

Using the Lambda LX in MetaImaging Software® version 7.7.0 and lower

Overview

- The Lambda XL is a light source from Sutter Instruments. It combines a long lasting lamp with a filter wheel and smart shutter to provide convenient wavelength selection and light source into a single unit.
- The Lambda XL is officially supported, with all of its components in Meta Imaging System software version 7.7.1 and above, but can be controlled as a Lambda 10-B in older versions of the software to get basic controls.
- MIS software can only properly control the device if the Lambda XL firmware is at version 1.19. If your Lambda XL does not run firmware version 1.19 it will need to be sent back to Sutter Instruments for updating.

ARTICLE #
T20140

PRODUCTS
MetaMorph®
MetaFluor®
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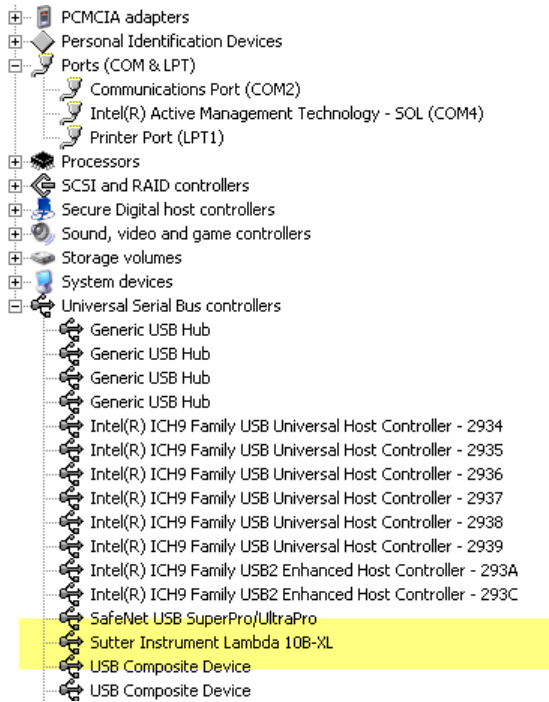
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20-May-2010

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20-May-2010

Installation instructions

1. Install the software that came with the Lambda XL (Lambda 10B-XL v1.10).
2. Power on the Lambda LX and plug it into your computer's USB port.
3. In the 'Found New Hardware' wizard, choose to 'Install from a list or specific location' and press Next.
4. Select 'Search for the best driver in these locations' and browse to the Sutter Instruments install directory – which defaults to C:\Program Files\Sutter Instruments\Lambda 10B-XL\Lambda D2XX Driver\. Then press Next.
5. After the device is completely installed you may be prompted for a second device installation. Repeat steps 3 and 4.
6. Open up your computer's Device Manager, and expand the Universal Serial Bus controllers tree. Find and double click on the 'Sutter Instrument Lambda 10B-XL' device to get to its properties. Switch to the Advanced tab and make sure the option to 'Load VCP' is turned off. Then unplug the Lambda XL's USB from your computer and plug it back in.

After installation, there should be a single 'Sutter Instrument Lambda 10B-XL' device in the Universal Serial Bus controllers tree, and no corresponding 'Sutter Instrument Lambda 10B-XL USB Serial Port' in the Ports (COM and LPT) tree.



Checking the Lambda XL's Firmware Version



The menus described in this section all are displayed on the Lambda XL's LCD screen



The Lambda XL Keypad will be used to manipulate the XL's LCD screen menus

1. If the device is being controlled via software press the 'Local' button on the Lambda XL's keypad.

2. Press the F1 key on the keypad to bring up the main menu.



The menu comes up after a short delay, where the screen informs you to press 0 at any time to exit the menu

3. Press the F1 key a second time to get to a second menu.



4. Press 1 to get a the version information.



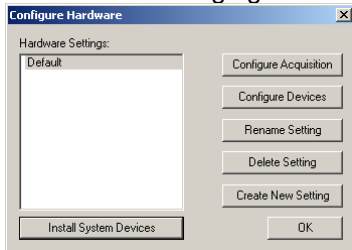
The important value here is the 'M' version, v1.19 as displayed. Lambda XL's with a firmware version less than 1.19 will not work properly in any version of MetaMorph.

5. Once you confirm the firmware version is 1.19 or above, then you can press the 0 button on the keypad to exit back to the main screen.

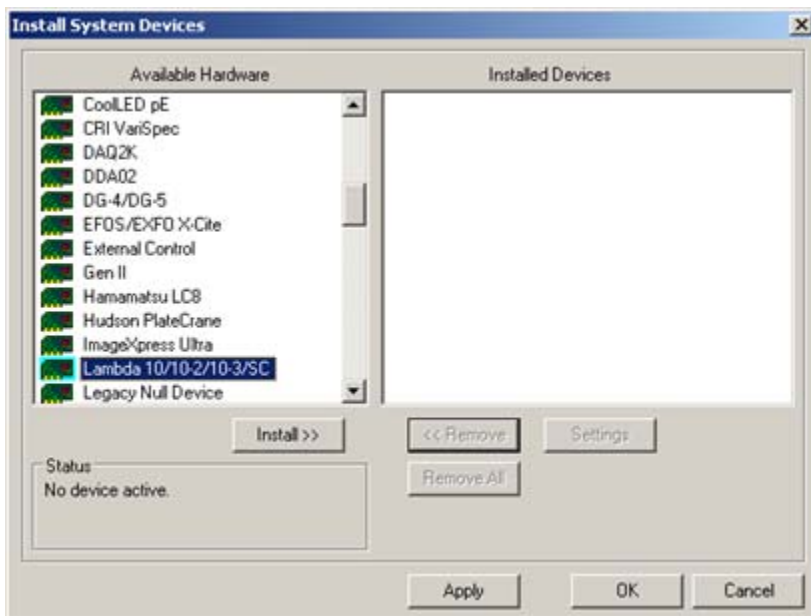
Install the Lambda LX as a Lambda 10B in Meta Imaging Series Administrator

These instructions are for versions of MIS software which do not implement a separate Lamabda LX device (MetaMorph 7.7.1 and above).

1. Launch Meta Imaging Series Administrator, and press the Configure Hardware Button.

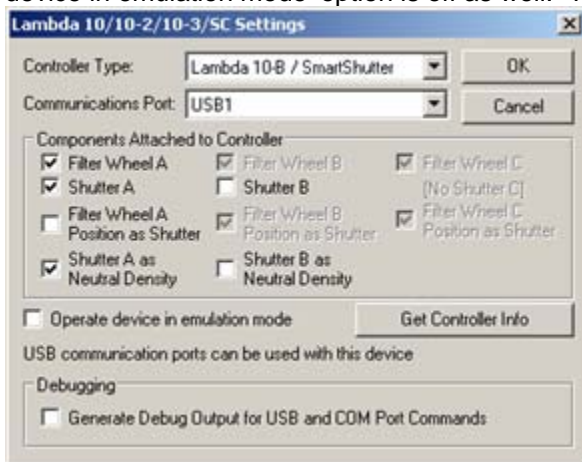


2. Press the Install System Devices button, and locate the Lambda 10/10-2/10-3/SC driver from the list of Available Hardware. Select it and press the Install button to add it to the list of Installed Devices.



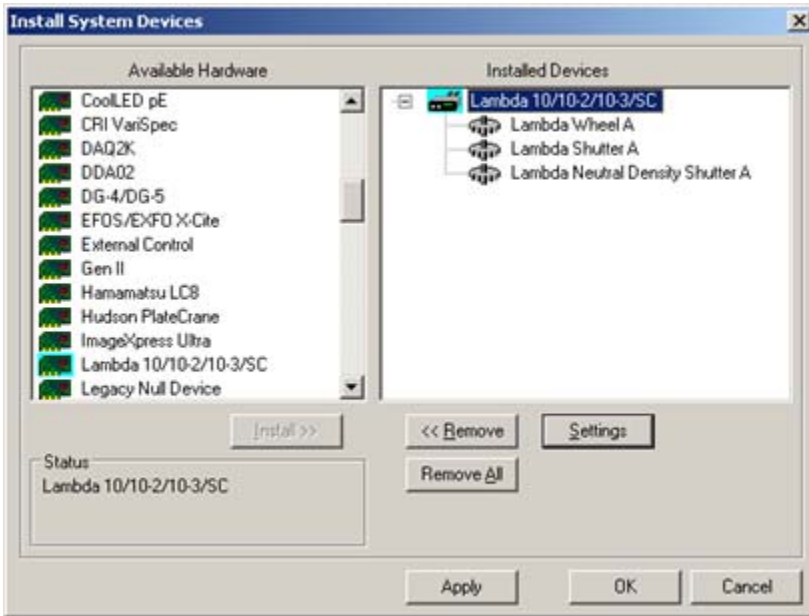
After pressing the Install button, you may get an error that the device can not be found. This is because Meta software defaults to using serial ports, and since the Lambda XL is on a USB port it won't be seen. Press OK to get through the error, we will fix it shortly...

3. Select the Lambda 10/.../SC component from the list of Installed Devices and press the Settings button. Change the Controller Type to Lambda 10-B / SmartShutter, the Communications Port to USB1, and make sure the Filter Wheel A, Shutter A, and Shutter A as Neutral Density components are turned on, and all other components are turned off. Make sure the 'Operate device in emulation mode' option is off as well. The final configuration should look like this:

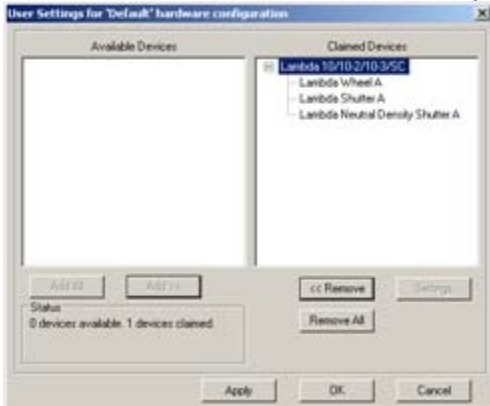


Note, if you have other Lambda controllers like a Lambda 10B or 10-3 o your system controlled via USB you may need to change the Communications Port to USB2

4. Press OK to close this dialog. The resulting device in the Install System Devices window should look like this:



5. Configure the Lambda Wheel A component with the correct filters for each wheel position.
6. Press OK to accept the changes in the Install System Devices dialog, then press the Configure Devices button. Select the Lambda XL from the list of Available Devices and press Add to 'Claim' the Lambda XL in the current hardware profile.



7. Press OK on the above dialog, and on all other dialogs until the Meta Imaging Series Administrator is closed.

Configuration Notes

- In earlier versions of MIS software configured this way the Lamp will not be recognized as a component of the Lambda LX. You will need to power on the lamp manually using the device keypad:

→ 6

- On the keypad, with the Lambda XL in Local control Mode, press the Local key.



The Lamp control menu will begin to scroll across the top showing you options from 1- to 6-.

- Press 1 to start the lamp. The lamp will take several seconds to ramp up, during which the power reading (the start of the second line, in the above image :0.1A) increase to roughly 8.5.
- When the lamp is done powering on, the menu will begin to scroll across the top row of the display again, and the lamp state will switch to 'LIT'. Press Local on the keypad to exit the Lamp menu.



Screen showing the lamp LIT at 100% intensity.

If there are any further questions, please contact Technical support at 800-635-5577 x1820 or support.dtn@moldev.com.