

Section: Division of Nursing  
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**\* PROCEDURE \***  
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**HACKETTSTOWN COMMUNITY HOSPITAL**

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**Minor Procedure**  
(Scope)

**TITLE: LEAK TESTING OF THE OLYMPUS ENDOSCOPES**

**PURPOSE:** To ensure that personnel are following the same procedure in the leak testing of the endoscopes.

**SUPPORTIVE DATA:** The Olympus Endoscope Reprocessing Manual

**EQUIPMENT LIST:** Personal protective equipment, lean water, protective cap, maintenance unit and leak tester.

**CONTENT:** **PROCEDURE**  
**General Information** Points to Remember

**KEY POINTS**

1. Always attach the water-resistant cap, before Immersing the endoscope.
2. If the exterior of the electrical connector is scratched, the connector may no longer be waterproof and the seal inside of the cap may be scratched. If the electrical connector is scratched, send it immediately to Olympus for repairs.
3. Never immerse the water-resistant cap unless it is attached to the endoscope. Water remaining inside the water-resistant cap can be transferred to and damage the electrical connector.
4. **During leak testing, a continuous series of bubbles emerging from a location on the endoscope indicates a leak at that location. This means that water will be able to penetrate the inside of the endoscope. If you locate a leak, remove the endoscope from the water and notify your supervisor.**
5. **Never connect or disconnect the water-resistant cap or the leak tester's connector cap while immersed.**

**Disconnecting could allow water to enter the endoscope and equipment damage can result**

**Leak Test**

- The following steps are to be followed:
1. Fill sink with water to allow the endoscope to be completely immersed.
  2. Insert the leak tester connector into the output socket of the maintenance unit and turn the maintenance unit ON.
  3. Confirm that the leak tester is emitting air by gently depressing the pin located inside the leak tester's

connector cap.

4. Attach the leak testers connector cap to the venting connector of the video cap. (see Figure 3.15)

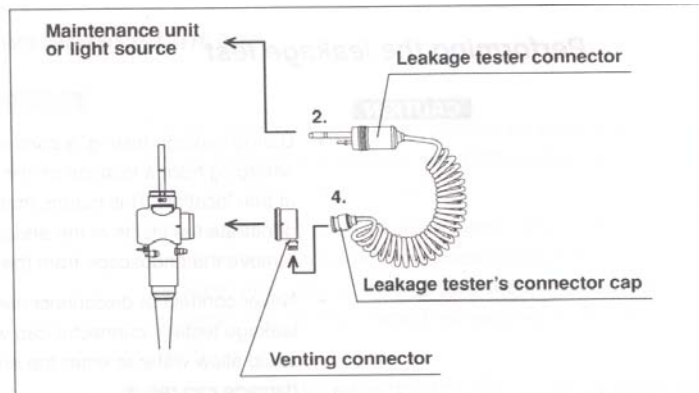


Figure 3.15

5. With the leak tester connected, immerse the endoscope in water and observe for approximately 30 seconds while angulating the bending section. Confirm that there is no location on the endoscope from which a continuous series of bubbles emerges.
6. Remove the endoscope from the sink with the leak tester attached.
7. Turn the maintenance unit OFF.
8. Disconnect the leakage tester from the maintenance unit.
9. Always disconnect the leak tester connector from the water-resistant cap before loosening cap. This depressurizes scope without causing any damage to scope.
10. Wait 30 seconds, or until the covering of the bending section contacts to its pre-expansion size. Replace water-resistant cap.
11. Thoroughly dry the leak tester.

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