



Ez SHOT HD

Wireless Autofocus Intraoral Camera

User manual

Eng

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1 Introduction

Thank you for purchasing the device. The instructions described below have been designed to provide the necessary information for the successful operation, daily maintenance and safety for the use of this unit.

Features

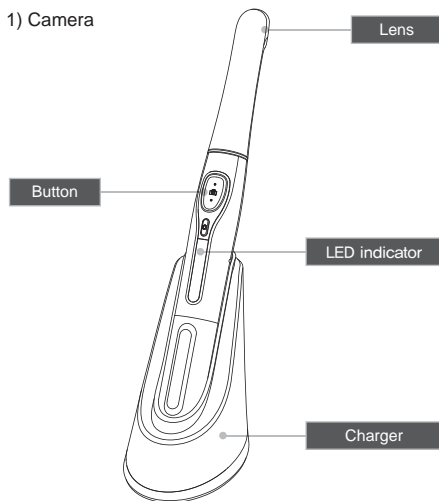
- High speed digital wireless
- Autofocus
- Adjustable LED brightness
- Software compatibility
- Dental image software included (DrsViewer2)

Description

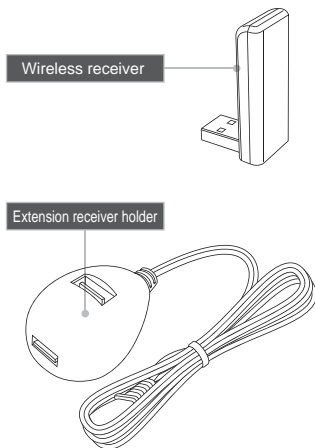
This device is an intraoral camera used to take images of the inside of the mouth or oral cavity.

Overview

1) Camera



2) Receiver part



2 Safety information

It is important to understand the following information to use this product safely.

Symbols

Warning and Caution used in this manual are shown below.



Warning

Indicates a potentially hazardous situation which, if not avoided, may result in serious injury or death.



Caution

Indicates a potentially hazardous situation which, if not avoided, may result in minor/moderate injury or in damage of property.

Notes and References

Notes and References used in this manual are shown below.



Note

Indicates that potential malfunctions may occur if the description is ignored.



Reference

Supplementary information to facilitate better operation.

2 Safety information

Installation and Connection



Warning

- The adapter should be disconnected from the charger before connecting the power cable to prevent an electric shock.
- Keep away from sources of ignition to avoid fire or explosion.
- Protect the device from any liquid to avoid electric shock or functional error.
- Place the charger on a flat and stable surface. Do not drop device and charger to avoid internal defect that may cause overheating or fire.
- Do not place the electrical cord near a gas burner or sources of heat. Should the cord catch on fire, replace with the new one to avoid short-circuit.



Caution

- Do not use or leave the unit in areas of high temperature or exposed to direct sunlight, internal circuit defect may cause overheat or fire.
- Securely connect the dust-free power plug to the outlet.
- Use this device in well ventilated areas. Overheating may cause fire.
- Do not touch the terminal areas of charger of battery with fingers or conductive objects, such as metal wire or safety-pin. It may electric shock or fire.
- Do not use any charger other then supplied. It may cause fire due to overheating.
- Do not place barrier between camera and receiver. It would make hesitation wireless data translation.

2 Safety information

Operation



Warning

- Do not plug the power cord with wet hands. This may result in an electric shock.
- In case of fluid leak from battery or partial discoloration/deformation of the device, immediately discontinue use.
- In case of partial discoloration of the device, immediately disconnect the power plug and repair it.
- In case battery fluid contacts the eye, immediately flush with copious amount of clean water and seek medical attention.
- Do not use this product on a person with a pacemaker as it may cause malfunction of the pacemaker.
- Should use disposable cover to avoid cross-infection.



Caution

- Disconnect the power cord by grasping the power plug to avoid injuries or burns.
- Avoid damage or use of unnecessary force on the power cord and device. This may cause an electric shock, fire, or malfunction.
- Should battery fluid contact the skin or clothes, immediately wash it off with copious amount water to avoid skin damage.
- Do not use this product for any purpose other than dental use.
- This device is not water prove. Use disposable cover when use to avoid wet the device. In case of malfunction due to this case, it is not covered by warranty.
- For safety, disconnect the adapter from charger in case of device is not charging.

2 Safety information

Maintenance



Warning

- Use only accessories supplied to avoid fluid leak, explosion, or malfunction.
- Do not disassemble or overhaul the device. Unusual performance may cause injuries, electric shock, fire, or malfunction.
- Ensure that charger and camera are always separated from the device prior to cleaning.
- Be careful from any liquid when clearing.

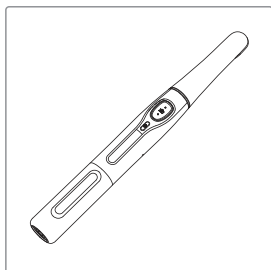


Caution

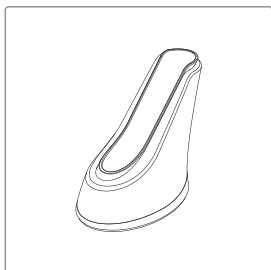
- Do not use solvent (containing orange oil, ethanol or acetone) when clean the device. It may cause malfunction.
- User must be in charge of operation, maintenance and check.

3 List of components

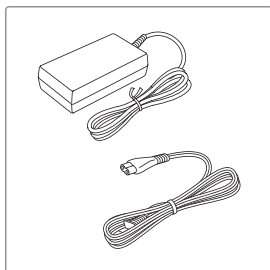
Please check the contents described below when removing the contents from the original packaging.



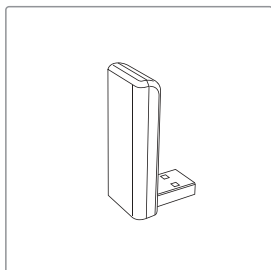
Camera



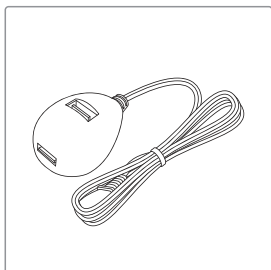
Charger



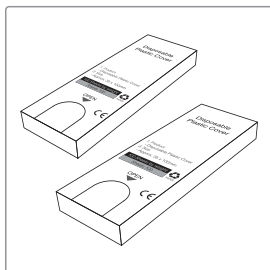
Adapter & cable



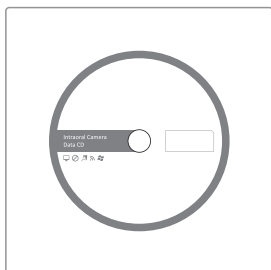
Receiver



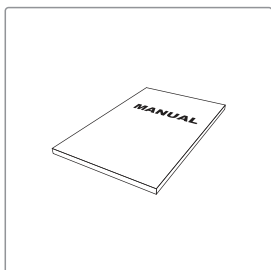
Extension receiver holder



Disposable cover x 2ea
(x 100 pcs by weight)

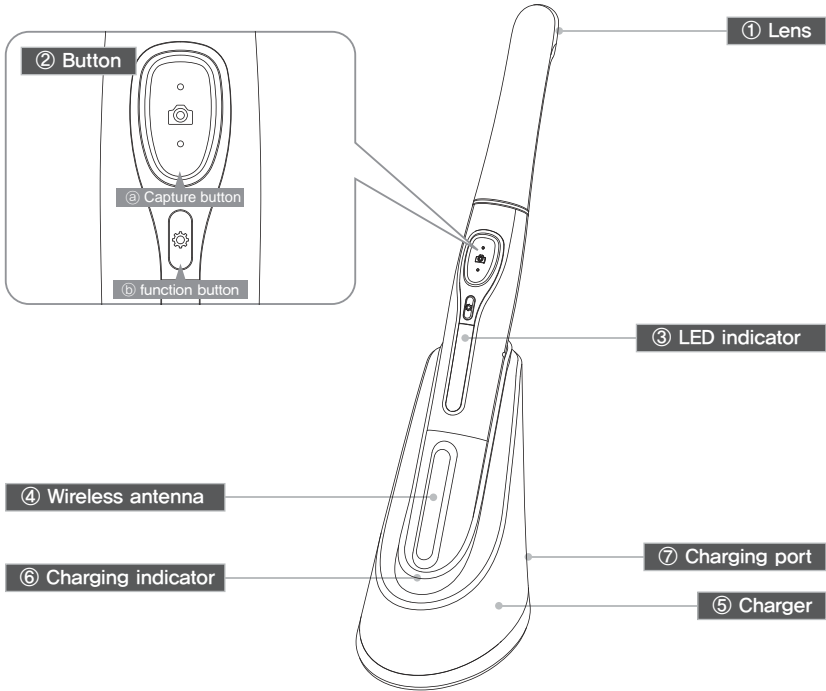


Data CD



User Manual

4 Parts and functions



① Lens

② Button

- ③ Capture button
 - Image capture, focus adjusting, select
- ④ Function button
 - Setting mode

③ LED indicator

- Show the device states

④ Wireless antenna

- Data is sent from this antenna to receiver.

⑤ Charger

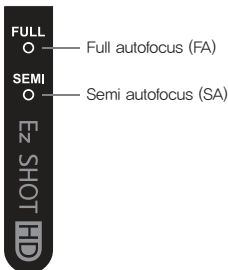
- Charging the device

⑥ Charging indicator

- Red: On charging
- Blue: Full charged

⑦ Charging port

- Connect the AC adapter for charging



5 Installation

1. Receiver installation

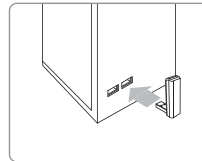
1) Install receiver driver



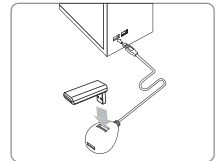
Installation wireless receiver driver screen

2) Connect receiver to PC.

(Can use extension receiver holder)

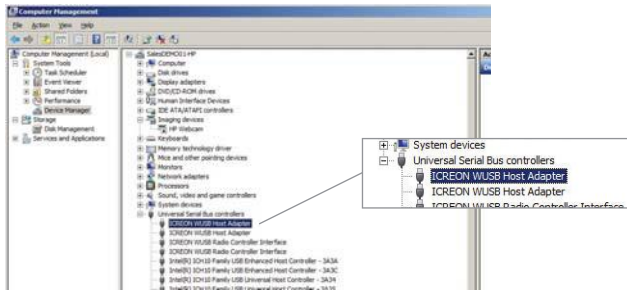


Connect USB port



In case of using extension receiver holder

3) Wait till device is recognized



4) Run "Wireless USB Manager" shortcut on the desktop and system tray.



< Short-cut on desk top >



Device is connected well

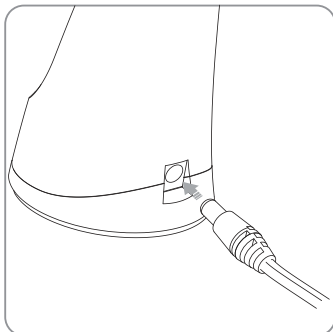


Device is not connected

5 Installation

2. Connection between adapter and charger

- 1) Securely insert the power cable with 100~240V power outlet.
- 2) Connect power cable with adapter.
- 3) Connect adapter with charger

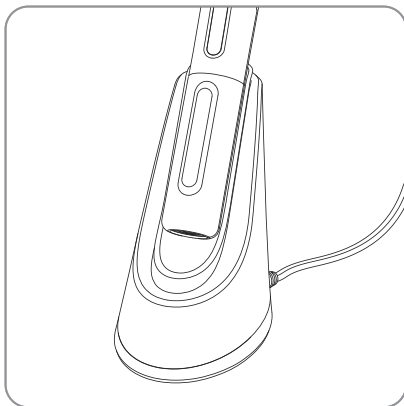


Note

- Use only the original adapter supplied.
- When the adapter is connected with charger, red and blue light will blink.
- If red and blue light is not blinking when adapter is connected, it is a charger malfunction.

3. Charging

- Insert the handpiece into the vertical slot at the front of the charger.
- Red light on : Charging in progress
- Blue light on : Charging process is complete



Note

- If the remaining battery is extremely low, red light may flicker while recharging, which is not a malfunction.



Reference

- It will take approximately 1 hours 40 minutes before the battery will be fully charged.

5 Installation

4. Camera connection

- 1) Turn on the device with click the capture button.
Then the device is recognized on the Wireless USB Manager



Note

It would be need internet connection as PC environment for setting the camera to computer. The receiver driver does not work with Windows XP 64 bit.

2) Connecting

- Click "Connect" Icon (It needs at first time, after using it is done automatically if you use with 1 receiver only)
- If you want to use other receiver, disconnect the device and connect the device on PC which you want to use



Reference



If the device is checked by "Star" mark as below, the device is connected automatically.

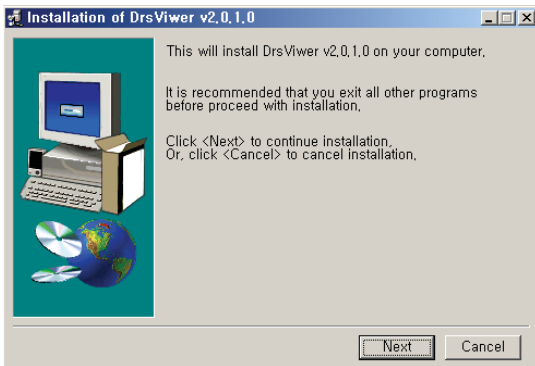


Note

If the receiver driver doesn't installed well, or the camera is too far from receiver, the camera LED indicator blink until wireless connection is connected.

5. DrsViewer2 installation

- If you don't have other viewer software, you can use DrsViewer2 in the CD file.



< Installation DrsViewer2 screen >



Reference

In case to use other software, contact local dealer.

6 How to use

1. Turn on the device

- Click the capture button. Then the device turn on with LED blink with beep sound.

- In case the device is not connected with receiver, LED indicator is blink until the device is connected with the receiver.



- If the wireless connection is not connected the device will be turn off after 2 minutes.

2. Image capture

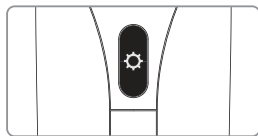
- Full Auto: Half Click is image capture
- Semi Auto: Half click is focus adjusting, and click is image capture.



Default setup is semi autofocus, And capture key is "Space".
To use other company software, need to check capture key. Or need to use twain driver.

3. Brightness change

- Click function button. Then LED brightness is changed.



White Turn off (Black & white Mode) ⇒ Red Turn off ⇒ Green Brightness LV.1 ⇒ Blue Brightness LV.2 is rotated.

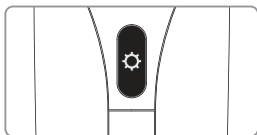


- Brightness change is worked on live image is on.
- Brightness is shown at SEMI LED on semiauto mode.

6 How to use

4. Full Auto focus / Semi Auto focus

– To change the focus, click the function key for few seconds.



Full Auto focus



Semi Auto focus

To avoid shaking image there is Auto capture function.



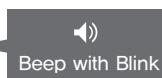
Reference

* Auto capture:

- Full Auto focus: Half click is image capture and hold the condition, image is captured for every 2 seconds.
- Semi Auto focus: Half click and hold the condition, image is captured after 1 seconds after get focus, and image is captured for every 2 seconds.

5. Battery condition

- When residual battery power is low, the LED indicator blink for red and selected color with beep sound.
- After show this condition, device can be use around 1~3 minutes.
- Please charge the device.



Cleaning and disinfection

- Clean the camera and charger gently with clean, soft, lint-free cloth.
- Avoid using solvents which contain ethanol or acetone.
- Do not use sharp or pointed tools to clean as they may damage or scratch the plastic.
- Be careful not to spill any liquid into the device.
- Use disposable cover when use the device to avoid cross-infection and spilling any liquid into the device.

Maintenance and replacement of the battery.

- Do not disassemble the device for any purpose.
- To replace the battery, please contact authorized dealer or manufacturer.
- It is recommended for rechargeable battery to be charged immediately before use to maximize efficiency.

8 Trouble shooting

If the device does not work normally, please refer to the following points.

Problem	Cause and solution
Button doesn't work	<p>If the button is pressed with excessive force, it will not work, try pressing the button gently. And check the button condition.</p> <p>If the device is not recognized well, the button could not work well. Refer "5. Installation", "6. How to use"</p> <p>If connection between camera and receiver is not connected, the button doesn't work. Please avoid any barrier between camera and receiver.</p>
LED indicator does not work	<p>If the battery voltage is extremely low, the device is not turned on. Please charge the battery.</p>
Power off while in operation	<p>If the battery voltage is extremely low, the device could be turned off. Please charge the battery.</p>
Not able to capture image	<p>Capture key-value would not match with other company dental viewer software. Please check keyboard short-cut. If you don't know it please ask the dental viewer software vendor.</p> <p>And check the key-value of device. Or use twain driver included.</p>
Live image is not shown	<p>If the device is not recognized well, live image is not shown. Please check camera and receiver connection, and check imaging device of device manager.</p> <p>If there is TV tuner in the PC. The image could be not shown. Check "Disable" the TV tuner device on the device manager.</p> <p>If you use other company dental viewer software, it would be related with its setting. Please ask to the dental viewer software vendor.</p> <p>If you use other company dental viewer software, other imaging device (ex. Web-cam, etc.) should be checked for "Disable".</p> <p>This device support only MJPG (MPEG) format. If you use other company dental viewer software, please check the viewer support MJPG or MPEG. Please ask to the dental viewer software vendor.</p> <p>Some codec makes block or delay the live image shown. Uninstall the codec file. (ex. klite codec and etc.)</p>

* If the trouble is not fixed after following solution, please contact your local dealer or manufacturer.

9 Specification

■ Equipment Class

Model:	IC-EZAM80
Trademark:	EZ Shot HD
Power supply:	3.7V Lithium Ion
Receiver:	Lithium Polymer
Protection from ingress of liquids:	IPX0 (ordinary equipment)

■ Operating environment

Ambient temperature:	16°C to 40°C
Relative humidity:	10% to 80%
Atmospheric pressure:	500 hPa to 1060 hPa

■ Transport and Storage Environment

Ambient temperature:	-20°C to 60°C
Relative humidity:	10% R.H. to 85% R.H.
Atmospheric pressure:	500 hPa to 1060 hPa

■ Additional Information

Camera	Operation voltage	3.7V
	Measurement	Approx. 255 x 27 x 29 mm
	Weight	Approx. 89g
	Resolution	1.3 Mega pixel sensor
	Sensor/Lens type	CMOS / Liquid lens
Charger	Measurement	Approx. 110 x 105 x 68 mm
	Weight	Approx. 100 g
	Operation voltage	5V
Disposable cover	Quantity	Approx. 100 pcs by weight x 2ea
	Raw material	Polyethylene
Adapter	Input voltage	AC 100 ~ 240 V
	Output voltage	DC 5V 2A
	UL number	E333054

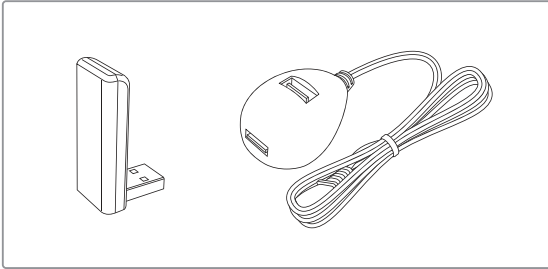
■ Minimum system requirement

PC system:	2.0 Ghz CPU, 1GB RAM
OS:	Windows XP service pack 3 (Windows XP 64 bit is not supported)
USB port:	USB 2.0

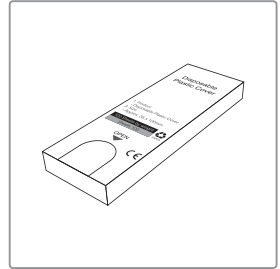
(Internet access would need for some kinds of PC environments)

* Upper specification is changeable without prior notice.

10 Accessories



Receiver (wireless receiver, wireless receiver holder)

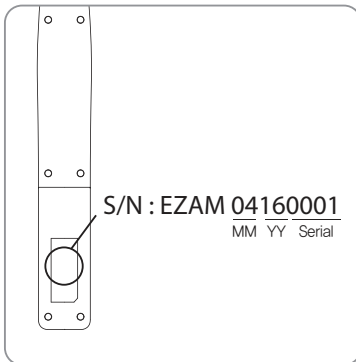


Disposable cover
(x 100 pcs by weight)

11 Warranty

This product is only shipped after strict inspection. Should the product incur any problems under normal use conditions within one year from the date of purchase, the repair will be free of charge. However, repair of consumables (Disposable Cover, and etc.) are not covered by the warranty. For more information, refer to the 12. Warranty card attached.

Serial number check.

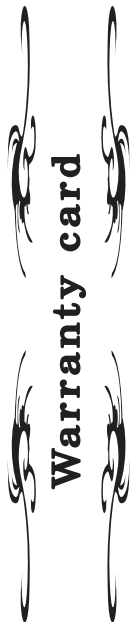


EC REP **Gruneworld GmbH**

Gerhard-Domagk-Str.2, 53121 Bonn, Germany
TEL: +49(0)228/7077695 FAX: +49(0)228/7077696
Website: www.gooddrs.de

 **Good Doctors Co., Ltd.**

#208, B-dong, 283 Bupyeong-daero, Bupyeong-gu
(Woolim Lions Valley, Cheongchoen-dong), Incheon,
21315, Republic of Korea
Tel : + 82 32 424 6325 Fax : + 82 32 424 6326
E-mail : info@gooddrs.com Website : www.gooddrs.com



We guarantee the quality of the product as follows

Name of product :

Name of model :

Customer information

- Office name :
- Office phone :

Distributor

- Dealer name :

Assurance period

- Date of purchase : from _____ , 20____
- Product is for 1 year except accessories.

< Assurance details >

1. If there is any defect of manufacturer or product has any fault itself within the assurance period, it will be replaced with the same product.
 - Malfunction and damage according to user's carelessness.
 - Malfunction and damage according to natural disaster such as fire, earthquake and flood etc.
 - Malfunction and damage according to user's intention or accident.
 - Malfunction and damage according to using incompatible product.
3. The manufacturer does not accept any liability resulting misuse.



Good Doctors Co., Ltd.
 #208, B-dong, 283 Bupyeong-daero, Bupyeong-gu (Woolim Lions Valley, Cheongchoen-dong), Incheon, 21315, Republic of Korea
 Tel: +82 32 424 6325 Fax: +82 32 424 6326

