

Effective Date 1/26/12	MATRIX Troubleshooting Guide	Revision
Warranty: Depends on Install Date	Checking for Continuity	Revised Date 4/12/17
Time Required: 15 minutes	Models Affected Powered Matrix Treadmills	Prepared by Kevin Oeltjenbruns

DESCRIPTION

There has been some confusion on how to run a continuity test on Matrix treadmills.

SOLUTION

This instruction is designed to clarify the procedure for doing a continuity test.

PARTS & TOOLS REQUIRED

Phillips Screwdriver

Metric Allen Wrench Set

Multi-Meter

PROCEDURE

1. Turn off power to the treadmill and unplug the power cord from the outlet.
2. Remove the motor cover(s) from the treadmill to expose the power wiring and choke (Figure A).
3. Set your multi meter to ohms (Figure B) to check for continuity at the console frame. There will be a green ground screw on all treadmill console frames. Remove the screen portion of the console and place one prong of the multi meter on the ground prong of the power cord (Figure C) and the other on the console ground screw (Figure D). A correctly grounded console frame will give an ohm reading of 1 or less.



Figure A



Figure B



Figure C



Figure D

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4. If you do not get ohm readings of 1 or below, start checking for continuity at the bottom of the treadmill and work your way up until you find where continuity is being lost.
5. Remove the power cord from the treadmill and check the cord. Place one prong of the multi meter on the ground prong of the power cord and the other prong on the ground on the receptacle side of the power cord (Figure E). A correctly grounded power cord will give an ohm reading of 1 or less. If it does not, replace the power cord. If it does, continue to Step 6.



Figure E

6. Place one prong of the multi meter on the ground prong of the power cord and the other on the ground screw behind the lower motor cover (Figure F). A correctly grounded screw will give an ohm reading of 1 or less. If it does not, replace the ground wire from the power receptacle to the ground screw. If it does, continue to Step 7.
7. Place one prong of the multi meter on the ground prong of the power cord and the other on the ground screw in the motor tray (Figure G). A correctly grounded screw will give an ohm reading of 1 or less. If it does not, replace the ground wire from the ground screw behind the lower cover to the ground screw in the motor tray. If it does, continue to Step 8.



Figure F



Figure G

8. Place one prong of the multi meter on the ground prong of the power cord and the other on one of the bottom console mast screws (Figure H). A correctly grounded screw will give an ohm reading of 1 or less. If it does not, replace the console mast screws with non-black screws (if black screws are present). Also use a file or sand paper to scarp the paint around the screw hole on both the base frame and console mast so that the screw head is making solid contact directly to the base frame and console mast metal and re-test.

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9. Repeat Step 8 with the top console mast screws (Figure I). A correctly grounded screw will give an ohm reading of 1 or less. If it does not, replace the upper console mast screws with non-black screws (if black screws are present). Also use a file or sand paper to scrape the paint around the screw hole on both the console frame and console mast so that the screw head is making solid contact directly to the console frame and console mast metal and re-test.

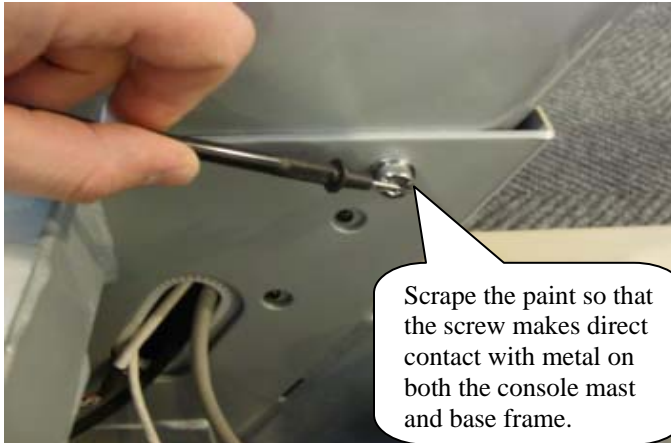


Figure H



Figure I

10. Repeat Step 9 with the other top console bracket screws (Figure J). **NOTE:** Some models will only have the top console mast screws shown in Step 9, others will have a bracket connecting the console mast to the console frame. A correctly grounded screw will give an ohm reading of 1 or less. If it does not, replace the upper console mast screws with non-black screws (if black screws are present). Also use a file or sand paper to scrape the paint around the screw hole on both the console frame and handlebar frame so that the screw head is making solid contact directly to the console frame and handlebar frame metal and re-test until you have an ohm reading of 1 or less on the top console mast screws. You should now be able to repeat Step 3 and get an ohm reading of 1 or less on the console frame ground screw.



Figure J