Neo Quick Start Guide

ANDOR
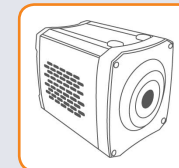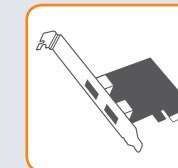an **Oxford Instruments** company

2 Unpacking your Camera and Accessories

1

Neo sCMOS Camera
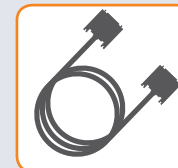
2

Software or Driver CD and User Manual on CD
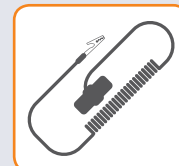
Camera Link PCIe Card (Neon)

Anti-Static Strap

PS-80 Power Supply

3

Country Specific Power Cord

Camera Link Cable
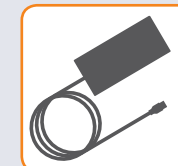
Multi I/O Timing Cable
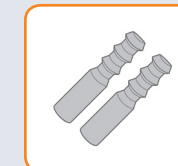
Coolant Pipes

* USB A to B cable also supplied (only used when updating firmware)

1 Preparing your Facility

Handle the camera and accessories with care. Neo sCMOS weighs 3.4 kg [7 lb 8 oz].

Observe anti-static precautions when installing the controller card and camera.

Ensure 100 mm clearance around camera and power supply vents (Do **not** block vents when operating on benchtop).

Operation of the camera close to intense pulsed sources (e.g. plasma and X-ray sources) may compromise performance.

Keep dry, <70% humidity non-condensing.

Use correct power supply and cables.

Store between -10°C and 50°C. operate between 0°C and 30°C

For information on water cooling, please refer to the user manual.

**Refer to the user manual for further information.**

3 Installing Software (Solis, SDK3 or iQ)

You must have administrator access on your PC to perform this installation.

The same instructions cover the installation procedure for Andor's Solis, SDK or iQ software, which is used in conjunction with third party software. If you are planning to run your camera through a third party interface you will require the Andor Drivers, called SDK3.

Switch on the PC, insert CD and run the **"setup.exe"** file on the CD or download location.

- Confirm the version of software.
- Follow the on screen prompts.
- Select the installation directory when prompted.
- When prompted for camera type select **Neo**.
- On the final window click on **"Install"**. During the installation a number of other windows will appear as various drivers are installed.
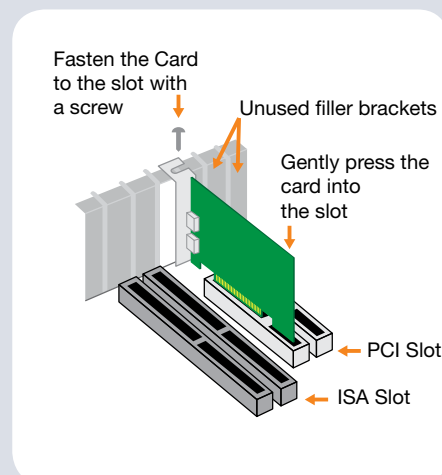- Click on the finish button when prompted.
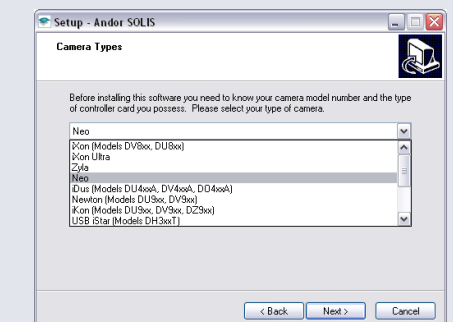
For more information visit: andor.com/software/software_support/

4 · Installing the Camera Link (PCIe) Card

Ensure your PC is powered off. Ensure anti-static precautions using anti-static strap provided. Keep all screws safe.

1. Unplug all cables from the rear of the computer.
2. Remove the PC enclosure so as to gain access to the expansion slots.
3. Locate a PCIe x16, x8 or x4 slot. If you are unsure which PC slot is correct, please consult the PC user manual.
4. Remove the filler bracket corresponding to the slot you intend to use.
5. Remove the controller card carefully from its protective ESD packaging and firmly press the card connector into the chosen expansion slot and ensure it is securely locked in.
6. Making sure that the card's mounting bracket is flush with any other mounting brackets or filler brackets to either side of it, secure the controller card in place.
7. Replace the cover of the computer and secure it with the mounting screws if applicable.
8. Reconnect any accessories you were using previously.

Fasten the Card to the slot with a screw

Unused filler brackets

Gently press the card into the slot

PCI Slot

ISA Slot

5 · Installing the PCI Card Device Driver

Restart your PC

Windows 8 and Windows 7

If you are running Windows 7 or 8, the drivers will be installed automatically during start-up.

NOTE: In Windows 7 and 8, allowing the computer to enter sleep mode will cause the Camera Link card to hang after wakeup. If this happens, the software will no longer be able to connect to the camera and a reboot will be required to reset the PCIe card. Users should deactivate sleep mode functions of the PC where possible (refer to Windows 7 or 8 help on your PC).
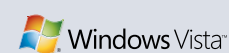
Windows Vista

If you are running Windows Vista you may be asked to specify the directory containing the Bitflow drivers. These are located in 'C:\Bitflow SDK 5.60 for Neo release 3\PlugAndPlay'.

Windows XP

If you are running Windows XP, the 'Found New Hardware Wizard' dialog will be displayed following boot up. When prompted 'Can Windows connect to Windows Update to search for software?', select 'No' and click on Next. Select 'Install the software automatically' option and click on 'Install'. The Camera drivers will now be installed.

Linux

If you are running Linux, please refer to the SDK CD. Any distribution specific differences will be noted in the installation instructions. Further support is available at andor.com/support.

6 · Connecting your Camera and Switching it on

Ensure that the Camera ON/OFF switch is in the OFF position AND your PC is switched OFF.
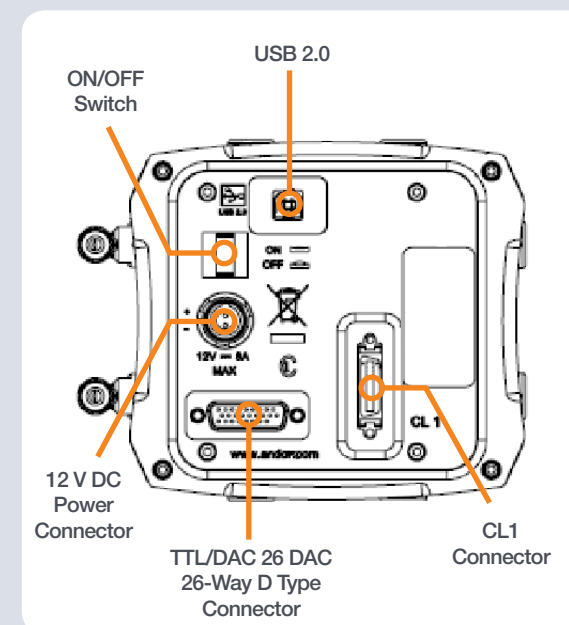
Mounting the Camera

• Attach the camera to lens or optical system using the camera C-mount (or F-mount) interface as required

Connecting the Signal and Power Cables

• Before inserting the 12V DC power connector to the rear of the camera, ensure the orientation is correct. **Never** forcibly insert the connector.

• Securely connect the camera link cable between the CL1 connector on the rear of the unit and the appropriate port on the PCIe card.

• If required connect the I/O expander cable to the 26 way I/O connector.

• Switch the Camera on using the ON/OFF switch.

• Turn on the PC.

• Start your software.

• Start acquiring data.

Water Cooling Guidelines

• If you require ultimate cooling please refer to the Neo user manual for guidelines on connection and use of a water/coolant system.

ON/OFF Switch

USB 2.0

12 V DC Power Connector

TTL/DAC 26 DAC 26-Way D Type Connector

CL1 Connector

⚠ Troubleshooting

Camera buzzer does not sound on start-up

• The camera buzzer should be audible momentarily when the camera is switched to ON.

• If this does not occur, ensure that power is connected to the camera and the ON/OFF switch is set to ON.

Camera is not recognized by PC

• Ensure camera is switched to ON (The camera must be powered up before the software is initiated).

• Check that the camera cable(s) are securely and correctly connected between the camera head and the PCIe card in the PC (shown in step 6).

• Check that the PCIe card and drivers have been installed properly: Control Panel – System – Hardware – Device Manager – Imaging Devices (refer also to user manual Section 3.4 and 3.5.

For additional troubleshooting information please refer to the user manual on the CD provided and for technical information about the Neo sCMOS go to: andor.com/neo