



## ELECTRONIC TROUBLESHOOTING

### 1. PROBLEM: Display doesn't come on

- SOLUTION:**
- Check to see if power cables are plugged in.
  - Verify 9-12 VDC power is available at the connector on the computer
  - If 9-12 VDC power is present at the connector and the computer doesn't come on, replace the computer.

### 2. PROBLEM: Partial display on LCD

- SOLUTION:** a. Enter ELECTRICAL TEST MODE.

#### ELECTRICAL TEST MODE

- To enter electrical test mode, press the (RESET) key. Within 2 seconds of pressing the (RESET) key, press (RESET) and (ENTER/START) keys simultaneously.
  - The computer should display all segments on continuously. If the computer doesn't go into this mode, repeat "step 1".
  - Press the (ENTER) key. The display will flash all LED's.
  - Press the (ENTER) key again. The display will show "SPU" in the middle display. Rotate the pedal and the "SPU" will go out momentarily as the speed sensor is actuated.
  - Press the (ENTER) key. A "P" will be shown in the bottom display. If a pulse signal source is present the "HEART RATE" LED will flash with the pulses and the "P" will be replaced with a pulse rate number.
  - Press the (ENTER) and then the (RESET) key to exit the ELECTRICAL TEST MODE.
- While in "step 2" above, verify all segments are on.
  - If all segments are not on, replace computer.

Original Overlay



2002 Overlay



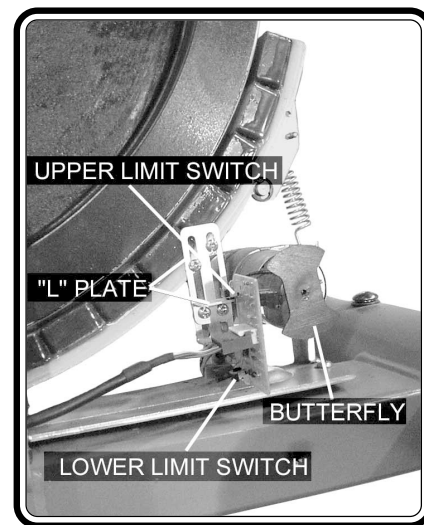
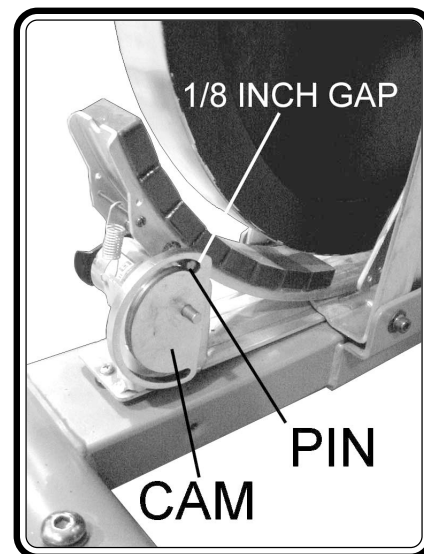
## ELECTRONIC TROUBLESHOOTING (continued)

### 3. PROBLEM: All display segments come on and won't change

**SOLUTION:** a. Recalibrate the magnetic resistance upper and lower limits.

Recalibration procedure:

1. Remove pedals and shrouds.
  2. Plug bike in and allow magnets to move away from flywheel to least resistance then unplug.
  3. Adjust cam on right side of flywheel so that there is approximately 4mm gap between the pin and the end of the groove. To move the cam, you will have to give the butterfly on the motor shaft a spin with your left hand while turning the cam with your right hand.
  4. Using a phillips screwdriver, loosen and lower the L plate on the left side of the magnets until it gently depresses the lower limit switch.
  5. Secure the L plate and temporarily install pedals. Plug bike in and increase the resistance to maximum. At maximum resistance check the gap between the magnets and the flywheel. The gap should be approximately 1.5 to 2mm. If the gap is incorrect, unplug the bike and move the smaller L plate closer or further away from the upper limit switch 2 mm at a time until the proper gap is achieved.
  6. Plug bike in and check for proper function.
- b. If the motor will not move to the minimum resistance, measure the voltage across the motor. If the voltage is around 6 volts DC, the motor is jammed or bad. Replace the motor.
  - c. If the voltage is 0 volts, check the continuity of the wires and the wire connections. If wires are ok, replace the control board.
  - d. If the above procedures do not fix the problem, replace the computer.





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## *ELECTRONIC TROUBLESHOOTING (continued)*

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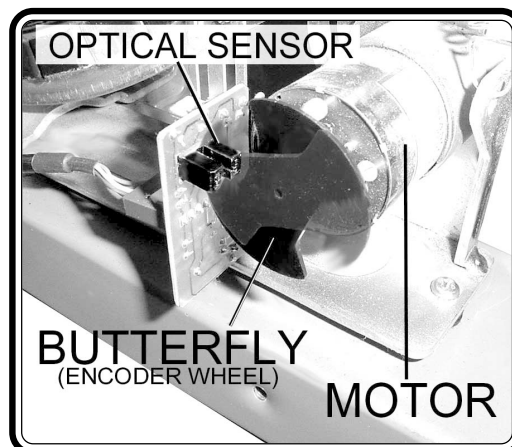
### **4. PROBLEM: Resistance stays at maximum**

- SOLUTION:**
- Check the lower limit switch on the control plate to see if it is stuck.
  - Check to see if 6 pin cable to the brake PCB is backward.
  - If it still does not work, replace the motor drive board.
  - If changing the motor drive board doesn't fix the problem, replace the cable going between the computer and the motor drive board.
  - If changing the motor drive board and the cables doesn't fix the problem, replace the computer.

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### **5. PROBLEM: Resistance will only go to maximum or minimum**

- SOLUTION:**
- Check to see if the butterfly is still on the motor shaft and fits in the slot of the optical sensor on the motor drive board.
  - Check cable connections.
  - If it still does not work, replace the motor drive board.
  - If changing the motor drive board doesn't fix the problem, replace the cable going between the computer and the motor drive board.
  - If changing the motor drive board and the cables doesn't fix the problem, replace the computer.





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## ***ELECTRONIC TROUBLESHOOTING (continued)***

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### **6. PROBLEM: Workout time will not change**

- SOLUTION:**
- a. Enter ELECTRICAL TEST MODE (see problem 2).
  - b. Rotate the pedals and verify the "SPU" display does go off and on.
  - c. If the "SPU" display does go off and on, the SPU is working and the computer is bad, replace the computer.
  - d. If the "SPU" display does not go on and off, replace the speed pickup sensor.
  - e. If the speed pickup test still doesn't work, replace the computer.

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### **7. PROBLEM: A key isn't working**

- SOLUTION:**
- a. Enter ELECTRICAL TEST MODE (see problem 2).
  - b. Press all the keys individually except for the (ENTER) key. Listen for the BEEP during each press. If a key doesn't cause a BEEP the key is not functional. If all keys have worked, press the (ENTER) key. If the display doesn't advance to the alternating display, the (ENTER) key is bad.
  - c. If a key is found to be bad, replace the computer.




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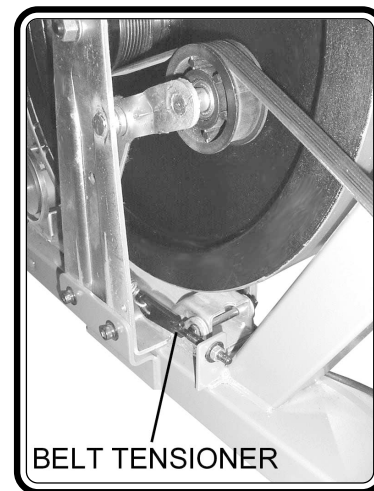
## MECHANICAL TROUBLESHOOTING

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### 1. PROBLEM: Belt slips or makes noise

**SOLUTION:** a. Adjust belt tension using tensioner or replace belt.

- b. \*Proper belt tension is achieved when the belt does not slip under normal pedaling forces at the highest resistance. When belt tension is too high there is excessive friction in the drive train, which gives the bike a poor feel when ridden and causes premature wear on drive train components. Proper belt tension is best achieved by starting with a slightly loose belt and increasing tension with half turns (clockwise) of the adjustment nut until the belt does not slip at the highest resistance setting.

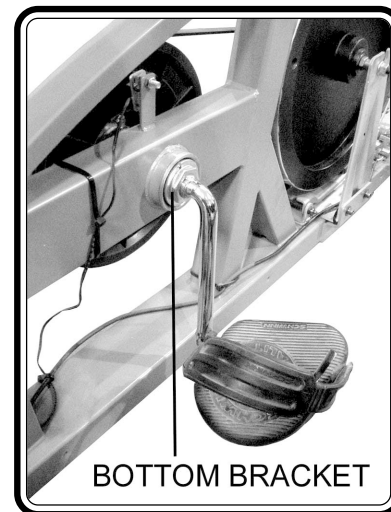



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### 2. PROBLEM: Bottom bracket feels tight, rough, or makes noise

**SOLUTION:** a. Adjust bottom bracket.

- b. Replace bottom bracket.




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### 3. PROBLEM: Bottom bracket feels loose

**SOLUTION:** a. Make sure bearing cups are secure in frame.

- b. Adjust bottom bracket

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### 4. PROBLEM: Drive train noise

**SOLUTION:** a. Noise once per revolution: check bottom bracket or pedals.

- b. Noise once every 1.5 revolutions: check belt
- c. Noise multiple times per revolution: Check tension pulley, belt or flywheel hub.



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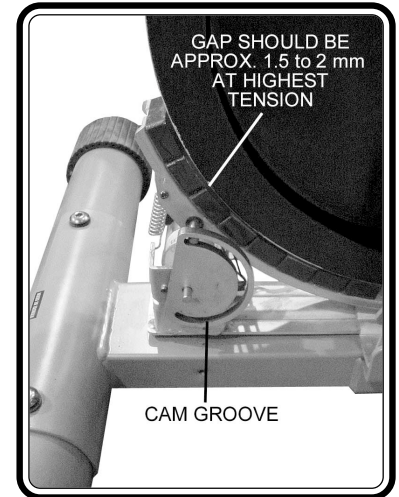
## MECHANICAL TROUBLESHOOTING (continued)

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**5. PROBLEM: Highest tension setting is too easy**

**SOLUTION:** a. Check the gap between the magnets and the flywheel. Gap should be about 1.5 to 2 mm. If the gap is incorrect, move the smaller L plate further away from the upper limit switch 2 mm at a time and then test until the proper gap is achieved.



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**6. PROBLEM: Slow or poor shifting**

**SOLUTION:** a. Lubricate the cam groove with thick oil or grease.  
b. Make sure all pivot points can move freely.

### NOTES

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**FOR MORE DETAILED INFORMATION CONTACT  
TECHNICAL SUPPORT AT 1-800-864-1270**