

# Schwinn 490 Elliptical: Resistance issues

ID: 15331.2

## Common issue descriptions:

- Resistance is not shown or displayed on console
- Inaccurate or inconsistent resistance level
- No resistance felt (too easy) or too much resistance (too difficult)
- Resistance will not adjust using the console or handlebar buttons

**Tools used in this guide:** Phillips head screwdriver, 6mm hex key/Allen wrench

**Estimated time to complete:** Approximately 30 to 40 minutes - two people may be required when checking cables.

**Let's get started!** We will check each of the components below (in order) to determine which is causing the issue.

1. [Cable connections](#)
  - o [Connection behind the console](#)
  - o [Connection at the bottom of the console mast](#)
  - o [Connection at the right upper handlebar](#)
2. [Servo motor](#)

## Inspect the cable connection behind the console

<i>Tools Required:</i>	<i>Estimated Time to Complete:</i>	<i>Service Manual Procedure:</i>
Phillips head screwdriver	10 minutes	<a href="#">Replace the Console</a>

### Access the connection

**Important:** Unplug the power cord from both the front of your machine and the electrical outlet before continuing

1. Lift to remove the console rear cover off of the console mast.
2. Using a Phillips head screwdriver, carefully remove the four screws that attach the console to the mast and set them to the side.
3. Carefully lift the console from the mast to expose the cable connection.

#### Step 1



#### Step 2 & 3



### Check the cables

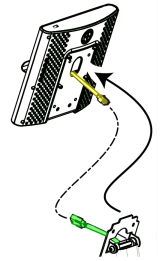
1. Inspect the console for any visible signs of damage, such as a cracked display or housing. [Order a Console](#) if damaged [15331.A].
2. If no damage is present, check the console cable connection. There is one cable connection between the console and console mast. **Be careful to not allow the cable**

#### Steps 1 & 2

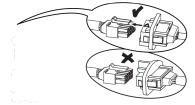
to fall into the frame while troubleshooting.

3. Unplug the cables and check the following items before reconnecting:

- **Damage** - Check for cut, crimped, or frayed wires, loose connectors, and missing/bent pins within the connectors. If a cable or connector is damaged, the replacement item depends on which cable is affected:
  - Console cable: [order a Console \[15331.B1\]](#).
  - Console Mast cable: [order a Mast Cable \[15331.B2\]](#).
- **Connector Orientation** - the color of the wires should match on both sides of the connection (e.g., red wire matches red wire).
- **Connection Tightness** - the cable connectors must be firmly pressed together to properly secure the connection. The connectors have a latching mechanism where a plastic tab on the male connector slides over a small ridge on the female connector.
- These latch components can also be used to confirm the connectors are secured in the correct orientation.



## Step 2



4. Once the cable is reconnected, install the console onto the mast and test if the issue persists. Be careful not to pinch the wire when reinstalling the console [\[15331.C\]](#). If the issue persists, check the next connection in the section below.

## Inspect the cable connection at the bottom of the console mast

<i>Tools Required:</i>	<i>Estimated Time to Complete:</i>	<i>Service Manual Procedure:</i>
6mm hex key/Allen wrench	10 minutes	<a href="#">Replace the Console Mast</a>

### Access the connection

**Important:** Unplug the power cord from both the front of your machine and the electrical outlet before continuing

1. Starting with the console removed from the section above, use a 6mm Allen wrench to loosen and remove the four bolts attaching the handlebar assembly to the console mast.
2. There is one bolt on either side of the mast and two bolts on the user's side.
3. Slightly pull up on the console mast to expose the cable connection.

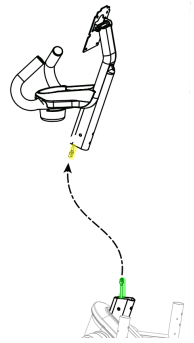


### Steps 1 & 2

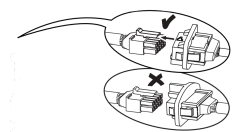
### Check the cables

1. There is one cable connection from the Base Hub (circuit board controlling resistance, speed, and incline) to the console mast. **Be careful to not allow the cable to fall into the frame while troubleshooting.**
2. Unplug the cables; check the following items before reconnecting:
  - **Damage** - Check for cut, crimped, or frayed wires, loose connectors, and missing/bent pins within the connectors. If a cable or connector is damaged, the replacement item depends on which cable is affected:
    - Cable from Mast: [order a Mast Cable \[15331.D1\]](#).
    - Cable from Frame: [order a Mast to Base Hub Cable \[15331.D2\]](#).
  - **Connector Orientation** - the color of the wires should match on both sides of the connection (e.g., red wire matches red wire).
  - **Connection Tightness** - the cable connectors must be firmly pressed together to properly secure the connection. The connectors have a latching mechanism where a plastic tab on the male connector slides over a small ridge on the female connector.
  - These latch components can also be used to confirm the connectors are secured in the correct orientation.
3. Once all cables are reconnected, reinstall the console mast and console, then test if the issue persists. Be careful not to pinch any wires when reinstalling the parts [\[15331.E\]](#). If the issue persists, check the next component in the section below.

### Steps 1 & 2



### Step 2



## Inspect the cable connection at the right upper handlebar

<i>Tools Required:</i>	<i>Estimated Time to Complete:</i>	<i>Service Manual Procedure:</i>
Phillips head screwdriver 6mm hex key/Allen wrench	5 minutes	<a href="#">Replace the Cables (Section 3)</a>

### Access the connection

**Important:** Unplug the power cord from both the front of your machine and the electrical outlet before continuing

1. The upper and lower handlebar connection is protected by a handlebar cover. Five tabs on the external cover snap into place on the interior cover to secure it in place.
2. On the **right upper handlebar**, gently compress the outside of the exterior cover to release the tabs. Remove the exterior cover and set it to the side.
3. Next, locate the two screws facing the main body of the machine - these are used to attach the interior cover. Use a Phillips head screwdriver to loosen and remove the screws, then set the interior cover aside.
4. Once the handlebar cover is removed, we can use a 6mm Allen wrench to loosen and remove the four screws connecting the upper and lower handlebar.
5. Slightly pull up on the upper handlebar to expose the cable connection for resistance controls.

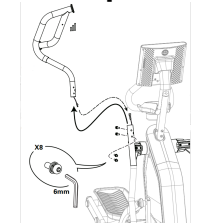
### Steps 1 & 2



### Step 3



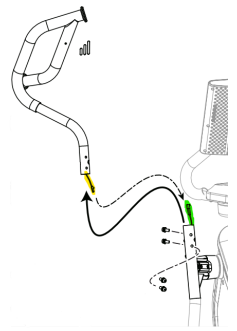
### Step 4



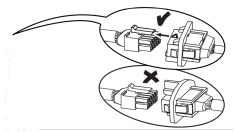
## Check the cable

1. There is one cable connection from the Base Hub (circuit board controlling resistance, speed, and incline) to the upper handlebars.
2. Unplug the cable; check the following items before reconnecting:
  - **Damage** - Check for cut, crimped, or frayed wires, loose connectors, and missing/bent pins within the connectors. If a cable or connector is damaged, the replacement item depends on which cable is affected:
    - Cable from Upper Handlebar: [order a Right Upper Handlebar \[15331.F1\]](#).
    - Cable from Lower Handlebar: [order a Base Hub to Buttons Cable \[15331.F2\]](#).
  - **Connector Orientation** - the color of the wires should match on both sides of the connection (e.g., red wire matches red wire).
  - **Connection Tightness** - the cable connectors must be firmly pressed together to properly secure the connection. The connectors have a latching mechanism where a plastic tab on the male connector slides over a small ridge on the female connector.
  - These latch components can also be used to confirm the connectors are secured in the correct orientation.
3. Once the cable is reconnected, test if the issue persists. Be careful not to pinch the wire when reinstalling the handlebar [\[15331.G\]](#).
4. If the issue persists, check the next component in the section below.

### Steps 1 & 2



### Step 2



## Inspect the servo motor

<i>Tools Required:</i>	<i>Estimated Time to Complete:</i>	<i>Service Manual Procedure:</i>
Phillips head screwdriver	10 to 15 minutes	<a href="#">Replace the Speed Sensor</a>

### Open the front access

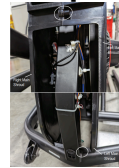
**Important:** Unplug the power cord from both the front of your machine and the electrical outlet before continuing

1. There are eight tabs connecting the front lower shroud to the main shroud on either side of the machine.
2. Disengage the tabs by flexing the edges of the front shroud away from the main shrouds - a flathead screwdriver with a cloth covering the blade can be used for additional leverage.
3. The servo motor is mounted on the frame in the front access opening, encased in a blue box.

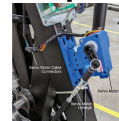
#### Steps 1 & 2



#### Step 3



#### Step 4



### Check the servo motor and cable

1. Inspect the servo motor for visible damage to the motor or casing. Starting at the servo motor, inspect the cable while following it to the end connector:
  - a. Check for cut, crimped, or frayed wires, loose connectors, and missing/bent pins within the connectors.
  - b. At the end of the cable, check to confirm it is securely connected to the Split Cable Assembly.
  - c. If unplugged, firmly press the connectors together, then test if the issue persists [\[15331.H\]](#).
2. If the servo motor or cable is damaged, [order a Servo Motor \[15331.I\]](#).
3. If the servo motor is not damaged, we will start a workout so we can see how the servo motor behaves when adjusted:
  - a. Plug the power cord back into your machine and the wall outlet.
  - b. Start a workout.
  - c. Adjust the resistance level on your machine from the console and/or right handlebar controls. Adjust the resistance all the way to the maximum resistance level, then back to no resistance.
  - d. While adjusting the resistance, check the console to make sure the correct resistance level is displayed. Watch the servo motor to make sure it moves when adjusted.
  - e. If the servo motor does not move when adjusted, [order a Servo Motor \[15331.J\]](#).
4. If the issue persists after all troubleshooting has been completed, please contact Customer Care to submit an Advanced Troubleshooting case for further troubleshooting. Our contact information is located at the bottom of this page [\[15331.K\]](#).

#### Step 1



***Need to order replacement parts?*****1 Parts Reference Table**

<i>Part Description</i>	<i>Part SKU</i>
<b>Console</b>	<b>8027023</b>
<b>Mast Cable</b>	<b>8028068</b>
<b>Mast to Base Hub Cable</b>	<b>8027278</b>
<b>Base Hub to Buttons Cable</b>	<b>8027282</b>
<b>Right Upper Handlebar</b>	<b>8025720</b>
<b>Servo Motor</b>	<b>8026923</b>

**2 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**