

## **Fire Safety at the David Le Conte Astronomical Observatory**

In the main building we have two fire extinguishers, on the right-hand side as you enter, one water and the other CO2. In the telescope building we have a CO2 fire extinguisher on the right-hand side as you enter.

If there is a fire and you think it is safe to tackle it without harming yourself, we have two fire extinguishers to the right just inside the door to the main building. There are instructions on both cylinders. This is an extra guide for their safe use and your safety in the unlikely event there should be a fire.

If the fire is electrical or you smell burning wires or insulation then if it is safe to do so, switch off the appliance at the wall socket. In any event it is probable that the RCD Consumer Unit will trip. There is one in the kitchen on the left hand side of the rear wall which is located in a wall cupboard, and one in the telescope building on the left hand side wall at high level. These actions might prevent a fire developing.

You must also ask anyone else in the room to leave and go to a safe distance outside.

In the event that you have to use a fire extinguisher:

- **NEVER** place yourself in a position where you cannot safely exit the building. Always have your back to the open door when facing the fire so you can exit safely if it becomes too dangerous.
- **NEVER** approach too closely to the fire or put yourself in harm's way.
- If you lose control of the fire, or think you might then call the fire brigade on 999.
- Keep the doors open at all times, particularly if using a CO2 extinguisher.

Please familiarise yourself with the location of the extinguishers and their use.

If there is a fire incident please inform the Secretary of the Astronomy Section, or another Astronomy Section Committee Member.

## Water Fire Extinguisher



Figure 1

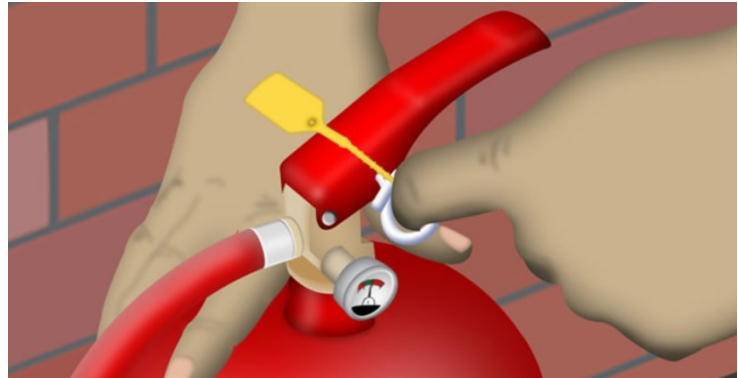


Figure 2

Use: Combustible materials like paper, wood, curtains

Do NOT use on liquid or electrical fires.

How to use:

1. For plain water extinguishers: check that there is no live electrical equipment in the area.
2. Pull the safety pin (Fig.2), this will break the tamper seal.
3. Hold the end of the nozzle securely.
4. Squeeze the lever to start discharging the extinguisher.
5. Aiming the extinguisher nozzle:
  - a. *Fires spreading horizontally:* Aim the nozzle at the base of the fire, moving the jet across the area of the fire.
  - b. *Fire spreading vertically:* Aim the nozzle at the base of the fire, slowly moving the jet upwards following the direction of the fire.
6. As the fire starts to diminish carefully move closer to it.
7. Ensure all the fire has been extinguished, try to focus on any hot spots that may re-ignite.

## CO2 Fire Extinguisher



Figure 3

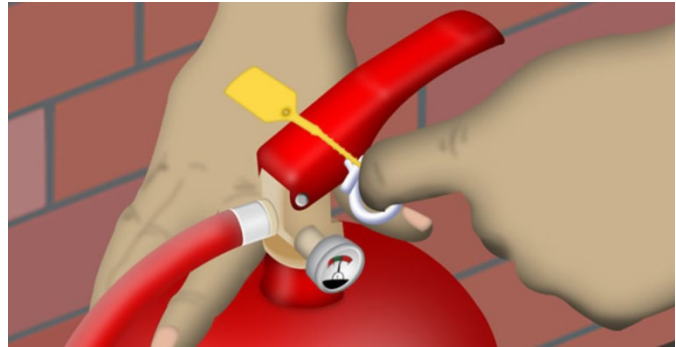


Figure 4

Use: Flammable liquids such as paint and petrol; electrical equipment such as computers.

Do NOT use on Combustible materials like paper, wood and curtains or flammable gasses.

### How to use:

1. Pull the safety pin (Figure 4), this will break the tamper seal.
2. Do not hold the horn, as it becomes extremely cold during use and can lead to severe frost burns.
3. Squeeze the lever to start discharging the extinguisher. Please note that the CO2 extinguishers make a very strong discharge noise, which is normal.
4. Aiming the extinguisher:  
*Flammable liquids:* Aim the horn at the base of the fire and move across the area. Be careful not to splash the burning liquid with the powerful jet of the CO2 extinguisher.  
*Electrical equipment:* Switch off the power, where safely possible, to prevent later re-ignition and then direct the horn straight at the fire.
5. Please note that a CO2 extinguisher only has a very short discharge time.
6. Ensure all the fire has been extinguished as re-ignition is easily possible when a CO2 extinguisher has been used. CO2 gas drifts off after use and if the fire is still very hot it might just re-ignite.
7. Be aware that in a confined, poorly ventilated space toxicity can occur if a CO2 extinguisher is used. Inhalation of concentrated CO2 causes the same symptoms as not having enough oxygen, including difficulty breathing, dizziness, and loss of consciousness. Anyone exposed to concentrated CO2 should seek fresh air immediately.