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|---|---|
| **Procedure** | Use BMG microplate reader |

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|---|---|---|---|
| **Name(s) of person performing the work** | Users (Lab manager & Lab Technician & Tenants & Licensee's) | | |
| **Name & position of assessor** | Khwaja Islam & Laboratory Manager | **Signature** | |
| **Date of assessment** | 13/08/2021 | **RA Number** | BioE 0044 |

## Outline of procedure / activity:

**Power and USB connection**

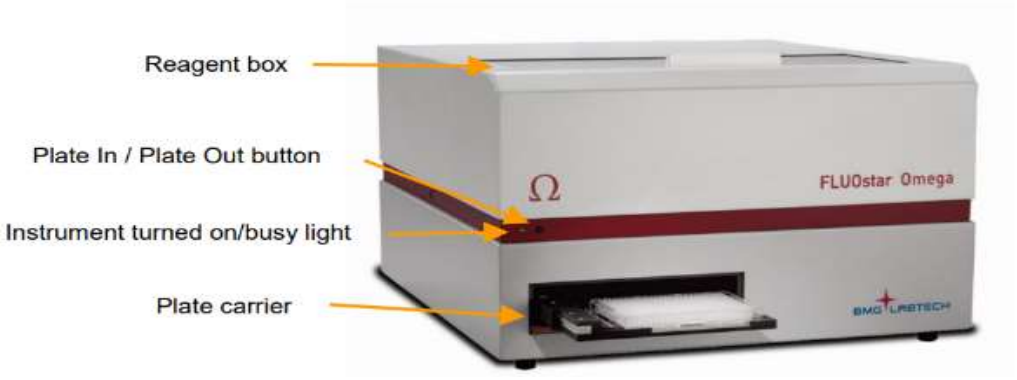
• Power Connection First check that the power switch on the back of the instrument is in the "Off" position. Inspect the voltage information on the label next to the power switch to ensure that it corresponds to the local main power specifications. Also make sure the power cable is grounded. Hereafter, the power cable can be connected to the instrument.

• USB Communication Connection Connect the USB cable to the FLUOstar Omega (or POLARstar Omega or SPECTROstar or LUMIstar Omega) and to the USB port on the PC.

Please connect the reader directly to your PC and do not use a USB-hub. Only connect a computer that corresponds to EN 60950 and UL 1950 for data processing instruments. You can perform a connection check within the setup menu of the Omega software (go to „Setup | Connection" and click „Connection check"). If the instrument and PC are communicating, a „Connection OK" message will appear.

### 3 Instrument Overview

**Front View**




Using spacers

The Omega readers are designed for most microplate formats. The height of some microplates exceeds the space allowed under the optic. The minimum space between the optic and microplate should be 1.5 mm. With 6, 24, 48-well plate formats, it will be necessary to raise the optic using the spacers provided in the service box.

The spacers are metal rectangular pieces with a hole in the centre. Each spacer is 2 mm in height. They will be installed between the measurement head and the bottom of the reagent box. The number of spacers used depends on how high the optic needs to be elevated.

Determination of the number of spacers: If the height of the microplate exceeds the height of the left border of the plate carrier, (see figure 31) spacers need to be installed under the measurement head (see figure 32). There should be enough spacers so that the height of the left side of the plate carrier is slightly higher than the microplate.

| Substance or item handled | Associated Hazard (s) | Existing Control Measures | Risk (L/M/H) | Further Action required | Risk (L/M/H) |
|---|---|---|---|---|---|
| Mains connection socket with power switch | Electrical hazard - Electrical shock – danger of death | Only switch on the device if the device and power cable are undamaged. Only trained personal are allowed to use the machine. Instrument is earthed, protective earth connection for the machine is provided using 13A plug fitted to the machine (RCD protected). Make sure it has been PAT tested. Regular visual checks of power cords for fault, fraying or wear and regular electrical safety check. Any faults reported and repaired before use. Always handle any components of the system with care and with clean, dry hands. Do not clean, open the housing, or access any electrical parts while the instrument is connected to the mains. | L | No further action required if the existing control measures are adhere to. | L |
| USB drive | USB may be infected with computer virus thus damaging performance of cell counter | Check USB drive is not infected by virus before inserting into cell counter. Only use own USBs, do not borrow from other's. | L | No further action required if the existing control measures are adhered to. | L |

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| Biological samples | Biohazard – refer to COSHH assessment | PPE must be worn all the time (lab coat, lab gloves and safety glasses). Spillage must be cleared up immediately and decontaminated appropriately in accordance to COSHH assessment. Instrument only to be used by trained personal | L | No further action required if the existing control measures are adhere to. | L |
| | | | | | |
| Hot microplates | Burn hazard | Microplates and related accessories operated at temperatures higher than 55ºC must cool before being handled and removed from the instrument | L | No further action required if the existing control measures are adhere to. | L |
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**Potential hazards**

## Persons potentially at risk:

Only the user or others near by

## Action in event of an accident or emergency:

1. **Fire**: raise the fire alarm and evacuate the area.

## Arrangements for monitoring effectiveness of control:

Daily inspection of equipment by lab technician.

Annual preventative maintenance carried by external contractor.

Instruction and training given to all operators which is reviewed annually.

Existing operators receive annual refresher training.

Annual pat testing by external contractor.

## Arrangements for monitoring effectiveness of control:
## Review of the Risk Assessment:

| | | | |
|---|---|---|---|
| Date of review | | Name of reviewer | |
| Date of next review | | Signature | |

Have the control measures been effective in controlling the risk?

| Yes | No |
|---|---|

Have there been any changes in the procedure or in the information available which affect the estimated level of risk from the listed substances

| Yes | No |
|---|---|

What changes to the control measures are required?