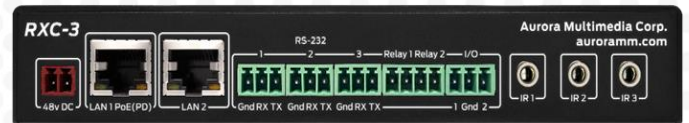


RXC Series

RXC-1 • RXC-3 • RXC-4

Reax Control Servers



RXC-1

RXC-3



RXC-4



SAFETY INSTRUCTIONS

Please review the following safety precautions. If this is the first time using this model, then read this manual before installing or using the product. If the product is not functioning properly, please contact your local dealer or Aurora for further instructions.



The lightning symbol in the triangle is used to alert you to the presence of dangerous voltage inside the product that may be sufficient to constitute a risk of electric shock to anyone opening the case. It is also used to indicate improper installation or handling of the product that could damage the electrical system in the product or in other equipment attached to the product



The exclamation point in the triangle is used to alert you to important operating and maintenance instructions. Failure to follow these instructions could result in injury to you or damage to the product.



Be careful with electricity:

- **Power outlet:** To prevent electric shock, be sure the electrical plug used on the product power cord matches the electrical outlet used to supply power to the Aurora product. Use only the power adapter and power connection cables designed for this unit.
- **Power cord:** Be sure the power cord is routed so that it will not be stepped on or pinched by heavy items.
- **Lightning:** For protection from lightning or when the product is left unattended for a long period, disconnect it from the power source.



Also follow these precautions:

- **Ventilation:** Do not block the ventilation slots if applicable on the product or place any heavy object on top of it. Blocking the air flow could cause damage. Arrange components so that air can flow freely. Ensure that there is adequate ventilation if the product is placed in a stand or cabinet. Put the product in a properly ventilated area, away from direct sunlight or any source of heat.
- **Overheating:** Avoid stacking the Aurora product on top of a hot component such as a power amplifier.
- **Risk of Fire:** Do not place unit on top of any easily combustible material, such as carpet or fabric.
- **Proper Connections:** Be sure all cables and equipment are connected to the unit as described in this manual.
- **Object Entry:** To avoid electric shock, never stick anything in the slots on the case or remove the cover.
- **Water Exposure:** To reduce the risk of fire or electric shock, do not expose to rain or moisture.
- **Cleaning:** Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.
- **ESD:** Handle this unit with proper ESD care. Failure to do so can result in failure.

FCC

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 received, including interference that may cause undesired operation.



Trademarks

All trademarks in this document are the properties of their respective owners.

TABLE OF CONTENTS

PACKAGE CONTENTS	4
OPTIONAL ACCESSORIES	1
INTRODUCTION	2
About	2
Documentation	2
Features.....	3
RXC-1 Front	4
RXC-1 Rear	5
RXC-3 Front	6
RXC-3 Rear	7
RXC-4 Front	8
RXC-4 Rear	9
WEB SETUP PAGES	10
Setup Tab.....	10
Diagnostics Tab	18
Files Tab	25
SOFTWARE	26
Core Studio Development Tool.....	26
CONNECTOR PIN DEFINITION	27
CAT5e/6/6A	27
RS-232.....	28
IR (Infrared)	29
APPENDIX 1	30
Troubleshooting	30
APPENDIX 2	31
Firmware Update	31
APPENDIX 3	31
Protocol.....	31
APPENDIX 6	32
Technical Specifications	32
APPENDIX 7	35
Warranty	35

PACKAGE CONTENTS

Please make sure the following items are included within your package. Contact your dealer if any items are missing or damaged.

RXC-1

1 QTY RXC-1 with 2 Wall Mounting Ears

RXC-3

1 QTY RXC-3 with 2 Wall Mounting Ears

RXC-4

1 QTY RXC-4

Power supplies are sold separately.

Note: Go to www.auroramm.com for latest manual and firmware.

OPTIONAL ACCESSORIES

- **PS0094-3** - 48V DC 25 Watt Power Supply
- **PS0081-1** – 48V DC 25 Watt PoE Injector Supply
- **RK1-1-K** RXC-1 1RU Dual Rack Mount Kit (Includes 1 blank plate & 4 rails)
- **RK1-4-K** RXC-3 4RU Twelve Rack Mount Kit (Includes 6 blank plate & 24 rails)
- **RK4-1S-K** RXC-4 1RU Single Rack Mount Kit
- **RK4-1D-K** RXC-4 1RU Dual Rack Mount Kit
- **CA0061-1** IR Emitter



INTRODUCTION

About

The RXC Series is a stand-alone control system built on the ReAX™ operating system. This Linux based OS has been engineering from the ground up to provide a robust and flexible control system platform, based on Aurora's years of experience in the control industry.

As with all Aurora control systems, the RXC is a web-based control system. Custom programming and GUIs can be created with our free ReAX™ Core Studio software. With the RXC Series built-in web server, it allows virtually any device with a web browser to display the GUI and control the system. Examples include PC browsers, dedicated touch panels like the Aurora RXT series tablets, smart phones and more.

The small size and flexible architecture allow the RXC to be used as a full standalone controller, an expansion controller, or a hybrid of the 2. This allows for a distributed control network – place control ports right where they are needed in your system rather than long cable runs from a central location.

RXC controllers have a full complement of LAN, RS-232, relay, I/O, and IR ports for controlling external devices. An IR receiver enables the internal IR learner – no extra hardware required. In addition to network control and access to the GUI and configuration web pages, the LAN port is also capable of power over Ethernet (PoE), eliminating the need for an additional power supply.

Documentation

Aurora provides many documents to support the RXC series and accessories. These documents that can be found on the download tab of the RXC products or the customer portal.

Features

- Stand-alone web-based control processor running ReAX™ control engine
- Linux™ OS
- Allows for scheduling, automation & system-wide control
- Custom control GUIs
- Programmable with Aurora's free tools
- Powered via optional 48v power supply or PoE
- LAN port(s)
- RS-232 port(s)
- SPDT relays
- Digital I/Os
- IR output(s)
- IR receiver
- USB 2.0 device ports
- Front LED Indicators
- Low Power Consumption

Note: Port counts vary based on RXC model.

RXC-1 Front



LEDs

- Power/Status – Power will light green when unit is on or in standby. Status will blink at a normal pace during regular operation and slower pace when in standby.
- RS232 TX/RX – Will blink when RS-232 data is being sent or received.
- RLY – Will reflect state of relays, On/Closed or Off/Open.
- I/O – Reflects state of I/O port: On (Input Low / Output High) Off (Input High / Output Low)
- IR – Reflects IR data activity.
- IR In – Shows IR Learning Activity

Buttons

- Function – Press and hold for 5 seconds to factory default all settings.
- Select – Press and hold for 5 seconds default only network settings.

Miscellaneous

- IR Window –IR learning window

Special Functions

- Factory Default - Press and hold Function for 5 seconds

Default Settings

- Baud Rate: 9600
- IP Mode: Static (192.168.1.100)

RXC-1 Rear



Connectors

- 48VDC 48 Volt DC isolated power input.
- LAN 10/100/1000Mbps LAN. Left Port can power the unit with PoE from injector or switch.
LAN connector LED's (Rear):
 - Right LED Orange = 10/100 Link
 - Right LED Off = PoE Only or Bad Connection.
- Control RS-232 Serial port pass-through and control up to 115Kbps.
- Relays Relay Port 1 and 2.
- I/O Ports for I/O control
- IR Ports for IR Control

Default Settings

- Serial Port Baud Rate: 9600
- IP Mode: Static, 192.168.1.100
- Fallback IP Mode (no DHCP present): 192.168.1.100

RXC-3 Front



LEDs

- Power/Status – Power will light green when unit is on or in standby. Status will blink at a normal pace during regular operation and slower pace when in standby.
- RS232 TX/RX – Will blink when RS-232 data is being sent or received.
- RLY – Will reflect state of relays, On/Closed or Off/Open.
- I/O – Reflects state of I/O port: On (Input Low / Output High) Off (Input High / Output Low)
- IR – Reflects IR data activity.
- IR In – Shows IR Learning Activity

Buttons

- Function – Press and hold for 5 seconds to factory default all settings.
- Select – Press and hold for 5 seconds to default only network settings.

Miscellaneous

- IR Window –IR learning window
- USB 2.0 Device Ports

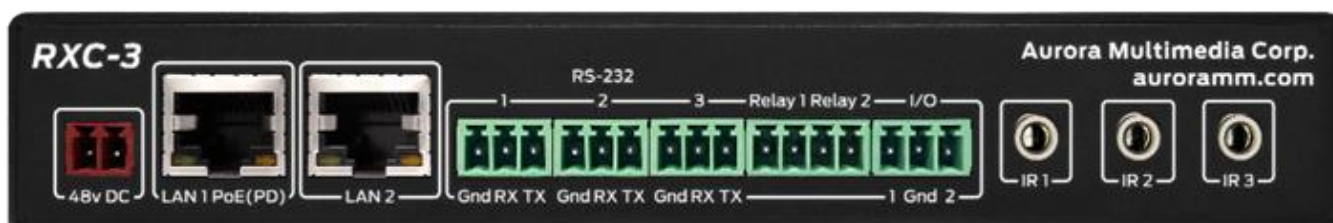
Special Functions

- Factory Default - Press and hold Function for 5 seconds

Default Settings

- Baud Rate: 9600
- IP Mode: Static (192.168.1.100)

RXC-3 Rear



Connectors

- 48VDC 48 Volt DC isolated power input.
- LAN Two 10/100/1000Mbps LAN. Left Port can power the unit with PoE from injector or switch.
LAN connector LED's (Rear):
 - Right LED Orange = 10/100 Link
 - Right LED Off = PoE Only or Bad Connection.
- Control RS-232 Serial port pass-through and control up to 115Kbps.
- Relays Relay Port 1 and 2.
- I/O Ports for I/O control
- IR Ports for IR Control

Default Settings

- Serial Port Baud Rate: 9600
- IP Mode: Static, 192.168.1.100
- Fallback IP Mode (no DHCP present): 192.168.1.100

RXC-4 Front



LEDs

- Status – Power will light green when unit is on or in standby. Status will blink at a normal pace during regular operation and slower pace when in standby.
- RS232 TX/RX – Will blink when RS-232 data is being sent or received.
- RLY – Will reflect state of relays, On/Closed or Off/Open.
- I/O – Reflects state of I/O port: On (Input Low / Output High) Off (Input High / Output Low)
- IR – Reflects IR data activity.
- IR In – Shows IR Learning Activity
- LCD Display – Shows IP Address and a variety of diagnostics

Buttons

- Menu – Press and hold for 5 seconds to factory default all settings.
- Enter – Press and hold for 5 seconds to default only network settings.
- Arrows – Press left or right to scroll through the network settings for ports 1 and 2 on the LCD display.

Miscellaneous

- IR Window – IR learning window next right arrow button.
- USB 2.0 Device Ports

Special Functions

- Factory Default - Press and hold Menu for 5 seconds

Default Settings

- Baud Rate: 9600
- IP Mode: Static (192.168.1.100)

RXC-4 Rear



Connectors

- 48VDC 48 Volt DC isolated power input.
- LAN Two 10/100/1000Mbps LAN. Left Port can power the unit with PoE from injector or switch.
LAN connector LED's (Rear):
 - Right LED Orange = Activity
 - Left LED Green = 10/100/1000 Link.
 - Left LED Off = PoE Only or Bad Connection.
- Serial RS-232 4 Serial port pass-through and control up to 115Kbps.
- Relays 4 Relay Ports
- I/O 4 Ports for I/O control
- IR 4 Ports for IR Control
- Audio Line In/Out 3.5mm TRS for analog line level unbalanced volume control

Default Settings

- Serial Port Baud Rate: 9600
- IP Mode: Static, 192.168.1.100
- Fallback IP Mode (no DHCP present): 192.168.1.100

WEB SETUP PAGES

The RXC Web Setup pages are accessed via <IP Address of Unit>/setup.

E.g. `192.168.1.100/setup`

Default Username: admin

Default Password: admin

Setup Tab

The “Setup” tab displays the current firmware version as well as the serial number of the RXC.

This page also allows you to access the following setup pages:

- Time Settings – Sets the date and time of the RXC.
- Network Settings – Sets the network parameters of the RXC.
- Security Settings – Sets the login credentials for the RXC.
- Port Setup – Adjusts port settings for the RS232 and IR ports.
- Digital I/O Setup – Sets the configuration of the Digital I/O ports.
- Infrared Learning – Allows the RXC to learn infrared commands from an external infrared remote.
- Device Settings – Adjusts RXC logging settings.

RX SERIES



Setup

[Setup](#)[Diagnostics](#)[Files](#)[Logout](#)

Firmware Version : RXC4_1.0.0, Feb 03 2020

Serial Number : RXC419710088

Date & Time



Time Settings

Network



Network Settings

Security



Security Settings

Ports



Port Setup

Digital I/O



Digital I/O Setup

IR Learning




Infrared Learning

Device Settings



Device Settings

Time Settings

RX SERIES


Setup - Time

Setup
Diagnostics
Files
Logout

Firmware Version : RXC4_1.0.0, Feb 03 2020

Serial Number : RXC419710088

Date/Time : 14 January 2020 12:50:26 AM

January ▾
14
2020

h: 12 ▾
m: 50 ▾
s: 26 ▾
AM ▾

Set Date and Time

Time Zone : (GMT -05:00) US Eastern Standard Time ▾

Set Time Zone

Uses 24-hour style to display Time

NTP Server : time1.google.com

Set NTP Server

NTP Status : Enable Disable

Apply

- Date/Time – Sets the current date and time.
- Time Zone – Sets the current time zone.
- NTP Server – Sets the network time (NTP) server address for automatic date and time configuration.
- NTP Status – Enables or disables automatic date and time configuration via NTP.

Network Settings

Setup - Network

Setup
Diagnostics
Files
Logout

Firmware Version : RXC4_1.0.0Feb 03 2020
Serial Number : RXC419710088

MAC Address : 00:11:02:64:01:16
DHCP : Enable Disable

IP Address :
Subnet Mask :
Default Gateway :
DNS Address :

Secondary IP : Enable Disable
Secondary IP Address :
Secondary Subnet Mask :

MAC Address : 00:11:02:64:01:17
DHCP : Enable Disable

IP Address :
Subnet Mask :
Default Gateway :
DNS Address :

Secondary IP : Enable Disable
Secondary IP Address :
Secondary Subnet Mask :

Host name :

The following settings apply to LAN port 1 and 2 separately:

- MAC Address – The MAC address of the LAN port
- DHCP – Enables/disables IP address acquisition via DHCP
- IP Address, Subnet Mask, Default Gateway, DNS Address – Static IP address settings when DHCP is disabled
- Secondary IP – Enables/disables a secondary static IP address for the LAN Port
- Secondary IP Address, Secondary Subnet Mask – Secondary static IP settings
- Host Name – The host name of the RXC

Security Settings

Setup - Security

	Setup	Diagnostics	Files	Logout
Firmware Version :	RXC4_1.0.0, Feb 03 2020			
Serial Number :	RXC419710088			
Admin Password :	<input type="text"/>	Old password		
	<input type="text"/>	New password		
	<input type="text"/>	Confirm new password		
	<input type="button" value="Change PW"/>			

This page allows you to change the default login password for the web setup pages.

Port Setup

Setup - Ports

Setup
Diagnostics
Files
Logout

Select Port to set up: [SERIAL] - [IR]

SERIAL

Port 1:

Refresh

Parameter	Setting
Baud	<input type="radio"/> 300 <input type="radio"/> 600 <input type="radio"/> 1200 <input type="radio"/> 2400 <input type="radio"/> 4800 <input type="radio"/> 9600 <input type="radio"/> 19200 <input type="radio"/> 38400 <input type="radio"/> 57600 <input checked="" type="radio"/> 115200
Parity	<input checked="" type="radio"/> None <input type="radio"/> Odd <input type="radio"/> Even
Data Bits	<input checked="" type="radio"/> 8 <input type="radio"/> 7
Stop Bits	<input checked="" type="radio"/> 1 <input type="radio"/> 2
Handshaking	<input checked="" type="radio"/> None <input type="radio"/> Software
<input type="button" value="Save Port Settings"/>	

IR

Port 1:

Refresh

Parameter	Setting
Baud	<input type="radio"/> 300 <input type="radio"/> 600 <input type="radio"/> 1200 <input type="radio"/> 2400 <input type="radio"/> 4800 <input checked="" type="radio"/> 9600 <input type="radio"/> 19200 <input type="radio"/> 38400 <input type="radio"/> 57600 <input type="radio"/> 115200
Data Bits	<input checked="" type="radio"/> 8 <input type="radio"/> 7
Stop Bits	<input checked="" type="radio"/> 1 <input type="radio"/> 2
<input type="button" value="Save Port Settings"/>	

This page allows you to set the baud rate, data, and stop bits for the RS232 and IR ports, as well as the parity and handshaking requirements for the RS232 ports.

Digital I/O Setup

Setup - IO

Setup
Diagnostics
Files
Logout

Configuration Port 1:

Configuration Port 2:

Configuration Port 3:

Configuration Port 4:

Port 1:

Port 2:

Port 3:

Port 4:

This page allows you to set each of the digital I/O ports to one of the following states:

- Output – Digital output
- Input (High-Z) – High impedance digital input (normally low)
- Input with pullup – Low impedance digital input (normally high)

Here's a table of the possible values:

Digital Output	Output	0V DC Out	LED = Off	Notify Data = 0
Digital Output	Output	5V DC Out	LED = On	Notify Data = 1
Digital Input	Pull Up Mode	Open	LED = On	Notify Data = 1
Digital Input	Pull Up Mode	Closed / Shorted	LED = Off	Notify Data = 0
Digital Input	High Impedance	0V DC In	LED = Off	Notify Data = 0
Digital Input	High Impedance	5V DC In	LED = On	Notify Data = 1

Infrared Learning

Setup - IR Learning

Setup
Diagnostics
Files
Logout

[Go to IR Diagnostics](#) - [Go to IR Setup](#)

How to learn IR commands:

Learning requires 2 captures of a button press. Press "Learn" to learn a command.

After pressing "Learn" the IR input LED will start to blink slowly. Aim the remote at the QXT-700, then press and release the button that is being learned. If the IR learner captures the signal, the input LED will turn off.

When the input LED starts blinking slowly again, press and release the remote's button for a second time. If the IR learner captures the signal again, the LED will turn off and a "Success" message will be displayed.

If an error occurs, or the QXT-700 is having difficulty learning the remote, the input LED will continue blinking. Continue pressing the remote's button until the input LED goes off.

If experiencing difficulty learning a command, try varying the distance between the remote and the IR receiver. Also, try using the alternate learn mode if standard mode does not work.

Step 1 :

Choose or create a device file name:

File Name*:

Device Make:

Device Model:

Remote Model:

Comment:

NOTE: Items with an asterisk (*) are required. Any new commands learned will be added to this file.

Step 2 :

Learn Mode: Standard Alternate

NOTE: Use Alternate learn mode only if there is trouble using Standard mode.

Step 3 :

Select the number of commands or template to learn:

Learn commands or

NOTE: When using a template, skip the learn procedure for unwanted commands. More commands can be added at any time.

Step 4 :

Type in the name of command(s) below:

Name:

This page allows you to learn infrared commands from any remote control, to be used in your control program.

Diagnostics Tab

The 'Diagnostics' tab allows you to view system information as well as test the various hardware control aspects of the RXC.



System Information

Diagnostics - System Information
Setup [Diagnostics](#) [Files](#) [Logout](#)

Firmware Version : RXC4_1.0.0, Feb 03 2020
Serial Number : RXC419710088
System Time : 14 January 2020 02:54:09 AM

[Reboot System](#) [Factory Reset](#)

File Space: 3% 97%
 (Total: 4.7G) 4.3G free

RAM: 29% 71%
 (Total: 1024032kB) 731448kB free

■ Used Space ■ Free Space

Network Settings :
[Go to Network Setup](#)

Network Port 1	
IP Address:	192.168.1.100
Subnet:	255.255.255.0
Gateway:	192.168.1.1
MAC Address:	00:11:02:64:01:16
Network Port 2	
IP Address:	
Subnet:	
Gateway:	
MAC Address:	

IR Port Settings :

	Baud	Data Bits	Stop Bits
Port 1	9600	8	1
Port 2	9600	8	1
Port 3	9600	8	1
Port 4	9600	8	1

Serial Port Settings :
[Go to Serial Diagnostics](#)

	Baud	Data Bits	Parity	Stop Bits	Handshaking
Port 1	115200	8	NONE	1	0
Port 2	9600	8	NONE	1	0
Port 3	9600	8	NONE	1	0
Port 4	9600	8	NONE	1	0

Relay Port Settings :
[Go to Relay Diagnostics](#)

Port 1	ON
Port 2	OFF
Port 3	OFF
Port 4	OFF

DIO Port Settings :
[Go to DIO Diagnostics](#)

Port	Direction	State	Voltage	Digital
1	Direction output	low	10.00000 V	1023
2	Direction output	low	10.00000 V	1023
3	Direction output	low	10.00000 V	1023
4	Direction output	low	10.00000 V	1023

This page displays the current state and configuration of the RXC, including:

- Currently loaded firmware version
- Device serial number
- Current system time
- Used and free storage and RAM
- Network settings
- IR port settings
- Serial port settings
- Relay port settings
- DIO port settings

Serial Port Diagnostics

Diagnostics - Serial

SetupDiagnosticsFilesLogout

Serial Port: 1 Serial Port Setup

Serial Receive History:

StartStopClear

Serial Send History:

Clear

Send String: Send

Add ASCII characters using code. ASCII Chart

Hex (00-FF): Add

Decimal (0-255): Add

This page allows you to test the serial ports of the RXC. The “Serial Receive History” box displays any received serial data after clicking “Start”. Any data sent using the “Send String” field will show in the “Serial Send History” box. You can change which serial port they are viewing by selecting the appropriate port from the “Serial Port” drop down.

Serial over IR Diagnostics

Diagnostics - Serial Over IR

Setup	Diagnostics	Files	Logout
-------	-------------	-------	------------------------

IR Port: [IR Port Setup](#)

IR Send History:

Send String:

[Add ASCII characters using code.](#)

Hex (00-FF):

Decimal (0-255):

This page allows you to test transmitting serial over any of the IR ports. There is no way to receive data when using this feature.

Relay Diagnostics

Diagnostics - Relay

Setup Diagnostics Files Logout

Relay States:

Relay	On	Off
1	<input checked="" type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input checked="" type="radio"/>
3	<input type="radio"/>	<input checked="" type="radio"/>
4	<input type="radio"/>	<input checked="" type="radio"/>

Notes: The "On" setting energizes the relay. The "Off" setting deenergizes it.
This can either open or close your connection depending on whether you have wired the relay to be "normally open" or "normally closed".

This page allows you to manually trigger each relay in the RXC to confirm proper wiring. You can turn each relay "On" (closed) or "Off" (open) by selecting the appropriate radio button.

Digital I/O Diagnostics

Diagnostics - IO

[Setup](#) [Diagnostics](#) [Files](#) [Logout](#)

Control Outputs:

Port States:

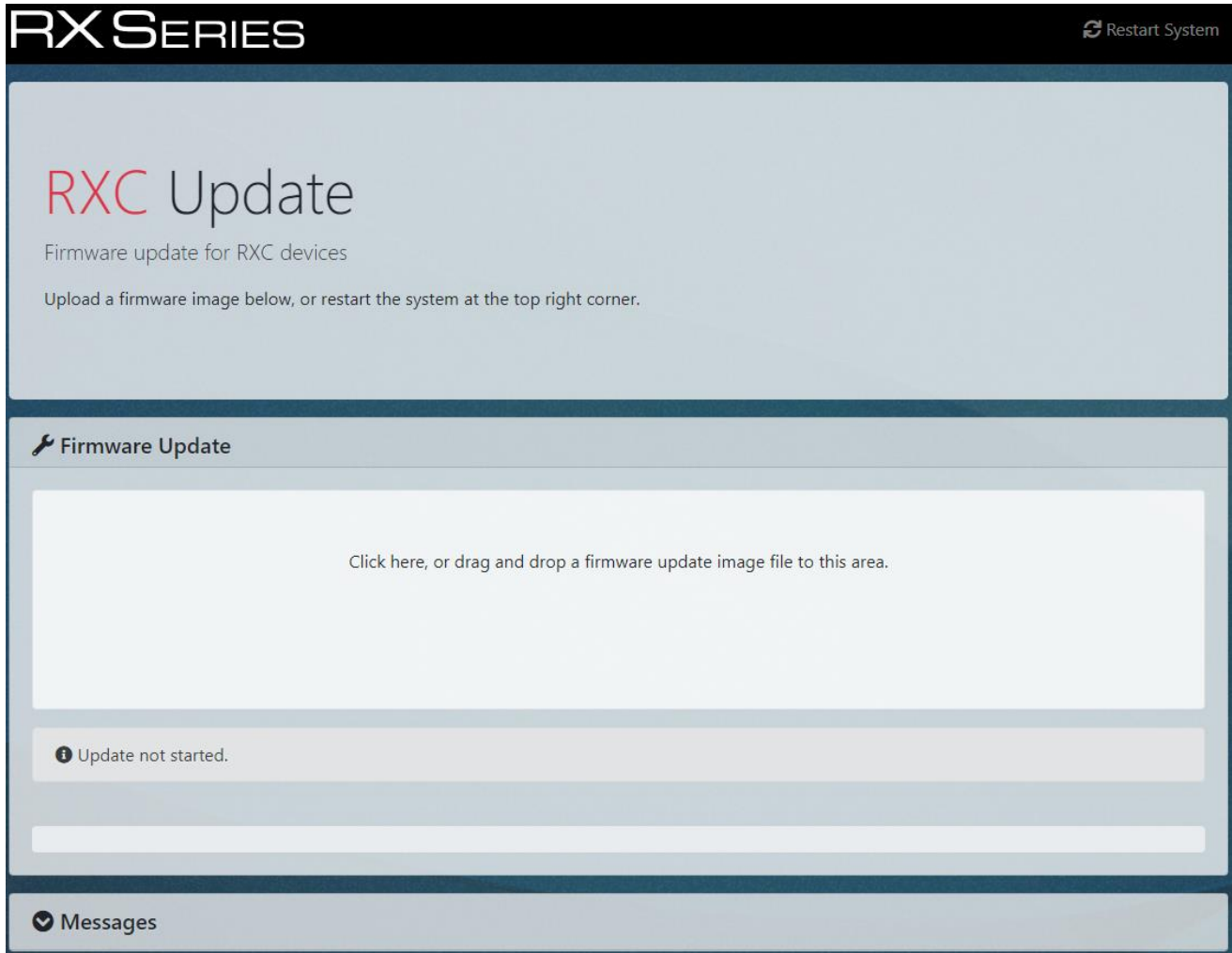
Port	Close	Open
1	<input type="radio"/>	<input checked="" type="radio"/>
2	<input type="radio"/>	<input checked="" type="radio"/>
3	<input type="radio"/>	<input checked="" type="radio"/>
4	<input type="radio"/>	<input checked="" type="radio"/>

Port	State
1	open
2	open
3	open
4	open

[Refresh](#)

This page allows you to observe the current state of each digital I/O port. You can toggle the state of each output by using the “Close” or “Open” radio buttons in the “Control Outputs” section.

Firmware Update



The screenshot shows a web interface for updating the firmware on an RXC device. At the top left, it says "RX SERIES". At the top right, there is a "Restart System" button with a circular arrow icon. The main heading is "RXC Update" in a large font, with "RXC" in red. Below the heading, it says "Firmware update for RXC devices" and "Upload a firmware image below, or restart the system at the top right corner." There is a large light blue rectangular area with the text "Click here, or drag and drop a firmware update image file to this area." Below this area, there is a status bar that says "Update not started." with an information icon. At the bottom, there is a "Messages" section with a checkmark icon.

This page allows you to update the firmware on your RXC. Instructions are provided with each new firmware release.

Files Tab

The “Files” tab details how to upload files to the RXC as well as erase all user files.

RXC File Transfer: Files are transferred to the RXC controller using FTP.

FTP (File Transfer Protocol) is a method of transferring files to a web server, such as the RXC. Most FTP clients allow a simple drag-and-drop interface for moving files between your computer, and the RXC. Core studio has an integrated FTP upload available for publishing directly to the RXC.

Windows Explorer is also capable of performing basic FTP transfers. While a full featured FTP client is suggested, you can use Windows Explorer to transfer by typing the following address in the address bar:

```
ftp://admin:password@192.168.1.100
```

Replace *password* with the appropriate information for your system.

For a full FTP client, we suggest FileZilla, which is a free and open source FTP client: <https://filezilla-project.org/>

```
Host: 192.168.1.100
Username: admin
Password: ****
Port: 21
```

Resetting the file system: If you are running out of disk space on the internal disk, or if you would like to set the RXC back to factory defaults, you can click the button below to erase all of the User FTP files.

WARNING: THIS OPERATION CANNOT BE REVERSED, BACK UP ALL FILES BEFORE PROCEEDING

ERASE ALL FILES

SOFTWARE

Core Studio Development Tool

A powerful control system needs powerful tools. Aurora's ReAX™ Core Studio is a professional grade software for creating graphical user interfaces (GUIs) and control logic code. The intuitive drag-and-drop interface allows for easy and flexible design, while enabling rapid duplication and reuse of code blocks. Control programs are published to any ReAX capable control system as a web page. Once loaded on the controller, the control page can be accessed from virtually any device with a web browser. A few examples include Aurora's RXT touch panels, tablets such as an iPad, smart phones, a PC browser, and many other devices. Furthermore, most devices (including those running iOS, Android, and Chrome browser, and others) can launch the Core Studio control pages as a full-screen web app, allowing for a seamless control experience without the need for a native app. Core Studio integrates all of the common control elements, such as buttons, various toggle elements, sliders, drop down menus, spin boxes, icons, and other design and graphical elements. In addition, advanced features such as live streaming video preview windows for Aurora's AV over IP devices can be included within your control page. And HTML iframes allow you to include content from the web, such as weather feeds, news feeds, stock tickers, or any other local or internet-based website content. While Core Studio is a ground-up remake of our existing YIPI and WOVE tools, it has a familiar interface that existing users will understand with little or no learning curve. The published code has been completely revamped though, making use of Node.js and other modern robust technologies for peak efficiency within the ReAX OS. Best of all - ReAX Core Studio is available for free. There is no purchase fee, no registration fee, and no certification fee. We offer training videos to get you started and webinar training for introductory or advanced training. Try out Core Studio with our RX series of controllers and touch panels today! Note: ReAX Core Studio is available free for download from our Customer Portal - <https://www.auroramultimedia.com/>

CONNECTOR PIN DEFINITION

CAT5e/6/6A

T568A and T568B Wiring

Pin	T568A Pair	T568B Pair	Wire	T568A Color	T568B Color	Pins on plug face (socket is reversed)
1	3	2	tip	white/green stripe	white/orange stripe	
2	3	2	ring	green solid	orange solid	
3	2	3	tip	white/orange stripe	white/green stripe	
4	1	1	ring	blue solid	blue solid	
5	1	1	tip	white/blue stripe	white/blue stripe	
6	2	3	ring	orange solid	green solid	
7	4	4	tip	white/brown stripe	white/brown stripe	
8	4	4	ring	brown solid	brown solid	

RS-232

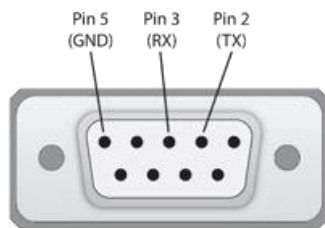
The RS-232 is a 3-pin Phoenix connector with Pin 1 as GND, Pin 2 as RX, and Pin 3 as TX. To simplify connections Aurora offers pre-molded RS-232 cables in null and none nulled in male and female DB9.

CA0052 Selection Guide

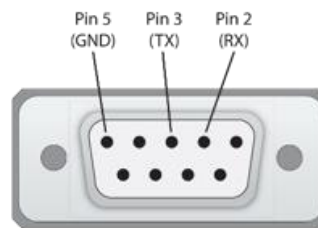
CA0052 (all versions) TRS Male



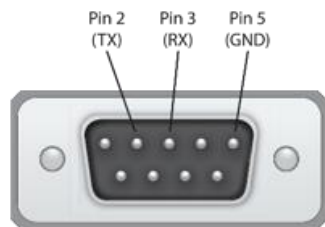
CA0052-F2T3R DB9 Female (Crossover)



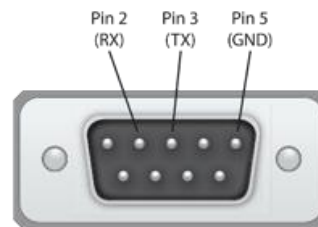
CA0052-F3T2R DB9 Female (Straight)



CA0052-M2T3R DB9 Male (Crossover)



CA0052-M3T2R DB9 Male (Straight)



IR (Infrared)

It will autosense a TS or a TRS connector to determine if an IR emitter (TS) or IR receiver (TRS) is inserted. The IR receiver must be with carrier inverted to work. The tip is signal, ring is 5V, and sleeve is ground.

CA0061-1 IR Emitter



APPENDIX 1

Troubleshooting

It is advisable to make certain all units are using the latest firmware before troubleshooting.

Problem	Solution
1. LED is not lit on any buttons	<ul style="list-style-type: none">a. Check 48V power supply is plugged in locally or if connected to a switch via PoE, make certain that the switch has power and is connected on a powered port.b. Check to see if wall power supply is plugged into wall outlet.c. Make certain that the wall outlet has power.
2. RS-232 does not work	<ul style="list-style-type: none">a. Check connection on RS-232 port. Make certain TX goes to RX and RX goes to TX of the device to be connected. Don't forget about ground.b. Check baud rate.c. Verify commands being sent are correct protocol.d. Each unit must have a unique address.
3. Some functions do not work	<ul style="list-style-type: none">a. Make certain unit has latest firmware.

APPENDIX 2

Firmware Update

For the latest firmware updates please go to: www.auroramm.com. You must be signed up to the Customer Portal in order to download firmware with instructions on how to update.

APPENDIX 3

Protocol

For the latest protocol please go to: www.auroramm.com. You must be signed up to the Customer Portal in order to download RXC protocol. The protocol is only available to authorized Aurora dealers.

APPENDIX 6

Technical Specifications

Model Name	RXC-1
Technical	
Processor	32-bit RISC / 900 MHz
Memory	1GB RAM / 1GB Flash
LAN	10/100 RJ-45 PoE
USB	None
RS-232 Baud Rate	Max 115kbps (Factory default is 9600)
RS-232 Connector Port	1 x 3 pin Phoenix Connector
Relay	2 x Normally Open Ports
IR Receiver	Front IR Learner Photo Diode 26KHz-60KHz
IR Out Port	2 x 3.5 mm TS
Digital I/O	2 x 3 pin Phoenix Connectors
Mechanical	
Housing	Aluminum
Dimensions	1.142H x 5.945W x 3.543D (29mm x 151mm x 90mm)
Weight	8.3oz
Mounting	Rack Options 1RU Single/Dual
Power supply	PoE or 48vdc
Power consumption	3 Watts [max]
Operation temperature	0~40°C [32~104°F]
Storage temperature	-20~60°C [-4~140°F]
Relative humidity	20~90% RH [no condensation]
Package Contents	
	1x RXC-1 & 2 Wall Mount Ears
Options	
	48v PoE Injector Supply (PS0081-1) 48V DC Power Supply for Stand-Alone Operation (PS0094-3)

Specifications subject to change without notice.

Model Name	RXC-3
Technical	
Processor	32-bit RISC / 900 MHz
Memory	1GB RAM / 1GB Flash
LAN	Two 10/100 RJ-45 (LAN 1 PoE)
USB	Two Type A USB 2.0 Front
RS-232 Baud Rate	Max 115kbps (Factory default is 9600)
RS-232 Connector Port	3 x 3 pin Phoenix Connector
Relay	2 x Normally Open Ports
IR Receiver	Front IR Learner Photo Diode 26KHz-60KHz
IR Out Port	3 x 3.5 mm TS
Digital I/O	2 x 3 pin Phoenix Connectors
Mechanical	
Housing	Aluminum
Dimensions	1.083H x 6.969W x 4.102D (27.5mm x 177mm x 104.2mm)
Weight	10.4oz
Mounting	Rack Options 1RU and 4RU
Power supply	PoE or 48vdc
Power consumption	3 Watts [max]
Operation temperature	0~40°C [32~104°F]
Storage temperature	-20~60°C [-4~140°F]
Relative humidity	20~90% RH [no condensation]
Package Contents	1x RXC-3 & 2 Wall Mount Ears
Options	48v PoE Injector Supply (PS0081-1) 48V DC Power Supply for Stand-Alone Operation (PS0094-3)

Specifications subject to change without notice.

Model Name	RXC-4
Technical	
Processor	32-bit RISC / 1GHz Quad Core
Memory	2GB RAM / 8GB Flash
LAN	Two 1G RJ-45 (LAN1 PoE)
USB	Type-A USB 2.0 Front
RS-232 Baud Rate	Max 115kbps (Factory default is 9600)
RS-232 Connector Port	5pin (Serial Port 1 RS-485 Selectable, Port 2 Hardware Handshaking) & 3 pin Phoenix Connector (Port 3 & 4)
Relay	4 x C-Type Ports
IR Out Port	4 x 3.5 mm TS
IR Receiver	Front IR Learner Photo Diode 26KHz-60KHz
Digital I/O	4 x 3 Pin Phoenix Connectors with A/D Capability
Audio	3.5mm TRS Line In/Line Out
Mechanical	
Housing	Aluminum
Dimensions	1.75" H x 8.5" W x 4.5" D (4.45cm x 21.59cm x 11.43cm)
Weight	17.8oz
Mounting	Rack Options Single 1RU and Dual 1RU
Power supply	PoE or 24vDC
Power consumption	3 Watts [max]
Operation temperature	0~40°C [32~104°F]
Storage temperature	-20~60°C [-4~140°F]
Relative humidity	20~90% RH [no condensation]
Package Contents	1x RXC-4
Options	48v PoE Injector Supply (PS0081-1) 48V DC Power Supply for Stand-Alone Operation (PS0094-3)

Specifications subject to change without notice.

APPENDIX 7

Warranty

Limited 5 Year Warranty

Aurora Multimedia Corporation ("Manufacturer") warrants that this product is free of defects in both materials and workmanship for a period of 5 years as defined herein for parts and labor from date of purchase. This Limited Warranty covers products purchased in the year of 2019 and after. Motorized mechanical parts (Hard Drives, DVD, etc.), mechanical parts (buttons, doors, etc.), remotes and cables are covered for a period of 1 year. Touch screen displays are covered for 1 year; touch screen overlay components are covered for 90 days. Supplied batteries are not covered by this warranty. During the warranty period, and upon proof of purchase, the product will be repaired or replaced (with same or similar model) at our option without charge for parts or labor for the specified product lifetime warranty period.

This warranty shall not apply if any of the following:

- A. The product has been damaged by negligence, accident, lightning, water, act-of-God or mishandling; or,
- B. The product has not been operated in accordance with procedures specified in operating instructions; or,
- C. The product has been repaired and or altered by other than manufacturer or authorized service center; or,
- D. The product's original serial number has been modified or removed; or,
- E. External equipment other than supplied by manufacturer, in determination of manufacturer, shall have affected the performance, safety or reliability of the product; or,
- F. Part(s) are no longer available for product.

In the event that the product needs repair or replacement during the specified warranty period, product should be shipped back to Manufacturer at Purchaser's expense. Repaired or replaced product shall be returned to Purchaser by standard shipping methods at Manufacturer's discretion. Express shipping will be at the expense of the Purchaser. If Purchaser resides outside the contiguous US, return shipping shall be at Purchaser's expense.

No other warranty, express or implied other than Manufacturer's shall apply.

Manufacturer does not assume any responsibility for consequential damages, expenses or loss of revenue or property, inconvenience or interruption in operation experienced by the customer due to a malfunction of the purchased equipment. No warranty service performed on any product shall extend the applicable warranty period. This warranty does not cover damage to the equipment during shipping and Manufacturer assumes no responsibility for such damage. This product warranty extends to the original purchaser only and will be null and void upon any assignment or transfer.

Aurora Multimedia Corp.

205 Commercial Court | Morganville, NJ 07751

Phone: 732-591-5800 | Fax: 732-591-6801