Author: GLEN GIUSTI at HP-Sonoma/o2=om1
Date: 10/29/97 1:57 PM
Subject: CRT(5083-6350)Rejuvination
---------- 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^2. Intensity initially lower than this won't usually yield an intensity that is usable after the rejuvination 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 benifical to repeat the above process. If there has been little or no increase in luminance, or in some cases a decrese, it is unlikely that repeating the above process will be of any value.

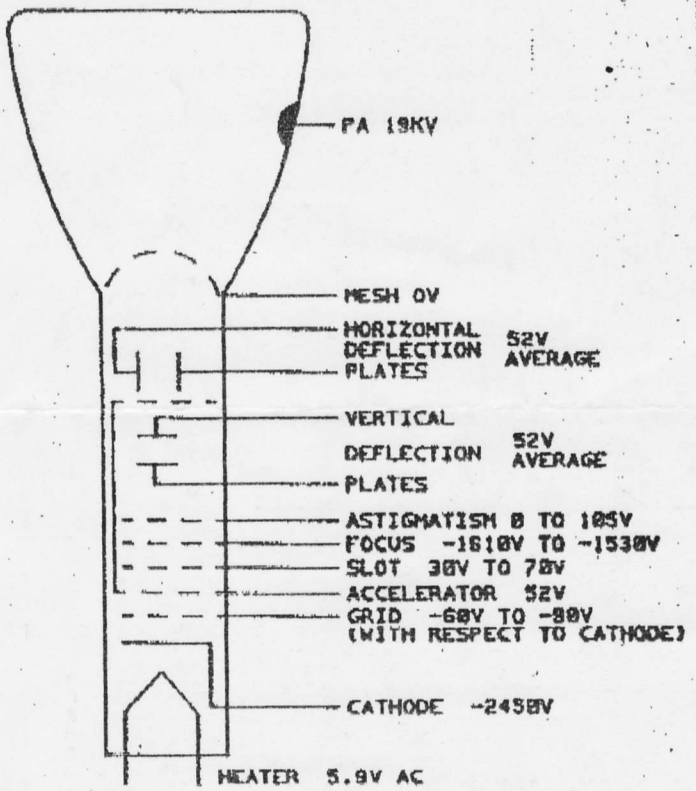
HEWLETT-PACKARD CO.

FILE A363001

CRT TEST SCHEMATIC

BASE PIN CONNECTIONS

PIN 1	HEATER	PIN 8	HORIZONTAL DEFLECTION PLATE
PIN 2	CATHODE	PIN 9	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

			MODEL	STK # DOC-A36001
			CRT TEST SPECIFICATION	
J 18-46804	IN.W.	04-26-89	BY JIM STRINGER	DATE APRIL 16, 1984
LT P.C. #	APPR	DATE	APPD PETE WRIGHT	SHEET # 2 OF 62
REVISIONS			SUPERSEDES	DWG # A-5083-6300-1

TO: GLEN GIUSTI 43404

TEST SPECIFICATIONS FOR 5083-6350

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? yes
GRATICULE SIZE: 12 div. vert, 17 div. horiz.
DIVISION SIZE: 1CM

OPERATING VOLTAGES

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:	-90 to -60	volts

REF. NO.	A-5083-6300-1	% CHK
5.	ELEMENT LEAKAGE: maximum	
	-WRITE GUN HEATER 15 ua	100
	-POST ACCELERATOR 10 ua	100
	-WRITE GUN CATHODE 10 ua	100
	-WRITE GUN GRID 5 ua	100
	-ACCELERATOR 15 ua	100
	-FOCUS 10 ua	100
	-ASTIGMATISM 10 ua	100
	-SLOT LENS 10 ua	100
	-MESH 50 ua	100
	-VERT PLATE 50 ua	100
	-HORIZ PLATE 50 ua	
6.	STRAY EMISSION: use hood, no stray emission - PA +20.9KV	100
7.	SLOT LENS ADJUSTMENT	100
*8.	FOCUS AND ASTIGMATISM (rough adjustment)	
*9.	X ALIGNMENT ADJUSTMENT	100
10.	GUN TO GRATICULE ANGLE: vary of trace from graticule 1.0 div.	100
11.	HORIZONTAL TRACE PATTERN DISTORTION: distance from center div.	
	0 .03 div.	10
	+- 1 .03 div.	10
	+- 2 .05 div.	10
	+- 3 .07 div.	10
	+- 4 .10 div.	10
	+- 5 .12 div.	10
	+- 6 .14 div.	100
12.	AVERAGE VERTICAL DEFLECTION FACTOR: 8.33 to 11.67 volts/div.	100
13.	SUPPRESSION CHECK	100
14.	VERTICAL DEFLECTION PLATE FADE: -trace length- 17 divisions -Ipa center screen- 1ua -%Ipa at extremes- 50%	100
15.	VERTICAL TRACE PATTERN DISTORTION: distance from center div.	
	0 .08 div.	100
	+- 1.5 .09 div.	10
	+- 2.5 .10 div.	10
	+- 3.5 .11 div.	10
	+- 4.5 .12 div.	10
	+- 5.5 .14 div.	10

REF. NO.	(cont.)	%CHK.
	+- 6.5 .16 div.	10
	+- 7.5 .18 div.	10
	+- 8.5 .20 div.	100
16.	AVERAGE HORIZONTAL DEFLECTION FACTOR: 5.88 to 8.24 volt/div.	100
17.	HORIZONTAL DEFLECTION PLATE FADE: -trace length - 12 divisions -Ipa center screen- 1ua -%Ipa at extremes- 50%	100
*18.	ELECTRICAL MEASURMENT OF PATTERN DISTORTION	
19.	SPOT CENTERING: max. distance from center .7V/.7H div.	100
20.	CRT CUTOFF: -90 to -60 volts	100
*21.	PATTERN GENERATOR CUTOFF	
*22.	LIGHT OUTPUT: 7x7 div. 45 volts drive	100
23.	CATHODE CONDITION: one reage, no dip	100
24.	GAS CROSS: (no gas cross)	100
25.	MODULATION MEASURMENTS: 140 CD/M2 at drive level of 45 volts or less	100
26.	FOCUS AND ASTIGMATISM ADJUSTMENT: (PRECISE) -1,610 to -1,530	
27.	LINE WIDTH MEASUREMENT: setup: 7x7 division raster 140 CD/M2 7 div.V/7 div H	100
28.	HORIZONTAL LINES: CENTER SCREEN 3.8 div.	100 100
30.	WORST CASE 3.8 div. (within 12x17 div.)	100
29.	VERTICAL LINES: CENTER SCREEN 3.8 div.	100 100
30.	WORST CASE 3.8 div. (within 12x17 div.)	100
31.	MESH AND SCREEN EVALUATION	100
*32.	QUALITY AREAS	
*33.	TEST CONDITIONS	
34.	MESH AND SCREEN TEST SPEC.	100
*35.	MESH SPOT REMOVAL	
36.	HORIZONTAL DEFLECTION LINEARITY: -when requested- 3%	
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.	
*39.	LIGHT MEASURING INSTRUMENT: (information)	
40.	INFORMATION TO BE RECORDED ON TEST SCREEN INCLUDING COMPARATOR GUN TEST INFORMATION.	
41.	FINAL TEST	100

* DESIGNATES OPERATION TO BE DONE BUT NO SPECIFIED PARAMETER.

HEWLETT PACKARD

MODEL	STK. NO.
REV. F 8-45682 CRT TEST SPECIFICATION	
BY NILES WHALEN	DATE AUGUST 02, 1983
APPD.	SHEET 1 OF 1
SUPERSEDES	DWG. NO. A-5083-6350-1

TS: A836350