

## 500 SERIES SCOPE & 4400 SYSTEM A SOLUTION FOR IMPROVED NEXT GENERATION ENDOSCOPY REALIZED BY FULLY DIGITAL TECHNOLOGY

#### With advanced total solutions, FUJINON is ready to fulfill a broad range of on-the-scene needs in the endoscopic diagnosis.

500 SERIES SCOPE features leading-edge optical technologies to provide clear, bright endoscopic images for easier and more accurate diagnosis.

It is also kind to users with its grip ergonomically designed for extremely smooth handling. The fully digital processor 4400 SYSTEM employs state-of-the-art digital signal processing. This system, compatible with FICE, the image processing function to improve image visibility, takes the fullest advantage of being fully digital.

Fujinon's endoscopy system is a total solution to support image input, processing and sharing, surely contributing to more efficient endoscopy from now on with its excellent performance.





# Fits right. Moves agilely. Light-weight grip for high operability.

The newly developed grip fits gently into your hand, allowing full use of this high-performance endoscope.

Materials, processing, and choice of parts have all been reviewed to reduce the grip weight for greater maneuverability.

The design is improved also to allow easier cleaning and disinfection.

G-5 GRIP and 500 SERIES SCOPE in combination offer you added amenity in routine diagnosis.

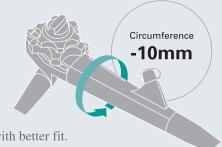


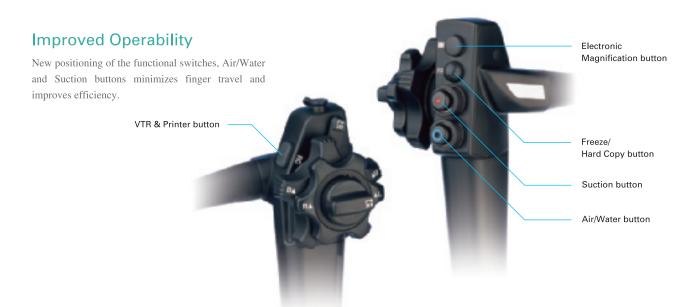


#### **Designed Lighter & Slimmer**

20% less in weight and 10mm slimmer than that of our conventional product.

The angle operation knob is remodeled to accommodate the fingers more firmly with better fit.





#### Water Jet Function

Main endoscopes for the lower gastrointestinal tract have a water jet nozzle in addition to the forceps channel. Mucus is effectively removed for a clear view of the surface being examined.



#### Improved Cleaning and Disinfection

Cleanliness and safety focused on full defense against disinfection.

Easily soiled Air/Water button is removable and autoclavable. A smoother, flatter surface assures all areas receive optimal contact with cleaning and high-performance disinfecting solutions.





#### **Light-weight Connector**

The connecters incorporated in the 500 SERIES SCOPE are slim, lightweight, and easy to handle. Procedures are now considerably less bothersome when the endoscope has to be removed/attached for cleaning and disinfection on every occasion of endoscopy.



#### Flexible Portion

In upper and lower gastrointestinal endoscopy, the great flexibility of the endoscope allows easy insertability and the comfort of the examinee to coexist, meeting on-the-scene needs.



# Fully digital processor 4400 leads the quality of diagnostic imaging to a higher stage.

With the processor and the light source unit employing state-of-the-art digital signal processing, it retains image fineness and precision in picture quality even when viewing microvessels or mucosal surfaces. It also features an HD(High Denition)-compatible processor providing even sharper images with HD signals. On the operation panel are illuminated buttons with pictograms, which are access-friendly during the examination.

# EPX-4400 SYSTEM



Upper: XL-4400 Light Source Bottom: VP-4400 HD Processor

#### Blood Vessel Enhancement (BLV) Function

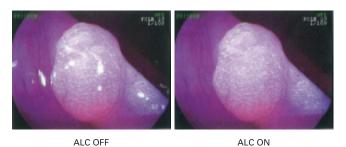
Detailed images of vein patterns are useful for advanced diagnosis of alimentary canals. The Blood Vessel Enhancement Function improves the projection and clarity of vein patterns.

(Three steps available by switching)



# Automatic Light Control (ALC) Illumination Adjustment Function

The 4400 employs Fujinon's unique new form of automatic light control. This new advanced system reduces light halation and provides images that are easier on the physician's eyes.



#### Integrated Compact Flash Media Card Slot

The CF card slot allows direct recording and reproduction of images in the CF card, a popularly used media. Large-size image files captured with a high-resolution endoscope are stored as digital still images without any deterioration. Images can be transferred to a PC without going through too many steps.





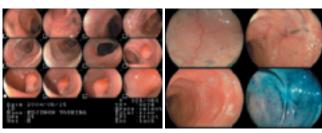
Images captured in a CF card

Image reproduction on a PC

#### Internal Image Storage Capacity

The processor incorporates a buffer memory whose capacity is more than enough for images of one examination regardless of compression rates.

It is convenient for quickly reproducing captured images immediately after the examination. Physicians can reproduce images and give instantly a post-examination explanation to the patient, or select required images to be printed.

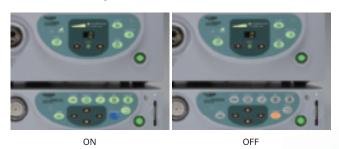


Thumbnail view

Quarter-split view

#### **Examination Switch**

This newly incorporated switch allows for attachment and removal of the endoscope without turning off the power to the processor unit. After finishing an examination a simple press of the button allows the removal and cleaning of the endoscope while the processor continues to communicate imaging data to the network or Compact Flash card.





\*The appearance of the cart varies depending on the sales area.

# FICE spectral image processing technology widens the potential of endoscopic diagnosis.

Accurate and reliable endoscopic examination and diagnosis require detection of subtle structural and color changes such as elevation, depression, and superficial patterns of lesions.

However, endoscopic images may differ significantly depending on the wavelength of light used for observation.

FICE constructs spectral images from rays having specific wavelengths which are useful for better enhancement of tissue aspects and vessels.

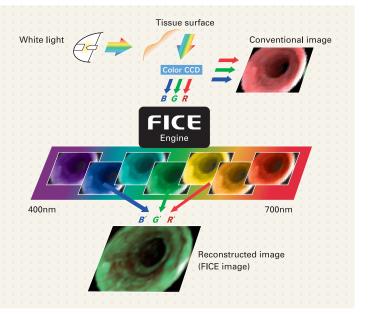
The scope switch allows the physician to switch between conventional image and the FICE image in a split second, ensuring an uninterrupted examination with the eyes always concentrated on the monitor.



#### **FICE** overview

Endoscopes display images on the monitor by directing white light of undulating spectrum (400nm to 700nm) from a xenon lamp onto the tissue and capturing reflected light with a CCD device.

FICE furthermore processes the conventional images into spectral images composed from rays having specific wavelengths and displays them in real-time.

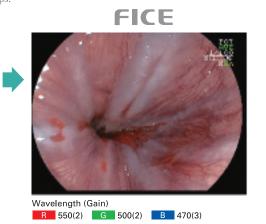


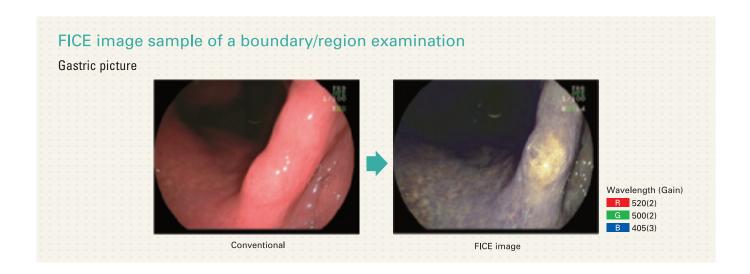
#### Ten patterns of wavelengths can be preset

FICE has ten preset wavelength patterns that are ready for use in the clinical setting.

Moreover, you can manually alter the preset wavelengths in 5-nm increments and the gain in five steps.

|   | PRESET No. | R (Ga  | ain) G | (Gain) | В   | (Gain) |
|---|------------|--------|--------|--------|-----|--------|
|   | 0          | 500 (2 | 2) 445 | (2)    | 415 | (3)    |
|   | 1          | 500 (2 | 2) 470 | (2)    | 420 | (3)    |
| • | 2          | 550 (2 | 2) 500 | (2)    | 470 | (3)    |
|   | 3          | 540 (2 | 2) 490 | (2)    | 420 | (3)    |
|   | 4          | 520 (2 | 2) 500 | (2)    | 405 | (3)    |
|   | 5          | 500 (2 | 2) 480 | (2)    | 420 | (3)    |
|   | 6          | 580 (2 | 2) 520 | (2)    | 460 | (3)    |
|   | 7          | 520 (2 | 2) 450 | (2)    | 400 | (3)    |
|   | 8          | 540 (2 | 2) 415 | (2)    | 415 | (3)    |
|   | 9          | 550 (2 | 2) 500 | (2)    | 400 | (3)    |





# Two balloons realize better insertability into the depth of digestive tract.

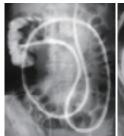
The small intestine has long been the most difficult organ to access in gastrointestinal endoscopy, therefore it has been known as "The Dark Continent."

With new engineering innovation, Fujinon's Double Balloon

Endoscope System designed for the small intestine is equipped with

exclusively developed balloons, overtubes and balloon pump controller.

Two balloons improve the insertability of the endoscope into the small intestine.





Anterograde Insertion

Transanal Insertion

Balloon Pump Controller

PB-20

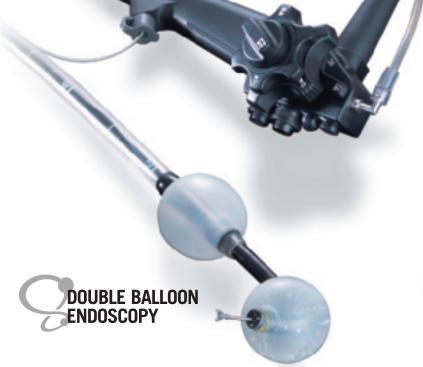
The PB-20 Balloon Pump Controller is designed to simplify operation.

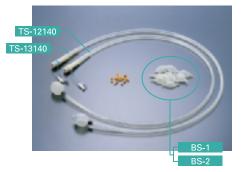
Balloons can be easily controlled

via a hand-operated remote control or foot switch - whichever is more convenient for the physician.

| Power                     | AC100V 50/60Hz 0.76A             |
|---------------------------|----------------------------------|
| Power consumption (rated) | 0.66A                            |
| Set pressure accuracy     | ±2kPa                            |
| Set pressure of balloon   | 5.6kPa                           |
| Maximum flow rate of pump | 170ml ± 50ml / 10sec             |
| Dimensions                | 350(W)×130(H)×420(D)mm           |
| Weight                    | 10kg(Body), 0.4kg(Remote switch) |







#### Balloons and Overtubes (Consumable supplies)

The exclusively developed specialized balloons and overtubes ensure complete positioning of the endoscope in the small intestine. In addition, the distal end of the scope can be smoothly inserted to reach the area of diagnosis.

| Overtube model       | TS-12140        | TS-13140             | TS-13101        |
|----------------------|-----------------|----------------------|-----------------|
| Outer diameter       | 12 <b>.</b> 2mm | 13 <b>.</b> 2mm      | 13 <b>.</b> 2mm |
| Total length         | 1,450mm         | 1,450mm              | 950mm           |
| Applicable endoscope | EN-450P5/20     | EN-450T5, EN-450T5/W | EC-450BI5       |

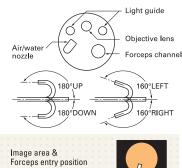
| Balloon        | BS-1 | BS-2 |
|----------------|------|------|
| Outer diameter | 25mm | 35mm |

# EN-450P5/20

DOUBLE BALLOON

EN-450P5/20 is an endoscope for the small intestine examination. The relatively slim overtubes (12.2mm outer diameter) of the EN-450P5/20 allow for smooth insertion via both the anterograde and transanal routes depending on the position of lesion.

| 0°(Forward)<br>120°                           |
|-----------------------------------------------|
| 120°                                          |
|                                               |
| 5 - 100mm                                     |
| 8.5mm                                         |
| 8.5mm                                         |
| UP 180° / DOWN 180°<br>RIGHT 160° / LEFT 160° |
| 2,000mm                                       |
| 2,300mm                                       |
| 2.2mm                                         |
|                                               |



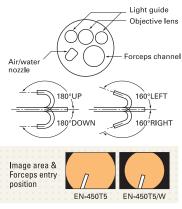


Enteroscope - Treatment Type

# EN-450T5, EN-450T5/W

Treatment capacity has been greatly expanded with the EN-450T5 and EN-450T5/W, which are equipped with a 2.8mm forceps channel that allows the use of almost all general therapeutic accessories and a variety of accessories such as APC Probe, Clip, Diathermic Coagulator, and other therapeutic interventions.

|                           | T5   T5/W                                     |
|---------------------------|-----------------------------------------------|
| Viewing direction         | 0°(Forward)                                   |
| Field of view             | 140°                                          |
| Observation range         | 4 - 100mm   3 - 100mm                         |
| Distal end diameter       | 9.4mm                                         |
| Flexible portion diameter | 9.3mm                                         |
| Bending capability        | UP 180° / DOWN 180°<br>RIGHT 160° / LEFT 160° |
| Working length            | 2,000mm                                       |
| Total length              | 2,300mm                                       |
| Forceps channel diameter  | 2.8mm                                         |



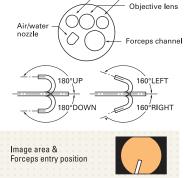


Colonoscope - Standard Type

### EC-450BI5

Using balloons, the endoscope is stabilized in the intestinal tract, which leads to better observation and treatment of lesions.

| Viewing direction         | 0°(Forward)                                   |
|---------------------------|-----------------------------------------------|
| Field of view             | 140°                                          |
| Observation range         | 3 - 100mm                                     |
| Distal end diameter       | 9.4mm                                         |
| Flexible portion diameter | 9.3mm                                         |
| Bending capability        | UP 180° / DOWN 180°<br>RIGHT 160° / LEFT 160° |
| Working length            | 1,520mm                                       |
| Total length              | 1,820mm                                       |
| Forceps channel diameter  | 2 <b>.</b> 8mm                                |





DOUBLE BALLOON FOR TREATMENT

DOUBLE BALLOON

# Fujinon's high quality digital imaging enables ideal ultrasonographic diagnosis.

Fujinon has developed endoscopic ultrasonography systems for both radial ultrasound scanning and convex ultrasound scanning which satisfy the most stringent requirements:

"clear image projection" and "excellent usability."

The SU-7000 processor and the EG-530UR and EG-530UT ultrasound endoscopes provide excellent ultrasound endoscopic images.



\*The appearance of the cart varies depending on the sales area.

**Observation Instrument** 

SU-7000



The SU-7000 allows high-quality ultrasonography to be incorporated with conventional endoscopy into a single cart, resulting in a highly functional, compact system.

Integration of Fujinon's high-performance endoscopy with a state-of-art ultrasonography system allows physicians to make the best use of limited examination space without compromising diagnostic and therapeutic quality.





CF (Compact Flash) Media
Card Slot

Comprehensive Integrated Keyboard

The CF card allows direct recording of images during examination.

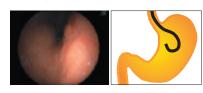
#### **ENDOSCOPE**

# EG-530UR, EG-530UT

EG-530UR and EG-530UT endoscopes combine Fujinon's high-quality endoscope features with the most advanced ultrasound technology, to create an unsurpassed diagnostic and treatment system.

#### **Observation Performance**

EG-530UR and EG-530UT have slimmed down distal end and improved bending capabilities as close to those of conventional endoscopes, enabling easier observation in a wider field of view.



#### High Resolution Image

For an endoscopic image, our SUPER CCD chip provides high-resolution and high-color, faithfully-reproduced images, which makes it possible to distinguish minute differences in the all-important red spectrum including tiny blood vessels.

For an ultrasonographic image, our original digital image processing optimizes the gradation sequence of images, resulting in providing better ultrasonographic images.



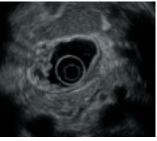
#### Radial Scan Ultrasound Video Endoscope

# EG-530UR

With a slim distal end of 11.4mm and excellent bending capabilities, the EG-530UR allows physicians to perform endoscopic ultrasonography in a similar way to conventional endoscopy. The scope tip bending angle permits observation of previously difficult to access areas.





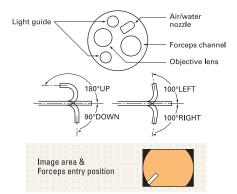


#### **Endoscope Functions**

| Viewing direction         | 0°(Forward)                                  |
|---------------------------|----------------------------------------------|
| Field of view             | 140°                                         |
| Observation range         | 3 - 100mm                                    |
| Distal end diameter       | 11.4mm                                       |
| Flexible portion diameter | 11 <b>.</b> 5mm                              |
| Bending capability        | UP 180° / DOWN 90°<br>RIGHT 100° / LEFT 100° |
| Working length            | 1,250mm                                      |
| Total length              | 1,550mm                                      |
| Forceps channel diameter  | 2.2mm                                        |

#### Ultrasonic Functions

| Scanning mode   | Color Doppler /<br>Power Doppler /<br>PW Doppler /<br>B mode / M mode / THI |  |
|-----------------|-----------------------------------------------------------------------------|--|
| Scanning method | Electronic radial                                                           |  |
| Scanning area   | 360°                                                                        |  |
| Frequency       | 5MHz / 7.5MHz /<br>10MHz / 12MHz                                            |  |
| Contact Method  | Balloon method /<br>degassed water congestion method /<br>contacting method |  |



#### Convex Scan Ultrasound Video Endoscope

# EG-530UT

With its forceps channel elevator function, the distal end of EG-530UT improves the injection performance of the puncture needle. It also has a large channel which enables various treatment accessories to be inserted. With excellent bending capabilities, the EG-530UT provides better access to lesions and greater flexibility in treatment.





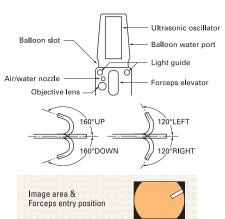


#### **Endoscope Functions**

| Viewing direction         | Forward oblique 40°                           |
|---------------------------|-----------------------------------------------|
| Field of view             | 140°                                          |
| Observation range         | 3 - 100mm                                     |
| Distal end diameter       | 13.9mm                                        |
| Flexible portion diameter | 12 <b>.</b> 1mm                               |
| Bending capability        | UP 160° / DOWN 160°<br>RIGHT 120° / LEFT 120° |
| Working length            | 1,250mm                                       |
| Total length              | 1,550mm                                       |
| Forceps channel diameter  | 3.8mm                                         |

#### Ultrasonic Functions

| Scanning mode   | Color Doppler / Power Doppler / PW Doppler / B mode / M mode / THI          |  |
|-----------------|-----------------------------------------------------------------------------|--|
| Scanning method | Electronic convex                                                           |  |
| Scanning area   | 110°                                                                        |  |
| Frequency       | 5MHz / 7.5MHz /<br>10MHz / 12MHz                                            |  |
| Contact Method  | Balloon method /<br>degassed water congestion method /<br>contacting method |  |
|                 |                                                                             |  |



# High Quality Image Endoscopes Super CCD equipped Electronic Endoscopes

Using the progressive scan method which prevents deteriorated resolution,

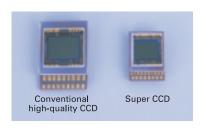
the SUPER CCD captures still images in high definition.

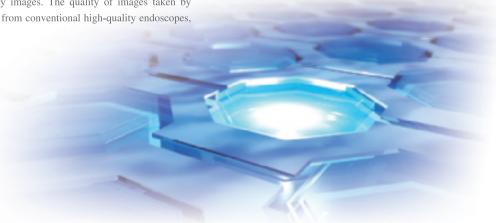
The images have little chromatic noise and appear as real images even when the screen is frozen. The SUPER CCD provides not just high-resolution images, but using the RGB filtering capability, it also provides vivid colors in the red spectrum which are important in endoscopic diagnosis. It is a high-quality endoscope born in the digital imaging era.



#### Using Progressive Scan Method

Fujinon's SUPER CCD captures the high-quality images. The quality of images taken by SUPER CCD is one rank higher than the images from conventional high-quality endoscopes, which enables easier detection of minute lesions.





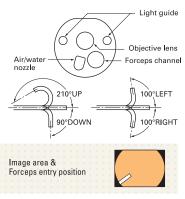
# 590 SERIES ENDOSCOPE

For the Upper G.I. Tract - Optical Magnification

# EG-590ZW

EG-590ZW is a high quality optical magnifying electronic endoscope for the upper G.I. tract. The optical magnification enhances the images for easier and closer observation. This endoscope has maximum optical magnification levels of up to 135 times when viewed on a 19 inch monitor and also an excellent field of view.

| Viewing direction         | 0°(Forward)                                  |
|---------------------------|----------------------------------------------|
| Field of view             | WD:140° / TL:55°                             |
| Observation range         | WD:6 - 100mm / TL:2 - 3mm                    |
| Distal end diameter       | 10.8mm                                       |
| Flexible portion diameter | 9.8mm                                        |
| Bending capability        | UP 210° / DOWN 90°<br>RIGHT 100° / LEFT 100° |
| Working length            | 1,100mm                                      |
| Total length              | 1,400mm                                      |
| Forceps channel diameter  | 2.8mm                                        |
|                           |                                              |







# EG-590WR

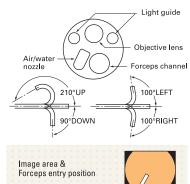
WIDE VIEW

WIDE VIEW



This endoscope is reasonably slim with a distal end of 9.6mm, yet is equipped with adequate functions necessary for routine examinations. This is a high-definition standard endoscope. The air/water nozzle is redesigned to constantly secure a clear field of view, and its water filtering function is significantly improved.

| Viewing direction         | 0°(Forward)                                  |
|---------------------------|----------------------------------------------|
| Field of view             | 140°                                         |
| Observation range         | 6 - 100mm                                    |
| Distal end diameter       | 9.6mm                                        |
| Flexible portion diameter | 9 <b>.</b> 3mm                               |
| Bending capability        | UP 210° / DOWN 90°<br>RIGHT 100° / LEFT 100° |
| Working length            | 1,100mm                                      |
| Total length              | 1,400mm                                      |
| Forceps channel diameter  | 2.8mm                                        |
|                           |                                              |



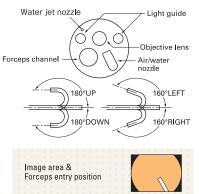


For the Lower G.I. Tract - Optical Magnification

# EC-590ZW/M, EC-590ZW/L

These optical magnifying endoscopes for the lower G.I. tract have a water jet function which is effective for washing off mucus and securing a better field of view. This endoscope has a wide variety of functions such as a large 3.8mm forceps channel, optical magnifying function and water jet function.

|                           | ZW/M ZW/L                                     |
|---------------------------|-----------------------------------------------|
| Viewing direction         | 0°(Forward)                                   |
| Field of view             | WD:140° / TL:55°                              |
| Observation range         | WD:6 - 100mm / TL:2 - 3mm                     |
| Distal end diameter       | 12 <b>.</b> 8mm                               |
| Flexible portion diameter | 12.8mm                                        |
| Bending capability        | UP 180° / DOWN 180°<br>RIGHT 160° / LEFT 160° |
| Working length            | 1,330mm   1,690mm                             |
| Total length              | 1,630mm   1,990mm                             |
| Forceps channel diameter  | 3 <b>.</b> 8mm                                |





WATER JET

For the Lower G.I. Tract - Standard Type

# EC-590WM, EC-590WI, EC-590WL

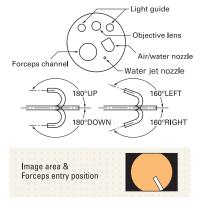
WATER JET

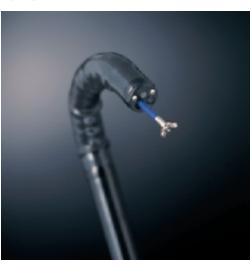




These endoscopes for the lower G.I. tract routine examinations have a ultra wide 140° field of view, a large 3.8mm channel and also a water jet function which is effective for washing off mucus.

| WM   WI   WL                                  |
|-----------------------------------------------|
| 0°(Forward)                                   |
| 140°                                          |
| 3 - 100mm                                     |
| 12.8mm                                        |
| 12.8mm                                        |
| UP 180° / DOWN 180°<br>RIGHT 160° / LEFT 160° |
| 1,330mm   1,520mm   1,690mm                   |
| 1,630mm   1,820mm   1,990mm                   |
| 3.8mm                                         |
|                                               |





# High quality 530 Series Endoscope covers screening, diagnosis and treatment.

530 Series Endoscope features high quality endoscopes which serve various kinds of examination and diagnosis. Transnasal endoscope that is easy for the examinees, multi-purpose endoscope for various purposes, and lower G.I. endoscope with a large channel and strong suction power — these are among many scopes available to choose from depending on the examination purpose.

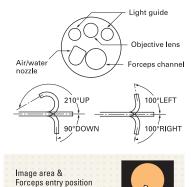


#### For the Upper G.I.Tract - Transnasal Type

# EG-530N

Fujinon's own micro precision processing technology slimmed down the distal end diameter to 5.9mm and facilitates insertion through the nose. Being ultrafine, EG-530N fulfills all requirements for G.I. endoscopy such as 4-way angulation, forceps channel, and two lights to eliminate shadows.

| Viewing direction         | 0°(Forward)                                  |
|---------------------------|----------------------------------------------|
| Field of view             | 120°                                         |
| Observation range         | 3 - 100mm                                    |
| Distal end diameter       | 5.9mm                                        |
| Flexible portion diameter | 5.9mm                                        |
| Bending capability        | UP 210° / DOWN 90°<br>RIGHT 100° / LEFT 100° |
| Working length            | 1,100mm                                      |
| Total length              | 1,400mm                                      |
| Forceps channel diameter  | 2.0mm                                        |





TRANSNASAL

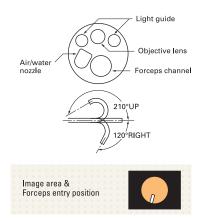
#### For the Upper G.I.Tract - Transnasal Type

## EG-530NP

EG-530NP slimmed down its scope to the utmost and realized a 4.9mm distal end (5.1mm in the flexible portion), immensely improving the transnasal insertion capability. This transnasal endoscope is also equipped with dual light guides and a 2.0mm forceps channel.

\* This endoscope is not compatible with high-frequency treatment.

| Viewing direction         | 0°(Forward)         |
|---------------------------|---------------------|
| Field of view             | 120°                |
| Observation range         | 3 - 100mm           |
| Distal end diameter       | 4.9mm               |
| Flexible portion diameter | 5.1mm               |
| Bending capability        | UP 210° / DOWN 120° |
| Working length            | 1,100mm             |
| Fotal length              | 1,460mm             |
| Forceps channel diameter  | 2.0mm               |





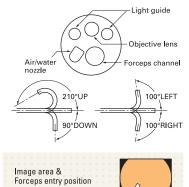
TRANSNASAL

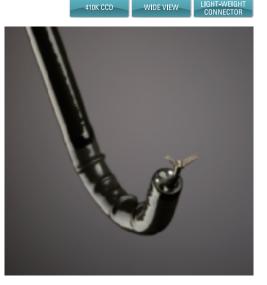
#### For the Upper G.I.Tract - Standard Type

## EG-530WR

The EG-530WR uses SUPER IMAGE of a wide field of view of 140° and Fujinon's traditional 410k CCD chip to provide exceptional visualization. With the forceps channel of 2.8mm, it is a standard endoscope producing high quality images, which is highly suited for biopsies and treatment.

| Viewing direction         | 0°(Forward)                                  |
|---------------------------|----------------------------------------------|
| Field of view             | 140°                                         |
| Observation range         | 4 - 100mm                                    |
| Distal end diameter       | 9.4mm                                        |
| Flexible portion diameter | 9.3mm                                        |
| Bending capability        | UP 210° / DOWN 90°<br>RIGHT 100° / LEFT 100° |
| Working length            | 1,100mm                                      |
| Total length              | 1,400mm                                      |
| Forceps channel diameter  | 2.8mm                                        |





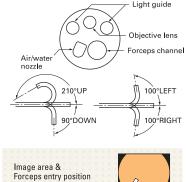
For the Upper G.I.Tract - Slim Type

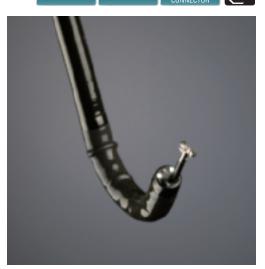
# EG-530FP

EG-530FP is a slim endoscope for the upper G.I. tract having a forceps channel of 2.8mm diameter and a distal end of 8.5mm.

Observation capability has been increased with a wide field of view of 140° and Fujinon's Super CCD technology.

| 0°(Forward)                                  |
|----------------------------------------------|
| 140°                                         |
| 3 - 100mm                                    |
| 8.5mm                                        |
| 8.5mm                                        |
| UP 210° / DOWN 90°<br>RIGHT 100° / LEFT 100° |
| 1,100mm                                      |
| 1,400mm                                      |
| 2.8mm                                        |
|                                              |



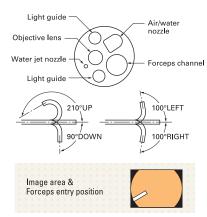


For the Upper G.I.Tract - Treatment Type

# EG-530CT

With the forceps channel as wide as 3.8mm, EG-530CT's distal end is as slim as 10.8mm in diameter. Water jet function is also incorporated for removing mucus.

| Viewing direction         | 0°(Forward)                                  |
|---------------------------|----------------------------------------------|
| Field of view             | 140°                                         |
| Observation range         | 3 - 100mm                                    |
| Distal end diameter       | 10 <b>.</b> 8mm                              |
| Flexible portion diameter | 10.8mm                                       |
| Bending capability        | UP 210° / DOWN 90°<br>RIGHT 100° / LEFT 100° |
| Working length            | 1,100mm                                      |
| Total length              | 1,400mm                                      |
| orceps channel diameter   | 3.8mm                                        |



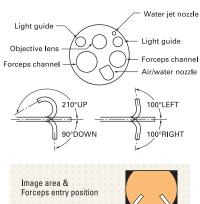


For the Upper G.I.Tract - Treatment Type

# EG-530D

EG-530D is an endoscope for treatment of the upper G.I. tract, having two forceps channels, 3.8mm and 2.8mm, and a distal end as slim as 11.5mm. Water jet function is also incorporated for various treatment methods during endoscopy.

| Viewing direction         | 0°(Forward)                                  |
|---------------------------|----------------------------------------------|
| Field of view             | 140°                                         |
| Observation range         | 3 - 100mm                                    |
| Distal end diameter       | 11.5mm                                       |
| Flexible portion diameter | 11.5mm                                       |
| Bending capability        | UP 210° / DOWN 90°<br>RIGHT 100° / LEFT 100° |
| Working length            | 1,090mm                                      |
| Total length              | 1,405mm                                      |
| Forceps channel diameter  | 3.8mm / 2.8mm                                |





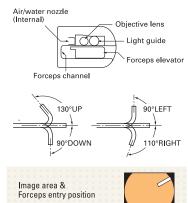


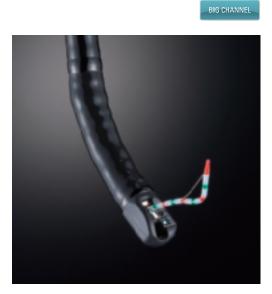
#### For the Duodenum

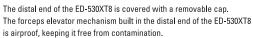
# ED-530XT, ED-530XT8

The structure of the distal end, bending portion and flexible portion is changed for improved maneuverability during examination and treatment.

| Viewing direction         | 98°(8°rearward)                             |
|---------------------------|---------------------------------------------|
| Field of view             | 100°                                        |
| Observation range         | 4 - 60mm                                    |
| Distal end diameter       | 13.1mm                                      |
| Flexible portion diameter | 11.5mm                                      |
| Bending capability        | UP 130° / DOWN 90°<br>RIGHT 110° / LEFT 90° |
| Working length            | 1,250mm                                     |
| Total length              | 1,550mm                                     |
| Forceps channel diameter  | 4.2mm                                       |
|                           |                                             |









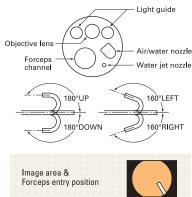
For the Lower G.I. Tract - Standard Type

# EC-530WM, EC-530WI, EC-530WL

410K CCD WIDE VIEW WATER JET

With a wide field of view of  $140^{\circ}$ , these lower G.I. tract endoscopes have a greater resolution at the image edges. Flexible inserted portion and operation portion with light-weight grip facilitates insertion.

|                           | WM   WI   WL                                  |
|---------------------------|-----------------------------------------------|
| Viewing direction         | 0°(Forward)                                   |
| Field of view             | 140°                                          |
| Observation range         | 3 - 100mm                                     |
| Distal end diameter       | 12 <b>.</b> 8mm                               |
| Flexible portion diameter | 12.8mm                                        |
| Bending capability        | UP 180° / DOWN 180°<br>RIGHT 160° / LEFT 160° |
| Working length            | 1,330mm   1,520mm   1,690mm                   |
| Total length              | 1,630mm   1,820mm   1,990mm                   |
| Forceps channel diameter  | 3.8mm                                         |



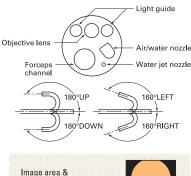


For the Lower G.I.Tract - Treatment Type

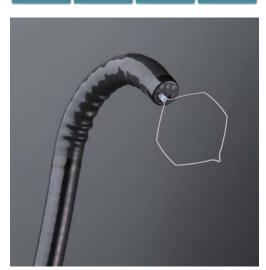
# EC-530MT, EC-530IT, EC-530LT

With a large channel of 4.2mm accommodating various treatment accessories, these lower G.I. tract endoscopes are suited for examination and treatment, which also have a rapid suction function.

|                           | MT   IT   LT                                  |
|---------------------------|-----------------------------------------------|
| Viewing direction         | 0°(Forward)                                   |
| Field of view             | 140°                                          |
| Observation range         | 3 - 100mm                                     |
| Distal end diameter       | 12.8mm                                        |
| Flexible portion diameter | 12.8mm                                        |
| Bending capability        | UP 180° / DOWN 180°<br>RIGHT 160° / LEFT 160° |
| Working length            | 1,330mm   1,520mm   1,690mm                   |
| Total length              | 1,630mm   1,820mm   1,990mm                   |
| Forceps channel diameter  | 4.2mm                                         |



Forceps entry position



-WIDE VIEW

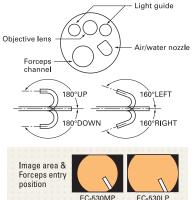
WATER JET

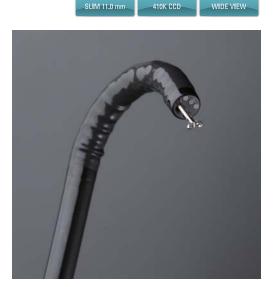
For the Lower G.I.Tract - Slim Type

# EC-530MP, EC-530LP

These are slim-type endoscopes for lower G.I. tract with the distal end of 11.0mm. While these two slimmed-down scopes have improved insertability, they retain a 3.2mm forceps channel to accommodate various treatment methods.

|                           | MP   LP                                       |
|---------------------------|-----------------------------------------------|
| Viewing direction         | 0°(Forward)                                   |
| Field of view             | 140°                                          |
| Observation range         | 3 - 100mm                                     |
| Distal end diameter       | 11 <b>.</b> 0mm                               |
| Flexible portion diameter | 11.1mm                                        |
| Bending capability        | UP 180° / DOWN 180°<br>RIGHT 160° / LEFT 160° |
| Working length            | 1,330mm 1,690mm                               |
| Total length              | 1,630mm   1,990mm                             |
| Forceps channel diameter  | 3.2mm                                         |



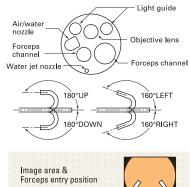


For the Lower G.I.Tract - Treatment Type

# EC-530DM, EC-530DL

These lower G.I. tract endoscopes have two forceps channels (3.8mm and 2.8mm), especially useful for treatment during endoscopy such as EMR.

| DM DL                                         |  |  |  |  |
|-----------------------------------------------|--|--|--|--|
| 0°(Forward)                                   |  |  |  |  |
| 140°                                          |  |  |  |  |
| 3 - 100mm                                     |  |  |  |  |
| 12.8mm                                        |  |  |  |  |
| 12.8mm                                        |  |  |  |  |
| UP 180° / DOWN 180°<br>RIGHT 160° / LEFT 160° |  |  |  |  |
| 1,330mm   1,690mm                             |  |  |  |  |
| 1,645mm 2,005mm                               |  |  |  |  |
| 3.8mm/2.8mm                                   |  |  |  |  |
|                                               |  |  |  |  |



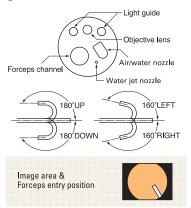


For the Lower G.I. Tract - Standard Type

# EC-530FM/EC-530FI/EC-530FL

These super wide-angle standard colonoscopes offer a large 3.8mm working channel inside a slim 12.8mm outside diameter. An ultra-wide 140 degree field of view enhances image quality from the center to the edge. These colonoscopes also offer a wider observation range from 3-100mm. In addition, an integrated forward water jet allows for lavage in clinical situations.

|                           | FM   FI   FL                                  |  |  |  |  |  |
|---------------------------|-----------------------------------------------|--|--|--|--|--|
| Viewing direction         | 0°(Forward)                                   |  |  |  |  |  |
| Field of view             | 140°                                          |  |  |  |  |  |
| Observation range         | 3 - 100mm                                     |  |  |  |  |  |
| Distal end diameter       | 12.8mm                                        |  |  |  |  |  |
| Flexible portion diameter | 12.8mm                                        |  |  |  |  |  |
| Bending capability        | UP 180° / DOWN 180°<br>RIGHT 160° / LEFT 160° |  |  |  |  |  |
| Working length            | 1,330mm   1,520mm   1,690mm                   |  |  |  |  |  |
| Total length              | 1,630mm   1,820mm   1,990mm                   |  |  |  |  |  |
| Forceps channel diameter  | 3.8mm                                         |  |  |  |  |  |
|                           |                                               |  |  |  |  |  |



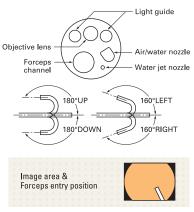


For the Lower G.I. Tract - Sigmoidoscope

# ES-530WE

ES-530WE is a sigmoidoscope of an effective length of 790mm. The forceps channel diameter is 3.8mm, and is equipped with water jet function.

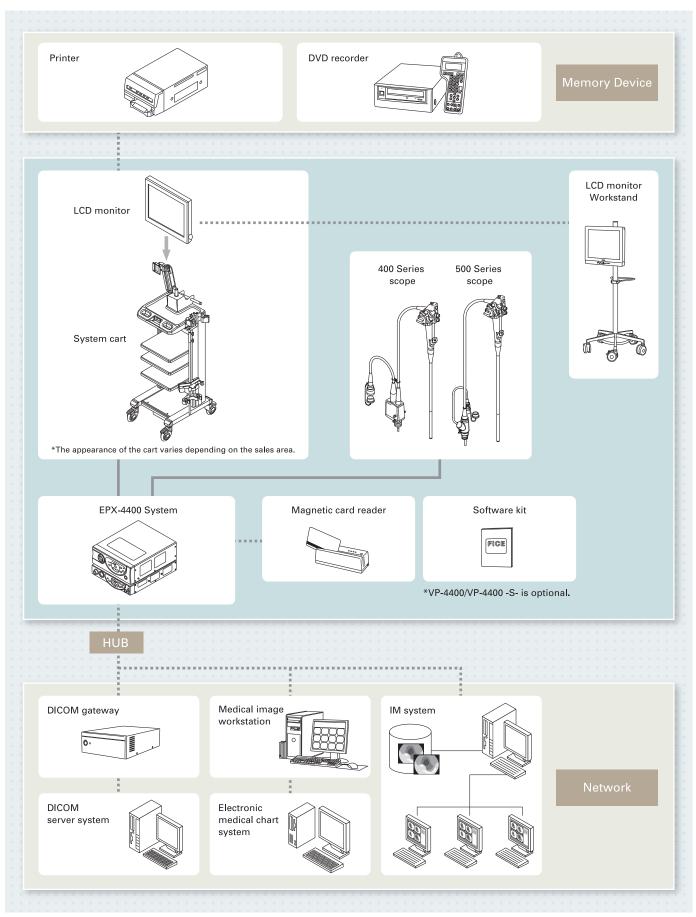
| Viewing direction         | 0°(Forward)                                   |
|---------------------------|-----------------------------------------------|
| Field of view             | 140°                                          |
| Observation range         | 3 - 100mm                                     |
| Distal end diameter       | 12 <b>.</b> 8mm                               |
| Flexible portion diameter | 12.8mm                                        |
| Bending capability        | UP 180° / DOWN 180°<br>RIGHT 160° / LEFT 160° |
| Working length            | 790mm                                         |
| Total length              | 1,090mm                                       |
| Forceps channel diameter  | 3.8mm                                         |
|                           |                                               |







#### **EXAMPLE OF SYSTEM CONFIGURATION**



\*Some functions may be restricted in some network environment.



Upper: Light Source XL-4400 Buttom: Processor VP-4400

#### Light Source

|                                    | XL-4400 (120V)                      |  | XL-4400 -S- (230V) |  | XL-4400HD (120V) |  | XL-4400 -HD- (230V) |
|------------------------------------|-------------------------------------|--|--------------------|--|------------------|--|---------------------|
| Lamp 300W short-arc Xenon lamp     |                                     |  |                    |  |                  |  |                     |
|                                    | (Emergency lamp : 75W Halogen lamp) |  |                    |  |                  |  |                     |
| Main specifications                | Automatic light control             |  |                    |  |                  |  |                     |
|                                    | Air supply pump Nomal / Low / OFF   |  |                    |  |                  |  |                     |
| Power                              | AC120V 60Hz 3.7A                    |  | AC230V 50Hz 1.9A   |  | AC120V 60Hz 3.7A |  | AC230V 50Hz 1.9A    |
| Dimensions 350(W)×420(D)×130(H) mm |                                     |  |                    |  |                  |  |                     |
| Weight                             | 17 kg                               |  |                    |  |                  |  |                     |

#### Processor

|                                            | VP-4400 (120V)                                 | VP-4400 -S- (230V) | VP-4400HD (120V)  | VP-4400 -HD- (230V) |  |  |  |
|--------------------------------------------|------------------------------------------------|--------------------|-------------------|---------------------|--|--|--|
| Image output signal                        |                                                |                    |                   |                     |  |  |  |
| [Digital outputs]                          |                                                |                    |                   |                     |  |  |  |
| DVI (Digital Visual Interface) LCD Monitor | 1                                              | 1                  | 1                 | 1                   |  |  |  |
| HD-SDI                                     | <del>_</del>                                   | _                  | 2                 | 2                   |  |  |  |
| IEEE-1394 VTR interface                    | 1                                              | 1                  | 1                 | 1                   |  |  |  |
| Network interface 100/10 Base              | 1                                              | 1                  | 1                 | 1                   |  |  |  |
| [Analog outputs]                           |                                                |                    |                   |                     |  |  |  |
| RGB                                        | 1                                              | 1                  | 1                 | 1                   |  |  |  |
| RGB (TV/PC changeover)                     | 2                                              | 2                  | 2                 | 2                   |  |  |  |
| VBS                                        | 1                                              | 1                  | 1                 | 1                   |  |  |  |
| S-Video                                    | 1                                              | 1                  | 1                 | 1                   |  |  |  |
| Control signals                            |                                                |                    |                   |                     |  |  |  |
| RS-232C terminal                           | 2                                              | 2                  | 2                 | 2                   |  |  |  |
| Card reader terminal                       | 1                                              | 1                  | 1                 | 1                   |  |  |  |
| Remote (trigger output)                    | 3                                              | 3                  | 3                 | 3                   |  |  |  |
| Main functions                             |                                                |                    |                   |                     |  |  |  |
| Electronic shutter                         | 1/30, 1/60, 1/100, 1/200, 1/400, AUTO          |                    |                   |                     |  |  |  |
| Electronic image zoom                      | ratio of 1.05 to 2.0                           |                    |                   |                     |  |  |  |
| Examination switch                         | ON / OFF                                       |                    |                   |                     |  |  |  |
| Image recording media                      | CF card                                        |                    |                   |                     |  |  |  |
| Noise reduction                            | ON / OFF                                       |                    |                   |                     |  |  |  |
| Blood vessel enhancement                   | ON / OFF                                       |                    |                   |                     |  |  |  |
| Internal image storage capacity            | 152 frames (60 frames in the 590 series)       |                    |                   |                     |  |  |  |
| IRIS mode                                  | Average / Peak changeover                      |                    |                   |                     |  |  |  |
| Power                                      | AC120V 60 Hz 0.31A                             | A C230V 50Hz 0.17A | AC120V 60Hz 0.35A | AC230V 50Hz 0.21A   |  |  |  |
| Dimensions                                 | 350(W)×420(D)×75(H) mm (excluding projections) |                    |                   |                     |  |  |  |
| Weight                                     | 8 kg   8 kg   9kg   9kg                        |                    |                   |                     |  |  |  |

