

# TROUBLESHOOTING THE GREAT EAR WASH SYSTEM

If your unit is experiencing problems, consult the following table to find the symptom and the solution. If this is not successful, contact Welch Allyn Technical Service at **1-800-535-6663**.

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
Water not coming out of handle with actuator pulled	<p>Water temperature too high</p> <p>Kink in hose</p> <p>Irrigation tube blocked</p>	<p>Rapidly decrease temperature, pull actuator and wait for water to exit handle, then slowly increase until sensor begins to turn white before beginning procedure.</p> <p>Make sure both hoses are kink free. Replace hose if kink is found.</p> <ol style="list-style-type: none"> <li>1. With unit operating, actuate/deactuate handle several times in rapid succession, then hold for 1 minute.</li> <li>2. With eartip on handle, and unit running, press fingertip tightly over tip and pull handle trigger for about 15 seconds.</li> <li>3. Repeat step #2 while submerging handle under water.</li> <li>4. Remove eartip and push a syringe full of water into the irrigation line, which is the upper opening in the front of the handle.</li> </ol> <p>Replace handle/hose assembly if the above 4 steps do not work.</p>
Water pressure seems high or low	<p>Eartip defective, opening too narrow or too wide</p> <p>Leakage at chamber/faucet junction</p> <p>Flow valves at bottom of chamber not passing water</p> <p>Hose slightly kinked</p>	<p>Replace eartip with tab pointing upwards</p> <p>Tighten connection. Replace aerator if this does not work.</p> <p>Replace chamber</p> <p>Replace hose</p>
Algae, fungus or other growth in hose	Hose not being properly disinfected	<p>Follow instructions on pages 9 and 10 of operator's guide.</p> <p>Use a germicidal or anti-bacterial soap. Also can disinfect with Cidex OPA or 14 day Cidex.</p>
Debris in suction hose	Foreign matter pulled in through handle	Do not use suction input without tip attached.

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
Water coming out of patient's ear	<p>Tip not placed properly in ear of patient (incorrect technique)</p> <p>Tip improperly placed on handle</p> <p>Ear tip has already been used before</p> <p>Tubing connection problem</p> <p>Clogged Return line</p> <p>Suction not adequate</p>	<p>Insert/reposition tip in patient's ear, causing a better seal.</p> <p>Insure proper placement of tip onto handle. Tab side must point upwards. And fully flushed against surface.</p> <p>Replace with a new Ear tip.</p> <p>Ensure that fittings at chamber (black) and handle are snug.</p> <p>Connect a syringe full of water at the suction port at black connector. Inject water through line to clear out.</p> <p>Verify you can feel a slight suction with your finger on the end of the ear tip. Check suction by immersing tip only into a graduated cup. Suction should be at least 180 ml per 20 seconds. *</p>
Lack of clean water stream from eartip	Ear tip clogged and/or dirty	Replace eartip
Excess water splash from unit	Intense water stream from unit	Ensure chamber aerator is attached
Unit not dissolving ear wax properly	<p>Water too cold</p> <p>Water flow inadequate</p> <p>Patient has very hard ear wax</p> <p>Leakage between faucet and chamber, reducing water pressure</p>	<p>Slowly increase water temperature until desired results occur.</p> <p>Check water flow by squirting water into a graduated cup. Flow should be at least 100ml per 20 seconds. **</p> <p>Apply ear drops for about 5-10 minutes then retry. If unsuccessful, have patient apply ear drops overnight then retry.</p> <p>Tighten aerator and/or adapter with a pair of pliers.</p>

PROBLEM	CAUSE	SOLUTION
Sensor not turning white even though water feels warm coming out of bottom of unit	Sensor defective  Delay in change of color	Replace handle/hose assembly.  Keep water flowing from handle so that warm water reaches sensor to change its color.
Patient complaining of very hot water	Very sensitive ears  Defective thermal disk, not stopping flow at 113 deg F	If water does not feel too hot, lower water temperature. After procedure check disk cutoff with thermometer.  If water feels hot, check with thermometer. Replace chamber if cutoff above 113 deg F

\* To properly test suction, follow the steps below:

1. If suction is too low, replace the eartip. If suction does not improve, go to step 2.
2. Remove eartip and place handle interface into water. If suction improves, replace handle/hose assembly. If suction does not improve, go to step 3.
3. Make sure hose from handle to black fitting is not kinked and is free of obstruction. Replace hose if it is kinked. . Clean out if it is obstructed. If the hose is not kinked or obstructed, go to step 4.
4. Check to see if water is flowing freely out of the bottom of the chamber. If no water is flowing from the chamber, replace it. If water is flowing freely, go to step 5.  
Note: Check date on underside of chamber. If it is Aug 02 (02/08) or earlier, replace entire system.
5. Check faucet pressure/flow rate. Water flow from the faucet should be at least 1 gallon per 30 seconds (2 gallons/minute). If water flow is adequate, there is a blockage in the chamber. Replace chamber. If water flow is less than 1 gallon/30 seconds, the faucet pressure is inadequate. Increase faucet pressure or move to another faucet with adequate pressure.

\*\* To properly test water flow, follow the steps below:

1. If water flow is too low, replace the disposable eartip. Make sure the tab side points upwards. If water flow does not improve, go to step 2.
2. Check hose from blue fitting on chamber to handle. Make sure there are no kinks or obstructions. If hose is kinked, replace hose. If there are obstructions, remove hose and clean out. If there are no kinks or obstructions, go to step 3.
3. Follow steps 4 and 5 above. Take action as required.