

RAK-LINK Instruction Manual



What is the RAK-LINK?

The RAK-LINK is a required element of any wired system.

The RAK-LINK powers the wired network and also provides a link between the keypads and RAK dimmers.

Up to 32 RAK circuits can be used per RAK-LINK. These 32 circuits can be designated in any combination of RAK8s and RAK4s.

The RAK-LINK supports up to approximately 40 wired devices in a typical installation of 1000m of data cable.

[For a more exact calculations of power requirements please refer to “RAK-LINK diagnostics” application sheet.](#)

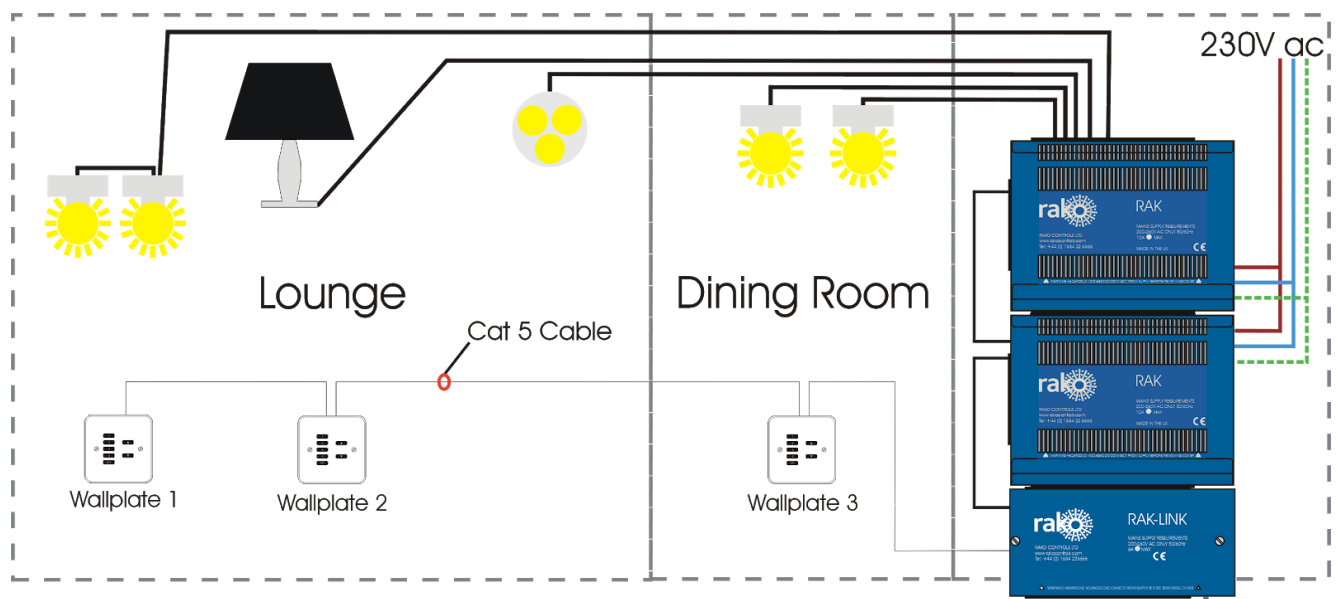


Figure 1: A typical small wired installation

Installation of the RAK-LINK

The connections to the RAK-LINK, as shown in figure 2, are:

- 1) Mains AC connection to power supply
- 2) RJ45 patch lead to RAK stacks
- 3) Krome connector punchdowns and RJ11 sockets to wired network

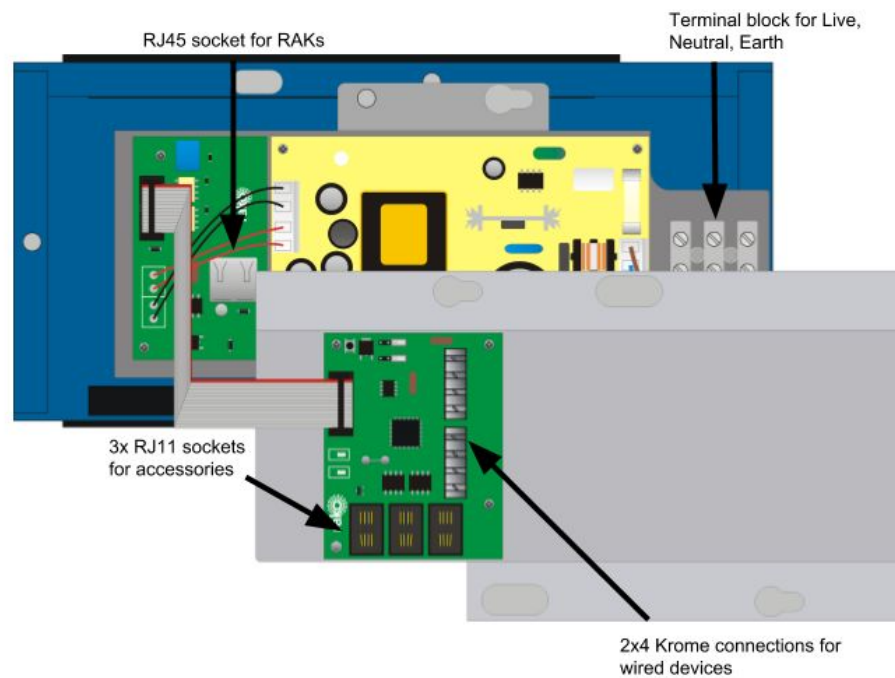


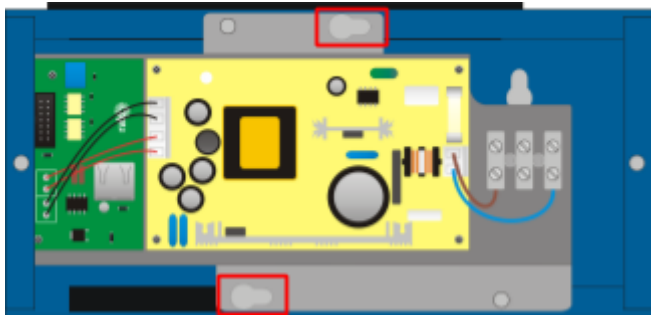
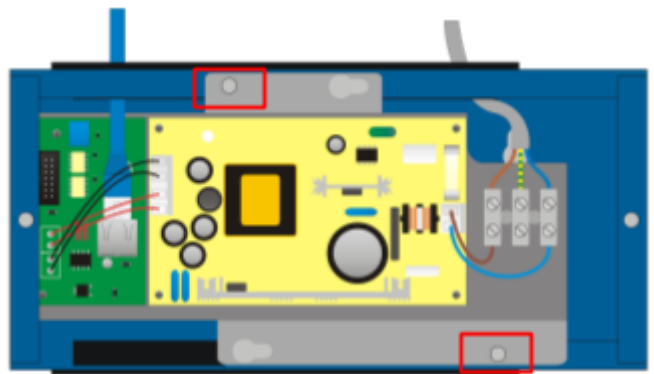
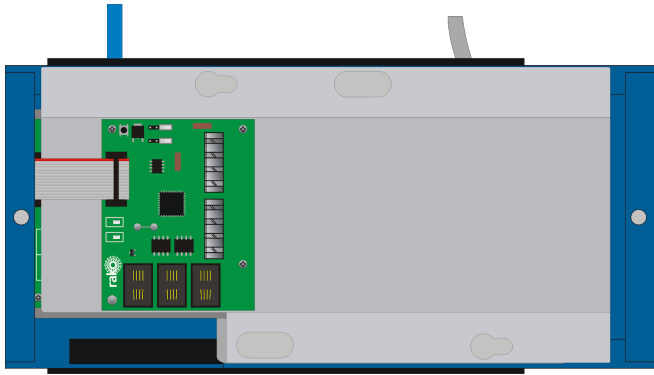
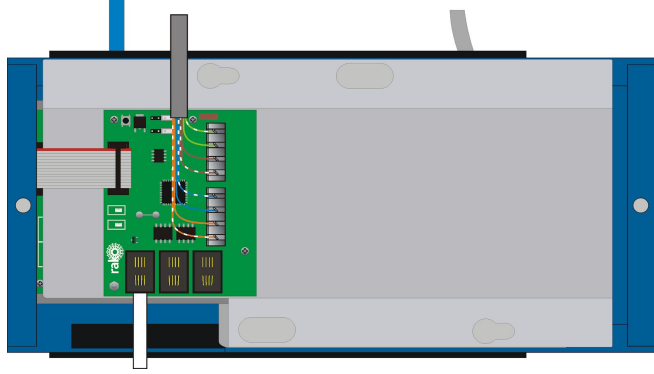


Figure 2: Connection used on RAK-LINK

Step 1		<p>Remove lid</p> <p>Remove plastic knockouts to allow cables to pass in and out of RAK-LINK.</p>
Step 2		<p>Slot the RAK-LINK housing in to the RAK metal work</p> <p>Screw RAK-LINK to wall and prepare AC supply cable</p>

<p>Step 3</p>		<p>Remove the top tray by disconnecting the ribbon cable and screws</p> <p>Fix the lower tray into the wall mounted metal housing using the screws indicated in the diagram.</p>
<p>Step 4</p>		<p>Wire the mains supply in to the terminal block.</p> <p>Insert the RJ45 cable that links the RAK-LINK to a stack of RAKs</p> <p>Prepare two remaining screws to be slotted into top tray</p>
<p>Step 5</p>		<p>Reattach the ribbon cable between the top and bottom board</p> <p>Slot the top tray in to the bottom tray and screw down</p>
<p>Step 6</p>		<p>Punchdown CAT5 to wired network to complete installation.</p> <p>If required plug devices (for example Bridges) in to the RJ11 ports</p>

Terminating the RAK-LINK

The final step in the installation process is to terminate the RAK-LINK. The termination that is required depends on the nature of the installation and the position of the RAK-LINK within it.

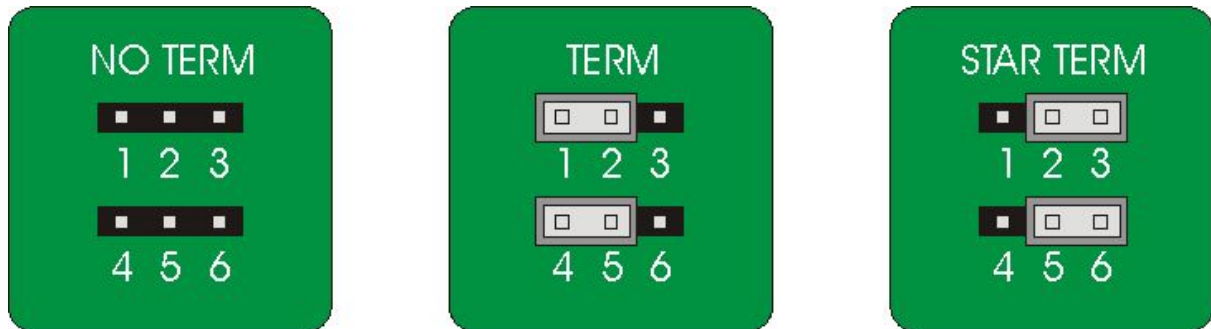


Figure 3 - Terminations jumper settings

No Term - Both Jumpers removed

Used when the RAK-LINK is not at the end of line. This is usually identifiable by two cables being punched down to the RAK-LINK.

Term - Jumper fitted across 1+2 & 4+5

Used when the RAK-LINK is end of line in a daisy chain configuration (such as the RAK-LINK shown in Figure 1)

Star Term - Jumper fitted across 2+3 & 5+6

Used when the RAK-LINK is end of line in a STAR wire configuration.

[See Wired application sheet for more information on the different types of wired installation.](#)

Programming the RAK-LINK

The RAK-LINK is programmed using the Rasoft pro programming software. A WA/WTC-Bridge is required for all programming of a wired system.

[For more information on how to programme a RAK-LINK please refer to “Wired System Setup Guide”](#)