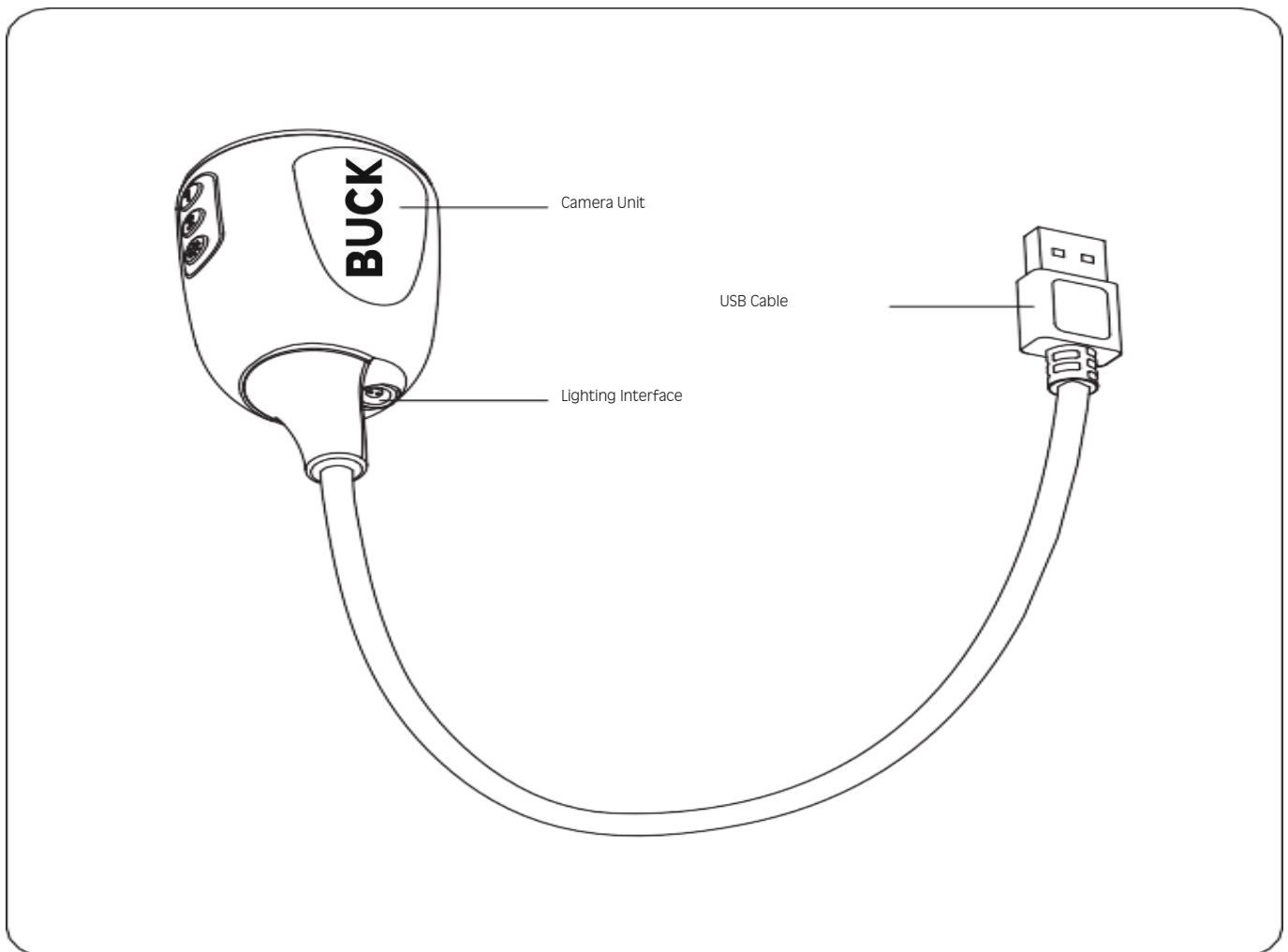




## Instruction manual for USB HD Endoscopic Camera System



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## 2 Applicability

Dear customer, thank you for purchasing USB HD Endoscopic Camera System of North-Southern Electronics. This manual provides the information about how to use, install and maintain, etc.

Please read this manual carefully and understand it before using the device.

This manual should be placed on where is easy for you to get for reading at any time. When you don't read the manual, please put it to a place where it will not be lost or damaged.

For safety and correct operation, the following warning marks are identified.

 Caution: Ignorance of this caution will lead to a slight damage.

 Warning: Ignorance of this warning will cause a heavy damage.

EMOS Technology GmbH reserves the right to interpret the usage of this manual.


### 2.1 Product numbers


This instruction manual applies to the following article numbers: BUCK HD CAM


## 3 Symbols


 Caution! Refer to attached file

 Type BF

 Recyclable

 Keep away from fire

 CE mark

 Follow instructions for use

 Name and address of the manufacture

Name and address of European Representative


 Product LOT Number


IP58 Dust-protected, protected against the effects of continuous immersion in water (Maximum immersion depth and time: 1m, 1hour)


## 4 Warnings

 The device requires no calibration

 The device contains no user repairable and serviceable parts

 No modification of this equipment is allowed

 Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

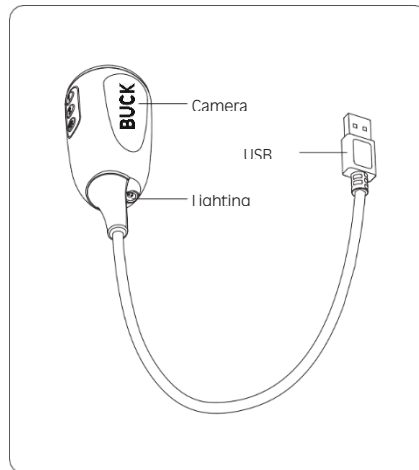
 The device is not suitable for use in the presence of flammable anesthetic mixtures with air or with oxygen or nitrous oxide.

⚠ Manufacturer will provide circuit diagrams, component part lists, descriptions, calibration instructions to assist to SERVICE PERSONNEL in parts repair

⚠ Additional equipment connected to medical electrical equipment must comply with the respective IEC or ISO standards (e.g. IEC 60950 for data processing equipment). Furthermore all configurations shall comply with the requirements for medical electrical systems (See IEC 60601-1 or clause 16 of the 3Ed. of IEC 60601-1, respectively). Anybody connecting additional equipment to medical electrical equipment configures a medical system complies with the requirements for medical electrical systems. Attention is drawn to the fact that local laws take priority over the above mentioned requirements. If in doubt, consult your local representative or the technical service department

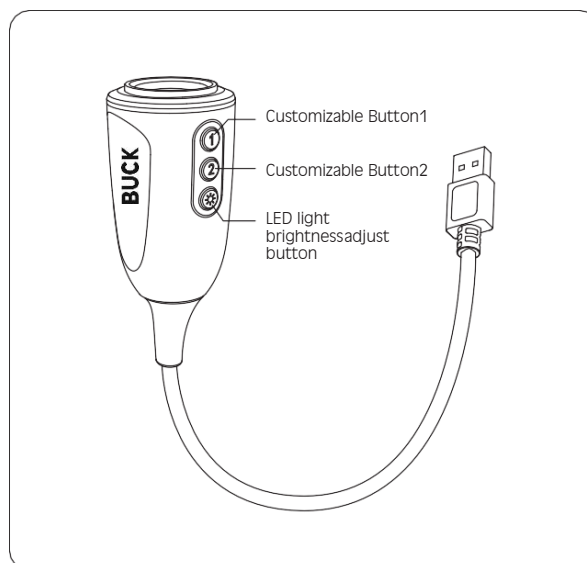
## 5 Product Structure

### 5.1 Product Structure



### 5.2 Product Functions

There are three buttons in the camera unit. Button ① and button ② are used for reserved functions. Button ③ is used for reserved functions. Button ⚙ is used for LED light brightness adjustment and shut, LED light brightness can be adjusted from level 1 to level 5.

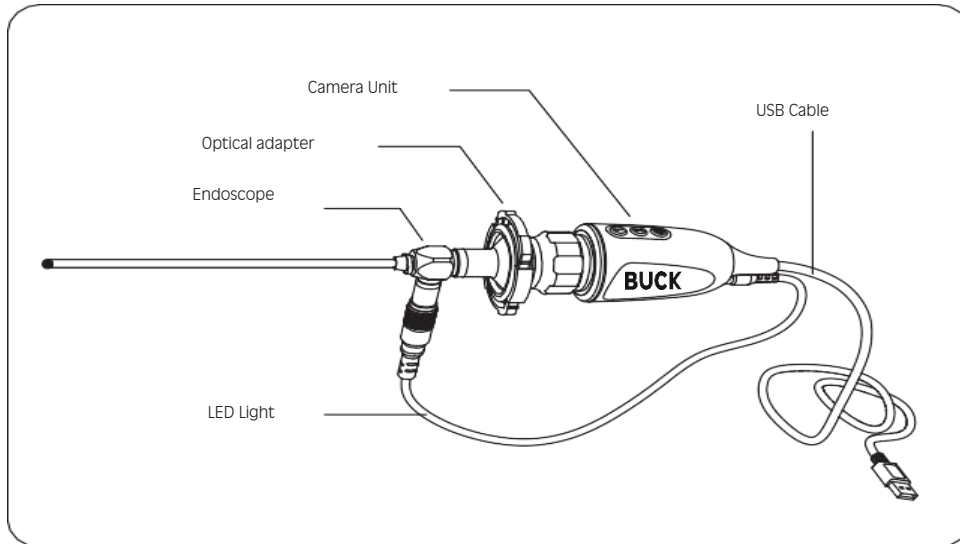



## 6 Installation and Operation Instructions

### 6.1 Installation

The product needs to be installed before using. Please follow the steps as below:

- Take out the lens cap from the camera unit, then connect the C type optical adapter to the lens mount (C-Mount) located in the camera unit, clockwise rotate it to tighten it up.
- Open the lock of the optical adapter, connect the endoscope, and release the lock to fix it.
- Connect the self-locking connector of LED light to the lighting interface in camera unit, and connect the other end of the LED light to endoscope, clockwise rotate it to tighten it up.



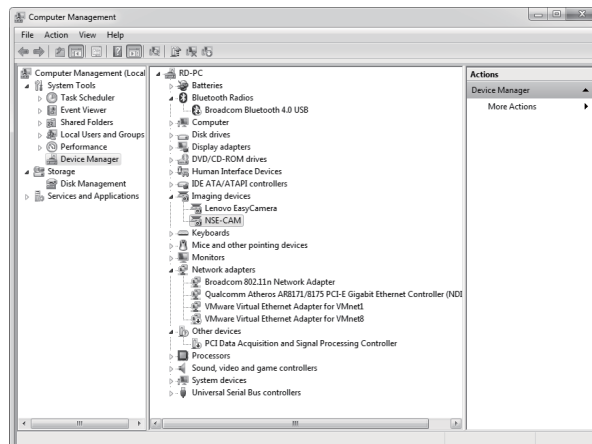
 Caution: There is a red dot in the self-locking connector of LED light, please make sure it is aligned to the red dot in the lighting interface in camera unit when connecting LED light.

 Caution: The LED light is the application component connected to the endoscope.


### 6.2 Operation Instructions

After the installation of endoscope, please connect the UC-100 to the USB3.0 port of computer.





After connecting to computer, the operation system will install the driver automatically, if the driver is installed correctly, you will see our product in device manager->imaging devices.



Open the specific software to real-time view and record the image under endoscope. After opening the specific software, you can use the LED light brightness adjust button to adjust output brightness.

Before using, you can target endoscope to white object like white paper and long press button  to auto-adjust white balance parameters.





After using, please close the PC software, then unplug the UC-100, and keep UC-100 in the packing box.

-  Caution: UC-100 can only be connected to the USB3.0 port for normally use
-  Caution: Please refer to the software user manual, and you can view the software version by the ABOUT menu
-  Please do not directly sight the LED light beam in short distance
-  Warning: Please do not disassemble the product and spare parts like LED light etc. Any malfunction or failure, please stop using it and contact with your distributor or directly to the manufacturer

## 7 Product Cleaning and Maintenance


### 7.1 Cleaning Medos

- a) Suggested to use the sterilized cotton immersed in 70% aldehyde or isopropyl made detergent or 75% made medical alcohol to wipe the product surface, and please to wipe the glass gently
- b) The USB interface should be mounted by cap when cleaning
- c) Using the distilled water to wash the product, and using the dry soft fabric to dry the product surface

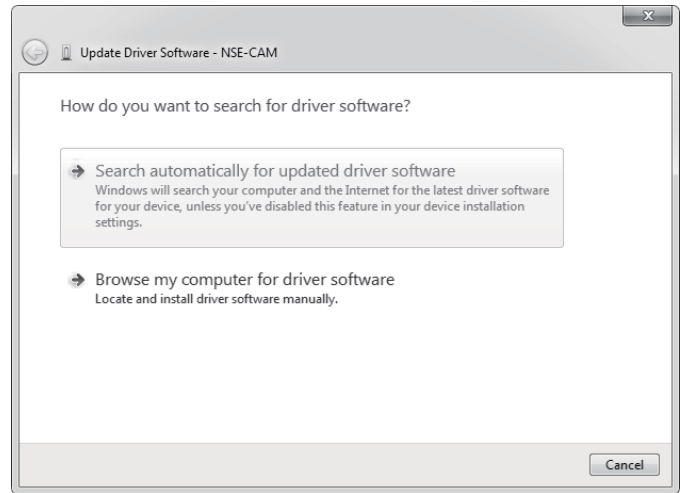
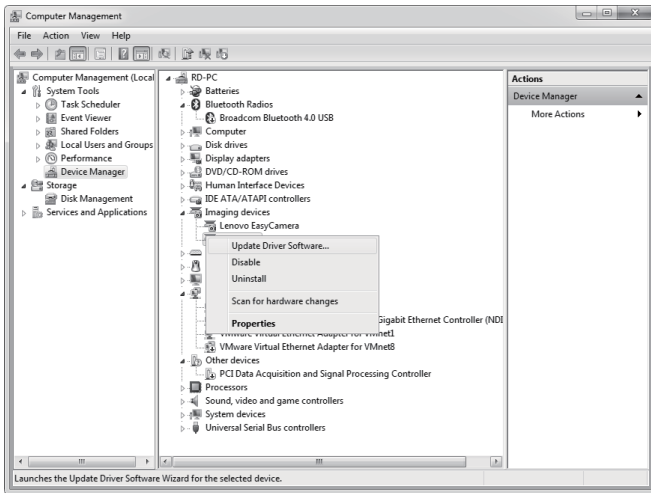
-  Warning: Do not touch the lens, or use the hard objects to scrub the lens
-  Caution: Please clean UC-100 and keep it in packing box if long-time no use
-  Caution: Please keep UC-100 dry after cleaning
-  Warning: Please make sure UC-100 used with sterile cover, while using UC-100 in minimally invasive surgery

## 8 Troubleshooting

### 8.1 Fail to Install Driver

After you connect the UC-100 to the computer correctly, the software can't open the camera device, or there is a yellow mark  in the device icon in computer device management. Please refer to the following steps:

- Please make sure connect UC-100 to the USB3.0 port
- Please use the following operation to update system drive:



- Please try to reconnect UC-100

## 8.2 Video Interruption

The connection between UC-100 and computer may loose, causing the video interruption, please reconnect UC-100 to computer.

## 8.3 Video is not smooth

Please make sure the using computer configuration is above the minimum requirements.

## 8.4 Image is fuzzy

Please adjust the focus of the optical adapter to get a clear image.

## 8.5 There is dark spot in image

Please check the endoscope, optical adapter and the camera surface are clean, if they are dirty, please use the soft fabric to clean gently.

If the above operation can't solve your problem, please contact the after-sales service.

## 9 EMC Information

- ⚠ Caution: UC-100 is complying with IEC 60601-1-2:2014 standard
- ⚠ Caution: Users should install and operate according to EMC information provided in the accompanying documents
- ⚠ Caution: Portable and mobile RF communications equipment may affect UC-100 performance, please avoid the use of strong electromagnetic interference, such as near mobile phones, microwave ovens
- ⚠ Caution: Guidelines and manufacturer's statement detailed in the annex
- ⚠ Warning: The device or system should not be close to or stacked with other equipment, or if you must be close to stacked to use, should observe to verify normal operation can be configured.



Warning: Class A equipment is intended for use in industrial environments, for UC-100's conductive disturbance and radiation interference, potential dangers may appear in other environments to satisfy electromagnetic compatibility.

## 10 After-Sales Service

UC-100 is warranted to be maintained by us, we give one year guaranty time. During the guaranty period we will provide free repairing service and replaced spare part.

The sevice life of the product is 5 years.

Warranties are void and do not apply if:

1. Damage caused by error operating or using without following instruction manual (any application beyond the usable range).
2. Damage caused by repair or modified inspection that not operated by our service engineer.
3. Damage caused by natural hazard such as fire, flood, earthquake or thunder

If there is any malfunction please contact manufacturer or supplier for services.



Caution: Warranties will not be applied if the device is disassembled.

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More information on the technical data is available from our service hotline:  
+49 (0) 75 58 - 93 82 78 - 0 or at [info@emostechnology.com](mailto:info@emostechnology.com).



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