

Service Manual

TOP NEXT

Order No. MTV0308266C3

Service Manual

Colour Television

TC-29PS60K

GP3 Chassis



Specification

Power Source	AC Auto 110-240 V, 50/60 Hz
Power Consumption	129 W
	Standby condition : 2 W
Aerial Terminal	Impedance : 75Ω, Coaxial type
Tuning System	Frequency Synthesizer
	Auto Search Tuning
	Pos : 100 Positions
Receiving System	17 Systems
Receiving Channels	Regular TV
VHF BAND	2-12 (PAL/SECAM B, K1)
	0-12 (PAL B AUST.)
	1-9 (PAL B N.Z.)
	1-12 (PAL/SECAM D)
	1-12 (NTSC M Japan)
	2-13 (NTSC M U.S.A)
UHF BAND	21-69 (PAL G, H, I/SECAM G, K, K1)
	28-69 (PAL B AUST.)
	13-57 (PAL D, K)
	13-62 (NTSC M Japan)
	14-69 (NTSC M U.S.A.)
CATV	S1-S20 (OSCAR)
	1-125 (U.S.A. CATV)
	C13-C49 (JAPAN)
	S21-S41 (HYPER)
	Z1-Z37 (CHINA)
Intermediate Frequency	38.0 MHz
Video	31.5 MHz (D, K)/ 32.5 MHz (B, G)
	32.0 MHz (I)/ 32.5 MHz (M)
Sound	33.57 MHz (PAL)/
Colour	33.6 MHz (SECAM)
	34.42 MHz (NTSC)/
	33.75 MHz (SECAM)
Receiving Stereo Sound System	AV STEREO
Video/Audio/Terminals	IN S-Video Y:1.0Vp-p 75Ω
AV 1, 2, 3, 4	DVD IN S-Video C:0.3Vp-p 75Ω
Y/ PB/ PR	(Phone Type) Y:1.0Vp-p 75Ω PB,
	PR:0.7Vp-p 75Ω Video 1.0Vp-p
	75Ω Audio Approx. 400mV 47KΩ
Monitor Out	Video 1.0Vp-p 75Ω
High Voltage	Audio Approx. 400mV 47KΩ
	31.0±1.0V at zero
	beam current
Picture Tube	A68QCP83XSA Type 29 (68 cm)
	Measured diagonally,
	104° deflection
Audio Output	16 W speaker
Dimensions (W x D x H)	820 mm x 500 mm x 566 mm
Weight (Mass)	43.5 kg (Net)

Note:
Specifications are subject to change without notice. Mass and dimensions shown are approximate.

4 Market Mode Function

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Outline:

MPU controls the functions switching for each ICs through IIC bus in this chassis. The following setting and adjustment can be adjusted by remote control in Market Mode.

1. Selection of Market Mode

Adjust the VOLUME “zero” and set OFF TIMER Button to 30 min. Then, simultaneously press the RECALL Button on the remote control and the VOLUME DOWN button - the TV set.

2. Selection of CHK Mode

Cursor moves each CHK Mode by pressing “1” or “2” of 10 key button on the remote control.

3. Press Self-Check Button

Press the vol. down button on front panel together press the off timer button on remote.

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5.10 WHITE BALANCE (MARKET MODE CHK 3)

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Preparation

1. Receive a colour bar signal with colour “OFF”, and operate the TV set for more than 30 minutes.
2. Set the picture menu to “DYNAMIC NORMAL” and the AI to off.
3. Connect an oscilloscope to TPL7 with DC mode.
4. Set the TV set to Market Mode : white balance adjustment (CHK 3).
5. Screen VR : Min.
6. Set the data level of RGB CUT OFF / DRIVE and SUB BRIGHT.

Display	Data Level
R-CUT OFF	63
G-CUT OFF	128
B-CUT OFF	63
R-DRIVE	128
B-DRIVE	128
SUB BRIGHT	63

Adjustment of Low Light

1. Adjustment Sub Bright, so that $Y = 6.3 \pm 1.0$ nit.
2. Adjustment R-CUT OFF, so that $X = 0.243 \pm 0.010$ nit.
3. Adjustment G-CUT OFF, so that $Y = 0.255 \pm 0.010$ nit.

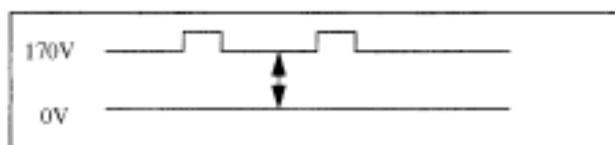
Adjustment of Low Light

1. Adjustment Sub Bright, so that $Y = 150$ nit.
2. Adjustment R-Drive, so that $X = 0.260 \pm 0.010$ nit.
3. Adjustment B-Drive, so that $Y = 0.265 \pm 0.010$ nit.

Adjustment

1. Select G-CUTOFF adjustment mode and collapse vertical scan.
2. Adjust G-CUTOFF control to become the DC=0 V to video level at 180 V as shown in Fig. 1.

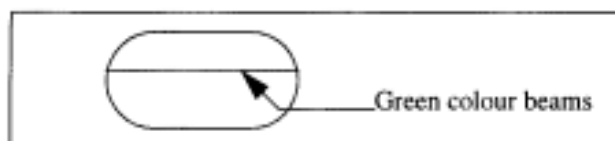
Fig. 1



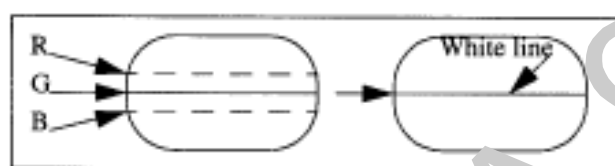
3. Slowly turn the screen control clockwise until a green colour horizontal line appears on the picture tube. This is the setting point for the screen control.

Note:

Do not adjust the G-CUTOFF setting in the following procedure.



4. Adjust the remaining R and B-CUTOFF controls so as to get a white horizontal line on the screen.

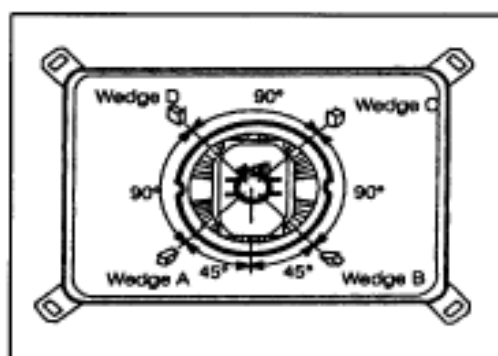


5. Return to full field SCAN by pushing the position 5 key on the remote control.
6. Adjust the R-Drive and B-Drive controls as to obtain a uniform white on the white bar of the greyscale pattern.
7. Confirm correct B/W rendition and greyscale tracking or repeat CUTOFF and drive control setup.

Note:

Write down the original value for each address adjustment before adjusting anything.

Fig. 2



8. Wedge A shown in Fig. 2 should be fixed within a range of 45° to the left of the vertical line as shown.
9. After inserting wedge A, insert wedges B, C and D. The wedges should be set 90° apart from each other.
10. Be certain that the four wedges are firmly fixed and the Deflection Yoke is tightly clamped in place otherwise the Deflection Yoke may shift its position and cause a loss of convergence and

7 Schematic Diagrams

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[7.1 SCHEMATIC DIAGRAM FOR MODEL \(GP3 CHASSIS\)](#)

[7.2 A BOARD](#)

[7.2.1 A BOARD 1 / 5](#)

[7.2.2 A BOARD 2 / 5](#)

[7.2.3 A BOARD 3 / 5](#)

[7.2.4 A BOARD 4 / 5](#)

[7.2.5 A BOARD 5 / 5](#)

[7.3 K BOARD](#)

[7.3.1 K BOARD 1 / 3](#)

[7.3.2 K BOARD 2 / 3](#)

[7.3.3 K BOARD 3 / 3](#)

[7.4 L BOARD](#)

[7.4.1 L BOARD 1 / 3](#)

[7.4.2 L BOARD 2 / 3](#)

[7.4.3 L BOARD 3 / 3](#)

[7.5 YUV BOARD](#)

[7.5.1 YUV BOARD 1 / 2](#)

[7.5.2 YUV BOARD 2 / 2](#)

[7.6 YC BOARD](#)

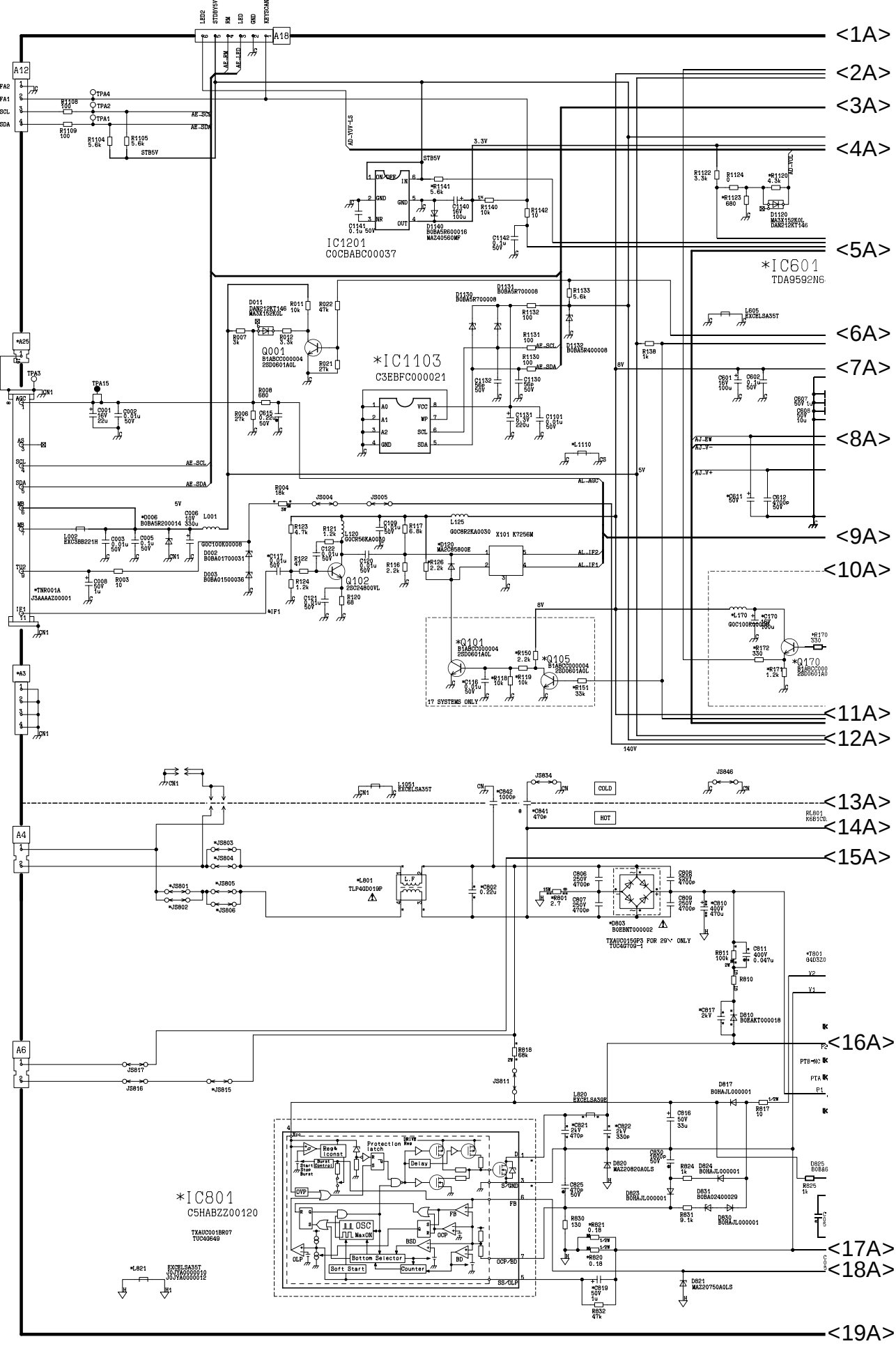
[7.6.1 YC BOARD 1 / 2](#)

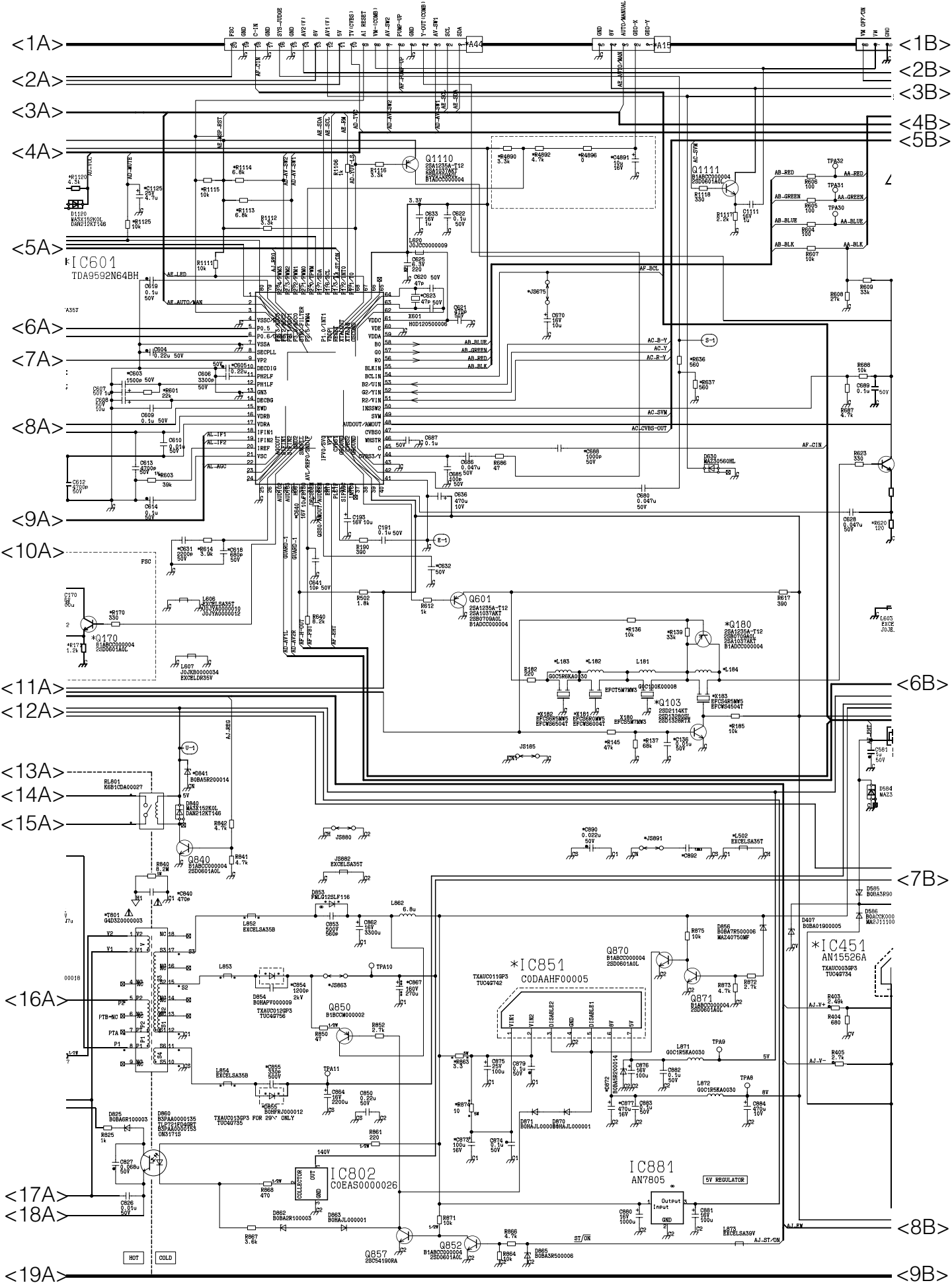
[7.6.2 YC BOARD 2 / 2](#)

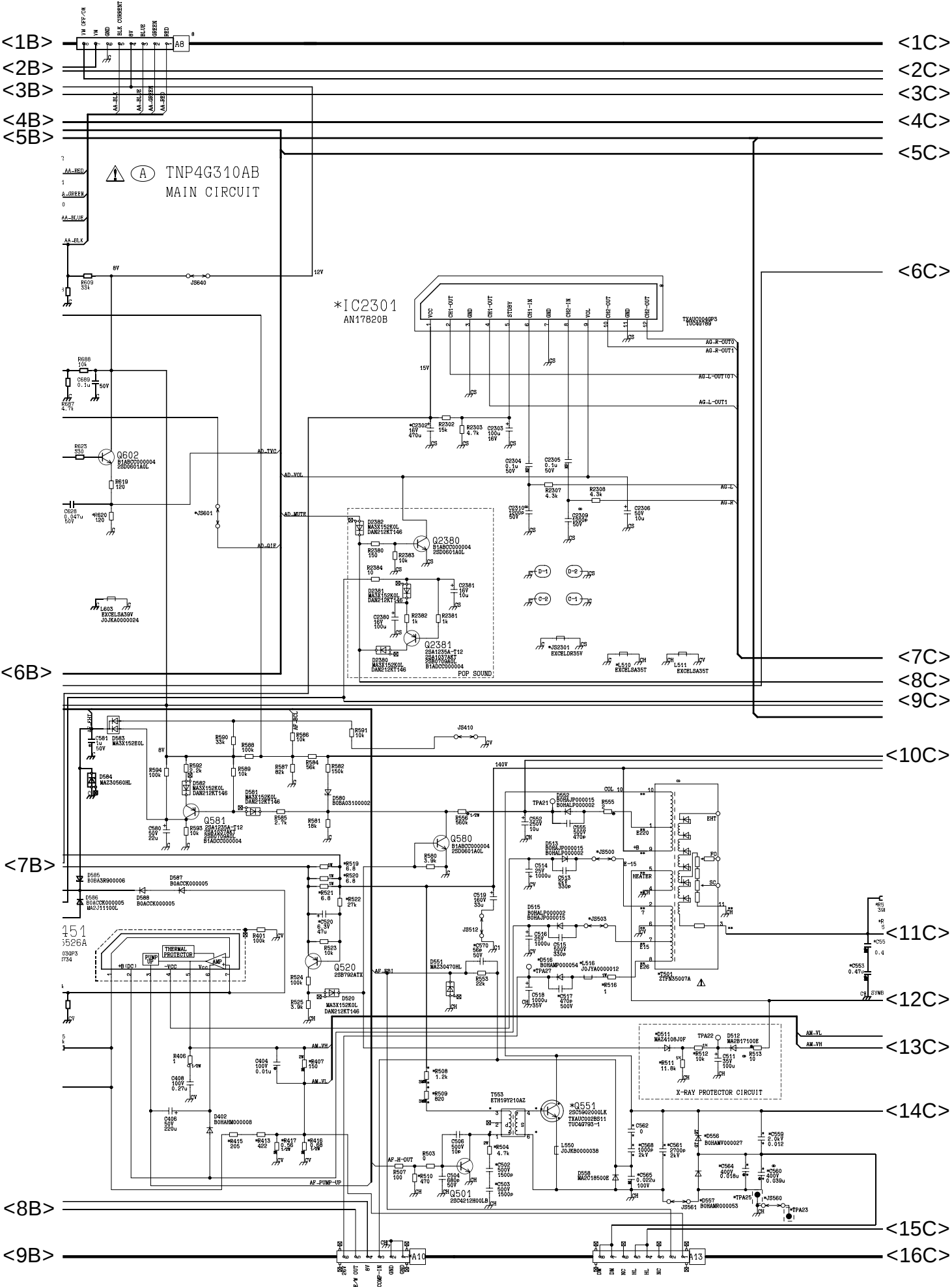
[7.7 EW BOARD](#)

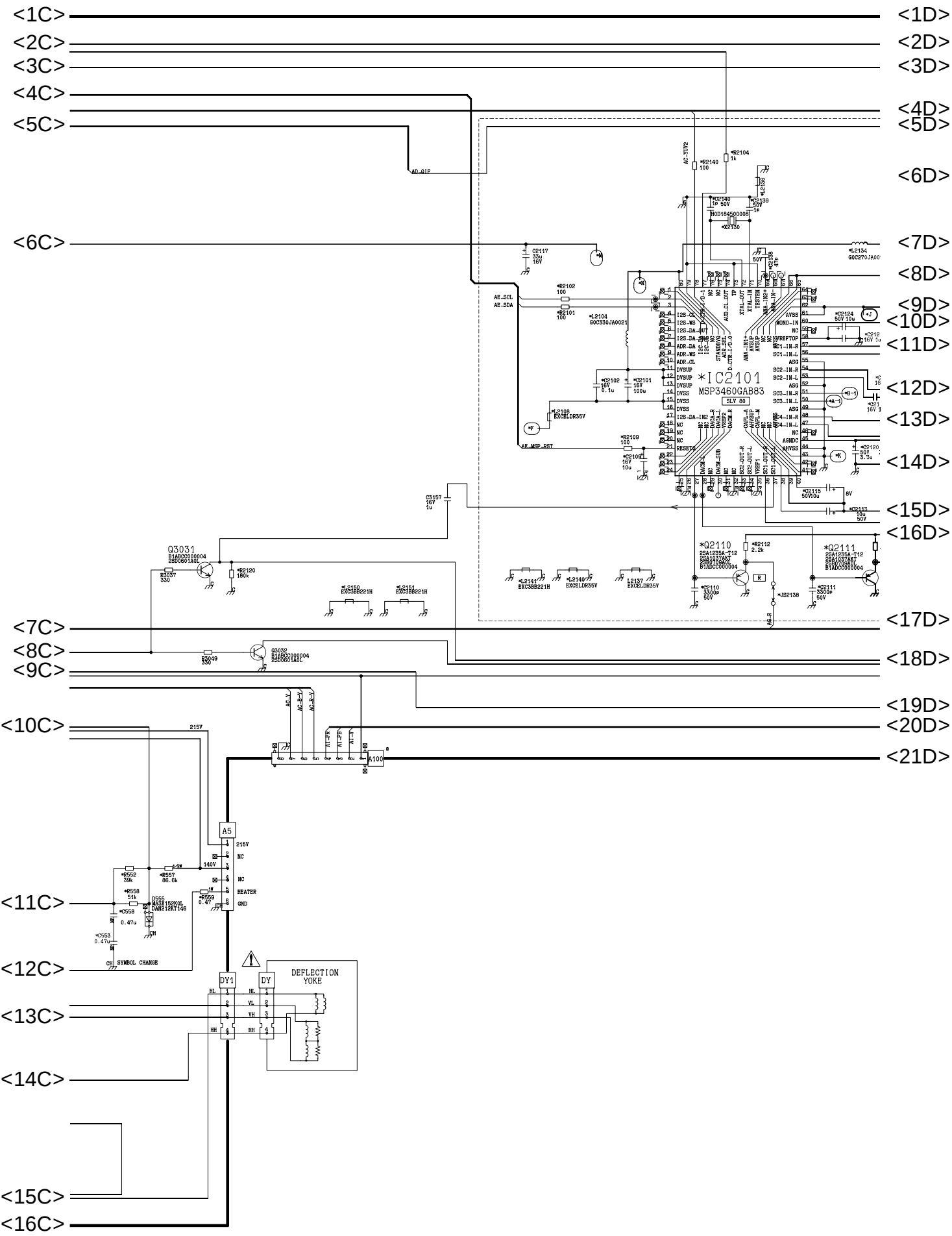
[7.7.1 EW BOARD 1 / 2](#)

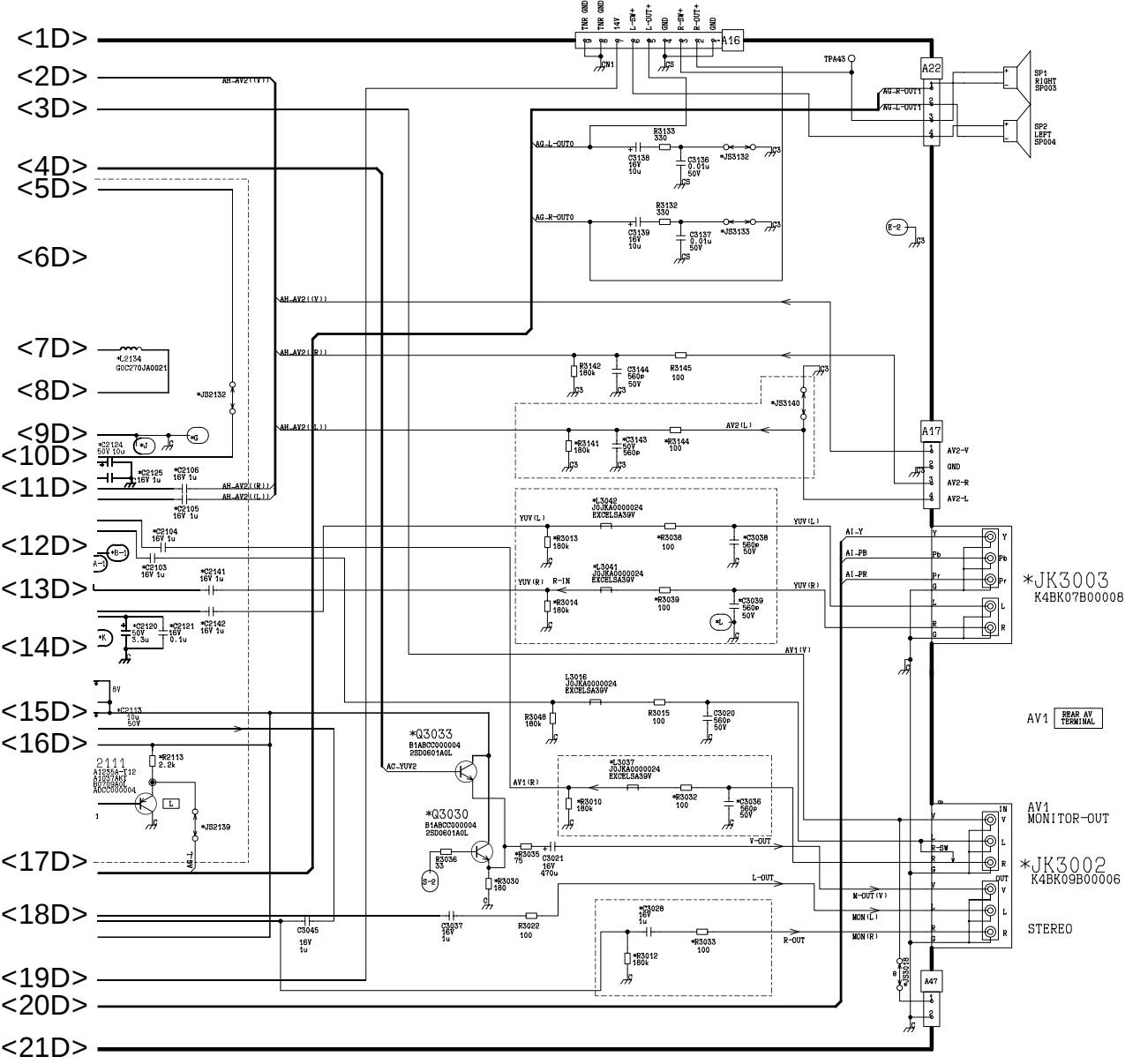
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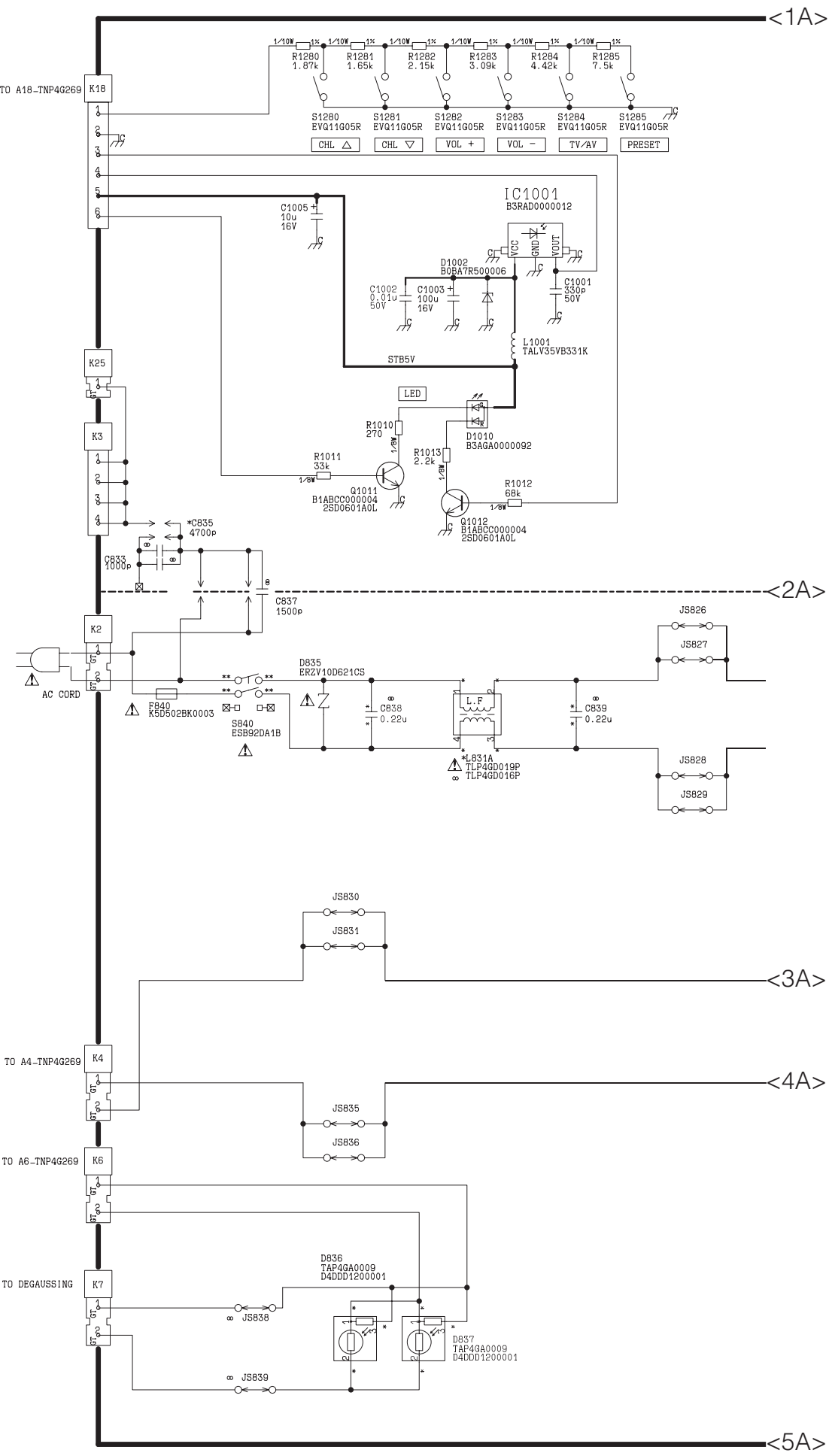










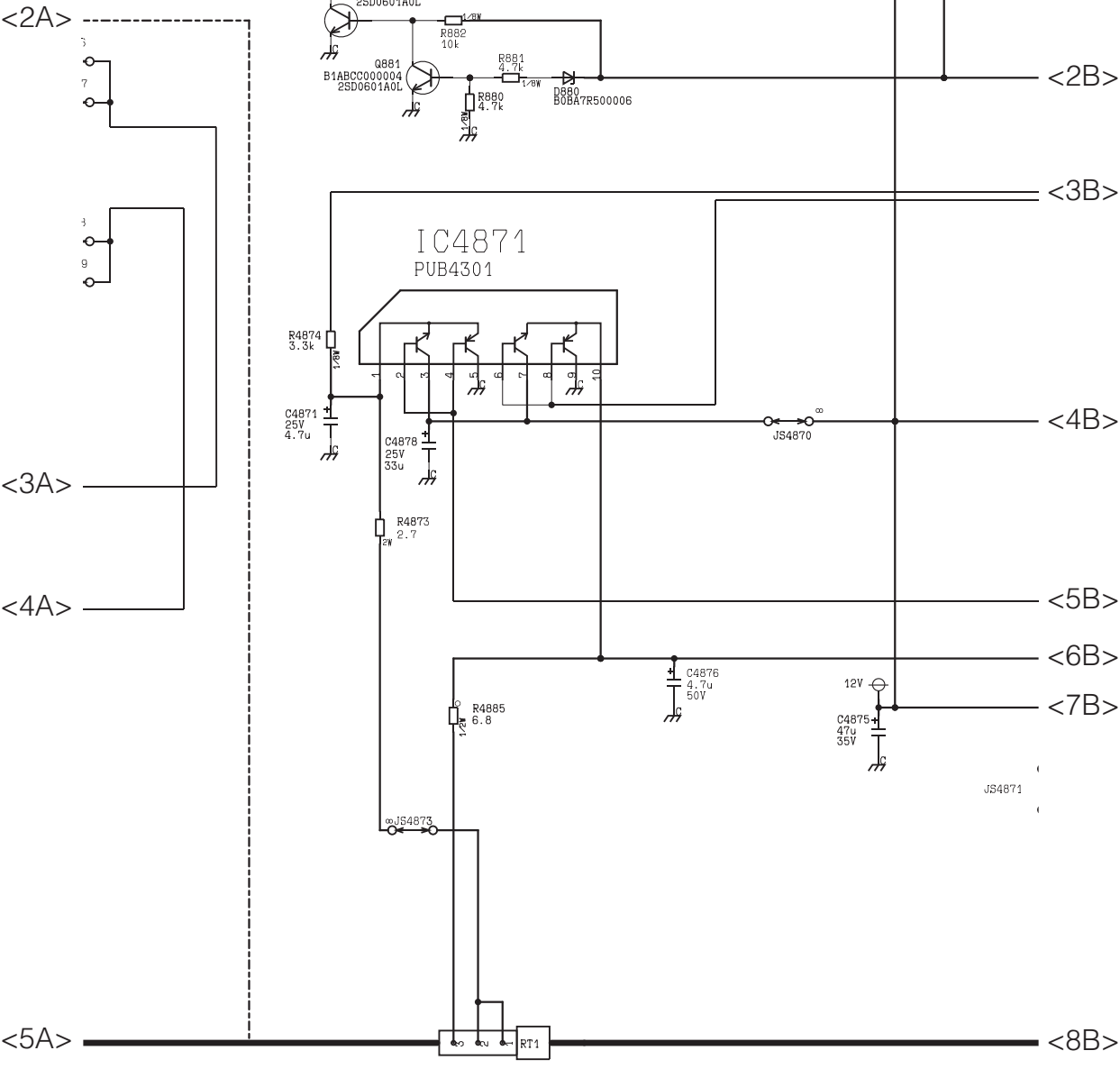
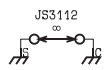


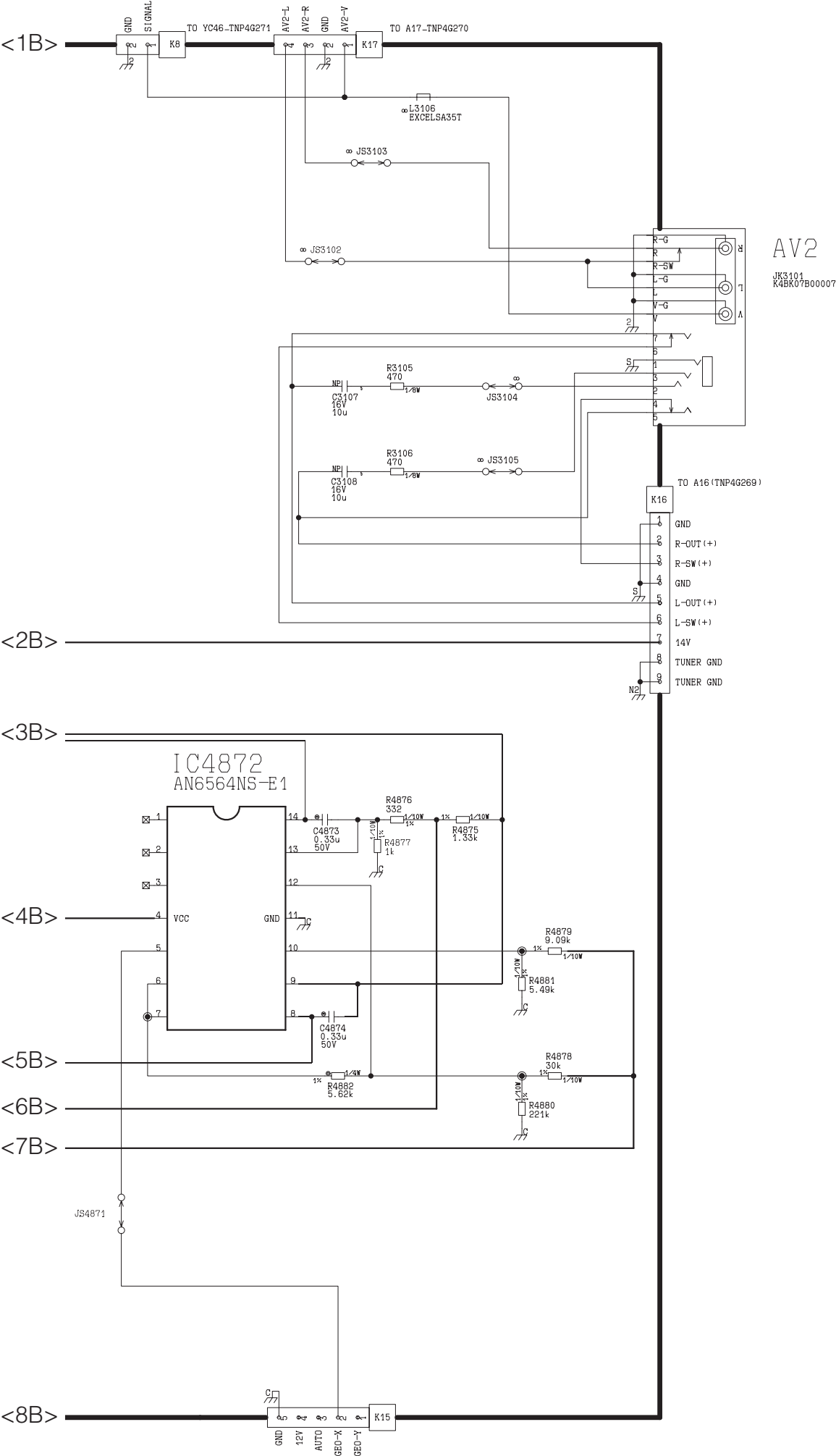
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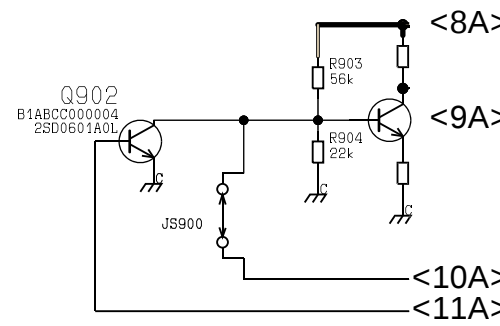
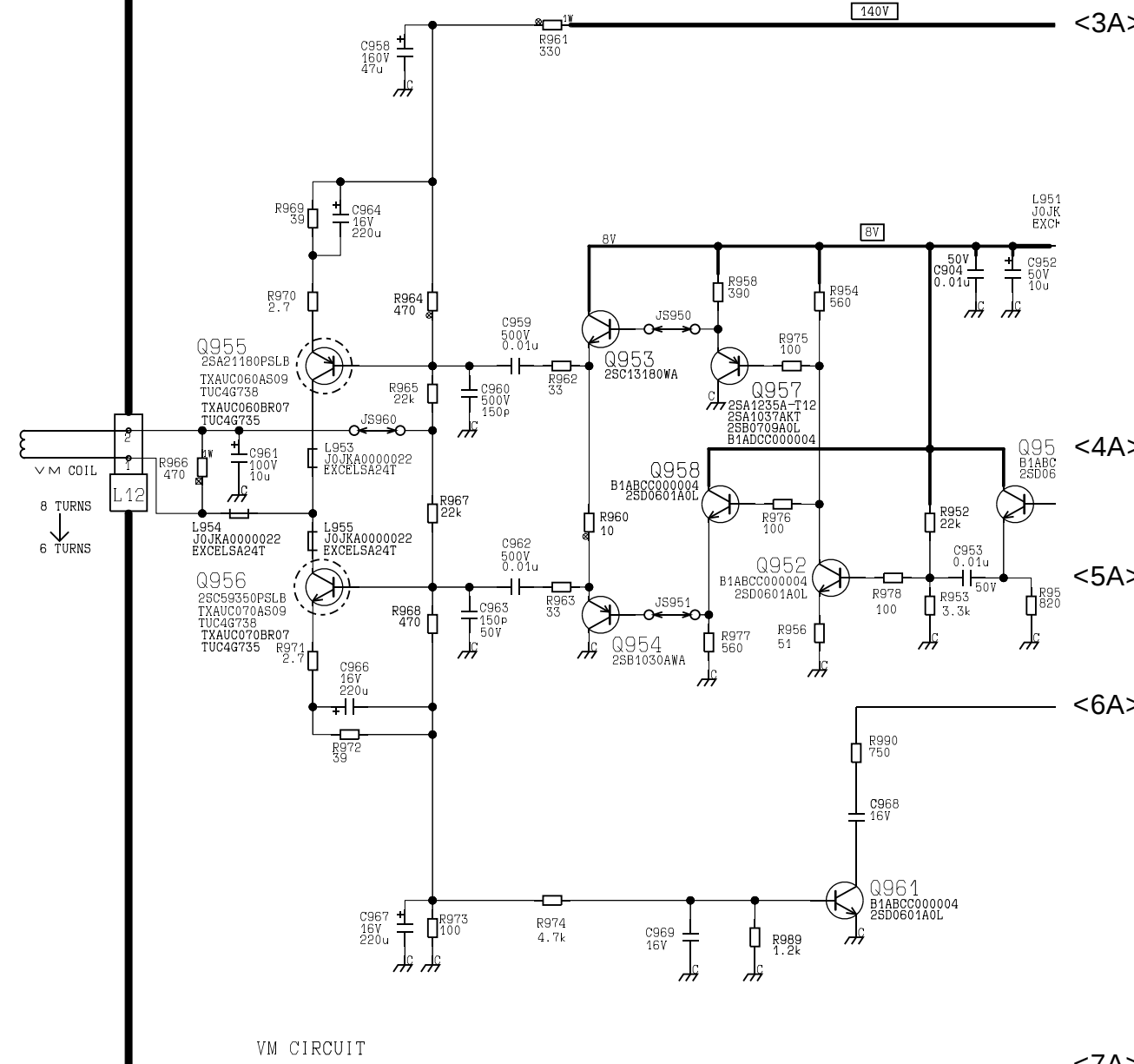
(K)

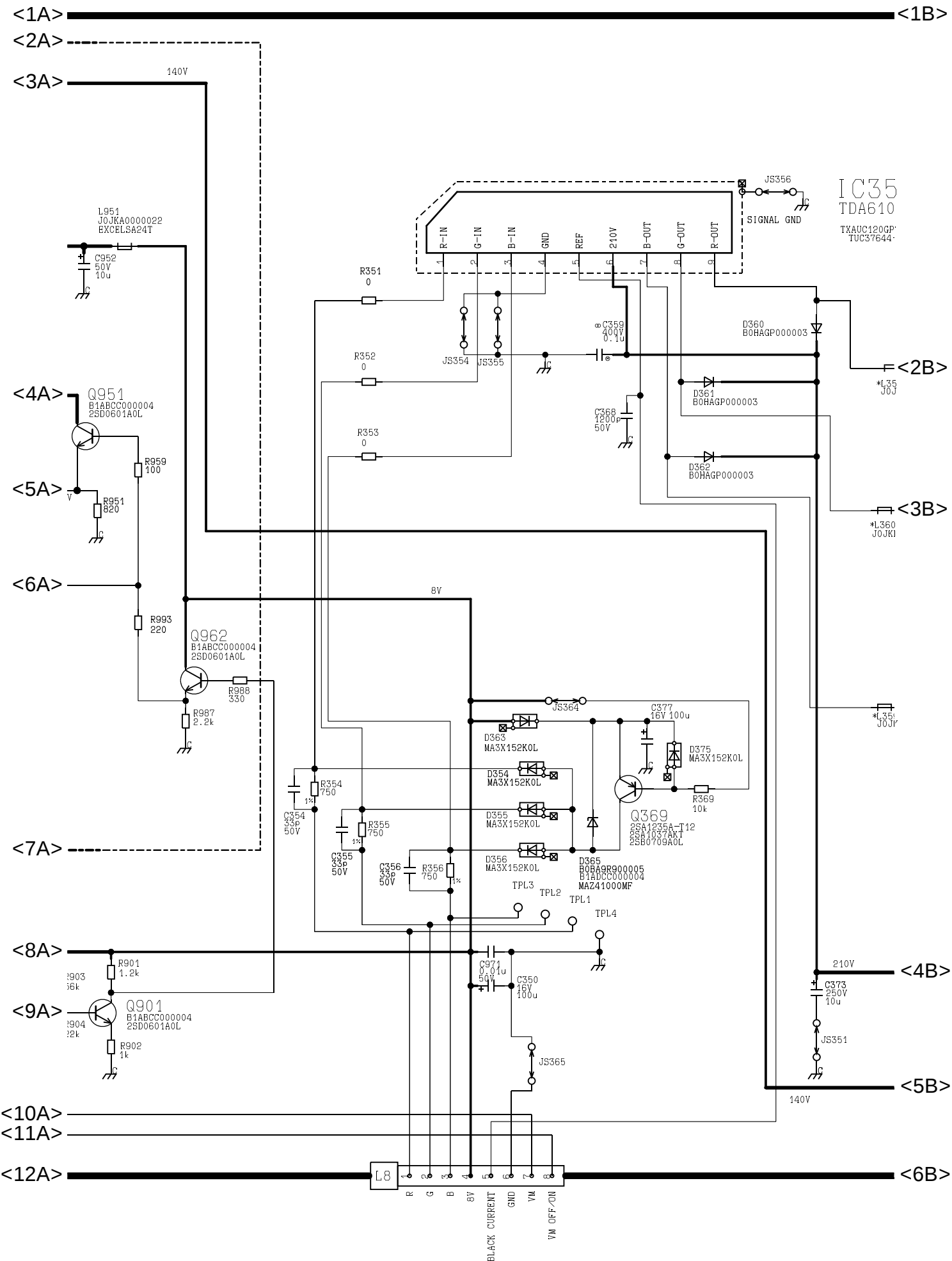
TNP4G311AA
FRONT CIRCUIT

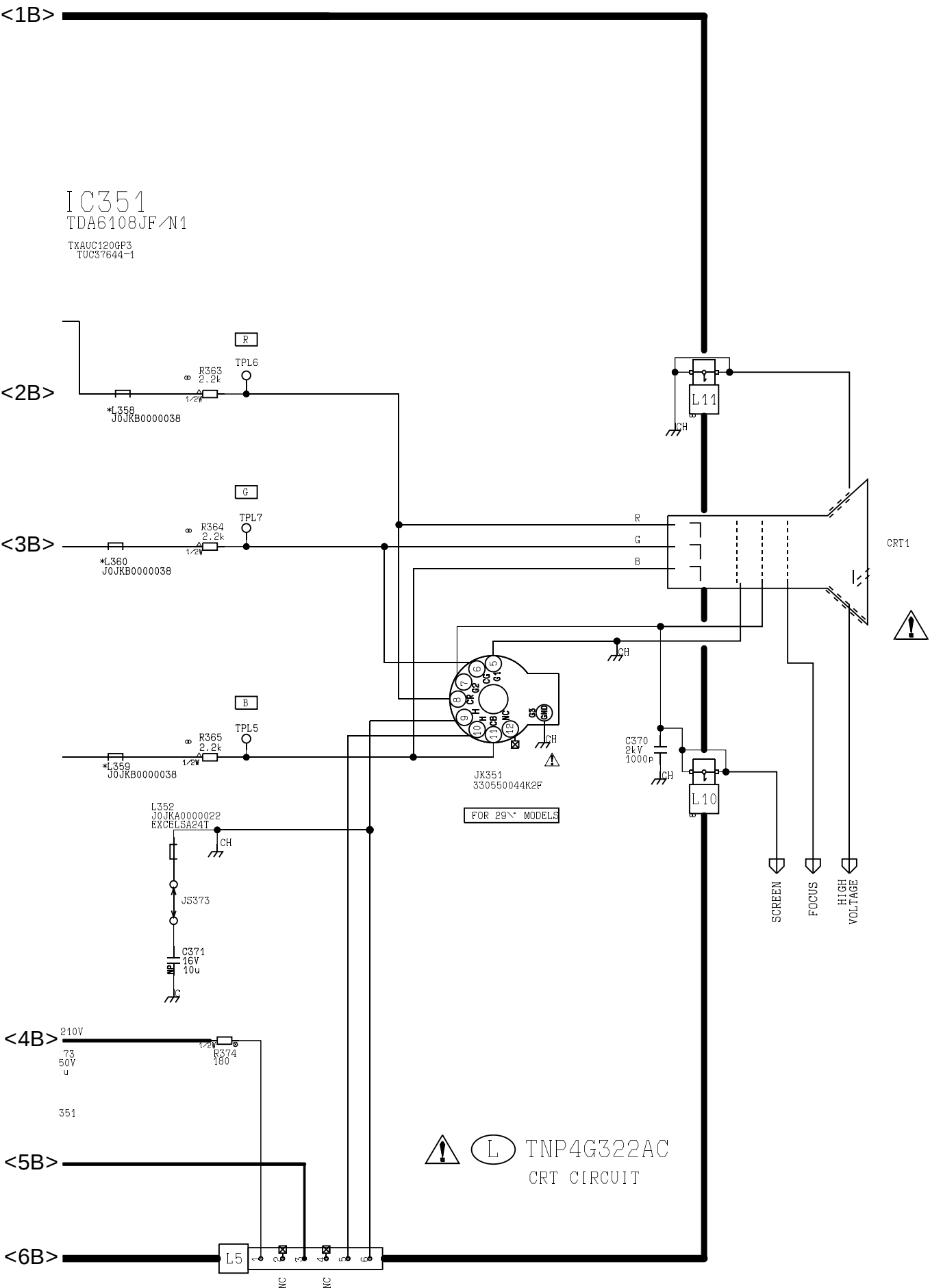


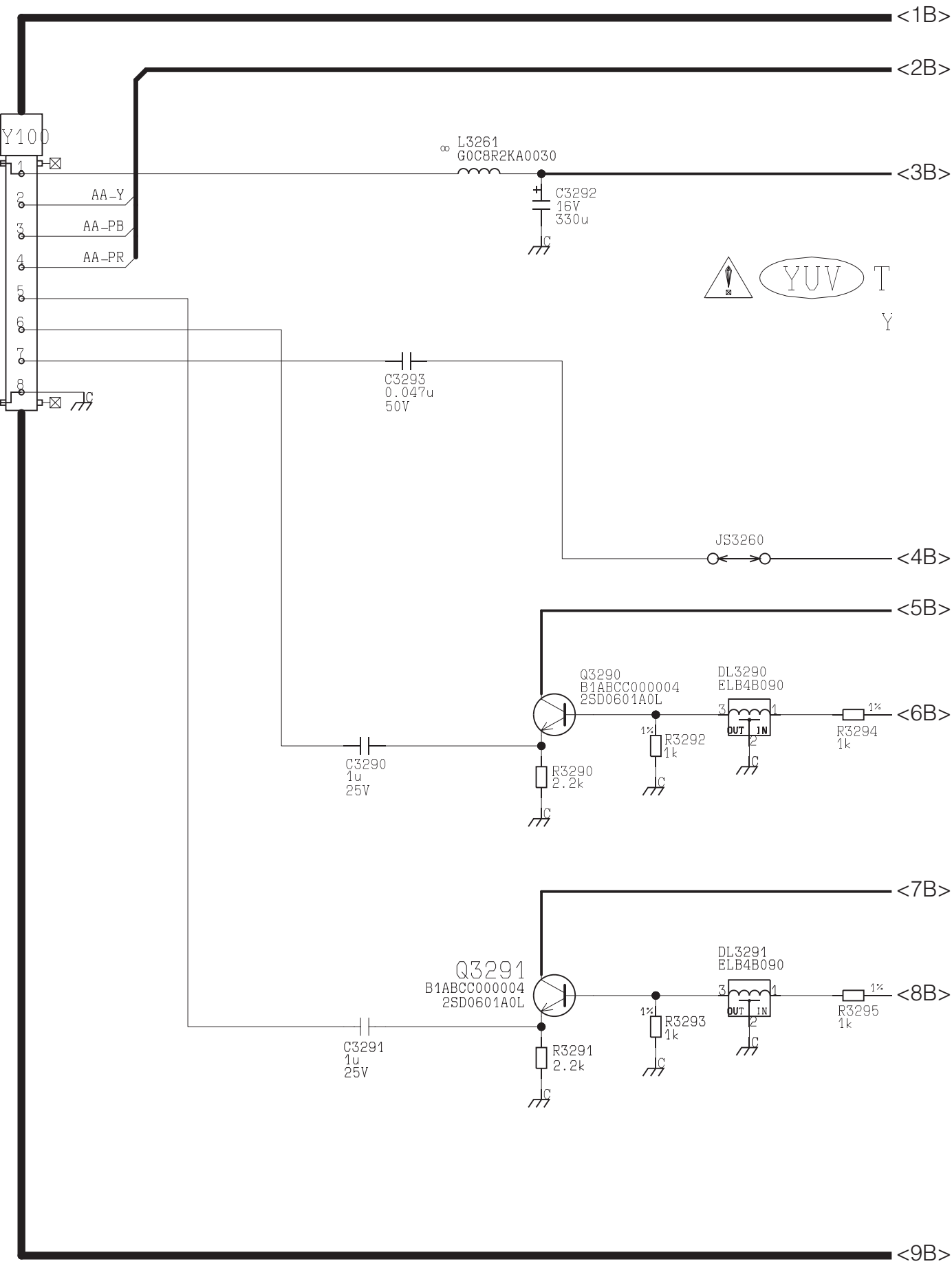


VM CIRCUIT

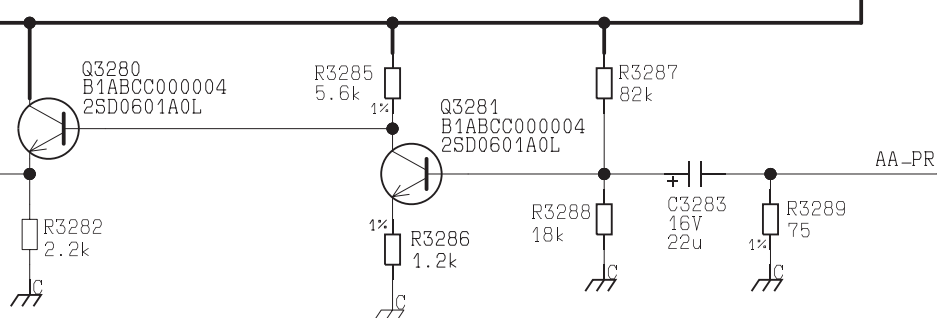


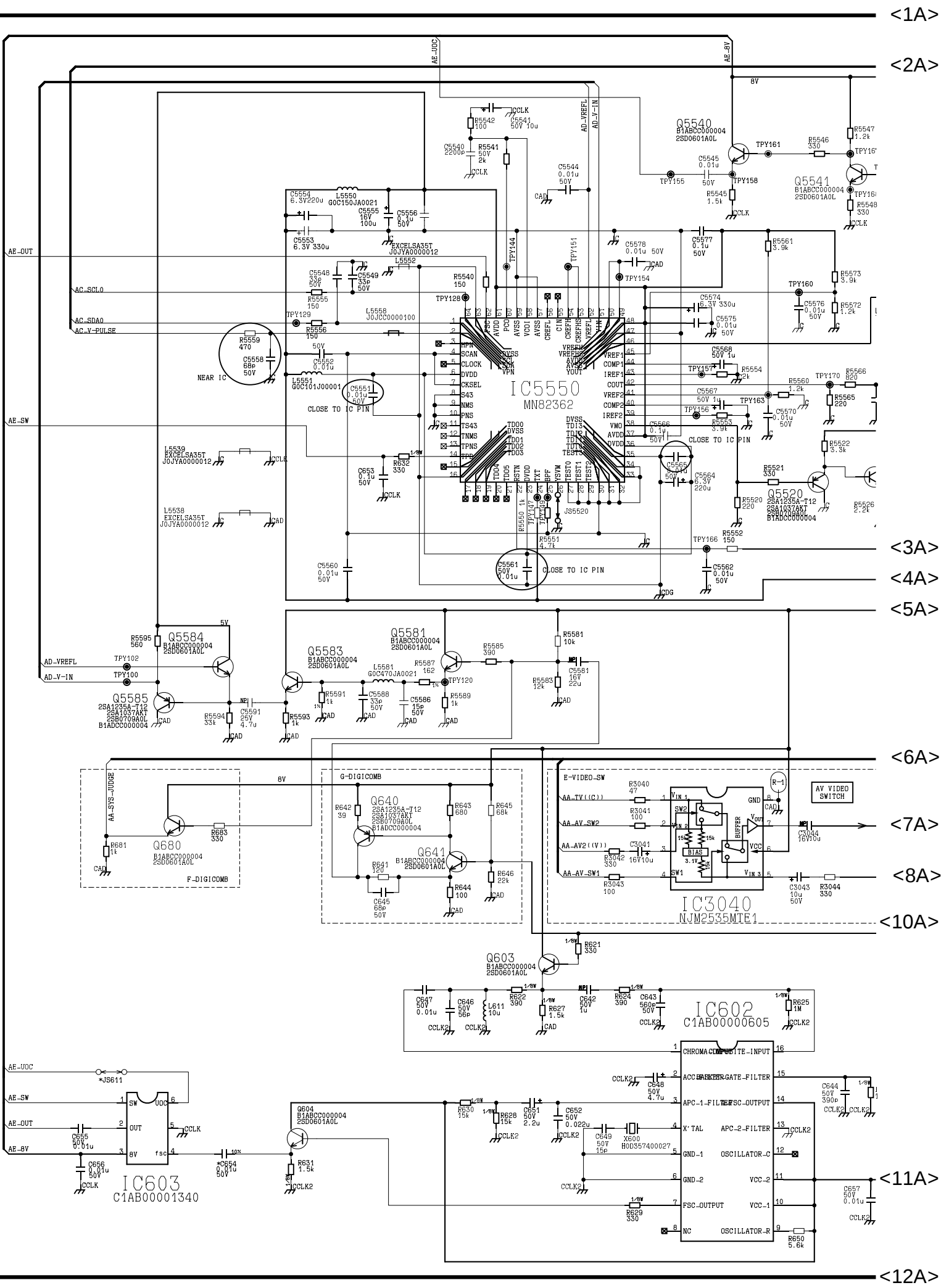


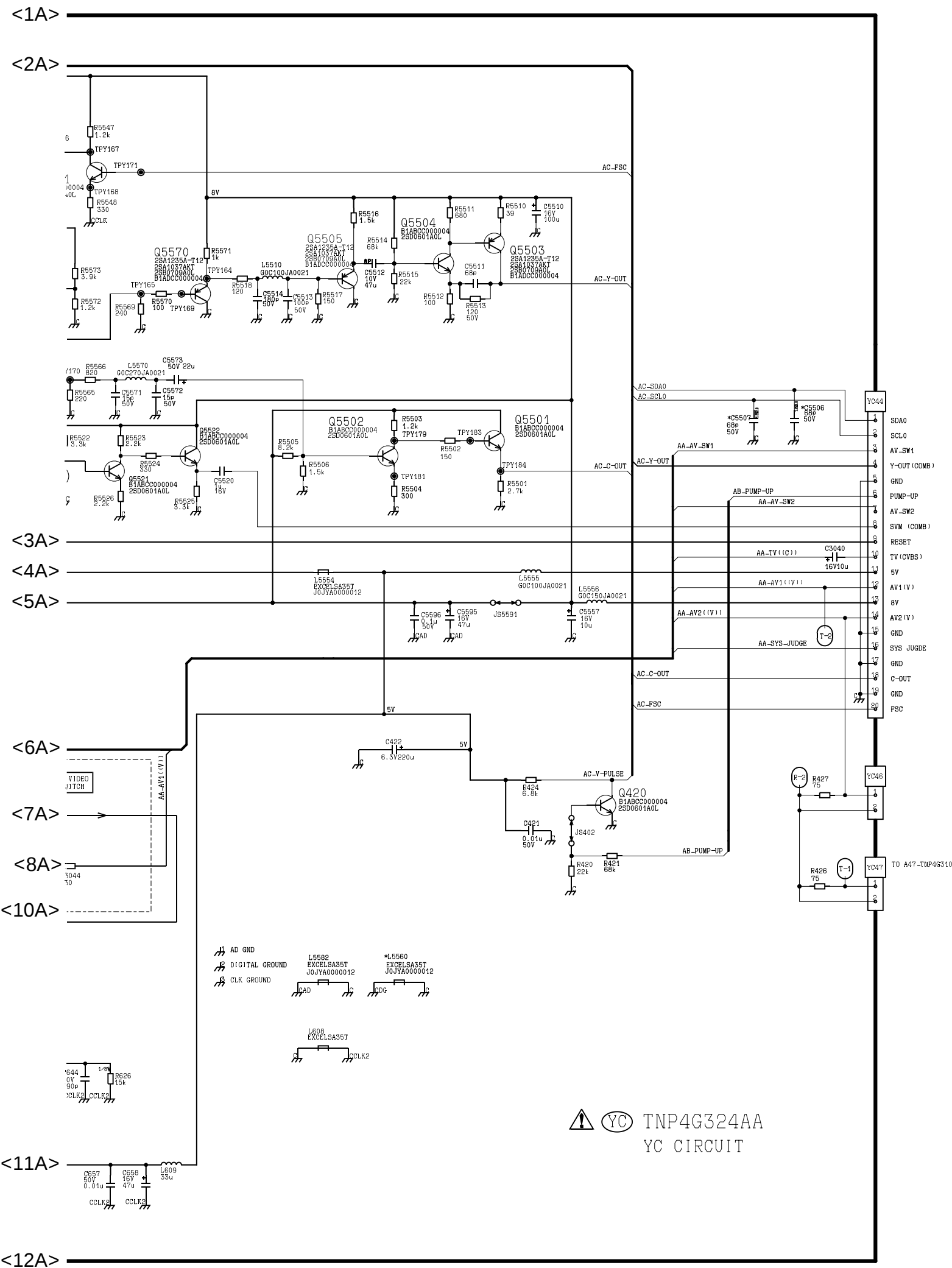


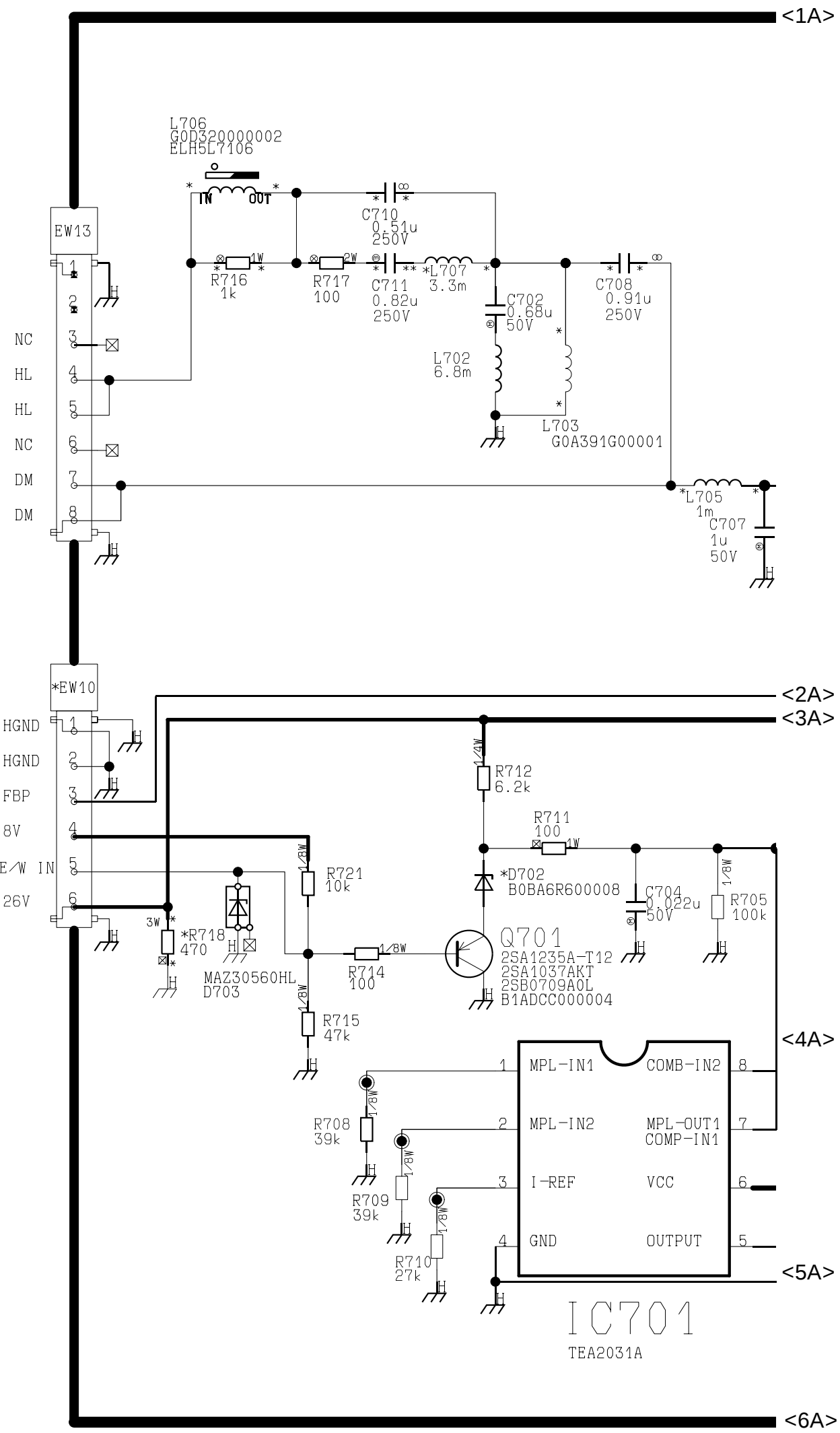


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<1A>



EW

TNP4G325AA

EW CIRCUIT

<2A>

<3A>

<4A>

<5A>

<6A>

