FUJIFILM
Value from Innovation

reddot award 2017 winner

iF DESIGN AWARD 2017

ELUXEO
7000 SYSTEM

BLI LCI

FUJIFILM

VP-7000

COLOR   STRUCTURE   TONE   MULTI1   MUL

L M H   PUMP

BL-7000

1
2
3

XLUM   LIGHT LIMIT.   LIGHT MODE

FUJIFILM

BL-7000   L M H   PUMP ⊙   ON   LIGHT 🔆   ● POWER

XLUM   LIGHT LIMIT.   LIGHT MODE   ILLUMI.

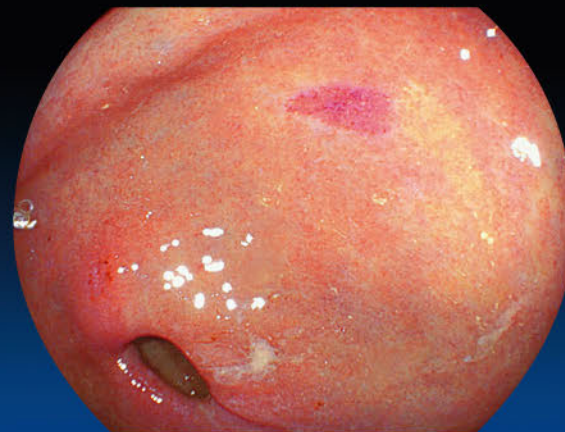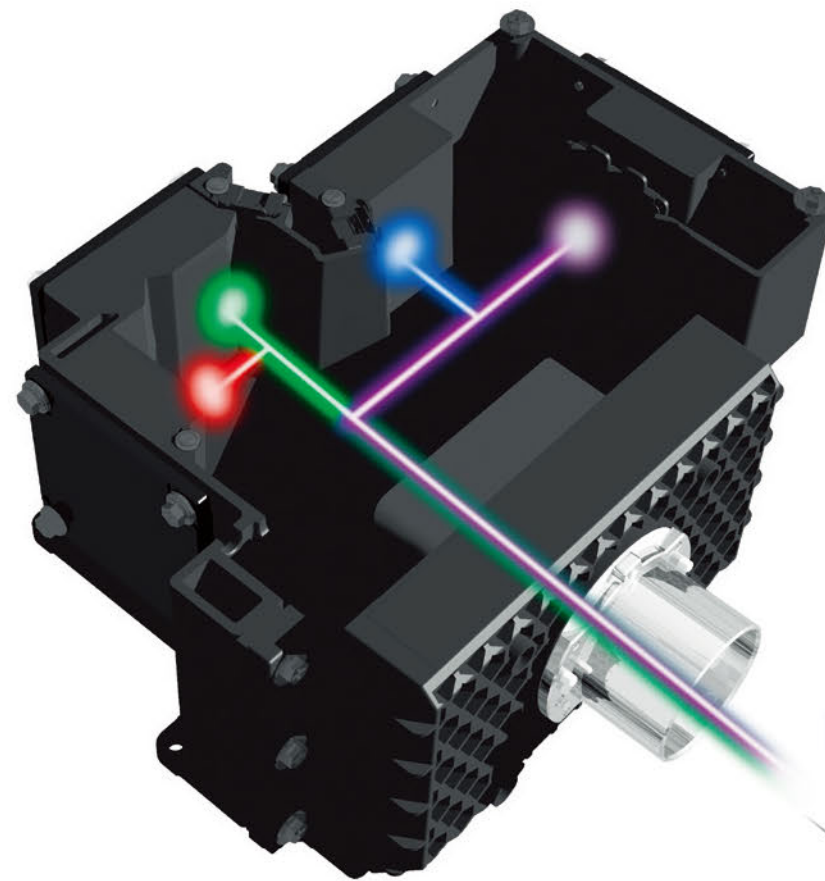This is a simulated image. Actual image will differ.

Welcome
to
BLI&LCI World

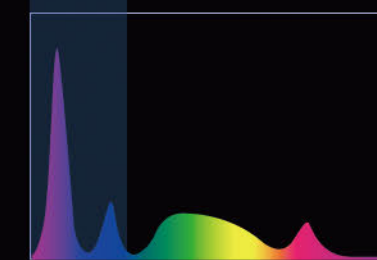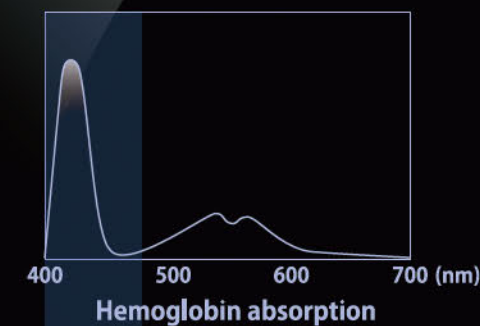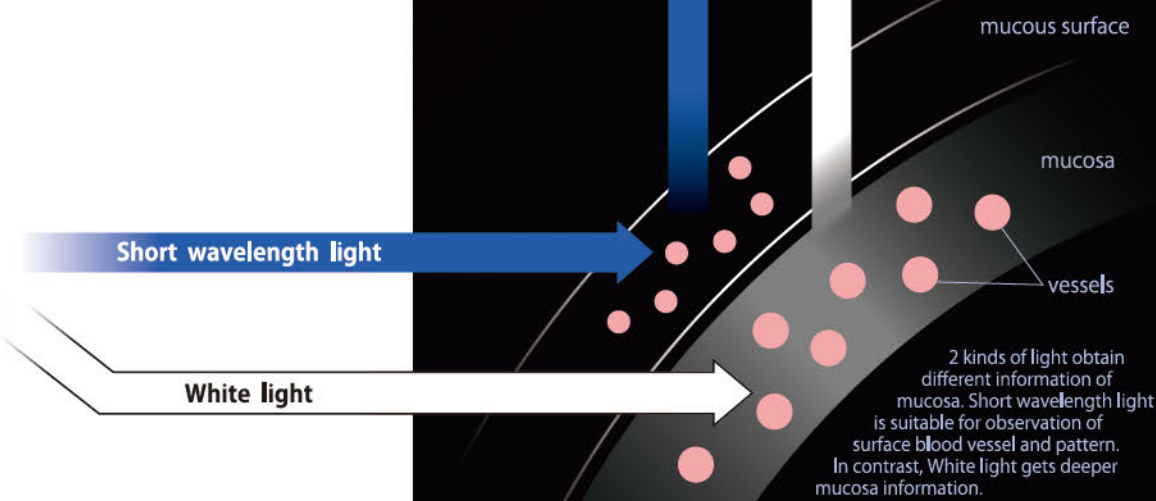**BLI** Blue Light Imaging

LCI Linked Color Imaging

· For Better Diagnosis
· For Better Usability

For Better Diagnosis

White Light

Bright and clear images are accomplished.
Contrast is added with Blue-violet.

Blue
Blue-violet
Green
Red

BLI

High contrast images can be established with short wavelength component.

Blue-violet
Blue
Green
Red

LCI

LCI is combined features of both BLI and White Light mode.
Contrast and brightness are compatible.

Blue-violet
Blue
Green
Red

LCI Principle

G
B
R

Expansion

G
B
R

Pre-processing   **Post-processing**

Expanding processing increases the color contrast nearby mucosal "Redness".

Short wavelength
Light information

White Light
information

Image processing

mucous surface

mucosa

vessels

2 kinds of light obtain different information of mucosa. Short wavelength light is suitable for observation of surface blood vessel and pattern. In contrast, White light gets deeper mucosa information.

Short wavelength light

White light

400   500   600   700 (nm)
Hemoglobin absorption

BLI Spectrum Profile

Short wavelength light around 410 nm is strongly absorbed by hemoglobin.
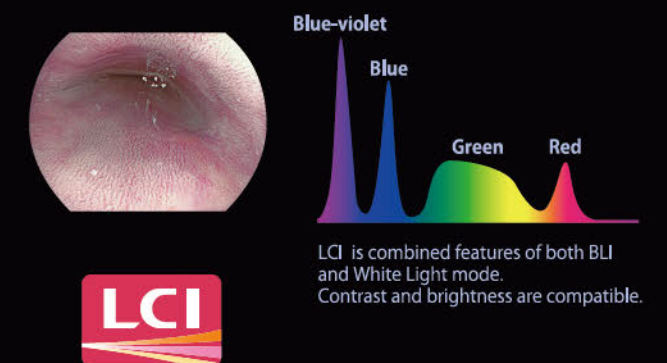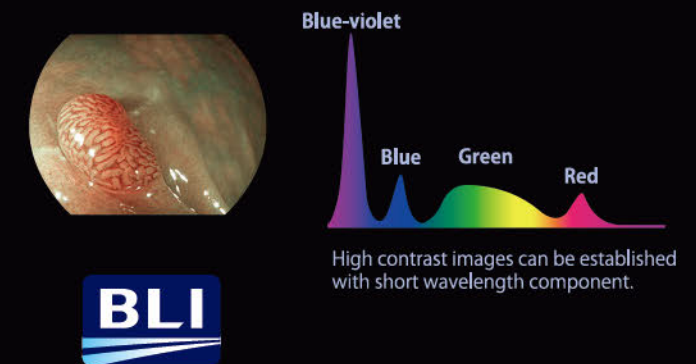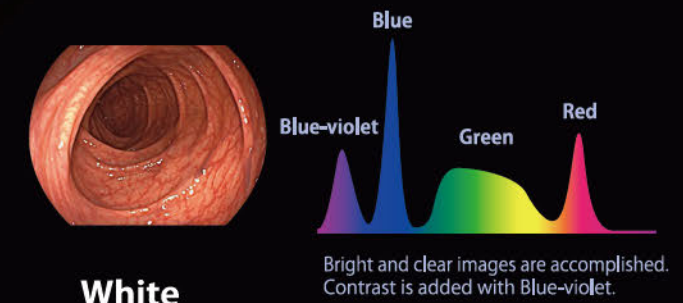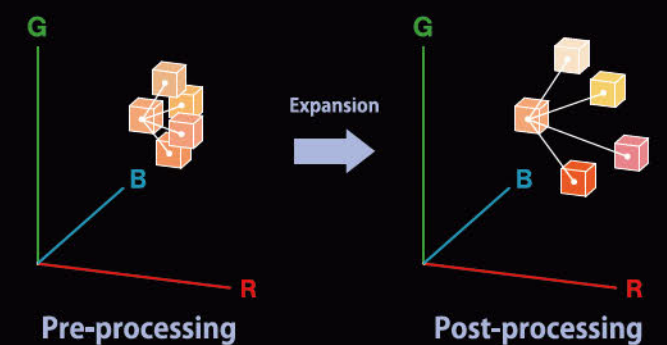

Multi-Light Technology

This technology enables creation of images suitable for intended purposes through image processing combined with accurate control of intensity ratio between multiple lights. 7000 system employs four types of high-intensity LEDs: Blue LED creating short wavelength light and Red/Green/Blue LEDs combined into white light. Multi-light technology performs signal processing for images obtained by white light and short wavelength light to produce LCI and BLI images.

1 BLI (Blue Light Imaging) **BLI**
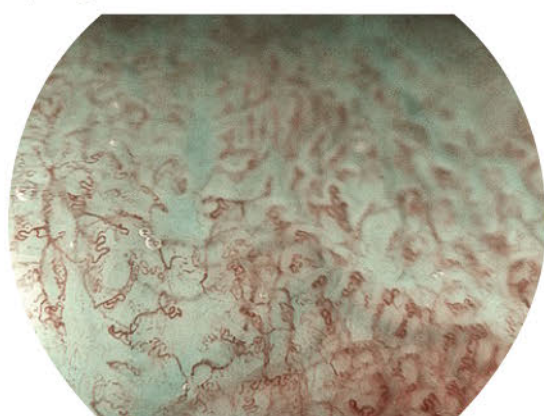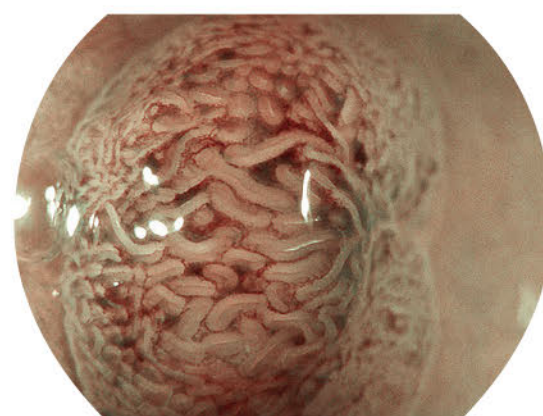
Colon

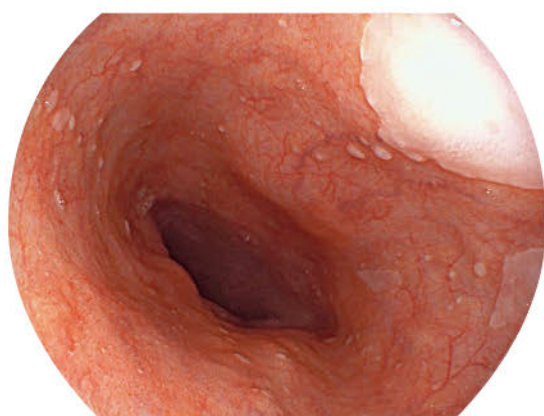
White Light mode
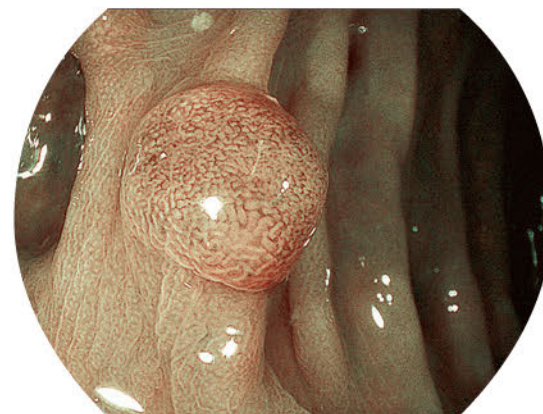
BLI mode

Esophagus

BLI mode

Colon

BLI mode

High contrast images suitable for observing microvascular and microsurface pattern are provided.
Magnifying endoscopy is exellent with BLI.

White Light

Esophagus

White Light mode

Stomach
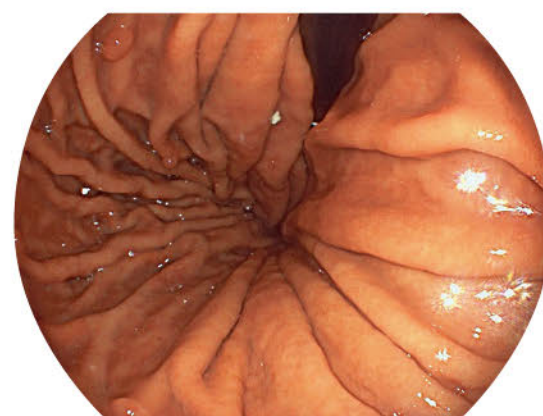
White Light mode

Bright, sharp, and stereoscopic images are accomplished with similar color tones to Xenon light source.
Mega-pixel CMOS enables high-definition and quite low-level noise compatible.

2 LCI (Linked Color Imaging) **LCI**

Stomach

White Light mode

LCI mode

Esophagus

White Light mode

LCI mode

LCI would be helpful for detection with surface pattern and vessels.
Slight color difference is visualized with natural tone, using "Red" component.

Observation modes can be switched by scope button.

White Light → BLI BLI-bright

White Light → LCI

White Light → LCI → BLI BLI-bright

Scope button "2" enables observation modes to be switched in the default setting.

3 Wide 170° field of view
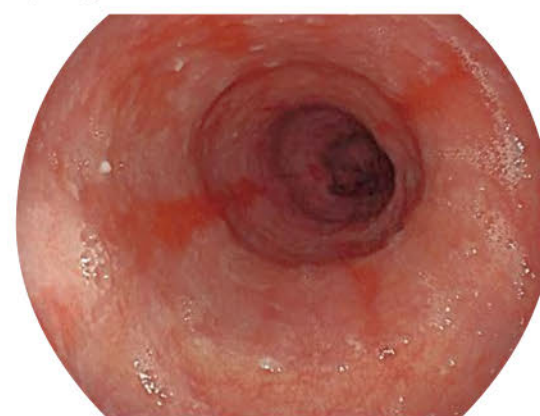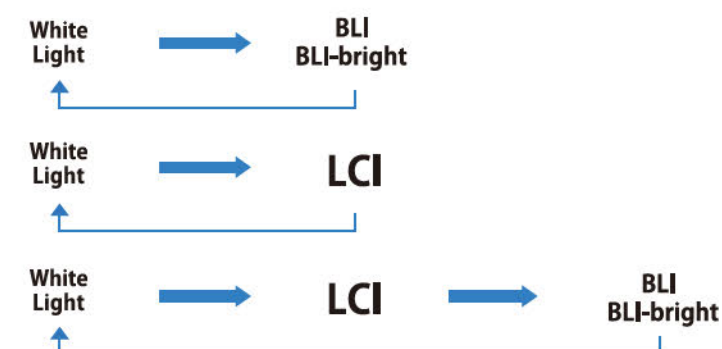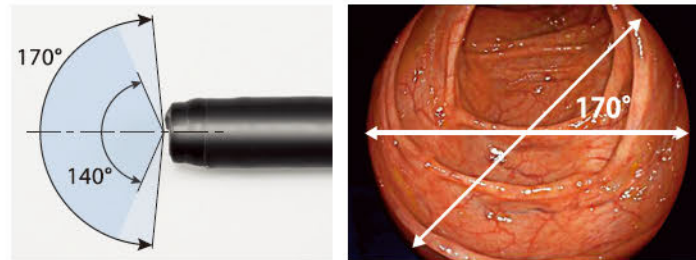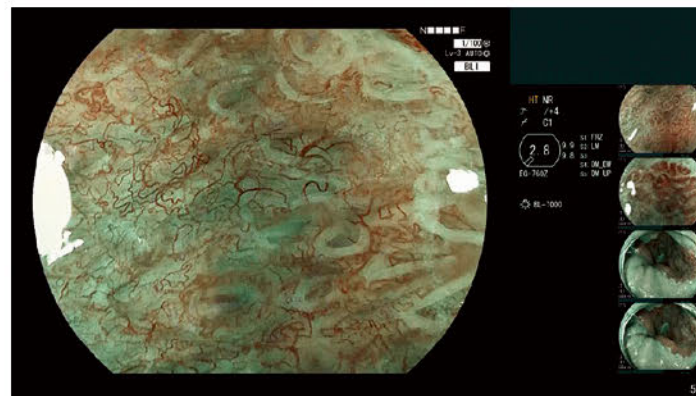EC-760R-V/M, I, L, EC-760P-V/M, L and EC-760S-V/L

Even areas that are hard to observe such as the reverse side of folds could be observed and approached smoothly.

4 Megapixel CMOS + HDTV output
EG-760R, EG-760Z, EG-760CT, EC-760R-V/M, I, L, EC-760ZP-V/M, L, EC-760P-V/M, L, EC-760S-V/L and EC-760Z-V/M, L

High-definition images with quite low noise level are established by Megapixel CMOS sensor. It allows superior visualization for Full HD display.

Full HD display

5 Multi Zoom
EG-760Z, EC-760ZP-V/M, L and EC-760Z-V/M, L

Zoom function

Magnification Mode		Normal	Low	Middle	Hight	Maximum (x145*)
Continuous						
Step zoom	2 Step					
	3 Step					
	5 Step					

*When using a 26 inch HD LCD monitor

With Continuous mode, Step Zoom mode of "2 Step", "3 Step" and "5 Step" are available. In this modes, images can be magnified in stages by simple press of button.

Switches for zoom in/out

Magnification Images

Low

Middle

Maximum

For Better Usability

1 Flexibility Adjustment Mechanism
EC-760R-V/M, I, L, EC-760ZP-V/M, L, EC-760P-V/M, L, EC-760S-V/L and EC-760Z-V/M, L

To get flexible

To get rigid

rigid

flexible

The flexibility of insertion tube can be adjusted with adjustment ring.

flexible ● 1 2 3 rigid

Index on flexibility adjustment ring

Advanced Force Transmission
EC-760R-V/M, I, L, EC-760ZP-V/M, L, EC-760P-V/M, L, EC-740T/M, L, EC-760S-V/L and EC-760Z-V/M, L

The flexible portion is designed to transmit operator's movements, pushing and rotating, to the distal end of endoscope.
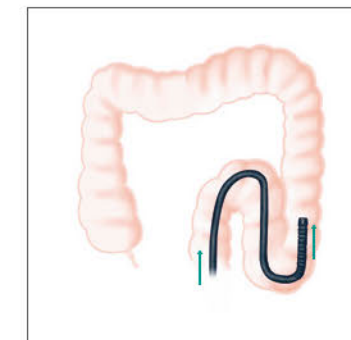
Passing the sigmoid colon

In deep insertion

Adaptive Bending
EC-760R-V/M, I, L, EC-760ZP-V/M, L, EC-760P-V/M, L, EC-740T/M, L, EC-760S-V/L and EC-760Z-V/M, L

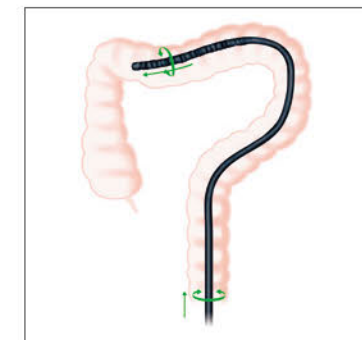The end of flexible portion is soft, allowing the scope to bend easily. Flexible portion is elastic, and easy to return to its straight shape.
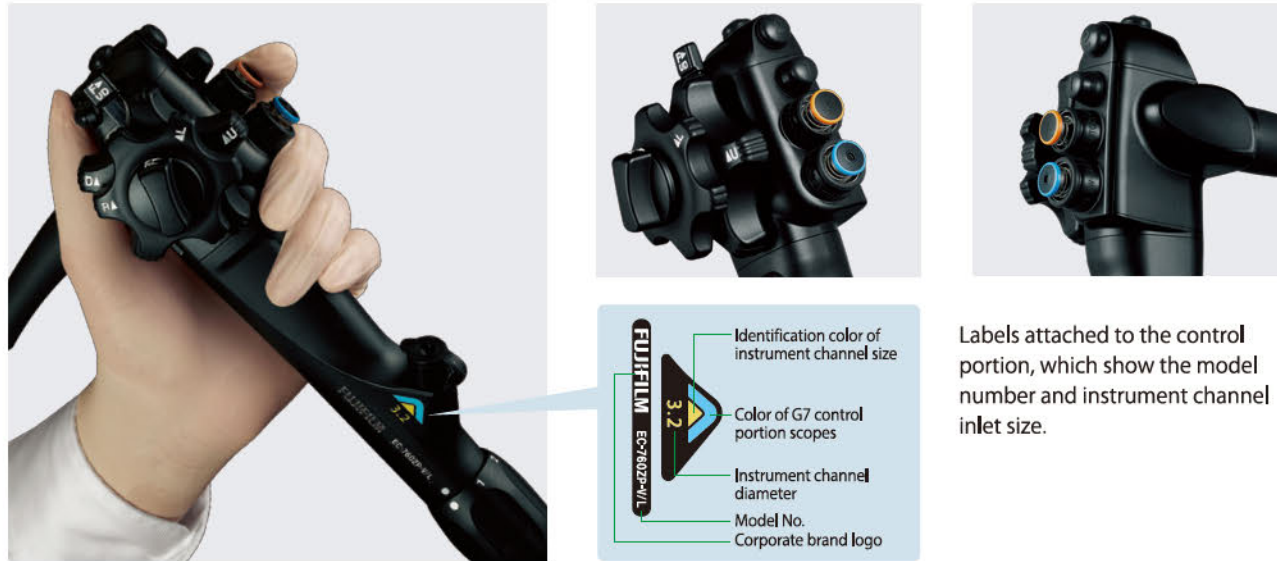
Bending easily

Returning to its straight shape easily

2️⃣ G7 control portion

G7 control portion is developed from ergonomics point of view.
Scope has a rounded surface to fit the hand, and button layout makes intuitive operation possible.

Identification color of instrument channel size
Color of G7 control portion scopes
Instrument channel diameter
Model No.
Corporate brand logo

Labels attached to the control portion, which show the model number and instrument channel inlet size.

## 3️⃣ One Step Connector
with Contact-free Technology

Scopes can be connected to light source in just 1 step operation.
Scope cable connection is no longer required in setting up. One Step Connector enhances efficiency of clinical workflow.

Contact-free Technology

This's the generic name of below 3 points. It means connectors do not need to touch to transmit power and image data.
By this technology, durability and reliability of scopes is expected to improve.

▶ Power feed: Wireless electrical supply – ✳a
▶ Image transmission: High speed optical laser – ✳b
▶ Remote signal: infrared [IR] LED – ✳c

✳c
✳a
✳b

Light source   Scope
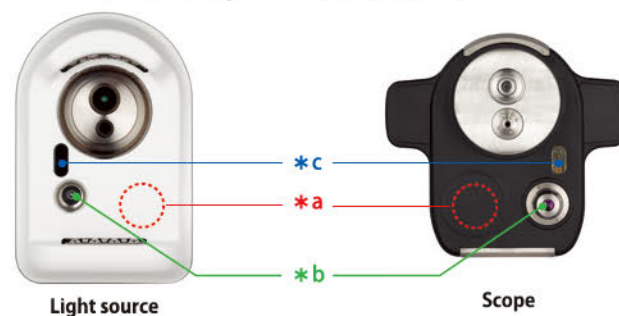
4️⃣ Wide compatibility to conventional endoscope

Compatible with 700 series, 600 / 500 series endoscopes

700 Series   &   Conventional 600 / 500 Series

	BLI	BLI-bright	LCI	WLI	FICE
700 Series	○	○	○	○	○
600 / 500 Series	✕	✕	✕	○	○

600/500 endoscopes can be used with White light and FICE mode.
* FICE : Flexible spectral Imaging Color Enhancement

5️⃣ Low-energy, long-lasting and bright light source

When compared to standard xenon light sources,
the LED light source* consumes about a third of the energy and lasts longer.
Life time of the 4 LED light is expected for 6 years based on Fujifilm evaluation condition.
Intensity of BL-7000 qualifies that of 300W Xenon lamp.

*The warranty period is 1 year after date of purchase.

Expected Lifetime

0   1   2   3   4   5   6   year

LED lamp

XENON lamp   Lamp replacement is expected to be unnecessary.
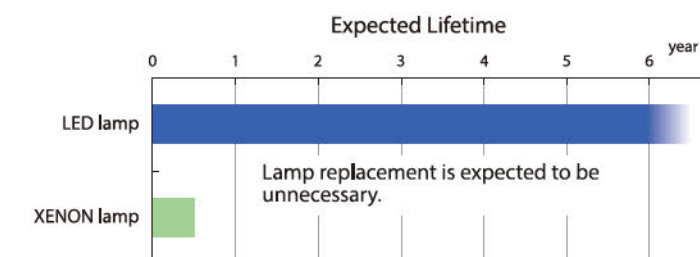
For Various Needs

1 Small diameter scopes

Slim scopes offering various functions necessary for examinations, with a potential to alleviate patients' discomfort

Upper G.I. tract scope
EG-740N

2.4 mm
5.9 mm
7.5 mm

EG-740N, having 5.9-mm outer diameter and 2.4-mm instrument channel diameter, demonstrates good suction performance. Its slim body could support observations of stenosis and other areas where the scope insertion is difficult, offerin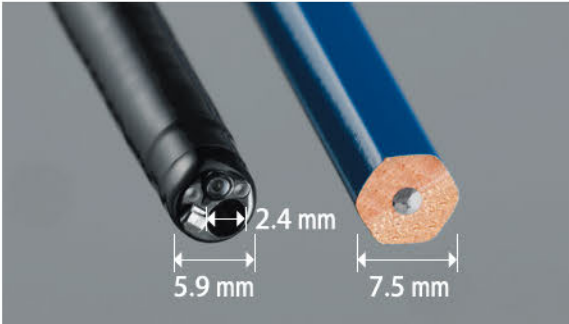g a potential to alleviate patients' discomfort. Not only oral but also transnasal insertion is possible. EG-740N can be used for LCI/BLI as well as high-definition white light observation.

Lower G.I. tract scope
EC-760P-V/M, L

Loaded with Flexibility Adjustment Mechanism, Advanced Force Transmission and Adaptive Bending, these slim endoscopes 11.5 mm in diameter could be inserted into the body smoothly. A variety of feature including CMOS image sensor, LCI/BLI observations and water jet function make these scopes also useful as routine scopes.

2 Scopes for treatment

Accommodating various treatments with wide movement range

Upper G.I. tract scope for treatment
EG-760CT
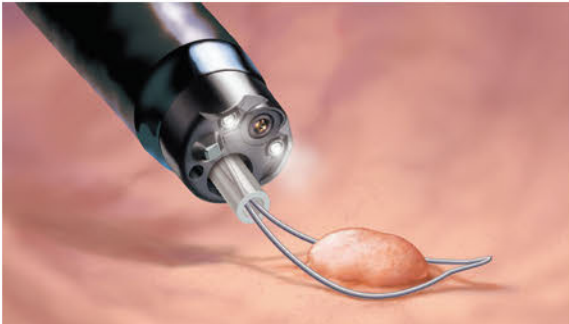
Instrument channel diameter as large as 3.8 mm offers powerful suction performance. This scope is suitable for observations of areas having many residues or concern of bleeding. As this endoscope is compatible with an array of endotherapy devices, it accommodates various treatments such as polypectomy, EMR and POEM.

Lower G.I. tract scope for treatment
EC-740T/M, L

210°

210° upward bending capability and small radius curvature allow for easy access to target observation point and lesions, supporting precise manipulation in EMR, ESD and other endoscopic procedures. In addition, with the distal end as small as 9.8 mm in diameter, these scopes are expected to be useful for cases where insertion is difficult.
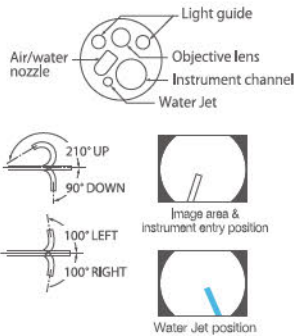
Specification

Upper G.I. tract scopes

EG-760CT

Field of view	140°
Viewing direction	0° (Forward)
Observation range	2~100 mm
Bending capability	UP: 210° DOWN: 90° RIGHT: 100° LEFT: 100°
Working length	1,100 mm
Total length	1,400 mm
Distal end diameter	10.5 mm
Insertion tube diameter	10.8 mm
Minimum instrument channel diameter	3.8 mm
Image size	Super image

Product name: Video Endoscope GMDN: 38805
Generic name: Flexible video gastroduodenoscope

EG-740N

Field of view	140°
Viewing direction	0° (Forward)
Observation range	3~100 mm
Bending capability	UP: 210° DOWN: 90° RIGHT: 100° LEFT: 100°
Working length	1,100 mm
Total length	1,400 mm
Distal end diameter	5.8 mm
Insertion tube diameter	5.9 mm
Minimum instrument channel diameter	2.4 mm
Image size	Super image

Product name: Video Endoscope GMDN: 38805
Generic name: Flexible video gastroduodenoscope
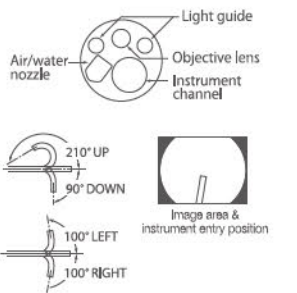
EG-760R

Field of view	140°
Viewing direction	0° (Forward)
Observation range	2~100 mm
Bending capability	UP: 210° DOWN: 90° RIGHT: 100° LEFT: 100°
Working length	1,100 mm
Total length	1,400 mm
Distal end diameter	9.2 mm
Insertion tube diameter	9.3 mm
Minimum instrument channel diameter	2.8 mm
Image size	Super image

Product name: Video Endoscope GMDN: 38805
Generic name: Flexible video gastroduodenoscope
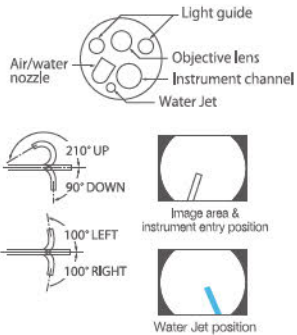
EG-760Z

Field of view	Normal: 140° Closest: 56°
Viewing direction	0° (Forward)
Observation range	1.5~100 mm Normal: 3~100 mm Closest: 1.5~2.5 mm
Bending capability	UP: 210° DOWN: 90° RIGHT: 100° LEFT: 100°
Working length	1,100 mm
Total length	1,400 mm
Distal end diameter	9.9 mm
Insertion tube diameter	9.8 mm
Minimum instrument channel diameter	2.8 mm
Image size	Super image

Product name: Video Endoscope GMDN: 38805
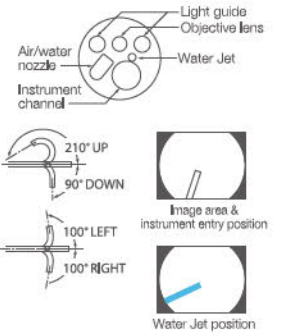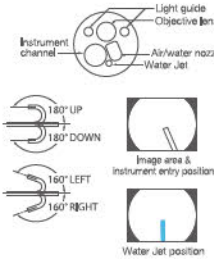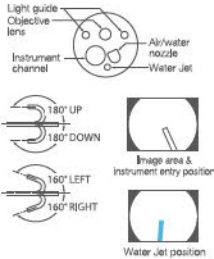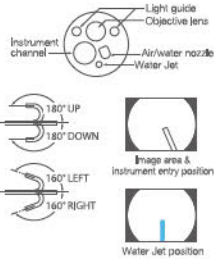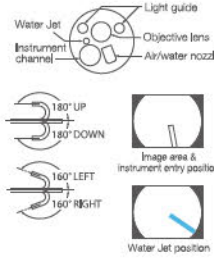Generic name: Flexible video gastroduodenoscope

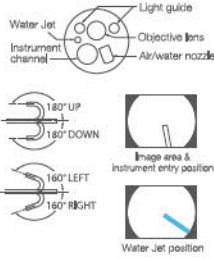# Specification

Lower G.I. tract scopes

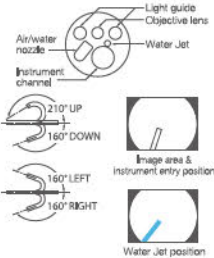### EC-760R-V/M, I, L | EC-760P-V/M, L | EC-760S-V/L NEW

	EC-760R-V/M, I, L	EC-760P-V/M, L	EC-760S-V/L NEW
Field of view	170°	170°	170°
Viewing direction	0° (Forward)	0° (Forward)	0° (Forward)
Observation range	2～100 mm	2～100 mm	2～100 mm
Bending capability	UP: 180° DOWN: 180° RIGHT: 160° LEFT: 160°	UP: 180° DOWN: 180° RIGHT: 160° LEFT: 160°	UP: 180° DOWN: 180° RIGHT: 160° LEFT: 160°
Working length	1,330 mm (M) /1,520 mm (I) /1,690 mm (L)	1,330 mm (M) /1,690 mm (L)	1,690 mm
Total length	1,650 mm (M) /1,840 mm (I) /2,010 mm (L)	1,650 mm (M) /2,010 mm (L)	2,010 mm
Distal end diameter	12.0 mm	11.1 mm	12.8 mm
Insertion tube diameter	12.0 mm	11.5 mm	12.8 mm
Minimum instrument channel diameter	3.8 mm	3.2 mm	3.8 mm
Image size	Super image	Super image	Super image
Flexibility adjustment mechanism	Available	Available	Available

Product name: Video Endoscope GMDN: 36117
Generic name: Flexible video colonoscope, reusable

Product name: Video Endoscope GMDN: 36117
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EC-760Z-V/M, L NEW | EC-760ZP-V/M, L

	EC-760Z-V/M, L NEW	EC-760ZP-V/M, L
Field of view	Normal: 140° Closest: 56°	Normal: 140° Closest: 56°
Viewing direction	0° (Forward)	0° (Forward)
Observation range	1.5～100 mm Normal: 3～100 mm /Closest: 1.5～2.5 mm	1.5～100 mm Normal: 3～100 mm /Closest: 1.5～2.5 mm
Bending capability	UP: 180° DOWN: 180° RIGHT: 160° LEFT: 160°	UP: 180° DOWN: 180° RIGHT: 160° LEFT: 160°
Working length	1,330 mm (M) /1,690 mm (L)	1,330 mm (M) /1,690 mm (L)
Total length	1,650 mm (M) /2,010 mm (L)	1,650 mm (M) /2,010 mm (L)
Distal end diameter	12.8 mm	11.7 mm
Insertion tube diameter	12.8 mm	11.8 mm
Minimum instrument channel diameter	3.8 mm	3.2 mm
Image size	Super image	Super image
Flexibility adjustment mechanism	Available	Available

Product name: Video Endoscope GMDN: 36117
Generic name: Flexible video colonoscope, reusable

Product name: Video Endoscope GMDN: 36117
Generic name: Flexible video colonoscope, reusable

EC-740T/M, L

	EC-740T/M, L
Field of view	140°
Viewing direction	0° (Forward)
Observation range	3～100 mm
Bending capability	UP: 210° DOWN: 160° RIGHT: 160° LEFT: 160°
Working length	1,330 mm (M) /1,690 mm (L)
Total length	1,630 mm (M) /1,990 mm (L)
Distal end diameter	9.8 mm
Insertion tube diameter	10.7 mm
Minimum instrument channel diameter	3.2 mm
Image size	Super image

Product name: Video Endoscope GMDN: 36117
Generic name: Flexible video colonoscope, reusable

Fujifilm makes no representation that products on this catalog are commercially available in all countries.

VP-7000

Power rating	Voltage	100 to 240 V ± 10 %
	Frequency	50/60 Hz
	Current consumption	0.8–0.5 A
Dimensions(WxHxD)		390x110x485 mm (incl. projection)
Weight		9.0 Kg
Observation	Type of color	NTSC/PAL
	Digital HDTV	HD-SDI: 2, DVI-D: 2
	Analog/Digital HDTV	DVI-I: 1
	Analog SDTV	RGB TV: 1, S VIDEO: 1, VIDEO: 1
	Screen resolution	SXGA (Default), Full HD
	Color adjustment	Brightness, Red, Green, Blue, Red tone, Chroma in nine levels (-4 to +4). Contrast in five levels (-1 to +4).
	Contrast	Available in three levels (-1 to +1).
	Iris mode	Function to control the screen brightness. AVE (controls brightness in general), PEAK (controls brightness in highlight areas), AUTO (sets average or peak iris automatically)
	Structure emphasis	Function to adjust the sharpness of the subject structure. Normal mode: Structure Emphasis (SE) 4 level, Detail Hi. (DH) -4 to +4, Detail Lo. (DL) -4 to +4 BLI, BLI-bright or LCI: SE A Mode and B Mode, A Mode 0 to 8, B Mode 0 to 8
	Tone	Function to emphasize slight differences between colors by emphasizing the degree of vividness of color. ON/OFF.
	Enlargement of the image	Function to enlarge the endoscopic image.
	Special light observation mode	BLI, BLI-bright, LCI
	FICE	Ten settings available.
	Mask types	Type 1, Type 2, Type 2/Dual Mode.
	Freeze mode	Function to freeze the endoscopic images.
	Peak detection	Function to obtain the highest contrast image.
	Shutter speed	Normal 1/60-1/200, High 1/100-1/400, High (zoom scope) 1/100–1/800
	Assignment of switches	Scope Switch (1-S), Multi buttons on the front panel (1,2) , Foot Switch (1,2) . *[1]
	Other functions	Electronic Zoom, PoP Function, Network function, Dual Mode function.
Applicable endoscope		700/ 600/ 500 series endoscope
Data display	Remote control	Fujifilm specified peripherals can be controlled.
	Patient information	Patient ID, Patient Name, Sex, Age, Date of Birth, Comments, Hospital name, Doctor name *[2]
	Other information	Timer, Laptime
	Recording status	Digital printer status, shooting counter, number of recordable images in internal storage device
	Image quality setting status	Structure emphasis, Tone, Electronic Zoom Ratio, IEE observation modes, Focus Indicator.
Image recording	Image compression rate	TIFF: no compression, JPEG: approx. 1/5 , 1/10, 1/20
	Number of recordable images in internal storage device	TIFF: 840, JPEG 1/20: 21,690, JPEG 1/10: 16,270, JPEG 1/5: 5,910 *[3]
	Recommended external storage device	Swissbit SFU>2204B E18P2TO4-MS-111-STD or SFU2204B E38P2TO4-MS-121-STD *[4]
	Searching and displaying images	Search screen: Inspection No., Patient ID, Date of Inspection. Display: List, Thumbnail, Enlargement.
Data presetting	Doctors' name	Up to 20 doctors' names.
	Setting by doctor	The information such as color tone, iris mode, contrast, brightness, special light observation modes are kept by setting the doctor's name.
	Clinical procedure	Up to 20 procedures.
Memory backup	When using lithium battery	6 years (based on FUJIFILM criteria)
Control connector		Light source: 1, Remote: 2, Peripherals: 2, Keyboard: 1, Card reader: 1, Digital printer: 1, Footswitch: 1, Network: 1.
Category of medical electric equipment	Type of protection against electric shock	Class I equipment
	Degree of protection against electric shock	Type BF applied part
	Degree of explosion protection	Prohibited in oxygen-rich environment/ flammable gas atmosphere.

*1 Some limitations by endoscopes.
*2 Max. 45 patients
*3 The number of recordable images varies depending on the type of image.
*4 Concerning other external storage devices, please contact your representative or local dealer.
Product name: Processor GMDN: 18034
Generic name: Endoscopic Video image processor

BL-7000

Power rating	Voltage	100V to 240 V ~ ± 10 %
	Frequency	50/60 Hz
	Current consumption	1.2–0.7 A
Dimensions(WxHxD)		390x155x485 mm (incl. projection)
Weight		12Kg
Illumination	Illumination source	LED, qualifies 300W Xenon lamp intensity
	Durability of LED	6 years (based on FUJIFILM criteria)
	Lighting system	Switching regulator
	Light control method	LED Auto power control
	Light cooling method	Forced air cooling
	Special light observation mode	BLI, BLI-bright, LCI
	Maximum air supply pressure	65 kPa
Automatic brightness adjustment	Automatic brightness adjustment method	Brightness is automatically adjusted according to the video output (manually possible).
Air supply	Pump	Diaphragm method pump
	Air supply pump	HI/MID/LOW/OFF
Water supply	Method	Feeds water by pressurizing the detachable water container with air.
Indicators on front panel	Transmitted illumination	The light flashes with the maximum light intensity. Used to check the position of the distal end from outside the body.
	Light limitation	To avoid the blood of a bleeding patient becoming clotted by the illuminating light. Used to limit the maximum light intensity.
	Illumination mode	OFF/1/2/3. Observation modes can be switched by pressing the illumination mode button.
Memory of set value		Set values are maintained even after turning off the system.
Category of medical electric equipment	Type of protection against electric shock	Class I equipment
	Degree of protection against electric shock	Type BF applied part
	Degree of explosion protection	Prohibited in oxygen-rich environment/ flammable gas atmosphere.

Product name: Light source GMDN: 35158
Generic name: Endoscopic light source, Line-powered

VP-7000

BL-7000

Accessories (Valve, Tank)

For routine examination

Air/Water Valve
AW-603

Suction Valve
SB-605

Water Tank
WT-603

Used with CO$_2$ Regulator "GW-100"

Gas/Water Valve
AW-604G

Water Tank
WT-604G