



# Tech Info Library

## Macintosh Classic, LC, and IIsi: Hard Drive Power Specs (11/94)

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TOPIC -----

We have had some problems reported when third-party internal hard drives are installed in the Macintosh Classic, Macintosh LC, and Macintosh IIsi.

What are the hard drive power specifications for these systems?

DISCUSSION -----

Here are Apple's internal hard drive power specifications for the Macintosh Classic, Macintosh LC, and Macintosh IIsi computers.

	+5V	+12V	Total Power
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Startup	700 mA	1000 mA	(See Notes)
Accessing	700 mA	300 mA	5.5 watts (See Notes)
Operating (Idle)	500 mA	300 mA	5.5 watts (See Notes)

Notes

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- The initial power consumption during startup must be less than 10 watts RMS as measured during the first 2 seconds. After 2 seconds, the accessing and operating requirements govern.
- These specifications include terminator power, which must be supplied by the drive.
- These are the maximum allowable values (not the mean of distribution of drives). Any drive that operates above any one of these values may not work.
- There is a discrepancy in the maximum total operating power in watts (5.5W) and standard power calculations:  $(500 \text{ mA} \times 5\text{V}) + (300 \text{ mA} \times 12\text{V}) = 6.1\text{W}$ . This means that drives cannot draw the maximum current from both the +5V and +12V supplies.

- For the Macintosh Classic, there must be a delay of at least 700 ms before hard drive spinup to prevent the +12V startup peak from happening at the same time as the Macintosh Classic floppy drive startup head recalibration.

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