

RA-Bridge User Manual

For an overview of Bridges: "[Bridge Application Sheet](#)"



For programming a wireless system: "[Wireless Module Programming Guide](#)" / "[Wireless RAK Programming guide](#)"

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[1 Functions of the RA-Bridge](#)

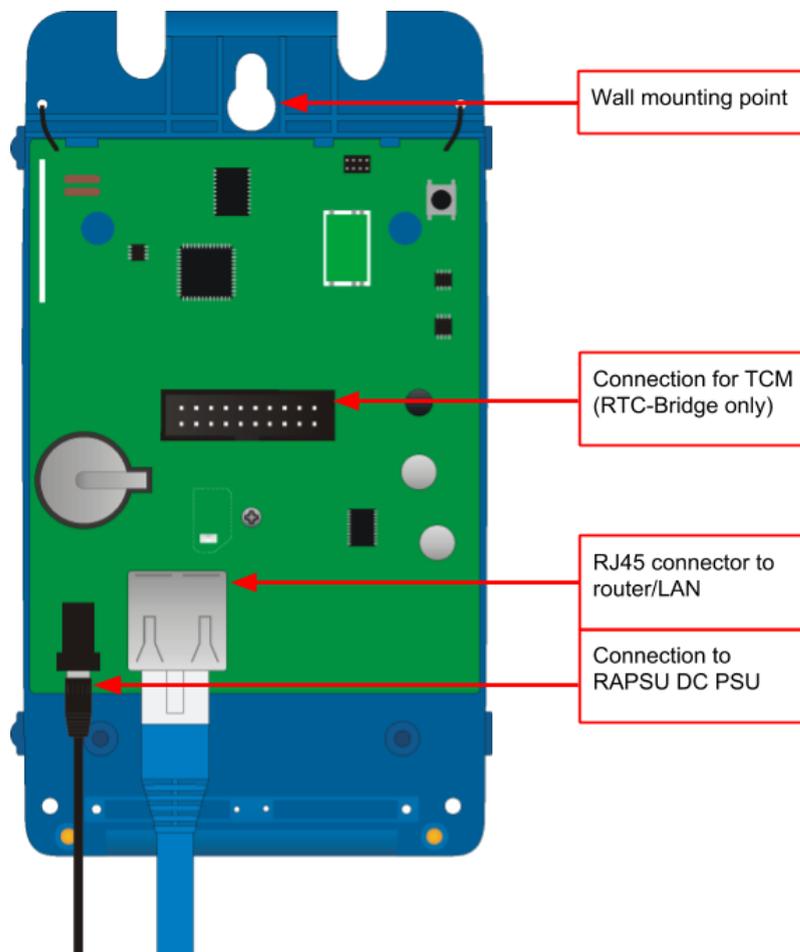
RA-Bridge will add the following features to a Rako wireless system:

- **Ethernet interface:** Including App. control via mobile devices, system programming via PC/Mac and 3rd Party integration over IP.
- **Storing Project file information:** Room, Channel and Scene information can be uploaded to and stored.

Bridge functionality table:

	RA	WA	RTC	WTC
App/Software	✓	✓	✓	✓
Project file storage	✓	✓	✓	✓
Wired-Wireless		✓		✓
Mapping			✓	✓
Macros			✓	✓
Events			✓	✓
Holiday Mode			✓	✓

2 Installing the RA-Bridge



- **Step 1:** Loosen the two screws and the bottom of the casing and remove lid.
- **Step 2:** Plug the power supply provided into the RA-Bridge and an available 13A socket.
- **Step 3:** Plug the Ethernet patch cable from the RA-Bridge to a spare port in a router or network switch.
- **Step 4:** Mount the Bridge to a wall using fixing point at top of case if desired.
- **Step 5:** Replace lid to complete installation.

3 Discovering the Bridge and Setting the House Number

Before proceeding with any programming the Bridge needs to be discovered and the House number set.

3.1 Discovering the Bridge

Open Rasoft Pro programming software. Ensure that the laptop is connected to the same network as the Bridge.

The Bridge should appear in the “Communication” window in the bottom right of the software with a red stop sign. If it does not appear press the “Refresh”.



3.2 To set the Bridge House number

The Bridge always has a **default House Number of 1**. Before beginning any programming using the Bridge it is important to first set the House number to match the one used when creating the Project File. Failure to do so may result in interference with other systems.

- **Step 1:** Right click on the Bridge in the communications window in the bottom right of the software. Select “Open in Browser” to open the Bridge webpages.

Press
“Configuration”

Username: “admin”
Password: “microchip”

- **Step 2:** Click “configuration” and enter the username and password.
- **Step 3:** Fill in the “Wireless House Address” to match the project file

Set “Wireless House Address” to match Project File. So change from 1 to 92

CAUTION: Incorrect settings may cause the bridge to lose network connectivity. Recovery options will be provided on the next page.

Enter the new settings for the bridge below:

MAC Address: 00:1E:C0:9A:A8:1B
 Host Name: RAKOBRIDGE
 Wireless House Address: 1
 UID: 1
 Bridge Address: 1000
 Bridge Channel: 1
 Password: microchip

Disable Wireless
 Wireless Rate Mode (Disable Fade Rate Info)
 Wireless Booster Mode (Disable RAB100)
 Wireless Link Mode (Link bridges via Wireless)
 Enable EtherBridge (connect Bridges by Ethernet)
 Disable Auto Detect (Hide from smartphone)
 Require smartphone Password Requires iPhone V2.5.0/Android V1.1
 Require Web Password
 Enable DST (Summer time)
 Auto Adjust DST (EU Countries)

Room List

example(House Number: 92)
 living room [Rm: 9]
 kitchen [Rm: 13]
 hall [Rm: 17]

Project File House number can be found in the software at the top of the Room List

- **Step 4:** Scroll down and press “Save config” to upload the new House Number to the Bridge.

The Bridge is now ready to be connected. Do this by double clicking on the Bridge as below.

Double click to connect

WARNING

If a pop up box appears with a warning about the House number click “**Cancel**”. This means there is a conflict between the “**Project File House Number**” and “**Bridge House Number**”.

Do not continue programming. Return to Step 1 of this section and resolve the conflict before continuing.

3.3 If you cannot connect to the Bridge

If the software cannot connect to the Bridge first restart the software and ensure that it is fully updated. If the Bridge still does not appear it is most likely a networking issue. If this problem cannot be solved then the Bridge can be connected to point to point using a standard ethernet cable.

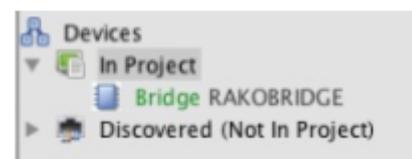
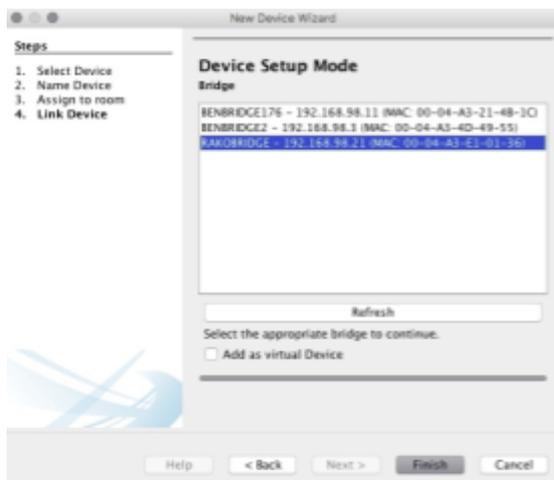
NB

By default the Bridge is connected via DHCP, this and other network settings can be edited via the Bridge webpages. It is possible to clear all network settings from a Bridge. Please call Rako technical support for information on how to do this.

4 Adding the Bridge as a device

Once the Bridge has been successfully connected it will need to be added into the software as a device.

- Select “File”- “New Device” to open the new device wizard. Choose “Bridge” as the device to be added.
- Select “Next” on the “Assign to Room”. No room or channel needs to be associated to the Bridge.
- Select the Bridge from the list, it will appear if you are successfully connected in the communications window. Click “Refresh” if it does not appear.



- The Bridge should now appear in the device list with Green text and a blue icon. The device is now assigned.
- Press the “Update Now” button in the centre of the screen to complete setup. If this does not appear, click on the Bridge in the device list.

[5 Uploading the project file](#)

Once all programming has been completed the project file should be uploaded to the Bridge. The Bridge stores the Room, Channel and Scene information for the system. This information is required for the App. to operate correctly.

The “Smartphone/Web Data” tab is used to upload the Project File to the Bridge. Once selected it will open the page as below. Press “**Save & Upload Room Data To Bridge**” to upload.

Note: Sorting the Room columns will affect the smartphone order

Rooms:

ID	Enabled	Title	Type	Mode
13	<input checked="" type="checkbox"/>	Hall	Switch	4 Scenes + Off
21	<input checked="" type="checkbox"/>	Kitchen	Blinds	4 Scenes + Off
29	<input checked="" type="checkbox"/>	Study	Lights	7 Scenes + Off
37	<input checked="" type="checkbox"/>	living room	Lights	4 Scenes + Off
45	<input checked="" type="checkbox"/>	Master bed	Lights	4 Scenes + Off
0	<input checked="" type="checkbox"/>		Lights	4 Scenes + Off

Channels:

ID	Enabled	Title	Type
1	<input checked="" type="checkbox"/>	Spots	
2	<input checked="" type="checkbox"/>	Wall lights	
3	<input checked="" type="checkbox"/>	Pendant	
4	<input checked="" type="checkbox"/>	Channel 4	
5	<input checked="" type="checkbox"/>	Channel 5	
6	<input checked="" type="checkbox"/>	Channel 6	
7	<input checked="" type="checkbox"/>	Channel 7	
8	<input checked="" type="checkbox"/>	Channel 8	
9	<input checked="" type="checkbox"/>	Channel 9	

Scenes:

ID	Enabled	Title
1	<input checked="" type="checkbox"/>	Scene 1
2	<input checked="" type="checkbox"/>	Scene 2
3	<input checked="" type="checkbox"/>	Scene 3
4	<input checked="" type="checkbox"/>	Scene 4

Save & Upload Room Data To Bridge

Type - This will change the appearance of the icon used at the top of the room screen on the App. It will also affect the keypad that appears. For example a room set to “switch” type will show two buttons: “on” and “off” whereas a “blind” type room will show three buttons: “open”, “stop” and “close”.

Mode - The mode of the room is only set when “lighting” is selected as the type. It will set the variety of “keypad” that will appear in the App. Typically it is best to make this match the physically keypad in the room.

NB

- 1) If a number of scenes that is not 4, 7 or 16 is desired then “named scenes” should be selected. Give custom names to the scenes in the room editor and any number of scenes can be made to appear on the App.
- 2) While the order of the rooms can be changed from this screen the order of the channels is always fixed. To get channels in a specific order they must be addressed or mapped in this order.

[6 Downloading the project file](#)

If information has been uploaded to the Bridge then it is possible to import the Room, Channel and Scene data into a blank project file. This is useful when working on an installation with a new project file.

The tab used for downloading information from the Bridge is called “**Room Import**” select it to open the page below.

Bridge Data Recovery (Use if you don't have the project file)

1. Read data from Bridge

2. Refresh List

3. Check suggestions are correct

▼ Rooms

- ▶ Hall (id:13, type:Switch)
- KItchen (id:21, type:Blinds)
- ▶ Study (id:29, type:Lights)
- living room (id:37, type:Lights)
- Master bed (id:45, type:Lights)
- master (id:0, type:Lights)

4. Import into Project

5. Refresh Levels

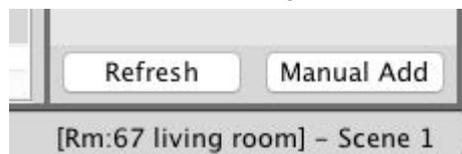
- **Step 1:** Press the “Download Data” at the top of this page. This will open the data for preview on this page.
- **Step 2:** Press “Refresh List” if the rooms do not appear. If they still do not appear then there is nothing to be downloaded from the Bridge.
- **Step 3:** Press “Import Data” to write the Room and Channel information in to the Project File.
- **Step 4:** Press “Refresh Channel Levels” to write the Scene data in to the Project File.

7 UDP Feedback

It is possible to monitor commands received and transmitted by the Bridge. This can be done using the UDP Feedback feature.

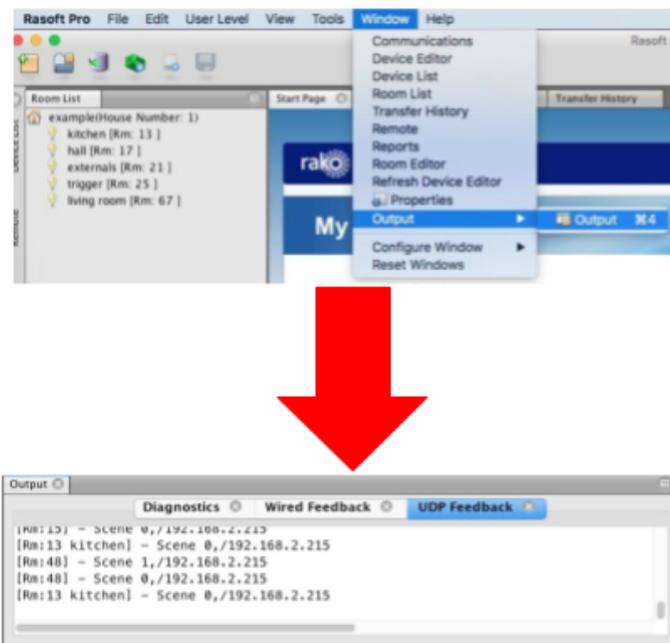
7.1 Live feedback

In the very bottom right of the software (below the communications window) is the Live feedback section. Each command received or transmitted by the Bridge will appear here and it is useful for checking commands have been programmed as desired.



7.2 UDP feedback log

When more detailed or long term feedback is required then a log of commands received/transmitted by the Bridge can be opened. In the toolbar select "Window" - "Output" - "Output" (as shown below).



8 Performing a Firmware upgrade

To ensure continued access to all features of the Bridge it is advised that it is updated with the latest firmware if possible. This requires an active internet connection.

Upgrade		<input type="button" value="Refresh"/>
Firmware		Update Available
Current Version		2.3.0
Available Version		2.3.2
<input checked="" type="checkbox"/> Perform Update		
<input type="checkbox"/> Custom Firmware		
Webpages		
Current Version	2.4.2	
Available Version	2.4.2	
<input type="checkbox"/> Perform Update		
<input type="button" value="Update All"/>		

Click “Refresh” to see if updates are available. Select “Update All” if updates are available to perform a firmware upgrade on the Bridge.

Rako thanks you for having purchased a Rako product and hopes that you are pleased with your system. Should for any reason you need to contact us please contact us via our website www.rakocontrols.com or by phoning our customer help line on 01634 226666.

