



Guidelines – How to wire a DFP-H02 module

NOTE:

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

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Wiring a DFP in a Dual UK Pattress

Plastic Pattress

Note this guide is subject to the current regulation in force in the Country of installation. All mains wiring should be installed in accordance with the regulations in force at the time. This may mean installed by a qualified electrician and/or tested and certified by a qualified electrician.

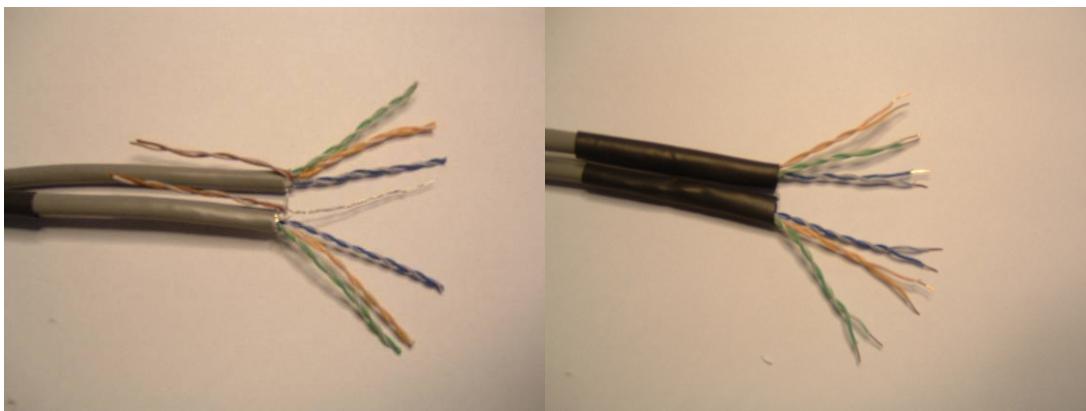
A Display Function Panel (DFP) is mounted in a Dual UK Pattress. A dual UK pattress should not be confused with the more common double pattress. A plastic UK dual pattress is shown below mounted in plasterboard. Metal dual pattress versions for fitting into brickwork are also available (see the end of this document).



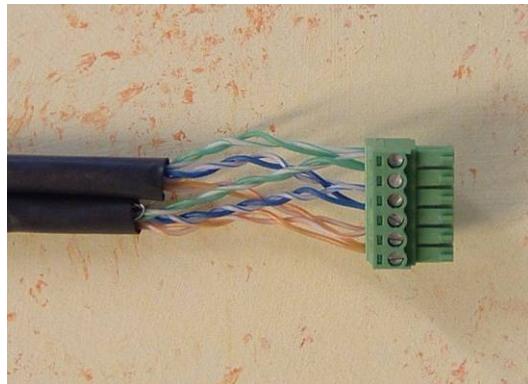
Note: No rotational adjustment is provided by the DFP mounting bracket. The Pattress should be fitted as level as possible. Some metal pattresses allow level adjustment. The left hand side is used for the low voltage wiring to the Cat5 cable for the IDRANet network signals. The right hand side is used for switching mains voltage.

The IDRANet wiring is a free topology meaning you can connect IDRANet devices along a daisy chain of wiring, or spur off as required. Therefore in many cases the IDRANet cable will arrive at the unit and then leave to another module. The main consideration for any wiring will be the maximum current that can be delivered by a cable (for Cat5 this is 1 amp per conductor). Therefore the loading should be no more than 3 DFP's (+ other smaller modules) on any one power supply spur.

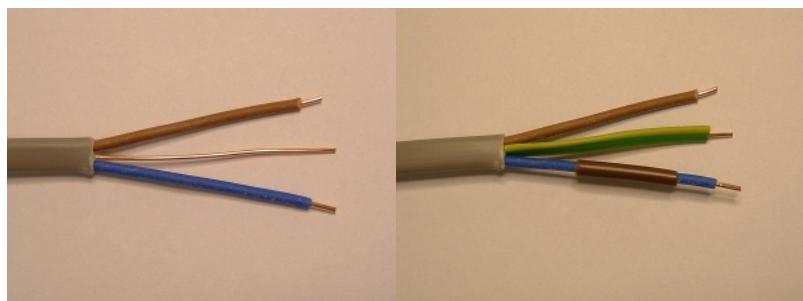
The Cat5 cables should be prepared as shown below. This illustrates the wiring when daisy chained. The screen wires should be joined together as shown. The spare brown cores and screen wires are then sleeved.



The IDRANet plug is then wired such that the same colour wires from both cables are connected to the plug.

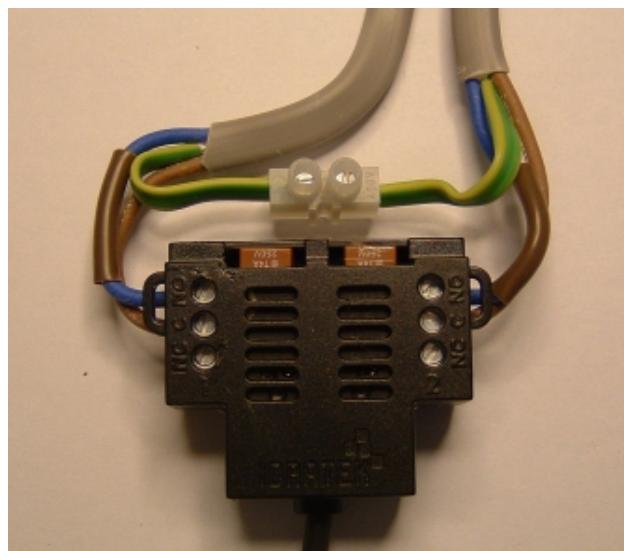


The mains wires (typically for switching lighting circuits) are then prepared.

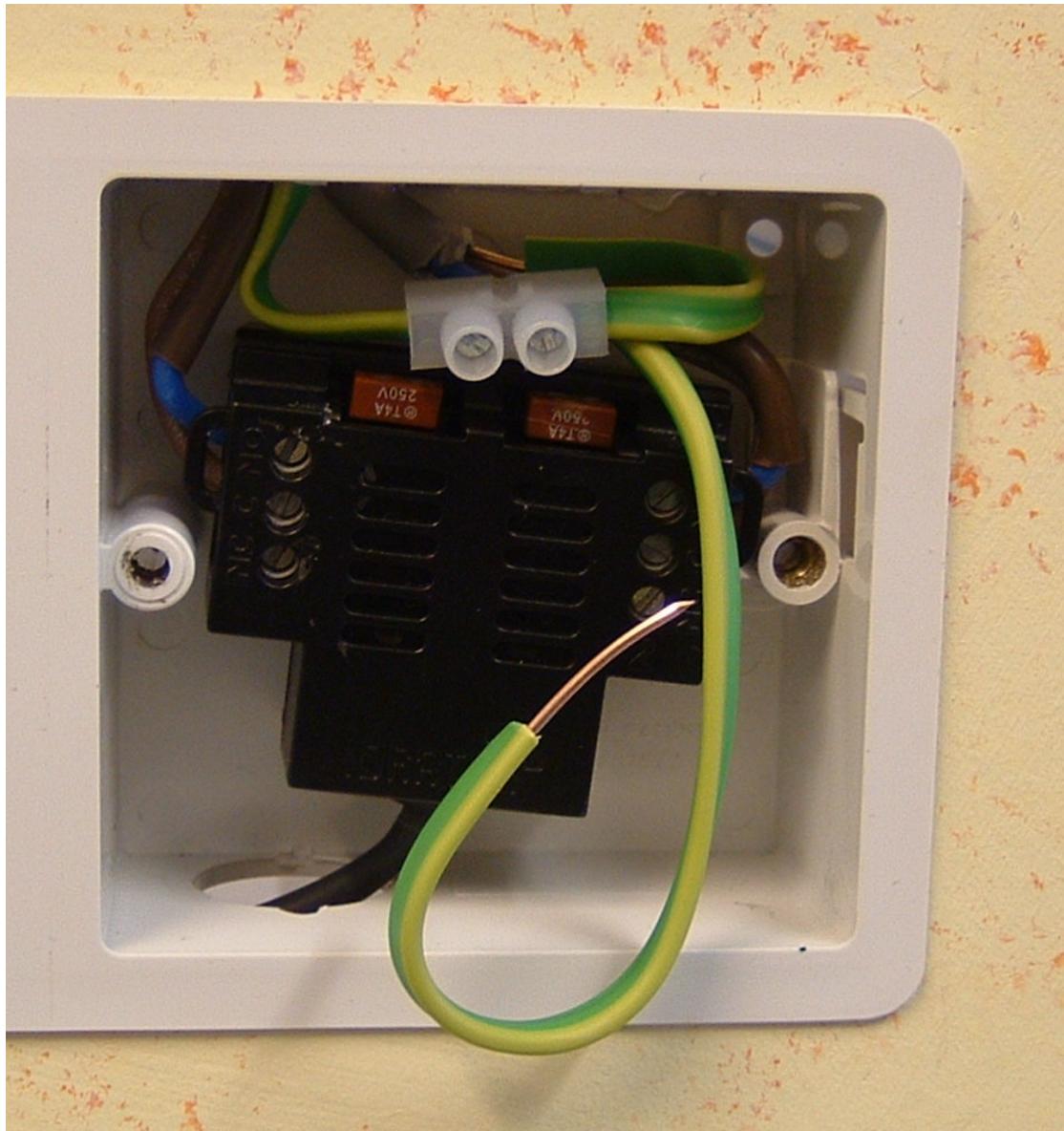


Note the yellow-green sleeve added to the earth wire and the brown sleeve added to the blue wire (wiring regulation for switching circuits).

The XRM Relay box is a DFP-H02 plug-in accessory which can be used to switch lighting circuits.



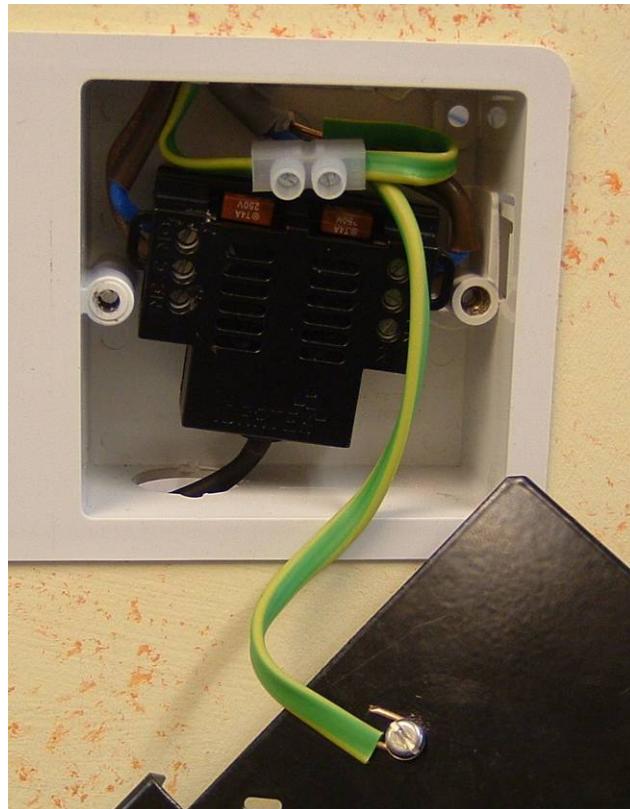
The XRM is shown wired for switching two lighting circuits. The plastic pattress illustrated earlier does not have an earth terminal. Because of this a separate connector is used to terminate the earth connections. Note the XRM has 3 terminals on each side of the box. The centre connection is referred to as the common {C}. The lower terminal is the normally closed {NC} connection, This means the common is connected through the relay to the lower connection when the relay is not powered. The upper connection is the normally open {NO} connection. This is used to switch the lights. When the relay is energised the common connection is connected through the relay to the normally open connection.



The XRM is mounted in the right-hand side of the dual mattress. The low voltage switching cable of the XRM (black) is routed over to the left hand side of the mattress by a suitable path (here from below). Note the XRM has two fuses one for each switching relay.

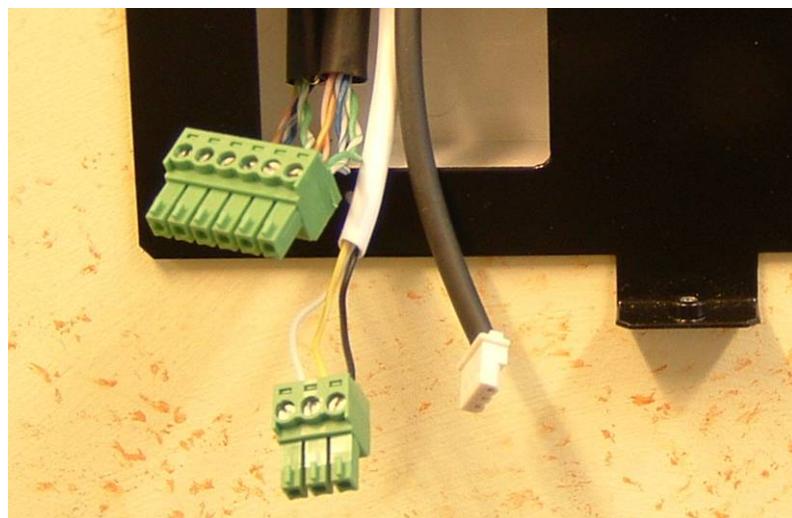
Whenever a fuse needs to be replaced ensure the mains power is isolated.

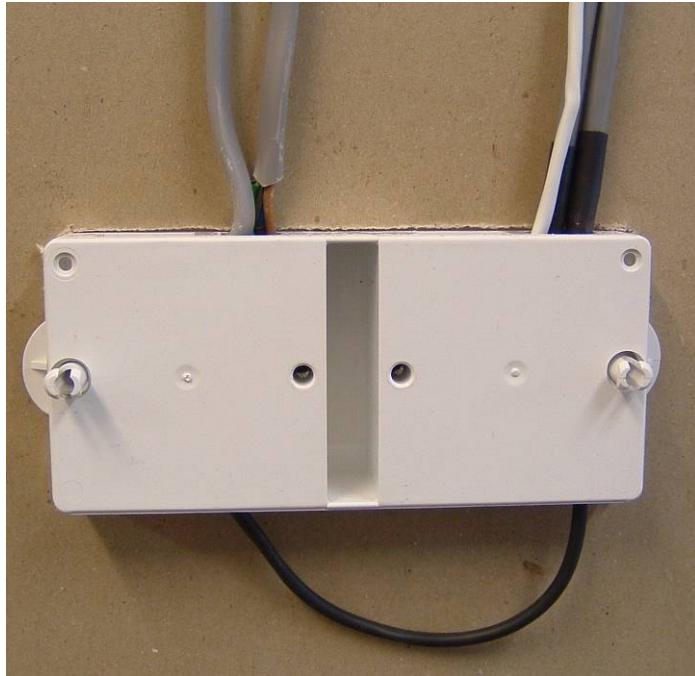
An additional earth wire should be added from the earth terminal and will make connection to the DFP mounting bracket as shown.



The illustration below shows the low voltage wiring in the left hand side of the pattress. These are:

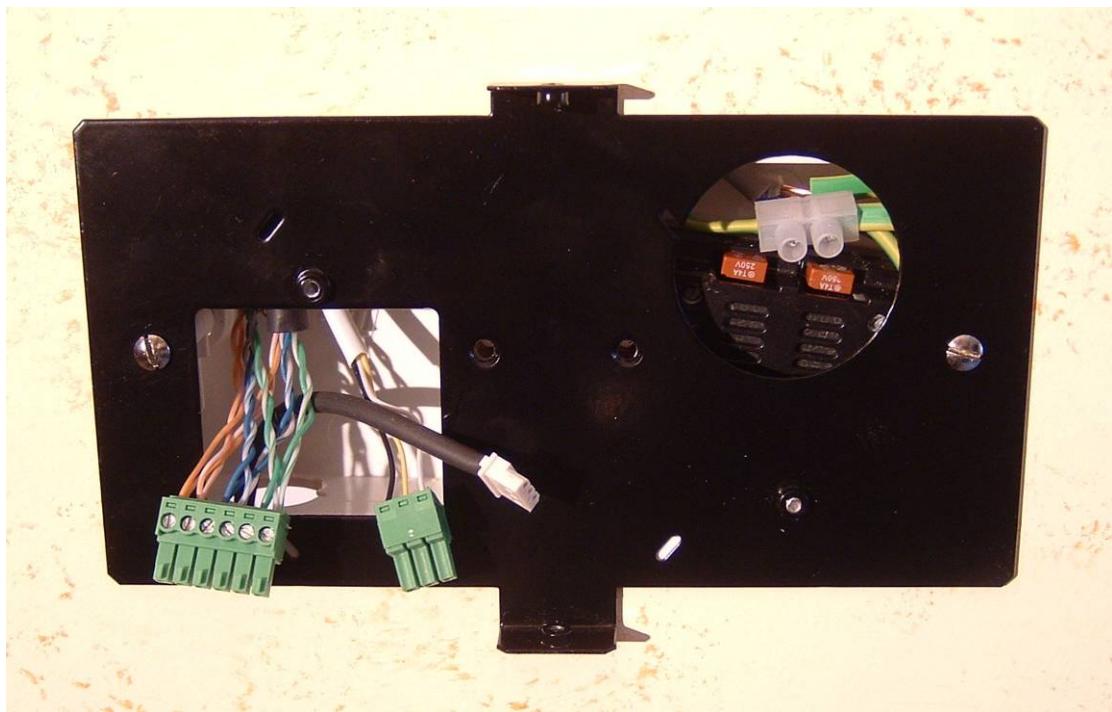
1. The XRM low voltage switching. White plug.
2. The IDRANet cable(s) and green 6 way plug.
3. A low voltage, switch input, cable used for Door sensors (or similar) green 3 way plug.



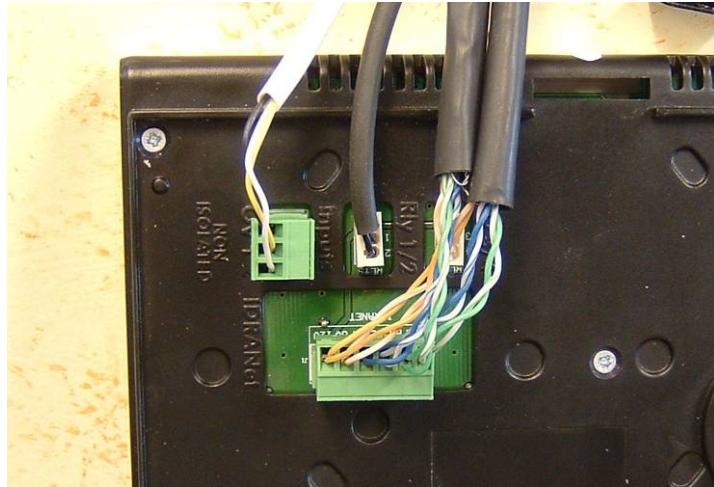


Here the reverse side of the pattress, not normally visible, is shown to illustrate the separation of mains and low voltage wiring.

The DFP mounting plate is then screwed onto the front of the pattress. Note: no wires protrude from the mains side. If the pattress is made of metal it is NOT sufficient to rely on earth connections through the mounting screws.



The low voltage connections are now made to the rear of the DFP by plugging in the appropriate connectors.



The DFP is now secured onto the mounting plate. It should fit snugly against the wall. If the wall is uneven it may be necessary to pack the mounting bracket with suitable shims away from the wall so that the DFP mounting bracket screw holes are visible through the DFP enclosure (top and bottom sides).



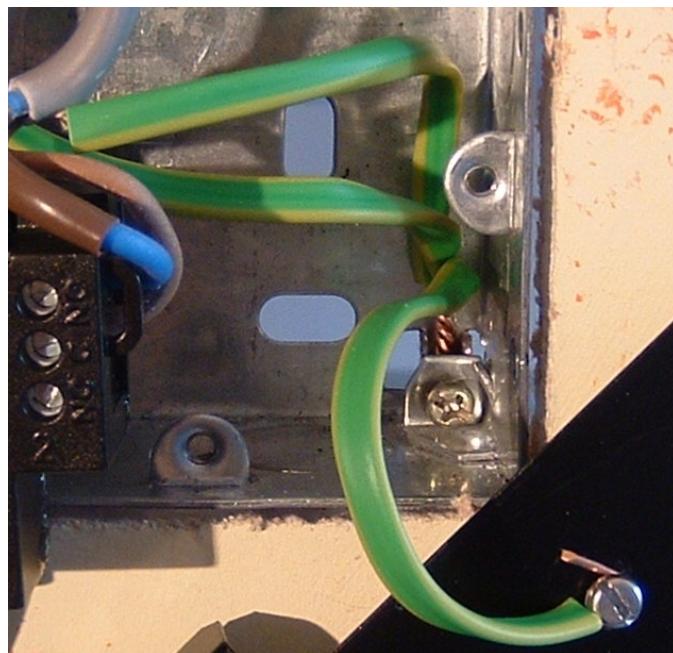
A screw in the centre top and centre bottom secures the panel. Use the Allen key provided.



For correct operation the DFP should be mounted approximately 1350mm from the floor. This is required to ensure correct operation of the temperature sensor, motion sensor and Light level sensor. For disabled use the infrared remote control feature allows button simulation.

Metal Mattress

A UK style metal mattress may also be used to mount a DFP. The principles are the same as previously shown for a plastic mattress.



Here the earth wires from the light switching cables and the mounting bracket are all shown connected to the mattress earth lug. Twisting the wires together before inserting them into the earthing lug ensures all are trapped by the fixing screw.

The Mattress shown here has its centre fixing bracket recessed from the front. This allows the XRM Relay module low voltage cable to be taken over to the left hand side of the mattress as shown. If this route is used, ensure sufficient space is present to allow the cable to pass without being compressed when the mounting bracket is secured. The metal plate dividing the two halves of the mattress should be retained to ensure isolation between high and low voltage cables.

