

Author: GLEN GIUSTI at HP-Sonoma/o2=om1  
Date: 10/29/97 1:57 PM  
Subject: CRT(5083-6350)Rejuvenation

----- Message Contents -----

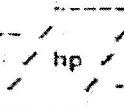
REJUVINATION PROCESS FOR CRT Part Number 5083-6350

1. Inspect for mechanical integrity (straight pins, socket not cracked or broken, no badly scratched glass etc.) clean Crt with glass cleaner. If instrument pattern is burnt into phosphor inverse video of the same pattern may be used at high intensity for approximately 2 minutes to correct this problem.
2. Make all base pin and post accelerator connections in accordance with the CRT Test Schematic Sheet # 2 of Drawing A-5083-6300-1. These connections are made to HP CRT Test Station console ET-5153-804.
3. Turn on Crt observing safety consideration for the voltages that are present. Check to be sure intensity control works, that there is no internal arcing, no purple glow internally and that the initial intensity (Luminance) as measured; screen illuminated with 100 line raster measuring 5 x 5 cm is at least 50 cd/m<sup>2</sup>. Intensity initially lower than this won't usually yield an intensity that is usable after the rejuvenation process.
4. When all of the above conditions are met, turn off Post accelerator supply voltage, turn off Cathode supply voltage and adjust Heater supply voltage to 2.0 volts, turn intensity adjust down to a very minimal level; follow table below adjusting voltages at time intervals indicated.

Step	Time (minutes)	Heater (WGV)	Cathode (VK)	Post Accelerator (VPA)
1	5	2.0	0	0
2	2	2.6	0	0
3	2	3.8	0	0
4	2	6.0	0	0
5	2	7.3	0	0
6	2	9.5	0	0
7	90	7.3	2450	19,000
8	390	6.9	2450	19,000
9	295	6.5	2450	19,000
10	200	6.3	2450	19,000
11	270	6.0	2450	19,000

5. After following the 21 hour process above measure the luminance; if it has increased substantially it may be beneficial to repeat the above process. If there has been little or no increase in luminance, or in some cases a decrease, it is unlikely that repeating the above process will be of any value.

HEWLETT-PACKARD CO.

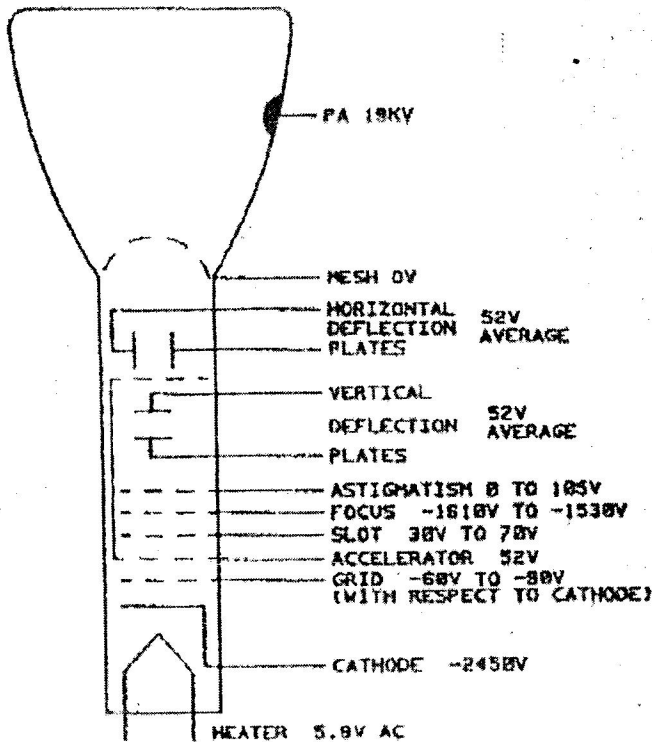


FILE A363001

CRT TEST SCHEMATIC

BASE PIN CONNECTIONS

- |                                 |                                    |
|---------------------------------|------------------------------------|
| PIN 1 HEATER                    | PIN 9 HORIZONTAL DEFLECTION PLATE  |
| PIN 2 CATHODE                   | PIN 8 ACCELERATOR                  |
| PIN 3 GRID                      | PIN 10 VERTICAL DEFLECTION PLATE   |
| PIN 4 FOCUS                     | PIN 11 HORIZONTAL DEFLECTION PLATE |
| PIN 5 MESH                      | PIN 12 ASTIGMATISM                 |
| PIN 6 SLOT LENS                 | PIN 13 N/C                         |
| PIN 7 VERTICAL DEFLECTION PLATE | PIN 14 HEATER                      |



SCHEMATIC USAGE  
5083-6350

		IMDEL		1STK * DOC-A36001	
		CRT TEST SPECIFICATION			
18-46804	IN.W.	104-26-89	BY	JIM STRINDER	DATE APRIL 16, 1984
LTI P.C. *	APPR	DATE	APPD	PETE WRIGHT	SHEET * 2 OF 62
REVISIONS		SUPERSEDES		IDWG * A-5083-6300-1	

TO: GLEN GUSTI 43404

TEST SPECIFICATIONS FOR 5083-6350			REF. NO.	(cont.)	CHK.
SPECIAL COMMENTS: low voltage to w.g. heater. use adapter A-9  CATHODE: ELCON MAXIMUM DRIVE ALLOWED: 45 volts PHOSPHOR TYPE: P-31 USE GRATICULE OVERLAY? <i>yes</i> GRATICULE SIZE: 12 div. vert, 17 div. horiz. DIVISION SIZE: 1CM				+ 6.5 .16 div.	10
				+ 7.5 .18 div.	10
<u>OPERATING VOLTAGES</u> WRITE GUN HEATER: 5.9 volts CURRENT: CATHODE: -2,450 volts ACCELERATOR: 52 volts VERTICAL PLATE AVERAGE: 52 volts HORIZONTAL PLATE AVERAGE: 52 volts MESH: 0 volts POST ACCELERATOR: +19,000 volts FOCUS: -1,610 to -1,530 volts ASTIGMATISM: 27 to 77 volts SLOT LENS: 30 to 70 volts WRITE GUN GRID CUT-OFF: -92 to -60 volts			16.	AVERAGE HORIZONTAL DEFLECTION FACTOR: 5.88 to 8.24 volt/div.	100
			17.	HORIZONTAL DEFLECTION PLATE FADE: -trace length - 12 divisions -1pa center screen- 1ua -X1pa at extremes- 50%	100
REF. NO. A-5083-6300-1			*18.	ELECTRICAL MEASUREMENT OF PATTERN DISTORTION	
			19.	SPOT CENTERING: max. distance from center .7V/.7H div.	100
5. ELEMENT LEAKAGE: maximum -WRITE GUN HEATER 15 ua -POST ACCELERATOR 10 ua -WRITE GUN CATHODE 10 ua -WRITE GUN GRID 5 ua -ACCELERATOR 15 ua -FOCUS 10 ua -ASTIGMATISM 10 ua -SLOT LENS 10 ua -MESH 50 ua -VERT PLATE 50 ua -HORIZ PLATE 50 ua			20.	CRT CUTOFF: -90 to -60 volts	100
			*21.	PATTERN GENERATOR CUTOFF	
6. STRAY EMISSION: use hood, no stray emission - PA +20.9KV			22.	LIGHT OUTPUT: 7x7 div. 45 volts drive	100
			23.	CATHODE CONDITION: one reage, no dip	100
7. SLOT LENS ADJUSTMENT			24.	GAS CROSS: (no gas cross)	100
			25.	MODULATION MEASUREMENTS: 140 CD/M2 at drive level of 45 volts or less	100
*8. FOCUS AND ASTIGMATISM (rough adjustment)			26.	FOCUS AND ASTIGMATISM ADJUSTMENT: (PRECISE) -1,610 to -1,530	
			27.	LINE WIDTH MEASUREMENT: setup: 7:7 division raster 140 CD/M2 7 div. V/7 div. H	100
*9. X ALIGNMENT ADJUSTMENT			28.	HORIZONTAL LINES: CENTER SCREEN 3.8 div.	100 100
			30.	WORST CASE 3.8 div. (within 12x17 div.)	100
10. GUN TO GRATICULE ANGLE: vary of trace from graticule 1.0 div.			29.	VERTICAL LINES: CENTER SCREEN 3.8 div.	100 100
			30.	WORST CASE 3.8 div. (within 12x17 div.)	100
11. HORIZONTAL TRACE PATTERN DISTORTION: distance from center div. 0 .03 div. + 1 .03 div. + 2 .05 div. + 3 .07 div. + 4 .10 div. + 5 .12 div. + 6 .14 div.			31.	MESH AND SCREEN EVALUATION	100
			*32.	QUALITY AREAS	
12. AVERAGE VERTICAL DEFLECTION FACTOR: 8.33 to 11.67 volts/div.			*33.	TEST CONDITIONS	
			34.	MESH AND SCREEN TEST SPEC.	100
13. SUPPRESSION CHECK			*35.	MESH SPOT REMOVAL	
			35.	HORIZONTAL DEFLECTION LINEARITY: -when requested- 3%	
14. VERTICAL DEFLECTION PLATE FADE: -trace length- 17 divisions -1pa center screen- 1ua -X1pa at extremes- 50%			37.	VERTICAL DEFLECTION LINEARITY: -when requested- 3%	
			38.	HIGH VOLTAGE BREAKDOWN: (when requested) - cathode -2.695kv - p.a. +20.9kv - w.g. heater 6.5v A.C.	
15. VERTICAL TRACE PATTERN DISTORTION: distance from center div. 0 .08 div. + 1.5 .09 div. + 2.5 .10 div. + 3.5 .11 div. + 4.5 .12 div. + 5.5 .14 div.			*39.	LIGHT MEASURING INSTRUMENT: (information)	
			40.	INFORMATION TO BE RECORDED ON TEST SCREEN INCLUDING COMPARATOR GUN TEST INFORMATION.	
MODEL _____ STK. NO. _____ REV. F 8-45682 CRT TEST SPECIFICATION BY NILES WAHLEN <i>NW</i> DATE AUGUST 02, 1983 APPD. _____ SHEET 1 OF 1 SUPERSEDES _____ DWG. NO. A-5083-6350-1			41.	FINAL TEST	100
			* DESIGNATES OPERATION TO BE DONE BUT NO SPECIFIED PARAMETER.		

