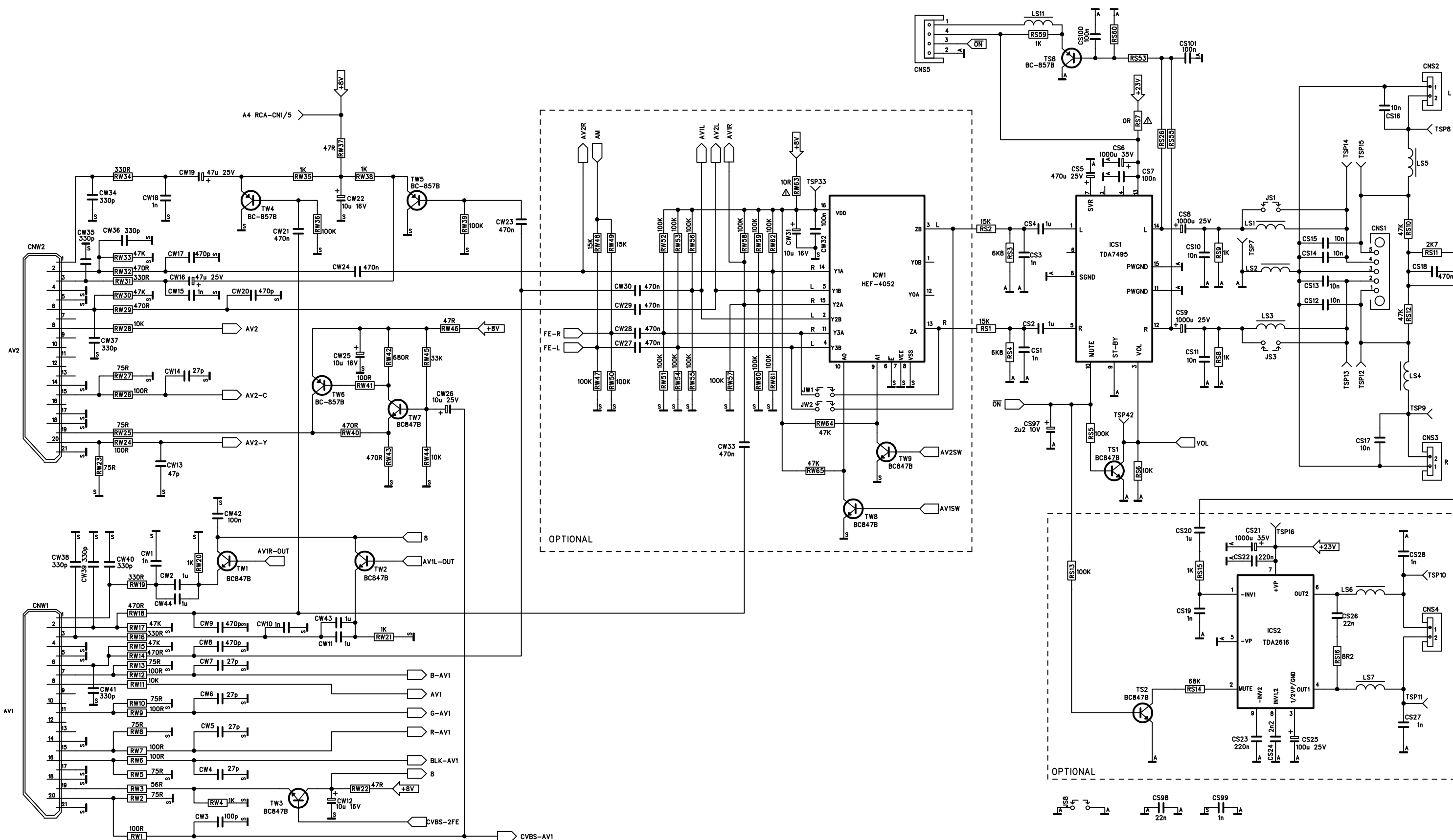
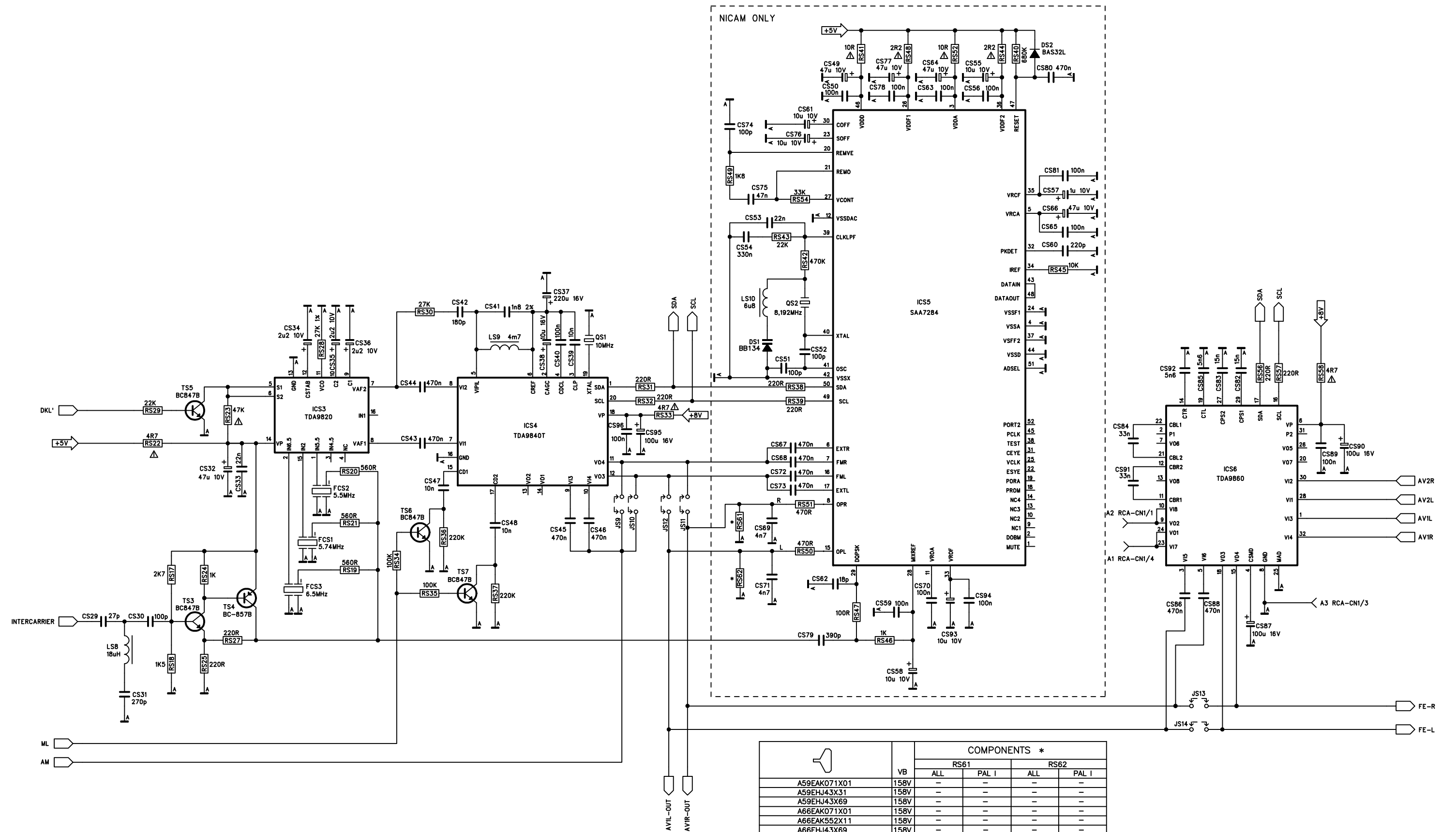
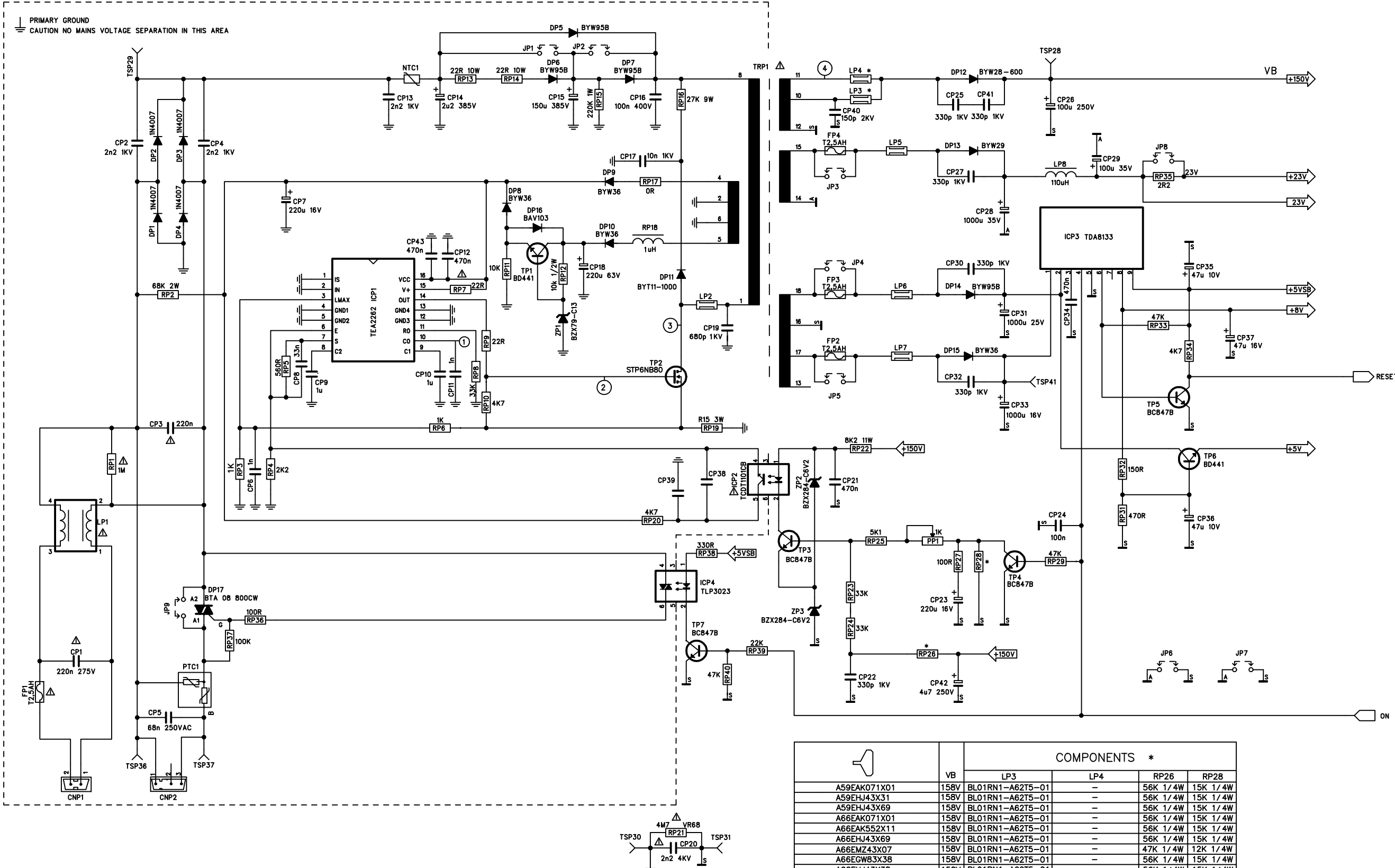


	VB	COMPONENTS *	
		RR37	RR49
		ALL	PAL I
A59EAK071X01	158V	2K2 1/2W FUSE	—
A59EHJ43X31	158V	2K2 1/2W FUSE	—
A59EHJ43X69	158V	2K2 1/2W FUSE	—
A66EAK071X01	158V	2K2 1/2W FUSE	—
A66EAK552X11	158V	2K2 1/2W FUSE	—
A66EHJ43X69	158V	2K2 1/2W FUSE	—
A66EMZ43X07	158V	2K2 1/2W FUSE	—
A66EGW83X38	158V	2K2 1/2W FUSE	—
A66EHJ43X38	158V	2K2 1/2W FUSE	—
W66EHU013X10	151V	2K2 1/2W FUSE	—
W66EGV023X115	130V	1K5 1/2W	22K 1/4W
W66EJU023X015	130V	1K5 1/2W	22K 1/4W
A68EHM69X23	143V	2K2 1/2W FUSE	—
A68ESF002X111	143V	2K2 1/2W FUSE	—
W76EDX013X010	151V	2K2 1/2W FUSE	—
W76EGV023X015	130V	1K5 1/2W	22K 1/4W
W76EGV023X885	130V	1K5 1/2W	22K 1/4W
A80AEJ15X04	158V	2K2 1/2W FUSE	—
A80AEJ15X01	130V	2K2 1/2W FUSE	—
A80AEJ15X96	158V	2K2 1/2W FUSE	—
A80EDM33X04	158V	2K2 1/2W FUSE	—
A80EFF002X11	158V	2K2 1/2W FUSE	—
A80EFF272X11	158V	2K2 1/2W FUSE	—

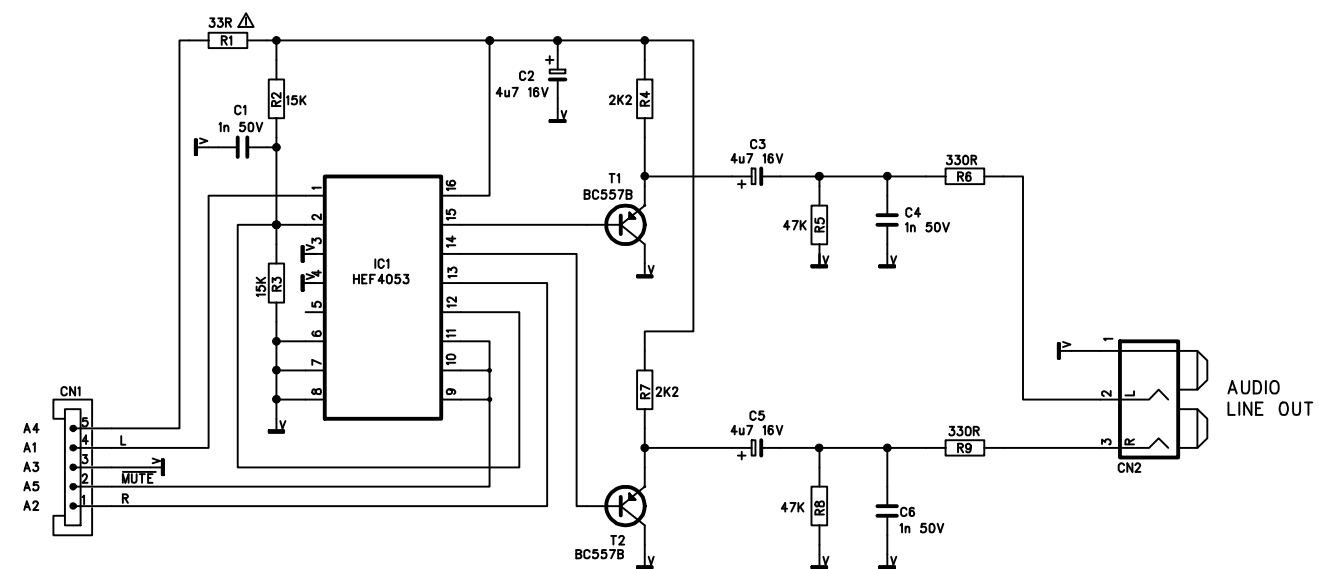


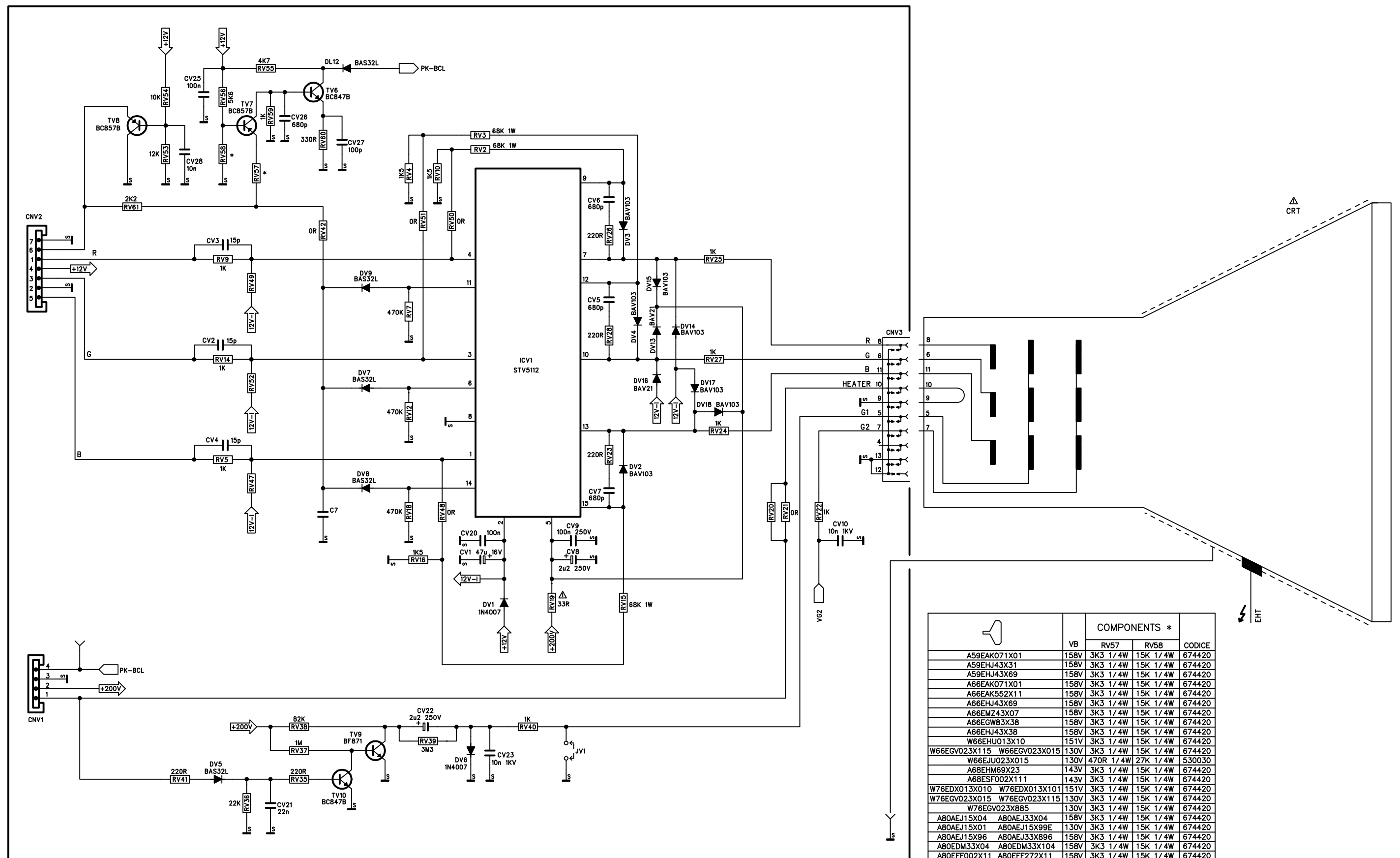


	VB	COMPONENTS *			
		RS61	RS62		
		ALL	PAL I	ALL	PAL I
A59EAK071X01	158V	-	-	-	-
A59EHJ43X31	158V	-	-	-	-
A59EHJ43X69	158V	-	-	-	-
A66EAK071X01	158V	-	-	-	-
A66EAK552X11	158V	-	-	-	-
A66EHJ43X69	158V	-	-	-	-
A66EMZ43X07	158V	-	-	-	-
A66EGW83X38	158V	-	-	-	-
A66EHJ43X38	158V	-	-	-	-
W66EHU013X10	151V	-	-	-	-
W66EGV023X115 W66EGV023X015	130V	-	-	-	-
W66EJU023X015	130V	-	-	-	-
A68EHM69X23	143V	-	-	-	-
A68ESF002X111	143V	-	-	-	-
W76EDX013X010 W76EDX013X101	151V	-	-	-	-
W76EGV023X015 W76EGV023X115	130V	-	-	-	-
W76EGV023X885	130V	-	-	-	-
A80AEJ15X04 A80AEJ33X04	158V	-	1K 1/4W	-	1K 1/4W
A80AEJ15X01 A80AEJ15X99E	130V	-	-	-	-
A80AEJ15X96 A80AEJ33X896	158V	-	1K 1/4W	-	1K 1/4W
A80EDM33X04 A80EDM33X104	158V	-	1K 1/4W	-	1K 1/4W
A80EFF002X11 A80EFF272X11	158V	-	-	-	-



	VB	COMPONENTS *			
		LP3	LP4	RP26	RP28
A59EAK071X01	158V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
A59EHJ43X31	158V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
A59EHJ43X69	158V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
A66EAK071X01	158V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
A66EAK552X11	158V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
A66EHJ43X69	158V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
A66EMZ43X07	158V	BL01RN1-A62T5-01	-	47K 1/4W	12K 1/4W
A66EGW83X38	158V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
A66EHJ43X38	158V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
W66EHU013X10	151V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
W66EGV023X115	130V	BL01RN1-A62T5-01	33K 1/4W	10K 1/4W	
W66EJU023X015	130V	BL01RN1-A62T5-01	33K 1/4W	10K 1/4W	
A68EHM69X23	143V	BL01RN1-A62T5-01	-	47K 1/4W	12K 1/4W
A68ESF002X111	143V	BL01RN1-A62T5-01	-	47K 1/4W	12K 1/4W
W76EDX013X010	151V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
W76EGV023X015	130V	BL01RN1-A62T5-01	33K 1/4W	10K 1/4W	
W76EGV023X885	130V	BL01RN1-A62T5-01	33K 1/4W	10K 1/4W	
A80AEJ15X04	158V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
A80AEJ15X01	130V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
A80AEJ15X96	158V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
A80EDM33X04	158V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W
A80EFF002X11	158V	BL01RN1-A62T5-01	-	56K 1/4W	15K 1/4W





Professional 4400 Chassis service procedure

Power module

Use PP1 to select $154V \pm 0.5V$ for 4:3 tubes and $151V \pm 0.5V$ for 16:9 tubes at the CP28 terminals.

Activating service mode

1. Switch on the appliance while holding down the **MENU key at the cabinet controls** until the red LED lights up.
2. Release the MENU button at the cabinet and press the **standby** button on the remote control; the appliance will default to programme 1 or to AV1 if pin 8 of SCART 1 is connected to a voltage of +12 V. It is therefore important to make certain that the test signal needed to make the adjustments is available either on programme 1 or on the SCART 1 input, as selection of the sources is not possible thereafter in service mode.
3. The functions that can be adjusted (listed below) are selected using the **P+** and **P-** buttons of the remote control and the adjustments then made with the **Volume ±** buttons. It is advisable to make a note of initial values before making any changes so that these can be restored if necessary.

In the event of replacing the NVM memory or the microprocessor, it is essential to make all the adjustments accessible in service mode, since the replacement memory is supplied without any prior programming and a new microprocessor requires a new initialization.

Option bytes (Opx)

The correct values to set for each appliance are given on the label at the back cover alongside the letters **Op1**, **Op2**, **Op3**.

Initialization (INIT CTV 831 x.x)

The initialization procedure, which also indicates the software version for the microprocessor, is enabled with the **Volume +** button and **must be carried out whenever the NVM memory or the microprocessor is replaced. Bear in mind that initialization has the effect of erasing all data from the memory except for the bytes option.**

Control bytes (Cox)

These are control registers that **must be set** as follows:

Co2	96
Co3	27
Co4	00

Screen grid voltage (Vg2 Test)

Having selected the function, press the Volume+ button: a luminous horizontal line appears in the middle of the screen. Adjust potentiometer G2 on the EHT transformer so that the line is just visible (in a dimly lit room). Then press Volume- and **wait for a few seconds** until service mode is restored.

IF video setting (Ifxx AFCxx)

This adjustment requires special equipment and will be needed only for the ICC2 N1 version, which is also recognizable by the presence of the LC7 coil. If the coil is present, adjust IF and IFP to the values given on the label affixed to the left side of main PCB so that a suitable approximation is achieved.

If the coil is not present, adjust as follows:

IF	50
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IFP 50 (this item is accessible **for multistandard appliances only**, provided that a France/AM/VHF-L mode signal is memorized in the programme 1 position).

AGC tuner setting (AG)

With a signal of 1 mV applied to the aerial input on a UHF channel, adjust to 4 Vdc at pin 1 of the tuner.

Setting the luminance/chrominance delay (Yx)

The delay must be adjusted to the following values:

Yp	18	(PAL)
Ys	30	(SECAM)
Yn	20	(NTSC)
Yo	22	(SCART)

The Yn function is only accessible if the signal is NTSC coded (**standard accepted only by SCART**).

Audio stereo A2 decoder (SA/LA)

The **SA** and **LA** functions allow adjustment of the separation between the right and left audio channels and of the respective levels. An RF stereo generator is therefore required. Disconnect modulation to the left hand channel and adjust LA to give 1.4 Vpp at pin 1 of the SCART 1 connector. Then adjust SA for the minimum residual signal at pin 3 of SCART 1. If a stereo generator is not available, set LA to 01 and SA to 0B to obtain a fair approximation.

Horizontal geometry (HSH/EW/PW/CP/TC)

There are two groups of these functions, one for 4:3 format (suffix 4) and one for 16:9 format (suffix 16), both of which must be adjusted because they are used in the zoom function (4:3 tubes included). The functions of the single parameters are as follows:

HSH	Horizontal shift
EW	Horizontal amplitude
PW	Parabola correction
CP	Corner parabola correction
TC	Trapezium correction

In the case of 4:3 format picture tubes, enter **EW16 = 3F** to ensure proper zooming.

Vertical geometry (VS/VA/VSH/SC)

Vertical geometry is adjusted starting with the **VS** (vertical slope) function, which is set so that the central horizontal line of the test signal is exactly at the boundary between the visible image and the black part below and **must not then be changed again**. The functions of the single parameters are as follows:

VS	Vertical slope
VA	Vertical amplitude
VSH	Vertical shift
SC	Vertical S-correction (linearity)

White control (WB/WG/WR)

Using a black and white bar signal, adjust to obtain a grey image.

On screen (OSD)

Load the fixed value 3F.

Deactivating service mode

Once all the necessary adjustments have been made, press TV or MENU OFF on the remote control to save all the changes and return the appliance to normal operating mode.