


Effective Date: 2/6/13	 Service Bulletin	Revision B
Warranty: Depends on Install Date	No SPM Detected or Error 02A0 on Climb Mill	Revised Date: 10/23/13
Time Required: 60 Minutes	Models Affected: All CS17 or CS22 Climb Mills (excludes CS23)	Prepared by: Kevin Oeltjenbruns

DESCRIPTION

No SPM Detected or Error 02A0 is present on the console or the unit goes into Pause Mode without prompting.

SOLUTION

Follow the troubleshooting steps below to find the issue and correct it.

TOOLS AND PARTS REQUIRED

Multi-Meter Allen Wrench Set Phillips Screwdriver

New Hardware – 004475-00 x 2, 005045-00 x 2, & 1000229122

PROCEDURE

1. The most obvious issue that could cause this type of error is if the speed sensor is not communicating with the LCB.
 - a. Check the connection of the speed sensor cable to the LCB (Figure A).
 - b. Check to see if LED D35 on the LCB (Figure A) is lit when the brake is in the release position (to the left). If it is not lit, rotate the stairs ½ a revolution to see if LED D35 flashes during movement.
 - c. If LED D35 is not lit, and does not light when the stairs are moved, replace the speed sensor.
 - d. If LED D35 is lit, clean the speed sensor of any debris and make sure it is spaced evenly on the optic disc (Figure B), then retest.

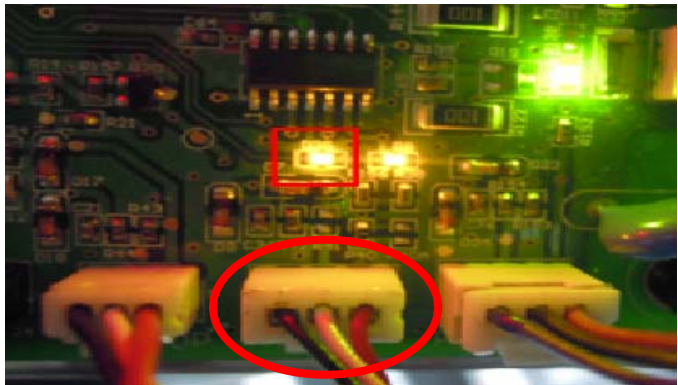


FIGURE A

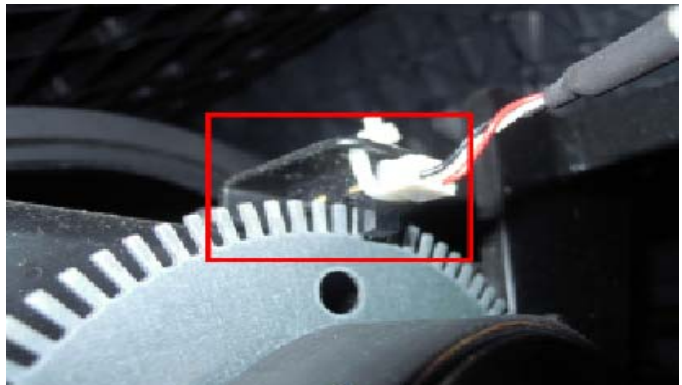



FIGURE B

2. If the issue is not related to the speed sensor, it is possible that the software versions are causing the issue.
 - a. Enter into Manager Mode and check the software version of the LCB and console.
 - b. If the LCB version listed is less than S003, replace the LCB with one that has updated software. If the console software listed is less than S006, update the console software.

NOTE: The software versions in this bulletin only apply to older versions of the Climb Mill.

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3. If neither software nor the speed sensor is causing the issue, the next thing to check is the brake.
 - a. Remove the Matrix logo cover from each side of the unit.
 - b. Check the connection of the brake wire at the extension (Figure C) and LCB (Figure D).

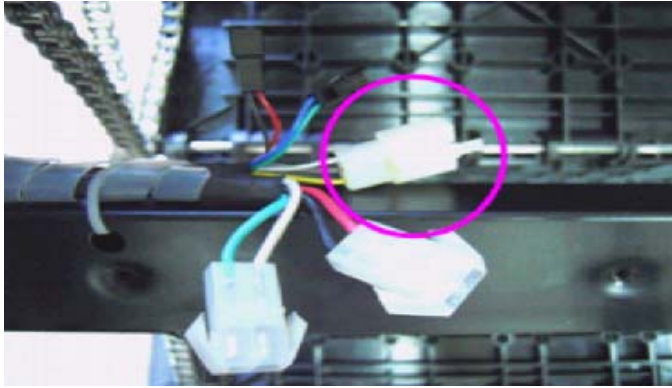


FIGURE C

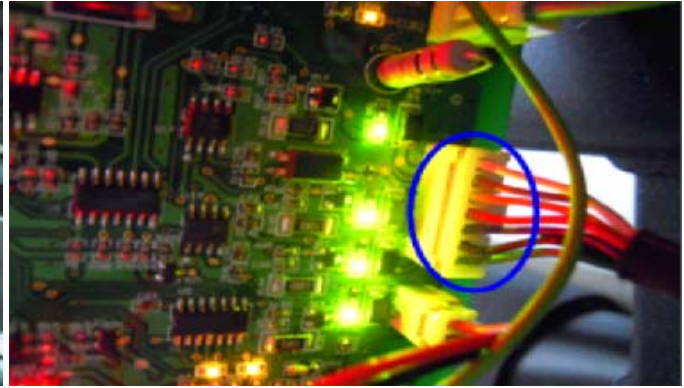


FIGURE D

- c. Unplug the brake wire from the extension wire which runs to the LCB.
 - d. Test the brake by taking a resistance reading on pins 1 & 2 of the brake wire. The resistance reading should be approximately 52 Ω .
 - If the resistance reading is less than 52 Ω (or if there is no resistance reading), replace the brake.
 - If the resistance reading is correct, replace the brake extension cable.
4. If software, the speed sensor, and the brake are all eliminated from consideration, the issue is likely with the hardware used to mount the drive set to the frame. It is possible that the correct hardware was not used or was not correctly assembled at the factory.
 - a. Remove the Matrix logo cover from each side of the unit to access the drive set.
 - b. Remove the fan / brake plate from the drive set by removing 4 screws (Figure E) and disconnecting the brake and fan wires (Figure F).



FIGURE E

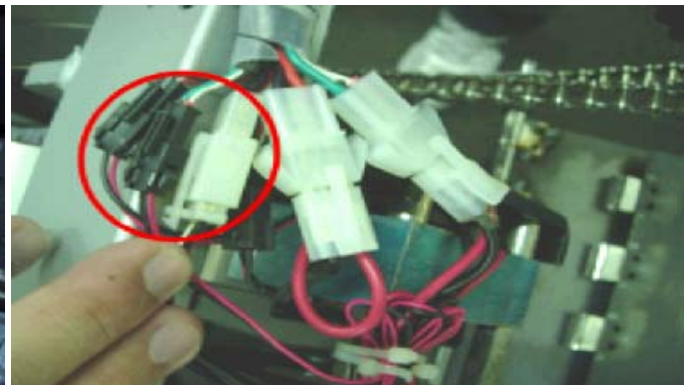


FIGURE F

- c. Remove the 3 screws holding on the cushioned nut on the flywheel (on the right side of the drive set) and remove the cushioned nut (Figure G).
 - d. Remove the screw / washer revealed when the cushioned nut is removed (Figure H).


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FIGURE G



FIGURE H

- e. Install a new screw / washer to replace the parts removed in Step 4d (Figure I). **NOTE:** The new screw will be 15mm long (instead of 10mm) and the new washer will be 3 mm thick (instead of 1.5mm).
- f. Install a new cushioned nut using the 3 screws removed in Step 4c. The new nut has a small bevel on the cushion (Figure J).



FIGURE I

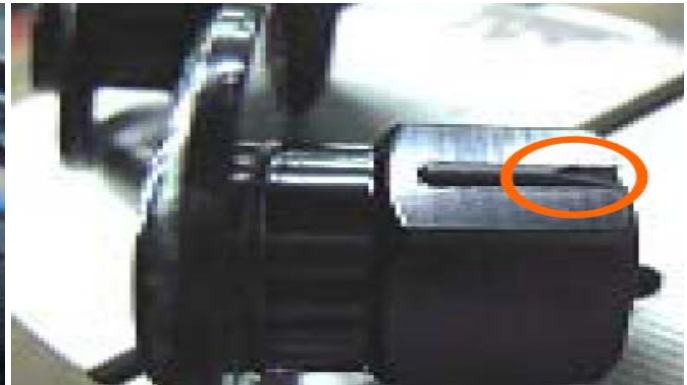


FIGURE J

- g. Remove the screw / washer on the gear on opposite side of the flywheel (on the left side of the drive set) (Figure K).
- h. Install a new screw / washer. **NOTE:** The new screw will be 15mm long (instead of 10mm) and the new washer will be 3 mm thick (instead of 1.5mm).



FIGURE K

5. If none of the solutions above solves the issue, replace the entire drive set.