● **We would always advise users of the windows application to run the program as "administrator". When starting the W016 program, right click on the program and select 'Run as administrator' from the drop down list.**

EXAMPLE RELAY WIRING AND TEMPERATURE SETTINGS

The W016 is designed primarily for a heating setup but can also be used for cooling. The wiring is different depending on whether you are using the relay for a heating or cooling function.

Heating:

Connect your heating equipment to the W016 in the **normal open** configuration as seen in the table below.

In the Android APP, SETUP > RENAME: rename **N.O.** to 'Heater ON', and **N.O.** to 'Heater OFF'.

In the Android APP, SETUP > TEMPERATURE: set your temperature ranges.

NO: the lowest heating activation temperature. (when colder than 'xx', turn on.)

NC: the highest heater operating temperature. (if warmer than 'xx', turn off.)

(The ON temperature must be at least 1°C lower than the OFF temperature.)

Cooling:

For cooling, reverse the way the relays are wired. Connect your cooling equipment in the **Normal closed** configuration as seen in the table below.

● **It is important to understand that relays wired in 'normal closed' position will operate in the opposite way than expected. In this setup off will turn the relay on. This needs to be taken into account during setup.**
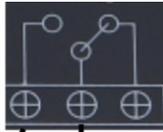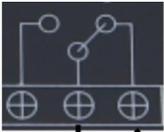
In the Android APP, SETUP > RENAME: rename **N.C.** to 'Cooler ON', and **N.O.** to 'Cooler OFF'.

In the Android APP, SETUP > TEMPERATURE: set your temperature ranges.

NC: the highest cooling activation temperature. (when warmer than 'xx', turn on.)

NO: the Lowest cooling operating temperature. (if colder than ' xx', turn off.)

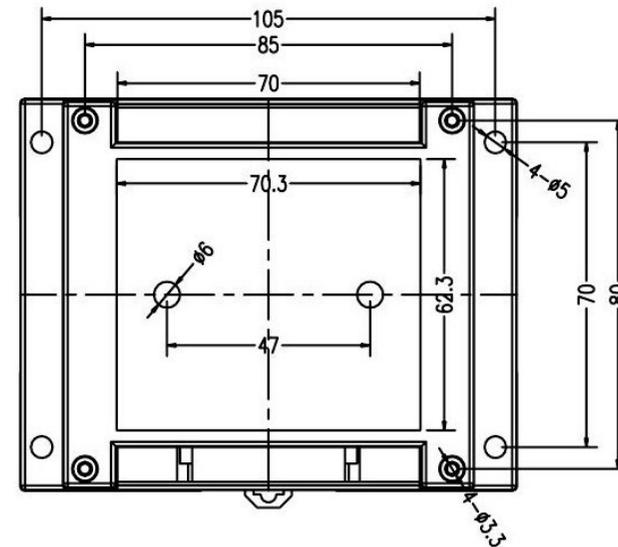(The ON temperature must be at least 1°C lower than the OFF temperature.)

Example setting and wiring to maintain temperature at 25-40°C		
Connected Device	**Heater**	**Cooler**
APP ON-OFF settings	25°C - **30°C**	**35°C** - 40°C
Relay configuration	Normal open (NO) → common	common → Normal closed (NC)

Disclaimer

It is the user's responsibility to use this product prudently. Neither Quark-elec, nor their distributors or dealers accept responsibility or liability either to the product user or their estate for any accident, loss, injury or damage whatsoever arising out of the use or of liability to use this product.

QUARK-ELEC

SET-UP GUIDE

QK-W016
WIFI TEMPERATURE
CONTROLLER

- **What You Need**
- **Installation Overview**
- **Notes**

All products are CE, RoHS certified

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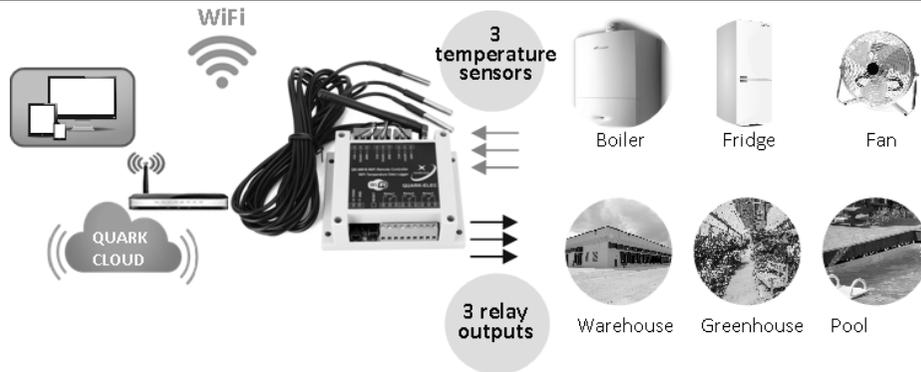
Please recycle your packaging

⚠ **This is an overview only. Familiarize yourself with the manual and the manuals of any connecting devices before installation. It is always recommended that electronic equipment be installed by an experienced installer.**
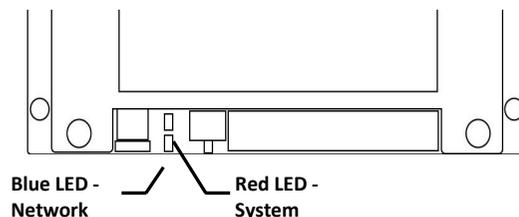
YOU WILL NEED:

1. Temperature sensors (included) which come in 1, 2 and 6 metre lengths and can be shortened or extended (we recommend a maximum of 8 metres for best results).

2. WiFi reception in the location that the W016 will be installed (you can check this using a mobile phone).

3. Power supply cable (included if ordered), long enough to reach your W016 location.
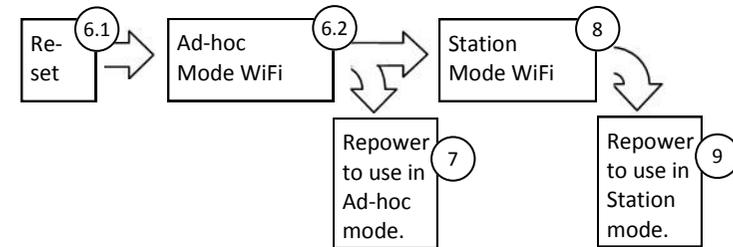

INSTALLATION

1. W016 location: the W016 unit (excluding sensors) must be installed in an indoors environment, unexposed to water or high humidity.

2. Download/install your APP and/or Windows software:
- **Software for Windows** (only) https://www.quark-elec.com/product/qk-w016-wifi-temperature-controller/
- **Android or iOS app** for mobile phones. https://www.quark-elec.com/downloads/apps/

3. Connect temperature sensors by inserting the connector block into the slots at the back of the W016. Good practice is to label each sensor and its corresponding relay. This will help later on.

4. Connect the relay output (if required). Connect either normal closed or normal open depending on your requirements. Check the back page of this guide for details.

5. Connect to power
- **Check the blue NETWORK LED is flickering.** Once the W016 is powered up the network LED will begin to flash. This will flicker every 1 second.
- **Wait for the red SYSTEM LED to stop flickering and stay lit.**

Blue LED - Network   **Red LED - System**

You are now ready to configure the W016 to work through Ad-hoc or Station mode WiFi, To do this, follow steps 6 to 7 laid out below.

6.To connect to the W016 directly, without a router (Ad-hoc WiFi):

   6.1 Use the reset function to prepare the W016 to connect through Ad-hoc WiFi
- **Unplug the W016.**
- **Hold down the reset button** on the front. Re-connect to power whilst still holding the reset button, wait for the red LED to appear. Continue to hold for another 4 seconds once red LED appears and then,
- **Release the reset button.** The blue LED will flash rapidly when it is time to release the button.
- Wait about 60 seconds. Once the red LED comes back on, the W016 is in reset and ready to connect via Ad-hoc mode.

   6.2. Connect via Ad-hoc WiFi mode
- **Scan for the WiFi signal using your phone/PC and connect.** The WiFi name will be similar to **'WiFi168'** and the password is **'88888888'**. If you cannot find the WiFi name, redo step 6.1.
- If connecting to Ad hoc WiFi via your PC, also open the W016 application and type in the W016 IP address which should be **'192.168.1.100'** and click 'connect WiFi'. The blue LED will stay constantly lit once the connection is successfully established.

7. If you only want the W016 to work in Ad-hoc mode, repower the device now. Otherwise, if you want to connect through your router (station mode) or access your W016 off-site, do not repower and simply skip to step 8.

8. To connect through your router (Station mode):
- Ensure you are connected to your W016 via Ad-hoc mode (step 6).
- **Open the Android/iOS APP** (Please note, although you can do this on the W016 Windows application, if you ever intend to access your W016 through WiFi off-site or through a different WiFi connection, you will need to do this step on the Android/iOS phone app, not the Windows application.)
- **Click on 'Setup'**
- **Enter your WiFi network name (SSID)** and click 'save', wait for feedback that it has been saved.
- **Enter network password** and click 'save', wait for feedback that it has been saved.
- **Click 'Connect Station mode'**

9. Repower the W016 to load your Station mode settings . The blue LED will stay constantly lit once the connection is successfully established. You will now be able to connect to the W016 through your normal wireless network, and off site using your mobile data.