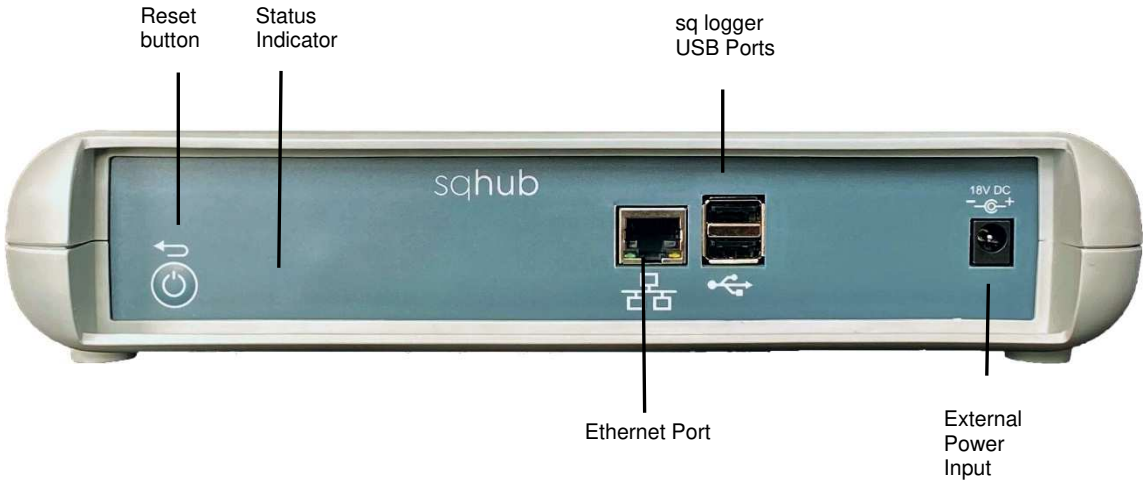
Getting Started Guide
sqhub

1 Box contents

sqhub Communications Gateway
Mains Adapter MPU 18V
Getting Started Guide (this booklet)
Warranty Card

Unpack the contents, check everything is present and retain the outer packaging for future use.

2 sqhub front panel connections and indicators



Status Indicator colour	What this means
Blue Amber Green	Power ON sequence
Amber Red Blue	Power OFF sequence
Continuous Amber Flashing	Busy, please wait
Green double Flash every 3 seconds	Wi-Fi Access Point Mode
Green single Flash every 3seconds	Wi-Fi Network connected
Red single Flash every 3 seconds	Unable to connect to Wi-Fi Network

Reset button function	Action	Status Indicator colour
Reset Wi-Fi to Network Access mode	Press and hold button (LED immediately goes blue), wait for LED to go green then release	

3 Essential Safety information

3.1 Meaning of safety symbols on equipment

	Read these instructions before installation or use of the sqhub
	Warning, hazard: read these instructions before proceeding to ensure you understand the nature of the hazard.

3.2 Safety warnings

	Use only as specified by the operating instructions: if the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired. Please refer to full manual “34707 Operating Manual ”
	The sqhub contains a rechargable lithium ion battery. The battery will last the lifetime of the sqhub and no user replacement is required. Do not remove the battery. There is a risk of fire if the battery is damaged or submerged in water. At the end of the product life, dispose of the sqhub in accordance with local regulations
	The sqhub is designed to be powered by a class II power supply (no Earth connection) for maximum flexibility.
	This sqhub is not designed for safety critical applications: do not rely on it to verify safe conditions before carrying out any potentially hazardous activities.

4 Install SquirrelView desktop software

Install the **required** SquirrelView software from the 'Software' section at grantinstruments.com/products/squirrelview-software#downloads on your desktop PC or laptop.

For additional information regarding SquirrelView please visit our Knowledge Base at grantinstruments.com/knowledge-base/squirrelview

5 Power your sqhub Communications Gateway

Plug the MPU 18V DC mains adapter into an accessible mains outlet.
Only use the mains adapter supplied by Grant Instruments for the external power source.
Insert the Jack plug into the sqhub External Power Input.
The sqhub will power on immediately. There is power on sequence as described in section 2, the sqhub is ready to use when the LED Indicator is no longer Amber.

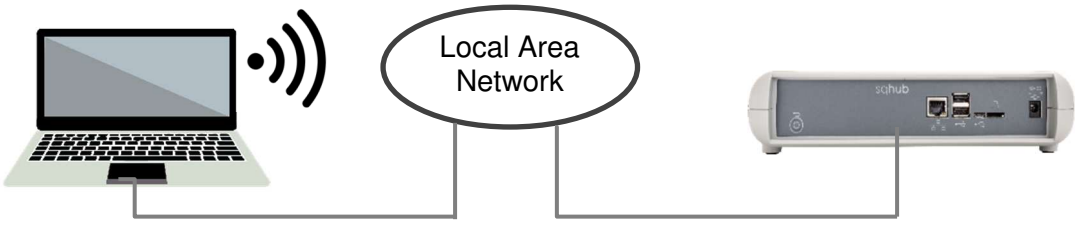
To power off your sqhub at any time, switch off the mains at the outlet or remove the Jack Plug.
The sqhub has a power off sequence. Do not plug the Jack Plug back in whilst the LED indicator is Red.

Your sqhub can provide power for up to two sq16 or sq16plus loggers. Additional loggers can be powered using a mains powered USB2 Hub (not supplied)

6 Connect SquirrelView Desktop Software to your sqhub

Ensure SquirrelView Desktop Software is installed and started and your sqhub is powered on.
Connect the sqhub to the same Ethernet Local Area Network as the PC using a network cable or W-Fi.

Using a network cable:
Connect an Ethernet cable directly between the sqhub Ethernet port and an available port on your local area network. In SquirrelView, click the 'Refresh Devices' button in the top-right of the Device Tree to discover the sqhub. Once discovered, it can be identified by the unit's Serial Number e.g. KW228007.



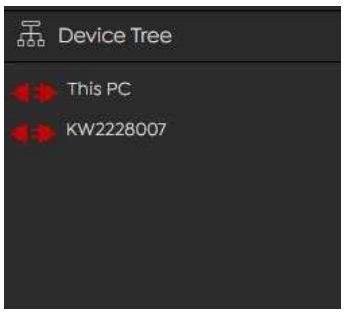
Using Wi-Fi:
Ensure the sqhub is in Network Access mode, the indicator LED will double flash Green.
If not, press and hold the reset button (LED immediately goes blue), wait for LED to go green then release.

On your PC, bring up a list of available Wi-Fi networks.
The sqhub will be available as a network shown as sqhub followed by the serial number
e.g. sqhub-KW2220007

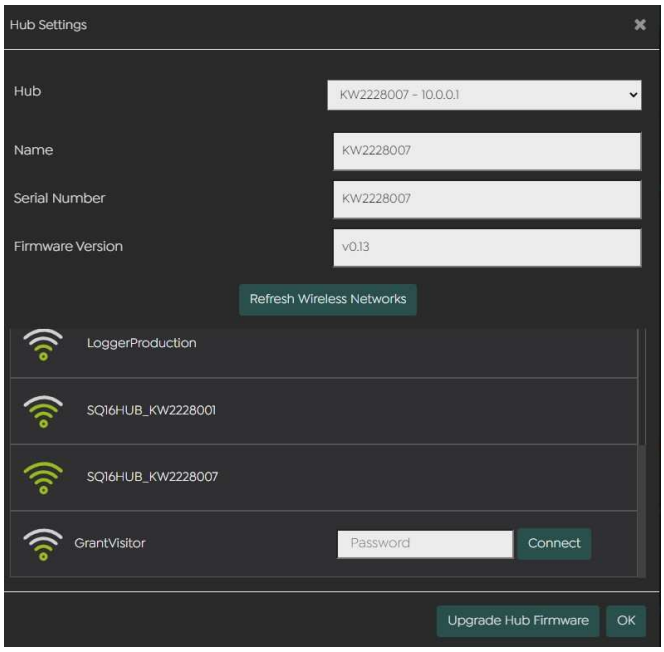
Disconnect the PC Wi-Fi from your Local Area network and connect directly to the sqhub.

The sqhub Wi-Fi network security password is ‘granthub’

In SquirrelView, your new sqhub will appear in the Device Tree (you may need to click the ‘Refresh Devices’ button in the top-right of the Device Tree if the discovery process is not active). Note that any existing sqhubs on a Wi-Fi network will disconnect whilst this setup is in progress.



Your sqhub can be identified the Device tree by its Serial number.
In this example KW2228007
Click on the Plug icon of the sqhub to connect.



On the SquirrelView mainscreen, click on **Hub Settings**.

Your new sqhub will be available in the drop down list.

Select your chosen Wi-Fi Network from the list of available networks

Add the Wi-Fi password for this network and click connect

Your new sqhub will then disappear from the Device tree

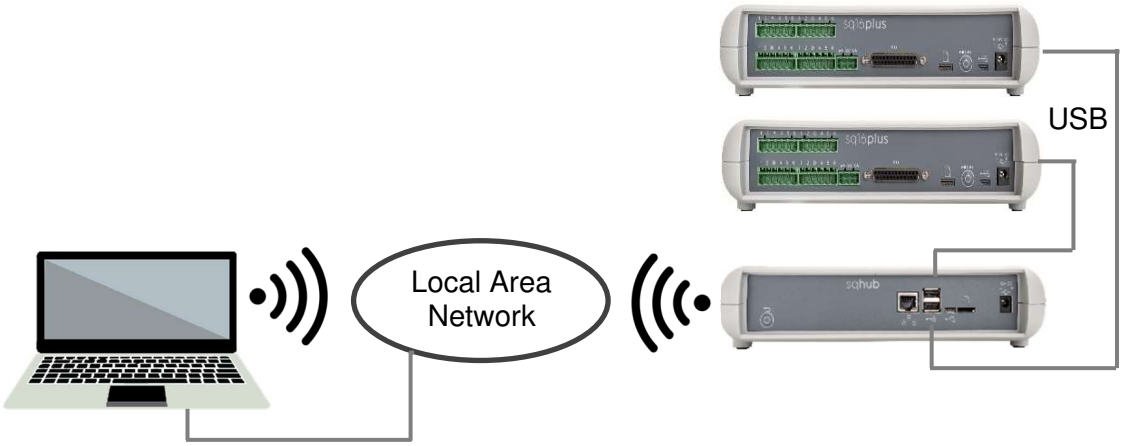
Reconnect your PC to your chosen Wi-Fi network

Your sqhub will now be available again in the SquirrelView Desktop Software Device tree Tree (you may need to click the ‘Refresh Devices’ button in the top-right of the Device Tree if the discovery process is not active).

7 Connect sq16 & sq16plus loggers to your sqhub

Up to two sq16 loggers can be connected directly to the Logger USB ports on the sqhub.

More loggers can be connected to the sqhub utilising an external standard USB2.0 hub. A powered hub is required if the loggers are being powered by USB



Your sqhub will now be available in the SquirrelView Desktop Software Device tree.

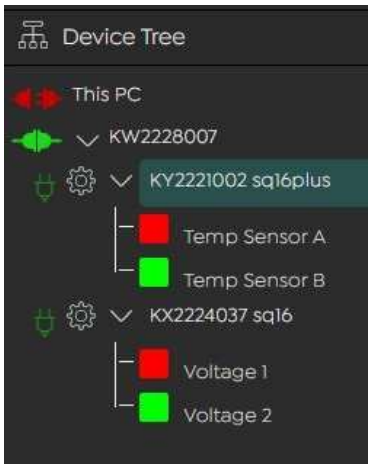
Start SquirrelView Desktop.

Your sqhub can be identified the Device tree by its Serial number. In this example KW2228007
Click on the Plug icon of the sqhub to connect and view the loggers attached to the sqhub.

The Plug icon will change to Connected and the loggers will appear in the Device Tree with the logger serial number followed by the logger model type sq16 or sq16plus.In this example KY2221002 sq16plus.

The loggers can then be selected and configured in the same way as loggers connected directly to a PC

Click on the Logger Settings icon to configure your logger with sensor inputs and other logging configuration details.



Once configured, click on the logger's name in the Device Tree to select and enable logging and metering of sensor data.

For further information and product details please refer to "34707 Logger Operating Manual" available to download from our website at:

https://www.grantinstruments.com/products/sq-series-overview

Also available on individual Squirrel product web pages

8 Technical Specification

The product is a low-power data communications gateway designed for indoor use by, or supervised by, a professional user.

1. Communications	
Local Area Network	Gigabit Ethernet 802.3z RJ45 port Wi-Fi 802.11b 2.4 GHz OpenThread mesh network 802.15 (Optional)
Wide Area Network	LoraWan (Optional) 4G/LTE (Optional)
Link to sq16 Data Loggers	2 x USB2 Type A ports
Local hub comms	Micro USB2 port
2. Power	
MPU18V Mains power adapter (100-240V AC input) 18V DC output.	18V DC mains adaptor
3. Physical properties	
Dimensions:	W235 x D175 x H55 mm
Weight:	1.2kgs
Operating (ambient) temperature limits:	10°C to +45°C
Storage (ambient) temperature limits:	-20°C to +45°C
Altitude above sea level:	Up to 2,000m (6,500ft)
Maximum relative humidity:	80% RH up to 31°C

9 Contact Us

If you have any feedback on Grant's products or services, we would like to hear from you.

Technical Support and Service
Tel: +44 (0) 1763 260811
Email: support@grantinstruments.com
www.grantinstruments.com

Manufacturer and UK contact
Grant Instruments (Cambridge) Ltd
Evolution House
Unit 2, Durham Way
Royston Gateway
Royston
SG8 5GX
UK
Tel: +44 (0) 1763 260811
Email: salesdesk@grantinstruments.com
www.grantinstruments.com

Representative in the European Union
Grant Instruments Europe B.V.
Strawinskylaan 411
WTC, Tower A, 4th Floor
1077 XX AMSTERDAM
THE NETHERLANDS

Email: grant@eu.grantinstruments.com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