

LM723 (IC1) pin voltages when D-3800 is working correctly, for output voltages of 14 V and 10 V, no load (at 240 V AC 50 Hz input):

Pin No.	14 V	10 V	Function	Comment
1	0.00	0.00	NC	
2	14.05	10.04	Current Limit	Pins 2 and 3 connected across 0.1E emitter resistor R3
3	14.07	10.04	Current Sense	
4	1.96	1.98	Inverting Input	
5	1.99	1.99	Non-inverting Input	(derived from 7 V reference via voltage divider R10/R14)
6	7.11	7.11	Vref	LM723 internal reference
7	0.00	0.00	V- (ground)	
8	0.00	0.00	NC	
9	9.35	5.6	Vz	Vout minus nominal 5.6 V zener drop: not used as far as I can tell
10	15	11.03	Vout	Greater than the final output by the two base-emitter voltages of the Darlington output stages, which are only about 0.5 V each at no load.
11	26.3	26.3	Vc	
12	26.3	26.3	V+	Raw supply volts
13	16.3	12.25	Frequency Compensation	This pin is being used for Remote Shutdown via D12 (IN4148) from pin 13 of IC 2D.
14	0.00	0.00	NC	

Note: Number of decimal places is indicative of stability of voltage. My multimeter has an accuracy of about 1 mV at 10 V.

VK2ZIP

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