

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
- Barix Quick Install Guide

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 an IP adaptor with 4 relay outputs and 4 contact inputs. This adaptor is designed to work with Aiphone's IX Series, IS-IP Series, and IPW-1A network intercom systems.

Relay outputs on the RY-IP44 can be programmed to trigger when a station is calling, while in communication, or while calling and communicating. Relay outputs can also be programmed for door release. The RY-IP44 relays can be used in place of a station's built-in relay.

When using with the IX Series, relay outputs on the RY-IP44 can be associated to any station. When using with the IS-IP Series or IPW-1A, relay outputs can only be associated to door stations.

Inputs on this adaptor are used to trigger a call and can only be used on the IX Series and IS-IP Series. When using with the IX Series, inputs can be programmed to call from any station to any other station. When using with the IS-IP Series, inputs can be programmed to call from a door station to a master station. Possible applications are notification of a card access denial, motion detector activation, or selective calling (i.e. multiple tenants). For multiple tenant applications, Aiphone recommends using the IS-IP4DVF 4-button selective call video door station.

The RY-IP44 will act as a server for mobile devices running the IX Mobile app. Up to 8 mobile devices can be added and the adaptor will alert the mobile device if it is out of range of the wireless network.

** If only using the RY-IP44 for IX Mobile, configure the adaptor as shown on page 3 then skip to page 6 (IX Mobile Server). The SIF.ini file is not needed when only using the adaptor as the IX Server.*

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

SIF.ini File (IX Series and IS-IP Series Only)

Note:

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

A SIF.ini file must be created in order for the IX Series and IS-IP Series door stations and master stations to communicate with the adaptor. Use a text editor program to create this file and save it with a .ini extension.

Example Text File:

```
0100,192.168.1.45,10000,0
0101,192.168.1.46,10001,0
0110,192.168.1.47,10002,0
```

Program Type Destination IP Address Destination Port SSL Y/N

Each line in the text file represents a different RY-IP44 adaptor.

Program Type:

Range is between 0100 and 1111 (Binary). Set a different program type for each RY-IP44 being programmed.

Destination IP Address:

IP address assigned to the 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.

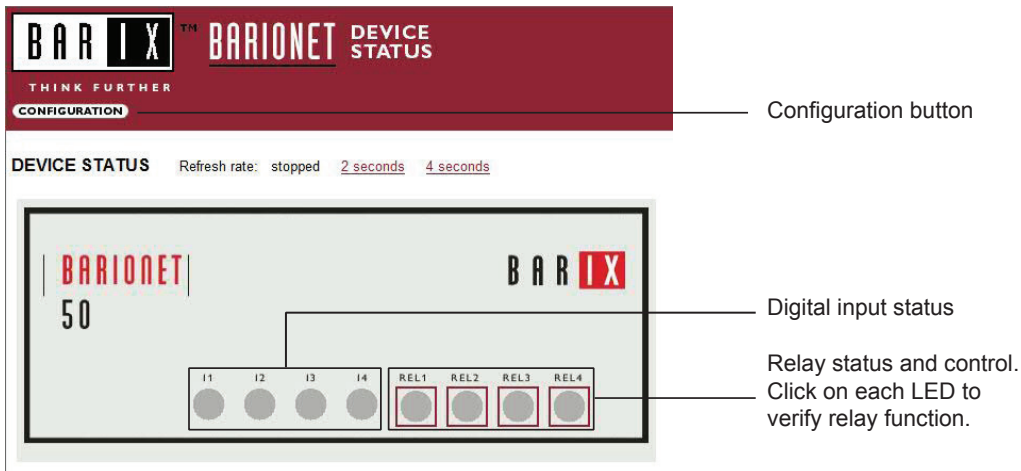
SSL Y/N :

This device does not use SSL. Input 0 for no.

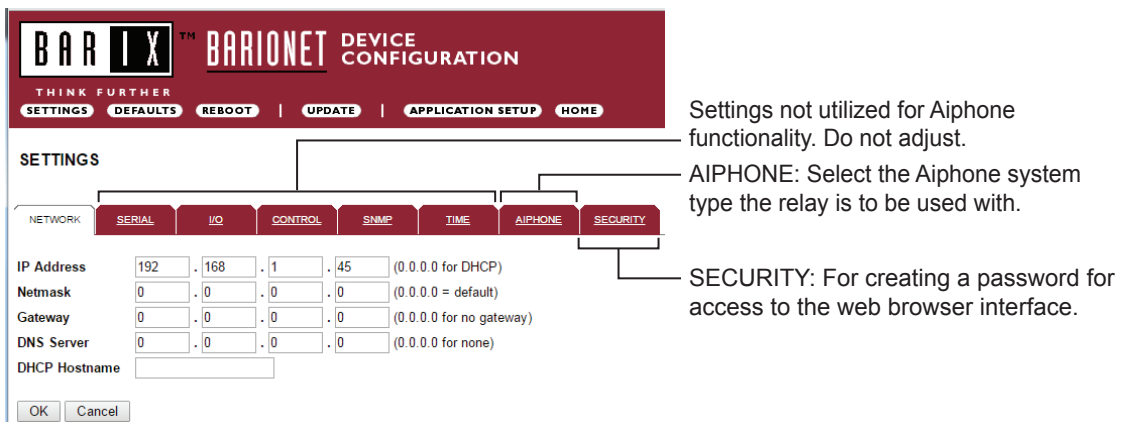
Once the file is created, save it to a location on the PC being used for programming the IX Series or IS-IP Series stations. This file will need to be uploaded to each device that will be associated with the RY-IP44 using the instructions that follow.

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

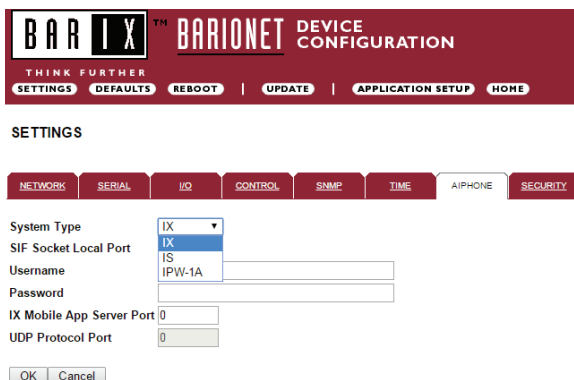
The RY-IP44 has a default IP address of 192.168.1.45. Open a web browser and point the address bar to <http://192.168.1.45> for access to the adaptor. The first screen to appear will be the Device Status screen.



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.



Click the **AIPHONE** tab. From this screen, the Aiphone system type that the relay is being integrated with will be selected. Use the drop down by **System Type** to select the appropriate system. Once selected, click **OK**. Click **Reboot** on the next screen to restart the adaptor.



System Type: Choose between IX, IS, & IPW-1A

SIF Socket Local Port: Enter the port number that was assigned 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 has been 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: Uploading SIF.ini File

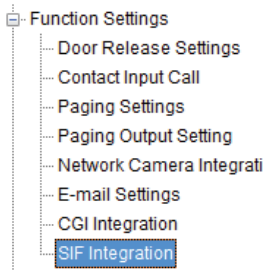
The SIF.ini file must be uploaded to each IX station associated with the RY-IP44 adaptor.

⚠ *The IX Support Tool or web browser interface can be used to upload the SIF.ini file to each station. Loading via the IX Support Tool is shown in these instructions.*

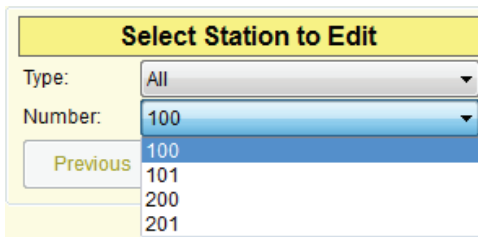
Note:

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

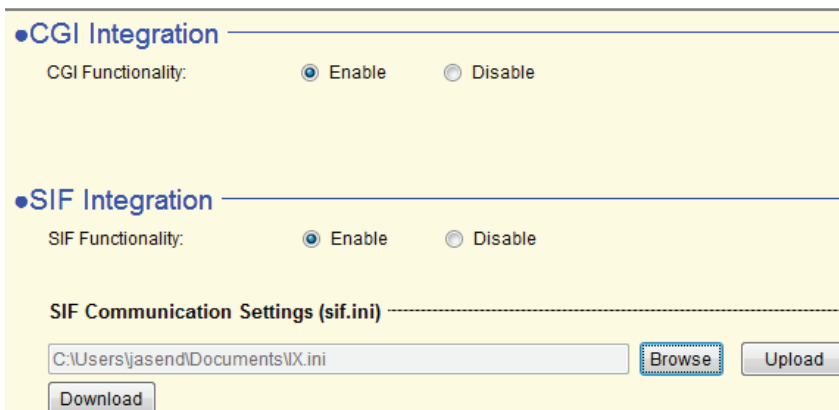
- A. Log in to the IX system using the IX Support Tool.
- B. Expand the Function Settings tree on the left and select **SIF Integration**.



- C. Select the station to be edited from the **Number** drop down menu.



- D. Select the **Enable** radio button for both the CGI Integration and SIF Integration. Click **Browse** to browse to where the .ini file is saved and click **Upload** to send to station.



- E. Click **Update** to save the changes for the station then repeat the process for each station that will be associated with the RY-IP44.
- F. After uploading the .ini file and updating each station, upload the settings to each station. Click **File, Uploading Settings to Station**. Select the stations to upload to and click **Start Upload**.

IX Series: Relay Output Programming

The RY-IP44 has 4 relays. These relays 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 IX Series (refer to page 3).

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



APPLICATION SETUP button

Relay Action options:

- Door Release - Normally-Open
 - Door Release - Normally-Closed
 - Active while Calling from Source
 - Active while Communicating
 - Active during Calling and Communicating
- } Relay will trigger when the associated station's door release contact is triggered.
- } Relay will trigger when the associated station calls or communicates.

The IX Series allows for door release partitioning. When the RY-IP44 relay action is set for door release, the relay will be triggered only if door release is allowed on the station. To set door release partitioning, refer to **Door Release Settings** under the **Function Settings** tree in the IX Support Tool.

When the relay action is set for the “Door Release” options, the relay on the RY-IP44 will trigger when the associated station is calling or communicating and its 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.

Relay Output Functionality

Relay	Station Number	Relay Action
1	100	Door Release: Normally-Open
2	101	Door Release: Normally-Open
3	0	Door Release: Normally-Closed
4	0	Active While Calling From Source
		Active While Communicating
		Active While Calling From Source And Communicating

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. These inputs 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.
The RY-IP44 inputs can have different calling rules than the default calling rule set 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.
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.

Remote Call-In		Target IP				Setup
Relay	Priority					
1	Normal ▼	0	.	0	.	0
2	Normal	0	.	0	.	0
3	Priority Urgent	0	.	0	.	0
4	Normal ▼	0	.	0	.	0

Destinations

Destinations

Destinations

Destinations

Click on **Destinations** next to the input being configured. Another window will open. Enter the station number of the master(s) that will need to be called when the input is triggered.
When the target IP address is a door station, a maximum of 20 masters can be entered.
When the target IP address is a master station, a maximum of 20 masters or 1 group can be entered. A group can consist of up to 50 masters 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.

Destinations for Remote Call-In		
Input 1		
#	Station Number	Enable
1	200	<input checked="" type="checkbox"/>
2	0	<input type="checkbox"/>
3	0	<input type="checkbox"/>

IX Series: IX Mobile Server

The RY-IP44 adaptor is used as a server for up to 8 mobile devices when using IX Mobile. Enter the IP address for each of the mobile devices in the **IX Mobile Server Functionality** table.

IX Mobile Server Functionality	
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

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

IS-IP Series: Uploading SIF.ini File

The SIF.ini text file must be uploaded to each IS-IP device associated with the RY-IP44 adaptor.

⚠ *Note that the IP address for each IS-IP unit will be unique for your network settings.*

Note:

The intercom system must 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 IS-IP station being programmed.

B. A security certificate error message will appear. Continue to the website.

C. Enter the administrator ID and password.



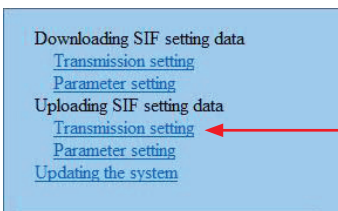
Enter the administrator ID and password.

ID

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.



Downloading SIF setting data
[Transmission setting](#)
[Parameter setting](#)
Uploading SIF setting data
[Transmission setting](#) ←
[Parameter setting](#)
[Updating the system](#)

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



Uploading SIF setting data
Transmission setting

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 IS-IP door and master station to be associated with the RY-IP44 adaptor.

IS-IP Series: Relay Output Programming

The RY-IP44 has 4 relays. These relays 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 3).

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



Application Setup button

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 TermID in the system. 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.

Definition: TermID

A TermID identifies the location of an IS-IP device in the IS Series configuration. It also distinguishes between master station units and door station units. 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.

Example:

01-101: Door station in address location 1.

03-001: Master station in address location 3.

Imported IP units list

	Station type	MAC address
1	IP video door station	00:0B:AA:0C:08:0D
	IP master station	00:0B:AA:0B:01:20
3	IP master station	00:0B:AA:0B:01:30

Linked Stations

N.	IP ADDRESS	Term ID	N.	IP ADDRESS	Term 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
12	0 .0 .0 .0	00 -000	28	0 .0 .0 .0	00 -000
13	0 .0 .0 .0	00 -000	29	0 .0 .0 .0	00 -000
14	0 .0 .0 .0	00 -000	30	0 .0 .0 .0	00 -000
15	0 .0 .0 .0	00 -000	31	0 .0 .0 .0	00 -000
16	0 .0 .0 .0	00 -000	32	0 .0 .0 .0	00 -000

Relay Functionality:

Enter the TermID for the door station to be associated to the relay (see page 8 for TermID definition). Select the relay action from the drop down menu.

Relay Action options:

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

When the relay actions are set for the “Door Release” options, the relay will trigger when the associated door station is in communication, but only when a “configured” master station pushes the door release button. When the relay actions are 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. Rebooting must occur to update adaptor settings.

Relay Output Functionality

Relay	Door	TermID	Relay Action	
1	01	-101	Door Release: Normally-Open	Configure
2	02	-101	Door Release: Normally-Open	Configure
3	02	-101	Door Release: Normally-Closed	
4	01	-101	Active While Calling From Source	
			Active While Communicating	
			Active While Calling From Source And Communicating	

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 masters 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 masters can NOT be enabled for door release using the RY-IP44.

Allowed Stations for Output 4			
#	IP Address	TermID	Flag
1	192.168.1.41	05-001	<input checked="" type="checkbox"/>
2	Not Configured		<input type="checkbox"/>
3	Not Configured		<input type="checkbox"/>

IS-IP Series: Input Programming

The RY-IP44 adaptor has 4 inputs. These inputs 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.

Remote Call-In

Relay	Priority	Target Door IP				Setup
1	Normal ▼	192	168	1	40	Destinations
2	Normal	0	0	0	0	Destinations
3	Priority	0	0	0	0	Destinations
4	Urgent	0	0	0	0	Destinations

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 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.

Destinations for remote call-in, input 1

Station N.	Term-ID		Enable
1	05	- 001	<input checked="" type="checkbox"/>
2	00	- 000	<input type="checkbox"/>
3	00	- 000	<input type="checkbox"/>
4	00	- 000	<input type="checkbox"/>

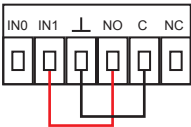
IPW-1A: Relay Output Programming

The RY-IP44 has 4 relays. These relays 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 3).

Relay Action options:

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



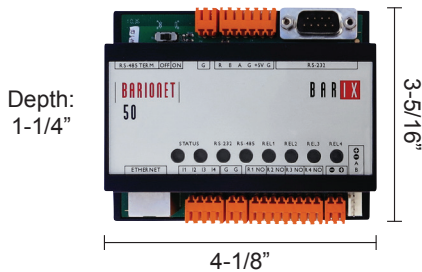
Application Setup button

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
1	<input type="text" value="1"/>	Door Release: Normally-Open
2	<input type="text" value="0"/>	Door Release: Normally-Open
3	<input type="text" value="0"/>	Door Release: Normally-Closed
4	<input type="text" value="0"/>	Active While Calling From Source
		Active While Communicating
		Active While Calling From Source And Communicating
		Active While Any Station Calling

RY-IP44 Dimensions



Mounting:

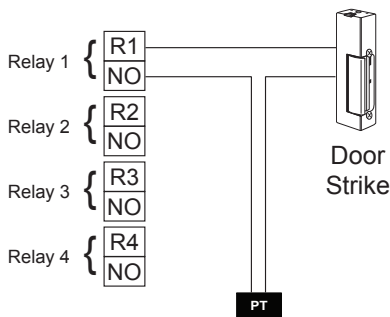
The RY-IP44 adaptor mounts to an Aiphone W-DIN11 mounting rail (sold separately).

RY-IP44 Wiring

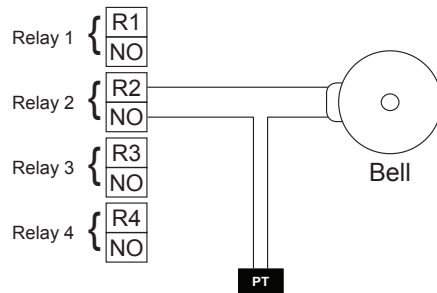
PT = Power Transformer (use proper power for the strike, mag lock, or external signaling device being used).

Relay contact rating: 30V DC, 0.5A.

Door release:

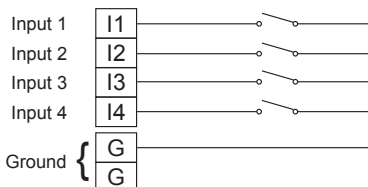


External signaling:



Inputs:

Connect a normally open (N/O) button 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.