Service Bulletin

SM5/Gauntlet Stepmill Power Trace

Applies to: SM5 (150005) + Gauntlet (150015)

Latest Rev.

This document describes the procedure for doing a power trace on the SM5 and Gauntlet Stepmills.

Warning: the following procedure requires the power to be on.
Please exercise caution when working around live electrical components

Tools Needed

- Multimeter
- Phillips head screw driver
- Mini pry bar or flat head screw driver for removing shroud rivets

If at any point power is tested as good going into a part or cable but not out of that part or cable that is the piece that needs to be replaced.

Procedure

1. Remove the user right side shroud from the Stepmill to access the machine internals.

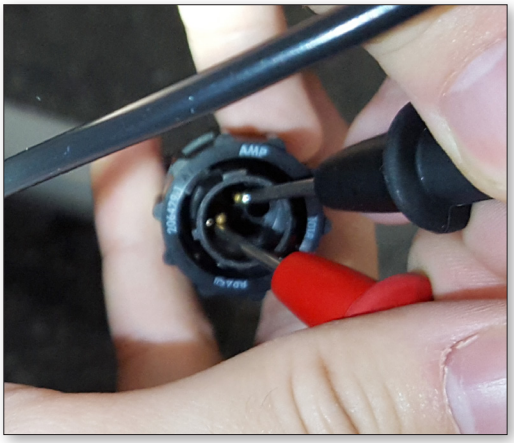
2. Make sure the power switch is in the "on" position – the red light on the power switch will be in the "up" position but not lit up.

3. Using a multi-meter test the wall outlet to ensure 120V AC or 220V AC is coming from the facility. (fig. 1)

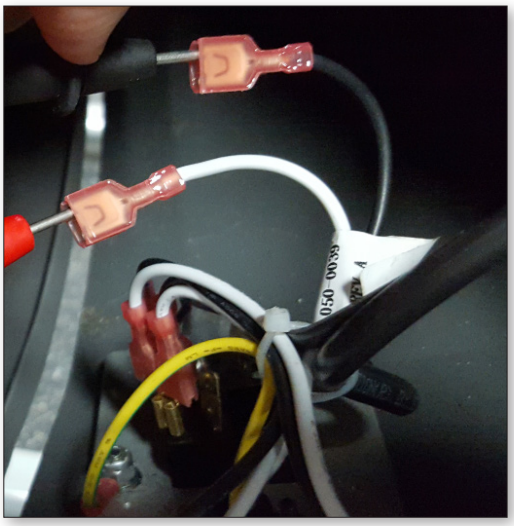
Service Bulletin

4. Unplug the 3 pin NEMA cord from the power brick and test to ensure 120V AC or 220V AC is coming out from the power cord. Be sure that the cord is plugged securely into the power brick.

5. Remove the power cord from the Stepmill power inlet and test the two pins located in the power connector to ensure 12V DC is coming out of the power supply brick.

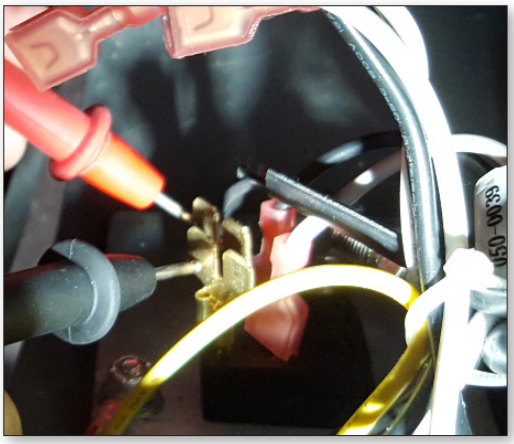


6. Plug the power cord back into the Stepmill, then remove the white and black connectors that connect the power inlet to the power switch. Test to ensure 12V DC is coming out from the power inlet.



Service Bulletin

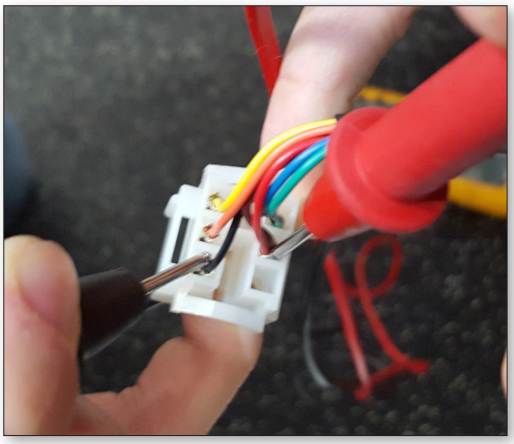
7. Plug the white and black connectors back into the power switch in their original position and then remove the 4 white and black connectors from the power switch splitters. Test to ensure 12V DC power is coming out of the switch.



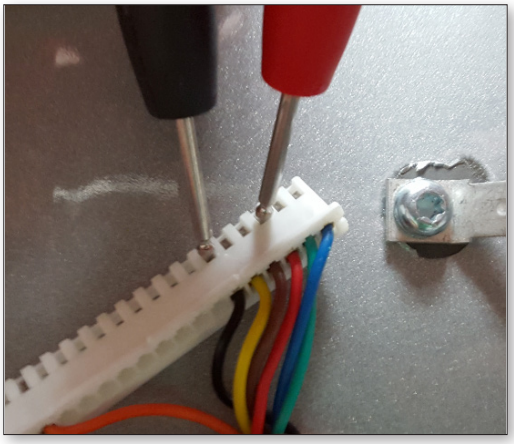
8. Reconnect the 4 white and black connectors in their original positions on the power switch splitters then disconnect the black and white connector from the "J2" terminal on the lower relay board. Test to ensure 12V DC is coming out of the black and white switch-to-lower-board cable harness connector.

9. Connect the black and white cable from the power switch back into the "J2" terminal on the lower relay board then remove the lower data cable from the "J1" terminal on the lower board. Test the upper left and the bottom right pins to ensure 12V DC coming out of the lower relay board.

10. Plug the lower data cable back into the "J1" terminal on the lower relay board, then disconnect the lower data cable from the upper data cable and test the black and red wires to ensure 12V DC coming out of the lower data cable.



11. Plug the lower data cable back into the upper data cable connection point then using a phillips head screw driver, remove the 4 screws that connect the console to the upper mast. Please note that upon removal of the 20 pin bar connector from the console, the unit may lose resistance. Do not remove this connector while standing on the Stepmill. Once the console has removed from the mast, disconnect the 20 pin bar connector from the console and test the red (3rd from the left) and black (6th from the left) wires on the 20 pin bar connector to ensure 12V DC out from the upper data cable.



12. Plug the 20 pin bar connector back into the console* and reinstall the console back onto the mast. If voltage tests good at 12 volts DC throughout the system but console does not power on, please replace the console.

Note: Touchscreen Consoles only proceed to next page.

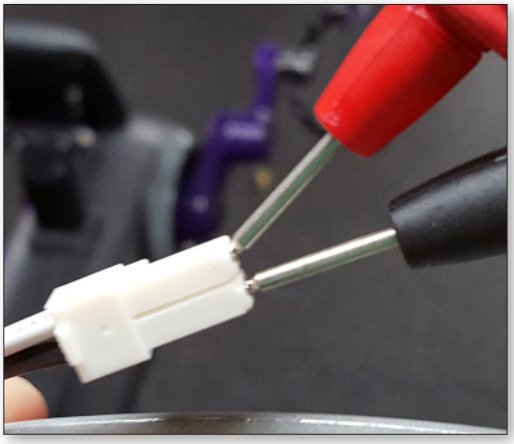
Service Bulletin

Touchscreen Consoles

Warning: Steps in motion are dangerous

Do not stand on steps when removing console cables, resistance may be lost

1. Unplug the lower black and white supplementary power cable from the upper supplementary power cable and test to ensure 12V DC power coming out of the lower supplementary power cable.



2. Unplug the upper black and white supplementary power cable from the touchscreen console's black and red supplementary power connector and test to ensure 12V DC coming out of the upper black and white supplementary power cable.

3. Plug the black and white supplementary power cable back into the touchscreen console's black and red supplementary power connector then reinstall the console back onto the mast. If voltage tests good at 12 volts DC coming out of the upper supplementary power harness but the console still does not turn on, replace the console.

Quick Checklist

- ☐ Power from wall: 120-220VAC
- ☐ Power from NEMA power cord: 120-220VAC
- ☐ Power from power supply brick: 12VDC
- ☐ Power from power inlet: 12VDC
- ☐ Power from switch: 12VDC
- ☐ Power from switch-to-relay-board cable harness: 12VDC
- ☐ Power from relay board: 12VDC
- ☐ Power from lower data cable: 12VDC
- ☐ Power from upper data cable: 12VDC
- ☐ Power from lower supplementary power supply (touchscreens only): 12VDC
- ☐ Power from upper supplementary power supply (touchscreens only): 12VDC