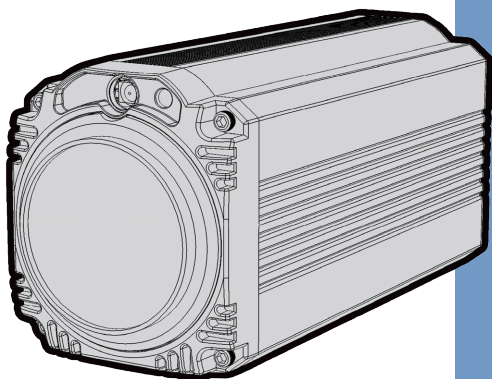


# datavideo



**BLOCK CAMERA**

**BC-80**

**Instruction Manual**

[www.datavideo.com](http://www.datavideo.com)

# Table of Contents

<b>FCC COMPLIANCE STATEMENT .....</b>	<b>4</b>
<b>WARNINGS AND PRECAUTIONS .....</b>	<b>4</b>
<b>WARRANTY .....</b>	<b>5</b>
STANDARD WARRANTY .....	5
THREE YEAR WARRANTY.....	6
<b>DISPOSAL .....</b>	<b>7</b>
<b>1. INTRODUCTION .....</b>	<b>8</b>
1.1 FEATURES .....	8
<b>2. SYSTEM DIAGRAM.....</b>	<b>9</b>
<b>3. CONNECTIONS.....</b>	<b>10</b>
3.1 FRONT VIEW .....	10
3.2 REAR PANEL.....	11
<b>4. IR REMOTE CONTROL .....</b>	<b>14</b>
<b>5. OSD MENU OPTIONS .....</b>	<b>19</b>
<b>6. DIP SWITCH SETTINGS .....</b>	<b>29</b>
<b>7. RMC-180 PTZ CAMERA CONTROL UNIT .....</b>	<b>30</b>
DIRECT CONNECTION TO CAMERA.....	30
<b>8. DVIP CONFIGURATION TOOL.....</b>	<b>32</b>

8.1 DVIP CONFIGURATION TOOL SETTING .....	32
8.1.1 User Interface.....	32
8.1.2 Device Search .....	34
8.1.3 Clearing Device List .....	34
8.1.4 Detailed Device Network Information .....	35
8.1.5 Modify Device Information and Write to Device ....	36
8.1.6 Switch to Other Network Interface .....	37
8.1.7 Language Selection .....	38
<b>9. FIRMWARE UPGRADE.....</b>	<b>39</b>
<b>10. DIMENSIONS .....</b>	<b>40</b>
<b>11. SPECIFICATIONS.....</b>	<b>41</b>
<b>SERVICE AND SUPPORT .....</b>	<b>43</b>

#### **Disclaimer of Product & 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 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 that are marked “Do Not Remove” 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.

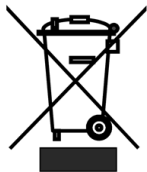
- The product warranty period begins on the purchase date. If the purchase date is unknown, the product warranty period begins on the thirtieth day after shipment from a Datavideo office.
- All non-Datavideo manufactured products (product without Datavideo logo) have only one year warranty from the date 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.



**CE Marking** is the symbol as shown on the left of this page. The letters "CE" are the abbreviation of French phrase "Conformité Européene" which literally means "European Conformity". The term initially used was "EC Mark" and it was officially replaced by "CE Marking" in the Directive 93/68/EEC in 1993. "CE Marking" is now used in all EU official documents.

# 1. Introduction

The BC-80 Block Camera is a small HD camera with an infra-red remote control. It can be used for HD high quality shooting in an environment where space is limited. The image resolution is 1920x1080. The BC-80 provides 30x optical focus, and the image output interfaces are SDI and HDMI. A tally light indicator sits above the BC-80 camera lens. The control protocol supports SONY VISCA so that the camera can be controlled via RS-422 or DVIP interface.

## 1.1 Features

- HD Resolution: 1/2.8" High Definition 2.0 M Pixels progressive CMOS sensor
- 30x optical zoom
- High definition formats supported:
  - 1080p/59.94, 1080p/50, 1080p/29.97, 1080p/25
  - 1080i/59.94, 1080i/50
  - 720p/59.94, 720p/50
- Digital Noise Reduction Function (DNR) to reduce the noise and enable clearer image under low light conditions.
- Video Output: SDI + HDMI synchronously.
- Tally LED Design (RS-422/ DVIP Operation)
- Supports SONY VISCA Protocol
- Supports DVIP Control Protocol
- Users can save up to 10 sets of preset camera settings for future filming.
- Users can control up to 4 BC-80 devices simultaneously via the RMC-180 PTZ camera remote control unit (including White Balance, Focus, Iris, Shutter Speed, Zoom, Zoom Speed, Save Preset, Recall Preset)

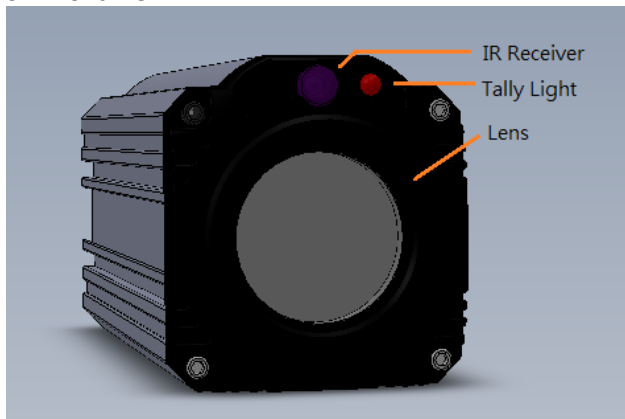
P.S. Shutter speed function must be set by the RMC-180 menu.





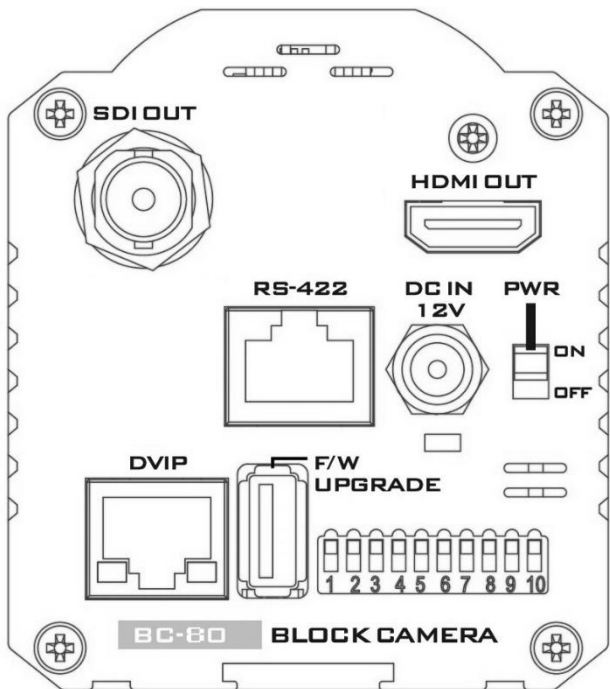
## 3. Connections

### 3.1 Front View



<b>IR Receiver</b>	Receives signal from the IR remote control.
<b>Tally Light</b>	As the camera is booting the tally light stays <b>solid green</b> and turns <b>solid red</b> for about three seconds just before the boot is complete. The tally light remains <b>solid green</b> after the camera finishes booting. Green: Camera is operating normally. Red: Camera is booting.
<b>Lens</b>	Camera lens for capturing images.

### 3.2 Rear Panel





### SDI Output

Video output connected to SDI monitor.



### HDMI Output

Video output connected to HDMI port of the monitor.



### RS-422 Control Port

Remote control port using the RS-422 control protocol. See [RS-422 Control Protocol](#) for details.



### 12V DC Power IN

DC in socket connects the supplied 12V PSU. The connection can be secured by screwing the outer fastening ring of the DC In plug to the socket.



### Power Switch

Turns ON/OFF the camera.



### Power LED Indicator

Green: Power ON  
OFF: Power OFF



### DVIP Control Port

Remote control port using the DVIP control protocol. See [DVIP Control Operation Guide](#) for details.



### **Firmware Upgrade Port**

Connects USB drive for firmware upgrade. For details, please refer to the [Firmware Upgrade](#) section.

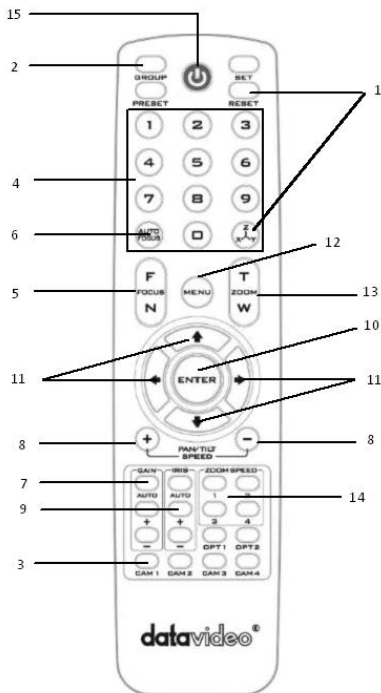






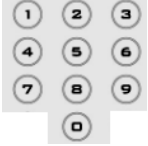
### **DIP Switch**





DIP Switch sets the camera VISCA ID, Remote Control Protocol, and Resolution, Video Mode Selection Method, and Camera ID Assignment. For details, please refer to the [DIP Switch Settings](#) section.

## 4. IR Remote Control



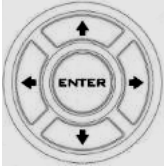

Use the IR remote control that comes with the product package to operate the BC-80 Block Camera. The IR remote control functions are described in the table below.






No	Item	Description
1	<p><b>Reset</b></p>  	<p>Press RESET or XYZ button to return the camera lens to the default zoom position (Z:0000).</p>
2	<p><b>Group</b></p> 	<p>Not Applicable</p>
3	<p><b>Camera Select</b></p> 	<p><b>Select CAM1-CAM4 in a multi-camera environment</b></p> <p>Press Camera Select buttons to select a camera from Camera 1 to Camera 4 in a multi-camera environment.</p> <p>However before using the Camera Select function, first assign an ID number (CAM 1 – CAM 4) to the camera intended for remote control operation by adjusting the DIP switch located at the rear of the camera. Please refer to <a href="#">DIP Switch Settings</a> section for details.</p>
4	<p><b>Preset Setting</b></p> 	<p>Not Applicable</p>

5	<p style="text-align: center;"><b>Focus Setup</b></p> 	<p><b>Manually focus camera lens on a subject</b>          Press either <b>(F)</b> FAR button or <b>(N)</b> NEAR button to manually focus the camera lens onto the subject.</p> <p>Before using manual focus, make sure Auto Focus mode is turned off by pressing the <b>AUTO FOCUS</b> button.</p>
6	<p style="text-align: center;"><b>Auto Focus Control</b></p> 	<p><b>Automatically focus camera lens on a subject</b>          Press <b>AUTO FOCUS</b> button and camera lens will be automatically focused on the subject.</p>
7	<p style="text-align: center;"><b>Gain Control</b></p> 	<p><b>Adjust Brightness</b>          Press <b>GAIN+</b> button to increase the brightness or <b>GAIN-</b> button to decrease the brightness.</p> <p>Press <b>AUTO</b> button to activate auto Gain Control and press again to exit.</p>
8	<p style="text-align: center;"><b>P/T Speed</b></p> 	<p><b>Adjust Pan/ Tilt Speed</b>          Not Applicable</p>



9	<p style="text-align: center;"><b>Iris Control</b></p> 	<p><b>Make the subject appear brighter</b> Adjust the iris opening (aperture), to control the amount of light coming through the lens (i.e. the "exposure"). Press <b>IRIS+</b> button to enlarge the iris opening to allow more light to come in so that the subject appears brighter and press <b>IRIS-</b> button to shrink the iris opening to allow less light to come in so that the subject appears less bright.</p> <p>Press <b>AUTO</b> button activate auto Iris Control and press again to exit.</p>
10	<p style="text-align: center;"><b>ENTER</b></p> 	<p><b>ENTER</b> Press <b>ENTER</b> key to select a particular menu option or confirm a parameter value.</p>
11	<p style="text-align: center;"><b>Direction Arrows</b></p> 	<p><b>Browse Menu Options</b> Press <b>UP, DOWN, LEFT</b> and <b>RIGHT</b> arrow buttons to browse the menu options or adjust parameter values.</p>
12	<p style="text-align: center;"><b>Enter/ Exit Camera Menu</b></p> 	<p>Press the <b>MENU</b> button to Enter or Exit the Camera OSD Menu</p>

13	<p style="text-align: center;"><b>Zoom In/Out Buttons</b></p> 	<p><b>Zoom</b> Press either (T) TELE button to zoom in on the subject such that it appears to be close to the camera or (W) WIDE button to zoom out from the subject such that it appears to be far away from the camera.</p>
14	<p style="text-align: center;"><b>Zoom Speed Buttons (4 speed selection)</b></p> 	<p><b>Adjust Zoom In/Out Speed</b> Press the ZOOM SPEED buttons to switch to different zoom speeds (4 being the highest and 1 being the lowest).</p>
15	<p style="text-align: center;"><b>Power Button</b></p> 	<p>Switch <b>ON/OFF</b> camera</p>

## 5. OSD Menu Options

On-Screen Menu allows the user to change various camera settings such as shooting conditions and the system setup. Press **Menu** button on the **IR remote control** to enter the on-screen menu as shown below.

[MAIN MENU]

- 1: Camera Set (Normal)
- 2: Video Output
- 3: Remote Control
- 4: System
- 5: Camera Set (Advance)
- 6: Escape

Main Menu	
<b>1. Camera Set (Normal)</b>	<b>White Balance</b> Color temperature adjustment to make the image look more natural.
	<b>IRIS</b> This is an adjustable aperture used to control the amount of light coming through the lens. The more the iris is opened, the more light it lets in and the brighter the scene will be.
	<b>AGC</b> The setting that automatically adjusts the amplification of the signal from the camera sensor.
	<b>DNR</b> Digital Noise Reduction digitally removes any noise found in each image, resulting in a clearer image.
<b>2. Video Output</b>	<b>Selection Way</b> This option configures how you can select the video mode.

	<p>Enabling DIP SW 8 allows you to use the DIP switch to set the video mode instead of the remote control.</p>
	<p><b>Pattern</b> Pattern generates color bars for color calibration.</p>
<b>3. Remote Control</b>	Remote control settings
<b>4. System</b>	System configuration
<b>5. Camera Set (Advance)</b>	<p><b>Fog Correction</b> When the surrounding area of the subject is foggy and of a low contrast, turning on fog correction will make the subject appear clearer.</p>
	<p><b>Aperture</b> Aperture adjusts the image sharpness. Increasing the aperture setting so that the foreground and background of your images appear sharp.</p>
	<p><b>Vivid Effect</b> Vivid effect adjusts the color saturation which is basically the intensity of color in an image.</p>
	<p><b>Pedestal Effect</b> The pedestal effect enables exposure compensation which will engage the iris or auto gain control depending on the shooting situation. For best results we recommend setting the pedestal effect to 4 or 5. The pedestal effect allows the camera to brighten up the image captured as you zoom in.</p>
	<p><b>Backlight Correction</b> Use this function when the background is brighter than the subject.</p>
<b>6. Escape</b>	Exits the MENU

Main Options	Camera Set (Normal)	Video Output	Remote Control	System	Camera Set (Advance)	Escape
Sub-Options	1. Camera Name	1. Selection Way	1. Remote Source	1. Display	1. Camera Name	
	2. Mirror	2. Video Mode	2. Set RS-422	2. Tally Light	2. Mirror	
	3. White Balance	3. Pattern	3. Set DVIP	3. Reset All	3. White Balance	
	4. Focus	4. Escape	4. Set IR	4. Update Software	4. Focus	
	5. Iris		5. Escape	5. Escape	5. Iris	
	6. AGC				6. AGC	
	7. Escape				7. Fog Correction	
					8. Aperture	
					9. Vivid Effect	
					10. Pedestal Effect	
					11. Backlight Correction	
					12. Day/Night Mode	
					13. Shutter	
					14. Gamma Mode	
					15. WD Mode	
					16. HR Mode	
					17. Contrast	
					18. Escape	

First Level Main Options	Second Level Sub-Options	Third Level Parameters	Fourth Level Parameters	Sub-Option Descriptions		
1. Camera Set (Normal)	1. Camera Name	NAME				
		DISPLAY SW	ON/OFF			
		POSITION	LOWER LEFT			
			UPPER LEFT			
			LOWER RIGHT			
			UPPER RIGHT			
	ESCAPE					
	2. Mirror	H+V				
		V				
		H				
		OFF				
	3. White Balance	MODE	AWB(AUTO)			
			AWC (ONE PUSH)			
			MWB (MANUAL)			
			3200K (INDOOR)			
			5600K (OUTDOOR)			
			4200K (FLUO)			
		SMART ATW	OFF			
			SMART1/2/3			
		MWB RED COMPONENT	0~128~255		(Enabled when MODE is set to MWB (MANUAL))	
		MWB BLUE COMPONENT	0~128~255		(Enabled when MODE is set to MWB (MANUAL))	
	ESCAPE					
	4. Focus	FOCUS MODE	AUTO			
			MANUAL			
		AF SENSITIVITY	LOW			
			NORMAL			
		FOCUS SPEED	1~8			
	ESCAPE					
	5. Iris	IRIS MODE	AUTO IRIS			
			MANUAL			
		MANUAL IRIS LEVEL	F1.6			
	F2.0					

			F2.4	
			F2.8	
			F3.4	
			F4	
			F4.8	
			F5.6	
			F6.8	
			F8	
			F9.6	
			F11	
			F14	
	CLOSE			
	ESCAPE			
	6. AGC	DAY (COLOR) AGC	AGC MODE	OFF
				ON
			MANUAL GAIN	0 dB ~ GAIN LIMIT
				9 dB
			GAIN LIMIT	12 dB
				15 dB
				18 dB
21 dB				
24 dB				
27 dB				
30 dB				
33 dB				
36 dB				
39 dB				
ESCAPE				
DNR		DNR (AT AGC ON)	ON	
			OFF	
		DNR LEVEL	0	
			1	
	2			
	3			
4				
5				
ESCAPE				
ESCAPE				
7. Escape				
<b>2. Video Output</b>	1. Selection Way	BY MENU		
		BY SWITCH		
	2. Video Mode	1080i59.94		
		1080i50		

		720p59.94		
		720p50		
		1080p59.94		
		1080p50		
		1080p29.97		
		1080p25		
	3. Pattern	OFF		
		COLOR BAR		
4. Escape				
<b>3. Remote Control</b>	1. Remote Source	RS-422, SW	<b>(Configurable using DIP switch bit 4 ONLY)</b>	
		DVIP, SW		
	2. Set RS-422	CAMERA ID MODE	BY MENU	
		CAMERA ID	BY SWITCH	
			1~7	
		RS-422 BAUD RATE	9600	
			19200	
			38400	
		115200		
	ESCAPE			
	3. Set DVIP	DVIP BAUD RATE	9600	
			19200	
			38400	
			57600	
			115200	
	ESCAPE			
	4. Set IR	IR GROUP ID	CAM1~4	<b>(Configurable using DIP switch bit 9/10 ONLY)</b>
ESCAPE				
5. Escape				
<b>4. System</b>	1. Display	ZOOM OSD	ZOOM OSD	ON/OFF
			ESCAPE	
		DEBUG OSD	DEBUG IR OSD	ON/OFF
			DEBUG CAM. OSD	ON/OFF
			DEBUG RS-422 OSD	ON/OFF
			DEBUG DVIP OSD	ON/OFF
			DEBUG REG OSD	ON/OFF



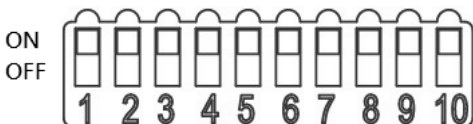
			DEBUG FRAME NO	ON/OFF	
			PWR ON CAM TEST	ON/OFF	
			DUAL LVDS TEST	ON/OFF	
			INT. COLOR BAR	ON/OFF	
			ESCAPE		
	2. Tally Light	Escape			
		RED/GREEN			
		GREEN			
		RED			
	3. Reset All	OFF			
		YES/NO			
		4. Update Software	SW VERSION	ESCAPE	
			MB CPU	V00.31b	
	MB FPGA		V006		
	UPDATE ALL		YES/NO		
ESCAPE					
5. Escape					
<b>5. Camera Set (ADVANCE)</b>	1. Camera Name	NAME			
		DISPLAY SW	ON/OFF		
		POSITION	UPPER LEFT		
			LOWER RIGHT		
			UPPER RIGHT		
			LOWER LEFT		
	ESCAPE				
	2. Mirror	H+V			
		V			
		H			
		OFF			
	3. White Balance	MODE	AWB (AUTO)		
			AWC (ONE PUSH)		
			MWB (MANUAL)		
			3200K (INDOOR)		
			5600K (OUTDOOR)		
			4200K (FLUO)		
		SMART ATW (Enabled in AWB (AUTO) mode)	OFF		
SMART1~3					

		MWB RED COMPONENT (Enabled in MWB (Manual) mode)	0~128~255	
		MWB BLUE COMPONENT (Enabled in MWB (Manual) mode)	0~128~255	
ESCAPE				
4. Focus	FOCUS MODE	AUTO		
		MANUAL		
	AF SENSITIVITY	LOW		
		NORMAL		
	FOCUS SPEED	1		
		2		
		3		
		4		
		5		
		6		
7				
8				
ESCAPE				
5. Iris	IRIS MODE	AUTO		
		MANUAL		
	Manual IRIS LEVEL	F1.6		
		F2.0		
		F2.4		
		F2.8		
		F3.4		
		F4		
		F4.8		
		F5.6		
		F6.8		
		F8		
		F9.6		
		F11		
F14				
CLOSE				
ESCAPE				
6. AGC		AGC MODE	ON/OFF	

	DAY (COLOR) AGC	MANUAL GAIN	0dB~GAIN LIMIT	
		GAIN LIMIT	9 dB	
			12 dB	
			15 dB	
			18 dB	
			21 dB	
			24 dB	
			27 dB	
			30 dB	
			33 dB	
	36 dB			
	39 dB			
	DNR	ESCAPE		
		DNR(AT AGC ON)	ON	
			OFF	
		DNR LEVEL	0	
			1	
2				
3				
4				
5				
ESCAPE				
7. Fog Correction	FOG CORRECTION	OFF/ON		
	ESCAPE			
8. Aperture	0~15			
9. Vivid Effect	0~14			
10. Pedestal Effect	0~14			
11. Backlight Correction	OFF/ON	<b>(This option is enabled after AGC is turned on)</b>		
12. Day/Night Mode	B/W			
	COLOR			
13. Shutter	SHUTTER SPEED	1/25		
		1/30		
		1/50		
		1/60		
		1/75		
		1/90		

			1/100		
			1/120		
			1/125		
			1/150		
			1/180		
			1/215		
			1/250		
			1/300		
			1/350		
			1/425		
			1/500		
			1/600		
			1/725		
			1/1000		
	1/1250				
	1/1500				
		ESCAPE			
	14. Gamma Mode	STANDARD MODE1 (WD OFF) MODE2 (WD OFF) MODE3 (WD OFF) MODE4 (WD OFF)			
15. WD Mode	VE/ON/OFF	(This option is enabled after AGC is turned on)			
16. HR Mode	ON/OFF				
17. Contrast	0-31	Default is 16			
18. Escape					
<b>6. Escape</b>					

## 6. DIP Switch Settings



<b>DIP SW 1/2/3</b>	<b>VISCA ID</b>
ON / OFF / OFF	VISCA-ID 1
OFF / ON / OFF	VISCA-ID 2
ON / ON / OFF	VISCA-ID 3
OFF / OFF / ON	VISCA-ID 4
ON / OFF / ON	VISCA-ID 5
OFF / ON / ON	VISCA-ID 6
ON / ON / ON	VISCA-ID 7
<b>DIP SW 4</b>	<b>Remote Control Protocol</b>
ON	DVIP
OFF	RS-422
<b>DIP SW 5/6/7</b>	<b>Resolution</b>
OFF / OFF / OFF	1920x1080i59.94
ON / OFF / OFF	1920x1080i50
OFF / ON / OFF	1280x720p59.94
ON / ON / OFF	1280x720p50
OFF / ON / ON	1920x1080p59.94
ON / ON / ON	1920x1080p50
OFF / OFF / ON	1920x1080p29.97
ON / OFF / ON	1920x1080p25
<b>DIP SW 8</b>	<b>Video Mode Selection Method</b>
ON	ON = video mode selectable by DIP switch only
OFF	OFF = video mode selectable by menu
<b>DIP SW 9/10</b>	<b>Camera Select Function (IR Remote Control) – Camera ID Assignment</b>
OFF / OFF	CAM 1
ON / OFF	CAM 2
OFF / ON	CAM 3
ON / ON	CAM 4

## 7. RMC-180 PTZ Camera Control Unit

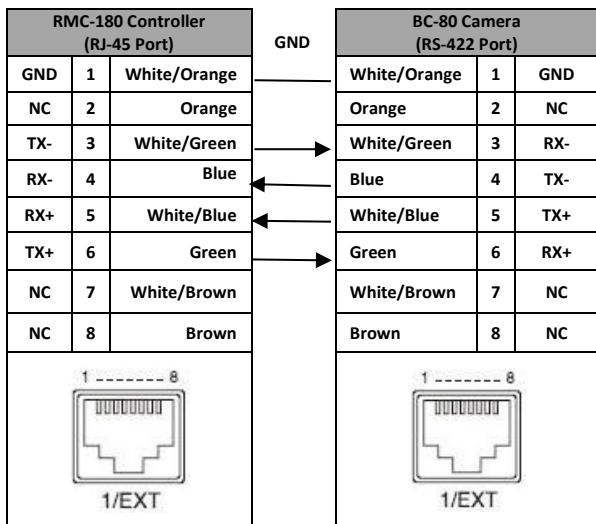
The RMC-180 PTZ Camera Controller is designed to control up to 4 Datavideo Block/Pan Tilt Zoom (PTZ) cameras such as the BC-80.

The four RJ-45 ports provided on the RMC-180 rear serve to connect Block/PTZ cameras, thus allowing the user to use any RJ-45 cable to connect the RMC-180 to the RS-422 port located on the Block/PTZ camera's rear panel. The communication protocol is VISCA.

**Note: Before connecting the camera to these channel ports, please set bit 4 of the camera DIP switch located at the bottom to OFF.**

### Direct Connection to Camera

To use the RMC-180 PTZ Camera Control Unit to directly control the BC-80 camera, connect the RS-422 port on the camera's rear panel to the RJ-45 port of the RMC-180 using any RJ-45 cable. The RS-422 wiring scheme is shown below.



## 8. DVIP Configuration Tool

The DVIP Configuration Tool allows users to setup the network setting of the BC-80 HD block camera. Please see following sections for the detail of the DVIP Configuration Tool setting.

### 8.1 DVIP Configuration Tool Setting

At first, you have to download the DVIP Configuration Tool from Datavideo website's product page to your PC. Moreover, you can also get the DVIP Configuration Tool from your local distributor. After the software download is completed, please follow following steps for setting the DVIP Configuration Tool.

Step1. Connect your PC directly to the DVIP port of the BC-80 camera. If there is more than one BC-80 camera, please connect all the BC-80 cameras to an Ethernet router. Please make assure that the Ethernet router and all connected devices are within the same IP range.

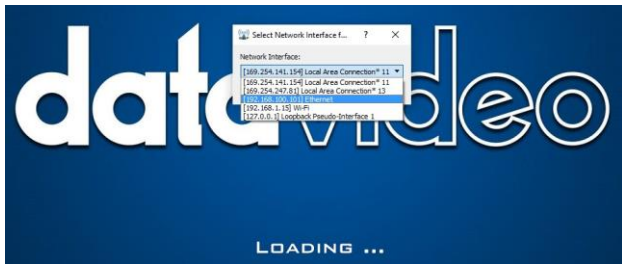
Step2. On the PC, please open the DVIP Configuration Tool by double-clicking the **"DVIP\_Net\_Conf.exe."**

#### 8.1.1 User Interface

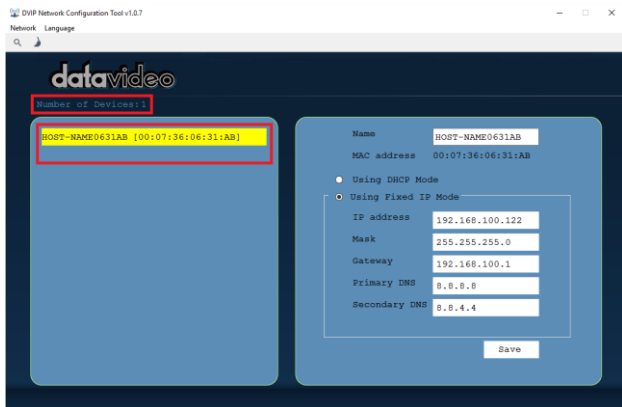
Step1. After the DVIP Configuration Tool is opened, please select the corrected network interface card in your PC and then click the button **"OK"**.

Note: Please make sure that the selected network interface card is within the same IP range as the connected BC-80 camera or it is impossible for the DVIP Configuration Tool to find the connected DVIP device.



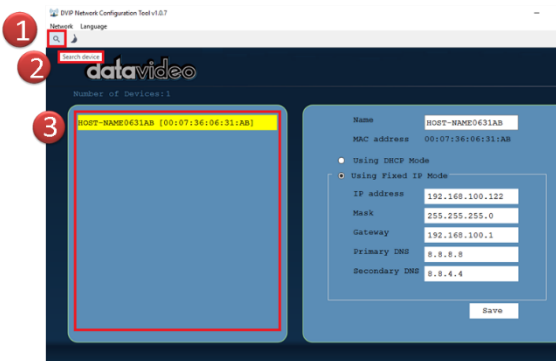


Step2. After logging in the interface card, the user will be able to view the device name, MAC address and number of device.



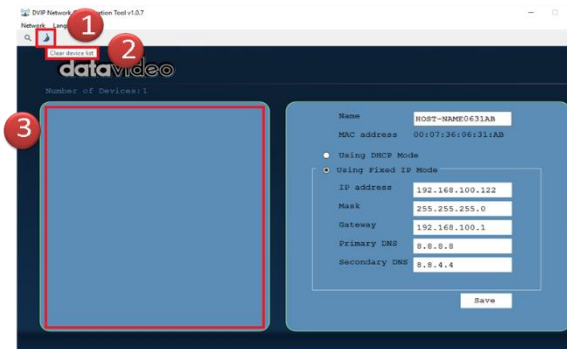
### 8.1.2 Device Search

- On the tool bar, users can click the search icon to search for all DVIP devices.



### 8.1.3 Clearing Device List

- On the tool bar, users are allowed to clear the device list by clicking the "Device List Clear" button.



### 8.1.4 Detailed Device Network Information

- After selecting a device in the left column, you will then be able to view each device information on the right, including name, MAC, IP address and etc.



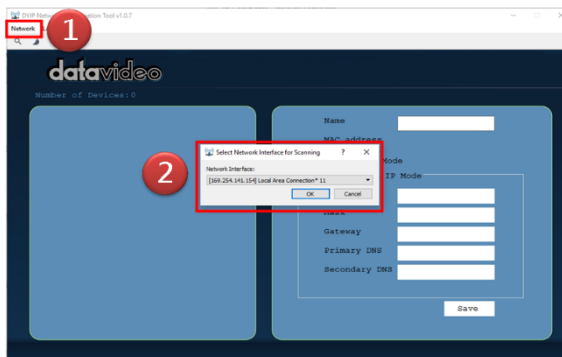
### 8.1.5 Modify Device Information and Write to Device

- The user is allowed to modify the device information in the right column such as device name, MAC, IP address and etc. Click the Save button to write the information into the device. Right after the Save button is clicked, you will be able to see a prompt message at the top right corner to request for a device reboot for the new settings to become effective.



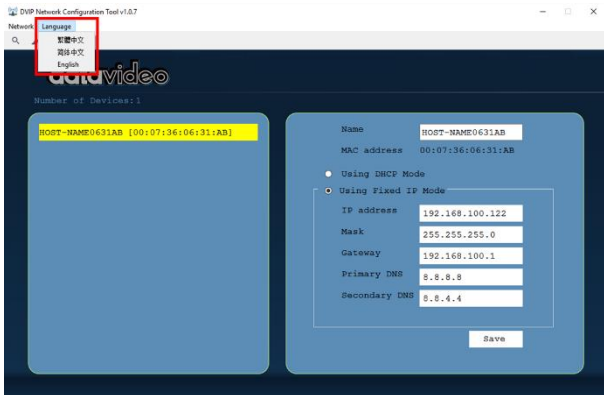
## 8.1.6 Switch to Other Network Interface

- To select other network interface cards, click Network → Network Card



## 8.1.7 Language Selection

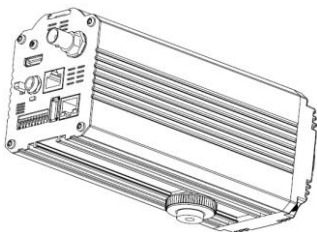
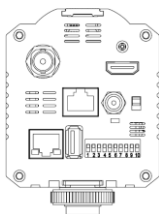
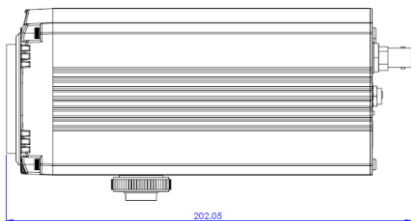
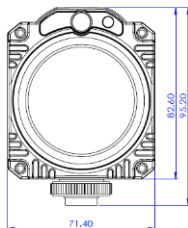
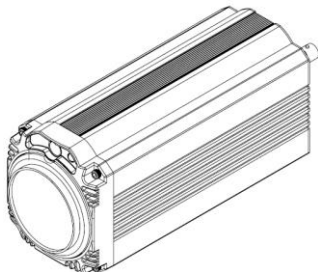
- On the tool bar, select a language: Traditional Chinese, Simplified Chinese or English



## 9. Firmware Upgrade

- 1) Copy MB CPU and MB FPGA image files into the root directory of a USB hard drive (<16 GB) and insert it into the USB Upgrade port (You may use a USB extension cord).
- 2) Open the OSD menu using IR remote control by pressing the MENU button.
- 3) Browse to  
=> 4: SYSTEM  
    => 4: UPDATE SOFTWARE  
        => 4: UPDATE ALL  
            => YES  
                => ENTER
- 4) Wait for another five minutes until the following lines appear on the screen
  - Updated FPGA =>OK
  - Updated MCPU =>OKThe OSD will flash "Write OK/Power ON Again".  
**Note: it takes approximately 5-7 minutes to complete the update.**
- 5) Turn off the device by unplugging the power cord. Plug the power cord back into the socket and then turn on the device again.
- 6) FW Update is complete.

## 10. Dimensions



All measurements in millimeters (mm)



## 11. Specifications

<b>Video</b>	
<b>Image Pickup Element</b>	1/2.8" type Exmor CMOS sensor
<b>Effective Picture Elements</b>	Approx. 2.38 Mega pixels
<b>Signal System</b>	HDMI & SDI: 1080p/59.94/50/29.97/25 1080i/59.94/50 720p/59.94/50
<b>S/N Ratio</b>	50 dB
<b>Min. Illumination</b>	50%, High Sensitivity Mode Color : 0.75 lx (F1.8, AGC ON, 1/30 sec)
<b>Electric Shutter</b>	1/25 (1/30), 1/50 (1/60), 1/75(1/90), 1/100, 1/120 (1/125), 1/150(1/180), 1/215( 1/250), 1/300(1/350), 1/425(1/500), 1/600(1/725), 1/1000, 1/1250(1/1500) sec.
<b>Gamma Control</b>	Off / Normal / Standard Mode 1-4
<b>Iris Control</b>	Auto / Manual
<b>Digital Noise Reductions</b>	0 – 5
<b>On-Screen Display (OSD)</b>	English
<b>White Balance</b>	AWB / MWB / One push WB / Outdoor / Indoor / Fluorescent
<b>AGC / Gain Control</b>	Auto / Manual (0 to 28 step) Max. Gain Limit (6 to 28 step)
<b>Zoom Ratio</b>	30x Optical Zoom
<b>Mirror</b>	OFF / Horizontal / Vertical / H+V
<b>Color Bar</b>	On / Off (Full Bar)
<b>Focus Mode</b>	Auto / Manual
<b>Day &amp; Night (IR)</b>	Auto / Color / BW
<b>Lens</b>	

<b>Lens Type</b>	30x Optical Zoom
<b>Focal Length</b>	F=4.3 mm (WIDE) to 129 mm (TELE) F1.6 to F4.7
<b>Angle of View (Horizontal)</b>	Approx. 63.7 degrees (WIDE END) / 2.3 degrees (TELE END)
<b>Filter</b>	M52.0 x 0.75 Thread with UV Protection
<b>RoHS</b>	Compliant
<b>Video Output</b>	
<b>Video Output</b>	HDMI (V1.3) x 1 HD-SD-SDI x 1
<b>Control</b>	
<b>Protocol</b>	VISCA / DVIP Protocol
<b>Remote Control</b>	RS-422 & DVIP by RJ-45 interface
<b>F/W Update</b>	USB 2.0
<b>IR Control</b>	One IR controller
<b>Others</b>	
<b>Operating Temperature</b>	0°C ~ 40°C (32°F~104°F)
<b>Storage Temperature</b>	- 10°C ~ 60°C (14°F~140°F)
<b>Operating Humidity:</b>	10 % to 80 % (non-condensing)
<b>Power</b>	DC 12V 1A
<b>Power Consumption</b>	10W
<b>Dimensions (W x H x D)</b>	71.4 x 82.6 x 202.05(mm) (without Tripod mount adapter) 71.4 x 95.2 x 202.05(mm) (with Tripod mount adapter)

# 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](http://www.datavideo.com) for answers to common questions, support requests or contact your local office below.

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