



## ELECTRONIC TROUBLESHOOTING

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

- SOLUTION:**
- Make sure the batteries are seated properly, installed correctly (+/-), and correct voltage.
  - Check the battery contacts for oxidation or corrosion.
  - If all of the above are ok, replace the computer.

### 2. PROBLEM: Partial display

- SOLUTION:**
- Enter ELECTRICAL TEST MODE and make sure that all segments of the display are on in step "2".

#### ELECTRICAL TEST MODE

- To enter electrical test mode, press the (RESET) key then press (START/ENTER), (UP) and (DOWN) keys all at the same time within 2 seconds of pressing the (RESET) key.
- All the segments of the display will be turned on.
- Press (ENTER) key. The display will alternate a pattern that turns on and off half the segments at a time. The (RESET, UP, DOWN,SCAN) keys can all be pressed, and the computer should beep and the display will blank to indicate the key press was recognized.
- Press the (ENTER) key. A "P" will be shown in the display. If a pulse signal source is present the "HEART RATE" display will flash with the pulses and the "P" will be replaced with a pulse rate number.
- Press (ENTER) key. "SPU" is displayed. Rotate the pedals of the bike and observe the display. While the pedal passes the speed pick up sensor, the "SPU" display will go out momentarily.
- Press (ENTER) key. Rotate the tension knob from minimum level to maximum level. The display should display from level 1 to 16 in 1 step increments. An "E" displayed indicates an invalid input is present.
- Press (ENTER) key. The display goes out and the unit has gone to sleep.





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

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### **3. PROBLEM: Keyboard doesn't work**

- SOLUTION:**
- a. Put the computer into "Step 3" of the 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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### **4. PROBLEM: Display doesn't indicate all the levels or speed equals zero**

- SOLUTION:**
- a. Put the computer into "Step 6" of the ELECTRICAL TEST MODE ( see problem 2 ).
  - b. Rotate the tension knob from the minimum level to the maximum level. Verify all the levels are indicated on the computer.
  - c. If all of the positions display an "E", the cable may have become disconnected.
  - d. If some positions are correct, but others indicate an "E" , the tension knob is bad or one or more of the cable wires may be damaged. Replace the tension knob.
  - e. If the positions are in a random order, flip the connector that goes from the tension knob to the computer.
  - f. If the problem is not corrected, replace the tension knob assembly and then the computer.




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## ELECTRONIC TROUBLESHOOTING (continued)

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### 5. PROBLEM: Time display doesn't change or speed equals zero

- SOLUTION:**
- Put the computer into "Step 5" of the ELECTRICAL TEST MODE( see problem 2 on page ).
  - Rotate the pedals and verify the "SPU" display goes on and off.
  - If the "SPU" display does go on and off, the SPU is working and the computer is bad, replace the computer.
  - If the display doesn't go on and off, disconnect the speed pickup cable from the J1 connector on the back of the computer. Short the two contacts at the J1 connector. The display should go out while the contacts are shorted.
  - If the "SPU" display goes out when shorted, replace the speed pickup sensor and cable.




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### 6. PROBLEM: Pulse doesn't work

- SOLUTION:**
- Put the computer into "Step 4" of the ELECTRICAL TEST MODE ( see problem 2 ).
  - A pulse module must be installed in the jack on the left side of the monitor for the model 115p.
  - Provide a signal source for the pulse and see if the "HEART RATE" display flashes with beats and a heart rate should be displayed in place of the "P" display.
  - If the pulse doesn't work replace the pulse module and signal source.



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## MECHANICAL TROUBLESHOOTING

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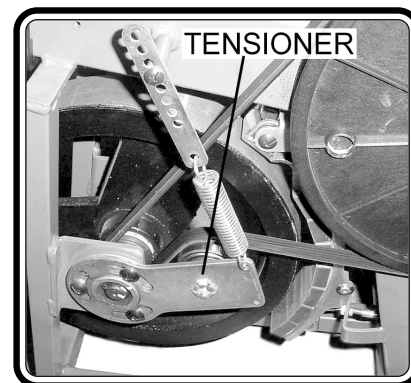


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**1. PROBLEM: Belt slips or makes noise**

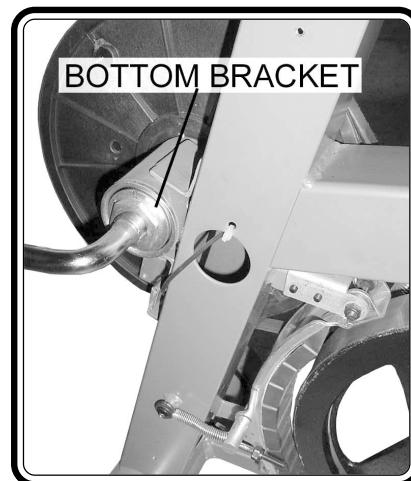
**SOLUTION:** a. Adjust belt tension using tensioner or replace belt.

- 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.

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

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

- b. Replace bottom bracket.

**3. PROBLEM: Bottom bracket feels loose**

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

- b. Adjust bottom bracket

**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.