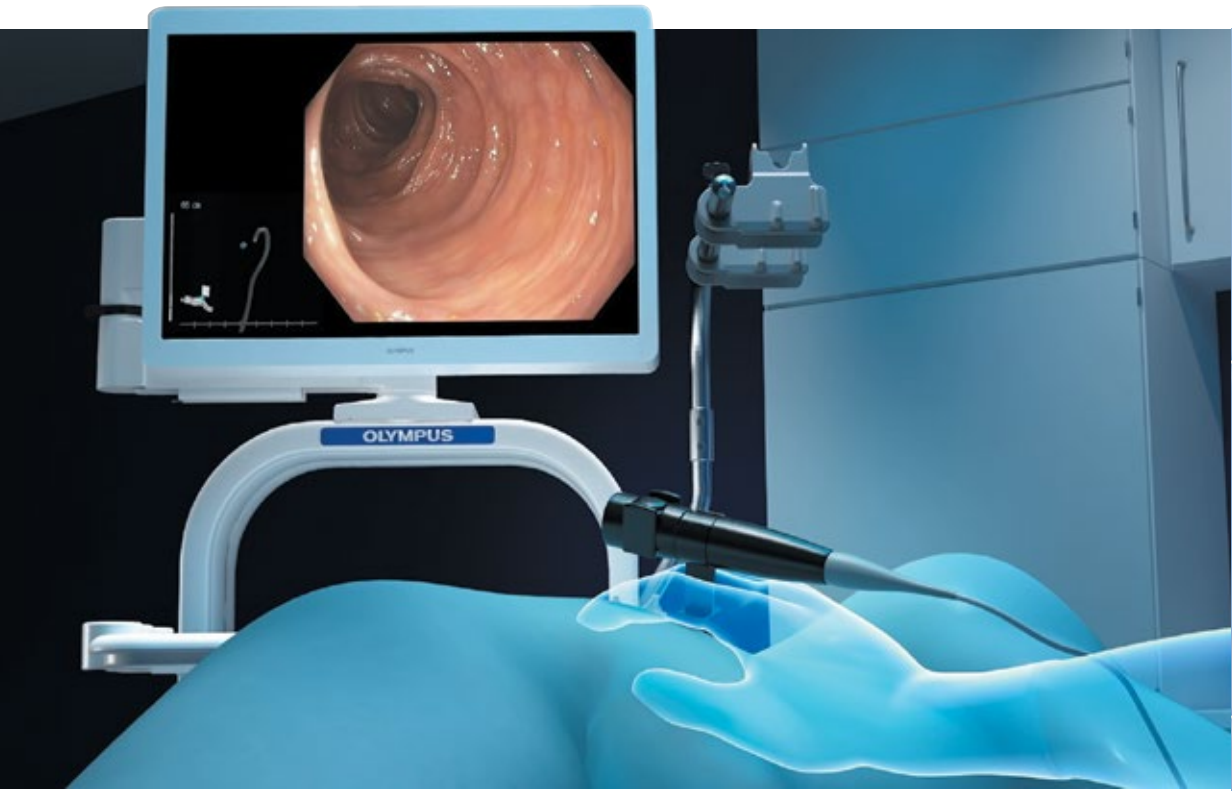


# OLYMPUS®

Your Vision, Our Future



Real-time, 3D visualization of the scope inside the colon.

## ScopeGuide®

EVIS EXERA III

PRODUCT  
DETAIL AID

QUICK  
REFERENCE  
GUIDE

MENU  
SETTINGS & FAQs

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& BIBLIOGRAPHY

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The world's only technology providing a real-time 3D representation of the shape and position of the colonoscope inside the body, ScopeGuide is designed to improve procedural efficiency and increase patient comfort during a colonoscopy.

### Technology

ScopeGuide's real-time visualization is made possible through built-in electromagnetic coils in the colonoscope that generate a pulsed, low-frequency magnetic field.

These pulses are transmitted to an external receiver dish, refreshed 15fps, and then relayed to the processor to generate a 3D representation of the colonoscope alongside the endoscopic image. This image provides the endoscopist with the precise positioning and orientation of the colonoscope during the procedure.



### Procedural Efficiency

- Physicians identify and mitigate loops.
- Assistants apply abdominal pressure to the correct location.
- Nurses document precise locations for biopsies and samples.
- Anesthesiologists gauge procedure timing and administer proper sedation.
- Physicians document procedures with endoscopic and ScopeGuide images.
- Fellows train with visual anatomy cues to help them become proficient.
- Patients experience a more comfortable colonoscopy.

### Specifications

#### UPD-3



Dimensions	3703 mm (W) x 482 mm (D) x 81mm (H)
Weight	9 kg
Output magnetic field strength	Complies with IEEE C95.12005+A1 :2010
Video signal output	XGAX1, Y/Cx1, SD-SDIx1
Rated voltage	100-240 V AC
Rated input	110 VA
Rated frequency	50/60 Hz

#### Remote Control (MAJ-1890)

This device not available in all markets.



Dimensions	76 mm (W) x 140 mm (D) x 23 mm (H)
Weight	280 g
Length of cord	2900 mm

#### Positioning Detecting Probe (MAJ-1878)

This device not available in all markets.



Maximum insertion portion diameter	2.55 mm
Total length	3500 mm
Detection length	940 mm

#### Hand Coil (MAJ-1859)



Dimensions	76 mm (W) x 140 mm (D) x 23 mm (H)
Weight	280 g
Length of cord	2900 mm



ScopeGuide is designed to provide a real-time 3D image of the shape and configuration of the colonoscope inside the body.

**CAUTION:** This quick reference guide is only a summary of the ScopeGuide Instructions for Use. For detailed operating instructions, be sure to follow the ScopeGuide (UPD-3) Instruction Manual that was included with your ScopeGuide (UPD-3) purchase.

### Pre-Procedure Checklist

- 1** Connect the receiver dish to the UPD-3 via the receiver dish cable (MAJ-1875).



- 2** Use the ScopeGuide-enabled CF-HQ190L colonoscope or connect the MAJ-1878 probe to the UPD cable (MAJ-1881) for use with a non-ScopeGuide enabled colonoscope.



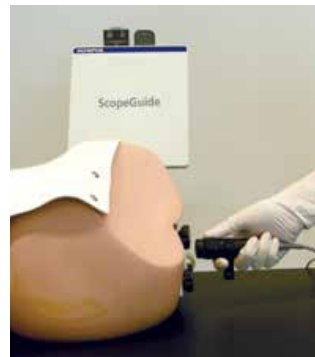
- 3** Connect the hand coil (MAJ-1859) to the UPD-3.



- 4** Use the arrow keys or the remote control to change the orientation of the scope image to correspond with the positioning of the patient after the system is powered on.



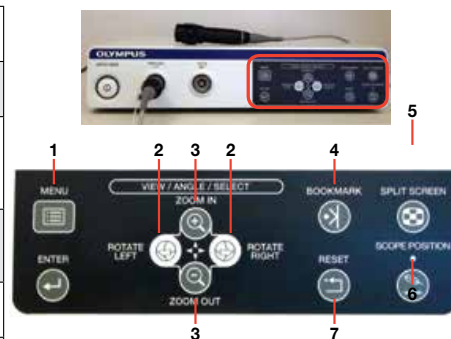
- 5** Position the receiver dish (MAJ-1868) next to the stretcher and up and over the bed rail, then align the right edge of the receiver dish with the patient's anus.



- 6** Set the starting position by holding the endoscope tip and the hand coil close to the anus. Then press the scope position button.

### ScopeGuide Functions

<b>1. Menu</b>	Press to display or exit the menu list.
<b>2. Rotate</b>	Press rotate to change the orientation of the patient image if the patient's position on the stretcher changes.
<b>3. Zoom</b>	Press to magnify and reduce the endoscope model display if the image size on the screen is not optimal. Zoom is also helpful if capturing images for procedure reports. Magnify the ScopeGuide image to ensure it is visible in small report images.
<b>4. Bookmark</b>	Press to mark an area of interest or polyp on the insertion length of the scope for reference. Note that actual locations of bookmarked areas may vary if loops are reduced while manoeuvring to reach the cecum.
<b>5. Split screen</b>	Press to alternate between split-screen and single-screen display.
<b>6. Scope position</b>	Press to set or release the endoscope start position. This enables the processor to measure the length of the scope within the patient.
<b>7. Reset</b>	Press to return to default ScopeGuide settings.





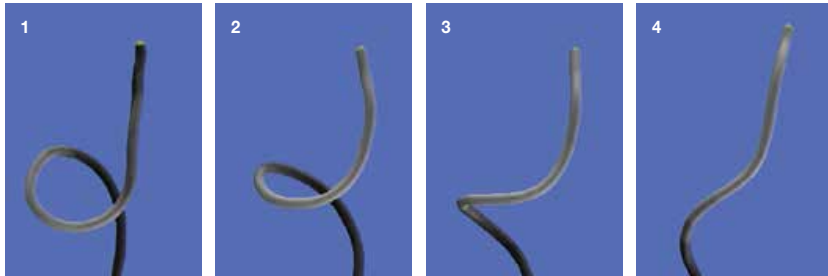
ScopeGuide is designed to provide a real-time 3D image of the shape and configuration of the colonoscope inside the body.

**CAUTION:** The loop identification and subsequent description cannot be used as examination instruction. Olympus is not liable for any patient injury caused by improper examination methods.

### Loop Identification

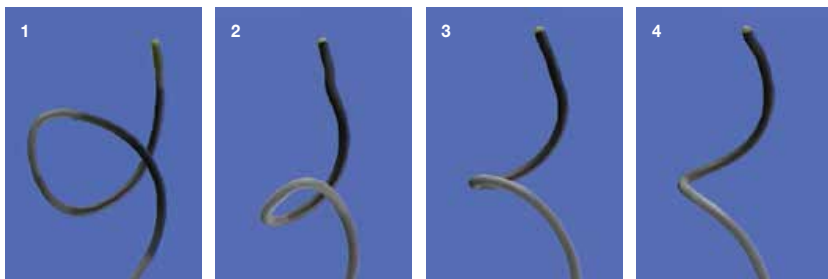
#### Alpha Loop

Reduce with a clockwise twist.



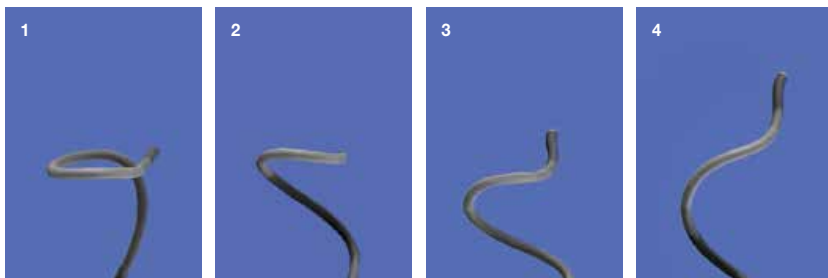
#### Reverse Alpha Loop

Reduce with a counterclockwise twist.



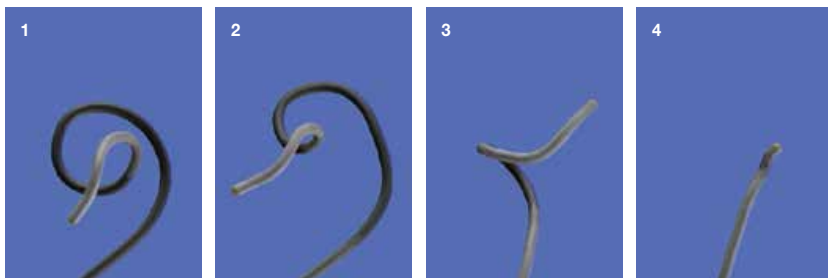
#### N Loop

Advance carefully and reduce with a clockwise twist if there is a spiral component.



#### Spiral Sigmoid Loop

Reduce with a clockwise twist.



### Recommended system and user settings

- Linking the ScopeGuide processor to the CV-190 to ensure menu settings save and display properly:
  - On the ScopeGuide processor select:  
Menu>System Settings>System>Remote>Connection>Link-in  
**\*\*For a 180 demo, this setting should be CV Remote**
- Eliminate PIP over lapping the endoscopic image:
  - The CV-190 is in 16:10 aspect ratio, and needs to be in 16:9:  
Menu>Advanced Settings>System Setup>System>Output Format>Aspect Ratio>16:9
  - If already in 16:9 and the PIP still overlaps, change the size of the PIP image:  
Menu>User Settings>Basic Setup>PIP/POP>Sub Screen>Small
- Changing the recommended black background color:
  - Menu>User Settings>Edit>UPD>Screen>Background L>Black>Background R>Black>Save>Select
- Display the patient model image:
  - Menu>User Settings>Edit>UPD>View>Vantage Point Model>Model Type>Patient>Save>Select
- Turn on ruler, bookmark, and display length:
  - Menu>User Settings>Edit>UPD>Model>Bookmark, Ruler, Display Length>On>Save>Select

### FAQs

- Part of the scope image is gray and part of it is yellow?
  - Magnetic coils run through the CF-HQ190L/I scope, and the receiver dish is trying to pick up a signal from every single point. When the scope is yellow, the receiver is searching for more magnetic signals. There are enough signals to form an accurate image, but the ScopeGuide processor is always trying to receive ALL of the signals.
- Can you program ScopeGuide so it will show up on the picture?
  - Menu>User Settings>Edit>Input>Basic>Observation 2 >Image Release Settings>Sub Screen Off>Save>Select
  - The Sub Screen Image (PIP) must be visible on the physician's monitor when the image is released for it to appear on the captured image. There is no configuration required on the ScopeGuide.
- The ScopeGuide signal is jumpy "like a wild snake!"
  - Make sure the receiver dish is up and over the bed rail. Line the right corner of the receiver dish parallel to the patient's rectum.

RE: ScopeGuide (search engines: Pubmed, Gastrointestinal Endoscopy, Google Scholar)  
(search terms: "ScopeGuide, UPD-3, Magnetic Endoscope Imaging, MEI")  
[Literature search 5/2013]

### Colonoscopy Performance: Looping and Pain Reduction

1. Shah S, Brooker J, Thaper C, Williams C, Saunders B. *Patient Pain during Colonoscopy: An Analysis Using Real-Time Magnetic Endoscope Imaging.* Endoscopy. 2002; 34(6): 435-440.
2. Shah S, et al. *Magnetic Imaging of Colonoscopy: An Audit of Looping, Accuracy and Ancillary Maneuvers.*Gastrointestinal Endoscopy. 2000; 52(1): 1-7.
3. Shah S, Brooker J, Williams C, Thapar C, Saunders B. *Effect of Magnetic Endoscope Imaging on Colonoscopy Performance: a Randomised Controlled Trial.* The Lancet. 2000; 356: 1718-1722.
4. Jess P, Bulut O, Almasi A, Waaddegaard P. *The Usefulness of a Magnetic Endoscope Locating Device in Daily Practice: a Prospective Case-Controlled Study.* Surgical Endoscopy. 2009; 23: 1353-1355.
5. Brown GJE, Saunders BP. *Advances in Colonic Imaging: Technical Improvements in Colonoscopy.* European Journal of Gastroenterology & Hepatology. 2005; 17(8): 785.
6. Sato K, Hirahata K, Fujinuma S, Kakemura T, Maetani I. *Evaluation of Patient Pain during Colonoscopy for types of Looping between Hood Attached Group and Non-hood Attached Group: an Analysis using Magnetic Endoscope Imaging (MEI).* Gastrointestinal Endoscopy. 2008; 67(5).
7. Sato K, Fujinuma S, Sakai Y. *Evaluation of the Looping formation and Pain during Insertion into the Cecum in Colonoscopy.* Digestive Endoscopy. 2006; 18(3): 181.
8. Sato K, Itoh S, Saegusa Y, et al. *Evaluation of Patient Pain During Colonoscopy for Types of Looping and Predictive Difficult Factors in Patients: An Analysis Using Magnetic Endoscope Imaging.* Gastrointestinal Endoscopy. 2006; 63(5).
9. Enochsson L, Noel R, Weden M, Sjoqvist U, Boman-Galliamoutsas M, Arnelo U, Tornblom H. *ScopeGuide Reduces Pain During Colonoscopy.* Gastroenterology. 2009; 136(5).
10. Hoff G, et al. *Improvement in Caecal Intubation Rate and Pain Reduction by using 3-dimensional Magnetic Imaging for Unsedated Colonoscopy: A Randomized Trial of Patients Referred for Colonoscopy.* Scandinavian Journal of Gastroenterology. 2007; 42(7): 885-889
11. Cheung HY, Chung CC, Kwok SY, Tsang WW, Li MK. *Improvement in Colonoscopy Performance with Adjunctive Magnetic Endoscope Imaging: a Randomized Controlled Trial.* Endoscopy. 2006; 38(3): 214-217.
12. Shah SG, Pearson HJ, Moss S, et al. *Magnetic Endoscope Imaging: a New Technique for Localizing Colonic Lesions.* Endoscopy. 2002; 34(11): 900-904.
13. Heigh RI, et al. *Use of an Electromagnetic Colonoscope to assess Maneuvers associated with Cecal Intubation.* BMC Gastroenterology. 2009; 9 ScopeGuide® Bibliographical References.
14. Leung JW, Thai A, Yen A, Ward G, Abramyan O, Lee J, Smith B, Leung FW. *Magnetic endoscope imaging (ScopeGuide) elucidates the mechanism of action of the pain-alleviating impact of water exchange colonoscopy - attenuation of loop formation.* Journal of Interventional Gastroenterology 2012; 2: 142 – 146.
15. Ball, A. J., and S. S. Johal. "PTU-019 A Comparison of Two Colonoscopy Withdrawal Techniques: Interim Analysis of a Randomised Cross over Study." Gut 62.1 (2013): n. pag. Print.
16. Ignjatovic A, et al. *Does ScopeGuide Improve Caecal Intubation? A Randomised Controlled Trial.* An International Journal of Gastroenterology and Hepatology. 2011; 60: A191.
17. D'Annibale A, Serventi A, Orsini C, Morpurgo E. *Locating Polyps by Endoscopy with or without Videolaparoscopy, Radioguided occult Colonic Lesion Identification or Magnetic Endoscopic Imaging: the way forward to Complete Polyp Removal.* Techniques in Coloproctology. 2004; 8: 295-299.
18. Saunders BP, Shah SG. *Magnetic Imaging of Colonoscopy.* Colonoscopy: Principles and Practice. 2003: 265.
19. Renehan AG, Painter JE, Bell GD, et al. *Determination of Large Bowel Length and Loop Complexity in Patients with Acromegaly undergoing Screening Colonoscopy.* Clinical Endocrinology. 2005; 62(3): 323.
20. Suzuki T, Matsushima M, Ihara K, et al. *Clinical Significance of the Use of the Magnetic Endoscope Imaging for Colonoscopy.* Digestive Endoscopy. 2004; 16(4): 322.
21. Koch, Arjun D., Jelle Haringsma, Erik J. Schoon, and Rob T. De Man. "Competence Measurement During Colonoscopy Training: The Use of Self-Assessment of Performance Measures." American Journal of Gastroenterology 107.7 (2012): n. pag. Print.

### Training

22. Kaltenbach T, et al. *Use of the Colonoscope Training Model with the Colonoscope 3D Imaging Probe Improved Trainee Colonoscopy Performance: A Pilot Study.* Springer. Digestive Disease Science. 2011.
23. Shah SG, Thomas-Gibson S, Lockett M, et al. *Effect of Real-time Magnetic Endoscope Imaging on the Teaching and Acquisition of Colonoscopy Skills: Results from a Single Trainee.* Endoscopy. 2003; 35(5): 421-425.
24. Coderre S, et al. *Early Use of Magnetic Endoscopic Imaging by Novice Colonoscopists: Improved Performance without Increase in Workload.* Can J Gastroenterol. 2010; 4(12): 727-732.
25. Koch, Arjun D., Jelle Haringsma, Erik J. Schoon, and Rob T. De Man. "Competence Measurement During Colonoscopy Training: The Use of Self-Assessment of Performance Measures." American Journal of Gastroenterology. 107.7 (2012): n. pag. Print.

### Unsedated Colonoscopy

26. Amandeep K, et al. *Prospective Randomized Trial of Standard Versus Magnetic Endoscope Imaging Colonoscopes on Patient Tolerance of Unsedated Colonoscopy.* Gastrointestinal Endoscopy. 2007; 65 (5): AB253.
27. Shergill, Amandeep K. "Randomized Trial of Standard versus Magnetic Endoscope Imaging Colonoscopes for Unsedated Colonoscopy." Gastrointestinal Endoscopy. 75.5 (2012): 1031-036. Print.

### Pediatrics

28. Khan KM. *Emergency Endoscopy in Children.* Gastrointestinal Endoscopy Clinics of North America. 2007; 17(2): 383-404.
29. Franciosi JP, Mascarenhas M, Semeao E, Flick J, Kelly J, Mamula P. *Randomised Controlled Trial of Paediatric Magnetic Position Device Assisted Colonoscopy: A Pilot and Feasibility Study.* Science Direct. Digestive Endoscopy. 2008; 41(2): 123-126.

### General/Miscellaneous

30. Roberts-Thomson IC, Teo E. *Colonoscopy: Art or Science?* Journal of Gastroenterology and Hepatology. 2009; 24(2): 180-184.
31. Matsushima M, Suzuki T, Tokiwa K, et al. *Proper Selection of Colonoscope According to Gender, Age and BMI of the Patient.* Digestive Endoscopy. 2006; 18(3): 188.
32. Chutkan R. *Colonoscopy Issues Related to Women.* Gastrointestinal Endoscopy Clinics of North America. 2006; 16(1): 153-164.
33. Dickey W. *Does Fluoroscopic Imaging Still have a Role in Colonoscopy?* Journal of Clinical Gastroenterology. 2004; 38(8): 676.
34. Howell DA. *The Colonoscope Insertion Tube.* Colonoscopy: Principles and Practice. 2003: 259.
35. Arebi N, Saunders B. *Endoscopy: An Evolving Speciality.* Malta Medical Journal. 2005; 17(3): 32-36.
36. Corbett, G. D., Y. C. Lim, P. Pugh, and E. Cameron. "PTU-048 The Effect of the Colonoscope Magnetic Imaging Device (Scopeguide ®) on Implantable Cardiac Devices." Gut. 62.1 (2013): n. pag. Print.
37. Horgan, G., B. Sgromo, R. Marshall, A. Bailey, B. Braden, N. Fernandopulle, and N. Maynard. "PTU-049 Endoscopic Resection and Stepwise Endoscopic Ablation for Early Neoplasia in Barrett's Oesophagus: Outcome in a Large Oesophagus Cancer Centre." Gut. 62.1 (2013): n. pag. Print.
38. Bhandari, P., and G. Longcroft-Wheaton. "PTU-047 Management of Polyp Cancers within the Bowel Cancer Screening Programme Could Be Improved." Gut. 62.1 (2013): n. pag. Print.
39. Matharoo, M. K., and A. Haycock. "OC-012 A Structured Evaluation of Patient Safety Incidents and Never Events in Endoscopy." Gut. 61.2 (2012): n. pag. Print.
40. Uzzaman, M. M., and A. Alam. "Computed Tomography Findings of Bowel Wall Thickening: Its Significance and Relationship to Endoscopic Abnormalities." Annals of The Royal College of Surgeons of England. 94.1 (2012): 23-27. Print.

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