



SERVICE MANUAL

Color Video Monitor



VMC-8615FP

(Product Code : 114 952 09)
(Europe)

VMC-8615FP

(Product Code : 114 952 10)
(U.K.)

VMC-8615FP

(Product Code : 114 952 11)
(Australia)

VMC-8614F

(Product Code : 114 952 12)
(U.S.A., Canada)

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NOTE: 1. Parts order must contain model number, part number, and description.
2. Substitute parts may be supplied as the service parts.
3. N.S.P. : Not available as service parts.

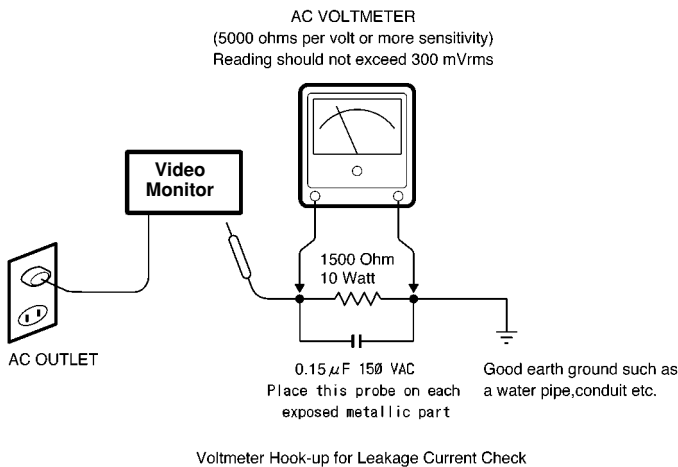
Design and specifications are subject to change without notice.

SAFETY PRECAUTIONS

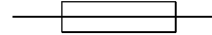
WARNING:

Service should not be attempted by anyone unfamiliar with the necessary precautions for this recording or playback equipment. The following precautions are necessary during servicing:

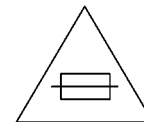
1. Many electrical and mechanical parts in this recorder have special safety-related characteristics for providing protection against shock, fire and other hazards. These characteristics often go unnoticed in a visual inspection, and the protection afforded by them cannot necessarily be obtained by using replacement components with higher ratings (voltage, wattage, etc.).
2. Replacement parts having special safety-related characteristics are identified in this manual, and in the schematic diagrams, by the symbol \triangle . These components have values that are of special significance to product safety. Should any component (identified by the symbol \triangle) need to be replaced, use only the part designated in the parts List. Do not deviate from the specified resistance, wattage, and voltage ratings.
3. Before returning the set to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as terminals, screwheads, metal overlays, etc. to be sure that the set is safe to operate without the danger of electrical shock. Plug the AC line cord directly into a 120 V AC outlet. (Do not use a line isolation transformer during this check.) Use an AC voltmeter with a sensitivity of 5000 ohms per volt (or more) as follows: Connect a 1500 ohms, 10 watt resistor, paralleled by a 0.15 mfd, 150 VAC capacitor, between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the 1500 ohms resistor and 0.15 mfd capacitor combination. Reverse the AC plug at the AC outlet and repeat the AC voltage measurements for each exposed metallic part. The measured voltage must not exceed 300 mVrms. This corresponds to 200 μ A AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



4. Fuse symbol marks.
For CANADA



For U.S.A.



Fuse rating is marked at adjacent fuse.

UNDERWRITERS LABORATORIES Standard

CAUTION "Risk of fire-replace fuse as marked"

SPECIFICATIONS

Color system : PAL/NTSC, selected automatically
Picture tube : 14 inch (VMC-8614F) , 15 inch (VMC-8615FP)
Resolution : More than 800 TV lines

Input terminals

S-VIDEO signal (VIDEO C) : Separate Y/C signal, mini-DIN 4-pin connector (1)
Y signal: 1.0 Vp-p, 75 Ω negative sync
C signal: 0.286 Vp-p, 75 Ω negative sync

VIDEO signal (VIDEO A, B) : Composite sync signal: 1.0 Vp-p, 75 Ω BNC connector (2)

AUDIO signal (AUDEO A, B) : -6dBs (400 mVrms), RCA pin (3)

Outout terminals

S-VIDEO signal (VIDEO C) : Separate Y/C signal, mini-DIN 4-pin connector (1)
Y signal: 1.0 Vp-p, 75 Ω negative sync
C signal: 0.286 Vp-p, 75 Ω negative sync, loop-through, automatic termination setting

VIDEO signal (VIDEO A, B) : Composite sync signal: 1.0 Vp-p, 75 Ω BNC connector (2), loop-through, automatic termination setting

Audio output : -6dBs (400 mVrms), RCA pin (3), loop-through

Speaker : 1 W

Power source : x 1, impedance of 8 Ω

Power consumption : 100 to 240 V AC, 50/60 Hz

Ambient operating temperature : 95 Watts

Ambient operating humidity : -10 $^{\circ}$ C to +45 $^{\circ}$ C storage temperature

Dimension (W x H x D) : 15 % to 90 %

Weight : 368 x 361 x 376 mm
15kg

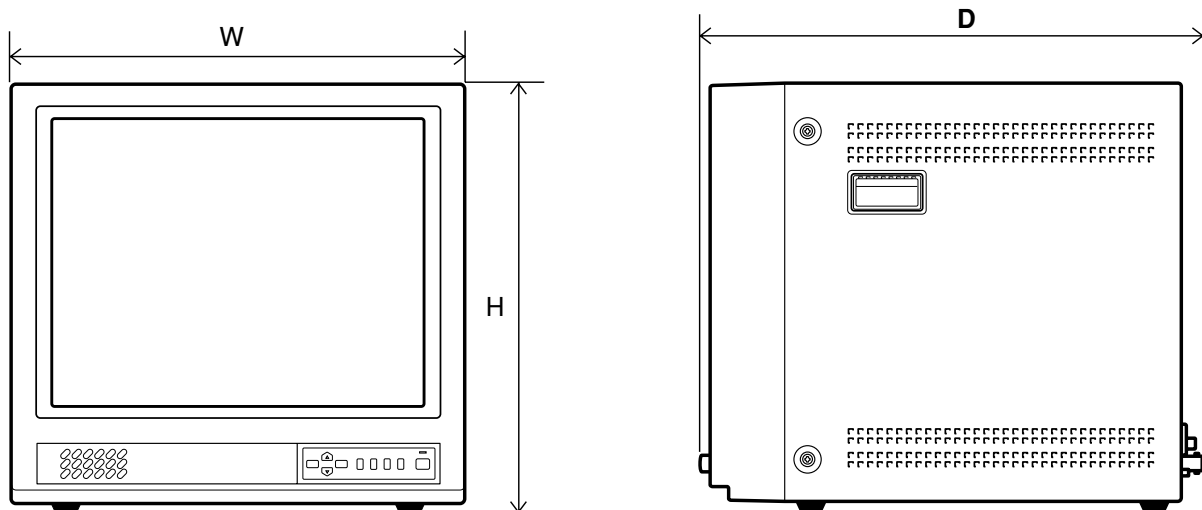


Fig. 1

1. OPERATING INSTRUCTIONS

1-1. FRONT PANEL CONTROLS

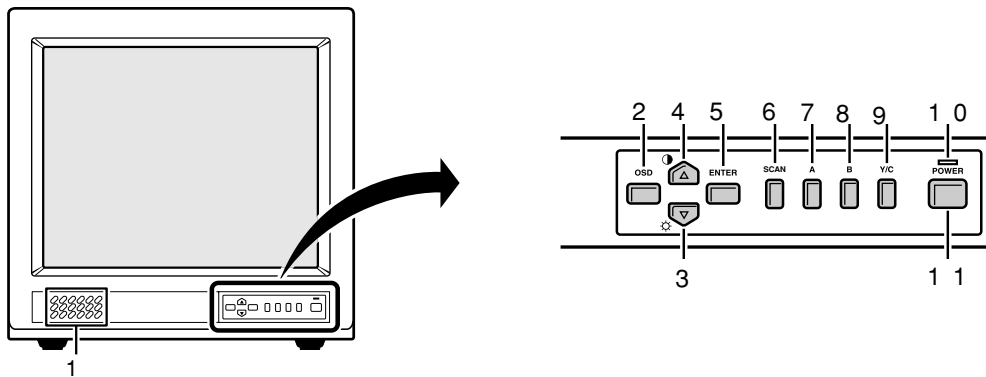


Fig. 2

1. Speaker

When the monitor selector button (A, B or Y/C) is pressed, the speaker lets you hear the sound from the components which are connected to the terminals at the rear of the monitor. (Use components which produce audio output.)

2. On-screen display button (OSD)

When this button is pressed, the menu screen appears on the monitor screen.

3. Cursor (▼) button (⊙)

When this button is pressed, the cursor moves down. When it reaches the bottom, it reappears at the top. In addition, this button is used to make adjustment values smaller.

4. Cursor (▲) button (⊙)

When this button is pressed, the cursor moves up. When it reaches the top, it reappears at the bottom. In addition, this button is used to make adjustment values larger.

5. Display selector button (ENTER)

If this button is pressed while a picture is on the monitor screen, the screen changes to the adjustment screen. If the button is pressed once more, the picture returns to the previous screen.

6. Underscan/overscan select button (SCAN)

The initial setting is for the normal screen (overscan).

If the SCAN button is pressed, the screen will become smaller (underscan) than the normal screen. Change this setting in cases such as when screen display characters are missing. If the SCAN button is pressed once more, the normal screen is displayed again.

7. Monitor A selector button (A)

When this button is pressed, the audio and video input changes to the component which is connected to the A terminals at the rear of the monitor.

8. Monitor B selector button (B)

When this button is pressed, the audio and video input changes to the component which is connected to the B terminals at the rear of the monitor.

9. Monitor Y/C selector button (Y/C)

When this button is pressed, the audio and video input changes to the component which is connected to the Y/C terminals at the rear of the monitor.

10. Power indicator (POWER)

Lights when the power is on.

11. Power button (POWER)

Press this button to turn the power on and off.

1-2. REAR PANEL CONTROLS & CONNECTION

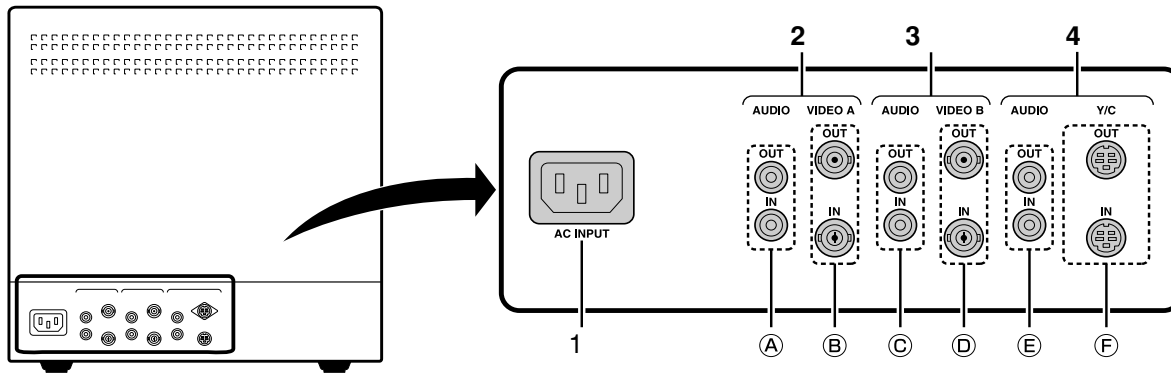


Fig. 3

1. AC INPUT socket

Connect the AC power cord (supplied) securely to this socket and to a wall outlet.

2. Rear A terminals (AUDIO/VIDEO A terminals)

When the monitor A selector button at the front of the monitor is pressed, the audio and video signals from the component which is connected to these terminals can be monitored.

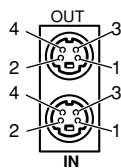
3. Rear B terminals (AUDIO/VIDEO B terminals)

When the monitor B selector button at the front of the monitor is pressed, the audio and video signals from the component which is connected to these terminals can be monitored.

4. Rear Y/C terminals (AUDIO/VIDEO Y/C terminals)

When the monitor Y/C selector button at the front of the monitor is pressed, the audio and video signals from the component which is connected to these terminals can be monitored.

Y/C (Mini DIN 4 pin) terminal specification



Pin No.	Signal
1	GND (Y)
2	GND (C)
3	Y
4	C

Fig. 4

2. DISASSEMBLY
2-1. REMOVAL OF CABINET

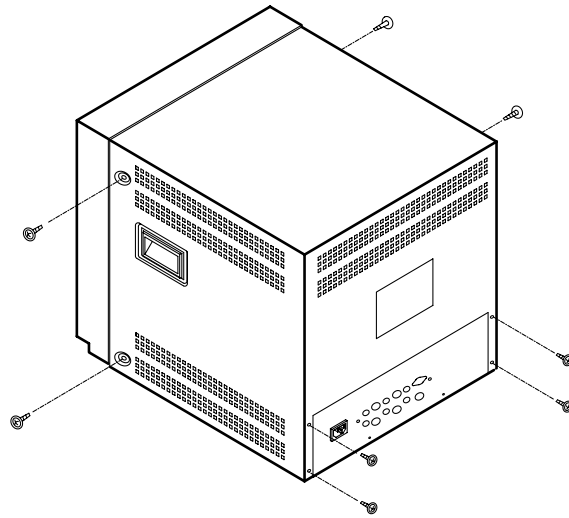


Fig. 5

2-2. BOARD LOCATION

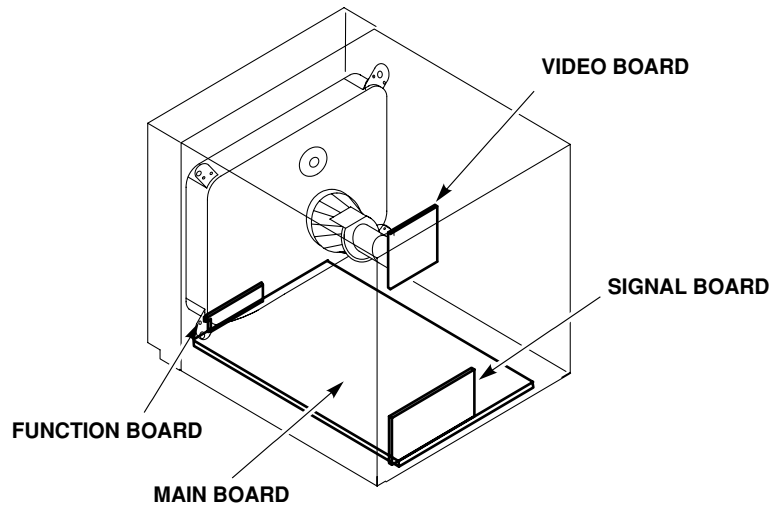


Fig. 6

3. SERVICE ADJUSTMENTS

1. Supply power to the set and measuring instruments and allow to warm up for at least 30 minutes.

NOTE

Be sure to use a non-metallic driver for adjusting there VRs. A metallic driver can cause damage by shorting.

Adjustment tool

1. Digital multi meter
2. Pattern generator
3. Color analyzer (luminance Mindlta)

Adjustment mode

Over scan mode

ADJUSTMENT ITEM	TIMING PATTERN	SETTING	VR LOCATION	ADJUSTMENT PROCEDURE
B+ VOLTAGE ADJUSTMENT	PATTERN GENERATOR MONOSCOPE PATTERN	Tiny Brightness	VR901	TEST POINT : D910(-) DIGITAL VOLT METER VALUE 47.5 ± 0.5 VDC.
HOLD DOWN VOLTAGE SETTING	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARP- NESS VR to MAX.	VR503	TEST POINT : PIN1 DIGITAL VOLT METER VALUE 8.5 ± 0.2 VDC.
FOCUS ADJUSTMENT	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR to 75%. SHARPNESS VR to MAX.	FBT FOCUS VR	Adjusting FBT FOCUS VR to make focus resolution of reach over 800 TV Lines, Center and four corners must be clear.
PINCUSHION ADJUSTMAN	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARP- NESS VR to MAX.	VR305	Adjusting VR305 to make the vertical line of the picture in a beeline.
HORIZONTAL PHASE ADJUSTMENT	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARP- NESS VR to MAX.	VR401	Adjusting VR401 horizontal phase to make screen right and left symmetrize.
HORIZONTAL SIZE ADJUSTMENT (VMC-8614F only)	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARP- NESS VR to MAX.	VR306	Adjusting H-size control VR306 to make signal side of picture of scale is "3" position.
HORIZONTAL SIZE ADJUSTMENT (VMC-8615FP only)	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARP- NESS VR to MAX.	VR306	Adjusting H-size control VR306 to make signal side of picture of scale is "2" position.
VERTICAL LINEARY ADJUSTMENT	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARP- NESS VR to MAX.	VR302	Adjusting VR302 V-LINEARITY to make up/down linear be identical.

ADJUSTMENT ITEM	TIMING PATTERN	SETTING	VR LOCATION	ADJUSTMENT PROCEDURE
VERTICAL CENTER ADJUSTMENT	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARPNESS VR to MAX.	VR303	Adjusting VR303 to make screen up & down symmetrize.
VERTICAL SIZE ADJUSTMENT (VMC-8614F only)	PATTERN GENERATOR MONOSCOPE	BRIGHT VR , CONTRAST VR and SHARPNESS VR to MAX.	VR301	Adjusting VR301 to signal side of picture of scali is "3" position.
VERTICAL SIZE ADJUSTMENT (VMC-8615FP only)	PATTERNPATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARPNESS VR to MAX.	VR301	Adjusting VR301 to signal side of picture of scali is "2" position.
TILT ADJUSTMENT	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARPNESS VR to MAX.		If screen slant and adjust DY to be not slant.
WHITE BALANCE ADJUSTMENT (VMC-8614F only)	PATTERN GENERATOR NO SIGNAL	BRIGHT VR , CONTRAST VR and SHARPNESS VR to MAX.	VR801,VR803, VR805, FBT FOCUS VR	Adjust VR803 G-Bias to center. Adjust FBT screen VR make luminance without video to 1.5 ± 0.3 FL. Adjust VR805 make Y value is 0.298 ± 0.015 . Adjust VR801 make X value is 0.283 ± 0.015 .
	PATTERN GENERATOR FULL WHITE	BRIGHT VR , CONTRAST VR and SHARPNESS VR to MAX.	VR804,VR802, VR501	Adjust VR501 make luminance with video signal to 45 - 50 FL. Adjust VR804 make Y value is 0.298 ± 0.015 . Adjust VR802 make X value is 0.283 ± 0.015 . Dark, bright balance, repeat to adjust correctly X, Y value & luminance to constant.
WHITE BALANCE ADJUSTMENT (VMC-8615FP only)	PATTERN GENERATOR NO SIGNAL	BRIGHT VR , CONTRAST VR and SHARPNESS VR to MAX.	VR801,VR803, VR805, FBT FOCUS VR	Adjust VR803 G-Bias to center. Adjust FBT screen VR make luminance without video to 1.5 ± 0.3 FL. Adjust VR805 make Y value is 0.329 ± 0.015 . Adjust VR801 make X value is 0.313 ± 0.015 .
	PATTERN GENERATOR FULL WHITE	BRIGHT VR , CONTRAST VR and SHARPNESS VR to MAX.	VR804,VR802, VR501	Adjust VR501 make luminance with video signal to 45 - 50 FL. Adjust VR804 make Y value is 0.329 ± 0.015 . Adjust VR802 make X value is 0.313 ± 0.015 . Dark, bright balance, repeat to adjust correctly X, Y value & luminance to constant.

ADJUSTMENT ITEM	TIMING PATTERN	SETTING	VR LOCATION	ADJUSTMENT PROCEDURE
LUMINANCE ADJUSTMENT	PATTERN GENERATOR NO SIGNAL	BRIGHT VR , CONTRAST VR and SHARPNESS VR TO MAX.	FBT SCREEN VR	Adjust FBT screen VR make luminance without video signal is 1.5 ± 0.3 FL.
	PATTERN GENERATOR FULL WHITE	BRIGHT VR , CONTRAST VR and SHARPNESS VR TO MAX.	VR501	Adjust VR501 make luminance is 45 ~ 50 FL.
	PATTERN GENERATOR WINDOWS PATTERN	BRIGHT VR , CONTRAST VR and SHARPNESS VR TO MAX.	VR502	Adjust VR502 make luminance is 100 ± 3 FL. Then make sure Full White luminance whether it is 45 ~ 50 FL.

The way of adjusting it which a color analyzer (Luminance Mindlta) is not used for.

ADJUSTMENT ITEM	TIMING PATTERN	SETTING	VR LOCATION	ADJUSTMENT PROCEDURE
WHITE BALANCE ADJUSTMENT and LUMINANCE ADJUSTMENT	PATTERN GENERATOR NO SIGNAL	BRIGHT VR , CONTRAST VR and SHARPNESS VR TO MAX.	VR801,VR802, VR803,VR804, VR805, FBT SCREEN VR	VR801,VR802,VR803,VR804 and VR805 is center position. Adjust the VR801, VR805 and FBT SCREEN VR to dark gray with screen.
	PATTERN GENERATOR FULL WHITE	BRIGHT VR , CONTRAST VR and SHARPNESS VR TO MAX.	VR804,VR802, VR501	Adjust the VR802 and VR804 to white gray with screen. Adjust the VR501 it makes the screen of the monitor proper brightness.

**MAIN BOARD
(Parts side)**

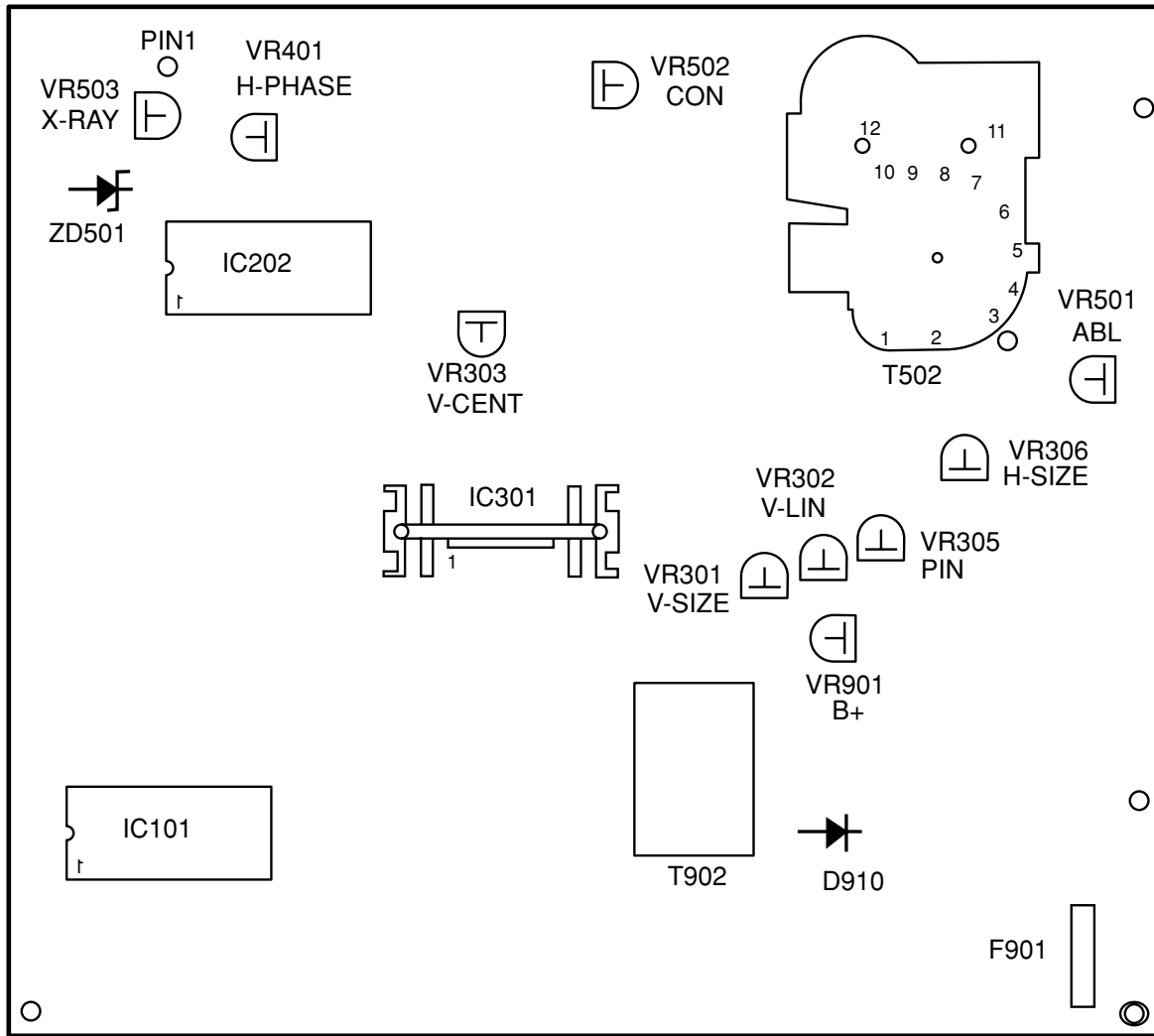


Fig. 7

**FUNCTION BOARD
(Parts side)**

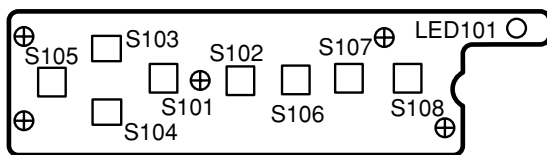


Fig. 8

**VIDEO BOARD
(Parts side)**

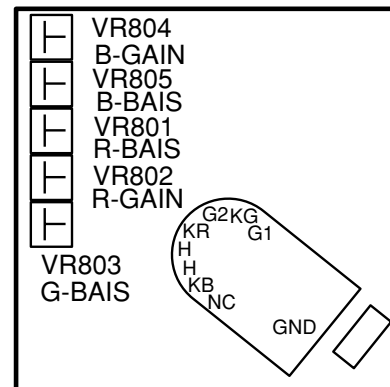


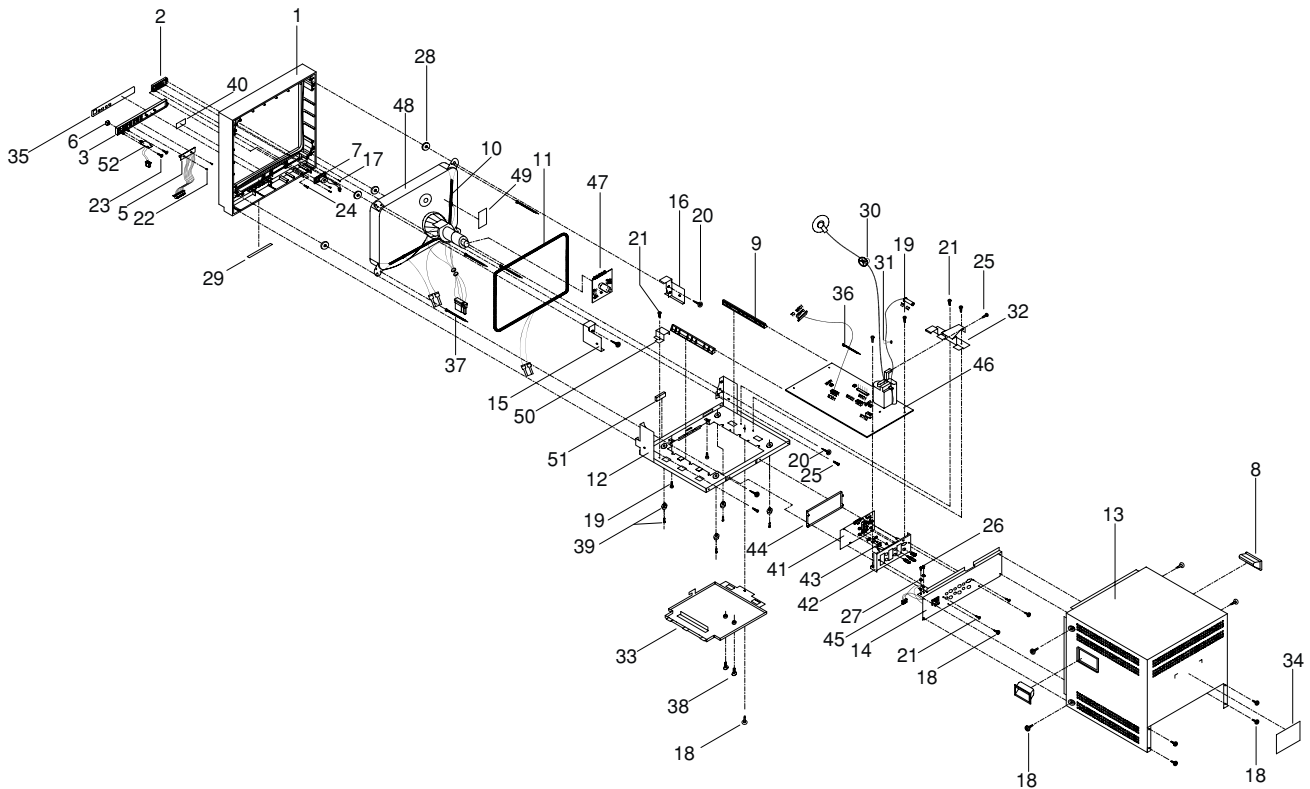
Fig. 9

4. PARTS LIST

LOCATION	PARTS NO.	DESCRIPTION
CABINET & CHASSIS PARTS		
1	645 065 0840	FRONT PANEL 15" AA-51
2	645 065 0857	SPEAKER PANEL 15" AA-51
3	645 048 3516	CONTROL PANEL 14" AA-51
5	645 046 6724	FUNCTION BOARD VMC-8613/8614P
6	645 048 3493	SW KNOB 19" AA-51
7	645 046 6441	SPEAKER S9711-22NQ4171C8OHM/1W
8	645 034 3919	HANDLE COVER CM-14 PA-765A
9	645 034 4299	PCB GUIDE RAIL MM-12A
10	645 065 0987	BRAID WIRE CH-15DNA
11	645 065 1069	DEGAUSSING COIL CH-15DNA
12	645 065 1137	BASE CH-15VNA
13	645 065 1144	METAL TOP COVER CH-15VNA AA-51
14	645 046 6434	JACK PLATE CH-14DXA AA-51
15	645 065 1083	BRACKET RIGHT CH-15VNA
16	645 065 1090	BRACKET LEFT CH-15VNA
17	645 065 0741	PH SCREW 3*6MM
18	645 034 3582	PH W/W SCR. 4*8MM
19	645 034 3612	SCREW+WASHER 3*6MM
20	645 034 3599	PH W/W SCR. 4*18MM
21	645 046 4850	PH W/W SCR. 3*6MM
22	645 046 4829	PH SCREW 3*8MM
23	645 034 3605	RH W/W SCR. 3*8MM
24	645 065 0758	PH SCREW 3*14MM
25	645 046 4836	PH SCREW 4*12MM
26	645 035 6216	BH SCREW 4*6MM
27	645 035 6223	WASHER OUT TEETH 4.5*8.5*0.5MM

LOCATION	PARTS NO.	DESCRIPTION
28	645 034 3650	RUBBER WASHER 6*20*2.5MM
29	645 067 4426	HOLES COVER STIKER 16*160AA-51
30	645 034 4268	F.B.T CLIP HV-1
31	645 046 5772	PURST LOCK A-11
32	645 065 1113	FBT FASTEN METAL CH-15VNA
33	645 065 1106	REPAIR BOTTOM CH-15VNA
34		ID LABEL 83*51MM (N.S.P.)
35	645 048 3431	DIGITAL 19" AA-51 (VMC-8615FP ONLY)
35	645 066 3031	DIGITAL VMC-8620 AA-51(VMC-8614F ONLY)
36	645 038 5605	NYLON CABLE TIE 2.5*120MM
37	645 046 5710	NYLON CABLE TIE 2.5*200MM
38	645 046 5796	SPACER SUPPORTS FCB-15
39	645 034 4763	FOOT PAD ASSY GL-24H-B
40	645 048 3394	LOGO 19DXA
41	645 046 6731	SIGNAL BOARD CM-21DXA
42	645 046 6281	RACK PLATE CM-21DXA
43	645 046 6373	GND PLATE DX SERIES 20*13*0.5
44	645 046 6380	SHIELDING PLATE DXA SERIES
45	△ 645 046 6533	AC SOCKET ASSY MM-20A
46	645 066 3369	MAIN BOARD CH-15DXA
47	645 066 3345	VIDEO BOARD CH-15DXA
48	△ 645 065 1014	CRT M36AES13X01 CPT
49	645 040 9226	X RADIATION 110*50MM (N.S.P.)
50	645 065 1120	PCB FASTEN METAL CH-15VNA
51	645 034 3940	CORDS EDGE PROTECTOR AMB-1C
52	645 065 3438	SW ASSY VMC-8415FP

N.S.P.: Not available as service parts.



ELECTRICAL PARTS

Note:

1. Materials of Capacitors and Resistors are abbreviated as follows ;

Resistors		Capacitors	
CF RES	Carbon Film Resistor	MEF CAP	Metallized Polyester Film Capacitor (Non-inductive)
MF RES	Metal Film Resistor		Mini Box Metallized Polyester Capacitor (Non-inductive)
MOF RES	Metallized Oxide Film Resistor	MEMB CAP	Polyester Film Capacitor (Inductive)
		PEI CAP	Polypropylene Film Capacitor (Non-inductive)
		PPN CAP	Polypropylene and Metallized Polypropylene Film Capacitor (Non-inductive)
		PPS CAP	Metallized Polypropylene Capacitor (Non-inductive)
		MPP CAP	Metallized Polypropylene Film Capacitor (Non-inductive)
		X CAP(MKP)	Ceramic Capacitor
		CC CAP	Electrolytic Capacitor
		EC CAP	

2. N.S.P. : Not available as service parts.

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
SW ASS'Y VMC-8415FP			R826	645 034 2417	MF RES 2.2KOHM 1/2W +/-1% (VARIABLE RESISTORS)
	645 065 3438		VR801	645 066 2928	POT VR METAL 1KOHM 6DIA S TYPE
		(MISCELLANEOUS)	VR802	645 046 4768	POT VR METAL 300OHM 6DIAS TYPE
		POWER SWITCH PS3-22SP-W4CW	VR803	645 066 2928	POT VR METAL 1KOHM 6DIA S TYPE
B902	△ 645 046 5086	L/W HOUSING 1015 18AWG L=350MM	VR804	645 046 4768	POT VR METAL 300OHM 6DIAS TYPE
	645 066 3130		VR805	645 066 2928	POT VR METAL 1KOHM 6DIA S TYPE (MISCELLANEOUS)
AC SOCKET ASS'Y MM-20A			G2	645 034 3667	CONNECTOR BASE P235142 (N.S.P.)
	645 046 6533		GND1	645 034 3698	CONNECTOR BASE M11352 (N.S.P.)
		(MISCELLANEOUS)	W801	645 034 3773	CONNECTOR BASE M241855 (N.S.P.)
		POWER SOCKET SS-120E	W802	645 034 3759	CONNECTOR BASE M241854-X (N.S.P.)
		L/W HOUSING B/G&Y/B 1015 18AWG	SGP801	645 065 0871	SPARK GAP 300V +/-20% S TYPE
		LEAD WIRE 1015 18AWG	SGP802	645 065 0871	SPARK GAP 300V +/-20% S TYPE
		FERRITE CORE T22.5*6.4*13.8	SGP803	645 065 0871	SPARK GAP 300V +/-20% S TYPE
			SK801	645 040 9240	CRT SOCKET ISHM35S

VIDEO BOARD CH-15DXA

645 066 3345

(CAPACITORS)		
C801	645 055 0119	EC CAP 100UF 25V 105 DEGREE C
C803	645 065 0598	CC CAP 331PF 50V +/-5%
C804	645 065 0598	CC CAP 331PF 50V +/-5%
C805	645 065 0604	CC CAP 471PF 50V +/-5%
C806	645 043 3139	CC CAP 103PF 1.5KV Z5U
C807	645 065 0574	EC CAP 4.7UF 250 V
(SEMICONDUCTORS)		
Q801	645 034 3216	TR 2SC1815GR
Q802	645 046 6908	PARTS ASS'Y
Q803	645 034 3216	TR 2SC1815GR
Q804	645 046 6908	PARTS ASS'Y
Q805	645 034 3216	TR 2SC1815GR
Q806	645 040 9110	TR 2SC2688L
(RESISTORS)		
R801	645 065 0406	MOF RES 6.2KOHM 3W +/-5%
R803	645 034 2141	CF RES 3.3KOHM 1/4W +/-5%
R804	645 065 0345	CF RES 82OHM 1/4W +/-5%
R805	645 034 2134	CF RES 330OHM 1/4W +/-5%
R808	645 034 2141	CF RES 3.3KOHM 1/4W +/-5%
R809	645 065 0345	CF RES 82OHM 1/4W +/-5%
R810	645 034 2134	CF RES 330OHM 1/4W +/-5%
R813	645 034 2141	CF RES 3.3KOHM 1/4W +/-5%
R814	645 046 2382	CF RES 180OHM 1/4W +/-5%
R815	645 034 2134	CF RES 330OHM 1/4W +/-5%
R816	645 046 3235	MOF RES 220KOHM 1/2W +/-5%
R817	645 065 0406	MOF RES 6.2KOHM 3W +/-5%
R819	645 034 2417	MF RES 2.2KOHM 1/2W +/-1%
R821	645 046 2382	CF RES 180OHM 1/4W +/-5%
R822	645 046 2382	CF RES 180OHM 1/4W +/-5%
R823	645 045 9597	CF RES 150OHM 1/4W +/-5%
R824	645 034 2417	MF RES 2.2KOHM 1/2W +/-1%
R825	645 065 0406	MOF RES 6.2KOHM 3W +/-5%

MAIN BOARD CH-15DXA

645 066 3369

(CAPACITORS)		
C101	645 065 0567	EC CAP 4.7UF 50V 105 DEGREE C
C102	645 034 2837	CC CAP 104PF 50V Y5V
C103	645 065 0475	EC CAP 220UF 16V 105 DEGREE C
C104	645 046 3853	CC CAP 33PF 50V Y5P
C105	645 046 3853	CC CAP 33PF 50V Y5P
C107	645 066 2652	EC CAP 220UF 10V 105 DEGREE C
C108	645 055 0096	EC CAP 10UF 50V 105 DEGREE C
C109	645 065 0567	EC CAP 4.7UF 50V 105 DEGREE C
C110	645 066 2690	EC CAP 330UF 16V 105 DEGREE C
C111	645 055 0096	EC CAP 10UF 50V 105 DEGREE C
C112	645 055 0096	EC CAP 10UF 50V 105 DEGREE C
C120	645 034 2837	CC CAP 104PF 50V Y5V
C121	645 034 3025	MEMB CAP .22UF 63V +/-5%
C122	645 046 0098	MEMB CAP .1UF 100V +/-5%
C123	645 046 0098	MEMB CAP .1UF 100V +/-5%
C124	645 046 0098	MEMB CAP .1UF 100V +/-5%
C125	645 034 2837	CC CAP 104PF 50V Y5V
C126	645 055 0225	EC CAP 47UF 50V 105 DEGREE C
C127	645 055 0102	EC CAP 100UF 16V 105 DEGREE C
C128	645 055 0102	EC CAP 100UF 16V 105 DEGREE C
C129	645 066 2744	CC CAP 332PF 50V Y5P
C132	645 034 2837	CC CAP 104PF 50V Y5V
C134	645 055 0256	PEI CAP .0047UF 100V +/-5%
C135	645 065 0475	EC CAP 220UF 16V 105 DEGREE C
C218	645 046 0098	MEMB CAP .1UF 100V +/-5%
C219	645 046 4003	PEI CAP .022UF 100V +/-5%
C221	645 046 0098	MEMB CAP .1UF 100V +/-5%
C222	645 055 0096	EC CAP 10UF 50V 105 DEGREE C
C223	645 055 0218	EC CAP 47UF 25V 105 DEGREE C
C224	645 034 3049	MEMB CAP .47UF 63V +/-5%
C225	645 065 0567	EC CAP 4.7UF 50V 105 DEGREE C
C226	645 055 0171	EC CAP 2.2UF 50V 105 DEGREE C

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
C227	645 065 0475	EC CAP 220UF 16V 105 DEGREE C	C925	645 055 0133	EC CAP 1000UF25V105DEG C
C229	645 055 0218	EC CAP 47UF 25V 105 DEGREE C	C926	645 034 3025	MEMB CAP .22UF 63V +/-5%
C230	645 034 2837	CC CAP 104PF 50V Y5V	C927	645 046 0098	MEMB CAP .1UF 100V +/-5%
C231	645 065 0611	PEI CAP .0018UF 100V +/-5%	C928	645 055 0102	EC CAP 100UF 16V 105 DEGREE C
C232	645 065 0611	PEI CAP .0018UF 100V +/-5%	C929	645 034 2837	CC CAP 104PF 50V Y5V
C233	645 046 3952	PEI CAP .001UF 100V +/-5%	C930	645 046 3617	EC CAP 1000UF 16V 105 DEGREE C
C234	645 046 3952	PEI CAP .001UF 100V +/-5%	C931	645 046 3761	EC CAP 470UF 25V 105 DEGREE C
C235	645 055 0256	PEI CAP .0047UF 100V +/-5%	C932	645 034 2837	CC CAP 104PF 50V Y5V
C236	645 046 0098	MEMB CAP .1UF 100V +/-5%	C933	645 046 3600	EC CAP 1000UF 10V 105 DEGREE C
C237	645 046 3914	CC CAP 15PF 50V +/-5%	C936	645 046 3679	EC CAP 22UF 250V 105 DEGREE C
C238	645 046 3921	CC CAP 20PF 50V +/-5%	C937	645 055 0263	MEMB CAP .0056UF 100V +/-5%
C239	645 046 4003	PEI CAP .022UF 100V +/-5%			(DIODES)
C240	645 055 0171	EC CAP 2.2UF 50V 105 DEGREE C	D101	645 034 3308	DIODE 1N4148
C241	645 055 0188	EC CAP 33UF 50V 105 DEGREE C	D102	645 034 3308	DIODE 1N4148
C250	645 055 0096	EC CAP 10UF 50V 105 DEGREE C	D103	645 034 3308	DIODE 1N4148
C260	645 065 0536	EC CAP 470UF 16V 105 DEGREE C	D104	645 034 3308	DIODE 1N4148
C301	645 065 0635	PEI CAP .0033UF 100V +/-5%	D107	645 034 3308	DIODE 1N4148
C302	645 046 0098	MEMB CAP .1UF 100V +/-5%	D209	645 034 3308	DIODE 1N4148
C303	645 055 0157	EC CAP 1UF 50V 105 DEGREE C	D210	645 034 3308	DIODE 1N4148
C304	645 065 0550	EC CAP 4700UF 25V 105 DEGREE C	D211	645 034 3308	DIODE 1N4148
C307	645 046 3952	PEI CAP .001UF 100V +/-5%	D212	645 034 3308	DIODE 1N4148
C308	645 055 0256	PEI CAP .0047UF 100V +/-5%	D213	645 034 3308	DIODE 1N4148
C309	645 065 0642	PEI CAP .0068UF 100V +/-5%	D301	645 034 3377	RECTIFIER DIODE 1N4003
C310	645 046 3952	PEI CAP .001UF 100V +/-5%	D403	645 065 1397	PARTS ASSY
C311	645 046 4317	MEMB CAP .68UF 63V +/-5%	D404	645 046 0272	RECTIFIER DIODE BYT56J
C312	645 052 1263	EC CAP 100UF 35V 105 DEGREE C	D502	645 034 3308	DIODE 1N4148
C313	645 065 0451	EC CAP 1000UF35V+/-20%105DEGC	D503	645 034 3308	DIODE 1N4148
C315	645 065 0673	EC CAP 1UF100V+/-20%105DEGREEC	D504	645 040 9141	RECTIFIER DIODE PG102R
C316	645 055 0225	EC CAP 47UF 50V 105 DEGREE C	D505	645 040 9141	RECTIFIER DIODE PG102R
C322	645 065 0529	EC CAP 3.3UF 50V 105 DEGREE C	D511	645 046 0234	RECTIFIER DIODE PG106R
C334	645 055 0096	EC CAP 10UF 50V 105 DEGREE C	D901	645 065 0710	RECTIFIER DIODE PG5407
C401	645 046 4003	PEI CAP .022UF 100V +/-5%	D902	645 065 0710	RECTIFIER DIODE PG5407
C402	645 055 0218	EC CAP 47UF 25V 105 DEGREE C	D903	645 065 0710	RECTIFIER DIODE PG5407
C403	645 048 3349	CC CAP 102PF 1KV Y5P	D904	645 065 0710	RECTIFIER DIODE PG5407
C409	645 066 2669	EC CAP SHORT PIN 220UF100V105	D905	645 034 3346	RECTIFIER DIODE BYT52M T52MM
C410	645 046 0098	MEMB CAP .1UF 100V +/-5%	D906	645 040 9141	RECTIFIER DIODE PG102R
C411	645 046 4256	PL CAP .0027UF 100V +/-2%	D907	645 046 0234	RECTIFIER DIODE PG106R
C412	645 055 0256	PEI CAP .0047UF 100V +/-5%	D908	645 034 3308	DIODE 1N4148
C413	645 055 0157	EC CAP 2.2UF 50V 105 DEGREE C	D909	645 034 3308	DIODE 1N4148
C422	645 065 0666	PPN CAP .039UF 800V +/-5%	D910	645 046 4690	RECTIFIER DIODE UF5402G
C423	645 066 2775	PPN CAP .1UF 400V +/-5%	D911	645 040 9165	RECTIFIER DIODE 31DF4
C424	645 065 0697	MPP CAP 2.7UF 100V +/-5%	D912	645 046 0272	RECTIFIER DIODE BYT56J
C425	645 046 4096	MEF CAP 10UF 100V+/-10% 27.5MM	D913	645 040 9165	RECTIFIER DIODE 31DF4
C501	645 046 4126	MEF CAP .22UF 100V +/-5%	D914	645 034 3346	RECTIFIER DIODE BYT52M T52MM
C502	645 055 0171	EC CAP 2.2UF 50V 105 DEGREE C	D915	645 048 3363	RECTIFIER DIODE UF5402GL PIN52
C504	645 046 0098	MEMB CAP .1UF 100V +/-5%	D916	645 046 0272	RECTIFIER DIODE BYT56J
C505	645 055 0171	EC CAP 2.2UF 50V 105 DEGREE C	ZD201	645 046 4614	ZENER DIODE HZ5C1
C506	645 055 0171	EC CAP 2.2UF 50V 105 DEGREE C	ZD501	△ 645 046 4621	ZENER DIODE HZ9C1
C507	645 065 0659	PEI CAP .068UF 100V +/-5%	ZD901	△ 645 034 3339	ZENER DIODE HZ22-2
C508	645 055 0171	EC CAP 2.2UF 50V 105 DEGREE C			(FUSE)
C521	645 055 0157	EC CAP 1UF 50V 105 DEGREE C	F901	△ 645 038 5650	FUSE 3.15A/250V SLOWBLOW 5*20
C522	645 065 0567	EC CAP 4.7UF 50V 105 DEGREE C	F901	△ 645 034 4404	FUSE CLIP BOARD TYPE 5*20MM
C706	645 034 3049	MEMB CAP .47UF 63V +/-5%	F901	△ 645 034 4404	FUSE CLIP BOARD TYPE 5*20MM
C708	645 065 0512	EC CAP 3300UF 16V105DEGC 13DIA	FR901	△ 645 055 0072	FUSE RES 1OHM 1/4W +/-5%
C901	△ 645 034 3070	X CAP .1UF 250V +/-10%	FR902	△ 645 055 0089	FUSE RES 1OHM 1/2W +/-5%
C902	△ 645 034 3070	X CAP .1UF 250V +/-10%			(INTEGRATED CIRCUITS)
C903	△ 645 034 3087	Y CAP 472PF 400V +/-20% S PIN	IC101	645 066 2843	LINEAR IC WT62P1 WELTREND
C904	△ 645 034 3087	Y CAP 472PF 400V +/-20% S PIN	IC101	645 046 5260	IC CLIP 40 P
C905	645 046 3693	EC CAP 220UF 400V 25*40MM	IC102	645 046 4416	LINEAR IC 24LC02B
C906	645 034 2974	MEF CAP .1UF 630V +/-5%	IC103	645 066 2850	LINEAR IC WT6805 OSD
C907	645 052 1263	EC CAP 100UF 35V 105 DEGREE C	IC104	645 066 2836	TTL IC SN74LS00N
C908	645 046 4034	PEI CAP .0056UF 100V +/-5%	IC202	645 046 4430	LINEAR IC TDA8361
C909	645 038 5407	CC CAP 561PF 50V Y5P	IC203	645 046 4447	LINEAR IC TDA4665
C910	645 046 4270	MEMB CAP .01UF 100V +/-5%	IC301	645 034 3148	LINEAR IC TDA3653B
C911	645 055 0263	MEMB CAP .0056UF 100V +/-5%	IC701	645 034 3124	LINEAR IC TDA7056B
C912	645 046 0098	MEMB CAP .1UF 100V +/-5%	IC901	645 034 3094	LINEAR IC UC3842AN
C913	645 055 0102	EC CAP 100UF 16V 105 DEGREE C	IC902	645 034 3179	REGULATOR IC KA431Z
C914	645 065 0659	PEI CAP .068UF 100V +/-5%	IC903	△ 645 046 4379	LINEAR IC TLP721F
C915	△ 645 034 3087	Y CAP 472PF 400V +/-20% S PIN	IC904	645 046 4492	REGULATOR IC LM317T
C916	645 046 3808	CC CAP 102PF 2KV Z5U	IC906	645 046 4478	REGULATOR IC MC7805
C917	645 040 8946	EC CAP 470UF 100V 105 DEGREE C			(COILS)
C918	645 040 8946	EC CAP 470UF 100V 105 DEGREE C	L101	645 066 3208	PEAKING COIL 100 UH +/-10%
C919	645 046 3846	CC CAP 222PF 2KV Z5U 7.5MM	L402	645 065 1076	LINEARITY COIL 7.5 UH +/-20%
C920	645 065 0451	EC CAP 1000UF35V+/-20%105DEGC	L405	645 046 6106	DIOD MODULATION COIL 90UH+20%
C921	645 065 0451	EC CAP 1000UF35V+/-20%105DEGC	L901	645 046 0876	CHOKE COIL 20 UH +/-20%
C922	645 046 3617	EC CAP 1000UF 16V 105 DEGREE C	L902	645 046 0876	CHOKE COIL 20 UH +/-20%
C923	645 046 3617	EC CAP 1000UF 16V 105 DEGREE C	L903	645 046 0876	CHOKE COIL 20 UH +/-20%
C924	645 055 0133	EC CAP 1000UF25V105DEG C	L904	645 046 0876	CHOKE COIL 20 UH +/-20%

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
L905	645 046 0876	CHOKO COIL 20 UH +/-20% (SEMICONDUCTORS)	R152	645 034 1854	CF RES 1KOHM 1/6W +/-5%
Q101	645 034 3216	TR 2SC1815GR	R153	645 046 2191	CF RES 10KOHM 1/6W +/-5%
Q102	645 034 3216	TR 2SC1815GR	R154	645 046 2191	CF RES 10KOHM 1/6W +/-5%
Q103	645 034 3216	TR 2SC1815GR	R155	645 034 1854	CF RES 1KOHM 1/6W +/-5%
Q104	645 034 3216	TR 2SC1815GR	R156	645 046 2757	CF RES 47OHM 1/6W +/-5%
Q105	645 034 3216	TR 2SC1815GR	R157	645 046 2177	CF RES 100OHM 1/6W +/-5%
Q106	645 046 4577	TR DTC124ES	R158	645 046 2795	CF RES 47KOHM 1/6W +/-5%
Q107	645 034 3216	TR 2SC1815GR	R159	645 034 1854	CF RES 1KOHM 1/6W +/-5%
Q208	645 034 3216	TR 2SC1815GR	R160	645 046 3020	CF RES 750OHM 1/6W +/-5%
Q209	645 034 3216	TR 2SC1815GR	R163	645 046 2795	CF RES 47KOHM 1/6W +/-5%
Q210	645 034 3216	TR 2SC1815GR	R165	645 046 2191	CF RES 10KOHM 1/6W +/-5%
Q211	645 046 4577	TR DTC124ES	R166	645 046 2474	CF RES 2.2KOHM 1/6W +/-5%
Q212	645 046 4577	TR DTC124ES	R167	645 046 2191	CF RES 10KOHM 1/6W +/-5%
Q301	645 034 3216	TR 2SC1815GR	R168	645 046 2788	CF RES 4.7KOHM 1/6W +/-5%
Q303	645 046 0203	TR 2SD667C	R231	645 046 2481	CF RES 22KOHM 1/6W +/-5%
Q304	645 046 4515	TR 2SB647	R232	645 046 2320	CF RES 15KOHM 1/6W +/-5%
Q305	645 034 3216	TR 2SC1815GR	R233	645 034 1854	CF RES 1KOHM 1/6W +/-5%
Q310	645 034 3216	TR 2SC1815GR	R234	645 046 2900	CF RES 5.6KOHM 1/6W +/-5%
Q311	645 046 4515	TR 2SB647	R235	645 034 1885	CF RES 100KOHM 1/6W +/-5%
Q312	645 066 2881	TR BU406	R236	645 034 1885	CF RES 100KOHM 1/6W +/-5%
Q313	645 034 3216	TR 2SC1815GR	R239	645 046 2177	CF RES 100OHM 1/6W +/-5%
Q314	645 046 4508	TR 2SA1015GR	R240	645 046 2177	CF RES 100OHM 1/6W +/-5%
Q315	645 034 3216	TR 2SC1815GR	R241	645 046 2177	CF RES 100OHM 1/6W +/-5%
Q316	645 046 4508	TR 2SA1015GR	R242	645 034 1854	CF RES 1KOHM 1/6W +/-5%
Q317	645 034 3216	TR 2SC1815GR	R243	645 034 1885	CF RES 100KOHM 1/6W +/-5%
Q401	645 046 4560	TR 2SD1348T	R248	645 046 2474	CF RES 2.2KOHM 1/6W +/-5%
Q402	△ 645 046 4539	TR 2SC5411	R249	645 046 2900	CF RES 5.6KOHM 1/6W +/-5%
Q403	645 046 4577	TR DTC124ES	R252	645 046 2306	CF RES 150OHM 1/6W +/-5%
Q501	645 034 3216	TR 2SC1815GR	R253	645 034 1885	CF RES 100KOHM 1/6W +/-5%
Q502	645 034 3209	TR 2SA733P	R254	645 046 2191	CF RES 10KOHM 1/6W +/-5%
Q503	645 034 3209	TR 2SA733P	R255	645 046 2306	CF RES 150OHM 1/6W +/-5%
Q901	645 058 8280	FET SSS7N60B	R261	645 046 2795	CF RES 47KOHM 1/6W +/-5%
Q902	645 034 3209	TR 2SA733P	R301	645 044 3688	CF RES 24KOHM 1/6W +/-5%
Q903	645 034 3216	TR 2SC1815GR (RESISTORS)	R302	645 052 5179	CF RES 51KOHM 1/6W +/-5%
R101	645 046 2795	CF RES 47KOHM 1/6W +/-5%	R303	645 046 2832	CF RES 51OHM 1/6W +/-5%
R102	645 046 2795	CF RES 47KOHM 1/6W +/-5%	R304	645 046 2566	CF RES 27KOHM 1/6W +/-5%
R104	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R305	645 034 2455	MOF RES 1OHM 2W +/-5%
R105	645 046 2634	CF RES 33KOHM 1/6W +/-5%	R307	645 046 2733	CF RES 4.3KOHM 1/6W +/-5%
R106	645 046 2221	CF RES 1MOHM 1/6W +/-5%	R308	645 046 2733	CF RES 4.3KOHM 1/6W +/-5%
R107	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R309	645 065 0383	MOF RES 51OHM 2W +/-5%
R108	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R311	645 046 2771	CF RES 470OHM 1/6W +/-5%
R109	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R312	645 046 3150	MOF RES 100OHM 1W +/-5%
R110	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R314	645 034 2097	CF RES 270OHM 1/2W +/-5%
R111	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R315	645 034 2097	CF RES 270OHM 1/2W +/-5%
R115	645 046 2795	CF RES 47KOHM 1/6W +/-5%	R320	645 048 3219	CF RES 130KOHM 1/6W +/-5%
R116	645 046 2795	CF RES 47KOHM 1/6W +/-5%	R322	645 048 3240	CF RES 200KOHM 1/6W +/-5%
R117	645 046 2795	CF RES 47KOHM 1/6W +/-5%	R323	645 048 3264	CF RES 91KOHM 1/6W +/-5%
R120	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R325	645 046 2405	CF RES 18KOHM 1/6W +/-5%
R121	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R326	645 034 1885	CF RES 100KOHM 1/6W +/-5%
R122	645 066 2546	CF RES 330OHM 1/6W +/-5%	R327	645 046 2191	CF RES 10KOHM 1/6W +/-5%
R123	645 065 0352	CF RES 820OHM 1/6W +/-5%	R328	645 065 0444	CEMENT W-W 3.9OHM 5W +/-5%
R124	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R329	645 046 2276	CF RES 1.2KOHM 1/6W +/-5%
R125	645 034 1854	CF RES 1KOHM 1/6W +/-5%	R337	645 046 2795	CF RES 47KOHM 1/6W +/-5%
R126	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R338	645 046 2924	CF RES 6.2KOHM 1/6W +/-5%
R127	645 046 3082	CF RES 91OHM 1/6W +/-5%	R339	645 046 2429	CF RES 2KOHM 1/6W +/-5%
R128	645 046 2375	CF RES 180OHM 1/6W +/-5%	R341	645 034 1885	CF RES 100KOHM 1/6W +/-5%
R129	645 046 2474	CF RES 2.2KOHM 1/6W +/-5%	R342	645 046 2337	CF RES 1.6KOHM 1/6W +/-5%
R130	645 066 2546	CF RES 330OHM 1/6W +/-5%	R344	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R131	645 046 2474	CF RES 2.2KOHM 1/6W +/-5%	R345	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R132	645 046 2474	CF RES 2.2KOHM 1/6W +/-5%	R346	645 034 2332	CF RES 68KOHM 1/6W +/-5%
R133	645 055 0041	CF RES 75KOHM 1/6W +/-5%	R347	645 046 2528	CF RES 2.4KOHM 1/6W +/-5%
R134	645 046 2481	CF RES 22KOHM 1/6W +/-5%	R348	645 065 0352	CF RES 820OHM 1/6W +/-5%
R135	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R349	645 046 2252	CF RES 1.1KOHM 1/6W +/-5%
R136	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R350	645 034 2332	CF RES 68KOHM 1/6W +/-5%
R140	645 046 2481	CF RES 22KOHM 1/6W +/-5%	R351	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R141	645 066 2508	CF RES 160OHM 1/6W +/-5%	R401	645 046 3075	CF RES 820KOHM 1/6W +/-5%
R142	645 034 2349	CF RES 75OHM 1/6W +/-5%	R402	645 046 2320	CF RES 15KOHM 1/6W +/-5%
R143	645 046 2863	CF RES 56OHM 1/6W +/-5%	R405	645 046 3037	CF RES 82OHM 1/2W +/-5%
R144	645 034 1854	CF RES 1KOHM 1/6W +/-5%	R406	645 065 0376	MOF RES 39OHM 3W +/-5%
R145	645 046 2283	CF RES 12KOHM 1/6W +/-5%	R410	645 048 3271	MOF RES 470OHM 1W +/-5%
R146	645 046 2283	CF RES 12KOHM 1/6W +/-5%	R414	645 046 2825	CF RES 4.7OHM 1/6W +/-5%
R147	645 046 2283	CF RES 12KOHM 1/6W +/-5%	R415	645 034 1946	CF RES 13KOHM 1/6W +/-5%
R148	645 046 2177	CF RES 100OHM 1/6W +/-5%	R421	645 046 2269	CF RES 120OHM 1/6W +/-5%
R149	645 046 2788	CF RES 4.7KOHM 1/6W +/-5%	R422	645 046 2849	CF RES 5.1KOHM 1/6W +/-5%
R150	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R501	645 034 1861	CF RES 1KOHM 1/4W +/-5%
R151	645 046 2191	CF RES 10KOHM 1/6W +/-5%	R502	645 034 1878	CF RES 10KOHM 1/4W +/-5%
			R503	645 046 2283	CF RES 12KOHM 1/6W +/-5%
			R506	645 046 2788	CF RES 4.7KOHM 1/6W +/-5%

LOCATION	PARTS NO.	DESCRIPTION
R507	645 046 2566	CF RES 27KOHM 1/6W +/-5%
R508	645 046 2566	CF RES 27KOHM 1/6W +/-5%
R509	645 046 2634	CF RES 33KOHM 1/6W +/-5%
R510	645 046 2283	CF RES 12KOHM 1/6W +/-5%
R511	645 034 1885	CF RES 100KOHM 1/6W +/-5%
R512	645 046 2474	CF RES 2.2KOHM 1/6W +/-5%
R520	645 046 2337	CF RES 1.6KOHM 1/6W +/-5%
R521	645 034 1960	CF RES 1.5KOHM 1/6W +/-5%
R527	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R528	645 046 2894	CF RES 560OHM 1/6W +/-5%
R710	645 046 2177	CF RES 100OHM 1/6W +/-5%
R711	645 046 2689	CF RES 390OHM 1/6W +/-5%
R901	645 065 0253	CF RES 1MOHM 1/2W +/-5%
R902	△ 645 065 0437	FUSE RES 0.68OHM 1W +/-5%
R904	645 034 2516	MOF RES 47KOHM 3W +/-5%
R905	645 034 2516	MOF RES 47KOHM 3W +/-5%
R906	645 034 2547	CEMENT RES 10KOHM 5W +/-5%
R907	645 046 3082	CF RES 91OHM 1/6W +/-5%
R908	645 046 2191	CF RES 10KOHM 1/6W +/-5%
R909	645 046 2849	CF RES 5.1KOHM 1/6W +/-5%
R910	645 046 3105	CF RES 9.1KOHM 1/6W +/-5%
R911	645 046 2429	CF RES 2KOHM 1/6W +/-5%
R912	645 046 2344	CF RES 16KOHM 1/6W +/-5%
R913	645 046 2467	CF RES 220OHM 1/6W +/-5%
R914	645 046 2191	CF RES 10KOHM 1/6W +/-5%
R915	645 046 2757	CF RES 47OHM 1/6W +/-5%
R916	645 046 2894	CF RES 560OHM 1/6W +/-5%
R917	645 046 2757	CF RES 47OHM 1/6W +/-5%
R918	645 046 2467	CF RES 220OHM 1/6W +/-5%
R919	645 046 2757	CF RES 47OHM 1/6W +/-5%
R920	645 046 2306	CF RES 150OHM 1/6W +/-5%
R921	645 046 2191	CF RES 10KOHM 1/6W +/-5%
R922	645 046 3259	MOF RES 0.22OHM 2W +/-5%
R923	645 046 3495	CEMENT RES 220OHM 5W +/-5%
R924	645 044 3688	CF RES 24KOHM 1/6W +/-5%
R925	645 046 2559	CF RES 2.7KOHM 1/6W +/-5%
R928	645 046 2467	CF RES 220OHM 1/6W +/-5%
R929	645 046 2894	CF RES 560OHM 1/6W +/-5%
R930	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R931	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R932	645 065 0390	MOF RES 5.6OHM 2W +/-5%
R933	645 046 2887	CF RES 560OHM 1/2W +/-5%
R934	645 046 3365	MOF RES 470OHM 3W +/-5% S TYPE
R935	645 048 3233	CF RES 1.5OHM 1/2W +/-5%
R936	645 066 2577	MOF RES 1.2OHM 3W +/-5% S TYPE
R937	645 034 1939	CF RES 120KOHM 1/4W +/-5%
R938	645 046 2511	CF RES 240OHM 1/6W +/-5%
R939	645 046 2290	CF RES 1.3KOHM 1/6W +/-5%
R941	645 046 2894	CF RES 560OHM 1/6W +/-5%
R942	645 046 2566	CF RES 27KOHM 1/6W +/-5%
NTC901	645 034 2561	NTCR RES 10OHM +/-20% 5A
(TRANSFORMERS)		
T401	645 046 5956	DRIVE TRANS. VS-10S
T502	△ 645 065 1052	FBT TRANS. CH-15DNA
T901	△ 645 048 3615	LINE FILTER CH-19DXA 30MH
T902	△ 645 065 1038	POWER TRANS. CH-15DNA NEW
(VARIABLE RESISTORS)		
VR301	645 046 4775	POT VR METAL 300OHM6DIAL TYPE
VR302	645 034 3476	POT VR METAL 10KOHM6DIAL TYPE
VR303	645 034 3476	POT VR METAL 10KOHM6DIAL TYPE
VR305	645 034 3476	POT VR METAL 10KOHM6DIAL TYPE
VR306	645 034 3476	POT VR METAL 10KOHM6DIAL TYPE
VR401	645 034 3476	POT VR METAL 10KOHM6DIAL TYPE
VR501	645 034 3520	POT VR METAL 50KOHM6DIAL TYPE
VR502	645 034 3476	POT VR METAL 10KOHM6DIAL TYPE
VR503	645 034 3520	POT VR METAL 50KOHM6DIAL TYPE
VR901	645 065 0734	POT VR METAL 200OHM6DIA L TYPE
(OSCILLATORS)		
X101	645 066 2621	CRYSTAL 12 MHZ 49S 20PF
X201	645 046 3525	OSCILLATOR 3.579545 MHZ
X202	645 046 3532	OSCILLATOR 4.433619 MHZ
(CONNECTOR BASES)		
B101	645 046 5024	CONNECTOR BASE M241858
B701	645 034 3674	CONNECTOR BASE M241852
B901	645 046 4997	CONNECTOR BASE M241835-X
B902	645 034 3735	CONNECTOR BASE M241833-X
B903	645 034 3698	CONNECTOR BASE M11352
GND3	645 034 3667	CONNECTOR BASE P235142

LOCATION	PARTS NO.	DESCRIPTION
P401	645 046 4980	CONNECTOR BASE M11354
PIN1	645 046 0371	CONNECTOR BASE 1038H (MISCELLANEOUS)
B103	645 066 2966	BASE M241843
B904	645 048 3547	L/W HOUSING 1007 24AWG L=300MM
PTC901	△ 645 034 2554	PTCR RES 14OHM +/-30%
B201	645 051 1066	SIGNAL CABLE CH-19DXA AWM2464
P201	645 066 3116	SIGNAL CABLE CM-9DXA

FUNCTION BOARD VMC-8613/8614P

645 046 6724

LOCATION	PARTS NO.	DESCRIPTION
S101	645 046 5109	(SWITCHES) TACT SWITCH TSP620-1150
S102	645 046 5109	TACT SWITCH TSP620-1150
S103	645 046 5109	TACT SWITCH TSP620-1150
S104	645 046 5109	TACT SWITCH TSP620-1150
S105	645 046 5109	TACT SWITCH TSP620-1150
S106	645 046 5109	TACT SWITCH TSP620-1150
S107	645 046 5109	TACT SWITCH TSP620-1150
S108	645 046 5109	TACT SWITCH TSP620-1150
S101	645 046 5093	LIGHT TOUCH SWITCH EVQ21305R
S102	645 046 5093	LIGHT TOUCH SWITCH EVQ21305R
S103	645 046 5093	LIGHT TOUCH SWITCH EVQ21305R
S104	645 046 5093	LIGHT TOUCH SWITCH EVQ21305R
S105	645 046 5093	LIGHT TOUCH SWITCH EVQ21305R
S106	645 046 5093	LIGHT TOUCH SWITCH EVQ21305R
S107	645 046 5093	LIGHT TOUCH SWITCH EVQ21305R
S108	645 046 5093	LIGHT TOUCH SWITCH EVQ21305R
R114	645 046 2467	CF RES 220OHM 1/6W +/-5%
(MISCELLANEOUS)		
	645 048 3554	L/W HOUSING L=160MM
LED101	645 046 4713	LED 7*2.5MM
	645 046 5277	LED HOLDER QLG-4S-N2W

SIGNAL BOARD CM-21DXA

645 046 6731

LOCATION	PARTS NO.	DESCRIPTION
(CAPACITORS)		
C201	645 046 3549	EC CAP 10UF 25V +/-20%
C202	645 046 3549	EC CAP 10UF 25V +/-20%
C205	645 046 3556	EC CAP 100UF 16V +/-20%
C206	645 034 3025	MEMB CAP .22UF 63V +/-5%
C207	645 034 3025	MEMB CAP .22UF 63V +/-5%
C208	645 046 3549	EC CAP 10UF 25V +/-20%
C209	645 046 3549	EC CAP 10UF 25V +/-20%
C212	645 046 3556	EC CAP 100UF 16V +/-20%
C213	645 046 3549	EC CAP 10UF 25V +/-20%
C214	645 046 3549	EC CAP 10UF 25V +/-20%
C217	645 046 3556	EC CAP 100UF 16V +/-20%
C220	645 034 3025	MEMB CAP .22UF 63V +/-5%
C261	645 046 4300	MEMB CAP .033UF 100V +/-5%
C262	645 046 4300	MEMB CAP .033UF 100V +/-5%
C263	645 046 4300	MEMB CAP .033UF 100V +/-5%
C701	645 046 3549	EC CAP 10UF 25V +/-20%
C704	645 034 2837	CC CAP 104PF 50V Y5V
C705	645 046 3563	EC CAP 100UF16V +/-20%105DEGC
(DIODES)		
D111	645 034 3315	DIODE 1N4148
OR	645 034 3308	DIODE 1N4148
D201	645 034 3315	DIODE 1N4148
OR	645 034 3308	DIODE 1N4148
D202	645 034 3315	DIODE 1N4148
OR	645 034 3308	DIODE 1N4148
D203	645 034 3315	DIODE 1N4148
OR	645 034 3308	DIODE 1N4148
D204	645 034 3315	DIODE 1N4148
OR	645 034 3308	DIODE 1N4148
D205	645 034 3315	DIODE 1N4148
OR	645 034 3308	DIODE 1N4148
D206	645 034 3315	DIODE 1N4148
OR	645 034 3308	DIODE 1N4148
D207	645 034 3315	DIODE 1N4148
OR	645 034 3308	DIODE 1N4148
D208	645 034 3315	DIODE 1N4148

LOCATION	PARTS NO.	DESCRIPTION
D208	645 034 3308	DIODE 1N4148
D701	645 034 3315	DIODE 1N4148
OR	645 034 3308	DIODE 1N4148
D702	645 034 3315	DIODE 1N4148
OR	645 034 3308	DIODE 1N4148
D704	645 034 3315	DIODE 1N4148
OR	645 034 3308	DIODE 1N4148
D705	645 034 3315	DIODE 1N4148
OR	645 034 3308	DIODE 1N4148
D706	645 034 3315	DIODE 1N4148
OR	645 034 3308	DIODE 1N4148
(INTEGRATED CIRCUITS)		
IC201	645 046 4386	LINEAR IC BA7612N
IC202	645 046 4386	LINEAR IC BA7612N
IC701	645 046 4386	LINEAR IC BA7612N
(SEMICONDUCTORS)		
Q201	645 046 4508	TR 2SA1015GR
Q202	645 034 3216	TR 2SC1815GR
Q203	645 046 4508	TR 2SA1015GR
Q204	645 046 4508	TR 2SA1015GR
Q205	645 034 3216	TR 2SC1815GR
Q206	645 034 3216	TR 2SC1815GR
Q207	645 034 3216	TR 2SC1815GR
(RESISTORS)		
R201	645 034 2349	CF RES 750HM 1/6W +/-5%
R202	645 046 2467	CF RES 220OHM 1/6W +/-5%
R203	645 046 2467	CF RES 220OHM 1/6W +/-5%
R204	645 046 3006	CF RES 680KOHM 1/6W +/-5%
R205	645 046 2474	CF RES 2.2KOHM 1/6W +/-5%
R206	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R207	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R208	645 046 2467	CF RES 220OHM 1/6W +/-5%
R209	645 046 2788	CF RES 4.7KOHM 1/6W +/-5%
R210	645 034 2349	CF RES 750HM 1/6W +/-5%
R211	645 046 2191	CF RES 10KOHM 1/6W +/-5%
R212	645 046 2191	CF RES 10KOHM 1/6W +/-5%
R213	645 046 2559	CF RES 2.7KOHM 1/6W +/-5%
R214	645 034 2349	CF RES 750HM 1/6W +/-5%
R215	645 046 2467	CF RES 220OHM 1/6W +/-5%
R216	645 046 2467	CF RES 220OHM 1/6W +/-5%
R217	645 046 3006	CF RES 680KOHM 1/6W +/-5%
R218	645 046 2474	CF RES 2.2KOHM 1/6W +/-5%
R219	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R220	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R221	645 046 2467	CF RES 220OHM 1/6W +/-5%
R222	645 034 2349	CF RES 750HM 1/6W +/-5%
R223	645 046 2467	CF RES 220OHM 1/6W +/-5%
R224	645 046 2467	CF RES 220OHM 1/6W +/-5%
R225	645 046 3006	CF RES 680KOHM 1/6W +/-5%
R226	645 046 2474	CF RES 2.2KOHM 1/6W +/-5%
R227	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R228	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R229	645 046 2467	CF RES 220OHM 1/6W +/-5%
R256	645 046 2757	CF RES 470HM 1/6W +/-5%
R257	645 046 2757	CF RES 470HM 1/6W +/-5%
R258	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R259	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R260	645 034 1854	CF RES 1KOHM 1/6W +/-5%
R701	645 046 3044	CF RES 8.2KOHM 1/6W +/-5%
R702	645 046 2467	CF RES 220OHM 1/6W +/-5%
R703	645 046 3044	CF RES 8.2KOHM 1/6W +/-5%
R704	645 046 2467	CF RES 220OHM 1/6W +/-5%
R705	645 046 3044	CF RES 8.2KOHM 1/6W +/-5%
R706	645 046 2467	CF RES 220OHM 1/6W +/-5%
R708	645 046 2757	CF RES 470HM 1/6W +/-5%
R709	645 046 2757	CF RES 470HM 1/6W +/-5%
(JACKS)		
RCA701	645 046 5079	RCA JACK JPJ1151-01-230
RCA703	645 046 5079	RCA JACK JPJ1151-01-230
RCA705	645 046 5079	RCA JACK JPJ1151-01-230
(MISCELLANEOUS)		
YC201	645 046 5314	VERTICAL SOKET TCS7940-01-2011
YC202	645 046 5307	VERTICAL SOCKET TCS7945-14-201
P201	645 046 5048	CONNECTOR BASE M2418511R (N.S.P.)
	645 046 5055	BNC CONNECTOR HXC0336-01-010 (N.S.P.)
	645 046 5062	BNC CONNECTOR HXC0312-01-210 (N.S.P.)
	645 046 5314	VERTICAL SOKET TCS7940-01-2011


LOCATION	PARTS NO.	DESCRIPTION
ACCESSORIES & PACKING MATERIALS		
	△ 645 034 3971	POWER CORD 10-1 VDE (VMC-8615FP ONLY)
	△ 645 038 5933	POWER CORD NS8-5175N (VMC-8614F ONLY)
	645 067 4433	USER MANUAL VMC-8615FP (VMC-8615FP ONLY)
	645 067 8493	USER MANUAL VMC-8614F NTSC (VMC-8614F ONLY)
	645 067 4419	CARTON VMC-8615FP PAL (VMC-8615FP ONLY)
	645 067 8486	CARTON VMC-8614F NTSC (VMC-8614F ONLY)
	645 035 6254	PE BAG 15 INCH 16***16***32***
	645 065 1007	POLYFORM CH-15VNA

CIRCUIT DIAGRAMS & PRINTED WIRING BOARDS

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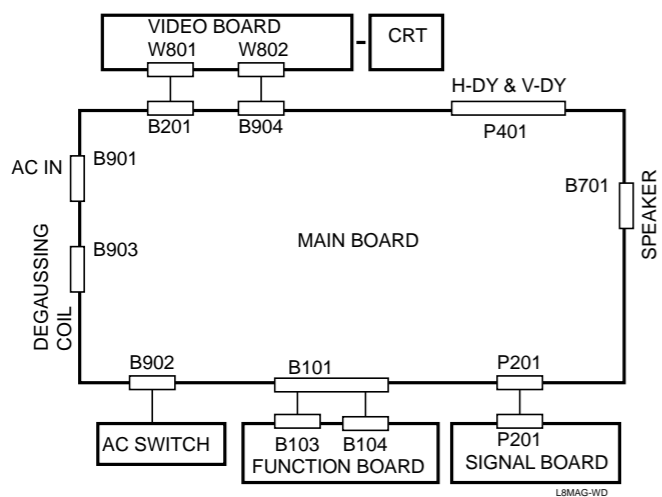
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SIGNAL P.W.B.	C5
MAIN P.W.B.	C6
FUNCTION P.W.B.	C6

PRODUCT SAFETY NOTICE

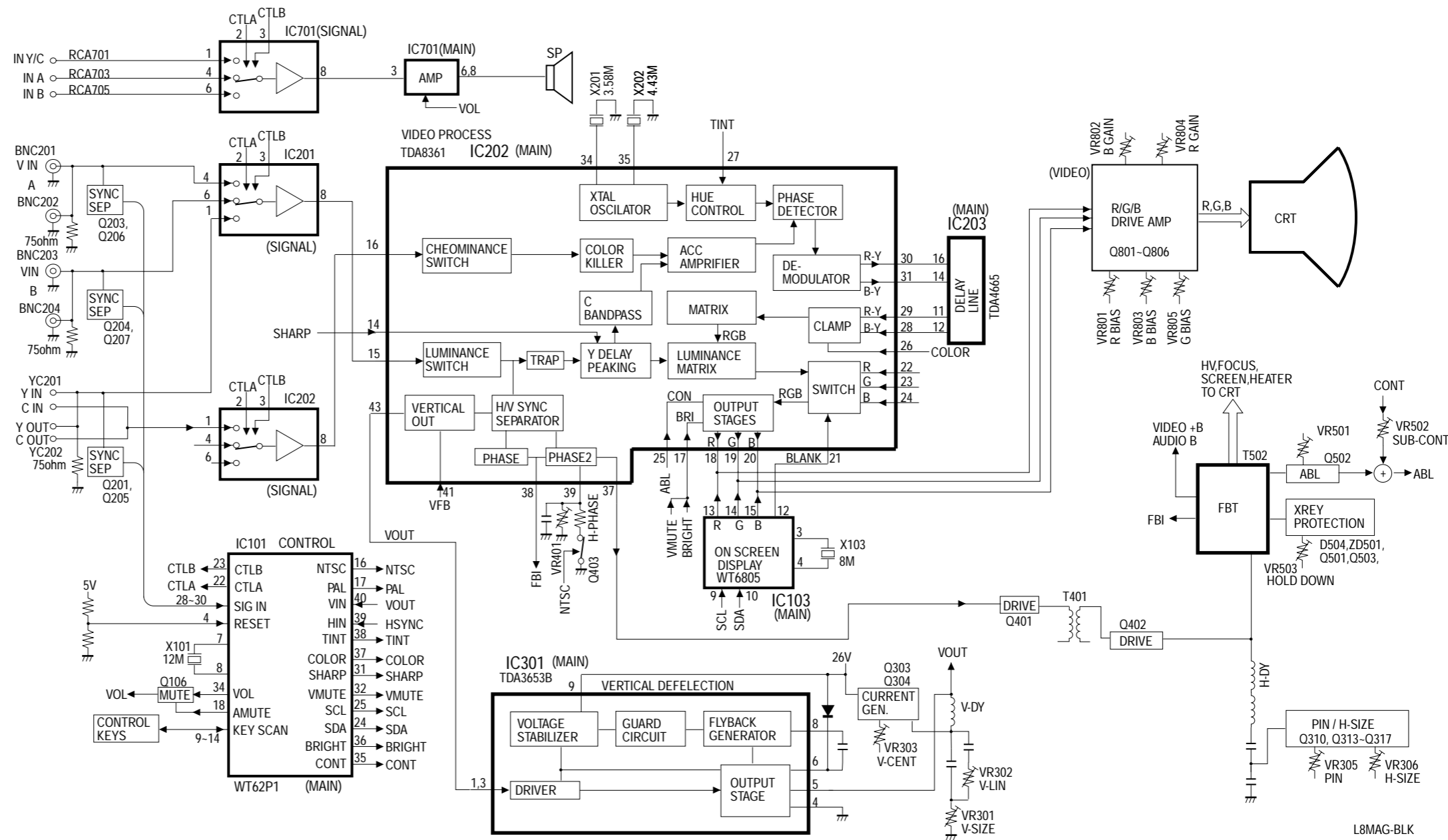
THE COMPONENTS DESIGNATED BY A SYMBOL () IN THIS SCHEMATIC DIAGRAM DESIGNATES COMPONENTS WHOSE VALUE ARE OF SPECIAL SIGNIFICANCE TO PRODUCT SAFETY. SHOULD ANY COMPONENT DESIGNATED BY A SYMBOL NEED TO BE REPLACED, USE ONLY THE PART DESIGNATED IN THE PARTS LIST. DO NOT DEVIATE FROM THE RESISTANCE, WATTAGE AND VOLTAGE RATINGS SHOWN.

BLOCK DIAGRAM & CIRCUIT DIAGRAMS

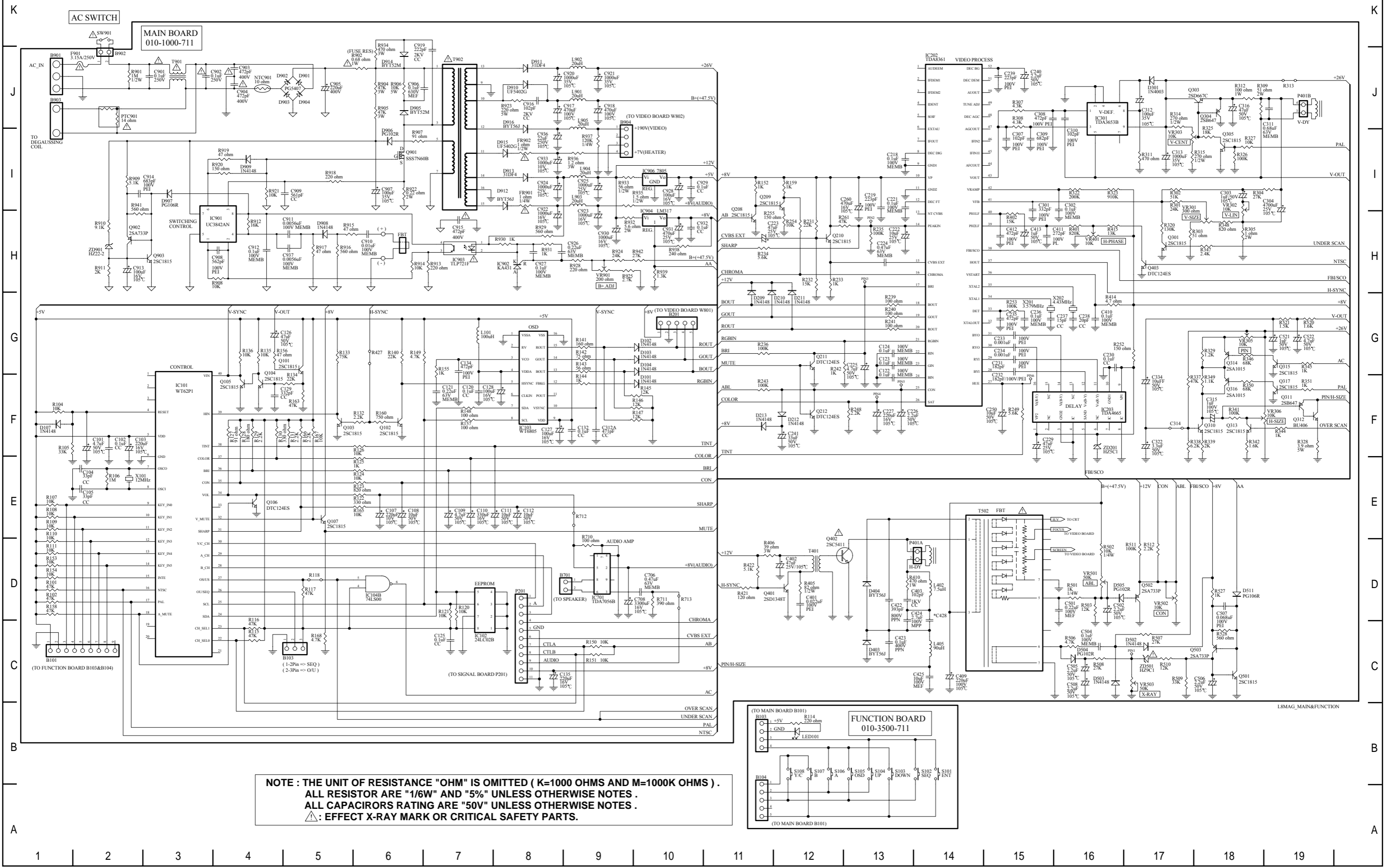
OVERALL WIRING



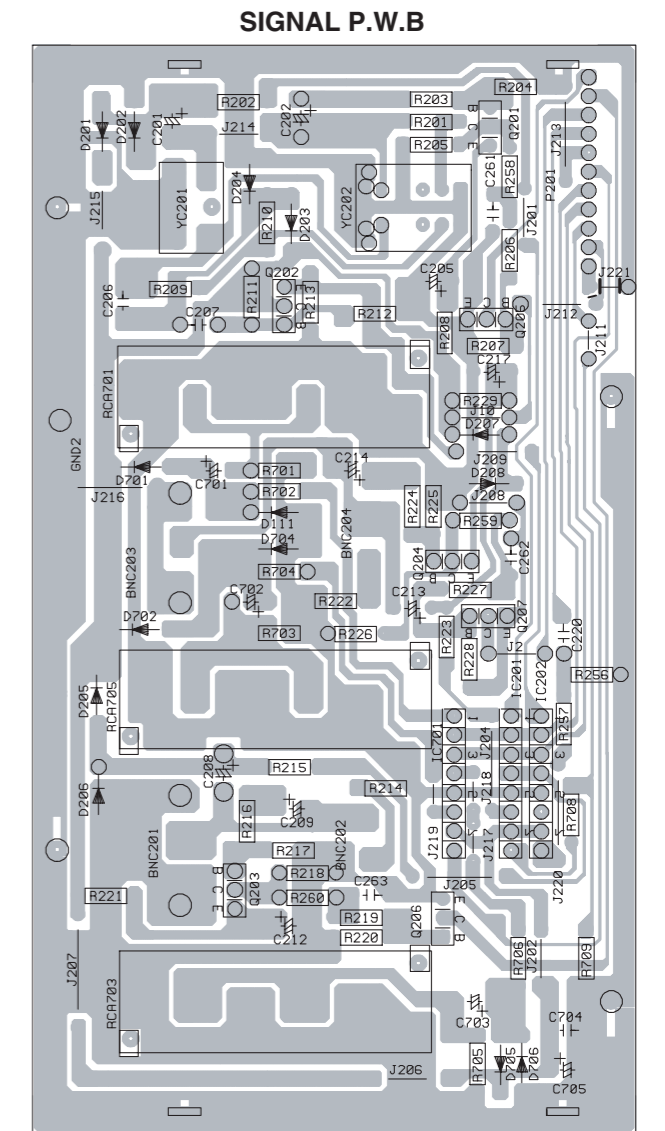
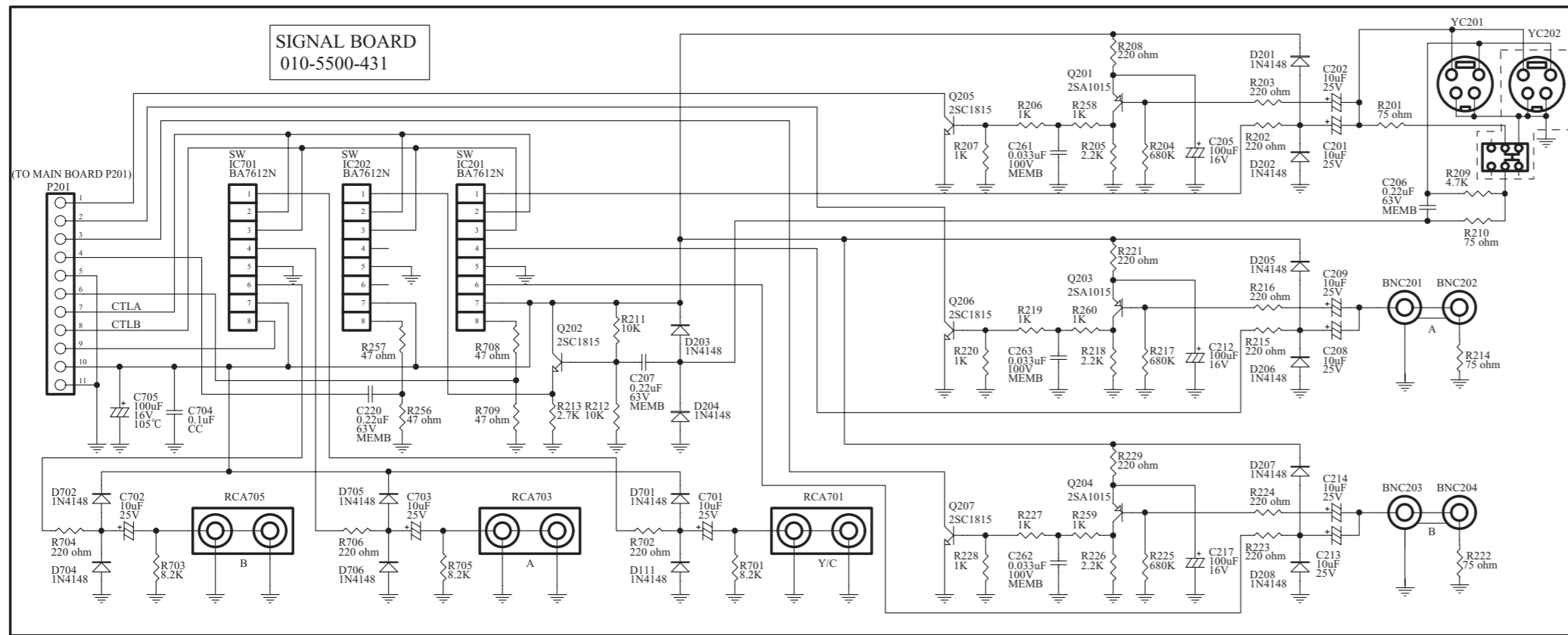
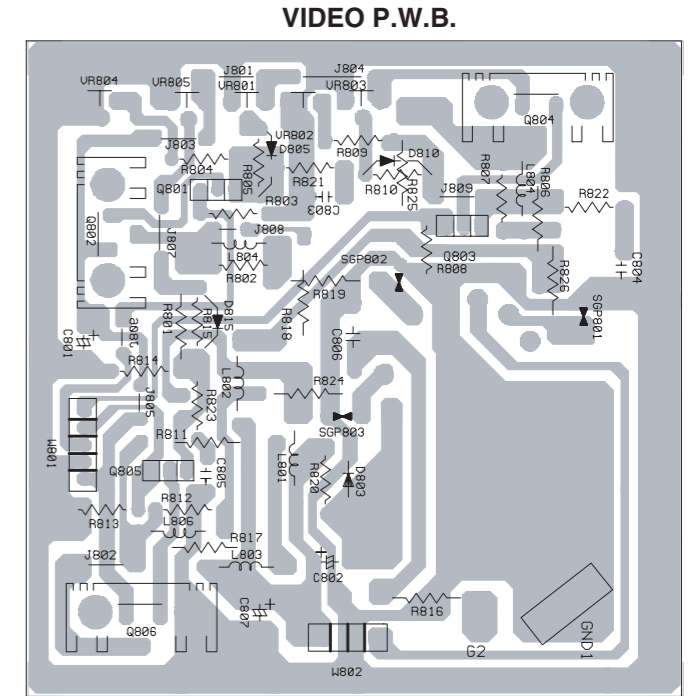
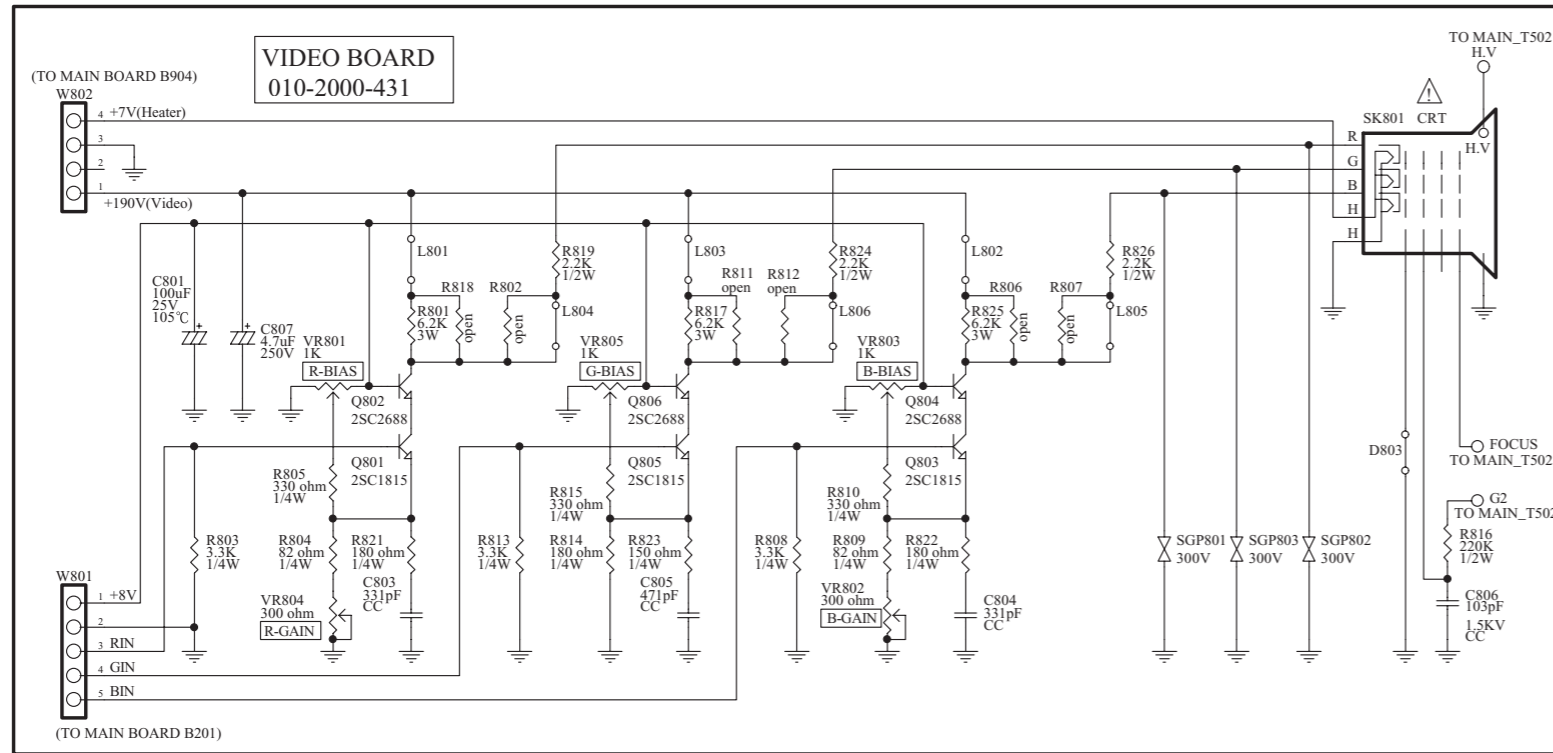
BLOCK DIAGRAM



MAIN & FUNCTION BOARDS CIRCUIT DIAGRAM



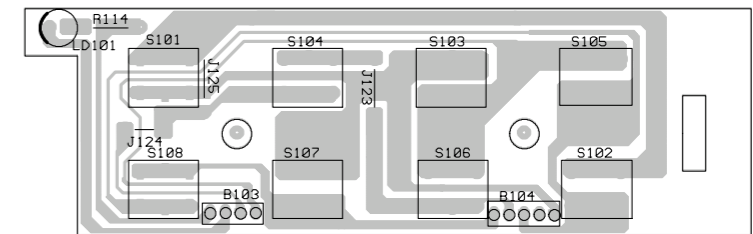
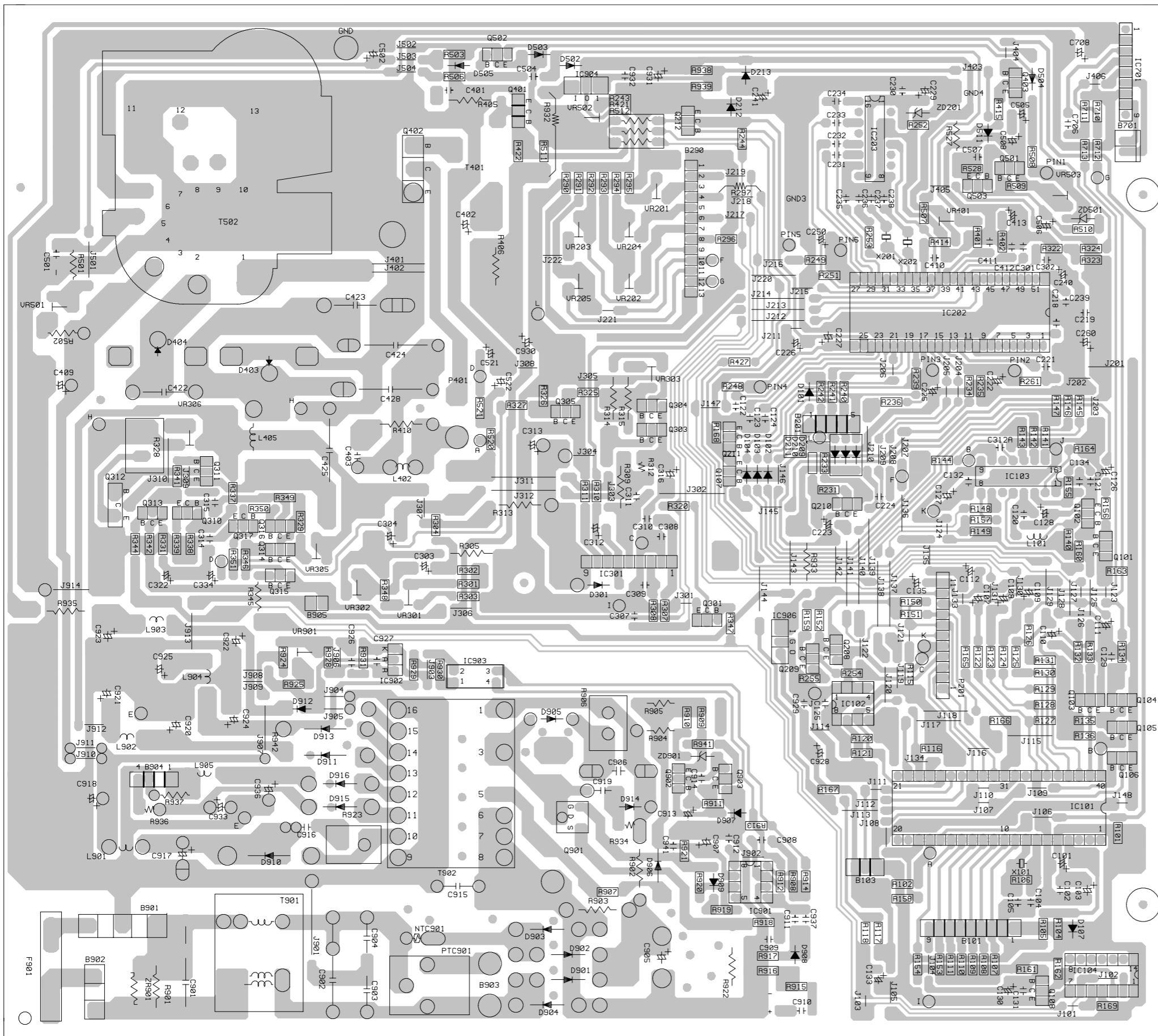
VIDEO & SIGNAL BOARDS CIRCUIT DIAGRAM



NOTE : THE UNIT OF RESISTANCE "OHM" IS OMITTED (K=1000 OHMS AND M=1000K OHMS).
ALL RESISTOR ARE "1/6W" AND "5%" UNLESS OTHERWISE NOTES.
ALL CAPACIRORS RATING ARE "50V" UNLESS OTHERWISE NOTES.
 ⚠ : EFFECT X-RAY MARK OR CRITICAL SAFETY PARTS .

MAIN P.W.B.

FUNCTION P.W.B.



K
J
I
H
G
F
E
D
C
B
A

K
J
I
H
G
F
E
D
C
B
A

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19



SANYO Electric Co., Ltd.
Osaka, Japan