

**Document Number: SASoM/EQUIP/024.v2****Title: Maintenance and Replacement of the EXFO lamp of the HistoRx ® PM-2000 AQUA (Automated Quantitative Analysis).****Version: v2****Author: Peter Mullen**

Effective from:	01/02/2018
Valid to:	31/01/2023

SOP History		
Number	Date	Reason for Change
v1	01/02/2013	Original
V2	01/02/2018	Update

1.0 Purpose –

The purpose of this SOP is to outline the principles of routine maintenance and replacement of the EXFO lamp of the HistoRx ® PM-2000, AQUA in Laboratory 248 at the St Andrews School of Medicine (SASoM).

2.0 Scope –

This SOP applies to routine maintenance and replacement of the EXFO lamp of the HistoRx ® PM-2000, AQUA in the SASoM.

3.0 Responsibilities –

It is the responsibility of all users of the AQUA within the SASoM to comply with this SOP.

4.0 Procedure –

Lamp life span:

The EXFO bulb used in the PM-2000 Imaging system has a lifespan rated at 2000 hours by the manufacturer.

Maximising Lamp life:

The following practices may prevent premature lamp failure:



Equipment Operation Procedure

Each time the lamp is turned on the lifespan is reduced by an estimated 5 hours, therefore it should not be shut off for short breaks in usage.

Once lit, the lamp should not be turned off for at least 20 minutes.

Maintain good cooling air flow

Observe minimum air flow clearance requirements as stated in the user's manual

Optimum input air temperature is 20-25°C.

Lamp Replacement:

Never touch the glass envelop of the bulb (inner stem), the inner surface, or the outer surface of the reflector. If touched, clean the envelope with alcohol. Skin oils can etch the glass and cause premature bulb failure.

Always wear cotton gloves or powder free barrier gloves when handling any lamp.

Handle the lamp only by the ceramic areas.

Avoid unnecessary movement and jarring of the lamp or illumination unit, especially when it is lit or hot.

EXFO lamp modules contain mercury! Please ensure that the lamps are disposed of in manner complying with all local rules and regulations for disposal of hazardous materials.

Procedure:

Switch the EXFO unit off using the power toggle on the front of the unit.

Allow the unit to cool off for at least 30 minutes to prevent burns.

Disconnect the AC power cord from the EXFO unit.

Using a 3mm hex key or screw driver (allen wrench), remove the lamp access panel from the EXFO unit and set the unit on its side so that the lamp compartment faces up.

Open the lamp bracket arm by pulling towards you and to the right.

Remove the old lamp module from the unit by sliding it out of its bracket.

Carefully remove the fresh lamp module from its shipping container, holding only the ceramic components.

With the "THIS SIDE OUT" label facing outwards, position the lamp so that the two leading edges of ceramic mount line up with the groove of the lamp bracket.

Slide the lamp module all the way into the bracket.



Equipment Operation Procedure

Ensure that both leading edges of the ceramic mount are securely fitted in the groove of the lamp bracket. The middle part of the lamp will snap into the spring clamp.

Close the lamp bracket arm.

Locate the 4-pin Intelli-Lamp sensor connector (the cable with the multi-coloured wiring harness) at the rear of the lamp module and connect it to the corresponding outlet located on the lamp-housing wall.

The Intelli-lamp connector will only attach in the correct orientation. If you are having difficulty attaching the connector, try rotating it by 180°.

Attach the 2-pin lamp power connector to the corresponding outlet on the lamp-housing wall. The 2-pin lamp power connector will only attach in the correct orientation. If you are having difficulty attaching the connector, try rotating it by 180°.

Ensure that both cables are securely fitted into their outlets.

Replace the lamp access panel and tighten the fastening screw.

5.0 Personal protection -

Howie coat must be worn at all times.

Gloves must be worn when replacing the EXFO lamp.

6.0 Training

Under no circumstances should this machine be operated by anyone who is not acquainted with it or has not been trained to use it.

7.0 Related documents –

- 7.1 Equipment manual
- 7.2 Equipment Maintenance Log
- 7.3 Equipment Maintenance Information sheet
- 7.4 Risk assessments – RA/GEN/038 and COSHH/008.
- 7.5 SOP SASoM/EQUIP/025
Image acquisition using HistoRx® PM-2000, AQUA
- 7.6 SOP SASoM/EQUIP/026
Image analysis using HistoRx® PM-2000, AQUA



8.0 Approval and sign off –

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