

# Zyla Quick Start Guide - Camera Link Models

**ANDOR**  
an Oxford Instruments company



## 2 Unpacking your Camera and Accessories

1



**Zyla sCMOS Camera (Camera Link version)**  
Zyla 5.5: 3-tap or 10-tap  
Zyla 4.2: 10-tap

2

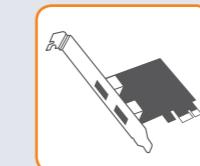


**Software or Driver CD and User Manual on CD**  
3-tap or 10-tap version (as appropriate)



**Anti-Static Strap**

3



**PCIe Card**  
3-tap or 10-tap version (as appropriate)



**Country Specific Power Cord**



**Camera Link Cable(s)**  
Zyla 3-tap version (x1)  
Zyla 10-tap version (x2)



**Power Supply Unit (x1)**



**Multi I/O Timing Cable**



**Coolant Pipes**  
Water cooled models only

## 1 Preparing your Facility



Handle the camera and accessories with care.  
Zyla sCMOS weighs 1.0 kg [2 lb 2 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.  
Zyla 5.5 (all models), Zyla 4.2 (water cooled): operate between 0°C and 35°C  
Zyla 4.2 (air cooled): operate between 0°C and 27°C



For water cooled models- the coolant system must be connected and water temperature set above the dew point before the camera is switched on. Refer to the dew point information in the user manual before use.

Refer to the user manual for further information.

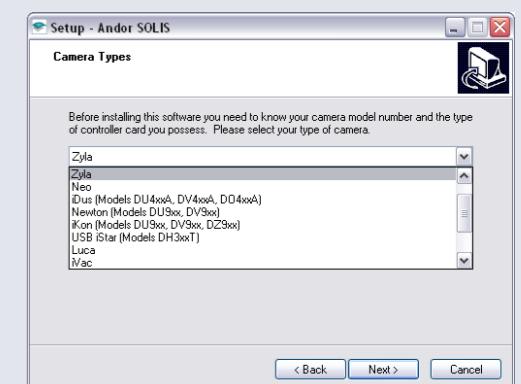
## 3 Installing Software (Solis, SDK3 or iQ)

### 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 **Solis (or SDK) 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.
- If prompted for camera type select Zyla.
- 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: <http://www.andor.com/scientific-software>

Please turn over

## 4 Installing the Camera Controller (PCIe) Card

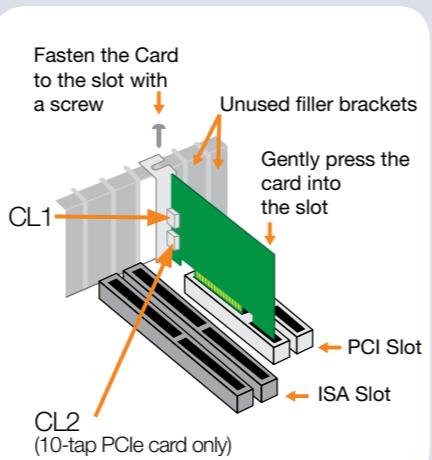


**Ensure your PC is powered off. Ensure anti-static precautions using anti-static strap provided. Keep all screws safe.**

1. Unplug all cables from the rear of the computer.
2. Open the PC enclosure to gain access to the expansion slots.
3. Locate a suitable PCIe slot:
  - **Zyla 5.5 3-tap** PCIe card: use x16, x8 or x4 PCIe slots
  - **Zyla 5.5 and Zyla 4.2 10-tap** PCIe card: use x16 or x8 PCIe slots **ONLY**If you are unsure which 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 insert the card connector fully into the expansion slot.
6. Ensure the card's mounting bracket is flush with any other mounting or filler brackets to either side of it, then secure the controller card in place.
7. Replace the computer cover and secure with mounting screws if applicable.
8. Reconnect any accessories you were using previously.
9. For PCs not supplied by Andor, refer to **Setting & Checking BIOS options** section.

### NOTES:

- Zyla 10-tap can not be run in 3-tap mode.
- Do not connect any other device to the PCIe card as this may interfere with normal camera operation or performance.
- Camera operation with PCIe cards not supplied by Andor cannot be guaranteed.



### Checking & Setting BIOS options (for PCs not supplied by Andor)

Enter the BIOS menu when starting PC. For Dell workstations, press F12 at start-up and select System Setup in the One Time Boot Menu. For Dell workstations 3 options in the Performance menu of the BIOS need to be checked/set:

- C-States Control – Disable C-States
- Intel Speed-step – Disable Speed-step
- Memory Node Interleaving – Set from NUMA to SMP. Note: This option is only available on larger workstations with 2 physical processors and may have a different name- ensure that NUMA is disabled.

## 5 Installing the PCI Card Device Driver

**Windows 7, 8 or 10:** Drivers are installed automatically at start-up. NOTE: For Windows 7 and 8, users should deactivate sleep mode functions of the PC where possible (refer to Windows 7 or 8 help on your PC). Otherwise the computer would enter sleep mode. This would stop the software connecting to the camera and a reboot would be required.

**Windows Vista:** you may be asked to specify the directory containing the Bitflow drivers. These are located in 'C:\Bitflow SDK 5.60\PlugAndPlay'.

**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:** please refer to the SDK CD. Any distribution specific differences will be noted in the installation instructions.

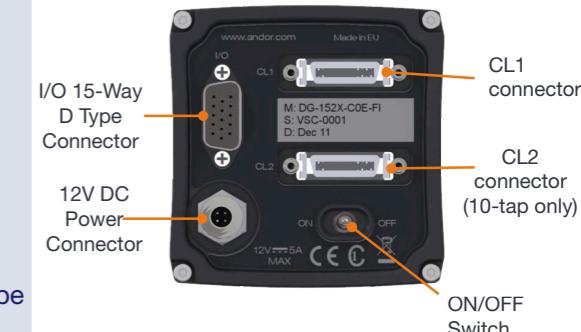
## 6 Connecting your Camera and Switching it on



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

- For **Water Cooled** models, ensure the coolant system is connected before the camera is switched on- *please refer to the user manual*.
- Insert the 12V DC power cable into the power connector at the rear of the camera, ensure the orientation is correct. **NEVER** forcibly insert the connector.
- For **Zyla 3 and 10-tap** versions, insert Camera Link Cable CL1 connector labelled 'CL1 CAM' into camera connector CL1.
- Insert the other end of the cable labelled 'CL1 PC' into PCIe card connector CL1.
- For **Zyla 10-tap** version only, also insert Camera Link Cable CL2 connectors labelled 'CL2 CAM' and 'CL 2 PC' into the CL2 connectors of the camera and PCIe card respectively.  
*Please refer to diagrams in both Steps 4 and 6 to identify the locations of the CL1 and CL2 connectors.*
- If required, connect the I/O expander cable to the I/O 15 way D type connector.
- Switch the camera ON using the ON/OFF switch. You should hear an audible confirmation (a short beep followed by a long beep).
- Turn ON the PC.
- Start your software.
- View and adjust the acquisition settings as required.
- Start acquiring data.

### Zyla 3 and 10-tap version Connections



### NOTES:

- If you need to adjust the C-mount, refer to the Zyla user manual.



## Troubleshooting

### Camera buzzer does not sound on start-up

- The camera buzzer should be audible momentarily (as a short beep followed by a long beep) 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).



For additional troubleshooting information please refer to the user manual  
For further technical information about the Andor Zyla series go to: [andor.com/Zyla](http://andor.com/Zyla)  
You can find the latest user manuals on MyAndor (<http://my.andor.com/login.aspx>)