Rako RAVIR Installation, Programming and Operating Instructions

General

The Rako RAVIR is an Infra-red to RF interface designed to convert standard RC5 infra red signals to Rakom RF. The unit allows use of generally available IR transmitter devices to select lighting scenes on a Rako system. The RAVIR is fitted with an internal receiver but can also be used with an external IR receiver head allowing the unit to be positioned in a discrete location. The RAVIR requires the use of an external power supply

Before commencing installation of a Rako module please read this instruction manual carefully. Rako Controls Ltd accepts no responsibility for damage or injury caused by incorrect installation of a Rako product.

Mounting

Rako modules should be mounted in areas that are adequately ventilated, dry and outside of any enclosed metal casings that may interfere with the wireless signal. Wherever possible the mounting bracket should be used.

Whilst Rako modules are designed to be completely maintenance free the units should be mounted in an accessible location should there be a fault or re-addressing of the unit be necessary (see 'Set-up and Addressing')

Connections

Connect the RAVIR module according to the wiring diagram overleaf. Note the unit is designed to be fed from a 9V or 12V DC power supply.

Set-Up and Addressing

RAVIR modules can be programmed manually or by using RASOFT programming software. The module needs to be addressed as a channel (preferably one not used by lighting modules) in the same Room as the lighting to be controlled. When programming from RASOFT it is possible to control up to 4 Rooms from one RAVIR, in which case the module should be addressed to a channel in the first Room to be controlled. To address a RAVIR using Rasoft refer to the appropriate programming guide supplied as a PDF with the programming interface (RA or RTC-Bridge etc.) or download from our website: www.rakocontrols.com.

Manual Addressing from Wallplate or Handheld

To manually address a RAVIR follow the Initial Addressing of a Rako Receiver Module overleaf.
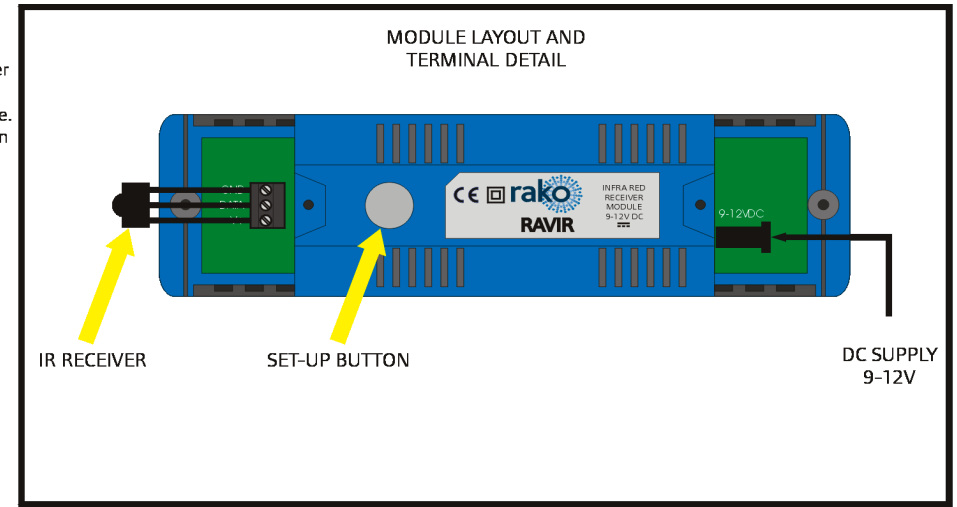
Configuring the RAVIR to match IR transmitters

The default address of the RAVIR is RC5 Base address 5 (VCR1) controlling a single Room. If any other setting is required the set-up requires setting in Rasoft Pro (or original Rasoft). From Rasoft Pro once the unit is addressed (see Set-up and Addressing) right click the device from within the Room Editor page and click Goto RAVIR (Infrared Module). Click the Infrared Set-up tab and a menu will appear allowing the selection of different RC5 base addresses as well as the option allowing the RAVIR to control 2 or 4 Rooms with either a single or 4 Room increment. Note: the first Room will always be the Room to which the RAVIR has been addressed. Should the user require the Hex Codes for devices such as a Phillips Pronto then click the check box 'pronto codes' and the codes will appear in a new window.

Care and Maintenance

A Rako module contains no user serviceable parts. 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.

Initial Addressing of a Rako Receiver Module

In the following procedure both the controllers (wallpanels and hand held remotes) and the receivers have an automatic time out after approximately 3 minutes when in programming or set-up mode. This feature avoids the possibility of either being left permanently in programming or set-up mode. This may cause confusion if either the controller or receiver times out before the procedure is complete. It is worth becoming familiar with the procedures before starting the addressing procedure. If at any time it is necessary to start again the controllers can be returned to normal mode by pressing the 'Off' button and the receivers by resetting the electrical supply.

MODULE LAYOUT AND TERMINAL DETAIL

IR RECEIVER   SET-UP BUTTON   DC SUPPLY 9-12V

Step 1

Set address switches on controller

Pick a House address from 1-255 (keep same address for all panels in house)
Select Room addresses from 1-255 for each room (Room 0 is master house control)

Step 2

Put controller into programming mode by pressing and holding a scene button and both raise and lower buttons together. After 5 seconds the LED on the panel starts to flash. The panel is now in programming mode. Release the buttons

TIP
Press the scene button first

TABLE 1

Button	Action
1	Step up one channel and ident
2	Step down one channel and ident
3	Ident
4	No action
Off	Exit programming

NO

Is the controller still in programming mode (LED flashing)

YES

If some receivers are already addressed to a the wall panel then they will 'flash' their connected lamps as their channel number is reached during the stepping procedure, this allows the user to 'identify' which channel numbers are already taken. To add a new receiver to an existing installation step up through the channels until a channel number is reached where no receiver flashes a load, this is then an available channel. If at any point there is uncertainty as to whether a receiver actually flashed its load then button 3 will flash the load but without stepping up or down a channel. If all of the loads flash then this indicates that the current address is Channel 0.

Note: If it is not possible to see the connected lamps flashing when stepping through the channels it is possible to tell from the LEDs in the receivers which will momentarily go solid when their channel address is reached.

Note:
A Rako panel will always enter programming mode at Channel 0. It is not possible to give a receiver an address of Channel 0 but this gives a consistent starting point.

Note:
When in programming mode the buttons have functions as detailed in table 1.

Step 3

Press button 1 once to step up one channel.
If this is the desired channel i.e. Channel 1 (for the 1st receiver) then go to Step 4. If not, press button 1 again to step up to channel 2 (for the 2nd receiver), again to step to channel 3 etc, until the desired channel number is reached (maximum = 15). It is this channel number (along with the House and Room address) that is sent to the receiver in Step 5. If at any point it is necessary to step down a channel, press button 2 once.

Go to the receiver to be addressed

Step 4

Press the set-up button until the internal LED illuminates and keep the button pressed with the LED on until it starts to flash.
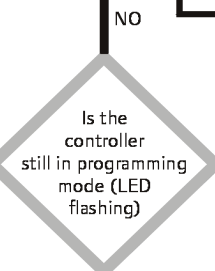Release the button.
The module is now in set-up mode.
Note:
If a receiver is already addressed to a controller (for example a receiver is addressed to the controller but with the wrong channel number) then the internal LED will be flashing as soon as the panel is put into programming mode. It will still be possible to re-address this receiver as normal.

YES

Is there another receiver in the room to be addressed

NO

Step 5

Press button 3 to send the ident of the channel selected in step 3. Receiver automatically returns to normal mode (blue LED goes out) while controller remains in programming mode (red LED keeps flashing)

Step 6

Press Off button to exit controller from programming mode