

Procedure 6.6 - Troubleshooting the Eddy Current System

Note:

If the control circuit does not see an output from the speed sensor, it removes power from the eddy current system. Therefore, when it is necessary to check the resistance or take voltage measurements in the eddy current system it will be necessary to slowly turn the flywheels to ensure that the power time out has not occurred.

WARNING

Before continuing with this procedure, review the Warning and Caution statements listed in Section One, Things You Should Know

1. There are three typical symptoms concerning the eddy current system. No resistance (pedaling resistance), no resistance shortly after power up and incorrect resistance. If the problem is no resistance, continue with step 2. If the problem is no resistance shortly after power up, test the speed sensor per Procedure 6.4. If the problem is incorrect resistance, skip to step 7.
2. Set the on/off switch in the *on* position, enter the manual program and set the resistance at level 10. Using a DC voltmeter, check the voltage across the magnet. The voltage should measure approximately 29.5 Vdc. If the voltage is missing or significantly low, skip to step 4. If the voltage is correct, continue with step 3.
3. Set the on/off switch in the *off* position. Check the magnet wiring per Diagram 8.1. If any of the magnet wiring is reversed or incorrect the resistance will be affected. If you have performed all of the above tests and there is still no resistance, call Precor Technical Support.
4. Set the on/off switch in the *off* position. Using an ohmmeter, measure between the M- and M+ terminals of the lower PCA. The measurement should be approximately 90 Ω to 110 Ω . If the measurement is open (∞), check the connections at both magnets and the lower PCA.
5. If all of the wiring connections are good and there is still no resistance, there are three parts that could cause the problem. There are not any good tests to check these parts other than substituting a known good part. They are lower PCA, ribbon cable and upper PCA. Replace only one part at a time. If the new part does not correct the problem replace the original part.
6. If you have performed all of the above tests and there is still no resistance, call Precor Technical Support.
7. If the resistance is greater than normal, the cause could be mechanical rather than electrical. Check all moving parts in the drive section and stairarms for worn parts that could be *binding*. Replace the appropriate parts.
8. Set the on/off switch in the *on* position, enter the manual program and set the resistance at level 10. Using a DC voltmeter, check the voltage across the magnet. The voltage should measure approximately 29.5 Vdc.

9. If the voltage is still significantly high or low, there are three parts that could cause the problem. There are not any good tests to check these parts other than substituting a known good part. They are lower PCA, ribbon cable and upper PCA. Replace only one part at a time. If the new part does not correct the problem, replace the original part.
10. If you have performed all of the above tests and the resistances are still incorrect, call Precor Technical Support.