

| INDEX | NAME | Probable Causes For Failure |
|-------|-----------------------|---|
| 5 | BuzzerVADC | If too low buzzer is too weak, if too high buzzer has short circuit or other circuit board problem causing high buzzer feedback signal |
| 6 | BuzzerFDAC | N/A |
| 7 | USDryVADC | Water drops left in tube, or high ultrasonic sensor crosstalk |
| 8 | USDryFDAC | N/A |
| 9 | HomeSlot1 | Open circuit connections in motor or flex cable, valve of set not seated properly, gearbox encoder wheel problem |
| 10 | HomeSlot2 | Open circuit connections in motor or flex cable, valve of set not seated properly, gearbox encoder wheel problem |
| 11 | RotorSlot1 | Open circuit connections in motor or flex cable, gearbox encoder wheel problem |
| 12 | RotorSlot2 | Open circuit connections in motor or flex cable, gearbox encoder wheel problem |
| 13 | RotorSlot3 | Open circuit connections in motor or flex cable, gearbox encoder wheel problem |
| 14 | MotorStopCock | If low, motor open circuit or insufficient gearbox lubrication; if too high check for gearbox lock up at stopcock shaft |
| 15 | Motor14V | If low, motor open circuit or insufficient gearbox lubrication; if too high check for gearbox lock up at rotor |
| 16 | Motor6V | If low, motor open circuit or insufficient gearbox lubrication; if too high check for gearbox lock up at rotor |
| 17 | PrimeUpperN10ms | If low, water drops left in tube or high ultrasonic crosstalk; if high, valve of set not seated properly or weak ultrasonic |
| 18 | FeedRateTimeMinutes | Intermittent lockup during cal process, or problem with microprocessor oscillator |
| 19 | FeedRateTimeSeconds | Intermittent lockup during cal process, or problem with microprocessor oscillator |
| 20 | USFullVADC | If low, weak ultrasonic sensor; if high, ultrasonic sensor or ultrasonic feedback signal too high causing clipping |
| 21 | USFullFDAC | N/A |
| 22 | USDeltaPullDownMargin | If too low, possible leaky set or old silicone tube in pumping section, or weak ultrasonic sensor |
| 23 | USDeltaPullUpMargin | If too low, possible leaky set or old silicone tube in pumping section, or weak ultrasonic sensor |
| 24 | DetectFlushN10ms | High ultrasonic crosstalk, or occlusion causing water to be locked in the ultrasonic sensor area; currently N/A |
| 25 | BagEmptyml | Calibration set not filled to proper fluid level, or old silicone tube in pumping section, or leaky set |
| 26 | BatVADC | If too low then weak or damaged battery or battery cable unplugged or open circuit, if too high then possible circuit board problem |
| 27 | BatTADC | If too low (cold) then battery cable is unplugged or open circuit, if too high (hot) then battery thermistor short circuit, replace battery |
| 28 | RotorPreCut | If very low, motor or motor cable open circuit or insufficient gearbox lubrication; if too high gearbox may be locked up |
| 29 | RotorPostCut | If too low, insufficient gearbox lubrication; if too high, obstruction at rotor after the "Cut Tube" step or excessive gearbox friction |
| 30 | LoadRotorRPM | If very low, motor or motor cable may be open circuit or insufficient gearbox lubrication; if too high gearbox may be locked up |
| 31 | NoLoadRotorRPM | If too low, obstruction at rotor after the "Cut Tube" step or excessive gearbox friction; if too high, insufficient gearbox lubrication |
| 32 | 6VCurRangeNoTube | N/A |
| 33 | 6VCurRangeTube | N/A |
| 34 | 14VCurRangeNoTube | N/A |
| 35 | 14VCurRangeTube | N/A |
| 36 | TBD1 | N/A |
| 37 | TBD2 | N/A |
| 38 | TBD3 | N/A |
| 39 | TBD4 | N/A Special Code for premature failure, see list below |

Error codes are stored in index 39 to identify what caused an error or failure as follows:

- 1 Buzzer reading timeout during Automatic Calibration.
- 2 6V Rotor Current Reading Error during Automatic Calibration.
- 3 Stopcock Current Reading Error during Automatic Calibration.
- 4 6V Rotor Current Reading Error during Automatic Calibration.
- 5 Stopcock Position Timeout Error during Automatic Calibration.
- 6 Battery Voltage Reading Error during Automatic Calibration.
- 7 Battery Temperature Reading Error during Automatic Calibration.
- 8 Ultrasound Reading Error during Automatic Calibration.
- 10 Stopcock Error during Automatic Calibration Downstream Test.

"N/A" means that the calibration cannot fail for this item alone.

An item marked N/A may show up as a failure, but the root cause of the failure is always some other item.

If there are multiple failures in a row, the first failure may have been the one true failure causing a timeout which made tests after it show up as failures.