

Safety Information

The LS 55 Luminescence Spectrometer has been designed and tested in accordance with PerkinElmer Specifications and IEC 61010-1, 'Safety requirements for electrical equipment for measurement, control and laboratory use'.

This apparatus is protected in accordance with IEC Class 1 rating. This manual contains information and warnings that must be followed by the operator to ensure safe operation and to retain the instrument in a safe condition.

The instrument has been designed for indoor use and will operate correctly under the following conditions:

Ambient temperature 15 °C to 35 °C

Relative humidity 75% maximum, non-condensing

Environmental conditions for safe operation

The LS 55 has been designed to be safe under the following conditions:

- Indoor use.
- Altitude up to 2000 m.
- Temperature range 5 °C to 40 °C.
- Maximum relative humidity 80% for temperatures up to 31 °C, decreasing linearly to 50% relative humidity at 40 °C.
- Mains voltage fluctuations not to exceed 10% of the nominal voltage.
- An IEC Installation Category II (Overvoltage Category II) classification, suitable for connection to local level power supplies.
- An IEC Pollution Degree 2 classification: normally only non-conductive pollution occurs, occasionally, however, a temporary conductivity caused by condensation must be expected.



WARNING

This equipment must be earthed (grounded).

Any interruption of the protective conductor, inside or outside the instrument, or disconnection of the protective earth terminal is likely to make the instrument dangerous.

When the instrument is connected to the mains supply, terminals may be hazardous when live and the opening of covers or the removal of parts (except those to which access can be gained by hand) is likely to expose live parts. Any adjustment, maintenance and repair of the opened operating instrument must be carried out only by a skilled person who is aware of the hazards involved (a **RESPONSIBLE BODY**). The instrument must be disconnected from all voltage sources before it is opened for any adjustment, replacement, maintenance or repair.

Capacitors inside the instrument may still be charged even if the instrument has been disconnected from all voltage sources. Only fuses with the required current and voltage rating and of the specified type are to be used for replacement. Makeshift fuses must NOT be used and fuse holders must not be short-circuited.

Whenever it is likely that the protection has been impaired, the instrument must be made inoperative and secured against any unauthorized operation. The protection is likely to be impaired, for example, when the instrument:

- shows visible damage;
- fails to perform the intended measurement;
- has been subjected to prolonged storage under unfavorable conditions;
- has been subjected to severe transport stresses.

NOTE: *Using the equipment in a manner not specified in this User's Guide may also impair the protection provided by the equipment.*

Warning Labels on the Instrument



Figure 1 Caution label

The Caution label (see Figure 1) means that you must consult this user's manual for further information.

There are three Caution labels on the instrument:

- In the sample area – where the symbol denotes that there is a possibility of eye damage, and you must not stare into the beam in the sample compartment.
- Near the mains inlet fuse – where the symbol denotes that the operator replaceable fuse (see *Fuses* on page 182) is not an IEC fuse, but a CSA approved fuse.
- By the left hand screw that fixes the top cover (at the front left of the instrument) – where the symbol denotes that removing this cover may expose hazardous voltages. Any adjustment, maintenance, or repair of the opened, operating instrument, must be performed by a skilled person who is aware of the hazards involved (a **RESPONSIBLE BODY**).

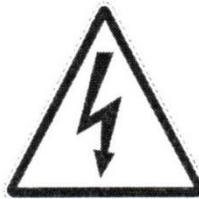


Figure 2 High voltage label

The high voltage label (see Figure 2) means that removing this cover will give access to hazardous voltages.

There are two High Voltage labels on the instrument:

- Inside the instrument on top of the source cover.
- Inside the instrument on top of the monochromator cover (on the right side of the instrument).

Both these labels mean that the instrument must be switched off, and the mains supply lead removed from its socket before the cover is removed. Any adjustment, maintenance, or repair of the opened, operating instrument, must be performed by a skilled person who is aware of the hazards involved (a **RESPONSIBLE BODY**).

Further assistance

For technical assistance, please contact your local PerkinElmer office or agent, or the address at the front of this manual.