



## 27" MTS STEREO COLOR TELEVISION WITH DIGITAL TUNER



# DTV2794



## SERVICE MODE LIST

This unit is provided with the following SERVICE MODES so you can repair, examine and adjust easily.

To enter to the SERVICE MODE function, press and hold both buttons simultaneously on the main unit or on the main unit and on the remote control for more than a standard time in the appropriate condition. (See below chart.)

In case of the main unit and remote control, press the remote control buttons first, then press the main unit buttons.

Set Condition	Set Key	Remocon Key	Standard Time	Operations
POWER ON	VOL. DOWN (Minimum)	0	2 sec.	Releasing of V-CHIP PASSWORD.
POWER ON	VOL. DOWN (Minimum)	1	2 sec.	Initialization of factory TV data. NOTE: If you set factory initialization, the memories are reset such as the channel setting, and the POWER ON total hours.
POWER ON	VOL. DOWN (Minimum)	6	2 sec.	Can be checked of the INITIAL DATA of MEMORY IC. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
POWER ON	VOL. DOWN (Minimum)	8	2 sec.	Check of the SUM DATA, MICON VERSION, POWER ON total hours and Digital TV MICON Firmware on the screen. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
POWER ON	VOL. DOWN (Minimum)	9	2 sec.	Display of the Adjustment MENU on the screen. Refer to the "ELECTRICAL ADJUSTMENT" (On-Screen Display Adjustment).

## WHEN REPLACING EEPROM (MEMORY) IC

### CONFIRMATION OF CHECK SUM, POWER ON TOTAL HOURS, MICON VERSION AND DIGITAL TV MICON FIRMWARE VERSION

Initial total of MEMORY IC, POWER ON total hours, MICON VERSION and Digital TV MICON Firmware VERSION can be checked on the screen. Total hours are displayed in 16 system of notation.

**NOTE: If you set a factory initialization, the total hours is reset to "0".**

**Please refer to "CONFIRMATION OF INITIAL DATA" when SUM DATA is not corresponding.**

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(8)** on the remote control for more than 2 seconds.
4. After the confirmation of each check sum, POWER ON total hours, Digital TV MICON Firmware and MICON VERSION, turn off the power.

NOTE: The each item value might be different according to each set.

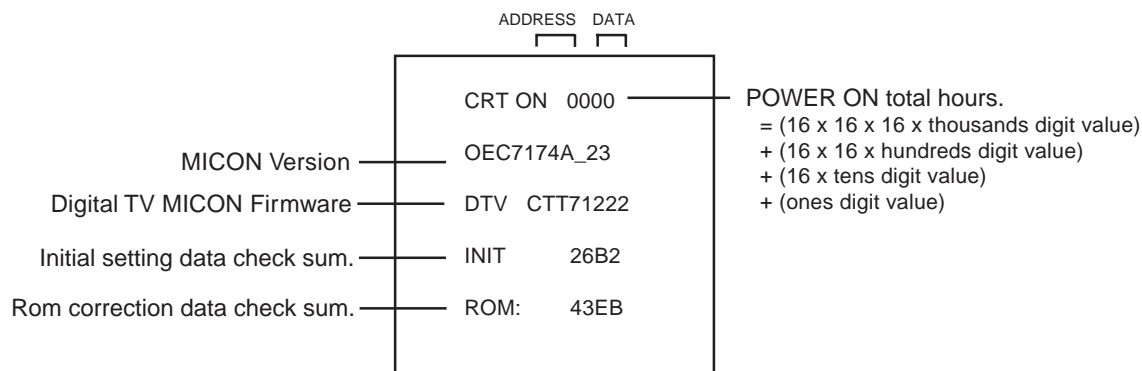


FIG. 1

## WHEN REPLACING EEPROM (MEMORY) IC

If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to TABLE 1.

INIT	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F
00	43	00	00	20	09	B3	24	0D	4B	80	00	A0	FA	00	00	00
10	00	00	00	65	4E	34	10	A1	00	00	00	00	60	00	10	8C
20	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	08
30	88	00	00	00	00	09	72	05	05	00	00	00	87	03	C8	22
40	02	33	00	00	04	23	2D	20	00	40	20	40	40	40	00	00
50	00	64	00	00	00	00	00	00	0A	45	A0	00	FF	01	00	00
60	00	88	00	00	00	00	00	00	00	00	00	00	00	00	00	00
70	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
80	00	00	00	00	00	00	00	00	00	03	00	00	00	00	00	00
90	00	00	00	00	00	00	00	00	00	00	00	05	9D	01	00	84
A0	04	11	00	00	00	05	00	01	00	00	00	05	12	13	05	82
B0	01	00	00	00	00	04	00	04	00	02	00	00	00	00	00	00
C0	08	24	2F	33	37	38	39	3A	3B	3C	3C	3D	3F	40	40	41
D0	42	44	45	46	47	48	49	4A	4B	4C	4C	4D	4E	4F	50	50
E0	51	52	53	53	54	54	55	55	57	58	5A	5B	5C	5D	5E	5F
F0	61	62	64	66	68	6E	73	78	7D	82	86	8A	8E	8E	8F	8F

Table 1

### CONFIRMATION OF INITIAL DATA

1. Enter DATA SET mode by setting VOLUME to minimum.
2. Press both VOL. DOWN button on the set and Channel button **(6)** on the remote control for more than 2 seconds. ADDRESS and DATA should appear as FIG 2.
3. ADDRESS is now selected and should "blink". Using the CH. UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
4. Press VOL. UP/DOWN button to select DATA. When DATA is selected, it will "blink".
5. Again, step through the DATA using CH. UP/DOWN button until required DATA value has been selected.
6. Pressing VOL. UP/DOWN button will take you back to ADDRESS for further selection if necessary.
7. Repeat steps 3 to 6 until all data has been checked.
8. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

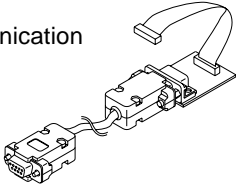
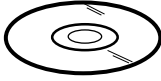
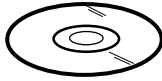
**After the data input, set to the initializing of shipping.**

9. Turn on the Power.
  10. Set the VOLUME to minimum.
  11. Press both VOL. DOWN button on the set and Channel button **(1)** on the remote control for more than 2 seconds.
  12. After the finishing of the initializing of shipping, the unit will turn off automatically.
- The unit will now have the correct DATA for the new MEMORY IC.

	ADDRESS	DATA
INIT	00	43
CRT ON	0000	
OEC7174A_23		
DTV	CTT71222	
INIT	26B2	
ROM:	43EB	

FIG. 2

## SERVICING FIXTURES AND TOOLS

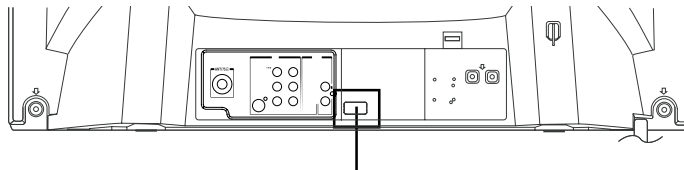
JG205 Serial Communication Change JIG 	JG206 Flash UP-Date Soft Disc 	JG176 2007 SD DTV Rom Disc 
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Ref. No.	Part No.	Parts Name	Remarks
JG205	APJG205000	Serial Communication Change JIG	Connect the set to personal computer
JG206	APJG206000	Flash UP-Date Soft Disc	Up-Date of the Firmware
JG176	APJG176125	2007 SD DTV Rom Disc	Up-Date of the DIGITAL Firmware

## RE-WRITE FOR DIGITAL SOFT FIRMWARE

1. Confirm that the AC cord is plugged out.
2. Using the Serial Communication Change JIG (**JG205**), connect the set to personal computer. (**Refer to Fig. 1**)

**NOTE:** It is possible to write only with the personal computer of WINDOWS.



**Fig. 1**

3. Using the Flash UP-Date Soft Disc (**JG206**) and USA SD DTV ROM DISC (**JG176**), please Re-write the DIGITAL SOFT FIRMWARE.  
The operating manual for Re-writing is included in Flash UP-Date Soft Disc (**JG206**).

# ELECTRICAL ADJUSTMENTS

## 1. ADJUSTMENT PROCEDURE

circuits or replacing electrical parts or PCB assemblies.

### CAUTION

- Use an isolation transformer when performing any service on this chassis.
- Before removing the anode cap, discharge electricity because it contains high voltage.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.
- When you exchange IC and Transistor with a heat sink, apply silicon grease on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damages to the IC and Transistor.)

Prepare the following measurement tools for electrical adjustments.

1. Oscilloscope
2. Digital Voltmeter
3. Multi-sound Generator
4. Pattern Generator

### On-Screen Display Adjustment

1. In the condition of NO indication on the screen.  
Press the VOL. DOWN button on the set and the Channel button **(9)** on the remote control for more than 2 seconds to appear the adjustment mode on the screen as shown in **Fig. 1-1**.

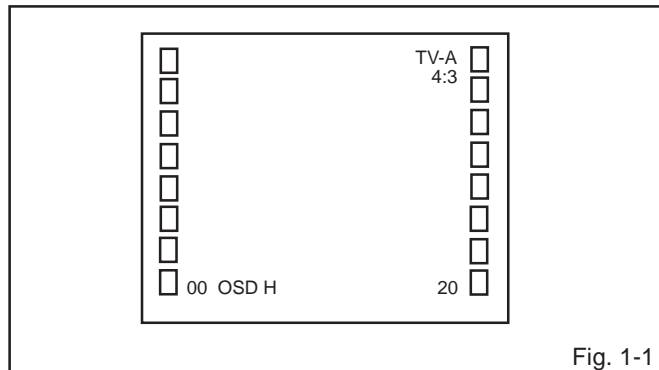


Fig. 1-1

2. Use the Channel UP/DOWN button or Channel button **(0-9)** on the remote control to select the options shown in **Fig. 1-2**.
3. Press the MENU button on the remote control to end the adjustments.
4. To display the adjustment screen for TV-A, TV-D, AV and YUV mode, press the INPUT button on the remote control. Press the VOL.DOWN button on the set and the channel **(9)** on the remote control for more than 2 seconds.

NO.	FUNCTION	NO.	FUNCTION
00	OSD H	32	CONT.CENT
01	OSD C	33	CONT.MAX
02	CUT OFF	34	CONT.MIN
03	H.POSI	35	COL.CENT
04	H.BLK L	36	COL.MAX
05	H.BLK R	37	COL.MIN
06	V. SIZE	38	TINT CENT
07	V. POSI	39	SHARP.CENT
08	V. LIN	40	SHARP.MAX
09	VS CORR	41	SHARP.MIN
10	V COMP	42	SUB BIAS
11	R.BIAS	43	H.SIZE
12	G.BIAS	44	PARABOLA
13	B.BIAS	45	TRAPEZIUM
14	R.DRV	46	COR TOP
15	G.DRV	47	COR BTM
16	B.DRV	48	TEST STEREO
29	BRI.CENT	49	X-RAY
30	BRI.MAX		
31	BRI.MIN		

Fig. 1-2

## 2. BASIC ADJUSTMENTS

### 2-1: CONSTANT VOLTAGE

1. Place the set in AV MODE without signal.
2. Connect the digital voltmeter to the **TP003**.
3. Adjust the **VR502** until the digital voltmeter is  $130 \pm 0.5V$ .

### 2-2: CUT OFF

1. Place the set in Aging Test for more than 15 minutes.
2. Place the set in AV MODE without signal.
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(02)** on the remote control to select "CUT OFF".
5. Adjust the **Screen Volume** until a dim raster is obtained.

### 2-3: WHITE BALANCE

**NOTE:** Adjust after performing CUT OFF adjustment.

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the white 100% signal from the Pattern Generator.
3. Using the adjustment control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(11)** on the remote control to select "R.BIAS".
5. Using the VOL. UP/DOWN button on the remote control, adjust the R.BIAS.
6. Press the CH. UP/DOWN button on the remote control to select the "R.DRIVE", "B.DRIVE", "G.BIAS" or "B.BIAS".
7. Using the VOL. UP/DOWN button on the remote control, adjust the R.DRIVE, B.DRIVE, G.BIAS or B.BIAS.
8. Perform the above adjustments 6 and 7 until the white color is achieved.

### 2-4: FOCUS

1. Receive the monoscope pattern.
2. Turn the Focus Volume fully counterclockwise once.
3. Adjust the **Focus Volume** until picture is distinct.

## ELECTRICAL ADJUSTMENTS

### 2-5: BRIGHT CENT

1. Receive the monoscope pattern. (RF Input)
2. Set the screen mode to FULL.
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(29)** on the remote control to select "BRI. CENT".
5. Press the VOL. UP/DOWN button on the remote control until the white 10% is starting to be visible.
6. Receive the monoscope pattern. (Audio Video Input)
7. Press the INPUT button on the remote control to set to the AV mode. Then perform the above adjustments 2~5.
8. Receive the monoscope pattern.
9. Press the INPUT button on the remote control to set to the YUV mode. Then perform the above adjustments 2~5.

### 2-6: CONTRAST MAX

1. Receive an over 70dB color bar pattern. (RF Input)
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(33)** on the remote control to select "CONT. MAX".
4. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "70".
5. Receive a broadcast and check if the picture is normal.
6. Receive the color bar pattern. (Audio Video Input)
7. Press the INPUT button on the remote control to set to the AV mode. Then perform the above adjustments 2~5.
8. Receive the monoscope pattern.
9. Press the INPUT button on the remote control to set to the YUV mode. Then perform the above adjustments 2~5.

### 2-7: TINT

1. Receive the color bar pattern. (RF Input)
2. Using the remote control, set the brightness, contrast and tint to normal position.
3. Connect the oscilloscope to **TP024**.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(38)** on the remote control to select "TINT".
5. Press the VOL. UP/DOWN button on the remote control until the section A becomes as straight line. **(Refer to Fig. 2-1)**
6. Receive the monoscope pattern. (Audio Video Input)
7. Press the INPUT button on the remote control to set to the AV mode. Then perform the above adjustments 2~5.
8. Receive the monoscope pattern.
9. Press the INPUT button on the remote control to set to the YUV mode. Then perform the above adjustments 2~5.
10. Receive the monoscope pattern.
11. Press the INPUT button on the remote control to set to the DIGITAL mode. Then perform the above adjustments 2~5.

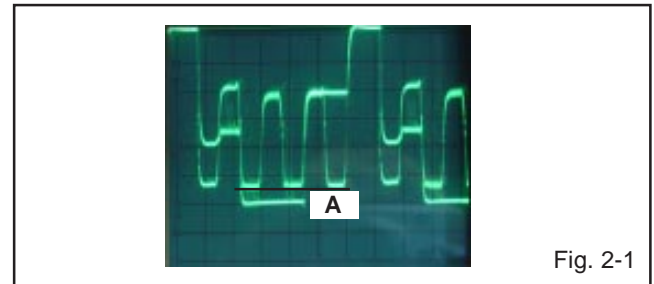


Fig. 2-1

### 2-8: COLOR CENT

1. Receive the color bar pattern. (RF Input)
2. Using the remote control, set the brightness, contrast, color and tint to normal position.
3. Connect the oscilloscope to **TP022**.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(35)** on the remote control to select "COL. CENT".
5. Adjust the VOLTS RANGE VARIABLE knob of the oscilloscope until the range between white 100% and 0% is set to 4 scales on the screen of the oscilloscope.
6. Press the VOL. UP/DOWN button on the remote control until the red color level is adjusted to  $110 \pm 10\%$  of the white level. **(Refer to Fig. 2-2)**
7. Receive the video color bar pattern. (Audio Video Input)
8. Press the INPUT button on the remote control to set to the AV mode. Then perform the above adjustments 2~6.
9. Receive the video color bar pattern.
10. Press the INPUT button on the remote control to set to the YUV mode. Then perform the above adjustments 2~6.
11. Receive the video color bar pattern.
12. Press the INPUT button on the remote control to set to the DIGITAL mode. Then perform the above adjustments 2~6.

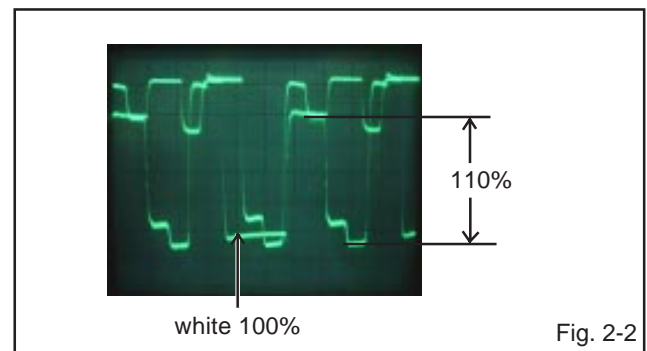


Fig. 2-2

### 2-9: HORIZONTAL POSITION

1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(03)** on the remote control to select "H. POSI".
4. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on right and left becomes minimum.

## ELECTRICAL ADJUSTMENTS

### 2-10: HORIZONTAL SIZE

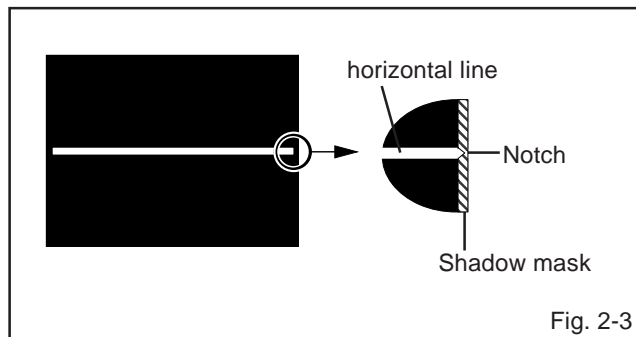
1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(43)** on the remote control to select "H.SIZE".
4. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on the right and left becomes  $10 \pm 3\%$ .

### 2-11: VERTICAL LINEARITY

1. Receive the monoscope pattern.
2. Using the remote control, set the brightness, contrast, to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(08)** on the remote control to select "V.LIN".
4. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on upside and downside becomes minimum.

### 2-12: VERTICAL POSITION

1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Adjust the **VR401** until the horizontal line becomes fit to the notch of the shadow mask.  
(Refer to Fig. 2-3)



### 2-13: VERTICAL SIZE

1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(06)** on the remote control to select "V. SIZE".
4. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on upside and downside becomes  $9 \pm 2\%$ .

### 2-14: TRAPEZIUM

1. Receive the crosshatch signal from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(45)** on the remote control to select "TRAPEZIUM".
4. Press the VOL. UP/DOWN button on the remote control until the both ends right and left vertical lines of the 1th length lines screen become parallel.

### 2-15: PALABOLA CORR

1. Receive the crosshatch pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(44)** on the remote control to select "PALABOLA".
4. Press the VOL. UP/DOWN button on the remote control, so that the line becomes straight from the outside of the right and left.

### 2-16: COR TOP/BTM

1. Receive the crosshatch signal from the Pattern Generator.
2. Set the screen mode to FULL.
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(46)** on the remote control to select "COR. TOP".
5. Press the VOL. UP/DOWN button on the remote control until the both ends vertical lines become straight.
6. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(47)** on the remote control to select "COR. BTM".
7. Press the VOL. UP/DOWN button on the remote control until the both ends vertical lines of the screen become parallel.

## ELECTRICAL ADJUSTMENTS

### 2-17: OSD POSITION

1. Receive the monoscope pattern from the Pattern Generator.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(00)** on the remote control to select "OSD H".
4. Press the VOL. UP/DOWN button on the remote control until the difference of A and B becomes minimum.  
**(Refer to Fig. 2-4)**

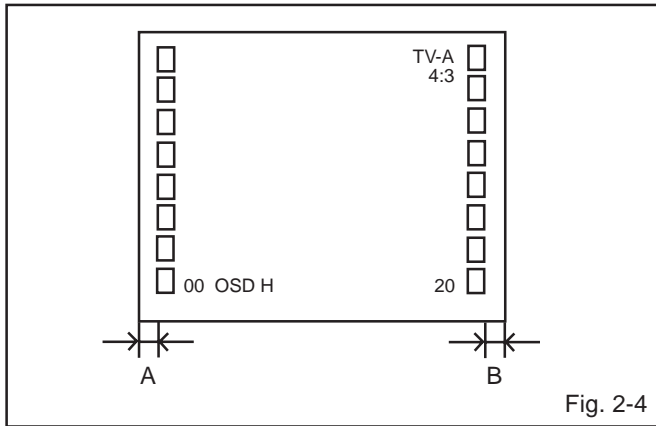


Fig. 2-4

### 2-18: Confirmation of Fixed Value (Step No.)

Please check if the fixed values of each of the adjustment item is set correctly referring below.

NO.	FUNCTION	ANALOG TV-A	DIGITAL TV-D	VIDEO1, VIDEO2 AV	Colorstream YUV
01	OSD C	02	02	02	02
04	H BLK L	05	05	05	05
05	H BLK R	02	02	02	02
07	V.POSI	01	01	01	01
09	VS CORR	11	11	11	11
10	V COMP	00	00	00	00
30	BRI.MAX	90	90	90	90
31	BRI.MIN	50	50	50	50
32	CONT.CENT	55	50	50	50
33	CONT.MIN	30	30	30	50
36	COL.MAX	120	120	120	120
37	COL.MIN	20	20	20	20
39	SHARP.CENT	27	25	25	25
40	SHARP.MAX	63	63	63	63
41	SHARP.MIN	00	00	00	00
42	SUB BIAS	00	00	00	00
48	TEST STEREO	00	00	00	00

# ELECTRICAL ADJUSTMENTS

## 3. PURITY AND CONVERGENCE ADJUSTMENTS

### NOTE

1. Turn the unit on and let it warm up for at least 30 minutes before performing the following adjustments.
2. Place the CRT surface facing east or west to reduce the terrestrial magnetism.
3. Turn ON the unit and demagnetize with a Degauss Coil.

### 3-1: STATIC CONVERGENCE (ROUGH ADJUSTMENT)

1. Tighten the screw for the magnet. Refer to the adjusted CRT for the position. **(Refer to Fig. 3-1)**  
If the deflection yoke and magnet are in one body, untighten the screw for the body.
2. Receive the green raster pattern from the color bar generator.
3. Slide the deflection yoke until it touches the funnel side of the CRT.
4. Adjust center of screen to green, with red and blue on the sides, using the pair of purity magnets.
5. Switch the color bar generator from the green raster pattern to the crosshatch pattern.
6. Combine red and blue of the 3 color crosshatch pattern on the center of the screen by adjusting the pair of 4 pole magnets.
7. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.
8. Adjust the crosshatch pattern to change to white by repeating steps 6 and 7.

### 3-2: PURITY

### NOTE

Adjust after performing adjustments in section 3-1.

1. Receive the green raster pattern from color bar generator.
2. Adjust the pair of purity magnets to center the color on the screen.  
Adjust the pair of purity magnets so the color at the ends are equally wide.
3. Move the deflection yoke backward (to neck side) slowly, and stop it at the position when the whole screen is green.
4. Confirm red and blue color.
5. Adjust the slant of the deflection yoke while watching the screen, then tighten the fixing screw.

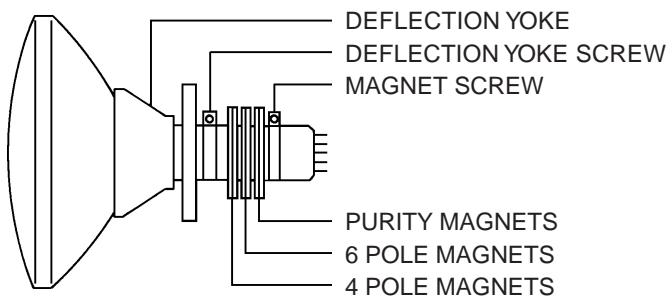


Fig. 3-1

### 3-3: STATIC CONVERGENCE

### NOTE

Adjust after performing adjustments in section 3-2.

1. Receive the crosshatch pattern from the color bar generator.
2. Combine red and blue of the 3 color crosshatch pattern on the center of the screen by adjusting the pair of 4 pole magnets.
3. Combine red/blue (magenta) and green by adjusting the pair of 6 pole magnets.

### 3-4: DYNAMIC CONVERGENCE

### NOTE

Adjust after performing adjustments in section 3-3.

1. Adjust the differences around the screen by moving the deflection yoke upward/downward and right/left.  
**(Refer to Fig. 3-2-a)**
2. Insert three wedges between the deflection yoke and CRT funnel to fix the deflection yoke.  
**(Refer to Fig. 3-2-b)**

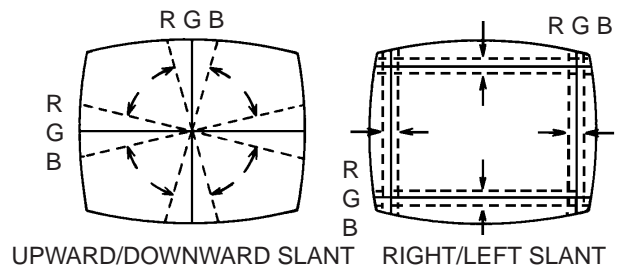


Fig. 3-2-a

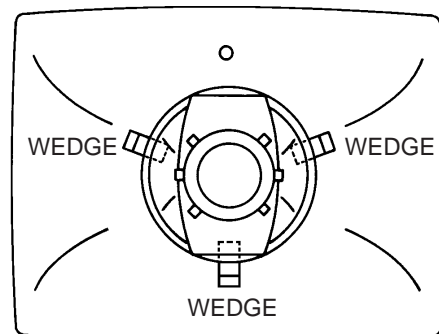
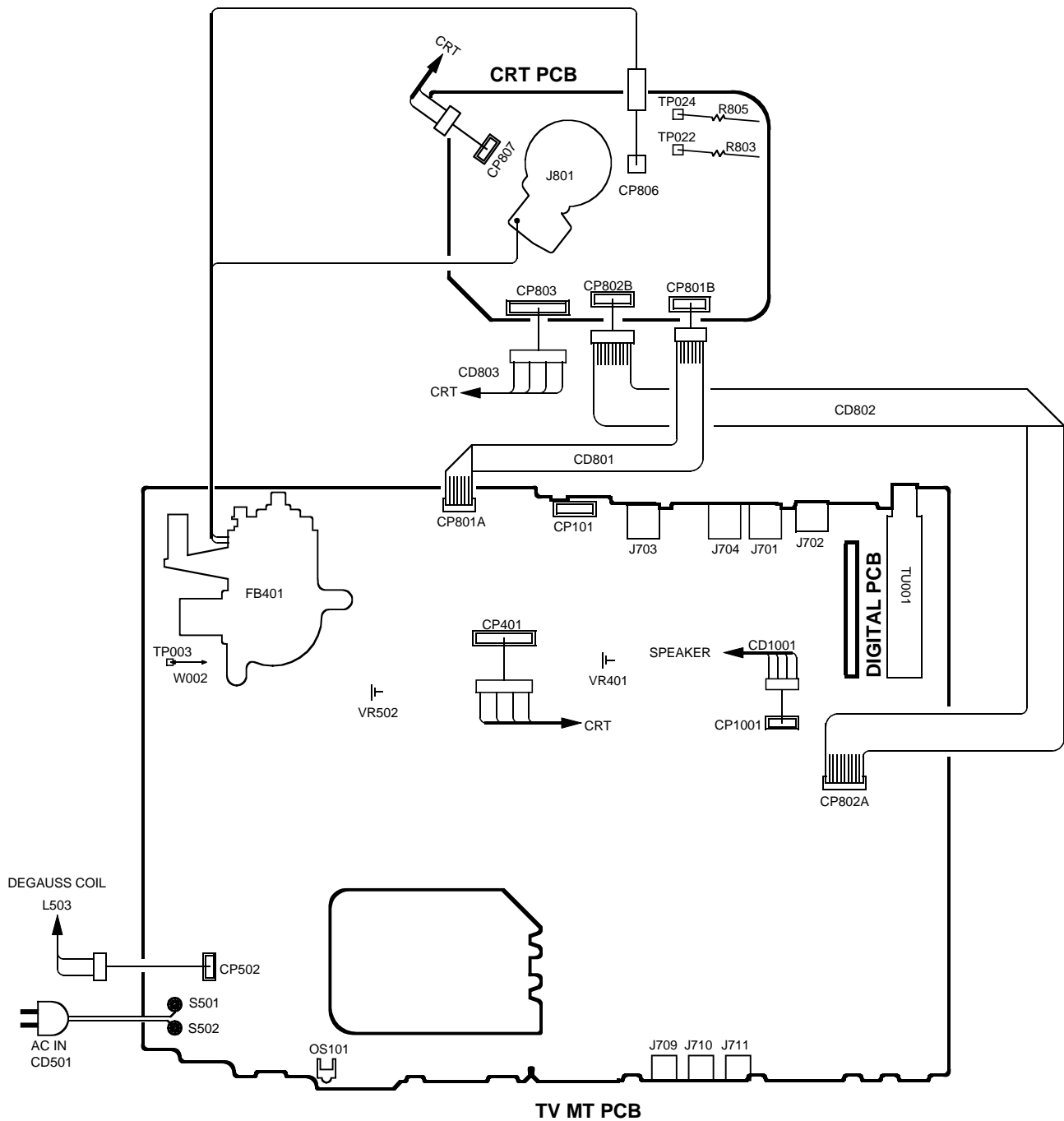


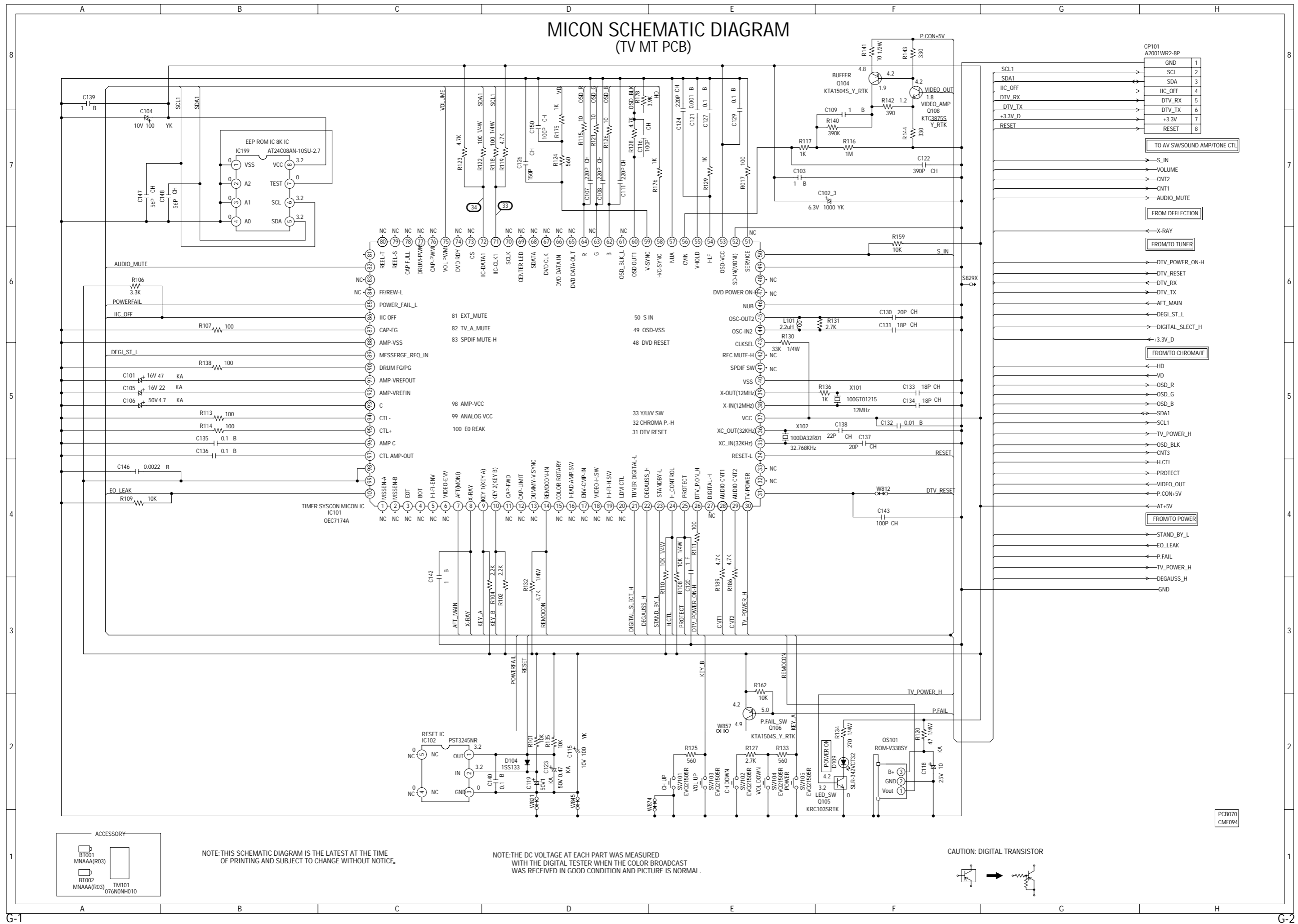
Fig. 3-2-b

# ELECTRICAL ADJUSTMENTS

## 4. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION)

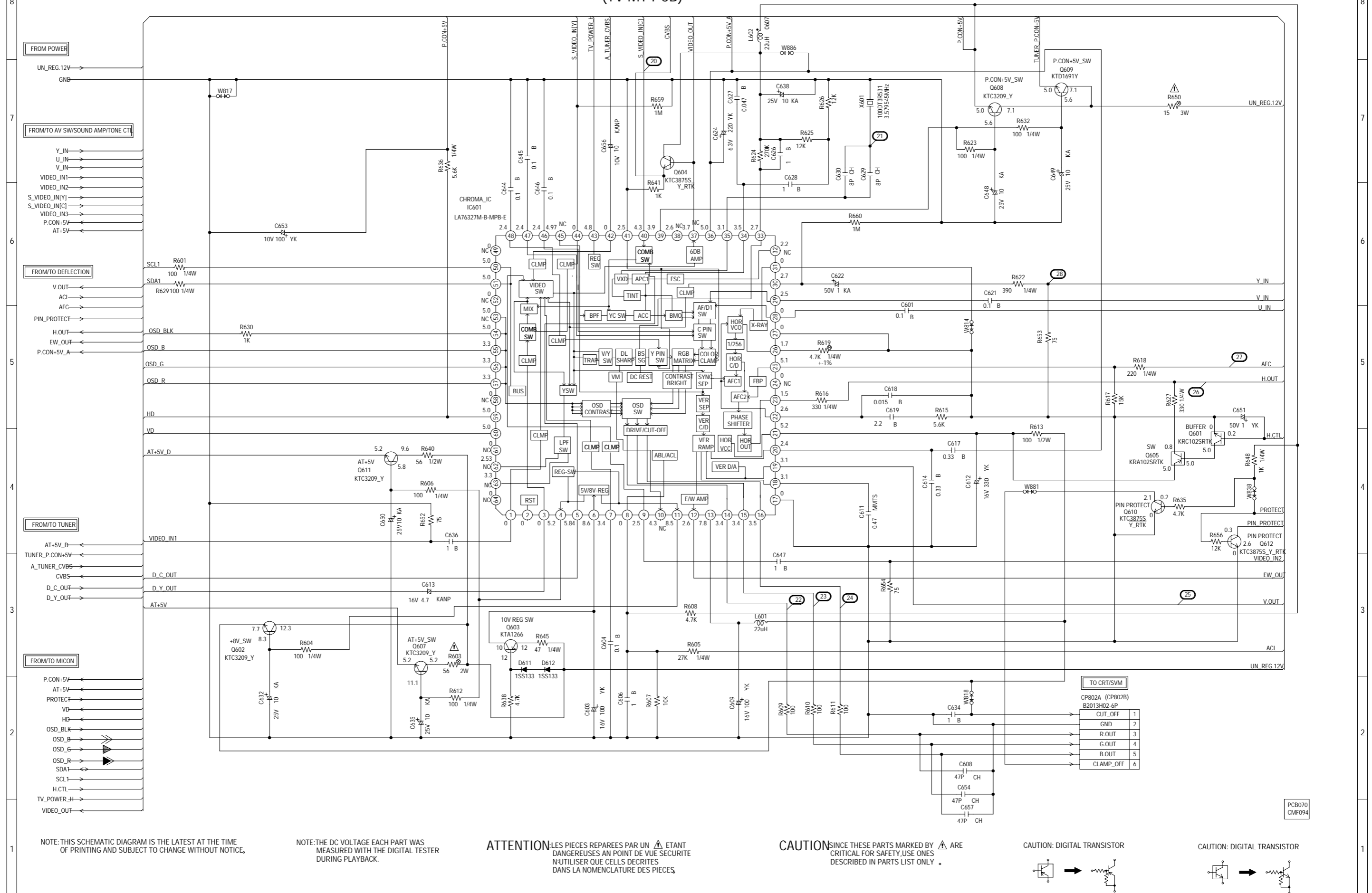


## MICON SCHEMATIC DIAGRAM (TV MT PCB)



# CHROMA/IF SCHEMATIC DIAGRAM

## (TV MT PCB)



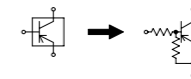
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

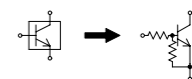
**ATTENTION** LES PIÈCES RÉPARÉES PAR UN ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

**CAUTION** SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

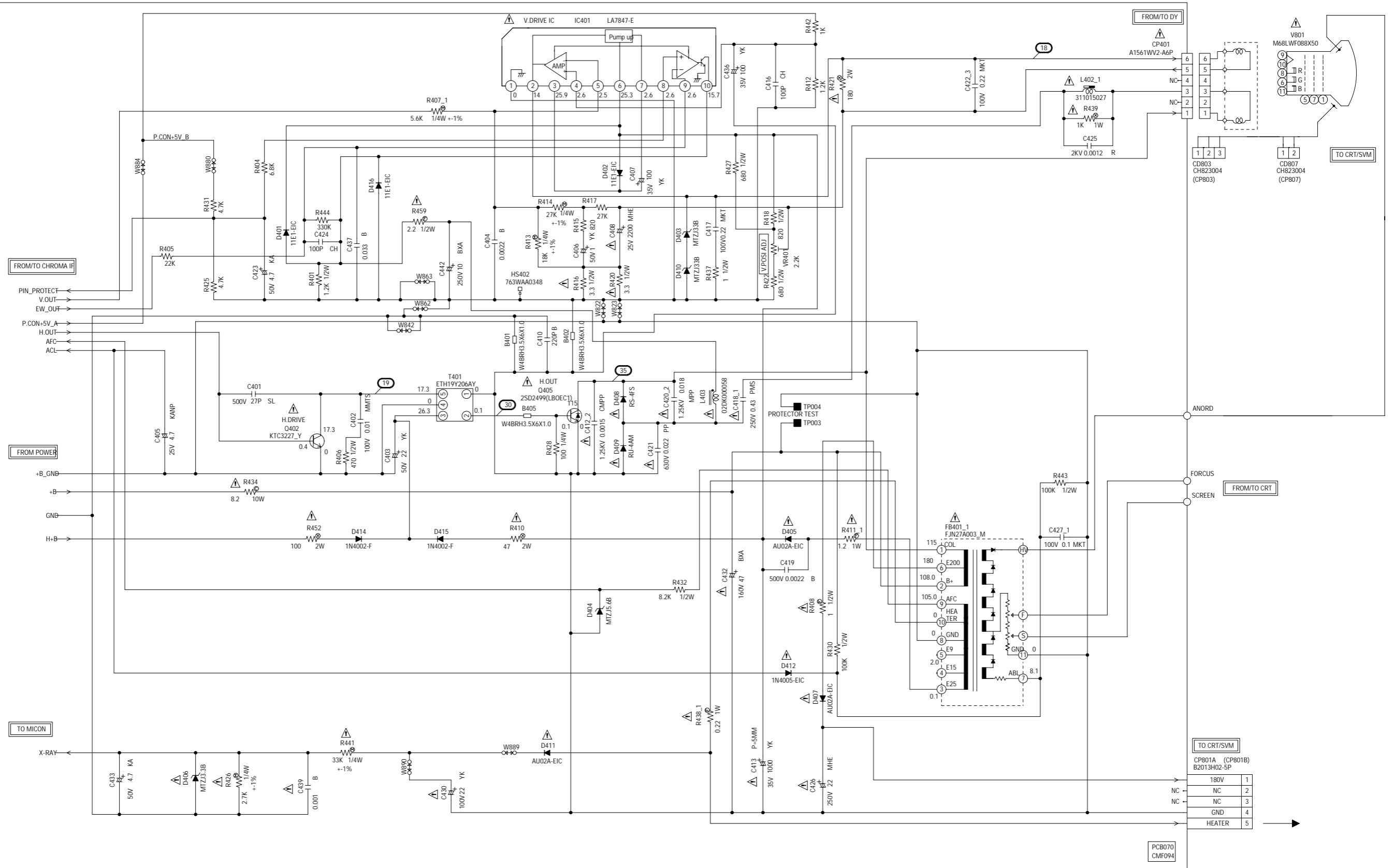
CAUTION: DIGITAL TRANSISTOR



CAUTION: DIGITAL TRANSISTOR



# DEFLECTION SCHEMATIC DIAGRAM (TV MT PCB)



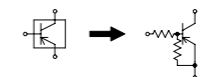
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR.  
THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP IS NON POLAR ONE.

ATTENTION: LES PIÈCES RÉPARÉES PAR UN ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

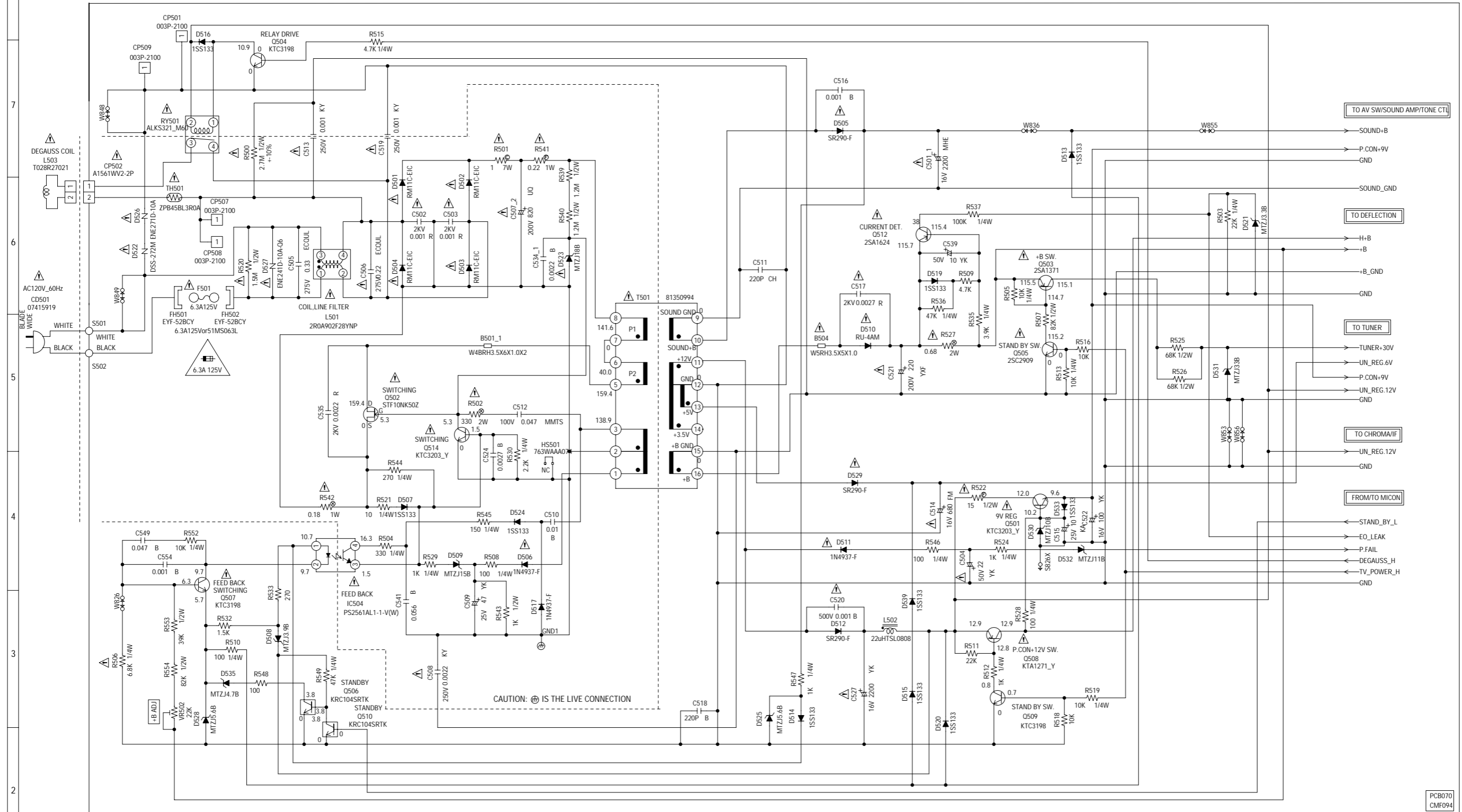
CAUTION: DIGITAL TRANSISTOR



TO CRT/SVM				
CP801A (CP801B)	180V	1		
B2013H02-5P	NC	2		
	NC	3		
	GND	4		
	HEATER	5		


PCB070  
CMF094

## (TV MT PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.


NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

**ATTENTION:** LES PIÈCES RÉPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR.  
THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP  
IS NON POLAR ONE.

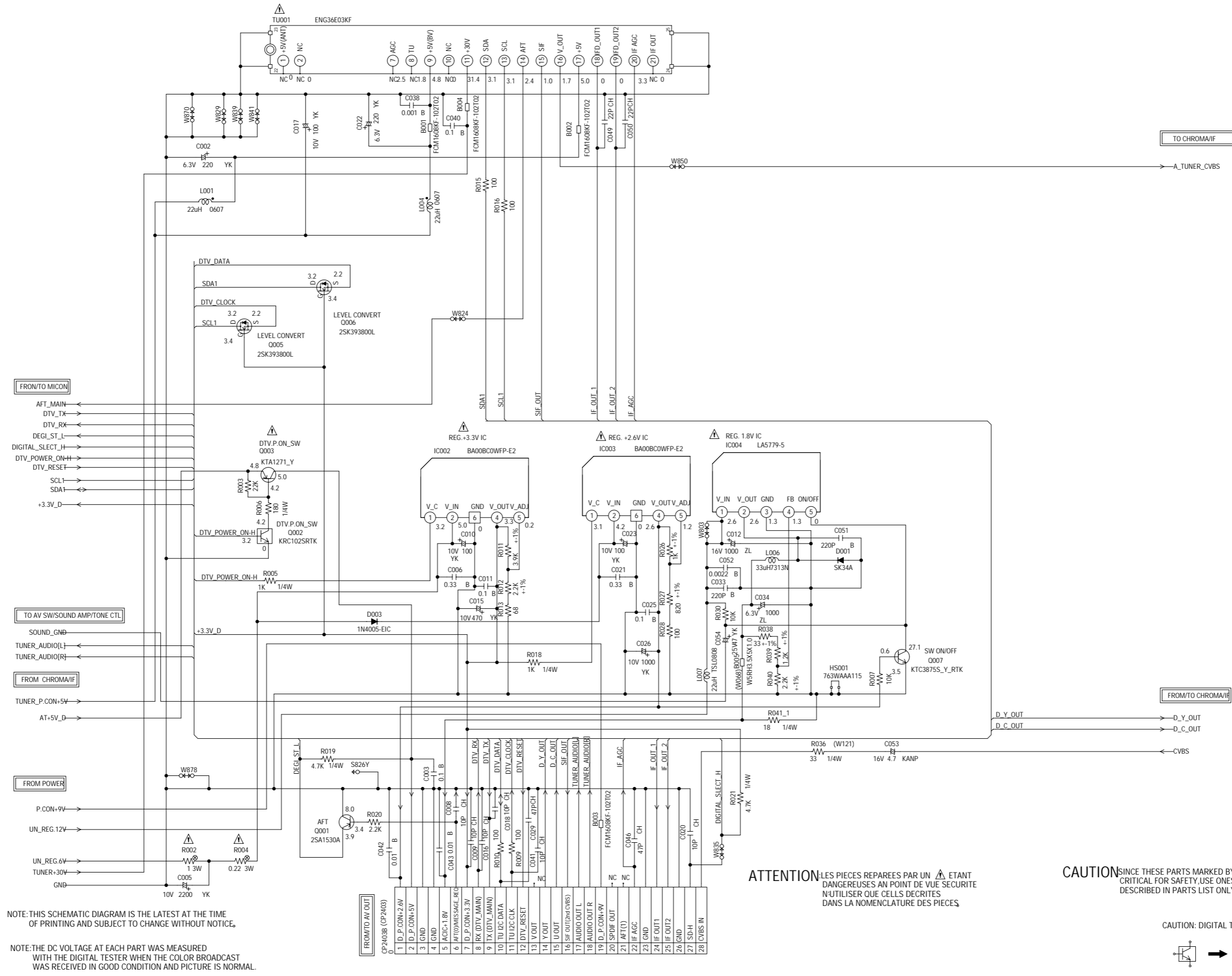
**CAUTION** SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY .

CAUTION: DIGITAL TRANSISTOR



The diagram illustrates the conversion of a digital transistor symbol (a square box with a transistor symbol inside) into a standard transistor symbol (a circle with a transistor symbol inside) with a base resistor. An arrow points from the digital symbol to the standard symbol, indicating the conversion process.

TUNER SCHEMATIC DIAGRAM  
(TV MT PCB)



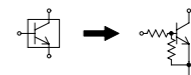
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

ATTENTION: LES PIÈCES RÉPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIÈCES.

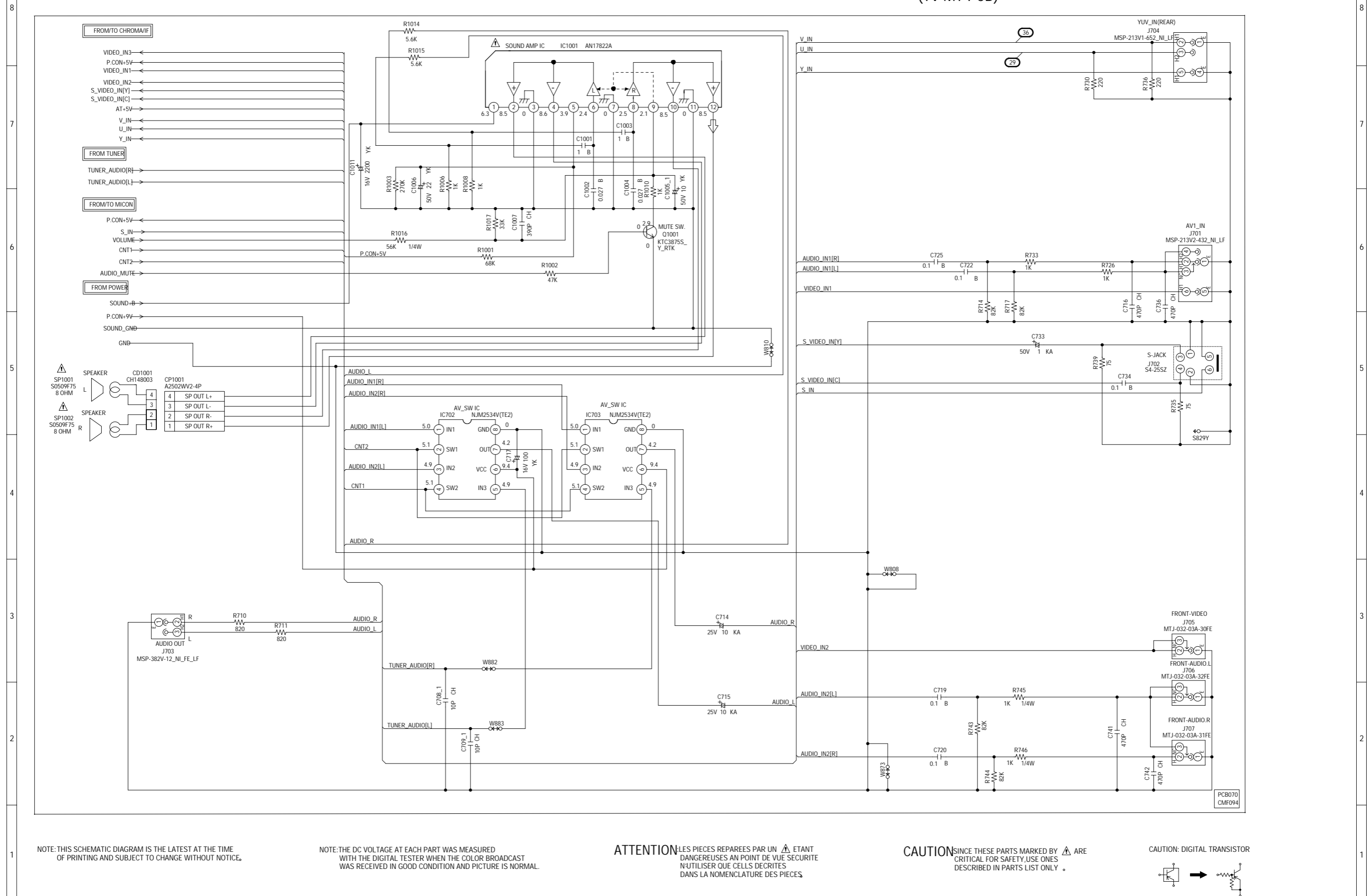
CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

CAUTION: DIGITAL TRANSISTOR

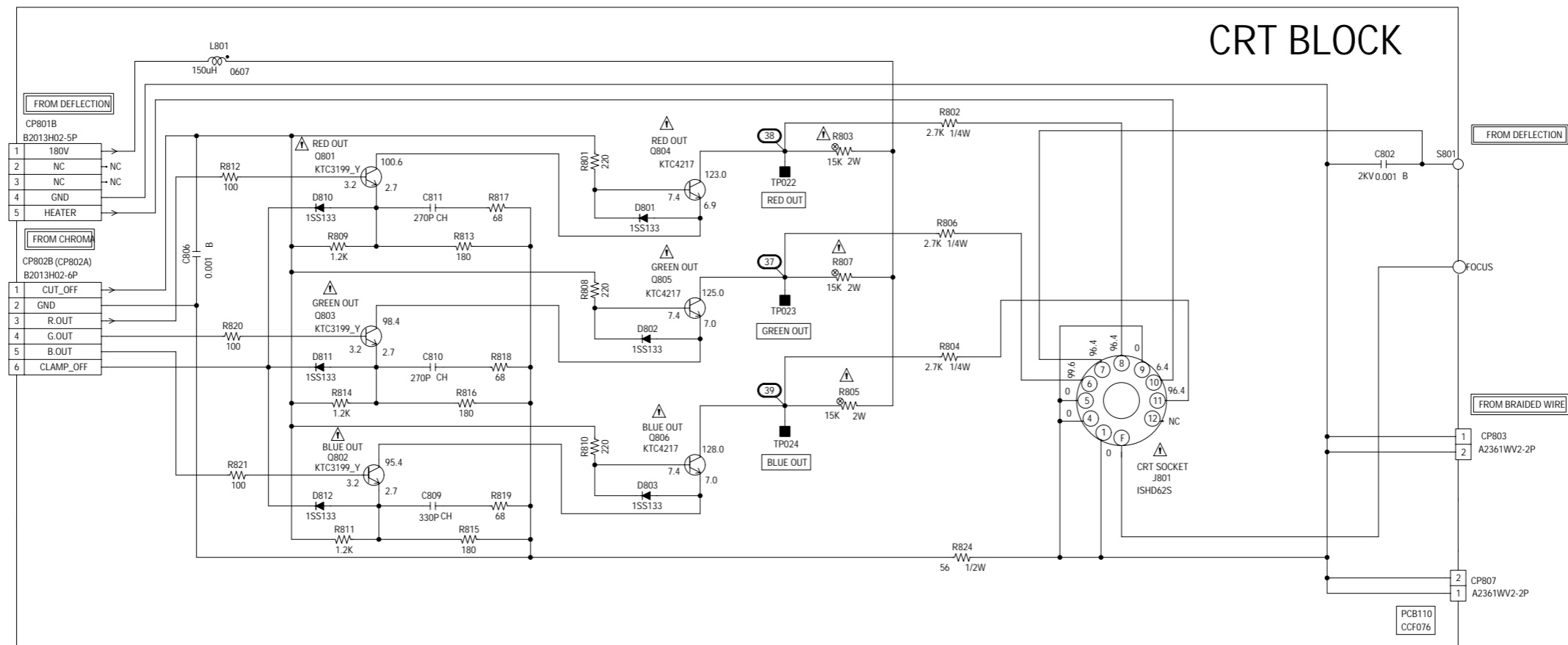


PCB070  
CMF094

## AV SW/SOUND AMP/TONE CTL SCHEMATIC DIAGRAM (TV MT PCB)





# CRT / SVM SCHEMATIC DIAGRAM (CRT PCB)



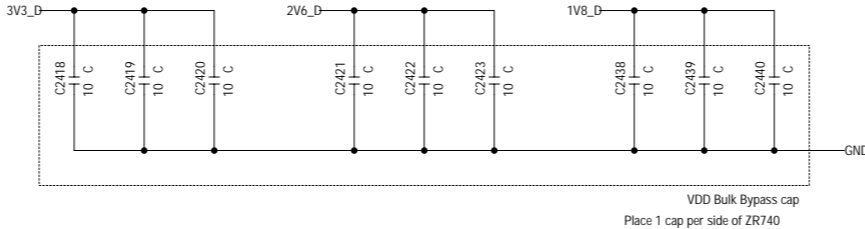
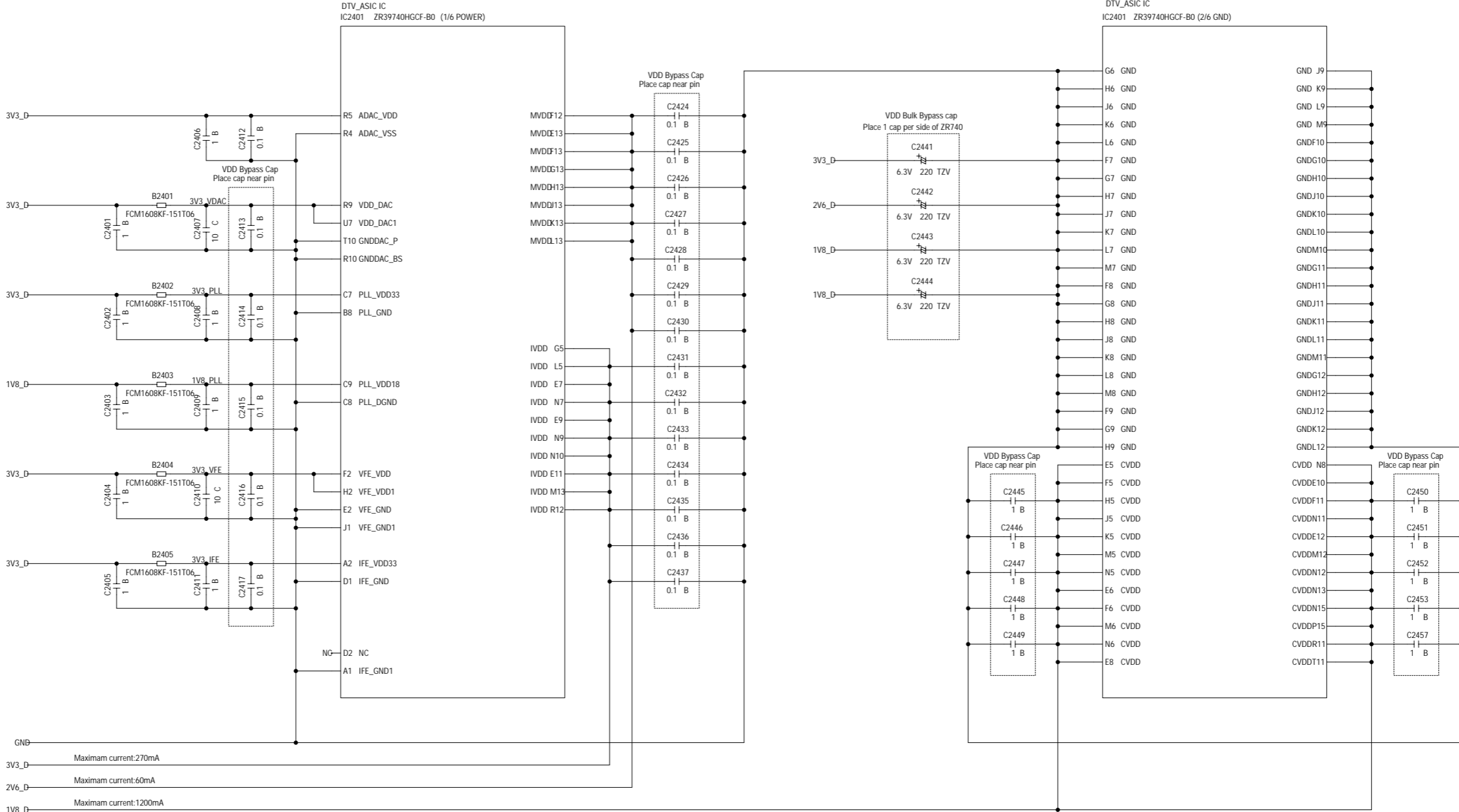
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME  
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED  
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST  
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

**CAUTION** SINCE THESE PARTS MARKED BY  ARE  
CRITICAL FOR SAFETY, USE ONES  
DESCRIBED IN PARTS LIST ONLY.

**ATTENTION** LES PIÈCES REPARÉES PAR UN  ÉTANT  
DANGEREUSES AU POINT DE VUE SÉCURITÉ  
N'UTILISER QUE CELLES DÉCRITES  
DANS LA NOMENCLATURE DES PIÈCES.

(DIGITAL PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL

SDRAM SCHEMATIC DIAGRAM  
(DIGITAL PCB)

DTV\_ASIC IC  
IC2401 ZR39740HGCF-B0 (3/6 DDR)

NR2401 4D02WGJ0150TCE

NR2402 4D02WGJ0150TCE

NR2403 4D02WGJ0150TCE

NR2404 4D02WGJ0150TCE

NR2405 4D02WGJ0150TCE

NR2406 4D02WGJ0150TCE

NR2407 4D02WGJ0150TCE

256Mbit DDR SDRAM IC  
IC2402 HY5DU561622ETP-D43

FROM/TO POWER & GROUND

FROM/TO FLASH/GPIO

FROM/TO VIF/SIF

FROM/TO AV IN/OUT

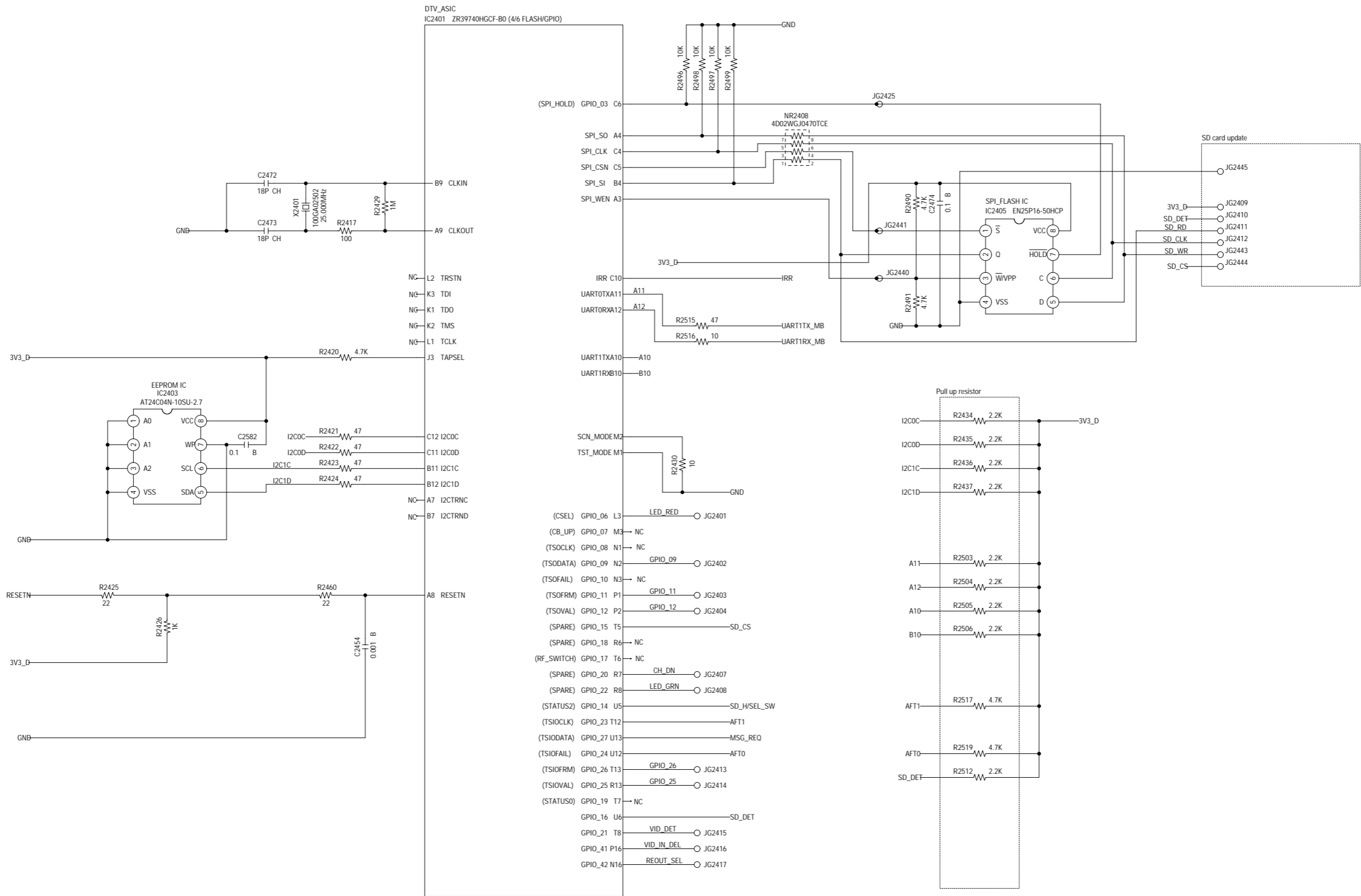
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0  
CEF242

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

FLASH/GPIO SCHEMATIC DIAGRAM  
(DIGITAL PCB)

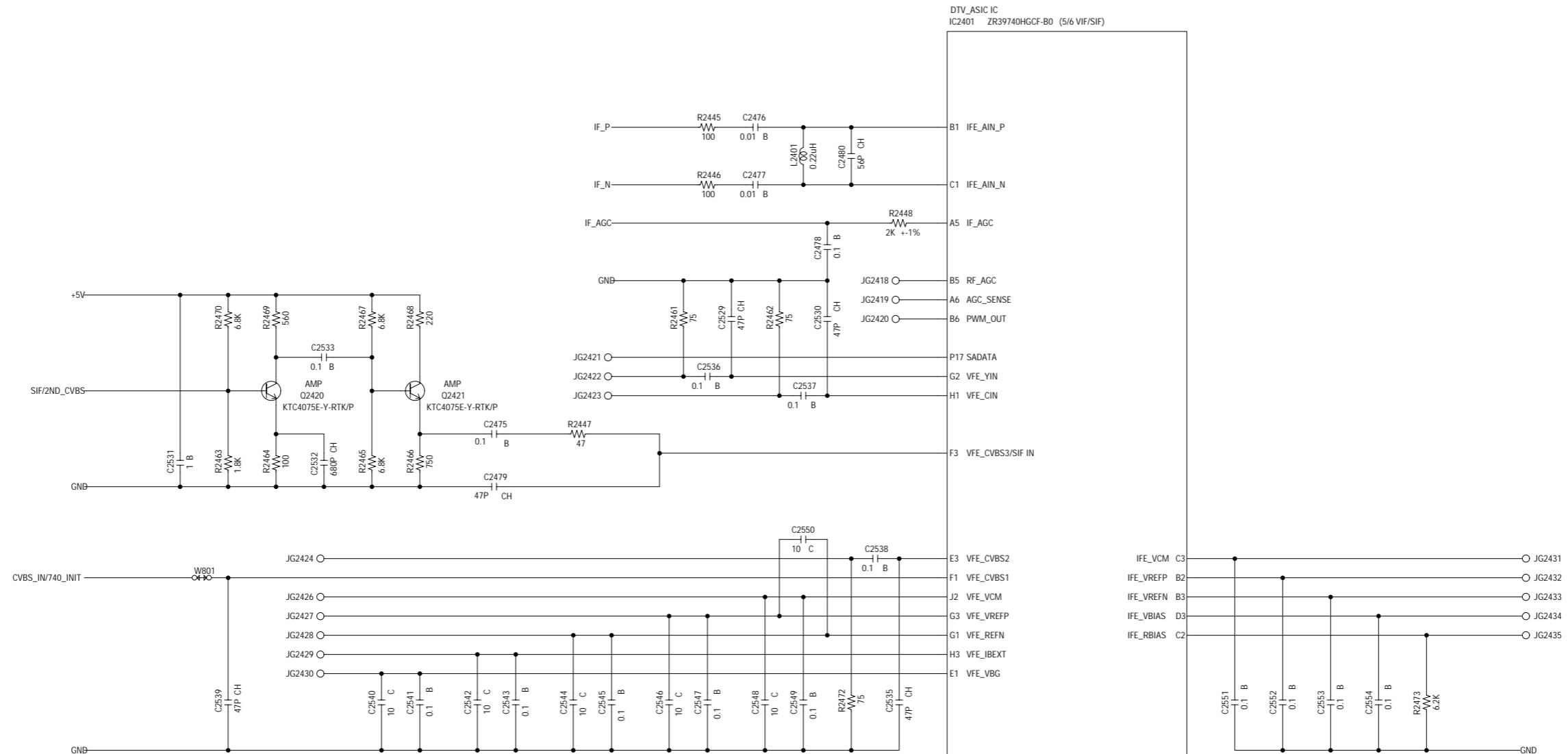


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0  
CEF242

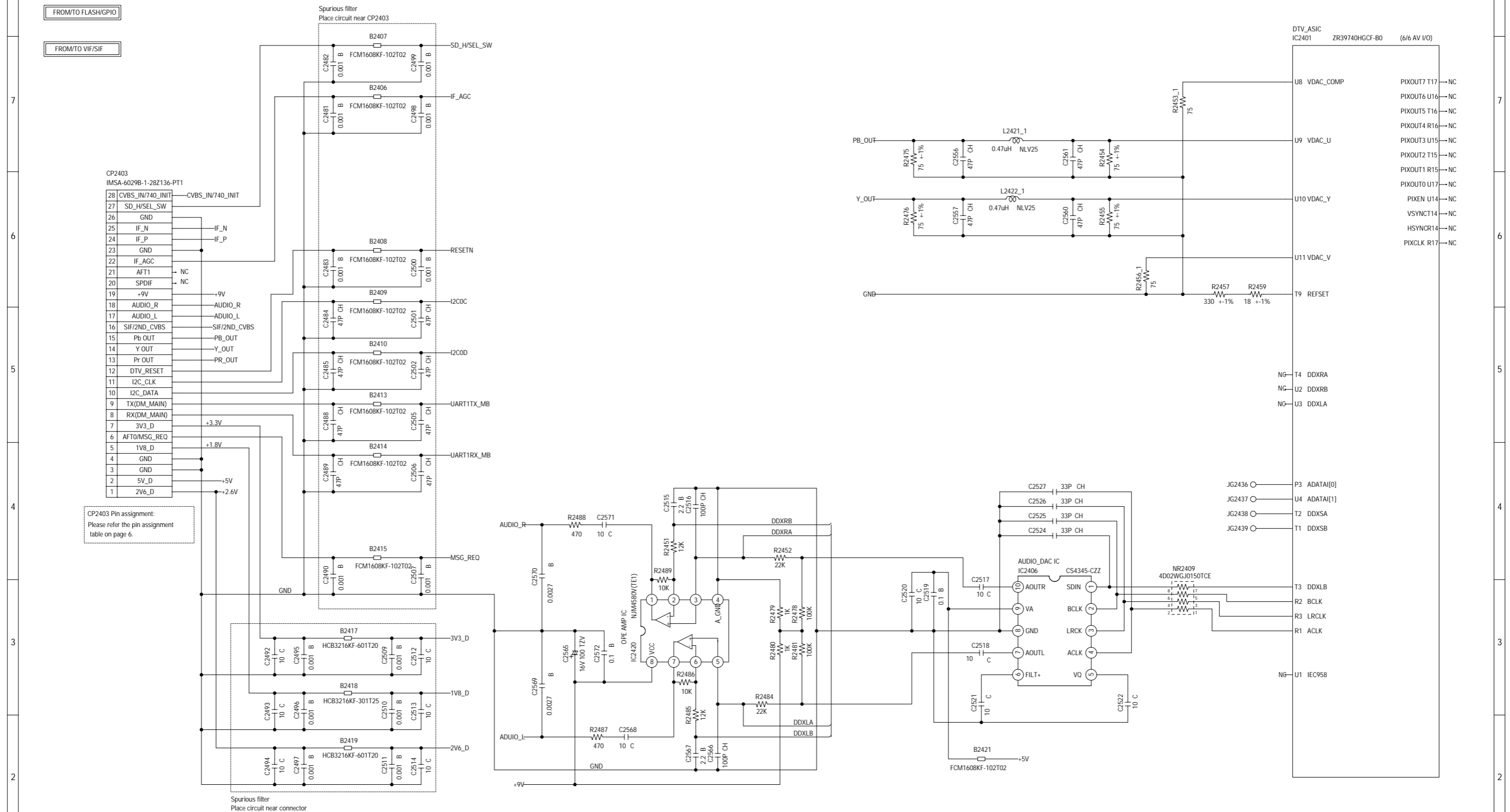
## VIF/SIF SCHEMATIC DIAGRAM (DIGITAL PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

## AV IN/OUT SCHEMATIC DIAGRAM



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.