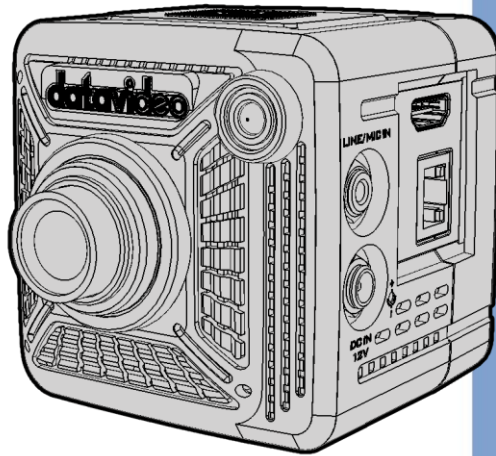


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4K CS MOUNT POV Camera/4K NDI CS MOUNT POV Camera

BC-15C/BC-15CN

Instruction Manual

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Disclaimer of Product and Services

The information offered in this instruction manual is intended as a guide only. At all times, Datavideo Technologies will try to give correct, complete and suitable information. However, Datavideo Technologies cannot exclude that some information in this manual, from time to time, may not be correct or may be incomplete. This manual may contain typing errors, omissions or incorrect information. Datavideo Technologies always recommend that you double check the information in this document for accuracy before making any purchase decision or using the product. Datavideo Technologies is not responsible for any omissions or errors, or for any subsequent loss or damage caused by using the information contained within this manual. Further advice on the content of this manual or on the product can be obtained by contacting your local Datavideo Office or dealer.

FCC Compliance 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.

Warnings and Precautions

1. Read all of these warnings and save them for later reference.
2. Follow all warnings and instructions marked on this unit.
3. Unplug this unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this unit in or near water.
5. Do not place this unit on an unstable cart, stand, or table. The unit may fall, causing serious damage.
6. Slots and openings on the cabinet top, back, and bottom are provided for ventilation. To ensure safe and reliable operation of this unit, and to protect it from overheating, do not block or cover these openings. Do not place this unit on a bed, sofa, rug, or similar surface, as the ventilation openings on the bottom of the cabinet will be blocked. This unit should never be placed near or over a heat register or radiator. This unit should not be placed in a built-in installation unless proper ventilation is provided.
7. This product should only be operated from the type of power source indicated on the marking label of the AC adapter. If you are not sure of the type of power available, consult your Datavideo dealer or your local power company.
8. Do not allow anything to rest on the power cord. Do not locate this unit where the power cord will be walked on, rolled over, or otherwise stressed.

9. If an extension cord must be used with this unit, make sure that the total of the ampere ratings on the products plugged into the extension cord do not exceed the extension cord's rating.
10. Make sure that the total amperes of all the units that are plugged into a single wall outlet do not exceed 15 amperes.
11. Never push objects of any kind into this unit through the cabinet ventilation slots, as they may touch dangerous voltage points or short out parts that could result in risk of fire or electric shock. Never spill liquid of any kind onto or into this unit.
12. Except as specifically explained elsewhere in this manual, do not attempt to service this product yourself. Opening or removing covers may expose you to dangerous voltage points or other risks, and will void your warranty. Refer all service issues to qualified service personnel.
13. Unplug this product from the wall outlet and refer to qualified service personnel under the following conditions:
 - a. When the power cord is damaged or frayed;
 - b. When liquid has spilled into the unit;
 - c. When the product has been exposed to rain or water;
 - d. When the product does not operate normally under normal operating conditions. Adjust only those controls that are covered by the operating instructions in this manual; improper adjustment of other controls may result in damage to the unit and may often require extensive work by a qualified technician to restore the unit to normal operation;
 - e. When the product has been dropped or the cabinet has been damaged;
 - f. When the product exhibits a distinct change in performance, indicating a need for service.

Warranty

Standard Warranty

- Datavideo equipment are guaranteed against any manufacturing defects for one year from the date of purchase.
- The original purchase invoice or other documentary evidence should be supplied at the time of any request for repair under warranty.
- The product warranty period begins on the purchase date. If the purchase date is unknown, the product warranty period begins on the thirtieth day after shipment from a Datavideo office.
- All non-Datavideo manufactured products (product without Datavideo logo) have only one year warranty from the date of purchase.
- Damage caused by accident, misuse, unauthorized repairs, sand, grit or water is not covered under warranty.
- Viruses and malware infections on the computer systems are not covered under warranty.
- Any errors that are caused by unauthorized third-party software installations, which are not required by our computer systems, are not covered under warranty.
- All mail or transportation costs including insurance are at the expense of the owner.
- All other claims of any nature are not covered.
- All accessories including headphones, cables, and batteries are not covered under warranty.
- Warranty only valid in the country or region of purchase.
- Your statutory rights are not affected.

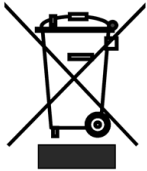
Three Year Warranty

- All Datavideo products purchased after July 1st, 2017 are qualified for a free two years extension to the standard warranty, providing the product is registered with Datavideo within 30 days of purchase.
- Certain parts with limited lifetime expectancy such as LCD panels, DVD drives, Hard Drive, Solid State Drive, SD Card, USB Thumb Drive, Lighting, Camera module, PCIe Card are covered for 1 year.



- The three-year warranty must be registered on Datavideo's official website or with your local Datavideo office or one of its authorized distributors within 30 days of purchase.

Disposal



For EU Customers only - WEEE Marking

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

1. Product Overview

The BC-15C/BC-15CN is a compact 4K CS Mount POV camera with a newly designed 1/2.3" 4K CMOS sensor that captures high-quality images and incredible details of the player's every expression. The BC-15C/BC-15CN does not come with a lens, so you can either purchase a lens with a CS Mount connector, or a lens with a C Mount connector and use it with the included CS-C lens adapter.

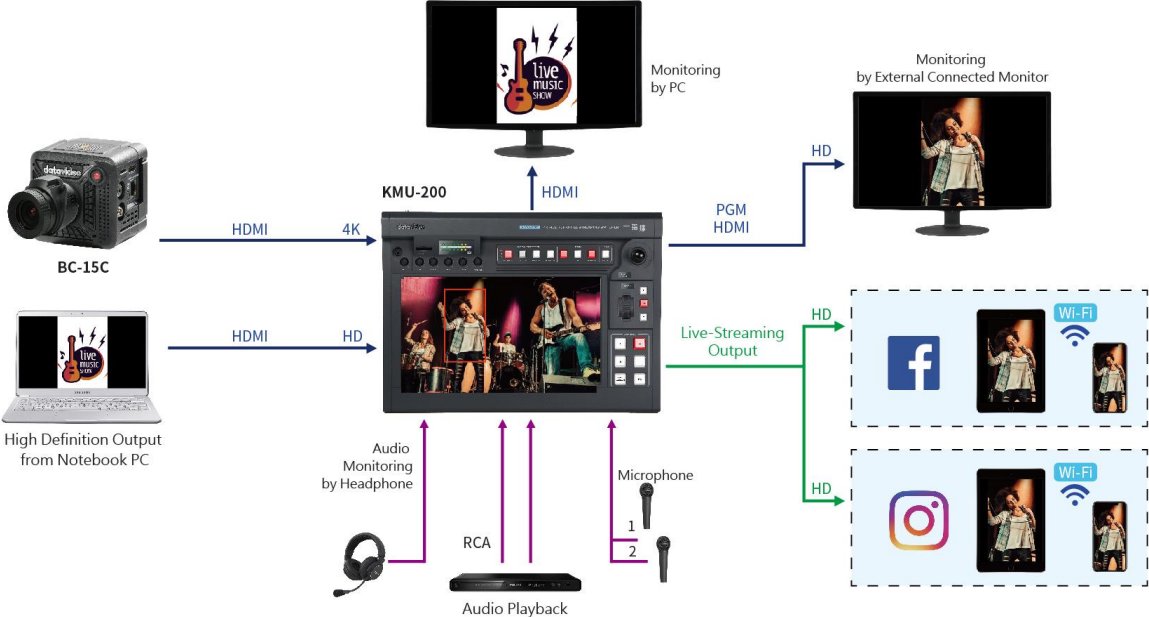
The BC-15C/BC-15CN is equipped with SRT output, which allows you to transmit video (SRT), control (DVIP) and power (PoE) signals over a single Ethernet cable. This feature allows you to easily set up new angles for the BC-15C/BC-15CN. The only difference between BC-15C and BC-15CN is that BC-15CN supports NDI protocol, the rest of the specifications are the same as BC-15C.

The BC-15C/BC-15CN can be fitted with a lens with CS Mount connector, or with a lens with C Mount connector via the included 5mm CS-C lens adapter, making it one of the best choices for capturing live footage of gaming athletes.


Features

- SRT output is available.
- Supports PoE (Power over Ethernet) technology.
- 1/2.3" CMOS Sensor
- Supports up to 4K 50/60p video output.
- BC View Assist App can be used to control
- Built-in Tally Light
- Supports NDI protocol (BC-15CN only)
- CS Mount connector, CS-C lens adapter can also be used with C Mount lenses.

2. System Diagram



3. Location and Function of Parts

Camera Front	
 The image shows the front view of a black DataVideo camera. The camera has a central lens area, a top-mounted lens mount with a red dust cap, and a bottom-mounted lens mount with a red dust cap. The brand name 'datavideo' is printed in white on the top. Two red callout lines with circular markers containing the numbers '1' and '2' point to the bottom and top lens mounts, respectively.	
1	<p>CS Mount Lens Mount and Lens Mount Dust Cover</p> <p>The CS Mount connector allows you to install a lens with a CS Mount connector. In addition, the lens connector dust cap protects the lens connector when the lens is not mounted. The BC-15C/BC-15CN does not come with a lens in the package, so please purchase the lens you need yourself. The following lenses are compatible with BC-15C/BC-15CN cameras on the market today.</p>



33-303 YT3011CS-4K HV03610D-IR-S(4K) EG3Z0409FCS-MPWIR EG6Z0915FCS-MPWIR EG3Z3915FCS-MPWIR

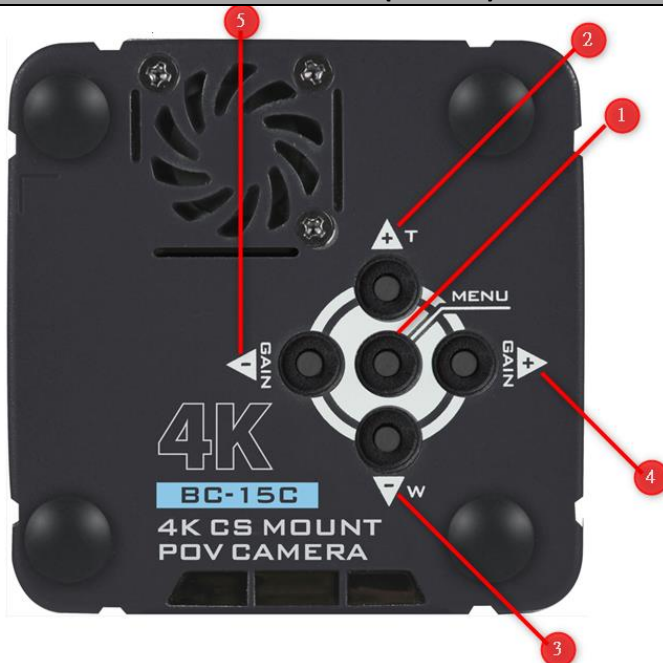
Item	Brand	Model No.	Focal Length FL (mm)	Zoom Ratio	Aperture(F/#)	Mount	Supported sensor size	表定解像力
1	Edmund Optics	33-303	12	Fixed	f/1.8 - f/11	C - Mount	1/1.8"	4K
2	YTOT	YT3011CS-4K	3.6 - 11	3x	f/1.5 - close	CS - Mount	1/1.8"	4K
3	福光	HV03610D-IR-S(4K)	3.6 - 10	2.7x	f/1.8	CS - Mount	1/1.8"	4K
4	Computar	EG3Z0409FCS-MPWIR	4 - 10	2.5x	f/0.9	CS - Mount	1/1.8"	4K
5	Computar	EG6Z0915FCS-MPWIR	9 - 50	5.5x	f/1.5 - f/360	CS - Mount	1/1.8"	4K
6	Computar	EG3Z3915FCS-MPWIR	3.9 - 10	2.5x	f/1.5 - f/360	CS - Mount	1/1.8"	4K

Tally LED

If the DVIP controller receives a tally signal, the tally light will turn on.

- 2 During initialization, you will see the tally lamps light up orange, green and red in sequence. When the initialization is finished, the tally light will turn off.

Rear of Camera(BC-15C)



Rear of Camera(BC-15CN)



MENU Key


- 1 Pressing the **MENU** key opens the OSD menu on the connected screen, and once the OSD menu is open, the MENU key is used for item selection.

Up Arrow (Zoom) Key

- 2 Press the Up Arrow key to navigate up the OSD menu.
When the OSD menu is not open and the shortcut function is turned on, press the up arrow key to magnify the camera image.

Down Arrow (Zoom) Key

- 3 Press the Down Arrow key to scroll down the OSD menu.
When the shortcut function is turned on and the OSD menu is not open, press the arrow key to zoom in on the camera image.

4	<p>Right Arrow (GAIN+) Key Press the right arrow key to go to the next page of the OSD menu or to increase the parameter value. Press the Right Arrow key to adjust the gain when the OSD menu is not open and the shortcut function is enabled.</p>
5	<p>Left Arrow (Gain-) Key Press the left arrow key to go back to the previous page of the OSD menu or to lower the parameter value. Pressing the left arrow key after the shortcut function is turned on and the OSD menu is not open will adjust the gain downward.</p>
Camera Right Panel (BC-15C)	
 <p>The diagram shows the rear panel of a camera with five numbered callouts: 1 points to the LINE/MIC IN port, 2 points to the DC IN 12V port, 3 points to the HDMI port, 4 points to the DVI/LAN/POE port, and 5 points to the DC-IRIS port.</p>	
Camera Right Panel (BC-15CN)	



1	<p>LINE/MIC IN</p> <p>The 3.5mm headphone jack allows you to connect an external audio source (LINE IN) or stereo microphone (MIC IN). The external audio source is embedded in the output image.</p>
2	<p>DC IN 12V</p> <p>Connect the 12V power cable supplied with the product to the DC power port. The power cord of the DC power adapter can be locked to the port using the outer ring locking mechanism.</p>
3	<p>HDMI</p> <p>Use the HDMI cable to connect to the monitor or the camera to display the camera image.</p>
4	<p>POE/LAN/DVIP (BC-15C) DVIP/LAN/POE/NDI® HX (BC-15CN)</p> <p>Use an Ethernet cable to connect the camera to a network for video streaming or firmware update. You can also connect a DVIP device such as a camera controller.</p>

DC-IRIS (DC Auto Iris) Interface

5

This interface allows you to connect a lens that supports DC-IRIS DC auto iris technology, which automatically adjusts the iris according to the brightness level and illumination intensity, making it ideal for applications with drastic changes in lighting conditions, such as outdoor activities.

Camera Left Panel



1/4-20 UNC Screw Holes

1

The 1/4-20 UNC screw holes allow you to mount the camera on a fixture such as a tripod.

Above the camera



1/4-20 UNC Screw Holes

- 1 The 1/4-20 UNC screw holes allow you to mount the camera on a fixture such as a tripod.

Underneath the camera



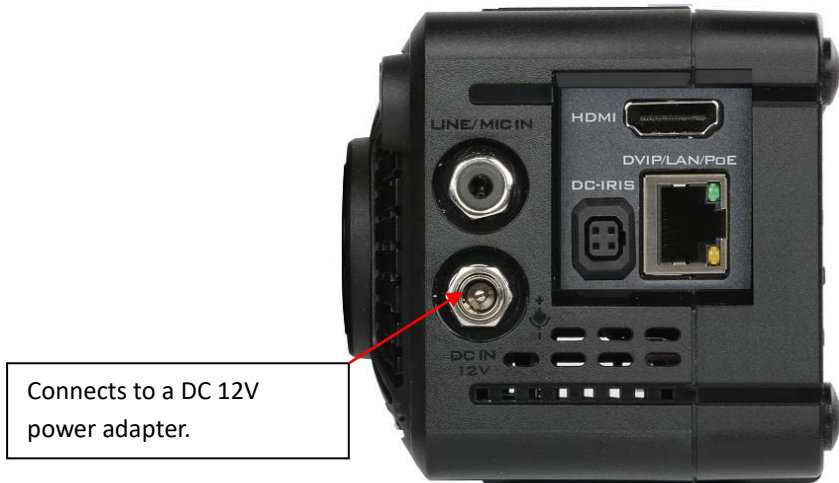
1/4-20 UNC Screw Holes

- 1 The 1/4-20 UNC screw holes allow you to mount the camera on a fixture such as a tripod.

4. Basic Setup (BC-15C as an example)

Power Port

Connect the DC 12V power adapter to the DC IN power port.



Video Output



With an HDMI connection, you can send camera images to HDMI devices such as TLM series monitors, ShowCast 100 directors, iCast 10NDI directors, and HDR-80/90 recorders.

Instructions for setting the camera's video resolution can be found at [OSD MENU](#) → [Video Output](#)

Audio Input Port



Connect an external audio source or stereo microphone.

The 3.5mm headphone jack allows you to connect an external audio source (LINE IN) or a stereo microphone (MIC IN). The external audio source is embedded in the output image.

Ethernet Port



Connect to the router through the Ethernet interface. You can check the IP address of the camera by going to [Network](#) on the OSD menu.

5. OSD Menu

Chapter 5 is about the OSD menus. Most of the OSD menus of BC-15C and BC-15CN are the same, the only difference is that BC-15CN has "Stream/NDI" switching option, while BC-15C does not have "Stream/NDI" switching option. The figure below shows the BC-15C for example.



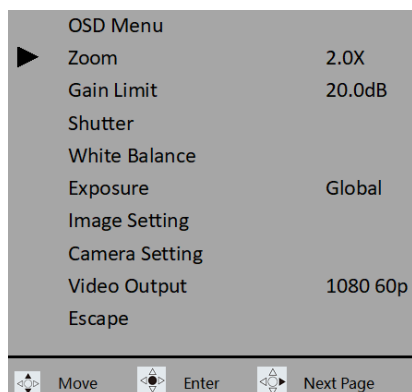
The OSD menu allows users to change various camera settings. Press the MENU button to open the OSD menu on the connected HDMI monitor.

The OSD menu is a **scrolling menu**. When the menu is opened, press the up and down arrow keys to browse the menu, the left and right arrow keys to switch the page, and the MENU key to do the item selection.

Press the left and right arrow keys to change the parameter value. Press the right arrow key to adjust the value up and the left arrow key to adjust the value down. Press the MENU key to save the new setting and go back to the previous menu.

Select Escape to leave the current menu without saving a new setting.

Note that the arrows will always appear in the current settings (blue) when you enter the settings menu.



The following table lists the options on the main menu and the secondary options.

Main Options												
Zoom	Gain Limit	Shutter	White Balance	Exposure	Image Setting	Camera Setting	Video Output	Streaming	Network	Audio	System	Escape
Zoom	Gain Limit	Shutter	Auto	Global	Contrast	Lens Select	Video Output	On	DHCP	Audio Input	Camera Name	
Escape	Escape	Escape	Indoor	Center	Brightness	DC-IRIS	Escape	Off	IP	Soundtrack	Language	
			Outdoor	eSport	Saturation	Gamma Mode		Switch to NDI/ Switch Off NDI(This item is available for BC-15PN only.)	NetMask	Audio Standard	Preset	
			One-Push	Lock	Hue	3DNR		Escape	Gateway	Escape	Tally Mode	
			Color Temp.	Manual	Sharpness	WDR			DNS1		Button Shortcut	
			R/B Gain	Escape	Escape	Mirror			DNS2		Firmware	
			Lock			Rotation			Reset		Factory Default	
			Escape			Anti-Flicker			Escape		Escape	
						Escape						

The OSD menu options are listed below.

Main Menu	Sub Menu	Options		Descriptions
Zoom	Zoom	1.0X (no zoom)		There is no need to press the MENU key to apply the settings.
		1.1X		
		1.2X		
		1.3X		
		1.4X		
		1.5X		
		1.6X		
		1.7X		
		1.8X		
		1.9X		
	Escape			
Gain Limit	Gain Limit	1.0dB		There is no need to press the MENU key to apply the settings.
		2.0dB		
		3.0dB		
		4.0dB		
		5.0dB		
		6.0dB		
		7.0dB		
		8.0dB		
		9.0dB		
		10.0dB		
		11.0dB		
		12.0dB		
		13.0dB		
		14.0dB		
		15.0dB		
		16.0dB		
		17.0dB		
		18.0dB		
		19.0dB		
		20.0dB		
21.0dB				
22.0dB				
23.0dB				
24.0dB				
25.0dB				
26.0dB				
27.0dB				
	Escape			
Shutter	Shutter	NTSC Shutter	PAL Shutter	
		1/30	1/25	
		1/60	1/50	
		1/90	1/75	

		1/120	1/100	
		1/150	1/125	
		1/180	1/150	
		1/210	1/200	
		1/600	1/500	
		1/1200	1/1000	
		1/2400	1/2000	
		1/4800	1/4000	
		1/9000	1/8000	
	Escape			
White Balance	Auto			
	Indoor			
	Outdoor			
	One-Push			
	Color-Temp.	Color Temp.	3000K	When the White Balance Mode is set to Non-Manual Mode, the color temperature value you set manually will be covered.
			3100K	
			3200K	
			3300K	
			3400K	
			3500K	
			3600K	
			3700K	
			3800K	
			3800K	
			3900K	
			4000K	
			4100K	
			4200K	
			4300K	
			4400K	
4500K				
4600K				
4700K				
4800K				
4900K				
5000K				
5100K				
5200K				
5300K				
5400K				
5500K				
5600K				
5700K				
5800K				
5900K				
6000K				
6100K				
6200K				
6300K				
6400K				

		6500K	
		6600K	
		6700K	
		6800K	
		6900K	
		7000K	
		7100K	
		7200K	
		7300K	
		7400K	
		7500K	
	Escape		
R/B Gain	RGain	0~255	<p>The new setting effect can be previewed on the screen, and you need to press the MENU button for it to take effect.</p> <p>The camera applies the red gain value and the blue gain value at the same time. When the White Balance Mode is set to Non-Manual Mode, the Red Gain value you set manually is overwritten.</p>
	BGain	0~255	<p>The new setting effect can be previewed on the screen, and you need to press the MENU button for it to take effect.</p> <p>The camera applies the red gain value and the blue gain value at the same time. When the White Balance Mode is set to Non-Manual Mode, the blue gain value you set manually will be covered.</p>

		Escape		
	Lock			
	Escape			
Exposure	Global			
	Center			
	eSport			
	Lock			
	Manual			
	Escape			
	Image Setting	Contrast	Contrast	0
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
		Escape		
Brightness		Brightness	0	The new setting effect can be previewed on the screen, and you need to press the MENU button for it to take effect.
			1	
			2	
			3	
			4	
			5	
			6	
			7	
			8	
			9	
			10	
		Escape		
Saturation		Saturation	0	The new setting effect can be previewed on the screen, and you need to press the MENU button for it to take effect.
			1	
			2	
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10			

		Escape		
	Hue	Hue	0 1 2 3 4 5 6 7 8 9 10	The new setting effect can be previewed on the screen, and you need to press the MENU button for it to take effect.
		Escape		
	Sharpness	Sharpness	0 1 2 3 4 5 6 7 8 9 10	The new setting effect can be previewed on the screen, and you need to press the MENU button for it to take effect.
		Escape		
	Escape			
Camera Setting	Lens Select	LDC1		The new setting effect can be previewed on the screen, and you need to press the MENU button to make it take effect.
		LDC2		
		LDC3		
		LDC4		
		LDC5		
		LDC6		
		LDC7		
		LDC8		
		Escape		
	DC-IRIS	Auto		
	Gamma Mode	Standard		
		Mode1		
		Mode2		
		Mode3		
	Escape			
3D NR	ON			
	Off			
	Escape			
WDR	ON			

		Off	
		Escape	
	Mirror	Off	
		H	
		V	
		H+V	
		Escape	
	Rotation	0	
		90	
		270	
		Escape	
	Anti-Flicker	Off	
		50HZ	
		60HZ	
		Escape	
Escape			
Video Output	Video Output	2160 60p	
		2160 59.94p	
		2160 50p	
		2160 30p	
		2160 29.97p	
		2160 25p	
		1080 60p	
		1080 59.94p	
		1080 50p	
		1080 30p	
		1080 29.97p	
		1080 25p	
	Escape		
Streaming	On		<p>This "Streaming" mode is only applicable to BC-15CN, not BC-15C. If in Streaming mode, press "Switch to NDI", it will switch to NDI mode. If in NDI mode, press "Switch Off NDI", it will turn off the NDI mode.</p>
	Off		
	Switch to NDI /Switch Off NDI		
	Escape		
Network	DHCP	On	
		Off	
		Escape	
	IP	IP	
		Escape	

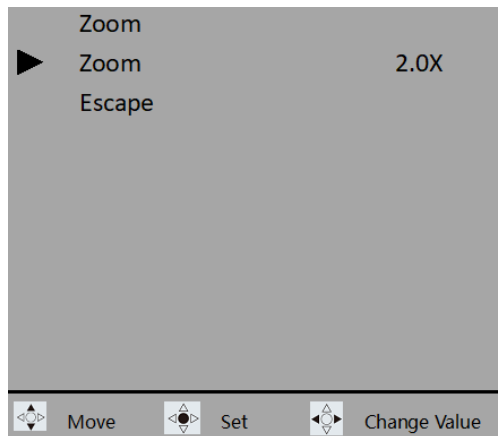
	NetMask	NetMask	
		Escape	
	Gateway	Gateway	
		Escape	
	DNS1	DNS1	
		Escape	
	DNS2	DNS2	
Escape			
Reset	Reset Default Setting No/Yes		
Escape			
Audio	Audio Input	Line IN	
		Mic IN	
		Escape	
	Soundtrack	Stereo	
		Mono	
		Escape	
	Audio Standard	SMPTE	
		EBU	
		Escape	
	Escape		
System	Camera Name	BC-15C/BC-15CN	
		Escape	
	Language	English	
		繁中	
		簡中	
		Escape	
	Preset	Preset Default	
		Load User1	
		Load User2	
		Save User1	
		Save User2	
		Escape	
	Tally Mode	Off	
		Red	

		Green		
		Red/Green		
		Escape		
	Button Shortcut	ON		
		Off		
		Escape		
	Firmware	Version		
		Update	No	
			Yes	
		Escape		
	Factory Default	No		
Yes				
Escape				
Escape				

Zoom

Digital zoom is the lens magnification effect produced inside the camera. The camera captures the image through a smaller sensor area and then enlarges the captured image to normal image size.

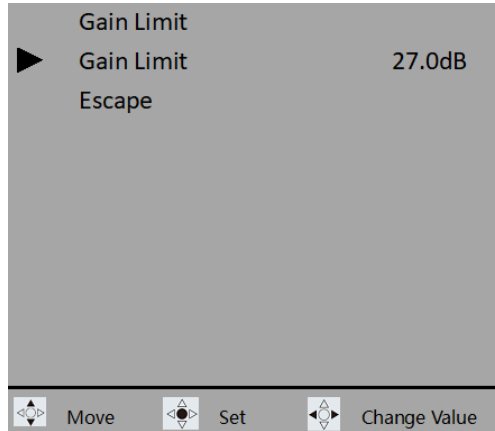
The BC-15C/BC-15CN offers zoom magnifications of 1.0X (no zoom), 1.1X, 1.2X, 1.3X, 1.4X, 1.5X, 1.6X, 1.7X, 1.8X, 1.9X and 2.0X.



Gain Limit

High gain is useful for brightening darker scenes, but it also increases noise. To limit noise, you can set a gain limit with the following options:

1.0 dB/2.0 dB/3.0 dB/4.0 dB/5.0 dB/6.0 dB/7.0 dB/8.0 dB/9.0 dB/10.0 dB/11.0 dB/12.0 dB/13.0 dB/14.0 dB/15.0 dB/16.0 dB/17.0 dB/18.0 dB/19.0 dB/20.0 dB /21.0 dB/22.0 dB/23.0 dB/24.0 dB/25.0 dB/26.0 dB/27.0 dB



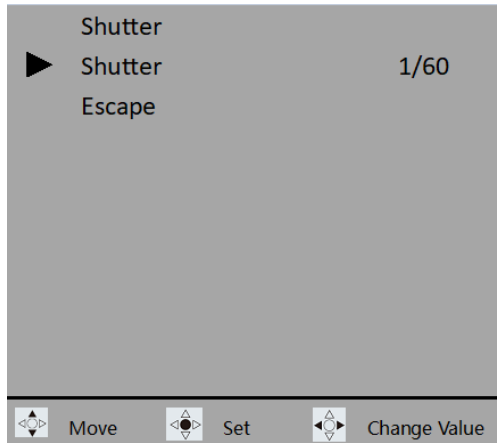
Shutter

Shutter speed is basically the length of time the camera's shutter is open to expose the sensor.

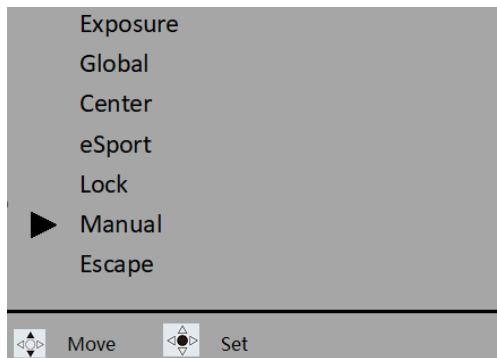
When the shutter speed is less than one second, it is usually expressed as a fraction. For example, $1/4$ is one-quarter of a second, and $1/250$ is two-hundred-and-fifty-firsts of a second (or four milliseconds).

The BC-15C/BC-15CN offers NTSC and PAL shutter speeds as follows.

- NTSC: $1/30$, $1/60$, $1/90$, $1/120$, $1/150$, $1/180$, $1/210$, $1/600$, $1/1200$, $1/2400$, $1/4800$, $1/9000$.
- PAL: $1/25$, $1/50$, $1/75$, $1/100$, $1/125$, $1/150$, $1/200$, $1/500$, $1/1000$, $1/2000$, $1/4000$, $1/8000$.

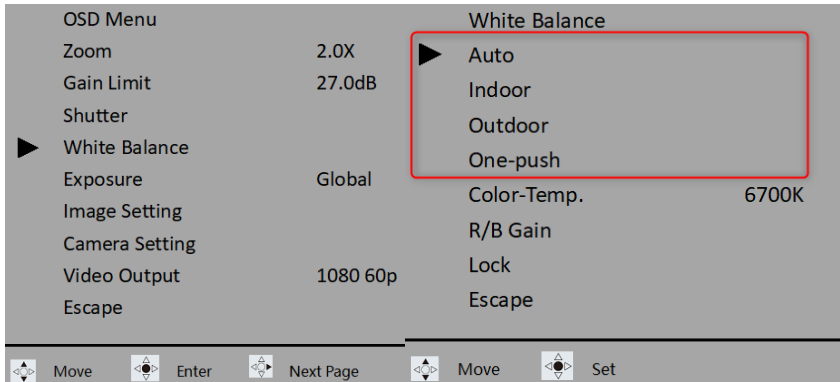


Please note that the Exposure mode must be set to Manual before setting the shutter speed.



White Balance

Certain lighting conditions may cause discoloration of image colors. The White Balance function allows you to adjust the color balance to produce the best image quality. The BC-15C/BC-15CN has both automatic and manual white balance adjustment modes. This paragraph provides setting instructions for each mode.



Auto

If you select **Auto**, the camera selects the most appropriate color setting for the current scene. If the lighting conditions change, the white balance is also adjusted automatically. **Auto** is the most recommended mode in most situations or when you need to change scenes frequently.

Note: Select the Lock option if you want to lock the current white balance setting.

Indoor

The following scenes are suitable for Indoor mode, and the White Balance setting is automatically adjusted according to the environment after it is selected.

- Indoor
- Party scenes with rapidly changing lighting conditions
- Studio lighting
- Recording environments with sodium or incandescent-like colored light sources
- Outdoor shooting scenes at dusk or dawn
- Outdoor scenes on cloudy days or at night with incandescent-like color light sources.

Outdoor

The following scenes are suitable for Outdoor mode, and the White Balance setting is automatically adjusted according to the environment after it is selected.

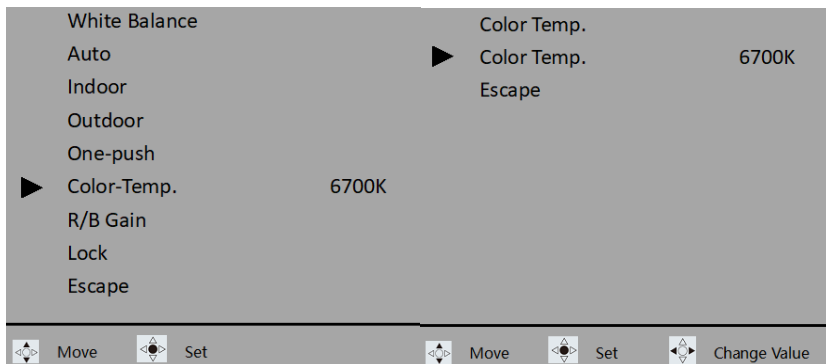
- Outdoor environment with sunlight as the light source.
- Combined light source (sunlight and artificial light)
- Nighttime images, neon lights, and fireworks.
- Sunrise or sunset
- Fluorescent tube light sources

One-push

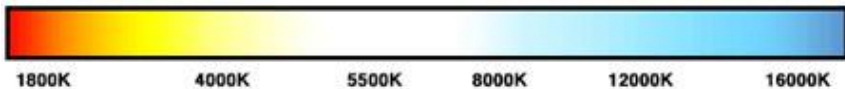
When the One-Push White Balance mode is turned on, the camera automatically adjusts the white balance according to the ambient light. If the lighting conditions change, you can select One-Touch White Balance Mode again to recalibrate the white balance setting.

Color Temperature

The Color Temperature option lets you manually adjust the white balance setting.



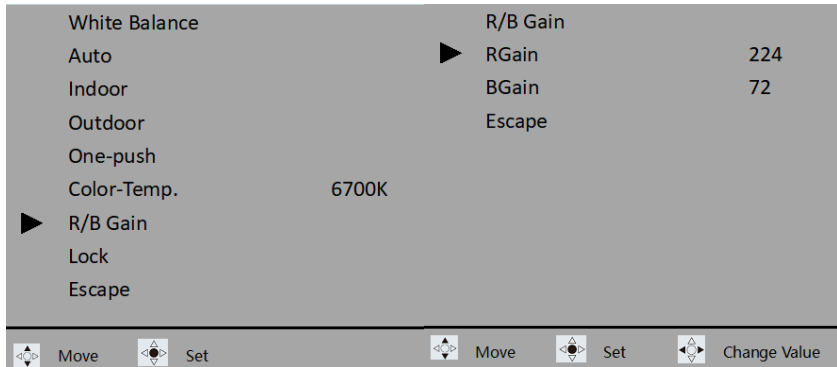
The following table shows the corresponding color temperature values for each light source :



light source	Color Temperature
Sunlight (Sunrise/Sunset)	3200 °K
Tungsten/Halogen Lamps	2800-3400 °K
Sunshine (Noon)	5500 °K
HID light bulb	5500-7500 °K
Sunshine (Cloudy)	6500-7500 °K

R/B Gain

R/G Gain (Red/Blue Gain) adjusts the red and blue intensity of the image.

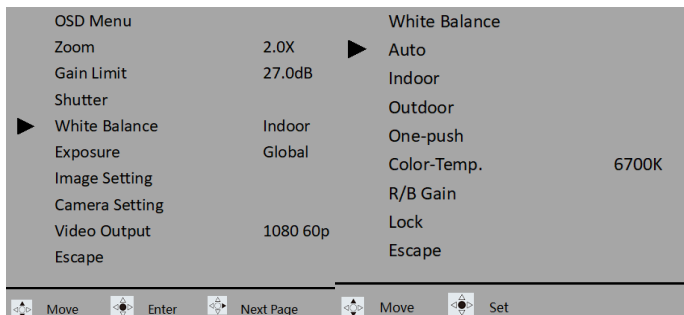


Lock

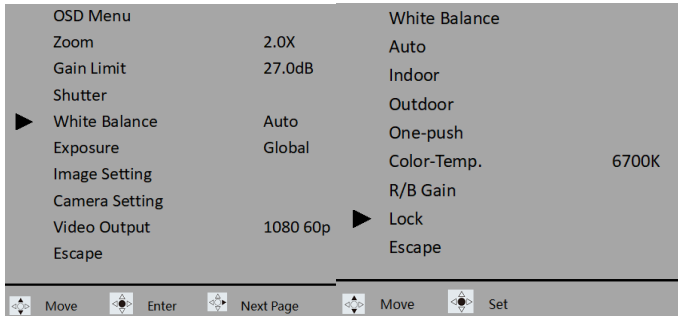
In **Auto mode**, you can lock the white balance setting by selecting **Lock** after the camera automatically selects the color setting that best suits the current scene.

Perform the following steps to lock the white balance setting in **Auto mode**.

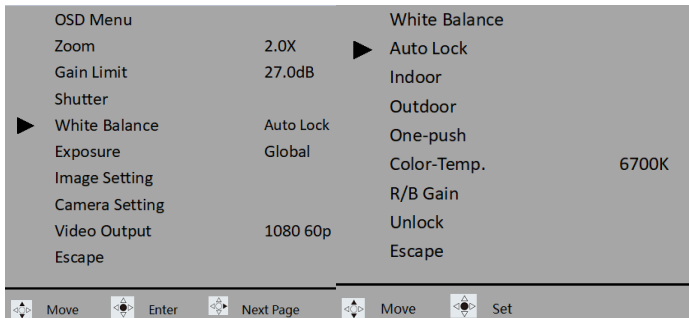
1. Open the OSD menu and select White Balance → Auto to return to the main menu again.



- From the main menu, select **White Balance** and then **Lock**.



- As shown in the figure below, the current white balance setting is locked when the Auto Mode option displays **Auto Lock**.



Select **Unlock** to reopen **Auto mode**.

Exposure

Exposure controls the amount of light entering the camera's sensor. You can let the camera adjust the exposure automatically, or you can adjust it yourself.

Global

Auto mode; light intensity is distributed evenly over the entire movie image.

Center

Auto mode; light intensity is focused on the center of the arc of the movie image.

eSport

This is an automatic exposure mode designed for e-sports competitions.

Lock

Selecting Lock locks the current exposure setting.

Manual

When **Manual** Exposure Mode is turned on, you can set the exposure level by adjusting the shutter speed in the **Shutter** menu.

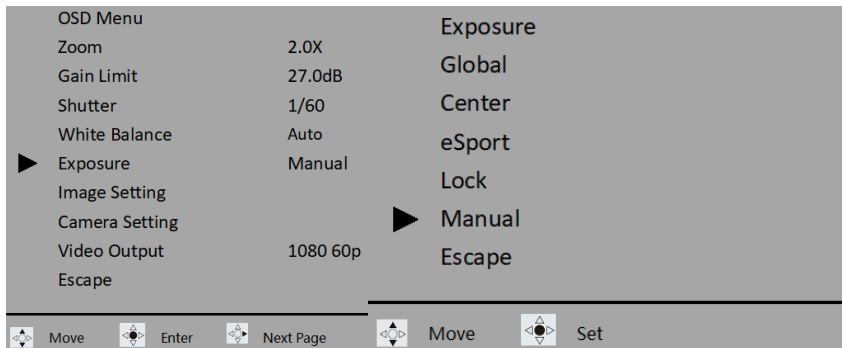
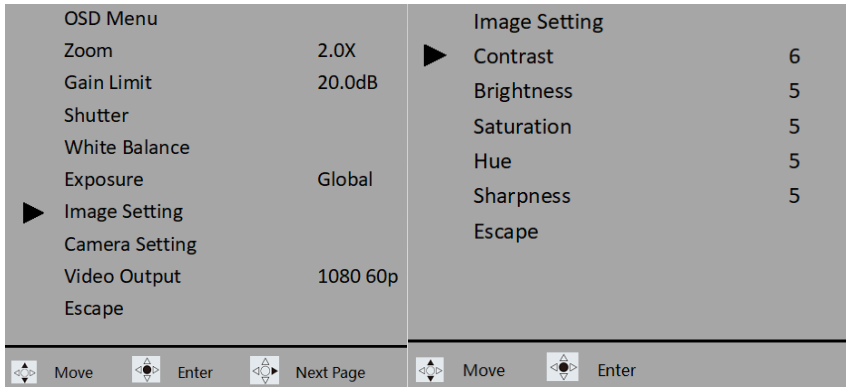


Image Setting

The following are the image setting items:

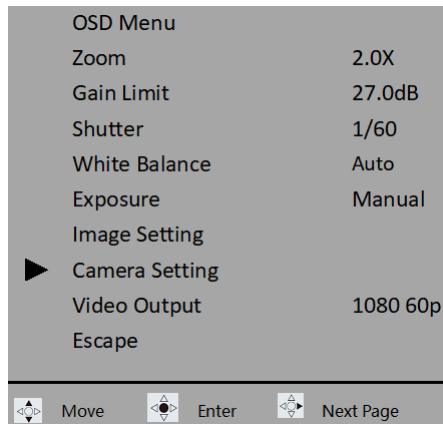
- Contrast: 0/1/2/3/4/5/6/7/8/9/10
- Brightness: 0/1/2/3/4/5/6/7/8/9/10
- Saturation: 0/1/2/3/4/5/6/7/8/9/10
- Hue: 0/1/2/3/4/5/6/7/8/9/10
- Sharpness: 0/1/2/3/4/5/6/7/8/9/10

Note: The new setting effect can be previewed on the screen, you need to press the MENU button to make it take effect.



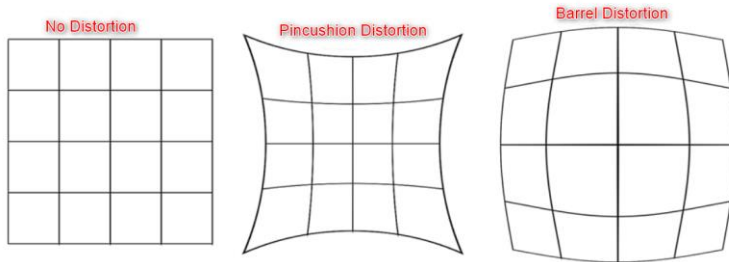
Camera Setting

Camera settings are described in this paragraph.

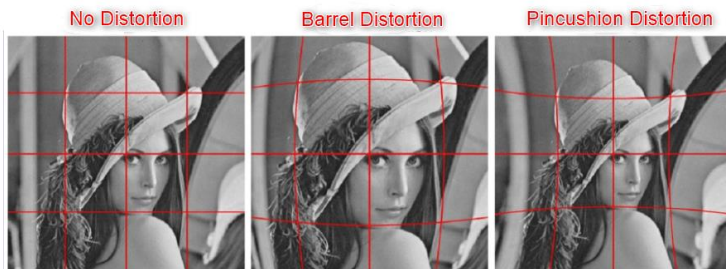


Lens Select

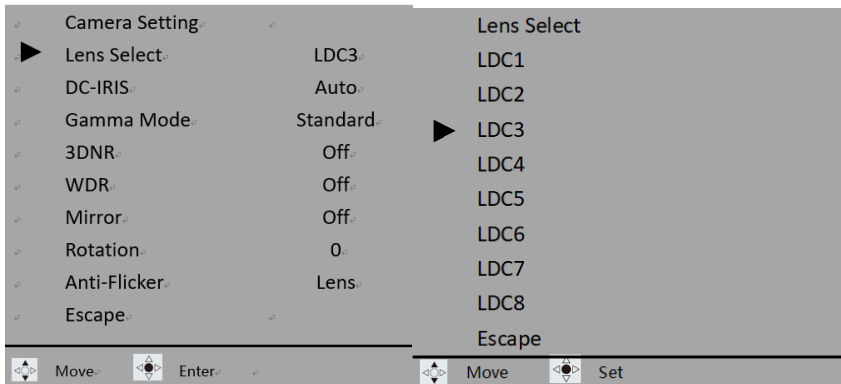
Lenses produce aberrations due to differences in the magnification of the lens system. Generally speaking, telephoto lenses are prone to pincushion distortion, while wide-angle lenses are prone to barrel distortion. The image on the left is without distortion, the center is pincushion distortion, and the right is barrel distortion.



The three drawings below show the left side without distortion, the center with barrel distortion, and the right side with occipital distortion.

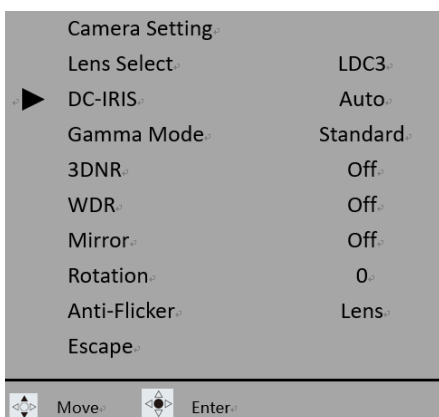


The BC-15C/BC-15CN's "Lens Select" option provides you with the ability to correct lens distortion. There are 8 levels of lens distortion correction, LDC1/LDC2/LDC3/LDC4/LDC5/LDC6/LDC7/LDC8, etc. The smaller the number, the more cushion distortion is favored, and the larger the number, the closer to barrel distortion.



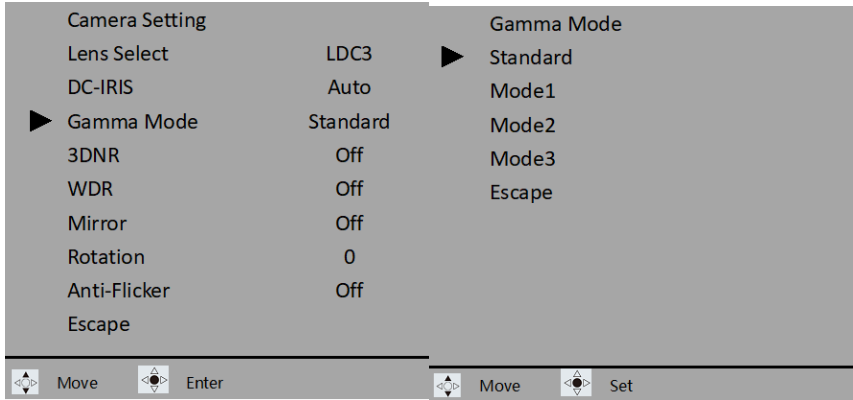
DC-IRIS

The aperture of a camera (Iris) is like a human pupil, mainly controlling the amount of incoming light from the light source, and the amount of incoming light from the lens will affect the clarity of the image, when the aperture of the lens in the presence of strong light, it will shrink to reduce the amount of incoming light, and in the dark, it will be enlarged, increasing the amount of incoming light in order to improve the clarity of the image. DC IRIS lenses are designed to have a drive circuit board that is originally installed inside the lens inside the camera so that the lens does not need to drive the circuit board and instead the camera directly outputs DC current to change the aperture motor to make the aperture change. Therefore, the lens does not need a driver circuit board, and the camera directly outputs DC current to change the aperture motor to make the aperture change.



Gamma Mode

Gamma mode consists of Standard, Mode1, Mode2 and Mode3.



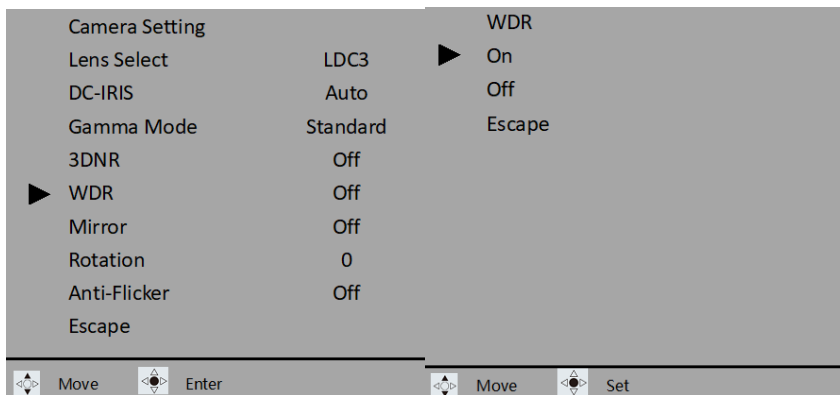
3DNR

3DNR is 3D Noise Reduction, which reduces noise in the camera image when turned on.



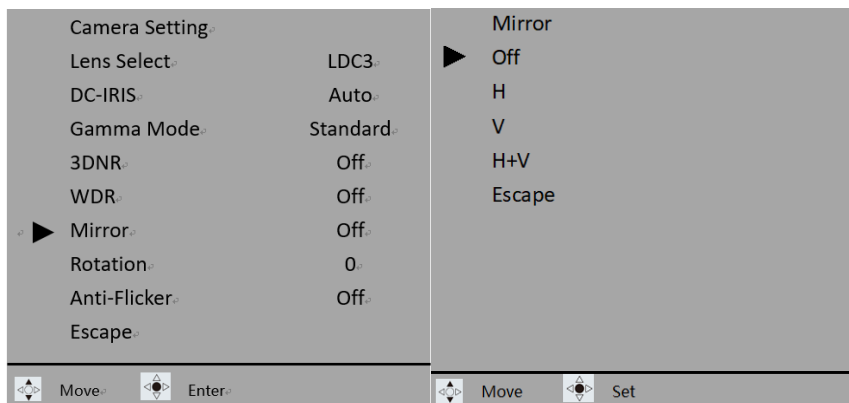
WDR

WDR is a wide dynamic range that produces high dynamic range images, and turning on WDR enhances your image quality.



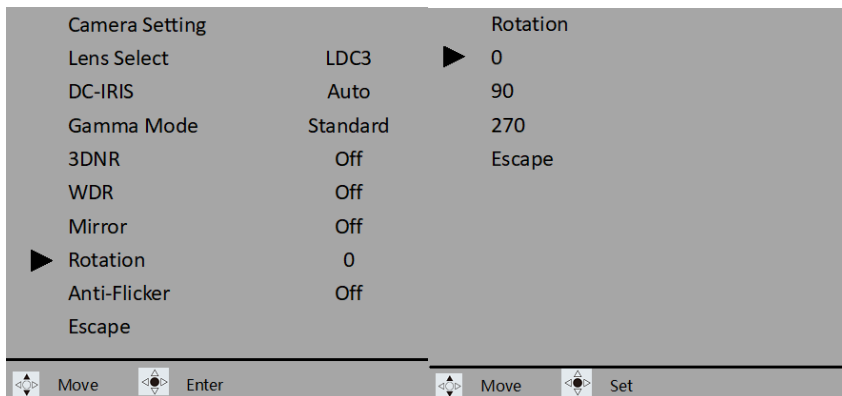
Mirror

The Mirror function flips the image. If you select Horizontal Mirror, you essentially produce a mirror image of the original image, i.e., the left image is flipped to the right and the right image is flipped to the left. If you select Vertical Mirror, the image is inverted. If you select Horizontal + Vertical, both horizontal and vertical mirroring are enabled.



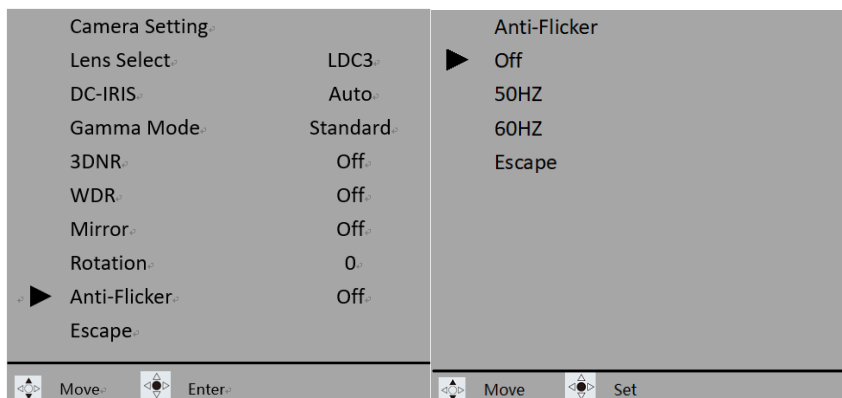
Rotation

You can rotate the image by 90 or 270 degrees; 0 is no rotation.



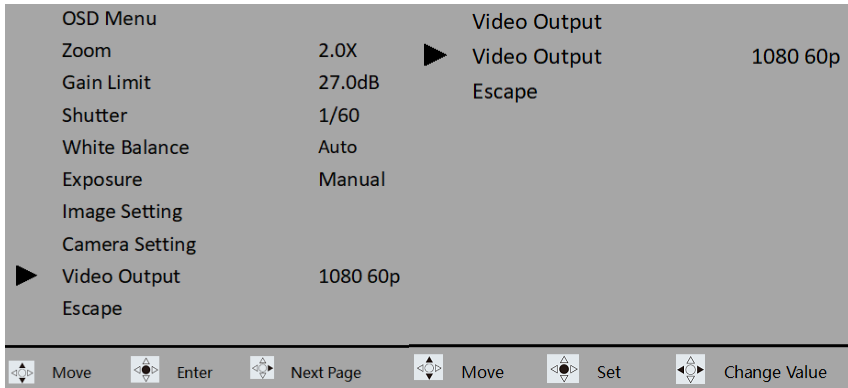
Anti-Flicker

The anti-flicker function of the BC-15C/BC-15CN eliminates the effects of 50Hz and 60Hz light flicker frequencies.



Video Output

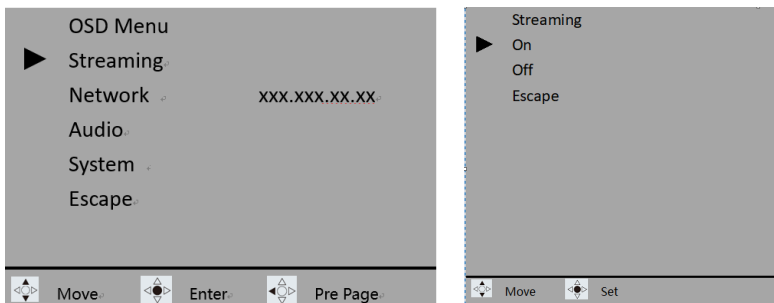
You can set the camera output image in the Video Output option. The following resolutions are supported by the BC-15C/BC-15CN: 1080 25p, 1080 29.97p, 1080 30p, 1080 50p, 1080 59.94p, 1080 60p, 2160 25p, 2160 29.97p, 2160 30p, 2160 50p, 2160 59.94p and 2160 60p.



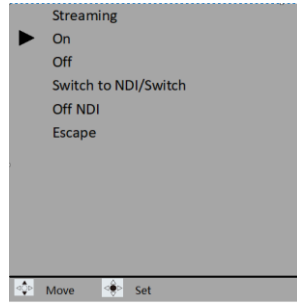
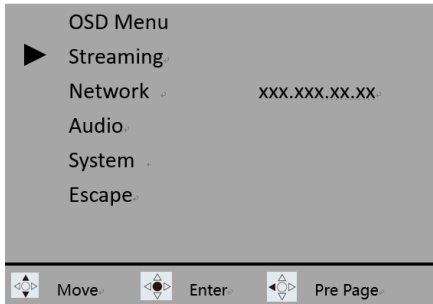
Streaming

If your camera is a BC-15 CN, this "Streaming" option allows you to switch between normal streaming mode and NDI mode. If your BC-15CN camera is in Normal Streaming Mode, use "Streaming→Switch to NDI" to switch your camera to NDI Mode. If your BC-15CN camera is in NDI mode, utilize "Streaming→Switch Off NDI" to turn off NDI mode. When you switch between "Switch to NDI" and "Switch Off NDI" modes, the camera will restart automatically. Please note that the "Switch to NDI" and "Switch Off NDI" options are only available for the BC-15CN, not the BC-15C. If your camera is a BC-15C, use "Streaming→On" to start the push stream or "Streaming→Off" to stop the push stream.

BC-15C

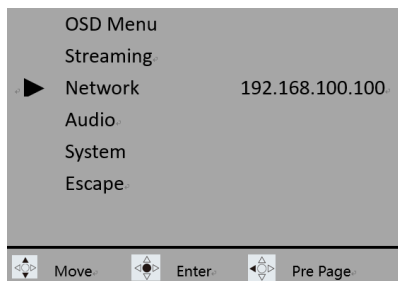


BC-15CN



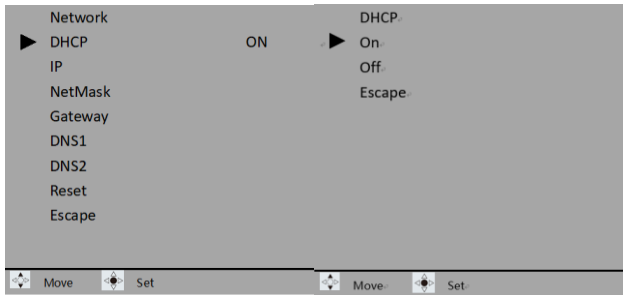
Network

The Network Information option allows you to configure many network-related parameters; the BC-15C/BC-15CN factory setting is DHCP ON, if you set DHCP OFF, the BC-15C/BC-15CN's default fixed IP will be 192.168.100.100, and you can manually set parameters such as NetMask, Gateway, DNS1 and DNS2. (In addition, you can manually set the parameters including NetMask, Gateway, DNS1 and DNS2. There is also a Reset option that allows you to reset this option to the factory default settings.



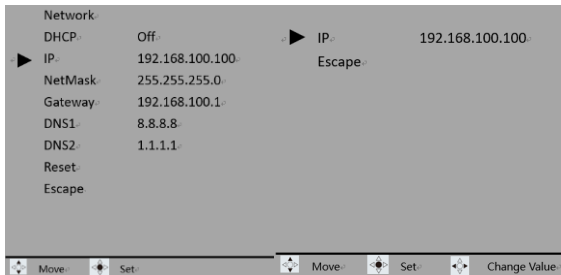
DHCP

This menu allows you to select On or Off to turn DHCP mode on or off. The factory default setting is DHCP ON.



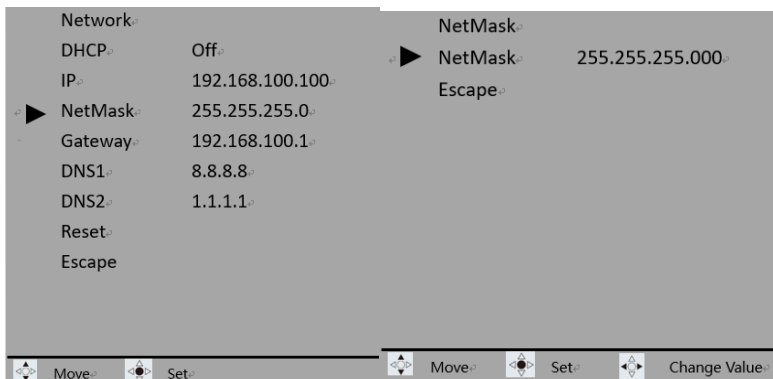
IP

The factory default fixed IP address is 192.168.100.100. If DHCP is set to Off, you can adjust the fixed IP address manually.



NetMask

This option allows you to adjust the network mask address manually if DHCP is set to Off.



Gateway

This option allows you to adjust the gateway address manually if DHCP is set to Off.

Network		Gateway	
DHCP	Off	▶ Gateway	192.168.100.001
IP	192.168.100.100	Escape	
NetMask	255.255.255.0		
▶ Gateway	192.168.100.1		
DNS1	8.8.8.8		
DNS2	1.1.1.1		
Reset			
Escape			

Move Set Move Set Change Value

DNS1

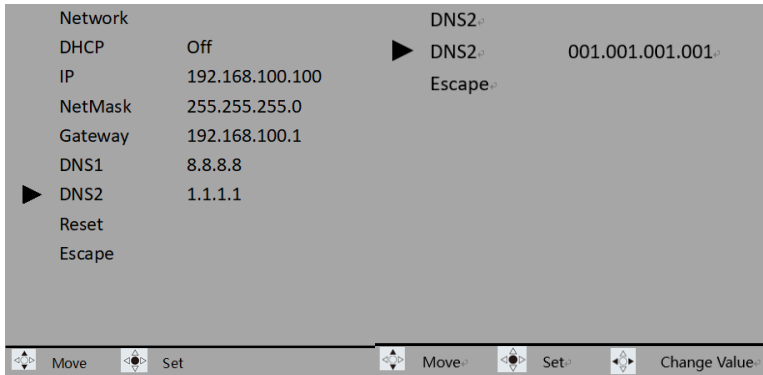
This option allows you to adjust the DNS1 address manually if DHCP is set to Off.

Network		DNS1	
DHCP	Off	▶ DNS1	008.008.008.008
IP	192.168.100.100	Escape	
NetMask	255.255.255.0		
Gateway	192.168.100.1		
▶ DNS1	8.8.8.8		
DNS2	1.1.1.1		
Reset			
Escape			

Move Set Move Set Change Value

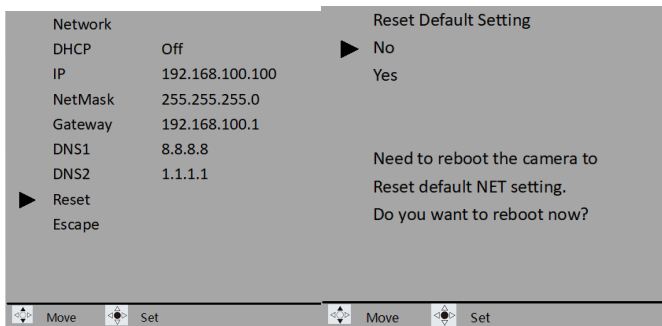
DNS2

This option allows you to adjust the DNS2 address manually if DHCP is set to Off.



Reset

This option allows you to restore the network-related parameters of the BC-15C/BC-15CN to their factory settings.

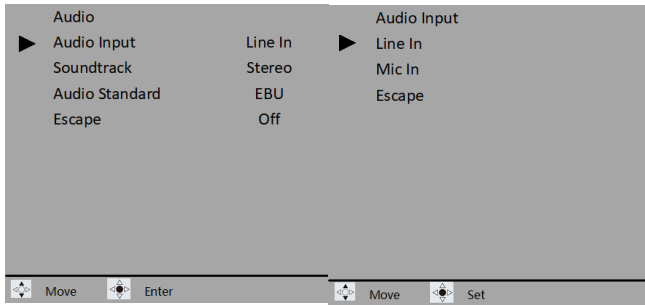


Audio

In the Audio menu, you can select the audio input, set the output audio format and audio standard, here is an example of the BC-15CN interface. * Note that the BC-15C/CN needs to be restarted after adjusting the sound settings, and do not change the sound settings while streaming (you must stop streaming first).

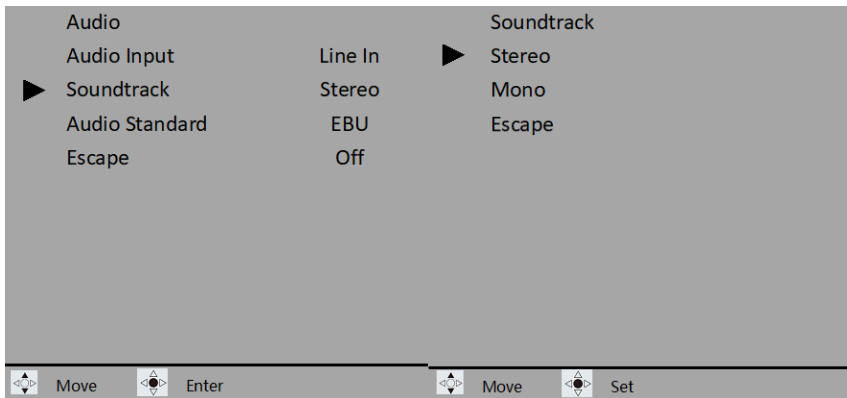
Audio Input

The sound input options include "**Mic In (microphone input)**" or "**Line In (external audio)**".



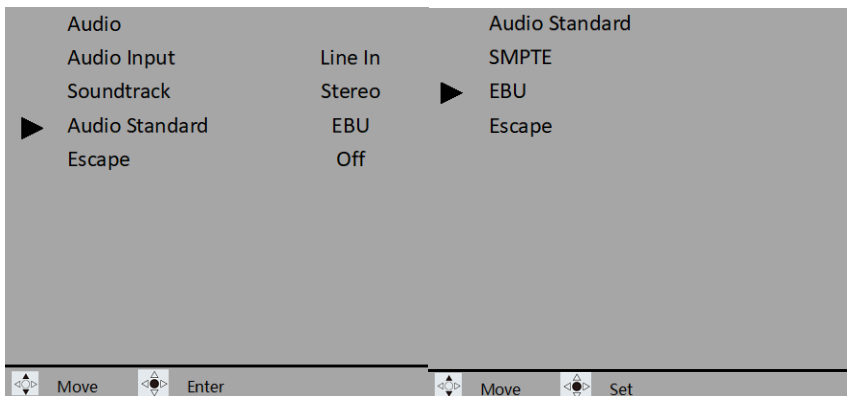
Soundtrack

Set the output sound format to "**Stereo**" or "**Mono**".



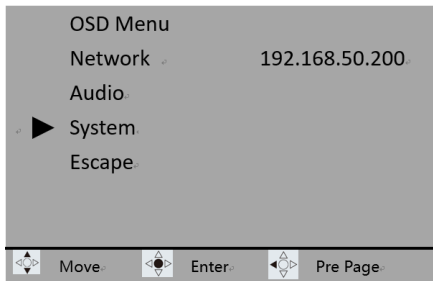
Audio Standard

The sound standard can be set to **EBU** or **SMPTE**.



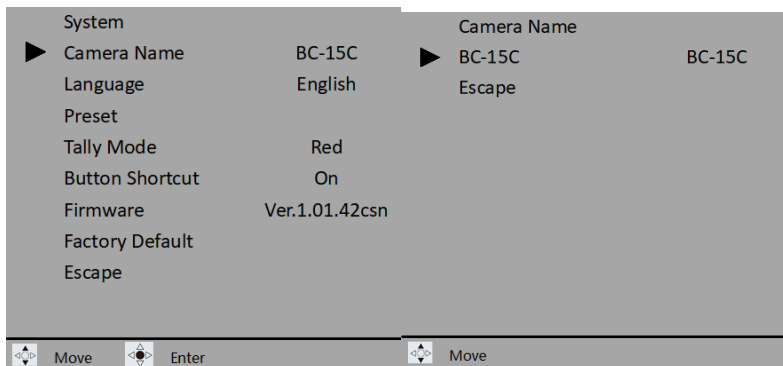
System

System settings include **Camera Name, Language, Preset, Tally Mode, Button Shortcut, Firmware, and Factory Default**. The following is an example of the BC-15C.



Camera Name

This option displays the name of the camera you have set.

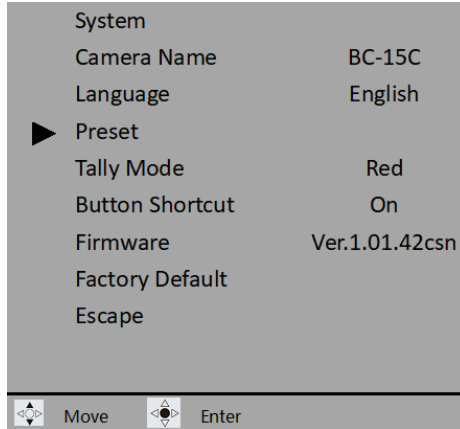


Language

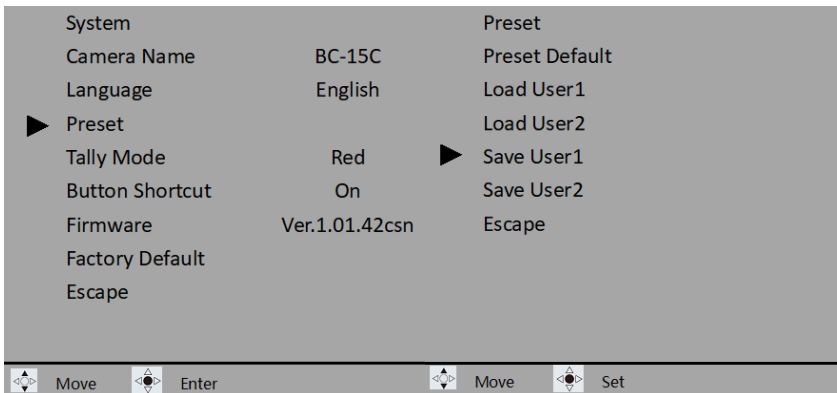
No features yet

Preset

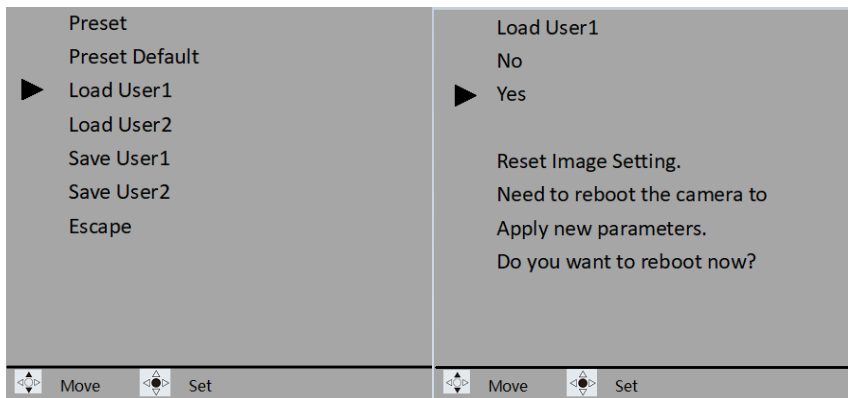
The BC-15C/BC-15CN features two preset settings for storing two camera settings. Saved for future loading, the BC-15C/BC-15CN has the advantage of quickly applying one camera setup to applications that require quick switching between different shooting scenes or environments.



After completing the camera setup, go to the Preset menu and select User1 or User2 to save a set of camera settings.



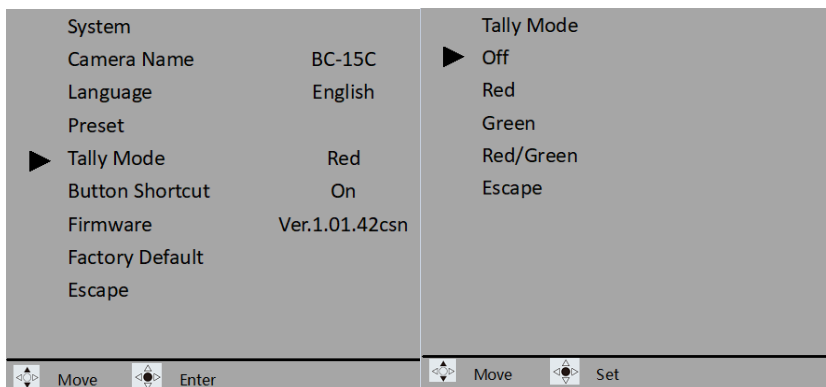
To load a preset, simply select the corresponding preset (Load User1 Preset or Load User2 Preset). After successful loading, the camera reboots itself.



Select Preset Default to restore the default settings for User1 and User2. Note that this function only restores the default settings **for Network, Audio and System**.

Tally Mode





This option allows you to select the Tally light mode, there are Off/Red/Green/Red/Green (Red/Green) modes to choose from.



Button Shortcut

You can open shortcuts in this option.

System		Button Shortcut
Camera Name	BC-15C	▶ On
Language	English	Off
Preset		Escape
Tally Mode	Red	
▶ Button Shortcut	On	
Firmware	Ver.1.01.42csn	
Factory Default		
Escape		

 Move	 Enter	 Move	 Set
--	---	--	---

After turning on the shortcut key function, you can adjust the gain up or down by pressing the left and right arrow keys respectively. The up arrow key enlarges the image and the down arrow key reduces the image. This section takes BC-15C as an example.



Firmware

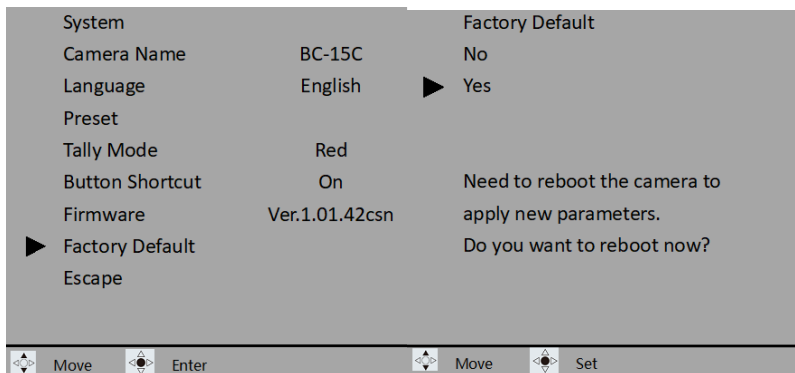
Displays the currently installed firmware version.

The firmware update method can be found in the [Firmware Update](#) section.

Factory Default

Select Factory Default to reset the camera back to its default settings, except **Video Output**, **Audio Standard**, and **Language**.

The camera reboots to complete the system reset.



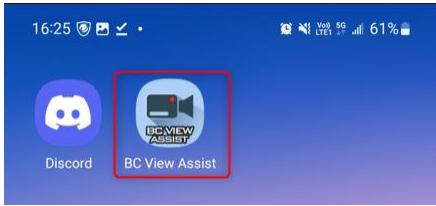
6. How to Control BC-15C/BC-15CN with BC View Assist APP

BC View Assist app is an app developed by Datavideo that allows you to control your BC-15C/BC-15CN camera using a mobile device such as a cell phone or tablet, etc. For more information about BC View Assist app, please refer to the following chapters.

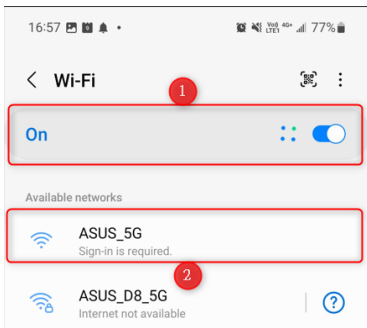
How to connect and start BC View Assist App

Before you start to control BC-15C/BC-15CN camera with BC View Assist app, please follow the steps below to connect your mobile device with BC-15C/BC-15CN camera.

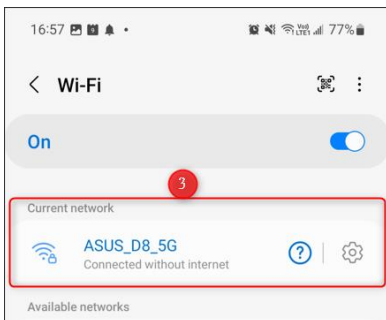
1. The factory default IP mode of BC-15C/BC-15CN is DHCP mode. Please prepare a router and connect an RJ-45 Ethernet cable from the "POE/LAN/DVIP" port of your BC-15C/BC-15CN to the "LAN" port on the back panel of your router.
2. Please use your cell phone to download and install the BC View Assist app in one of the following ways.
 - Connect to the BC-15C/BC-15CN product page on Datavideo's official website <https://www.datavideo.com/product/BC-15C> or <https://www.datavideo.com/product/BC-15CN> using a web browser and install the apk file. apk file and install it.
 - If your cell phone is Android, please go to Google Play and search for "BC View Assist" to download and install it.
 - If your phone is an iOS system, please go to App Store to search "BC View Assist" to download and install (currently not available).
3. After downloading and installing, you can see the icon of BC View Assist on your cell phone (Android phone for example).



4. Please turn on the Wi-Fi switch of your cell phone and select the Wi-Fi signal sent by the router that the BC-15C/BC-15CN camera is connected to, here take "ASUS_D8_5G" as an example, and click "ASUS_D8_5G" Wi-Fi signal.



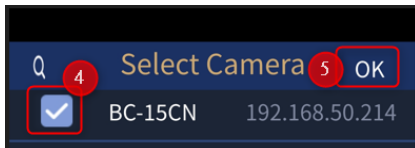
5. You can see that you have successfully connected to the "ASUS_D8_5G" Wi-Fi signal.



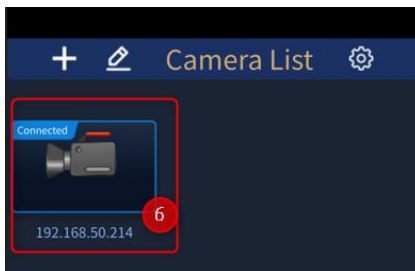
6. At this point, open BC View Assist app, it will automatically find the connected devices that support DVIP protocol as shown in the picture below.



7. After you see the screen as shown below, it means your BC-15C/BC-15CN camera has been successfully searched, please check the checkbox next to BC-15C/BC-15CN and click "OK" button.



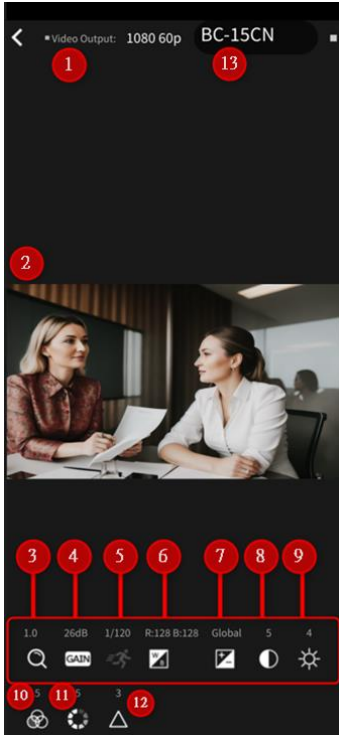
8. You can see that your BC-15C/BC-15CN camera has been successfully connected as shown below, please click the camera icon to go to the preview screen.



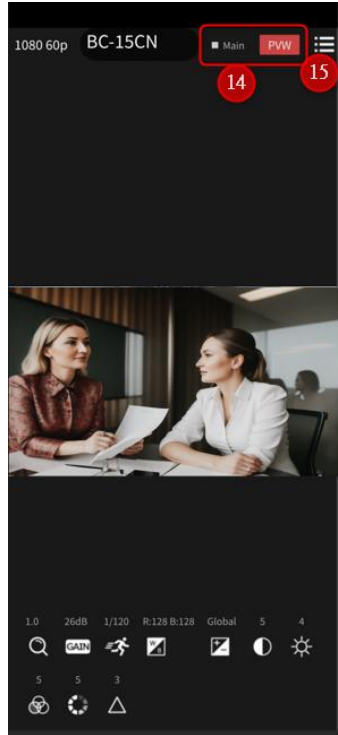
BC View Assist App Main Interface

When the Main Interface is displayed, the values displayed for each option on the Main Interface are the values you set in the BC-15C/BC-15CN OSD menu. Swipe left from the top of page 1 of the Main Menu to see page 2 of the Main Menu. For the introduction of the main interface of the BC View Assist app, see the following sections.

Main Interface Page 1



Main Interface Page 2



1. Video Output

This option displays the current output resolution setting of your BC-15C/BC-15CN, for details, please refer to the **Video Output** section in Chapter 5.

2. Preview Screen

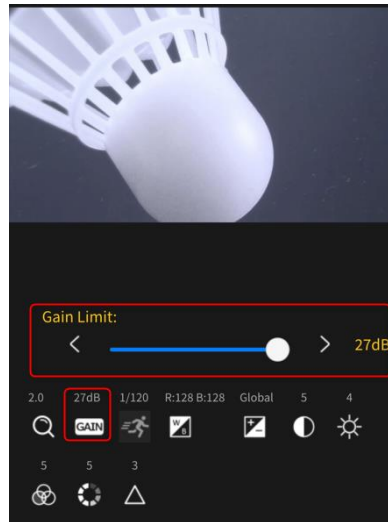
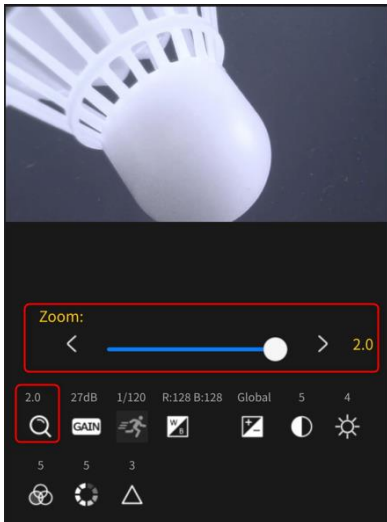
This preview screen displays the live pictures taken by your BC-15C/BC-15CN. "[9. How to Use BC View Assist to View Images from the BC-15C/CN](#)".

3. Zoom

This option allows you to adjust the zoom magnification of the BC-15C/BC-15CN. Click the Zoom icon and use the left and right buttons on the screen or the slider to adjust the value you want. For details, refer to the [Zoom section](#) in Chapter 5.

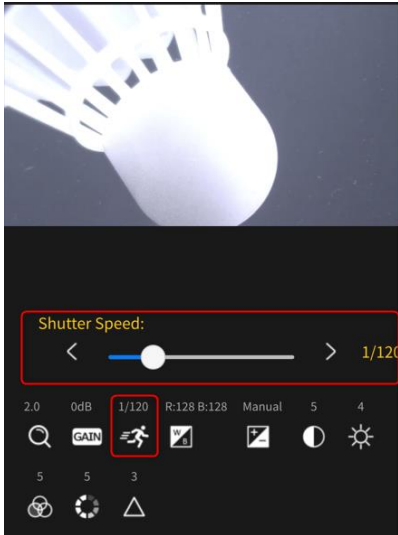
4. Gain Limit

Use this option to adjust the gain threshold. Click the Gain Limit icon and use the left and right buttons on the screen or the slider to adjust the value you want. For details, see the [Gain Limit section](#) in Chapter 5.



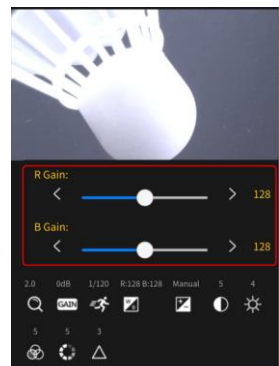
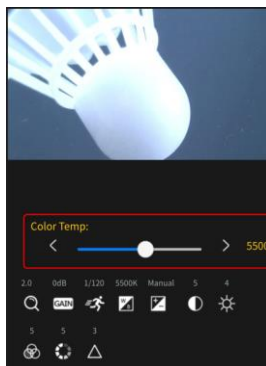
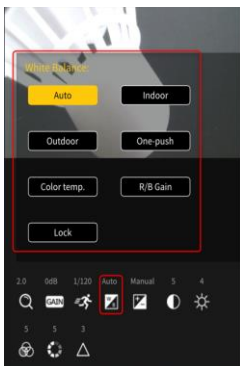
5. Shutter

Use this option to adjust the shutter speed. Click the Shutter icon and use the left and right buttons on the screen or the slider to adjust the value you want. For details, see the [Shutter section](#) in Chapter 5.



6. White Balance

Please click this option and select the White Balance mode you want from the various White Balance modes. If you want to select "Auto", "Indoor", "Outdoor", "One-touch" and "Lock" White Balance modes, please click the White Balance icon and then select the White Balance mode you want. If you want to select "Color Temperature" or "Red/Blue Gain", click on these modes and then use the left/right button or slider to adjust them directly. For more details, please refer to the **White Balance** section in Chapter 5.

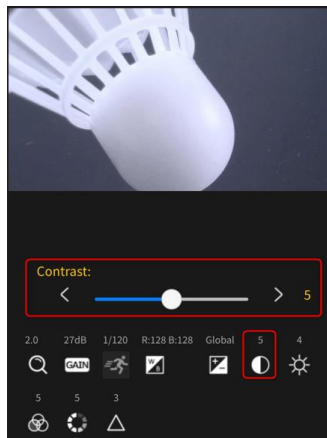
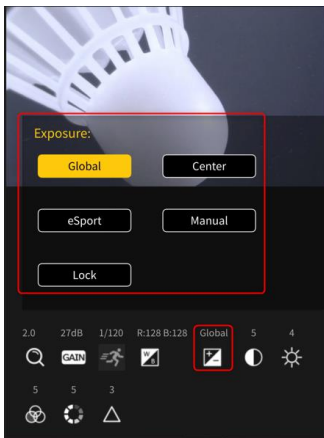


7. Exposure

Click this option and select the exposure mode you want from the various exposure modes. For details, see the [Exposure](#) section in Chapter 5.

8. Contrast

Use this option to adjust the contrast. Click the Contrast icon and use the left and right buttons or sliders on the screen to adjust the value you want. For details, see the [Image Setting](#) section in Chapter 5.

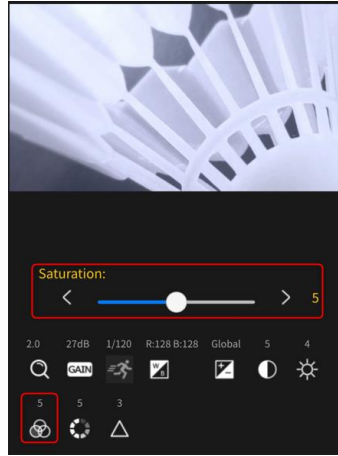
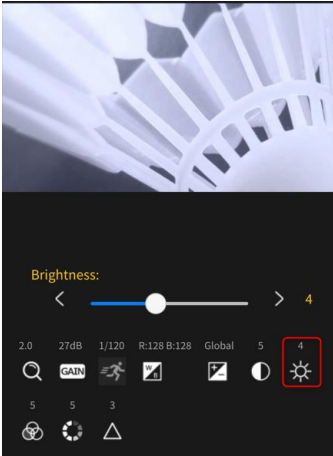


9. Brightness

Please use this option to adjust the brightness. Click the Brightness icon and use the left and right buttons on the screen or the slider to adjust the value you want. For details, see the [Image Setting](#) section in Chapter 5.

10. Saturation

Use this option to adjust the saturation. Click the Saturation icon and use the left and right buttons on the screen or the slider to adjust the value you want. For details, see the [Image Setting](#) section in Chapter 5.

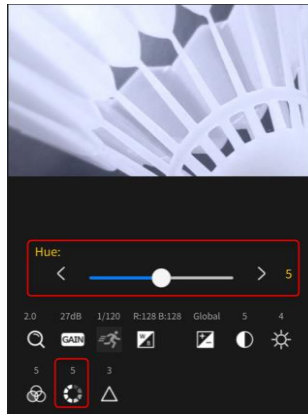
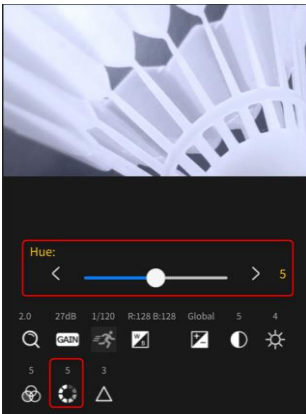


11. Hue

Use this option to adjust the saturation. Click the Saturation icon and use the left and right buttons on the screen or the slider to adjust the value you want. For details, see the [Image Setting](#) section in Chapter 5.

12. Sharpness

Use this option to adjust the sharpness. Click the Sharpness icon and use the left and right buttons on the screen or the slider to adjust the value you want. For details, see the [Image Setting](#) section in Chapter 5.

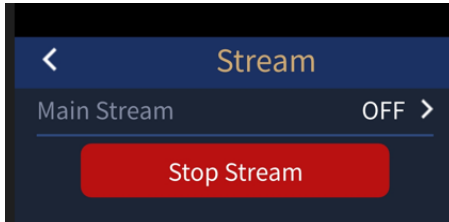


13. Camera Name

This shows the camera name that you set for the BC-15C/BC-15CN in "Menu > Camera > Camera Name".

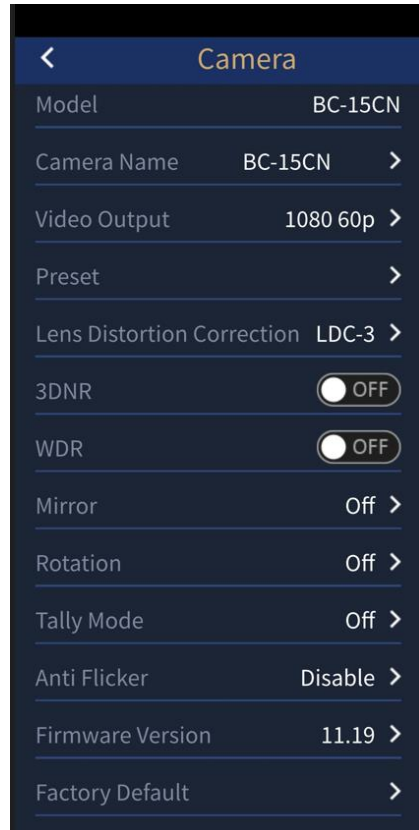
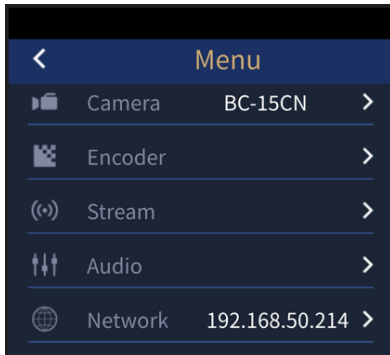
14. Stream

This displays the streaming status set in Menu > Stream > Main Stream.



15. Menu

Clicking this "Menu" button will take you directly to the menu list in "Menu > Camera" as shown below.

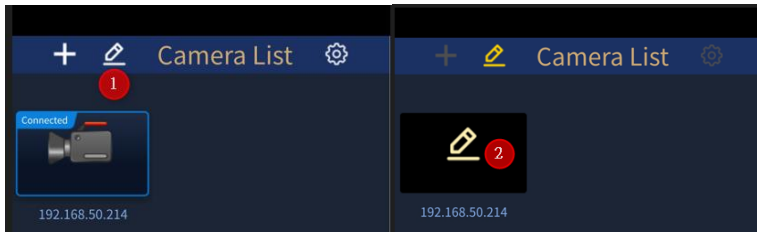


BC View Assist App Menu

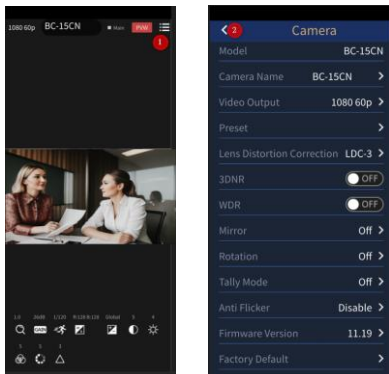
The following section describes the “Menu” of BC View Assist App. The menu can be accessed in the following two ways.

- **After your BC View Assist App is successfully connected, enter from the "Camera List".**

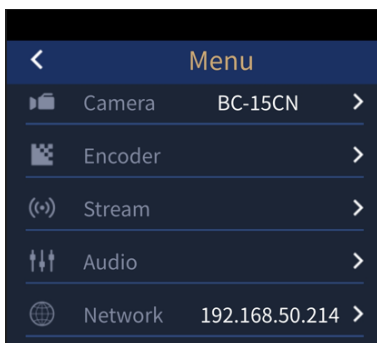
After your BC View Assist app is successfully connected with BC-15C/BC-15CN, you will see the following screen. Click the pen icon at the top, and then click the pen icon located in the camera icon box to enter the “Menu”page.



- After the BC View Assist App has been successfully connected, enter the BC View Assist App from the "Menu" button on the main interface.

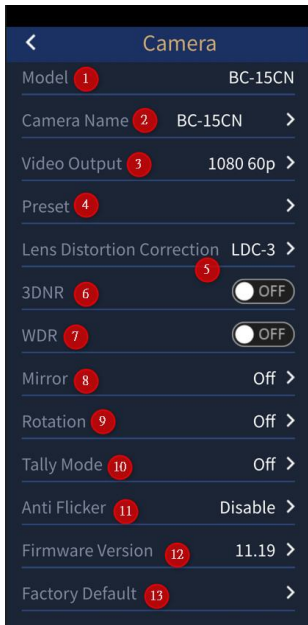


After entering the Menu, you can see the main interface of the "Menu" as shown in the following picture, with main options such as " **Camera**", " **Encoder**", " **Stream**", " **Audio**" and " **Network**".



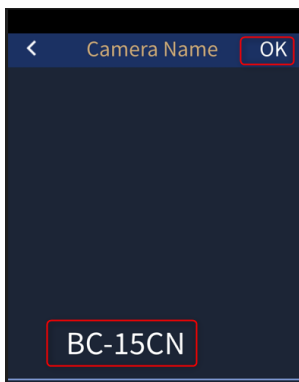
Camera Options

Click to enter the "Camera" option, you can see the following menu.



1. Model: This column displays the model BC-15C/BC-15CN.

2. Camera Name: This field will display the name of the camera you have set. If you want to change the name, just click this field to enter the "Camera Name" interface to change the camera name, then click "OK".



3. Video Output: Click this field to enter the "Video Output" interface and select the output resolution you want.

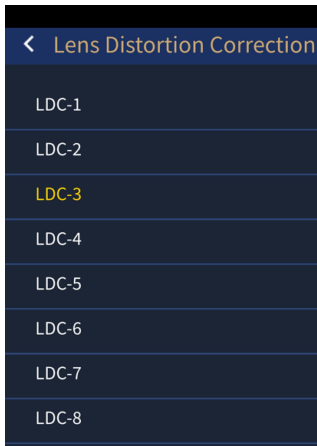


4. Preset: Click this field to enter the "Preset" interface as shown below. After setting your desired BC-15C/BC-15CN settings, click "Save User1/Save User2" to save the preset settings. Click "Load User1/Load User2" to call up the saved settings. Click "Default Default" to restore User 1 and User 2 to their default values.



5. Lens Distortion Correction: This option provides you with the function of lens distortion correction. There are 8 levels of lens distortion correction, LDC-1/LDC-2/LDC-3/LDC-4/LDC-5/LDC-6/LDC-7/LDC-8, etc. The smaller the number

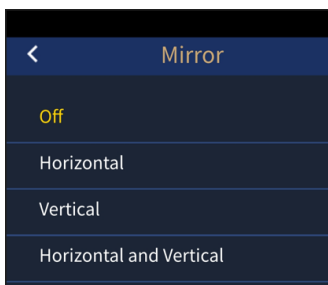
is, the more the lens distortion is inclined to pincushion distortion, and the larger the number is, the more the lens distortion is close to barrel distortion. For details, please refer to the **Lens Select section** in Chapter 5.



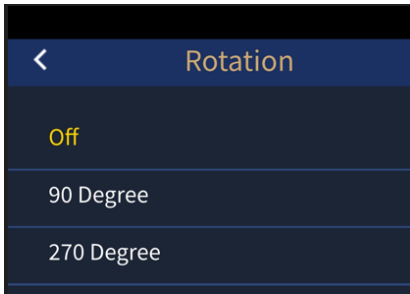
6. 3D NR: Allows you to turn on/off the 3D noise reduction function.

7. WDR: Allows you to turn on/off the WDR Wide Dynamic Range function.

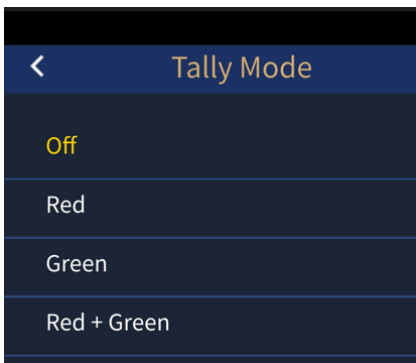
8. Mirror: Click this option to enter the "Mirror" interface to control the "Horizontal", "Vertical", "Horizontal + Vertical" flip of the output image or turn off this function.



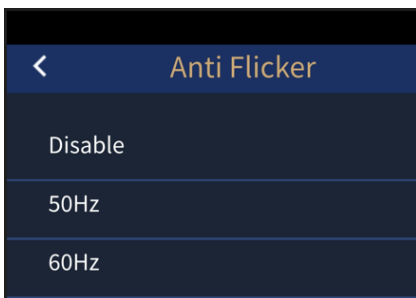
9. Rotation: Click this option to enter the Rotation interface to select different image rotation angles.



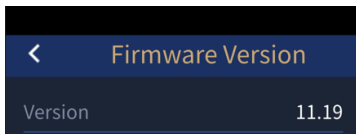
10. Tally Mode: Click this option to enter the Tally Mode interface to select different Tally Modes.



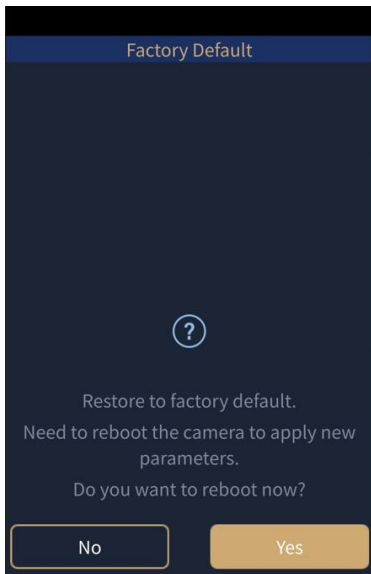
11. Anti-flicker: Click this option to select "50Hz" or "60Hz" to eliminate the effect of different light flicker frequencies.



12. Firmware Version: This option allows you to see the current firmware version.

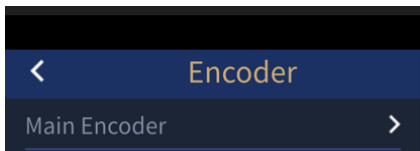


13. Factory Default: Please click this option and press Yes to restore your BC-15C/BC-15CN to the factory default settings.

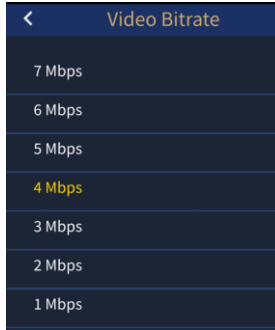


Encoder

After clicking on the "Menu" page to access the "Encoder" options, you can see the Main Encoder menu as shown below.

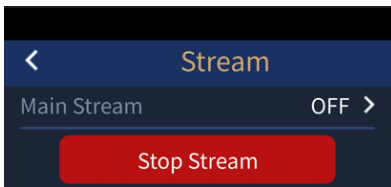


After clicking the "Main Encoder" option, please click the "Video Bitrate", "Resolution" and "Codec" options to set your desired streaming bitrate, video resolution, and the codec you want to use.

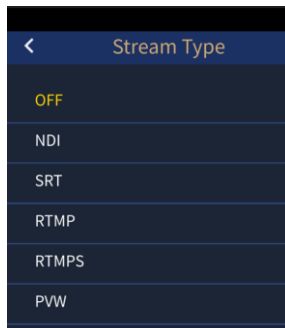
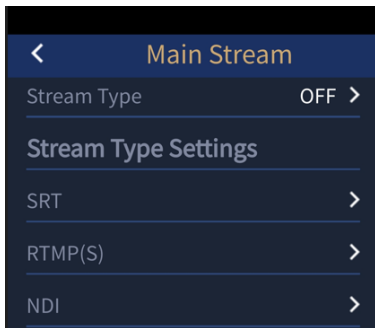


Stream

Click "Menu > Stream" to enter the "Stream" interface as shown below. You can click the button to start/stop stream.

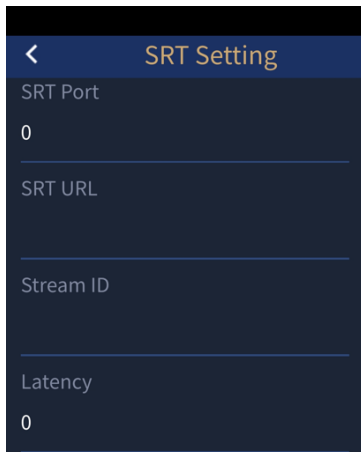


Click the "Main Stream" option to select the stream type you want from the "Stream Type" option, and then click the "Start Stream/Stop Stream" toggle button to start or stop streaming. You can also select "OFF" to turn off "Main Stream". There are NDI/SRT/RTMP/RTMPS/PVW for you to choose. **Please note that if you select NDI mode or PVW mode, the BC-15CN will reboot automatically when you press the "Start Stream" or "Stop Stream" button, but it will not reboot automatically if it is a BC-15C.**

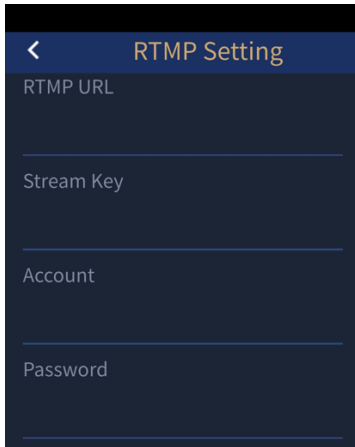


In the "Stream Type" option, you can click "SRT", "RTMP(S)" and "NDI" options to set the parameters of different stream types.

- SRT: Allows you to set parameters such as "SRT Port", "SRT Address", "Stream ID" and "Delay Time".



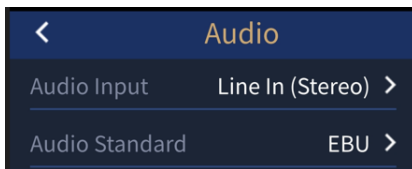
- RTMP(S): Allows you to set the "RTMP URL" and "Stream Key" obtained from the streaming platform as well as your "Account" and "Password" options.



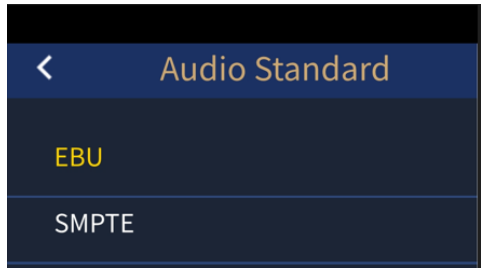
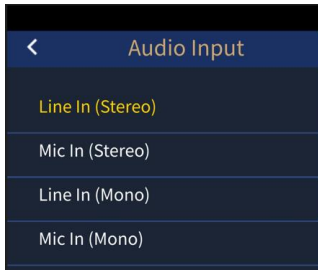
- NDI: This option does not need to be set.

Audio

Click "Menu > Audio" to enter the "Audio" interface as shown below.

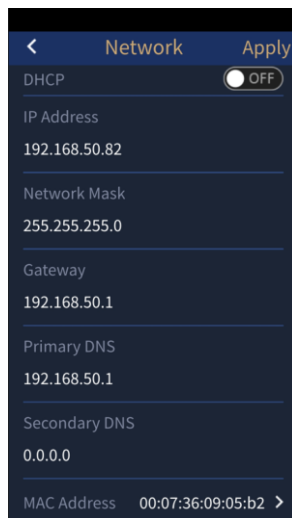


Please press "Audio Input" option to select your desired way for audio input. There are several ways including "Line In (Stereo)", "Mic In (Stereo)", "Line In (Mono)" and "Mic In (Mono)" for you to select. You can also tap the "Audio Standard" option to select your desired audio standard.



Network

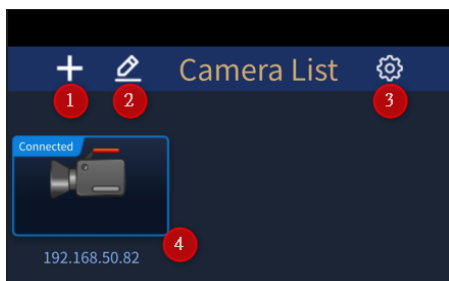
Click on "Menu > Network" to enter the "Network" interface as shown below. The BC-15C/BC-15CN factory default setting is "DHCP ON". When set to "DHCP ON", the BC-15C/BC-15CN's IP address and network parameters will be assigned by the connected router, so users do not need to make any changes. If the BC-15C/BC-15CN is set to "DHCP OFF", the user needs to manually enter the network parameters, and the factory default fixed IP address of the BC-15C/BC-15CN is "192.168.100.100".



When DHCP is set to OFF, users can click on the various network parameters to modify them, and then click the "Apply" button at the top right of the screen to apply the settings.

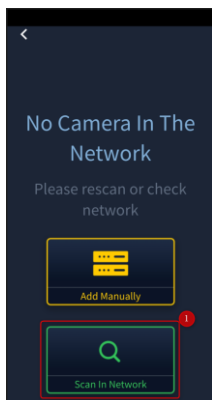
BC View Assist App Camera List Introduction

After your BC View Assist App has been successfully connected to the BC-15C/BC-15CN, open the BC View Assist App and you will see the "Camera List" interface as shown below.

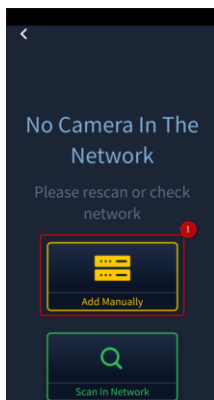


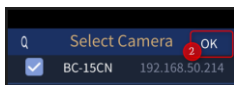
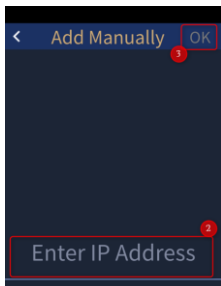
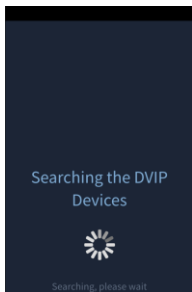
1. Add Camera: Please tap this button to select "Scan In Network" to search the BC-15C/BC-15CN camera which is connected in the same IP range automatically. Moreover, you can tap "Add Manually" to add new camera by entering BC-15C/BC-15CN's static IP address.

Add Automatically

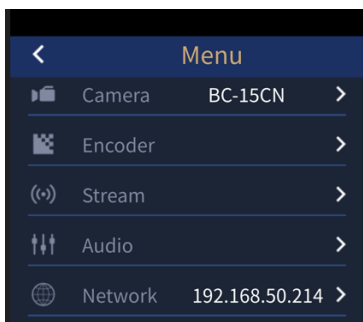
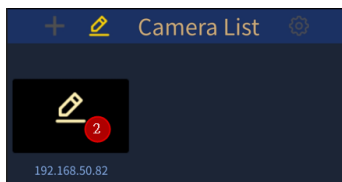
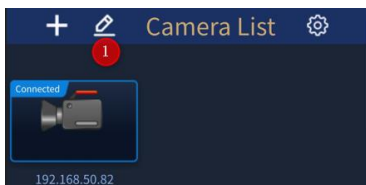


Add Manually

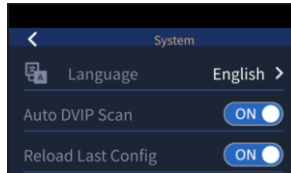
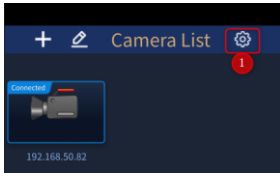




2. Menu Button: Click on the pen icon and then click on the pen icon to enter the "Menu" interface.



3. Clicking this gear button will take you to the "System" page where you can select English, Simplified Chinese or Traditional Chinese for the "Language" option. The "Auto DVIP Scan" option and the "Reload Last Config" option can also be turned on or off. Once the "Auto DVIP Scan" option is ON, the BC-15C/BC-15CN cameras connected to the same domain will be automatically scanned when the App is opened.



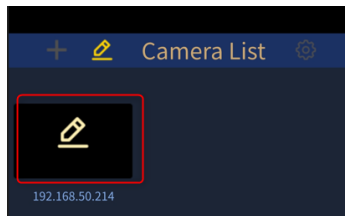
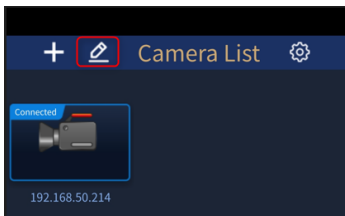
4. Clicking the camera icon directly takes you directly to the preview window of the pictures taken by the BC-15C/BC-15CN.

7. How to view BC-15CN images with NDI Studio Monitor

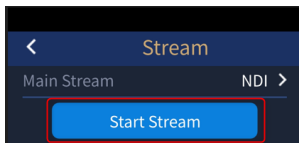
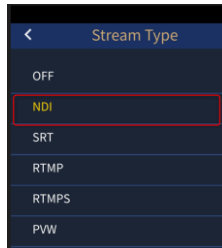
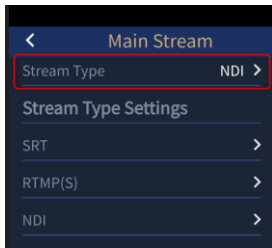
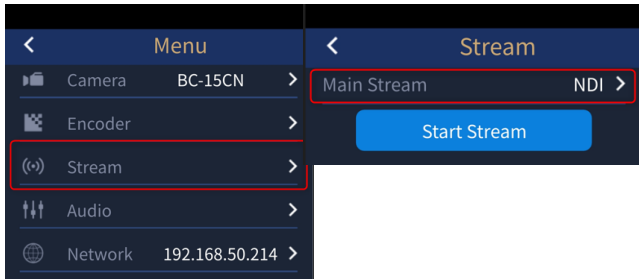
You can also view the camera image on NDI Studio Monitor.

Please follow the steps below to view the image of BC-15CN on NDI Studio Monitor.

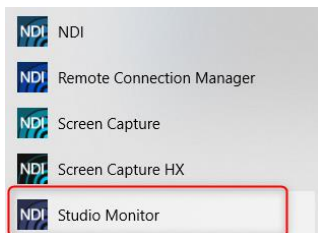
1. The BC-15CN is defaulted to DHCP ON, please make sure your BC-15CN is connected to your router with an RJ-45 Ethernet cable.
2. Please connect your laptop or computer to the same router using an RJ-45 Ethernet cable, and make sure your laptop or computer is set to DHCP mode.
3. Please open the BC View Assist App on your phone or tablet, make sure your BC-15CN is successfully connected, and then click the pen icon as below.



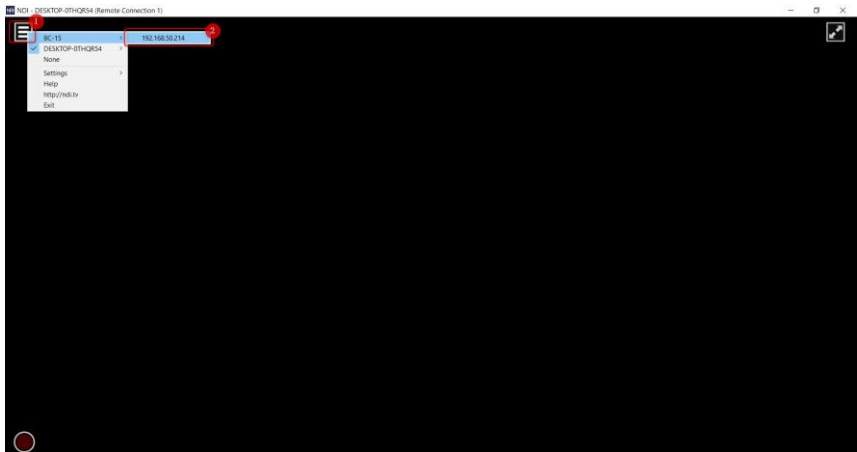
4. Please click "Menu > Stream" and select "NDI" in the "Main Stream" option, and finally click "Start Stream" button. Your BC-15CN will reboot.



5. Before establishing connection with BC-15CN, you need to install NDI Studio Monitor on your PC/Notebook, please visit NewTek's official NDI website (<https://www.ndi.tv/>) to download the latest version. After the installation is complete, click "Start" at the bottom left corner of your desktop, and then click Studio Monitor to open the NDI Studio Monitor software.



6. After the Studio Monitor is turned on, please click the button on the upper left corner and select the detected BC-15CN camera IP address to see the footage captured by the BC-15CN as NDI streaming on your laptop or computer.



Note: If you encounter problems installing or using NDI Studio Monitor, please visit NewTek's official NDI website(<https://www.ndi.tv/>)or contact NewTek's technical support team.

8. How to stream images from BC-15C/BC-15CN to a streaming platform

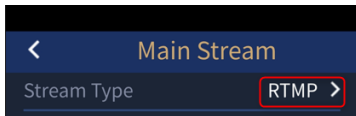
Please follow the steps below to stream the images captured by the BC-15C/BC-15CN to the streaming platform.

How to Stream to Youtube

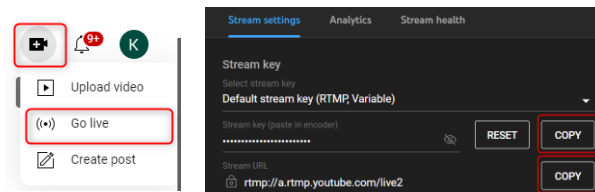
1. First, please connect your BC-15C/BC-15CN to the LAN interface of a router using an RJ-45 Ethernet cable, and make sure that the other network cable connected to the external network is connected to the WAN interface of the router. And your BC-15C/BC-15CN, the connected router, and your mobile phone with BC View Assist App installed are already in the same network domain. BC-15C/BC-15CN is factory preset to DHCP mode.

2. Please turn on the Wi-Fi wireless network switch on your phone and connect to the Wi-Fi wireless network signal from your router. After connecting, please open the BC View Assist app.

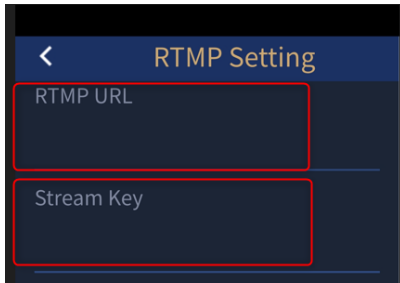
3. After opening the BC View Assist app, go to "Camera List > Menu > Stream" and set "Main Stream > Stream Type" to RTMP.



4. Please connect to the Youtube website www.youtube.com. Select "Create > Go Live". Copy the "Stream Key" and "Stream URL" provided by Youtube.



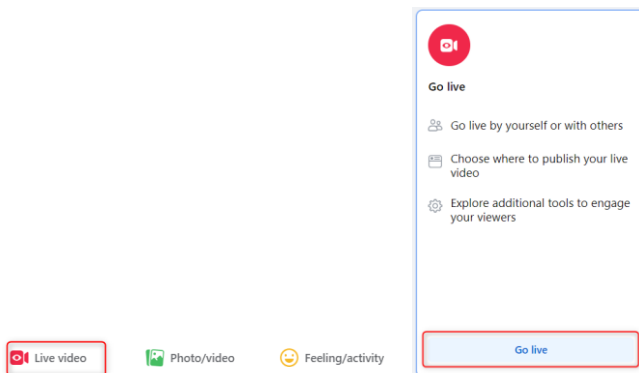
5. Please click the RTMP(S) option in "Main Stream > Stream Type of BC View Assist app and paste the "Stream URL" and "Stream Key" copied from Youtube into the "RTMP Setting > RTMP URL" and "RTMP Setting > Stream Key" fields respectively.



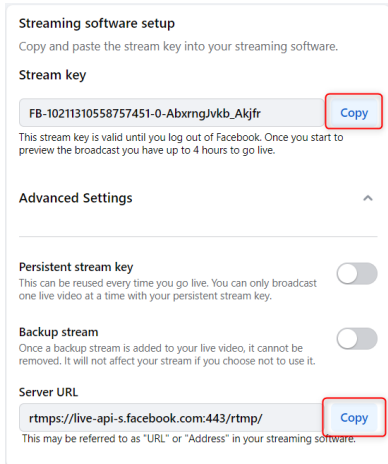
6. Finally, please go to the "Menu > Stream" page and click the "Start Stream" button to stream the images captured by the BC-15C/BC-15CN to the Youtube platform.

How to Stream to Facebook

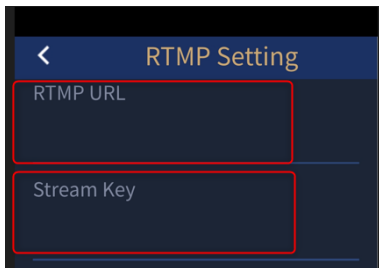
1. Steps 1-3 are the same as steps 1-3 for streaming to the Youtube platform.
4. Please connect to the facebook site at www.facebook.com. On your Facebook page, click on "Live Video > Go live > Select".



5. And copy the "Stream Key" and "Server URL" provided by Facebook website.



6. Please click the RTMP(S) option in "Main Stream > Stream Type" of BC View Assist app and paste the "Server URL" and "Stream Key" copied from Facebook into the "RTMP Setting> RTMP URL" and "RTMP Setting > Stream Key" fields respectively.



7. Finally, please go to the "Menu > Stream" page and click the "Start Stream" button to stream the images captured by the BC-15C/BC-15CN to the Facebook platform.

9. How to Use BC View Assist to View Images from the BC-15C/CN

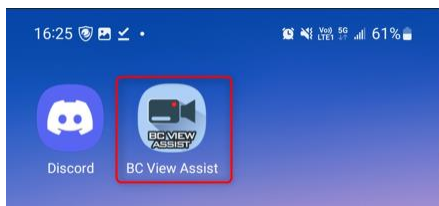
Please follow the steps below to use the BC View Assist App to view the image which is shot by the BC-15C/BC-15CN through the PVW (Preview) function.

1. The factory default IP mode of the BC-15C/BC-15CN is the DHCP mode. Please prepare a router and then use an RJ-45 Ethernet cable to connect from the “POE/LAN/DVIP” interface of your BC-15C/BC-15CN to the “LAN” interface which is located on the rear panel of your router.

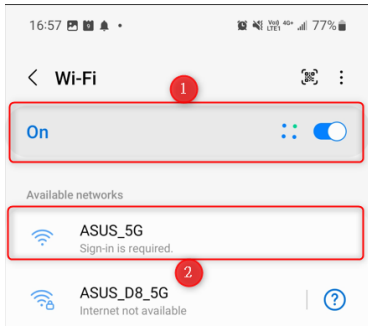
2. Please download and install the BC View Assist app by one of the following ways.

- If your handset is the Android-based system, please go to Google Play and then search “BC View Assist” to download and install (Currently Not Available).
- If your handset is the iOS-based device, please go to App Store and then search “BC View Assist” to download and install the app (Currently Not Available).

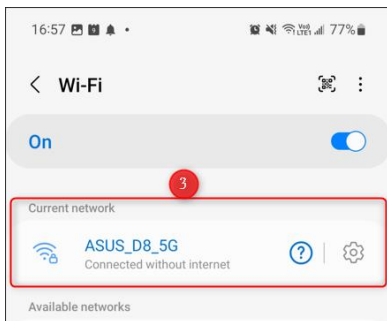
3. After it is downloaded and installed, you can see the BC View Assist icon from your handset (take the Android phone as an example).



4. Please turn on the Wi-Fi switch of your handset, and then please select the Wi-Fi signal which is sent by the router which is connected by your BC-15C/BC-15CN camera. In this section, we will take “ASUS_D8_5G” as an example. - Please tap the “ASUS_D8_5G” Wi-Fi signal.



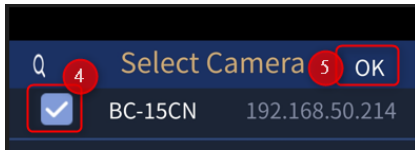
5. You can see that the “ASUS_D8_5G” Wi-Fi signal is successfully connected.



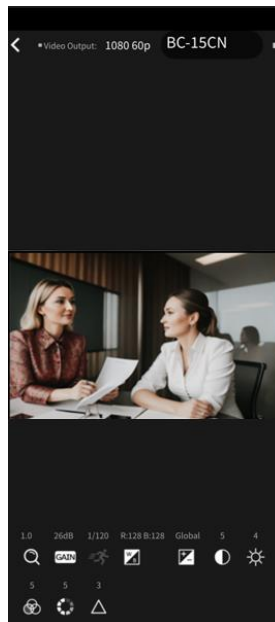
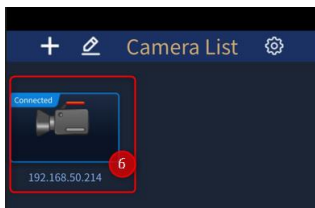
6. At this time, please open the BC View Assist app, and then it will search the connected DVIP protocol supported device automatically which is shown in the following diagram.



7. After the following diagram is shown, it means that your BC-15C/BC-15CN camera is found successfully. Please check the checkbox next to the BC-15C/BC-15CN and then press the “OK” button.



8. You can see that your BC-15C/BC-15CN is connected successfully which is shown in the following diagram. Please tap the camera icon to enter the preview screen.



10. Firmware Updates

From time to time, Datavideo may update the firmware to include new features or address known product issues. Customers can download the firmware themselves or contact their local distributor for assistance.

The following section describes the complete firmware update process, which **takes about a few minutes to complete**. Your existing settings will not be changed during the firmware update process, and once the update has begun you **should avoid arbitrary interruptions** that could cause the machine to crash. The BC-15C/BC-15CN firmware update utility is the same as that of the BC-15P/BC-15PN, so the BC-15P firmware update utility will be used as the example in this section.

Tools Required

- BC-15C/BC-15CN Unit
- 12V Power Adapter x 1
- Ethernet cable x 1
- Laptop or desktop x 1 (Windows 10 recommended)
- Latest Firmware Version and Firmware Update Utility

Download Website:

BC-15C: <https://www.datavideo.com/product/BC-15C>

BC-15CN: <https://www.datavideo.com/product/BC-15CN>

- Router x 1 (required for updating multiple BC-15C/BC-15CN cameras)

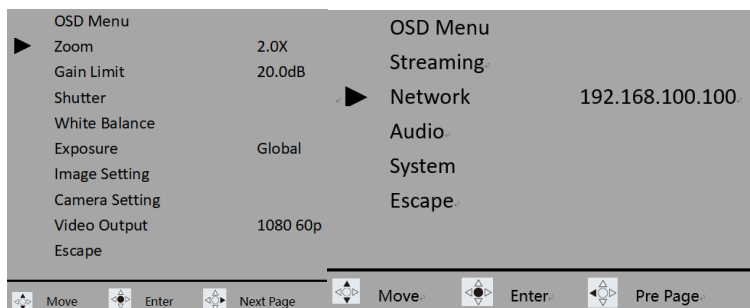
Update Steps

Before starting the firmware update, please make sure that the latest firmware file and the firmware update utility for the BC-15C/BC-15CN have been downloaded to your computer's hard disk. The files can be downloaded from the Datavideo website (www.datavideo.com/product/BC-15C) or (www.datavideo.com/product/BC-15CN). After downloading, unzip the files and install the firmware update tool on your computer.

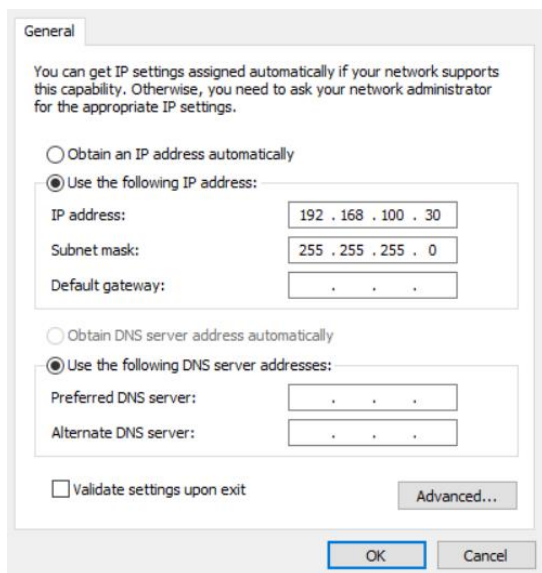
Establish a point-to-point connection with a computer (fixed IP mode)

1. Turn on the power of the BC-15C/BC-15CN and connect it to the computer with the firmware update utility installed through the Ethernet interface.
2. The factory default setting of the BC-15C/BC-15CN is DHCP mode. To update the firmware in fixed IP mode, you need to disable the DHCP mode first. After opening the OSD menu of BC-15C/BC-15CN, please go to "Network>DHCP ON" to change the setting to "DHCP OFF". The BC-15C/BC-15CN will change to Fixed IP mode. The fixed IP address is 192.168.100.100. If your model is BC-15CN, there will be "Preview/NDI" option on the second page of the OSD menu above the "Network" option. If your model is BC-15C, there is no such "Preview/NDI" option. The following figure takes the BC-15C interface as an example.

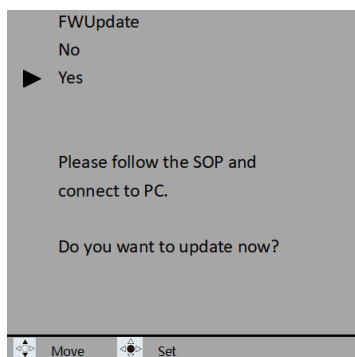
Note: The default fixed IP address of the camera is 192.168.100.100.



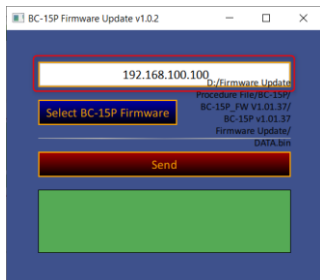
1. Since the IP address of the camera is 192.168.100.100, the IP address of the computer in this example should be set to 192.168.100.XXX. XXX is a number between 2 and 255 but not 100. The following figure shows that the computer's IP address is set to 192.168.100.30.



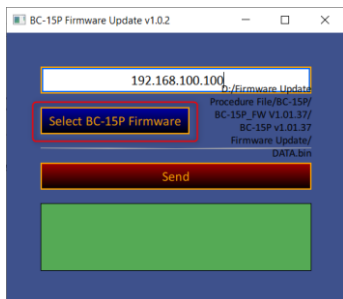
2. Go back to the BC-15C/BC-15CN's OSD menu and go to **System>Firmware**, then select **Update**. After pressing Update, you will be prompted by the camera to continue with the firmware update, and if so, select " **Yes** ".



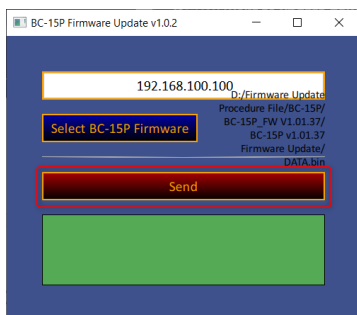
- Open the BC-15C/BC-15CN Firmware Update Utility on your computer and enter the IP address 192.168.100.100 as shown below.



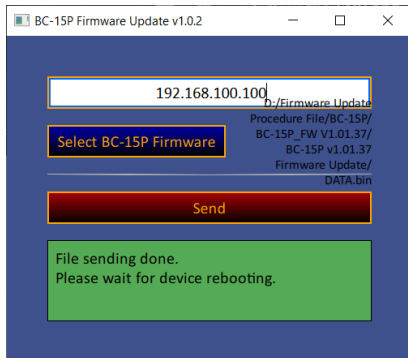
- Click "Select BC-15C/BC-15CN Firmware" to browse your computer's hard disk and search for the latest firmware file. Double-click on the file when it is found.



- Click "Send" to start uploading files to BC-15C/BC-15CN.

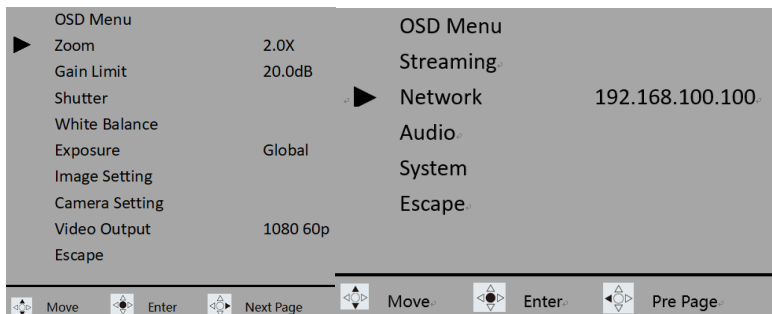


- The following screen indicates that the file has been successfully uploaded to the BC-15C/BC-15CN, after which the BC-15C/BC-15CN will be rebooted, and the firmware update will be completed upon completion of the reboot.

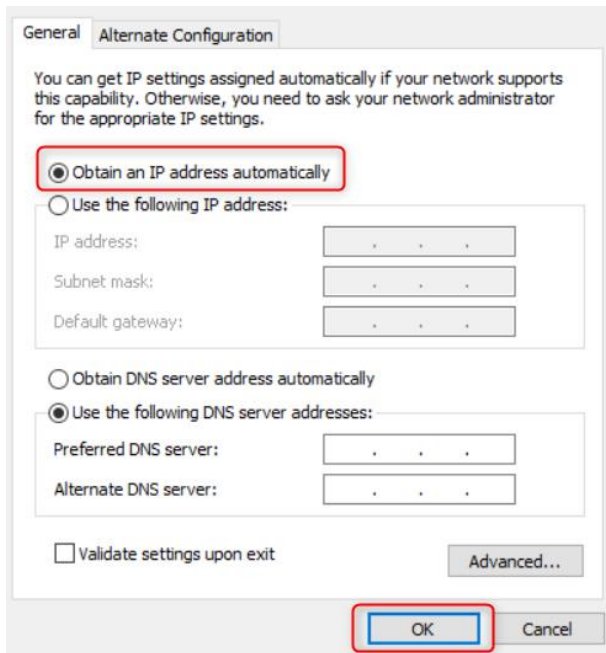


Computer connects to multiple cameras via router (DHCP mode)

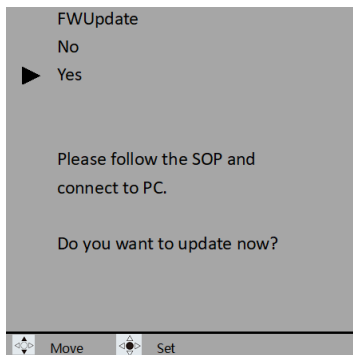
1. Power on all BC-15C/BC-15CN and connect all devices to the computer with the firmware update utility installed through the router.
2. The factory default setting of BC-15C/BC-15CN is DHCP mode. Please make sure the setting is "DHCP ON" in the "Network>HDPC" option of the BC-15C/BC-15C OSD menu, which means DHCP mode is used. Open the BC-15C/BC-15CN OSD menu and get the IP address of the camera from Network in the main menu. To avoid IP conflict, please make sure that all connected devices have different IP addresses. In this example, the camera's DHCP IP address is 192.168.50.200. If your model is BC-15CN, there will be a "Preview/NDI" option above the "Network" option on the second page of the main OSD menu. If your model is BC-15C, there is no such "Preview/NDI" option. The following picture is an example of BC-15C interface.



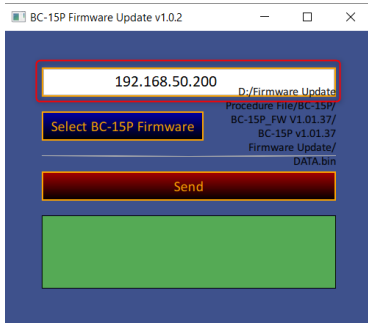
3. Set the computer to Dynamic IP mode so that its IP address is assigned by the router.



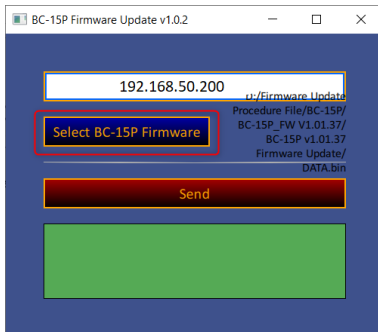
4. Go back to the BC-15C/BC-15CN's OSD menu and go to **System>Firmware**, then select **Update**. After pressing Update, you will be prompted by the camera to continue with the firmware update.



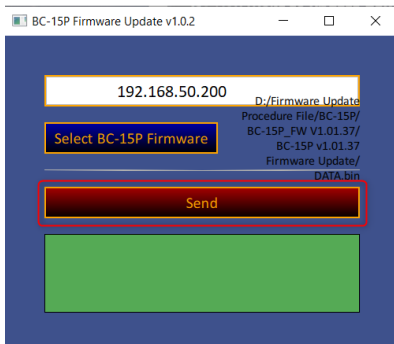
5. Open the BC-15C/BC-15CN's firmware update utility on your computer and enter the IP address 192.168.50.200 as shown below.



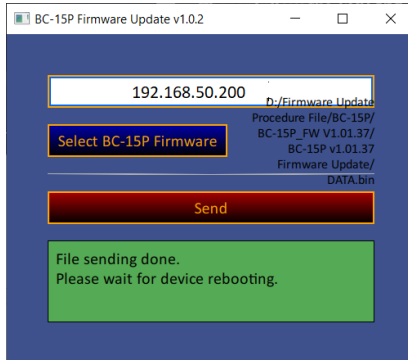
6. Click "Select **BC-15C/BC-15CN Firmware** " to browse your computer's hard disk and search for the latest firmware file. Double-click on the file when it is found.



7. Click "**Send** " to start uploading files to BC-15C/BC-15CN.



8. The following screen indicates that the file has been successfully uploaded to the BC-15C/BC-15CN, after which the BC-15C/BC-15CN will be rebooted, and the firmware update will be completed upon completion of the reboot.



9. Repeat steps 5 through 8 to update the firmware on the other cameras.

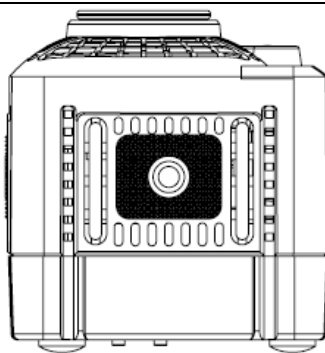
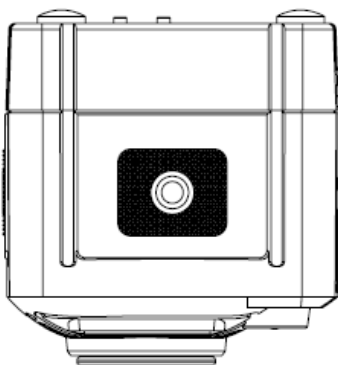
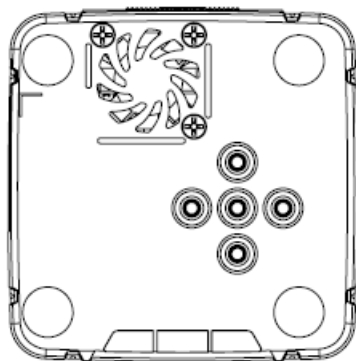
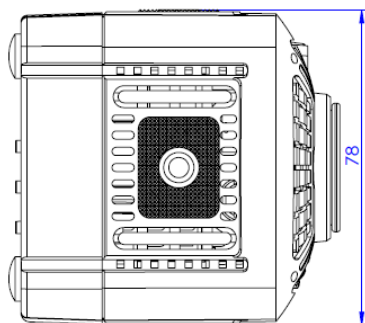
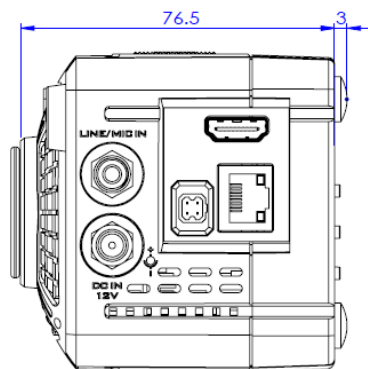
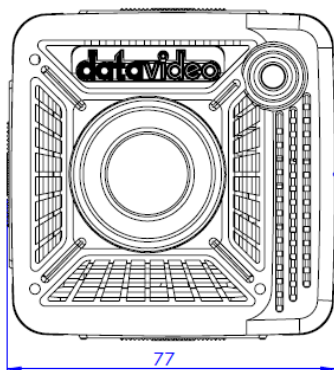
11. Frequently-Asked Questions

This section describes problems that you may encounter while using BC-15P. If you have any questions, please refer to related sections and follow all suggested solutions. If the problem still exists, please contact your distributor or the service center.

No.	Problems	Solutions
1.	The tally LED displays orange color all the time.	Remove the HDMI connection then reboot the camera. Reconnect the HDMI cable after the camera boot is complete.
2	What you need to know about setting the "Audio" option.	Note that the BC-15C/CN needs to be restarted after adjusting the "Audio" setting, and do not change the sound setting while streaming (you must stop streaming first).

12. Dimensions

Unit: mm



13. Specifications

Camera Specifications	
Product Model	BC-15C/BC-15CN
Product Name	4K CS MOUNT POV Camera / 4K NDI CS MOUNT POV Camera
Video format/Resolution	2160p 60/59.94/50/30/29.97/25 1080p 60/59.94/50/30/29.97/25
Image Sensor	1/2.3" CMOS
Effective Pixels (approx.)	12.3Mega Pixels
S/N Ratio	50 dB
Min. Illumination	0.5Lux (F1.0, AGC ON) * depend on Lens
Electronic Shutter	1/25(1/30), 1/50(1/60), 1/75(1/90), 1/100(1/120), 1/125(1/150), 1/150(1/180), 1/200(1/210), 1/500(1/600), 1/1000(1/1200), 1/2000(1/2400), 1/4000(1/4800), 1/8000(1/9000) sec
Zoom Ratio	2x Digital Zoom * Optical zoom depend on Lens
Gamma Control	Standard/ Mode1/ Mode2/ Mode3
Iris Control	DC IRIS supported * depend on Lens
Digital Noise Reductions	2D/3D
On-Screen Display (OSD)	English/Simplified Chinese/Traditional Chinese
White Balance	Auto, Indoor, Outdoor, OnePush, Color Temp., R/B Gain, Lock
AGC / Gain Control	Auto(AGC) / Manual / Lock (Follow Exposure Mode)
HDR/WDR	WDR
Mirror / Flip Image	Yes
Focus Mode	Full Manual
Focal Length	Depend on Lens
Field of View	Depend on Lens

(Horizontal, Wide)	
Image Compensation	Auto
Video Output	HDMI 2.0 x1
Audio Input	3.5mm Line in/Mic in (Stereo)
Tally LED	Dual color (Red, Green)
Lens Filter	IR cut built-in
Control Protocol	DVIP
Remote Control Interface	RJ-45: for IP control (DVIP)
Video Compression Format	H.264, H.265
Audio Compression Format	AAC
Audio Bitrate	128Kbps
HD IP Interface	10/100/1000M
Streaming Protocols	BC-15C: RTMP(S), SRT BC-15CN: RTMP(S), SRT, NDI
First Stream Supported Resolution	1920x1080 1280x720 1024x576 960x540 640x480 640x360
Video Bitrate	1Mbps ~ 7Mbps
Video Bitrate Mode	VBR, CBR
Encoding Frame rate	50Hz: 1-50fps 60Hz: 1-60fps
PoE	IEEE802.3af
F/W Update	Ethernet
Camera Control Unit	RMC-300 series/BC View Assist APP

Tripod Mount	1/4-20 UNC
Color	Black
Dimension (LxWxH)	77mm (W) x 82mm (D) x 78mm (H)
Weight	204g (Lens not included)
Operating Temp. Range	0~40 °C
Power	DC 12V 9W

Note

Note

Note

Service & Support

It is our goal to make your products ownership a satisfying experience. Our supporting staff is available to assist you in setting up and operating your system. Please refer to our web site www.datavideo.com for answers to common questions, support requests or contact your local office below.

Please visit our website for latest manual update.

BC-15C: www.datavideo.com/product/BC-15C

BC-15CN: www.datavideo.com/product/BC-15CN

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