

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 _____.

Door Release	Station Number:	100		Sele	ect Station to E	Edit
Network Camera Integration	Station Name:	IX-DV	Type:		All	
···· Paging Settings	Location:		Num	her:	100	
Bathroom Call	Station Type:	IX-DV, IX-DVF(-*)	Num	061.	100	
Email				Previous	Select	Next
CGI						
SIF						
Record						
··· Communication Audio Mess						
Step 1				Step 2		
Step 1				Step 2 Use the Nun	nber drop-down und	er Select
Step 1 Expand Function Settings and select SIF from menu on left.				Step 2 Use the Nun Station to Ec	nber drop-down und lit and choose the d	er Select oor station.
Step 1 Expand Function Settings and select SIF from menu on left.				Step 2 Use the Nun Station to Ec Click Select	nber drop-down und lit and choose the d and ensure that the	er Select oor station. door station

Enabling CGI & SIF on IX Stations (continued)

•CGI									
CGI Functionality	Enable	le 🔿 Disable							
•SIF									
SIF Functionality	Enable	le O Disable							
SIP URI Format 🔺	🔿 Enabl	le 💿 Disable							
SIF Settings									
#	Program Type 0000-1111 * ho	IPv4 1.0.0.1-223.255.255.254 or stname(1-64 alphanumeric characters) *	IPv6 ::FF:0-FEFF:FFFF:FFFF:FFFF:FFF hostname(1-64 alphanumeric c	FF:FFFF:FFFF or characters)	Destination Port 1-65535	SSL 🔶	Connection		
01	0100 19	12.168.1.45			10000	Disable ~	Socket ~		
02									
Step 3			Step 4	I					
Select the Enal for CGI and SIF	ble radio buttons ⁼ Functionality		Under SIF Settings, enter a for the RY-IP44 relay. Use a	a ProgramType a separate line	e, the IP Address e for each RY-IP4	, and Destination Port 4 being used.			
Event		01	Program Type: Any bina IPv4: IPv4 Address ass IPv6: IPv6 Address ass Destination Port: Port n	ary number igned to RY igned to RY umber assi	between 0100 -IP44 -IP44 gned to RY-IP	0 and 1111 44 (10000 is defa	- ult)		
Begin Outgoing	Call		SSL: Select if SSL will b	be Enabled	or Disabled (S	Set to disable)			
Begin Commun	ication (Source)		Connection: Select if co	onnection is	Socket or HT	TP (Set to socket)			
End Communic	ation								
Change contact			Stop F						
Uniterror			Step 5						
Periodical Trans	mission		Choose the Transmission Trigger Events that this						
Initialization Noti	ice		station will need to send to the RY-IP44. The Begin						
End Outgoing C	all		End Communication. and	Change cont	tact events				
Beain Incomina	Call		are the most common and will cover most aspects of						
End Incomina C	all		RY-IP44 integration.						
Latch Reset									
Change Call De	stination								
Call Failure									
Begin Incoming	Page		Step 6		_				
End Incoming P	age					> Update			
Begin Monitored	-		Click Update to save change	jes.					
End Monitored									
Begin Commun	ication (Destination)								
Begin Record									
End Record									
Recording Mem	orv Full			Rep	eat Steps 2-6	for each station in	teracting		
SD Card Error			with the RY-IP44 relay.						
SIP Registration	Failure								
on regionation									

Upload Settings to Station



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.

		Configuration button
DEVICE STATUS Refresh rate: stopped	d <u>2 seconds</u>	
BARIONET 50	BAR 🚺 🗶	Digital input status
	I IA REL1 REL2 REL3 REL4	Relay status and control. Click on each LED to verify relay function.

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.

BAR THINK FUR	BAR IN BARIONET DEVICE CONFIGURATION THINK FURTHER SETTINGS OFFAULTS REBOOT OPDATE APPLICATION SETUR CHOME										
SETTINGS											
NETWORK	ERIAL	<u>1/0</u>	CONTROL	SNMP	TIME	AIPHONE	SECURITY				
IP Address	192	. 168	. 1	. 45 (0.0	0.0.0 for DHCP))		Enter IP Address that was entered in			
Netmask	0	. 0	. 0	. 0 (0.0	0.0.0 = default)	_		the SIF Settings.			
Gateway	0	. 0	. 0	. 0 (0.0	0.0.0 for no gate	eway)					
DNS Server	0	. 0	. 0	. 0 (0.0	0.0.0 for none)						
DHCP Hostname											
OK Cancel											

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.

	AIPHONE: Select the Aiphone syste type the relay is to be used with.
SETTINGS	System Type: Select IX
NETWORK SERIAL I/O CONTROL SIMP TIME AIPHONE SECURITY System Type IX SIF Socket Local Port	SIF Socket Local Port : If left at 0, the defaul value of 10000 will be used. Ensure that the port entered here is the same port used wher configuring the SIF settings on Page 3.
Password X Mobile App Server Port 0 JDP Protocol Port 0	Username & Password : Enter system's username and password. If left blank, the det value of "admin" is used.
UK Cancel	IX Mobile App Server Port: Enter the App Se 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.



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
1	100	Door Release: Normally-Open
2	101	Door Release: Normally-Open
3	0	Door Release: Normally-Open Door Release: Normally-Closed
4	0	Active While Calling From Source 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.

Remo	te Call-In		Statio	n Placing	Call	
Relay	Priority			Target IP		Setup
1	Normal 🔻	0	. 0	. 0	. 0	Destinations
2	Normal Priority	0	. 0	. 0	. 0	Destinations
3	Urgent	0	. 0	. 0	. 0	Destinations
4	Normal v	0	. 0	. 0	. 0	Destinations

- 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.

Destinatior Input 1	ns for Remote Call-In		
#	Station Number	Enable	
1	200		
2	0		
3	0		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	Addres	s	
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	Ap
6	0	.0	. 0	.0	Click
7	0	.0	.0	.0	Refe
8	0	. 0	. 0	.0	Supp

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.

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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.



Select	Number 0006 100 101 102 200 201	Name Master Station IX-DV IX-SS-2G IX-RS Front Desk	Location	Station Type IX-MV IX-DV, IX-DVF(-*) IX-SS-2G IX-RS-*	Hostname	IP Address 192.168.1.15 192.168.1.12 192.168.1.13	Associated - -	1
● ○ ○ ○ ○	0006 100 101 102 200 201	Master Station IX-DV IX-SS-2G IX-RS Front Desk	ns	IX-MV IX-DV, IX-DVF(-*) IX-SS-2G IX-RS-*		192.168.1.15 192.168.1.12 192.168.1.13	-	
00000	100 101 102 200 201	IX-DV IX-SS-2G IX-RS Front Desk		IX-DV, IX-DVF(-*) IX-SS-2G IX-RS-*		192.168.1.12 192.168.1.13		
0000	101 102 200 201	IX-SS-2G IX-RS Front Desk		IX-SS-2G IX-RS-*		192.168.1.13	-	
0	102 200 201	IX-RS Front Desk		IX-RS-*				
0	200 201	Front Desk				192.168.1.14	-	
0	201			IX-MV7-*		192.168.1.10	-	
		Security		IX-MV7-*		192.168.1.11	-	
<								
Advanced S	Settings						s	System Management
	A	Address Book			Door	Release		Add New Stati
		totion Dataila			Datab ID Addra	on Configuration		Station Domo

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											
		Identificatio	n	1													
#	Expanded System									IPv4	Addre	ess					
	Nun	Number	Name	Loc	ation	Station Type	Hostname	IP Version Static / DHCF	Static / DHCP	P 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

ок

Next

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**.

	Station Settings List										
Select	Number	Name	Location	Station Type	Hostname	IP Address	Associated				
۲		IX-DV		IX-DV, IX-DVF(-*)		192.168.1.12	-				
0	101	IX-SS-2G		IX-SS-2G		192.168.1.13	-				
0	102	IX-RS		IX-RS-*		192.168.1.14	-				
0	200	Front Desk		IX-MV7-*		192.168.1.10	-				
0	201	Security		IX-MV7-*		192.168.1.11	-				
0	202	Mobile		IX-MV		192.168.1.15	-				

	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.

Warning: Some station have not been associated. Continue?

×

OK Cancel

IX Support Tool

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.

> Select the station(s) to upload the Setting File(s); Connection Status 0/0 Station List _____ Text-in red are required settings. Success Select Name Location Station Type Status Number IP Address $\overline{}$ 100 IX-DV IX-DV IX-DVF(-* Success \checkmark 101 IX-SS-2G IX-SS-2G \checkmark Success 102 IX-RS IX-RS-* \checkmark 200 IX-MV7-Front Desk Success \checkmark 201 Security IX-MV7-* IX-MV 202 Mobile Success Selec station by Type Unselect All Manual Date / Time Start Upload Back Next Cancel This PC's IP Address: 192,168,1,100 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)

國 IX Support Tool - [IX Support Tool Wizard: Export Settings]	IX Support Tool - [Export Settings]	×
Export Settings		Export Settings
The system has been successfully configured. Aiphone recommends to export and back up the system configuration files and leave them on-site with the end user.	Use Export button to back up the system	configuration files .
Export Browse For Folder X	Export	
Select Folder	Save the setting file for back up. The setting file may be needed to restore the system at a later date. The IX Support Tool will now allow for add	the existing programming, customize settings, or add stations to itional settings to be changed for system customization.
Step 9		Step 10
The Export Settings window will open. Click on Export and choos a destination on your PC to export the system settings to. Click OK export and save the settings		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 • Organize (Windows 7), or File (Windows 10). Click • Folder and search options (Windows 7), or Options (Windows 10). Select the **O View** tab and select the radio button beside **O Show hidden files, folders,** and drives, then click **OK**. View³Search

Windows 7			Windows 10		General View Search		
1 0r	rganize 🔻 🛛 🚣 Open with Adobe A	1 File			Folder views You can apply the view (such as D		
% 1	Cut Copy Paste		Open <u>n</u> ew window	•	Apply to Folders		
	Undo Redo	\geq	Open Windows Powe <u>r</u> Shell	F	Advanced settings: Files and Folders Always show icons, never thumbnails		
	Select all Layout Folder and search options	3	Options		Always show menus Jisplay file icon on thumbnails Jisplay file size information in folder tips Display the full path in the title bar (Classi		
×	Delete Rename Remove properties	?	<u>H</u> elp	>	 Hidden files and folders Don't show hidden files, folders, or dri Mon't show hidden files, folders, and drives Hide empty drives in the Computer folder 		
	Properties	×	jlose		Hide extensions for known tile types		

• 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

You can apply the view (such as Details or Icons) that you are using for this folder to all folders of this type

Reset Folders

Restore <u>D</u>efaults

Apply

Always show icons, never thumbnails Always show menus Display file icon on thumbnails Display file size information in folder tips Display the full path in the title bar (Classic theme only)

On't show hidden files, folders, or drives

Hide protected operating system files (Recommended)

6 OK Cancel

App Installation and Setup for Apple



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App Installation and Setup for Android

Download IX Mobile using Google Play[™]

Boogle 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.
- 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
- 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**.

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

1 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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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

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