

RY-IP44

Input/Output Network Adaptor

Programming Manual

For use with IX Series, IS-IP Series, and IPW-1A



ATTENTION:

This is the programming manual for the RY-IP44 only. Refer to the Installation and Setting Manuals for the series being integrated with for complete installation/programming information on each system (IX, IS-IP, IPW-1A).

Package Contents

- RY-IP44
- · Programming Manual
- 6 Screw Terminal Blocks
- MAC Address Label

Installation Requirements

- General understanding of IX Series, IS-IP Series, or IPW-1A 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 firmware installed for the device to function with the Aiphone IX Series, IS-IP Series stations, or IPW-1A systems.

The 4 relay outputs can be programmed to trigger for door release, while calling, while communicating, or while calling and communicating.

The 4 contact inputs can be programmed to trigger a call with the IX or IS-IP systems. Examples of when this could be used are: 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 when using IX Mobile. One RY-IP44 is needed for every eight IX Mobile devices and will alert the mobile device if it goes out of wireless network range.

If only using the RY-IP44 for IX Mobile, configure the adaptor as shown on page 5, then skip to page 11 (IX Mobile Server). The SIF.ini file is not needed when only using the adaptor for IX Mobile. Refer to pages 11-15 for steps on adding a mobile device to the IX Series using the IX Support Tool and for setting up the mobile device.

The RY-IP44 is not a PoE device and requires a dedicated 9-30V DC power supply. Use the Aiphone PS-1225UL power supply (sold separately).

Creating the SIF.ini File (For IX and IS-IP 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 or IS-IP 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).

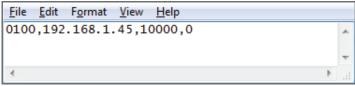
Destination Port: Port number assigned on the RY-IP44. The default port is 10000. This can be

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

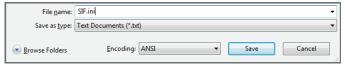
SSL Y/N: This device does not use SSL. Input 0 for no.

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 or IS-IP Series stations. This file must be uploaded to each device associated with the RY-IP44 using the instructions that follow.



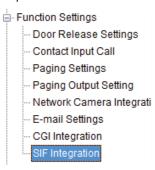
IX Series: Uploading SIF.ini File

Upload the SIF.ini file to each IX Series station associated with the RY-IP44 adaptor.

Important:

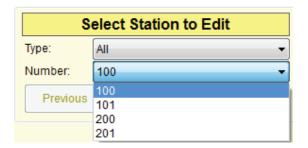
The intercom system should be fully programmed and operational prior to uploading the SIF.ini file.

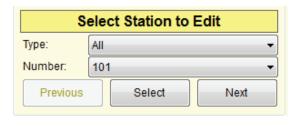
- A. Open IX Support Tool and select the system to be edited (File, Select Existing System).
- B. Expand the Function Settings tree on the left and select SIF Integration.



C. Choose the station to be edited from the **Number** drop down menu, then click the **Select** button.

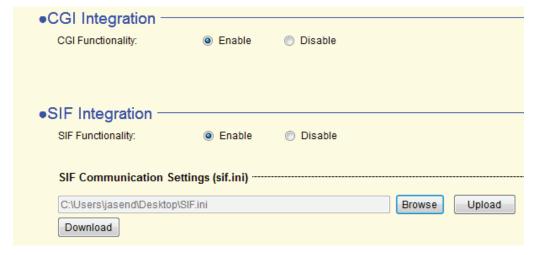
NOTE: When using the RY-IP44 for door release, the SIF.ini file must be uploaded to the door station.





D. Select the **Enable** radio button for both the CGI Integration and SIF Integration.

Click **Browse** and navigate to where the .ini file is saved and select it. Click **Upload** to send to the station.



- E. Click **Update** to save the changes for the station.
- F. After completing steps C, D, and E for each station, upload the changes. Click **File**, **Upload Settings to Station**. Select the stations to upload to and click **Start Upload**.

IS-IP Series: Uploading SIF.ini File

Upload the SIF.ini file to each IS-IP Series station associated with the RY-IP44 adaptor.

Note that the IP address for each station will be unique for your network settings.

Important:

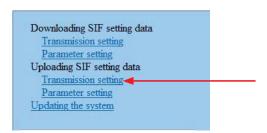
The intercom system should be fully programmed and operational prior to uploading the SIF.ini file.

- A. Open a web browser and type https://[ip address]/sif in the address bar. [ip address] = static IP address assigned to the station being programmed.
- B. A security certificate error message will appear. Select "Continue to the website."
- C. Enter the administrator ID and password.



Default ID: aiphone Default Password: aiphone

D. Select **Transmission setting** under **Uploading SIF setting data** from the menu on the left side of the screen.



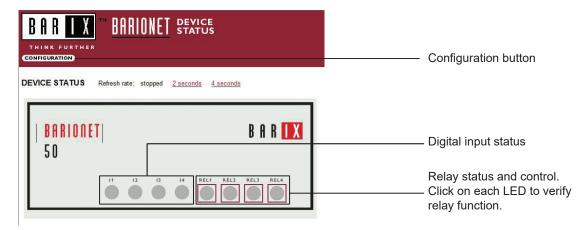
E. Click the **Upload** button. A new window will open.



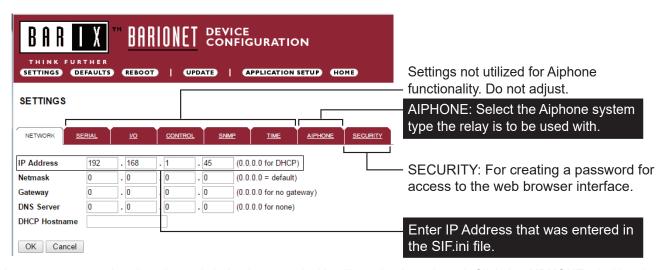
- F. Click the **Browse** button and navigate to the .ini file saved on the PC.
- G. Click the Upload button. A message will appear stating the settings will not be applied until the system is updated.
- H. Click **Updating the system** from the menu on the left. Click the **Update** button and the unit will update and restart itself.
- I. Repeat this process for each door and master station associated with the RY-IP44 adaptor.

Configuring the RY-IP44 (assigning IP address and system use)

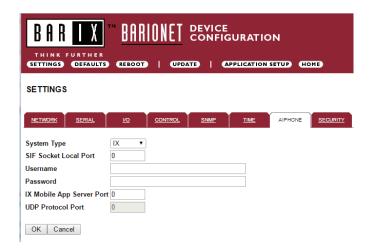
The RY-IP44 has a default IP address of 192.168.1.45. Open a web browser and point the address bar to **192.168.1.45** for access to the adaptor. The first screen to appear will be the **Device Status** screen.



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. Consult with your IT department for these settings.



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 the appropriate system. Enter the **SIF Socket Local Port** number that was assigned in the SIF.ini file (Destination Port). When done, click OK. Click **Reboot** on the next screen to restart the adaptor.



System Type: Select IX, IS, or IPW-1A

SIF Socket Local Port: Enter the port number that was entered in the SIF.ini file. Leave at "0" to use default 10000 port.

Username & Password: For IX/IS, enter system's username and password. Leave blank if using default (IX = admin, IS = aiphone).

IX Mobile App Server Port: Enter the port number that will be assigned in the IX Mobile app(s). Enter "0" if default port (5061) is to be used.

UDP Protocol Port: Used for IPW-1A only. Enter "0" if default port (1724) is to be used.

IX Series: Relay Output Programming

The RY-IP44 has 4 relays that can be programmed to trigger while calling, while communicating, or while calling and communicating with a specific station. The relays can also be programmed for door release.

Set the RY-IP44 for use with the IX Series (refer to page 5).

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



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

Relay will trigger when the associated station calls or communicates.

Active during Calling and Communicating

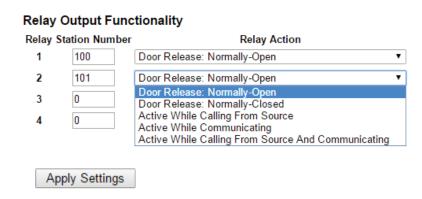
When the relay action is set for one of the "Door Release" options, the relay on the RY-IP44 will trigger when the associated station's door release contact is triggered.

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 to be associated with the relay.
- 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

The RY-IP44 adaptor has 4 inputs that can be programmed to trigger a call-in from a specific door station or master station to a specific master station or group of master stations.

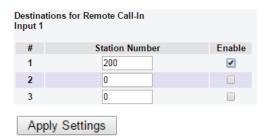
Note: The RY-IP44 inputs can have different calling rules than the default calling rule set for a station during the IX Series programming.

- Select the call-in priority level for each input using the **Priority** drop down menu.
- Enter the target IP address of the station for remote call-in (station that will be placing the call, i.e. door station)
- 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. Another window will open. 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.





The RY-IP44 has 4 relays that can be programmed to trigger when a specific door station is calling, while in communication, or while calling and communicating. The relays can also be programmed for door release from one or multiple IP master station(s).

Set the RY-IP44 for use with the IS-IP Series (refer to page 5).

From the **Device Configuration** screen, click **APPLICATION SETUP**.



IS-IP Series: Relay Output Programming (cont.)

Linked Stations Table:

Enter the IP address and TermID for each IS-IP station in the IS configuration. This table is used as a reference for each station in the system that will be able to communicate with the RY-IP44 adaptor.

Definition: TermID

A TermID identifies the location of an IS-IP station in the IS Series configuration. It also distinguishes between master stations and door stations. A master station TermID will be xx-001 and a door station TermID will be xx-101. "xx" represents the line in which the station resides under "IP Unit Registration" in the IS Host programming.

	Imported IP units list					
Example:		Station type		MAC address		
01 101: Door station in address location 1.	1	IP video door station	· ·	00:0B:AA:0C:08:0D		
₹	1	IP master station	-	00:0B:AA:0B:01:20		
03-001: Master station in address location 3.	3	IP master station	-	00:0B:AA:0B:01:30		
<u>₹</u>						

N.	IP A	DDRES	S		Tern	ı ID	N.	IP A	DDRES	S		Tern	ı ID
1	0	. 0	. 0	. 0	00	- 000	17	0	. 0	. 0	. 0	00	- 000
2	0	.0	.0	. 0	00	- 000	18	0	. 0	. 0	. 0	00	- 000
3	0	. 0	. 0	. 0	00	- 000	19	0	. 0	.0	. 0	00	- 000
4	0	.0	. 0	. 0	00	- 000	20	0	. 0	. 0	. 0	00	- 000
5	0	. 0	. 0	. 0	00	- 000	21	0	. 0	.0	. 0	00	- 000
6	0	. 0	. 0	. 0	00	- 000	22	0	. 0	. 0	. 0	00	- 000
7	0	. 0	. 0	. 0	00	- 000	23	0	. 0	. 0	.0	00	- 000
8	0	.0	. 0	. 0	00	- 000	24	0	. 0	. 0	. 0	00	- 000
9	0	. 0	. 0	. 0	00	- 000	25	0	. 0	. 0	. 0	00	- 000
10	0	.0	.0	. 0	00	- 000	26	0	. 0	. 0	. 0	00	- 000
11	0	. 0	. 0	. 0	00	- 000	27	0	. 0	. 0	.0	00	- 000

After inputting each IP address and TermID, click **Apply Settings** at the bottom of the page to save the settings to memory. Return to the Application Screen or reboot adaptor by clicking the **Reboot** button. Rebooting must occur to update adaptor settings.

Relay Functionality:

Enter the TermID for the door station to be associated to the relay. Select the relay action from the drop down menu.

Linked Stations

Relay Action options:

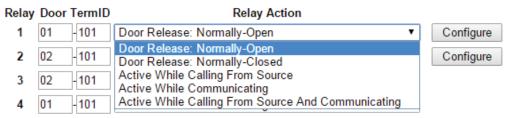
- Door Release Normally-Open
 Door Release Normally-Closed
 Felay will trigger when a configured master station pushes the door release button for the associated door.
- · Active while Calling from source
- Active while in Communication with source
 Relay will trigger when the associated door station calls or communicates.
- Active during Calling and Communication

When the relay action is set for the "Door Release" options, the relay will trigger when the associated door station is in communication, and a master station within the configuration list requests door release.

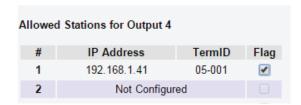
When the relay action is set for any of the "Active While" options, the relay will trigger when the associated door station calls or communicates at any priority level.

After the Door TermID and Relay Action has been set, click **Apply Settings** at the bottom of the screen to save the settings to memory. Return to the Application Screen or reboot adaptor by clicking on the **Reboot** button.

Relay Output Functionality



To program a master station to control door release, click on the **Configure** button. A new window will open and the table shown below will be populated based on the entries made in the Linked Stations Table (see page 8).



Check the **Flag** box beside each master station that will be "allowed" to trigger this relay for door release. Once all master stations have been checked, click **Apply Settings** at the bottom of this window to save the settings to memory. Reboot to update adaptor settings.

Note: The IS-SOFT software master stations can NOT be enabled for door release using the RY-IP44.



The RY-IP44 adaptor has 4 inputs that can be programmed to trigger a call-in from a specific door station to a specific master station or group of master stations (max. 20). The RY-IP44 inputs can have different calling rules than the default calling rule set under Advanced Station Settings in the IS Host Programming.

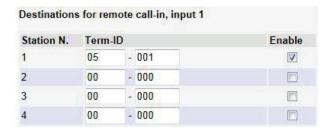
Choose the Call-In priority level for each input using the **Priority** drop down menu. Enter the target IP address of the door station for remote call-in.

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.

Remo	te Call-In		Sta	tion Placin	g Call		
Relay	Priority		٦	Farget Door	IP		Setup
1	Normal ▼	192	. 168	3 . 1		40	Destinations
2	Normal Priority	0	. 0	. 0		0	Destinations
3	Urgent	0	. 0	. 0		0	Destinations
4	Normal ▼	0	. 0	. 0		0	Destinations

IS-IP Series: Input Programming (cont.)

- Click on **Destinations** next to the input being configured. A new window will open.
- Enter the TermID for each master station to be called (see page 8 for TermID information). A maximum of 20
 master station TermID's can be entered.
- Check the Enable box beside each TermID entered to allow the master to be called.
- Once all master station TermID's have been entered and enabled, click Apply Settings at the bottom of this
 window to save the settings to memory. Reboot to update adaptor settings.



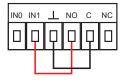
IPW-1A: Relay Output Programming

The RY-IP44 has 4 relays that can be programmed to trigger while calling, while in communication, or while calling and communicating with a specific door station. The relays can also be programmed for door release. Set the RY-IP44 for use with the IPW-1A (refer to page 5).

Relay Action options:

- Door Release Normally-Open
 Door Release Normally-Closed

 *Relay will trigger when the PC master station pushes the door release button.
- Active while Calling from source
- Active while in Communication with source
 Relay will trigger when the associated door station calls or communicates.
- Active during Calling and Communication
- Active While Any Station Calling } Relay triggers when any station calls. No assignment required.
 - * When using the RY-IP44 for door release, the relay on the IPW-1A must be set to door release and the relay must be jumpered to the sensor input as shown below.



From the **Device Configuration** screen, click **APPLICATION SETUP**.



Enter the Station ID for the IPW-1A to be associated with each relay on the RY-IP44. Select the relay condition from the **Relay Action** drop down menu. When done, click on **Apply Settings**. Click **Reboot** on the next screen to restart the adaptor with the applied settings.

Relay Output Functionality Relay Station ID Relay Action Door Release: Normally-Open Door Release: Normally-Open 2 0 Door Release: Normally-Closed Active While Calling From Source 3 0 Active While Communicating Active While Calling From Source And Communicating 4 0 Active While Any Station Calling Apply Settings Reset All

IX-Mobile

The IX Mobile app allows an iPhone®, iPad®, or iPod touch® running Apple® iOS versions 8.0 or higher or mobile devices running Android™ 4.1 or higher to be used as an IX Series sub master station. The following steps will be used to configure the IX Series system and to prepare the mobile device(s) for connection over a constant network (WiFi or VPN). **Note:** At least one IX-MV must be installed in the IX Series system in order for the app to function.



The RY-IP44 adaptor is used as a server for up to 8 mobile devices when using IX Mobile. Set the RY-IP44 for use with the IX Series (refer to page 5).

Enter the IP address for each of the mobile devices in the IX Mobile Server Functionality table.

IX Mob Device	ile (Server Functionality 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				

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

Refer to pages 12-15 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

 Open the IX Support Tool and log in to the system being programmed. Expand the **O** Station Information tree and click on **O** Identification. On the next available line, 3 assign a Number*, Name*, and select Master Station as the Type for the mobile app. Repeat steps 1-3 for each instance of IX Mobile app that needs to be added to the system.





Click the button to save changes.

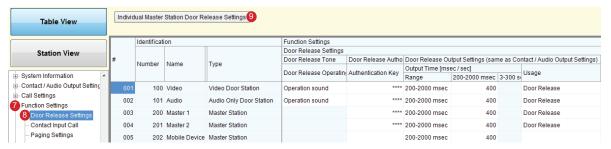
Note Station Information here to refer to later								
Number	Name	IP Address						

- For Programmers/Installers: We recommend writing the station Number, Name, and IP Address into this table for reference when setting up the IX Mobile app.
- Expand the Network Settings tree and click on IP Address. The IP Address of the added device(s) will be blank. Enter an 🧿 IP Address* and Subnet Mask within the same range as the other devices in the system.



Click the button to save changes.

 Expand the Function Settings tree and click on Door Release Settings. Click the **1** Individual Master Station Door Release Settings button.



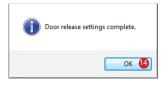
Select the newly added mobile master from the drop down. Click Select. To enable door release for all stations for this selected master station, click the **@ Apply** button.





A pop-up will appear saying "All stations will be set for door release. Continue?" Click © OK. Another pop-up will
appear saying "Door release settings complete." Click © OK.

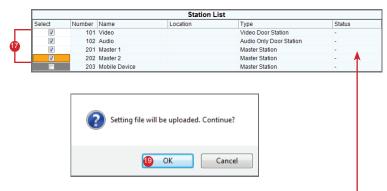




Repeat the process for each mobile master station added to the system.

- Click **6** File, then **6** Upload Settings To Station.
 - Select the hardware stations from the list and click Start Upload. Click OK on the pop-up to upload the settings.



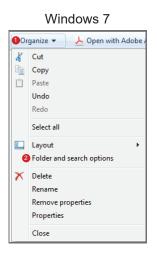


Verify success or failure of upload to each device in the Status column.

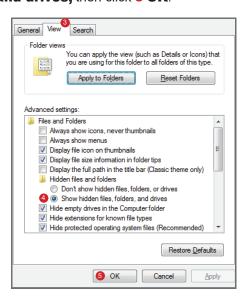
Configuration File

The IX Support Tool creates a configuration file for each device in the system and saves it to a folder within the Support Tool program folder. Once all programming changes have been made and uploaded, the configuration file will need to be copied to the mobile device.

• 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. Select the • View tab and select the radio button beside • Show hidden files, folders, and drives, then click • OK.







• Navigate to "C:\Program Files(x86)\Support Tool\System Data\(name of system)\Setting" and select the configuration file that is associated with the mobile device. It will be identified by the Station Number that was assigned to it in the IX Support Tool. Copy the configuration file to a location on the programming PC that can easily be transferred to the mobile device.

Note: If using a 32-bit operating system, navigate to C:\Program Files\Support Tool\System Data\(name of system)\Setting

App Installation and Setup for Apple

Download IX Mobile from the App StoreSM



App Store is a service mark of Apple Inc

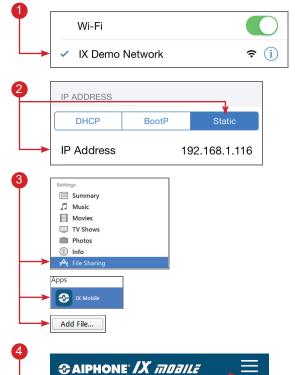
- Connect to the WiFi network associated with the IX Series system installation. Once connected, tap on the connected network.
- Tap Static and enter the IP Address that was assigned when configuring the app with the IX Support Tool.
- 3 Connect the mobile device to the PC that has iTunes installed. 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."
- To unlock the app, call the mobile device from a master station in the system.







config-202-20141202090255.txt



App Server

Apple, the Apple logo, iPhone, iPad, iPod touch, and iTunes are trademarks of Apple Inc., registered in the U.S. and other countries. The App Store is a service mark of Apple Inc.

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.
- 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**.
- 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.
- 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.
- 4 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.

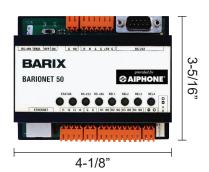
Android, Google Play, and the Google Play logo are trademarks of Google Inc.



Service started with a new config

RY-IP44 Dimensions

Depth: 1-1/4"



Mounting:

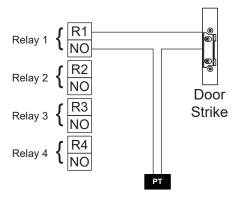
The RY-IP44 adaptor mounts to an Aiphone W-DIN11 mounting rail (sold separately).

RY-IP44 Wiring

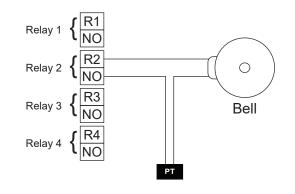
= Power Transformer (use proper power for the strike, mag lock, or external signaling device being used).

Relay contact rating: 30V DC, 0.5A.

Door release:

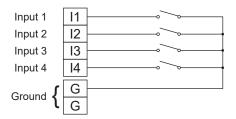


External signaling:



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-1225UL 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.