

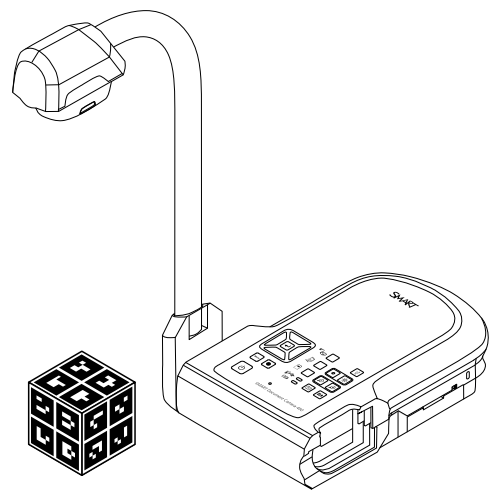
## Specifications

# SMART Document Camera- TM

## Model SDC-450

### Physical specifications

<b>Size</b>	
Folded	25.4cm W x 7cm H x 30.5cm D (10" x 2 3/4" x 12")
Set up	20.3cm W x 55cm H x 38cm D (8" x 21 3/4" x 15")
<b>Weight</b>	2.45kg (5.4lb)
<b>Dispatch size</b>	48.2cm W x 14.5cm H x 32cm D (19" x 5 3/4" x 12 5/8")
<b>Dispatch weight</b>	4.5kg (10lb)
<b>Mixed reality cube</b>	
Size	5.5cm W x 5.5cm H x 5.5cm D (2 1/8" x 2 1/8" x 2 1/8")
Weight	57g (2oz)



All dimensions +/- 0.3cm (1/8"). All weights +/- 30g (1oz).

### Standard features

Flexible camera arm with rotational movement for easy positioning and storage.

<b>Lighting</b>	Built-in LED illumination lamp
<b>Lens</b>	Lens with manual and automatic focus f 6.26 (~30.75 mm); f 3.2 (wide) f 6.8 (tele)
<b>Zoom</b>	8× optical , 10× digital, 80× total magnification
<b>Resolution</b>	5MP sensor and resolution
<b>Frame rate</b>	30 fps max.
<b>Brightness control</b>	Automatic and manual brightness control
<b>Shooting area</b>	Max. 40cm x 30cm (15 3/4" x 11 3/4")

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### Input/output connections

<b>Video format</b>	Analogue composite format PAL/NTSC selectable 2-position switch; using RCA connector with supplied RS-232 / composite video cable
<b>VGA output</b>	Analogue RGB output 0.7V 75Ω unbalanced XGA: 1024 × 768 60 Hz SXGA: 1280 × 1024 60 Hz HDTV 720p: 1280 × 720 60 Hz HDTV 1080p: 1920 × 1080 60 Hz
<b>DVI-I</b>	Provides both analogue and digital output formats HD 1080p 60 Hz; HD 720p 60 Hz; XGA 60 Hz, SXGA 60 Hz
<b>VGA input</b>	D-sub 15 pin pass through
<b>USB connection</b>	USB mini-B (connect to computer)
<b>SD memory card slot</b>	1GB to 32GB
<b>Mass storage mode</b>	Change from camera to mass storage mode using on-screen display (OSD) to access the SD card and internal memory via USB.
<b>Internal memory</b>	Internal memory for storage of up to 240 images
<b>Video recording</b>	Onto USB flash drive / SD / SDHC
<b>Audio connections</b>	
Audio In (microphone)	3.5 mm jack
Audio Out	3.5 mm jack
Microphone	Built-in microphone for voiceover during video recording

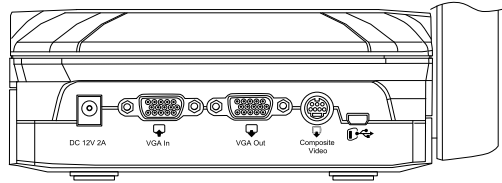
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### Connection panels

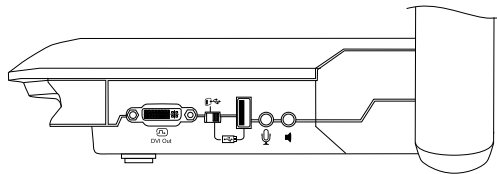
#### Rear panel

The rear connection panel has DC 12V 2A, VGA In, VGA Out, Composite Video out and USB mini-B connectors.



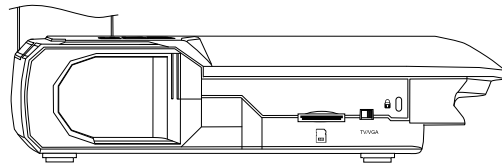
#### Left panel

The left connector panel has a DVI output, a switch for selecting either computer or USB flash drive and audio in and out connections.



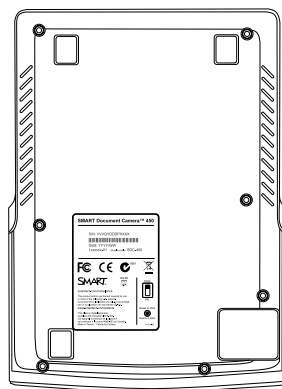
#### Right panel

The right connector panel has a SD/SDHC memory card slot, a switch for selecting VGA-DVI or composite video output and a security lock slot.



#### Bottom panel

The bottom panel has a NTSC-PAL switch to change the format of the composite video output for your television and a resolution reset button to reset the VGA/DVI resolution output to XGA.



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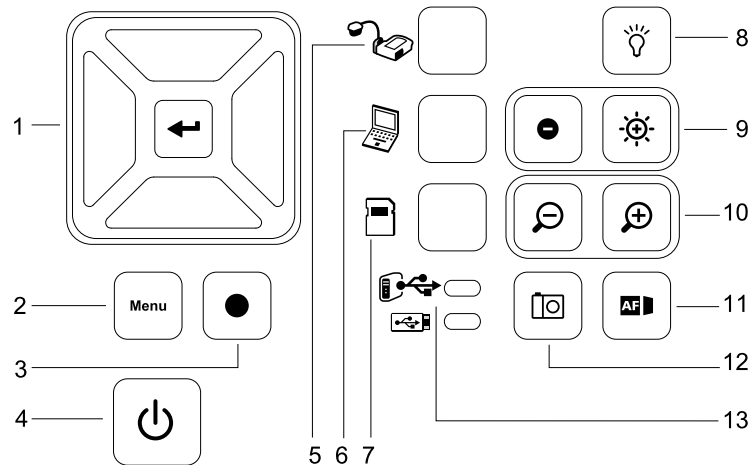
<b>Power consumption</b>	Max. 21.6 W
<b>Energy efficiency</b>	Level V Energy Star energy efficiency rating
<b>Power source</b>	100 - 240V, 50/60 Hz
<b>DC power supply</b>	12V, 2A  5.5 mm, no centre pin DC power socket  Includes plug adapters for power supply for North America, the United Kingdom, the European Union and Australia.
<b>Cables</b>	1.5m (5') power cable  1.8m (5' 9") USB-A to USB mini-B  1.8m (5' 9") VGA cable, HD15, M-M  Composite video adapter cable (RS-232 / composite video)
<b>Software</b>	SMART Notebook™ collaborative learning software and Mixed Reality Tools for the SMART Document Camera are available from <a href="http://smarttech.com/software">smarttech.com/software</a> . SMART Notebook 11 SP1 software or later is required for Mixed Reality Tools. See the SMART Notebook software release notes for a complete list of system requirements.  Mixed Reality Tools enables you to manipulate 3D models in .notebook files using your SMART Document Camera and mixed reality cube. For more information, see the <i>SMART Document Camera 450 user's guide</i> ( <a href="http://smarttech.com/kb/170279">smarttech.com/kb/170279</a> ).
<b>Supported operating systems</b>	Windows® XP (32-bit), Windows Vista® (32-bit, 64-bit), Windows 7 (32-bit, 64-bit), Mac OS X 10.6 and later– Intel® only (PowerPC® not supported)
<b>Also includes</b>	Mixed reality cube  Anti-glare sheet  Microscope adapter
<b>Documentation</b>	Included with the product: registration card, warranty sheet, cautions and warnings and quick connect guide. The user's guide is available online.
<b>Warranty</b>	Five-year limited equipment warranty. See warranty document for details.
<b>Environmental compliance</b>	EU RoHS, EU WEEE
<b>Regulatory certification</b>	CB, CE, C-Tick, FCC

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### User interfaces

#### Control panel



- |                                |  |
|--------------------------------|--|
| 1 Select/Enter                 | 87 Select Playback                                       |
| 2 Menu                         | 8 LED Lamp ON/OFF  |
| 3 Record video                 | 9 Image brightness                                       |
| 4 Power ON/OFF                 | 10 Zoom IN/OUT   |
| 5 Select camera                | 11 Auto-focus  |
| 6 Select computer pass-through | 12 Capture to SMART Notebook software or to local memory |
|                                | 13 USB usage indicator: computer or memory stick         |

**OSD** There are four tabs on the OSD menu: Image, Presentation, Setting and System.

#### Camera mode

- |                |  |
|----------------|--|
| Image settings | <ul style="list-style-type: none"> <li>Brightness: adjust the brightness level manually between 0 - 63</li> <li>Contrast: adjust the contrast level manually between 0 - 255</li> <li>Mode: select from six types of image settings (Sharp, Graphics, Motion, Microscope, Macro and Infinite)</li> <li>Effect: convert the image into colour, black/white or film negative</li> <li>Mirror: select to flip the image</li> <li>Advanced: select to set the Auto Image, Exposure and White Balance</li> <li>Focus: adjust the focus manually</li> <li>Rotate: select to rotate the image by 90° in Camera mode only</li> </ul> |
| Presentation   | <ul style="list-style-type: none"> <li>Picture in Picture (PIP): shows a thumbnail image of captured picture/video from the memory in the corner of the screen in Camera mode</li> <li>Split Screen: divides screen into two</li> <li>Timer: on-screen countdown timer</li> </ul>  |

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### Camera mode

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Setting	<ul style="list-style-type: none"><li>○ Capture: set captured image options (resolution, quality and single/continuous)</li><li>○ Recording: set recorded video quality</li><li>○ Storage: select SD memory card, USB flash drive or built-in memory</li><li>○ Format: delete all data from the selected memory</li><li>○ USB to PC: select the mode of your document camera</li><li>○ Flicker: select refresh rate between 50 Hz - 60 Hz</li></ul>
System	<ul style="list-style-type: none"><li>○ Language: select or change language</li><li>○ Output Display: set the resolution to display the image on screen</li><li>○ Backup: copy images from the built-in memory to a SD card or USB flash drive</li><li>○ Save Setting: save current setting in the selected profile number</li><li>○ Recall Setting: restore the setting back to the selected profile number</li><li>○ Information: display product information</li><li>○ Default: restore all settings to factory default settings</li></ul>

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**Microscope** Microscope mode is supported with included adapter.

### Operating specifications

<b>Temperature</b>	0°C to 35° (C32°F to 95°F)
<b>Humidity</b>	30% to 85% humidity, non-condensing

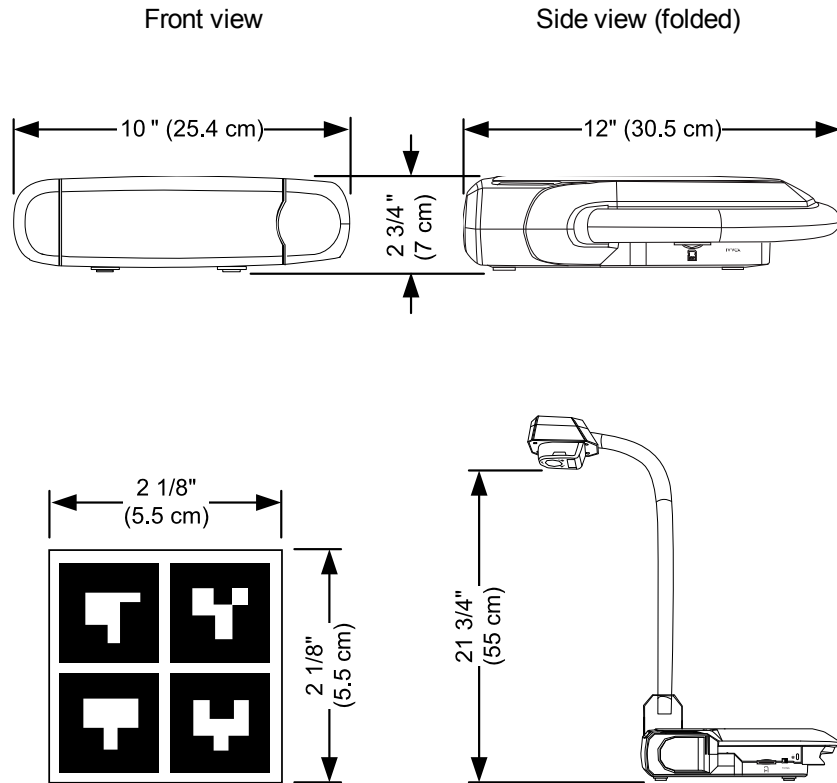
### SMART order numbers

<b>SDC-450</b>	SMART Document Camera 450
<b>FRU-CUBE</b>	Replacement mixed reality cube
<b>1013550</b>	Mixed reality collaboration cube

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### Physical dimensions



Mixed reality cube

Side view (set up)

[smarttech.com/support](http://smarttech.com/support)

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