

TEAC[®]

Service Manual

CTM685

68cm Colour Television

MODEL: CT-M685
PROBLEM: No color via RF or AV inputs

File: CTM685 color tb.doc

This problem affects both RF and for AV inputs either for PAL or NTSC formats.

Instructions

Replace the capacitor **C363**.

Replacement Information	
Position	C363
Value	10 nF (0.01 uF)
Voltage	50V
Type	Ceramic
Tolerance	+80% -20%
Connected to	Pin 14 of IC037, TDA4650
Part number	12310337090

Regards,

Alcides Berta
TEAC Australia Pty Ltd.

MODEL:	CT-M685
PROBLEM:	Picture problems

File: CTM685 neg-blank-lines tb.doc

A faulty ceramic capacitor produces any of these effects on the picture:

- Negative picture
- Blank picture
- Horizontal lines

Instructions

Replace the capacitor **C330**.

Replacement Information	
Position	C330
Value	10 nF (0.01 uF)
Voltage	50V
Type	Ceramic
Tolerance	+80% -20%
Connected to	Pin 5 of IC303, TA8628
Part number	12310337090

Regards,

Alcides Berta
TEAC Australia Pty Ltd.

Acknowledgments

Paul Everding supplied the primary information presented here based on technical observations by John Srnka and Tony Wynne.

MODEL:	CT-M685
PROBLEM:	Picture problems

File: CTM685 neg-blank-lines tb.doc

A faulty ceramic capacitor produces any of these effects on the picture:

- Negative picture
- Blank picture
- Horizontal lines

Instructions

Replace the capacitor **C330**.

Replacement Information	
Position	C330
Value	10 nF (0.01 uF)
Voltage	50V
Type	Ceramic
Tolerance	+80% -20%
Connected to	Pin 5 of IC303, TA8628
Part number	12310337090

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SPECIFICATION

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

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									
ANTENNA INPUT IMPEDANCE :	75 OHM									
CRT :	25" - 29"									

<u>ITEMS OF MEASUREMENT</u>	<u>STANDARD</u>	<u>UNIT</u>	
VIDEO SENS. AT S/N 30db	L - VHF H - VHF UHF	≤ 57 ≤ 57 ≤ 60	dbuv dbuv dbuv
SOUND SENS. AT S/N 30db	L - VHF H - VHF UHF	≤ 42 ≤ 42 ≤ 48	dbuv dbuv dbuv
AGC CHARACTER		≥ 60	db
SELECTIVITY -1.5 MHz + 8 MHz		≥ 35 ≥ 40	db db
COLOR SENS.		≤ 45	dbuv
COLOR LOCK - IN RANGE		≥ ±300	Hz
VERTICAL LOCK - IN RANGE		≥ 6	Hz
HORIZONTAL LOCK - IN RANGE		≥ 400	Hz
MAX BRIGHTNESS		≥ 100	cd/m ²
MAX OUTPUT POWER		≥ 4.5	W
OUTPUT POWER AT 10% THD		≥ 3.5	W
BUZZ		≤ -40	db
AFC RANGE		≥ +1 ≥ -0.5	MHz MHz
MIN. VOL HUM		≤ 20	mV
RESOLUTION HORIZONTAL VERTICAL		≥ 300 ≥ 400	LINES LINES
LINEARITY DISTORTION VERTICAL HORIZONTAL		≤ 10 ≤ 10	% %
RASTER DISTORTION		≤ 5	%
REMOTE CONTROL DISTANCE ANGLE		≥ 5 ≥ ±15	METER DEGREE
POWER CONSUMPTION (AT NORMAL CONDITION) W / WOOFER POWER CONSUMPTION (AT NORMAL CONDITION)		≤ 120 ≤ 150	WATTS WATTS
CONVERGENCE DISLOCATION AT AREA "A" AREA "B" (see fig.1)		≤ 0.4 ≤ 0.8	% %

VIDEO INPUT LEVEL : 1.0V p-p ±3dB
VIDEO OUTPUT LEVEL : 1.0V p-p ±3dB

L / R AUDIO INPUT LEVEL : 0.5V Rms ±3dB
L / R AUDIO OUTPUT LEVEL : 0.5V Rms ±3dB

WOOFER AUDIO INPUT LEVEL : 125mV Rms ±25mV
WOOFER AUDIO FREQUENCY : 100Hz ±3Hz
WOOFER SUPPLY VOLTAGE DC : 18V ±1V
WOOFER MAX OUTPUT POWER : ≥7.5 WATTS

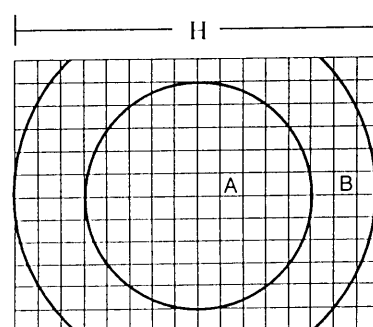


Fig.1

ALIGNMENT INSTRUCTION

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.
6. An isolation transformer should be used during any dynamic service to avoid possible shock hazard.

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 |

CONVERGENCE ADJUSTMENT (SEE FIG.2)

1. Receive a dotted pattern input signal $70\text{dB} \pm 10\text{dB}$.
2. Unfix the convergence magnet clamper 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 clamper.
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.

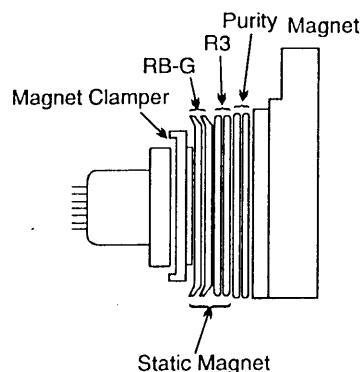


Fig. 2

AFC ALIGNMENT

1. Connect Philips Pattern Generator to tuner IF out and Ground (Frequency is as FROM 1 colour bar input signal level is $80\text{dB} \pm 3\text{dB}$).
2. Connect VOLT Ohmmeter to PIN18 and Ground to IC102.
3. Adjust T101 to obtain a DC $7\text{V} \pm 0\text{V}$.

SOUND TANK COIL ALIGNMENT

1. Connect Philips Pattern Generator to tuner IF point and Ground. (see fig.3)
(Frequency selection is subjected to require system as Form.1)
2. Connect Volt Ohmmeter to PIN12 and Ground at IC101.
3. Adjust T103 to obtain a DC2.8V \pm 0.1V.

* VIF signal is 80dB +3dB

SYSTEM	VIF	UNIT
PAL BG, BG / DK, I / I	38.9M	Hz
PAL I	39.5M	Hz
PAL DK / I (W / NICAM)	38.9M	Hz

FORM.1

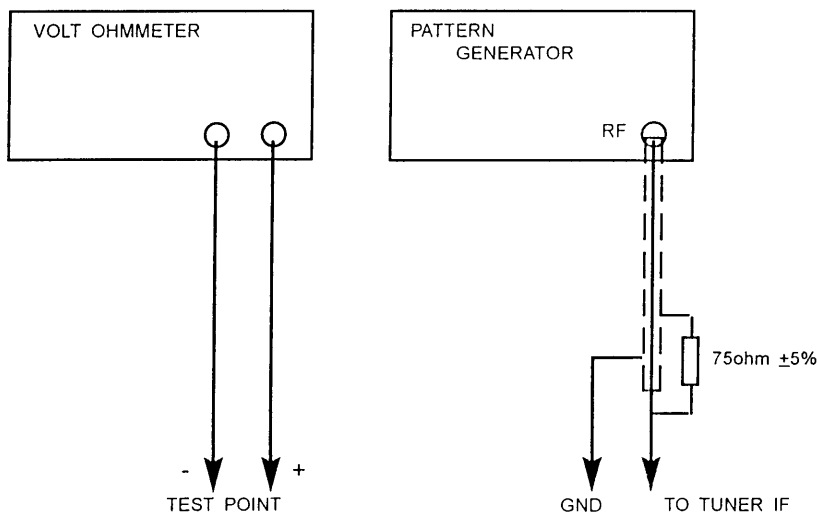


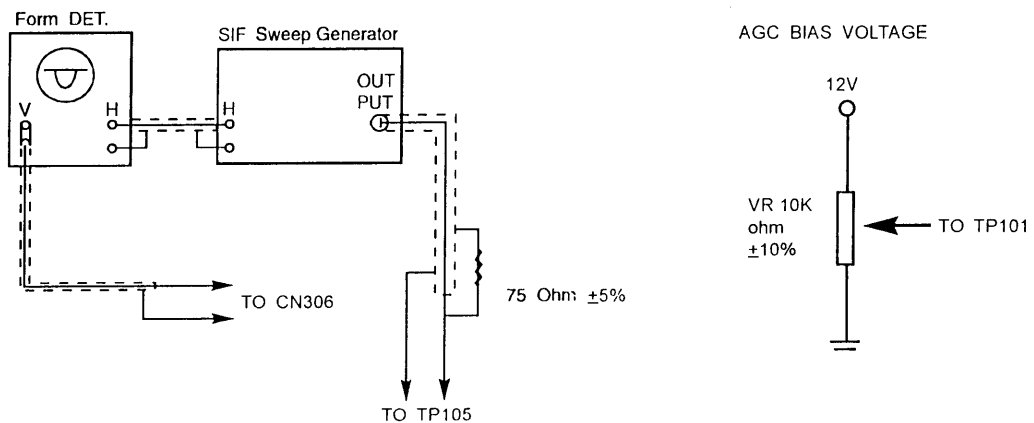
Fig.3

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

SOUND DEMODULATION ALIGNMENT

1. Connect 14V \pm 1V B+ bias voltage to D404 (-) and Ground.
2. Connect 14V \pm 1V B+ bias voltage to C923 (+) and Ground.
3. Connect the sweep generator to TP105. (frequency refer to SIF form)
4. Connect waveform detect to PIN1 and PIN3 (for german stereo system) at CN306.
5. Connect AGC Bias voltage to TP101.
6. The output of sweep generator should be -30dB \pm 5dB.

Remark: All frequency of marker point can have +0.2% tolerance.



7. Adjust T104 to obtain the waveform as Fig.4

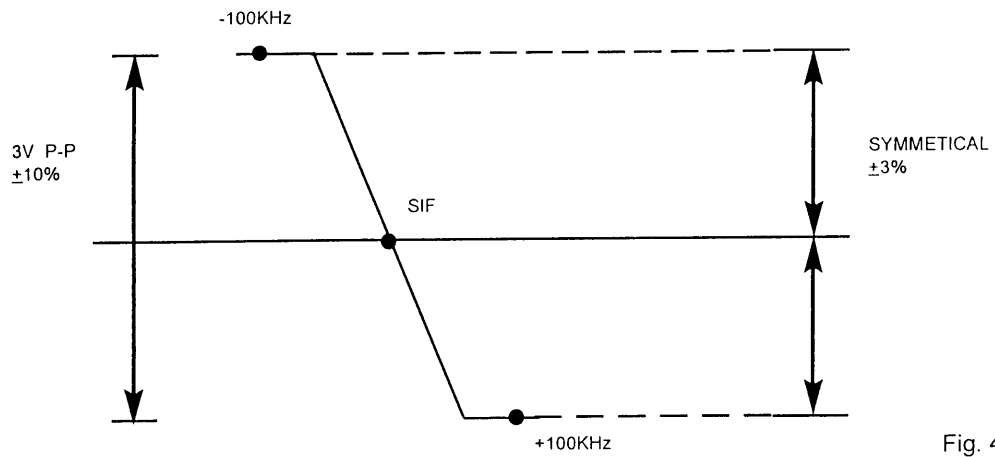


Fig. 4

ADJUSTMENT	T104
SYSTEM \ SIF	
PAL BG	5.5MHz
PAL BG / DK, DK / I, I / I	6.0MHz

FORM. 2

GERMAN STEREO SIF ADJUSTMENT

Adjust T102 to obtain the waveform as FIG. 5

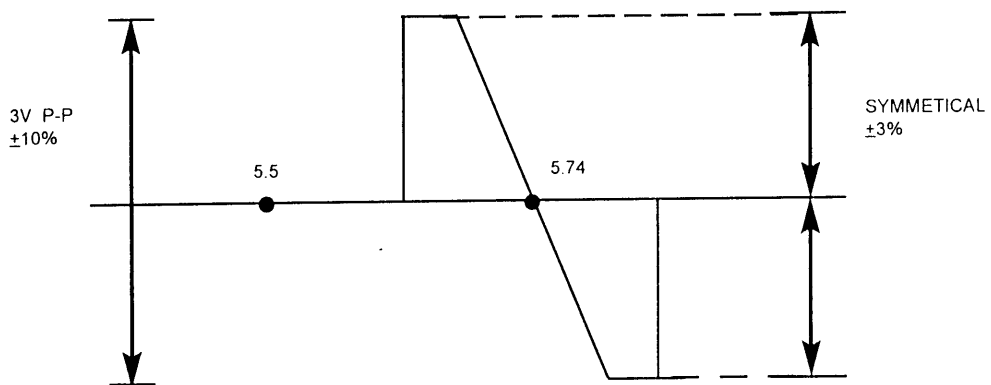


Fig. 5

STEREO AND DUAL SOUND ALIGNMENT

1. Receive colour bar pattern (with stereo and Dual Sound).
2. Connect oscilloscope to TP001, adjust VR001 with stereo signal to get a max waveform as Fig.6.
3. Connect oscilloscope to TP002, adjust VR003 with dual signal to get a max waveform as Fig.7.
4. Adjust T001 to get a max amplitude on both dual and stereo.

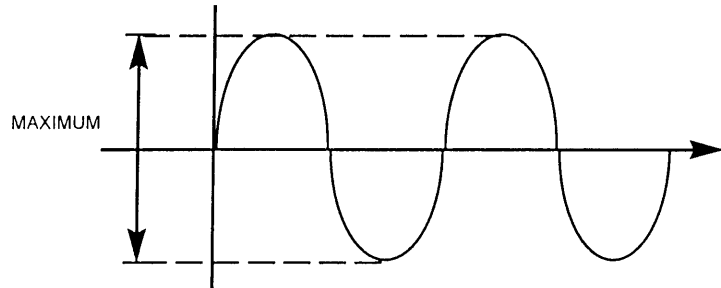


FIG.6

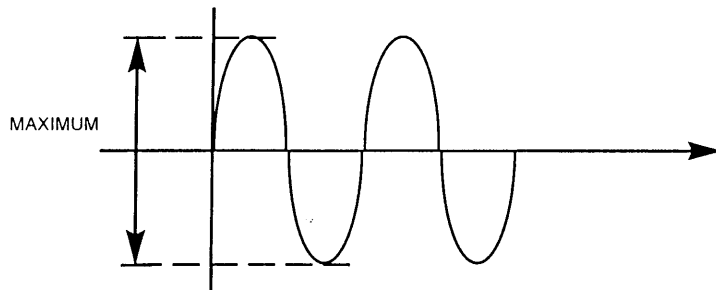
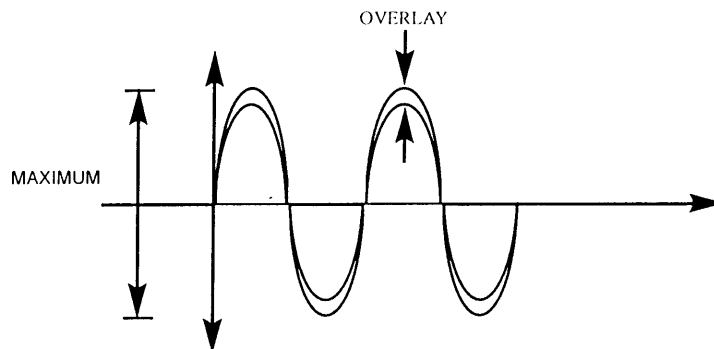


FIG.7

The above procedures are suitable only for IC TDA8416 circuit.

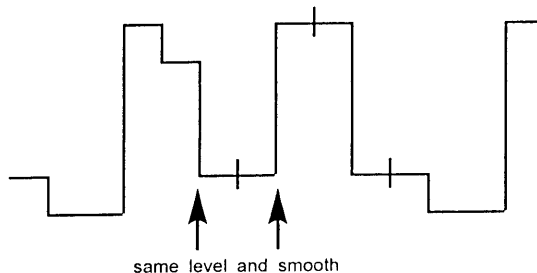
SEPARATION ALIGNMENT

1. Receive color bar pattern (with stereo sound, L=3KHz R=1KHz).
2. Connect oscilloscope to PIN1 at CN201 and ground.
3. Adjust Volume control to maximum obtain a waveform no distortion.
4. Adjust VR002 or VR060 (for IC TDA8416) to obtain waveform as follow.

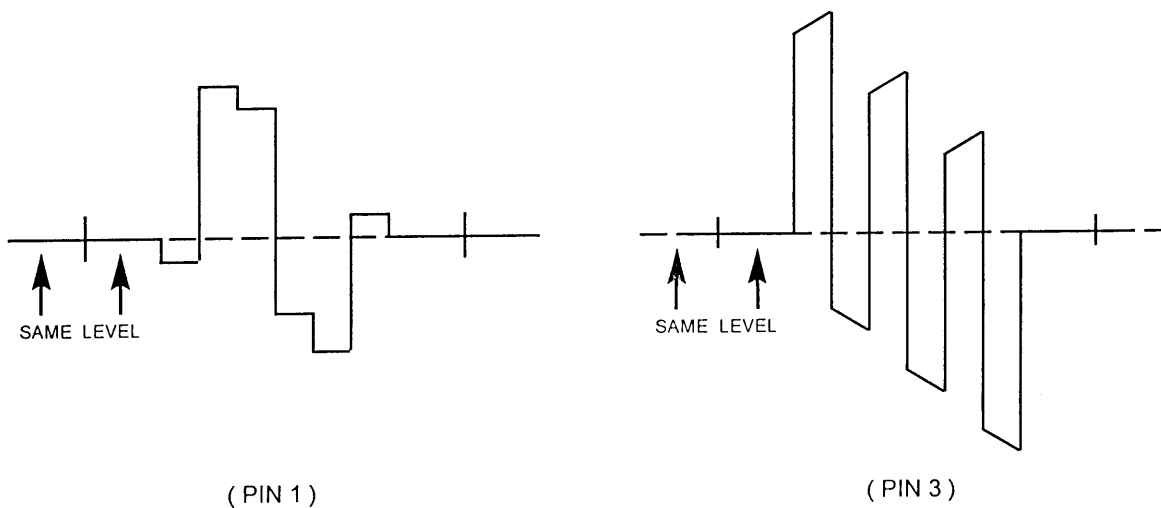


SECAM COLOUR ADJUSTMENT

1. Receive a secam colour bar signal (input signal 70dB ±10dB.)
2. Connect oscilloscope to PIN19 on IC307.
3. Adjust colour control to maximum.
4. Adjust T305 to get the waveform as follows.



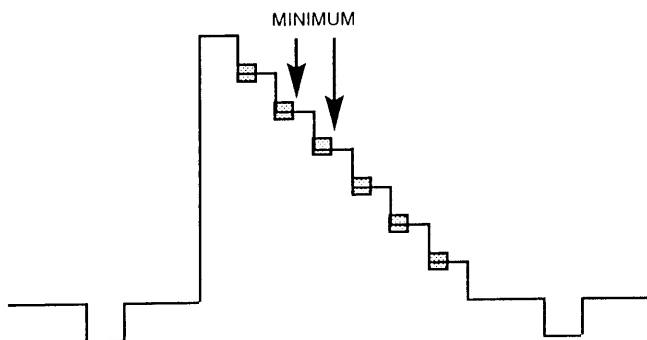
5. Connect scope to PIN1 and PIN3 on IC307.
6. Adjust T301 and VR301 to get the waveform as follows.



SECAM CHROMA TRAP ADJUSTMENT

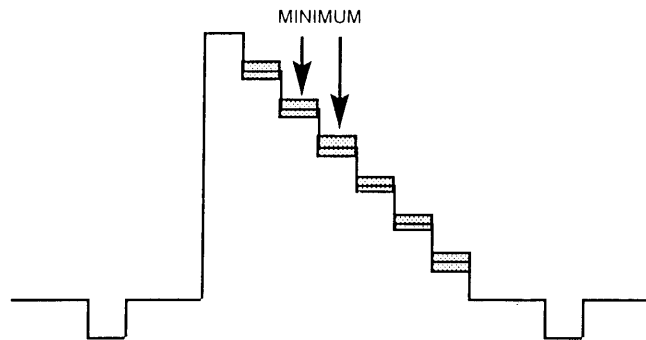
1. Receive secam color bar signal (input signal 70dB +10dB.)
2. Connect scope to PIN20 on IC304.
3. Adjust colour control to minimum.
4. Adjust T302 to get the waveform as follow.

Remark: Frequency of marker point can have ±0.2% tolerance.



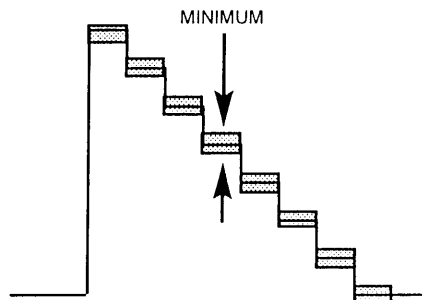
NTSC CHROMA TRAP ADJUSTMENT

1. Receive a NTSC colour bar signal from AV input.
2. IC304 PIN20.
3. Adjust color control to minimum.
4. Adjust T303 to get the waveform as follow.



PAL CHROMA TRAP ADJUSTMENT (FOR DK / I)

1. Receive PAL colour bar signal (input signal 70dB \pm 10dB.)
2. Connect scope to PIN20 on IC304.
3. Adjust colour control to minimum.
4. Adjust T302 to get the waveform as follow.



PAL CHROMA ALIGNMENT (PAL ONLY)

1. Connect OSC to PIN15 of IC307 through a 10K \pm 5% resistor.
2. Receive a PAL colour bar signal (input signal 70dB \pm 10dB.)
3. Adjust T305 to get a maximum amplitude waveform.

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

B+ ADJUSTMENT

1. Connect a digital volt meter to TPB+ and ground.
2. Set Brightness, contrast and colour to minimum the screen just be seen.
3. Adjust VR301 and screen volume on FBT to brightest bar can just be screen.
4. Adjust VR901 and obtain a reading of 143V \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 10uF / 16V +10%.
3. Adjust VR103 to obtain the picture running at centre.
4. Adjust VR102 to obtain the picture at centre.

VERTICAL CIRCUIT ADJUSTMENT

1. Receive the Monoscope Pattern.
2. Adjust V - size (VR401) to obtain a normal picture.

WHITE BALANCE ALIGNMENT STEP

(degauss the picture by degaussing coil if necessary)

1. Set the brightness, contrast, screen and picture control to minimum value.
2. Turn VR501 to middle position. Turn VR502, 503, 504, 505 to minimum 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 at 170V \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 1Vp-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) \pm 3JND.

SUB - BRIGHTNESS ALIGNMENT

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

FOCUS ALIGNMENT

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

PAL EAST WEST CORRECTION ADJUSTMENT

1. Receive crosshatch pattern input signal 70dB \pm 10dB.
2. Turn the brightness, contrast to middle position.
3. Adjust VR402 to get a normal regular picture.
4. Adjust VR403 to get a proper horizontal width.

NTSC EAST WEST CORRECT ADJUSTMENT

1. Receive crosshatch pattern and centre cross pattern, input signal.
2. Turn the brightness, contrast to middle position.
3. Adjust VR404 to get a normal regular picture.

AGC ALIGNMENT

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 AGC terminal and ground.
3. Adjust the AGC variable resistor (VR201) to the MAXIMUM position (clockwise) and then adjust the VR anti-clockwise until the voltage drop down ≥ 0.4 .

Remark: (1) the voltage drop down must be close to 0.4V.
 (2) No noise on the picture.

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	TECC1986VAO618	60±2dB
UVC1401-EW	57±2dB	TBD1-HYPV15V	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		

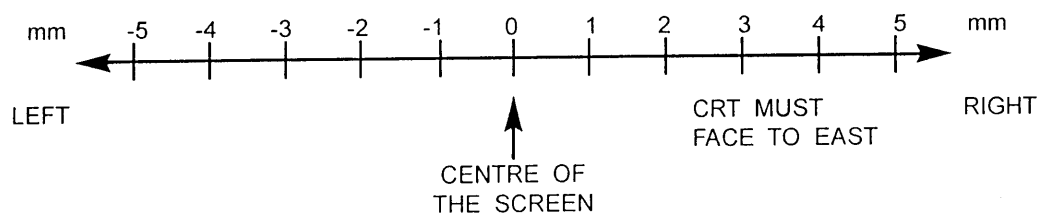
HIGH POT TESTING

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 $\leq \pm 3\%$ tolerance.

CONDITION	TEST SYANDARD	TEST STANDARN FOR PRODUCTION
STAFETY STD.		
VDE, SAA	3.0KV 10mA / 1MIN	≥ 3.5 KV ≤ 10 mA / ≥ 10 SEC.
BS	4.0KV 10mA / 1MIN	≥ 4.0 KV ≤ 10 mA / ≥ 10 SEC.
CHINA STANDARD	3.0KV 10mA / 1MIN	≥ 3.3 KV ≤ 5 mA / ≥ 6 SEC.

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



- 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.

VOLTAGE TABLE FOR TRANSISTOR (ONLY FOR REFERENCE)											
LOCATION \ TR	B (V)	C (V)	E (V)	LOCATION \ TR	B (V)	C (V)	E (V)	LOCATION \ TR	B (V)	C (V)	E (V)
Q101	10.2	10.9	11	Q307	10 mV	11.1	0	Q308	10 mV	11.1	0
	11.1	0	11.1	Q401	0.4	8.4	0	Q402	-0.1	113	0
Q102	10.9	3 mV	11	Q403	1.7	10.9	0.1	Q404	10.8	0.6	11.4
	11	3mV	11.1	Q405	0.6	9.1	11.4	Q406	10 mV	1.7	1.2
Q103	0.6	5mV	0	Q501	3.55	123.0	3.0	Q502	3.5	126.0	3.0
	30 mV	11	0	Q503	3.5	137.6	3.0	Q601	0.6	1.1	0
Q104	36 mV	11	0	Q602	0.6	56 mV	3 mV	Q603	8.6	10.9	8.3
	36 mV	11	0	Q604	2 mV	0.25	0	Q605	0.26	1.1	0
Q105	1	8	0.3	Q905	0.6	0.6	0	Q909	-36.4	202	-35
Q106	12 mV	2.4	0	Q910	-31	-30	-31	Q911	-26	-30	-31
Q107	30 mV	11	0	Q912	-22	-18.4	-30				
	0.64	46 mV	0								
Q108	11	0.1	11								
	10.2	11	11.1								
Q109	3.7	11	3.1								
Q201	18.6	18	18								
Q302	1.9	1.7	0								
Q303	42	80.8	0								
Q304	3.8	11.1	3.1								
Q305	50 mA	11.1	10 mV								
Q306	-3	10.5	0								

NOTE : VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

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

VOLTAGE TABLE FOR IC (ONLY FOR REFERENCES)						
PIN NO. \ SYMBOL	IC801 (V)	IC802 (V)	IC804 (V)	IC102 (V)	IC101 (V)	IC401 (V)
1	5	NC	GEN	5.1	1.7	2.2
2	1.8	4.2	4.2	2.8	2.1	0.00
3	1.9	2.2	4.3	3.7	2.5	1.6
4	0.03	2.2	NC	3.4	0.937	0.00
5	GEN	3.8	NC	3.9	1.82	0.13
6	4.9	1.3	NC	0.0	2.17	25.0
7	2.2	1.2	NC	11.5	2.17	1.9
8	2.4	3.6	NC	5.5	1.8	4.35
9	2.5	3.6	NC	5.5	1.8	24.34
10	5.0	3.7	NC	2.4	4.1	
11	GEN	0	NC	1.88	4.1	
12	2.1	0.3	5.0	2.46	2.79	
13	5	4.2	GEN	3.0	0.04	
14	GEN	GND	GEN	1.5	1.67	
15	0.42	0.6	2.3	2.29	1.77	
16	0.5	0.5	2.0	0.0	2.95	
17	0.4	0.5	0	3.5	0.03	
18	3.8	0.3	GEN	6.28	0.00	
19	4.5	0.5	NC	6.18	5.15	
20	0.8	GND	NC	5.6	1.78	
21	2.5	4.2	NC	5.6		
22	NC	2.5	NC	9.4		
23	4.3	0.8	GEN	2.8		
24	4.3	0.8	NC	2.9		
25	GEN	0.8	NC	4.5		
26	0.5	5.0	GEN	0.787		
27	0.5	5.0	NC	1.18		
28	0.5	5.0	5.0	3.3		
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						
				IC901 (WIDE VOLT PW P.C.B) (V)		
			PIN NO.			
			1		306	
			2		0	
			3		0	
			4		2	
			5		0	
			6		0	
			7		0	
			8		-0.5	
			9		-1.6	
			10			
			11			
			12			
			13			

NOTE : VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

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

VOLTAGE TABLE FOR IC (ONLY FOR REFERENCES)							
PIN NO.	SYMBOL	IC302 (V)	IC303 (V)	IC304 (V)	IC305 (V)	IC306 (V)	IC307 (V)
1		3.649	5.2	3.29	4.1	5.56	6.5
2		0	0	11.8	0.03	0.00	7.2
3		3.65	4.07	8.2	3.39	0.00	6.5
4		3.65	0.00	0.00	3.39	0.00	7.22
5		3.65	3.966	7.8	2.5	0.627	9.65
6		3.68	3.904	0.1	4.8	0.00	9.6
7		3.68	0.00	0.00	4.18	0.87	4.34
8		0.004	0.00	0.00	4.26	0.00	3.45
9		0.115	4.3	4.3	4.97	5.5	0.00
10		0.01	4.06	4.1	11.4	0.00	4.38
11		3.027	0.39	2.9	2.34	3.01	0.00
12		0.0	5.28	0.00	10.0	3.01	2.32
13		2.99	5.3	0.00	0.00	0.00	11.5
14		11.838	0.00	4.06	1.2	1.36	5.7
15		0.016	4.63	4.09	7.4	0.00	3.36
16		2.98	4.6	2.3	3.7	1.37	7.9
17			3.46	2.06	0.00		2.5
18			0.00	0.00	0.00		7.6
19			0.00	3.36			2.8
20			3.8	3.33			7.68
21			0.00				2.7
22			4.578				5.47
23			0.00				7.2
24			5.315				1.26
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NOTE : VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

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

VOLTAGE TABLE FOR IC (ONLY FOR REFERENCES) (FOR STEREO TDA3803A)						
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				
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NOTE : VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

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VOLTAGE TABLE FOR IC (ONLY FOR REFERENCES) (FOR NICAM IC TDA7280)							
PIN NO.	SYMBOL	IC005 (V)	IC006 (V)	IC007 (V)	IC008 (V)	IC009 (V)	IC010 (V)
1		2.1	2.0	5.2	5.2	2.6	5.2
2		0.78	GND	1.4	1.4	2.6	NC
3		0.61	2.3	1.4	1.4	2.6	NC
4		0.61	5.3	GND	GND	GND	5.2
5		0.61	3.9	5.2	5.2	5.2	GND
6		GND	4.0	5.2	5.2	1.4	5.2
7		GND	4.0	5.2	5.2	1.4	GND
8		GND	3.9	11.4	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							
31							
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NOTE : VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

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 SIGNAL PATTERN : Colour Bar

VOLTAGE TABLE FOR IC (ONLY FOR REFERENCES) (FOR NICAM IC TDA7282, IC001, IC002) (FOR G.STEREO IC TDA8416, IC060)						
PIN NO.	SYMBOL	IC601 (V)	IC001 (V)	IC002 (V)	IC060 (V)	
1		4.6	2.49	2.427	5.07	
2		0.08	5.21	GND	4.96	
3		1.759	5.07	2.282	5.97	
4		2.528	5.07	5.33	1.443	
5		2.527	0.011	0.03	GND	
6		0.03	5.18	4.12	3.212	
7		0.03	4.97	4.13	3.210	
8		3.66	4.85	3.95	3.211	
9		2.62	GND	3.957	3.212	
10		5	2.429	2.223	3.213	
11		GND	2.383	4.17	3.26	
12		4	2.37	0.007	3.258	
13		4.9	0.012	4.18	3.9	
14		4.96	0.418	GND	2.89	
15		4.96	2.462	2.502	11.12	
16		4.96	2.427	4.54	GND	
17		4.96	2.43	4.55	3.252	
18		0.1	GND	4.55	11.12	
19		4.97	2.43	GND	5.07	
20		4.98	0.019	3.287	GND	
21		GND	0.019			
22		0.005	0.014			
23		0.007	2.383			
24		0.015	0.005			
25		0.016	5.04			
26		0.443	4.97			
27		-0.073	4.98			
28		5	2.5			
29		5	2			
30		GND	1.97			
31		2.46	2.114			
32		2.119				
33		5				
34		1.32				
35		4.98				
36		0.031				
37		4.99				
38		GND				
39		5.01				
40		5				
41		0.115				
42		5				
43						
44						

NOTE : VOLTAGE ARE TAKEN UNDER TUNED CONDITION WITH

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MODEL NO.: CT-M685 Chassis type GT-9429**SYSTEM: PAL BG NTSC PLAYBACK AV IN / OUT CABLE TUNER**

Part Number	Description	Unit	Qty
10780045546	455K HZ RESONATOR "KYOCERA"	PC	1
11310100517	CARBON FILM RESISTOR 100 OHM	1/16W +-5%	PC 2
11310200517	CARBON FILM RESISTOR 1K OHM	1/16W +-5%	PC 1
11310300517	CARBON FILM RESISTOR 10K OHM	1/16W +-5%	PC 1
11310900517	CARBON FILM RESISTOR 1 OHM	1/16W +-5%	PC 2
11347300517	CARBON FILM RESISTOR 47K OHM	1/16W +-5%	PC 1
11368200517	CARBON FILM RESISTOR 6.8K OHM	1/16W +-5%	PC 1
12747604203	ELECT. CAP. 47 MFD 16V +-20%	PC	1
13060010100	INFRARED EMITTER EL-1L1	KODENSHI	PC 1
13121071929	TRANSISTOR 2SA719R/S	MATSUSHITA	PC 1
13123094500	TRANSISTOR 2SC945 NEC	PC	1
13380301033	I.C. SAA3010T PHILIPS	PC	1
17262600642	UL 1007 TOP COAT WIRE AWG 26	60MM RED 10 X 10 MM	PC 1
17262600840	UL 1007 TOP COAT WIRE AWG 26	80MM BLACK 10 X 10 MM	PC 1
17272600099	BARE WIRE 54MM	M	0.11
19093130002	REMOTE P.C.B. (190593)	PC	1
51420040710	SELF-TAPPING SCREW 2 X 7 B/T	(HARDEN)	PC 1
51626040810	SELF-TAPPING SCREW 2.6 X 8 P/T	(HARDEN)	PC 2
77493130100	BATTERY SPRING (+-)	PC	1
77493130200	BATTERY SPRING (+)	PC	1
77493130300	BATTERY SPRING (-)	PC	1
81004110413	POLYBAG 4" X 11" X 0.04MM	W/RE-CYCLING MARK	PC 1
84993130300	CONTACT RUBBER KEY PAD	(SHARP WELL)	PC 1
88993131000	HANDSET COVER PLATE	PC	1
89293130619	DIAL KEY PLATE - TEAC DESIGN	(RC-697)(CT-M685)	PC 1
90093131101	HANDSET TOP CABINET - MOULDED	BLACK	PC 1
90293131101	HANDSET BOTTOM CABINET-MOULDED	BLACK	PC 1
91093130101	BATTERY DOOR - BLACK MOULDED	PC	1
96493130100	SENSOR LENS	PC	1
00212900346	29" CRT SH FOR AUSTRALIA	A68KVL74X03 SAMSUNG	PC 1
00313137207	TUNER OSCAR 2900KKC 3X1 772	"TELEFUNKEN" (HIGH JACK)	PC 1
10710550066	SOUND TRAP CERAMIC FILTER	5.5MHZ WEI HAW	PC 1
10730550016	SOUND BYPASS CERAMIC FILTER	5.5MHZ WEI HAW	PC 1
10773150000	SAW FILTER TSB-5308U (SANYO)	PC	1
10773891600	SAW FILTER TSF-5316 SANYO	PC	1
11315310517	CARBON FILM RESISTOR 15K OHM	1/4W +-5%	PC 2
11322310167	METAL FILM RESISTOR 22K OHM	1/4W +-1%	PC 1
12310235090	CERAMIC CAP. 0.001 MFD 50V	+-10% (B TYPE)	PC 1
12322246650	CERAMIC CAP. 0.0022 MFD 400VAC	+-20% ECKDNA222ME "MATSUSHITA"	PC 1
13310241131	I.C. ST24C01B1 SGS	PC	1
1664850234E	SPEAKER 2" X 3-1/2" 8 OHM 5W	K.T.	PC 2
17155008400	7' AC LINE CORD W/7.5A PLUG	(DOUB.INSULATION)2 PIN SAA APP	PC 1
17272600099	BARE WIRE 54MM	M	0.05
18622750314	BATTERY 3A	PC	2
52493290101	CRT MOUNTING SCREW 7 X 40 VP	(HARDEN)	PC 4
61094292201	GIFT BOX - TEAC DESIGN	(CT-M685) {K3A3A3K}	PC 1
66323006098	SERIAL NO.LABEL - OC:GT-060/98	PC	2
66994290004	RATING LABEL - TEAC DESIGN	(CT-M685)	PC 1
67094290015	I/M - TEAC DESIGN (CT-M685)	PC	1
678628A0003	EASY TUNE CARD (A) - TEAC (B)	DESIGN	PC 1
67893131503	TOTAL CARE LABEL - TEAC (A)	DESIGN	PC 1
67894290104	SCREEN STICKER - TEAC DESIGN	(CT-M685)	PC 1
67894290105	CB NO.LABEL (I) - TEAC DESIGN	(CT-M685)(LARGE SIZE)	PC 2
67894290106	CB NO.LABEL (II) - TEAC DESIGN	(CT-M685)(SMALL SIZE)	PC 1
67894290107	I/M LABEL - TEAC DESIGN	(CT-M685)	PC 1
69093293901	WARRANTY CARD -TEAC (B) DESIGN	PC	1

MODEL NO.: CT-M685 Chassis type GT-9429**SYSTEM: PAL BG NTSC PLAYBACK AV IN / OUT CABLE TUNER**

Part Number	Description	Unit	Qty
69394290004	EAN CODE LABEL - 9313060009496	PC	1
70394290102	SPEAKER GRILLE (L) - METALLIC	GREY (8403C)	PC 1
70394290202	SPEAKER GRILLE (R) - METALLIC	GREY (8403C)	PC 1
71093290101	NAME PLATE - TEAC (B) DESIGN	(BIG SIZE) (ELECTROFORMED)	PC 1
81045530460	POLYBAG 45"X53"X0.04MM	(TEAC DESIGN CT-M596SR)	PC 1
83423080200	RUBBER WASHER OD=23, ID=8, T=2		PC 4
88488202601	JACK COVER W/WHITE SS. A/V IN	(MONO) 75 OHM ANT (HIGH JACK)	PC 1
88494291702	PRESET PLATE - BLK W/L.GREY SS	PAL BG W/NTSC W/CLEAR (TEAC)	PC 1
90094292104	FRONT CABINET - METALLIC GREY	(8403C)	PC 1
902942901U1	BACK CABINET - BLK MOULD (UL)		PC 1
91794270108	REMOTE LENS-W/GOLD SS ENG STD	(NEW TRASLUCENT RED P.V.C.)	PC 1
91994290206	PRESET DOOR - TEAC DESIGN (CT-	M685) W/CABLE READY WORDING	PC 1
95493250400	CRT MTG.INSERT (CL=29)		PC 4
99194290101	POWER KNOB - BLACK MOULDED		PC 1
00122990105	FLYBACK TRANSFORMER F27901-02/	154-279C GOLDSTAR	PC 1
00890029104	DEGAUSSING COIL 90T (W/FIVE LA	YERS OF TAPE) FOR 29"	PC 1
01210234006	SEMI-FIXED RESISTOR EVND8AA	03B13 1KB	PC 2
01210434006	SEMI-FIXED RESISTOR EVND8AA	03B15 100KB	PC 1
01220233006	SEMI-FIXED RESISTOR EVND2AA	03B23 2KB	PC 5
01220334006	SEMI-FIXED RESISTOR EVND8AA	03B24 20KB	PC 2
01250234006	SEMI-FIXED RESISTOR EVND8AA	03B53 5KB	PC 3
01250334006	SEMI-FIXED RESISTOR EVND8AA	03B54 50KB	PC 2
10119100996	HORIZONTAL DRIVE TRANSFORMER	(R1009)	PC 1
10128828095	LINE FILTER 50MH FOR 28"		PC 1
10149026094	SWITCH POWER TRANSFORMER 28"	KB49C260 "HIGHLIGHT"	PC 1
10237060002	TANK COIL / AFC COIL COILS	707851	PC 2
10267130002	SOUND IF COIL. COILS 710256		PC 1
10277031020	CHROMA FILTER "TOMEI" 7R-92072		PC 1
10287050002	DOSC COIL. COILS 707534		PC 1
10510010302	FIXED INDUCTIVE COIL 10uH	+ -10% AXIAL TYPE	PC 1
10515010102	FIXED INDUCTIVE COIL 15UH 10%		PC 1
10520110602	CHOKE COIL 200UH 10% CH9012-	201K (ELEC PRODUCT)	PC 2
10522910308	FIXED INDUCTIVE COIL 2.2UH	+ -10% "WITTIS"	PC 1
10525010235	LINEARITY COIL 25UH LX142242A	HIGHLIGHT	PC 1
10547910308	FIXED INDUCTIVE COIL 4.7 UH		PC 1
10556010102	FIXED INDUCTOR COIL 56uH + -10%	CW-560K-455-705111	PC 1
10568910308	FIXED INDUCTOR COIL 6.8 UH	+ -10% AXIAL	PC 1
10582115606	CHOKE COIL 820UH 0.37 OHM	HIGHLIGHT	PC 1
10582810302	FIXED INDUCTIVE COIL 0.82UH	10% AXIAL TYPE	PC 1
10582910308	FIXED CONDUCTOR COIL 8.2 UH	+ -10% AXIAL	PC 3
10621001201	RELAY 12V OMIT-SS-112LM	ORIGINAL	PC 1
10710443066	CHROMA TRAP CERAMIC FILTER	4.43 MHZ WEI HAW	PC 1
11110320123	VERIABLE RESISTOR 10K (EVU-E2A)	20B14 MATSUSHITA)	PC 1
1111042812A	VERIABLE RES. W/CENTRE CHICK	100K (VA09CVI U 20TMB100K HDK)	PC 1
11310010517	CARBON FILM RESISTOR 10 OHM	1/4W + -5%	PC 4
11310020512	CARBON FILM RESISTOR 10 OHM	1/2W + -5%	PC 1
11310050575	METAL OXIDE FILM RESISTOR 10	OHM 3W + -5%	PC 1
11310110517	CARBON FILM RESISTOR 100 OHM	1/4W + -5%	PC 7
11310110517	CARBON FILM RESISTOR 100 OHM	1/4W + -5%	PC 10
11310130575	METAL OXIDE FILM RESISTOR 100	OHM 1W + -5%	PC 1
11310210517	CARBON FILM RESISTOR 1K OHM	1/4W + -5%	PC 11
11310210517	CARBON FILM RESISTOR 1K OHM	1/4W + -5%	PC 9
11310210517	CARBON FILM RESISTOR 1K OHM	1/4W + -5%	PC 9
11310230575	METAL OXIDE FILM RESISTOR 1K	OHM 1W + -5%	PC 1
11310310167	METAL FILM RESISTOR 10K OHM	1/4W + -1%	PC 1
11310310517	CARBON FILM RESISTOR 10K OHM	1/4W + -5%	PC 6

MODEL NO.: CT-M685 Chassis type GT-9429**SYSTEM: PAL BG NTSC PLAYBACK AV IN / OUT CABLE TUNER**

Part Number	Description		Unit	Qty
11310310517	CARBON FILM RESISTOR 10K OHM	1/4W +-5%	PC	10
11310310517	CARBON FILM RESISTOR 10K OHM	1/4W +-5%	PC	9
11310310517	CARBON FILM RESISTOR 10K OHM	1/4W +-5%	PC	4
11310410517	CARBON FILM RESISTOR 100K OHM	1/4W +-5%	PC	1
11310430575	METAL OXIDE FILM RESISTOR 100K	OHM 1W +-5%	PC	1
11310510167	METAL FILM RESISTOR 1M OHM	1/4W +-1%	PC	1
11310910517	CARBON FILM RESISTOR 1 OHM	1/4W +-5%	PC	1
11310930575	METAL OXIDE FILM RESISTOR 1	OHM 1W +-5%	PC	1
11312030575	METAL OXIDE FILM RESISTOR 12	OHM 1W +-5%	PC	1
11312040575	METAL OXIDE FILM RESISTOR 12	OHM 2W +-5%	PC	1
11312110517	CARBON FILM RESISTOR 120 OHM	1/4W +-5%	PC	3
11312210517	CARBON FILM RESISTOR 1.2K OHM	1/4W +-5%	PC	5
11312220512	CARBON FILM RESISTOR 1K2 OHM	1/2W +-5%	PC	2
11312310517	CARBON FILM RESISTOR 12K OHM	1/4W +-5%	PC	2
11315010517	CARBON FILM RESISTOR 15 OHM	1/4W +-5%	PC	3
11315120512	CARBON FILM RESISTOR 150 OHM	1/2W +-5%	PC	2
11315210517	CARBON FILM RESISTOR 1.5K OHM	1/4W +-5%	PC	5
11315310517	CARBON FILM RESISTOR 15K OHM	1/4W +-5%	PC	3
11315340575	METAL OXIDE FILM RESISTOR 15K	OHM 2W +-5%	PC	1
11315410517	CARBON FILM RESISTOR 150K OHM	1/4W +-5%	PC	1
11315420512	CARBON FILM RESISTOR 150K OHM	1/2W +-5%	PC	1
11315840575	METAL OXIDE FILM RESISTOR 0.15	OHM 2W +-5%	PC	1
11315990551	WIRE WOUND CEMENT RESISTOR 1.5	OHM 10W +-5%	PC	1
11318210517	CARBON FILM RESISTOR 1.8K OHM	1/4W +-5%	PC	8
11318310517	CARBON FILM RESISTOR 18K OHM	1/4W +-5%	PC	4
11318410517	CARBON FILM RESISTOR 180K OHM	1/4W +-5%	PC	3
11320260575	METAL OXIDE FILM RESISTOR 2K	OHM 5W +-5%	PC	1
11322110517	CARBON FILM RESISTOR 220 OHM	1/4W +-5%	PC	3
11322130575	METAL OXIDE FILM RESISTOR 220	OHM 1W +-5%	PC	1
11322210167	METAL FILM RESISTOR 2.2K OHM	1/4W +-1%	PC	1
11322210517	CARBON FILM RESISTOR 2.2K OHM	1/4W +-5%	PC	4
11322310517	CARBON FILM RESISTOR 22K OHM	1/4W +-5%	PC	9
11322410517	CARBON FILM RESISTOR 220K OHM	1/4W +-5%	PC	1
11322910517	CARBON FILM RESISTOR 2.2 OHM	1/4W +-5%	PC	2
11322920512	CARBON FILM RESISTOR 2.2 OHM	1/2W +-5%	PC	1
11322940542	FUSING RESISTOR 2.2 OHM 2W +-5	%	PC	1
11322950575	METAL OXIDE FILM RESISTOR 2.2	OHM 3W +-5%	PC	1
11322960551	WIRE WOUND CEMENT RESISTOR	2.2 OHM 5W +-5%	PC	1
11327010517	CARBON FILM RESISTOR 27 OHM	1/4W +-5%	PC	1
11327040575	METAL OXIDE FILM RESISTOR 27	OHM 2W +-5%	PC	1
11327110517	CARBON FILM RESISTOR 270 OHM	1/4W +-5%	PC	4
11327210517	CARBON FILM RESISTOR 2.7K OHM	1/4W +-5%	PC	1
11327220512	CARBON FILM RESISTOR 2.7K OHM	1/2W +-5%	PC	5
11327310517	CARBON FILM RESISTOR 27K OHM	1/4W +-5%	PC	3
11327410517	CARBON FILM RESISTOR 270K OHM	1/4W +-5%	PC	1
11333110517	CARBON FILM RESISTOR 330 OHM	1/4W +-5%	PC	8
11333210217	CARBON FILM RESISTOR 3.3K OHM	1/4W +-2%	PC	1
11333210517	CARBON FILM RESISTOR 3.3K OHM	1/4W +-5%	PC	11
11333210517	CARBON FILM RESISTOR 3.3K OHM	1/4W +-5%	PC	2
11333310517	CARBON FILM RESISTOR 33K OHM	1/4W +-5%	PC	7
11333410167	METAL FILM RESISTOR 330K OHM	1/4W +-1%	PC	1
11333410517	CARBON FILM RESISTOR 330K OHM	1/4W +-5%	PC	1
11333430575	METAL OXIDE FILM RESISTOR 330K	OHM 1W +-5%	PC	1
11339060575	METAL OXIDE FILM RESISTOR 39	OHM 5W +-5%	PC	1
11339110517	CARBON FILM RESISTOR 390 OHM	1/4W +-5%	PC	3
11339210517	CARBON FILM RESISTOR 3.9K OHM	1/4W +-5%	PC	1

MODEL NO.: CT-M685 Chassis type GT-9429**SYSTEM: PAL BG NTSC PLAYBACK AV IN / OUT CABLE TUNER**

Part Number	Description	Unit	Qty
11339310517	CARBON FILM RESISTOR 39K OHM 1/4W +-5%	PC	2
11347010517	CARBON FILM RESISTOR 47 OHM 1/4W +-5%	PC	2
11347110517	CARBON FILM RESISTOR 470 OHM 1/4W +-5%	PC	5
11347210517	CARBON FILM RESISTOR 4.7K OHM 1/4W +-5%	PC	10
11347310517	CARBON FILM RESISTOR 47K OHM 1/4W +-5%	PC	7
11347910517	CARBON FILM RESISTOR 4.7 OHM 1/4W +-5%	PC	2
11351110517	CARBON FILM RESISTOR 510 OHM 1/4W +-5%	PC	1
11356010517	CARBON FILM RESISTOR 56 OHM 1/4W +-5%	PC	1
11356110517	CARBON FILM RESISTOR 560 OHM 1/4W +-5%	PC	5
11356210517	CARBON FILM RESISTOR 5.6K OHM 1/4W +-5%	PC	6
11356310517	CARBON FILM RESISTOR 56K OHM 1/4W +-5%	PC	1
11356521097	CARBON COMPOSITION RESISTOR 5.6M OHM 1/2W +-10% MATSUSHITA	PC	2
11368040575	METAL OXIDE RESISTOR 68 OHM 2W +-5%	PC	1
11368110517	CARBON FILM RESISTOR 680 OHM 1/4W +-5%	PC	2
11368210217	CARBON FILM RESISTOR 6.8K OHM 1/4W +-2%	PC	1
11368210517	CARBON FILM RESISTOR 6.8K OHM 1/4W +-5%	PC	3
11368830542	FUSING RESISTOR 0.68 OHM 1W +-5%	PC	3
11368840542	FUSEBLE RESISTOR 0.68 2W +-5%	PC	1
11375010517	CARBON FILM RESISTOR 75 OHM 1/4W +-5%	PC	5
11382010517	CARBON FILM RESISTOR 82 OHM 1/4W +-5%	PC	2
11382110517	CARBON FILM RESISTOR 820 OHM 1/4W +-5%	PC	1
11382210517	CARBON FILM RESISTOR 8.2K OHM 1/4W +-5%	PC	3
11382250575	METAL OXIDE FILM RESISTOR 8.2K OHM 3W +-5%	PC	3
11382310517	CARBON FILM RESISTOR 82K OHM 1/4W +-5%	PC	2
11382960575	METAL OXIDE FILM RESISTOR 8.2 OHM 5W +-5%	PC	1
11421026200	THERMISTOR PTH451C262B	PC	1
12310135060	CERAMIC CAP. 100 PF 50V +-10% (SL TYPE) "SMART GOOD"	PC	3
12310235090	CERAMIC CAP. 0.001 MFD 50V +-10% (B TYPE)	PC	8
12310337090	CERAMIC CAP. 0.01 MFD 50V +80 -20%	PC	8
12310337090	CERAMIC CAP. 0.01 MFD 50V +80 -20%	PC	2
12310427090	CERAMIC CAP. 0.1 MFD 25V +80 -20%	PC	7
12310435090	CERAMIC CAP. 0.1 MFD 50V +-10% (B TYPE)	PC	2
12312255190	CERAMIC CAP. 0.0012 MFD 500V +-10% (B TYPE) MATSUSHITA	PC	1
12315034093	CERAMIC CAP. 15 PF 50V +-5% (NPO)	PC	1
12315135060	CERAMIC CAP 150 PF 50V +-10% (SL TYPE)	PC	1
12315285010	CERAMIC CAP. 0.0015 MFD 2KV +-10% MATSUSHITA	PC	1
12320934093	CERAMIC CAP. 2PF 50V +-5% (NPO)	PC	1
12322034060	CERAMIC CAP. 22 PF 50V +-5% (SL TYPE)	PC	4
12322135060	CERAMIC CAP. 220 PF 50V +-10% (SL TYPE)	PC	4
12322155190	CERAMIC CAP. 220 PF 500V +-10% MATSUSHITA	PC	1
12322285010	CERAMIC CAP. 0.0022 MFD 2KV +-10% MATSUSHITA	PC	1
12322337090	CERAMIC CAP. 0.022 MFD 50V +80 -20%	PC	12
12324034093	CERAMIC CAP 24PF 50V +-5%(NPO)	PC	1
12327034060	CERAMIC CAP. 27 PF 50V +-5% (SL-TYPE)	PC	1
12327034093	CERAMIC CAP. 27PF 50V +-5% (NPO)	PC	2
12327135060	CERAMIC CAP. 270 PF 50V +-10% (SL TYPE)	PC	5
12327185010	CERAMIC CAP. 270PF 2KV +-10% MATSUSHITA	PC	1
12333034060	CERAMIC CAP. 33 PF 50V +-5% (SL TYPE)	PC	1
12333135060	CERAMIC CAP. 330 PF 50V +-10% (SL TYPE)	PC	2
12339034093	CERAMIC CAP. 39PF 50V +-5% (NPO)	PC	2
12339135060	CERAMIC CAP. 390PF 50V +-10% (SL TYPE)	PC	1
12347034060	CERAMIC CAP. 47 PF 50V +-5% (SL TYPE)	PC	1
12347235090	CERAMIC CAP. 0.0047 MFD 50V +-10% (B TYPE)	PC	2
12347255090	CERAMIC CAP. 0.0047 MFD 500V +-10% (B TYPE)	PC	2
12347255290	CERAMIC CAP. 0.0047 MFD 500V +-10% (B TYPE) SMALL SIZE	PC	3
12347265090	CERAMIC CAP. 4700 PF 1 KV	PC	1

MODEL NO.: CT-M685 Chassis type GT-9429**SYSTEM: PAL BG NTSC PLAYBACK AV IN / OUT CABLE TUNER**

Part Number	Description	Unit	Qty
12347285010	CERAMIC CAP. 0.0047MFD 2KV +-10% MATSUSHITA	PC	1
12368034060	CERAMIC CAP. 68 PF 50V +-5% (SL TYPE)	PC	1
12368135090	CERAMIC CAP. 680 PF 50V +-10% (B TYPE)	PC	1
12382185010	CERAMIC CAP. 820 PF 2KV +-10% (SL TYPE) MATSUSHITA	PC	1
12422406103	TANTALIUM CAP. 0.22 MFD 35V +-10%	PC	2
12539112011	POLYSTYRENE CAP. 390 PF 125V +-5%	PC	1
12610207101	MYLAR CAP. 0.001 MFD 50V +-10%	PC	3
12610307101	MYLAR CAP. 0.01 MFD 50V +-10%	PC	1
12610407101	MYLAR CAP. 0.1 MFD 50V +-10%	PC	10
12610407101	MYLAR CAP. 0.1 MFD 50V +-10%	PC	10
12610410131	POLYPROPYLENE CAP. 0.1 MFD 100V +-10%	PC	1
12622207101	MYLAR CAP. 0.0022 MFD 50V +-10%	PC	2
12622307101	MYLAR CAP. 0.022 MFD 50V +-10%	PC	7
12622340131	POLYPROPYLENE CAP. 0.022MFD 400V +-10%	PC	2
12622407101	MYLAR CAP 0.22 MFD 50V +-10%	PC	3
12627207031	POLYPROPYLENE CAP. 0.0027 MFD 50V +-5%	PC	1
12633307101	MYLAR CAP. 0.033 MFD 50V +-10%	PC	1
12633407101	MYLAR CAP. 0.33 MFD 50V +-10%	PC	4
12636420131	POLYPROPYLENE CAP. 0.36 MFD 200V +-10%	PC	1
12647207101	MYLAR CAP. 0.0047 MFD 50V +-10%	PC	2
12647216041	METALLIZED POLYPROPYLENE CAP. 0.0047 MFD 1600V +-5%	PC	2
12647307101	MYLAR CAP. 0.047 MFD 50V +-10%	PC	2
12647322241	METALIZED POLYPROPYLENE CAP. 0.047 MFD 275V +-20% "OKAYA"	PC	2
12647422241	METALIZED POLYPROPYLENE CAP. 0.47 MFD 275VAC +-20% "OKAYA"	PC	1
12656307101	MYLAR CAP. 0.056 MFD 50V +-10%	PC	1
12668307101	MYLAR CAP. 0.068 MFD 50V +-10%	PC	1
12710507203	ELECT. CAP. 1 MFD 50V +-20%	PC	4
12710507223	ELECT. CAP. BIPOLAR 1 MFD 50V +-20%	PC	2
12710604203	ELECT. CAP. 10 MFD 16V +-20%	PC	8
12710604203	ELECT. CAP. 10 MFD 16V +-20%	PC	10
12710607203	ELECT. CAP. 10 MFD 50V +-20%	PC	2
12710610407	ELECT CAP. 10 MFD 100V +-20% 105øC "NICHICON"	PC	1
12710625203	ELECT. CAP. 10 MFD 250V +-20%	PC	1
12710704203	ELECT. CAP. 100 MFD 16V +-20%	PC	7
12710706203	ELECT. CAP. 100 MFD 35V +-20%	PC	2
12710713203	ELECT. CAP. 100 MFD 160V +-20% "NICHICON"	PC	2
12710804203	ELECT. CAP. 1000 MFD 16V +-20%	PC	2
12710805203	ELECT. CAP. 1000 MFD 25V +-20%	PC	4
12722507203	ELECT. CAP 2.2 MFD 50V +-20%	PC	5
12722604203	ELECT. CAP. 22 MFD 16V +-20%	PC	2
12722613203	ELECT CAP. 22MFD 160V +-20%	PC	1
12722704203	ELECT. CAP. 220 MFD 16V +-20%	PC	4
12722706203	ELECT. CAP. 220 MFD 35V +-20%	PC	2
12722740203	ELECT CAP. 220 MFD 400V +-20% (i22MM-26MM)	PC	1
12722805203	ELECT. CAP. 2200 MFD 25V +-20%	PC	1
12733504203	ELECT. CAP. 3.3 MFD 16V +-20%	PC	1
12733507105	ELECT CAP. 3.3UF 50V +-10% (TIME CONSTANT)	PC	1
12733604203	ELECT. CAP. 33 MFD 16V +-20%	PC	2
12733806203	ELECT CAP. 3300 MFD 35V +-20%	PC	1
12747505203	ELECT. CAP. 4.7 MFD 25V +-20%	PC	8
12747510223	ELECT CAP.BIPOLAR 4.7MFD 100V +-20%	PC	1
12747604203	ELECT. CAP. 47 MFD 16V +-20%	PC	4
12747607207	ELECT.CAP. 47 MFD 50V +-20% NICHICON	PC	1
12747609407	ELECT CAP. 47 MFD 63V +-20% 105øC "NICHICON"	PC	1
12747704203	ELECT. CAP. 470 MFD 16V +-20%	PC	7
12747805203	ELECT. CAP. 4700MFD 25V +-20%	PC	1

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Part Number	Description	Unit	Qty
13013014600	SILICON DIODE 1SS146 ROHM	PC	3
13013017660	SILICON DIODE 1SS176FA TOSHIBA	PC	1
13013414801	SILICON DIODE IN4148	PC	10
13013414801	SILICON DIODE IN4148	PC	12
13024080950	VERIABLE CAPACITANCE DIODE	BB809	PC 2
13031034100	RECTIFIER DIODE 3TH41 TOSHIBA	PC	1
13031034500	RECTIFIER DIODE 3JH45 TOSHIBA	PC	2
13031040600	BRIDGE RECTIFIER RBV-406	SANKEN	PC 1
13031154560	RECTIFIER DIODE 1R5JH45	PC	2
13031400101	RECTIFIER DIODE 1N4001	PC	1
13031529500	RECTIFIER DIODE S5295G TOSHIBA	PC	9
13041005101	ZENER DIODE 5.1V 1/2W +-5%	PC	1
13041005601	ZENER DIODE 5.6V	PC	1
13041008201	ZENER DIODE 8.2V	PC	1
13041010001	ZENER DIODE 10V 1/2W	PC	1
13041012002	ZENER DIODE 12V HZ12A2	PC	1
13041057400	ZENER DIODE UPC 574J NEC	PC	1
13041109101	ZENER DIODE 9.1V	PC	1
13042212000	ZENER DIODE 1W 12V	PC	1
13051204400	LED 3MM RED 204HDC	PC	1
13121056418	TRANSISTOR 2SA564AQ	PC	1
13121101500	TRANSISTOR 2SA1015 TOSHIBA	PC	3
13122077420	TRANSISTOR 2SB774/Q/R/S	MATSUSHITA	PC 1
13123180900	TRANSISTOR 2SC1809 ROHM	PC	1
13123181500	TRANSISTOR 2SC1815Y FO SHAN	PC	1
13123181525	TRANSISTOR 2SC1815 TOSHIBA	PC	11
13123181525	TRANSISTOR 2SC1815 TOSHIBA	PC	11
13123223000	NPN-TR 2SC2230A-Y (TOSHI) TO92	VCE=180V IC=.1A HFE=120-240	PC 1
13123248200	TRANSISTOR 2SC2482 TOSHIBA	PC	2
13123361900	TRANSISTOR 2SC3619	PC	3
13123470600	TRANSISTOR 2SC4706 SHIN HO	PC	1
13124140625	TRANSISTOR 2SD1406-Y TOSHIBA	PC	1
13124140627	TRANSISTOR 2SD1406-GR TOSHIBA	PC	1
13124250000	TRANSISTOR 2SD2500 TOSHIBA	PC	1
13146236900	TRANSISTOR PH2369 PHILIPS	PC	1
13310350433	I.C. TDA3504 PHILIPS	PC	1
13310385733	IC TDA3857 PHILIPS	PC	1
13310456533	I.C. TDA4565 PHILIPS	PC	1
13310465033	I.C. TDA 4650 PHILIPS	PC	1
13310466533	I.C. TDA4665 (PHILIPS IC)	PC	1
13310830533	IC TDA8305A PHILIPS	PC	1
13310862814	IC TA8628N TOSHIBA	PC	1
13318444033	I.C. PCA 84C440P/401	PC	1
13320365433	I.C. TDA3654 (PHILIPS)	PC	1
13320444516	I.C. LA4445 (SANYO)	PC	1
13320780531	I.C. L7805CV SGS	PC	1
13320781231	IC L7812CV SGS-THOMSON	PC	1
13330511431	I.C. TEA5114A SGS	PC	1
13650000100	REMOTE RECEIVER (KODENSHI	HC-SZ01)	PC 1
13710000031	CRYSTAL 10 MHZ HOORAY	PC	1
13771590920	CRYSTAL 7.15909 MHz	PC	1
13788672320	CRYSTAL 8.86 MHz KDS	PC	1
14610000213	TACT SWITCH KSM0634A HDK	PC	13
14610000614	POWER SWITCH PS5E-B	"CHINA LANDMARK"	PC 1
16010100108	PIN CONNECTOR 1 PIN PLUG	STRAIGHT	PC 3
16010225527	PIN CONNECTOR 2 PINS PLUG	STRAIGHT (UL) (S.H.S)	PC 2

MODEL NO.: CT-M685 Chassis type GT-9429**SYSTEM: PAL BG NTSC PLAYBACK AV IN / OUT CABLE TUNER**

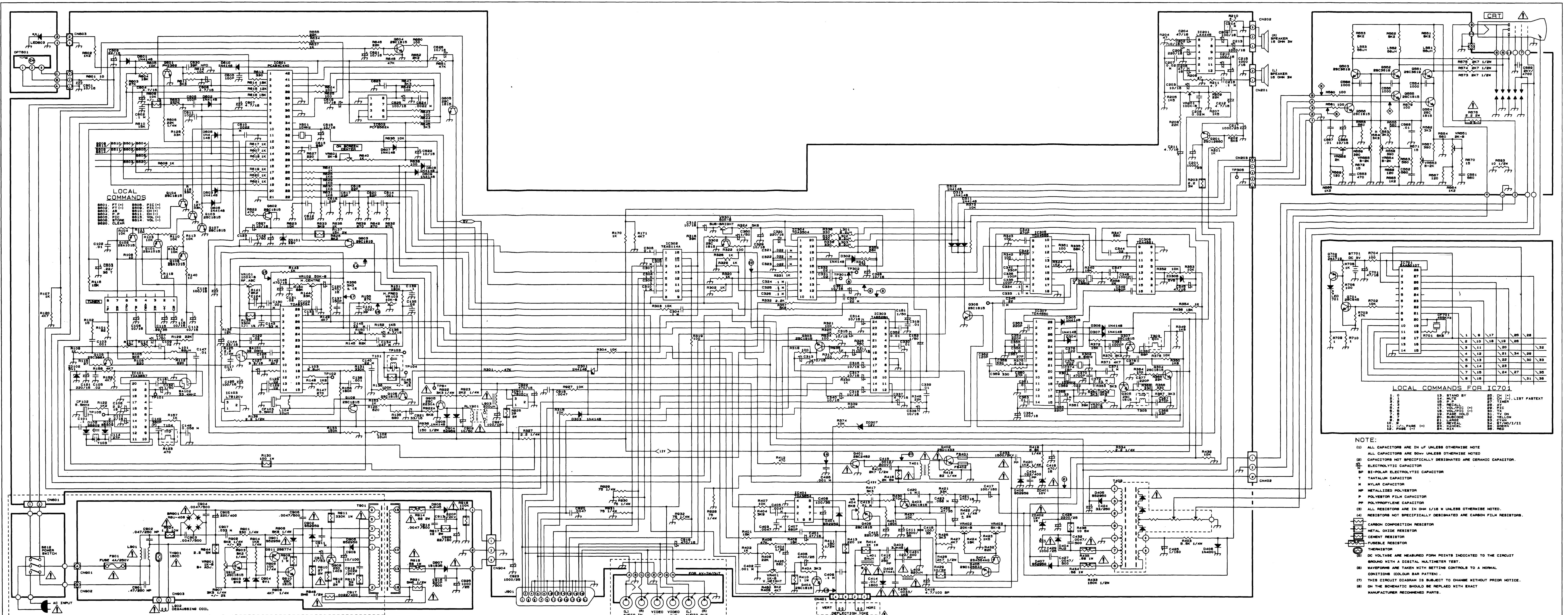
Part Number	Description	Unit	Qty
16010280508	PIN CONNECTOR 2 PIN PLUG STRAIGHT	PC	1
16010325527	PIN CONNECTOR 3 PINS PLUG	PC	2
16010380508	PIN CONNECTOR 3 PIN PLUG STRAIGHT	PC	2
16010425527	PIN CONNECTOR 4 PINS PLUG (SHS)	PC	1
16010480508	PIN CONNECTOR 4 PIN PLUG STRAIGHT	PC	1
16010525527	PIN CONNECTOR 5 PINS WAFER 2.5 PITCH	PC	1
16010825407	PIN CONNECTOR 8 PIN PLUG (RIGHT ANGLE)	PC	1
16147100401	RCA JACK (HARDEN) (JPJ1022-01-020) RED	PC	1
16147200200	RCA JACK (HARDEN) BLACK (JPJ2022-01-010)	PC	1
16147200300	RCA JACK (HARDEN) YELLOW (JPJ2022-01-040)	PC	1
16154010501	CRT SOCKET HPS0199-01-020 (HOSIDEN) 29MM THICK	PC	1
17212003240	UL 1007 STANDARD WIRE AWG 20 320 MM BLACK 10 X 10 MM	PC	2
17262000540	UL 1007 TOP COAT WIRE AWG 20 50MM BLACK 5 X 5MM	PC	1
17262001040	UL 1007 TOP COAT WIRE AWG 20 100MM BLACK 10 X 10 MM	PC	2
17262001443	UL 1007 TOP COAT WIRE AWG 20 140MM ORANGE 10 X 10MM	PC	1
17262600840	UL 1007 TOP COAT WIRE AWG 26 80MM BLACK 10 X 10 MM	PC	2
17262600840	UL 1007 TOP COAT WIRE AWG 26 80MM BLACK 10 X 10 MM	PC	2
17262601040	UL 1007 TOP COAT WIRE AWG 26 100MM BLACK 10 X 10 MM	PC	1
17262601442	UL 1007 TOP COAT WIRE AWG 26 140MM RED 10 X 10 MM	PC	2
17262601442	UL 1007 TOP COAT WIRE AWG 26 140MM RED 10 X 10 MM	PC	2
17262601643	UL 1007 TOP COAT WIRE AWG 26 160MM ORANGE 10 X 10 MM	PC	1
17262601843	UL 1007 TOP COAT WIRE AWG 26 180MM ORANGE 10 X 10 MM	PC	2
17262602043	TOP COAT WIRE 200MM AWG 26 ORANGE 10 X 10MM	PC	1
17262602245	UL 1007 TOP COAT WIRE AWG 26 220MM PINK 10 X 10 MM	PC	1
17262602441	UL 1007 TOP COAT WIRE AWG 26 240MM BROWN 10 X 10 MM	PC	2
17262602642	UL 1007 TOP COAT WIRE AWG 26 260MM RED	PC	1
17272600099	BARE WIRE 54MM	M	8.1
17272600099	BARE WIRE 54MM	M	0
17272600099	BARE WIRE 54MM	M	0
17283012099	FLAT BRIDED WIRE	M	1.38
17483302650	DOUBLE SHIELD WIRE UL 2547 AWG 28 260MM BLACK	PC	1
17765505302	2 PIN FLAT CABLE WIRE AWG 26 50MM	PC	1
17765512303	3 PIN L=120MM FLAT CABLE UL 2468	PC	1
17900101000	OIL SLEEVING 1 mm DIA.	M	0.39
17900101000	OIL SLEEVING 1 mm DIA.	M	0
17900101000	OIL SLEEVING 1 mm DIA.	M	0
17900101000	OIL SLEEVING 1 mm DIA.	M	0
17900101000	OIL SLEEVING 1 mm DIA.	M	0
17900101000	OIL SLEEVING 1 mm DIA.	M	0.02
17910500000	UL PVC TUBE 5mm DIA	M	0.86
17910500000	UL PVC TUBE 5mm DIA	M	0.28
17910730000	UL PVC TUBE 7.3MM DIA.	PC	0.6
17911050000	UL PVC TUBE 11MM DIA.	M	0.05
17940303000	3MM DIA. SHRINKABLE TUBE	PC	0.2
18222400003	FUSE T4A 250V	PC	1
18435080508	AXIAL LEAD BEAD INDUCTORS "COILS"	PC	3
19088200AXE	POWER SWITCH P.C.B. (131196)	PC	1
19088280008	AV IN OUT P.C BOARD (171094)	PC	1
19088280300	CRT P.C.B. (071197)	PC	1
19094270110	LED BOARD W/SENSOR (161194)	PC	1
19094270301	MAIN P.C.B. (180498)	PC	1
19094270307	POWER P.C.B. (050297)	PC	1
19110100707	1 PIN SOCKET ASS'Y L=350MM	PC	1
19110101407	1 PIN DOUBLE INSOLATION WIRE AWG 18 L=560MM BROWN	PC	1
19110101507	1 PIN DOUBLE INSOLATION WIRE AWG 18 L=600MM BLUE	PC	1
19120004409	2 PIN SOCKET ASSM'Y L=440MM	PC	1

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Part Number	Description	Unit	Qty
19120100307	2 PIN SOCKET ASS'Y L=240MM	PC	1
19130100307	3 PINS SOCKET ASS'Y L=450MM	PC	1
19130100307	3 PINS SOCKET ASS'Y L=450MM	PC	0
19130100307	3 PINS SOCKET ASS'Y L=450MM	PC	0
19130100707	3 PIN SOCKET ASSM'Y L=500MM	PC	1
19130102107	3 PIN SOCKET ASSM'Y L=180MM	PC	1
19130102507	3 PIN SOCKET ASS'Y L=330MM	PC	1
19140101207	4 PIN SOCKET ASS'Y L=220MM	PC	1
19140101207	4 PIN SOCKET ASS'Y L=220MM	PC	0
19150100307	5 PIN SOCKET ASS'Y L=540MM	PC	1
19150100307	5 PIN SOCKET ASS'Y L=540MM	PC	0
19180100907	8 PIN SOCKET ASS'Y PIN4,5	W/SHIELDING CABLE L=110MM	PC 1
19180100907	8 PIN SOCKET ASS'Y PIN4,5	W/SHIELDING CABLE L=110MM	PC 0
50430500610	MACHINE SCREW 3 X 6 B/M	(WHITE)	PC 6
50430501210	MACHINE SCREW 3 X 12 B/M		PC 2
50930501000	MACHINE SCREW 3 X 10 KM	(BLACK)	PC 2
51440031210	SELF-TAPPING SCREW 4 X 12 B/A	(HARDEN)	PC 1
51440042510	SELF-TAPPING SCREW 4 X 25 B/T	(HARDEN)	PC 9
51530340810	SELF-TAPPING SCREW 3 X 8	W/B/T (HARDEN)	PC 16
51530341010	SELF-TAPPING SCREW 3 X 10	W/B/T (HARDEN)	PC 14
51530341010	SELF-TAPPING SCREW 3 X 10	W/B/T (HARDEN)	PC 2
51730331210	SELF-TAPPING SCREW 3 X 12 W/A	W/H=7MM (HARDEN)	PC 6
51730331210	SELF-TAPPING SCREW 3 X 12 W/A	W/H=7MM (HARDEN)	PC 0
52030502555	NUT M3 T=2.5 OD=5.5		PC 2
54002003001	EYELET 2 X 3 MM		PC 8
54002004001	BRASS EYELET 2X4MM		PC 4
58010100400	STAND OFF TWIST TIE #ST-3		PC 1
58010126101	CABLE TIE L=100MM		PC 33
58010126101	CABLE TIE L=100MM		PC 0
58010126101	CABLE TIE L=100MM		PC 0
62288280200	FELT L240 X W17 X T0.5MM	W/TAPE	PC 6
63011452000	FIBRE WASHER		PC 1
63017301600	FIBRE WASHER OD=17 ID=3 T=1.6		PC 1
74488130100	SPRING FOR C.R.T. MOUNTING 5.2	X 42 X 0.6MM	PC 1
74606310100	TEST PIN:TOTAL LENGTH 18.6mm	THK:0.8mm	PC 5
74816781500	CRT MTG. WASHER (B)		PC 4
75006310100	SOLDERING LUG LEG:8X4MM		PC 3
75006310201	35MM SOLDERING LUG	OD:7 ID:3.2 LEG:4X35MM	PC 4
76668680100	FUSE HOLDER		PC 2
77794270200	SPRING IN ID11 X L23.5		PC 1
77993250100	IRON HEAT SINK		PC 1
77993290202	IRON HEAT SINK		PC 1
78193290201	ALUMINIUM HEAT SINK (B)		PC 1
78193290301	ALUMINIUM HEAT SINK (A)		PC 1
78193290400	ALUMINIUM HEAT SINK		PC 1
78193290602	ALUMINIUM HEST SINK (E)		PC 1
78194270400	ALUMINUM HEAT SINK (POWER)		PC 1
78194270500	ALUMINIUM HEAT SINK		PC 2
78388130602	SHIELD CAN COVER		PC 1
78388131301	SHIELD CAN		PC 1
80094294100	POLYFOAM - TOP LEFT	(FOR 9429 OR A929)	PC 1
80094294200	POLYFOAM - TOP RIGHT	(FOR 9429 OR A929)	PC 1
80094294300	POLYFOAM - BOTTOM LEFT	(FOR 9429 OR A929)	PC 1
80094294400	POLYFOAM - BOTTOM RIGHT	(FOR 9429 OR A929)	PC 1
81005220414	POLYBAG 5" X 22" X 0.04MM	W/RE-CYCLING MARK {P/O MAT}	PC 1
81009150413	POLYBAG 9" X 15" X 0.04MM W/	RE-CYCLING P.E.MARK	PC 1

MODEL NO.: CT-M685 Chassis type GT-9429**SYSTEM: PAL BG NTSC PLAYBACK AV IN / OUT CABLE TUNER**

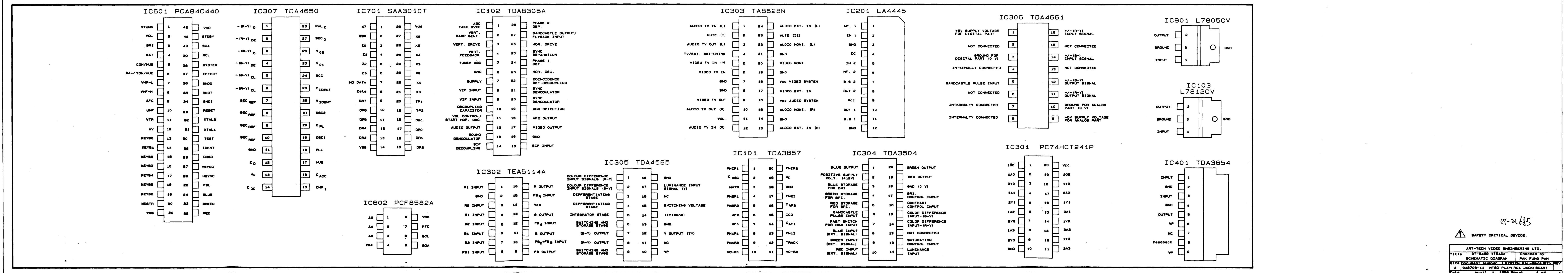
Part Number	Description		Unit	Qty
82643200500	FOAM SHEET - 43" X 20" X 0.5MM	THK	PC	1
82647350500	FOAM SHEET - 47" X 35" X 0.5MM	THK	PC	1
83423080100	RUBBER WASHER OD=23 , ID=8 ,	T=1.0	PC	2
84001102421	PAD CORD L240 X W10 X T1 MM	W/TAPE	PC	8
84008292911	RUBBER PAD (ONE SIDE W/TAPE)		RP	2
89688210100	POWER BOARD COVER (UL)		PC	1
920942701U0	MAIN P.C.B. MTG. BKT. (UL)		PC	1
92094270200	POWER BRACKET		PC	1
92989200200	LED HOLDER BKT. FOR RECTANGLE	LED AND CIRCLE LED	PC	1
93988130200	POWER SWITCH ADAPTOR		PC	1
94888200300	DOOR LOCKER		PC	1
95488210000	AC LINE CORD CLIP		PC	1
95488280400	HIGH VOLTAGE CABLE SPACER		PC	2
95493130100	STUD POST BLACK ABS		PC	6
98088202600	JACK PLATE W/BRASS INSERT (521	-882001-00 2PCS/SET)W/21 PIN	PC	1



LOCAL COMMANDS FOR IC701

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

- NOTE:**
- ALL CAPACITORS ARE IN OHM UNLESS OTHERWISE NOTED
 - CAPACITORS NOT SPECIFICALLY DESIGNATED ARE CERAMIC CAPACITOR
 - ELECTROLYTIC CAPACITOR
 - BI-POLAR ELECTROLYTIC CAPACITOR
 - TANTALUM CAPACITOR
 - MYLAR CAPACITOR
 - METALLIZED POLYESTER
 - POLYESTER FILM CAPACITOR
 - POLYPROPYLENE CAPACITOR
 - ALL RESISTORS ARE IN OHM 1/16 W UNLESS OTHERWISE NOTED.
 - RESISTORS NOT SPECIFICALLY DESIGNATED ARE CARBON FILM RESISTORS.
 - CARBON COMPOSITION RESISTOR
 - METAL OXIDE RESISTOR
 - GLASS RESISTOR
 - FUSIBLE RESISTOR
 - THERMISTOR
 - DC VOLTAGE ARE MEASURED FROM POINTS INDICATED TO THE CIRCUIT
 - GROUND WITH A DIGITAL MULTIMETER TEST.
 - WAVEFORMS ARE TAKEN WITH SETTING CONTROLS TO A NORMAL CONDITIONS (COLOR BAR PATTERN)
 - ON THE SCHEMATIC SHOULD BE REPLACED WITH EXACT MANUFACTURER RECOMMENDED PARTS.



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