

LaserWriter Select: Step-up Transformer Requirements (3/94)

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TOPIC -----

Customer has a 220v version of the LaserWriter Select 300 that is connected using a step-up transformer. When the printer is turned on it blinks once, then shuts down. In a few seconds, the printer powers up again, then blinks once and shuts down. The printer continues in this cycle of events until it is turned off. What can cause this to happen?

DISCUSSION -----

The most likely cause of this problem is an underated step-up transformer. Most step-up transformers are designed to power small electronics devices that only require 50 watts or less. Although the average power requirements of a LaserWriter are quite low the peak intermittent requirements are quite high whenever the fuser bulb turns on to warm the fuser assembly.

I suspect that the step-up transformer can handle the initial power requirements before the fuser bulb turns on, but when the bulb turns on the transformer can't deliver the current and the voltage begins to drop. Once the voltage drops below the power supply input minimum of approximately 198 volts AC (European power supply) the power supply resets itself and then tries again.

In order to confirm this I suggest connecting a multimeter to the 220 volt output side of the step-up transformer and monitor the voltage while the printer is turned on. If the voltage fluctuates for than a few volts then the transformer is being overloaded and its use should be discontinued immediately. Contact the supplier of the transformer in order to obtain one that can handle at least 750 watts, or 1.5 times the maximum power draw of the device.

If the 220 VAC line remains stable then use the Service Source documentation to test the DC voltages being supplied by the DC power supply. If necessary, swap the DC power supply with a 120 volt US version in conjunction with the fuser assembly to prevent mismatching modules. The European fuser assembly uses a different fuser bulb.

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