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Title: **Changing a Bulb in the Olympus Double Header Microscope**

Version: **v2**

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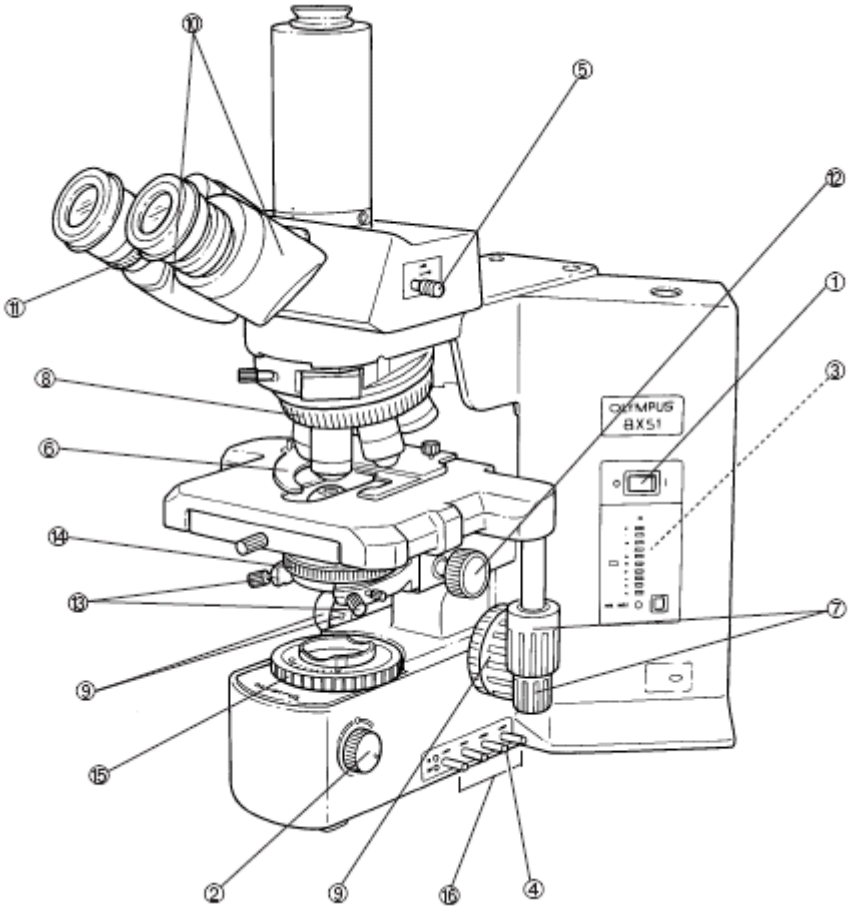
SOP History		
Number	Date	Reason for Change
v1	02/08/2013	Original
V2	2/08/2018	Update

1.0 Purpose –
The purpose of this SOP is to outline the principles of changing a bulb in the Olympus Double Header Microscope in Laboratory 248 at the St Andrews School of Medicine (SASoM).

2.0 Scope –
This SOP applies to changing a bulb in the Olympus Double Header Microscope within the SASoM.

3.0 Responsibilities –
It is the responsibility of all users of the Olympus Double Header Microscope within the SASoM to comply with this SOP.

4.0 Procedure –



1 Main switch
2 Brightness adjustment knob
3 Voltage indicator LED
4 Day light Filter knob
5 Light path selector knob
6 Slide holder
7 X/Y-axis knob
8 Revolving nosepiece
9 Fine and coarse adjustment knob
10 Eye pieces
11 Diopter adjustment ring
12 Condenser height adjustment knob
13 Condenser centering screws
14 Aperture iris diaphragm ring
15 Field iris diaphragm ring
16 Filter knobs

NEVER HANDLE THE BULBS WITH BARE HANDS – ALWAYS USE GLOVES.

Turn off the microscope at the mains and remove the plug. Allow the microscope to cool down.

Insert the special red-handled 'Qualitat 368 3SW' screwdriver into the small hole beneath the voltage indicator panel (3) and screw anti-clockwise to release.

Disconnect the power cable from the rear of the bulb holder.

Insert the screwdriver into the Bulb Holder at the rear of the microscope and screw anti-clockwise to release it. Remove the cover by lifting vertically upwards.

Using gloved hands, squeeze the two wire clips to release and remove the bulb. Insert a new bulb and then slowly let go of the clips.

Replace the cover and secure in place by tightening the screw clockwise.

Re-connect the power cable.

Insert the screwdriver into the small hole beneath the voltage indicator panel (3) and screw clockwise to secure.

Restore power and check that the bulb is working. No further alignment should be necessary.

5.0 Personal protection -
Howie coat must be worn at all times.

6.0 Spillages -
Always clean up any spills immediately after use.

Only you know what you have spilt and are aware of that chemicals hazard.

Mop up spills with paper towels. Wash the site of spillage with water & detergent.

7.0 General maintenance -
Clean surfaces of the apparatus with soft cloth and mild detergent.

To clean the lenses and other glass components, simply blow dirty away using a commercially available blower and wipe gently using a piece of cleaning paper (or clean gauze).

If a lens is stained with fingerprints or oil smudges, wipe it gauze slightly moistened with commercially available absolute alcohol.

Do not attempt to use organic solvents to clean the microscope components other than the glass components.

8.0 Maintenance -
Microscope to be serviced once a year by a qualified engineer.

9.0 Training -
All users have to be trained before using the Instrument by a designated person.

10.0 Related documents –

10.1 Equipment manual

10.2 Equipment Maintenance Log

10.3 Equipment Maintenance Information sheet

10.4 Risk assessments – RA/GEN/016 & RA/MH/002

11.0 Approval and sign off –

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Signature: Date:

Management Approval:

Name: Mary Wilson

Position: Laboratory Manager

Signature: Date:

QA release by:

Name: Alex MacLellan

Position: QA Manager

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