Steps for Replacing an Optical Module and Phase Lamp in an Incucyte® SX5 Live-Cell Imaging System

NOTES:

Do not touch the glass surfaces of the Optical Module under any circumstances. We recommend wearing laboratory gloves for safety as well as to avoid inadvertent fingerprints on the optics.

Videos depicting the swap of an Incucyte® SX5 Optical Module are embedded within this PDF.

Hardware

1. Remove Front Cover

   a) Make sure the Incucyte® SX5 is powered 'on' and no scans are running or scheduled

   b) Locate the two Cover Tabs on the bottom of the Front Cover and push outward to disengage Cover from Incucyte® SX5

   c) Pull Cover down and away from the Incucyte® SX5 to remove

   d) Place Cover to the side and in a safe location



2. Remove Optical Module

a) Identify the Optical Module and Tab on the front of the Optical Module in the instrument

b) While gently holding the Optical Module in position, flip Tab up and turn 90 degrees clockwise or counterclockwise until the detent feature disengages

c) Pull the Optical Module away and out of Incucyte® SX5

d) Carefully place Optical Module in a secure location or back into the proper packaging. The Pelican™ case which contains the optional Optical Modules is designed to hold any Optical Module designed for the Incucyte® SX5



3. Remove Phase Lamp

a) Identify the Phase Lamp by looking for the top-right cut-out in the Front Support, where the Label on the Phase Lamp will be in-view

b) Manually pull on the vertical, black Drawer Pull until the Drawer Motor kicks the Drawer out

c) Remove any Trays or Vessels in the Incucyte® SX5

d) Reach up and into the top of the Incucyte® SX5 towards the Label and grasp the Phase Lamp, front and back

e) Pull the Phase Lamp to the right side of the Incucyte® SX5 – in the direction of the arrow – removing it from the Mount

f) Carefully, remove the Phase Lamp from the Incucyte® SX5

g) Place Phase Lamp in a secure location or back into the proper packaging for storage with its corresponding Optical Module



4. Place new Phase Lamp

a) Remove the new Phase Lamp from box or packaging

b) With the Drawer still in the ‘out’ position, guide the Phase Lamp into position

c) Gently guide and push the Phase Lamp towards the left side of the Incucyte® SX5 until an audible and tactile click is noted

d) The Phase Lamp will not seat into the proper position if not properly aligned

e) Replace any Trays or Vessels that were removed earlier and manually push on the vertical, black Drawer Pull until the Drawer Motor pulls the Drawer fully in



5. Place new Optical Module

a) Remove the new Optical Module from box or packaging

b) Confirm the Optical Module is to be used with the newly installed Phase Lamp, as indicated by the “for use with” part number on the Label

c) Flip Tab up and turn 90 degrees clockwise or counterclockwise so that the Tab is vertically aligned

d) Guide the Optical Module into the same position within the Incucyte® SX5 that the prior Optical Module was removed

e) While gently holding the Optical Module in position, flip up and turn the Tab 90 degrees clockwise or counterclockwise until detent engages

f) Flip Tab down and into the proper recess in the Optical Module

g) Ensure that the serial number on the front face of the installed Optical Module matches what is to be expected for the Incucyte® SX5 and that the Optical Module has been calibrated prior to scanning

- *There will be a serial number label representing each Optical Module which is calibrated on your Incucyte® placed on the gantry at Optical Module installation*



6. Replace Front Cover

a) Guide the Front Cover back into position on the Incucyte® SX5 by leading with the top and guiding upward, using the Guide Hooks for proper placement and orientation

b) Once the Cover is in place and flush with the rest of the Incucyte® SX5, push the two Cover Tabs inward to engage Front Cover



Software

1. Configure Software for Use with New Optics

a) On the computer Desktop, open the 'IC' icon for the Incucyte® SX5 'GUI'

b) Within the 'GUI' software, click on the 'Device' icon in the top menu tray.

c) The Calibration Tests tab is the open tab. Click on the 'Administer' tab, then select 'Detect' in the 'Configuration' box.

d) A Detect Optical Module message opens, informing you that detection verification of the optical module and phase lamp is going to take place, and asking you if you want to continue. Click "yes".

e) A status message opens, indicating that the detection verification process has begun. After the process has successfully completed, the status message closes and a Verification Success and Reset Schedule message opens.

f) Click "Ok".

g) Allow the Incucyte® SX5 to run the 30 minute warmup sequence before beginning any scanning.

h) Please note: Failure to run the detection verification may result in a required restart of the Incucyte.

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