University Occupational Health and Safety Information Sheet

LASER WARNING SIGNS AND LABELLING REQUIREMENTS

All lasers within the University must be appropriately labelled to ensure that anyone who is working with or is near the device is aware of the potential risk that the laser or laser device presents. Each class of laser or laser device has different labelling requirements.

1. Warning signage

The below is the accepted labelling formats that are to be used within the University.

1.1. Laser Starburst

Fig. 1 – Laser Starburst

The laser starburst symbol is the recognised warning sign that is used to indicate the presence of a laser or laser device within a given area. The warning symbol is the same for both being displayed on a laser or laser device and being displayed on the access panel or door into a laser area, provided it is appropriately sized.

1.2. Explanatory Label

Fig. 2 – Explanatory Label

The explanatory label is used to give information regarding the laser and the hazard that it presents. It will typically detail the class of the laser, as well as basic information if space is available, including if the laser is visible or invisible as well as some basic instructions such as that magnifying optics should not be used when viewing a given laser.

1.3. Aperture Warning Label

Fig. 3 – Aperture Warning Label

An aperture warning label is used to given an indication of the location of where the laser beam exits a chamber or device, so that persons can ensure that they do no place themselves at risk by standing in front of the beam.

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2. Labelling requirements for lasers and laser devices

For each class of laser, there are specific combinations of labelling and information that is required to be displayed on all lasers and laser devices. The below is the minimum expected labelling requirements for each laser class found within the University.

2.1. All Laser Classes

All lasers classes except Class 1 must bear an additional explanatory label (Fig. 2) giving details of the laser itself. The label must bear the following wording and information:

MAXIMUM OUTPUT (in Watts):
BEAM VISIBILITY:
EMITTED WAVELENGTH (λ):
PULSE DURATION (if applicable):
NAME AND PUBLICATION DATE OF STANDARD USED TO CLASSIFY THE DEVICE:

2.2. Class 1

All Class 1C lasers must bear both the Laser Starburst (Fig. 1) which must be affixed in a prominent position on the device.

2.3. Class 1 Devices

Class 1 laser devices, which are only Class 1 by virtue of the engineering safeguards in place require additional labelling. Class 1 laser devices require the Laser Starburst (Fig. 1) as well as an explanatory label (Fig. 2) bearing the following wording:

CLASS 1 LASER PRODUCT

Additionally, all access panels into a Class 1 laser device containing a laser of a higher class must bear an explanatory label (Fig. 2) with the following wording:

CAUTION: CLASS __ LASER RADIATION WHEN OPEN

2.4. Class 1M

All Class 1M lasers must bear an explanatory label (Fig. 2) which must bear the wording:

LASER RADIATION
DO NO EXPOSURE USERS OF TELESCOPIC OPTICS
CLASS 1M LASER PRODUCT

2.5. Class 1C

All Class 1C lasers must bear both the Laser starburst (Fig. 1) and an explanatory label (Fig. 2) which must bear the wording:

LASER RADIATION
FOLLOW MANUFACTURERS INSTRUCTIONS
CLASS 1C LASER PRODUCT

2.6. Class 2

All Class 2 lasers must bear both the Laser starburst (Fig. 1) and an explanatory label (Fig. 2) which must bear the wording:

LASER RADIATION
DO NOT STARE INTO BEAM
CLASS 2 LASER PRODUCT

2.7. Class 2M

All Class 2M lasers must bear both the Laser starburst (Fig. 1) and an explanatory label (Fig. 2) which must bear the wording:

LASER RADIATION
DO NOT STARE INTO THE BEAM OR EXPOSE USERS OF TELESCOPIC OPTICS
CLASS 2M LASER PRODUCT

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2.8. Class 3R

All Class 3R lasers with a wavelength between 400 – 1400 nm must bear both the Laser starburst (Fig. 1) and an explanatory label (Fig. 2) which must bear the wording:

LASER RADIATION
AVOID DIRECT EYE EXPOSURE
CLASS 3R LASER PRODUCT

All Class 3R lasers with a wavelength less than 400nm or in excess of 1400nm must bear both the Laser starburst (Fig. 1) and an explanatory label (Fig. 2) which must bear the wording:

LASER RADIATION
AVOID EXPOSURE TO BEAM
CLASS 3R LASER PRODUCT

All Class 3R lasers must also have an aperture warning label (Fig. 3) indicating the location of the laser aperture.

2.9. Class 3B

All Class 3B lasers must bear both the Laser starburst (Fig. 1) and an explanatory label (Fig. 2) which must bear the wording:

LASER RADIATION
AVOID EXPOSURE TO BEAM
CLASS 3B LASER PRODUCT

All Class 3B lasers must also have an aperture warning label (Fig. 3) indicating the location of the laser aperture.

2.10. Class 4

All Class 4 lasers must bear both the Laser starburst (Fig. 1) and an explanatory label (Fig. 2) which must bear the wording:

LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT

All Class 4 lasers must also have an aperture warning label (Fig. 3) indicating the location of the laser aperture.

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