<b>Effective Date:</b> 9/15/2010	<b>Bervice Bulletin</b>	Revision 001
Warranty: Depends on Install Date	Preventing Horizon Treadmills From Giving a Static Shock	Revised Date:
<b>Time Required:</b> 1/2 - 1 Hour	Serial Numbers Affected: All	Prepared by: Kevin Oeltjenbruns

## DESCRIPTION

Some customers have been getting a static shock when using their Horizon treadmill.

## SOLUTION

Add a grounding wire and / or Electro Static Discharge (ESD) boards to prevent static shock.

#### PARTS REQUIRED

ZMK4000017 - Ground Wire and ESD Board Kit

### **TOOLS REQUIRED**

Phillips Screwdriver Allen Wrench Set 8mm Open Ended Wrench Needle Nose Pliers File or Coarse Grade Sandpaper

# PROCEDURE – NOTE: Steps 6 - 8 should be completed only on treadmills with heart rate grips.

- 1. Unplug the power cord from the wall outlet.
- 2. Use a Phillips screwdriver to remove the screws holding the console faceplate to the treadmill (Figure A).
- 3. Once the screws are removed, lean the console faceplate away from the console frame (Figure B).



Figure A

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4. Check for a ground wire on the console control board. The ground wire should be green and should go from the console control board to a grounding screw on the console frame (Figures C & D). If there is not a ground wire present, the static shock is probably caused by this ground wire being absent. Use the short green ground wire sent with the kit to run a ground wire from the console control board to the grounding screw on the console frame. If the ground wire was missing, the treadmill can be re-assembled and tested for static discharge. If a static shock is still given, continue on to Step 5.

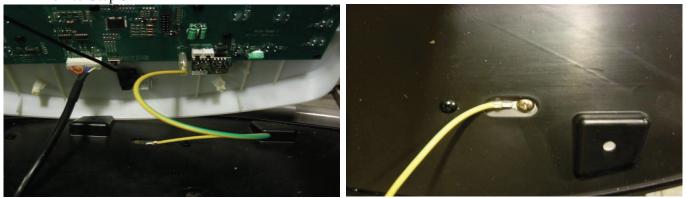


Figure C

**Figure D** 

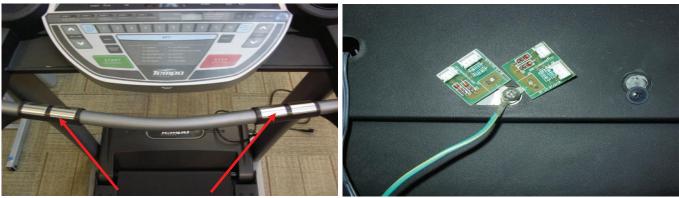
5. Remove the grounding screw and use a file or sandpaper to remove any access paint on the frame (Figures E & F). *NOTE:* The grounding screw should be able to touch metal on the frame.



Figure E

Figure F

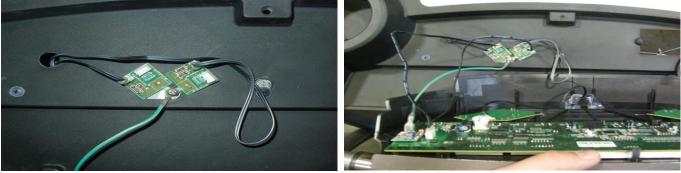
6. If the treadmill has heart rate grips (Figure G), install the 2 ESD Boards sent in the kit so that the grounding screw goes through the spade on the ESD Boards (Figure H).





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- 7. *Units with heart rate grips only*. Plug the wires from the heart rate grips into the ESD Boards (one grip per board) (Figure I).
- 8. *Units with heart rate grips only*. Use the black wires in the kit to connect the ESD Boards to the console control board (Figure J). The treadmill can be re-assembled and tested for static discharge. If a static shock is still given, continue on to Step 9.



**Figure I** 

Figure J

9. If all the steps above are followed and the unit is still giving static shocks, a ground wire will need to be run from the upper grounding screw to the grounding post at the bottom of the unit. This will require removing the user's right side console mast. This is accomplished by removing screws at the top of the console mast and screws at the bottom of the console mast (Figures K & L).



**Figure K** 

Figure L

- 10. Once the console mast screws are removed, pull up on the console mast and remove it from the frame (Figure M).
- 11. Run the long ground wire sent in the kit down the console mast (Figure N). *NOTE:* It is helpful to tie the ground wire to a heavy bolt or other object to help string it through the console mast.



Figure M

Figure N

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- 12. The long ground wire should now be running through the console mast with slack on both sides (Figure O).
- 13. Take the ground wire that is coming out of the bottom of the console mast and string it through the hole in the treadmill base frame (Figure P). The grounding wire should follow the same path as the black console cable that is already strung through the frame.

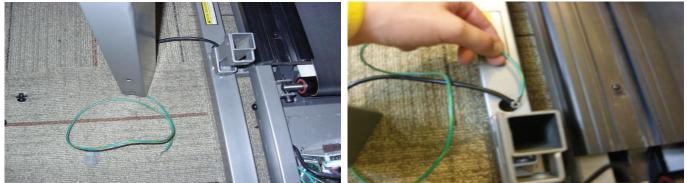


Figure O

Figure P

- 14. Once the ground wire is running strung through the treadmill base frame, slack should be given so that the ground wire can be pushed through a hole in the frame into the motor tray (Figure Q).
- 15. Use an 8mm open ended wrench to remove a nut from the ground prong mounted near the motor control board (Figure R). Slide the spade of the grounding wire onto the ground prong, and then reinstall the nut and tighten firmly.

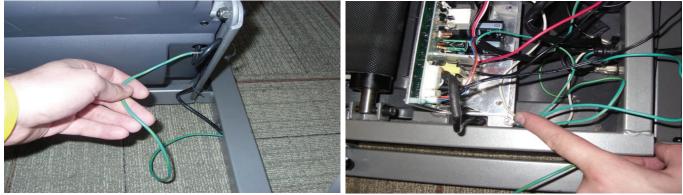


Figure Q

Figure R

- 16. Re-install the console mast while making sure that there is enough slack in the grounding wire so that it will reach to the console ground screw.
- 17. Attach the top end of the grounding wire to the console ground screw.
- 18. The treadmill can be re-assembled and tested for static discharge. If a static shock is still given, contact Horizon Customer Technical Support at 1-800-244-4192.