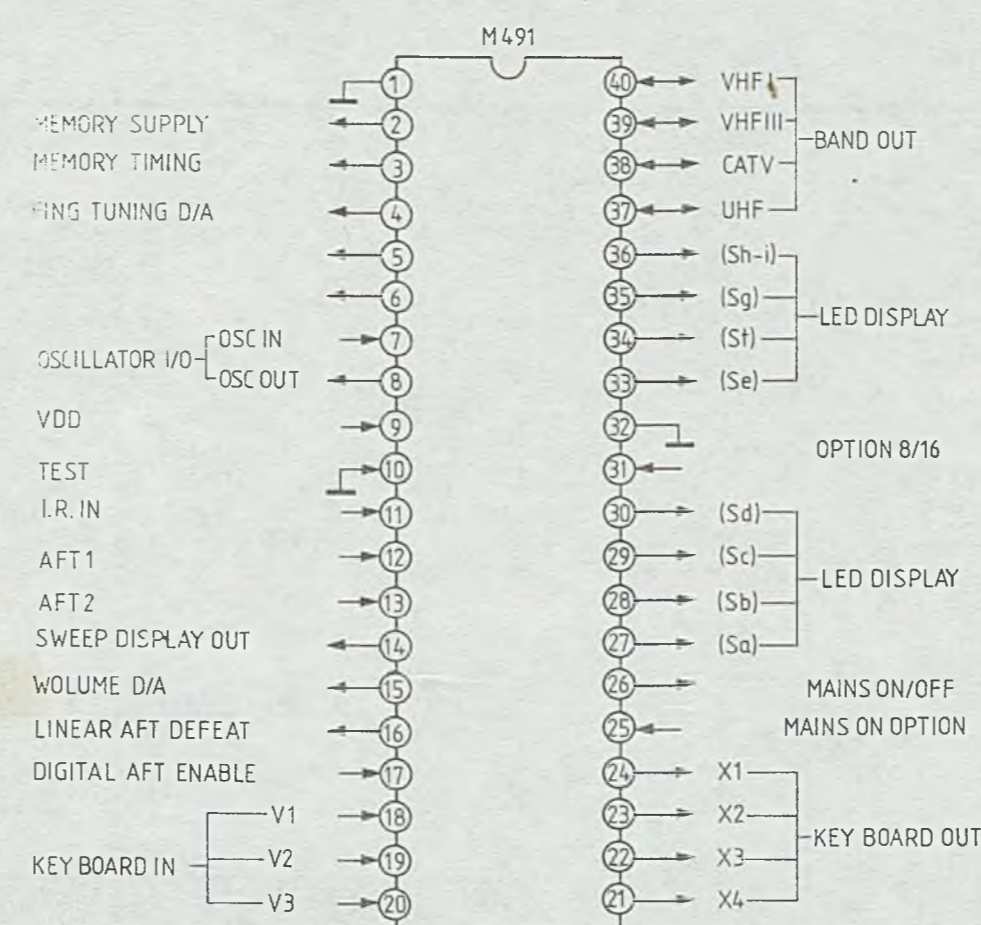
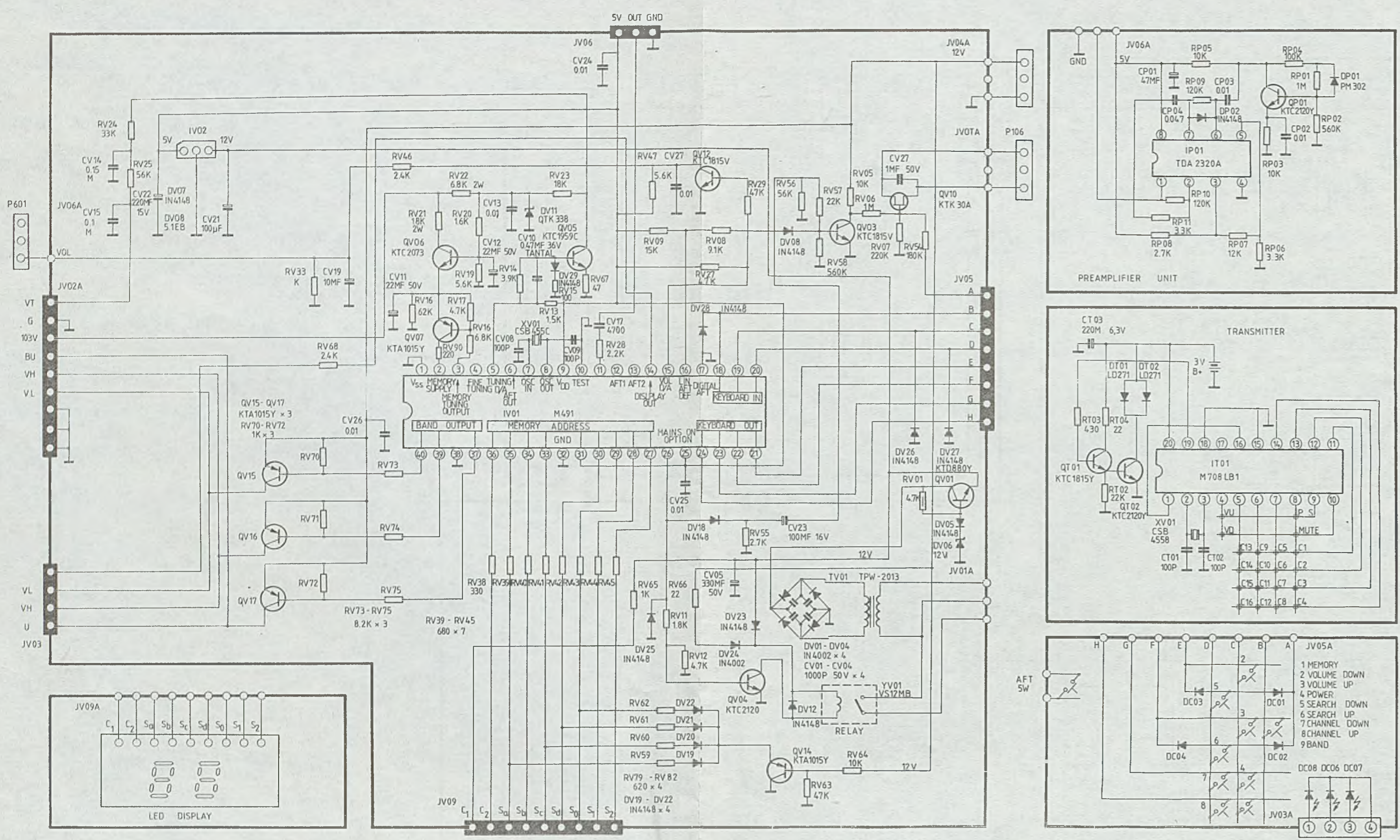
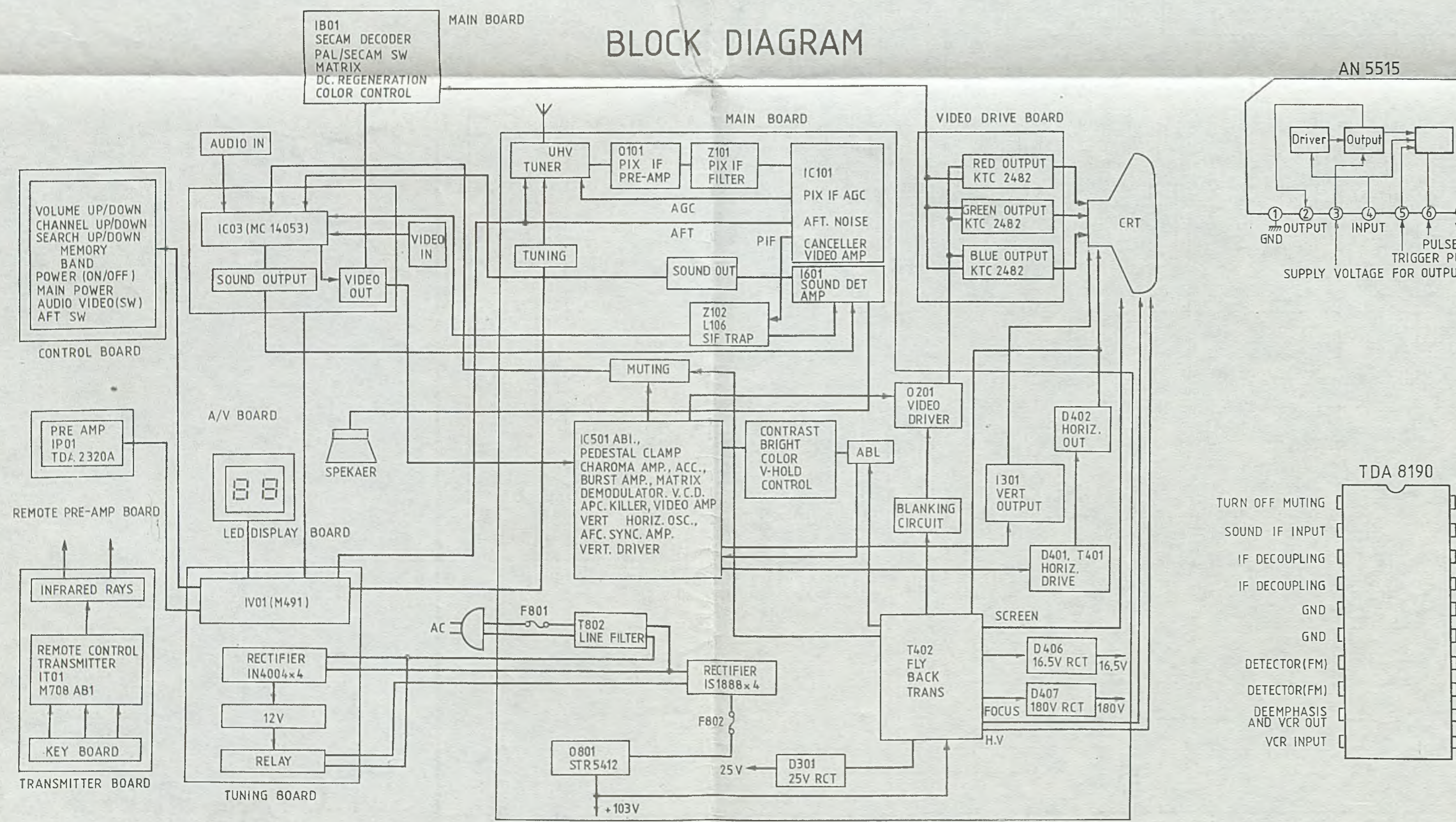


ROYAL 5104



LOCATION	IC TYPE	VOLTAGE (PIN NO)										
		1	2	3	4	5	6	7	8	9	10	11
I101	TA7606AP	4.6	4.6	6.4	3.9	2.2	5.2	3.2	7.9	3.2	3.2	11.5
		1.2	1.3	1.4	1.5	1.6						
		3.6	0	7.3	4.6	4.6						
		1	2	3	4	5	6	7	8	9	10	11
I501	TA7698AP	4.2	11.3	4.25	4.2	1	9.0	5.0	9.3	5.7	7.1	0
		1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2
		8.6	9.0	3.3	3.3	7.8	3.8	8.0	3.9	7.6	6.9	
		2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3
		6.3	0.5	3.74	7.9	0.44	2.6	—	0	0.4	0.4	8.5
		3.4	3.5	3.6	3.7	3.8	4.0	4.1	4.2			
		4.8	4.9	3.3	—	2.8	—	6.8	7.1			
		1	2	3	4	5	6	7	8	9	10	11
IV01	M491	0	2.6	8	1	1.5	—	—	5	—	13.2	
		1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2
		—	—	15.1	1	0.4	0	3.5	3.5	3.5	0.4	0.4
		2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3
		0.4	0.4	2.4	0.4	1.5	1.5	1.5	1.5	0.8	0	1.5
		3.4	3.5	3.6	3.7	3.8	3.9	4.0				
		1.5	1.5	1.5	3	0	3	3				
		1	2	3	4	5	6	7	8	9	10	11
I801	MS1397AP	2.3	5.3	0	—	5.4	4.6	2.3	7.6	11	4.6	2.3
		1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2
		7.6	11.2	2.6	2.6	2.6	2.6	6.7	3.4	6.7	3.5	0
		2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0			
		3.5	0	2.7	7.1	5.3	5.3	4.6	—			
		1	2	3	4	5	6	7				
		0	—	2.5	6	0	3	2.5				
		1	2	3	4	5	6	7	8	9	10	11
I301	ANS515	4.7	3.4	3.6	3.4	0	0	3.4	—	4.0	4.5	7.4
		1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0		
		6.0	5.4	4.3	0	0	0.8	—				

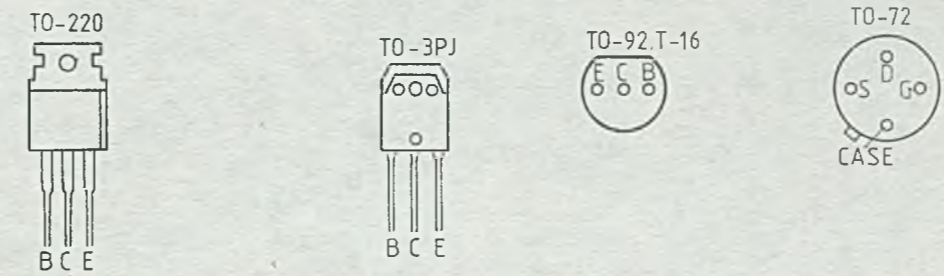
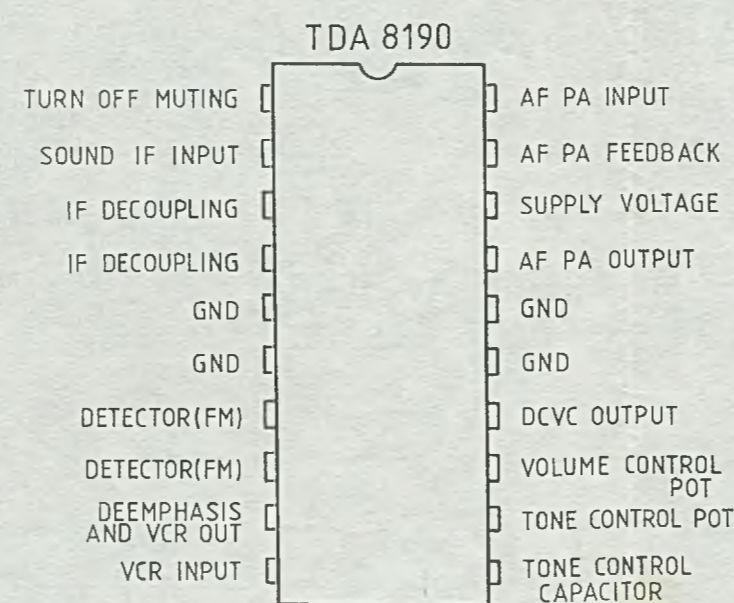
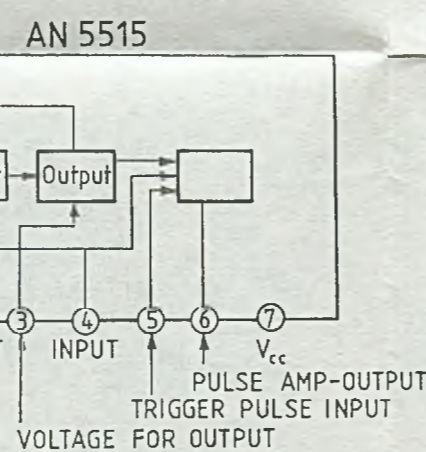
BLOCK DIAGRAM



TYPE	Description and application	U_{EBO} V	U_{CBO} V	U_{EBO} V	I_{Cmax} A	P_D W	f_T MHz	h_{FE}	CASE	Equivalent
2SD1554	NPN-Si, Horiz. Out. DAMPER DIODE	1500	800	7	5	120	3	8 min	TO-3PJ	BU508D S2055AF
KTC2482	NPN-Si, HV Video OUTPUT	300	300	6	1	$T_A = 25^\circ C$ 9	50 min	100 min	T-16	BF299 BF428 BF393
KTC1815V KTC1959C	NPN-Si, Sw GEN. PURP. AMP.	70	70	4	0.4	0.6	200 min	120 min	TO-92	BC144 BC384 BC44, BC550
KTA562MY KTA1015Y	PNP-Si, AF Pwr. AMP./COMPL. TO KTC2120/	100	80	5	0.5	$T_A = 25^\circ C$ 0.5	120	100 min	TO-92	BC177, BC204 BC213, BC307 BC351
KTC2073	NPN-Si VERT. DEFL. AF AMP.	200	150	6	3	25	8	150 TYP	TO-220	
KTC2120	NPN-Si, AFP AMP./COMPL. TO KTA5621MY	100	80	0.5	$T_A = 25^\circ C$ 0.5	120	100 min	100 min	TO-92	
KTD880V	NPN-Si, AF P OUTPUT	60	60	5	7	50	10	60 TYP	TO-220	

TYPE	Description and application	TRANSCONDUCTANCE gfs TYP $\mu mhos$	GATE TO SOURCE CUTOFF VOLTAGE $V_{GSoff max}$ V	Zero-GATE VOLTAGE DRAIN GURP I_{DSS} (mA) Min - Max	GATE TO SOURCE BREAKDOWN VOLTAGE $BV_{GSS min}$ (V)	INPUT CAPACIT. $C_{iss max}$ (pF)	CASE	P_{Dmax} (mW)
KTK 30A	I_{FET} N - Ch AF AMP. CHOPPER, Sw	4500	6	2 10	50	6	TO-72	300

TYPE	Description	PEAK REVERSE VOLTAGE U_{Rmax} (V)	AVERAGE FORWARD CURRENT I_{fmax}	FORWARD REPETITIVE PEAK CURRENT I_{FRMmax}	REVERSE RECOVERY TIME t_{rr}	FORWARD VOLTAGE DROP V_{fmax}	CASE
1N414B	FAST Sw, DCT-Si	200	160 mA	250 mA	50 ns	1.0 at 100 mA	K A
1N414B	FAST Sw, Si	100	200 mA	450 mA	4 ns	1.0 at 100 mA	K A
RU-2 SS29SG	GEN. PURP. RECT. FART RECOVERY-Si	600	1 A		200 ns	1.5 V	K A



LOC NO	14,16 INCH	20 INCH	LOC NO	14,16 INCH	20 INCH
0402	2SD1554	2SD1555	R240	1/4 24K OHM	1/4 18K OHM
T402	FBT KFS 60226B	KFS 60266	R241	1/4 180K OHM	1/4 150K OHM
C325	0.36 200V (M)	0.47 200V (M)	C419	6000P 1.6KV (M)	8200P 1.6KV (M)
L403	L-125 125 uH	L-102 102 uH	CRT	14" A34 JLL70x01	20" A46 JLL70x02

SAFETY CAUTION:

BEFORE SERVICING THIS CHASSIS, IT IS IMPORTANT THAT THE SERVICE TECHNICIAN READ AND FOLLOW THE X-RAY RADIATION PRECAUTION, "SAFETY PRECAUTIONS" AND "PRODUCT SAFETY NOTICE" IN THE SERVICE MANUAL.

1. WAVEFORMS TAKEN USING SIGNAL FROM A STANDARD COLOR BAR GENERATOR.
2. \bullet INDICATES WAVEFORM CHECK POINTS.

NOTES:

- RESISTANCE VALUES ARE IN OHMS K=1000, M=1,000,000
- CAPACITANCE VALUES 10 AND ABOVE ARE IN pF, THOSE BELOW ARE IN μF EXCEPT AS INDICATED.
- INDUCTOR VALUES IN μH EXCEPT AS INDICATED.
- VOLTAGES ARE MEASURED FROM CHASSIS GROUND TO POINT INDICATED WITH A "VTVM" WHILE RECEIVING A COLOR BAR SIGNAL WITH ALL CONTROLS SET TO THE MAXIMUM POSITION (FOR A NOMINAL LINE VOLTAGE AC 110-260V, 50HZ).
- SINCE THE CIRCUIT DIAGRAM IS A STANDARD ONE, THE CIRCUIT AND CIRCUIT CONSTANTS MAY BE SUBJECT TO CHANGE FOR IMPROVEMENT WITHOUT ANY NOTICE.

PRODUCT SAFETY NOTE:

SHADED COMPONENTS HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY AND SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL OR SPECIFIED IN THE PARTS LIST.
DON'T DEGRADE THE SAFETY OF THE SET THROUGH IMPROPER SERVICING.