

## Bike Brake Generator Troubleshooting

### E-Series, S-Series Upright / Recumbent Bikes

Self-Powered Star Trac Upright and Recumbent bikes use a brake generator to supply power to the console during a workout as well as to provide resistance in the drive system. The brake generator on this type of machine also includes a clutch, which allows the generator's flywheel to continue spinning if a user's feet are no longer pedaling.

When using in self-powered mode, the Upright and Recumbent bikes have a minimum, consistent pedaling speed of 45 RPMs. This minimum speed can be reduced to 30 RPMs by attaching an optional AC adaptor and enabling the WALL POWER option within Maintenance Mode of the console. **NOTE:** If a user pedals slower than 30 RPMs (with the optional AC adaptor), or 45 RPMs (in self powered mode) the bike's console will go into pause mode and turn off. A consistent RPM above the minimum needs to be maintained, or as the console goes into pause mode, it may be interpreted as a loss in resistance by a user.

#### Troubleshooting Slipping on the Brake Generator

Slipping on Upright and Recumbent bikes with a brake generator may be caused by:

- Worn drive belt
- Insufficient belt tension
- Older Primary console software
- Failed clutch on the brake assembly

Validate slipping by increasing resistance on the console to level 15 while trying to pedal rapidly and with as much force as possible. Then, try to stop and re-start, to disengage and re-engage the clutch, respectively. If the pedals do not slip, then the bike is operational. If intermittent slipping is present, please reference the steps outlined in Doc # 637-1306A.pdf.

If brake clutch slip is intermittent and can't be duplicated, tighten the belt tensioning spring on the brake (Figure 1).



Fig. 1

If the clutch has been tested and drive belt has been re-tensioned, it may be necessary to install version 1.19 Primary display software. Software and uploading procedures can be found at: <https://support.corehandf.com/Software/>.

Updating BCS Console Primary Software:

1. Locate the Primary port.
2. Plug the primary uploader into the left-most, Primary port (Labeled as "A" in Figure 2).
3. Start pedaling to power the unit. While pedaling, the uploader light will blink orange.
4. Continue pedaling until the uploader light turns solid green.
5. Disconnect the uploader from the display electronics.
6. Reference Document # 637-4342A.pdf for details on properly configuring console settings.

**Load Curve Changes** Some customers felt that the resistances curve in levels 1-10 on our Generation 1 E-Series model bikes are a bit heavier than the current 8-Series and E-Series bikes. With this new software, there has been an adjustment made to match the load curve to the load curve that has been used on all past P and Generation 1 E-Series bikes.

**Improvements to Self-Powered power-up reaction time:** The issue was reported that the latest E-Series Bikes and CrossTrainers would intermittently not turn on when a user begins to pedal or stride on a self-powered unit. This is an issue that is resolved in this new software.

The way to remedy the two issues listed above is to install software version 1.19 on to the PRIMARY port, labeled A in the image below (Figure 2). The secondary software upload port, labeled B in the image below, is not used in this scenario.

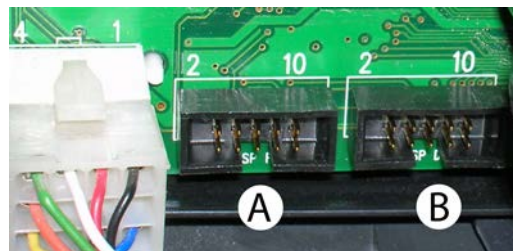


Fig. 2

**\*\*Do not upload this software to a P-Series unit; doing this will cause the display to be inoperable.\*\***

<b>For further brake generator troubleshooting, please reference:</b>	
YouTube Video: Star Trac Brake Generator Troubleshooting	<a href="https://youtu.be/um4HEdqzoaU">https://youtu.be/um4HEdqzoaU</a>
Brake Assy Slipping While Pedaling	Document # 637-1306A.pdf
BCS Software Upload, Not Powering On, Keys Beeping	Document # 637-4342A.pdf