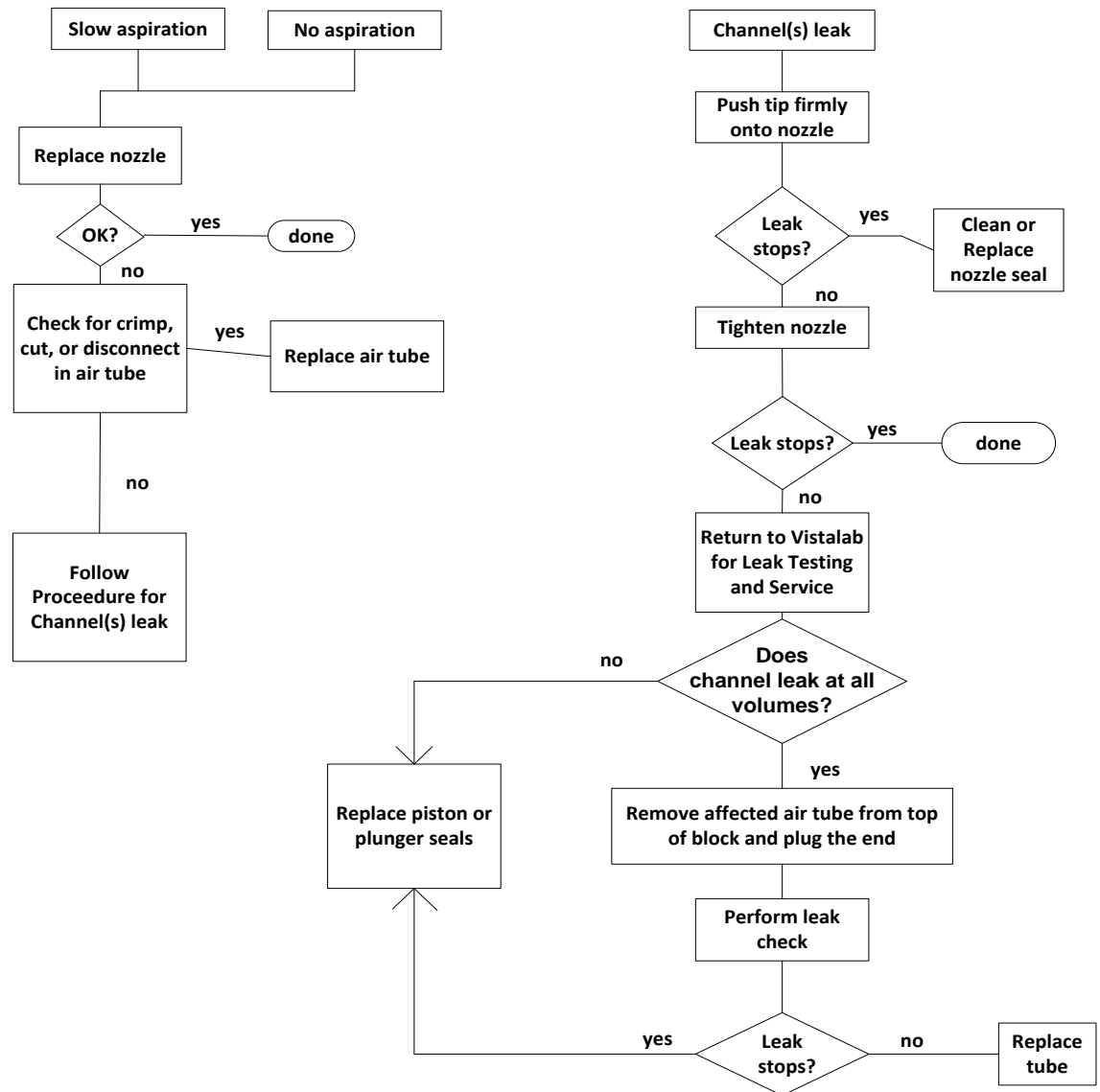


Ovation Multi-Channel Trouble Shooting Guide

- Slow aspiration = tip fills completely but more slowly than other channels
- No aspiration = no liquid enters tip
- Channels leak = liquid drips from tip after aspiration or aspiration is incomplete



Ovation Multi-Channel Error Code Trouble Shooting

Display	Possible Cause	Suggested Fix
E-01	Motor lost steps during Aspirate cycle	<ol style="list-style-type: none"> 1. Press and hold the center keypad button until home cycle initiates. 2. If problem repeats, seals may need lubrication or replacement. See Seal Replacement chapters of repair manual. 3. If problem continues, replace motor.
E-02	Motor lost steps during Dispense cycle	<ol style="list-style-type: none"> 1. Press and hold the center keypad button until home cycle initiates. 2. If problem repeats, seals may need lubrication or replacement. See Seal Replacement chapters of repair manual. 3. If problem continues, replace motor.
E-03	Homing failure	<ol style="list-style-type: none"> 1. Press and hold the center keypad button until home cycle initiates. 2. If problem repeats disconnect battery and home unit. 3. If E-03 errors continue, check Trigger Flex Circuit connection and motor connection and home unit. 4. If E-03 errors continue, replace Trigger Flex Circuit and home unit. 5. If E-03 errors continue seals may need lubrication or replacement. See Seal Replacement chapters of repair manual. 6. If E-03 errors still continue, substitute known good motor and PCB and home unit.
E-04	Cal Factor out of Range	Cal Factor has exceed allowed + - 10% Range