

Technical Procedure

Echelon2G No Power Troubleshooting

Applies to: AC Power (9-7300), SC Power (9-7310)

AC Power:

Required Tools:

- #2 Phillips Screwdriver
- Multimeter
- 2.5mm Allen Key

AC + SC Power Battery Charging and Voltage Requirements

Before beginning to troubleshoot the AC or the SC Power bike for issues related to power, it is important to understand the voltage requirements and how the Echelon2G system operates on an internal 3.7V rechargeable battery.

The Echelon2G requires a minimum of 3V to power on and function. If the bike is not being pedaled (or being pedaled below ~35 RPMS) and the console is manually powered on with the "ON/OFF" button, the battery will begin to drain in order to power the console.

Please note that this MAY cause damage to the battery over time if it is not charged by riding the bike.

If the bike is being pedaled above 35 RPMs, the generator will provide enough power to the Echelon2G that the battery will not be used.

As mentioned above, prolonged use of the console without charging the battery will drain it. If the battery voltage drops below 2.7V the battery may no longer charge and will need to be replaced.

If the battery needs to be replaced:

580-0314 "BATTERY, 2600MAH, 3.7V, LI-ION, PROTECTED."

DO THIS STEP FIRST:

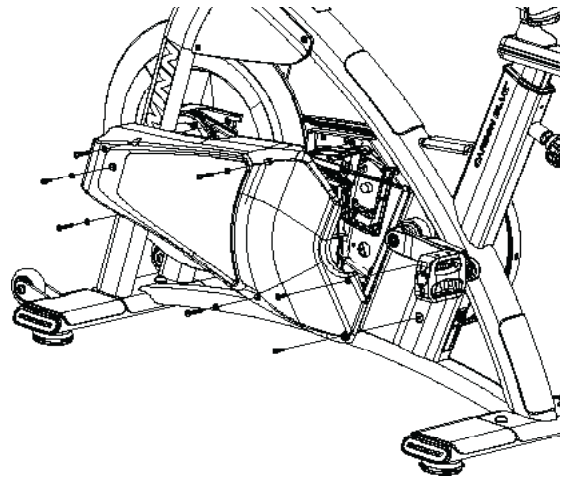
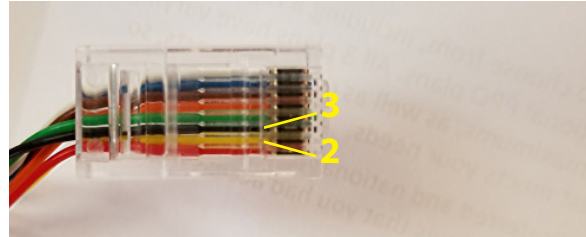
Without pedaling the bike, press the on/off button on the Echelon2G console, the console should turn on. If the console does not turn on, start pedaling the bike at 35+ RPMs. If the console powers on, stop pedaling the bike and press down on the brake knob to stop the cranks. When the cranks stop, if the console turns off, this indicates that the on-board battery is dead and should be replaced. It also indicates that the rest of the system is working .

If the console does not turn on at all, go to page 2 to continue troubleshooting.

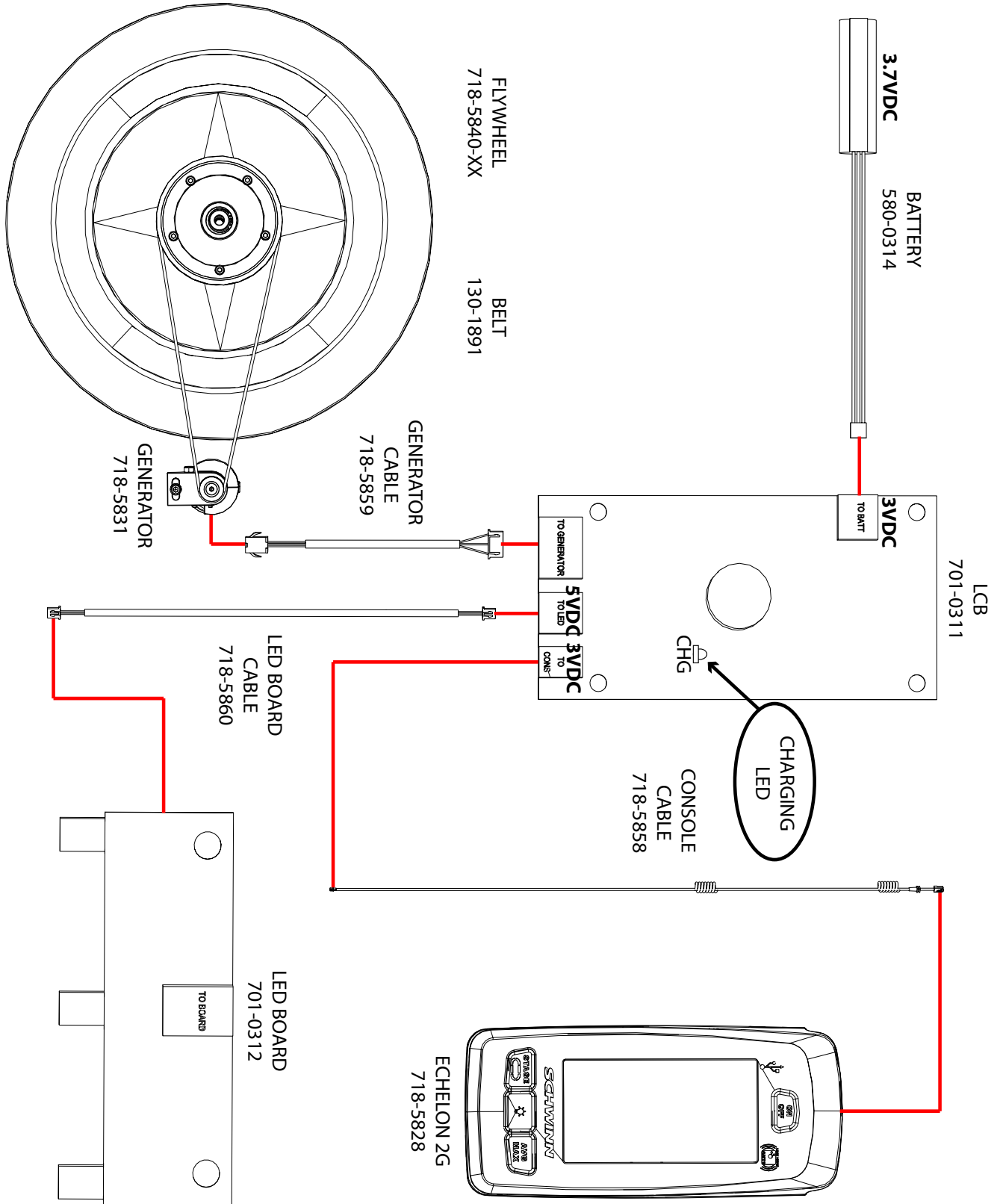
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Use the wiring diagram located on Page 2 to troubleshoot per the directions below.

1. Ride the bike for one minute at 30+ RPMs then push the "ON/OFF" button.
2. Ensure that the console cable is securely connected to the console.
3. Check for power where the console cable plugs into the console (Yellow + Black or Pins 2+3). If power is present, replace console.
4. Using a #2 phillips screwdriver, remove the seven (7) screws securing the left side shroud to the frame, then remove the shroud.
5. Ensure that the belt connecting the flywheel to the generator is intact and properly seated in the pulleys.
6. Use a 2.5mm allen key to remove the thirteen (13) M3 x 8mm screws securing the PCB cover to the frame, then remove the PCB cover.
7. Check for power out of the J2 connector on the LCB. If power is present out from LCB, check continuity on console cable. If no continuity, replace the console cable.
8. Measure voltage out of the battery, if voltage is below 2.8V, replace the battery. If voltage is 2.9V or above, replace LCB
9. Spin crank arms and check for power out of the J3 connector on the LCB, if power is present, replace the battery. If no power is present, but the Charging LED (CHG) is on, replace LCB.
10. Check continuity of generator cable, if no continuity, replace generator cable.
11. Check for continuity across the generator cable's pins (1+2, 2+3, 1+3), if continuity is missing from any phase, replace the generator.



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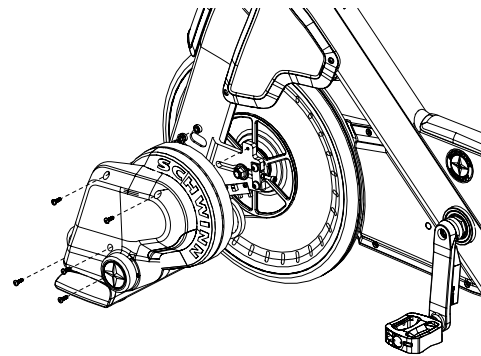
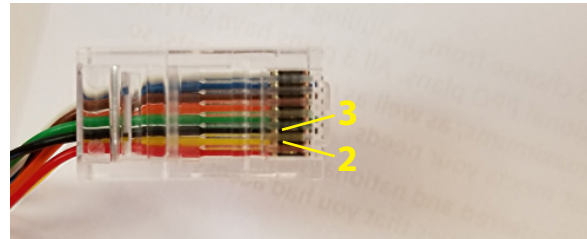
SC Power:

Required Tools:

- #2 Phillips Screwdriver
- 2.5mm Allen Key
- Multimeter

2.5mm Allen Key Use the wiring diagram located on Page 4 to troubleshoot per the directions below.

1. Ensure that the console cable is securely connected to the console.
2. Check for power where the console cable plugs into the console (Yellow + Black or Pins 2+3). If power is present, replace console.
3. Use a #2 phillips screwdriver to remove the five (5) M5 x 16mm screws securing the generator shroud to the bike, then remove the shroud.
4. Ensure that the belt connecting the flywheel to the generator is intact and properly seated in the pulleys.
5. Use a 2.5mm allen key to remove the ten (10) M3 x 8mm screws securing the generator cover to the bike, then remove the cover.
6. Measure voltage out of the battery, if voltage is below 2.8V, replace the battery. If voltage is 2.9V or above, replace LCB
7. Spin crank arms and check for power out of the J3 connector on the LCB, if power is present, replace the battery. If no power is present, but the Charging LED (CHG) is on, replace LCB.
8. Check continuity of generator cable, if no continuity, replace generator cable.
9. Check for continuity across generator cable's pins (1+2, 2+3, 1+3), if continuity is missing from any phase, replace the generator.



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