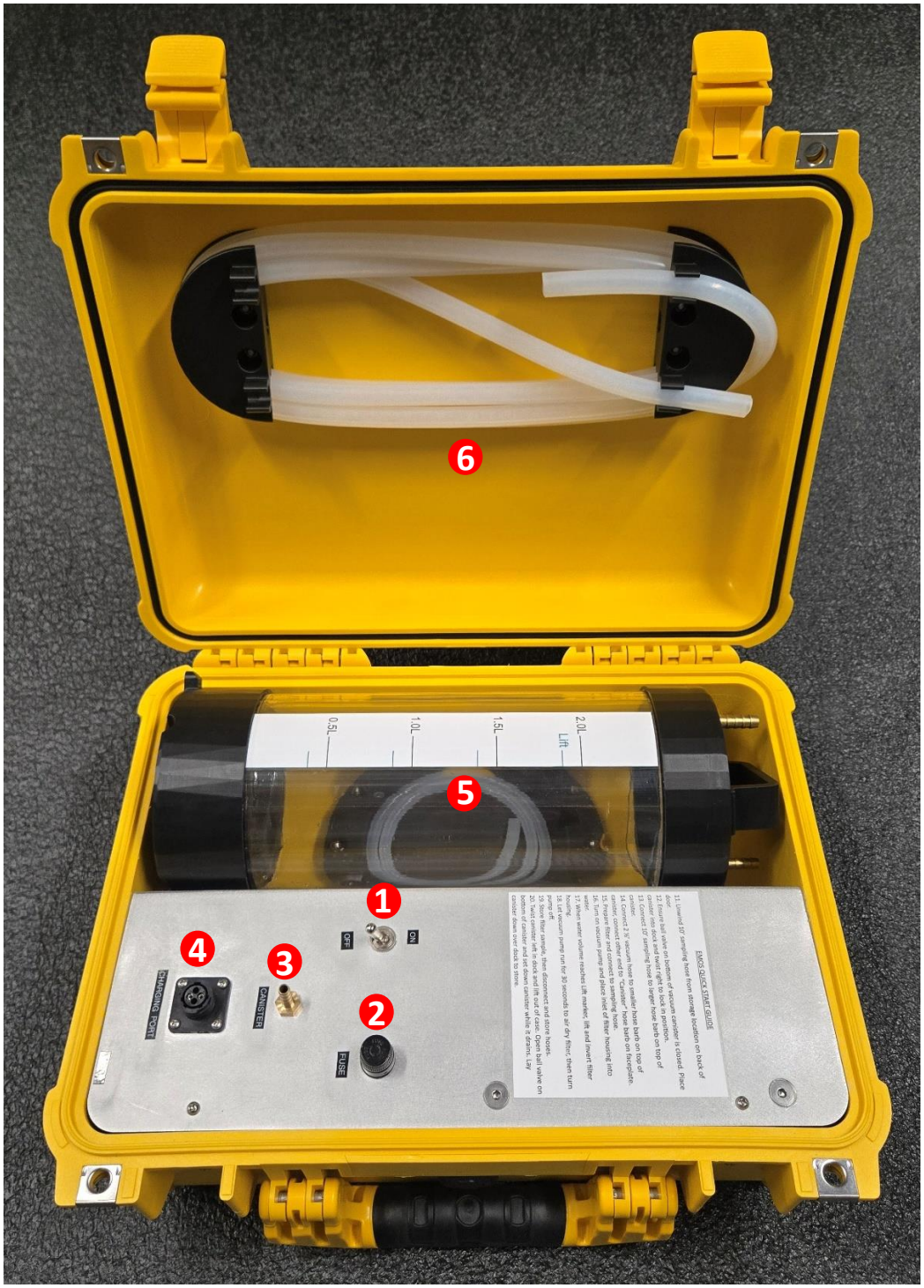
HALLTECH AQUATIC RESEARCH INC.

EMOS eDNA SAMPLER

USER MANUAL



1. PUMP POWER SWITCH

2. 2A FUSE

3. CANISTER HOSE BARB TO PUMP

4. CHARGING PORT

5. VACUUM CANISTER

6. 10’ SAMPLING HOSE

1. PUMP VENT

2. CANISTER DOCK & 2 ½’ VACUUM HOSE

3. CANISTER BALL VALVE

EMOS OPERATION MANUAL

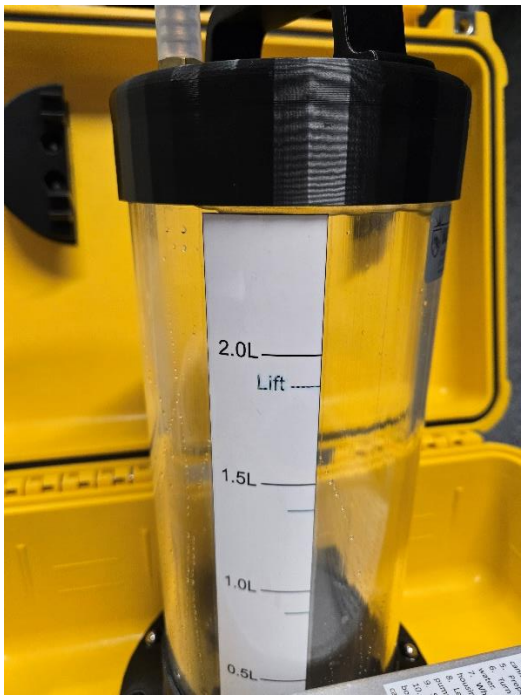
1. Unwind the 10’ sampling hose from the storage location on the back of the door.

2. Ensure the ball valve on the bottom of the vacuum canister is closed. Place the canister into the dock and twist to the right to lock the canister in position.

3. Connect the 10’ sampling hose to the larger hose barb on the top of the canister.
4. Connect the 2 ½’ vacuum hose to the smaller hose barb on the top of the canister, connect the other end to the “Canister” hose barb on the faceplate.

5. Prepare a filter and connect it to the sampling hose.

6. Turn on the vacuum pump and place the inlet of the filter housing into the water.
7. When the water volume reaches the “Lift” marker, lift and invert the filter housing.



8. Let the vacuum pump run for 30 seconds to air dry the filter, then turn the pump off.
9. Store the filter sample, then disconnect and store the hoses.
10. Twist the canister left in the dock and lift it out of the case. Open the ball valve on the bottom of the canister and set down the canister while it drains. Lay the canister down over the dock to store.

TROUBLESHOOTING COMMON PROBLEMS

1. Pump not running
   - Check the fuse on the faceplate.
   - Ensure the battery is fully charged.
2. Pump running but unit is not priming
   - The most common cause of the unit not priming is a pressure leak. Check the hoses, canister, and fittings for any damage.
   - Make sure that the ball valve on the bottom of the vacuum canister is in the closed position.
3. Unit starts sampling but is working very slowly.
   - Check the filter membrane, if the water is extremely turbid, the membrane can get clogged really fast. If this is the case you will have to reduce your sampling volume.
   - If the membrane is fine, this could be due to the type of membrane. Some membranes with very small pore sizes do not allow water to flow at low pressures. That type & size combination of membrane may not be ideal for the device or water conditions.

NOTE:

- Before shipping the unit, ensure that the case is properly secured to prevent damage to components while in transport.
- Remove filter membrane using your standard protocol to avoid contamination.
- Flush the unit thoroughly with tap water to clear the sampling hose and vacuum canister.
- To clean out the vacuum canister, run a 2L sample with a cleaning vinegar solution. Disconnect the vacuum hose from the faceplate and shake the canister. Drain the canister and hoses and then flush the unit.

Pump Protection Information

The vacuum pump is designed to be run dry and stay dry. Do not attempt to overfill the canister and flood the pump with water. The filter housing must be lifted and inverted no later than the “Lift” marker for the 2.0L volume. Drawing liquid through the vacuum pump can cause damage.

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