

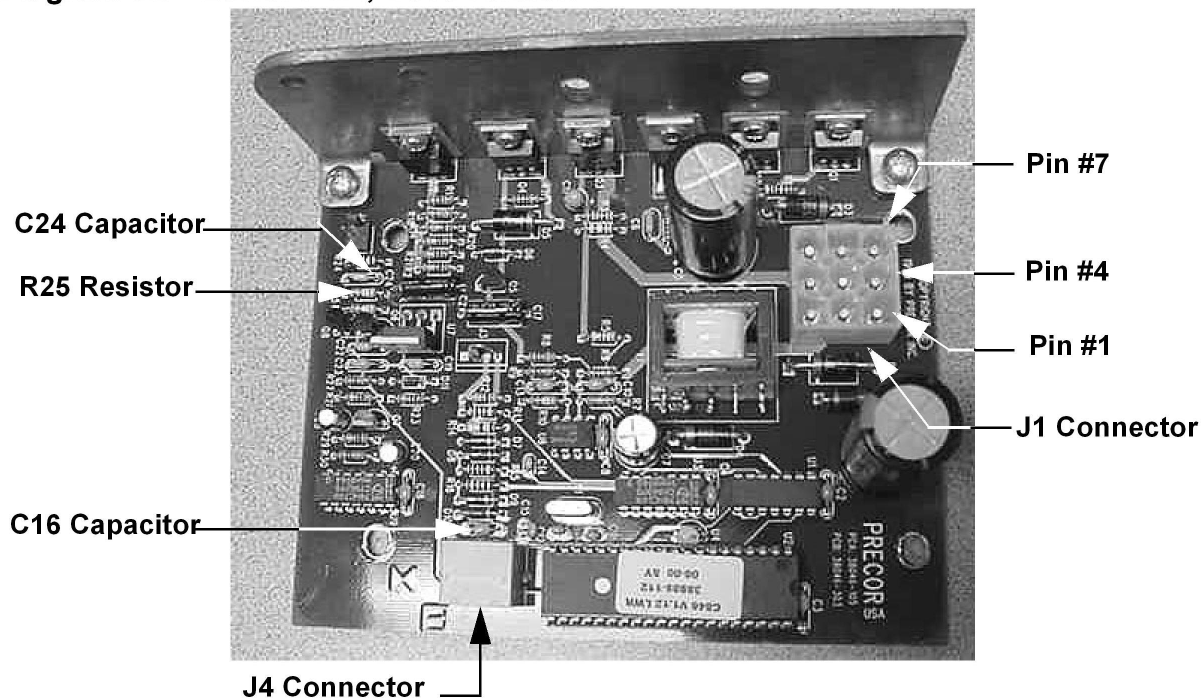
Procedure 6.3 - Display does not illuminate

Note:

In order to conserve battery power when the cycle is not in use, a time out feature is incorporated in the cycles software. If the cycle is not used (motion not detected by the speed sensor), when in the program mode, approximately 15 seconds later, the cycle will power down even when the on/off switch is in the on position. The bike will power up again when pedaling is resumed (motion detected by the speed sensor). In order to measure voltages in the unit it is necessary to keep the unit powered up. This can be accomplished either by pedaling on the unit or by installing the optional external power adapter.

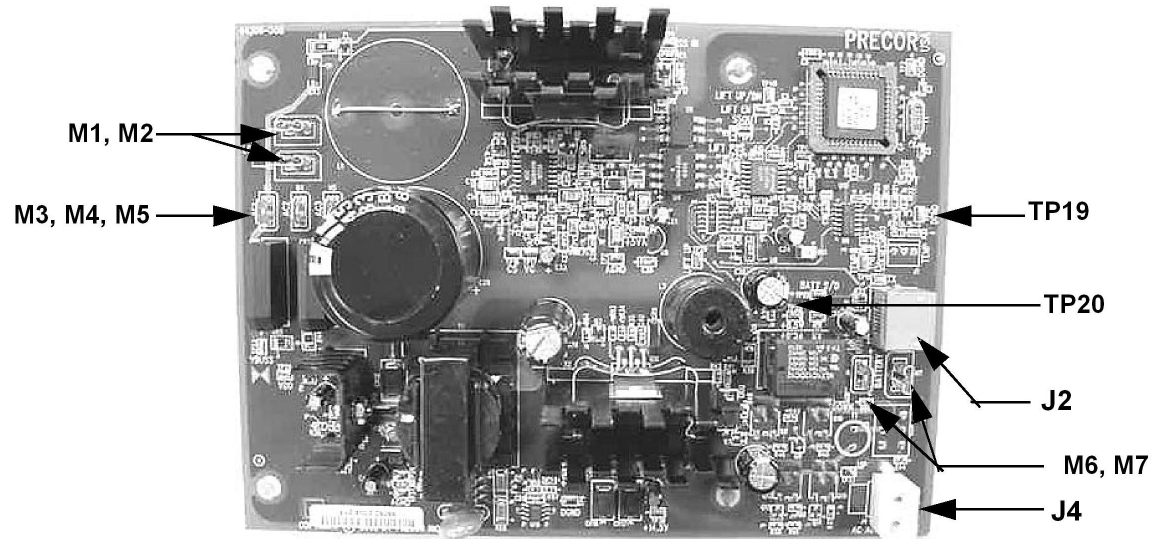
1. On C846 Version 1 units, set the on/off switch in the on position.
2. Pedal on the cycle for a minimum of 5 seconds. If the display does not illuminate proceed with step 2 for C846 version 1 units or step 12 for C842 and C846 version 2 units.
3. Using a DC voltmeter, measure between J1-7 (blue wire) and J1-8 (orange wire) on the lower PCA. If the DC voltage is less than 3.0 volts, replace the battery.

Diagram 6.5 - Lower PCA, C846 version 1



4. Connect a DC voltmeter across resistor R25, See Diagram 6.5, and pedal the bike for a minute. Stop pedaling the bike. Slowly rotate the secondary pulley by hand until the magnet mounted on the flywheel passes the speed sensor. The DC voltmeter will read 0 Vdc when the magnet is away from the speed sensor and 5 Vdc when the magnet is near the speed sensor. If both voltage readings are correct, skip to step 6.

5. If either voltage reading in step 3 was incorrect, set the on/off switch in the off position. Connect an ohmmeter across capacitor C24, See Diagram 6.4, and pedal the bike for a minute. Stop pedaling the bike. Slowly rotate the secondary pulley by hand until the magnet mounted on the flywheel passes the speed sensor. The ohmmeter will read open (∞) when the magnet is away from the speed sensor and approximately 100 Ω when the magnet is near the speed sensor. If both ohmmeter readings are correct, skip to step 6.
6. If either ohmmeter readings is incorrect, perform the same ohmmeter readings using a strong external magnet instead of the magnet on the secondary pulley. If the ohmmeter readings are still incorrect, replace the speed sensor. If the ohmmeter readings are correct using an external magnet, adjust the gap between the magnet, mounted on the secondary pulley, and the speed sensor to approximately 1/8 inch. Repeat the ohmmeter measurements in step 4. If either ohmmeter reading is incorrect, replace the secondary pulley (with magnet). Skip to step 10.
7. While pedaling the cycle, measure the voltage across the C16 capacitor with a DC voltmeter (See Diagram 6.4). The measurement should be approximately 8.9 Vdc \pm 0.5 Vdc.
8. If the voltage is missing or significantly low, disconnect the lower interconnect cable from connector J4 on the lower PCA. Repeat the measurement in step 3. If the voltage is still missing or significantly low, replace the lower PCA.
9. If after disconnecting the lower interconnect cable in step 4, the voltage across the C16 capacitor was correct, check the upper, lower interconnect cables and junction block per Procedure 6.1.
10. If one of the interconnect cables or junction block is not the problem, replace the upper PCA.
11. If you have performed all of the previous tests and have not been able to locate the trouble, call Precor customer support.
12. The C842 and C846 version 2 do not use a speed sensor like the C846 version 1 units. Instead the system monitors one of the three phase generator windings. The system monitors AC zero cross. The monitoring system notes every time the generator AC voltage passes through zero volts. By counting the zero cross rate, the system knows how fast the generator is turning. The system calculates the user RPM from the generator speed. If the system does not see a zero cross rate, it assumes the bike is not being used and the display will not illuminate when the bike is pedaled.
13. Disconnect the generator leads from terminals M3 (red) and M4 (black) on the lower PCA. Connect an AC voltmeter to the leads removed from terminals M3 and M4. Pedal the bike at about 60 RPM (1 rotation per second), the voltmeter should read approximately 120 Vac. If the voltage reading is absent or extremely low, replace the generator.
14. If the voltage reading in step 13 was normal, replace the lower PCA. If the lower PCA did not correct the problem, continue with step 15.
15. With the unit powered up, measure between test point 19 and test point 20 for approximately 8.5 Vdc. See Diagram 6.6. If the measurement is correct, skip to step 18.

Diagram 6.6 - Lower PCA, C842 and C846 version 2

16. If the measurement in step 12 is significantly low or high, disconnect the interconnect cable from the J2 connector and repeat the measurement in step 15.
17. If the measurement in step 12 is still significantly low or high, replace the lower PCA. If replacing the lower PCA does correct the problem, skip to step 20.
18. Remove the upper display panel and disconnect the interconnect cable from the upper PCA. With the unit powered up, check the voltage between the outer two pins of the interconnect cable for DC volts. It should read approximately 8.5 Vdc. If the voltage is absent or significantly low, troubleshoot the interconnect cable and junction block per Procedure 6.1.
19. If the voltage measurement in step 15 is correct, replace the upper PCA.
20. If you have performed all of the previous tests and have not been able to locate the trouble, call Precor customer support.