

Schwinn 470: Why is the resistance not changing when adjusted?

ID: 12818.1

Follow this troubleshooting guide to help resolve resistance issues on your Schwinn 470 Elliptical.

Some common complaints may include:

- Resistance isn't changing
- Can't adjust resistance
- Resistance buttons not working
- Too easy to pedal
- Too difficult to pedal

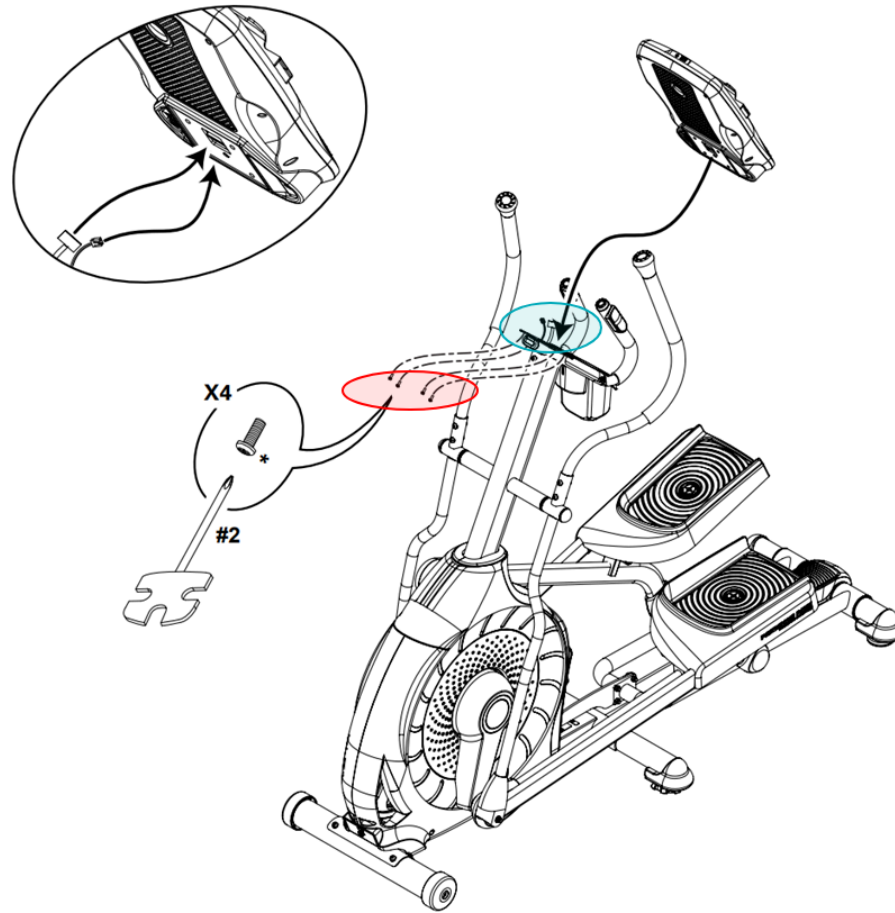
Follow these steps to troubleshoot the issue

Tools you may need:

Phillips head screwdriver
Flathead screwdriver
(2) 6mm hex/Allen wrenches or the wrench from the hardware card included with your machine
Voltmeter

1. Inspect the cables at the console. Unplug your machine from power. Use a Phillips head screwdriver to remove the 4 screws connecting the console to the mast and lift the console/handlebars up to expose the cables (**reference 1**). Disconnect and inspect the cables and connections coming from the console and the frame for damage, such as crimps, cuts, or bent pins. If the cables are undamaged, plug them back in, ensuring they are oriented in the correct direction, and retest your machine [\[12818.A\]](#). If the console is damaged, [order a Console \[12818.B\]](#). If the cable coming from the frame is damaged, [order an Upper Console Cable \[12818.C\]](#).

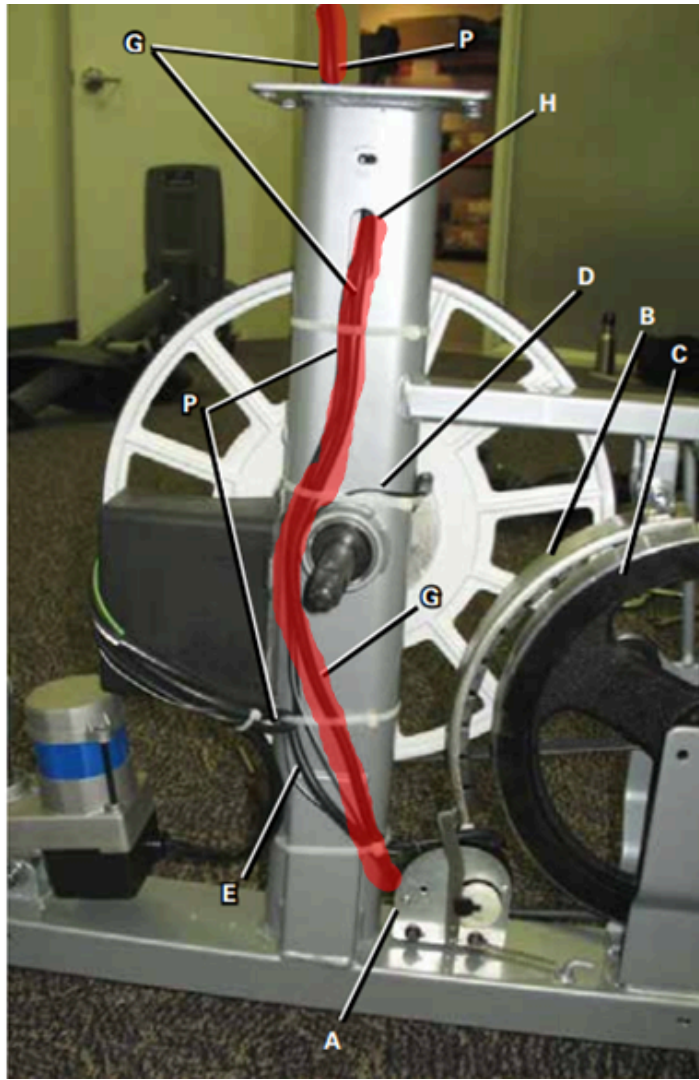
(Reference 1)



*The bolts circled in red need to be removed to access the cables between the console and the console mast.
Inspect the cables circled in teal for damage.*

- If the issue persists, unplug your elliptical and wait 5 minutes before continuing. You will need a crank puller in order to remove the shrouds and inspect the servo motor cable. [Order a Crank Puller](#) if you do not already have one. Watch this video for help accessing the servo motor: [How to Replace the Servo Motor on a Bike or Elliptical](#). Refer to the "Replace the Shrouds" section of the [service manual](#) for instructions on removing the shrouds. With the shrouds removed, unplug and inspect the entire length of cable running through the frame to the servo motor for damage ([reference 2](#)). If undamaged, plug the cable back in and test your machine [\[12818.D\]](#). If damage is present, [order a Servo Cable \[12818.E\]](#).

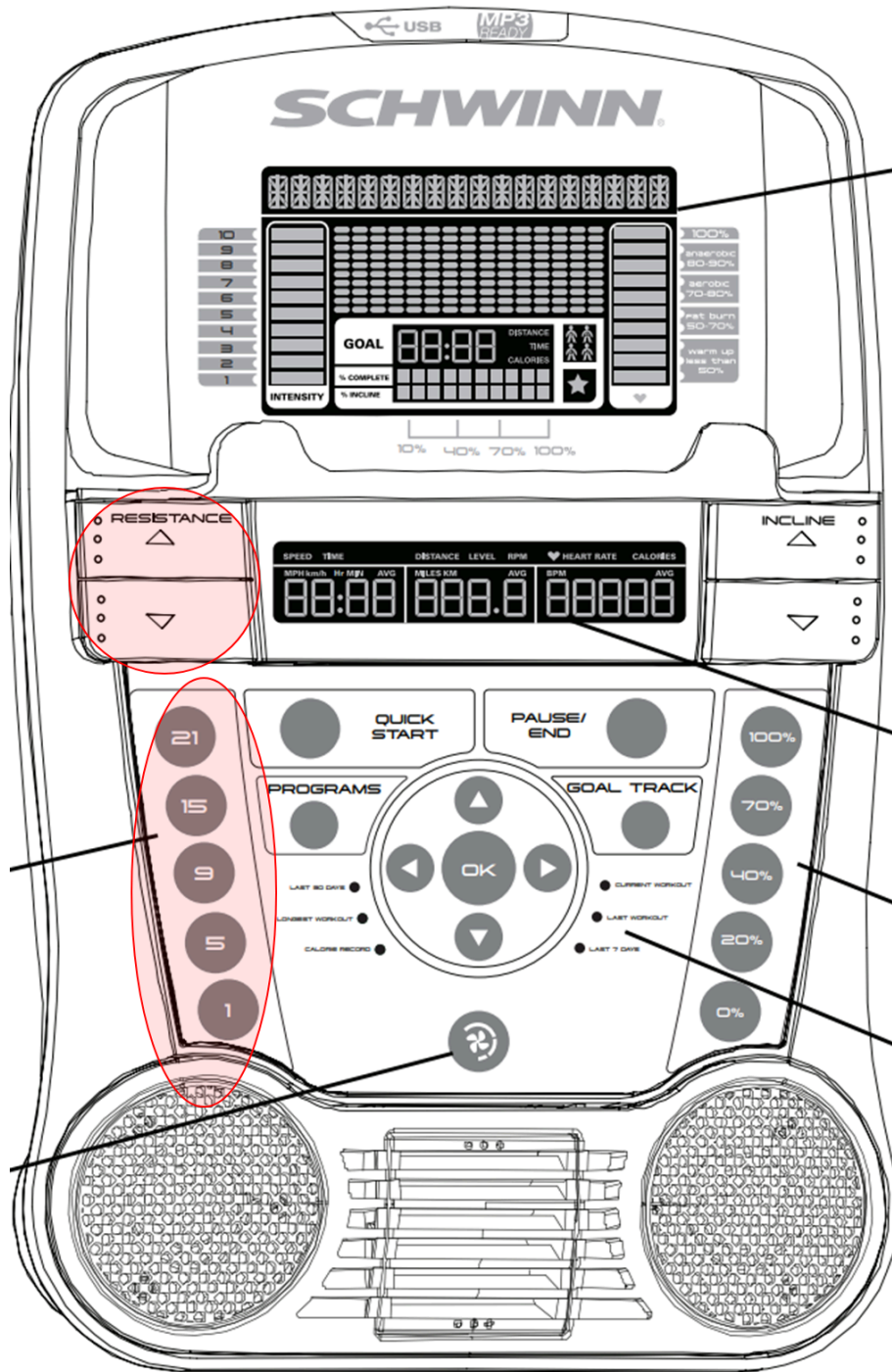
(Reference 2)



*The mast to servo cable is highlighted in red and the servo motor is labeled 'A.'
Inspect the entire length for damage and a secure connection.*

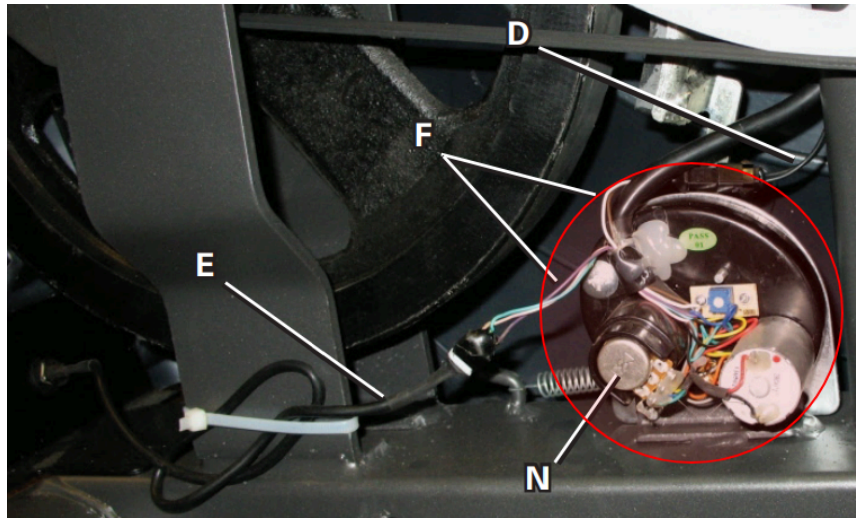
3. With the shrouds still removed, plug your machine back in and use the console to begin a workout. Adjust the resistance level using the Quick Resistance and/or increase/decrease buttons (**reference 3**). Watch the servo motor for movement while you adjust the resistance level (**reference 4**).

(Reference 3)



Start a workout and attempt to increase the resistance using the buttons circled in red. Your console may look different from what is pictured. The console in this image is from the 2013 model. Listen for servo motor movement.

(Reference 4)



The servo motor is circled in red. Watch the motor for movement as you adjust the resistance.

4. If the servo motor is not responding appropriately to console commands, test the cable from the servo motor with a voltmeter. Measure the black and red wires - the black lead should go to the black wire and the red lead should go to the red wire. Press the resistance up/down buttons and watch the voltmeter - the voltage should spike to approximately 2.5 VDC. If the voltage is incorrect at the servo motor, skip to Step 6. If the voltage reading was correct or you do not have a voltmeter, [order a Servo Motor \[12818.F\]](#).
5. If the servo motor does not move or is responding abnormally to console commands, inspect the brake assembly to make sure that the brake and servo motor linkage is configured correctly. Your elliptical should look like **reference 5**. If needed, follow the "Set the Brake Tension (Calibration)" procedure in the *service manual* to adjust the brake tension [\[12818.G\]](#). If the linkage is incorrectly configured, incomplete, or resetting the brake tension did not resolve the issue, [order an Eddy Brake Assembly \[12818.H\]](#).

(Reference 5)



Your brake and servo motor linkage should look the same as this image.

6. If the voltage in step 4 was correct or the brake assembly is the same as pictured above, test the voltage at the rear of the console with a voltmeter. At the 12-pin wire, measure the red and black wires - the black lead should go to the black wire and the red lead should go to the red wire. Press the resistance up/down buttons and watch the voltmeter the voltage should spike to approximately 2.5 VDC. If the voltage is incorrect, [order a Console \[12818.I\]](#).
7. If the issue persists, [order a Mast Cable and a Servo Motor Cable \[12818.J\]](#).

Need to order replacement parts?

1 Customer Care Contact Information

Please contact Customer Care at [1-800-605-3369](tel:1-800-605-3369) for additional help or to order replacement parts. Some replacement parts may also be available for purchase [online here](#). A list of part numbers referenced within this guide can be located at the bottom of this page.

Customer Care - Hours of Operation:

Monday - Friday 6:00am - 5:00pm PST

The replacement part will be provided to you at no cost assuming your machine meets the warranty eligibility requirements. A Customer Care Agent will be able to assess your current warranty eligibility and provide you with your options.

Please note that if you did not purchase your machine directly from BowFlex, Schwinn, or Nautilus, we will need a copy of your purchase receipt in order to register your machine for warranty.

2 Parts Reference Table

| <i>Part Description</i> | <i>Part SKU</i> |
|-----------------------------|-----------------|
| Console (2013 model) | 8002118 |
| Console (2017 model) | 8011277 |
| Crank Puller | 74025 |
| Eddy Brake Assembly | 8002344 |
| Mast Cable | 8002693 |
| Servo Motor | 8002336 |
| Servo Motor Cable | 8002699 |
| Upper Console Cable | 8002697 |

3 Contact Tech Team / Advanced Troubleshooting

If the issue was not resolved in the steps listed, contact the Tech Team or send an Advanced Troubleshooting case.

Submit a Case with case type Advanced Troubleshooting