

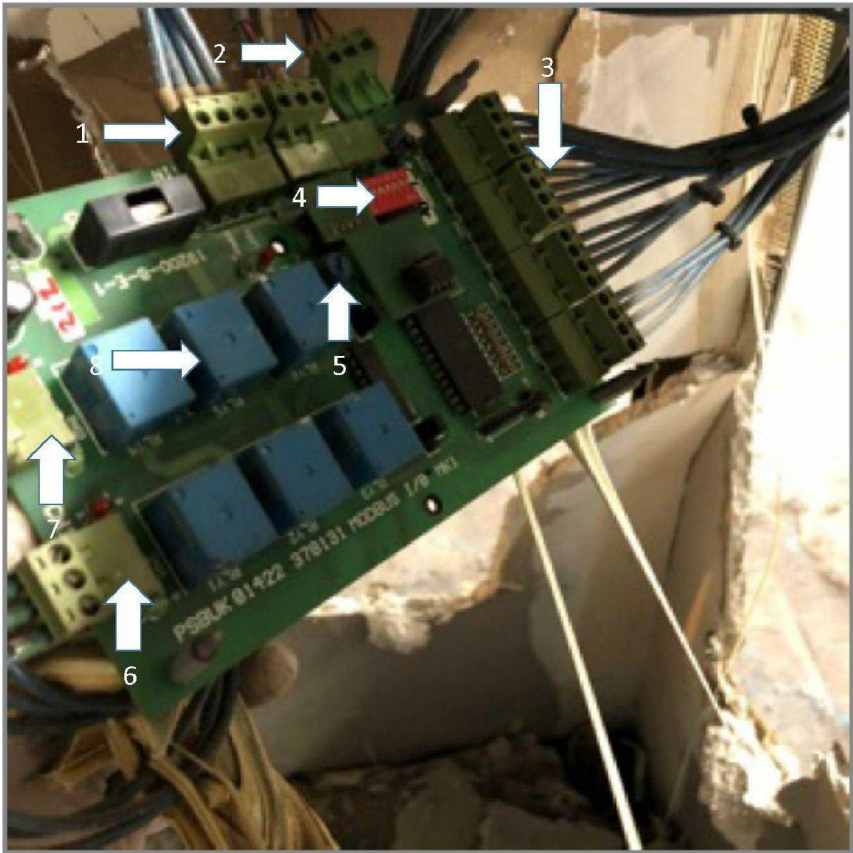
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Modbus Outstation Card

Grenfell Tower

PSB00001317_0001

Photograph taken from the outstation on floor 13 of Grenfell Tower on 22nd August 2018



PSB00001317_0002

1. 24v power supply

2. Modbus communications in and out ports.

There are two LEDs located next to the ports, one green, one red. The green light is on when there is a live, 24 v power supply. The red light indicates the health of the Modbus communications, i.e. how the card is communicating with other cards and components in the system. If the red light is on all the time, this means that the card is not communicating. If it is flashing at a steady rate, it is communicating correctly. If the light flashes and then stops, i.e. there is a delay, there is a problem with the way the communications are happening and there is a card that isn't talking properly somewhere on the system.

3. Inputs – There are 8 inputs which operate in pairs. At Grenfell Tower, the inputs were:

- The smoke detector contact to say that the detector has detected smoke
- Fireman's override switch
- Pressure switch
- The battery back-up panels (on alternate floors)

4. Dip switches – There are 8 of these and are used to test/operate various functions. Toggle 8 = dampers open Channel 1. Toggle 5 = dampers closed Channel 1. Channel 2 is for smoke detector power supply is controlled off by the pic to reset the smoke detector after it has been activated. Dip switches are also used to address the card (ie its slave number)
5. Timer potentiometer – This is used to set the damper opening/closing times.
6. Output Channel 1 – Dampers. There are two LEDs located next to the channel, one green, one red. If the green light is on it means that the dampers are being driven open. If the red light is on it means that the dampers are being driven shut.
7. Output Channel 2 – Power supply to smoke detector. Again, there are two LEDs located next to the channel, one green, one red.
8. Relays