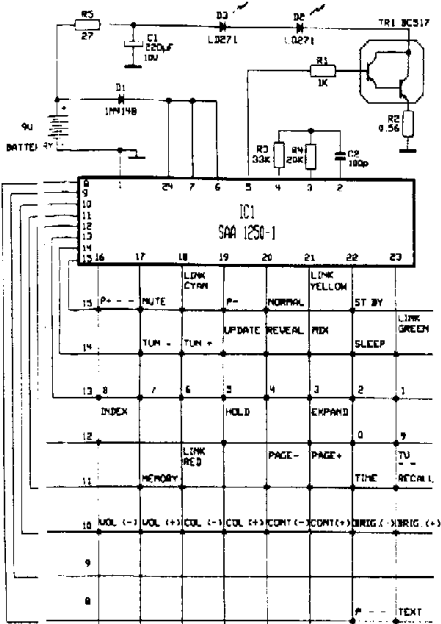
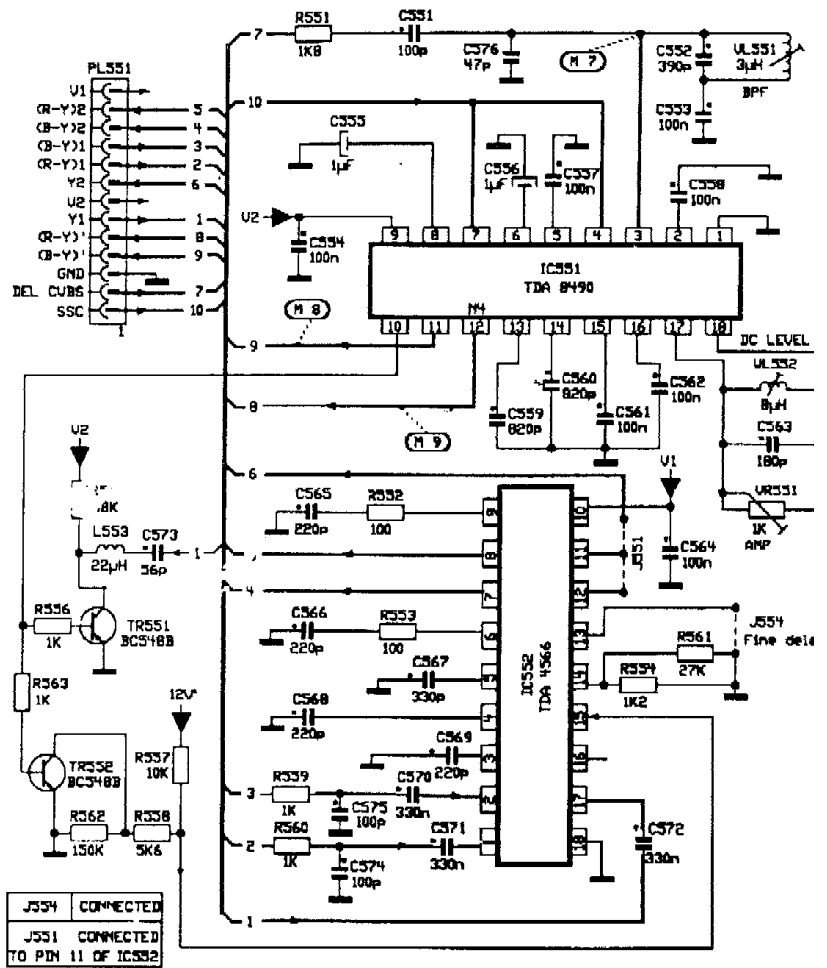


# 11 UV 04 RC Transmitter Diagram

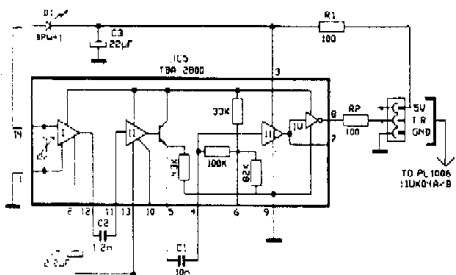


# 11 SC 01 SECAM & CTI Diagram

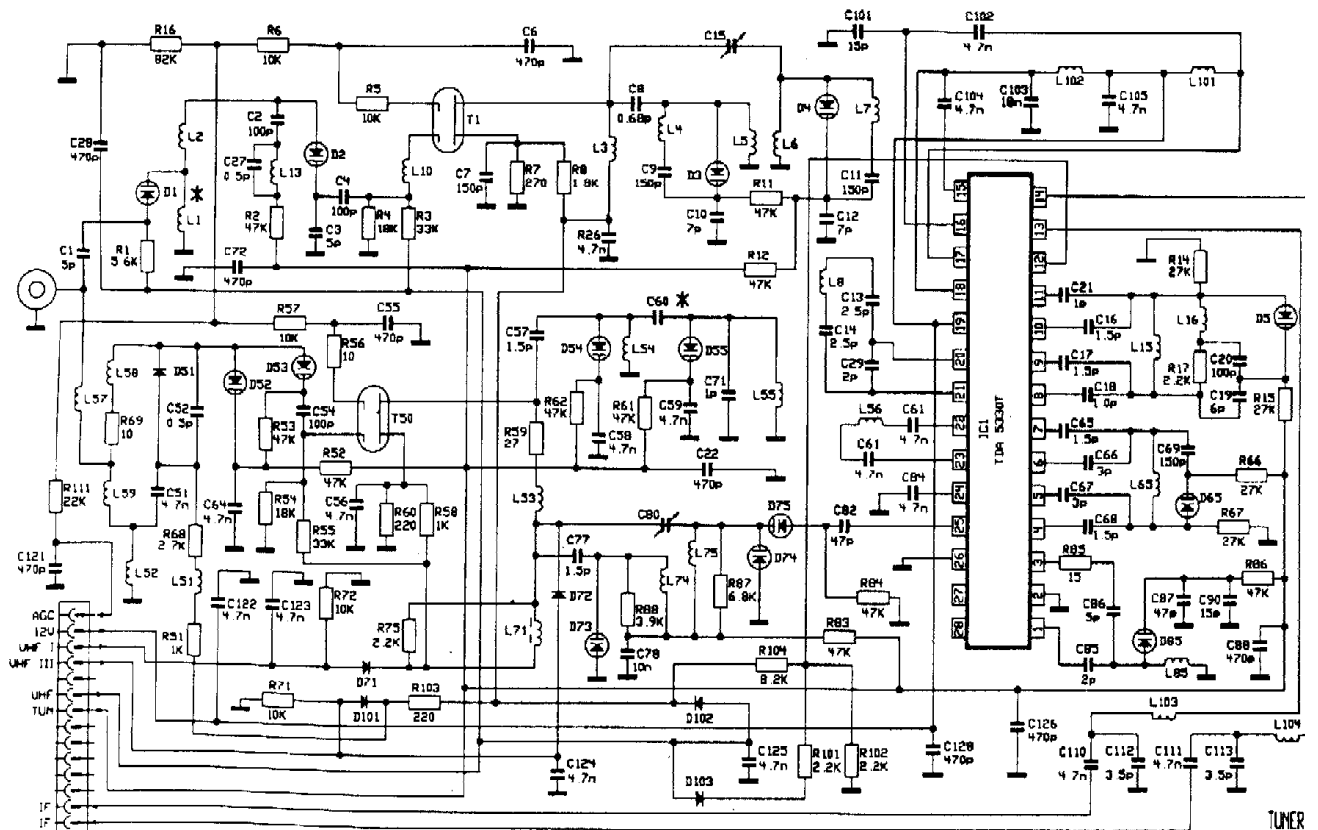


J554 CONNECTED  
J551 CONNECTED  
TO PIN 11 OF IC552

# 11 OY 01 IR Pre-Amp Diagram

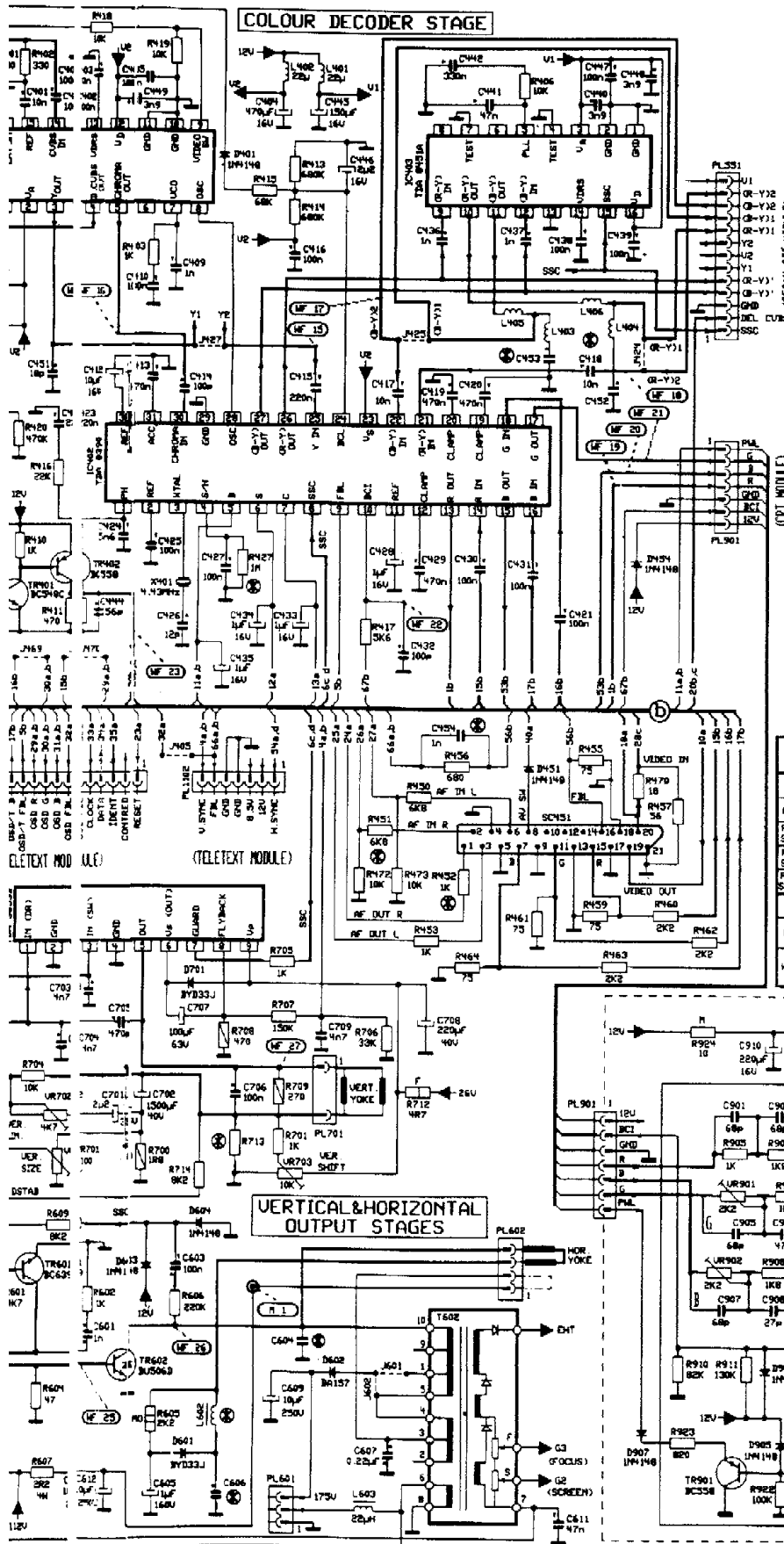


# Tuner Diagram



TUNER

# Main Diagram



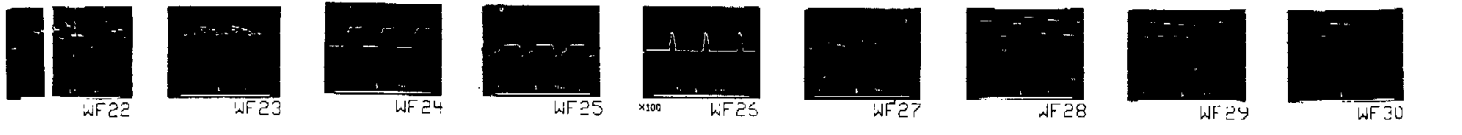
Symbol	Carbon	Polymercarbon	Polyester	Polypropyl
	±1%	±2%	±5%	±10%
	±1%	±2%	±5%	±10%
	±1%	±2%	±5%	±10%
	±1%	±2%	±5%	±10%
	±1%	±2%	±5%	±10%
	±1%	±2%	±5%	±10%

R Metal film resistor  
 F Fuseable resistor  
 MO Metal oxide film resistor  
 e.g. 2-2 Insert jumper acc to the following tables  
 From original source only

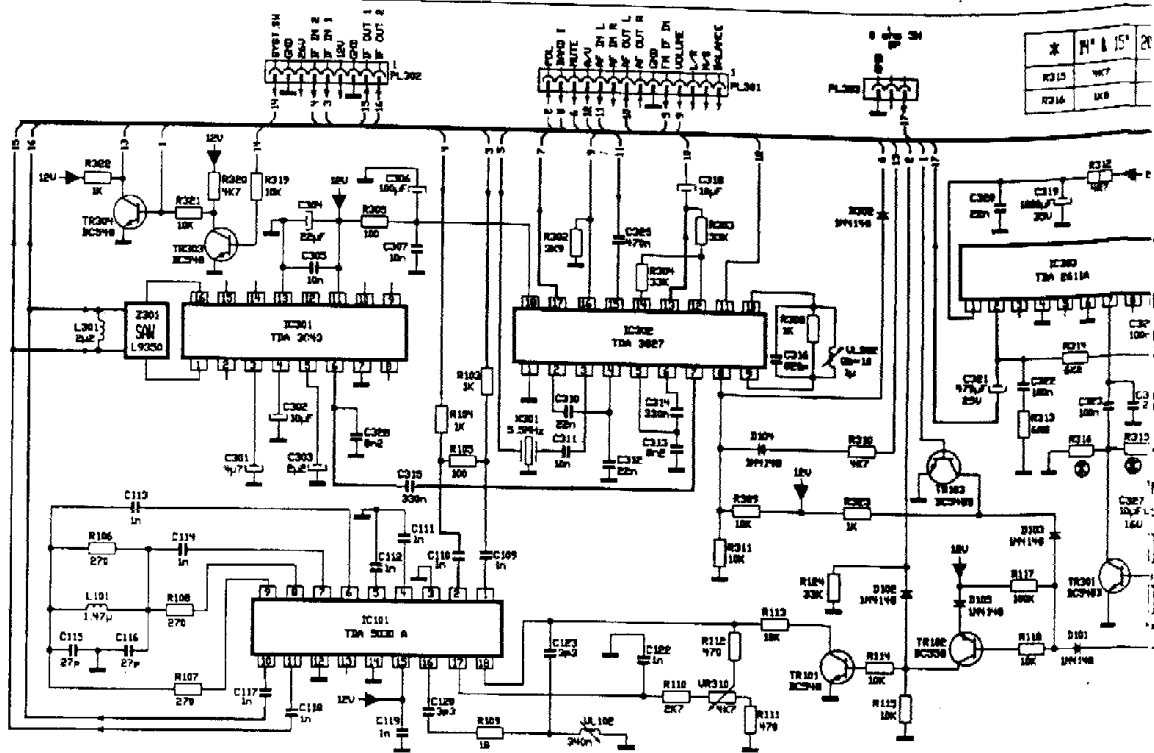
N.B. Safety components marked with  $\Delta$  must be replaced with original or approved components only  
 All printed boards and the back cover are also safety components  
 The manufacturer reserves the right to change the design and specification without prior notice or warning

CRT	COMPONENT DIFFERENCES DEPENDING ON CRT			
	21"	20"	15"	14"
POS. NO.	HITACHI AS145K61 x85	HITACHI PH12841-01 GOLDSTAR 310YU822 SHARCS12-03	SAMSUNG 3100B95 x-TC	HITACHI ALM41F6000 & TOSHIBA A34JPH0003
C604	7n5 1600V	7n5 1600V	7n5 1600V	MITSUBI 370LH022-TC82 HITACHI APM14P003 80N
L602	TERMAL 21" & 14" 2402101024	TERMAL 20" 2402101024	TERMAL 20" 2402101024	TERMAL 15" 21" & 14" 2402101024
R913	2R2	2R2	2R7	5K6 4K7
R608	6K8	6K8	6K8	10K 10K
R713	3K8	4K7	4K7	4K8 4K8
C606	330n 400V	330n 400V	330n 400V	330n 400V 330n 400V

SYSTEM	COMPONENT DIFFERENCES DEPENDING ON SYSTEM, MONO / STEREO, CTV AND TEXT			
	201	106, 107, 209	CTV	403, 406 403, 404 403, 402
PAL I	DEFU 1953	CONNECTED	WITH CTV	JUMPER CONNECTED
PAL B/G SECAM B/G	DFWG 1962	CONNECTED	WITHOUT CTV	JUMPER CONNECTED
PAL B/G SECAM B/G & D/K	DFWK 2200	CONNECTED	MONO/STEREO	R431
PAL B/G SECAM B/G & L/L	DFWG 1962	NOT CONNECTED	MONO	NOT CONNECTED
TEXT	J405, 467, 468, 469, 470	C454	STEREO	6K8
WITH TEXT	NOT CONNECTED	IN	OTHERS	R332, R321, R234, 4601, J 453 C208
WITHOUT TEXT	CONNECTED	NOT CONNECTED	R472 NOT CONNECTED ONLY FOR TM4030-4 VERSION, OTHERWISE CONNECTED AS 100n	NOT CONNECTED



11 SO 01  
Sound  
Diagram  
(L/L & B/G)



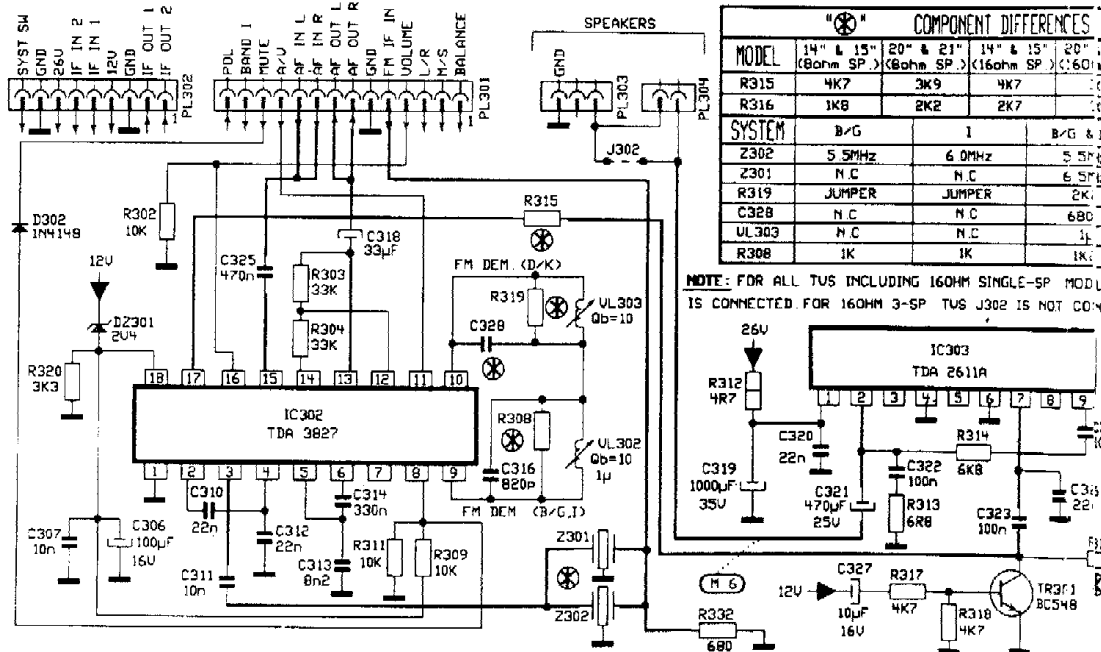
Electrical  
Parts List  
IC's

- IC302 IC TDA 3827 - 013242352
- IC303 IC TDA 2611A - 013242402
- IC201 IC TDA 4504A - 013242472
- IC401 IC TDA 8452A - 013242522
- IC402 IC TDA 8390 4 - 013242582
- IC403 IC TDA 8451A - 013242602
- IC701 IC TDA 3653B - 013229812
- IC801 IC TDA 4601 - 013223402
- IC802 IC LM 317T - 013242102
- IC901 IC TDA 8153 - 013242802
- IC1001 IC LM 78L05 - 013240852
- IC1003 IC MDA 2062 - 013200320
- IC1003 IC MDA 2062 - 013200330
- IC1002 IC 7805 - 013225002
- IC1004 IC TVPO 2066 VES 05 - 013242412
- IC1005 IC LM 2901 - 013206302
- IC1102 IC DPU 2543 - 013240352
- IC1103 IC LM 317T - 013242102
- IC1104 IC TPU 2732 - 013230852
- IC1105 IC HM 4164 - 013231352

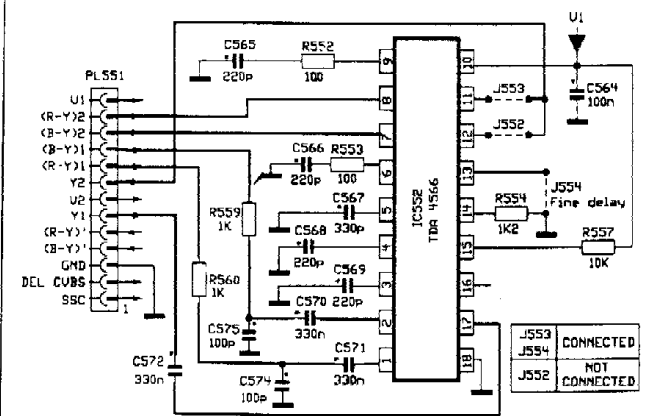
Transistors

- TR201 TR BC548B - 013120702
- TR202 TR BC548B - 013120702
- TR401 TR BC548C - 013120712
- TR402 TR BC558B - 013120902
- TR601 TR BC639 - 013100902
- TR602 TR BU506D - 013116082
- TR801 TR BU508A - 013108102
- TR802 TR BC548B - 013120702
- TR1002 TR BC848B SMD - 013720882
- TR1003 TR BC848B SMD - 013720882
- TR1004 TR BC848B SMD - 013720882
- TR1006 TR BF240 - 013115102
- TR1007 TR BC848B SMD - 013720882
- TR1010 SMD JUMPER WIRE - 014031441
- TR1011 TR BC848B SMD - 013720882
- TR1012 TR BC848B SMD - 013720882
- TR1014 TR BC548B - 013120702
- TR1102 TR BC548B - 013120702
- TR1103 TR BF240 - 013115102
- TR1104 TR BC548B - 013120702
- TR1105 TR BC548B - 013120702
- TR1106 TR BC548B - 013120702
- TR1107 TR BC548B - 013120702
- TR1108 TR BC548B - 013120702
- TR1109 TR BC548B - 013120702
- TR1110 TR BC548B - 013120702
- TR1111 TR BC548B - 013120702
- TR1112 TR BC548B - 013120702
- TR1113 TR BC548B - 013120702

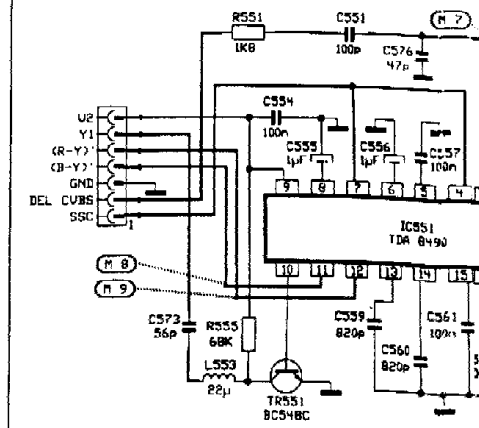
11 SD 01 - C Sound Diagram (B/G,I,D/K)



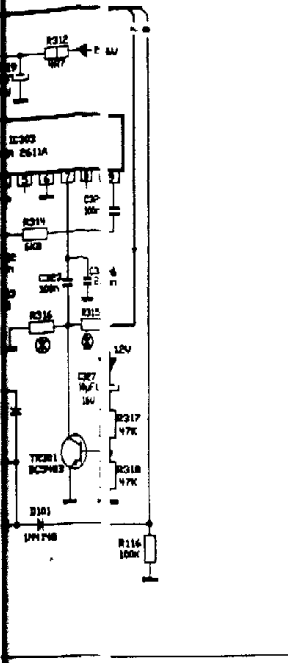
11 CT 01 CTI Diagram



11 SM 01 SECAM Decoder

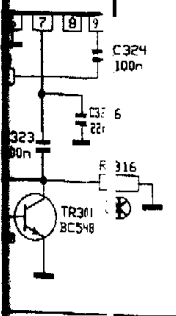


* 11' & 15' & 20' & 21'
11D WK7 2K9
11A WK8 2K2

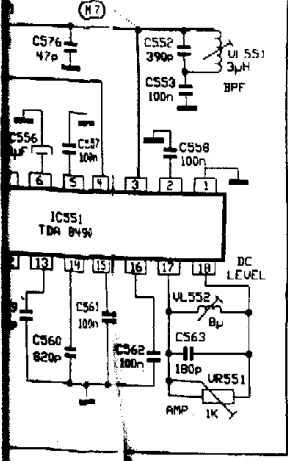


DIFFERENCES	
11' & 15' & 20' & 21'	11' & 21'
ohm SP (C6D)	m. SP ( )
4K7	C9
2K7	C9
B/G/L	D/K
5.5K	1Z
6.5K	1Z
2K	
68C	
1K	

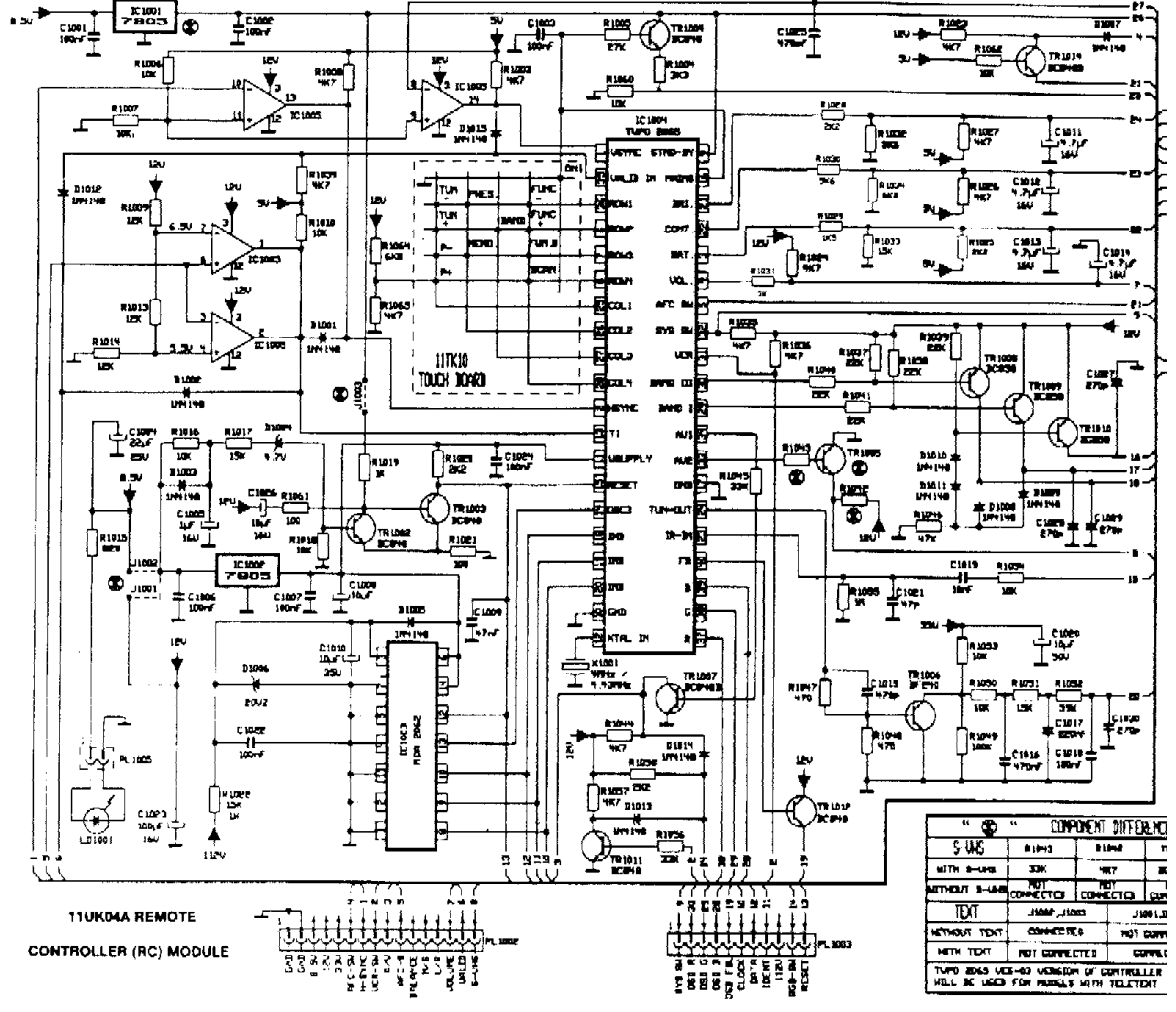
ANGLE-SP MOD LS J302  
 002 IS NOT CO NECTED



### AM Diagram



## 11 UK 04A Remote Controller Diagram

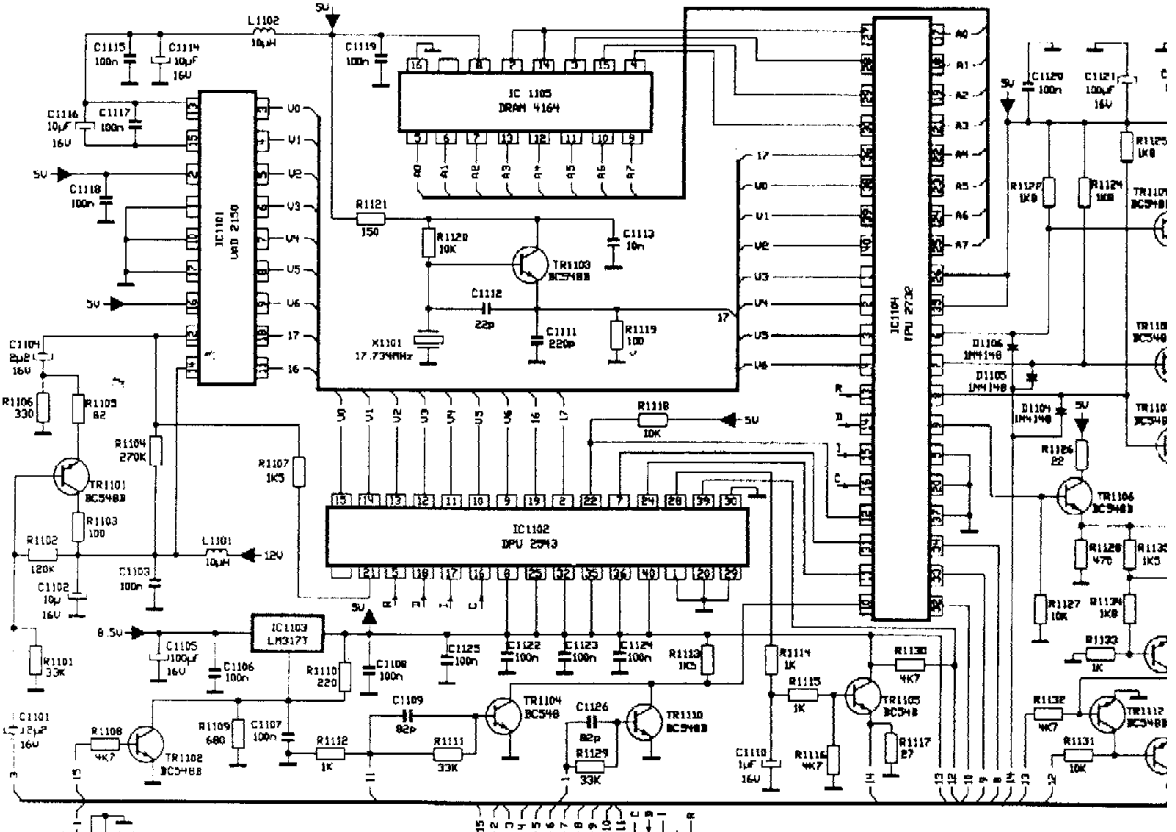


11UK04A REMOTE  
 CONTROLLER (RC) MODULE

COMPONENT DIFFERENCES			
S-AMS	R1103	R1104	T1
WITH S-AMS	33K	47K	2K
WITHOUT S-AMS	NOT CONNECTED	NOT CONNECTED	20P
TEXT	J302P1, J302S	J302L, J302R	
WITHOUT TEXT	CONNECTED	NOT SUPPL	
WITH TEXT	NOT CONNECTED	CONNECTED	

TUPO 8645 VCS-04 VERSION OF CONTROLLER IC WILL BE USED FOR MODEL 8 WITH TELETEXT

## 11 TT 03 Teletext Diagram



11TT03 TELETEXT MODULE

TR112, TR113, R1102, R1103, R1104, R1105, R1112 AND C1126 WILL NOT BE USED WITH TUPO 8645 VCS-04 VERSION OF CONTROLLER IC.

## Service Adjustments

All adjustments are to be made at 220V line voltage after a warm-up period of approximately 5 minutes. Required test and measurement instruments: Pattern generator (PHILIPS PM 5515 or PM5518), Multimeter (Input Impedance - 10 M $\Omega$ ), Oscilloscope

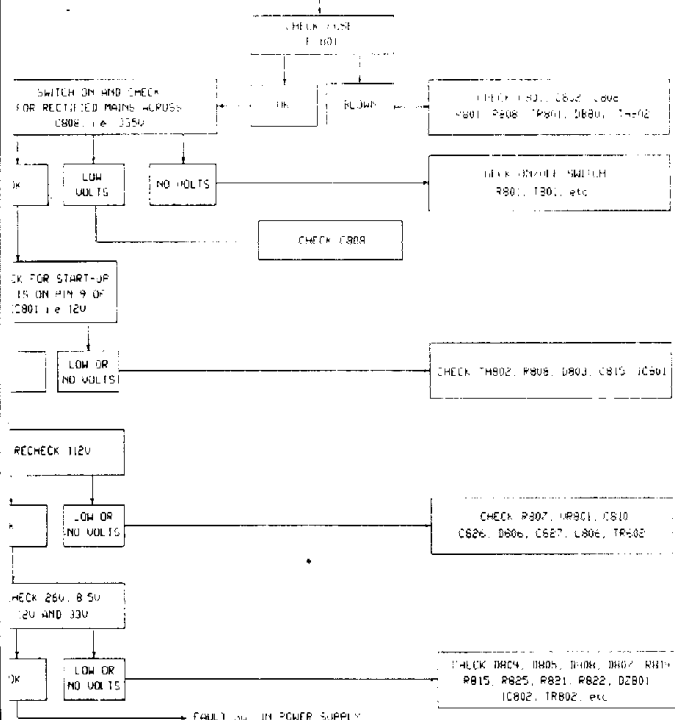
Adjustment Sequence No	Type of Adjustment	Test Signal at Antenna Input	Preparation of Adjustment	Connection of Voltmeter and Oscilloscope	Adjustments
1	SMPS System Voltage	Colour bar, 1 KHz sound signal	B(Brightness), C(Contrast) S(Colour), VOL (Volume) at min position.	Voltmeter to shorted pins of the socket PL602 (M1)	Set VR801 for $V_{B+} = 112V_{dc}$ for 20-21 inch models. (110V <sub>dc</sub> for 14-15 inch models)
2	Vision Demodulator and AFC	No antenna input. Colour bar, frequency of 38.9 MHz for B/G models (39.5 MHz for I models), level of 10mV	Connect RF output of the pattern generator to any one input of SAW filter and connect the other input of SAW filter to ground through 10nF.	Voltmeter to pin 21 of IC201 (M2)	Set L203 for $V_{AGC} = 6.0 \pm 0.3V_{dc}$ . After adjustments remove the all external connections.
3	Sound Trap	Grey scale, 1KHz sound signal	B, C, S at normal position.	Oscilloscope to base of TR 201(M3)	Set L202 for minimum sound carrier (5.5 MHz for B/G models, 5.0 MHz for I models) on video signal.
4	Horizontal Oscillator	Colour bar and circle	B, C, S at normal position. Connect 1K resistor between pin 8 and pin 28 of IC 201.		Set VR203 for horizontally synchronized picture approximately. After adjustment remove 1Kohm resistor
5	Picture Geometry and Focus	Centre cross, circle and cross-hatch.	B, C, S at normal position.		Set VR202 for horizontal centring, VR703 for vertical centring, VR701 for vertical convergence, VR702 for vertical linearity and focus pot (on EHT transformer) for optimum focusing.
6	Tuner AGC	Colour bar, level of 60 dB $\mu$ V	B, C, S at normal position.	Voltmeter to pin 6 of IC201 (M4)	Set VR201 for $V_{AGC} = 6.5 \pm 0.1V_{dc}$
7	G2 (Screen)	Colour bar	B, C, S at min position.	Voltmeter to cathode Red of CRT (M5)	Set SCREEN pot (on EHT transformer) for $V_{G2} = 100V_{dc}$ for 20-21 inch models. (150V <sub>dc</sub> for 14-15 inch models)
8	White Balance (CRT Module)	White pattern	B, C, S at normal position.		Set VR901 (Green) and VR902 (Blue) for optimum white on the screen.
9	FM Modulator (SOUND Module)	Colour bar, 1KHz sound signal	B, C, S and VOL at normal position.	Oscilloscope to the socket PL303 (M6)	Set L302 for max amplitude of 1KHz sound signal and for minimum noise on 1KHz sound signal.
10	Chroma BPF (SECAM and SECAM/CTI Module)	SECAM colour bar	B, C, S at normal position.	Oscilloscope to pin 3 of IC 551 (M7)	Set VL551 for equal amplitudes of the colour bars.
11	Chroma Level and Black Level (SECAM and SECAM / CTI Module)	SECAM colour bar	B, C, S at normal position.	Oscilloscope to pin 11 (B-Y) and pin 12 (R-Y) of IC 551 (M8 and M9)	Set VR551 for $V_{B-Y} = 1.6V_{dc}$ and $V_{R-Y} = 1.25V_{dc}$ and VL552 for equal DC level of B-Y and R-Y signals.

## Trouble Shooting Guide

2V rail is automatically reduced in the event of excessive current drain. (approx. 1A) in the event of continuous overload on 112V rail, the power supply will repeatedly empty to restart giving rise to an audible oscillation from the SMPS transformer.

An accompanying chart suggests a step by step check procedure starting from a "ET DEAD" condition.

SET DEAD IE. NO PASTER, NO SOUND, NO CLOCK, NO PICTURE AND NO TELETEXT. POWER SUPPLY NOT WORKING NO 112V, 26V, 85V



## Component Differences

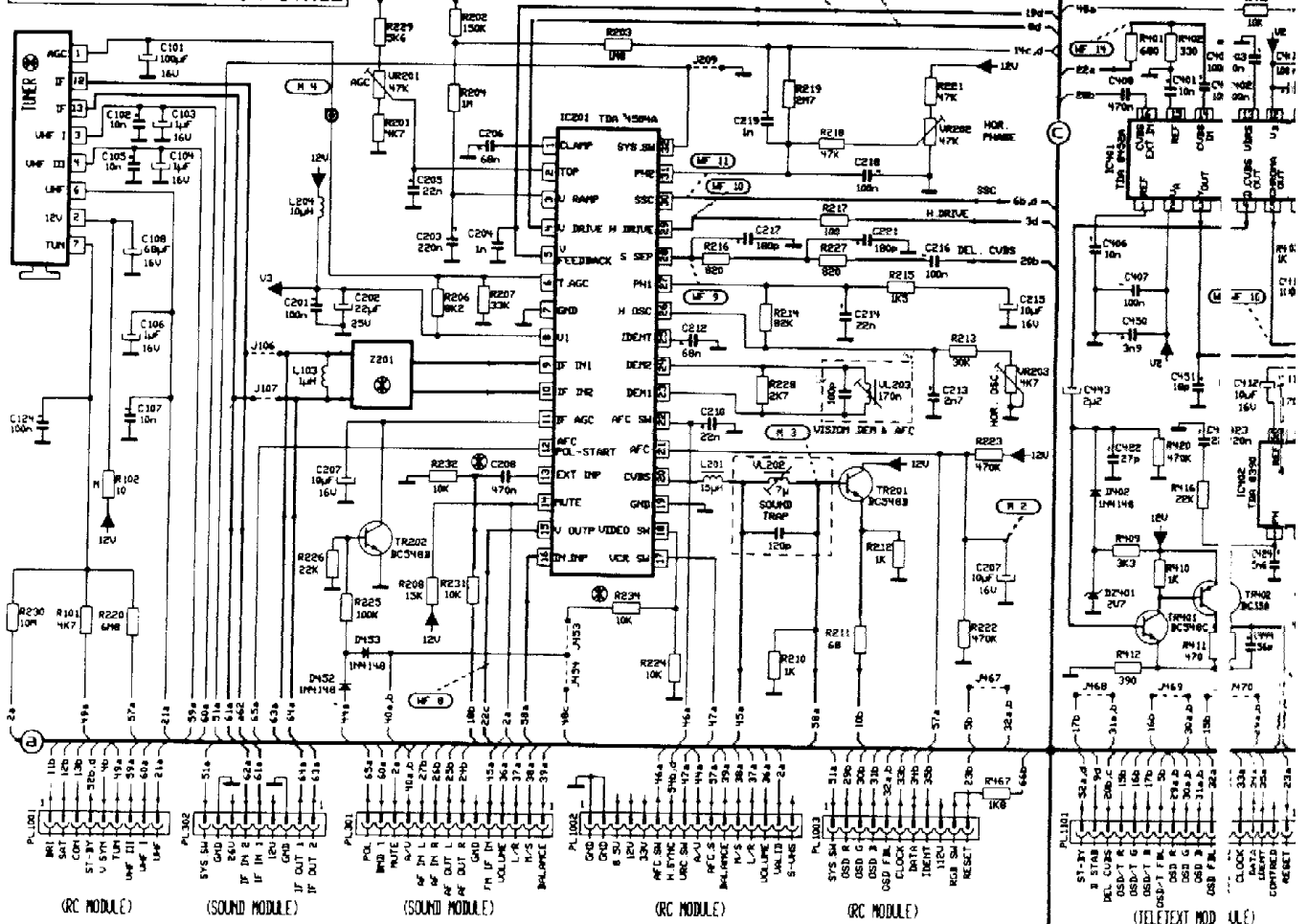
COMPONENT DIFFERENCES			
5 VHS	R1043	R1042	TR1005
WITH SHIMS	23K	1K7	BC948B
WITHOUT SHIMS	10K	NOT CONNECTED	NOT CONNECTED
TEXT	J1009, J1002	J1001, IC1001	P1061, C1026, IC1004
WITHOUT TEXT	CONNECTED	NOT CONNECTED	100, 10K, 10K
WITH SHIMS	NOT CONNECTED	NOT CONNECTED	100, 10K, 10K
WITHOUT SHIMS	CONNECTED	CONNECTED	100, 10K, 10K

COMPONENT DIFFERENCES DEPENDING ON SET			
CR	±1	±2	±3
R105	105H8A	105H4C	105H4B
R106	105H8A	105H4C	105H4B
R107	105H8A	105H4C	105H4B
R108	105H8A	105H4C	105H4B
R109	105H8A	105H4C	105H4B
R110	105H8A	105H4C	105H4B
R111	105H8A	105H4C	105H4B
R112	105H8A	105H4C	105H4B
R113	105H8A	105H4C	105H4B
R114	105H8A	105H4C	105H4B
R115	105H8A	105H4C	105H4B
R116	105H8A	105H4C	105H4B
R117	105H8A	105H4C	105H4B
R118	105H8A	105H4C	105H4B
R119	105H8A	105H4C	105H4B
R120	105H8A	105H4C	105H4B
R121	105H8A	105H4C	105H4B
R122	105H8A	105H4C	105H4B
R123	105H8A	105H4C	105H4B
R124	105H8A	105H4C	105H4B
R125	105H8A	105H4C	105H4B
R126	105H8A	105H4C	105H4B
R127	105H8A	105H4C	105H4B
R128	105H8A	105H4C	105H4B
R129	105H8A	105H4C	105H4B
R130	105H8A	105H4C	105H4B
R131	105H8A	105H4C	105H4B
R132	105H8A	105H4C	105H4B
R133	105H8A	105H4C	105H4B
R134	105H8A	105H4C	105H4B
R135	105H8A	105H4C	105H4B
R136	105H8A	105H4C	105H4B
R137	105H8A	105H4C	105H4B
R138	105H8A	105H4C	105H4B
R139	105H8A	105H4C	105H4B
R140	105H8A	105H4C	105H4B
R141	105H8A	105H4C	105H4B
R142	105H8A	105H4C	105H4B
R143	105H8A	105H4C	105H4B
R144	105H8A	105H4C	105H4B
R145	105H8A	105H4C	105H4B
R146	105H8A	105H4C	105H4B
R147	105H8A	105H4C	105H4B
R148	105H8A	105H4C	105H4B
R149	105H8A	105H4C	105H4B
R150	105H8A	105H4C	105H4B
R151	105H8A	105H4C	105H4B
R152	105H8A	105H4C	105H4B
R153	105H8A	105H4C	105H4B
R154	105H8A	105H4C	105H4B
R155	105H8A	105H4C	105H4B
R156	105H8A	105H4C	105H4B
R157	105H8A	105H4C	105H4B
R158	105H8A	105H4C	105H4B
R159	105H8A	105H4C	105H4B
R160	105H8A	105H4C	105H4B
R161	105H8A	105H4C	105H4B
R162	105H8A	105H4C	105H4B
R163	105H8A	105H4C	105H4B
R164	105H8A	105H4C	105H4B
R165	105H8A	105H4C	105H4B
R166	105H8A	105H4C	105H4B
R167	105H8A	105H4C	105H4B
R168	105H8A	105H4C	105H4B
R169	105H8A	105H4C	105H4B
R170	105H8A	105H4C	105H4B
R171	105H8A	105H4C	105H4B
R172	105H8A	105H4C	105H4B
R173	105H8A	105H4C	105H4B
R174	105H8A	105H4C	105H4B
R175	105H8A	105H4C	105H4B
R176	105H8A	105H4C	105H4B
R177	105H8A	105H4C	105H4B
R178	105H8A	105H4C	105H4B
R179	105H8A	105H4C	105H4B
R180	105H8A	105H4C	105H4B
R181	105H8A	105H4C	105H4B
R182	105H8A	105H4C	105H4B
R183	105H8A	105H4C	105H4B
R184	105H8A	105H4C	105H4B
R185	105H8A	105H4C	105H4B
R186	105H8A	105H4C	105H4B
R187	105H8A	105H4C	105H4B
R188	105H8A	105H4C	105H4B
R189	105H8A	105H4C	105H4B
R190	105H8A	105H4C	105H4B
R191	105H8A	105H4C	105H4B
R192	105H8A	105H4C	105H4B
R193	105H8A	105H4C	105H4B
R194	105H8A	105H4C	105H4B
R195	105H8A	105H4C	105H4B
R196	105H8A	105H4C	105H4B
R197	105H8A	105H4C	105H4B
R198	105H8A	105H4C	105H4B
R199	105H8A	105H4C	105H4B
R200	105H8A	105H4C	105H4B
R201	105H8A	105H4C	105H4B
R202	105H8A	105H4C	105H4B
R203	105H8A	105H4C	105H4B
R204	105H8A	105H4C	105H4B
R205	105H8A	105H4C	105H4B
R206	105H8A	105H4C	105H4B
R207	105H8A	105H4C	105H4B
R208	105H8A	105H4C	105H4B
R209	105H8A	105H4C	105H4B
R210	105H8A	105H4C	105H4B
R211	105H8A	105H4C	105H4B
R212	105H8A	105H4C	105H4B
R213	105H8A	105H4C	105H4B
R214	105H8A	105H4C	105H4B
R215	105H8A	105H4C	105H4B
R216	105H8A	105H4C	105H4B
R217	105H8A	105H4C	105H4B
R218	105H8A	105H4C	105H4B
R219	105H8A	105H4C	105H4B
R220	105H8A	105H4C	105H4B
R221	105H8A	105H4C	105H4B
R222	105H8A	105H4C	105H4B
R223	105H8A	105H4C	105H4B
R224	105H8A	105H4C	105H4B
R225	105H8A	105H4C	105H4B
R226	105H8A	105H4C	105H4B
R227	105H8A	105H4C	105H4B
R228	105H8A	105H4C	105H4B
R229	105H8A	105H4C	105H4B
R230	105H8A	105H4C	105H4B
R231	105H8A	105H4C	105H4B
R232	105H8A	105H4C	105H4B
R233	105H8A	105H4C	105H4B
R234	105H8A	105H4C	105H4B
R235	105H8A	105H4C	105H4B
R236	105H8A	105H4C	105H4B
R237	105H8A	105H4C	105H4B
R238	105H8A	105H4C	105H4B
R239	105H8A	105H4C	105H4B
R240	105H8A	105H4C	105H4B
R241	105H8A	105H4C	105H4B
R242	105H8A	105H4C	105H4B
R243	105H8A	105H4C	105H4B
R244	105H8A	105H4C	105H4B
R245	105H8A	105H4C	105H4B
R246	105H8A	105H4C	105H4B
R247	105H8A	105H4C	105H4B
R248	105H8A	105H4C	105H4B
R249	105H8A	105H4C	105H4B
R250	105H8A	105H4C	105H4B
R251	105H8A	105H4C	105H4B
R252	105H8A	105H4C	105H4B
R253	105H8A	105H4C	105H4B
R254	105H8A	105H4C	105H4B
R255	105H8A	105H4C	105H4B
R256	105H8A	105H4C	105H4B
R257	105H8A	105H4C	105H4B
R258	105H8A	105H4C	105H4B
R259	105H8A	105H4C	105H4B
R260	105H8A	105H4C	105H4B
R261	105H8A	105H4C	105H4B
R262	105H8A	105H4C	105H4B
R263	105H8A	105H4C	105H4B
R264	105H8A	105H4C	105H4B
R265	105H8A	105H4C	105H4B
R266	105H8A	105H4C	105H4B
R267	105H8A	105H4C	105H4B
R268	105H8A	105H4C	105H4B
R269	105H8A	105H4C	105H4B
R270	105H8A	105H4C	105H4B
R271	105H8A	105H4C	105H4B
R272	105H8A	105H4C	105H4B
R273	105H8A	105H4C	105H4B
R274	105H8A	105H4C	105H4B
R275	105H8A	105H4C	105H4B
R276	105H8A	105H4C	105H4B
R277	105H8A	105H4C	105H4B
R278	105H8A	105H4C	105H4B
R279	105H8A	105H4C	105H4B
R280	105H8A	105H4C	105H4B
R281	105H8A	105H4C	105H4B
R282	105H8A	105H4C	105H4B
R283	105H8A	105H4C	105H4B
R284	105H8A	105H4C	

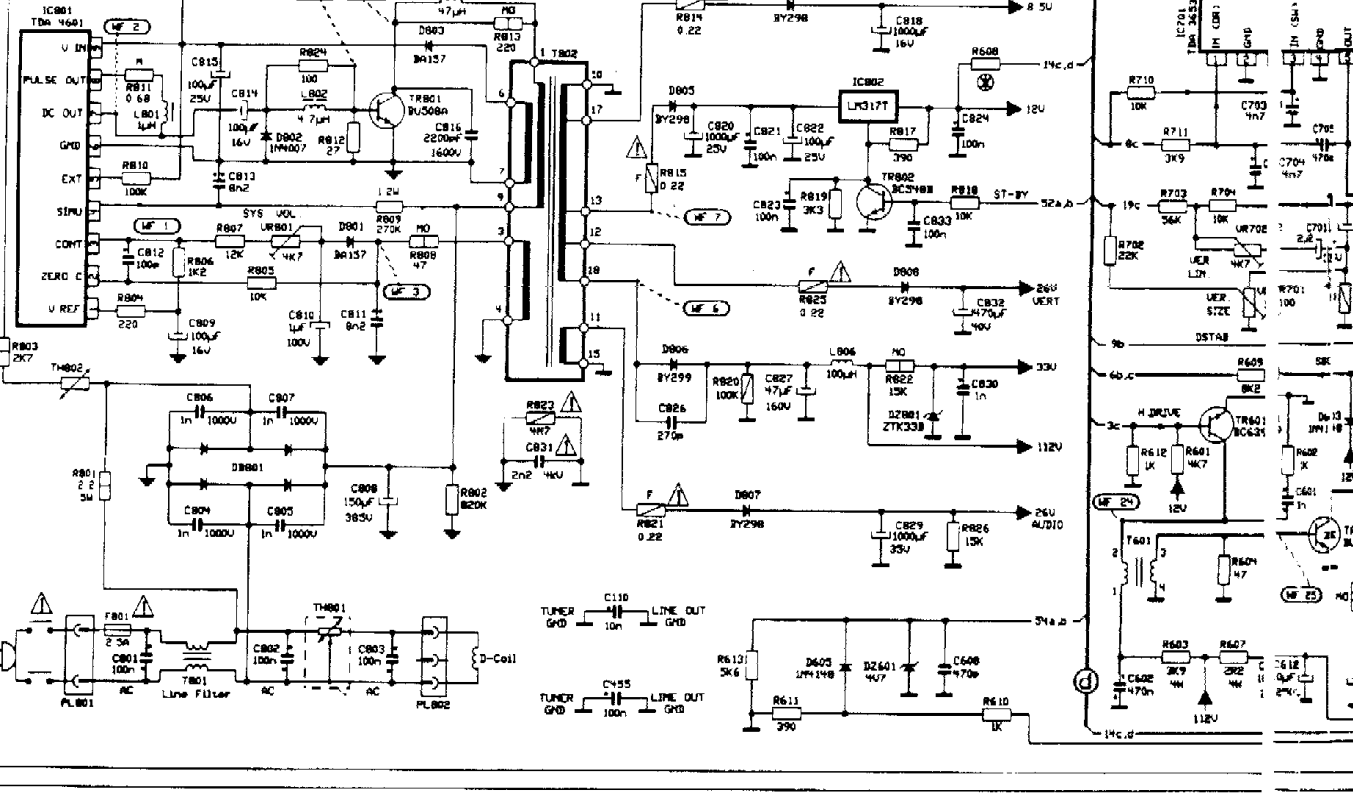
forms

- WF 1
- WF 2
- WF 3
- WF 4
- WF 5
- WF 6
- WF 7
- WF 8
- WF 9
- WF 10
- WF 11
- WF 12
- WF 13
- WF 14
- WF 15

IF & SYNC SEPARATOR STAGE



SMPS STAGE



- WF 16
- WF 17
- WF 18
- WF 19
- WF 20
- WF 21
- WF 22