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ImageWriter II/L: Specifications and Notes (9/94)

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TOPIC -----

In late February, 1990, a revised ImageWriter II rolled into distribution. This revised printer incorporates a new enclosure, different color adjustment assembly, and a new layout of the electronics including a changeover to a switching power supply. The ImageWriter II/L's electronic interface, DIP switch definitions, plus the paper handling mechanism have not changed.

Note: In future articles that deal specifically to the new ImageWriter II, we will use the term "ImageWriter II/L." The "L" follows the service designation.

This article describes changes for the new printer.

DISCUSSION -----

Change List

These are the major changes to the ImageWriter II:

- The bottom housing is now a single molded piece of plastic. The metal pan at the bottom no longer exists. Both legs are now an integral part of the enclosure and are not removable. The power and serial connectors have been moved to the sides of the printer. Access to all parts in the ImageWriter II is now from the top.
- The color adjustment assembly has changed. The adjustment procedure is documented in the Service Manual.
- The driver circuitry has been combined with the main logic board and that separate circuit board has been eliminated.
- The new power supply is now a switching type. This lowers the unit's weight and overall power consumption. The universal power supply option has been eliminated; there are only 100 V or 200 V supplies.
- The on-board RAM buffer has been increased to 24K bytes. The old 32K byte memory-option card has no effect with this new printer.

Specification Changes

These changes result in the following difference in specifications:

	Old ImageWriter II -----	New Imagewriter II -----
Weight	25 pounds (11.36 kg)	15 pounds (6.7 kg)
Power Supply Options		
100 V	108-132 VAC, 60 Hz	90-132 VAC, 50/60 Hz
200 V	90-264 VAC, 50/60 Hz	180-264 VAC, 50/60 Hz
Power Consumption		
Operating	180 watts maximum	77 watts maximum
Standby	20 watts maximum	16 watts maximum
Input Buffer Size	2K bytes, 32K bytes with memory option card	24K bytes

Otherwise all other specification remain the same as with the previous ImageWriter II.

These changes reduce the weight and power consumption of the printer. However, the operation and usage of the revised ImageWriter II have not changed from the previous design.

Identification

Although the new ImageWriter II retains the old name, the marketing model number has changed to C0090LL/A. The serial number starts with the prefix TJ945100.

The new unit can be identified easily. Notice that the power and serial connectors do not plug into the leg, but to the rear side of the printer.

Service

The new enclosure design greatly simplifies the servicing of the unit. For additional information on take-apart, refer to the ImageWriter II/L ("L" is a Service only designation) s0/on in Volume II of the "Apple Service Technical Procedures Cross Family Peripheral Guide."

Technical Specifications

----- Printing Specifications:

Method: Impact dot matrix, logic seek (line by line)

Maximum Speed (characters per second at characters per inch):

- Draft mode: 250 cps @ 10 cpi
- Correspondence mode: 180 cps @ 10 cpi
- Near Letter Quality mode: 45 cps @ 10 cpi

Maximum Line Length: 8 inches

Paper Feed Direction: Forward and reverse

Maximum Line Feed Speed: 24 lps @ 6 lpi

Paper Feed Method:

- friction
- friction/pin-feed

Ribbon:

- Black ribbon
 - continuous fabric
 - 13 by 13000mm
 - Capacity: 2 million characters
- Color ribbon
 - Four colors: magenta, cyan, yellow, black
 - continuous
 - 21 by 18000mm

Character Specifications:

Dot Matrices for each Character Format:

	dots wide	dots high
Standard:	7	8
Draft:	12	8
Near Letter Quality:	16	16
Custom:	16 max.	8 max.

-- Custom fonts are user-programmable and loaded down to the ImageWriter II.

Standard Character Sets:

- ASCII (alphanumeric and symbols): 96
- European language characters: 28
- Mouse Text characters: 32

Vertical Dot Spacing: 1/72 of an inch

Horizontal Pitches and Graphic Densities:

Characters per inch	Characters per line	Dots per inch (approx)
17	136	136
15	120	120
13.4	107	107
12	96	96
10	80	80
9	72	72
Proportional-1	variable	160
Proportional-2	variable	144

Line Spacing:

- 1/144 to 99/144 of an inch
- selectable in increments of 1/144 of an inch

Paper Specifications

Width:

- 3.5 to 9.5 inches (88.9 to 241.3 millimeters) pin to pin (pin feed)
- 10 inches maximum

Thickness:

- 0.002 - 0.011 inch (0.05 - 0.28 millimeters)
- Original plus 3 copies maximum

Types:

- Single sheets
- Pin-feed paper
 - 4.0 to 9.5 inches between hole centers

Power Specifications:

Options:

- Low-range: 90-132 VAC, 50/60 Hz;
- High-range: 180-264 VAC, 50/60 Hz;

Consumption:

- Operating: 77 watts maximum
- Standby: 16 watts maximum

Interface Specifications:

Data Input Form: RS-232 8-bit asynchronous serial

- 1 start bit
- 8 data bits
- 1 stop bit (no parity)

Data Input Codes:

- Characters: ASCII, 8- or 7-bit
- Graphics: 8-bit binary

Transmission speeds: 300, 1200, 2400, or 9600 baud

Input Buffer Size: 24K bytes

Connections: Mini-circular connector, 8-pin socket or equivalent

Cable Connector: Mini-circular connector, 8-pin plug or equivalent

Physical Dimensions:

Weight: 15 pounds (6.7 kilograms)

	inches	millimeters
Width:	17.0	431.8

Height: 12.0 304.8

Depth: 5.0 127.0

Environmental Specifications:

Ambient Temperature:

	Degrees	
	Fahrenheit	Celsius
Operating:	50 to 104	10 to 40
Storage:	-40 to +116	-40 to 47

Humidity:

Operating: 20% to 95% relative humidity, noncondensing
Storage: 10% to 95% relative humidity, noncondensing

Acoustics, Operating:

55 dBa maximum sound pressure at by-stander position (as defined in American National Standard document ANSI S1.29-1979)

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