REV	ECN	Revision History	Date	Editor
A03	ECN04208	1. Delete the maximum outer diameter of the insertion section. 2. Modify the "outer diameter of the bending section" to the "outer diameter of the insertion tube".	2022-08-18	Xu Lin
A02	ECN03839	Delete syringe in the Packing List.	2022-05-06	Xu Lin
A01	DHF08711	First Release	2022-03-17	Gong Yu

Title	EC-P560 Series Video Colonoscope Technical Specifications

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Document Number 901-20566		Distribution Number
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EC-P560 Series Video Colonoscope

Technical Specifications

SonoScape

SONOSCAPE MEDICAL CORP.

Contents

1. General Description

The EC-P560 series video colonoscope include two models, EC-P550S and EC-P550ST.

CMOS image sensor is used for signal transmission of optical fiber cable to enhance the image SNR and signal output frames. The high-definition clinical images makes it easy to discover the tiny lesions.

The product supports real-time video acquisition, air/water-feeding, suction, and remote control of image freezing, magnification, etc.

With fully-sealed design, the endoscope can be directly immersed for cleaning without waterproof cap, thus to avoid water inflow and damage to the endoscope caused by misoperation.

The product complies with the relevant international standards and national standards.

2. Advanced Technologies

- High-definition CMOS imaging (2 million pixels)
- Micro-optical lens technology
- Super large angle imaging lens technology
- High conductive section hardness insertion tube with finer diameter
- Quick switch between air-feeding and water-feeding
- Smaller bending radius and larger bending angle
- High polymer engineering materials with higher disinfectant tolerance
- Convenient operation with new generation operation handle
- Fully-sealed design
- Simple and quick connection and disconnection
- Small insertion tube

3. Connector Section

- Light guide
- Air pipe
- Optical fiber cable connector
- Suction port
- Auxiliary water-feeding port
- Cap for auxiliary water-feeding port
- Leakage detector port
- Electrosurgical equivalent terminal
- Air/water-feeding port (including water-feeding port and air-feeding port)

4. Control and Insertion Sections

- Left/right angulation lock
- Left/right angulation control knob
- Up/down angulation control knob
- Up/down angulation lock
- Stiffness adjustment knob

Rotate it to adjust the stiffness of the insertion section. When the stiffness level changes from "●" to "3", the insertion section stiffness increases gradually.

- When the mark " ● " on the stiffness adjustment knob is aligned with the mark "▌" on the control section end, the insertion section is most flexible.
- When the mark "3" on the stiffness adjustment knob is aligned with the mark "▌" on the control section end, the insertion section is most stiff.

● Remote buttons (0 - 3)

- Customize the functions of four remote buttons by using the image processor.
- The customizable functions include freeze, zoom, VIST, photometry mode, image enhancement, color enhancement, CHb pseudo-color image, transillumination mode, contrast enhancement, AGC, image size, screenshot, video print, video recording, timer, PBP, information display, one-key export and upload.

● Instrument channel

- Used for feeding liquid to the distal end;
- Used for the endotherapy accessory;
- Used as a part of the suction channel after covering the biopsy valve cap firmly.

● Insertion limit mark

● Suction valve

● Air/water valve

- Cover the hole on the valve with a finger to feed air.
- Press the valve to feed water to clean the objective lens.
- When using the valve to feed water or air, the air or water can remove the blood, debris or mucous membrane adhering to the objective lens.

5. Distal End

● Objective lens

● Air/water nozzle

● Light guide lens

● Auxiliary water-feeding port

● Instrument channel outlet

6. Auxiliary Examination

● Biopsy forceps sampling

● Cytology brush sampling

● Feeding liquid by syringe

7. Specifications

Refer to Appendix A.

(Net weight: EC-P560 1.5 kg; EC-P560T 1.7 kg)

8. Packing List

- Endoscope
- Biopsy valve
- Air/Water valve
- Suction valve
- Cleaning brush
- Leakage detector
- Injection tube
- Auxiliary water-feeding tube
- Channel plug
- Distal end cap
- User manual

9. Application Range

The product is used with the image processor and light source provided by the manufacturer to provide images on the monitor for the observation, diagnosis and treatment of the human lower digestive tract (including the anus, rectum, colon and ileocecal valve). It is intended to be used by the physicians with sufficient clinical endoscopy training or by the medical staff under the supervision of the physician in the medical institution.

10. Compatible Devices

- Light source: VLS-50D/T, VLS-51D/T, VLS-55Q/T
- Image processor: HD-550Pro, HD-550Exp, HD-550S, HD-510, HD-500Plus, HD-550
- Trolley: HDT-500

11. Safety Standards

- IEC60601-1:2005+A1:2012+A2:2020
- IEC60601-2-18:2009
- IEC 60601-1-2:2014

12. Environment Requirements

- Operating environment
  - Temperature: +5°C - +40°C
  - Relative humidity: 30% - 80%
  - Atmospheric pressure: 700 hPa - 1060hPa
- Storage environment
  - Temperature: -5°C- +40°C
  - Relative humidity: 30% - 80%
  - Atmospheric pressure: 700 hPa - 1060 hPa
- Transportation environment
  - Temperature: -20°C - +55°C
  - Relative humidity: 20% - 90%
  - Atmospheric pressure: 700 hPa - 1060 hPa
- Safety types
  - Degree of protection against

electric shock: Type BF applied part

– Degree of protection against harmful liquid: IPX7

13. Appendix

Appendix A Specifications

No.	Model / Parameters	EC-P560	EC-P560T
1	Direction of view	Forward viewing	
2	Field of view	170 °±10%	
3	Resolution	≥ 11.1 lp/mm (working distance: 10 mm)	
4	Depth of field	2 mm - 100 mm	
5	Outer diameter of the distal end	Φ10.8 mm, Allowance: +5%, not considering the lower limit	
6	Outer diameter of the insertion tube	Φ11.5 mm, Allowance: +10%, not considering the lower limit	
7	Bending angle	Up 180 °, down 180 °,left 160 °, right 160 ° Allowance: -10%, not considering upper limit	
8	Min. inner diameter of the instrument channel	≥ Φ3.2 mm	
9	Working length	1350 mm±10%	1700 mm±10%
10	Total length	1700 mm±10%	2050 mm±10%
11	Minimum visible distance	2 mm	
12	Aspirated amount	≥ 400 mL/min	
13	Water/air-feeding	• Amount of fed water ≥ 45 mL/min • Amount of fed air ≥ 800 mL/min	
14	Auxiliary water feeding	Support	
15	Endoscope information storage	Support	
16	Alterable tubing stiffness	Support	
17	Illuminance	≥ 20000 Lx (working distance: 10 mm)	

Appendix B Recommended Methods for High-level Disinfection

Disinfectant	Manufacturer	Concentration	Temperature	Contact Time	Using Method
Glutaraldehyde	Lionser®	2.0% - 2.5%	25°C	≥ 45 min	Manual disinfection
Metricide Activated Dialdehyde Solution	Metrex Research LLC	2.6%	25°C	45 min	Automated disinfection

Appendix C Recommended Automated Endoscope Reprocessor

Equipment Name	Model	Manufacturer
Flexible endoscope automatic washer-disinfector	Rider 60B	Shandong Xinhua Medical Device Co., Ltd.

NOTE:

- The specifications of the product may change without any prior notification.

- Some products or features may not be available in some countries.

- Please contact the local distributor for more information.

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