Rako RAK-4F Instruction Manual

Before Attempting To Program A System Refer To One Of The Following Documents :

RAK4 Wireless System Setup Guide (Systems Controlled By An RxLink)

Wired System Programming Guide (Systems Controlled By A RAKLink)

These Guides Are Saved In PDF Format On The CD Distributed With A RAKO Programming Device (RAUSB/RAHSmart/Bridge)

Overview

The Rako RAK-4 system is designed for use as a single 4 channel dimmer pack or to be joined together create a 'stack' of up to a maximum or 4 RAKs when used with the wireless RxLink interface or 8 RAKs when using the wired RAKLink interface. The dimming outputs can be used with 0-10v, DALI or DSI lamp ballasts

Whether forming a single 4 channel rack or multiples each assembly requires to be connected to an Rx Link receiver (wireless operation) or RAKLink (wired network). RAK-4 systems can also be used seamlessly in conjunction with Rako's module range of dimmers.

Each RAK-4 has a maximum capacity of 10A box load and the supply to each should be protected by an MCB with a current capacity of no more than 10A.

Each of the 4 circuits in a RAK-4 has a maximum capacity of 1200w (5A).

Before commencing installation of a Rako dimmer module first read this instruction manual carefully.

Rako Controls Ltd accepts no responsibility for any damage or injury caused by incorrect installation of a Rako product.

Installation should only be carried out by a qualified electrician.

Always install RAK-4 units in a well ventilated room, with a minimum clearance of 50mm on the sides in the correct orientation i.e. vents top and bottom.
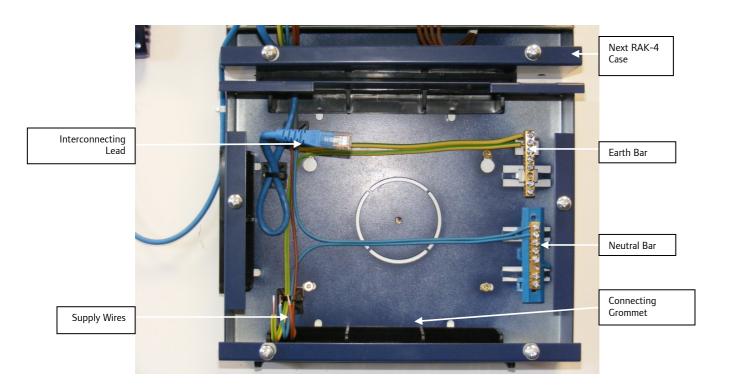
Warning: Each RAK-4 unit must be earthed.

Installation

Step 1 - Secure Case to wall or secure mounting position. The RAK-4 system relies on being vertically mounted to allow the ventilation system to work properly.

Step 2 - If multiple RAK-4s are to be joined to form a larger 'stack' mount and join the other cases to join the original case using the connecting grommets (see Fig.1) cutting away enough plastic to allow cable access.

Step 3 - Bring a separate 10A MCB protected supply to each RAK-4 case. Connect the Earth and Neutral supply to the appropriate connector block and leave the Live ready to connect to the circuit board. Bring a feed from both the Earth and Neutral bars ready to connect to the circuit board (see Fig.1) Also feed the load Lives and prepare ready for connection to the circuit board and connect the load Neutral and Earths to the appropriate connector block.

Step 4 - Secure the circuit boards into position using the two fixing screws supplied and connect the Supply (LN&E) and the Live feeds to the loads.

Step 5 - On multiple assemblies of RAK-4s link the circuit boards using the interconnecting leads supplied, plugging them into the IN/OUT RJ45 sockets, ensuring that the cable guides are used to avoid the data cable from touching the heat sinks. The system interface (RxLink for wireless, or RAKLink for wired networks) should then plug into one of the remaining IN/OUT sockets.

Step 6 – Fit Lid

Fig. 1

Fig. 2

Data Connection (Showing RxLink Connected)

RxLink Message Indication LED

Address Switch

Power indication LED

Channel indication LEDs

Circuit Board

ac input

Switched ac output connections

0-10V, DALI, DSI Dimming outputs

0-10V, DALI, DSI Operation

Each channel of Rak-4F can be configured for either 0-10V, DALI or DSI operation. Default factory setting is 0-10V.

Change mode of operation by using **RASOFT software (version 1.8.6 or later) as follows:**

1. Start Rasoft and check that it is communicating correctly with the RAK-4F
2. Click on *Diagnostic* in the Help Menu
3. In the Command Line Interface type *RAK4*
4. In the RAK4F Mode window, select the required mode of operation

Specifications

Dimensions	253 x 192 x 102mm (w x h x d)
Supply	200-230VAC +/- 10% 50-60Hz 10A Type C MCB protected supply per RAK-4
Output	10A total over the 4 channels (5A max per single channel load)
Protection	10A fuse for whole box 5A fuse each ac output Voltage surge protection
Minimum Load	20W (per channel)
Terminal sizes	$4mm^2$
Standards	EMC-EN 5001-1:1992 Immunity-EN 50082-1:1997 Data
Communication	Rakom coded FM radio
Memory	Flash memory (non volatile)
In the Box	Housing x 1 Circuit board and mounting plate x 1 Interconnecting lead x 1

For more information contact Rako Controls Ltd 01634 226666 www.rakocontrols.com