



United Electric Company, L.P.  
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**Type Problem reported:**

ECM Motor barely spinning, changed motor, still barely spinning, changed transformer, still slowly moves & eventually turns off.

**Diagnostics and Suggestions:**

For expedited assistance and to find the root cause of the problem, please fill in as much information as possible:

Serial Number (s) of unit (s) with problems: \_\_\_\_\_  
Motor HP and Type: \_\_\_\_\_  
ECM Motor Program (From sticker on Cap End of Motor. If not on motor, state "Non Existing") \_\_\_\_\_  
Unit Voltage: \_\_\_\_\_

**Diagnostics and Suggestions:**

If the bearing is dragging the motor will start and stop. If the motor is programmable, it is a "smart" motor that uses torque control and when bearing drag is excessive, the motor cannot reach stable operation. This is more prominent at the lower speeds. In this condition the motor senses the problem and halts operation. It then re-starts the fans.

Note, the motor must be installed in order to function properly. Bench testing will not allow proper operation of the motor.

First, Oil the bronze fan shaft bearing (not the motor) and run the fan at medium or high speed for 10-15 minutes to allow the oil to work into the sleeve. Please use **\*\*NON-DETERGENT\*\*** SAE 20 oil. The motor may be starting /stopping due to bearing "drag".

The second most common cause is the use of the wrong ECM program or wrong speed tap setting on the speed board. Confirm that the yellow (EC5) wire from the ECM is connected to the LOW terminal of the speed board. In order to verify the program of older units, the unit and motor data must be provided. If the motor has been replaced, it could have been replaced with an incorrect program.

If problems continue, replace the motor.

General UV Diagnostics	Y/N
Are all electrical power connections tight and match the wiring diagram?	
Do fans turn freely?	
Is set screw on coupling (24) tight?	
Is bearing bolt on fan shaft tight (25)?	
Has the sleeve bearing been properly oiled?	
Is there excessive noise or vibration?	

Email form to: [uvsales@magicaire.com](mailto:uvsales@magicaire.com)  
Please indicate the time and day to schedule a Conference Call with the Factory: \_\_\_\_\_