

Endoscopic Ultrasounds (EUS) Endoscopes
GF-UE160-AL5 and GF-UCT180
Cleaning and Disinfection Checklist

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Cleaning and Disinfection Checklist

This checklist is designed for use solely as a customer educational tool and is not intended to replace or in any way modify the Olympus instruction manual/reprocessing manual. Be sure to follow the detailed steps outlined in the reprocessing manual that was included with your Olympus equipment when purchased. While Olympus' training may be used in support of a facility's overall competency program, it shall not constitute certification of the facility's CDS protocol. Olympus shall in no event be held responsible for a facility's proper performance of CDS protocol nor for a facility staying current with ongoing CDS instructional changes and corresponding training updates. Facility owners of Olympus equipment are fully responsible for complying with industry CDS standards and manufacturer's proper use and CDS instructions.

Facility Name

Date

Endoscope Models: Check each model reviewed during this session.

GF-UE160-AL5

GF-UCT180

Instructor Name

Title

Signature

Staff Member Name

Signature

Pre-Procedure Inspection		Demonstrated
	<p>Note: the steps below refer to the Addendum released in 2020 and is included in the operation/IFU manuals. Please refer to Chapter 3 for additional information and inspection steps after inspecting the air/water valve functionality.</p> <p>If a channel blockage is identified or the air/water feeding function is compromised, you should no longer use the scope and contact Olympus for further instructions.</p>	
1.	<p>Inspection of the air feeding function:</p> <p>Prepare a container of sterile water to a depth of 10cms.</p>	
2.	<p>Confirm that no air bubbles are emitted when the air/water valve is not operated.</p>	
3.	<p>Cover the hole of the air/water valve with your finger and confirm that air bubbles are continuously emitted from the air/water nozzle for 10 seconds.</p>	
4.	<p>Uncover the hole of the air/water valve and confirm that no air bubbles are emitted from the air/water nozzle.</p>	
5.	<p>Inspection of the objective lens cleaning function:</p> <p>Keep the air/water valve's hole covered by your finger and depress the valve to the first stage. Observe the endoscopic image and confirm that the water flows from the air/water nozzle on the entire objective lens for 10 seconds.</p>	
6.	<p>Release the air/water valve. Observe the endoscopic image and confirm that the emission of water stops, and the valve returns smoothly to its original position.</p>	
7.	<p>While observing the endoscopic image, feed air (after feeding water) by covering the hole in the air/water valve with your finger. Confirm that the emitted air dries the objective lens and clears the endoscopic image.</p>	
8.	<p>Inspection of the water feeding function into the balloon:</p> <p>Cover the air/water valve's hole with your finger and completely depress the valve. Confirm that water is being emitted through the balloon water supply port for 10 seconds.</p> <p>Note: It may take a few second until water is emitted when the air/water valve is depressed for the first time.</p>	

Comments:

Pre-Cleaning		Demonstrated
1.	Wear appropriate personal protective equipment. (PPE).	
2.	Turn off the video system center, light source, and ultrasound system.	
3.	Remove and discard the balloon if attached.	
4.	Prepare a container of 500mls of detergent solution.	
5.	Using a detergent-soaked cloth, wipe down the insertion tube, and gently wipe the ultrasonic transducer.	
6.	Turn ON the suction source.	
7.	Attach the biopsy valve cap.	
8.	Immerse the distal tip in detergent, depress the suction valve to the first stage to aspirate the detergent for 30 seconds.	
9.	Depress the suction valve completely to aspirate detergent for 30 seconds.	
10.	Remove the distal tip from detergent solution, depress the suction valve to the first stage to aspirate air for 10 seconds.	
11.	Depress the suction valve completely to aspirate air for 10 seconds.	
12.	Turn OFF the suction source and turn ON the light source and turn air flow to high.	
13.	Prepare a container of 500mls of water.	
14.	Insert the distal end of the insertion tube into the water.	
15.	Cover the hole of the air/water valve with your finger and confirm that air bubbles are continuously emitted from the air/water nozzle for 10 seconds.	
16.	Keep the hole of the air/water valve covered by your finger and depress the valve to the first stage. Observe the endoscopic image and confirm that the water flows from the air/water nozzle on the entire objective lens for 10 seconds.	
17.	Keep the air/water valve's hole covered with your finger and completely depress the valve. Observe the water is emitted through the balloon water supply port for 10 seconds	
18.	Switch OFF the airflow regulator on the light source.	
19.	Remove the air/water valve.	
20.	Attach the air/water channel cleaning adapter. Turn ON the air source and set the airflow to HIGH.	
21.	Immerse the distal end of the insertion tube in water.	
22.	Depress the air/water channel cleaning adapter for 30 seconds.	

23.	Release the air/water channel cleaning adapter for 10 seconds or more.	
24.	Turn OFF the light source.	
25.	<i>For the GF-UCT180 scopes:</i>	
	a. Attach the washing tube to the elevator channel plug.	
	b. Using a 5ml syringe, slowly flush detergent solution through the elevator wire channel several times until no bubbles exit the distal end.	
	c. Using the 5ml syringe, slowly flush water through elevator wire channel several times.	
	d. Using the 5ml syringe, slowly flush air through the elevator wire channel several times until a steady stream of bubbles exits the distal end.	
26.	Disconnect the ultrasonic cable, videoscope cable, endoscope, and accessories; attach the water-resistant cap.	
27.	Transport to reprocessing area in a covered container.	

Comments:

Leakage Testing		Demonstrated
1.	Fill an appropriately sized basin with clean water.	
2.	Confirm that the water-resistant caps are on firmly.	
3.	Detach air water channel cleaning adapter, suction valve, biopsy valve and washing tube from the endoscope.	
4.	Connect the leakage tester to the MU-1 (Maintenance unit).	
5.	Turn ON the MU-1.	
6.	Depress pin inside connector cap to confirm that air is being emitted.	
7.	Confirm that the leakage tester's connector cap and venting connector are dry.	
8.	Connect the leakage tester to the water-resistant caps on the endoscope. For the GF-UCT180 the leak tester can be connected to either cap. Ensure bending section has inflated.	
9.	Completely immerse the endoscope in water.	
10.	Observe for 30 seconds while angulating the bending section in all directions.	
11.	If a continuous series of bubbles emerges from any location, remove the endoscope from the water, and contact Olympus for further instructions.	
12.	If no leak is detected, remove the endoscope from the water and turn OFF the airtsource.	
13.	Disconnect the leakage tester from the MU-1.	
14.	Wait 30 seconds or until the bending section contracts to its pre-expansion size.	
15.	Disconnect the leakage tester connector cap from the venting connector.	
16.	Thoroughly dry the leakage tester by using a clean, lint-free cloth.	

Comments:

Manual Cleaning		Demonstrated
1.	Fill an appropriately sized basin with fresh detergent solution prepared as recommended by the manufacturer.	
2.	Completely immerse the endoscope in detergent solution.	
3.	Use a soft brush or lint-free cloth to thoroughly clean all external surfaces. Pay particular attention to the air water nozzle opening and the objective lens and ensure that all surfaces of the distal end are cleaned thoroughly.	
4.	<i>For GF-UCT180 perform the following brushing in the detergent solution.</i>	
	a. Turn the elevator control lever all the way in the opposite direction of the “U” direction	
	b. While holding the distal end, brush the groove of the interior of the forceps elevator with the cleaning brush (MAJ-1534) until all debris is removed.	
	c. Look at the left side of the instrument channel opening from the distal end. Brush the interior of this part with the cleaning brush (MAJ-1534) until all debris is removed.	
	d. Look at the right side of the instrument channel opening from the distal end. Brush the interior of this part with the cleaning brush (MAJ-1534) until all debris is removed.	
	e. Move the elevator control lever in the “U” direction to raise the forceps elevator.	
	f. While holding the distal end, brush both sides of the forceps elevator and the opposite side of the groove of the forceps elevator with the cleaning brush (MAJ-1534) until all debris is removed.	
	g. Brush the distal end of the endoscope by using the cleaning brush (MAJ-1534).	
	h. Move the elevator control lever all the way in the opposite direction of the “U” direction to lower the forceps elevator.	
	i. Immerse the distal end in detergent solution. Operate the elevator control lever to raise and lower the forceps elevator 3 times.	
	j. With the forceps elevator raised, flush the interior of the forceps elevator with detergent solution using the 30 ml syringe.	
5.	Brush the suction, instrument and balloon channels/cylinders/ports until no visible debris remains.	
	a. Use the channel-cleaning brush to brush the suction channel in the insertion tube.	
	1. Insert the channel-cleaning brush straight into the center opening of the suction cylinder.	
	2. Using short strokes, feed the brush through the suction channel	

	until it emerges from the distal end of the endoscope.	
	3. Remove any debris from the brush bristles with your fingertips and carefully pull the brush back through the suction channel.	
	4. Clean the brush bristles with your fingertips to remove any debris.	
	5. Repeat until no debris is observed on the brush.	
	b. Use the channel-cleaning brush to brush the suction channel in the universal cord.	
	1. Insert the channel-cleaning brush straight into the opening of the suction cylinder. (Top hole at the 1 o'clock position).	
	2. Using short strokes, feed the brush through the suction channel until it emerges from the suction connector on the endoscope connector.	
	3. Remove any debris from the brush bristles with your fingertips and carefully pull the brush back through the suction channel.	
	4. Clean the brush bristles with your fingertips to remove any debris.	
	5. Repeat until no debris is observed on the brush.	
	C. Use the BW-400L to brush the balloon channel.	
	1. Insert the BW-400L straight into the opening of the suction cylinder. (Balloon suction channel located in the 7 o'clock position).	
	2. Using short strokes, feed the brush until it reaches the distal end near the balloon attachment groove.	
	3. Confirm whether the brush has reached the distal end by looking at the tip of brush through the groove of the balloon water suction port. Carefully pull the brush back through the Balloon suction channel. (Rough standard of brush insertion length: 150 cm from point).	
	4. Clean the brush bristles with your fingertips to remove any debris.	
	5. Repeat until no debris is observed on the brush.	
	d. Brush the suction cylinder.	
	1. Insert the channel-opening cleaning brush into the suction cylinder until half the brush section is inserted.	
	2. Rotate the brush one full revolution and pull the brush out of the suction cylinder.	
	3. Remove any debris on the brush bristles with your fingertips and clean the brush in the detergent solution.	
	4. Repeat until no debris is observed on the brush.	
	e. Brush the instrument channel port.	

	1. Insert the channel-opening cleaning brush into the channel port fully until the brush handles touches the channel opening.	
	2. Rotate the brush one full revolution and pull the brush out of the instrument channel port.	
	3. Remove any debris on the brush bristles with your fingertips and clean the brush in the detergent solution.	
	4. Repeat until no debris is observed on the brush.	
6.	Attach the suction cleaning adapter to the instrument channel port.	
7.	Attach the suction valve to the endoscope.	
8.	Attach a source of suction to the suction connector.	
9.	Immerse the distal end and weighted end of suction cleaning adapter in detergent.	
10.	Turn ON the suction source, depress the suction valve to the first stage for 30 seconds.	
11.	Remove the distal tip and suction/channel cleaning adapter from the detergent solution, and then depress the suction valve to first stage to aspirate air for 30 seconds.	
12.	Immerse the distal end and the weighted end of the suction cleaning adapter in detergent.	
13.	Depress the suction valve completely, and aspirate detergent for 30 seconds.	
14.	Remove the distal tip and the suction/channel cleaning adapter from the detergent solution; then depress the suction valve completely to aspirate air for 30 seconds.	
15.	Turn OFF the suction source, disconnect the suction tubing.	
16.	Disconnect the suction valve and the suction-cleaning adapter. Reprocess them as described in Section 7.9, <i>Cleaning, disinfection and Sterilization Procedures for Removable Parts and Cleaning/Reprocessing Equipment</i> .	
17.	Attach the channel plug and injection tube to the endoscope.	
18.	Immerse the suction port of the injection tube in the detergent solution.	
19.	Attach a 30ml syringe to the air/water channel port on the injection tube, inject 150mls of detergent into the air/water and balloon channels.	
20.	Detach the injection tube and channel plug, and leave all items immersed.	
21	<i>For the GF-UCT180 scopes:</i>	
	a. Attach the washing tube to the elevator channel plug.	
	b. Using the 5ml syringe, inject 15mls of detergent solution.	

	C. Disconnect the washing tube from the endoscope and immerse it in detergent solution.	
22.	Wipe all external surfaces with a lint-free cloth.	
23.	Soak for the time and at the temperature specified by the detergent manufacturer.	
24.	Remove the endoscope and equipment from the detergent solution.	
25.	Inspect all reprocessing equipment. If debris remains on reprocessing equipment, ultrasonically clean at 33--48 kHz for 5 minutes.	
26.	Immerse endoscope and equipment in clean water, and gently agitate to rinse.	
27.	Attach the channel plug and injection tube to the endoscope.	
28.	Attach a 30 ml syringe to the suction port on the injection tube and inject 150mls of water into the suction and balloon channels.	
29.	Attach a 30 ml syringe to the air/water channel port on the injection tube and inject 150mls of water into the air/water and balloon channels.	
30.	Remove the endoscope with all the equipment from the water.	
31.	Cover the distal end and control section of the endoscope with a clean, lint-free cloth.	
32.	Use a 30 ml syringe to inject 150mls of air into each port on the injection tube.	
33.	<i>For the GF-UCT180 scopes:</i>	
	a. Attach the washing tube to the elevator channel plug.	
	b. Using the 5 ml syringe, inject 5mls of clean water and then 10mls of air.	
	C. Disconnect the washing tube from the endoscope.	
34.	Disconnect the channel plug and injection tube.	
35.	Use a clean, lint-free cloth to thoroughly wipe and dry the external surfaces of the endoscope and reprocessing equipment.	
36.	Inspect for visible debris; if debris remains, repeat manual cleaning procedure.	

Comments:

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Automated Endoscope Reprocessor (AER) High-Level Disinfection	Demonstrated
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AER Type:

High Level Disinfectant Type:

1.	Test the potency of the disinfectant concentration (i.e. MRC) according to the manufacturer's instructions.	
2.	Inspect the connections according to the AER manufacturer's instructions.	
3.	Verify that the proper connector is being used for the endoscope being reprocessed.	
4.	Attach the endoscope connectors/adapters to the AER and endoscope as per the AER manufacturer's instructions.	
5.	Operate the AER according to the AER manufacturer's instructions.	
6.	Ensure the endoscope is soaked in disinfectant solution according to the disinfectant manufacturer's recommendations for time and temperature.	
7.	Remove the endoscope promptly after the AER cycle is completed.	
8.	Perform the terminal steps that the AER does not perform (e.g., alcohol and airpurge).	

Comments:

Manual High-Level Disinfection	Demonstrated
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1.	Fill an appropriately sized basin with disinfectant solution.	
2.	Test the potency of the disinfectant solution according to the manufacturer's instructions.	
3.	Attach the channel plug and injection tube to the endoscope.	
4.	Completely immerse the endoscope and equipment in disinfectant solution.	
5.	Attach a 30ml syringe to each port on the injection tube and inject at least 150mls of disinfectant into the air/water, suction, and balloon channels.	

6.	Confirm that no bubbles exit the distal tip.	
7.	For the GF-UCT180 scopes:	
	a. Using the washing tube and the 5 ml syringe, flush 15mls of disinfectant solution through the elevator wire channel.	
	b. Confirm that no bubbles exit the distal end of the endoscope.	
	c. While the scope is immersed in disinfectant solution, raise the forceps elevator, and flush the vicinity of the forceps elevator with disinfectant solution by using the 30ml syringe.	
8.	Disconnect all equipment from the endoscope.	
9.	Remove any bubbles that adhere to the surfaces with a clean lint-free cloth.	
10.	Soak the endoscope and all equipment for the time and at the temperature recommended by the disinfectant manufacturer.	
11.	Attach the channel plug and injection tube to the endoscope.	
12.	Remove the injection tube's suction port from the disinfectant.	
13.	Attach a 30 ml syringe to each port on the injection tube and inject 150mls of air.	
14.	For the GF-UCT180 scopes, attach the 5 ml syringe to the washing tube, and flush the elevator wire channel with 15mls of air.	
15.	Remove the endoscope and equipment from the disinfectant solution.	
16.	Disconnect all equipment from the endoscope.	

Comments:

Rinsing after Manual High-Level Disinfection		Demonstrated
1.	Fill a basin with sterile water.	
2.	Completely immerse the endoscope and flushing attachments in the water.	
3.	Wipe all external surfaces with a lint-free cloth.	
4.	Attach the channel plug and injection tube to the endoscope.	
5.	Attach a 30 ml syringe to each port on the injection tube and inject 150mls of water.	
6.	For the GF-UCT180 scopes:	
	a. Attach the washing tube to the elevator channel plug.	
	b. Using the 5 ml syringe, inject 15mls of sterile water into the elevator wire channel.	
7.	Remove the endoscope and equipment from the water.	
8.	For the GF-UCT180 scopes:	
	a. Using the 30 ml syringe, flush the air/water and suction channels with 150mls of air.	
	b. Using the 5 ml syringe, flush the elevator wire channel with 15mls of air.	
	c. Disconnect the injection tube only. Connect a sterile suction tube from the suction pump to the suction connector on the endoscope. Turn the suction pump ON and aspirate air for at least 15 seconds.	
	d. Turn the suction pump OFF and disconnect all equipment from the endoscope.	
	e. Use a sterile, lint-free cloth to thoroughly wipe and dry the external surfaces of the endoscope and all equipment.	

Comments:

Alcohol Flush		Demonstrated
1.	Attach a reprocessed channel plug and injection tube to the endoscope.	
2.	Immerse the injection tube's suction port in 70% isopropyl or ethyl alcohol.	
3.	Attach a 30 ml syringe to each port of the injection tube and inject 150mls of alcohol.	
4.	Remove the suction port from the alcohol.	
5.	Use a 30 ml syringe to flush through each port of the injection tube with 150mls of air.	
6.	For the GF-UCT180 scopes:	
	a. Using the 5 ml syringe, flush the washing tube with 15mls of alcohol through the elevator wire channel.	
	b. Using the 5 ml syringe, flush the washing tube with 15mls of air through the elevator wire channel.	
7.	Disconnect all equipment from the endoscope.	
8.	Dry all External surfaces with a sterile lint free cloth.	
9.	Wipe all external surfaces with a sterile lint-free cloth moistened in alcohol.	
10.	Attach the channel plug and injection tube to the endoscope.	
11.	Attach a 30 ml syringe to inject 150mls of air into the air/water channel. (and the balloon channel for the Radial Endoscope).	
12.	For the GF-UCT180 scopes: Using the washing tube and the 5ml syringe, flush 15mls of air through the elevator wire channel.	
13.	Disconnect the injection tube only and connect a clean suction tube to the suction connector.	
14.	Aspirate air for 15 seconds.	
15.	Disconnect all equipment from the endoscope.	
16.	Wipe all external surfaces with a sterile, lint-free cloth.	
17.	Use sterile cotton swabs to dry the inside of the air/water and suction cylinders and instrument channel port.	

Comments:

Endoscope Storage		Demonstrated
1.	Detach all accessories as applicable following manual alcohol flushing of endoscopes.	
	a. Detach all valves.	
	b. Detach the water-resistant cap from the electrical connector.	
2.	Ensure all angulation locks are in the free position.	
3.	Confirm that the surfaces of the endoscope and accessories are dry.	
4.	Hang the endoscope so that the universal cord and insertion tube are hanging vertically, and the distal tip of insertion tube is hanging freely.	
5.	Store the endoscope in a well-ventilated cabinet, according to National and Professional guidelines.	

Comments: