

# **Intraoral Camera System**

## **Instruction Manual**

### **【1.Name of Product】**

Intraoral Camera System

### **【2.Product Description】**

Intraoral Camera System uses Digital Imaging System and Wireless Transmission Technology, which enables it to have a real-time observation at the scenes in the mouth, in the meantime, taking photos and videos. Moreover, after assembled with special fittings such as Interdental Brush or Dental Floss, it can be used to clean the teeth and the interdental space between teeth while having a real-time observation of cleaning process and cleaning effect. The product can be cleaned with water directly after making sure that its Charging Protective Cover has been completely sealed.

### **【3.Structure and Composition】**

Intraoral Camera System is composed of Intraoral Camera, Fittings of Interdental Brush, Fittings of Dental Floss and a piece of Micro USB Charging Line.

Intraoral Camera is composed of Camera Lens, Photo/Video Key, WiFi Indicator, Power Indicator, Power Key, Micro USB Interface and T-Shape Mounting Slot used for installing fittings.

Fittings of Interdental Brush is composed of Interdental Brush and Introducer; There is a Handle on Interdental Brush and a T-Shape Buckle on Introducer.

Fittings of Dental Floss is composed of Floss Pick and Dental Floss; there is T-Shape Buckle on the Floss Pick and Mounting Hole on the Dental Floss.

Please refer to Figures 1-3 for specific structures.

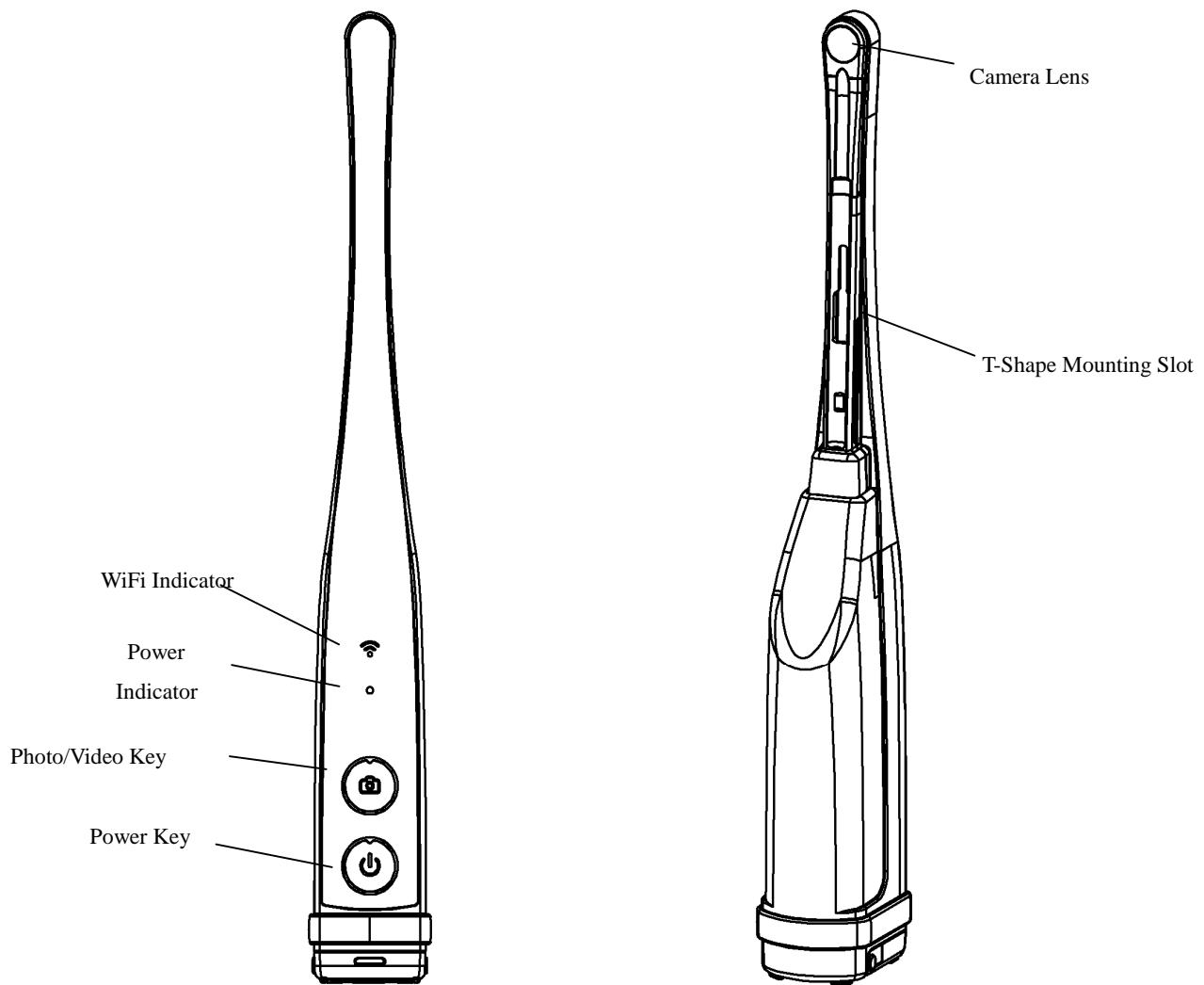


Figure 1

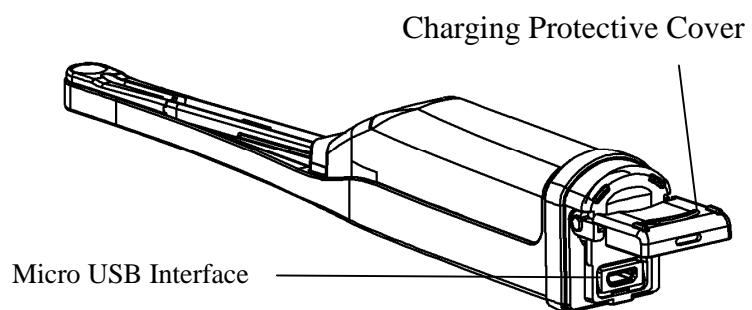


Figure 2

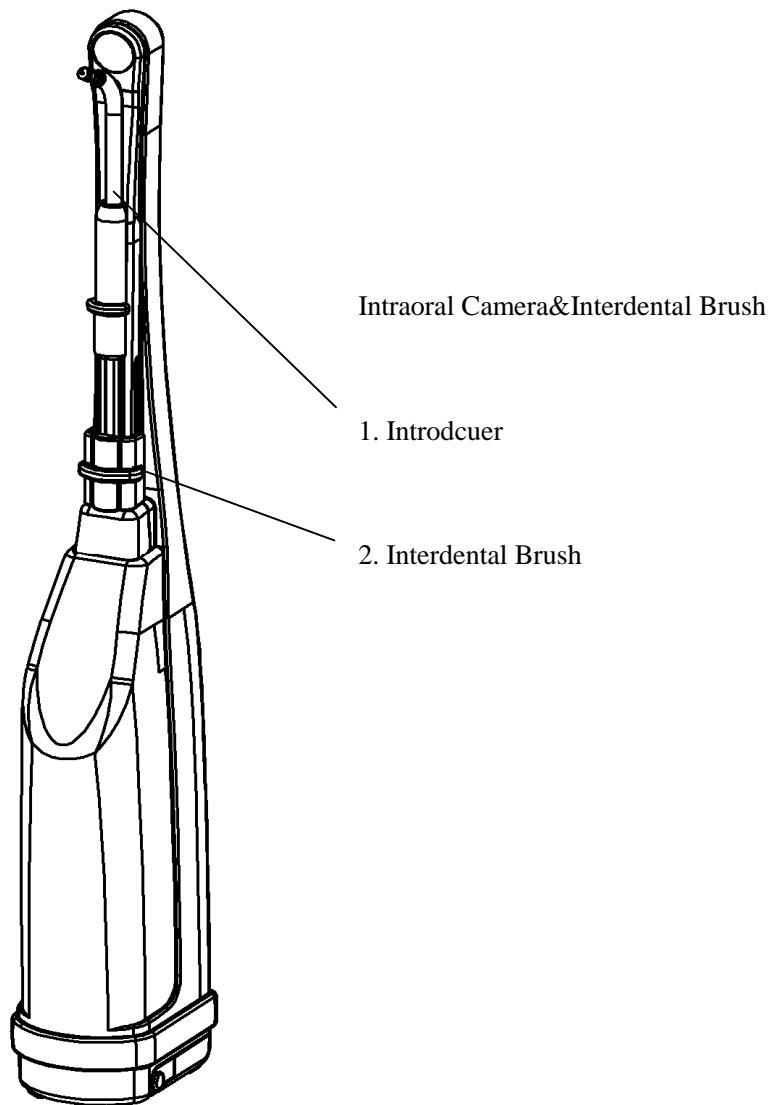


Figure 3

#### 【4. Application】

For local observation and cleaning of oral cavity and teeth.

#### 【5. Product Property】

##### 5. 1 Specifications of Product:

- ① Focal Distance: 0.8mm
- ② Depth of Field: 7mm-35mm
- ③ Field of View: 80°
- ④ Illumination:  $\geq 380\text{LUX}$
- ⑤ Pixel: 640 (H)\*480(V)
- ⑥ Frame Rate: 30Fps(N)

- ⑦ Endurance Time: over 200 minutes
- ⑧ Size: 218.6\*28\*35.8mm
- ⑨ Weight: 103.5g.

## 5.2 Operating Requirements:

- ① Environmental Temperature for Operation: 5°C~45°C
- ② Charging Interface: Micro USB Charging Interface
- ③ Charging Input: Voltage DC 5V, Electric Current 1~2A
- ④ Duration of Charging: 8~10 hours
- ⑤ Power Indication: When Power Indicator shows red light, please recharge it before use it. Power Indicator turns into green light when it is fully charged.

## 5.3 Mobile Configuration Requirements:

- ① Android system based Mobile Phones: Android 4.0 above and Memory Capacity over 2 GB (Note: It is likely that a few Android Mobile Phones may not be allowed to connect with WiFi which is not connected to the Internet, please set “allow” when such circumstance occurs; Instructions for setting is subject to specific Mobile Phones.)
- ② iPhone: iOS 8.0 above

## 【6. Contraindication】

1. This product can only be used for people over 18 years old.
2. This product is not for people with severe Oral Infection.
3. This product is not for people with Coagulation Disorders.
4. This product is not for people with diseases of Immune System.
5. This product is forbidden to use in circumstances where professional doctors think this product cannot be used.

## 【7. Precautions, Warnings and Hints】

1. In case of hurting eyes, do not look directly at the LED light of Camera Lens.
2. Please use Micro USB Charging Interface, Charging Input: Voltage DV 5V, Electric Current: 1~2A.
3. Please use chargers with security certification, which must meet the requirements of “2.5 Restricted Power Supply” of the Standard *GB4943.1 The Security*

*of Information Technology Equipments.*

4. Keep the product away from water, heat and anywhere wet while charging.
5. This product is forbidden to be used when it is on charge.
6. This product has to apply the dedicated Application (APP)-GTK View when working.
7. Please use or store the product in the places away from fire or anywhere the temperature is over 60°C.
8. This product ONLY can be used in oral cavity.
9. Please keep the Lens Guard clean and without scratch.
10. This product is applicable to people who are over 18 years old, in full conscious state and have full capacity for their behaviors.
11. This product falls to the range of electronic products, thus it should be used and transported in a way that avoid hazardous acts, such as, collision, beating, falling, heavy loading, thumping, puncturing and violent shaking etc.
12. Do not use the product when the packaging of the product or the product itself is damaged.
13. Do not use or charge the product in the places where next to gas stations, or where contains dangerous materials, including flammable, explosive or corrosive substances.
14. It is not allowed to disassemble the product. We will not be responsible for results that caused by disassembly behaviors which are conducted by maintenance personnel who are not authorized by our company.
15. There is Lithium batteries inside the product, therefore please use and carry it in accordance with the applicable rules and regulations.
16. The product can be cleaned with water directly after making sure that its Charging Protective Cover has been completely sealed.

## **【8. Instructions for Fittings Installment】**

### **1. Instructions for installment of Interdental Brush**

- 1) Pass the head of Interdental Brush through Introducer to form Fittings of Interdental Brush. Please refer to Figure 4;

2) Put the T-Shape Button Buckle on the Introducer into the T-Shape Mounting Slot on Intraoral Camera, and then push Introducer of Interdental Brush toward the Camera Lens. It means the Introducer is fully installed after an indicating sound is heard. Please refer to Figure 5 and Figure 6.

3) Push Handle of Interdental Brush back and forth to clean teeth or space between teeth gently according to individual needs.

## 2. Instructions for disassembly of Interdental Brush

Press on Introducer and then push it toward the handle of Intraoral Camera, please refer to Figure 7. Take the Introducer out from the T-Shape Mounting Slot built in Intraoral Camera after an indicating sound is heard.

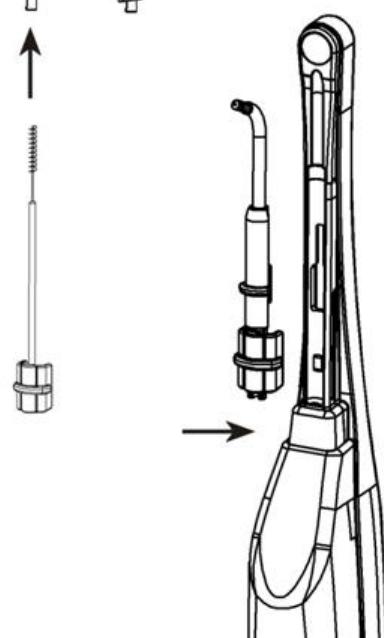
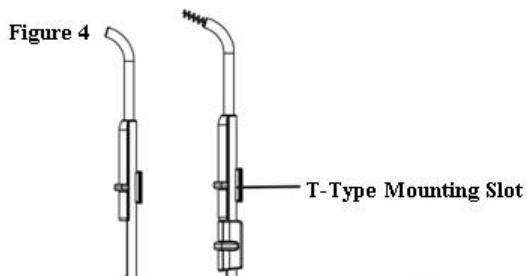


Figure 5

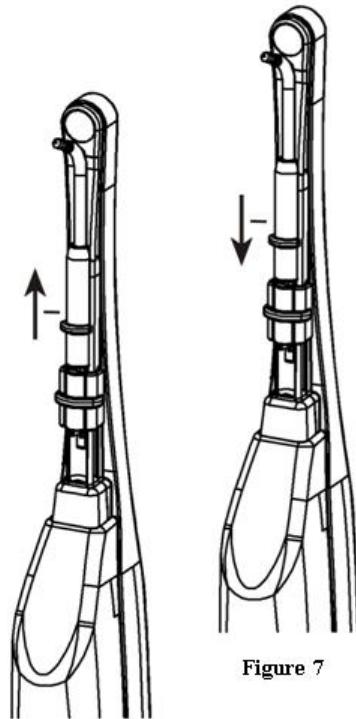


Figure 6

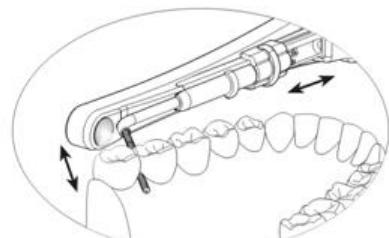


Figure 7

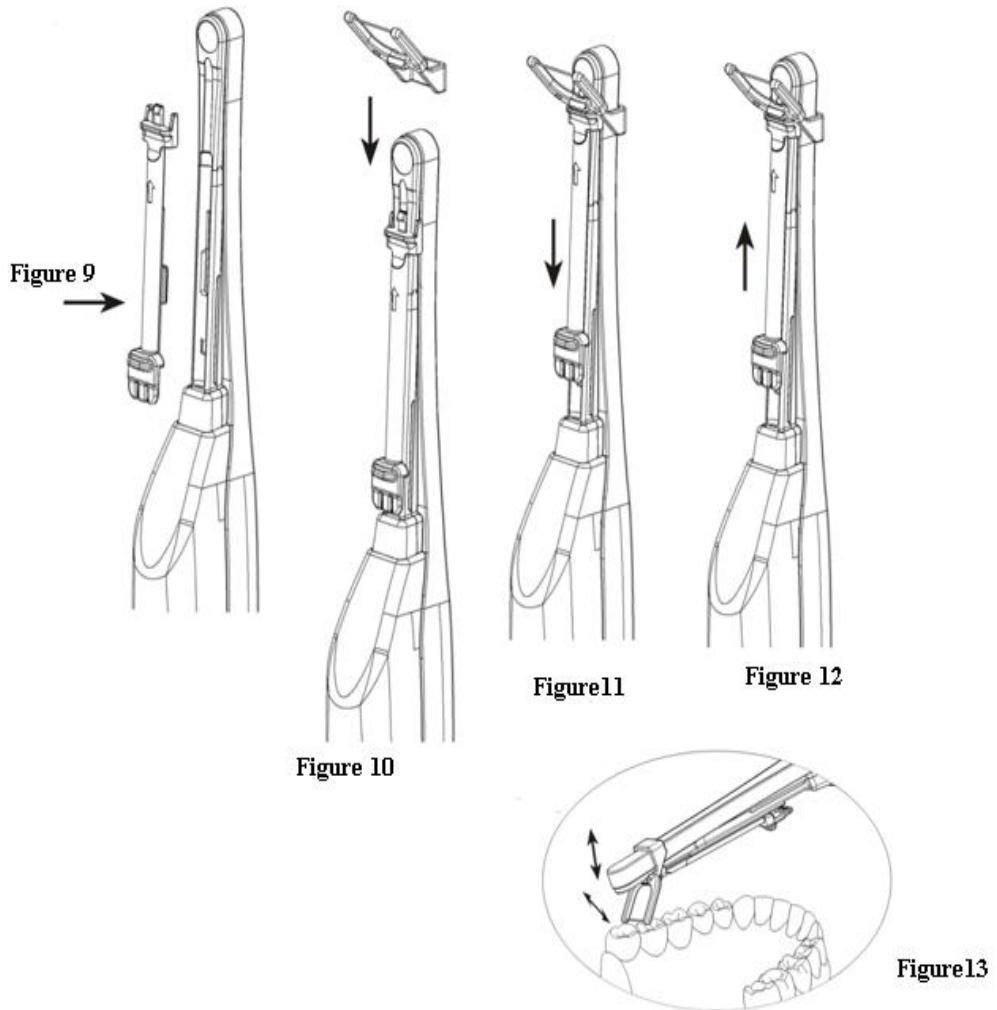
## Figures 4-8 (图 4 里的 T-Type 改为 T-Shape)

### 3. Instructions for installment of Dental Floss

- ① Put the T-Shape Button Buckle on the Dental Floss into the T-Shape Mounting Slot built in Intraoral Camera. Please refer to Figure 8.
- ② Install Mounting Hole of Dental Floss to the head of Intraoral Camera.
- ③ Keep the Floss Pick unmoved, and then push the Dental Floss toward the Floss Pick, and set the Dental Floss on the Floss Pick.
- ④ Push the Floss Pick toward the Camera Lens, it means that the fittings of Dental Floss are fully installed after an indicating sound is heard. Please refer to Figure 11.
- ⑤ Push slightly the Dental Floss up and down among crevice between teeth to clean the crevice between teeth.

### 4. Instructions for disassembly of Fittings of Dental Floss

- ① Push the Floss Pick toward the handle of Intraoral Camera.
- ② Keep the Floss Pick unmoved, and then push the Dental Floss forward, loose the Dental Floss from the head of Floss Pick and take it out. Please refer to Figure 12.
- ③ Take the Floss Pick out from the T-Shape Mounting Slot installed in Intraoral Camera. Refer to Figure 10.



Figures9-13

## 【9. Instruction for Use】

1. Install APP: Scan the applicable Two-dimension code to download and install the App. The icon “GTK View” will appear on the screen of mobile phone after successful installation.
2. Power-on: After pressing on the Power Key for 0.5 second to start up the product, the Power Light, Photo/Video Key, LED Light of Camera Lens and WiFi Light will light up. Among these lights, the WiFi Light will light up for 1 second, then it will light out. It lights up again after WiFi has been connected successfully.

**Attention: When Power Light is green, the product works normally; when Power Light is red, it means the product is in low-power, it will work normally after it is recharged.**

3. Connection with WiFi: Open the settings of mobile phones to search for WiFi named “GTK XXXXXXXX”, and then connect mobile phones with the aforementioned WiFi, and at this moment, the WiFi Light is flickering.

4. Installation of Fittings: Choose proper fittings according to personal cleaning needs to conduct installation. When the space between teeth need to be cleaned back and forth in the transverse direction, please install the fittings of Interdental Brush; when the space between teeth need to be cleaned up and down in the longitudinal direction, please install the fittings of Dental Floss.

5. Start the APP: Open GTK View on mobile phones, at this time the screen of mobile phones presents the scene that Camera Lens is shooting at the Interdental Brush or Dental Floss.

6. Cleaning: Please do check whether the Charging Protective Cover has been sealed tightly before cleaning. If Yes, put Intraoral Camera System with applicable fittings (Interdental Brush or Dental Floss) into the mouth to clean the space between teeth by the ready installed Interdental Brush or Dental Floss.

① When using Interdental Brush, push the handle of it back and forth to clean the crevice between teeth in a transverse direction. Please refer to Figure 8.

② When using Dental Floss, slide the Dental Floss slightly to go through the crevice and clean the crevice between teeth in a longitudinal direction. Please refer to Figure 13.

Once the prerequisite that Charging Protective Cover has been sealed fully is guaranteed, clean the product directly with water is allowed.

7. Photo Taking or Video Taking: When it is necessary to take photo or videos, the two following ways can be adopted to take pictures or videos.

◆① Touch and click on Taking Photo icon or Video icon slightly on the screen of mobile phones to take pictures or videos.

◆② Long Press Photo/Video Key (Photo & Video Compound Key) on the back of Intraoral Camera to take pictures or videos. For instance, press on the Photo Key, and then loose it to take one picture. If press on the Photo Key for 3 seconds and then loose it, it will start to take video. Moreover, press again on the Photo Key for 3

seconds and loose it, it will stop to take video.

The pictures or videos taken will be stored in the mobile phone, therefore pictures or videos stored in the mobile phone can be reviewed anytime when needed. They can be deleted if they are no longer needed to be stored.

8. Disassembly: Please disassemble Interdental Brush or Dental Floss from the Intraoral Camera after the product is fully cleaned.

9. Storage: Put Intraoral Camera, fittings of Interdental Brush and Dental Floss into the Packaging Box or Traveling Cup after being cleaned by water, dried by airing or wiping.

## 【10. Instructions for Charging】

1. Charging: Open the Charging Productive Cover to see the Micro USB Interface, connect the Micro USB Charging Line with the Charger which has A Type Master Output Interface to charge.

2. Charging Duration: when the light of Power Indicator is red, it means it needs to be recharged, which normally will take 8~10 hours. It means charging has been completed when the light of Power Indicator is green.

**★Warning: No using while charging.**

## 【11. Setting of WiFi】

1. **Connection:** Open the WiFi Connection in the settings of mobile phone to find “GTK\_XXXXXXXX”, and then connect mobile phone with it. Next, you can open GTK View to use after successful connection with WiFi.

2. **Setting of Password:** There is no initial password at start. Open GTK View after the first successful connection, refer to Figure 14, and then change the name of user and password in the settings of mobile phone. Refer to Figure 15.

3. **Restore Factory Settings:** Press on the Photo Key for 6 seconds, the password is then canceled, but the User Name remains unchanged.

## 【12. Download of APP】

1. **Android System:** Scan directly on the following applicable two-dimension code of “Android APP” or search for “GTK View” on the Android Software Market to download and install it when it is connected with the Internet. After that, find the icon

of “GTK View” in the APP of mobile phone and open it to use.

**2. iOS System:** Scan directly on the following applicable two-dimension code for “iOS APP” or search for “GTK View” on APP Store to download and install it when it is connected with the Internet. After that, find the icon of “GTK View” in the Home Screen of mobile phone and open it to use.



IOS APP Download



Android APP Download

### 【13. Screen of APP】

**13.1 Home Screen:** Refer to Figure 14, Home Screen can show the real-time video that the Camera Lens is shooting at Interdental Brush or Dental Floss.

There are Photo Key, Video Key, Replay Key and Setting Key on Home Screen.

- Ø Photo Key: Click on it once to taken one photo;
- Ø Video Key: Click on it once to start taking video, click on it again to stop taking;
- Ø Replay Key: Click on it to get into the Replay Screen to skim the photo and videos;
- Ø Setting Key: Click on it to get into the Setting Screen.

Figure 14



Figure 14

Figure 15

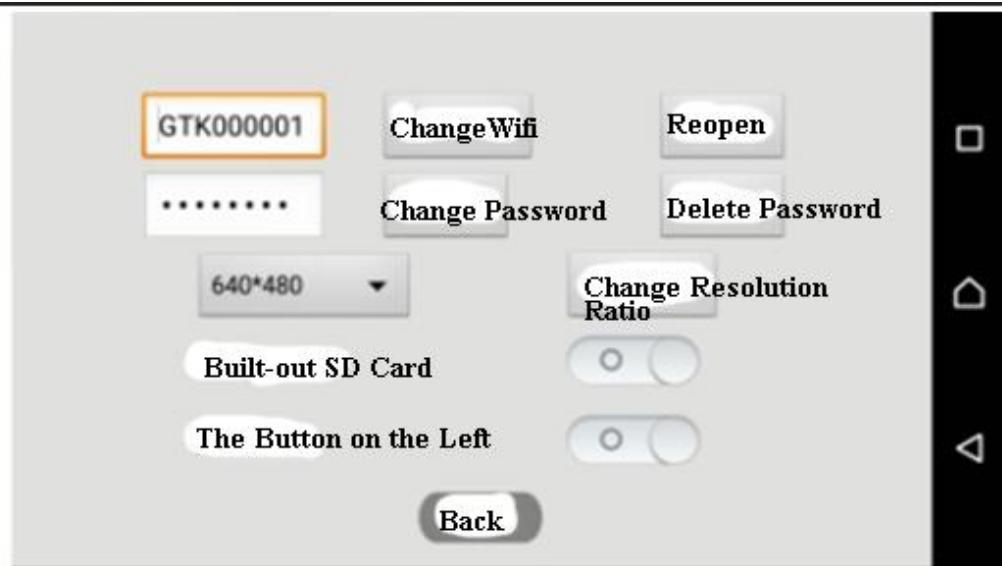


Figure 15

**13.2 Setting Screen:** To change or reset the name of WiFi and user.

**13.3 Replay Screen:** There are two files in Replay Screen, including Photos and Videos which individually stores taken photos and videos

- Ø Photos: Click on it to check taken photos.
- Ø Videos: Click on it to check taken videos.



#### **【14. Product Maintenance and Maintenance Method, Special Storage, Transportation Conditions and Method】**

1. Environmental Storage Temperature:-10°C~40°C
2. If the product is placed long term unused (over 3 months), it should be placed in dry condition. It is suggested that the product is charged for every 60 days. The Voltage of built-in battery is 3.6V.
3. Transportation Condition: Avoid heavy loading, violent shaking, direct sunlight, high temperature, humidity, rain, corrosive gas or liquid.

#### **【15. Date of Manufacture and Warranty Period】**

Please refer to the Date of Manufacture in the label. Product warranty period is 1 year under normal using.

#### **【16. Configuration List】**

One Intraoral Camera; one set of Traveling Cup; one Fittings Box, which contains 6 pieces of Interdental Brushes, 2 pieces of Introducer, 12 pieces of Dental Floss and 2 pieces of Floss Picks; 1piece of Micro USB Charging Line and 1 piece of Manual.

#### **【17. Name of Manufacturer】**

Guangzhou T.K Medical Instrument Co., Ltd.

#### **【18. Address of Manufacturer】**

A601, Guangzhou International Business Incubator, Guangzhou Science

Park,Guangzhou,510663, China.

## **【19. Contact Information of Manufacturer】**

Tel: (8620) 3761 9648 (Customer Center)

(8620) 3229 0169 (Head Office)

Fax: (8620) 3229 0395 (Customer Center)

(8620) 3761 6020(Head Office)

Website: [www.tk-medical.com](http://www.tk-medical.com)

E-mail: [sales@gtkmedical.com](mailto:sales@gtkmedical.com)

## **【21. After-sale Service Company】**

Guangzhou T.K Medical Instrument Co., Ltd.

## **【22. Compile Date of Instruction Manual】**

### **FCC Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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.

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

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.