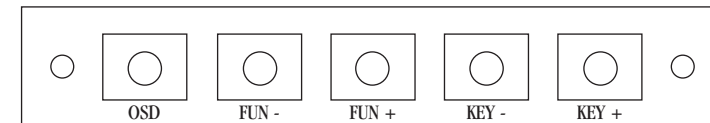


**OSD (On screen display menu) CONTROLS & ADJUSTMENTS:**

There are five switches on the control panel with Key Function:

- ① OSD/EXIT OSD—Call the Main-Menu OSD
- ② FUN - /FUN + When the Main-Menu is displayed, you can *select* each function using these keys.
- ③ KEY - /KEY + When the Sub-Menu is displayed, you can *change* the amplitude of the selected function of the screen using these keys.

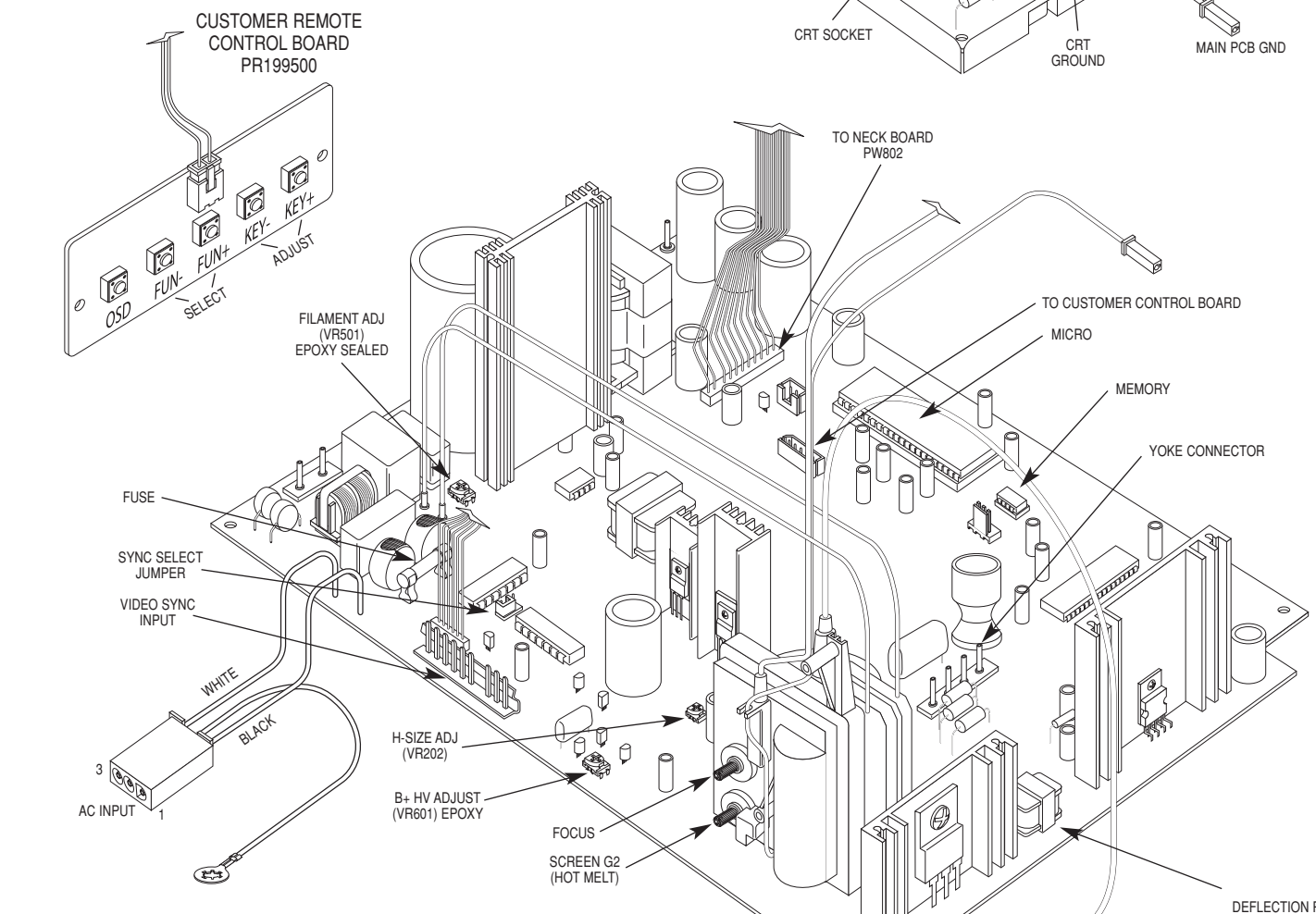


Location	Adjustment Method	Function
Customer Control PCB	OSD Control	Brightness Contrast H. Position V. Position H. Size V. Size Side Pincushion Trapezoid Pin Balance Parallelogram OSD Time Degauss RGB Screen Color
Main PCB Factory Adjusted	Control: VR202, VR501, VR601 and FBT	Fil, H-SIZE, Focus and Screen

**BRIGHTNESS ADJUSTMENT:**

- 1) Press the "OSD" key—the Main-Menu OSD will come up.
- 2) Search for the "BRIGHTNESS" sub-menu using "FUN -" or "FUN +" keys on the Main-Menu OSD.
- 3) The "BRIGHTNESS" OSD color changes from blue to red.
- 4) Adjust Brightness as much as you want using "KEY -" or "KEY +".
- 5) After finishing the Brightness adjust, press the "OSD" key. The "OSD" will disappear. The new Brightness value will be saved automatically.
- 6) If you want to adjust other functions (sub-menu), search the function using "FUN -" or "FUN +", and then repeat the same procedures of steps 2–5.
- 7) Press the "OSD" key again to finish adjustments and the OSD will disappear. If no action is taken in the OSD, the menu will disappear by itself.

Note: When the "RECALL" function is selected and "KEY -" or "KEY +" pressed, all user values will be changed to the factory values.



**AC INPUT CONNECTOR**  
Molex type 19-09-2039  
Mating Molex type 19-09-1039

Pin	Description
1	AC hot
2	Earth ground
3	AC neutral

**INPUT SIGNAL CONNECTOR P001**  
JST type B10P-VR  
Mating Molex type 09-50-7101

PC Connector	Description	Mating Connector
Pin		Pin
1	Red	10
2	Green	9
3	Blue	8
4	Ground	7
5	+/- Vertical Sync	6
6	+/- Horizontal Sync/comp	5
7	Key	4
8	Ground	3
9	+/- Vertical Sync	2
10	+/- Horizontal Sync/comp	1



**REPLACEMENT PARTS LIST  
Main, Neck & Control PCB Assembly Parts List**

TRANSFORMERS & COILS		
DESIGNATION	DESCRIPTION	PART NO.
T201	DRIVER XFORMER	2ETDR-I191R5M02
T202	STEP-UPXFORMER	2ELCK-D45201U00
T203	FBT, XFORMER	2EFBT-UI3362UHC
T501	POWER XFORMER	2ETXF-I22121U00
L202	CHOKE COIL	2ELCK-D6B1R0M00
L203 (19")	LIN COIL	2ELLC-D45570U00
L203 (13")	LIN COIL	2ELLC-D45950U00
L501,502	CHOKE COIL 150uH	2ELDC-T50151U00
L503	CHOKE LINE 6mH	2ELCC-U106R0M00

INTEGRATED CIRCUITS		
DESIGNATION	DESCRIPTION	PART NO.
IC701	MCU, WT62P2	2EUIC-MCUXXX00
	U-COM CHKSUM=2C11	086X0458-001
IC702	EEPROM 24LC08	EEPROM 24LC08
IC702(D7700 19")	EEPROM CHKSUM=B949	086X0467-001
IC702(D7700 13")	EEPROM CHKSUM=B638	086X0468-001
IC201	SCAN PROC	2EUIC-STV688900
IC301	VERTICAL IC	2EUIC-STV817200
IC501	KA3842B	2EUIC-KA3842B00
IC801	VIDEO PRE-AMP	2EUIC-LM1269A00
IC802	OSD, NEB-24v2	2EUIC-OSD24V200

RESISTORS		
DESIGNATION	DESCRIPTION	PART NO.
R254	330 2W MOF	2ERMO-203302JMK
R248,316	220 1W MOF	2ERMO-102202JMK
R261	270 1W MOF	2ERMO-102702JMK
R274,506,534,563	3.3 1/4W FUSABLE	2ERFU-043300JT5
R503	120K 3W MOF	2ERMO-301205JMK
R504,505	10K 3W MOF	2ERMO-301004JMK
R514,609	0.22 2W NON-IND WW	2ERWN-20R220JMK
R536	1K 1W MOF	2ERMO-101003JMK
R614	33 2W MOF	2ERMO-203301JMK
R879 (19")	10K 1/6W CF	2ERCF-061004JT5
R879 (13")	22K 1/6W CF	2ERCF-062204JT5
R313 (19")	1.5 1W MOF	2ERMO-101500JMK
R313 (13")	1.8 1W MOF	2ERMO-101800JMK
R610 (19")	30K 1/6W CF	2ERCF-063004JT5
R610 (13")	27K 1/6W CF	2ERCF-062704JT5
R261 (19")	270 1W MOF	2ERMO-102702JMK
R261 (13")	180 1W MOF	2ERMO-101802JMK
R263 (19")	10K 1/6W CF	2ERCF-061004JT5
R263 (13")	4.7K 1/6W CF	2ERCF-064703JT5

TRANSISTORS		
DESIGNATION	DESCRIPTION	PART NO.
Q200	NPN, 2SC5386, 1500V, 8A	2EQTR-C5386XX00
Q217	NPN, 2SC1213AC	2EQTR-C1213AC00
Q243	NPN, KTC4370(A)Y	2EQTR-C4370YX00
Q501	SSS7N60B, 600V, 7A	2EMOS-SSS7N6000
Q603	IRF8630B, ISOLATED	2EMOS-IRF630I-BK

CAPACITORS		
DESIGNATION	DESCRIPTION	PART NO.
C248 (19")	0.62U, MPH, 250V	2EMPH-N2E624J20
C248 (13")	0.33U, MPP, 250V	2EMPP-N2E334J15
C249	1000P, CD, Y5P, 1KV	2ECHK-P3A102KT5
C255 (19")	0.0068U, PPS, 1.6KV	2EPPS-N3V682J22
C255 (13")	0.0062U, PPS, 1.6KV	2EPPS-N3V622J20
C256 (19")	0.01U, PPN, 630V	2EPPN-N2J103J15
C256 (13")	0.022U, PPN, 630V	2EPPN-N2J223J15
C310,524,528	1000U, EC-TL, 16V	2ECLC-51C108MT5
C510	220U, EC-HS, 400V	2ECPC-52G227MSN
C525	100U, EC-TX, 160V	2ECLC-52C107M75
C527	2200U, EC-TL, 25V	2ECLC-51E228M50
C606	100U, EC-TL, 200V	2ECLC-52D107M75

DIODES		
DESIGNATION	DESCRIPTION	PART NO.
D511,602	EGP20F, 2A, 300V	2EDSI-EGP20FXT5
D512	HER307G, 800V, 3A	2EDSI-HER307GMK
D514,515	EGP30D, 200V, 3A	2EDSI-EGP30DXMK
D232,233,234	HER307G, 800V, 3A	2EDSI-HER307GMK

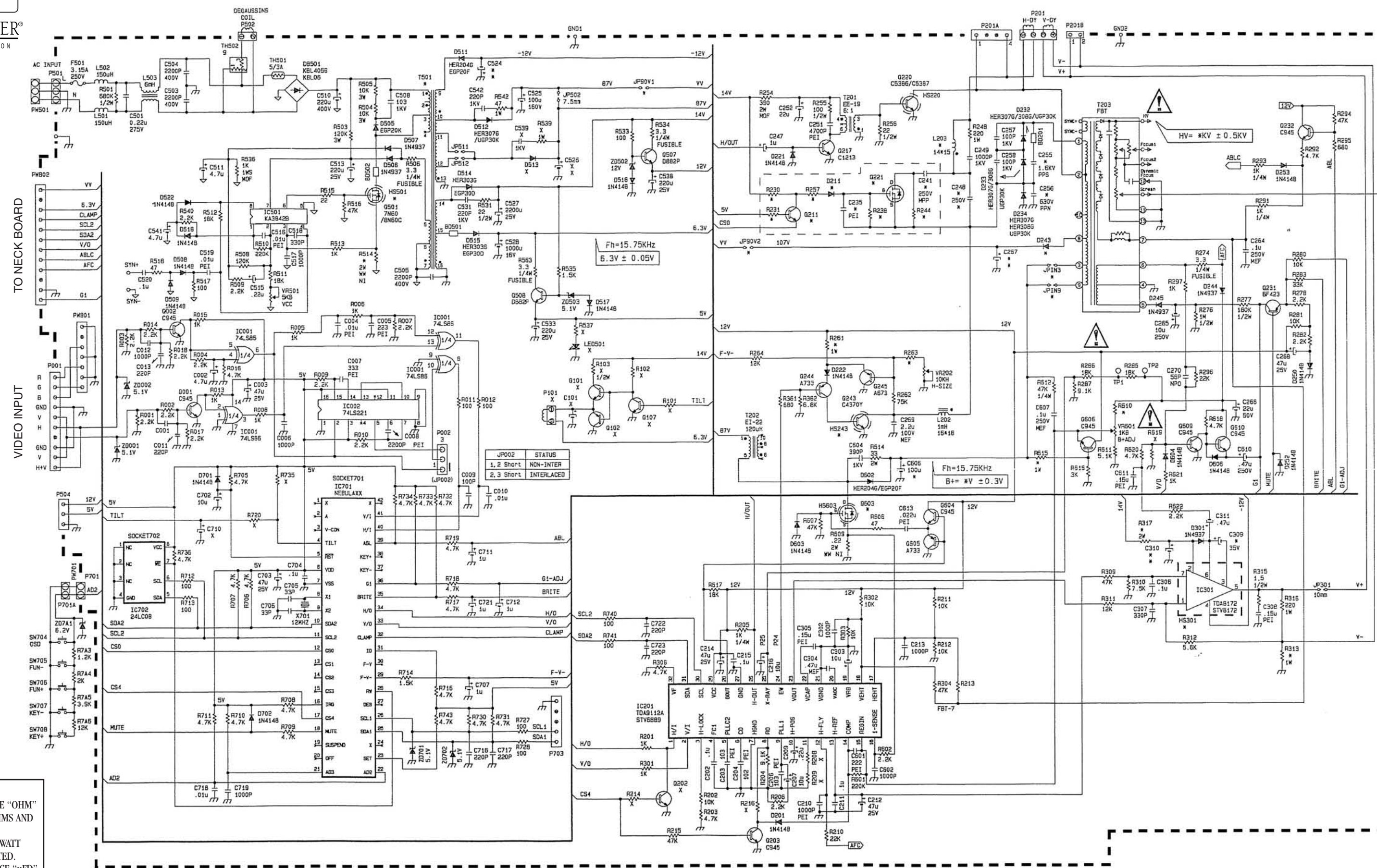
VARIABLE POTENTIOMETERS		
DESIGNATION	DESCRIPTION	PART NO.
VR601	VR SEMI 1K ohm	2ESVR-C1B102NB8
VR201,202,501	VR SEMI 5K ohm	2ESVR-C1B502NB8

MISCELLANEOUS		
DESIGNATION	DESCRIPTION	PART NO.
F501	SL BLW,FUSE 3.15A,250VAC	2EFUS-SG2531U2B
X701	CRYSTAL 12MHZ	2EOSC-XTL0123BK
DB501	BRIDGE, KBL06	2EDSI-KBL06XXBK
P803 (19")	CRT SOCKET	2EPCK-C22S00100
P803 (13")	CRT SOCKET	2EPCK-C22S00100

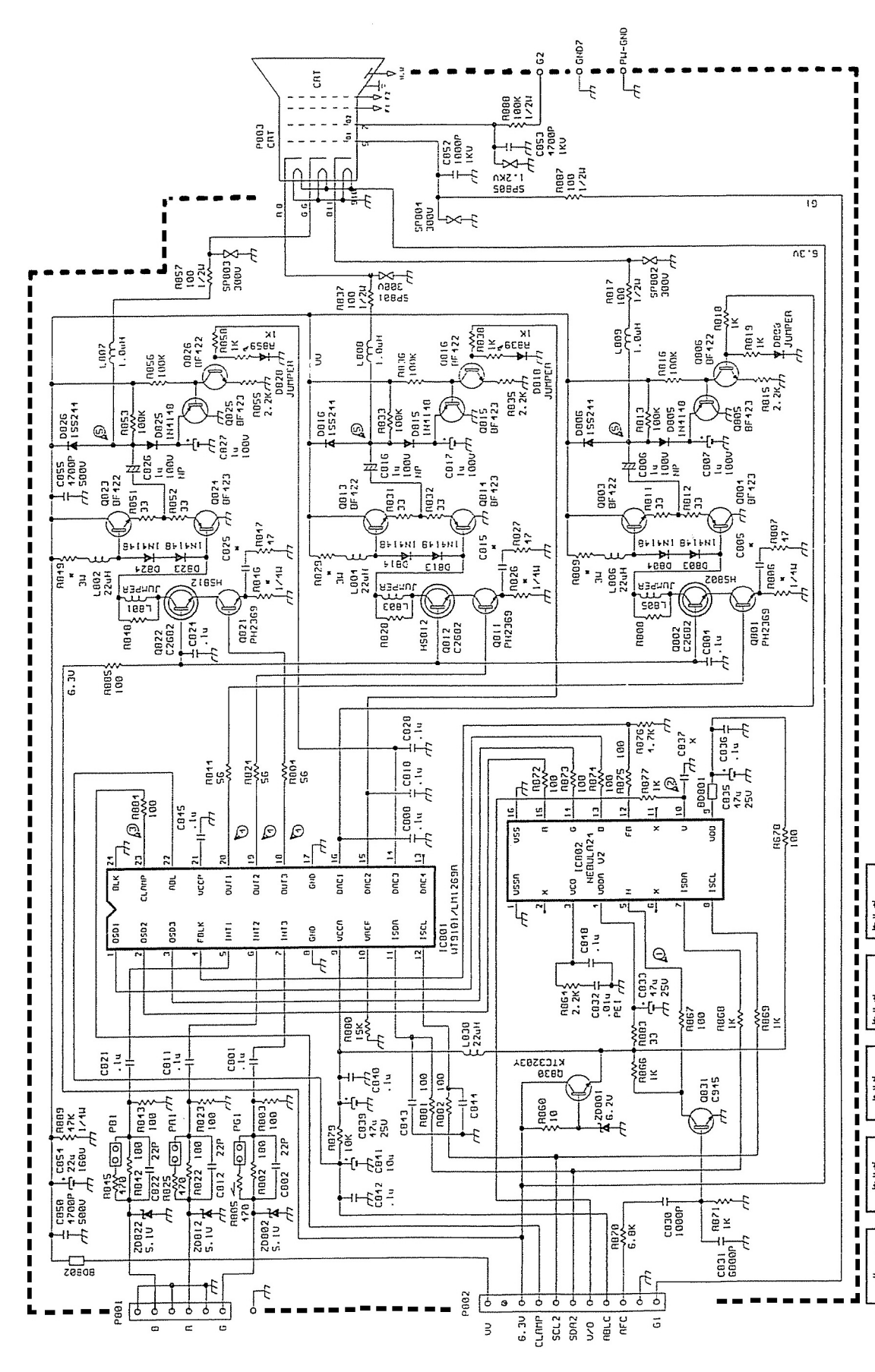


**RESTRICTED  
CONFIDENTIAL  
DOCUMENT**

THIS DRAWING AND ALL INFORMATION SHOWN HEREON ARE THE EXCLUSIVE PROPERTY OF WELLS-GARDNER CORP. AND ARE SUBMITTED ONLY ON A CONFIDENTIAL BASIS. THE RECIPIENT AGREES NOT TO REPRODUCE THE DRAWING, TO RETURN IT UPON REQUEST, AND THAT NO DISCLOSURE OF THE DRAWING OR THE INFORMATION SHOWN HEREON WILL BE MADE TO A THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT FROM WELLS-GARDNER CORPORATION.



PD137700/PD197700 MAIN BOARD



PN137700/PN197700 NECK BOARD

NOTE

1. THE UNIT OF RESISTANCE "OHM" IS OMITTED (K=1000 OHMS AND M=1MEG OHM).
2. ALL RESISTORS ARE 1/6 WATT UNLESS OTHERWISE NOTED.
3. THE UNIT OF CAPACITANCE "uFD" IS OMITTED UNLESS OTHERWISE NOTED "PF".