

Vividia Technologies

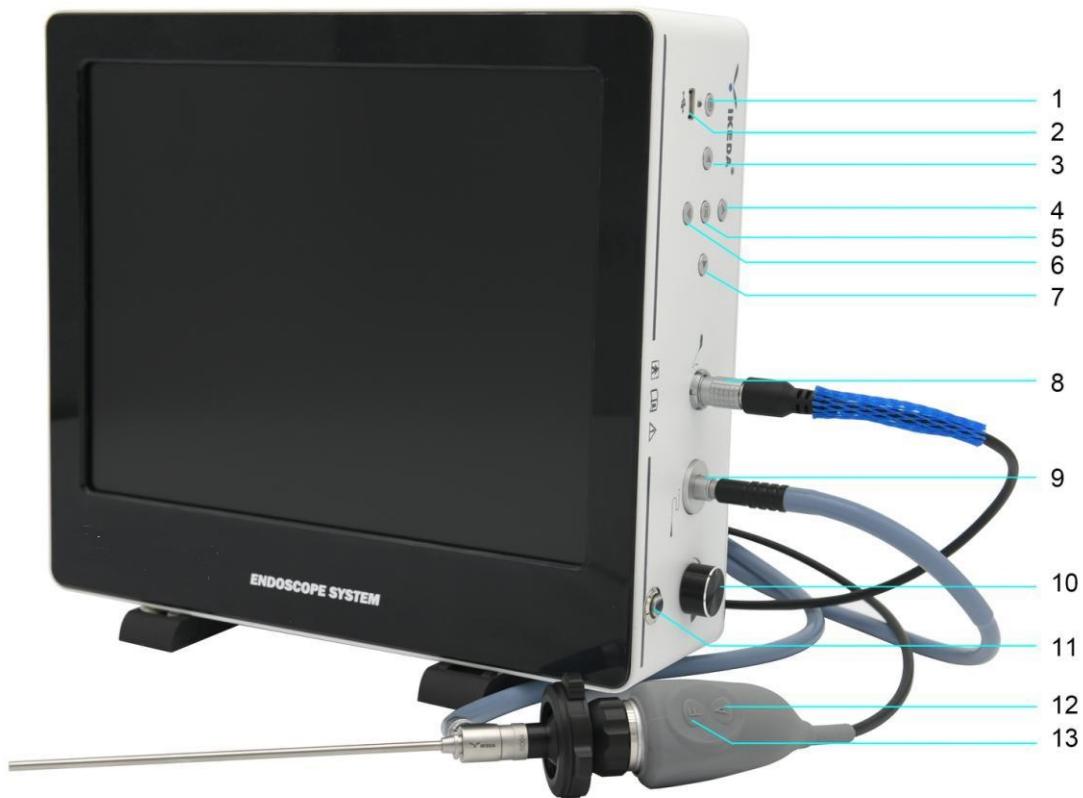


## User Manual

# Vivida ECS-9115 All-in-One Endoscope Camera System



## 1. Functions of Keys and Interfaces



**1. Recording button**

**2.USB 2.0**

**3. Up**

**4. Right**

**5.Camera Menu**

**6.Left**

**7.Down**

**8. Camera Interface**

**9. LED Light Interface**

**10. Light Source adjustment**

**11. Power button**

**12. Freeze**

**13.White balance**



**1、 CVBS Video Output**

**4、 Power Switch**

**2、 CVBS Video Output**

**5、 Fuse**

**3、 Earthing Rod**

**6、 Outlet, (AC 110V-220V)**

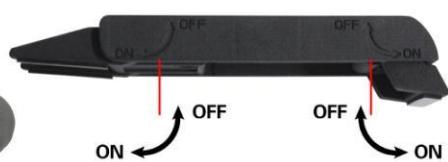
**please kindly note:**



1. When the customer receives the machine, the base holder is closed as the below photo

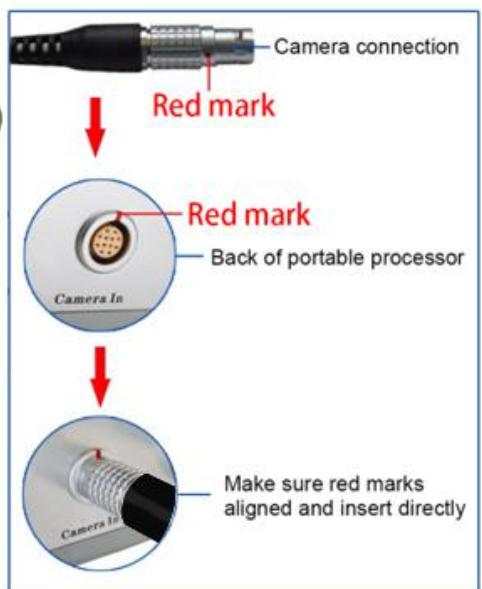
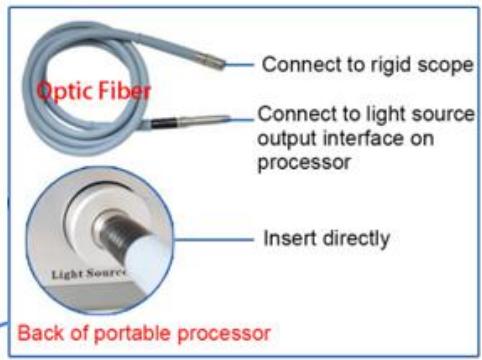


2. Unfold the holder as the below flank photo shows



## 2. Installation for Reference





### **3. Video Recording**

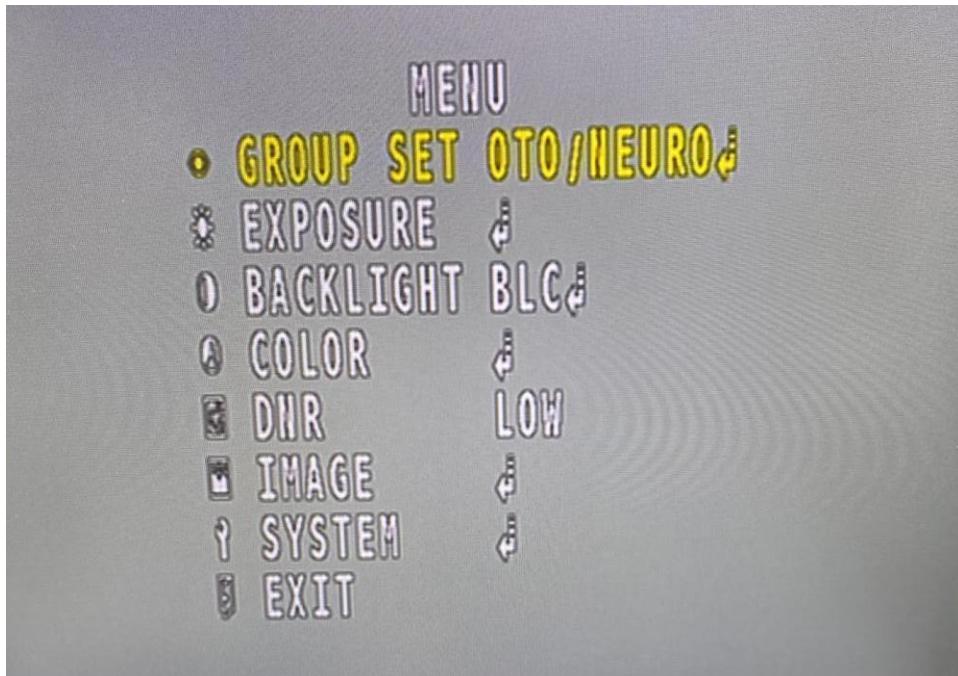
1. Insert the USB flash drive into the USB port in the front of machine
2. Press **【F】** button (Image freeze button) on the camera head when you need freeze image

#### **(2) Video Recording**

1. Insert the USB flash drive into the USB port in the front of machine
2. Press button **【1-Recording】** button) on the operation panel when you need record
3. Meanwhile, the **【Capture Indicator Light】** lighting above the USB port.
4. The **【Capture Indicator Light】** button keep lighting, when the video is being captured.
5. Press the **【Recording】** button again, the video capture finished
6. The **【Capture Indicator Light】** flickers 3 times, the video is being saved.
7. The video is saved into the USB flash drive, and the **【Capture Indicator Light】** key is dark
- .

### **4. Select the OTO/NEURO and fiber scope mode**

#### **(1) Factory default is OTO/NEURO mode**



#### **(2) Switching other mode**

Please right or left button to choose other model

Please notice the device is with memory function for mode, if you keep the mode of flexible scopes, when you starting up the device next time, it will still keep this mode, please check this mode carefully.

## 5. Main Technical Data of Camera

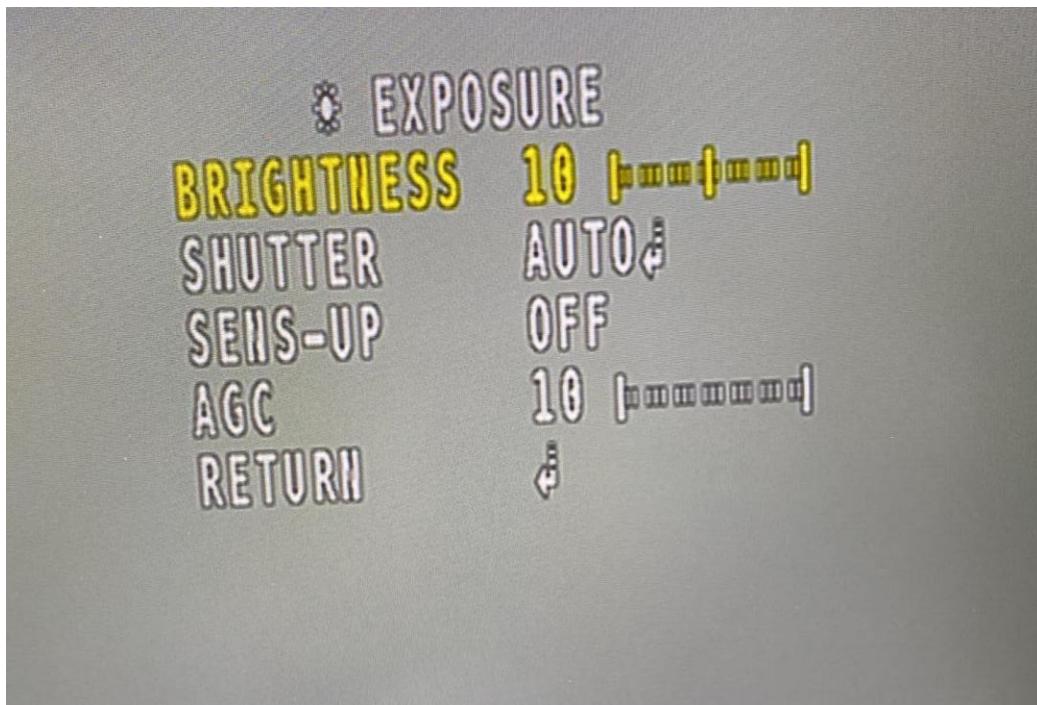
Camera menu technical data adjustment: (Mode for rigid endoscope)

The connection of device has been finished, press the (MENU) key on front panle, enter into setup interface.

1) Main interface of camera menu

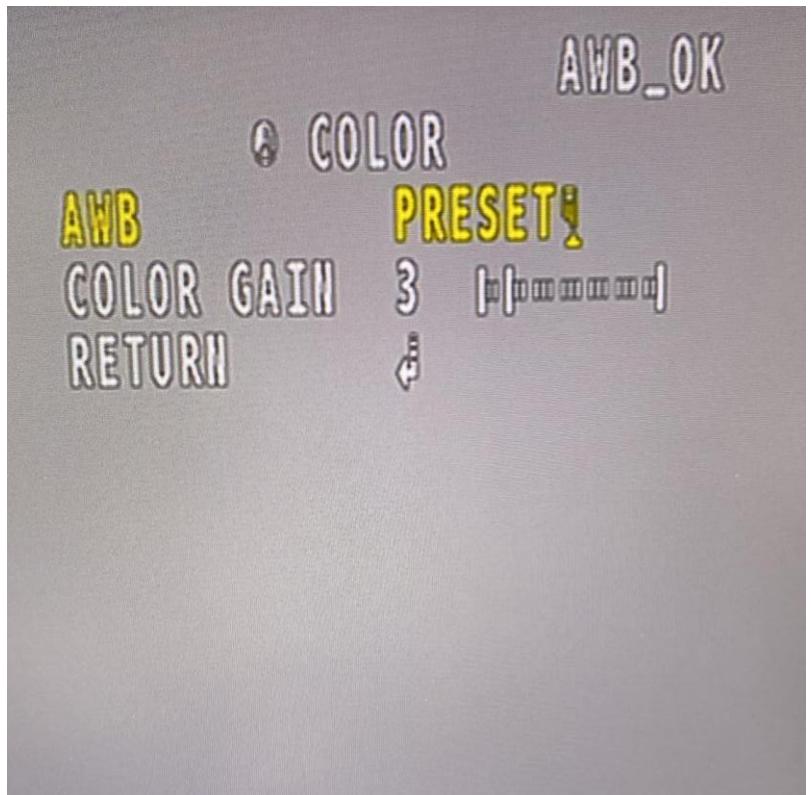
2) Exposure data setting:

The parameter adjustment of Brightness and AGC in Exposure: Brightness is 10, AGC is 10, pls take this as the standard. As per brightness requirement of different clinical operation, customer could adjust the brightness value a little.



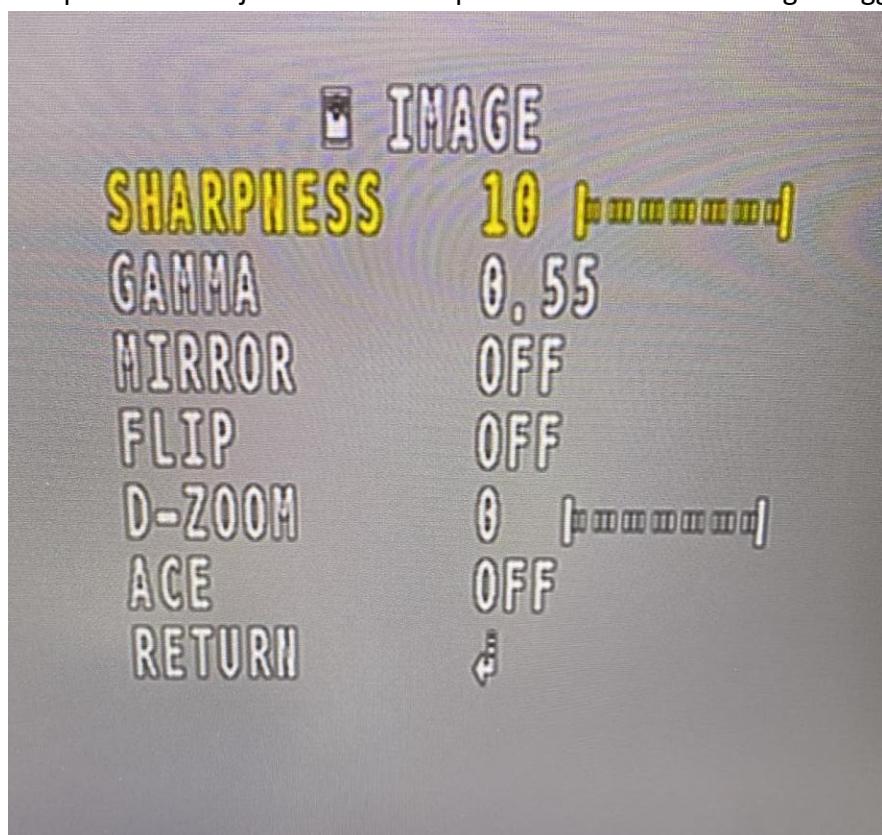
3) White Balance data setting:

The parameter adjustment of Color gain in White balance: AWB is Push lock, Color gain is 2, pls take this as the standard. As per the blood gain in clinical operation, customer could adjust the Color gain value a little.

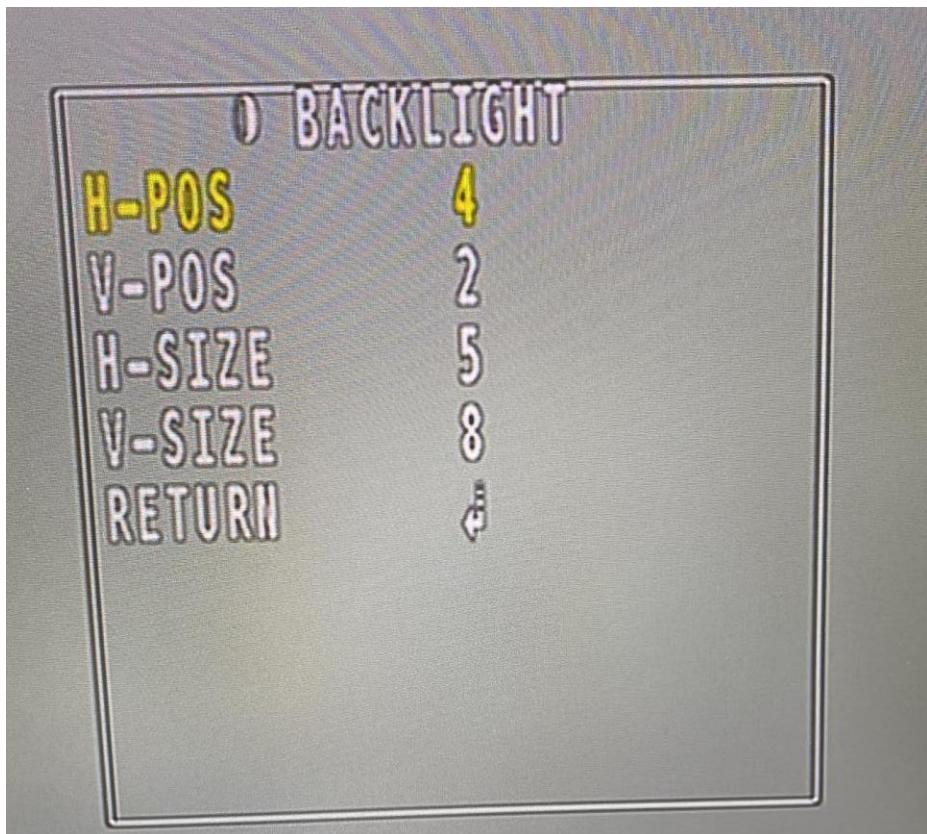


4) Image data setting:

The parameter adjustment of Sharpness and Gamma in Image: Suggest the Sharpness is 15, Gamma is 0.65.

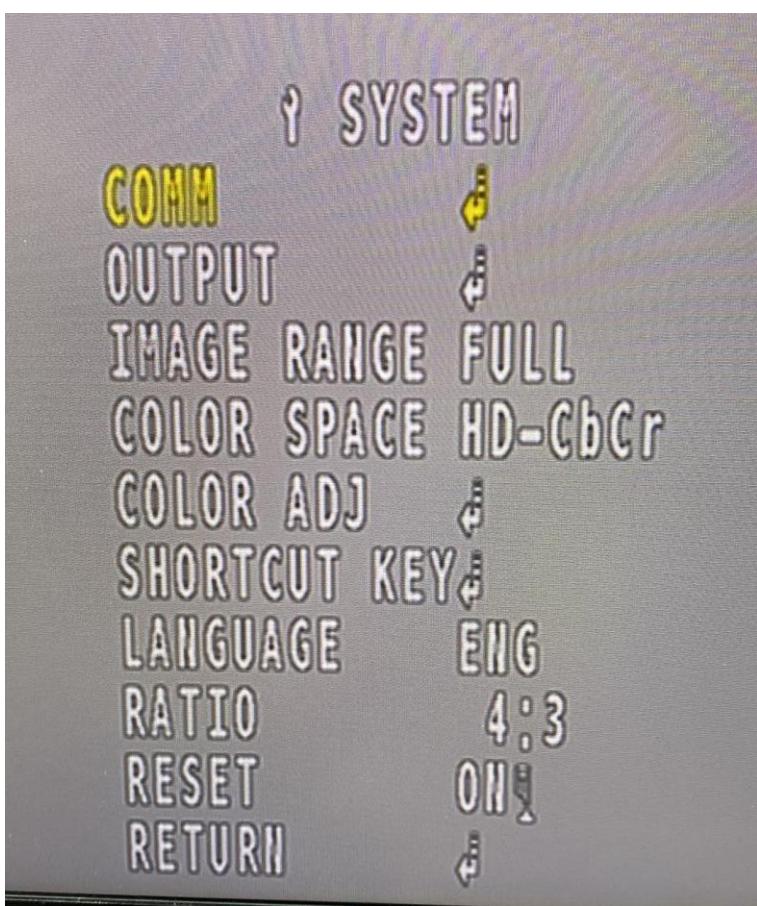


5) BLC (Backlight Compensation) data setting:



#### 6)System data setting:

The parameter adjustment in System: Frame rate is 720\_50P, pls take this as the standard.



## **6. Notes:**

### **1. Power on.**

- 1) Please check camera and accessories according to packing list, and carefully read user manual.
- 2) Please connect camera head wire with camera interface and fix it.
- 3) Please connect light cable with LED light interface.
- 4) Please insert power cable into "AC in".
- 5) After checking correct connection, please connect the power.
- 6) Please turn on the power, make the switch to "—", power indicator light is lit.
- 7) After the image showed normally, see images by adjusting the buttons on panel.

### **2. Instructions**

- 1) Please turn the coupler, make image clear by adjusting focus, if the image is not clear.
- 2) Please make sure there is no loose in power plug, power could be turned on after good connection.
- 3) Please put the camera in appropriate position, in order to avoid the device falling and being damaged.
- 4) Please keep camera away from strong interference equipment.

### **3. Notes for instructions:**

- 1) Please make sure light cable not twisting, in order to avoid damaging light cable, affecting transmission of light.
- 2) Please keep time interval for 2 to 3 seconds between two boot.
- 3) Under power on situation, please do not move or shake the machine, do not connection at random or dismantle any parts of the machine.
- 4) Please put and use the machine in clean and ventilated indoor, avoid putting it together with chemical, electromagnetism, strong electric field electric appliance etc.
- 5) Machine surface is easy to absorb dust due to electrostatic interaction, when clean it, please turn off the power first, and use soft absorbent cotton, avoiding scratching surface.
- 6) Please clean the machine with soft absorbent cotton and ethyl alcohol if there is dust on camera lens.
- 7) Please avoid frequent switching power, which is easy to damage power. Turn off the power if do not use machine, unplug power cable and cover it up. If unused for a long time, please clean it, put it into box, and turn on and operate it regularly (generally, turn it on and operate every month)
- 8) Replacement of accessories, such as fuse, can only choose F2.00AL by us.  
If endoscopy has functional fault, prohibit open the machine, please contact with supplier for maintenance in time.
- 9) If the temperature of machine surface is over 41°C, please stop to use and continue to use after cooling, avoiding scald.
- 10) When replacing LED light source, please be sure to replace it by professionals, prohibit non-professional operation, can only choose HT-M80W-001 by us, input AC220V 50Hz, output power ≤80VA.
- 11) Before usage, should match suitable light filter, avoiding high-energy radiation light hurting eyes.
- 12) Installation and commissioning of the machine can only operate by medical technician who has formal training and operation qualification
- 13) The microcomputer can be only used for this system, can not be used for other machine, otherwise the instrument of the damage is not in the range of our warranty.
- 14) Machine is packed with carton or wooden case, please avoid being affected damp, collision and extrusion, it can transport by air, highway and railway.
- 15) Please check if the endoscope camera and accessories cause safety hazard before using every time,

such as surface rough, sharp edges or protrusions.

16) Supplier could provide circuit diagram, instrument components list, figures and correction details to help qualified technician maintain the machine according to user requirements, supplier appoints serviceable accessories and documents.

## 7. Failure analysis and elimination

### 1. Checking

- 1) Check whether the power supply is normal, machine power is connected and inserted into power plug.
- 2) Check whether all connectors are normal.

### 2. Elimination

Fault phenomenon	Reason analysis	Elimination methods
No images in display area	1. Check whether the power is good connection. 2. Check is the camera is good connected with light source.	Re-connect power, and open the switch.
power indicator light is not light	Check power plug and fuse	
There is strong reflect light on object.	Adjust LED light, weaken facula.	

## Vividia Technologies

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