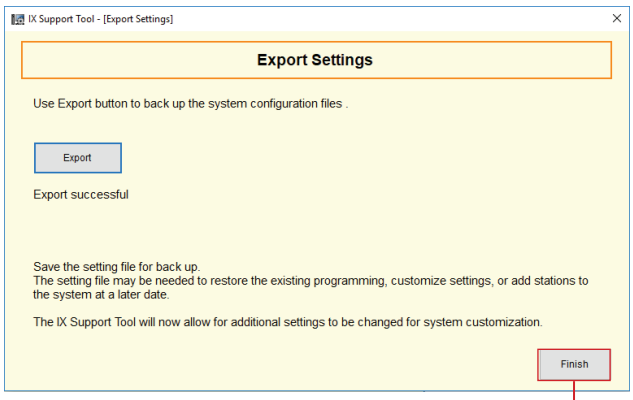
The **Setting File Upload** window will open. Select all IX stations (excluding mobile stations) and click **Start Upload**. The IX stations will now be uploaded with the information of the new mobile master. Verify Success/Fail in the **Status** column. When done, click **Next**.

Adding a Mobile Device to the IX Support Tool *(continued)*



Step 9

The **Export Settings** window will open. Click on **Export** and choose a destination on your PC to export the system settings to. Click **OK** to export and save the settings.



Step 10

Click **Finish**.

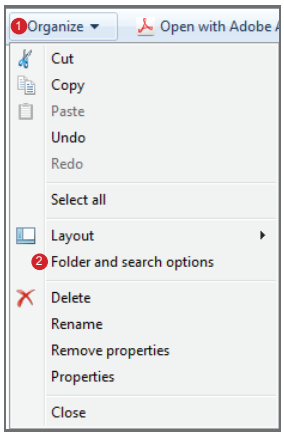
The Setting File must be exported in order to obtain the configuration file required to set up the IX Mobile devices. Click File > IX Support Tool Export System Configuration then follow the steps above.

Configuration File

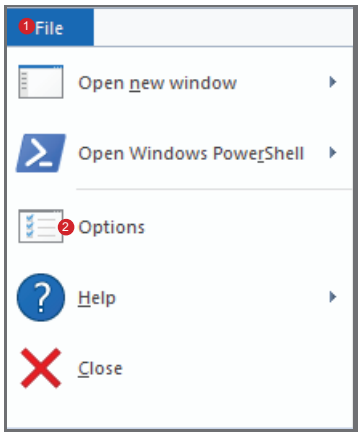
The exported settings file will have a configuration file for each station in the system. The configuration file for the mobile station will need to be uploaded to the mobile device using the steps on pages 10 and 11.

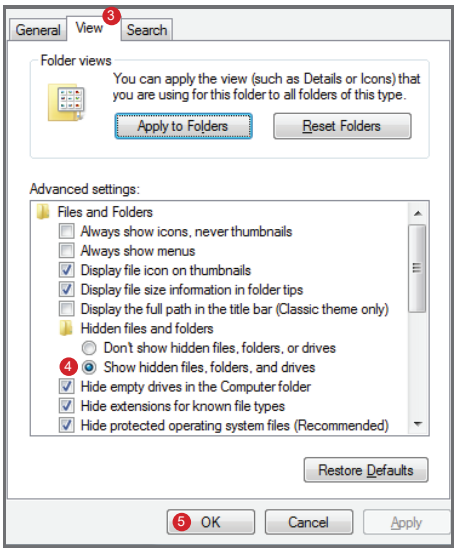
- The folder containing the configuration file may be hidden. To show hidden folders, open Windows Explorer and click ❶ **Organize** (Windows 7), or **File** (Windows 10). Click ❷ **Folder and search options** (Windows 7), or **Options** (Windows 10). Select the ❸ **View** tab and select the radio button beside ❹ **Show hidden files, folders, and drives,** then click ❺ **OK**.

Windows 7



Windows 10





- Navigate to the location that you exported the system settings to. Open the file and click on the Setting folder. Locate the configuration file with the same number that was assigned to the mobile station in IX Support Tool. Copy the configuration file to a location on the programming PC that can easily be transferred to the mobile device.

Configuration File Example: config-202 20181114112622

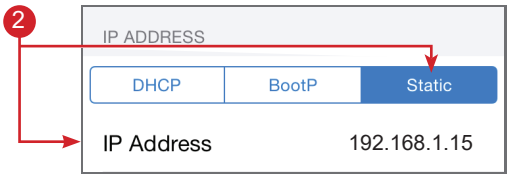
App Installation and Setup for Apple

Download IX Mobile from the App Store℠

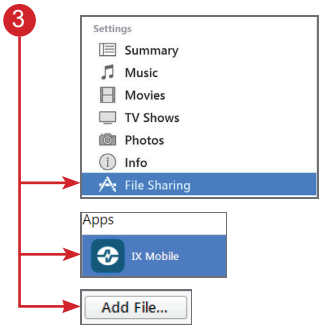
App Store is a service mark of Apple Inc.

1. Connect to the WiFi network associated with the IX Series system installation. Once connected, tap on the connected network.

2. Tap **Static** and enter the *IP Address* that was assigned when configuring the app with the IX Support Tool.

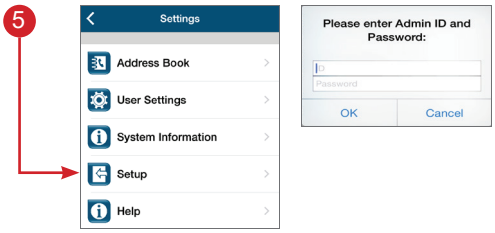


3. Connect the mobile device to the PC that has iTunes installed. Open iTunes and click **File Sharing**. Select **IX Mobile**. Click **Add File** and navigate to where the configuration file is saved. Select the file and click **Open**.

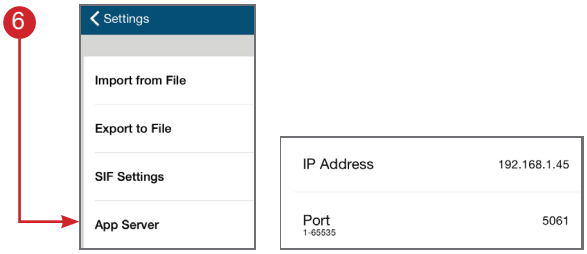


4. Launch the application on the mobile device.
   Tap the Menu icon.

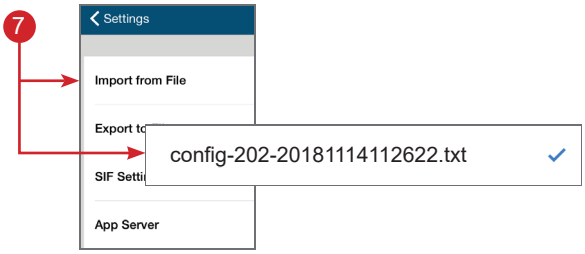
5. Tap **Setup**.
   Enter the Admin ID and Password and tap **OK**.
   Default ID: admin
   Default Password: admin



6. Tap **App Server**. Enter the IP Address and Port Number for the App Server (RY-IP44). Refer to page 11 for information on setting up the App Server.



7. Tap **Import from File**.
   Select the configuration file that was transferred to this device in Step 3. Tap **OK**.



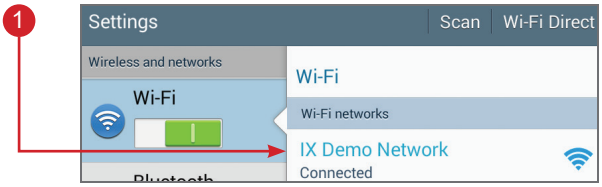
8. A pop-up will appear stating "**New configuration applied**."

9. To unlock the app, call the mobile device from a master station in the system.

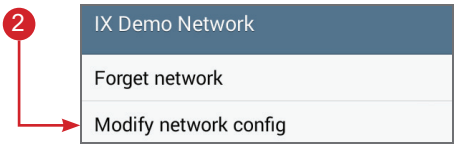
App Installation and Setup for Android

Download IX Mobile using Google Play™

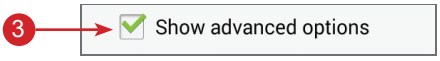
1 Connect to the WiFi network associated with the IX Series system installation. Once connected, tap and hold on the connected network.



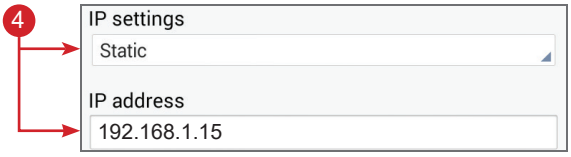
2 A pop-up will appear. Tap **Modify network config**.



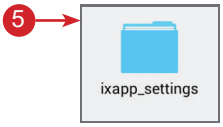
3 Check the box beside **Show advanced options**.



4 Under **IP settings**, select **Static** and enter the *IP Address* that was assigned when configuring the app with the IX Support Tool. Once entered, tap **Save**.



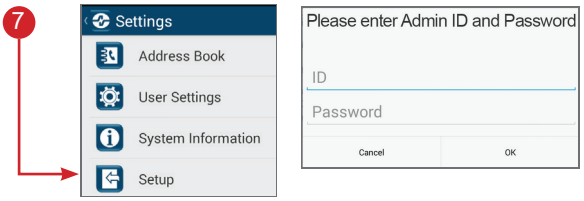
5 Connect the mobile device to the PC used for programming the system. Using the PC, navigate to the mobile device and locate the **ixapp_settings** folder. Paste/transfer the configuration file saved from the IX Support Tool to this folder.



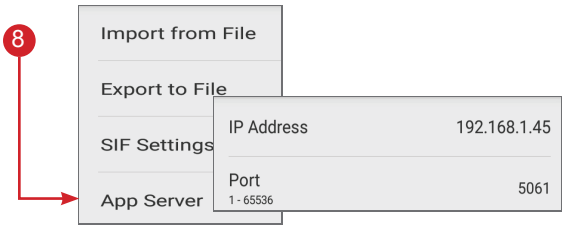
6 Launch the application on the mobile device.
Tap the Menu icon, then tap **Settings**.

7 Tap **Setup**.
Enter the Admin ID and Password and tap **OK**.

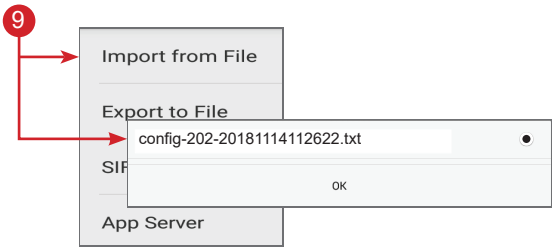
Default ID: admin
Default Password: admin



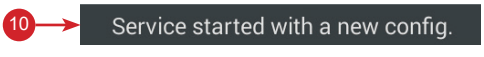
8 Tap **App Server**. Enter the IP Address and Port Number for the App Server (RY-IP44). Refer to page11 for information on setting up the App Server.



9 Tap **Import from File**.
Select the configuration file that was transferred to this device in Step 5. Tap **OK**.



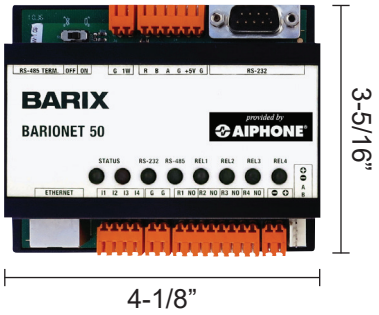
10 A pop-up will appear stating "**Service started with a new config.**"



11 To unlock the app, call the mobile device from a master station in the system.

Note: On Android devices running version 7.0 or newer, battery optimization must be disabled for the IX Mobile app to maintain network connection.

RY-IP44 Dimensions



Mounting:

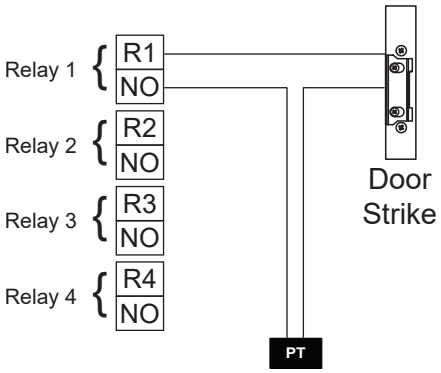
The RY-IP44 adaptor mounts to an Aiphone W-DIN11 mounting rail (sold separately).

RY-IP44 Wiring

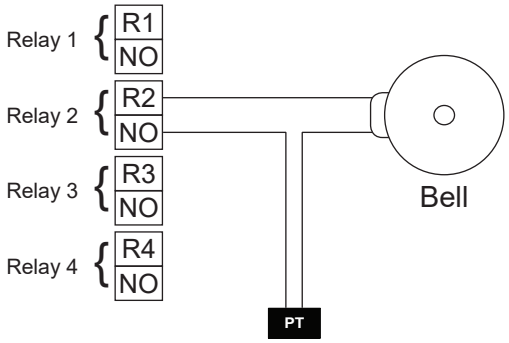
PT = Power Transformer (use proper power for the strike, mag lock, or external signaling device being used).

Relay contact rating: 30V DC, 0.5A.

Door release:

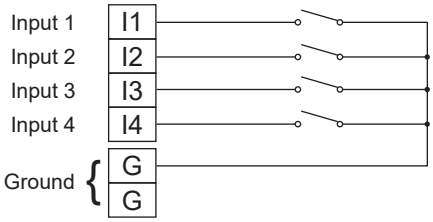


External signaling:



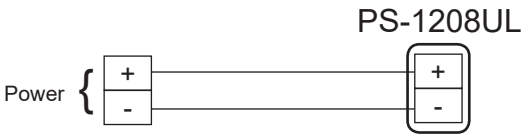
Inputs:

Connect a normally open (N/O) contact across any input and ground.



Power:

Use a 9-30V DC (300mA @ 12VDC) power supply to power the RY-IP44 adaptor. Use the Aiphone PS-1208UL power supply (sold separately).



FCC WARNING:
This device complies with Part 15 of the FCC rules.

Operation is subject to the following two conditions:
(1) This device may not cause harmful interference.
(2) This device must accept any interference that may cause undesired operation.

- For proper regulatory compliance, the drain wire should be disconnected at the power supply end of the cable.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

Aiphone Corporation
www.aiphone.com
tech@aiphone.com
800-692-0200