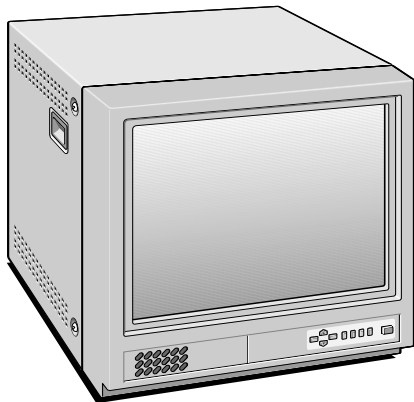




SERVICE MANUAL

Colour Video Monitor



VMC-8621P

(Product Code : 114 951 30)
(Europe)

(Product Code : 114 951 31)
(U.K.)

(Product Code : 114 951 32)
(Australia)

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PRODUCT SAFETY NOTICE

The components designated by a symbol (\triangle) 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.

- 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.

SPECIFICATIONS

Color system : PAL/NTSC, selected automatically

Picture tube : 21 inch

Resolution : More than 450 TV lines

Input terminals : Separate Y/C signal, mini-DIN connector (1)

Y signal: 1.0 Vp-p, 75 ohm negative sync

C signal: 0.286 Vp-p, 75 ohm negative sync, bridge connection possible

Composite sync signal: 1.0 Vp-p, 75 ohm BNC connector (2)

Audio signal: -6dBs (400 mVrms), RCA pin (3), bridge connection possible

Outout terminals : Separate Y/C signal, mini-DIN connector (1)

Y signal: 1.0 Vp-p, 75 ohm negative sync

C signal: 0.286 Vp-p, 75 ohm negative sync, bridge connection possible

Composite sync signal: 1.0 Vp-p, 75 ohm BNC connector (2),
automatic temination setting

Audio signal: -6dBs (400 mVrms), RCA pin (3), bridge connection possible

Overscan or underscan selection: YES

Audio output : 1 W

Speaker : Oval speaker x 1

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

Power consumption : 95 Watts

Ambient operating temperature : -10 °C to 45 °C storage temperature

Ambient operating humidity : 10 % to 90 %

Dimension (W x H x D) : 492 x 474 x 482 mm

Weight : 29kg

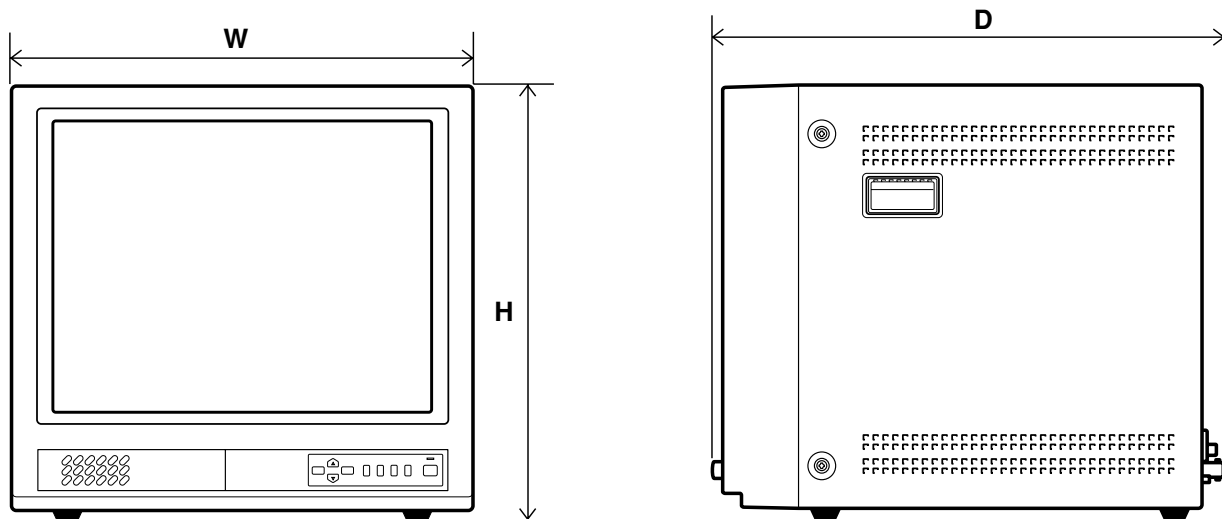


Fig. 1

1. OPERATING INSTRUCTIONS

1-1. FRONT PANEL CONTROLS

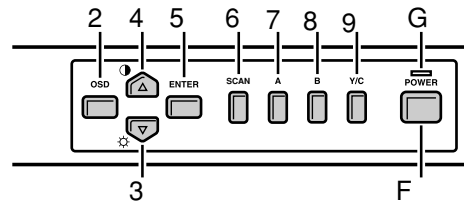
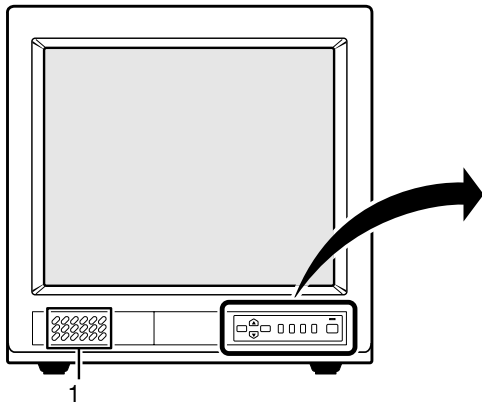


Fig. 2

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.

- | | |
|--------------|--------------|
| 1.COLOR | 7.DWELL TIME |
| 2.TINT | 8.LANGUAGE |
| 3.BRIGHTNESS | 9.TITLE |
| 4.CONTRAST | 10.VERSION |
| 5.SHARPNESS | EXIT : OSD |
| 6.VOLUME | |

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

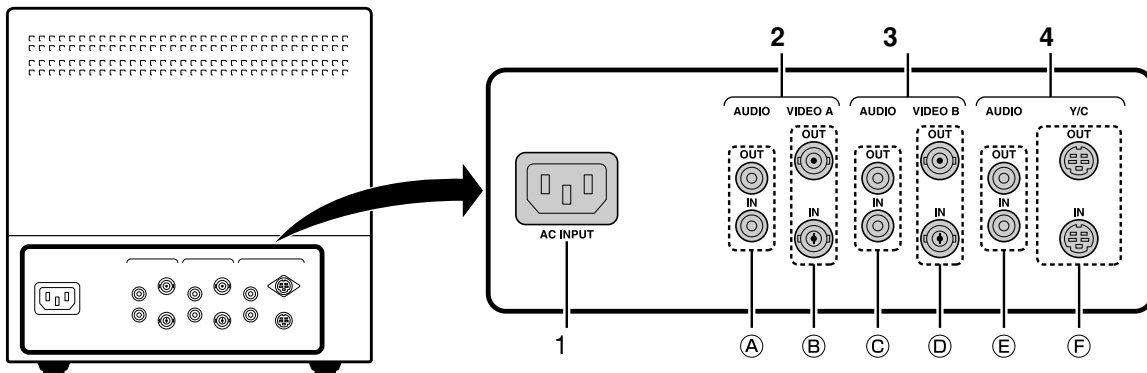


Fig. 3

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.

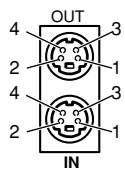
3. Rear B terminals (AUDIO/VIDEO B terminals)

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. 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

Adjustment mode

Over scan mode

ADJUSTMENT ITEM	TIMING PATTERN	SETTING	VR LOCATION	ADJUSTMENT PROCEDURE
CHECK B+ VOLTAGE	PATTERN GENERATOR MONOSCOPE PATTERN			TEST POINT : D910(-) DIGITAL VOLT METER VALUE 125.5 ± 0.5 VDC.
HOLD DOWN VOLTAGE SETTING	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR and CONTRAST VR TO MAX.	VR503	TEST POINT : ZD501(-) DIGITAL VOLT METER VALUE 8.75 ± 0.1 VDC.
FOCUS ADJUSTMENT	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR and CONTRAST VR TO 75%. SHARPNESS VR TO MAX.	FTB FOCUS VR	Adjusting FBT Focus VR make focus resolution of reach over 450TV lines, four corners must be also clear.
HORIZONTAL PHASE ADJUSTMENT	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARPNESS VR TO MAX.	VR401	Adjusting VR401 horizontal phase make right and left of picture to $\leq 1\%$.
HORIZONTAL SIZE ADJUSTMENT	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARPNESS VR TO MAX.	VR306	Adjusting VR306 make signal side of picture of scale at 1.5 ~ 2.2 position.
VERTICAL LINEARY ADJUSTMENT	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARPNESS VR TO MAX.	VR302	Adjusting vertical linear control VR302 for equal spacing of lines between center extreme of scan $[(\text{Max}-\text{Min})/\text{Average}] \leq 10\%$.
VERTICAL CENTER ADJUSTMENT	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARPNESS VR TO MAX.	VR303	Adjusting vertical center control VR303 to $\leq 1\%$.
VERTICAL SIZE ADJUSTMENT	PATTERN GENERATOR MONOSCOPE PATTERN	BRIGHT VR , CONTRAST VR and SHARPNESS VR TO MAX.	VR301	Adjusting vertical size control VR301 make signal side of scale is 1.0 ~ 1.5 position.

ADJUSTMENT ITEM	TIMING PATTERN	SETTING	VR LOCATION	ADJUSTMENT PROCEDURE
WHITE BALANCE ADJUSTMENT	PATTERN GENERATOR NO SIGNAL	BRIGHT VR , CONTRAST VR and SHARPNESS VR TO MAX.	VR801,VR803, VR805, FBT FOCUS VR	Adjust VR805 G-Bias to center. Adjust FBT screen VR make luminance without video to 2.0 ~ 4.0 FL. Adjust VR801 make X value is 0.313 ± 0.015 . Adjust VR803 make Y value is 0.329 ± 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 49 ~ 55 FL. Adjust VR804 make X value is 0.313 ± 0.015 . Adjust VR802 make Y value is 0.329 ± 0.015 .
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 2.0 ~ 4.0 FL.
	PATTERN GENERATOR WINDOWS PATTERN	BRIGHT VR , CONTRAST VR and SHARPNESS VR TO MAX.	VR501	Adjust VR501 make luminance is 49 ~ 55 FL.
	PATTERN GENERATOR FULL WHITE	BRIGHT VR , CONTRAST VR and SHARPNESS VR TO MAX.	VR502	Adjust VR502 make luminance is 110 ± 10 FL. Then make sure Full White luminance whether it is 49 ~ 55 FL.

The way of adjusting it which a color analyzer 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, VR803 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)**

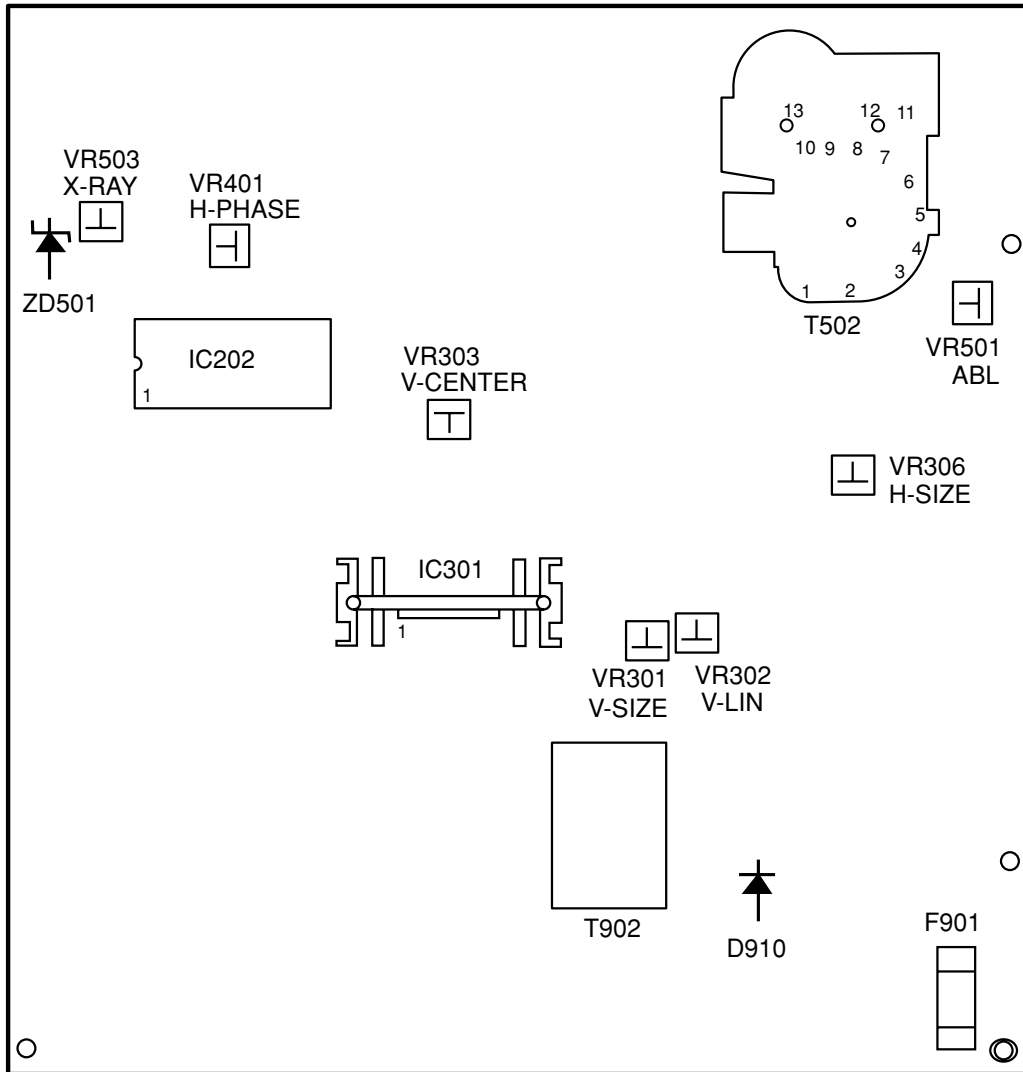
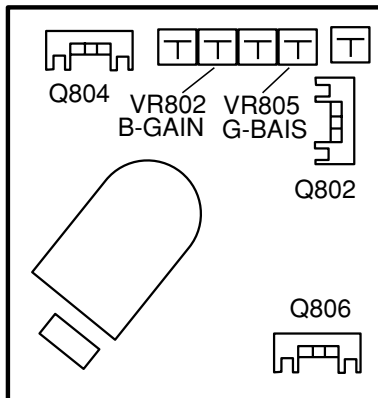


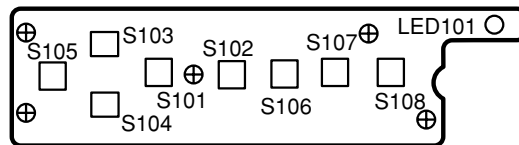
Fig. 4

VR803 VR801 VR804
B-BAIS R-BAIS R-GAIN



**VIDEO BOARD
(Parts side)**

Fig. 5



**FUNCTION BOARD
(Parts side)**

Fig. 6

3. PARTS LIST

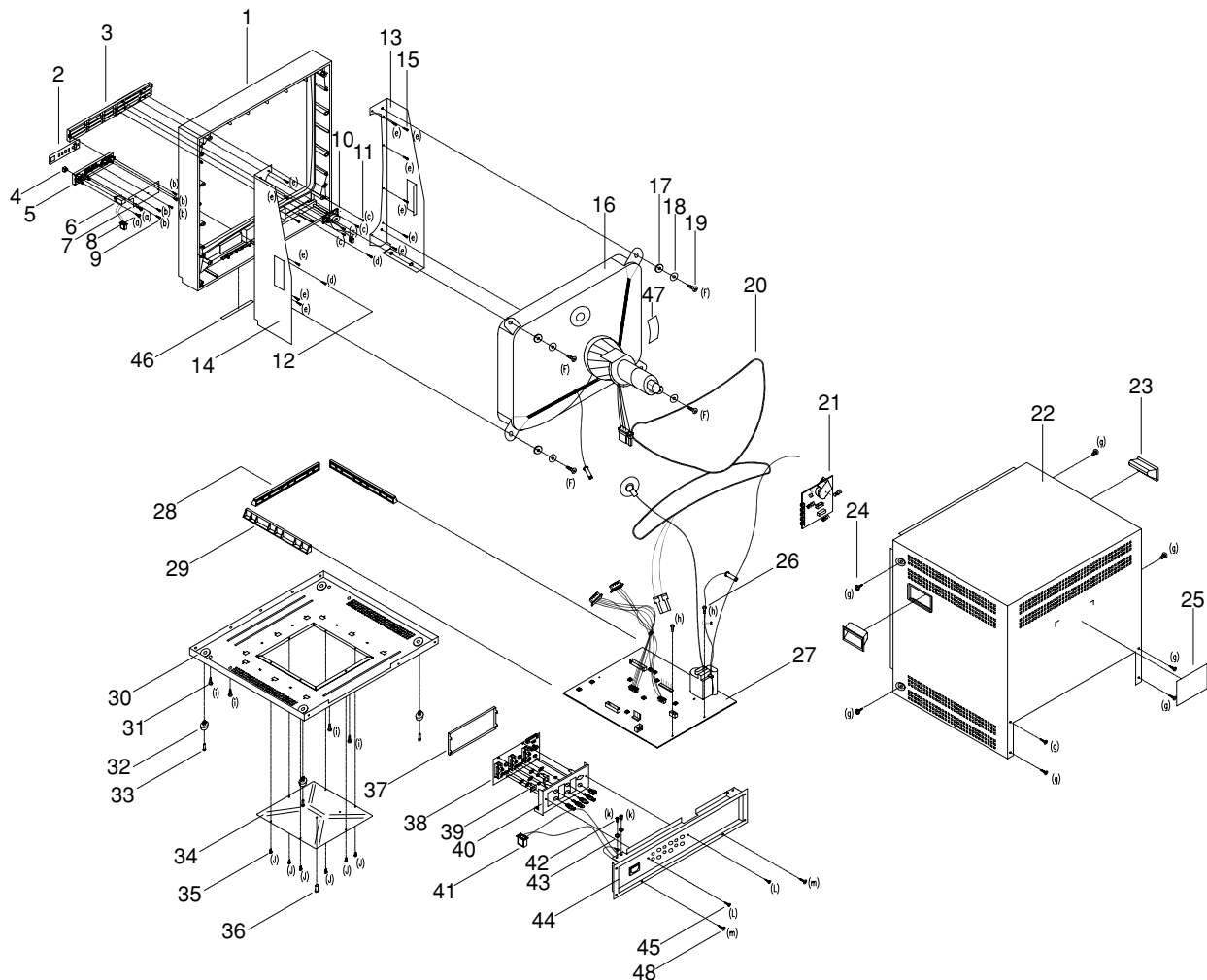
LOCATION	PARTS NO.	DESCRIPTION
ACCESSORIES & PACKING MATERIALS		
	645 052 5339	USER MANUAL VMC-8621P
△	645 034 3971	POWER CORD 10-1 VDE, VMC-8621P(Erope) ONLY
△	645 040 9264	POWER CORD NS8-5181N, VMC-8621P(U.K.) ONLY
△	645 040 9257	POWER CORD NS8-5180 NAUSTR, VMC-8621P (Australia) ONLY
	645 038 5605	NYLON CABLE TIE 2.5*120MM
	645 046 5710	NYLON CABLE TIE 2.5*200MM
	645 052 5315	CARTON VMC-8621P PAL
	645 046 5833	PE BAG CM-21DXA 64*48*110CM
	645 052 5377	POLYFORM CM-21DXA

CABINET & CHASSIS PARTS

1	645 052 5346	FRONT PANEL CM-21DXA
2	645 052 5322	DIGITAL STICKER VMC-8621P
3	645 052 5353	SPEAKER PANEL VMC-8621P
4	645 048 3493	SW KNOB 19" AA-51
5	645 048 3516	CONTROL PANEL 14" AA-51
6	645 046 6458	SW ASS'Y CH-19DXA
7	645 052 5520	FUNCTION BOARD VMC-8621P
8	645 034 3605	RH W/W SCR. 3*8MM
9	645 046 4829	PH SCREW 3*8MM
10	645 046 6441	SPKR S9711-22NQ4171C 8OHM/1W
11	645 046 4829	PH SCREW 3*8MM
12	645 046 4874	BH SCREW 3*12MM
13	645 052 5438	BRACKET RIGHT CM-21DXA
14	645 052 5445	BRACKET LEFT CM-21DXA
15	645 046 4836	PH SCREW 4*12MM
16	△ 645 052 5384	CRT A51AEZ90X01 CPT

LOCATION	PARTS NO.	DESCRIPTION
17	645 046 4928	RUBBER WASHERDIA20*DIA6*1T
18	645 046 4966	WASHER 6.5*19*1MM
19	645 046 4843	PH SCREW 6*12MM
20	645 052 5414	DEGAUSSING COIL CM-21DUA
21	645 055 0386	VIDEO BOARD CM-21DUA
22	645 052 5469	METAL TOP COVER CM-21DXA
23	645 034 3919	HANDLE COVER CM-14 PA-765A
24	645 034 3582	PH W/W SCR. 4*8MM
25	645 034 3841	ID LABEL 83*51MM (N.S.P.)
26	645 034 3612	SCREW+WASHER 3*6MM
27	645 052 5513	MAIN BOARD CM-21DUA
28	645 046 0722	PCB GUIDE RAIL MM-9M
29	645 034 4299	PCB GUIDE RAIL MM-12A
30	645 052 5452	BASE CM-21DUA
32	645 034 4657	FOOT PAD GL-24H
31	645 034 3582	PH W/W SCR. 4*8MM
33	645 034 3926	FOOT PAD RIVET MM-12A GL-24H
34	645 046 6236	REPAIR PLATE CH-19DXA
35	645 046 4850	PH W/W SCR. 3*6MM
36	645 048 3585	SPACER SUPPORTS FCT-14
37	645 046 6380	SHIELDING PLATE DXA SERIES
38	645 046 6731	SIGNAL BOARD CM-21DXA
39	645 046 6373	GND PLATE DX 20*13*0.5MM
40	645 046 6281	JACK PLATE BRACKET CM-21DXA
41	△ 645 046 6526	AC SOCKET ASS'Y MM-20A
42	645 035 6216	BH SCREW 4*6MM
43	645 035 6223	WASHER OUT TEETH 4.5*8.5*0.5MM
44	645 052 5476	JACK PLATE CM-21DUA
45	645 046 4850	PH W/W SCR. 3*6MM
46	645 048 3448	SLOT COVER 150*9MM AA-51
47	645 040 9226	X RADIATION LABEL 110*50MM

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
SW ASS'Y CH-19DXA		
	645 046 6458	
		(SWITCH)
	△ 645 046 5086	POWER SWITCH PS3-22SP-W4CW
		(MISCELLANEOUS)
	645 051 0779	L/W HOUSING 1015 18AWG L=460MM (N.S.P.)

LOCATION	PARTS NO.	DESCRIPTION
AC SOCKET ASS'Y MM-20A		
	△ 645 046 6526	
		(SOCKET)
	△ 645 034 3988	POWER SOCKET SS-120E
		(MISCELLANEOUS)
	645 046 5550	L/W HOUSING B/G&Y/B 1015 18AWG (N.S.P.)
	645 046 5376	LEAD WIRE 1015 18AWG (N.S.P.)

LOCATION	PARTS NO.	DESCRIPTION
VIDEO BOARD CM-21DUA		
	645 055 0386	
		(CAPACITORS)
C801	645 055 0119	EC CAP. 100UF 25V 105C
C803	645 046 3877	CC CAP. 391PF 50V Y5P
C804	645 046 3877	CC CAP. 391PF 50V Y5P
C805	645 046 3877	CC CAP. 391PF 50V Y5P
C806	645 043 3139	CC CAP. 103PF 1.5KV Z5U
		(TRANSFORMER)
Q801	645 034 3216	TR 2SC1815GR
Q802	645 040 9110	TR 2SC2688L
Q803	645 034 3216	TR 2SC1815GR
Q804	645 040 9110	TR 2SC2688L
Q805	645 034 3216	TR 2SC1815GR
Q806	645 040 9110	TR 2SC2688L
		(RESISTORS)
R801	645 034 2462	MOF RES. 12KOHM 3W +/-5%
R803	645 034 2141	CF RES. 3.3KOHM 1/4W +/-5%
R804	645 034 2028	CF RES. 220OHM 1/4W +/-5%
R805	645 034 2141	CF RES. 3.3KOHM 1/4W +/-5%
R808	645 034 2141	CF RES. 3.3KOHM 1/4W +/-5%
R809	645 034 2028	CF RES. 220OHM 1/4W +/-5%
R810	645 034 2141	CF RES. 3.3KOHM 1/4W +/-5%
R813	645 034 2141	CF RES. 3.3KOHM 1/4W +/-5%
R814	645 046 2665	CF RES. 360OHM 1/4W +/-5%
R815	645 034 2141	CF RES. 3.3KOHM 1/4W +/-5%
R816	645 046 3235	MOF RES. 220KOHM 1/2W +/-5%
R817	645 034 2462	MOF RES. 12KOHM 3W +/-5%
R819	645 034 2417	MF RES. 2.2KOHM 1/2W +/-1%
R824	645 034 2417	MF RES. 2.2KOHM 1/2W +/-1%
R825	645 034 2462	MOF RES. 12KOHM 3W +/-5%

LOCATION	PARTS NO.	DESCRIPTION
R826	645 034 2417	MF RES. 2.2KOHM 1/2W +/-1% (VARIABLE RESISTORS)
VR801	645 046 4805	POT VR 5KOHM 6DIA
VR802	645 046 4768	POT VR 300OHM 6DIA
VR803	645 046 4805	POT VR 5KOHM 6DIA
VR804	645 046 4768	POT VR 300OHM 6DIA
VR805	645 046 4805	POT VR 5KOHM 6DIA
		(SPARK GAPS)
SGP801	645 038 5520	SPARK GAP 250V +/-20%
SGP802	645 038 5520	SPARK GAP 250V +/-20%
SGP803	645 038 5520	SPARK GAP 250V +/-20%
		(MISCELLANEOUS)
W801	645 034 3773	CONNECTOR BASE M241855 (N.S.P.)
W802	645 034 3759	CONNECTOR BASE M241854-X (N.S.P.)
G2	645 034 3667	CONNECTOR BASE P235142 (N.S.P.)
GND1	645 034 3698	CONNECTOR BASE M11352 (N.S.P.)
SK801	645 040 9240	CRT SOCKET ISHM35S

LOCATION	PARTS NO.	DESCRIPTION
MAIN BOARD CM-21DUA		
	645 052 5513	
		(CAPACITORS)
C101	645 034 2806	EC CAP. 4.7UF 50 V
C102	645 034 2837	CC CAP. 104PF 50V Y5V
C103	645 034 2714	EC CAP. 220UF 16 V
C104	645 046 3853	CC CAP. 33PF 50V Y5P
C105	645 046 3853	CC CAP. 33PF 50V Y5P
C107	645 044 3695	EC CAP. 10UF 50 V
C108	645 044 3695	EC CAP. 10UF 50 V
C109	645 044 3695	EC CAP. 10UF 50 V
C110	645 051 0946	EC CAP. 330UF 16 V
C111	645 044 3695	EC CAP. 10UF 50 V
C112	645 044 3695	EC CAP. 10UF 50 V
C120	645 046 3853	CC CAP. 33PF 50V Y5P
C121	645 046 3853	CC CAP. 33PF 50V Y5P
C122	645 046 4287	MEMB CAP. .1UF 63V +/-5%
C123	645 046 4287	MEMB CAP. .1UF 63V +/-5%
C124	645 046 4287	MEMB CAP. .1UF 63V +/-5%
C125	645 034 2837	CC CAP. 104PF 50V Y5V
C126	645 034 2738	EC CAP. 2.2UF 50 V
C127	645 034 2837	CC CAP. 104PF 50V Y5V
C128	645 034 2677	EC CAP. 1UF 50 V
C130	645 034 2738	EC CAP. 2.2UF 50 V
C218	645 046 4287	MEMB CAP. .1UF 63V +/-5%
C219	645 046 4003	PEI CAP. .022UF 100V +/-5%
C221	645 046 4287	MEMB CAP. .1UF 63V +/-5%
C222	645 044 3695	EC CAP. 10UF 50 V
C223	645 045 9962	EC CAP. 47UF 25 V
C224	645 034 3049	MEMB CAP. .47UF 63V +/-5%
C225	645 044 3695	EC CAP. 10UF 50 V
C226	645 055 0171	EC CAP. 2.2UF 50 V

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
C227	645 055 0249	EC CAP. 470UF 16V +/-20%	C926	645 034 3025	MEMB CAP. .22UF 63V +/-5%
C228	645 034 2783	EC CAP. 470UF 16 V	C928	645 055 0102	EC CAP. 100UF 16 V
C229	645 045 9962	EC CAP. 47UF 25 V	C929	645 034 2837	CC CAP. 104PF 50V Y5V
C230	645 034 2837	CC CAP. 104PF 50V Y5V	C930	645 046 3617	EC CAP. 1000UF 16 V
C231	645 046 3983	PEI CAP. .0018UF 50V +/-5%	C931	645 046 3761	EC CAP. 470UF 25 V
C232	645 046 3983	PEI CAP. .0018UF 50V +/-5%	C932	645 034 2837	CC CAP. 104PF 50V Y5V
C233	645 046 3952	PEI CAP. .001UF 100V +/-5%	C933	645 055 0164	EC CAP. 2200UF 10V 10DIA
C234	645 046 3952	PEI CAP. .001UF 100V +/-5%	C936	645 055 0232	EC CAP. 47UF 250V 13DIA
C235	645 034 2967	PEI CAP. .0047UF 50V +/-5%	C937	645 055 0263	MEMB CAP. .0056UF 100V +/-5%
C236	645 046 4287	MEMB CAP. .1UF 63V +/-5%			(DIODES)
C237	645 046 3921	CC CAP. 20PF 50V +/-5%	D101	645 034 3308	DIODE 1N4148
C238	645 046 3921	CC CAP. 20PF 50V +/-5%	D102	645 034 3308	DIODE 1N4148
C239	645 034 2950	PEI CAP. .022UF 50V +/-5%	D103	645 034 3308	DIODE 1N4148
C240	645 034 2738	EC CAP. 2.2UF 50 V	D104	645 034 3308	DIODE 1N4148
C241	645 055 0188	EC CAP. 33UF 50 V	D107	645 034 3308	DIODE 1N4148
C250	645 055 0096	EC CAP. 10UF 50 V	D110	645 034 3308	DIODE 1N4148
C260	645 055 0249	EC CAP. 470UF 16V +/-20%	D209	645 034 3308	DIODE 1N4148
C301	645 046 4027	PEI CAP. .0033UF 50V +/-5%	D210	645 034 3308	DIODE 1N4148
C302	645 046 4287	MEMB CAP. .1UF 63V +/-5%	D211	645 034 3308	DIODE 1N4148
C303	645 055 0157	EC CAP. 1UF 50 V	D212	645 034 3308	DIODE 1N4148
C304	645 040 8915	EC CAP. 3300UF 25V +/-20%	D213	645 034 3308	DIODE 1N4148
C307	645 046 3952	PEI CAP. .001UF 100V +/-5%	D301	645 034 3377	RECTIFIER DIODE 1N4003
C308	645 034 2967	PEI CAP. .0047UF 50V +/-5%	D403	645 046 6960	PARTS ASSY
C309	645 040 8984	PEI CAP. .001UF 50V +/-5%	D404	645 046 6960	PARTS ASSY
C310	645 046 3990	PEI CAP. .0022UF 50V +/-5%	D502	645 034 3308	DIODE 1N4148
C311	645 046 4287	MEMB CAP. .1UF 63V +/-5%	D503	645 034 3308	DIODE 1N4148
C312	645 052 1263	EC CAP. 100UF 35 V	D504	645 040 9141	RECTIFIER DIODE PG102R
C312A	645 051 0731	PEI CAP. .015UF 50V +/-5%	D505	645 046 2320	CF RES. 15KOHM 1/6W +/-5%
C313	645 055 0140	EC CAP. 1000UF 35 V	D511	645 046 0234	RECTIFIER DIODE PG106R
C316	645 055 0225	EC CAP. 47UF 50 V	D901	645 046 4706	RECTIFIER DIODE PG5407
C401	645 046 4041	PEI CAP. .056UF 50V +/-5%	D902	645 046 4706	RECTIFIER DIODE PG5407
C402	645 055 0218	EC CAP. 47UF 25 V	D903	645 046 4706	RECTIFIER DIODE PG5407
C403	645 052 5254	CC CAP. 681PF 1KV Y5P	D904	645 046 4706	RECTIFIER DIODE PG5407
C409	645 055 0195	EC CAP. 33UF 160 V	D905	645 034 3346	RECTIFIER DIODE BYT52M
C410	645 046 4287	MEMB CAP. .1UF 63V +/-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	645 034 2967	PEI CAP. .0047UF 50V +/-5%	D908	645 034 3308	DIODE 1N4148
C413	645 034 2677	EC CAP. 1UF 50 V	D909	645 034 3308	DIODE 1N4148
C422	△ 645 052 5308	PPS CAP. .0047UF 1.6KV +/-5%	D910	645 046 0272	RECTIFIER DIODE BYT56J
C423	△ 645 046 0067	PPN CAP. .018UF 630V +/-5%	D911	645 040 9165	RECTIFIER DIODE 31DF4
C424	645 052 5261	MEF CAP. .22UF250V +/-5%22.5MM	D912	645 046 0272	RECTIFIER DIODE BYT56J
C425	645 046 4096	MEF CAP. 10UF100V +/-10% 27.5MM	D913	645 040 9165	RECTIFIER DIODE 31DF4
C428	645 052 5278	MEF CAP. .33UF250V +/-5%22.5MM	D914	645 034 3346	RECTIFIER DIODE BYT52M
C429	645 052 5292	PPS CAP. .0022UF 1.6KV +/-5%	D915	645 055 0317	RECTIFIER DIODE 30DF2 52MM
C501	645 046 4126	MEF CAP. .22UF 100V +/-5%	D916	645 046 0272	RECTIFIER DIODE BYT56J
C502	645 055 0096	EC CAP. 10UF 50 V	ZD201	645 046 4614	ZENER DIODE HZ5C1
C504	645 046 4287	MEMB CAP. .1UF 63V +/-5%	ZD501	△ 645 046 4621	ZENER DIODE HZ9C1
C505	645 055 0171	EC CAP. 2.2UF 50 V	ZD901	645 034 3339	ZENER DIODE HZ22-2
C506	645 055 0171	EC CAP. 2.2UF 50 V			(FUSES)
C507	645 046 4058	PEI CAP. .068UF 50V +/-5%	F901	△ 645 038 5650	FUSE 3.15A/250V SLOWBLOW 5*20
C508	645 055 0171	EC CAP. 2.2UF 50 V			(FUSE RES)
C706	645 034 3049	MEMB CAP. .47UF 63V +/-5%	FR901	△ 645 055 0072	FUSE RES. 10HM 1/4W +/-5%
C708	645 055 0201	EC CAP. 3300UF 10 V	FR902	△ 645 055 0089	FUSE RES. 10HM 1/2W +/-5%
C901	△ 645 034 3070	X CAP. .1UF 250V +/-10%			(IC)
C902	△ 645 034 3070	X CAP. .1UF 250V +/-10%	IC101	645 046 4409	LINEAR IC NT68P61A
C903	△ 645 034 3087	Y CAP. 472PF 400V +/-20%	IC102	645 046 4416	LINEAR IC 24LC02B
C904	△ 645 034 3087	Y CAP. 472PF 400V +/-20%	IC103	645 046 4423	LINEAR IC STV9427
C905	645 046 3693	EC CAP. 220UF 400V 25*40MM	IC104	645 046 4355	TTL IC SN74LS74AN
C906	645 034 2974	MEF CAP. .1UF 630V +/-5%	IC202	645 046 4430	LINEAR IC TDA8361
C907	645 052 1263	EC CAP. 100UF 35 V	IC203	645 046 4447	LINEAR IC TDA4665
C909	645 038 5407	CC CAP. 561PF 50V Y5P	IC301	645 046 4454	LINEAR IC TDA3654
C910	645 055 0256	PEI CAP. .0047UF 100V +/-5%	IC701	645 034 3124	LINEAR IC TDA7056B
C911	645 055 0263	MEMB CAP. .0056UF 100V +/-5%	IC901	645 034 3094	LINEAR IC UC3842AN
C912	645 046 4287	MEMB CAP. .1UF 63V +/-5%	IC902	645 034 3179	REGULATOR IC KA431Z
C913	645 055 0102	EC CAP. 100UF 16 V	IC903	△ 645 046 4379	LINEAR IC TLP721F
C914	645 046 4058	PEI CAP. .068UF 50V +/-5%	IC904	645 046 4492	REGULATOR IC LM317T
C915	△ 645 034 3087	Y CAP. 472PF 400V +/-20%	IC906	645 046 4478	REGULATOR IC MC7805
C916	645 046 3860	CC CAP. 331PF 50V Y5P			(COILS)
C917	645 055 0126	EC CAP. 100UF 250 V	L402	△ 645 034 4480	LINEARITY COIL 60 UH +/-20%
C918	645 055 0126	EC CAP. 100UF 250 V	L405	645 055 0362	CHOKE COIL 0.5 MH +/-10%
C919	645 046 3846	EC CAP. 222PF 2KV Z5U 7.5MM	L901	645 046 0876	CHOKE COIL 20 UH +/-20%
C920	645 055 0140	EC CAP. 1000UF 35 V	L902	645 046 0876	CHOKE COIL 20 UH +/-20%
C921	645 055 0140	EC CAP. 1000UF 35 V	L903	645 046 0876	CHOKE COIL 20 UH +/-20%
C922	645 046 3617	EC CAP. 1000UF 16 V	L904	645 046 0876	CHOKE COIL 20 UH +/-20%
C923	645 046 3617	EC CAP. 1000UF 16 V	L905	645 046 0876	CHOKE COIL 20 UH +/-20%
C924	645 055 0133	EC CAP. 1000UF 25V =<13DIA			(TRANSFORMER)
C925	645 055 0133	EC CAP. 1000UF 25V =<13DIA	Q101	645 034 3216	TR 2SC1815GR

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
Q102	645 034 3216	TR 2SC1815GR	R159	645 034 1854	CF RES. 1KOHM 1/6W +/-5%
Q103	645 034 3216	TR 2SC1815GR	R160	645 046 2276	CF RES. 1.2KOHM 1/6W +/-5%
Q104	645 034 3216	TR 2SC1815GR	R161	645 046 2696	CF RES. 3.9KOHM 1/6W +/-5%
Q105	645 034 3216	TR 2SC1815GR	R162	645 046 2849	CF RES. 5.1KOHM 1/6W +/-5%
Q106	645 046 4577	TR DTC124ES	R163	645 046 2740	CF RES. 43KOHM 1/6W +/-5%
Q107	645 034 3216	TR 2SC1815GR	R165	645 046 2191	CF RES. 10KOHM 1/6W +/-5%
Q108	645 034 3216	TR 2SC1815GR	R166	645 046 2474	CF RES. 2.2KOHM 1/6W +/-5%
Q208	645 034 3216	TR 2SC1815GR	R167	645 046 2191	CF RES. 10KOHM 1/6W +/-5%
Q209	645 034 3216	TR 2SC1815GR	R168	645 046 2788	CF RES. 4.7KOHM 1/6W +/-5%
Q210	645 034 3216	TR 2SC1815GR	R169	645 046 2771	CF RES. 470OHM 1/6W +/-5%
Q211	645 046 4577	TR DTC124ES	R231	645 046 2481	CF RES. 22KOHM 1/6W +/-5%
Q212	645 046 4577	TR DTC124ES	R232	645 046 2320	CF RES. 15KOHM 1/6W +/-5%
Q301	645 034 3216	TR 2SC1815GR	R233	645 034 1854	CF RES. 1KOHM 1/6W +/-5%
Q303	645 046 0203	TR 2SD667C	R234	645 046 2900	CF RES. 5.6KOHM 1/6W +/-5%
Q304	645 046 4515	TR 2SB647	R235	645 034 1885	CF RES. 100KOHM 1/6W +/-5%
Q305	645 034 3216	TR 2SC1815GR	R236	△ 645 034 1885	CF RES. 100KOHM 1/6W +/-5%
Q311	645 046 4515	TR 2SB647	R239	645 046 2177	CF RES. 100OHM 1/6W +/-5%
Q312	645 046 4553	TR 2SD1163A	R240	645 046 2177	CF RES. 100OHM 1/6W +/-5%
Q313	645 034 3216	TR 2SC1815GR	R241	645 046 2177	CF RES. 100OHM 1/6W +/-5%
Q401	645 046 4560	TR 2SD1348T	R242	645 034 1854	CF RES. 1KOHM 1/6W +/-5%
Q402	645 040 9103	TR 2SC5296	R243	△ 645 034 1885	CF RES. 100KOHM 1/6W +/-5%
Q403	645 046 4577	TR DTC124ES	R248	645 046 2894	CF RES. 560OHM 1/6W +/-5%
Q501	645 034 3216	TR 2SC1815GR	R249	645 046 2900	CF RES. 5.6KOHM 1/6W +/-5%
Q502	645 034 3209	TR 2SA733P	R252	645 046 2306	CF RES. 150OHM 1/6W +/-5%
Q503	645 034 3209	TR 2SA733P	R253	645 034 1885	CF RES. 100KOHM 1/6W +/-5%
Q901	645 040 9127	FET SSS7N60A	R254	645 046 2191	CF RES. 10KOHM 1/6W +/-5%
Q902	645 034 3209	TR 2SA733P	R255	645 046 2306	CF RES. 150OHM 1/6W +/-5%
Q903	645 034 3216	TR 2SC1815GR	R261	645 046 2795	CF RES. 47KOHM 1/6W +/-5%
ZR901	△ 645 038 5391	TNR 471KD20 (RESISTORS)	R301	645 046 2320	CF RES. 15KOHM 1/6W +/-5%
R101	645 046 2795	CF RES. 47KOHM 1/6W +/-5%	R302	645 046 2320	CF RES. 15KOHM 1/6W +/-5%
R102	645 046 2795	CF RES. 47KOHM 1/6W +/-5%	R303	645 046 2832	CF RES. 51OHM 1/6W +/-5%
R104	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R304	645 046 2566	CF RES. 27KOHM 1/6W +/-5%
R105	645 046 2634	CF RES. 33KOHM 1/6W +/-5%	R305	645 034 2455	MOF RES. 1OHM 2W +/-5%
R106	645 046 2221	CF RES. 1MOHM 1/6W +/-5%	R307	645 046 2733	CF RES. 4.3KOHM 1/6W +/-5%
R107	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R308	645 046 2733	CF RES. 4.3KOHM 1/6W +/-5%
R108	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R309	645 034 2097	CF RES. 270OHM 1/2W +/-5%
R109	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R310	645 034 1854	CF RES. 1KOHM 1/6W +/-5%
R110	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R311	645 046 2771	CF RES. 470OHM 1/6W +/-5%
R111	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R312	645 055 0065	MOF RES. 510OHM 1W +/-5%
R115	645 046 2795	CF RES. 47KOHM 1/6W +/-5%	R314	645 034 2097	CF RES. 270OHM 1/2W +/-5%
R116	645 046 2795	CF RES. 47KOHM 1/6W +/-5%	R315	645 034 2097	CF RES. 270OHM 1/2W +/-5%
R120	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R320	645 055 0041	CF RES. 75KOHM 1/6W +/-5%
R121	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R322	645 048 3240	CF RES. 200KOHM 1/6W +/-5%
R122	645 048 3257	CF RES. 430OHM 1/6W +/-5%	R323	645 048 3264	CF RES. 910KOHM 1/6W +/-5%
R123	645 046 2474	CF RES. 2.2KOHM 1/6W +/-5%	R325	645 034 1946	CF RES. 13KOHM 1/6W +/-5%
R124	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R326	645 034 1885	CF RES. 100KOHM 1/6W +/-5%
R125	645 046 2658	CF RES. 360OHM 1/6W +/-5%	R327	645 046 2191	CF RES. 10KOHM 1/6W +/-5%
R126	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R328	645 046 3341	MOF RES. 3.9OHM 3W +/-5%
R127	645 046 3082	CF RES. 91OHM 1/6W +/-5%	R341	645 034 1885	CF RES. 100KOHM 1/6W +/-5%
R128	645 034 1854	CF RES. 1KOHM 1/6W +/-5%	R342	645 046 2658	CF RES. 360OHM 1/6W +/-5%
R129	645 046 2474	CF RES. 2.2KOHM 1/6W +/-5%	R344	645 034 1854	CF RES. 1KOHM 1/6W +/-5%
R130	645 046 2689	CF RES. 390OHM 1/6W +/-5%	R347	645 046 2528	CF RES. 2.4KOHM 1/6W +/-5%
R131	645 046 2474	CF RES. 2.2KOHM 1/6W +/-5%	R401	645 046 3075	CF RES. 820KOHM 1/6W +/-5%
R132	645 046 2474	CF RES. 2.2KOHM 1/6W +/-5%	R402	645 046 2320	CF RES. 15KOHM 1/6W +/-5%
R133	645 046 2719	CF RES. 390KOHM 1/6W +/-5%	R405	645 046 2757	CF RES. 47OHM 1/6W +/-5%
R134	645 046 2795	CF RES. 47KOHM 1/6W +/-5%	R406	645 052 5223	MOF RES. 51OHM 3W +/-5%
R135	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R410	645 052 5209	MOF RES. 1KOHM 1W +/-5%
R136	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R414	645 046 2825	CF RES. 4.7OHM 1/6W +/-5%
R140	645 046 2795	CF RES. 47KOHM 1/6W +/-5%	R415	645 046 2405	CF RES. 18KOHM 1/6W +/-5%
R141	645 046 2375	CF RES. 180OHM 1/6W +/-5%	R421	645 046 3105	CF RES. 9.1KOHM 1/6W +/-5%
R142	645 046 2863	CF RES. 56OHM 1/6W +/-5%	R429	645 052 5162	CF RES. 270OHM 1/6W +/-5%
R143	645 046 2771	CF RES. 470OHM 1/6W +/-5%	R501	645 034 1861	CF RES. 1KOHM 1/4W +/-5%
R144	645 034 1854	CF RES. 1KOHM 1/6W +/-5%	R502	645 045 9726	CF RES. 56KOHM 1/4W +/-5%
R145	645 046 2283	CF RES. 12KOHM 1/6W +/-5%	R503	645 046 2191	CF RES. 10KOHM 1/6W +/-5%
R146	645 046 2283	CF RES. 12KOHM 1/6W +/-5%	R506	645 046 2788	CF RES. 4.7KOHM 1/6W +/-5%
R147	645 046 2283	CF RES. 12KOHM 1/6W +/-5%	R507	645 046 2566	CF RES. 27KOHM 1/6W +/-5%
R149	645 046 2221	CF RES. 1MOHM 1/6W +/-5%	R508	△ 645 046 2283	CF RES. 12KOHM 1/6W +/-5%
R150	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R509	645 046 2634	CF RES. 33KOHM 1/6W +/-5%
R151	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R510	645 046 2283	CF RES. 12KOHM 1/6W +/-5%
R152	645 034 1854	CF RES. 1KOHM 1/6W +/-5%	R511	645 034 1885	CF RES. 100KOHM 1/6W +/-5%
R153	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R512	△ 645 046 2474	CF RES. 2.2KOHM 1/6W +/-5%
R154	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R527	645 034 1854	CF RES. 1KOHM 1/6W +/-5%
R155	645 046 2191	CF RES. 10KOHM 1/6W +/-5%	R528	645 046 2894	CF RES. 560OHM 1/6W +/-5%
R156	645 046 2474	CF RES. 2.2KOHM 1/6W +/-5%	R710	645 046 2269	CF RES. 120OHM 1/6W +/-5%
R157	645 046 2634	CF RES. 33KOHM 1/6W +/-5%	R711	645 046 2689	CF RES. 390OHM 1/6W +/-5%
R158	645 046 2795	CF RES. 47KOHM 1/6W +/-5%	R901	645 034 2301	CF RES. 560KOHM 1/2W +/-5%
			R902	645 046 3457	MOF RES. 0.68OHM 1W +/-5%
			R904	645 034 2516	MOF RES. 47KOHM 3W +/-5%

LOCATION	PARTS NO.	DESCRIPTION
R905	645 034 2516	MOF RES. 47KOHM 3W +/-5%
R906	645 034 2547	CEMENT RES. 10KOHM 5W +/-5%
R907	645 046 2160	CF RES. 100OHM 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. 470OHM 1/6W +/-5%
R916	645 046 2894	CF RES. 560OHM 1/6W +/-5%
R917	645 046 2757	CF RES. 470OHM 1/6W +/-5%
R918	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R919	645 046 2757	CF RES. 470OHM 1/6W +/-5%
R920	645 046 2962	CF RES. 680OHM 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	645 055 0058	MF RES. 50KOHM 1/6W +/-1%
R925	645 052 5193	MF RES. 2.21KOHM 1/6W +/-1%
R927	645 044 3688	CF RES. 24KOHM 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	645 046 3136	MOF RES. 100OHM 2W +/-5%
R933	645 046 2887	CF RES. 560OHM 1/2W +/-5%
R934	645 046 3365	MOF RES. 470OHM 3W +/-5%
R935	645 048 3233	CF RES. 1.5OHM 1/2W +/-5%
R936	645 034 2493	MOF RES. 0.22OHM 2W +/-5%
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	645 055 0058	MF RES. 50KOHM 1/6W +/-1%
(TRANSFORMER)		
T401	645 046 0777	DRIVE TRANS. VM-14AF
T502	△ 645 052 5407	FBT TRANS. CM-21DUA
T901	645 048 3615	LINE FILTER CH-19DXA 30MH
T902	△ 645 052 5391	POWER TRANS. CM-21DUA VDE
(VARIABLE RESISTORS)		
VR301	645 046 4782	POT VR 500OHM 6DIA
VR302	645 034 3476	POT VR 10KOHM 6DIA
VR303	645 034 3476	POT VR 10KOHM 6DIA
VR306	645 034 3476	POT VR 10KOHM 6DIA
VR401	645 034 3476	POT VR 10KOHM 6DIA
VR501	645 034 3520	POT VR 50KOHM 6DIA
VR502	645 034 3476	POT VR 10KOHM 6DIA
VR503	645 034 3520	POT VR 50KOHM 6DIA
(OSCILLATORS)		
X101	645 046 3518	OSCILLATOR 8 MHZ
X103	645 046 3518	OSCILLATOR 8 MHZ
X201	645 046 3525	OSCILLATOR 3.579545 MHZ
X202	645 046 3532	OSCILLATOR 4.433619 MHZ
(MISCELLANEOUS)		
IC101	645 046 5260	IC SOCKET 40 P
NTC901	645 034 2561	NTCR RES. 100OHM +/-20% 5A
P201	645 046 5284	SIGNAL DXA 2919 VW-1 30V (N.S.P.)
P401	645 046 4980	CONNECTOR BASE M11354 (N.S.P.)
PIN1	645 046 0371	CONNECTOR BASE 1038H (N.S.P.)
PTC901	△ 645 034 2554	PTCR RES. 140OHM +/-30%
B101	645 046 5031	CONNECTOR BASE M241859 (N.S.P.)
B201	645 051 1066	SIGNAL CH-19DXA AWM2464 #24*4C
B701	645 034 3674	CONNECTOR BASE M241852 (N.S.P.)
B901	645 046 4997	CONNECTOR BASE M241835-X (N.S.P.)
B902	645 034 3735	CONNECTOR BASE M241833-X (N.S.P.)
B903	645 034 3698	CONNECTOR BASE M11352 (N.S.P.)
B904	645 048 3547	L/W HOUSING 1007 24AWG L=300MM (N.S.P.)
GND	645 034 3667	CONNECTOR BASE P235142 (N.S.P.)
GND3	645 034 3667	CONNECTOR BASE P235142 (N.S.P.)
F901	645 034 4404	FUSE CLIP BOARD TYPE 5*20MM
F901	645 034 4404	FUSE CLIP BOARD TYPE 5*20MM

LOCATION	PARTS NO.	DESCRIPTION
FUNCTION BOARD VMC-8621P		
	645 052 5520	
(RESISTORS)		
R114	645 046 2467	CF RES. 220OHM 1/6W +/-5%
(SWITCHES)		
S101	645 046 5109	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
(MISCELLANEOUS)		
LED101	645 046 5277	LED HOLDER QL6-4S-N2W
LED101	645 046 4713	LED 7*2.5MM
	645 046 5604	L/W HOUSING 280MM (N.S.P.)

SIGNAL BOARD CM-21DXA

645 046 6731

LOCATION	PARTS NO.	DESCRIPTION
(RESISTORS)		
R708	645 046 2757	CF RES. 470OHM 1/6W +/-5%
R709	645 046 2757	CF RES. 470OHM 1/6W +/-5%
R256	645 046 2757	CF RES. 470OHM 1/6W +/-5%
R257	645 046 2757	CF RES. 470OHM 1/6W +/-5%
R201	645 034 2349	CF RES. 750OHM 1/6W +/-5%
R210	645 034 2349	CF RES. 750OHM 1/6W +/-5%
R214	645 034 2349	CF RES. 750OHM 1/6W +/-5%
R222	645 034 2349	CF RES. 750OHM 1/6W +/-5%
R202	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R203	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R208	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R215	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R216	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R221	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R223	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R224	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R229	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R202	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R702	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R704	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R706	645 046 2467	CF RES. 220OHM 1/6W +/-5%
R206	645 034 1854	CF RES. 1KOHM 1/6W +/-5%
R207	645 034 1854	CF RES. 1KOHM 1/6W +/-5%
R219	645 034 1854	CF RES. 1KOHM 1/6W +/-5%
R220	645 034 1854	CF RES. 1KOHM 1/6W +/-5%
R227	645 034 1854	CF RES. 1KOHM 1/6W +/-5%
R228	645 034 1854	CF RES. 1KOHM 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%
R205	645 046 2474	CF RES. 2.2KOHM 1/6W +/-5%
R218	645 046 2474	CF RES. 2.2KOHM 1/6W +/-5%
R226	645 046 2474	CF RES. 2.2KOHM 1/6W +/-5%
R213	645 046 2559	CF RES. 2.7KOHM 1/6W +/-5%
R209	645 046 2788	CF RES. 4.7KOHM 1/6W +/-5%
R703	645 046 3044	CF RES. 8.2KOHM 1/6W +/-5%
R705	645 046 3044	CF RES. 8.2KOHM 1/6W +/-5%
R701	645 046 3044	CF RES. 8.2KOHM 1/6W +/-5%
R211	645 046 2191	CF RES. 10KOHM 1/6W +/-5%
R212	645 046 2191	CF RES. 10KOHM 1/6W +/-5%
R204	645 046 3006	CF RES. 680KOHM 1/6W +/-5%
R217	645 046 3006	CF RES. 680KOHM 1/6W +/-5%
R225	645 046 3006	CF RES. 680KOHM 1/6W +/-5%
(CAPACITORS)		
C205	645 046 3556	EC CAP. 100UF 16V +/-20%
C212	645 046 3556	EC CAP. 100UF 16V +/-20%

LOCATION	PARTS NO.	DESCRIPTION
C217	645 046 3556	EC CAP. 100UF 16V +/-20%
C201	645 046 3549	EC CAP. 10UF 25V +/-20%
C202	645 046 3549	EC CAP. 10UF 25V +/-20%
C208	645 046 3549	EC CAP. 10UF 25V +/-20%
C209	645 046 3549	EC CAP. 10UF 25V +/-20%
C213	645 046 3549	EC CAP. 10UF 25V +/-20%
C214	645 046 3549	EC CAP. 10UF 25V +/-20%
C701	645 046 3549	EC CAP. 10UF 25V +/-20%
C702	645 046 3549	EC CAP. 10UF 25V +/-20%
C703	645 046 3549	EC CAP. 10UF 25V +/-20%
C705	645 046 3563	EC CAP. 100UF 16V +/-20% 105C
C704	645 034 2837	CC CAP. 104PF 50V Y5V
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%
C206	645 034 3025	MEMB CAP. .22UF 63V +/-5%
C207	645 034 3025	MEMB CAP. .22UF 63V +/-5%
C220	645 034 3025	MEMB CAP. .22UF 63V +/-5%
(DIODES)		
D111	645 034 3315	DIODE 1N4148
D201	645 034 3315	DIODE 1N4148
D202	645 034 3315	DIODE 1N4148
D203	645 034 3315	DIODE 1N4148
D204	645 034 3315	DIODE 1N4148
D205	645 034 3315	DIODE 1N4148
D206	645 034 3315	DIODE 1N4148
D207	645 034 3315	DIODE 1N4148
D208	645 034 3315	DIODE 1N4148
D701	645 034 3315	DIODE 1N4148
D702	645 034 3315	DIODE 1N4148
D704	645 034 3315	DIODE 1N4148
D705	645 034 3315	DIODE 1N4148
D706	645 034 3315	DIODE 1N4148
D111	645 034 3308	DIODE 1N4148
D201	645 034 3308	DIODE 1N4148
D202	645 034 3308	DIODE 1N4148
D203	645 034 3308	DIODE 1N4148
D204	645 034 3308	DIODE 1N4148
D205	645 034 3308	DIODE 1N4148
D206	645 034 3308	DIODE 1N4148
D207	645 034 3308	DIODE 1N4148
D208	645 034 3308	DIODE 1N4148
D701	645 034 3308	DIODE 1N4148
D702	645 034 3308	DIODE 1N4148
D704	645 034 3308	DIODE 1N4148
D705	645 034 3308	DIODE 1N4148
D706	645 034 3308	DIODE 1N4148
(SEMICONDUCTORS)		
Q201	645 046 4508	TR 2SA1015GR
Q203	645 046 4508	TR 2SA1015GR
Q204	645 046 4508	TR 2SA1015GR
Q202	645 034 3216	TR 2SC1815GR
Q205	645 034 3216	TR 2SC1815GR
Q206	645 034 3216	TR 2SC1815GR
Q207	645 034 3216	TR 2SC1815GR
(IC)		
IC201	645 046 4386	LINEAR IC BA7612N
IC202	645 046 4386	LINEAR IC BA7612N
IC701	645 046 4386	LINEAR IC BA7612N
(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
(SOCKETS)		
YC202	645 046 5307	VERT. SOCKET TCS7945-14-201
	645 046 5314	VERT. SOCKET TCS7940-01-2011
(MISCELLANEOUS)		
	645 046 4935	WASHER IN TEETH 10*13*1MM
	645 046 4881	NUT 9*11MM
P201	645 046 5048	CONNECTOR BASE M2418511R (N.S.P.)
	645 046 6281	JACK PLATE BRACKET CM-21DXA (N.S.P.)
	645 046 6373	GND PLATE DX 20*13*0.5MM
	645 046 6380	SHIELDING PLATE DXA SERIES (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.)

CIRCUIT DIAGRAMS & PRINTED WIRING BOARDS

TABLE OF CONTENTS


BLOCK DIAGRAM AND CIRCUIT DIAGRAMS

OVERALL WIRING	C1
BLOCK DIAGRAM	C1
MAIN BOARD & CONTROL KEY BOARD	C2
SIGNAL BOARD & VIDEO BOARD	C5

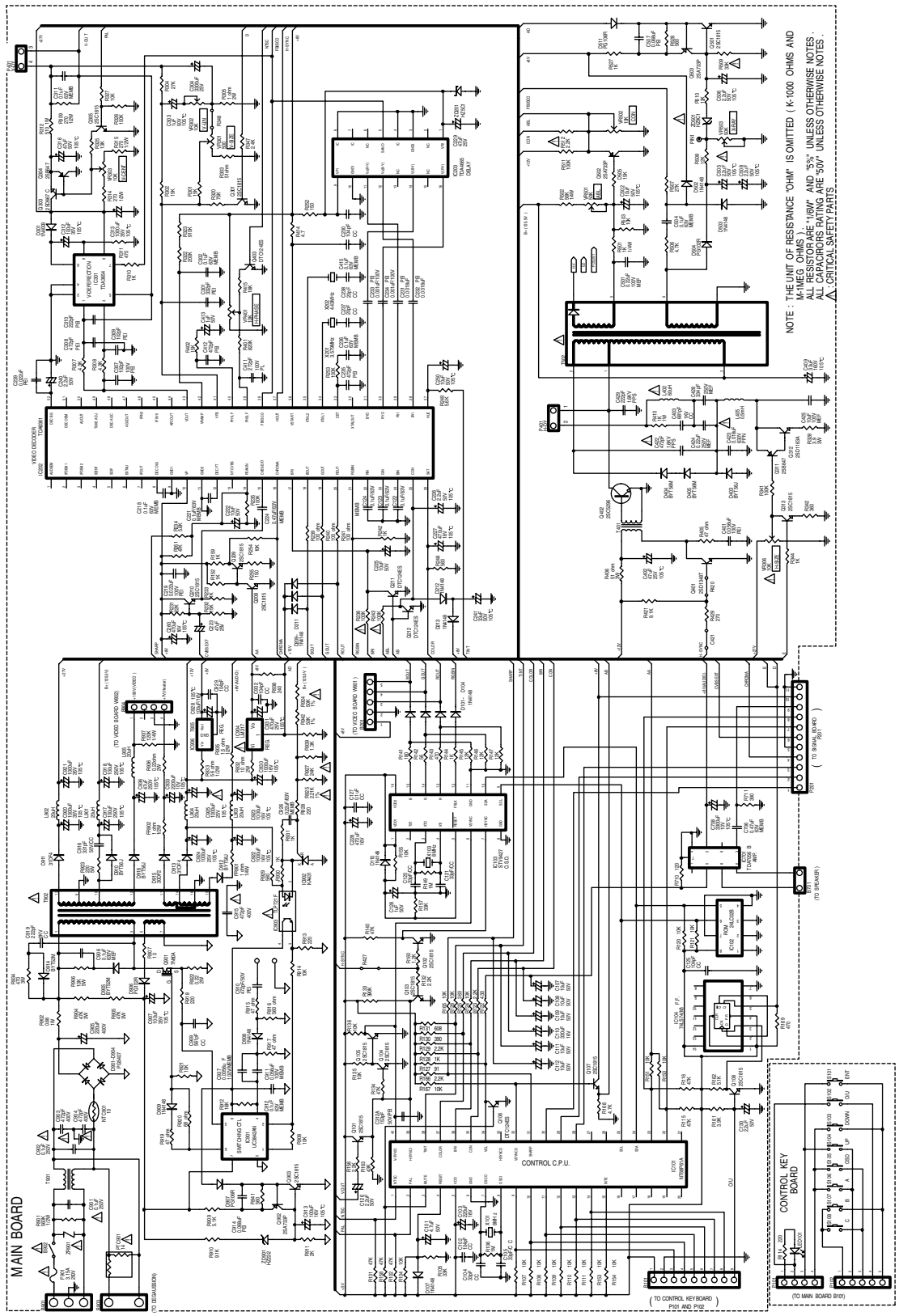
PRINTED WIRING BOARDS (P.W.B.)

MAIN P.W.B.& CONTROL KEY P.W.B.	C6
VIDEO P.W.B.	C7
SIGNAL P.W.B.	C7

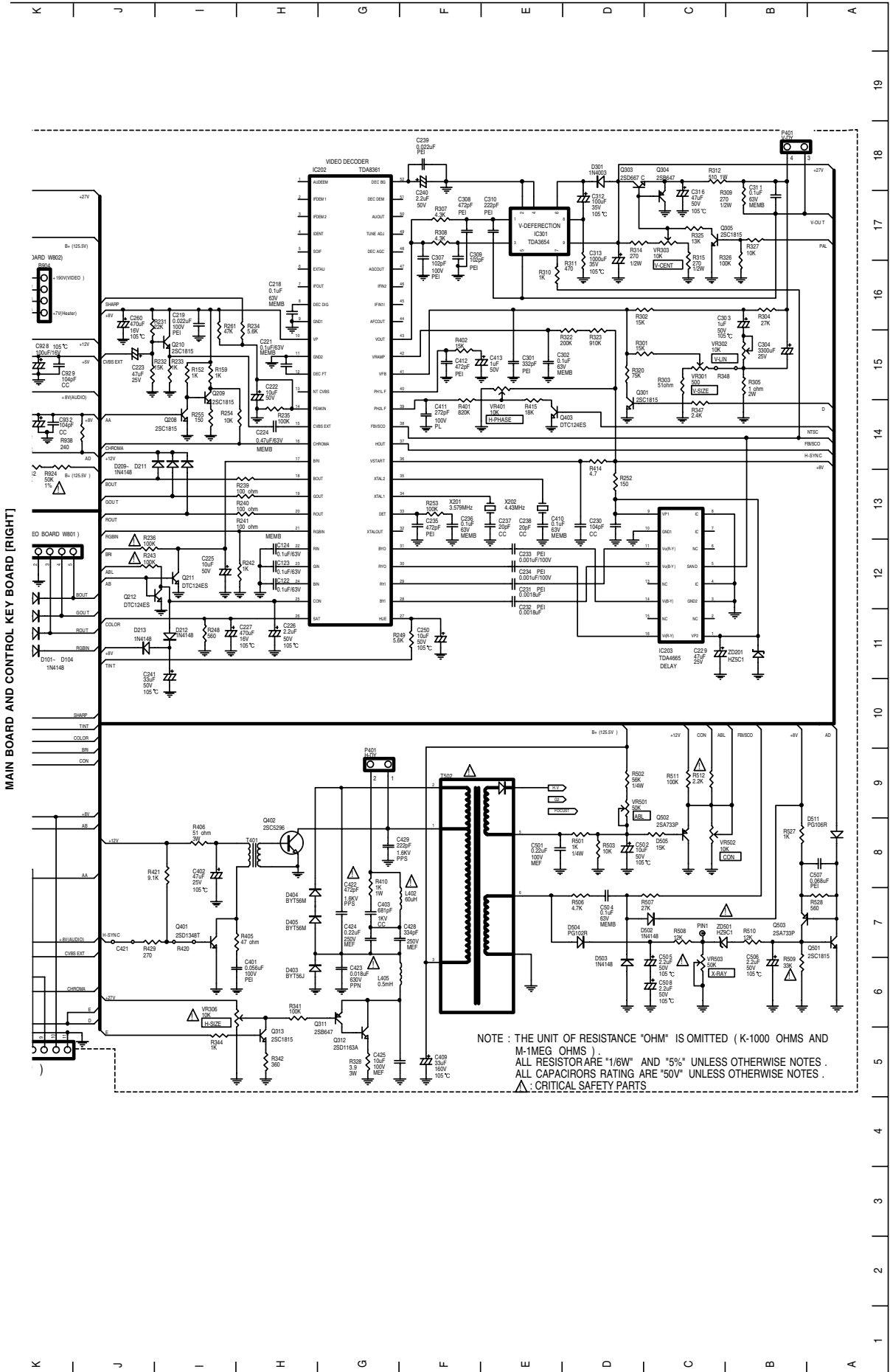
PRODUCT SAFETY NOTICE

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 VOLT-AGE RATINGS SHOWN.

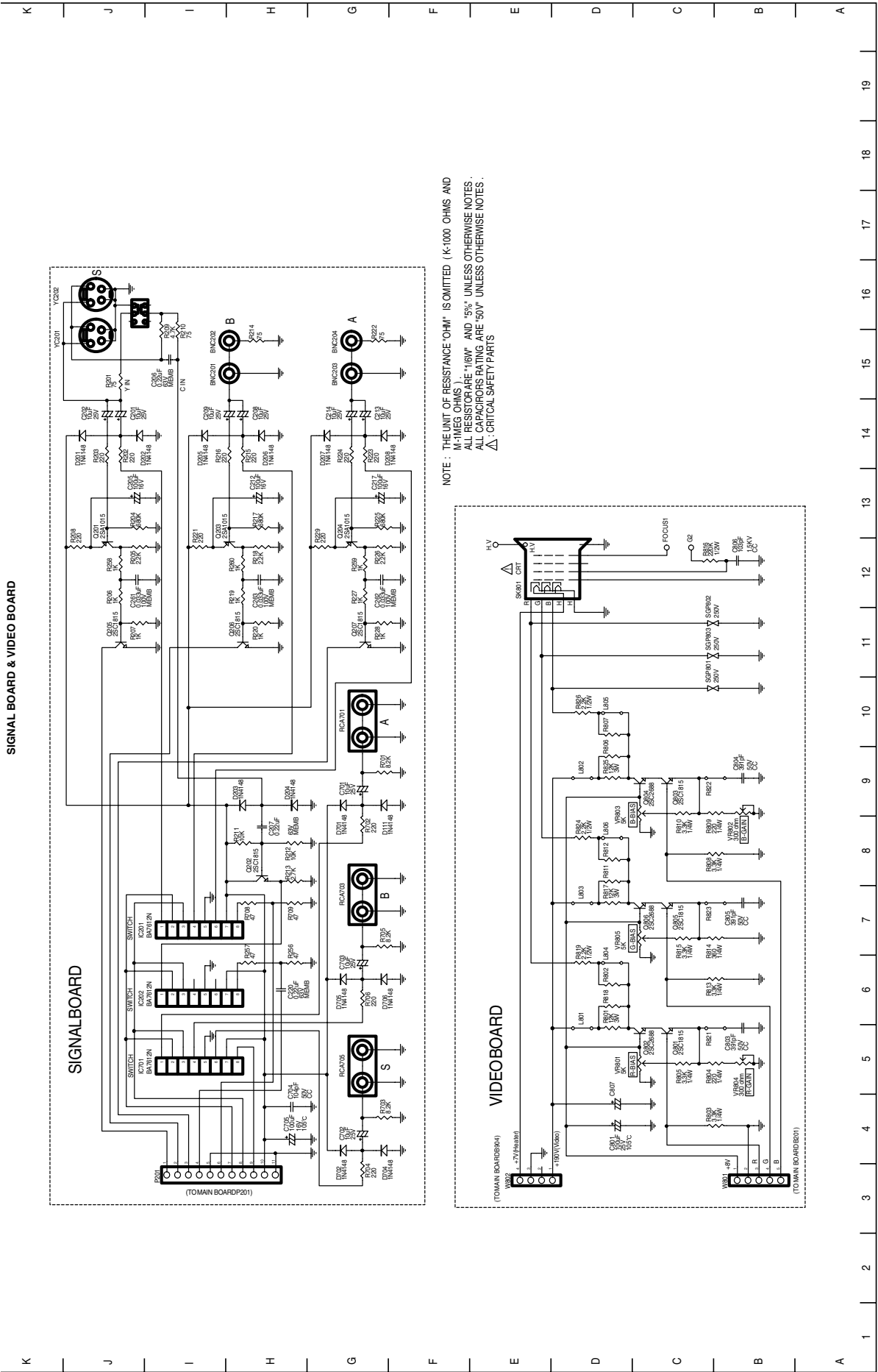
MAIN BOARD AND CONTROL KEY BOARD



C3



NOTE : THE UNIT OF RESISTANCE "OHM" IS OMITTED (K-1000 OHMS AND M-1MEG OHMS).
 ALL RESISTOR ARE "1/6W" AND "5%" UNLESS OTHERWISE NOTES .
 ALL CAPACITORS RATING ARE "50V" UNLESS OTHERWISE NOTES .
 ▲ : CRITICAL SAFETY PARTS



SIGNAL BOARD & VIDEO BOARD

SIGNAL BOARD

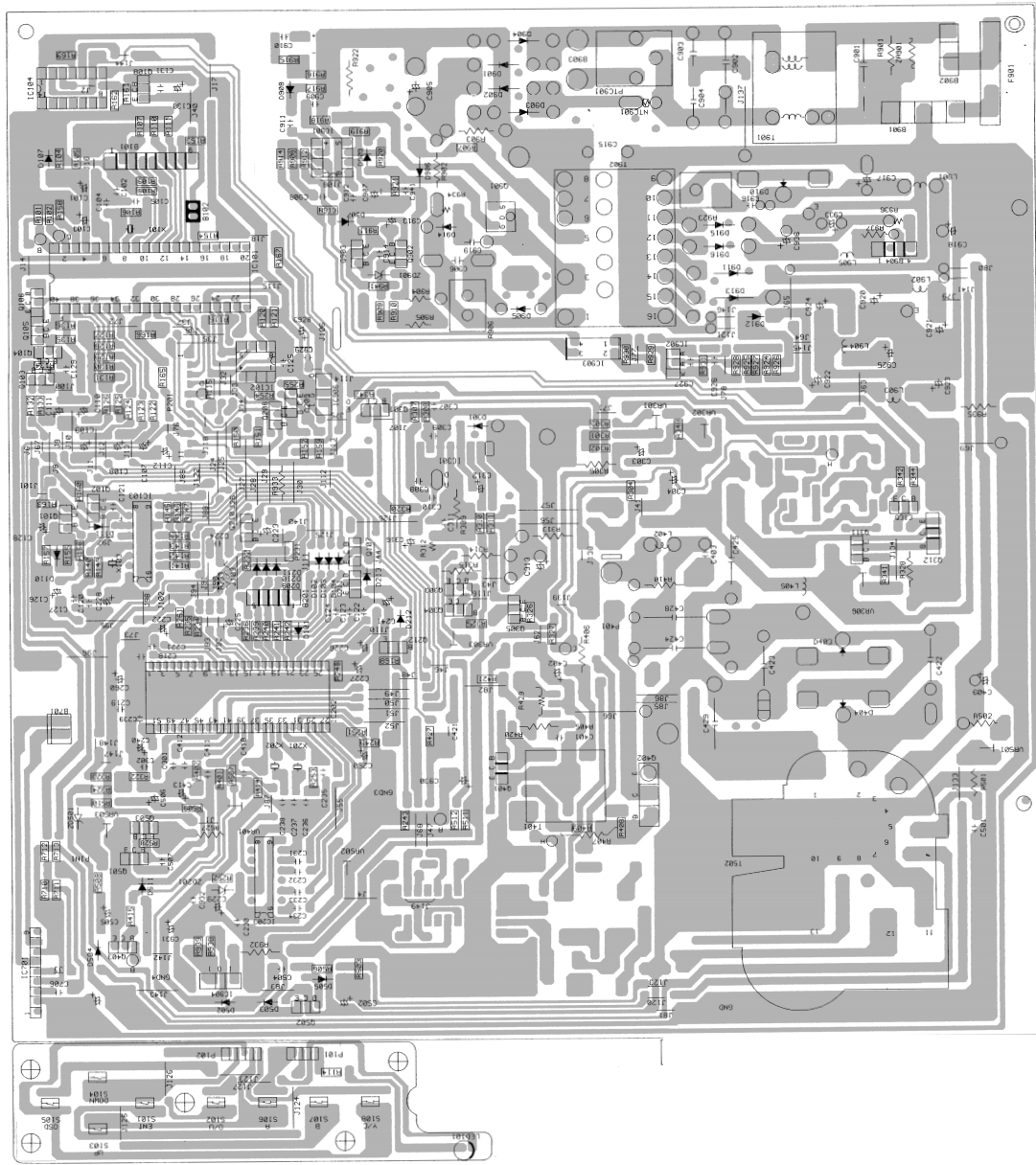
VIDEO BOARD

NOTE : THE UNIT OF RESISTANCE 'OHM' IS OMITTED (K=1000 OHMS AND M=100 OHMS)
 ALL RESISTORS ARE 1/8W AND 5% UNLESS OTHERWISE NOTES.
 ALL CAPACITORS RATING ARE 50V UNLESS OTHERWISE NOTES.
 Δ: CRITICAL SAFETY PARTS

PRINTED WIRING BOARDS (P.W.B.)

CONTROL KEY P.W.B.

MAIN P.W.B.

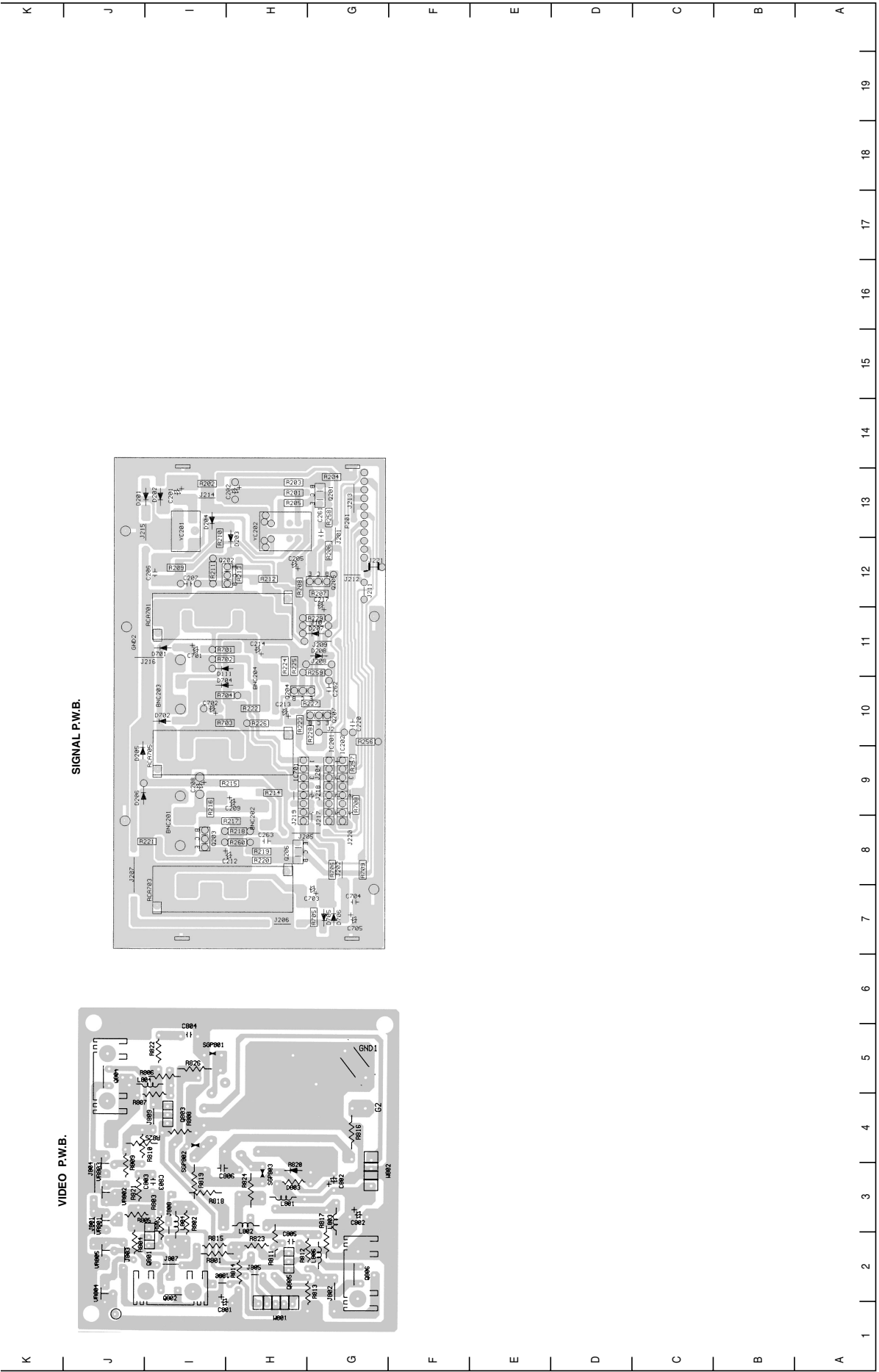


K J I H G F E D C B A

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

C7

K J I H G F E D C B A



C8



SANYO Electric Co., Ltd.
Osaka, Japan

May 02