

## RY-IP44

## Input/Output Network Adaptor

# Programming Manual For use with IX Series



Note: IX Mobile should be included at the start of the creation of a new IX Series system, rather than added after the system as been configured. Refer to pages 9-11 of this manual for a walk-through of this process.

#### **ATTENTION:**

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

For instructions featuring the RY-IP44 with the IS IP Series, visit www.aiphone.com/ISIP-RYIP44 For instructions featuring the RY-IP44 with the IPW-1A, visit www.aiphone.com/IPW1A-RYIP44

#### **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 6 as SIF and CGI are not used in this instance. Refer to pages 8-14 for steps on creating a system with IX Mobile and configuring IX Mobile.

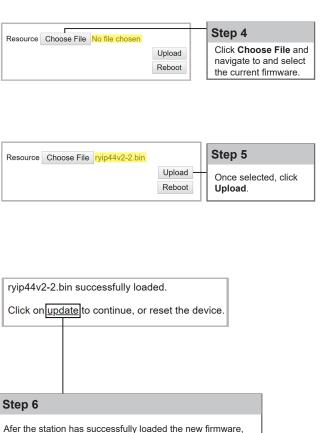
Note that the RY-IP44 is not a PoE device, and requires a separate 9-30v DC power supply. It is recommended to use the Aiphone PS-1208UL.

#### **Updating Firmware on RY-IP44**

Ensure that the RY-IP44 has the current firmware loaded. The current version is 2.2 can be downloaded from the Aiphone website (www.aiphone.com/home)

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 Update, then reboot the adaptor.

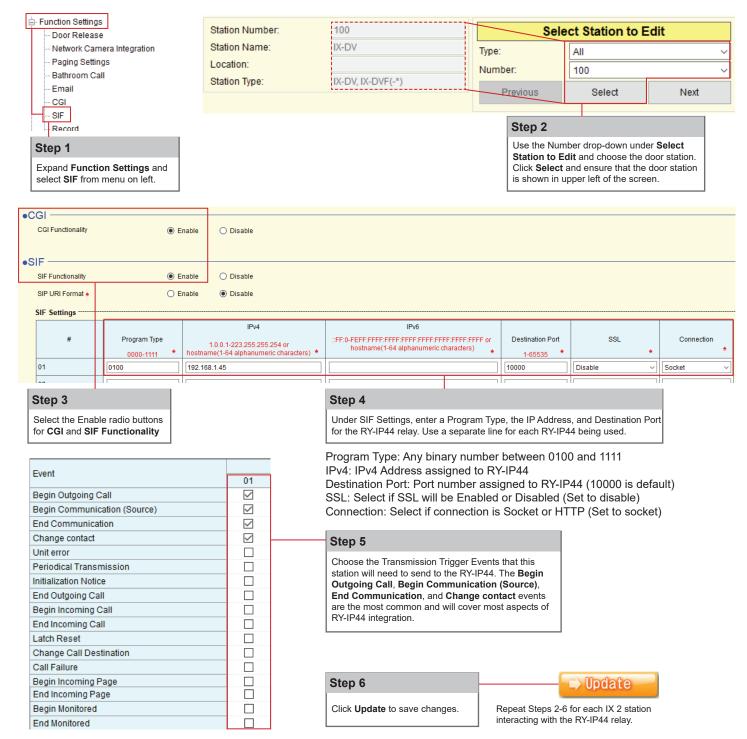
#### **Enabling CGI & SIF on IX Series 2 Stations**

#### 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 Sustain View.



The steps above are specific to IX Series 2 stations. IX Series 1 stations will be configured differently. Please follow the steps on pages 4 and 5 for any IX Series 1 stations (IX-DA, IX-BA, IX-MV).

If the system does not contain any IX Series 1 stations, go to the bottom of page 5 to upload settings to stations.

#### Creating the SIF.ini File (For IX Series 1 Only)

#### Important:

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

Creating a simple line of code, in the form of a .ini file, is required to allow an IX Series 1 (IX-DA, IX-BA, IX-MV) device to communicate to the RY-IP44. The example below is shown using a common text editor (i.e. Notepad), and saving it with an .ini extension.

**Program Type:** A binary number between 0100 and 1111.

RY-IP44 IP Address: IP address assigned to the RY-IP44 (Must be unique for each RY-IP44).

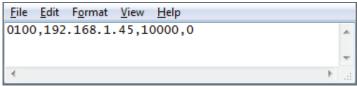
**Destination Port:** Port number assigned on the RY-IP44. The default port is 10000. This can be

set in the range from 1 to 65535 (Must be unique for each RY-IP44).

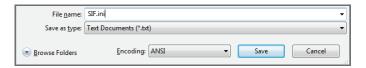
**SSL Y/N:** This device does not use SSL. Input 0 for no.

Example Text File:



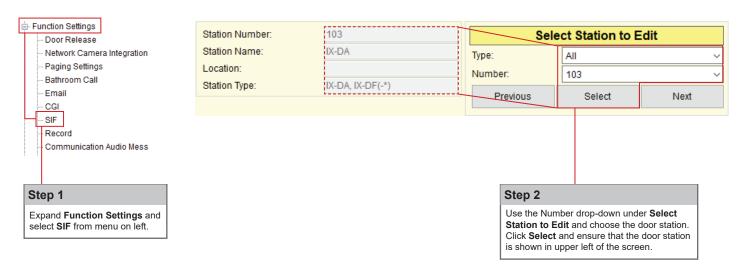


Save the SIF file with a .ini extension (.ini must be typed manually) to a location on the PC being used for programming the IX Series 1 stations. This file must be uploaded to each device associated with the RY-IP44 using the instructions that follow.

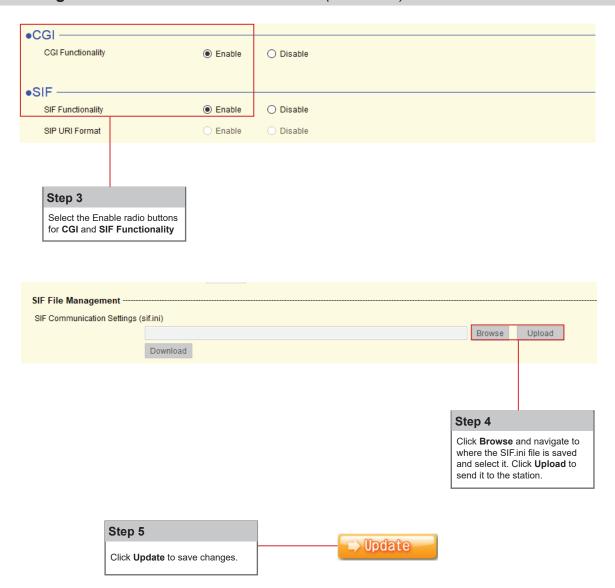


#### **Enabling CGI & SIF on IX Series 1 Stations**

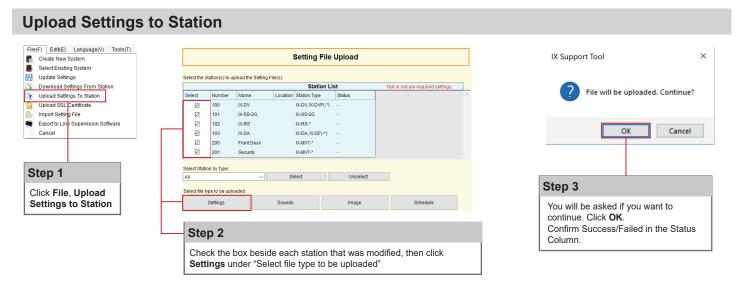
Open IX Support Tool and select a system program file by clicking **File > Selecting Existing System**. Change IX Support Tool to Station View .



## **Enabling CGI & SIF on IX Series 1 Stations** (continued)

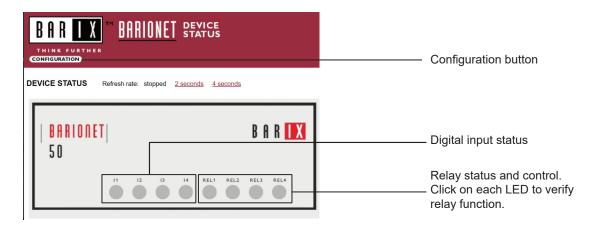


Repeat Steps 2-5 for each IX Series 1 station interacting with the RY-IP44 relay.

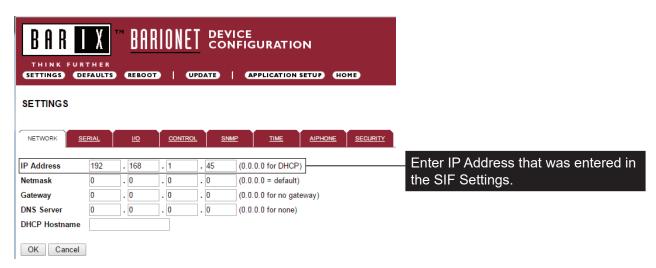


## Configuring the RY-IP44

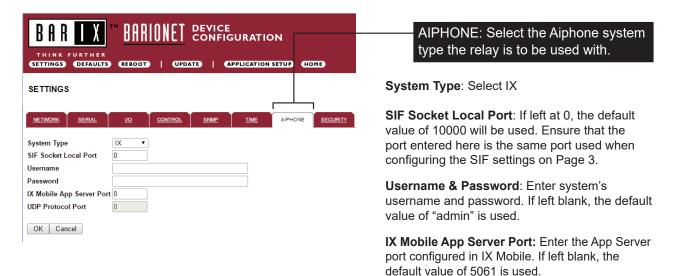
Using a web browser, access the RY-IP44 using its default IP address of 192.168.1.45. The landing page will be the **Device Status** screen.



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.



#### IX Series: Relay Output Programming

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



#### **Relay Action options:**

- Door Release Normally-Open Relay will trigger when the associated station's door release contact is triggered. Door Release - Normally-Closed
- Active while Calling from Source

Active while Communicating Relay will trigger when the associated station calls or communicates. Active during Calling and Communicating

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.

#### **Relay Output Functionality** Relay Station Number Relay Action 100 Door Release: Normally-Open 2 101 Door Release: Normally-Open Door Release: Normally-Open 3 0 Door Release: Normally-Closed Active While Calling From Source 0 Active While Communicating Active While Calling From Source And Communicating Apply Settings

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

#### IX Series: Input Programming

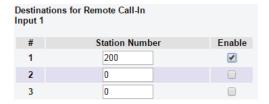
Note: The RY-IP44 inputs can have different calling rules than the default calling rule set for a station during the IX Series programming.

- 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.



Apply Settings

#### 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.

## IX Mobile Server Functionality Device IP Address

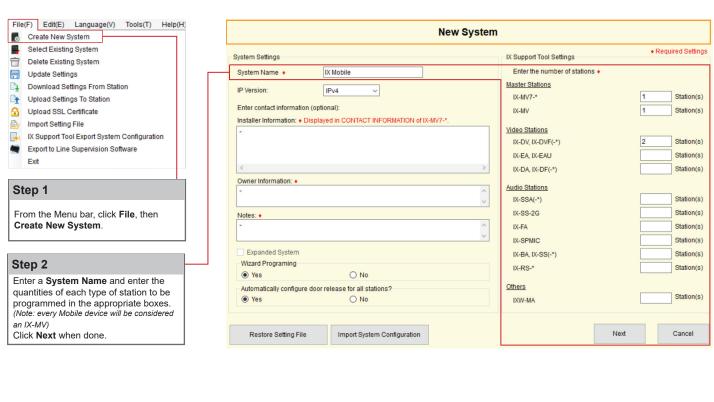
Device		IP Address				
	1	0	.0	.0	.0	
	2	0	.0	.0	.0	
	3	0	.0	.0	.0	
	4	0	.0	.0	.0	
	5	0	.0	.0	.0	
	6	0	.0	.0	.0	
	7	0	.0	.0	.0	
	8	0	.0	.0	.0	

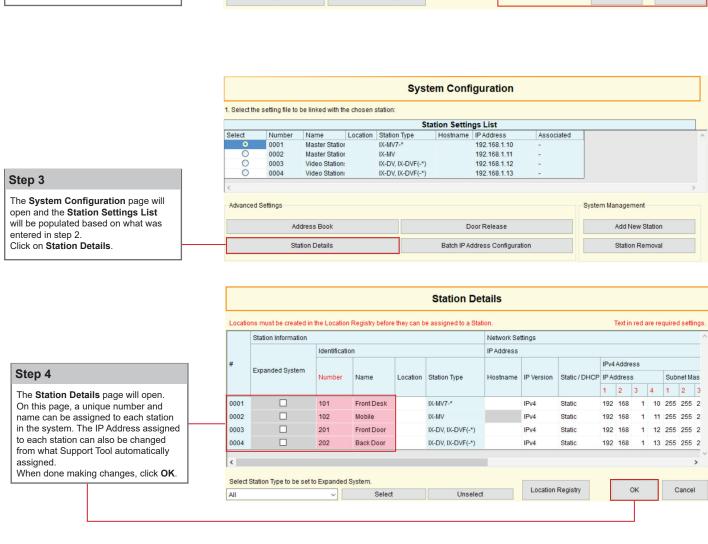
Apply Settings

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.

## **Creating a System Including a Mobile Device**

Connect all IX Series stations and the programming PC to a PoE switch. Open IX Support Tool on the programming PC.



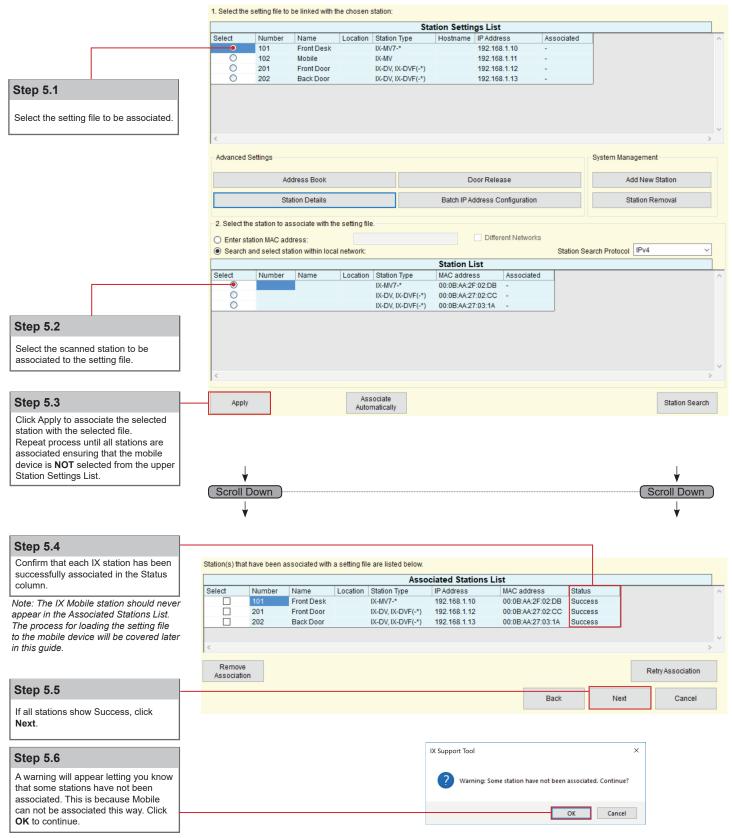


## Creating a System Including a Mobile Device (continued)

The stations can be associated to the settings automatically or manually. Automatic Association will pair like type stations from the top Station Settings List to the Station List below.

This guide will show the Manual Association process.

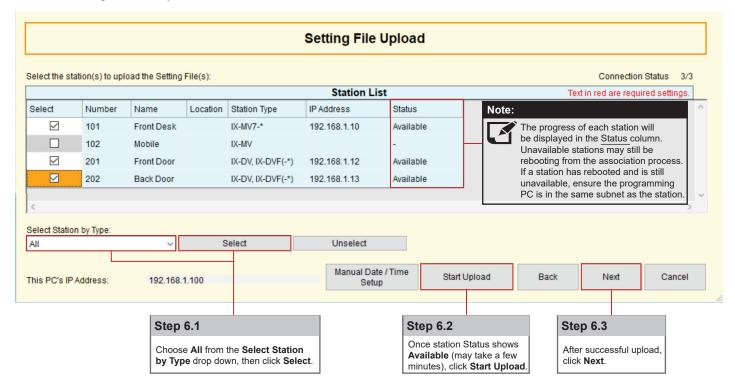
Note: Mobile devices can not be associated during this process.



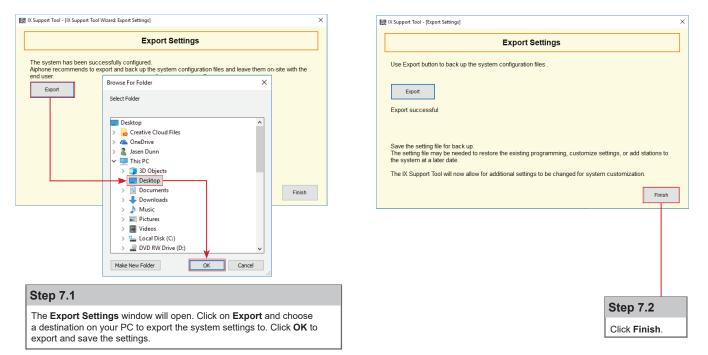
## **Creating a System Including a Mobile Device** (continued)

After each station has been associated with its individual station information, the setting file containing the rest of the system's information will need to be uploaded to each station. To upload the setting file, the programming PC will need to be in the same subnet as the associated stations. The PC's current IP address is displayed in the bottom left-hand side of this window.

Note: If the setting file is not uploaded, most functions and features will be unavailable to the stations.



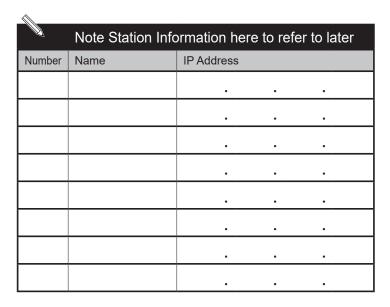
After clicking Next in Step 6.3, you will be prompted to export settings. The settings must be exported prior to setting up the mobile devices with IX Mobile.



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.

#### IX Mobile Station Details

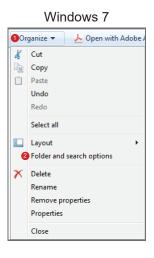
It is recommended that the station number, station name, and IP address that was assigned to each instance of IX Mobile in the Support Tool be written down for future reference when setting up the mobile devices. Please use the table below to document this information.



## **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 11 and 12.

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







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.

## **App Installation and Setup for Apple**

Download IX Mobile from the App Store<sup>SM</sup>



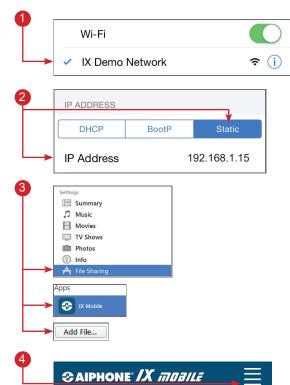
App Store is a service mark of Apple Inc.

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

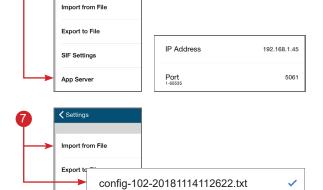
Default Password: admin

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 Server

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## **App Installation and Setup for Android**

Download IX Mobile using Google Play™



- Connect to the WiFi network associated with the IX Series system installation. Once connected, tap and hold on the connected network.
- 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.
- 6 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.

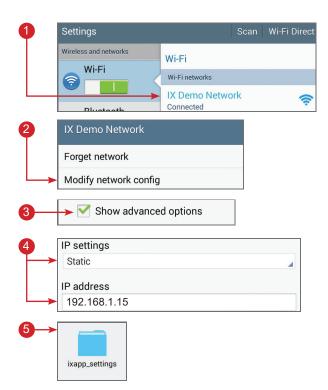
Default ID: admin

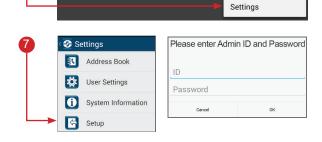
Default Password: admin

- 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.
- 40 A pop-up will appear stating "Service started with a new config."
- To unlock the app, call the mobile device from a master station in the system.

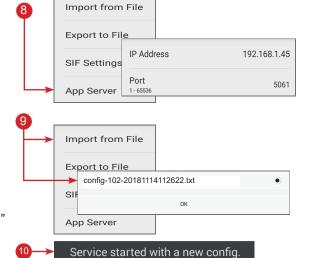
**Note**: On Android devices running version 7.0 or newer, battery optimization must be disabled for the IX Mobile app to maintain network connection.

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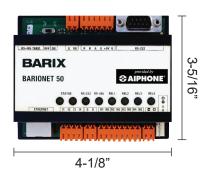


**⊗AIPHONE° /X** *™DBILE* 



#### **RY-IP44 Dimensions**

Depth: 1-1/4"



#### Mounting:

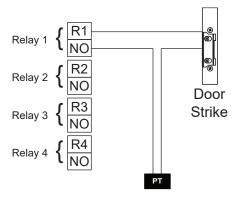
The RY-IP44 adaptor mounts to an Aiphone W-DIN11 mounting rail (sold separately).

## **RY-IP44 Wiring**

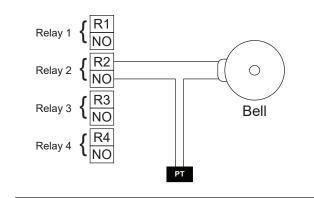
= Power Transformer (use proper power for the strike, mag lock, or external signaling device being used).

Relay contact rating: 30V DC, 0.5A.

#### Door release:

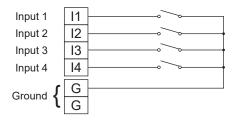


#### **External signaling:**



#### 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.