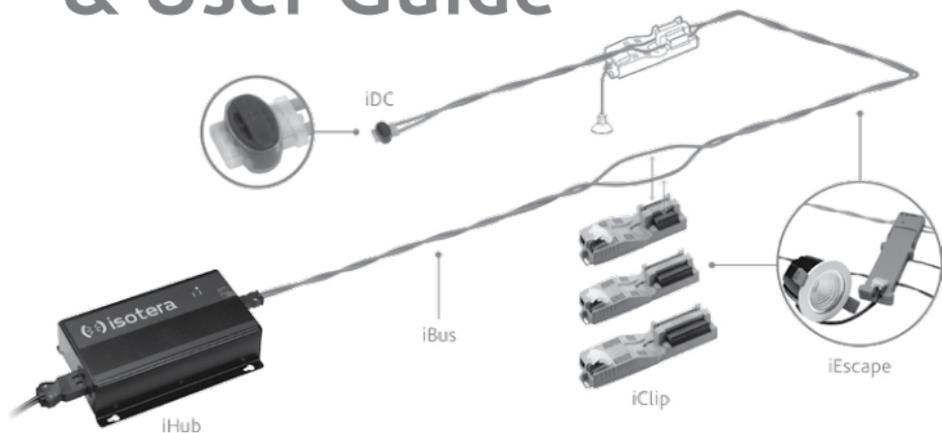




iPower Installation & User Guide



A typical Isotera power circuit comprises:

- 1 Power iHub
- 1 iBus
- 1 IDC (for terminating the iBus cable)
- A number of iClips
- Optionally, a 1.5m control cable (supplied) and 1 latching switch (not supplied)

NOTE: To ensure a safe installation, this product must be installed and maintained by a competent person in accordance with requirements of the 17th Edition of the IEE Wiring Regulations (BS 7671).

The maximum load of this product is 200W. To determine the maximum number of fittings permitted per iHub divide the power of the fitting (W) by 200. For example if the fittings are 10W then a maximum of 20 can be powered by a single iHub.

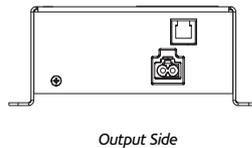
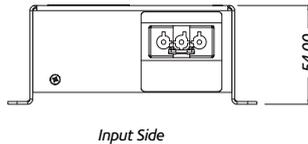
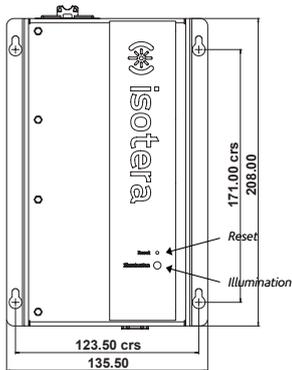
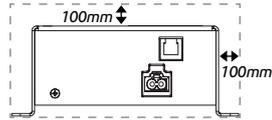
Stage 1: Installing the iHub and iBus

The iHub

MOUNTING

The iHub can be located up to 25 meters away from the nearest lighting fixture. This means that it can be mounted in a place that is easily accessible for maintenance.

The iHub can be mounted in any orientation provided a clearance area is maintained as shown by the dotted box outline shown in the drawing above. The iHub has 4 slotted mounting holes to fix it to a flat surface.



Electrical connections

Mains Connection: Mount the supplied 3-pole plug onto the mains cable (cable not supplied) and insert it into the latching socket on the input side of the iHub. The 230 Vac supply can now be switched on. The status indicator on the iHub will now light up RED. This means that the iHub is activated, but not yet powering its output side.

Output Port: This port requires the use of a special plug and Isotera iBus cable. Only Isotera iBus cable should be used to ensure proper operation of the system.



PREPARING THE iBUS

Roll out the iBus cable, put it in its intended position and cut it to length. Terminate the iBus cable using the supplied IDC.

The cable does not have a polarity so the orientation of the twisted pair is not an issue. Insert the un-stripped wires of the iBus completely into the IDC and check their position by looking through the translucent IDC body. Hold a pair of pliers perpendicular to the wires and make the connection by driving the cap completely down until it is flush with the top edge of the IDC body.

NOTE: Please check that the IDC is firmly clamping both wires by pulling the IDC. A poorly connected IDC may cause a system failure at a later date.



Please note other suitably rated termination devices can be used as an alternative to the supplied IDC.

The iBus cable is supplied with a pre-mounted 2-pole male plug. Plug this into the output port of the Power Hub. To activate the output side of the Power Hub push the Reset Button. The Status Indicator will now turn to GREEN. The system is now live, yet it is perfectly safe to continue with the installation.

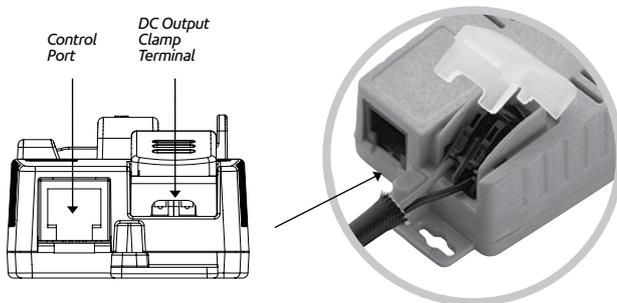
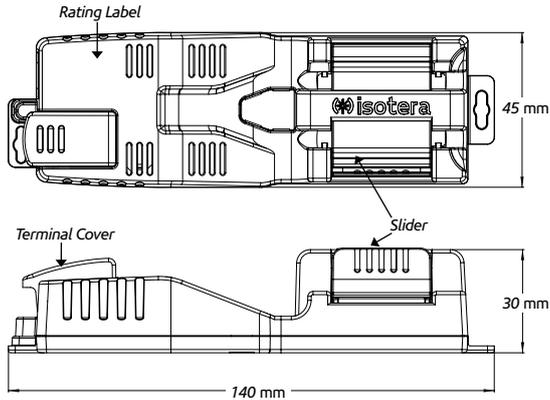


Stage 2: Attaching iClip onto the iBus

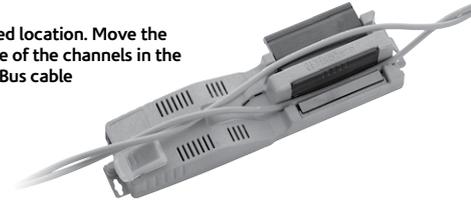
1. Connecting the iClip to a fixture

Before attaching an iClip onto the iBus cable, please check the rating label on the iClip to ensure that the drive current is suitable for the LED fixture and that the fixture wattage doesn't exceed the iClip rating.

For each LED lighting fixture, insert their respective colour-coded flying leads into the colour-coded clamp terminal on the iCoupler and close the terminal cover.

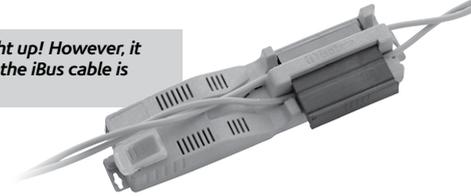


2. Untwist the iBus cable in the desired location. Move the Slider sideways to fully expose one of the channels in the iClip. Pull one of the wires of the iBus cable down into the exposed channel.



3. Move the Slider back all the way to the opposite position, now exposing the other channel.

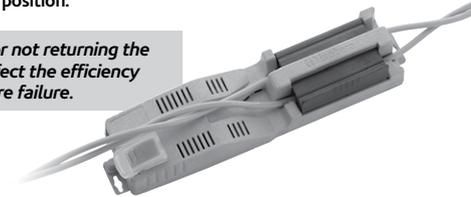
NOTE: *The LED fixture will now light up! However, it is imperative that the other half of the iBus cable is inserted as well!*



4. Pull the 2nd wire of the iBus cable into the 2nd channel.

5. Move the Slider back to its central position.

NOTE: *Not inserting the 2nd wire or not returning the Slider to its central position will affect the efficiency of the iClip and can cause premature failure.*

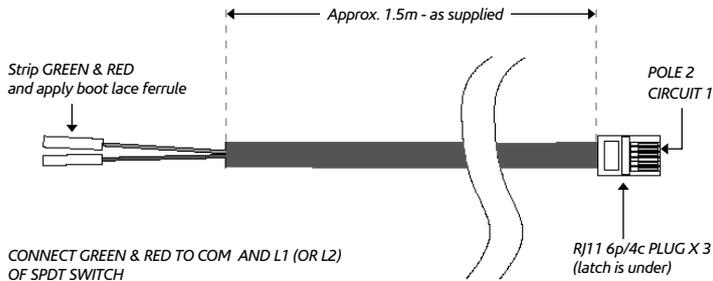
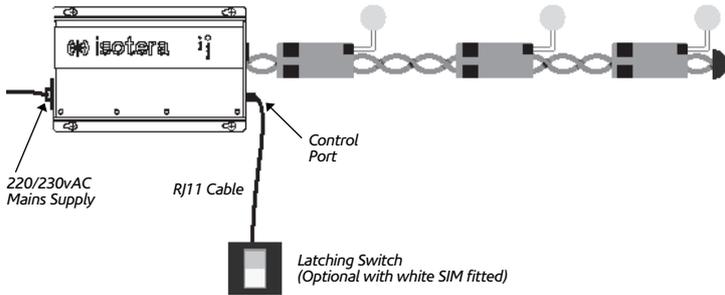


6. Each iClip features an RJ11 control port. 0-10v Control devices from Isotera and other suppliers can be plugged into this port. For more details see the Isotera iCon installation manual.

Simple On/Off Control (mainly for temporary situations until specified control system is installed)

OPTION 1

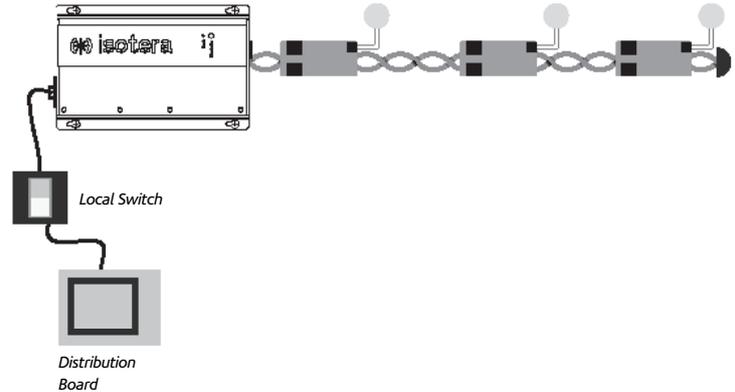
Plug the RJ11 lead into the Control Port on the Power Hub. Connect the bare end of the cable to a latching switch. This will switch all fittings off, but will keep any Emergency Power Modules, attached to the iBus fully charged.



OPTION 2

Install a latching switch between the Mains side of the iHub and the Distribution Board. This will switch the entire iHub off.

This option should NOT be used if there are Emergency lighting units in the circuit.



FAULT INDICATION AND CURE

The Status Indicator on the iHub provides information about status and fault modes. If there is a fault on the system the Reset Button on the iHub will enable normal operation to be resumed once the fault has been rectified.

LED status indicator	Description	Operating mode	Action
Steady Amber	Automatic lockout when input supply drops below 160Vac.	Input Under-voltage	iHub automatically restarts when input supply > 180Vac
Flashing Amber, 1 Flash per second, 50% duty cycle	Automatic lockout when input supply exceeds 270Vac.	Input Over-voltage	The Power Hub automatically restarts when input supply < 264Vac
Going from Green to Flashing RED and back. When flashing red, 2 flashes per second, 50% duty cycle.	Output power exceeds system capacity. Too many loads fitted to the iBus.	Output Over-power All loads on the iBus flash on and off continuously	Remove the last iClip attached onto the iBus. The system automatically resumes normal mode of operation.
Solid RED (with system OFF)	Output loop open circuit. Possible causes: iBus severed, iBus plug not properly engaged into output port on iHub, IDC not properly fitted to iBus cable-end. The iHub instantly latches OFF. NOTE: This fault can also be caused by the addition of a high power fitting to an already heavily loaded system.	Output Overvoltage	When fault condition alleviated (by connecting/closing the iBus) press reset button. NOTE: Only 3 resets permitted before turning AC mains supply off and on required. To determine if the fault is caused by the addition of a high power fitting, 1) remove the last added iClip, 2) push the reset button on the Power Hub, 3) if the system trips again, there must be an open circuit on the iBus.
Flashes RED, 1 flash per second, 50% duty cycle	iHub case temperature exceeds 90°C (+/-5°C). The iHub shuts down until the temperature drops to the reset level. This may take several minutes.	Over Temperature protection	The iHub automatically restarts when temperature drops to 75°C. The iHub will latch OFF permanently after 3 automatic restarts. Then press reset button to restart. If the problem persists this means that the iHub is located in an insufficiently ventilated or too hot space, or the Power Hub is malfunctioning.
Flashing Green	The Control Port on the iHub has received an OFF command.	All loads on iBus OFF. NOTE: <i>Emergency Power Modules are still being charged.</i>	The iHub signals to the iClips to turn off.
Flashing Red, 1 flash every 2 seconds. System is ON	A fault has been detected on the Control Port of the iHub.	Control Port fault	Internal monitoring has detected that signal into the Control Port is incorrect. Any existing OFF command is cancelled.

WARNING: The reset button on the iHub can only be pressed 3 times. Thereafter the iHub must be reset by disconnecting it from the AC mains supply, waiting until the status indicator has extinguished and then reconnecting it.