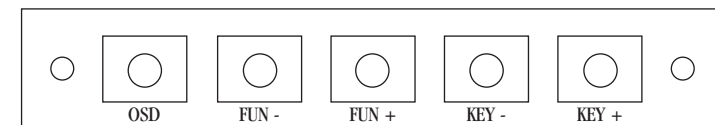


OSD (On screen display menu) CONTROLS & ADJUSTMENTS:

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.

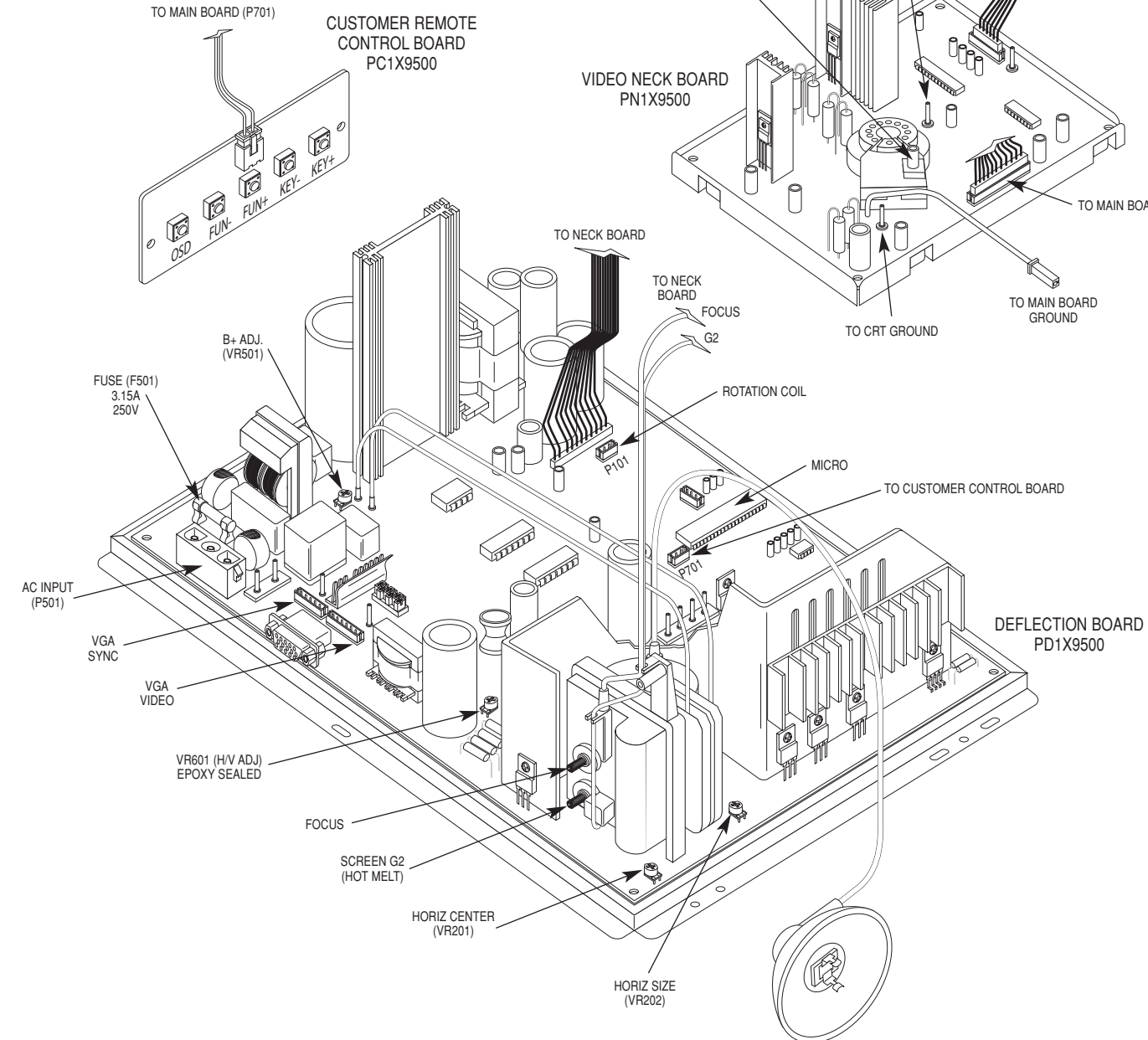


Location	Adjustment Method	Function
Customer Control PCB	OSD Control	Brightness Contrast H. Position V. Position H. Size V. Size Side Pincushion Trapezoid Pin Balance Parallelogram OSD Time Degauss RGB Screen Color
Main PCB Factory Adjusted	Control: VR501, VR601, VR201, VR202, and FBT	Fil, B+ Adjust, H-CEN, H-SIZE, Focus and Screen

BRIGHTNESS ADJUSTMENT:

- 1) Press the "OSD" key—the Main-Menu OSD will come up as pictured above
- 2) Search "BRIGHTNESS" sub-menu using "FUN -" or "FUN +" key 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" key is pressed, all user's adjustment values are changed to the factory values.



AC INPUT CONNECTOR: P501
 AMP 350760-4
 Mating AMP type 1-480700-0

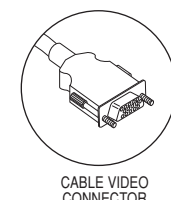
Pin	Description
1	AC hot
2	Earth ground
3	AC neutral

CABLE VIDEO CONNECTOR
 15 Pin Subminiature D-type

Pin	Description
1	Red video input
2	Green video input
3	Blue video input
4	N/C
5	Reserved (test)
6	Red video ground
7	Green video ground
8	Blue video ground
9	N/C
10	Digital/sync ground
11	Reserved (mode)
12	Reserved (SDA)
13	Horizontal sync
14	Vertical sync
15	Reserved (SCL)

PCBA CONNECTOR PIN

Pin	Description
1	Red
2	Green
3	Blue
4	Gnd
5	+ - Vertical sync
6	+ - Horizontal sync
7	Key
8	Gnd
9	+ - Vertical sync
10	+ - Composite sync



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

TRANSFORMERS

DESIGNATION	DESCRIPTION	PART NO.
T201	DRIVER XFORMER	TDR-1191R5M-02
T202	STEP-UP XFORMER	TXF-E22750U-00
T203	FBT CT-9377B	FBT-U132R0M-90
T501	POWER XFORMER	TPW-L39451U-00
L202	DIODE MOD COIL	LCK-D6B301U-00
L203	LIN COIL	LLC-D6F100U-00
L205	H-CENT COIL	LCK-D455R0M-00
L501,502	CHOKE LINE 150uHY	LDC-T50151U-00
L503	CHOKE LINE 16mHY	LCC-B28160M-00

CAPACITORS

DESIGNATION	DESCRIPTION	PART NO.
C241	1.5UJ,MPP 250V	MPP-N2E155J-25
C242	0.68UJ,MPP 250V	MPP-N2E684J-20
C243	0.27UJ MPP 250V	MPP-N2E274J-15
C248	0.39U MPH 400V	MPH-N2G394J-20
C255	0.0062UJ PPS 2.0KV	PPS-N3V62J-22
C256	0.0068UJ PPS 1KV	PPS-N3A682J-20
C265	10U 250V	CLC-52E106M-T5
C269	2.2UJ 100V	MEF-N2A225J-20
C310,527	2200U,25V EC-FC	CLC-51E228M-50
C309	470U,35V EC-FC	CLC-51V477M-50
G510	330UF 400V	CEC-52G337M-SN
C508	0.022UM 1KV	CHK-U3A223M-10
C513	220UM 25V	CLC-51E227M-T5
C524	1000U 16V	CLC-51C108M-T5
C525	100UM 160V	CLC-52C107M-T5
C526	330UM 100V	CLC-52A337M-T5
C528	2200U 16V	CLC-51C228M-T5
C533,538	100UM 16V	CLC-51C107M-T5
C606	220UM 200V	CLC-52D227M-T5

TRANSISTORS

DESIGNATION	DESCRIPTION	PART NO.
Q220	2SC5588 HOR-OUT	QTR-C5588XX-00
Q231	PNP BF423	QTR-BF423XX-00
Q243	KTC4370Y DIODE MOD	QTR-C4370YX-00
Q501	SSSTN60B POWER SUPPLY	MOS-SSSTN60-00
Q603,221-223	IRFS634B HOR B PLUS	MOS-IRFS634I-BK
Q507,508	NPN, HDS882P	QTR-D882PXX-00

VARIABLE POTENTIOMETERS

DESIGNATION	DESCRIPTION	PART NO.
VR601	VR SEMI 1K ohm	SVR-C1B102N-B8
VR201,202,501	VR SEMI 5K ohm	SVR-C1B502N-B8

INTEGRATED CIRCUITS

DESIGNATION	DESCRIPTION	PART NO.
IC701	MCU WT62P2	UIC-WT62P2F-02
IC702	EPROM 24LC08	UIC-24C08XX-00
IC201	TDA9112	UIC-ST9112A-00
IC301	TA8172	UIC-TA8172-00
IC501	KA3842	UIC-KA3842B-00
IC801	LM1269A	UIC-LM1269A-00
IC802	NEBULA-24V (WT6803-NEB)	UIC-OSD24XX-00

DIODES

DESIGNATION	DESCRIPTION	PART NO.
D247,262	1N5819	DSI-SR140XX-T5
D232	BY329X	DSI-BY329X5-BK
D233,233A	UGP30K	DSI-UGP30KX-BK
D505	EGP20K 800V	DSI-EGP20KX-T5
D506,507	IN4936	DSI-IN4936X-T5
D511	EGP20F 300V	DSI-EGP20FX-T5
D512	EGP20J 600V	DSI-EGP20JX-T5
D513,513A	UGP30G	DSI-UGP30GX-BK
D514,D515	EGP30D 200V 3A	DSI-EGP30DX-BK
D602	EGP30G 400V	DSI-EGP30GX-BK
ZD502	ZENER 1/2W 12V	DZE-5012V0J-T5
ZD503,801	ZENER 1/2W 5.1V	DZE-50051VJ-T5

RESISTORS

DESIGNATION	DESCRIPTION	PART NO.
R504,505	12K 2W MOF	RMO-201204J-EK
R256,531	22 ohm 1/2W CF	RCF-022201J-T5
R542	47 ohm 1W MOF	RMO-104701J-MK
R274,275,506,534,563	3.3J 1/4W FUSIBLE	RFU-043300J-T5
R514	0.18J 2W WW NON-IND	RWN-20R180J-MK
R609	0.27J 2W WW NON-IND	RWN-20R270J-MK
R615	220K 1/4W CF	RCF-042205J-T5
R313	0.68J 1W MOF	RMO-10R680J-MK
R254	100J 2W MOF	RMO-201002J-MK
R616	5.6K 1/6W CF	RCF-065603J-T5

MISCELLANEOUS

DESIGNATION	DESCRIPTION	PART NO.
F501	FUSE 3.15A, 250 VAC	FUS-SG251U-ZB
X701	CRYSTAL 12MHZ	OSC-XTL0123-BK
DB501	BRIDGE KBL06	DSI-KBL06XX-BK

RESTRICTED CONFIDENTIAL DOCUMENT

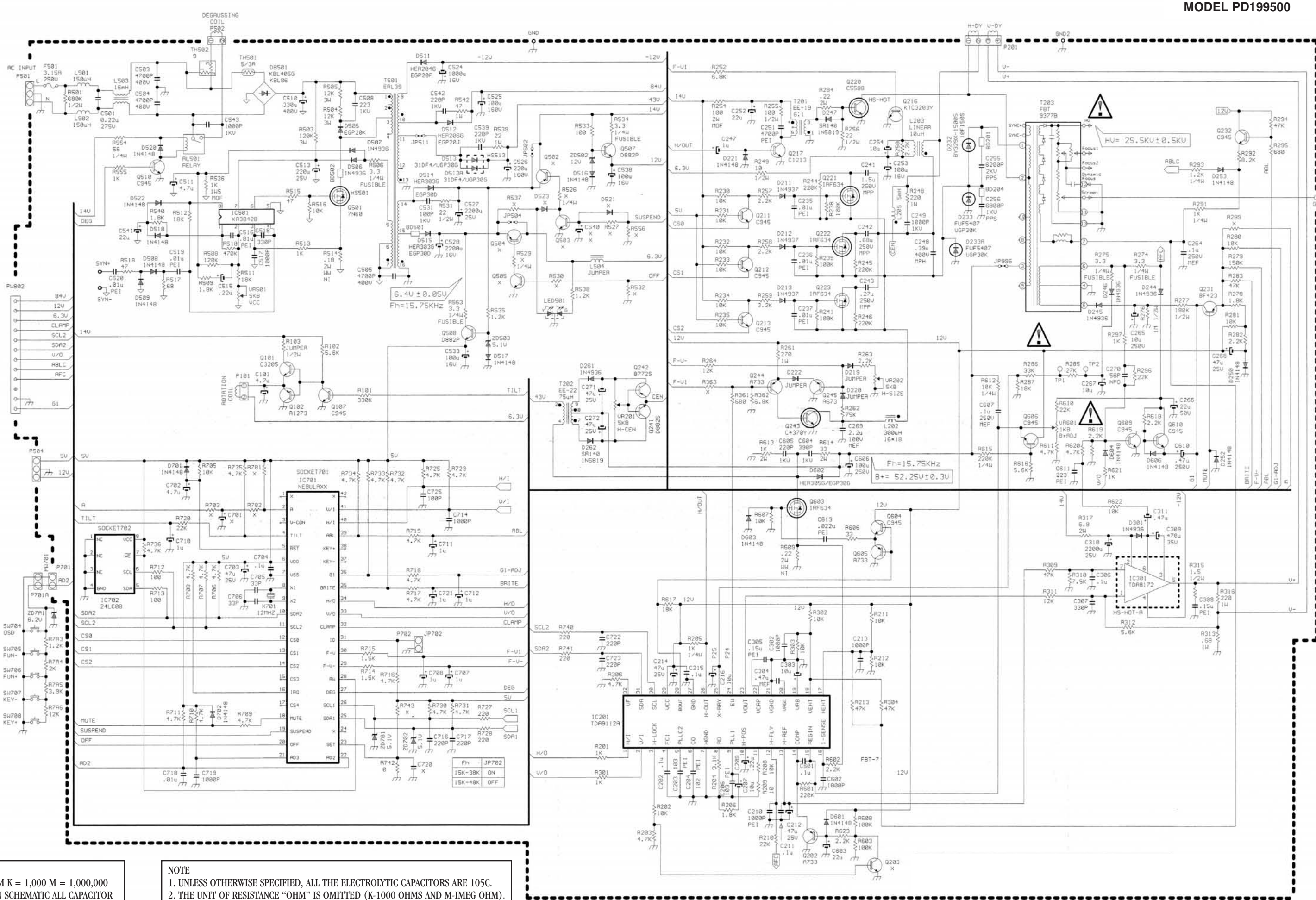
THIS DRAWING AND ALL INFORMATION SHOWN HEREON ARE THE EXCLUSIVE PROPERTY OF WELLS-GARDNER CORP. AND ARE SUBMITTED ONLY ON A CONFIDENTIAL BASIS. THE RECIPIENT AGREES NOT TO REPRODUCE THE DRAWING, TO RETURN IT UPON REQUEST, AND THAT NO DISCLOSURE OF THE DRAWING OR THE INFORMATION SHOWN HEREON WILL BE MADE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

NOTE

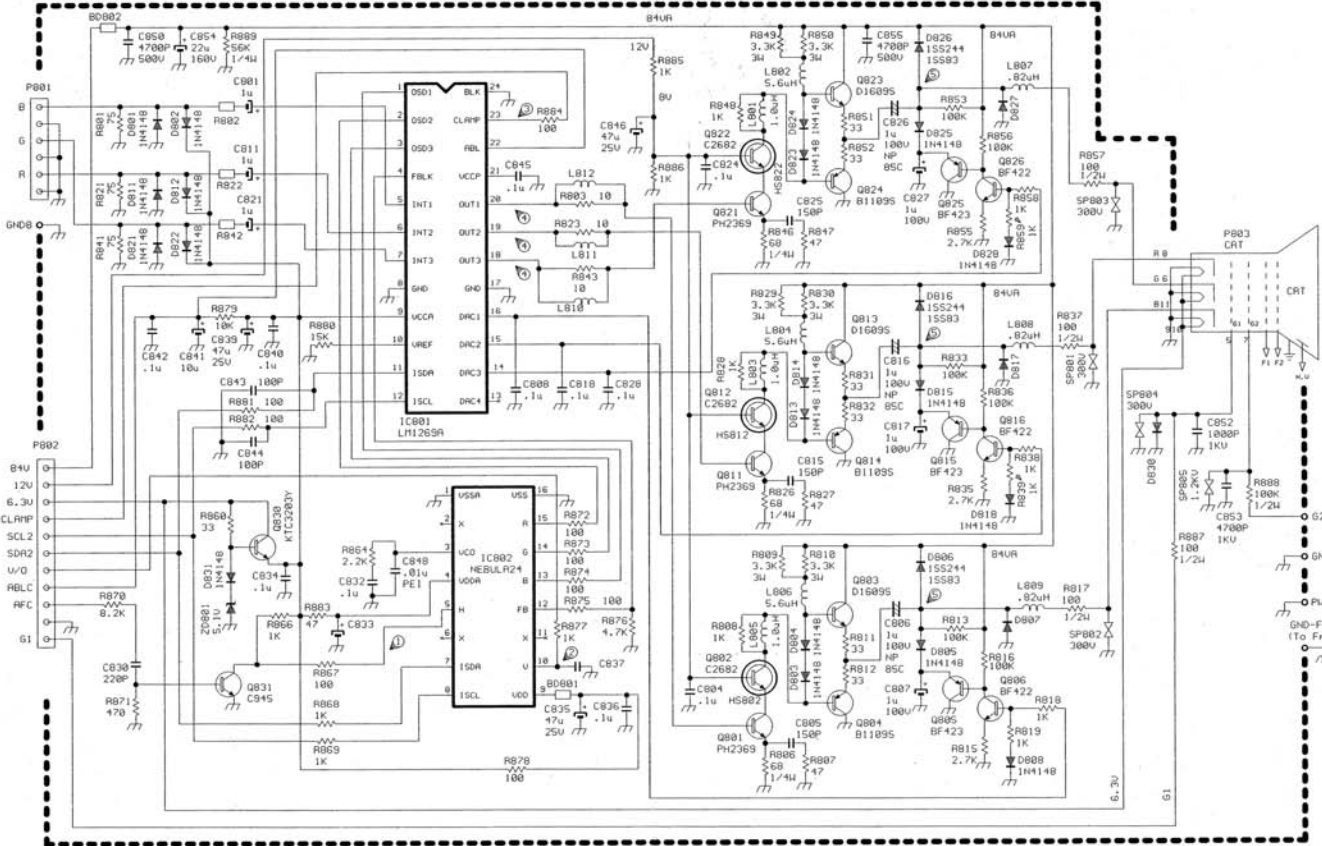
1. RESISTANCE IS SHOWN IN OHM K = 1,000 M = 1,000,000
2. UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITOR VALUES LESS THAN 1 ARE EXPRESSED IN uF AND THE VALUES MORE THAN 1 IN pF

NOTE

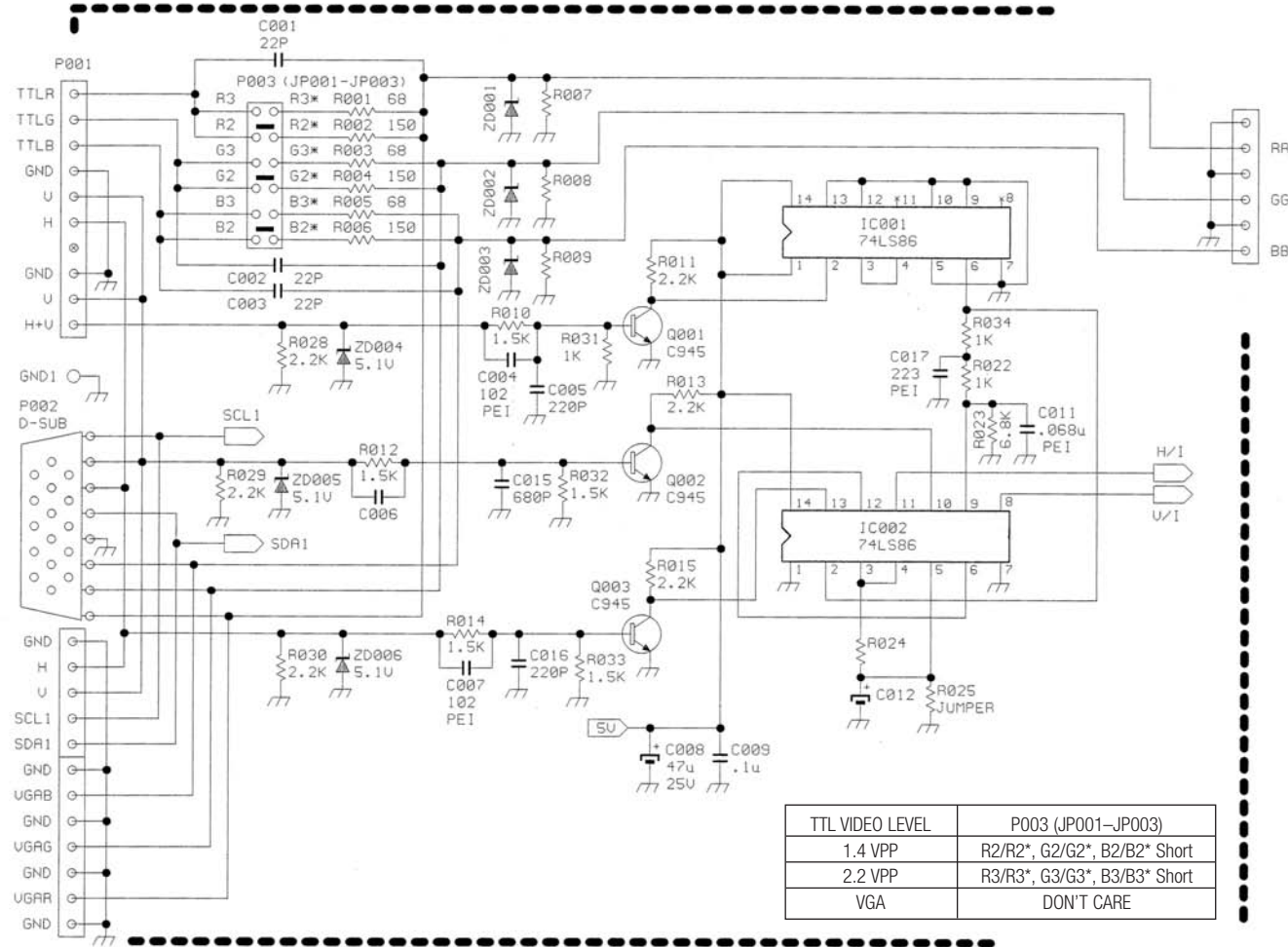
1. UNLESS OTHERWISE SPECIFIED, ALL THE ELECTROLYTIC CAPACITORS ARE 105C.
2. THE UNIT OF RESISTANCE "OHM" IS OMITTED (K-1000 OHMS AND M-1MEG OHM).
3. ALL RESISTORS ARE 1/8 WATT UNLESS OTHERWISE NOTED.
4. THE UNIT OF CAPACITANCE "uFD" IS OMITTED UNLESS OTHERWISE NOTED "PF".



PD199500 MAIN BOARD



PD199500 VIDEO BOARD



PD199500 SYNC INPUT

TTL VIDEO LEVEL	P003 (JP001-JP003)
1.4 VPP	R2/R2', G2/G2', B2/B2' Short
2.2 VPP	R3/R3', G3/G3', B3/B3' Short
VGA	DON'T CARE