

The Safe Use of Laser Pointers in the School of Physics and Astronomy^{1,2}

All laser pointers used in the School for presentations/lectures must be labelled as Class 2, have a maximum power < 1 mW, comply with EN60825-1:2014, and carry a CE mark. It is acceptable for the labelling to appear on a datasheet accompanying the laser when the laser is too small for the labels to be directly attached. If your laser pointer does not have this labelling on it or on an accompanying datasheet then it must not be used in lectures or presentations.



Class 2 lasers are not hazardous under certain conditions, however they can cause harm to the eyes particularly if the beam is stared into. Normally the eye's natural aversion response affords protection to short duration accidental exposure to Class 2. Therefore such laser pointers can be used where a laser pointer is necessary and are the only type that should be purchased. **Class 3R, 3B or Class 4 laser pointers must not be used.**

Be cautious of purchasing online or being given gift laser pointers at conferences. Incorrectly labelled laser pointers are common. Examples include laser pointers that are marked Class 2 (or output power is marked as less than 1 mW), but are actually Class 3B or even Class 4. A number of eye injuries have occurred from the use of Class 3B and Class 4 laser 'pointers'. The majority of these lasers are bought from the internet rather than on the high street, while some were bought on overseas holidays. Any suspect laser pointers should be passed to the School Laser Safety Advisor for assessment. Physics stores stock Class 2 laser pointers that may be used within the School (Trust Wireless Presenters model 20405).

Laser pointers should only be used as a pointing device and securely stored when not in use. Persons who use laser pointers should ensure that they are aware of potential hazards and they should comply with the basic instructions below. N.B. Misuse of a laser pointer in such a manner that it could cause harm to anyone on or in the vicinity of the University will be considered as gross misconduct.

Instructions for use

When operating laser pointers, users must ensure that they use them in a safe manner and do not expose themselves or others to the beam. Laser pointers are not to be modified in anyway.

	<ul style="list-style-type: none"> • Follow the manufacturer's safety instructions. • Take care when operating the laser pointer. • Keep the 'on' button depressed only when necessary.
	<ul style="list-style-type: none"> • Do not keep the 'on' button depressed when not pointing at the screen. • Do not point at or towards the audience. • Do not point at mirrored surfaces. • Never look into the laser aperture. • Never look directly or stare into the beam/beam aperture when on. • Never allow unauthorised use, especially by children.

The above guidance has been taken from:

[1] AURPO Guidance on the Safe use of Lasers in Education and Research, Note No. 7, 2018 Revised Edition.

[2] Guidance on laser radiation published by Public Health England (15th August 2017).

<https://www.gov.uk/government/publications/laser-radiation-safety-advice/laser-radiation-safety-advice>