



# SMART Ultra HD Camera

## User guide

SWC-120UHD | C120-1



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## Learn more

This guide and other resources for SMART Ultra HD Camera are available in the Support section of the SMART website ([smarttech.com/support](https://smarttech.com/support)). Scan this QR code to view these resources on your mobile device.

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March 9, 2023

# Important information

## Warning

For indoor use only

## Important

This product may contain substances that are candidate SVHCs under the EU REACH Regulation (EC) 1907/2006. Check <https://echa.europa.eu/scip-database> for the latest information.

## Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their expense.

## Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment

### **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20cm between the radiator & your body.

FCC

Supplier's Declaration of Conformity

47 CFR § 2.1077 Compliance Information

Unique Identifier: C120-1

Responsible Party – U.S. Contact Information

SMART Technologies Inc.

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Seattle, WA 98121

[compliance@smarttech.com](mailto:compliance@smarttech.com)

## Innovation, Science, and Economic Development Canada Statement

This device complies with CAN ICES-003(A) / NMB-003(A) of the Innovation, Science and Economic Development Canada Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

## Important information

Ce dispositif est conforme à la norme CAN ICES-003(A) / NMB-003(A) d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes:

1. le dispositif ne doit pas produire de brouillage préjudiciable, et
2. ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

## EU Declaration of Conformity

Hereby, SMART Technologies ULC declares that the C120-1 complies with Directive 2014/30/EU. The full text of the EU and UK declaration of conformity is available at the following Internet address: [smarttech.com/compliance](http://smarttech.com/compliance)

## Hardware environmental compliance

SMART Technologies supports global efforts to ensure that electronic equipment is manufactured, sold, and disposed of in a safe and environmentally friendly manner.

### Waste Electrical and Electronic Equipment regulations (WEEE and Battery Directive)

Electrical and electronic equipment and batteries contain substances that can be harmful to the environment and to human health. The crossed-out wheeled bin symbol indicates that products should be disposed of in the appropriate recycling stream and not as regular waste.



### Batteries

The SMART Ultra HD Camera remote contains two AAA batteries. Recycle or dispose of batteries properly.

See [smarttech.com/compliance](http://smarttech.com/compliance) for more information.

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# Chapter 1 **Welcome**

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## About this guide

This guide is for users who set up and use the SMART Ultra HD Camera in their organizations.

It includes information about setting up the camera and using the camera's on-screen display menu and software.

For more information, such as videos, training, and how-to topics, visit [support.smarttech.com/docs/redirect/?product=smartultrahdcamera](https://support.smarttech.com/docs/redirect/?product=smartultrahdcamera).

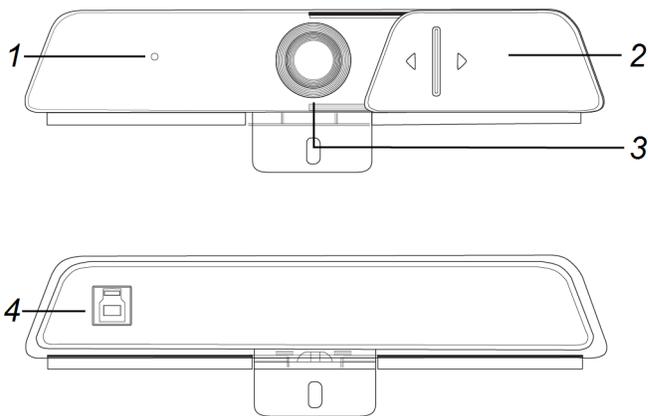
## Features

The SMART Ultra HD Camera 120 is a 4K Ultra-HD camera with ePTZ. Easily install the camera on a SMART Board® interactive display. The camera can automatically frame people meeting in a boardroom.

Feature	Details
Image	<ul style="list-style-type: none"><li>• 1/2.8" 4K CMOS 8.28 megapixels</li><li>• 10x digital zoom 138°( D ) /120°(H)/68°(V)</li></ul>
Function	<ul style="list-style-type: none"><li>• Automatic framing</li><li>• UVC USB communication protocol</li><li>• Supports ePTZ for Windows and Mac computers</li></ul>
Physical construction	<ul style="list-style-type: none"><li>• Sliding cover for the camera</li></ul>

Feature	Details
Supported operating systems	<ul style="list-style-type: none"> <li>• Windows® 10 or later</li> <li>• macOS 10.10 or later</li> <li>• Android™ 11</li> <li>• Linux® 4.9.84</li> </ul>
Supported SMART hardware	<ul style="list-style-type: none"> <li>• SMART Board QX Pro series</li> <li>• SMART Board® 6000S and 6000S Pro series</li> <li>• SMART Board MX (V4) and MX (V4) Pro series</li> </ul>

## Components



No.	Component	Notes
1	Indicator light	Indicates when the camera is on.
2	Camera cover slider	Can cover the camera lens. Slide left to cover lens when not in use.
3	Camera lens	Keep clean to ensure best picture quality.
4	USB 3.0 Type-B	Use cables provided with the camera.

## Chapter 2 Installing and connecting your camera

You or your organization's installers can install the camera on a supported SMART Board interactive display's following the camera's installation instructions: [SMART Ultra HD Camera illustrated installation instructions](#).

### **Caution**

Do not install or remove the camera while the display is turned on. Ensure the power switch on the back of the display is in the OFF (O) position. The switch is located beside the AC power inlet.

For a list of SMART Board interactive displays in which you can install the camera, see *Supported SMART hardware* on page 7.

## Chapter 3 **Enable your camera**

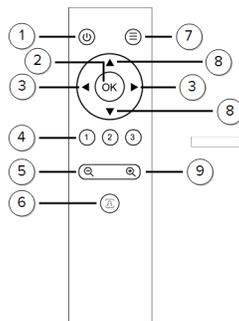
Once the camera is installed, enable camera mode to use it on your display.

1. Ensure your display is turned on.
2. On the main screen of your display, select **Apps**.
3. Select **Camera** from the available apps.

Tip: For the best picture, and effective remote control operation, ensure that the camera cover slider is slid all the way to the right.

# Chapter 4 Using the remote control

Use the infrared remote control to turn the web camera on or off, to open the on-screen menu, and reposition the camera.



No.	Name	Procedure
1	Pause	Enable or disable the camera. The camera goes into standby mode when it's paused - it does not turn off.
2	OK	Press OK to reset the camera position.
3	Left and right buttons	Press Left to pan the camera left. Press Right pan the camera right.  <b>Tip</b> You cannot pan when the camera is fully zoomed out.
4	Preset	Save up to three camera positions. See <i>Using the preset buttons</i> on the next page.
5	Zoom out	Press to decrease the camera's zoom.
6	Auto framing	Turn on or off automatic framing. Automatic framing centers the camera on meeting participants.
7	Menu	<ul style="list-style-type: none"> <li>Press to open the on-screen menu.</li> <li>If in the top level of the on-screen menu, press <b>Menu</b> to exit.</li> <li>If in the on-screen menu, press <b>Menu</b> to return to the previous menu.</li> </ul>
8	Up and down buttons	Press Up to tilt the camera up. Press Down to tilt the camera down.  <b>Tip</b> You cannot tilt when the camera is fully zoomed out.
9	Zoom in	Press to increase the camera's zoom.

# Using the preset buttons

## To save a preset

1. Set the camera's pan, tilt, and zoom position.
2. Press **1**, **2**, or **3** for 3 seconds to save the camera position. When you release the button, **Set preset #** displays. If you hold the button too long, **Clean preset #** displays.

### Note

You can save over a preset.

## To recall a preset

Press **1**, **2**, or **3** for 1 second to recall a saved camera position.

## To delete a preset

Press **1**, **2**, or **3** for 5 seconds to delete a saved camera position. **Clean preset #** displays

# Chapter 5 Adjusting on-screen display menu settings

Use the on-screen display (OSD) menu to adjust settings for your camera.

## Note

Some video conferencing software mirrors the camera image on the screen, so the on-screen menu will be reversed and difficult to read.

## Changing settings in the on-screen display menu

1. Press **≡** on the remote control.  
The on-screen display menu appears.
2. Press the up and down arrows to highlight a menu, and then press **OK** to enter the menu.
3. Press the left and right arrows to change the menu option's setting.

To return to the main menu, press **≡** on the remote control.

## Setup

Option	Values	Function
• (Auto Framing)	On Off	
• Sensitivity	0–2	Adjusts the sensitivity of Auto Framing. Only available when Auto Framing is enabled.
• Image style	Default Normal Clarity Bright Soft	
• USB mode	Bulk ISOC	This feature is enabled once the camera is restarted.

# Exposure

Option	Values	Notes
• Mode	Auto Manual SAE Bright	
• EV	On Off	Only available when Auto is selected under <u>Mode</u> .
• EV level	-7<0<+7	EV level is only available when EV is enabled and Auto is selected under <u>Mode</u> .
• Backlight compensation	On Off	BLC is only available when Auto is selected under <u>Mode</u> .
• Flicker reduction	Off 50 Hz 60 Hz	Flicker is only available when Auto, SAE, or Bright is selected under <u>Mode</u> .
• Gain limit	0-15	Gain limit is only available when Auto or Bright is selected under <u>Mode</u> .
• DRC	Off 1-8	
• Shutter speed	1/5    1/100    1/350    1/8000 1/25    1/120    1/500    1/10000 1/30    1/180    1/1000    1/20000 1/90    1/250    1/6000    1/32000	Shutter speed can only be set when Manual or SAE is selected under <u>Mode</u> .
• Brightness	0-23	Brightness can only be set when Bright is selected under <u>Mode</u> .
• Gain	0-15	Again can only be set when Manual or SAE is selected under <u>Mode</u> .

## Color

Option	Values	Notes
<ul style="list-style-type: none"> <li>White balance mode</li> </ul>	Auto Manual Onepush VAR	
<ul style="list-style-type: none"> <li>RG tuning</li> </ul>	-10-10	
<ul style="list-style-type: none"> <li>BG tuning</li> </ul>	-10-10	
<ul style="list-style-type: none"> <li>Saturation</li> </ul>	0%-50%	
<ul style="list-style-type: none"> <li>Hue</li> </ul>	0-8	
<ul style="list-style-type: none"> <li>AWB sensitivity</li> </ul>	High Middle Low	AWB sensitivity can only be set when <u>Auto mode</u> in the Exposure menu is enabled.

## Image

Option	Values	Notes
<ul style="list-style-type: none"> <li>Brightness</li> </ul>	0-100	
<ul style="list-style-type: none"> <li>Contrast</li> </ul>	0-100	
<ul style="list-style-type: none"> <li>Sharpness</li> </ul>	0-15	
<ul style="list-style-type: none"> <li>Flip H</li> </ul>	On Off	
<ul style="list-style-type: none"> <li>Flip V</li> </ul>	On Off	
<ul style="list-style-type: none"> <li>B&amp;W mode</li> </ul>	On Off	
<ul style="list-style-type: none"> <li>Gamma</li> </ul>	Default 0.34 0.39 0.47 0.5	
<ul style="list-style-type: none"> <li>Low-light mode</li> </ul>	On Off	

## Noise reduction

Option	Values	Notes
• 2D DNR	Off 1-7	2D digital noise reduction
• 3D DNR	Off 1-8	3D digital noise reduction

## Version

Option	Values	Notes
• Camera Version		Version of camera software.

## Restore Default

Option	Values	Notes
• Restore Default?	Yes No	Resets all options to their default values.

# Chapter 6 **Using your camera with SMART Board interactive displays and iQ**

Once you've installed the camera, you can use it with video conferencing software, like Microsoft Teams or Zoom.

# Chapter 7 **Maintaining your camera**

Follow these instructions to clean the camera without damaging its components.

- Use soft cloth or tissue to clean the camera cover.
- Wipe it with a soft, dry cloth when cleaning the camera lens.
- Wipe it gently with a mild detergent if needed. Do not use strong or corrosive detergents to avoid scratching the lens and affecting the video quality.

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