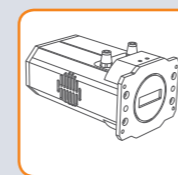




2 Unpacking the Boxes



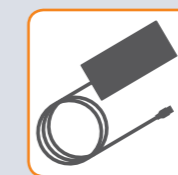
iDus 416 Camera



Software or Driver CD and User Manual on CD



Allen Key (x2)



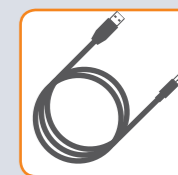
Power Supply



Quick Start Guide



Country Specific Power Cord



USB Cable



BNC-SMB Cable

1 Preparing Your Facility



Handle the camera and accessories with care. The iDus weighs 2.0 kg [4 lb 8 oz].



Use correct power supply and cables.



Observe anti-static precautions when installing the camera.



Operate between 0°C and 30°C
Store between -25°C and 50°C.



Ensure 90 mm clearance around camera and power supply vents (Do **not** block vents when operating on benchtop).



Refer to the cooling guidelines in your user manual for further information on use of optional water/coolant systems



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.

Refer to the user manual for further information.

3 Installing Software (Solis or SDK2)

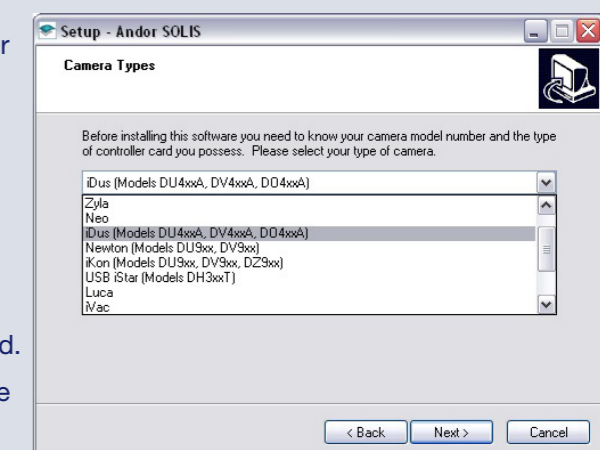
You must have administrator access on your PC to perform this installation.

The same instructions cover the installation procedure for Andor's Solis or SDK 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 SDK.

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 **iDus**.
- On the final window click on "Install". During the installation a number of other windows will appear as various drivers are installed.
- To complete the installation, when prompted select "Yes, restart the computer now" and click on the finish button.

For more information visit: andor.com/software/software_setup/



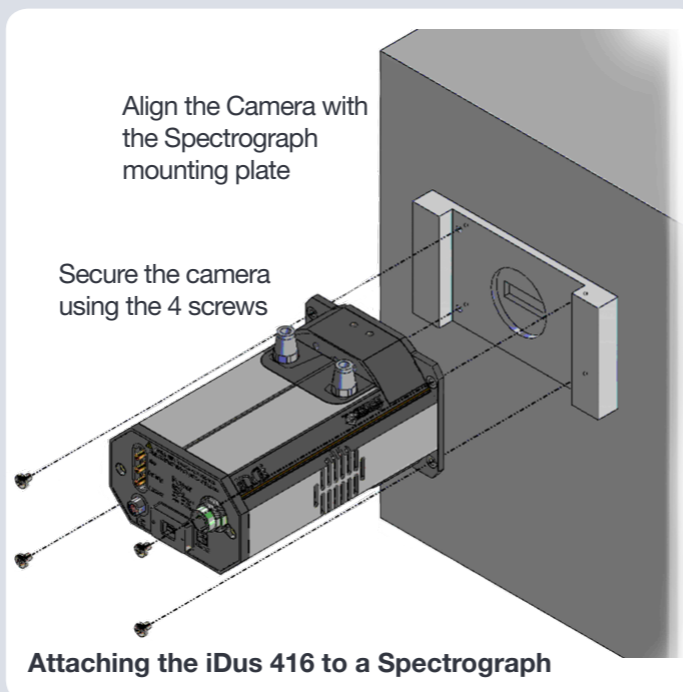
4 Connecting your Camera to a Spectrograph



Refer also to your Spectrograph User Guide

Attach the iDus 416 to the Spectrograph

1. Carefully remove the protective film from the front face of the camera.
2. Remove the blanking plate from the Spectrograph mounting plate.
3. Align the camera to the mounting plate of the Spectrograph as shown below.
4. Secure the camera to the Spectrograph as shown below, using the 4 screws provided.



Connect the cables between the iDus 416 and the Spectrograph

The Spectrograph can be controlled through either the SMB or I²C (where available) connections. Both options are shown below.

SMB

1. Connect the SMB to BNC cable to the camera SMB Shutter connection.
2. Connect the other end of the SMB to BNC cable to the Spectrograph Shutter BNC connection.

I²C (e.g. Shamrock 303i)

1. Connect the I²C cable to the I²C connection on the camera.
2. Connect the other end of the I²C cable to the I²C connection on the Spectrograph.
3. The SMB to BNC cable is not required.

5 Aligning your Camera to a Spectrograph



Refer also to your Spectrograph User Guide

If you bought an Andor Spectrograph with your iDus 416 it should come ready to use, but occasionally the mounting flange can become misaligned during shipping. If this has occurred, refer to the camera alignment section in the Spectrograph User Guide.

If you want to attach your iDus 416 camera to a spectrograph other than one ordered with your camera, refer to the Spectrograph User Guide for further information on alignment and focusing.

6 Connecting your Camera to the PC and switching it on



Ensure the mains power cable is not inserted before attaching the PSU to the camera.

1. Insert the power cable from the power supply into the 5-way DIN power connector at the rear of the camera. Secure in position using the screw-lock.
2. Insert the mains cable into the camera power supply unit.
3. Connect the USB cable to the camera and an available USB port on the PC.
Note: the PC is connected to both the Spectrograph and the camera by USB connections.
4. Ensure the camera and Spectrograph cable connections have been made as shown in Section 4.
5. Switch on the Spectrograph
6. Start your software.
7. Start acquiring data.

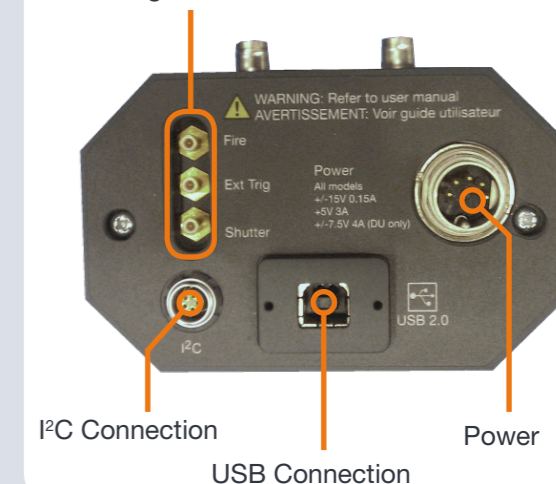


Using Optional Water Cooling

- Refer to user manual for connection information and guidelines.
- Always ensure that the temperature of the liquid coolant circulated through the camera head is above the dew point of the camera ambient.
- Use of coolant at or below the dew point will result in permanent damage to the camera head, due to formation of condensation on internal components.

iDus 416 Rear Panel Connections

TTL/Logic SMB Connections



? Troubleshooting

Camera is not recognized by PC

- Check that the camera power and USB cable are connected securely and the mains power cable is inserted.
- Ensure the Spectrograph is powered up before the camera is powered up.
- Check that the drivers have been installed properly (Control Panel – System – Hardware – Device Manager – Imaging Devices).

Temperature Trip Alarm sounds (continuous tone)

Should the buzzer sound ensure the following:

Air Cooling

- Check that the air vents on the camera are not blocked and there is sufficient clearance (90 mm) around the camera
- The ambient air temperature is not above 30°C.
- The fan has not been deactivated (or the speed set too low) in software.

Water Cooling

- Check that the cooling system is operating correctly
- NOTE: When using water cooling, always use water that is above the dew point of the ambient environment to prevent condensation from occurring.

For additional troubleshooting information please refer to the user manual on the CD provided and for technical information about the iDus 416 go to: andor.com/iDus