Manuals+ — User Manuals Simplified.

RIoT System App

rfsolutions RIoT System App User Guide

Contents

rfsolutions RIoT System App

Product Usage Instructions

- Before proceeding with the installation, operation, or maintenance of the RF Solutions product, carefully read the safety information provided:
- This radio system should not be used in areas where there is a risk of explosion.
- Only qualified personnel should access the transmitter and operate the equipment.
- Always follow the operating instructions and all applicable safety procedures and requirements.
- Comply with age requirements in your country for equipment use.
- Keep in a safe place and ensure a clear view of the work area before use.
- Do not open the receiver housing unless qualified to do so.
- Disconnect all electrical power from the equipment before maintenance.
- Regularly inspect the housing and cable for damage; do not use if signs of damage are present.
- If the battery emits an unusual smell, feels hot, changes color, changes shape or appears abnormal in any way, take the following precautions:
- Isolate the power supply before removing the cover and observe all relevant safety information.
- Ensure electrical safety by complying with the following:
- Disconnect all electrical power from the equipment and adhere to relevant safety information before removing the cover.
- You need a Smartphone/Tablet or Smart device connected to your local Wi-Fi.
- Download and run the RIoT System App.
- RIOT-RX System Status: The WHITE LED provides status information:

Control RIoT Systems via Wi-Fi using RIoT System App

Follow this procedure to:

- Configure RIoT System from your Smart Device.
- Configure optional Events / Functions and Features

Configuring RIoT System to Wi-Fi

Safety Information

- Carefully read the following safety information before proceeding with the installation, operation, or maintenance of RF Solutions product. Failure to follow these warnings could result in death or serious injury

- This radio system must not be used in areas where there is a risk of explosion.
- Only qualified personnel should be permitted to access the transmitter and operate the equipment.
- Always follow operating information as well as all applicable safety procedures and requirements.
- You must satisfy the age requirements in your country for operating the equipment.
- Store in a safe place.
- Keep a clear view of the work area at all times before using, and check it is safe to do so
- Before maintenance intervention on any remote-controlled equipment
- Do not open the receiver enclosure unless you are qualified.
- Disconnect all electrical power from the equipment.
- Check the enclosure and cable for damage regularly, do not use if there is evidence of damage.

Battery Precautions

- Risk of explosion if the battery is replaced with a battery of an incorrect type.
- Do not short-circuit, disassemble, deform or heat batteries.
- Never attempt to charge a visibly damaged or frozen battery.
- Do not use or charge the battery if it appears to be leaking, deformed or damaged in any way.
- Immediately discontinue use of the battery if, while using, charging, or storing the battery, the battery emits an unusual smell, feels hot, changes color, changes shape or appears abnormal in any other way.

Electrical Safety
ISOLATE the mains electricity supply before removing the cover and observe any relevant safety information.

- Maintenance to the product that involves removal of the cover should only be carried out by a competent person or qualified electrician.
- Ensure adequate protection on the Load circuit
- Refer to Product Datasheet for MAX Operating Load.
- Product must be installed in accordance with the local country's electrical regulations.
- A current limiting supply must be used under the datasheet
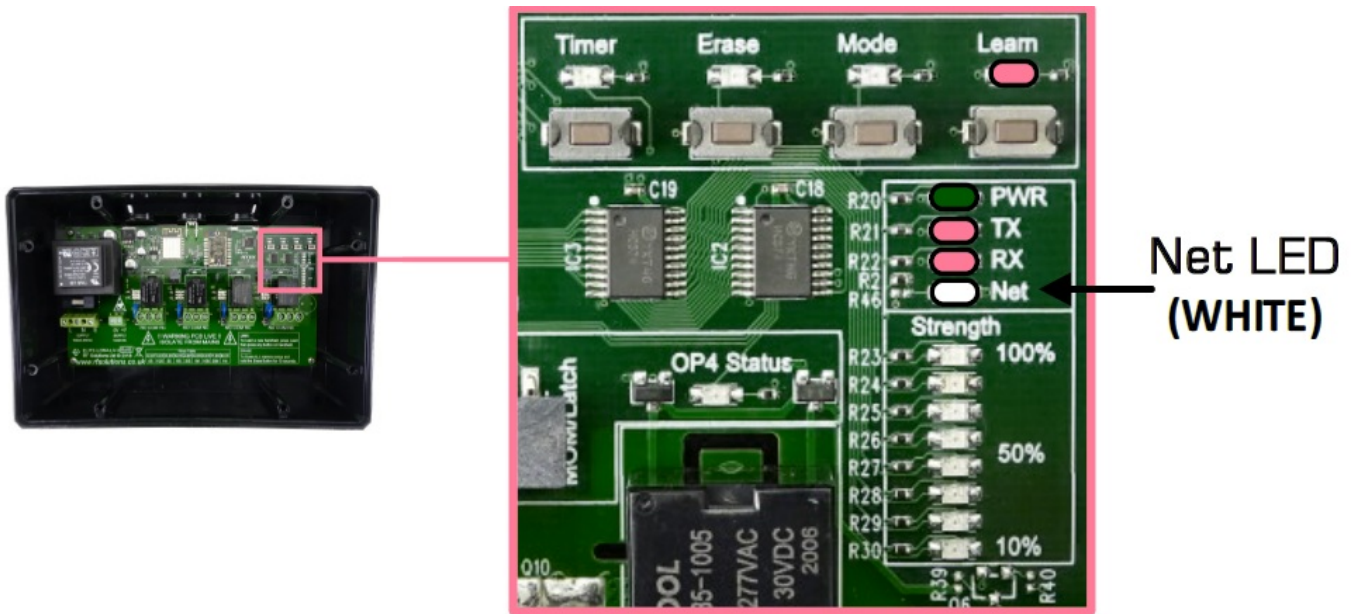
Setup Procedure: Before you Start

- You need a Smartphone / Tablet or Smart device connected to your local Wi-Fi

- Download and run the RIoT System App

- RIOT-RX System Status: The WHITE LED provides status information.

Net LED (WHITE)

Flashing 4x: Not Connected to the internet
Flashing 2x: In Setup Mode
ON: Connected to the internet

Follow these steps to Get your RIOT-RX started

Section	Description
1	Configure the RIoT Receiver System to your local Wi-Fi
2	Getting to Know the RIOT-SYSTEM APP

Optional Advanced Features

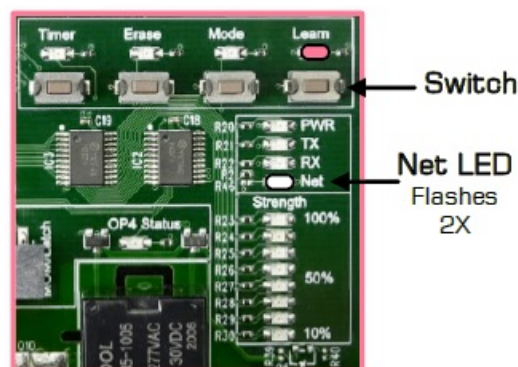| Stage	Description
3	Event Timers Configure outputs to automatically operate.
4	Additional Features / Information Copy your App setup to another Smart device User Controlling Multiple RIoT Receivers from the App App Setup Menu Descriptions Configuring Encryption Application Circuit Drawing Wi-Fi Factory Reset

Configuring RIoT System to Wi-Fi

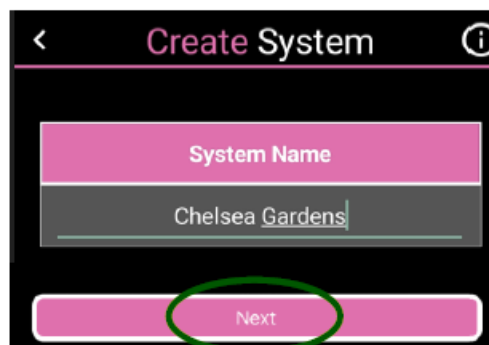1. Run the RIoT System App (Note: you must allow device location)

2. Press "+"

3. Enter a System Name for this RIoT System.
4. Apply Power to the RIoT System.
5. Press and hold the LEARN button on the PCB until the LEARN LED is ON continuously. (takes ~5 seconds & the NET LED Flashes 2X)
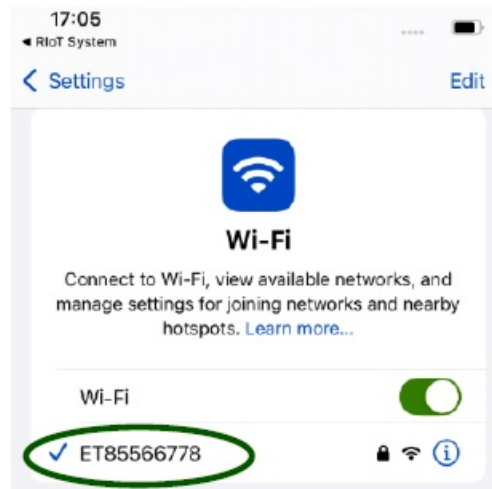

6. On your IOS device, Click "Next".

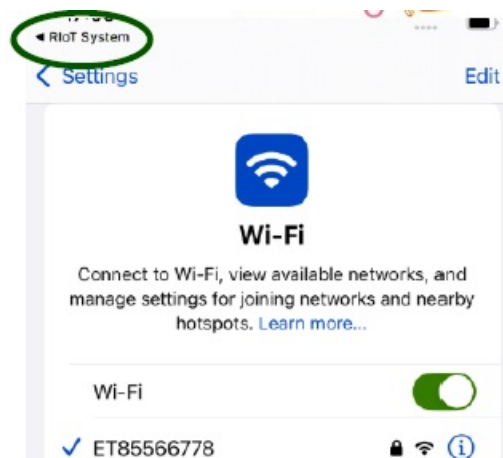7. This will take you to your IOS system settings. Go to your Wi-Fi settings and search for your RIoT System device code. Once found, select this device.
   Example: ET12345678
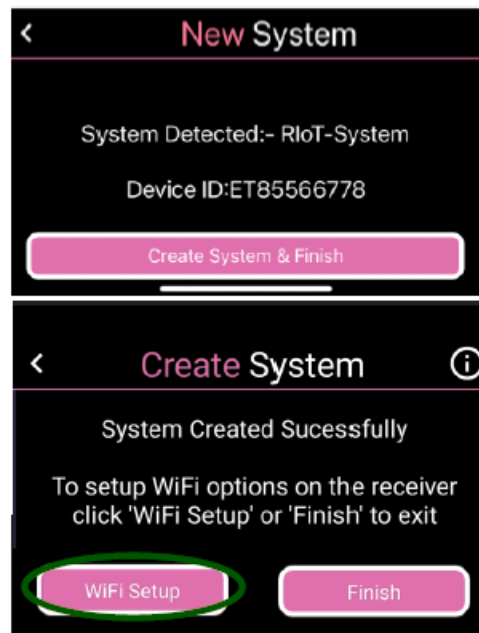   IOS may request a password for this device.
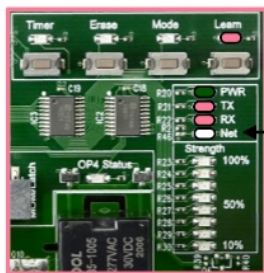
If so, enter: 0123456789

8. Once selected, then select 'RIoT System' in the top left corner of your device which will return you to the RIoT System app.

9. Select 'Create System & Finish'.

10. Select Wi-Fi setup.
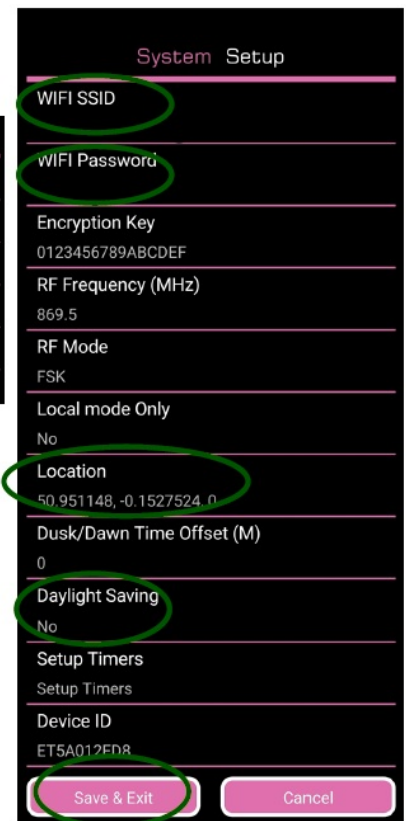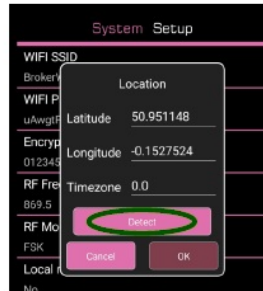11. Enter your local Wi-Fi SSID &, Password.

The WHITE LED provides status information.

Net LED (WHITE)

Flashing 4x: Not Connected to the internet

Flashing 2x: In Setup Mode

ON: Connected to the internet

12. Select "Location"

Select "Detect". After you will see "Location Found". Click on "OK".

You may also Click "Daylight Saving"

13. Press 'Save & Exit'

RIoT Receiver will reboot, and connect directly to your

local Wi-Fi (allow up to 30 seconds).

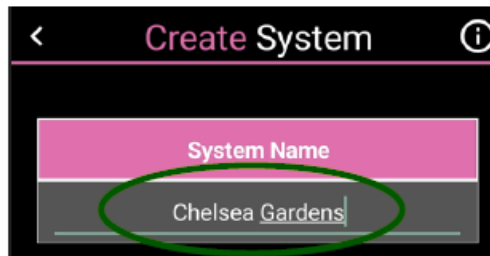| Stage 1	Configure RIoT System to your to local Wi-Fi
	ANDROID version

1. Run the RIOT System App
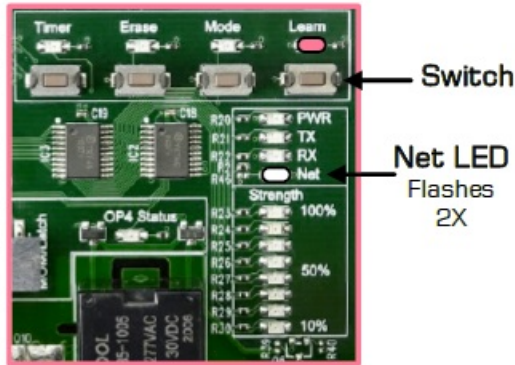
(Note: You must allow device location)

2. Press "+"

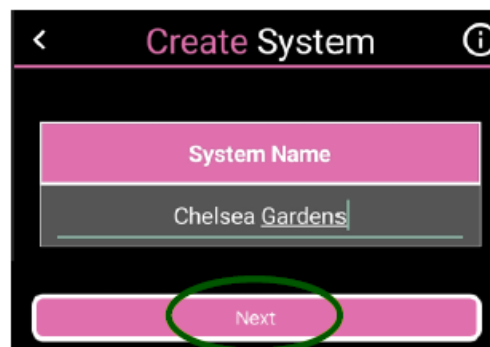3. Enter a System Name for this RIoT System.
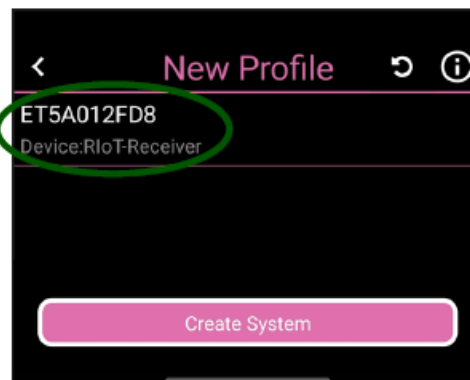
4. Apply Power to the RIoT System.
5. Press and hold the LEARN button on the PCB until the LEARN LED is ON continuously. (takes ~5 seconds & the NET LED Flashes 2X)

6. On your Android device, Click "Next".

7. Select your System device code. Example: ET123456789
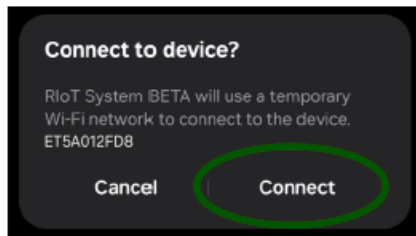

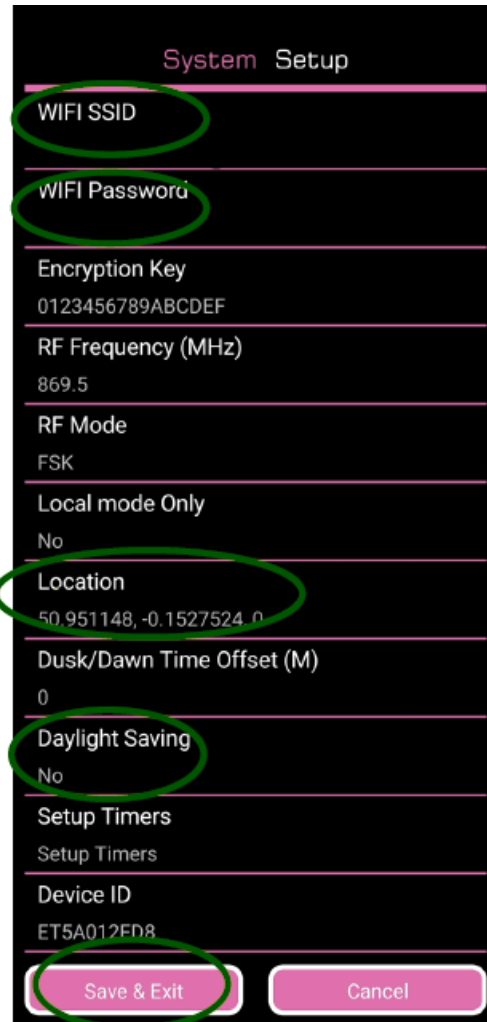8. Select 'Create System & Finish'.

9. Click on "WiFi Setup".
10. Then, connect to the device.

11. Enter your local Wi-Fi SSID &, Password.
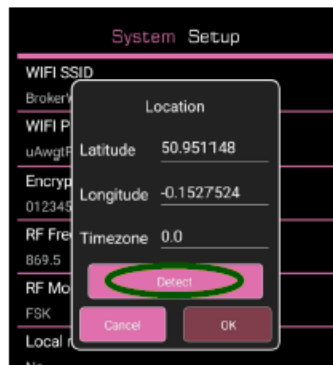
12. Select "Location", then "Detect".

13. After you will see "Location Found".

    Click on "OK".

    You may also require:

    "Daylight Saving".

14. Press 'Save & Exit'

    RIoT Receiver will reboot, and connect directly to your local Wi-Fi (allow up to 30 seconds).

The WHITE LED provides status information.
Flashing 4x: Not Connected to the internet
Flashing 2x: In Setup Mode
ON: Connected to the internet

Net LED (WHITE)

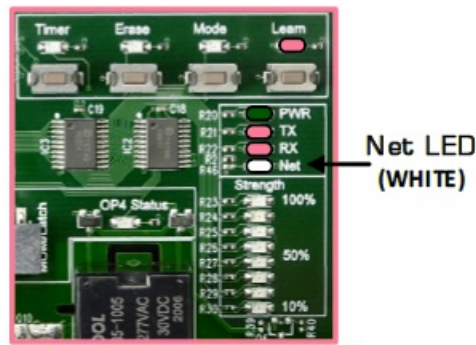| 2	Getting to Know the RIOT SYSTEM APP

RIoT System Operation

- This App provides a ready-to-go handset as below;
- Pressing the buttons operates the Receiver output relays.

Click this to Update the RIOT-RX Outputs Status

Online Service
- = Service OK
- = No RX Connection
- = No Internet

RIOT-RX Output Status
- = Output Activated
- = Output Relaxed

RIOT-RX Output Control

RIoT-RX System Name
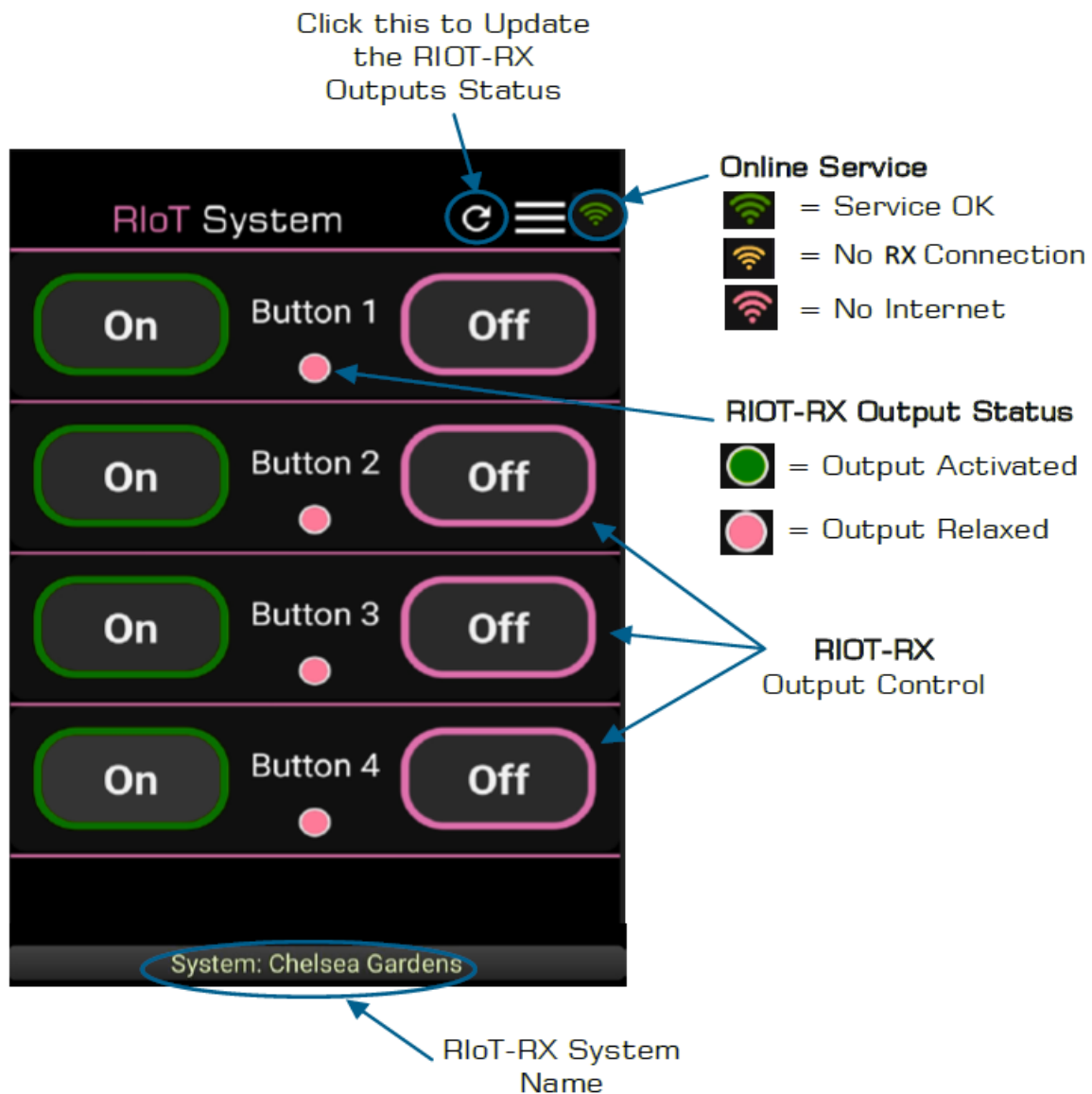
Create Custom Buttons / **Monitor** / **Control**
Customize your App to create custom remote control

- Add custom Button Names
- Set as On/Off, All On/Off, Timed or Mood Outputs
- Change Screen Layout from Preset Buttons
- Monitor all outputs Status
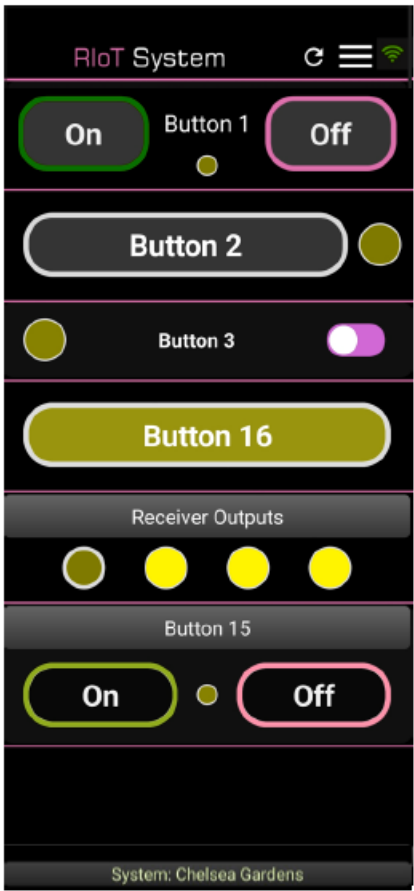
Control Type Description

- On/Off: The receiver output circuit will switch on/off
- All On/Off: All Receiver output circuits will switch on/off
- Timed: The receiver output circuit will switch on for a preset time, then switch off.
- Mood: Turns on/off a selected combination of output circuits.
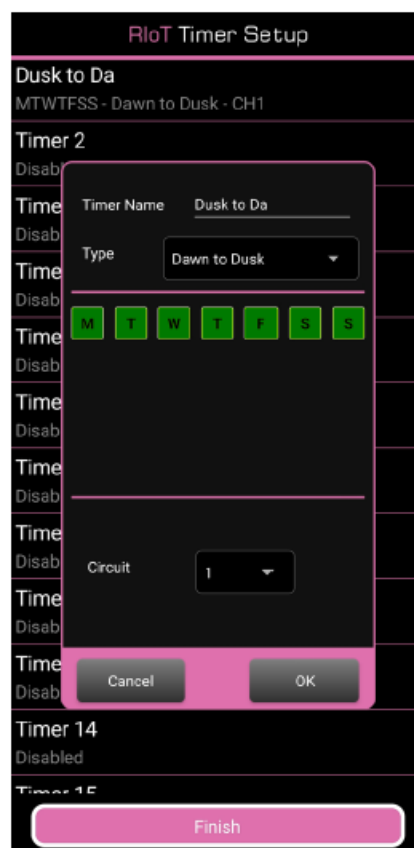
3	Event Timers

- RIoT System can be programmed to automatically switch its output circuits based on an event. Up to 16 Timers can be set based on the following:

Time Events	Dusk Events	Dawn Events
Time ON to Time OFF	Dusk to Dawn	Dawn to Dusk
ON for a set Time	Dusk to Time OFF	Dawn to Time OFF
	Dusk Timer	Dawn Timer

Note: Your smart device must be connected to the same Wi-Fi as RIoT–RX.
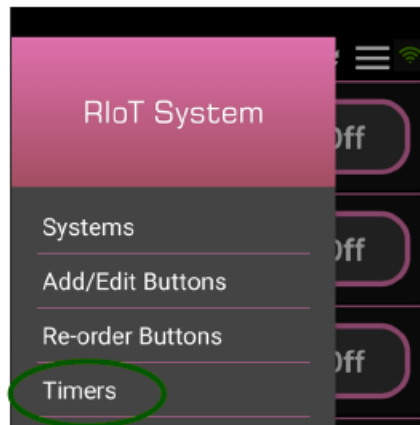
1. Goto Menu, then Timers.
2. Click on a Timer.
3. Follow the procedure on the screen to setup the Event Timer type, circuit, days, output channel etc…
4. When completed Click "OK".
5. Repeat for your chosen Events.
6. "Finish" to Save to the RIoT Receiver.

Dusk / Dawn Offset (Advanced Option)

- This optional feature adds a time offset to an Event timer so that it operates before, or after, the actual time of Dawn or Dusk
- You can enter a positive or negative offset number. (In minutes)
- The effect is shown below

Examples,

- Adding an offset of +10 causes:
- "Dusk" events to trigger 10 mins before the actual time of Dusk
- "Dawn" events to trigger 10 mins after the actual time of Dawn

Adding an offset of -10 causes:

- "Dusk" events to trigger 10 mins after the actual time of Dusk
- "Dawn" events to trigger 10 mins before the actual time of Dawn.

4	**Additional Features / Information**

Copy your App setup to another Smart device

Use this feature to copy the RIoT System APP setup to another Smart Device. This creates a copy of the App on the receiving Smart Device.
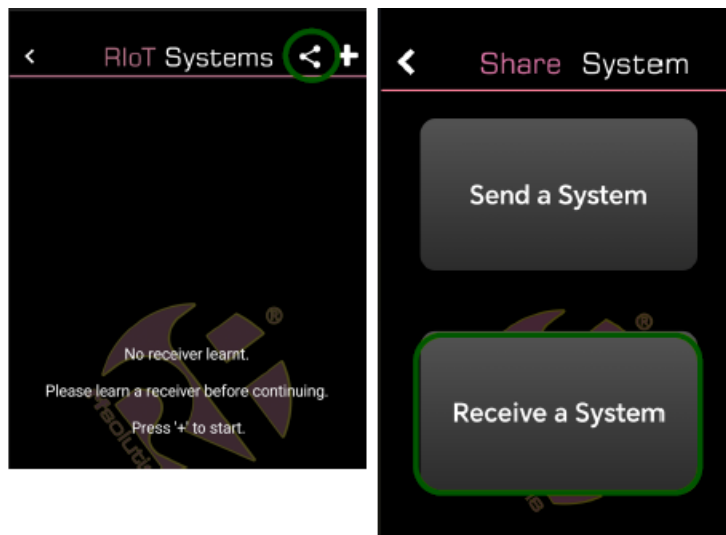**(NOTE:** This can be from any Android to Apple to Android)

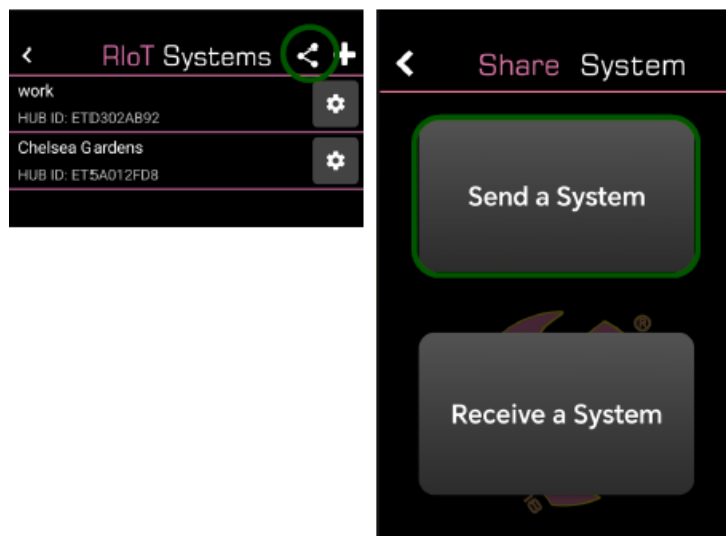- On The recipient Smart Device download the RIoT System App

1. Click on the Share Icon,

2. Click on "Receive a System"

On the sending Smart Device

1. Goto Menu, then Systems
2. Click on the Share Icon
3. Follow the On-screen Instructions

Control Many RIoT Systems from one App

- RIoT System App can control Multiple RIOT-RX Receivers.
- Each RIOT-RX is set as a "System".
- For Example, the user may have;
- A RIoT–RX in multiple locations, with each RIoT-RX named as a separate "Profile":
  - System Chelsea
  - System Knightsbridge
  - System Wembley
- Systems can be can managed under the App Menu, then "Systems".
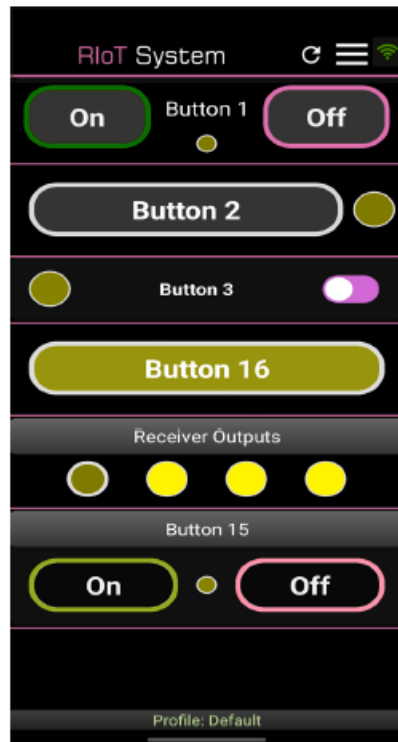
App Setup Menu Descriptions

- There are various user setting from the Menu/App Setup which are described below:

Keep App Awake
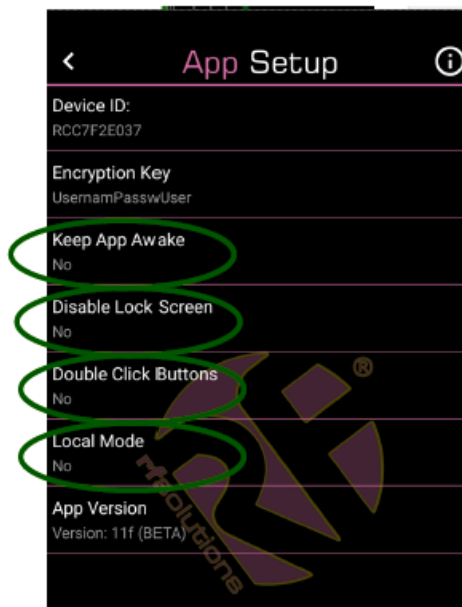
- This keeps the app displayed on your screen at all times. Any changes to the output circuits (from other transmitters) are shown in real-time.

Disable Lock Screen

- The App screen auto locks after 1 min, requiring the user to "swipe to unlock"
- This prevents the App from auto-locking the screen locking

Double Click Buttons

- Requires the user to double-click when pressing a button, to help prevent accidental touch operation

Local Mode

- This restricts the operation of the RIoT Receiver to smart devices that are connected to the same local Wi-Fi as the RIoT Receiver.

Configuring Encryption

- Data sent between a smart device and the RIoT-RX uses an Encryption key.
- Default key is: 0123456789ABCDEF
- This can be customised in the RIOT-RX and the RIoT System APP to any 16 digit string.
- The encryption keys must match for the system to work!

To Set the Encryption Key within the RIoT Receiver
Firstly ensure your smart device is on the same Wi-Fi as the RIoT Receiver.

1. Goto Menu \ Systems
2. Click on the Settings icon
3. On the RIoT System, press and hold the LEARN button until the red LEARN LED stays ON. (takes ~5 seconds),
4. Release the LEARN Button.
5. The NET LED will Flash 2X. RIoT System is now in Setup Mode.
6. Update the encryption key as required and "Save"
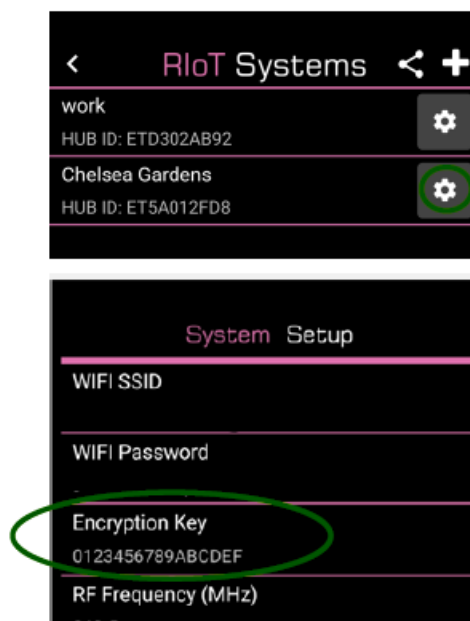
To Set the Encryption Key within the App

1. Select Menu, then 'App Setup

2. Update the encryption key as required and "Save"
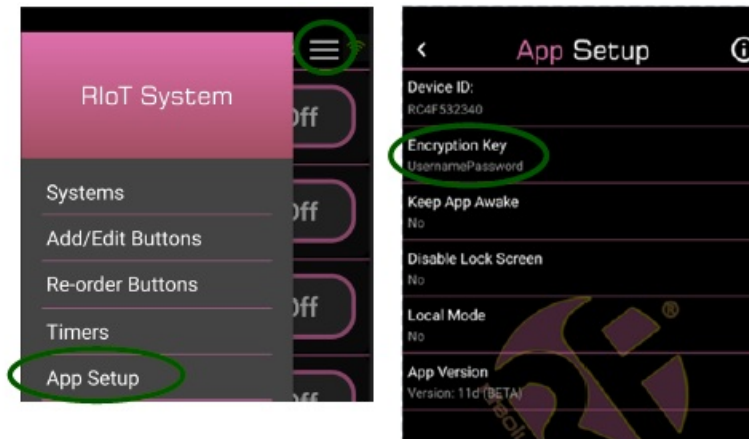
Stage 6	Additional Information / Features

Application Drawing – Switching a Light
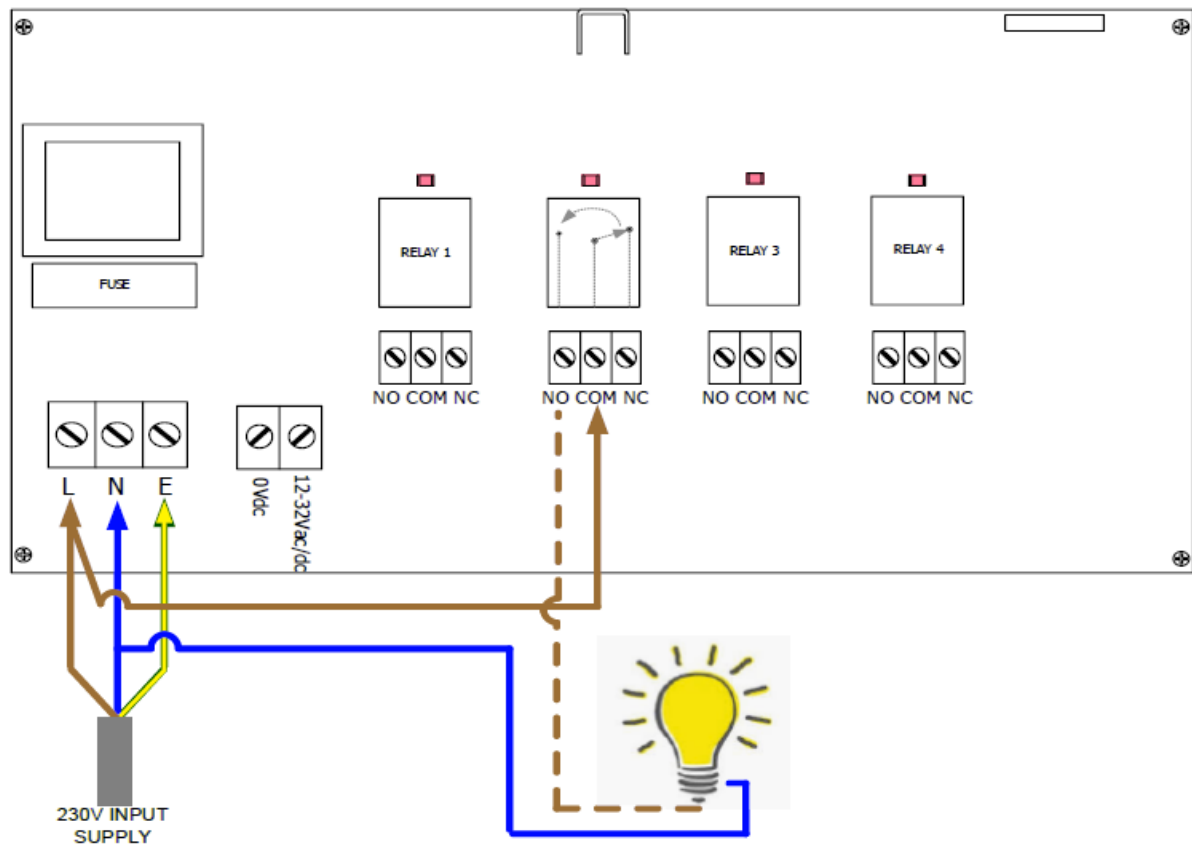
Wi-Fi Factory Reset

1. Remove Power from the Receiver
2. Press and hold the ERASE button, then apply power.
3. Continue holding the ERASE Button until the Erase LED illuminates (~10sec)
4. Release the ERASE Button.

All Wi-Fi settings are erased. Event timers and paired RF transmitters are not erased.

PTSI Statement of Compliance

United Kingdom
Statutory Instruments 2023 No. 1007 Consumer Protection

We, RF Solutions Ltd, as manufacturer hereby declare that the below mentioned products in this document are in conformance with the applicable security requirements in schedule 1 of the Product Security and Telecommunications infrastructure (security requirements for relevant connectable products) regulations 2023

Product Type	RioT System
Model(s)	RioT-RX-8R4
UK Defined Support Period	2 Years from date of manufacture
Manufacturers Name	RF Solutions Ltd
Manufacturers Address	William Way, Burgess Hill, RH15 9AG

This statement of compliance is prepared by or on behalf of the manufacturer of the product

Name	J Fairall
Position	Director
Signature	J-Fairall
Place	Burgess Hill
Date	4/2/24
Schedule 1 Paragraph1	Passwords
Schedule 1 Paragraph2	Information on how to report Security Issues: Please contact RF Solutions Support Team Tel +44 1444 227909 Email support@rfsolutions.co.uk
Schedule 1 Paragraph3	Information on minimum Security update periods

Please note that this statement of compliance including defined support period stated herein, is only applicable to products sold in the United Kingdom

PTSI Statement of Compliance-1

Simplified Declaration of Conformity (RED)

- Hereby, RF Solutions Limited declares that the radio equipment type defined within this document is in compliance with Directive 2014/53/EU.
- The full text of the EU Declaration of Conformity is available at the following internet address: **www.rfsolutions.co.uk**

For any Queries regarding Compliance please email our European Authorised Representative:

- Address: Suite 10258, 77 Sir John Rogerson's Quay, Dublin 2, D02 F540, Ireland.
- Website: **www.tcfs-europe.com**
- Email: **rfsolutions@tcfs-europe.com**

RF Solutions Ltd. Recycling Notice

- Meets the following EC Directives:

- DO NOT Discard with normal waste, please recycle.
- ROHS Directive 2011/65/EU and amendment 2015/863/EU
- Specifies certain limits for hazardous substances.
- WEEE Directive 2012/19/EU
- Waste electrical & electronic equipment. This product must be disposed of through a licensed WEEE collection point. RF Solutions Ltd., fulfils its WEEE obligations by the membership of an approved compliance scheme.

Waste Batteries and Accumulators

- Directive 2006/66/EC
- Where batteries are fitted, before recycling the prod-uct, the batteries must be removed and disposed of at a licensed collection point.

Disclaimer:
Whilst the information in this document is believed to be correct at the time of issue, RF Solutions Ltd does not accept any liability whatsoever for its accuracy, adequacy or completeness. No express or implied warranty or representation is given relating to the information contained in this document. RF Solutions Ltd reserves the right to make changes and improvements to the product(s) described herein without notice. Buyers and other users should determine for themselves the suitability of any such information or products for their own particular requirements or specification(s). RF Solutions Ltd shall not be liable for any loss or damage caused as a result of user's own determination of how to deploy or use RF Solutions Ltd's products. Use of RF Solutions Ltd products or components in life support and/or safety applications is not authorized except with express written approval. No licenses are created, implicitly or otherwise, under any of RF Solutions Ltd's intellectual property rights. Liability for loss or damage resulting or caused by reliance on the information contained herein or from the use of the product (including liability resulting from negligence or where RF Solutions Ltd was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict RF Solutions Ltd's liability for death or personal injury resulting from its negligence.

CONTACT

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- Sales: +44 (0)1444 227900
- Support: +44 (0)1444 227909
- **www.rfsolutions.co.uk**

FAQ

- **Q: What should I do if my battery emits an unusual smell?**
  - **A:** If your battery emits an unusual smell, immediately isolate the power supply and observe all relevant safety information.
- **Q: How can I check if the RIoT System is connected to the internet?**
  - **A:** Check the status of the WHITE LED – if it is ON, then the RIoT System is connected to the internet.

Documents / Resources
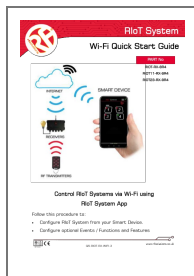
rfsolutions RIoT System App [pdf] User Guide
RIOT-RX-8R4, RIOT11-RX-9R4, RIOT23-RX-9R4, RIOT-RX-8R4 RIoT System App, RIOT-RX-8 R4, RIoT System App, System App, App

References

- **User Manual**