# R-Tech Dental of Minnesota

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## STAT-M ERROR CODES

| Problem | Solution |
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| Check Cassette 1<br><br>Chamber temperature does not rise more than 2c in three minutes | No power to the boiler. Check thermal fuse. Replace if necessary. |
| Check Cassette 2<br><br>Failed to heat up from 95-100c in 80 seconds.<br>Is steam leaking from the cassette during operation? | 1. Check seal for debris or damage.<br><br>2. Lubricate seal using liquid hand soap. (**Do not** use anti-bacterial soap)<br><br>3. If problem persists, replace seal.<br><br>4. Replace cassette lid or tray as needed. |
| Check Cassette 3<br><br>Failed to pressurize to 110c in 70 seconds | 1. If visible steam leaks appear repair cassette as needed.<br><br>2. If no leaks are visible disassemble solenoid valve and check for debris.<br>3. Make sure plunger slides smoothly in the plunger tube.<br>4. Refer to Solenoid Valve Section. |
| Check Cassette 4<br>Failed to begin sterilization within 10 minutes of pressurization. | 1. Refer to explanation for **Check Cassette 3.** |
| Check Cassette 5<br>Boiler went dry prematurely. | 1. May be a bad pump or boiler.<br>2. Check pump using Pump Tester Bottle (part # 01-1007135).<br>3. If pump check good follow **Check cassette 6** explanation.<br>4. If pump tests weak, and is a SciCan pump with slide on terminal connectors, see **Pump Filter Cleaning** instructions. |
| Check Cassette 6<br>Boiler temperature is more than 5C higher than the chamber while sterilizing. | 1. When display changes from "pressurization" to "sterilization", does it take longer than 10 seconds for the pressure information (xxxKpA) to appear in the read-out?<br>**It is probable that water containing more than 5 ppm of total dissolved solids was used in the machine.**<br>2. Boiler is contaminated. This means the inside of the boiler has accumulated excessive mineral deposits from the use of |

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| | poor quality distilled water.<br>3. The boiler may be restored with a calcium, lime and rust remover, i.e. "CLR"<br>4. Refer to Reclaim Boiler Section. **Note: Before reclaiming boiler check to be sure Statim has a float switch, DO NOT reclaim the boiler on a Statim with a Water Quality Sensor.** |
| Check Cassette 7<br>Boiler temperature is below lower limit while sterilizing.<br>If the cassette can be removed normally after venting.<br>If the cassette is hard to remove after venting. | 1. Disassemble solenoid valve and check for debris.<br>2. Make sure the plunger slides smoothly in the plunger tube.<br>3. Refer to Solenoid Valve Section.<br>4. Check for kinked exhaust tubing.<br>5. Check for a clogged venture in the left rear of the cassette tray. Blow out with compressed air.<br>6. Solenoid valve is failing to open. Disassemble |
| Check Cassette 8<br>Chamber temperature is more then 5C higher than boiler while sterilizing. | 1. Check for kinks in exhaust hose.<br>2. Check for clogged venture in the left rear of the cassette tray. Blow out with compressed air.<br>3. Check to see it Condenser Bottle is full of hot water.<br>**When display changes from "pressurization" to "sterilization", does it take longer than 10 seconds for the pressure information (xxxKpA) to appear in the read-out?**<br>1. If the delay is more than 10 seconds, reclaim the boiler.<br>2. Refer to Reclaim Boiler Section. **Note: Before reclaiming boiler check to be sure Statim has a float switch, DO NOT reclaim the boiler on a Statim with a Water Quality Sensor.** |
| Cassette (no number)<br>The chamber temper45ature failed to drop below 112C within 60 seconds after the start of the VENTING phase at the end of the cycle. | 1. Check for kinks in the exhaust hose.<br>2. Check for a clogged venture in the left rear of the cassette tray. Blow out with compressed air.<br>3. Check solenoid valve for proper operation. |
| **Service Needed** | **1. The boiler temperature has exceeded 170C or a thermocouple is broken.**<br>**2. Does the "Service Needed" message appear as soon as the cycle button is pressed, before pressing the start button?**<br>a. There is a broken thermocouple.<br>**1. Does the "Service Needed" message appear after the start button is depressed and cycle starts?**<br>a. Check pump using Pump Tester Bottle (#01-100713S).<br>b. If pump checks good, refer to **Check** |

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| | **Cassette 6** explanation.<br>c. If pump tests weak, and is SciCan pump with slide on terminal connectors, see **Pump Filter Cleaning** instructions.<br>**1. Select a Program is displayed in the middle of a cycle.**<br>a. Check micro switch contacts.<br>b. Micro switch should read less then 1 ohm with cassette inserted in Statim and infinite with cassette removed.<br>**1. Insert Cassette is displayed when the cassette is inserted fully and START button is pressed.**<br>a. Check to see if chamber thermocouple is bent.<br>b. Check micro switch contacts. |
| **New Statim Error Codes** | |
| Cycle Fault 1<br>The cassette temperature failed to reach 95C within a time-out period. | a. No power to boiler, check thermal fuse. Replace if necessary.<br>b. An extremely large steam leak.<br>c. An extremely large load. |
| Cycle Fault 2<br>The cassette temperature failed to increase from 95C 50 100C within a time-out period. | a. An extremely large steam leak. Replace seal or repair cassette as needed.<br>b. An extremely large load. |
| Cycle Fault 3<br>The cassette has failed to pressurize and achieve a temperature of 110C within a time-out period. | a. If visible steam leaks appear replace cassette seal, lid or tray as needed.<br>b. If no leaks are visible disassemble solenoid valve and check for debris.<br>c. Make sure plunger slides smoothly in plunger tube. Refer to Solenoid Valve Section. |
| Cycle Fault 4<br>The cassette has failed to achieve sterilization conditions within 6 minutes of the chamber first reaching 110C. | a. If visible steam leaks appear replace seal, lid or tray as needed.<br>b. If no leaks are visible disassemble solenoid valve and check for debris.<br>c. Make sure plunger slides smoothly in plunger tube. Refer to Solenoid Valve Section.<br>d. Check for leaky pressure relief valve (PRV) or check valve. |
| Cycle Fault 5<br>The software causes the pump to activate at predetermined times. If a request to pump water occurs outside of the predetermined time Cycle Fault 5 occurs. | a. Check pump using Pump Testing Bottle (part#01-100713S).<br>b. If pump tests weak, see **Pump Filter Cleaning** instructions. |
| Cycle Fault 6<br>The software has detected a steam generator (boiler) temperature 5C greater then the chamber, within 7.2 | a. Calibrate boiler. Refer to Boiler Calibration Section.<br>**DO NOT clean boiler with CLR.** |

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| seconds after a purge during the sterilizing phase of a cycle. | |
| Cycle Fault 7<br>The cassette temperature has dropped 4C below set point. | a. If visible steam leaks appear replace cassette seal, lid or tray as needed.<br>b. Disassemble solenoid valve and check for debris.<br>c. Make sure plunger slides smoothly in plunger tube. Refer to Boiler Calibration Section. |
| Cycle Fault 8<br>The software has detected a steam generator (boiler) temperature 5C less than the chamber, within 7.2 seconds after a purge during the sterilizing phase of the cycle. | a. Calibrate boiler. Refer to Boiler Calibration Section.<br>b. Check for kinks in the exhaust tubing.<br>c. Check for a clogged venture in the left rear of the cassette tray. Blow out with compressed air.<br>d. Check to see if condenser bottle is full of hot water. |
| Cycle Fault 9 N/A | |
| Cycle Fault 10<br>The cassette temperature has failed to drop to 115C during the Unwrapped or Wrapped Cycle or the temperature has failed to drop to 110C during the Rubber and Plastics Cycle in the purge conditioning stage. | a. Check for kinks in the exhaust tubing.<br>b. Check for a clogged venture in the left rear of the cassette tray. Blow out with compressed air.<br>c. Check solenoid valve for proper operation. |
| Cycle Fault 11<br>The cassette temperature has failed to drop 10 102C within 60 seconds of the end of a cycle during venting. | a. Check for kinks in the exhaust tubing.<br>b. Check for a clogged venture in the left rear of the cassette tray. Blow out with compressed air.<br>c. Check solenoid valve for proper operation. |
| Cycle Fault 12<br>This indicates a problem with the temperature measuring system. | a. Check thermocouples, they should read approximately 10 ohms at room temperature. |
| Cycle Fault 13 N/A | |
| Cycle Fault 14<br>The steam generator (boiler) temperature is above 171C during the Sterilization phase of a cycle. | a. Check pump using Pump Tester Bottle (part#01-100713S).<br>b. If pump tests weak, see **Pump Filter Cleaning** instructions.<br>c. Calibrate boiler. Refer to Boiler Calibration Section. |
| Cycle Fault 15<br>The cassette temperature is 3C or more above set point during the Sterilization. | a. Check for kinks in the exhaust tubing.<br>b. Check for a clogged venture in the left rear of the cassette tray. Blow out with compressed air.<br>c. Check solenoid valve for proper operation.<br>d. Calibrate boiler. Refer to Boiler Calibration Section. |

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| Cycle Fault 16<br>The steam generator (boiler) temperature went above 171C during the heat up phase of a cycle. | a. Check pump using Pump Tester Bottle (part#01-100713S).<br>b. If pump tests weak, see **Pump Filter Cleaning** instructions.<br>c. Calibrate boiler. Refer to Boiler Calibration Section. |
| Cycle Fault 17 N/A | |
| Cycle Fault 18 N/A | |
| Cycle Fault 19<br>The steam generator (boiler) calibration is invalid. A new calibration is required. | a. Calibrate boiler. Refer to Boiler Calibration Section. |
| Cycle Fault 20<br>The pump has failed to pump water into the steam generator (boiler) during a pre-vent pump time-out. The steam generator (boiler) temperature was greater than 140C for 3.6 seconds after the pump was activated to pump water to cool the steam generator (boiler) | a. Check pump using Pump Tester Bottle (part#01-100713S).<br>b. If pump tests weak, see **Pump Filter Cleaning** instructions. |
| Cycle Fault 21-24 N/A | |
| Cycle Fault 25<br>The software has failed to detect a need to pump water in 90 seconds. | a. No power to boiler, check thermal fuse. Replace if necessary. |
| Cycle Fault 26<br>The sterilization phase has failed to start within 3 minutes of the cassette reaching the sterilization temperature. | a. Calibrate boiler. Refer to Boiler Calibration Section. |
| Cycle Fault 27<br>The internal temperature of the steam generator (boiler) has exceeded 150C for 25 seconds. | a. Check pump using Pump Tester Bottle (part#01-100713S).<br>b. If pump tests weak, see **Pump Filter Cleaning** instructions.<br>c. Calibrate boiler. Refer to Boiler Calibration Section. |