

Rhino-Laryngo Flexible Scopes – Channelled
ENF-VT2, ENF-VT3
Cleaning and Disinfection Checklist

Rhino-Laryngo Flexible Scopes – Channelled

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.

ENF-VT2

ENF-VT3

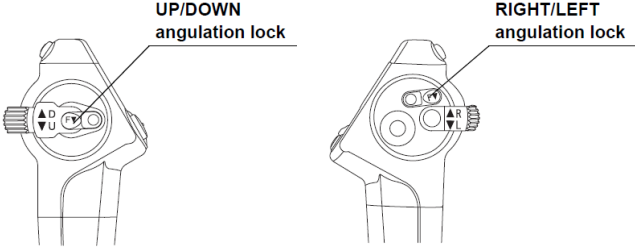
Instructor Name

Title

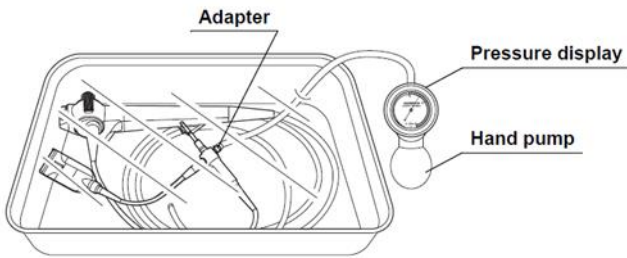
Signature

Staff Member Name

Signature

Pre-Cleaning		Demonstrated
1.	Wear appropriate Personal Protective Equipment. (PPE).	
2.	<p>Ensure angulation lock(s) are placed in the FREE position and the insertion tube is in the neutral position</p>  <p>Note: The ENF-VT3 has UP/DOWN and RIGHT/LEFT angulation locks.</p>	
3.	Turn OFF the video system center and the light source	
4.	Prepare a container of 500mls of detergent or water.	
5.	<p>Wipe the insertion tube of the endoscope carefully and gently using a detergent or water-soaked lint-free cloth. Wipe from the boot toward the distal tip.</p> <p>Note: ENF-VT2 is validated with detergent, and ENF-VT3 with Water</p>	
6.	Turn ON the suction source and ensure the biopsy valve cap is closed.	
7.	Immerse the distal tip in detergent and depress the suction valve; For the ENF-VT2 aspirate detergent for 30 seconds, and for the ENF-VT3 aspirate water for 10 seconds or more.	
8.	Remove the distal tip from water and depress the suction valve to aspirate air for 10 seconds or more.	
9.	Turn OFF the suction source.	
10.	Disconnect the suction tube from the suction connector on the scope.	
11.	Disconnect the video connector from the video system center by pushing the locking lever down on the video system center.	
12.	Detach the light guide connector from the video system center.	
13.	Disconnect all removable and reusable parts from the endoscope.	
14.	Transport the endoscope and accessories to reprocessing area in a covered container.	

Comments:

Leakage Testing		Demonstrated
1.	Fill a large basin with clean water.	
	<i>If using handheld WA23070A/WA23080A</i>	
2.	Confirm that both the inside of the WA23070A/WA23080A adapter and venting connector of the endoscope are both clean and dry. If wet, dry with clean lint-free cloth.	
3.	Connect the leakage tester adapter to the endoscope venting connector.	
4.	Confirm that the pressure release lever is closed.	
5.	Squeeze hand pump until pressure between 19 and 27 kPa is indicated on the pressure display. Confirm the pointer is stabilized within the green area on the pressure display.	
	Note: If the pointer continues to fall towards “0” kPa the endoscope may have a serious water leakage, or the leakage tester may be damaged- stop leakage testing immediately and contact Olympus.	
6.	<p>If the pointer is confirmed as stable between 19 and 27 kPa then the endoscope can be submerged in the water for completion of the leakage test. (Keep the pressure gauge and the hand bulb out of the water).</p> 	
7.	<p>With the leak tester attached, pressurised and stabilised, immerse the endoscope in the water and observe for approximately 30 seconds while deflecting the bending section in all directions of the endoscope. i.e. UP/DOWN</p> <p><i>For the ENF-VT3 this also includes LEFT/RIGHT</i></p>	
8.	If a continuous series of bubbles emerges from any location remove the endoscope from the water with the leak tester still attached, and contact Olympus for further instructions.	
9.	If no leak is detected, remove the endoscope from the water leaving leakage tester attached.	
10.	Once removed from water, press the pressure release lever, allowing the pointer to release to “0” kPa, decompressing the scope.	
11.	Detach the leakage tester WA23070A/WA23080A from the endoscopes venting connector.	
12.	Thoroughly dry the leak tester using a clean lint free cloth	

	<i>If using MU-1 Leakage tester & MB-155</i>	
1.	Connect the leakage tester to the MU-1 (Maintenance unit).	
2.	Turn ON the MU-1.	
3.	Depress pin inside connector cap to confirm that air is being emitted.	
4.	Confirm that the leakage tester's connector cap and endoscope venting connector are both clean and dry. If wet, dry with a clean lint free cloth.	
5.	Connect the leakage tester to the endoscope. Ensure the bending section has inflated.	
6.	Completely immerse the endoscope in water.	
7.	Observe for 30 seconds while angulating the bending section carefully in all directions. i.e. UP/DOWN <i>For the ENF-VT3 this also includes LEFT/RIGHT</i>	
8.	If a continuous series of bubbles emerges from any location, remove the endoscope from the water with the leak tester still attached, and contact Olympus for further instructions.	
9.	If no leak is detected, remove the endoscope from the water and turn off the MU-1 unit.	
10.	Disconnect the leakage tester from the MU-1.	
11.	Wait 30 seconds or until the bending section contracts to its pre expansion size.	
12.	Disconnect the leakage tester connector cap from the venting connector.	
13.	Thoroughly dry the leak tester using a clean lint free cloth.	

Comments:

Manual Cleaning

Demonstrated

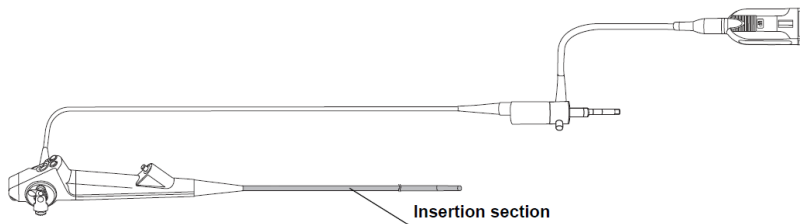
Note: If there was excessive bleeding during patient procedure or if precleaning could not be performed immediately after the patient procedure, pre-soak the endoscope in the detergent solution to loosen debris that has dried and hardened as described in sections 5.9 in the appropriate Reprocessing Manual, before manually cleaning the endoscope.

1. Fill a basin with the detergent solution at the concentration and temperature recommended by the detergent manufacturer.
2. Completely immerse the endoscope in the detergent solution.
3. Use a soft brush, lint-free cloth, or sponge to thoroughly clean all external surfaces.
Note: This is applicable for the ENF-VT2 and then follow steps 7-13 below.
Steps 4-13 only apply to the ENF-VT3

4. Clean the external surfaces of the insertion section.

a. Immerse the endoscope in detergent solution.

b. Wipe the insertion tube using lint free cloths, brushes or sponges.



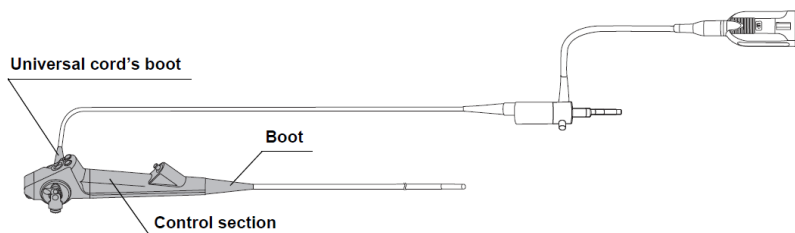
c. Take out the insertion section of the detergent solution and confirm that no debris remains on all external surfaces, particularly the objective lens on the distal end.

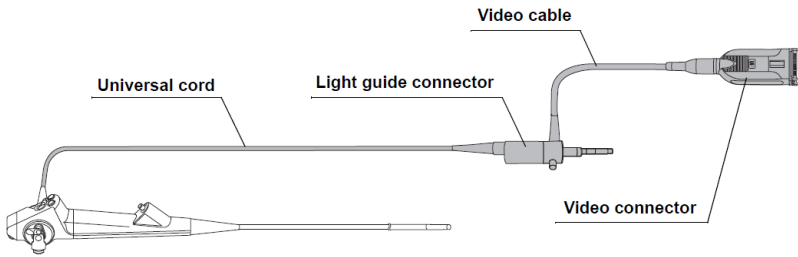
d. If any debris remains, repeat steps "a-c" until no debris is observed.

5. Clean the external surfaces of the control section and its surrounding parts.

a. Immerse the endoscope in detergent solution.

b. Thoroughly wipe or brush all external surfaces of the control section, the boot and the universal cords boot, using lint free cloths, brushes or sponges.



	<p>C. Take the control section, the boot and the universal cord boot out of the detergent solution and confirm no debris remains on the external surfaces.</p>	
	<p>d. If any debris remains, repeat steps “a-c” until no debris is observed.</p>	
6.	<p>Clean the external surfaces of the light guide connector, the video connector, the universal cord and the video cable.</p>	
	<p>a. Immerse the endoscope in detergent solution.</p>	
	<p>b. Thoroughly wipe or brush all external surfaces of the light guide connector, the video connector, the universal cord, and the video cable, using lint free cloths, brushes or sponges.</p>  <p>The diagram shows a side view of an endoscope assembly. From left to right, it consists of a control section (partially visible), a long universal cord, a light guide connector, a video cable, and a video connector. Labels with leader lines point to each of these components: 'Universal cord', 'Light guide connector', 'Video cable', and 'Video connector'.</p>	
	<p>C. Take the light guide connector, the video connector, the universal cord and the video cable out of the detergent solution and confirm no debris remains on the external surfaces.</p>	
	<p>d. If any debris remains, repeat steps “a-c” until no debris is observed.</p>	
7.	<p>Use endoscope model - specific brushes to brush channels/cylinders/ports until no visible debris remains.</p>	
	<p>a. Brush the suction channel to the distal tip.</p>	
	<ol style="list-style-type: none"> 1. Insert the channel-cleaning brush (BW-411B) straight into the opening of the suction cylinder. 	
	<ol style="list-style-type: none"> 2. Using short strokes, feed the brush through the instrument channel until it emerges from the distal end of the endoscope. 	
	<ol style="list-style-type: none"> 3. Remove any debris on the brush bristles with your fingertips and carefully pull the brush back through the instrument and suction channel. 	
	<ol style="list-style-type: none"> 4. Clean the bristles to remove any debris. 	
	<ol style="list-style-type: none"> 5. Repeat until no debris is observed on the brush. 	
	<p>b. Brush the instrument channel in the insertion tube.</p>	
	<ol style="list-style-type: none"> 1. Insert the channel-cleaning brush straight into the opening of the instrument channel port. 	
	<ol style="list-style-type: none"> 2. Using short strokes, feed the brush through the instrument channel until it emerges from the distal end of the endoscope. 	

	3. Remove any debris on the brush bristles with your fingertips and carefully pull the brush back through the instrument channel.	
	4. Clean the bristles to remove any debris.	
	5. Repeat until no debris is observed on the brush.	
	C. Brush the suction cylinder.	
	1. Insert the channel-opening 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 cylinder.	
	3. Remove any debris on the brush bristles with your fingertips and clean the brush in the detergent solution.	
	4. Repeat until no obvious debris is observed on the brush.	
	d. Brush the instrument channel port.	
	1. Insert the channel-opening brush into the instrument channel port until the brush handles touches the 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 and clean the brush in the detergent solution.	
	4. Repeat until no obvious debris is observed on the brush.	
8.	Attach the port cap of the suction-cleaning adapter (MAJ-222) to the instrument port and the suction cylinder cap to the suction cylinder.	
9.	Connect the suction tube from the suction source to the suction opening of the suction-cleaning adapter.	
10.	Turn ON the suction source.	
11.	Immerse the distal end in detergent, and aspirate detergent for 30 seconds or more.	
12.	Turn OFF the suction source.	
13.	Detach the suction tube from the suction opening of the suction cleaning adapter.	

Comments:

Manual Cleaning Manual Flushing of Endoscope Channels		Demonstrated
1.	Completely immerse the endoscope and the suction cleaning adapter (MAJ-222) in the detergent solution.	
2.	Attach a 30ml syringe to the suction cleaning adapter.	
3.	Pull the plunger of the syringe to fill all channels and the suction cleaning adapter with the detergent solution.	
5.	Detach the syringe from the suction cleaning adapter.	
6.	Detach the suction cleaning adapter from the endoscope.	
7.	Wipe all external surfaces of the endoscope and suction cleaning adapter to remove debris with a clean lint free cloth, brush or sponge.	
8.	Soak the endoscope and accessories in detergent solution for the time specified by the detergent manufacturer.	
9.	Remove the endoscope and accessories from the detergent solution.	
10.	Immerse endoscope and accessories in clean water, and gently sway them to thoroughly rinse.	
11.	Re-attach the suction cleaning adapter to the endoscope.	
12.	Attach the suction tube from the suction pump to the suction opening of the suction cleaning adapter.	
13.	Turn ON the suction source.	
14.	Aspirate water through the instrument channel and suction channel for 30 seconds or more.	
15.	Remove the endoscope from the water with the suction cleaning adapter attached.	
16.	Aspirate air through the instrument channel and suction channel for 20 seconds or more.	
17.	Turn OFF the suction source.	
18.	Detach the suction tube from the suction cleaning adapter.	
19.	Detach the suction cleaning adapter from the endoscope.	
20.	Dry all external surfaces of the endoscope and suction cleaning adapter, by wiping with clean lint free cloths.	
21.	Inspect all items for residual debris, and if any debris remains repeat the manually cleaning procedure until all debris is removed.	
22.	Reprocess the accessories as described in the Olympus Reprocessing Manual, Chapter 6, <i>Reprocessing the Accessories</i> .	

Comments:

Automated Endoscope Reprocessor (AER) High-Level Disinfection		Demonstrated
AER Type:		
High Level Disinfectant Type:		
1.	Test disinfectant concentration (i.e. MRC) according to the manufacturer's instructions.	
2.	Inspect the endoscope connectors/adapters according to the AER manufacturer's instructions.	
3.	Attach the endoscope connectors/adapters to the AER and endoscope as per the AER manufacturer's instructions.	
4.	Operate the AER according to the AER manufacturer's instructions.	
5.	Remove the endoscope promptly after the AER cycle has been completed.	
6.	Perform the terminal steps that the AER does not perform (e.g., alcohol and air purge).	
FOR FACILITY INTERNAL USE ONLY!		

Comments:

Manual High-Level Disinfection		Demonstrated
1.	Fill a basin with disinfectant solution.	
2.	Test the disinfectant concentration (i.e., MRC) according to the manufacturer's instructions.	
3.	Attach the suction cleaning adapter (MAJ-222) to the endoscope.	
4.	Completely immerse the endoscope and the suction cleaning adapter in the disinfectant solution.	
5.	Attach a 30ml syringe to the suction cleaning adapter and pull the plunger of the syringe to fill the channels and the suction-cleaning adapter with disinfectant solution.	
6.	Confirm that no bubbles exit the instrument channel port or suction cylinder of the endoscope during aspiration.	
7.	If air bubbles still exit during aspiration, detach syringe from the suction cleaning adapter and repeat aspiration until no bubbles exit.	
8.	Disconnect all equipment from the endoscope.	
9.	Remove any air bubbles that adhere to the surfaces with a gloved finger or a clean, lint-free cloth.	
10.	Cover the basin with a tight-fitting lid to minimize the release of disinfectant vapors.	
11.	Soak the endoscope and suction cleaning adapter for the time and at the temperature recommended by the disinfectant manufacturer.	
12.	Reconnect the suction cleaning adapter to the endoscope.	
13.	Remove the endoscope from the disinfectant solution with the suction cleaning adapter attached and place in a sterile large basin.	
14.	Use a 30ml sterile syringe with air and attach syringe to the suction cleaning adapter and inject with 90mls of air.	
15.	Detach the suction cleaning adapter from the endoscope.	

Comments:

Rinsing after Manual High-Level Disinfection		Demonstrated
1.	Fill a basin with sterile water, filtered water or potable tap water.	
2.	Completely immerse the endoscope and suction-cleaning adapter in the rinse water.	

3.	Wipe all external surfaces of the endoscope and suction cleaning adapter with a sterile, lint-free cloth.	
4.	Attach the suction cleaning adapter and to the endoscope.	
5.	Attach a sterile suction tube from the suction pump to the suction opening of the suction cleaning adapter.	
6.	Completely immerse the sterile suction tube and the suction cleaning adapter in the rinse water.	
7.	Turn ON the suction source.	
8.	Aspirate the rinse water for 30 seconds or more.	
9.	Remove the endoscope with the suction cleaning adapter attached from the water, place them in a sterile large basin and aspirate air for 60 seconds or more.	
10.	Turn OFF the suction source.	
11.	Detach the sterile suction tube from the suction opening of the suction cleaning adapter.	
12.	Hold the control section with the instrument channel port pointing down and detach the suction cleaning adapter from the endoscope.	
13.	Repeat 1-12 for the necessary number of times described in the disinfectant manufacturer's instructions.	
14.	Disconnect all equipment from the endoscope.	
15.	Wipe all external surfaces with a sterile, lint-free cloth.	
16.	Using sterile cotton swabs, dry the inside of the suction cylinder and instrument channel port.	

Comments:

--

Alcohol Flush		Demonstrated
1.	Fill a sterile, small basin either 70% isopropyl or ethyl alcohol.	
2.	Attach suction cleaning adapter to the endoscope and sterile suction tube from the suction source to the suction cleaning adapter.	
3.	Turn ON the suction source.	
4.	Immerse the distal end of the endoscope in the alcohol.	
5.	Aspirate alcohol for 5 seconds or more.	
6.	Remove the distal tip of the endoscope from the alcohol, and aspirate	

	air for 20 seconds or more.	
7.	Turn OFF the suction source.	
8.	Detach the sterile suction tube from suction cleaning adapter, and suction cleaning adapter from the endoscope.	
9.	Thoroughly wipe the external surfaces of the endoscope including the electrical contacts and the suction cleaning adapter with a sterile lint free cloth.	
10.	Using sterile cotton swabs, dry the inside of the suction cylinder and instrument channelport.	

Comments:

Sterilisation with Ethylene Oxide Gas		Demonstrated
NOTE: After performing precleaning, leakage testing, and manual cleaning, perform the following:		
1.	Dry all external and internal surfaces of the endoscope before ethylene oxide gas (ETO) sterilisation.	
2.	Dry the external surface of the sterilisation cap (MB-156) by wiping with sterile lint free cloths.	
3.	Attach the sterilisation cap to the venting connector on the light guide connector.	
4.	Place endoscope on the sterilisation tray as per manufacturer recommendations.	
5.	Seal the instrument in a package appropriate for sterilisation according to your hospital's protocol.	
6.	Sterilise and aerate the package according to the recommended ETO parameters described in the endoscope instruction manual and the steriliser manufacturer's instructions.	

Comments:

Sterilisation with Sterrad 50/100S/NX/100NX or V-PRO MAX

Demonstrated

After performing precleaning, leakage testing, and manual cleaning, perform the following:

1.	Dry all external and internal surfaces of the endoscope.	
2.	Dry the external surface of the sterilisation cap (MB-156) by wiping with sterile lint free cloths.	
3.	Attach the sterilisation cap to the venting connector on the light guide connector.	
4.	When sterilising with the STERRAD 100S sterilisation system, depending on the internal diameter/length of the channel, it is necessary to attach the booster (REF15400) to instrument channel of the endoscope according to the instructions of the steriliser manufacturer.	
5.	Place endoscope upon instrument tray and double wrap the tray with sterilisation wraps according to your hospital's protocol and compatible instrument trays.	
6.	Sterilise the packaged endoscope according to the recommendations of steriliser manufacturer.	

Comments:

Endoscope Storage

Demonstrated

1.	Detach all equipment from the endoscope.	
2.	Ensure that angulation lock(s) are in the free position.	
3.	Confirm that all surfaces of the endoscope are completely dry.	
4.	Store the sterilised endoscope in a proper storage cabinet, following policies in your institution, professional society guidelines and recommended practices.	

Comments: