

Learning Environments user guide: Document cameras

A document camera is a video camera designed to display documents and 3-D objects on a display device, for example a computer monitor or data projector. The power of a document camera lies in its flexibility - you can point, mark, zoom in and out and view objects from different angles by moving them. If you want to display anything other than a computer-generated image then a document camera is the tool to use.

A document camera can capture and project any object placed in its field of vision. Examples of objects that can be projected include:

- Pieces of paper
- Pages in a book
- Transparencies
- Three-dimensional objects
- 35mm slides
- X-rays
- Large items or a person in a room.

Turning on a document camera

Turning on a document camera and displaying documents or objects via the installed data projector is a two-step process:

1. **Turn on the document camera.**

The power switch is located in the upper right-hand corner of the document camera. Use this switch to turn on the document camera.

2. **Turn on the data projector.**

The data projector is controlled by either a touch panel control system or a hand held remote control.

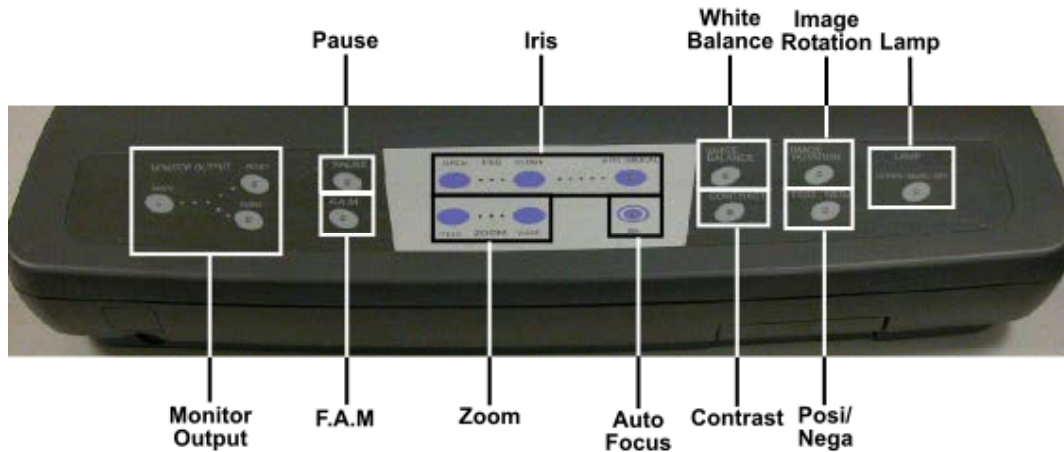


Power switch location

See the room database for a listing of learning spaces with installed document cameras and user guides for these spaces:

<http://le.unimelb.edu.au/room/room-search.html>

Using the document camera controls



The following controls are available from the front panel of the document camera:

Control	Function
Pause	Pressing the Pause button captures & freezes the image that is currently being displayed. Pressing the pause button again un-freezes the image and returns the document camera to normal operation.
Iris	Pressing the Open or Close iris buttons adjusts the brightness of the image. Pressing the Auto/Manual button toggles between automatic and manual iris adjustment. The default iris setting is automatic.
White Balance	Pressing the White Balance button allows you to adjust the colour balance of the image being displayed
Image Rotation	Pressing the Image Rotation button rotates the displayed image 90° counter clockwise each time the button is pressed.
Lamp	Pressing the Lamp button cycles between the upper lamp on, base lamp on and lamp off.
Monitor Output	Must be set to Main output. The other two settings (RGB1 & RGB2) are used when devices are connected to the document camera's two VGA inputs. No devices are connected to document camera inputs in shared teaching spaces, so ensure you only use the Main output!
F.A.M	Pressing F.A.M (Frame Accumulate Mode) reduces any roughness in the projected image by digitally combining several images of the same document.
Zoom	Pressing the Tele or Wide buttons enlarges or reduces the displayed image.
Auto Focus	Pressing the AF button activates auto focus.
Contrast	Pressing the Contrast button increases the contrast of the object being displayed. The contrast indicator light will turn on to indicate that you are in contrast mode. Use this control when displaying paper-based documents.
Posi/Nega	Pressing the Posi/Nega button toggles the image between positive (normal view) and negative mode (which is like a photographic negative).

Selecting a lamp



Document cameras have two sets of lamps - the upper lamp and base lamp:

- Use the upper lamp to display paper documents or other three-dimensional objects.
- Use the base lamp if you want to display transparencies - the base lamp turns the document camera into a light box or an overhead projector.

Pressing the lamp button cycles through the three lamp settings - upper lamp, base lamp and lamp off.

Using white balance



If the colours of image you are displaying look “wrong” - with a red or blue tinge for example - you may have to manually adjust the document camera’s white balance.

To manually adjust white balance on the document camera:

1. Select & turn on the lamp that you will be using.
2. Zoom the document camera’s camera so as the white base fills the screen.
3. Press the **White Balance** button.

NOTE: The default white balance setting is automatic.

Adjusting the iris



Pressing the **Open** or **Close** iris buttons adjusts the brightness of the displayed image.

Pressing the **Auto/Manual** button toggles between automatic and manual iris adjustment.

You can tell what setting the iris is currently on by observing the following:

- When set to automatic, the **Auto/Manual** button is not lit
- When set to manual, the **Auto/Manual** button is lit.

NOTE: The default iris setting is automatic.

Using the remote control

Most document camera functions can be accessed from the front panel of the document camera. However, some features (for example, manual focus) can only be accessed via the document camera's hand held remote control:

- The document camera remote control is stored in a drawer located on the front, right-hand side of the document camera.
- You need to push the drawer to access the remote control.
- Return the remote control to this drawer when you have finished.



Remote control location

Using manual focus

Some objects can not be brought into focus using auto focus:

- Objects with low contrast.
- Objects with fine repeated patterns.
- Reflective objects.
- Moving objects.
- Some three-dimensional objects.

If you cannot get an object to focus using auto focus, use the **Near** and **Far** focus buttons on the hand held remote control.



Document camera remote control

NOTE: If there is no remote control for the document camera, contact the Learning Space Support service desk:

- Phone: ext. 47064
- Web: <http://le.unimelb.edu.au/forms/enquiry.html>

Report any errors or omissions in this user guide to:

les-guides@unimelb.edu.au

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