

## SERVICE ADJUSTMENT AND ALIGNMENTS

# AMSTRAD CTV3128N

### HIGH VOLTAGE TEST

There is no high voltage adjustment component on the chassis. Changing of +145 depends on the supply voltage. If it's necessary to measure high voltage.

- 1- Connect the probe of high voltage tester to the anode of CPT.
- 2- Adjust contrast and brightness to minimum.
- 3- Measure the high voltage as 27 KV for 25" and 28" screen size.
- 4- For maximum brightness, high voltage regulation should be 2KV dc max.

### AGC ADJUSTMENT

- 1- Apply Philips pattern signal which is 60 dB uV to the RF input.
- 2- Adjust P301 until find a picture without snowy.

### VERTICAL ADJUSTMENT

- 1- Apply Philips pattern.
- 2- Adjust the vertical amplitude with P576 until the top and the bottom lines of the picture appear.
- 3- Center the picture with P579

### HORIZONTAL ADJUSTMENT

- 1- Apply Philips pattern signal.
- 2- Center the picture horizontally by shifting to the left and right positions via P300.

### ADJUSTMENT OF G2

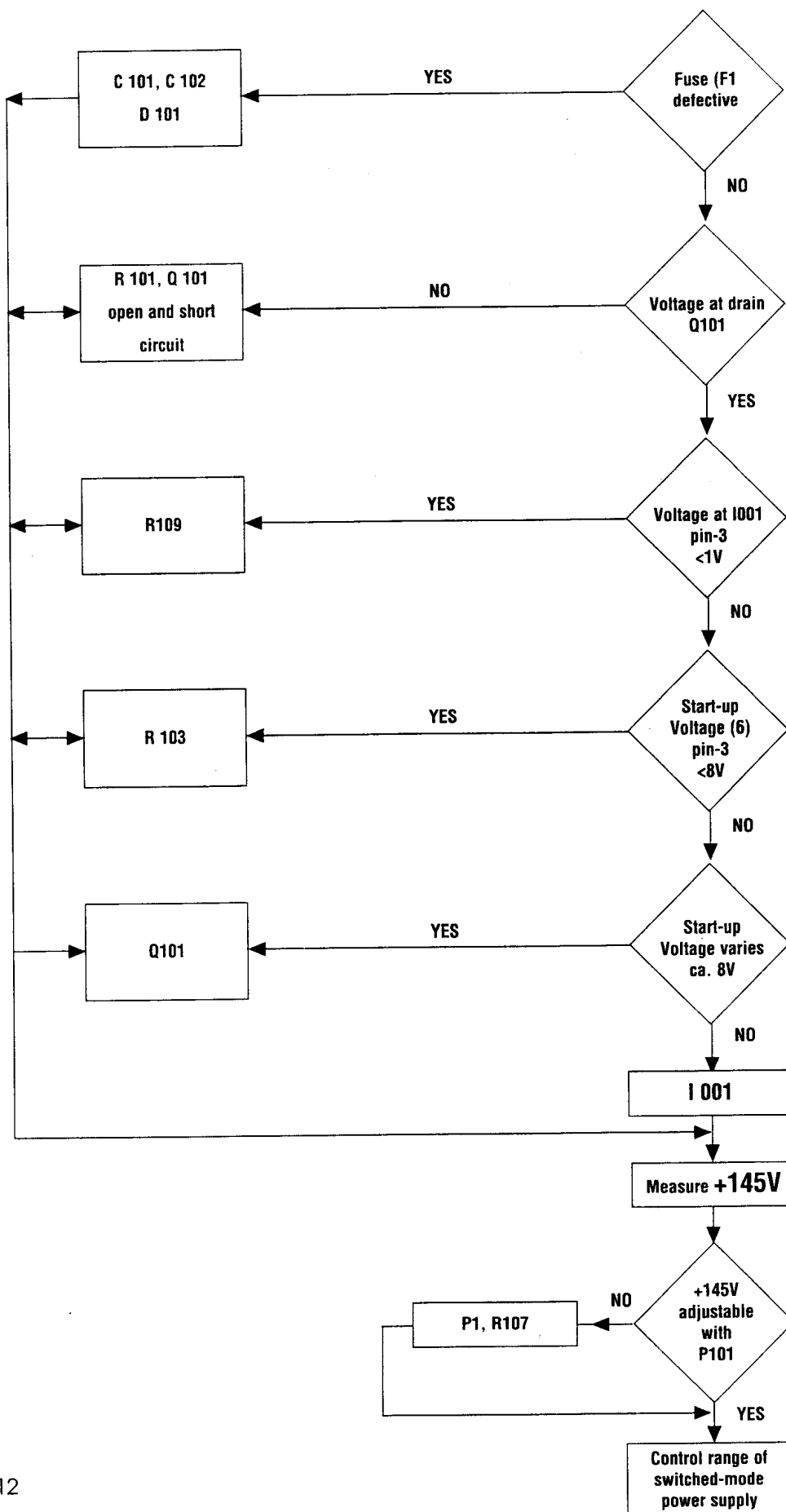
- 1- Apply Philips test pattern
- 2- Adjust all the analog parameters to minimum with RC
- 3- Adjust G2 until the maximum cathode voltage is 175V.

### ADJUSTMENT OF SUPPLY VOLTAGE

- 1- Apply Philips pattern signal.
- 2- Set the volume, brightness and contrast values to minimum.
- 3- Adjust the supply voltage on the PIN cathode of D125 as  $V_{sys} = 145 + 0.5$  by using P101.

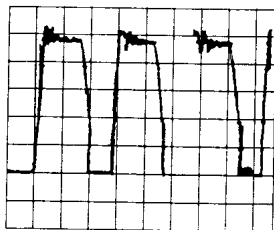
# FAULT TRACING DIAGRAM - POWER SUPPLY

**SWITCHED MODE POWER SUPPLY  
DEFECTIVE, + 145V IS MISSING OR  
LEVEL IS WRONG**



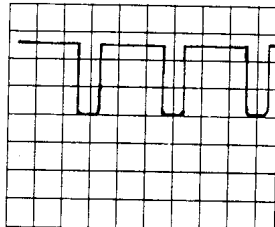
# OSCILLOSCOPE SIGNALS

1) 5 $\mu$ s/div/100 volts/div



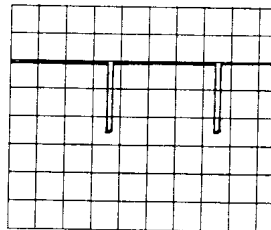
Drain of Q101

2) 20  $\mu$ s/div/2 volts/div



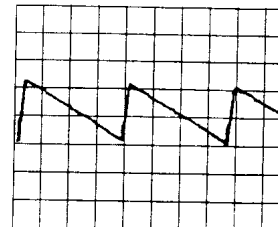
I301 pin 36

3) 5 ms/div/2 volts/div



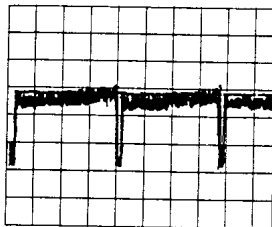
I301 pin 37

4) 5 ms/div/0.5 volt/div



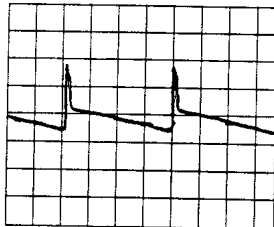
I101 pin 42

5) 5ms/div/1 volt/div



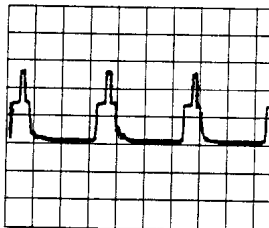
I576 pin 3

6) 5ms/div/20 volts/div



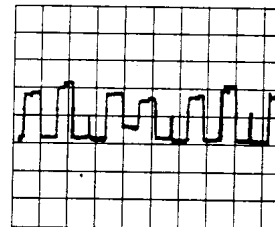
I576 pin 5

7) 20 $\mu$ s/div/2 volts/div



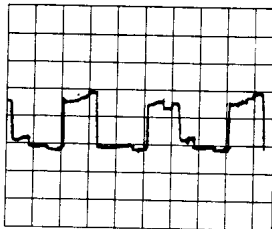
I101 pin 38

8) 20 $\mu$ s/div/2 volt/div



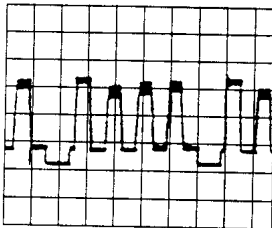
I101 pin 20

9) 20 $\mu$ s/div/2 volts/div



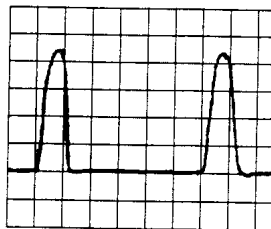
I101 pin 19

10) 10 $\mu$ s/div/2 volts/div



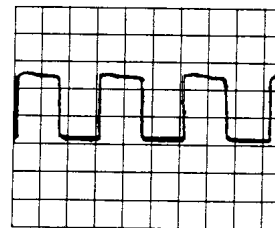
I101 pin 18

11) 10 $\mu$ s/div/250 volts/div



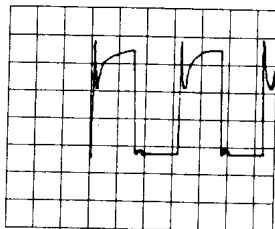
Collector of Q602

12) 20  $\mu$ s/div/0.5 volt/div



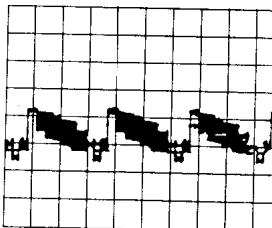
I101 pin 37

13) 20ms/div/50 volts/div



Collector of Q580

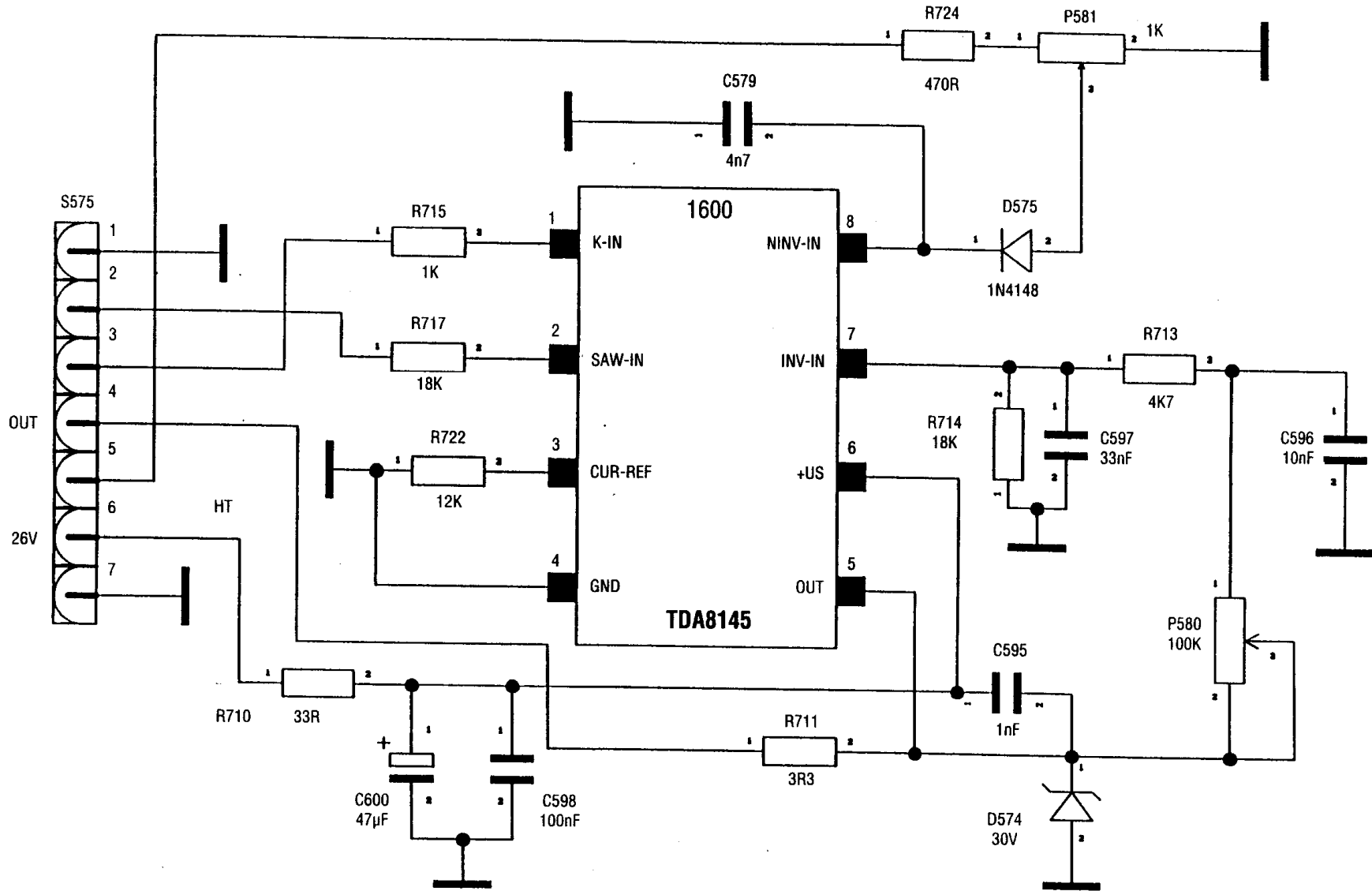
14) 20 $\mu$ s/div/1 volt/div

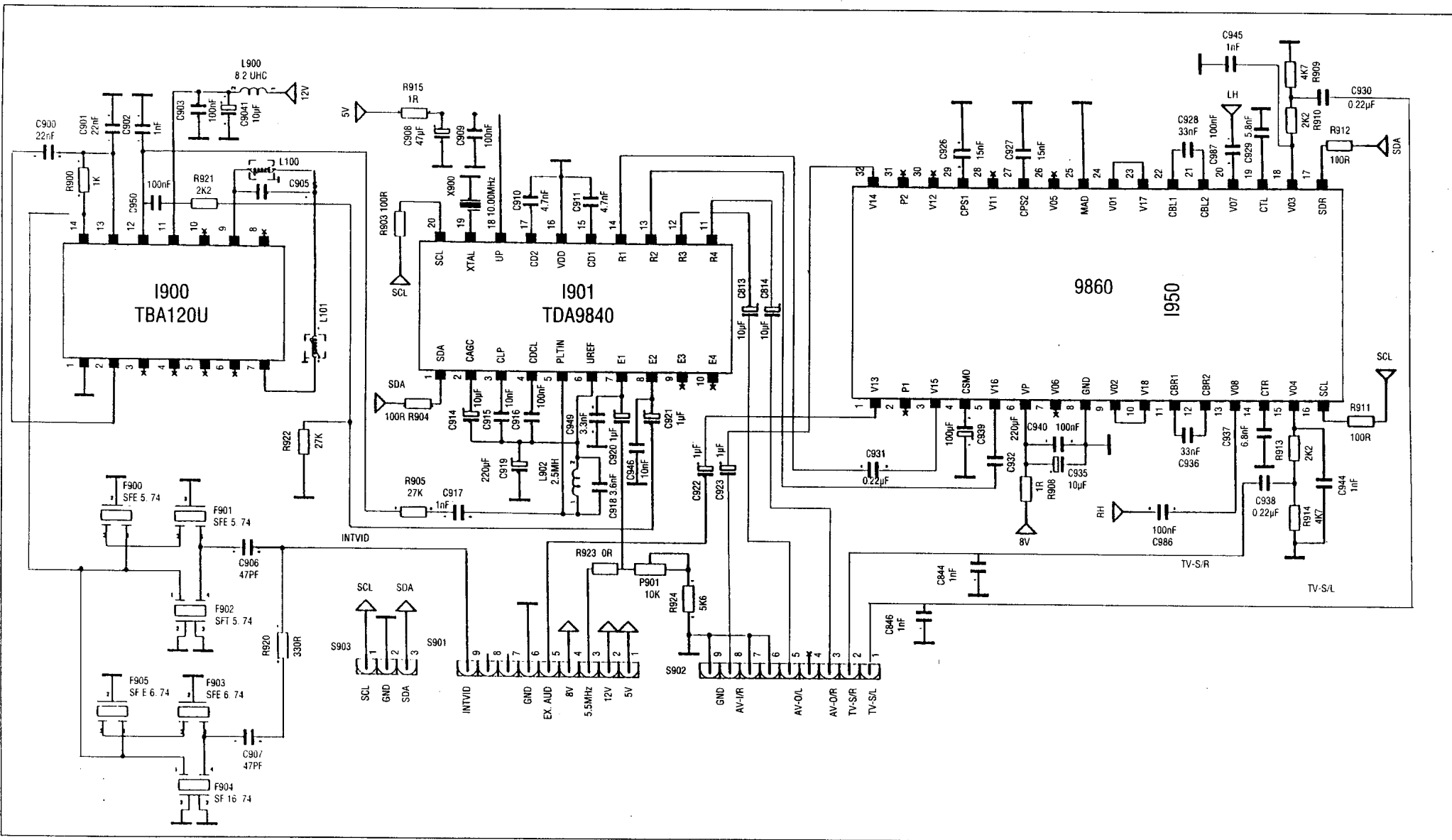


I101 pin 13



# E/W BOARD CIRCUIT DIAGRAM

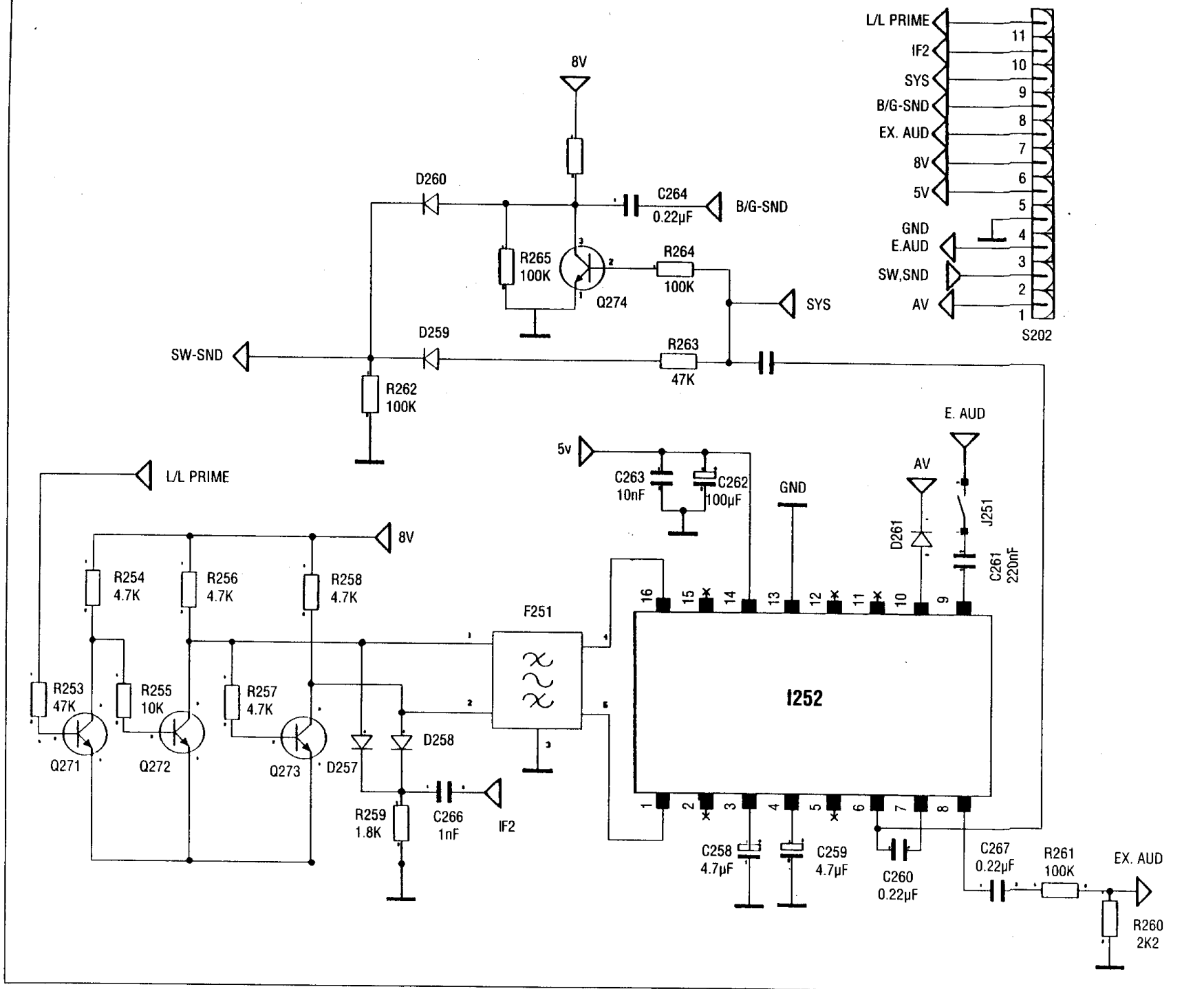




GERMAN STEREO BOARD CIRCUIT DIAGRAM



# MONO SECAM L/L' BOARD CIRCUIT DIAGRAM



## PIN VOLTAGES OF IC'S

Pin.	CTV811S	24C08/PCF8594C		TDA8361A	TDA4665	TDA2616	TDA3654	TDA4605
1	1.5V	0V	0V	2.9V	5V	15V	2.2V	0.4V
2	0V	0V	0V	5.80V	0V	30V	0V	1.2V
3	0V	0V	0V	5.8V	0V	15V	2.2V	1.9V
4	1.7V	0V	0V	7.3V	0V	15.2V	0V	0V
5	1.8V	3.15V	3.3V	3.25V	0.5V	0V	13.2V	2.8V
6	2.4V	3.6V	3.3V	3.8V	0V	15.2V	27V	10.73V
7	2.5V	4.5V	5V	3.1V	0V	30.4V	1.6V	1.9V
8	0V	5V	5V	1.8V	0V	15.2V	3.5V	0.4V
9	2.75V			1V	5V	15V	26V	
10	0V			7.8V	0V			
11	0V			0V	3V			
12	4.28V			3.28V	3V			
13	0V			4.32V	0V			
14	4.23V			4.15V	1.4V			
15	-			3.4V	0V			
16	-			0V	1.4V			
17	-			2.1V				
18	-			1.8V				
19	-			2V				
20	5V			1.7V				
21	0V			0.3V				
22	0V			3.37V				
23	2.6V			3.37V				
24	0V			3.37V				
25	2.26V			1.8V				
26	2.41V			1.8V				
27	0V			5.85V				
28	0V			3.86V				
29	-			3.86V				
30	-			1.47V				
31	5V			1.5V				
32	0V			0V				
33	0V			5.14V				
34	0V			2.8V				
35	0V			2V				
36	3.8V			8V				
37	4.7V			0.5V				
38	5V			0.43V				
39	5V			3V				
40	0V			3.6V				
41	-			0V				
42	2.5V			2.35V				
43	0V			2.8V				
44	5V			3.58V				
45	5.4V			3.95V				
46	-			3.95V				
47	5V			4.28V				
48	0V			4.55V				
49	3.5V			0.37V				
50	3.5V			3.43V				
51	0V			4.5V				
52	0V			6.57V				

\* All voltages are in Volt

\* Readings are taken with a digital multimeter.

\* Readings are taken with PAL B/G colour-bar signal input

\* Measurements are taken when there is not any on the screen.

\* Sound

Contrast

Brightness

Color

min.

Normal

# PIN VOLTAGES OF IC'S

Pin.	TDA8145	TDA6107Q	SAA7283	TDA9860	TBA120U	TDA3845
1	13.42V	2V	4.7V	3.9V	0V	1.75V
2	13.42V	2.13V	2.3V	-	-	-
3	8V	2.55V	4.8V	3.9V	-	1.95V
4	0V	0V	0V	3.9V	-	4.38V
5	8.5V	5.70V	2.3V	3.9V	-	0.1V
6	17.6V	200V	1.7V	8V	-	-
7	1V	158V	2.4V	-	-	4.83V
8	1.75V	152V	2.4V	0V	-	3.7V
9		156V	0V	3.9V	-	3.7V
10			0V	3.9V	-	-
11			2.4V	3.9V	12V	-
12			0V	3.9V	0.5Vpp	1.57V
13			0V	3.9V		0V
14			0V	3.9V		4.74V
15			2.3V	3V		-
16			2.3V	3V		1.75V
17			1.6V	2.8V		
18			4.7V	3.9V		
19			0V	3.9V		
20			2.4V	3.9V		
21			2.6V	3.9V		
22			2.4V	3.9V		
23			2.4V	3.9V		
24			0V	3.9V		
25			2.4V	0V		
26			5V	-		
27			2.4V	3.9V		
28			2.4V	-		
29			2.4V	3.9V		
30			2.3V	-		
31			2.4V	-		
32			1.3V			
33			2.4V			
34			2.3V			
35			2.4V			
36			4.8V			
37			0V			
38			4.7V			
39			0V			
40			3.4V			
41			2.4V			
42			0V			
43			2.4V			
44			0V			
45			2.3V			
46			4.7V			
47			4.6V			
48			2.5V			
49			2.9V			
50			2.5V			
51			4.7V			
52			4.7V			

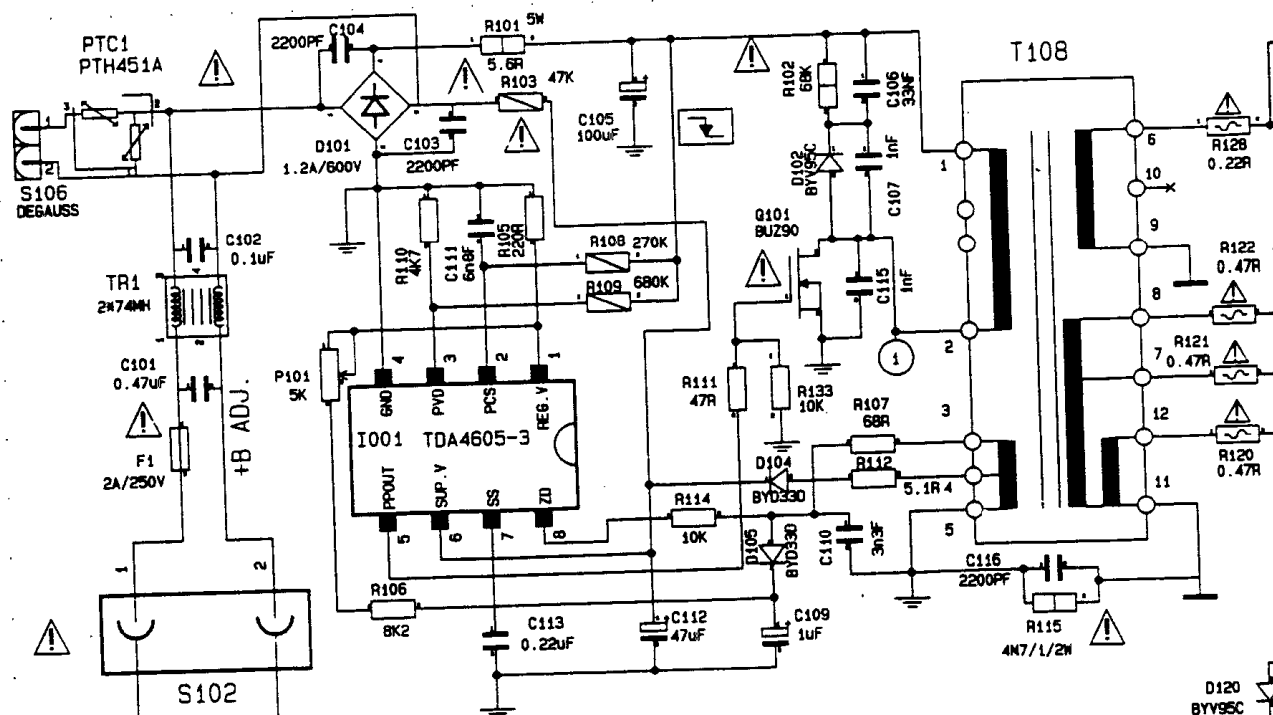
\* All voltages are in Volt

\* Reading are taken with a digital multimeter.

\* Reading are taken with a colour-bar signal input.

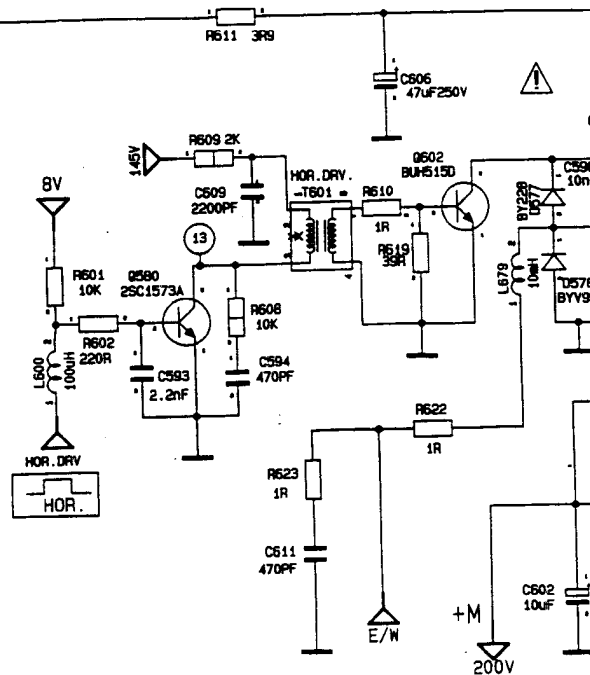
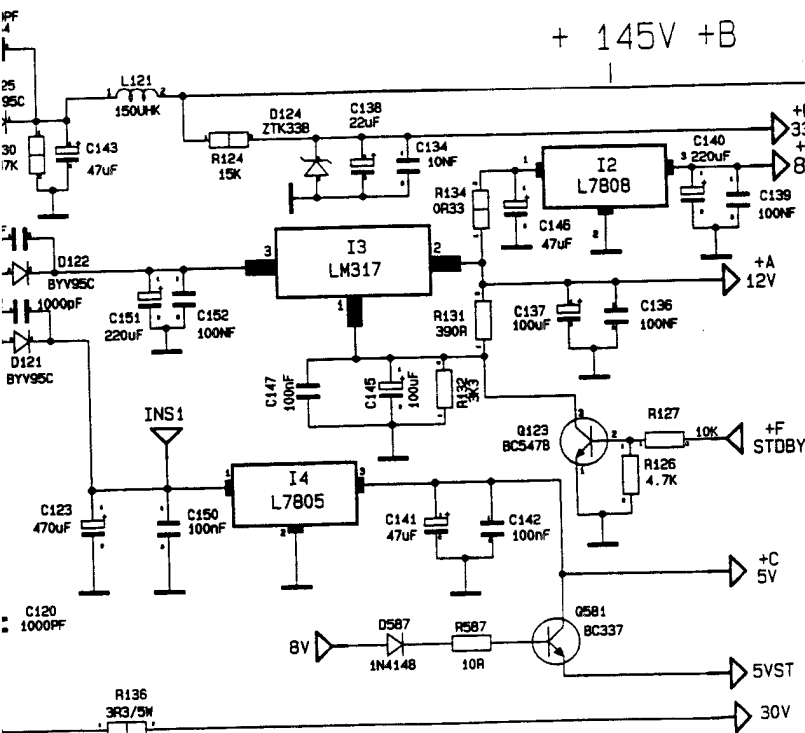
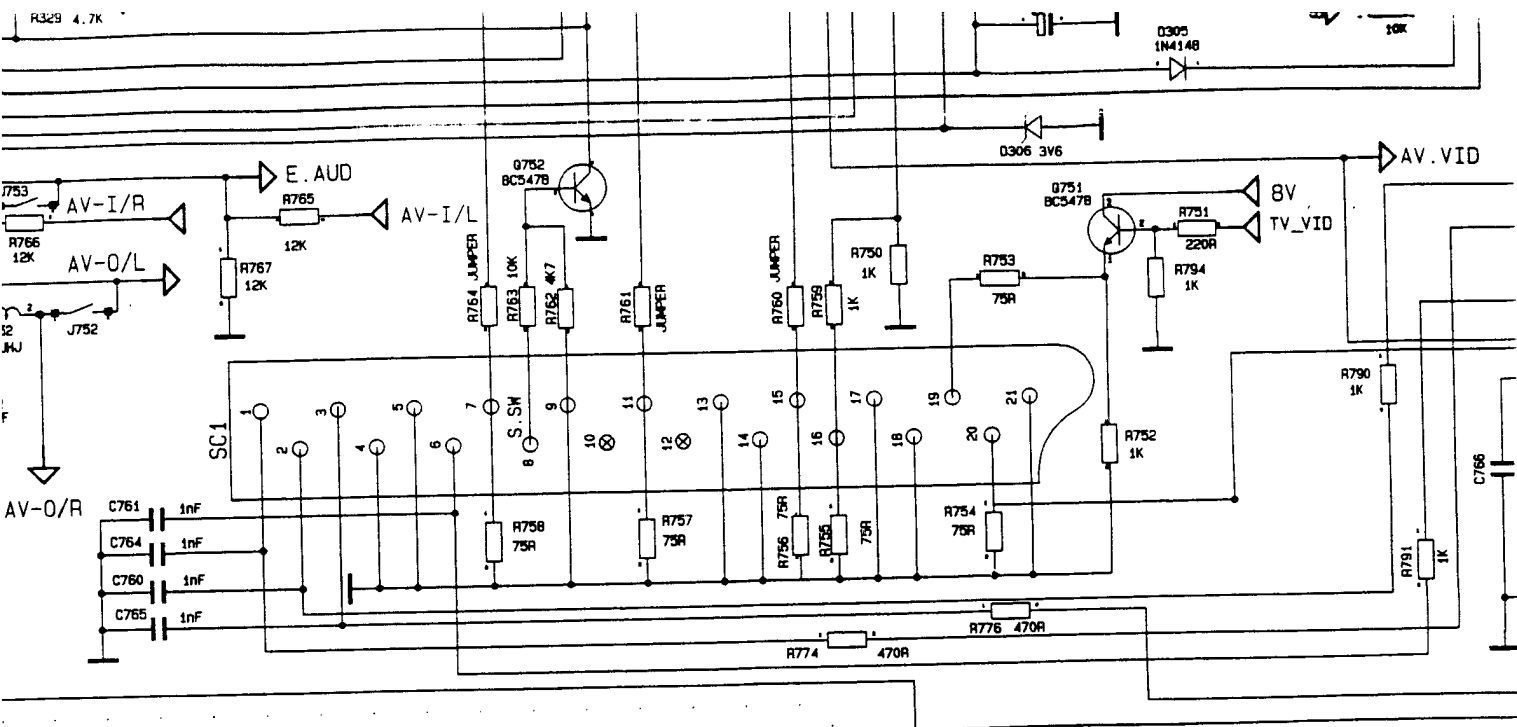
\* Sound Contrast min.

Brightness } Normal  
Color }



**SERVICE INFORMATION FÜR SICHERHEIT**  
WÄHREND REPARATUR VON DIESEM GEBIET  
IS EIN TRANSFORMATOR ZU VERWENDEN DER  
DEN TV-EMPFANGER VON DEM NETZSTROM  
TRENNT DAMIT KÖNNEN SIE ELEKTRISCHEN  
SCHOCK VERMEIDEN.

PROPERTY OF  
TELETECH



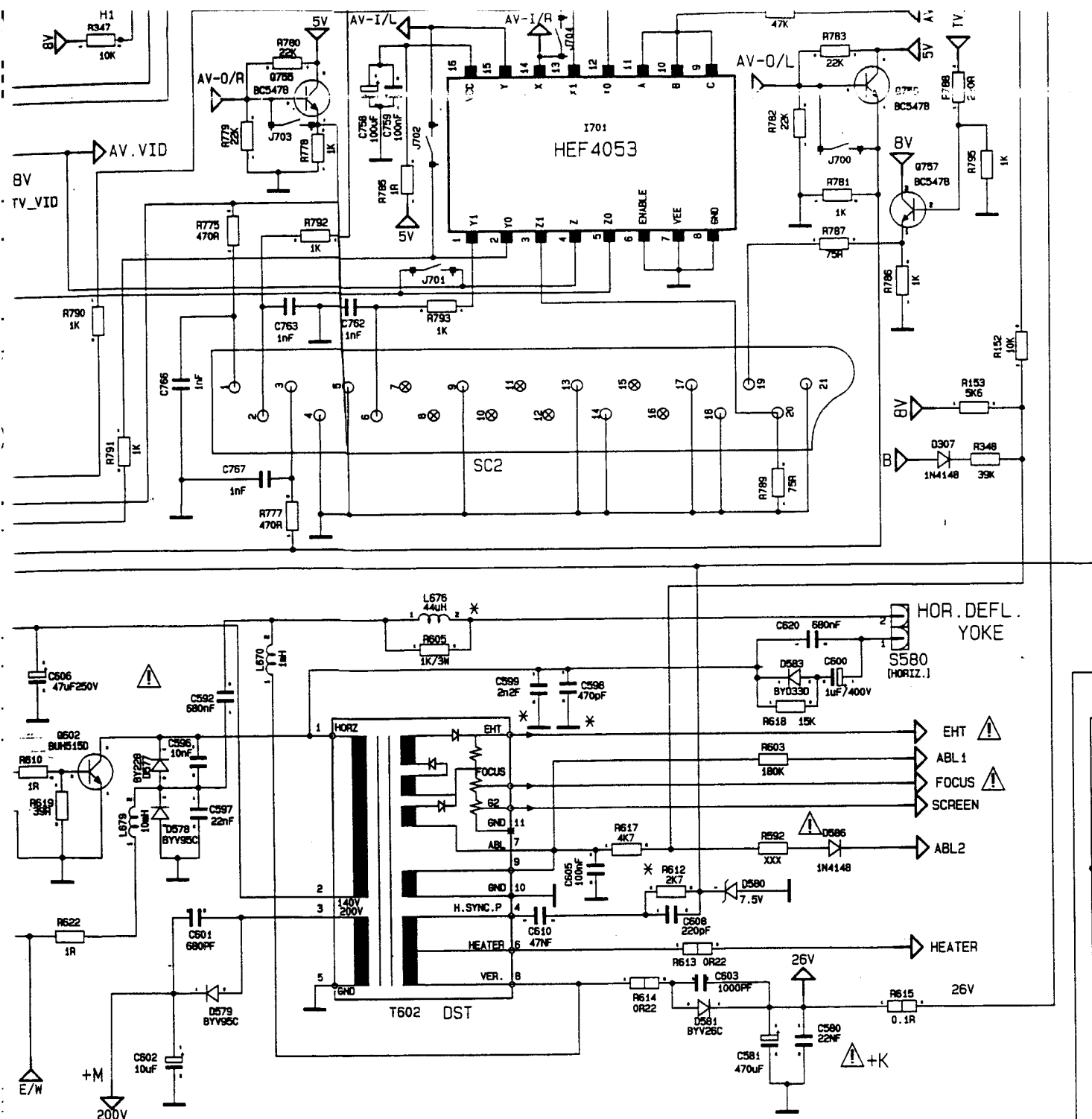
AV-OR

AV-OL

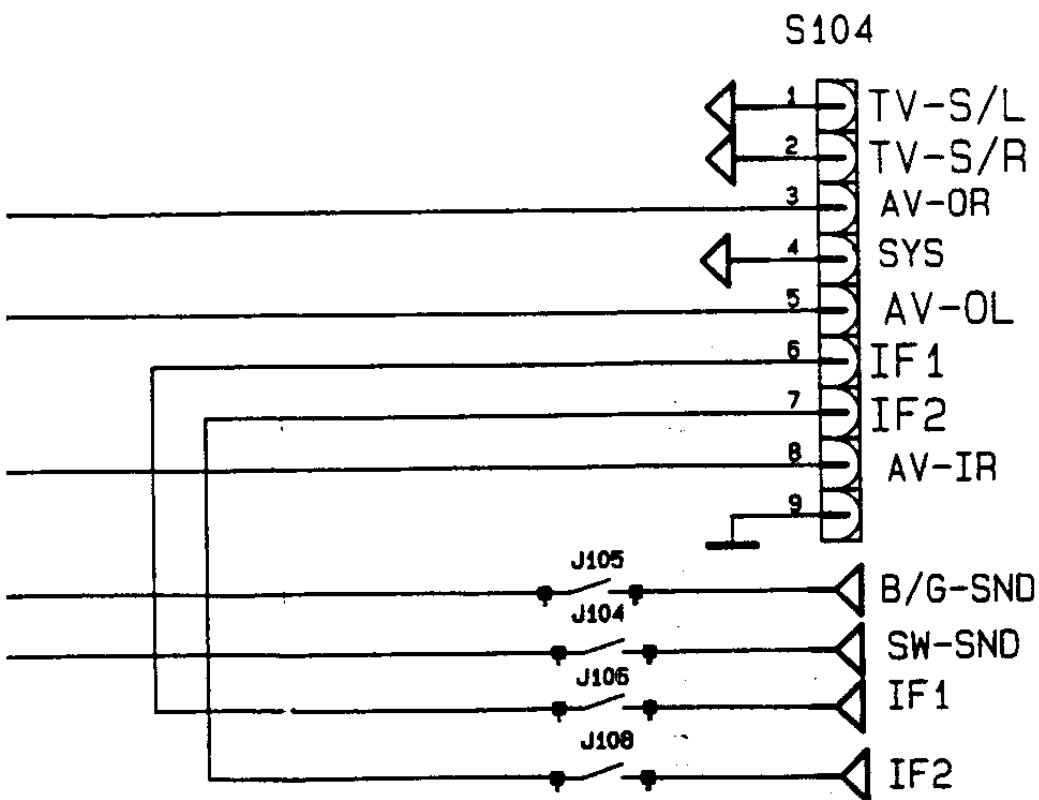
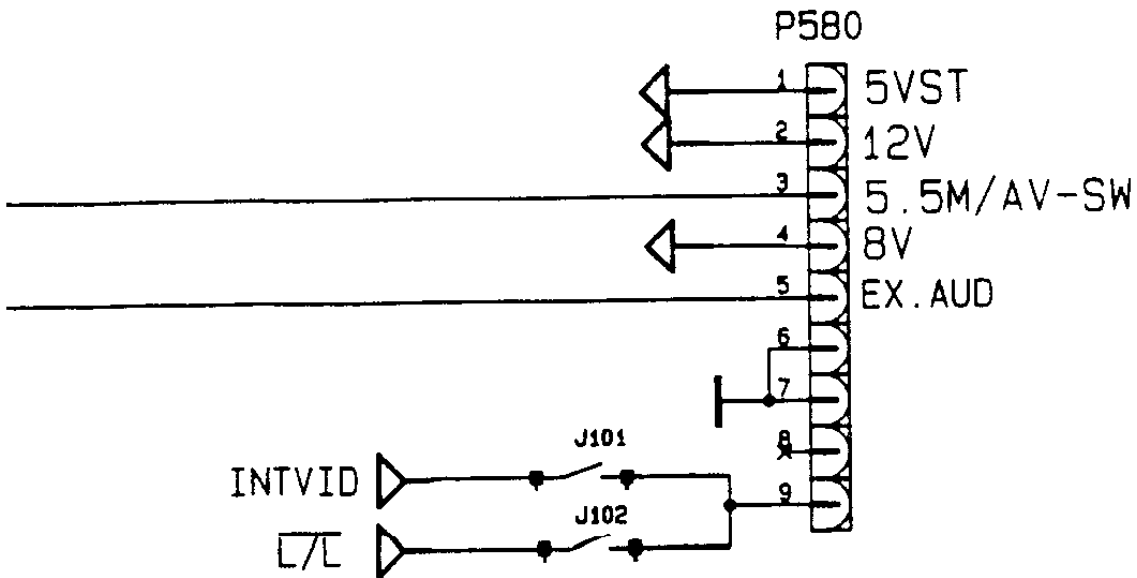
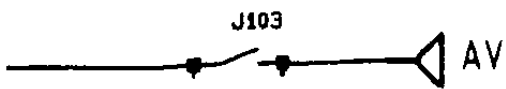
AV-IR

EX. AUD

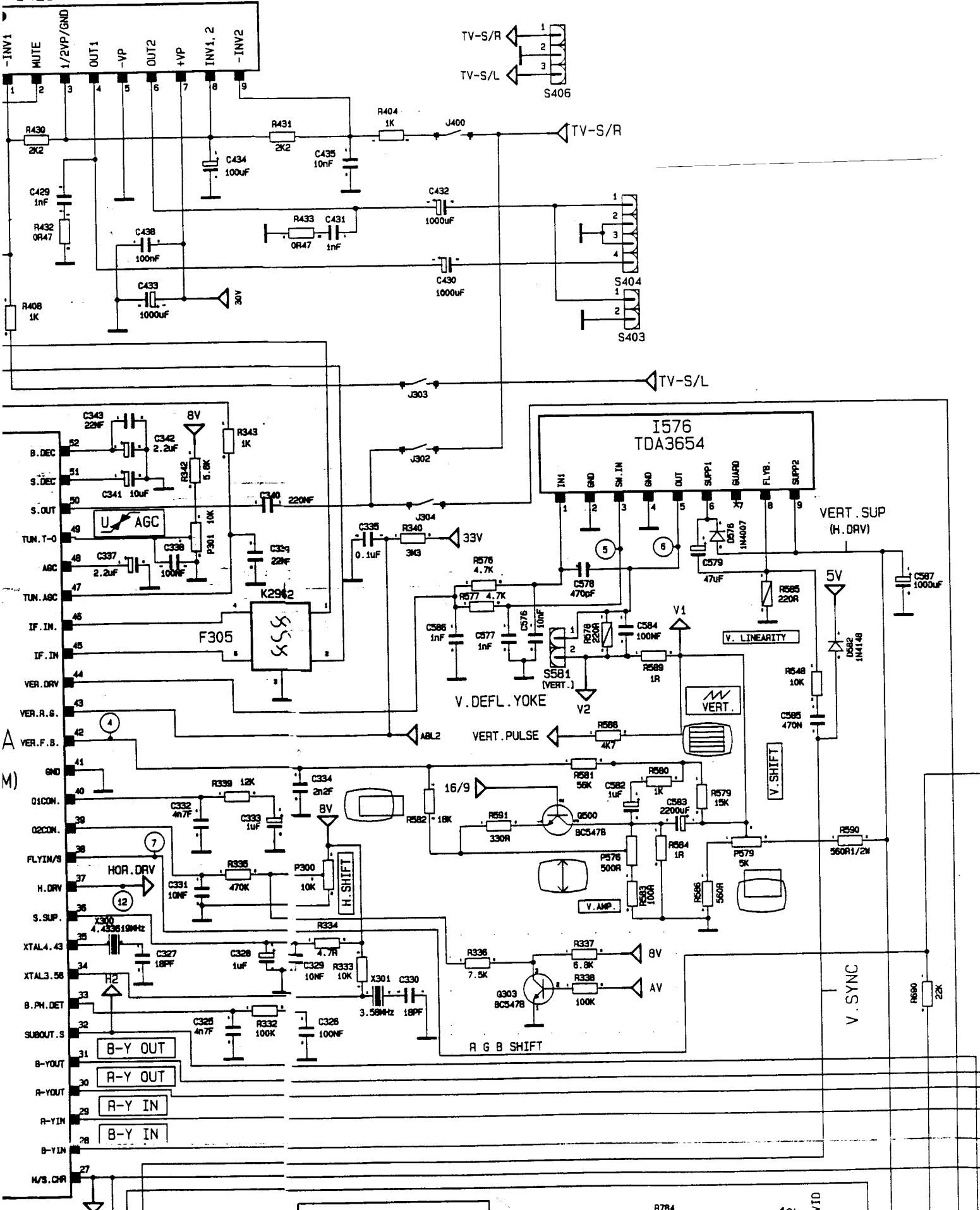
OSCILLOSCOPE SHAPES / OSZILLOGRAMME /



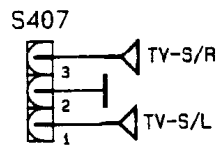
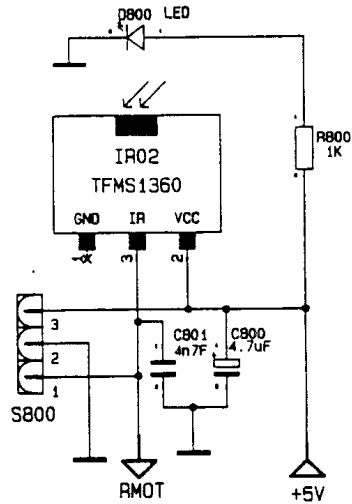
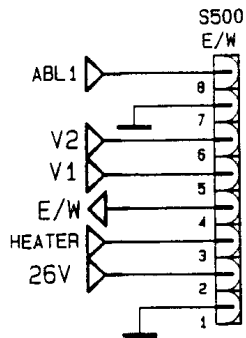
GRAMME / DIAGRAMMES D'OSCILLOSCOPE



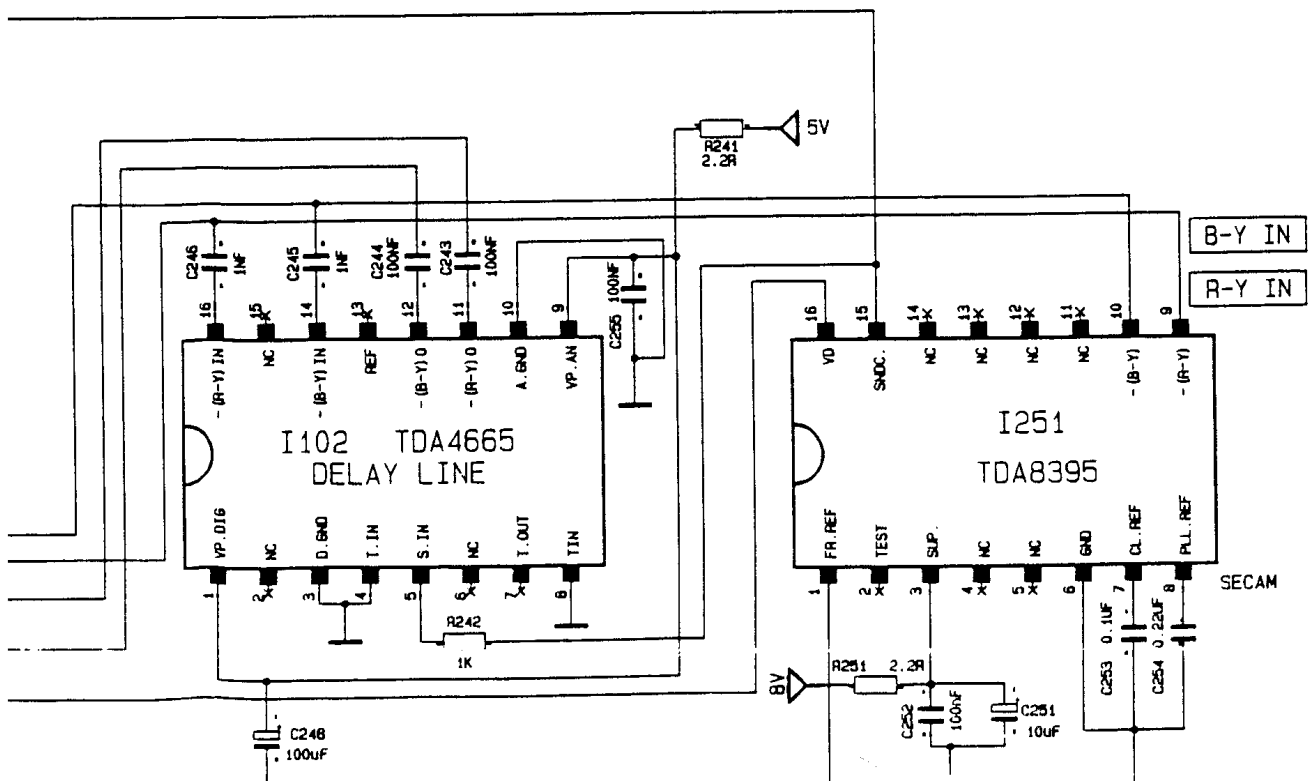
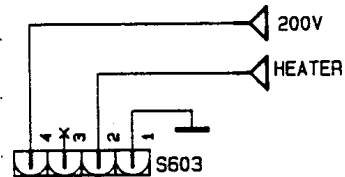
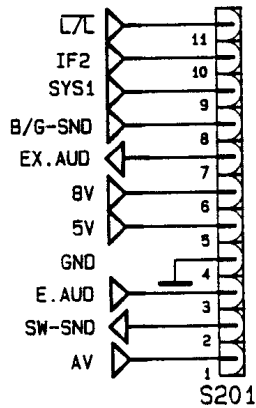
I426 TDA2616



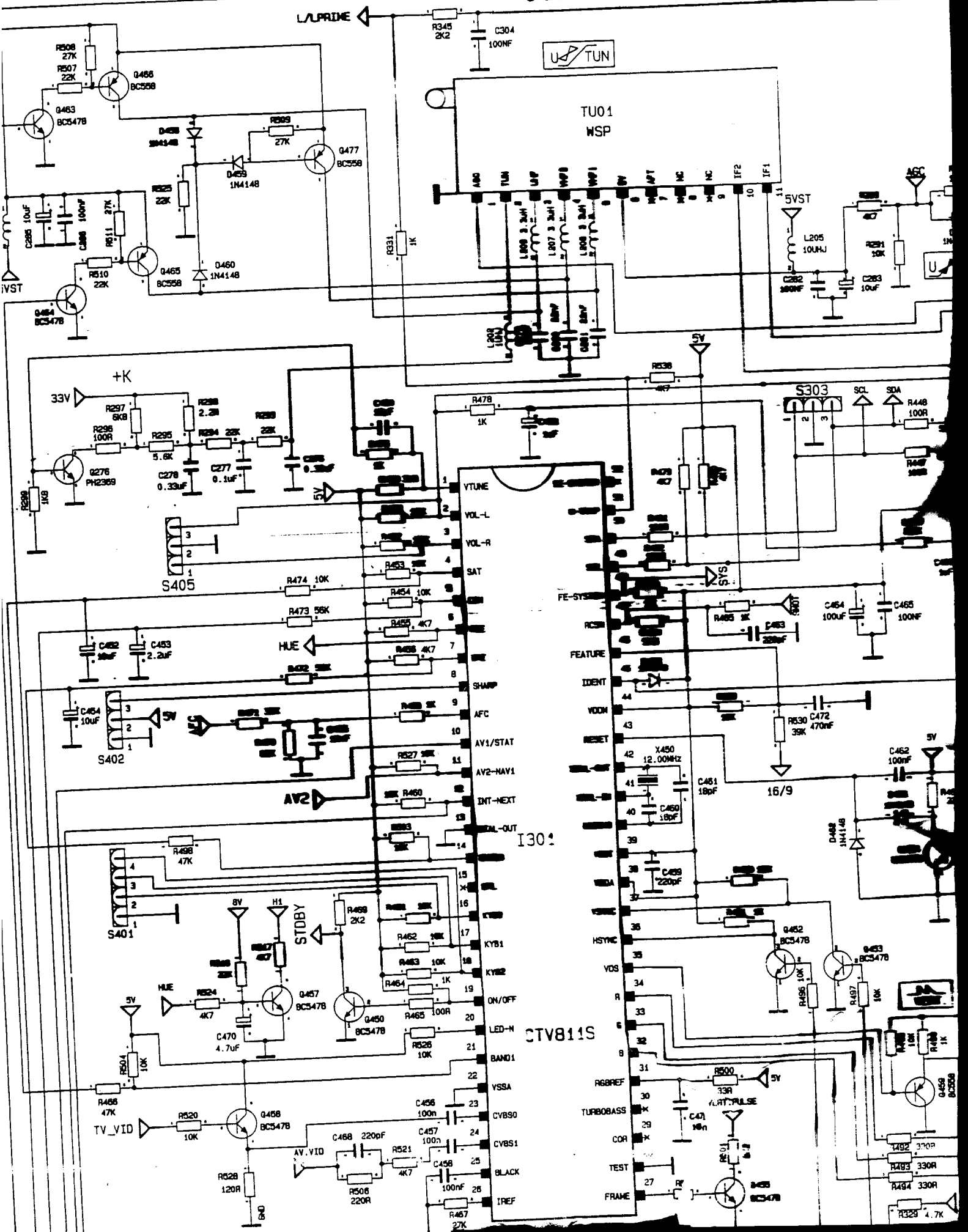
# IR. MODULE

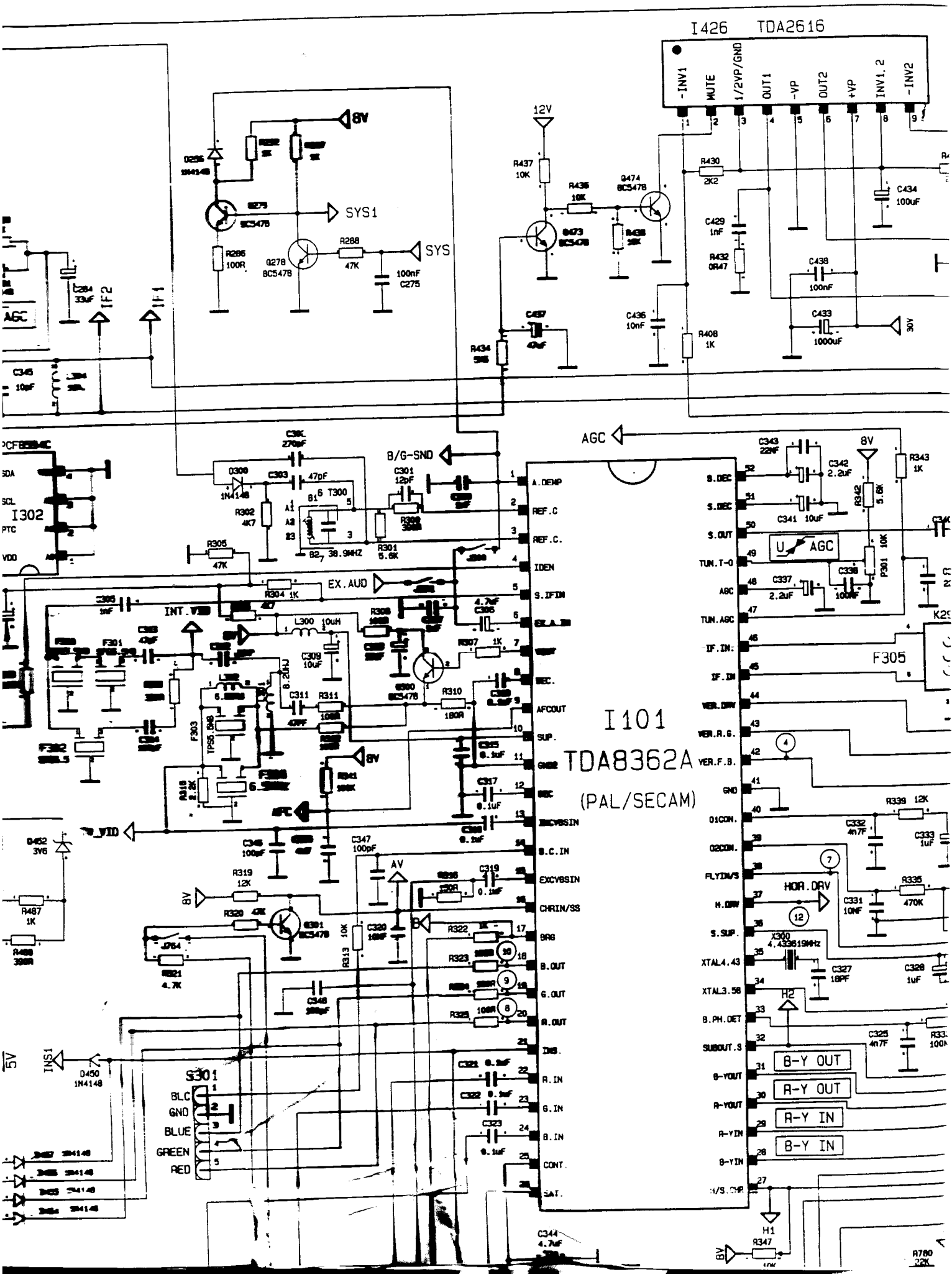


## FOR MONO. SECAML/L' .MODULE



01992 451709





I426 TDA2616

I101  
TDA8362A  
(PAL/SECAM)

B-Y OUT  
R-Y OUT  
R-Y IN  
B-Y IN