



Guidelines – How To Wire SRH Modules

NOTE:

This document mainly provides guidance on wiring in relation to mains (domestic electricity supply) switching applications for this module. The guidelines are based on UK electrical fittings and UK electrical regulations. Installers in other countries will recognise similar basic principles but must consult and adapt to their own regulations

© IDRATEK LTD
w: www.idratek.com

The information in this document is provided for guidance only. IDRATEK Ltd reserve the right to make any necessary changes, without notice, in order to improve the quality of their products.

Choice of UK pattress

It is recommended that a single UK style pattress box of 35mm or deeper is used. The one illustrated on the left has lugs top and bottom as well as left and right. Although these do not have to be removed it is preferable to do so, or alternately use one which has lugs only on the left and right. If possible a 45mm deep pattress should be used for the mains socket to make wiring much easier.



Pattress with 4 fixing lugs



Ideal 2 lug pattress

The SRH Module

The SRH module has a single relay rated at 13A but is fitted with an integral fuse limiting the unit to 10A. This must only be replaced with the same type and rating of fuses which are available from IDRATEK. The SRH module is shown below, with an isolating shroud that separates the mains and low voltage.



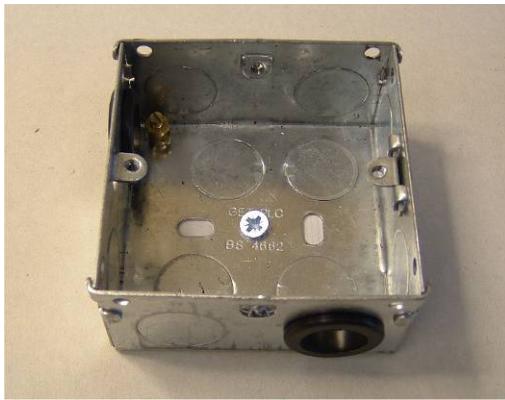
SRH001 rear view



SRH insulating shroud

Preparing the pattress

The holes in the pattress are knocked out as required and rubber grommets fitted. It is easier to remove all the knockouts you require at this stage, rather than when the box is mounted in the wall. If the pre-cut cable entry slot in the shroud is not conveniently located then another one can be cut to better match the IDRANet/Digital input cable entry hole/s in the pattress.



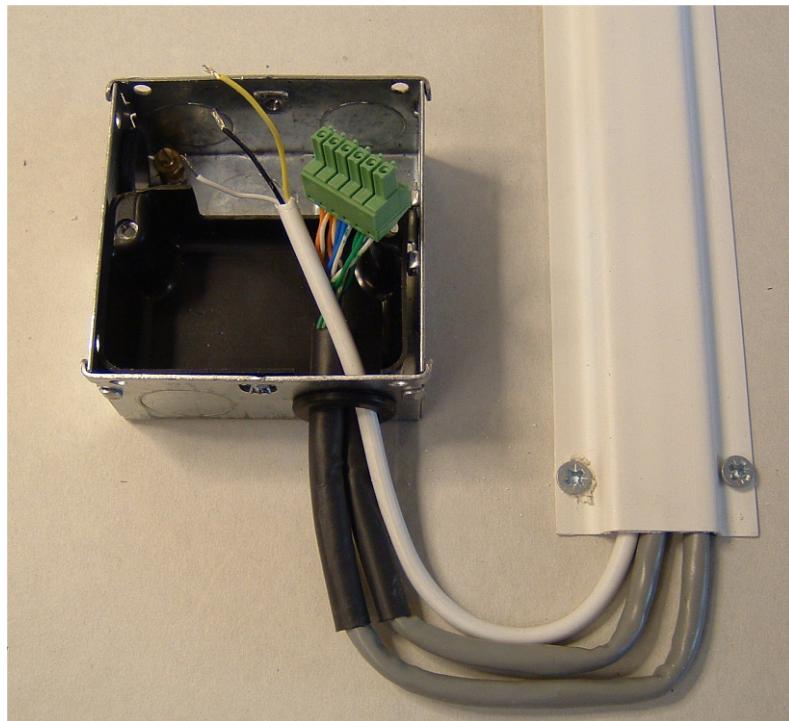
Pattress knock outs and grommet



SRH Insulating shroud

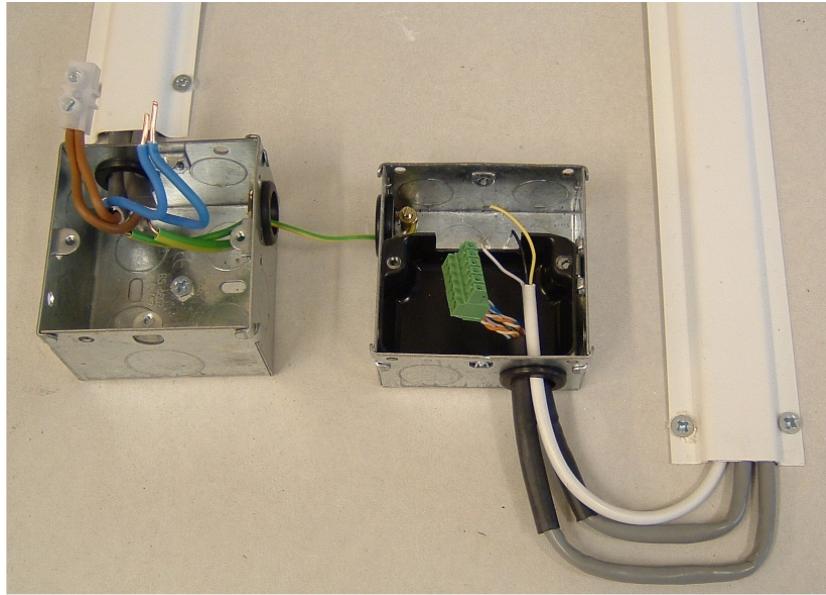
Low Voltage Wiring

The IDRANet cable must enter from the bottom of the pattress alongside any low voltage wiring that is used for the digital inputs on the SRH (e.g. window contacts also enter via this path). This is to ensure the separation between low voltage and mains wiring is maintained. **Failure to do so, which results in any low voltage wiring being exposed to the mains, MUST BE AVOIDED !!.**

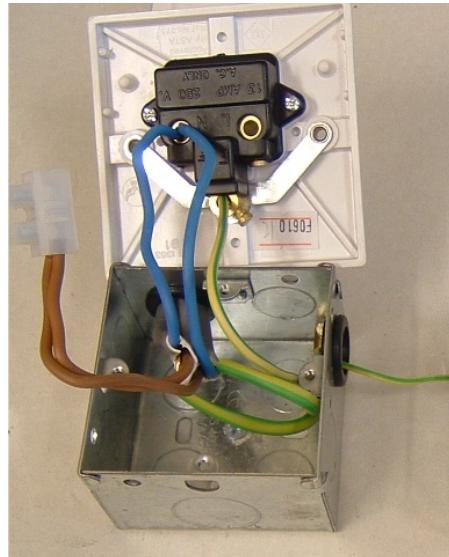


Wiring the Ring Main Spur

On the left hand side of the following picture the mains ring circuit can be seen entering a pattress box which will eventually hold the SRH switched socket. The live terminals should be terminated in a suitable connector rated for the 32 amp ring main. In effect the SRH will be switching the live conductors only, hence a spur needs to be taken from these and fed through the SRH relays terminals. On the right hand side is the pattress to house the SRH module.



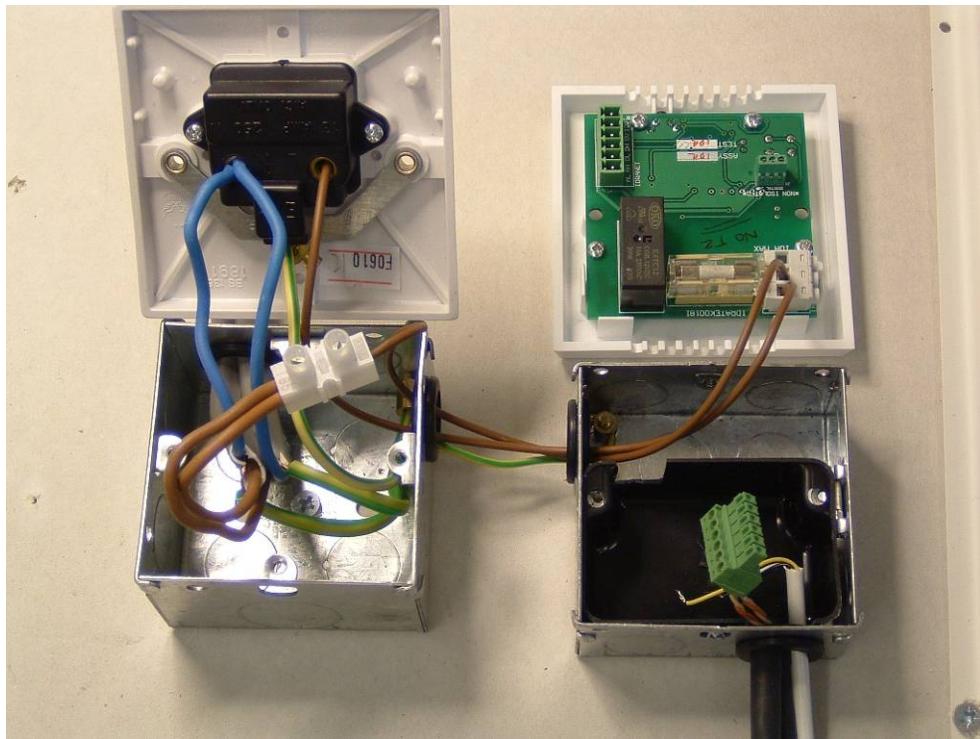
The mains neutral wires should be connected into the 13A outlet (below) to continue the ring circuit. It is extremely important that an earth connection is made from the socket pattress, i.e. ring main, to both pattresses.



The live ring feed, which is terminated in a connector as shown above, is connected to the SRH relay common terminal CMN as shown below. Although not shown, this cable should be rated at 32A (4mm^2) as it is possible to deliver 32A via each loop of the ring under a short circuit fault condition.



The return from the SRH relay normally open connection (NO) is then connected to the mains socket outlet. Again this cable must be rated at 32A (4mm²).



Following a final inspection of the wiring and thorough check that all the terminals are screwed down tightly, the mains socket can be fitted to the pattress and the IDRANet connector and any low voltage digital input to the SRH unit can be connected.

The fitted units are shown below. Note: A conduit (round) should be placed between the two-pattress boxes during first fix to allow the wires to be connected between the two units during second fix.



Additional Notes

1. All interlinking wiring should be rated and comply with current wiring regulations. If in doubt consult a qualified electrician.
2. The socket outlet may be of the switched variety.
3. The Cat5 cable should be protected with suitable capping up to the pattress (not shown).
4. Although the SRH module circuitry is rated to handle 13A the integral fuse is limited to 10A. It is therefore recommended that the controlled socket is labelled '10A MAX' and only the same rated fuse be replaced.
5. If the SRH is fed off the lighting circuit (e.g. only intended to be used to switch table lamps) then the sockets should not be 13A mains outlets, but 5A outlets characterised by their smaller round pins (In the UK). This makes it clear that only low power appliances can be plugged in. (Check current wiring regulations).