



SERVICE MANUAL

CTM4828

48CM COLOR TELEVISION

SERVICE MANUAL

14" / 20" / 21" SOLID STATE Color Television Receiver

CM489ST
CM482f

ART-TECH. TV.

(PAL / SECAM VERSION)
PHILIPS IC

This manual is the latest at the time of printing, and does not include the modification which may be made after the printing, by the constant improvement of product.

Document : SM - 06PM

Date : 15 JUL 1996

Approved by : [Signature]

(Sunny Cheung)

Checked by : [Signature]

(Pak Fung Pan)

[Signature]

(Fung Pong Hin)

SPECIFICATION

SUPPLY VOLTAGE : AC220V 50Hz $\geq +10\%$ / -20%

MODEL : 14"

SYSTEM :	PAL - I / I	PAL - BG	PAL - I (UK)	PAL - SECAM - BG / DK	PAL - SECAM - BG / DK (HYPER)	PAL - BG (HYPER)	PAL - BG (CATV)	SECAM - L	L'	
CHANNEL L - VHF : H - VHF : UHF :	4 - 13 21 - 69	2 - 4 5 - 12 21 - 69	21 - 69	1 - 5 6 - 12 21 - 69	1 - 5 6 - 12 21 - 69	E2 - S10 E5 - S41 E21 - E69	E2 - S2 E5 - S20 E21 - E69	1 - Q 21 - 69	FB - FC	CH CH CH
VIF FREQUENCY :	38.9	38.9	39.5	38.0	38.9	38.9	38.9	38.9	32.7	MHz
SIF FREQUENCY :	32.9	33.4	33.5	31.5 32.5	32.4 33.4	33.4	33.4	32.4	39.2	MHz
CHROMA IF FREQUENCY :	34.47	34.47	35.07	33.57 33.57	34.47 34.47	34.47	34.47	34.47		MHz
INTER-CARRIER FREQUENCY :	6.0	5.5	6	6.5 5.5	6.5 5.5	5.5	5.5	6.5	6.5	MHz
SCANNING HORIZONTAL : VERTICAL :	15625 LINE 50 Hz 75 OHM 14"									
ANTENNA INPUT IMPEDANCE :										
CRT :										

ITEMS OF MEASUREMENT	STANDARD	UNIT
VIDEO SENS. AT S/N 30db L - VHF	≤ 57	dbuv
H - VHF	≤ 57	dbuv
UHF	≤ 60	dbuv
SOUND SENS. AT S/N 30db L - VHF	≤ 42	dbuv
H - VHF	≤ 42	dbuv
UHF	≤ 48	dbuv
AGC CHARACTER	≥ 60	db
SELECTIVITY -1.5 MHz	≥ 35	db
+ 8 MHz	≥ 40	db
COLOR SENS.	≤ 45	dbuv
COLOR LOCK - IN RANGE	$\geq \pm 300$	Hz
VERTICAL LOCK - IN RANGE	≥ 6	Hz
HORIZONTAL LOCK - IN RANGE	≥ 400	Hz
MAX BRIGHTNESS	≥ 140	cd / m ²
MAX OUTPUT POWER	≥ 1	W
OUTPUT POWER AT 10% THD	≥ 0.7	W
BUZZ	≤ -40	db
AFC RANGE	$\geq +1$	MHz
	≥ -0.5	MHz
MIN. VOL HUM	≤ 20	mV
RESOLUTION HORIZONTAL	≥ 300	LINES
VERTICAL	≥ 400	LINES
LINEARITY DISTORTION VERTICAL	≤ 10	%
HORIZONTAL	≤ 10	%
RASTER DISTORTION	≤ 5	%
REMOTE CONTROL DISTANCE	≥ 5	METER
ANGLE	$\geq \pm 15$	DEGREE
POWER CONSUMPTION (AT NORMAL CONDITION)	≤ 60	WATTS
POWER CONSUMPTION (AT MAX. CONDITION)	≤ 70	WATTS
CONVERGENCE DISLOCATION AT AREA "A"	≤ 0.4	%
AREA "B"	≤ 0.8	%
(see fig.1)		

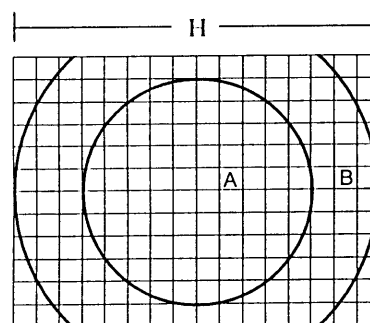


Fig.1

VIDEO INPUT LEVEL : 1.0V P-P \pm 3dB
 AUDIO INPUT LEVEL : 0.5V RMS \pm 3dB

SPECIFICATION

SUPPLY VOLTAGE : AC220V 50Hz $\geq +10\%$ / -20%

MODEL : 20" - 21"

[illegible]

ITEMS OF MEASUREMENT	STANDARD	UNIT
VIDEO SENS. AT S/N 30db L - VHF	≤ 57	dbuv
H - VHF	≤ 57	dbuv
UHF	≤ 60	dbuv
SOUND SENS. AT S/N 30db L - VHF	≤ 42	dbuv
H - VHF	≤ 42	dbuv
UHF	≤ 48	dbuv
AGC CHARACTER	≥ 60	db
SELECTIVITY -1.5 MHz	≥ 35	db
+ 8 MHz	≥ 40	db
COLOR SENS.	≤ 45	dbuv
COLOR LOCK - IN RANGE	$\geq \pm 300$	Hz
VERTICAL LOCK - IN RANGE	≥ 6	Hz
HORIZONTAL LOCK - IN RANGE	≥ 400	Hz
MAX BRIGHTNESS	≥ 120	cd/m ²
MAX OUTPUT POWER	≥ 1.8	W
OUTPUT POWER AT 10% THD	≥ 1.3	W
BUZZ	≤ -40	db
AFC RANGE	$\geq +1$	MHz
	≥ -0.5	MHz
MIN. VOL HUM	≤ 20	mV
RESOLUTION HORIZONTAL	≥ 300	LINES
VERTICAL	≥ 400	LINES
LINEARITY DISTORTION VERTICAL	≤ 10	%
HORIZONTAL	≤ 10	%
RASTER DISTORTION	≤ 5	%
REMOTE CONTROL DISTANCE	≥ 5	METER
ANGLE	$\geq \pm 15$	DEGREE
POWER CONSUMPTION (AT NORMAL CONDITION)	≤ 70	WATTS
POWER CONSUMPTION (AT MAX. CONDITION)	≤ 85	WATTS
CONVERGENCE DISLOCATION AT AREA "A"	≤ 0.4	%
AREA "B"	≤ 0.8	%
(see fig.2)		

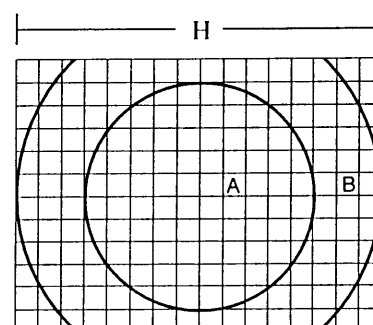


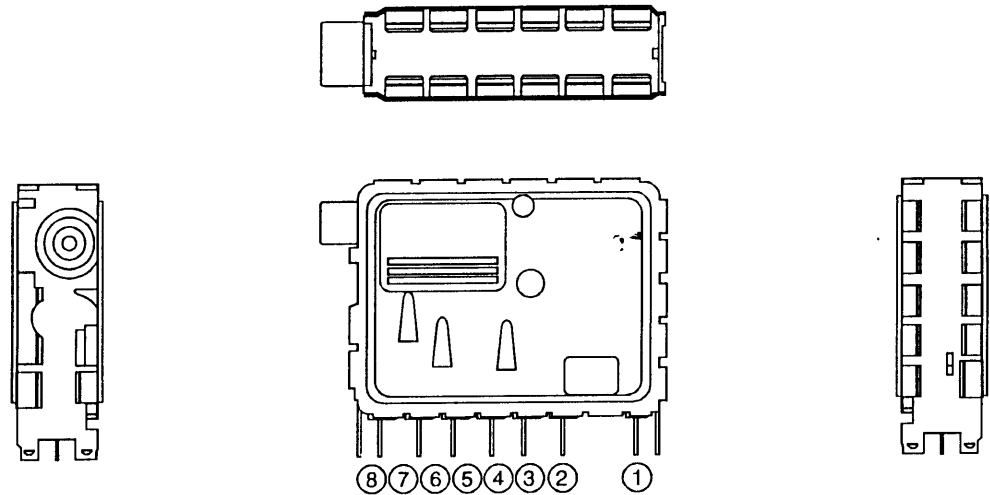
Fig.2

VIDEO INPUT LEVEL : 1.0V P-P \pm 3dB
 AUDIO INPUT LEVEL : 0.5V RMS \pm 3dB

WOOFER AV INPUT LEVEL : 500 mV \pm 50mV
 FREQUENCY : 100Hz \pm 10%

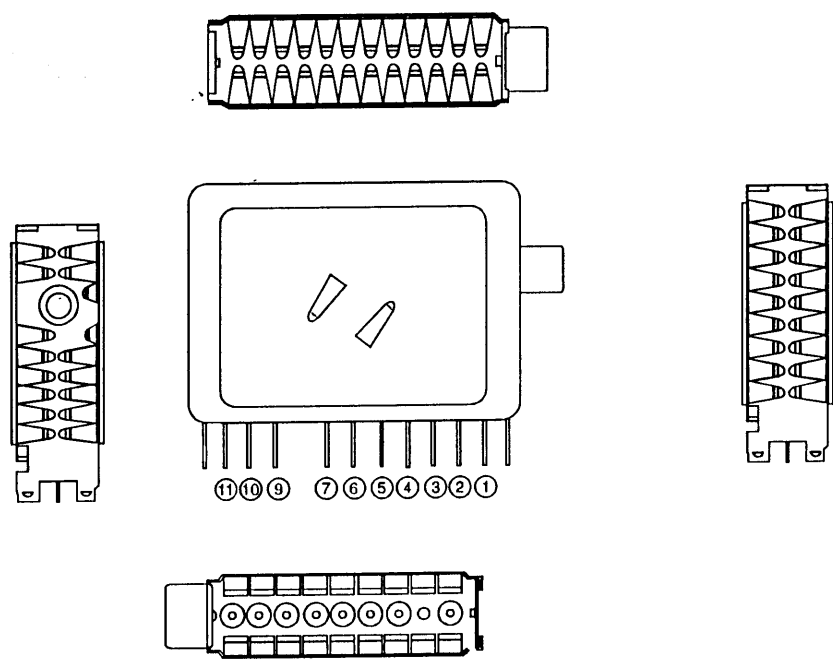
PICTORIAL VIEW OF TUNER

TERMINAL NO.	1	2	3	4	5	6	7	8
TERMINAL NAME	IF	B+	AFT	LB	AGC	HB	VT	UB



PICTORIAL VIEW OF TUNER (WSP TUNER)

TERMINAL NO.	1	2	3	4	5	6	7	8	9	10	11
TERMINAL NAME	AGC	VT	BU	BH	BL	B+	-	-	-	IF GND	IF



ALIGNMENT INSTRUCTION

I. PLEASE READ BEFORE ATTEMPTING SERVICE

1. Never disconnect any leads while receiver is in operation.
2. Disconnect all power before attempting any repairs.
3. Do not short any portion of the circuit while power is on.
4. For safety reasons, all parts replaced should be identical, (for parts and part numbers see parts list).
5. Before alignment the set must be pre-heated for 30 minutes or more and erase magnetism thoroughly from CRT front chassis frame by erase coil. (Except IF, SYNC, COLOR, SECAM, B+, SOUND)
6. An isolation transformer should be used during any dynamic service to avoid possible shock hazard.

II. TEST EQUIPMENT

- | | |
|---|---|
| 1. VIF Sweep Generator | 7. Volt Ohmmeter |
| 2. SIF Sweep Generator | 8. High Voltage Meter |
| 3. Colour Bar, Dot, Cross Hatch Generator | 9. Ampere Meter (0.5 Class, DC 3mA Max) |
| 4. DC Power Supply | 10. Demagnetizing Coil |
| 5. Oscilloscope | 11. Philips Pattern Generator |
| 6. Vacuum Tube Voltmeter | 12. High Pot Tester |

III. VIF ALIGNMENT

A. Preparation step. (see fig.3)

1. Connect Sweep Generator to tuner test point and Ground.
2. Connect 14V $\pm 1V$ B+ Bias Voltage to C404 (-) and Ground.
3. Connect 14V $\pm 1V$ B+ Bias Voltage to PIN3 at CN904 and Ground.
4. Connect A.G.C. Bias Voltage to PIN10 at IC102, TP105 the DC supply should be turned off this time.

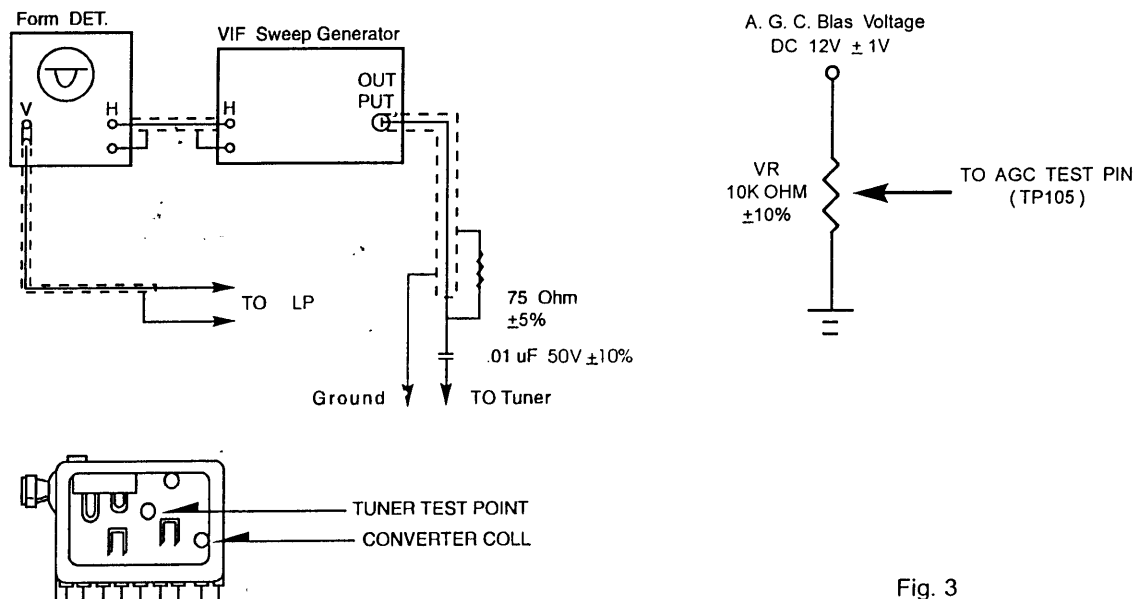


Fig. 3

B. VIF ALIGNMENT

1. Connect waveform detector to TP102 and Ground.
2. Connect 100ohm $\pm 5\%$ resistor between TP103 and TP104.
3. Reduce output level of sweep generator to -50dB ± 20 dB.
4. Adjust A.G.C. bias to maintain the waveform achieve 1V p-p $\pm 10\%$.
5. Adjust tuner covertor coil to obtain the waveform as Fig.4.
6. If the tuner haven,t converter coil V.I.F. alignment may be omitted.

Remark : All frequency of market point can have +0.2% tolerance.
(point (CC) and point (PC) can have ± 0.25 div tolerance)

SYSTEM	BG / DK, DK / I	I (UK)	I / I, BG BG / DK (W / H.P)
P.C. (MHz)	38.0	39.5	38.9

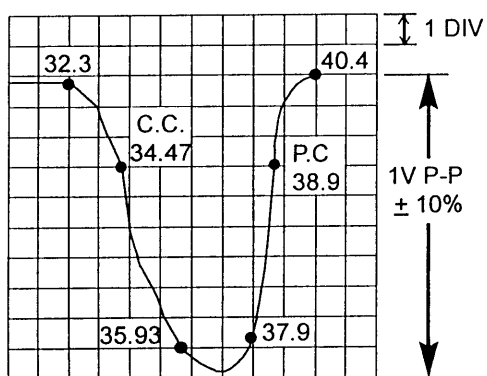


Fig.4

SYSTEM : PAL - I / I
PAL - BG
PAL - BG / DK
(W / HYPER BAND)

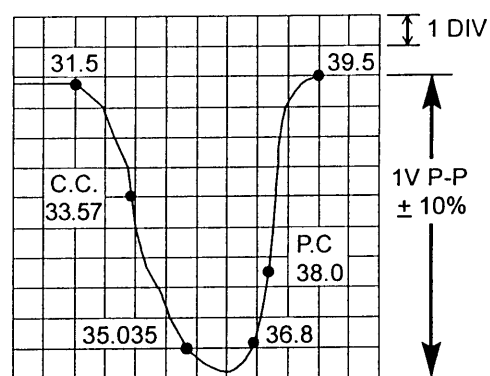


Fig.4

SYSTEM : PAL - DK / I

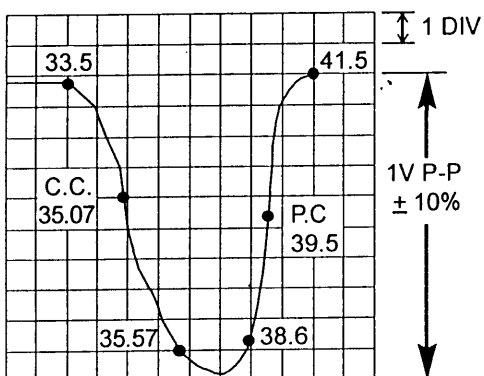


Fig.4

SYSTEM : PAL - I (UK)

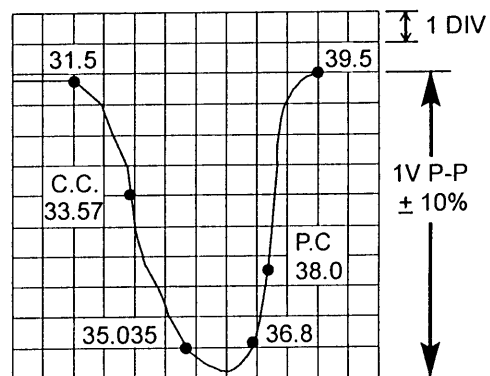


Fig.4

SYSTEM : PAL - BG / DK
(W / O HYPER BAND)

REMARK : (C.C.) AND (P.C.) CAN HAVE $\pm 1/4$ DIV TOLERANCE.

C. TANK COIL ALIGNMENT STEP (see Fig. 5)

1. Calibrate the Division of waveform Detector equal to 1V per div.
2. The output of sweep generator should be 40dB ± 20 dB.
3. Connect the waveform detector between TP106 and ground.
4. Connect the sweep generator to tuner test point and Ground.
5. Connect a 47K $\pm 5\%$ resistor between PIN7 to PIN22 at IC102.
6. Connect a 4K7 $\pm 5\%$ resistor between PIN23 to Ground at IC102.
7. Adjust A.G.C. bias until the waveform just saturate.
8. Adjust T101 to obtain the waveform as Fig.5.
9. If the tuner haven't converter coil. Apply PAL I.F. signal (38.9MHz or 39.5mhz) modulated with a colour bar pattern to tuner I.F. point.

REMARK : All frequency of marker point can have $\pm 0.2\%$ tolerance.

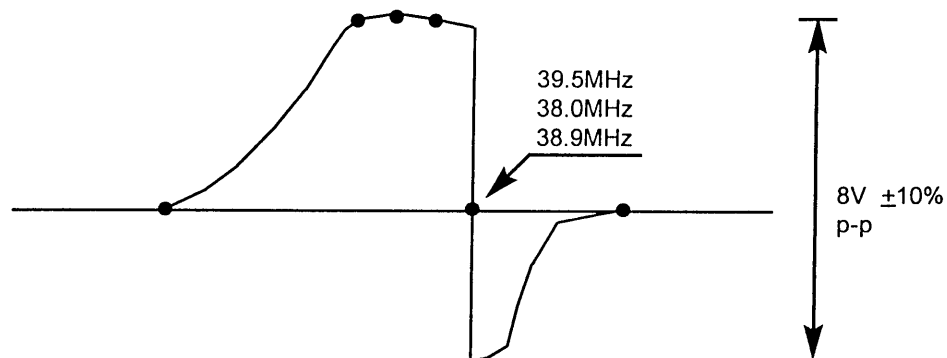


Fig. 5

SYSTEM	DK / I, BG / DK	I (UK)	BG, I / I, BG / DK (W / H.P.)
IF SIGNAL (MHz)	38.0	39.5	38.9

Remark : VIF can have ± 0.25 V tolerance.

D. SIF ALIGNMENT (Excluding DK / I)

MIXER ALIGNMENT

1. Connect a 47K $\pm 5\%$ resistor between PIN7 to PIN22 at IC102.
2. Connect a 4K7 $\pm 5\%$ resistor between PIN23 to Ground at IC102.
3. Connect the sweep generator to TP102.
4. Connect the circuit as Fig.6 to TP107 and waveform detector.

Remark : All frequency of marker point can have $\pm 0.2\%$ tolerance.

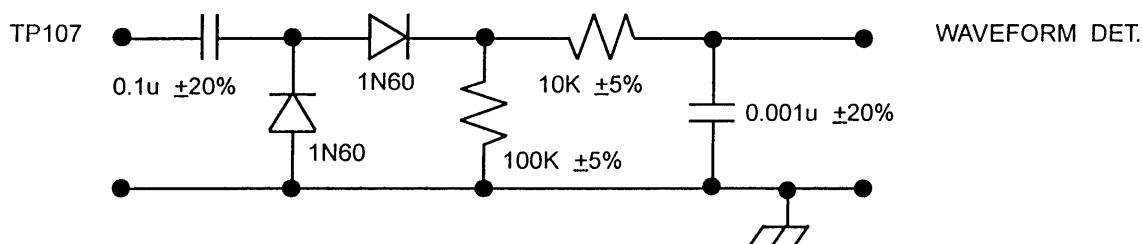
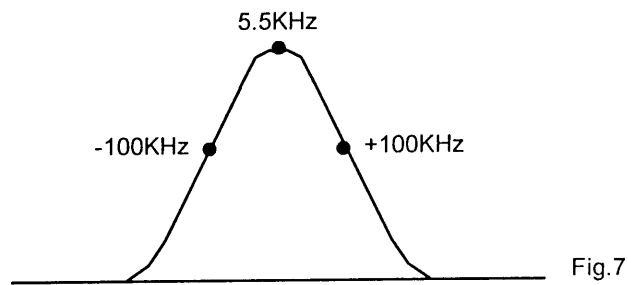


Fig.6

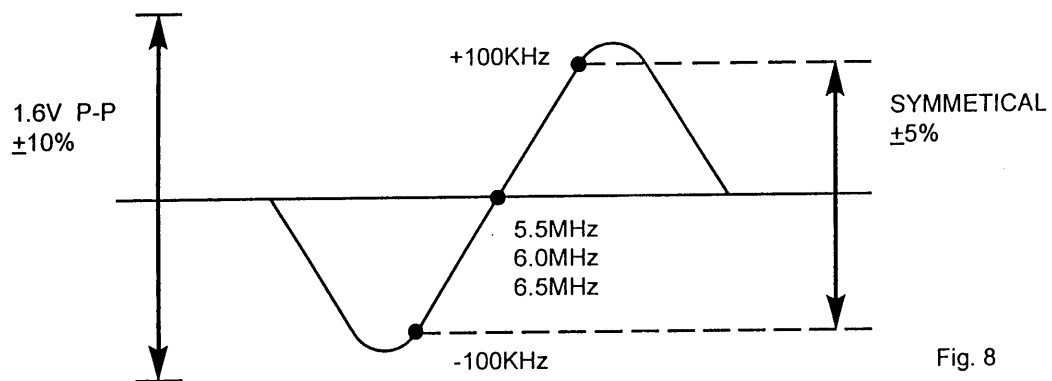
5. Adjust the sweep generator output to obtain a maximum amplitude.
6. Adjust T103 to obtain the waveform as Fig.7



SIG ALIGNMENT

1. Connect a 47K $\pm 5\%$ resistor between PIN7 to PIN22 at IC102.
2. Connect a 4K7 $\pm 5\%$ resistor between PIN23 to Ground at IC102.
3. Connect the sweep generator to TP102.
4. Connect waveform detect to TP101.
5. The output of sweep generator should be -30dB ± 5 dB.
6. Adjust T104 to obtain the waveform as Fig.8.

Remark : All frequency of marker point can have $\pm 0.2\%$ tolerance.



SYSTEM	DK / I	BG / DK	I / I	BG	DK
SIF (MHz)	6.0 6.5	5.5 6.5	6.0	5.5	6.5

E. SIF ALIGNMENT (FOR STEREO)

1. Connect the sweep generator to TP105.
2. Connect waveform detect to PIN1 and PIN3 at CN306.
3. Connect A.G.C. Bias voltage to TP101.
4. The output of sweep generator should be $-30\text{dB} \pm 5\text{dB}$.
5. Adjust T104 and T102 to obtain the waveform as Fig.9.

Remark : All frequency of marker can have $\pm 0.2\%$ tolerance.

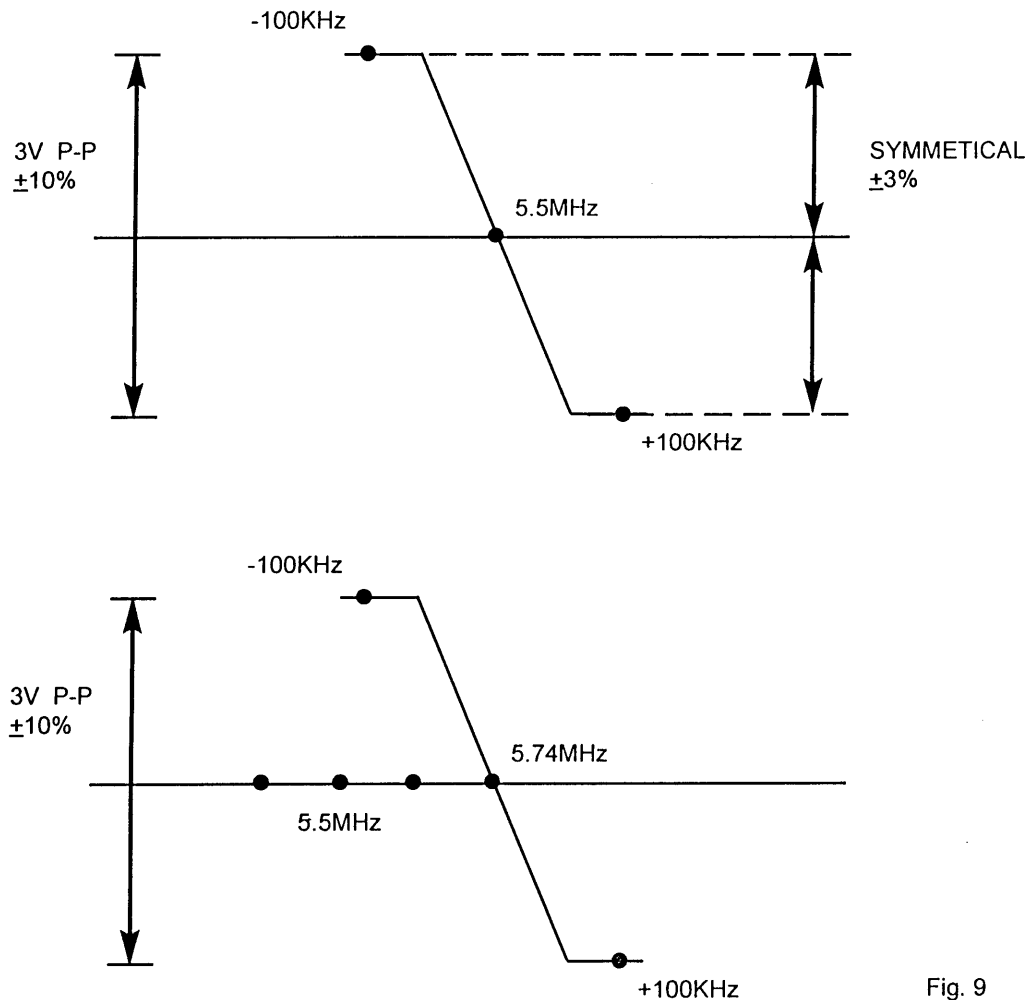


Fig. 9

F. SOUND TANK COIL ALIGNMENT (FOR STEREO)

1. Connect Philips Pattern Generator to tuner test point and Ground. (Frequency is 38.9MHz color bar input signal is $80\text{dB} \pm 3\text{dB}$)
2. Connect Digital multimeter to PIN12 at IC101.
3. Adjust T103 to obtain a DC 2.8V $\pm 0.1\text{V}$.

AFC ALIGNMENT (WHEN IC102 USE TDA8305 FOR PAL - DK / I)

1. Connect Philips Pattern Generator to tuner IF out and Ground. (Frequency is 38MHz color bar)
2. The output of Philips Pattern Generator should be $80\text{dB} \pm 3\text{dB}$.
3. Connect Digital multimeter to PIN18 at IC102.
4. Adjust T101 to obtain a DC 7V $\pm 0.2\text{V}$.

G. PAL COLOUR ALIGNMENT

1. Receive Philips Pattern input signal 70dB \pm 10dB.
2. Connect Oscilloscope to TP305.
3. Set color control to middle position.
4. Adjust T301 and VR302 to obtain the waveform as Fig.10.

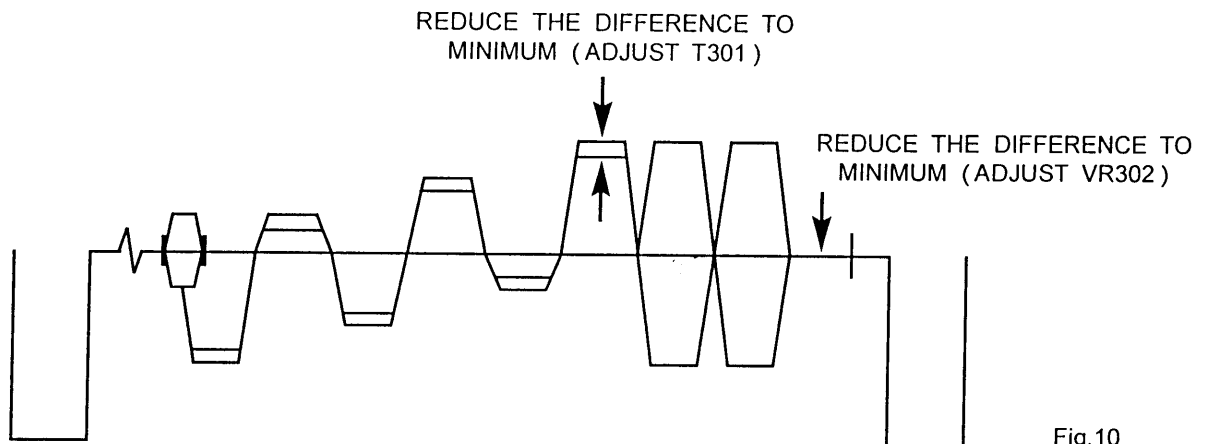


Fig.10

COLOUR SYNC ADJUSTMENT

1. Receive Philips pattern (input signal is 70dB \pm 10dB).
2. Connect terminal IC302 PIN17 to GND and the earth with the short jumper wire.
3. Then the color striper appear on the screen when the adjustment is inconnect. Adjust the color sync (CT301) sothat the philips pattern stands till.

NTSC TINT ALIGNMENT

1. Apply NTSC color bar to AV input.
2. Connect oscilloscope to TP302.
3. Set color control to middle position.
4. Adjust VR304 to obtain the waveform as Fig.11.

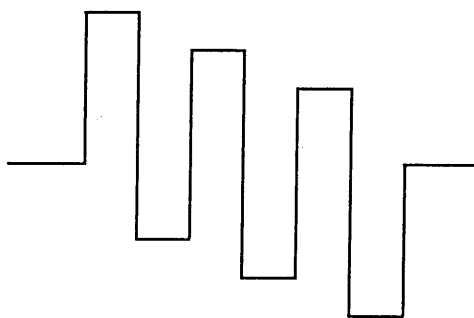


Fig.11

H. B+ ADJUSTMENT

1. Connect a digital volt meter to TPB+ and ground.
2. Set Brightness, contrast and colour to minimum.
3. Adjust VR901 and obtain a reading of 111V $\pm 1V$.

HORIZONTAL CIRCUIT ADJUSTMENT

1. Receive Monoscope Pattern input signal 70dB $\pm 10dB$.
2. Connect terminal 25 pin of IC102 and the ground with the Elect.Cap. 10 / 16 $\pm 20\%$.
3. Adjust VR103 to obtain the picture running at centre.
4. Adjust VR102 to obtain the picture at centre. (specification show as below Fig.13)

VERTICAL CIRCUIT ADJUSTMENT

1. Receive the Monoscope Pattern input signal 70dB $\pm 10dB$.
2. Adjust V - size (VR401) to obtain a normal picture.

WHITE BALANCE ALIGNMENT STEP

(deguss the picture by deguassing coil if necessary)

1. Set the brightness, contrast, Screen and picture control to minimum value.
2. Set VR502, 504 to minimum position (anti - clockwise), set VR501, 503, 505 to middle position.
3. Receive a Monoscope or Philips Pattern input signal 70dB $\pm 10dB$.
4. Connect a digital meter between Red Gun and Ground on the CRT Board.
5. Adjust VR301 to obtain a CRT cut off voltage. (160V $\pm 3V$)
6. Adjust screen volume on FBT to brightest bar can just be screen.
7. Receive a black and white pattern input signal 70dB $\pm 10dB$ or video input 1p-p $\pm 3dB$.
8. Set the brightness and contrast to middle position.
9. Adjust VR501, 502, 503, 504, 505 to obtain a uniformly white picture (9300°K) +27M.P.C.D (X=0.281, Y=0.311).

SUB - BRIGHTNESS ALIGNMENT

1. Receive a Monoscope or Philips Pattern input signal 70dB $\pm 10dB$.
2. Set the brightness, contrast and colour to minimum.
3. Adjust VR301 until the brightest bar can just be screen.

FOCUS ALIGNMENT

1. Set brightness and contrast to middle position.
2. Receive a monoscope pattern input signal 70dB $\pm 10dB$.
3. Adjust focus control to obtain sharpest picture.

A.G.C. ALIGNMENT (SEE FIG.12)

1. Receive monoscope pattern at CH69 (UHF) and input field strength (tuner input signal table show as below).
2. Connect a digital meter between the tuner A.G.C. terminal and ground.
3. Adjust the A.G.C. variable resistor (VR201) to the MAXIMUM position (clockwise), and then adjust the VR anti - clockwise until the voltage drop down $\geq 0.4V$.

TUNER MODEL NO.	RF INPUT SIGNAL(dB)	TUNER MODEL NO.	RF INPUT SIGNAL(dB)
ENV598B7F2	62±2dB	OSCAR 2900KKC	60±2dB
UVC6201-RC	57±2dB	HBC3300KHC	60±2dB
UVC8303-RW	57±2dB	TBD1CAB14	60±2dB
UVL1812-AW	57±2dB	TECC1986VA0618	60±2dB
UVC1401-EW	57±2dB	TBD1-HYPV15A	60±2dB
TDQ-5-32	57±3dB	UVE33-W24/R16-8649	60±2dB
TDQ 8-12	57±3dB	UVE50-AW04D	60±2dB
VISHZUZ51	60±2dB		

Fig. 12

DISTRICT	CENTRE (mm) POSITION	LIMIT (mm)	SCANNING SIZE (%)	SCANNING SIZE LIMIT (%)
THAILAND	-1	0 ~ -2	90	88 ~ 92
FRANCE	+3	0 ~ +5	90	88 ~ 94
GERMANY	+3	0 ~ +5	90	90 ~ 95
*GROUP A	-2	-5 ~ -1	90	88 ~ 94
*GROUP B	0	-2 ~ +2	90	88 ~ 94
*GROUP C	+3	0 ~ +5	90	88 ~ 94

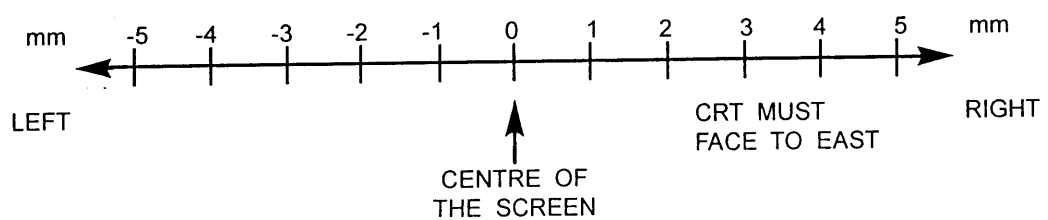


FIG. 13

- REMARK :
1. SUITABLE FOR 14" OR ABOVE TV.
 2. Adjust the centre position must take the upper side of monoscope pattern for standard.
 3. Group A : AUSTRALIA, NEW ZEALAND, TAHITI.
 4. Group B : HONG KONG, CHINA, AMERICA, CANADA, MALAYSIA, MEXICO.
 5. Group C : ENGLAND, ITALY, GERMANY, RUSSIA, SWITZERLAND, JUGOSLAVIA, SPANISH.
- If the above countries are not include, please consult to Engineering Dept.

I. SECAM COLOUR ALIGNMENT

BELL FILTER ALIGNMENT

1. Receive secam color bar pattern input signal 70dB ± 10 dB.
2. Connect oscilloscope to TP303 through a 3K9 $\pm 5\%$ resistor.
3. Turn T305 to obtain waveform as Fig.14.

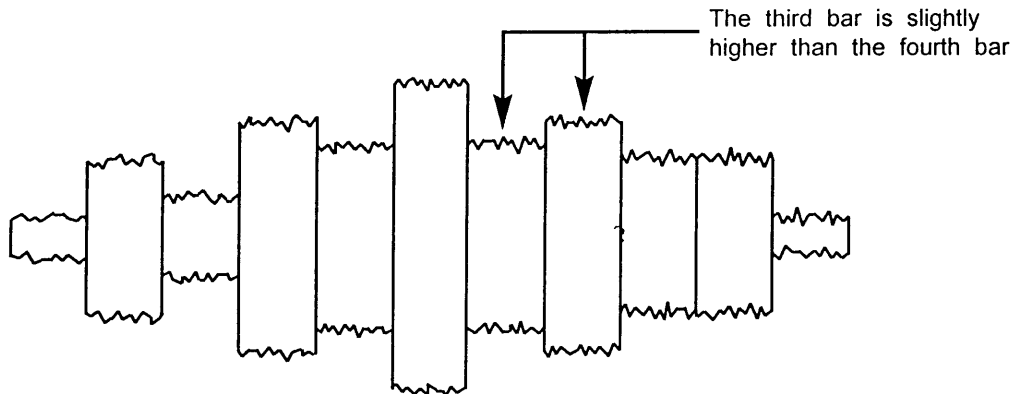


Fig.14

SECAM COLOUR KILLER ALIGNMENT

1. Receive secam colour Bar signal input signal 70dB ± 10 dB.
2. Connect a DC digital meter to IC305 pin21.
3. Tune T304 to obtain a maximum voltage.
"T302 (FOR NICAM, STEREO PCB) "

DISCRIMINATOR ALIGNMENT

1. Receive secam colour Bar signal input signal 70dB ± 10 dB.
2. Connect the osillascope to TP301
3. Turn T303 to obtain the Fig.15.
"T304 (FOR NICAM, STEREO PCB) "
4. Connect the osillascope to TP302.
5. Turn T302 to obtain Fig.16.
"T303 (FOR NICAM, STEREO PCB) "

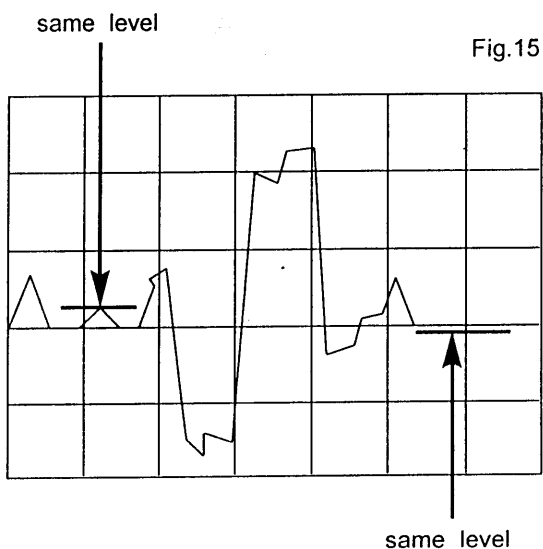


Fig.15

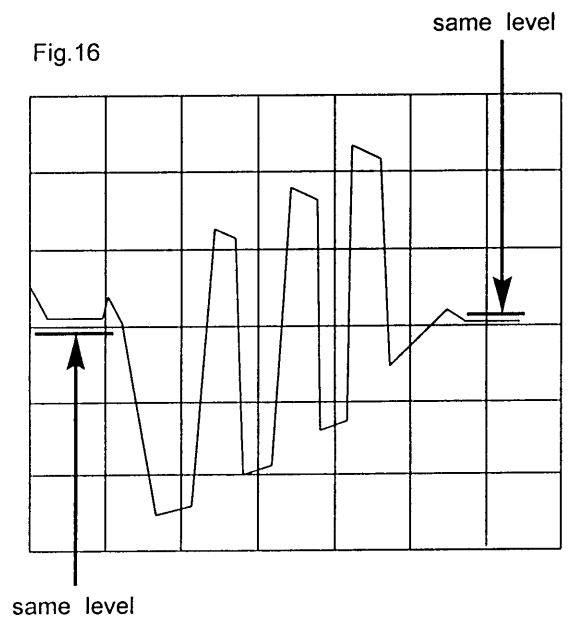


Fig.16

J. STEREO AND DUAL SOUND ALIGNMENT (FOR STEREO)

1. Receive color bar pattern (with stereo and Dual Sound).
2. Connect oscilloscope to TP001 and TP002.
3. Adjust T001, VR001 and VR003 to obtain a maximum amplitude as Fig.17.

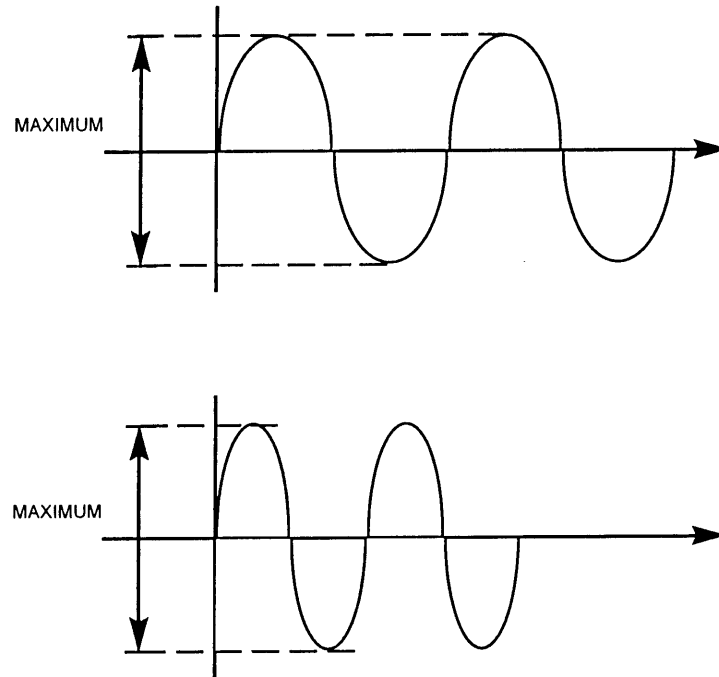


FIG.17

K. SEPARATION ALIGNMENT (FOR STEREO)

1. Receive color bar pattern (with stereo sound, L3KHz R1KHz).
2. Connect oscilloscope to PIN1 at CN201 and ground.
3. Adjust volume control to maximum obtain a waveform no distortion.
4. Adjust VR002 to obtain a waveform as Fig.18.

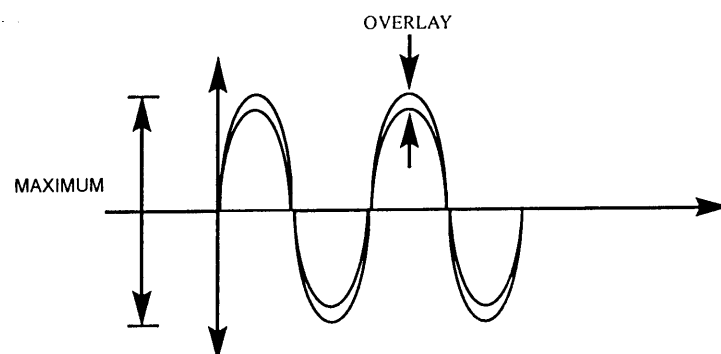


Fig.18

VOLTAGE TABLE FOR TRANSISTOR (ONLY FOR REFERENCE)							
LOCATION \ TR	B (V)	C (V)	E (V)	LOCATION \ TR	B (V)	C (V)	E (V)
Q101	12.2	0	12.2	Q602	0.7	0.06	0
Q102	11.4	12.1	12.2	Q603	9.2	12.2	8.7
Q103	0.02	12.2	0	Q604	0	0.24	0
Q104	0.65	0.05	0	Q605	0.3	1.1	0
Q105	1.13	8.5	0.4	Q901	9	19.7	8.4
				Q902	7.9	0.07	2.3
Q107	0.02	12.2	0	Q903	-0.07	2	0
Q108	12.2	0	12.2	Q904	-1.69	258	0.6
Q109				Q905	0.6	0.04	0
Q110	1.4	9.6	0.7	Q906	109.5	110	110.1
Q111	0.01	4.8	0	Q907	110	110.1	109.4
Q112				Q501	3.13	134.2	2.6
Q201	16.3	15.7	15.6	Q502	3.6	128.4	2.6
Q301	0	2.9	0	Q503	3.1	127.4	2.6
Q302	2.13	11.4	1.5				
Q303	0.06	6.28	0				
Q304	0.64	0.02	0				
Q305	0	1.9	0				
Q401	0.4	56.2	-0.01				
Q402	0.08	108.9	0				
Q601	0.6	2.01	0				

NOTE : VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

CONTRAST	:	Maximum Position
BRIGHTNESS	:	Maximum Position
COLOR	:	Maximum Position
SIGNAL INPUT	:	70dB \pm 10dB
CHANNEL SETTING	:	The Last Channel of UHF High
SIGNAL PATTERN	:	Colour Bar

L. HIGH POT TESTING

1. Short the LINE CORD L - pole and N - pole.
2. Turn on the power switch of the TV set.
3. The High Pot Tester (-) connect to the L and N poly and (+) connect to the metal parts of cabinet.

Remark : The high pot tester can have $\leq \pm 5\%$ tolerance.

SAFETY STD. / CONDITION	TEST SYANDARD	TEST STANDARN FOR PRODUCTION
VDE, SAA	3.0KV 10mA / 1MIN	$\geq 3.5KV \leq 10mA / \geq 10 \text{ SEC.}$
BS	4.0KV 10mA / 1MIN	$\geq 4.0KV \leq 10mA / \geq 10 \text{ SEC.}$
CHINA STANDARD	3.0KV 10mA / 1MIN	$\geq 3.3KV \leq 5mA / \geq 6 \text{ SEC.}$

M. CONVERGENCE ADJUSTMENT (SEE FIG.19) (IF NECESSARY)

1. Receive a dotted pattern input signal 70dB ± 10 dB.
2. Unfix the convergence magnet clamber and align red with blue dots at the center of the screen by rotating (R,B) static convergence magnets.
3. Align Red / Blue with green dots at the center of the screen by rotating (RB - G) static convergence magnet.
4. Fix the convergence magnets by turning the clamber.
5. Remove the DY wedges and slightly tilt the deflection yoke horizontally and vertically to obtain the good overall convergence.
6. Fix the deflection yoke by wedges.
7. If purity error is found, follow " PURITY ADJUSTMENT " INSTRUCTIONS.

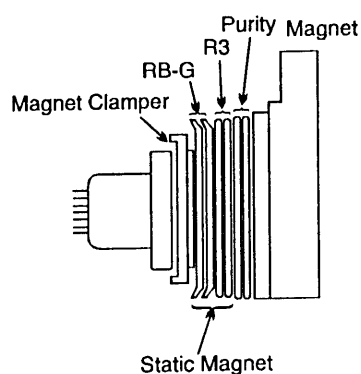


Fig. 19

VOLTAGE TABLE FOR TRANSISTOR (ONLY FOR REFERENCE) (FOR STEREO)											
LOCATION \ TR	B (V)	C (V)	E (V)		LOCATION \ TR	B (V)	C (V)	E (V)			
Q001	2.1	7.6	1.4		Q302	0	1.9	0			
Q002	3.5	11.4	2.8		Q303	3.05	0	3.75			
Q003	1.8	3.4	1.1		Q401	0.4	60.0	-0.01			
Q004	2.5	5.3	1.8		Q402	-0.1	110.0	0			
Q005	3.7	11.4	3.0		Q601	0.6	2.01	0			
Q006	5.2	5.2	4.5		Q602	0.7	0.06	0			
Q007	0.08	5.2	0.3		Q603	9.2	12.2	8.7			
Q008	0.65	0.01	0		Q604	0	0.24	0			
Q009	0.55	0.01	0		Q605	0.3	1.1	0			
Q010	0.01	5.6	0.01		Q901	9	15.3	8.4			
Q101	10.2	10.9	11.1		Q902	6.4	-0.02	2.1			
Q102	11.1	0	11.1		Q903	-0.02	1.55	0			
Q103	0.65	0.04	0		Q904	2.48	264	0.1			
Q104	0.04	11.1	0		Q905	0.6	0.04	0			
Q105	1.10	7.3	0.4		Q906	109.5	110	110.1			
Q106	0	2.4	0		Q907	110	110.1	109.4			
Q107	0.04	11.1	0		Q501	3.13	134.2	2.6			
Q108	11.1	0	11.1		Q502	3.6	128.4	2.6			
Q109	3.5	11.1	2.8		Q503	3.1	127.4	2.6			
Q201	16.3	15.7	15.6		Q701	0	3	0			
Q301	0.04	2.53	0		Q702	3	-0.8	3			

NOTE : VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

CONTRAST	:	Maximum Position
BRIGHTNESS	:	Maximum Position
COLOR	:	Maximum Position
SIGNAL INPUT	:	70dB \pm 10dB
CHANNEL SETTING	:	The Last Channel of UHF High
SIGNAL PATTERN	:	Colour Bar

VOLTAGE TABLE FOR IC (ONLY FOR REFERENCES)						
PIN NO.	SYMBOL	IC601 (V)	IC102 (V)	IC301 (V)	IC302 (V)	IC303 (V)
1		4.33	5.4	0.09	3.6	5.1
2		0.82	2.9	0	GND	0
3		4.85	2.8	0	3.6	3.8
4		4.85	3.5	0	3.6	0
5		4.85	3.2	0	3.6	3.9
6		NC	GND	0	3.6	3.5
7		0.04	11.6	0	3.6	GND
8		0.02	5.6	0	0.01	GND
9		2.5	5.6	0	0.14	3.3
10		4.1	2.4	GND	0.02	3.8
11		GND	1.85	0.1	3	0.8
12		4.5	NC	0	0.02	5.1
13		5	3	0.1	3	5.1
14		5	1.5	0	11.2	NC
15		5	NC	0.1	0.02	4.4
16		5	GND	0	3.0	9.8
17		5	3.5	0.09		3.4
18		0.1	5.0	0		9.5
19		5	6.6	0.09		NC
20		5	5.6	5		3.1
21		GND	5.6			NC
22		0	9.5			4.4
23		0	2.8			GND
24		0	2.8			5.1
25		0	4.6			
26		0.4	0.8			
27		-0.02	0.8			
28		5	3.3			
29		4.6				
30		GND				
31		2.4	SYMBOL	IC305 (V)	IC201 (V)	IC401 (V)
32		2.4	PIN NO.			IC901 (V)
33		5				
34		0.6				
35		4.9	1	7.4	1.2	1.2
36		4.9	2	7.4	0.01	GND
37		0.02	3	GND	GND	1.3
38		GND	4	2.2	15.3	GND
39		3.3	5	2.3	0.01	12.6
40		2.8	6	8.0	1.2	25
41		0.25	7	11.4	14.2	NC
42		5	8	5.6	7.9	5.7
43			9	3.2	15.2	24.6
44			10	7.8	8.0	
45			11	2.9	14.2	
46			12	7.6	GND	
47			13	2.1		
48			14	7.1		
49			15	0.9		
50			16	NC		
51			17			

NOTE : VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

CONTRAST	:	Maximum Position
BRIGHTNESS	:	Maximum Position
COLOR	:	Maximum Position
SIGNAL INPUT	:	70dB \pm 10dB
CHANNEL SETTING	:	The Last Channel of UHF High
SIGNAL PATTERN	:	Colour Bar

VOLTAGE TABLE FOR IC (ONLY FOR REFERENCES) (FOR NICAM)					
SYMBOL PIN NO.	IC005 (V)	IC006 (V)	IC007, IC008 (V)	IC009 (V)	IC010 (V)
1	2.1	2.0	5.2	2.6	5.2
2	0.78	GND	1.4	2.6	NC
3	0.61	2.3	1.4	2.6	NC
4	0.61	5.3	GND	GND	5.2
5	0.61	3.9	5.2	5.2	GND
6	GND	4.0	5.2	1.4	5.2
7	GND	4.0	5.2	1.4	GND
8	GND	3.9	11.4	1.4	2.6
9	3.1	1.2			2.6
10	7.1	2.1			2.6
11	0.61	4.2			GND
12	2.1	5.3			GND
13	0.78	4.2			5.2
14	0.78	GND			GND
15	0.78	2.3			4.8
16	11.3	2.6			2.3
17		NC			2.2
18		NC			5.2
19		GND			2.6
20		3.3			NC
21					2.3
22					NC
23					5.2
24					NC
25					GND
26					NC
27					0.03
28					5.2
29					
30					
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NOTE : VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

CONTRAST	:	Maximum Position
BRIGHTNESS	:	Maximum Position
COLOR	:	Maximum Position
SIGNAL INPUT	:	70dB \pm 10dB
CHANNEL SETTING	:	The Last Channel of UHF High
SIGNAL PATTERN	:	Colour Bar

VOLTAGE TABLE FOR IC (ONLY FOR REFERENCES) (FOR STEREO)					
PIN NO.	SYMBOL	IC001 (V)	IC002 (V)		
1		5.6	NC		
2		5.6	NC		
3		7.4	NC		
4		11.1	NC		
5		7.3	NC		
6		7.3	GND		
7		7.3	GND		
8		7.3	GND		
9		0.06	9.3		
10		NC	9.3		
11		5.6	GND		
12		GND	GND		
13		11.2	0.01		
14		9.2	11.2		
15		9.2	11.2		
16		GND	11.2		
17		5.0			
18		GND			
19		5.0			
20		NC			
21		NC			
22		5.5			
23		5.5			
24		5.5			
25		5.5			
26		5.5			
27		5.5			
28		7.2			
29					
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NOTE : VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

CONTRAST	:	Maximum Position
BRIGHTNESS	:	Maximum Position
COLOR	:	Maximum Position
SIGNAL INPUT	:	70dB \pm 10dB
CHANNEL SETTING	:	The Last Channel of UHF High
SIGNAL PATTERN	:	Colour Bar

VOLTAGE TABLE FOR IC (ONLY FOR REFERENCES) (FOR 1P.TEXT)					
PIN NO.	SYMBOL	IC801 (V)			
1		5			
2		2.1			
3		3.56			
4		0.01			
5		GEN			
6		4.9			
7		2.2			
8		2.4			
9		2.5			
10		5.0			
11		GEN			
12		2.1			
13		5			
14		GEN			
15		0.42			
16		0.5			
17		0.4			
18		3.8			
19		4.5			
20		0			
21		NC			
22		NC			
23		NC			
24		3.2			
25		2.8			
26		NC			
27		NC			
28		NC			
29		NC			
30		NC			
31		NC			
32		NC			
33		NC			
34		NC			
35		NC			
36		NC			
37		NC			
38		NC			
39		NC			
40		NC			
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					

NOTE : VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

CONTRAST	:	Maximum Position
BRIGHTNESS	:	Maximum Position
COLOR	:	Maximum Position
SIGNAL INPUT	:	70dB \pm 10dB
CHANNEL SETTING	:	The Last Channel of UHF High
SIGNAL PATTERN	:	Colour Bar

VOLTAGE TABLE FOR IC (ONLY FOR REFERENCES) (FOR F.TEXT, S.TEXT)					
PIN NO.	SYMBOL	IC801 (V)	IC802 (V)	IC804 (V)	
1		5	NC	GEN	
2		1.8	4.2	4.2	
3		1.9	2.2	4.3	
4		0.03	2.2	NC	
5		GEN	3.8	NC	
6		4.9	1.3	NC	
7		2.2	1.2	NC	
8		2.4	3.6	NC	
9		2.5	3.6	NC	
10		5.0	3.7	NC	
11		GEN	0	NC	
12		2.1	0.3	5.0	
13		5	4.2	GEN	
14		GEN	GND	GEN	
15		0.42	0.6	2.3	
16		0.5	0.5	2.0	
17		0.4	0.5	0	
18		3.8	0.3	GEN	
19		4.5	0.5	NC	
20		0.8	GND	NC	
21		2.5	4.2	NC	
22		NC	2.5	NC	
23		4.3	0.8	GEN	
24		4.3	0.8	NC	
25		GEN	0.8	NC	
26		0.5	5.0	GEN	
27		0.5	5.0	NC	
28		0.5	5.0	5.0	
29		0.3			
30		0.5			
31		4.2			
32		0.3			
33		0			
34		3.7			
35		3.6			
36		3.6			
37		1.2			
38		1.3			
39		3.8			
40		2.2			
41		2.2			
42		4.2			
43		4.2			
44		0.8			
45		0.8			
46		0.8			
47		2.5			
48		5.0			
49					
50					

NOTE : VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

CONTRAST	:	Maximum Position
BRIGHTNESS	:	Maximum Position
COLOR	:	Maximum Position
SIGNAL INPUT	:	70dB \pm 10dB
CHANNEL SETTING	:	The Last Channel of UHF High
SIGNAL PATTERN	:	Colour Bar

MODEL NO: CT-M4828

**SYSTEM: PAL BG/FRONT AV-ST. IN/SC.GR(8403C) 240V
SAA(40P)**

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
155-R63303-12-02	HANDSET ASS'Y RC:R633 W/FINE TUNE W/O TT {BATTERY DOOR- TEAC DESIGN (CT-M4828)}	
180-820B00-00-MP	COMMON PART FOR 820B MECH PART ASS'Y @@FOR 1 LED--	
180-820BT0-27-05	NON-COM PART ASS'Y PAL BG W/FRONT AV-ST. -IN./SCART (PHILIPS 40P)"TEAC"	
180-820BT0-27-CP	COMMON PART ASS'Y PAL BG W/FRONT AV-ST.- IN/SCART (PHILIPS 40P)	

MODEL NO: CT-M4828

**SYSTEM: PAL BG/FRONT AV-ST. IN/SC.GR(8403C) 240V
SAA(40P)**

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
155-R63303-12-02	HANDSET ASS'Y RC:R633 W/FINE TUNE W/O TT {BATTERY DOOR- TEAC DESIGN (CT-M4828)}	
107-800455-46	455K HZ RESONATOR "KYOCERA" CF701	1
113-101005-17	CARBON FILM RESISTOR 100 OHM 1/16W +-5% R704,706	2
113-102005-17	CARBON FILM RESISTOR 1K OHM 1/16W +-5% R705	1
113-103005-17	CARBON FILM RESISTOR 10K OHM 1/16W +-5% R702	1
113-109005-17	CARBON FILM RESISTOR 1 OHM 1/16W +-5% R709	1
113-473005-17	CARBON FILM RESISTOR 47K OHM 1/16W +-5% R703	1
113-682005-17	CARBON FILM RESISTOR 6.8K OHM 1/16W +-5% R701	1
127-476042-03	ELECT. CAP. 47 MFD 16V +-20% C701	1
130-600101-00	INFRARED EMITTER EL-1L1 KODENSHI LED701	1
131-210719-29	TRANSISTOR 2SA719R/S MATSUSHITA Q702	1
131-230945-00	TRANSISTOR 2SC945 NEC Q701	1
133-803010-33	I.C. SAA3010T PHILIPS IC701	1
172-726000-99	BARE WIRE 54MM W701	0
190-R63301-P2	REMOTE P.C.B. (050896)	1
516-260408-10	SELF-TAPPING SCREW 2.6 X 8 P/T (HARDEN) FOR HANDSET	2
774-R63301-00	BATTERY SPRING (+VE)	1
774-R63302-00	BATTERY SPRING (-VE)	1
774-R63303-00	BATTERY SPRING (+-VE)	1
810-041104-13	POLYBAG 4" X 11" X 0.04MM W/RE-CYCLING MARK FOR HANDSET	1
849-R63301-00	KEY PAD {FULL 40 KEYS}	1
892-R63323-01	DIAL KEY PLATE - ENG STD W/FINE TUNE W/O TXT	1
900-R63302-03	HANDSET TOP CABINET -MATT BLK. SPRAYED W/SILVER {MATCH W/902-R63302-03}}	1
902-R63302-03	HANDSET BOTTOM CABINET - MATT BLACK SPRAYED {MATCH W/900-R63302-03}	1
910-R63301-78	BATTERY DOOR - TEAC DESIGN (CT-M4828)(RC-693) MATT BLACK	1
973-R63301-00	VOLUME/CHANNEL KNOB - MOULDED BLACK	1

MODEL NO: CT-M4828

**SYSTEM: PAL BG/FRONT AV-ST. IN/SC.GR(8403C) 240V
SAA(40P)**

PART NUMBER	DESCRIPTION	QTY.
180-820B00-00-MP	COMMON PART FOR 820B MECH PART ASS'Y @@FOR 1 LED--	
514-400312-10	SELF-TAPPING SCREW 4 X 12 B/A (HARDEN) FOR FBT MTG	1
514-400425-10	SELF-TAPPING SCREW 4 X 25 B/T (HARDEN) FOR CABINET MTG.	2
515-303408-10	SELF-TAPPING SCREW 3 X 8 W/B/T (HARDEN) 8-SPK MTG., 3-LENS TO F.CAB.	11
515-303410-10	SELF-TAPPING SCREW 3 X 10 W/B/T (HARDEN) FOR FUNCTION KNOB	4
516-300415-10	SELF-TAPPING SCREW 3 X 15 P/T (HARDEN) FOR LENS TO F.CAB.	1
516-500435-10	SEIF-TAPPING SCREW 5X35 P/T (HARDEN) HEAD DIA. FOR CABINET MTG. 9.5MM MAX	4
524-932901-01	CRT MOUNTING SCREW 7 X 40 VP (HARDEN) FOR CRT MTG	4
622-882802-00	FELT L240 X W17 X T0.5MM W/TAPE FOR FRONT CABINET & BACK CABINET	8
777-921301-00	POWER KNOB SPRING (ID=9MM,L=10MM) FOR POWER KNOB	1
810-052204-14	POLYBAG 5" X 22" X 0.04MM W/RE-CYCLING MARK {P/O FOR AC LINE CORD MAT}	1
810-091504-13	POLYBAG 9" X 15" X 0.04MM W/ RE-CYCLING P.E.MARK FOR I/MANUAL	1
834-230801-00	RUBBER WASHER OD=23 , ID=8 , T=1.0 FOR CRT MTG.(LOWER)	2
834-230802-00	RUBBER WASHER OD=23, ID=8, T=2 4 FOR CRT MTG.(UP), 2 FOR CRT MTG.(LOWER)	6
834-230805-00	RUBBER WASHER OD=23 ID=8 T=0.5 FOR CRT MTG.(UP)	2
840-011024-21	PAD CORD L240 X W10 X T1 MM W/TAPE 6 FOR BETWEEN CRT AND FRONT CAB.	6
840-051020-11	RUBBER PAD (UL 94VO) 1 FBT., 1 TRANSFORMER, 1 BETWEEN FBT & HEAT SINK	3
929-881301-00	LED HOLDER BKT FOR LED601	1
939-942101-00	POWER KNOB ADAPTOR FOR POWER SWITCH	1
954-882100-00	AC LINE CORD CLIP	1
954-882804-00	HIGH VOLTAGE CABLE SPACER FOR FBT.	2

MODEL NO: CT-M4828

**SYSTEM: PAL BG/FRONT AV-ST. IN/SC.GR(8403C) 240V
SAA(40P)**

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
180-820BT0-27-05	NON-COM PART ASS'Y PAL BG W/FRONT AV-ST. - IN/SCART (PHILIPS 40P)"TEAC"	
107-105500-66	SOUND TRAP CERAMIC FILTER 5.5MHZ WEI HAW CF103	1
107-305500-16	SOUND BYPASS CERAMIC FILTER 5.5MHZ WEI HAW CF102	1
107-731500-00	SAW FILTER TSB-5308U (SANYO) SA102	1
107-738916-00	SAW FILTER TSF-5316 SANYO SA101	1
113-153105-17	CARBON FILM RESISTOR 15K OHM 1/4W +-5% R116,610	2
113-223101-67	METAL FILM RESISTOR 22K OHM 1/4W +-1% R606	1
133-102411-31	I.C. ST24C01B1 SGS IC602	1
172-726000-99	BARE WIRE 54MM CN206 `1' TO `2', `4' TO `5'	0
186-624500-11	HI-WATT SUPER HEAVY DUTY 1.5V 0% MERCURY 3A ER03X ALUM.CASE	2
515-303408-10	SELF-TAPPING SCREW 3 X 8 W/B/T (HARDEN) AV BOARD TO FRONT CABINET(WHEN LENS W/AV HOLES)	1
610-942101-0W	GIFT BOX - TEAC DESIGN (CT-M4828)	1
663-230296-98	SERIAL NO.LABEL - OC:GT-296/98 1-STUCK ON CTN.,1-STUCK ON RATING LABEL	2
669-820B01-06	RATING LABEL - TEAC (B) DESIGN (CT-M4828)	1
670-820B00-08	I/MANUAL - TEAC (A) DESIGN (CT-M4828)	1
678-820B01-01	SCREEN STICKER - TEAC DESIGN (CT-M4828)	1
678-821B02-02	CB NO.LABEL(I)-TEAC (A) DESIGN (CT-M5128TXT)(LARGE STUCK ON EACH CARTON SIZE)	2
678-825B02-01	EASY TUNE CARD (A1) - TEAC DESIGN	1
678-931315-07	TOTAL CARE LAEBL - TEAC (B) DESIGN	1
690-942039-02	WARRANTY CARD -TEAC (C) DESIGN	1
693-820B01-01	EAN CODE LABEL - 9313060009458	1
703-821B11-03	SPK.GRILLE - METALLIC GREY (8403C) 0.5MM THK í1.0 HOLE	2
710-942102-01	NAME PLATE - TEAC (B) DESIGN (ELECTROFORMED)	1
800-821B11-00	POLYFOAM (B) - TOP LEFT	1
800-821B12-00	POLYFOAM (B) - TOP RIGHT	1
800-821B13-00	POLYFOAM (B) - BOTTOM LEFT	1
800-821B14-00	POLYFOAM (B) - BOTTOM RIGHT	1
810-404004-62	POLYBAG 40"X40"X0.04MM W/PUNCH [TEAC DESIGN TEAC REQUEST (CT-M4895)]	1
826-302005-00	FOAM SHEET 30" X 20" X 0.5MM THK. FOR TOP UNIT	1
884-882020-02	JACK COVER-TEAC DESIGN WHI SS. W/21 PIN SOCKET (HIGH JACK)	1

MODEL NO: CT-M4828

**SYSTEM: PAL BG/FRONT AV-ST. IN/SC.GR(8403C) 240V
SAA(40P)**

PART NUMBER	DESCRIPTION	QTY.
900-820B01-02	FRONT CABINET (B) - METALLIC GREY (8403C)	1
917-821B11-08	FUNCTION LENS -TEAC (A) DESIGN (CT-M4828) W/CLEAR FUNCTION	1
977-821B01-00	FUNCTION KNOB (FOR AUTO TUNNING FUNCTION)	1
977-821B02-00	FUNCTION KNOB (FOR VOLUME CHANNEL FUNCTION)	1
991-821B01-01	POWER KNOB - METALLIC GREY (8403C)	1
002-120001-46	CRT20" A48KRD82X09/A48KRD89X09 (SOUTH HEMISPHERE #CRT	1
002-120006-48	CRT) SAMSUNG 20" CRT #A48QAD220X06(S) S/H (AUSTRALIA) #CRT REF:(GTVM96-021) "GOLDSTAR"	0
002-120027-42	20" CRT (S/H) DY # ODY-M2038 (ORION) "A48JLL92X27" #CRT REF:(GTVM96-021)	0
003-131372-07	TUNER OSCAR 2900KKC 3X1 772 "TELEFUNKEN" (HIGH #TUNER	1
003-131769-07	JACK) TUNER HYPER BAND (3300 KHC 3 X 5 569)"TELEFUNKEN" #TUNER REF:(GTSS-772) (HIGH JACK)	0
171-550084-00	7' AC LINE CORD W/7.5A PLUG (DOUB.INSULATION)2 PIN #	0
171-550084-B0	SAA APP 7" SAA APP LINE CORD 2-PIN PLUG	0
171-550084-D0	84" AC LINE CORD W/SAA APP. 10A 250V	1
171-550084-D1	7' SAA APP. LINE CORD W/PLUG E-CUTTING 45MM,15MM PVC HOLDER	0
902-942111-U4	BACK CABINET - METALLIC GREY (8403C) (UL)	1

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<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
180-820BT0-27-CP	COMMON PART ASS'Y PAL BG W/FRONT AV-ST.- IN/SCART (PHILIPS 40P)	
012-102340-06	SEMI-FIXED RESISTOR EVND8AA 03B13 1KB VR401,901	2
012-103340-06	SEMI-FIXED RESISTOR EVND8AA 03B14 10KB VR103	1
012-104340-06	SEMI-FIXED RESISTOR EVND8AA 03B15 100KB VR101	1
012-301330-06	SEMI-FIXED RESISTOR EVND2AA 03B32 300B VR503,505	2
012-501340-06	SEMI-FIXED RESISTOR EVND 8AA 03B52 500B VR302	1
012-502330-06	SEMI-FIXED RESISTOR EVND2AA 03B53 5KB VR502,504,501	3
012-503340-06	SEMI-FIXED RESISTOR EVND8AA 03B54 50KB VR102,301	2
013-100001-03	GLASS DELAY LINE YTS-8B WITTIS DLY302	1
013-200005-00	Y-DELAY LINE YBL50F18X DLY301	1
101-191005-96	HORIZONTAL DRIVE TRANSFORMER R1005 T401	1
101-288820-95	LINE FILTER 70MH L901	1
102-370600-02	TANK COIL / AFC COIL COILS 707851 T101,103	2
102-671300-02	SOUND IF COIL. COILS 710256 T104	1
102-770200-02	SECAM COLOR PAL DELAY LINE MATCHING COILS 707850 T301	1
105-100103-08	FIXED INDUCTOR COIL 10 UH +-10% AXIAL L601	1
105-100103-08	FIXED INDUCTOR COIL 10 UH +-10% AXIAL L102	1
105-150103-08	FIXED INDUCTOR COIL 15 UH +-5% AXIAL L104	1
105-181103-08	FIXED INDUCTOR COIL 180 UH +-10% AXIAL L501	1
105-201106-06	CHOKE COIL 200UH HIGHLIGHT L903	1
105-479103-08	FIXED INDUCTIVE COIL 4.7 UH L60A	1
105-560103-08	FIXED INDUCTIVE COIL 56 UH +-10% AXIAL L305	1
105-650152-13	LINEARITY COIL 65UH "LI TONE" L401	1
105-689103-08	FIXED INDUCTOR COIL 6.8 UH +-10% AXIAL L103	1

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PART NUMBER	DESCRIPTION	QTY.
105-828103-08	FIXED INDUCTIVE COIL 0.82 UH +-10% AXIAL L101	1
105-829103-08	FIXED CONDUCTOR COIL 8.2 UH +-10% AXIAL L301,302,303	3
105-829103-08	FIXED CONDUCTOR COIL 8.2 UH +-10% AXIAL L304	1
113-100105-17	CARBON FILM RESISTOR 10 OHM 1/4W +-5% R601,119,108,140	4
113-101105-17	CARBON FILM RESISTOR 100 OHM 1/4W +-5% R624,625,650,643,644,638	6
113-101105-17	CARBON FILM RESISTOR 100 OHM 1/4W +-5% R317,318,319,322,326,336,337,338	8
113-101305-75	METAL OXIDE FILM RESISTOR 100 OHM 1W +-5% R130	1
113-102105-17	CARBON FILM RESISTOR 1K OHM 1/4W +-5% R921,329,352,331,402,107,126,325,330	9
113-102105-17	CARBON FILM RESISTOR 1K OHM 1/4W +-5% R619,617,607,608,618,620,621,634,637,641	10
113-102105-17	CARBON FILM RESISTOR 1K OHM 1/4W +-5% R109,143,153,320,302,328,157	7
113-102305-75	METAL OXIDE FILM RESISTOR 1K OHM 1W +-5% R414	1
113-103101-67	METAL FILM RESISTOR 10K OHM 1/4W +-1% R609	1
113-103105-17	CARBON FILM RESISTOR 10K OHM 1/4W +-5% R612,623,635,649,632,103,110,113,104,339,154	11
113-103105-17	CARBON FILM RESISTOR 10K OHM 1/4W +-5% R303,304,315,354,407,908,403,321,927	11
113-103405-75	METAL OXIDE FILM RESISTOR 10K OHM 2W +-5% R137	1
113-104105-17	CARBON FILM RESISTOR 100K OHM 1/4W +-5% R136,355,202	3
113-104205-12	CARBON FILM RESISTOR 100K OHM 1/2W +-5% R920	1
113-104305-75	METAL OXIDE FILM RESISTOR 100K OHM 1W +-5% R925	1
113-105105-17	CARBON FILM RESISTOR 1M OHM 1/4W +-5% R138	1
113-120305-75	METAL OXIDE FILM RESISTOR 12 OHM 1W +-5% R911	1
113-120405-75	METAL OXIDE FILM RESISTOR 12 OHM 2W +-5% R924	1
113-122105-17	CARBON FILM RESISTOR 1.2K OHM 1/4W +-5% R122,323,602,205,207,372	6
113-123105-17	CARBON FILM RESISTOR 12K OHM 1/4W +-5% R132,616,605	3
113-152105-17	CARBON FILM RESISTOR 1.5K OHM 1/4W +-5% R150,152	2

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PART NUMBER	DESCRIPTION	QTY.
113-153105-17	CARBON FILM RESISTOR 15K OHM 1/4W +-5% R604,401	2
113-153405-75	METAL OXIDE FILM RESISTOR 15K OHM 2W +-5% R510,511,505	3
113-154105-17	CARBON FILM RESISTOR 150K OHM 1/4W +-5% R133	1
113-154205-12	CARBON FILM RESISTOR 150K OHM 1/2W +-5% R421	1
113-158405-75	METAL OXIDE FILM RESISTOR 0.15 OHM 2W +-5% R914	1
113-159305-75	METAL OXIDE FILM RESISTOR 1.5 OHM 1W +-5% R410	1
113-159405-42	NON-FLAMMABLE FUSE RESISTOR 1.5 OHM 2W +-5% R501	1
113-181105-17	CARBON FILM RESISTOR 180 OHM 1/4W +-5% R135,340	2
113-182105-17	CARBON FILM RESISTOR 1.8K OHM 1/4W +-5% R907,628,629,630,631,148,335,334	8
113-182105-17	CARBON FILM RESISTOR 1.8K OHM 1/4W +-5% R425	1
113-183105-17	CARBON FILM RESISTOR 18K OHM 1/4W +-5% R408,615	2
113-184105-17	CARBON FILM RESISTOR 180K OHM 1/4W +-5% R151,156	2
113-202605-75	METAL OXIDE FILM RESISTOR 2K OHM 5W +-5% R416	1
113-221105-17	CARBON FILM RESISTOR 220 OHM 1/4W +-5% R411,112,106	3
113-221305-75	METAL OXIDE FILM RESISTOR 220 OHM 1W +-5% R413	1
113-222101-67	METAL FILM RESISTOR 2.2K OHM 1/4W +-1% R146	1
113-222105-17	CARBON FILM RESISTOR 2.2K OHM 1/4W +-5% R507,509,513,141,652,332,201	7
113-223105-17	CARBON FILM RESISTOR 22K OHM 1/4W +-5% R646,129,417,655,406,208,209,346,111	9
113-224105-17	CARBON FILM RESISTOR 220K OHM 1/4W +-5% R653	1
113-229105-17	CARBON FILM RESISTOR 2.2 OHM 1/4W +-5% R125,342,327	3
113-229205-12	CARBON FILM RESISTOR 2.2 OHM 1/2W +-5% R139,351	2
113-229405-75	METAL OXIDE FILM RESISTOR 2.2 OHM 2W +-5% R902	1
113-229605-51	WIRE WOUND CEMENT RESISTOR 2.2 OHM 5W +-5% R901	1
113-270105-17	CARBON FILM RESISTOR 27 OHM 1/4W +-5% R115	1

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PART NUMBER	DESCRIPTION	QTY.
113-270405-75	METAL OXIDE FILM RESISTOR 27 OHM 2W +-5% R912	1
113-271105-17	CARBON FILM RESISTOR 270 OHM 1/4W +-5% R147,636,639,642	4
113-272105-17	CARBON FILM RESISTOR 2.7K OHM 1/4W +-5% R142	1
113-272205-12	CARBON FILM RESISTOR 2.7K OHM 1/2W +-5% R502,503,504,922,415,409	6
113-273105-17	CARBON FILM RESISTOR 27K OHM 1/4W +-5% R155,603	2
113-279405-49	FUSING RESISTOR 2.7 OHM 2W +-5% "KOA" R422	1
113-330105-17	CARBON FILM RESISTOR 33 OHM 1/4W +-5% R928	1
113-331105-17	CARBON FILM RESISTOR 330 OHM 1/4W +-5% R905,343,344,353	4
113-332102-17	CARBON FILM RESISTOR 3.3K OHM 1/4W +-2% R904	1
113-332105-17	CARBON FILM RESISTOR 3.3K OHM 1/4W +-5% R611,645,647	3
113-333105-17	CARBON FILM RESISTOR 33K OHM 1/4W +-5% R118,127,114,117,144	5
113-334105-17	CARBON FILM RESISTOR 330K OHM 1/4W +-5% R131	1
113-334305-75	METAL OXIDE FILM RESISTOR 330K OHM 1W +-5% R913	1
113-390505-75	METAL OXIDE FILM RESISTOR 39 OHM 3W +-5% R926	1
113-390605-75	METAL OXIDE FILM RESISTOR 39 OHM 5W +-5% R915	1
113-391105-17	CARBON FILM RESISTOR 390 OHM 1/4W +-5% R506,508,347,934	4
113-392105-17	CARBON FILM RESISTOR 3.9K OHM 1/4W +-5% R404,633	2
113-393105-17	CARBON FILM RESISTOR 39K OHM 1/4W +-5% R316,614	2
113-470105-17	CARBON FILM RESISTOR 47 OHM 1/4W +-5% R933,204,206,613	4
113-471105-17	CARBON FILM RESISTOR 470 OHM 1/4W +-5% R412,123	2
113-472105-17	CARBON FILM RESISTOR 4.7K OHM 1/4W +-5% R910,149,120,158,159	5
113-473105-17	CARBON FILM RESISTOR 47K OHM 1/4W +-5% R622,648,651,301,405,R603A	6
113-475105-17	CARBON FILM RESISTOR 4.7M OHM 1/4W +-5% FOR IC305 10 PIN TO GND	1
113-479105-17	CARBON FILM RESISTOR 4.7 OHM 1/4W +-5% R210,211	2

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PART NUMBER	DESCRIPTION	QTY.
113-511105-17	CARBON FILM RESISTOR 510 OHM 1/4W +-5% R512	1
113-562105-17	CARBON FILM RESISTOR 5.6K OHM 1/4W +-5% R105,324,357	3
113-629505-75	METAL OXIDE FILM RESISTOR 6.2 OHM 3W +-5% R203	1
113-681105-17	CARBON FILM RESISTOR 680 OHM 1/4W +-5% R654	1
113-682102-17	CARBON FILM RESISTOR 6.8K OHM 1/4W +-2% R903	1
113-682105-17	CARBON FILM RESISTOR 6.8K OHM 1/4W +-5% R909,419,349	3
113-750105-17	CARBON FILM RESISTOR 75 OHM 1/4W +-5% R929,930,931,932	4
113-820105-17	CARBON FILM RESISTOR 82 OHM 1/4W +-5% R418,101	2
113-821105-17	CARBON FILM RESISTOR 820 OHM 1/4W +-5% R350	1
113-822105-17	CARBON FILM RESISTOR 8.2K OHM 1/4W +-5% R906,923,420,626	4
113-823105-17	CARBON FILM RESISTOR 82K OHM 1/4W +-5% R145,341	2
113-824105-17	CARBON FILM RESISTOR 820K OHM 1/4W +-5% R180	1
123-101350-60	CERAMIC CAP. 100 PF 50V +-10% (SL TYPE) "SMART C612 GOOD"	1
123-102350-90	CERAMIC CAP. 0.001 MFD 50V +-10% (B TYPE) C138,614,103	3
123-102850-10	CERAMIC CAP. 0.001 MFD 2KV +-10% MATSUSHITA C501	1
123-103370-90	CERAMIC CAP. 0.01 MFD 50V +80 -20% C102,117,126,333,334,330,147,118	8
123-103370-90	CERAMIC CAP. 0.01 MFD 50V +80 -20% C352	1
123-104270-90	CERAMIC CAP. 0.1 MFD 25V +80 -20% C623,123,139,306,309,307,101,338	8
123-122551-90	CERAMIC CAP. 0.0012 MFD 500V +-10% (B TYPE) C415 MATSUSHITA	1
123-150340-93	CERAMIC CAP. 15 PF 50V +-5% (NPO) CT301	1
123-151350-60	CERAMIC CAP 150 PF 50V +-10% (SL TYPE) C137	1
123-182850-10	CERAMIC CAP. 0.0018 MFD 2KV +-10% MATSUSHITA C419	1
123-200340-93	CERAMIC CAP. 20PF 50V +-5% (NPO) C345	1

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PART NUMBER	DESCRIPTION	QTY.
123-220340-60	CERAMIC CAP. 22 PF 50V +-5% (SL TYPE) C616,617,618,620	4
123-221350-60	CERAMIC CAP. 220 PF 50V +-10% (SL TYPE) C503,504,502	3
123-221551-90	CERAMIC CAP. 220 PF 500V +-10% MATSUSHITA C916	1
123-222850-10	CERAMIC CAP. 0.0022 MFD 2KV +-10% MATSUSHITA C911	1
123-223370-90	CERAMIC CAP. 0.022 MFD 50V +80 -20% C109,131,124,122,128,129,135,331,332,343,335	11
123-223370-90	CERAMIC CAP. 0.022 MFD 50V +80 -20% C344,105,127	3
123-270340-60	CERAMIC CAP. 27 PF 50V +-5% (SL-TYPE) C114	1
123-270340-93	CERAMIC CAP. 27PF 50V +-5% (NPO) C613,628	2
123-390340-93	CERAMIC CAP. 39PF 50V +-5% (NPO) C630,C1	2
123-470340-60	CERAMIC CAP. 47 PF 50V +-5% (SL TYPE) C347	1
123-472350-90	CERAMIC CAP. 0.0047 MFD 50V +-10% (B TYPE) C918,920	2
123-472550-90	CERAMIC CAP. 0.0047 MFD 500V +-10% (B TYPE) C913,413,423	3
123-472552-90	CERAMIC CAP. 0.0047 MFD 500V +-10% (B TYPE) SMALL C903,904,907 SIZE	3
123-681350-90	CERAMIC CAP. 680 PF 50V +-10% (B TYPE) C407	1
123-821850-10	CERAMIC CAP. 820 PF 2KV +-10% (SL TYPE) MATSUSHITA C914	1
125-391120-11	POLYSTYRENE CAP. 390 PF 125V +-5% C149	1
126-102071-01	MYLAR CAP. 0.001 MFD 50V +-10% C130,402,412	3
126-104071-01	MYLAR CAP. 0.1 MFD 50V +-10% C602,908,304,305,308,310,324,325,326,133	10
126-104071-01	MYLAR CAP. 0.1 MFD 50V +-10% C409,214,216	3
126-104101-31	POLYPROPYLENE CAP. 0.1 MFD 100V +-10% C425	1
126-222071-01	MYLAR CAP. 0.0022 MFD 50V +-10% C610,624	2
126-222161-41	METALIZED POLYPROPYLENE CAP. 0.0022 MFD 1600V +-10% C420	1
126-223071-01	MYLAR CAP. 0.022 MFD 50V +-10% C321,322,323,207,208	5
126-224071-01	MYLAR CAP 0.22 MFD 50V +-10% C140,348	2

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126-224071-01	MYLAR CAP 0.22 MFD 50V +-10% C603,115	2
126-272070-31	POLYPROPYLENE CAP. 0.0027 MFD 50V +-5% C141	1
126-332161-41	METALIZED POLYPROPYLENE CAP. 0.0033 MFD 1600V C418 +-10%	1
126-333071-01	MYLAR CAP. 0.033 MFD 50V +-10% C906	1
126-334071-01	MYLAR CAP. 0.33 MFD 50V +-10% C143,145	2
126-472071-01	MYLAR CAP. 0.0047 MFD 50V +-10% C403,405	2
126-473071-01	MYLAR CAP. 0.047 MFD 50V +-10% C134,346	2
126-474201-31	POLYPROPYLENE CAP 0.47 MFD 200V +-10% C414	1
126-563071-01	MYLAR CAP. 0.056 MFD 50V +-10% C148	1
127-105072-03	ELECT. CAP. 1 MFD 50V +-20% C107,142,341,350,132	5
127-105072-23	ELECT. CAP. BIPOLAR 1 MFD 50V +-20% FOR R348,R345	2
127-105132-03	ELECT. CAP. 1 MFD 160V +-20% C416	1
127-106042-03	ELECT. CAP. 10 MFD 16V +-20% C202,627,621,601,615,619,626,622,351	9
127-106042-03	ELECT. CAP. 10 MFD 16V +-20% C203,312,328,329,327,316,317,315,340,314,318	11
127-106104-03	ELECT CAP. 10 MFD 100V +-20% 105øC C910	1
127-107042-03	ELECT. CAP. 100 MFD 16V +-20% C125,119,625,209,210,311	6
127-107062-03	ELECT. CAP. 100 MFD 35V +-20% C201,408	2
127-107132-03	ELECT. CAP. 100 MFD 160V +-20% "NICHICON" C417	1
127-108042-03	ELECT. CAP. 1000 MFD 16V +-20% C421	1
127-108052-03	ELECT. CAP. 1000 MFD 25V +-20% C217	1
127-157402-03	ELECT. CAP. 150 MFD 400V +-20% (25 x 30MM) C905	1
127-225072-03	ELECT. CAP 2.2 MFD 50V +-20% C106,108,111,113,116	5
127-226042-03	ELECT. CAP. 22 MFD 16V +-20% C609	1
127-227042-03	ELECT. CAP. 220 MFD 16V +-20% C320,121,205	3

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PART NUMBER	DESCRIPTION	QTY.
127-227062-03	ELECT. CAP. 220 MFD 35V +-20% C917,410,411	3
127-228052-03	ELECT. CAP. 2200 MFD 25V +-20% C406	1
127-228052-03	ELECT. CAP. 2200 MFD 25V +-20% C422	1
127-335071-05	ELECT CAP. 3.3UF 50V +-10% (TIME CONSTANT) C404	1
127-336042-03	ELECT. CAP. 33 MFD 16V +-20% C144,921	2
127-336252-03	ELECT CAP. 33 MFD 250V +-20% C424	1
127-474072-03	ELECT. CAP. 0.47 MFD 50V +-20% C342	1
127-475072-03	ELECT CAP 4.7 MFD 50V C607,608,604,136,337,211,212	7
127-476042-03	ELECT. CAP. 47 MFD 16V +-20% C401,204,206	3
127-476094-07	ELECT CAP. 47 MFD 63V +-20% 105°C "NICHICON" C909	1
127-476132-03	ELECT. CAP. 47 MFD 160V +-20% C915	1
127-477042-03	ELECT. CAP. 470 MFD 16V +-20% C146,922,120,313,336,919	6
127-477042-03	ELECT. CAP. 470 MFD 16V +-20% C213,215	2
130-134148-01	SILICON DIODE IN4148 D406,301,302,303,604,60A	6
130-134148-01	SILICON DIODE IN4148 D601,602,606,607,608,609,610,611,603,103,104,105	12
130-240809-50	VERIABLE CAPACITANCE DIODE BB809 D102,101	2
130-310206-04	BRIDGE RECIFIER KBP206 "HIGHLAND" BR901	1
130-311541-60	RECTIFIER DOIDE 1R5JU41 D904	1
130-311545-60	RECTIFIER DIODE 1R5JH45 D404	1
130-311545-60	RECTIFIER DIODE 1R5JH45 D905	1
130-315295-00	RECTIFIER DIODE S5295G TOSHIBA D902,903,901,401,402,403,405,D90A,90B	9
130-410051-01	ZENER DIODE 5.1V 1/2W +-5% ZD102	1
130-410082-01	ZENER DIODE 8.2V ZD901	1
130-410100-01	ZENER DIODE 10V 1/2W ZD401	1

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PART NUMBER	DESCRIPTION	QTY.
130-410574-00	ZENER DIODE UPC 574J NEC ZD101	1
130-411091-01	ZENER DIODE 9.1V ZD902	1
130-422120-00	ZENER DIODE 1W 12V ZD402	1
130-512044-00	LED 3MM RED 204HDC LED601	1
131-211013-18	TRANSISTOR 2SA1013 (R) TOSHIBA Q906	1
131-211015-00	TRANSISTOR 2SA1015 TOSHIBA Q101,102,108,303	4
131-220774-0A	TRANSISTOR 2SB774/Q/R/S MATSUSHITA Q902	1
131-231809-0A	TRANSISTOR 2SC1809 ROHM Q105	1
131-231815-0A	TRANSISTOR 2SC1815 TOSHIBA Q103,107,901,903,602,302	6
131-231815-0A	TRANSISTOR 2SC1815 TOSHIBA Q603,604,605,106,109	5
131-232230-00	NPN-TR 2SC2230A-Y (TOSHI) TO92 VCE=180V IC=.1A Q905 HFE=120-240	1
131-232335-30	TRANSISTOR 2SC2335 L/K NEC Q907	1
131-232482-0A	TRANSISTOR 2SC2482 TOSHIBA Q401,501,502,503	4
131-241761-00	TRANSISTOR 2SD1761(E) ROHM Q201	1
131-242498-13	TRANSISTOR 2SD2498(M) TOSHIBA Q904	1
131-242499-13	TRANSISTOR 2SD2499(M) TOSHIBA Q402	1
131-462369-0A	TRANSISTOR PH2369 PHILIPS Q601	1
133-103221-33	IC CTV322SV2.0/PCA84C641P/068 PHILIPS IC601	1
133-103504-33	I.C. TDA3504 PHILIPS IC304	1
133-103857-33	IC TDA3857 PHILIPS IC101	1
133-104505-33	I.C. TDA4505E PHILIPS IC102	1
133-104510-33	PHILIPS IC TDA4510 IC305	1
133-108628-14	IC TA8628N TOSHIBA IC303	1
133-203653-33	I.C. TDA3653B PHILIPS IC401	1

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PART NUMBER	DESCRIPTION	QTY.
133-204445-16	I.C. LA4445 (SANYO) IC201	1
133-207812-31	IC L7812CV SGS-THOMSON IC103	1
133-305114-31	I.C. TEA5114A SGS IC302	1
133-517805-61	I.C. KA7805 SAMSUNG IC901	1
136-504231-00	REMOTE CONTROL RECEIVER SPS-423-1G SANYO OPT601	1
137-100000-31	CRYSTAL 10 MHZ HOORAY X601	1
137-886723-20	CRYSTAL 8.86 MHz KDS X301	1
146-104112-01	TACT SWITCH 4 PIN L=8.35 100G #1102VC-4 S610,611,613,614 "PROMOTION"	4
146-104112-03	TACT SWITCH 4 PIN L=3.85MM 100G #1102VA-4 S601,606,607 "PROMOTION"	3
160-101001-08	PIN CONNECTOR 1 PIN PLUG STRAIGHT 1-FOR CN501,2-FOR (X),(Y)	3
160-102255-27	PIN CONNECTOR 2 PINS PLUG STRAIGHT (UL) (S.H.S) CN201,905,906	3
160-102805-08	PIN CONNECTOR 2 PIN PLUG STRAIGHT CN903	1
160-103255-27	PIN CONNECTOR 3 PINS PLUG CN202,904,907	3
160-103805-08	PIN CONNECTOR 3 PIN PLUG STRAIGHT CN402	1
160-104805-08	PIN CONNECTOR 4 PIN PLUG STRAIGHT CN401	1
160-105255-27	PIN CONNECTOR 5 PINS WAFER 2.5 PITCH CN203	1
161-471002-02	RAC JACK 3 PIN BLACK #UIC-032-04AB "CHINA J009 LANDMARK"	1
161-473003-00	RCA JACK 3 PIN YELLOW SC-8.4-6A "HONG YIP" J007	1
161-473204-00	RCA JACK 3 PIN UIC-032-04AR RED "UNITRONIC" J008	1
161-682102-22	21 PIN SCART SOCKET J901	1
166-463023-4E	SPEAKER 2" X 3-1/2" 16 OHM 3W K.T.	2
172-620007-40	UL 1007 TOP COAT WIRE #20 70MM BLACK 5 X 5 MM 1 FOR MAIN PCB `Q' TO `Q',1 FOR IC401 GND TO GND	2
172-620012-40	UL 1007 TOP COAT WIRE AWG 20 120MM BLACK 10 X 10 MIAN P.C.B. `J' TO `J' MM	1

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172-620014-40	UL 1007 TOP COAT WIRE AWG 20 140MM BLACK 10 X 10 MAIN P.C.B. `E' TO `E' MM	1
172-620016-40	UL 1007 TOP COAT WIRE AWG 20 160MM BLACK 10 X 10 MAIN P.C.B. `9B' TO `9B' MM	1
172-622004-40	UL 1007 TOP COAT WIRE #22 40MM BLACK 5 X 5 MM FOR CRT SOCKET PIN 12 TO GND	1
172-626006-42	UL 1007 TOP COAT WIRE AWG 26 60MM RED 10 X 10 MM MAIN PCB `9A' TO `9A'	1
172-626008-40	UL 1007 TOP COAT WIRE AWG 26 80MM BLACK 10 X 10 MM Q904 LUG TO MAIN PCB `L', IC401 LUG TO MAIN PCB `M'	3
172-626008-40	UL 1007 TOP COAT WIRE AWG 26 80MM BLACK 10 X 10 MM Q402 LUG TO MAIN P.C.B. `K'	0
172-626012-44	UL 1007 TOP COAT WIRE AWG 26 120MM YELLOW 10 X 10 MAIN P.C.B. `F' TO `F' MM	1
172-626014-40	UL 1007 TOP COAT WIRE AWG 26 140MM BLACK 10 X 10 `A2' TO `A2' MM	1
172-626014-42	UL 1007 TOP COAT WIRE AWG 26 140MM RED 10 X 10 MM `2'TO`2',C110 `+' TO CN303`1',R134`R' TO CN303 `3'	3
172-626022-45	UL 1007 TOP COAT WIRE AWG 26 220MM PINK 10 X 10 MM MAIN P.C.B. `N' TO `N'	1
172-626022-46	UL 1007 TOP COAT WIRE AWG 26 220MM BLUE 10 X 10 MM MAIN P.C.B. `P' TO `P',`I' TO `I'	2
172-726000-99	BARE WIRE 54MM W001-005,007-035,037-072,074-076,079-083,085-087	5
172-726000-99	BARE WIRE 54MM W901,091-093,096,CN306`1' TO `3',CN304`2' TO `3'	0
172-726000-99	BARE WIRE 54MM FOR TH902,IC301 PIN (2-3,4-5,6-7,8-9)	0
172-726000-99	BARE WIRE 54MM W1,W2,R306,R308,R309,R311,CN302 PIN 1-3	0
172-726000-99	BARE WIRE 54MM W077-078,WA01,W00B(ON AV P.C.B.),`H4' TO `H5'	0
172-830120-99	FLAT BRIDED WIRE CRT GROUND	1
173-622014-30	SINGLE SHIELD WIRE AWG 26 140MM BLACK MAIN P.C.B. `O' TO `O'	1
174-611017-50	DOUBLE SHIELD WIRE AWG 26 180MM BLACK MAIN P.C.B. `A.B' TO `A.B'	1
177-655053-02	2 PIN FLAT CABLE WIRE AWG 26 50MM MAIN P.C.B. `C.D' TO `C.D.'	1
179-001010-00	OIL SLEEVING 1 mm DIA. 50MM FOR `N' TO `N',20MM FOR R926,10MM FOR C404	0
179-001010-00	OIL SLEEVING 1 mm DIA. L=90MM,20MM FOR D904,20MM FOR BR901,10MM FOR C149	0

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179-001010-00	OIL SLEEVING 1 mm DIA. 20MM FOR R349,10MM FOR C425,10MM FOR C120	0
179-001010-00	OIL SLEEVING 1 mm DIA. 10MM FOR C1,20MM FOR R501	0
179-001020-00	OIL SLEEVING 2MM DIA. 60MM FOR `9A' TO `9A'	0
179-105000-00	UL PVC TUBE 5mm DIA 120MM FOR AC LINE CORD,120MM FOR PW.SW.(X)(Y)	0
179-105000-00	UL PVC TUBE 5mm DIA L=950mm, 400mm FOR SPK `L', 550mm FOR SPK `R'	0
179-107300-00	UL PVC TUBE 7.3MM DIA. 250MM FOR (X)(Y),300MM FOR CN904-CN907	0
179-110500-00	UL PVC TUBE 11MM DIA. L=50MM FOR AC LINE CORD	0
179-405030-00	5 mm DIA SHRINKABLE TUBE 60MM FOR AC LINE CORD,60MM FOR PW.SW.(X)(Y) WIRE	0
190-821B01-08	FRONT AV STEREO IN P.C.B. (081297)	1
190-882004-00	P.C. BOARD CRT (150395)	1
190-942002-01	MAIN P.C.B. BOARD (300798) L/SENSOR,R/LED	1
191-100030-09	1 PIN SOCKET ASSM'Y L=300MM CRT GND TO CN501	1
191-200044-09	2 PIN SOCKET ASSM'Y L=440MM CN201 `2' TO SPEAKER L `-', `1' TO SPEAKER L `+'	1
191-201011-07	2 PIN SOCKET ASSM'Y L=440MM CN905 `1' TO FRONT AV P.C.B. `A',`2' TO `B'	1
191-201040-07	2 PIN SOCKET ASS'Y L=450MM #26 UL1185 W/SHIELDING CN906 `1' TO FRONT AV P.C.B.`D',`2' TO `C' CABLE	1
191-300040-09	3 PIN SOCKET ASSM'Y (PIN 1 L= 460MM, PIN 2,3 CN402 `1' TO CRT PCB `J' L=400MM)	1
191-300040-09	3 PIN SOCKET ASSM'Y (PIN 1 L= 460MM, PIN 2,3 CN402 `2' TO CRT PCB `I' L=400MM)	0
191-300040-09	3 PIN SOCKET ASSM'Y (PIN 1 L= 460MM, PIN 2,3 CN402 `3' TO CRT PCB `H' L=400MM)	0
191-301005-07	3 PINS SOCKET ASS'Y (2 WIRE) L=560MM CN202 `2' TO SPEAKER R `-',`1' TO SPEAKER R `+'	1
191-301052-07	3 PIN L=450MM W/SHIELD CABLE #26 UL1007 (GND,WHITE, CN907 `1' TO FRONT AV P.C.B.`J',`2'TO`I',`3'TO`F' RED)	1
191-301053-07	3 PIN L=450MM W/SHIELD CABLE #26 UL2547 (RED,WHITE CN904`1' TO FRONT AV P.C.B.`E',`2'TO`H',`3'TO`G' GND)	1
191-500048-09	5 PIN SOCKET ASSM'Y L=480MM CN203 `1' TO CRT PCB `A'	1
191-500048-09	5 PIN SOCKET ASSM'Y L=480MM CN203 `2' TO CRT PCB `B'	0

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191-500048-09	5 PIN SOCKET ASSM'Y L=480MM CN203 `3' TO CRT PCB `C'	0
191-500048-09	5 PIN SOCKET ASSM'Y L=480MM CN203 `4' TO CRT PCB `D'	0
191-500048-09	5 PIN SOCKET ASSM'Y L=480MM CN203 `5' TO CRT PCB `E'	0
504-305006-10	MACHINE SCREW 3 X 6 B/M (WHITE) 1 FOR IC901,2 FOR IC201, 1 FOR IC103	4
517-303312-10	SELF-TAPPING SCREW 3 X 12 W/A W/H=7MM (HARDEN) FOR HEAT SINK (A) , (B) & (C)	3
540-020030-01	EYELET 2 X 3 MM 2-L401,2-R414	14
540-020030-01	EYELET 2 X 3 MM 2-R416,1-Q402`C',2-FBT`1',`2',1-Q904`C',4-L901	0
580-101004-00	STAND OFF TWIST TIE #ST-3 FOR 2 DOUBLE INSULATION WIRE	1
580-101261-01	CABLE TIE L=100MM 5-CRT BOARD,2-DY,2-SPK.WIRE,2-FBT,3-PW.SW.	21
580-101261-01	CABLE TIE L=100MM 3-MAIN PCB WIRE,2-CN301,CN302,2-FRONT AV P.C.B.	0
580-102261-00	CABLE TIE L=200MM W=3.5MM FOR DEGAUSSING COIL MTG.	4
580-103261-00	CABLE TIE L=300MM W=3.5MM FOR DEGAUSSING COIL MTG.	4
744-881301-00	SPRING FOR C.R.T. MOUNTING 5.2 X 42 X 0.6MM	1
746-063101-00	TEST PIN:TOTAL LENGTH 18.6mm THK:0.8mm TP104,103	2
746-063101-01	AC LINE CORD PIN 2-AC LINE CORD,2-POWER SWITCH (X)(Y)	4
750-063101-00	SOLDERING LUG LEG:8X4MM FOR IC401,Q402,Q904	3
762-932001-00	MOUNTING CLIP FOR TELETEXT BOARD MTG.	2
766-686801-00	FUSE HOLDER	2
779-921301-00	HEAT SINK FOR NICAM FOR IC901,IC103	1
779-932902-02	IRON HEAT SINK FOR IC201	1
781-882001-02	ALUMINIUM HEAT SINK (B) FOR Q402	1
781-942101-03	HEAT SINK (A) FOR Q904	1
781-942105-00	HEAT SINK (C) ASS'Y FOR IC401	1
783-881306-02	SHIELD CAN COVER (OUT DATE)	1
783-881313-01	SHIELD CAN	1
889-942101-00	AV COVER PLATE (UL) FOR FRONT AV PCB	1

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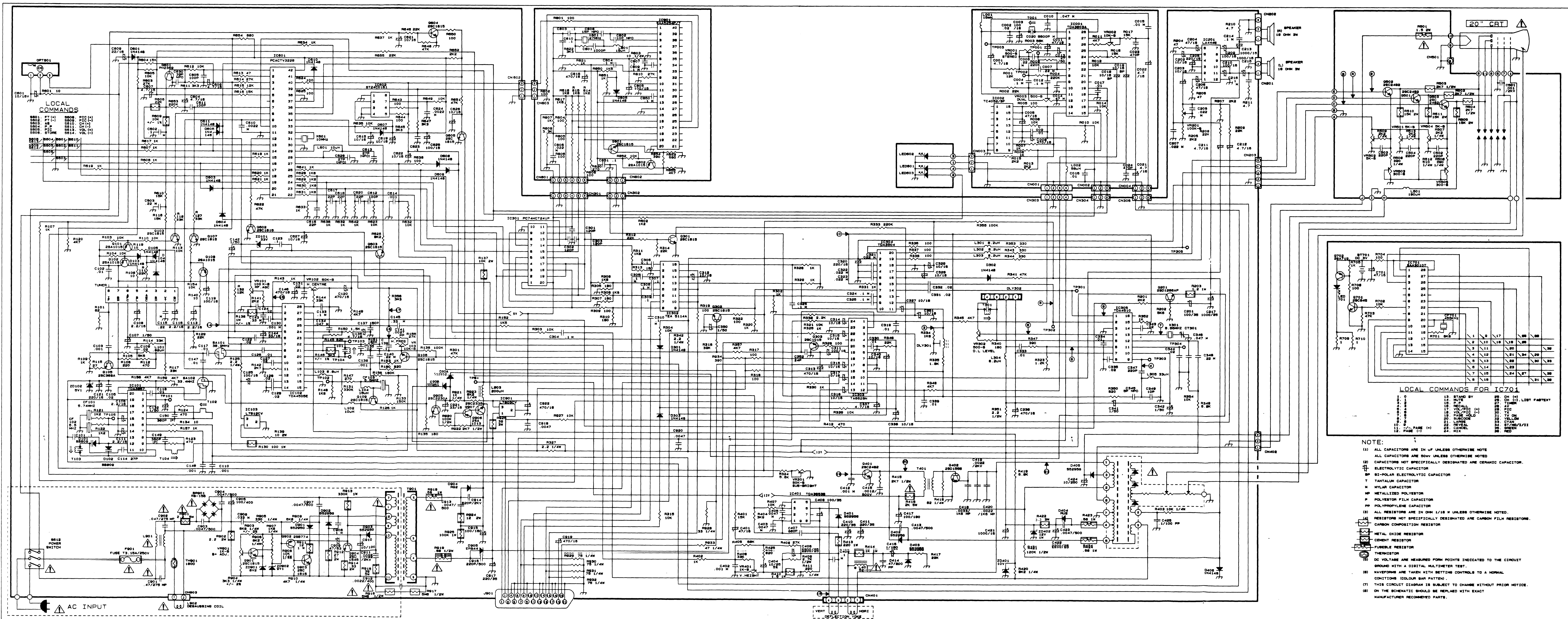
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PART NUMBER	DESCRIPTION	QTY.
001-220027-07	FLYBACK TRANSFORMER FCM20B027 SAMSUNG #T402	1
001-220501-10	FLYBACK TRANSFORMER JF0501-0502A #T402 REF:(GTVM96-021)	0
001-220728-05	FLYBACK TRANSFORMER F27728-1/ 154-277V LG=GOLDSTAR #T402 REF:(GTVM96-021)	0
008-550201-05	DEGAUSSING COIL 60T 44MM X 34 MM (W/FIVE LAYERS OF #L902 TAPE)	1
101-410214-94	SWITCHING POWER TRANSFORMER KB40C214D (HIGHLIGHT) #T901	1
113-565210-92	CARBON COMPOSITION RESISTOR 5.6M OHM 1/2W +-10% #R916,917	2
113-565210-92	CARBON COMPOSITION RESISTOR 5.6M OHM 1/2W +-10% #R916,917	0
113-688305-42	FUSING RESISTOR 0.68 OHM 1W +-5% #R918,423,424,919	4
113-688305-49	FUSING RESISTOR 0.68 OHM 1W +-5% "KOA" #R918,919,423,424	0
114-210200-01	THERMISTOR (NICHICON ZPB53 BL 200C) #TH901	1
123-222466-41	CERAMIC CAP. 0.0022 MFD 400V +-20% ECK-DNS222MEX #C912 MATSUSHITA	0
123-222466-45	CERAMIC CAP. 0.0022 MFD 400V +-20% #C912	0
123-222466-47	CERAMIC CAP. 0.0022 MFD 400VAC +-20% W/IEC384-14 #C912 APP. "TDK"	0
123-222466-50	CERAMIC CAP. 0.0022 MFD 400VAC +-20% ECKDNA222ME #C912 "MATSUSHITA"	1
123-222466-51	CERAMIC CAP. 0.0022 MFD 400V +-20% W/IEC 384-14 #C912 APP. MURATA	0
126-473222-41	METALIZED POLYPROPYLENE CAP. 0.047 MFD 275V +-20% #C902 "OKAYA"	1
126-473222-42	METALIZED POLYPROPYLENE CAP. 0.047 MFD 275V +-20% #C902 "TEAPO"	0
126-474222-41	METALIZED POLYPROPYLENE CAP. 0.47 MFD 275VAC +-20% #C901 "OKAYA"	1
126-474222-42	METALIZED POLYPROPYLENE CAP. 0.47 MFD 275V +-20% #C901 "TEAPO"	0
146-100001-14	POWER SWITCH (ESB-99957S COST COST REDUCTION) #S612	0

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PART NUMBER	DESCRIPTION	QTY.
146-100006-14	POWER SWITCH PS5E-B "CHINA LANDMARK" #S612	1
161-540004-01	CRT SOCKET ISH-01 IN CHANG	1
161-540004-01	CRT SOCKET ISH-01 IN CHANG	0
161-540105-01	CRT SOCKET HPS0199-01-020 (HOSIDEN) 29MM THICK	0
182-223150-13	CERAMIC FUSE 3.15T/250V 5X20MM TIME-LAG #F901 #TDS5053153"BUSSMANN"	0
182-233150-03	FUSE T3.15A 250V #F901	1
182-233150-13	FUSE 3.15A/250V 5 X 20MM SLO- BLO #21803.15 #F901 LITTELFUSE	0
191-101016-07	1 PIN DOUBLE INSOLATION WIRE AWG 18 L=340MM BLUE #MAIN P.C.B. `X' TO `X'	1
191-101016-10	1 PIN DOUBLE INSOLATION WIRE AWG 18 L=340MM BLUE #MAIN P.C.B. `X' TO `X'	0
191-101017-07	1 PIN DOUBLE INSOLATION WIRE AWG 18 L=340MM BROWN #MAIN P.C.B. `Y' TO `Y'	1
191-101017-10	1 PIN DOUBLE INSOLATION WIRE AWG 18 L=340MM BROWN #MAIN P.C.B. `Y' TO `Y'	0



- NOTE:**
- (1) ALL CAPACITORS ARE IN μF UNLESS OTHERWISE NOTED
 - (2) ALL CAPACITORS ARE 50V UNLESS OTHERWISE NOTED
 - (3) CAPACITORS NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR
 - (4) ELECTROLYTIC CAPACITOR
 - (5) BIPOLAR ELECTROLYTIC CAPACITOR
 - (6) TANTALUM CAPACITOR
 - (7) METALLIZED POLYESTER
 - (8) POLYESTER FILM CAPACITOR
 - (9) POLYPROPYLENE CAPACITOR
 - (10) ALL RESISTORS ARE IN OHM $1/10$ μ UNLESS OTHERWISE NOTED
 - (11) RESISTORS NOT SPECIFICALLY DESIGNATED ARE CARBON FILM RESISTORS
 - (12) CARBON COMPOSITION RESISTOR
 - (13) METAL OXIDE RESISTOR
 - (14) CEMENT RESISTOR
 - (15) FLAME-RESISTANT RESISTOR
 - (16) DC VOLTAGE AND MEASURED POINTS INDICATED TO THE CIRCUIT
 - (17) WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL
 - (18) CONDITIONS COLOUR BAR PATTERN
 - (19) THIS CIRCUIT DIAGRAM IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE
 - (20) ON THE SCHEMATIC SHOULD BE REPLACED WITH EXACT MANUFACTURER RECOMMENDED PARTS

