

TOSHIBA

FILE NO. 140-200320A
SUPPLEMENT

SERVICE MANUAL

COLOR TELEVISION/ DVD VIDEO PLAYER

MD13N3(-P)

This supplement serves as an update to the MD13N3R Service Manual, file number 140-200320. Please refer to this Supplement in conjunction with the original Service Manual when servicing this model.

EEPROM (Memory) IC, Printed Circuit Board, Schematic Diagram, Exploded View, and Replacement Parts List differences are included in this supplement.

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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.

NOTE: No need setting for after INI 1F.

INI	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F
00	06	00	44	20	D0	35	30	25	15	54	01	00	49	55	0F	47
10	30	50	50	04	15	77	03	50	20	77	52	00	02	00	00	00

Table 1

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 1 second. ADDRESS and DATA should appear as FIG 1.

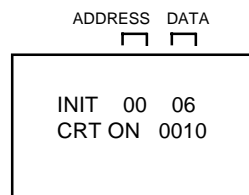


FIG. 1

3. ADDRESS is now selected and should "blink". Using the VOL. UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
4. Press ENTER to select DATA. When DATA is selected, it will "blink".
5. Again, step through the DATA using VOL. UP/DOWN button until required DATA value has been selected.
6. Pressing ENTER 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.

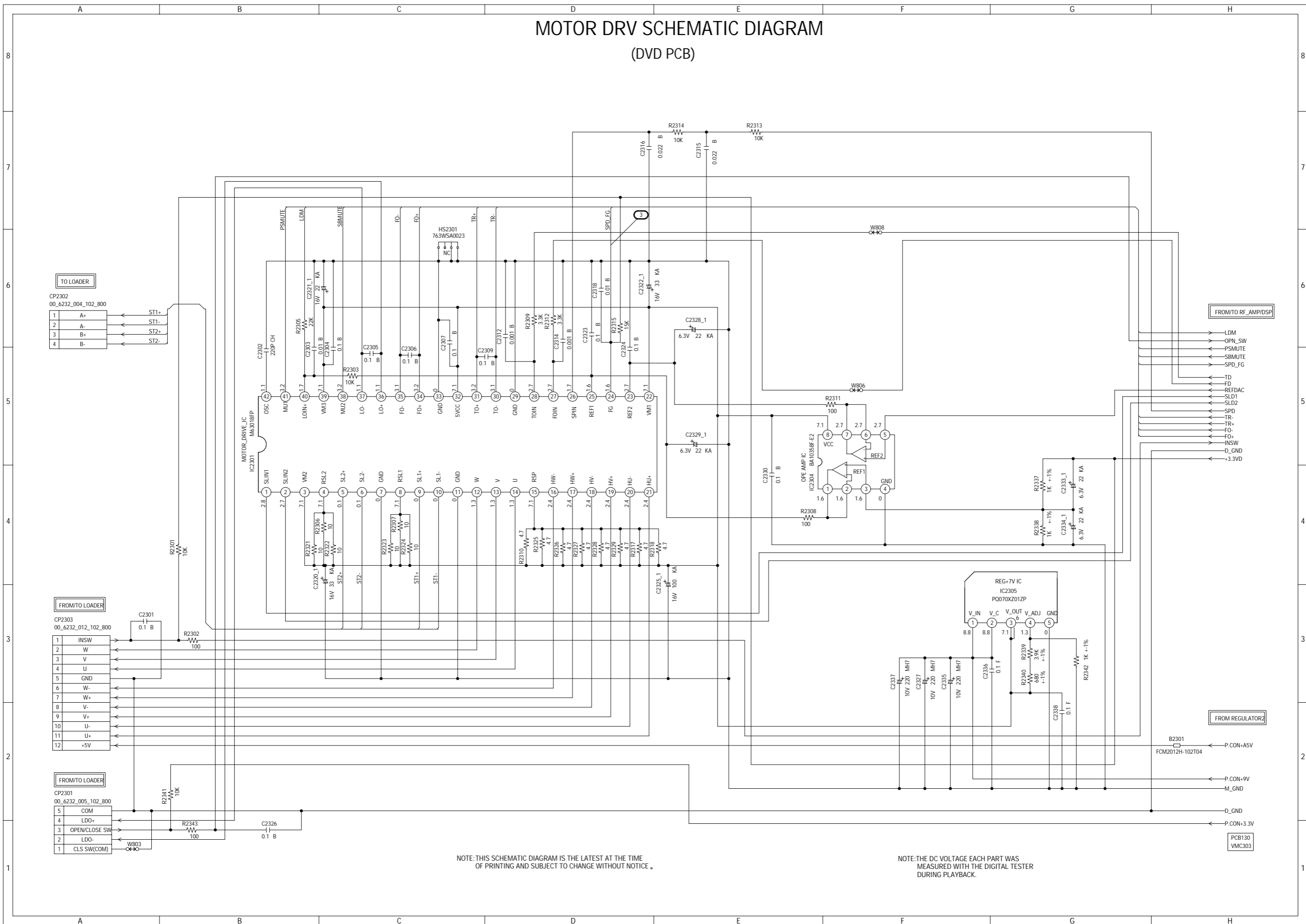
After the data input, set to the initializing of shipping.

9. Turn POWER on.
10. Press both VOL. DOWN button on the set and Channel button **(1)** on the remote control for more than 1 second.
11. 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.

MOTOR DRV SCHEMATIC DIAGRAM

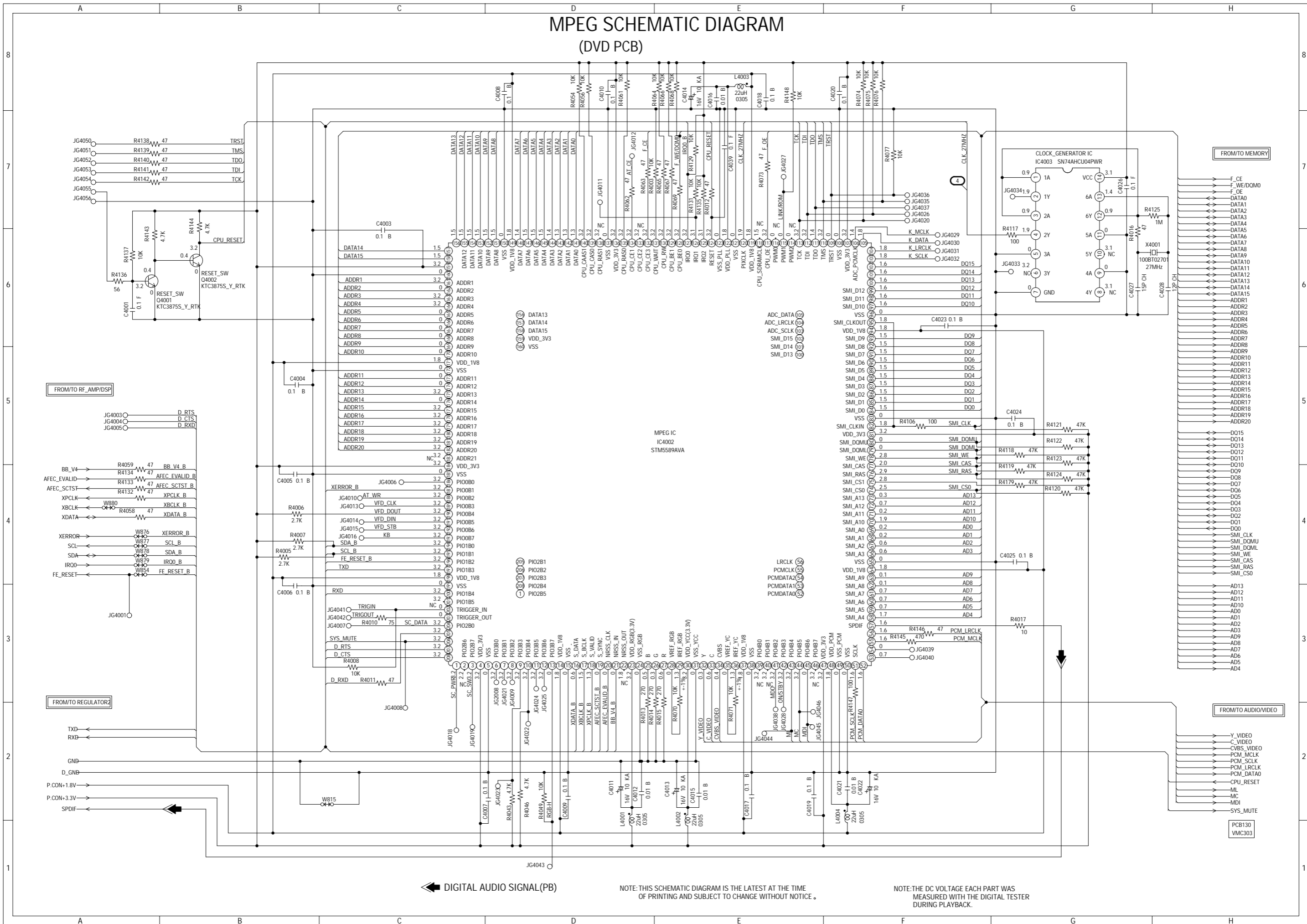
(DVD PCB)



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.

MPEG SCHEMATIC DIAGRAM (DVD PCB)

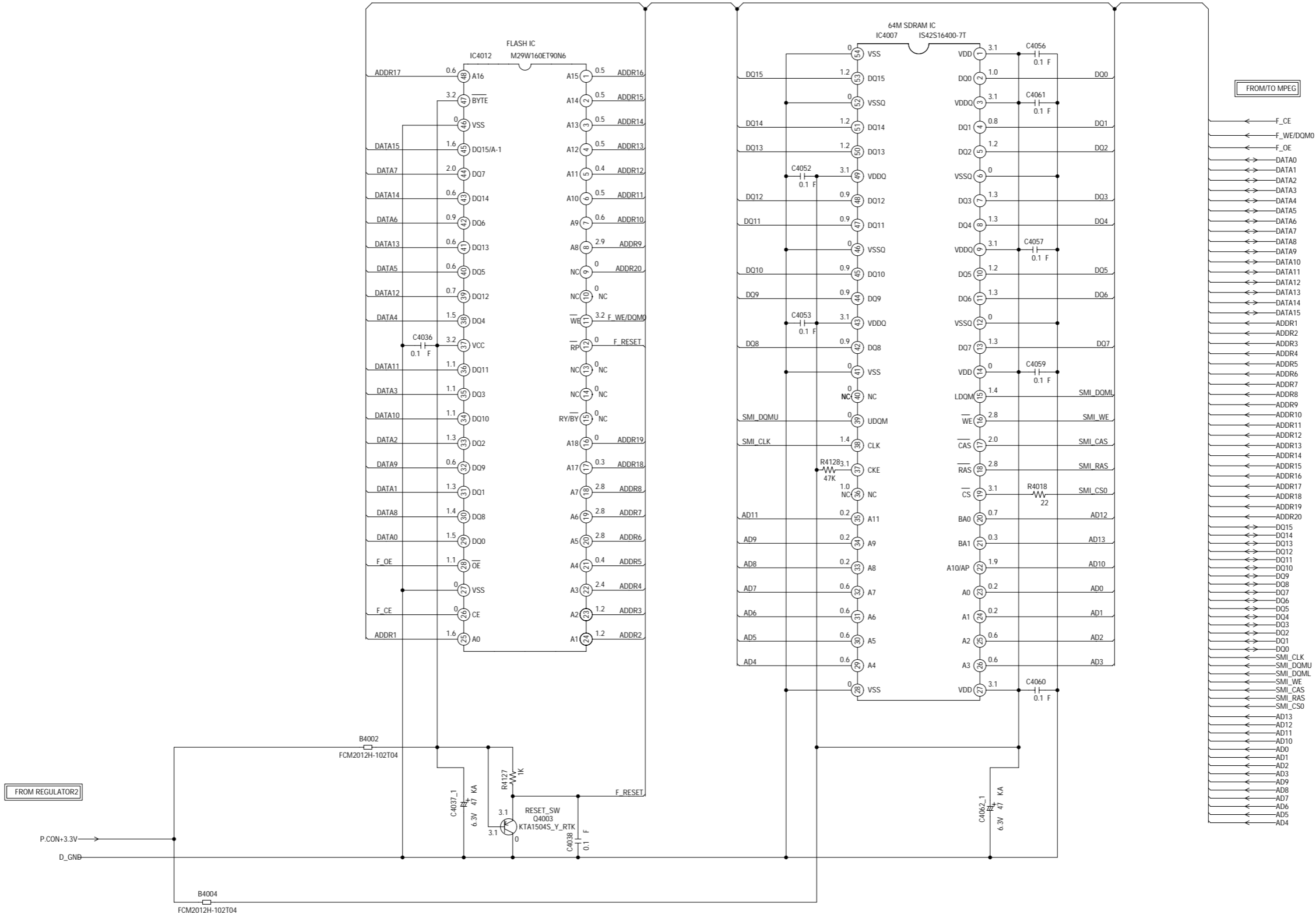


← DIGITAL AUDIO SIGNAL (PB)

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.

MEMORY SCHEMATIC DIAGRAM (DVD PCB)

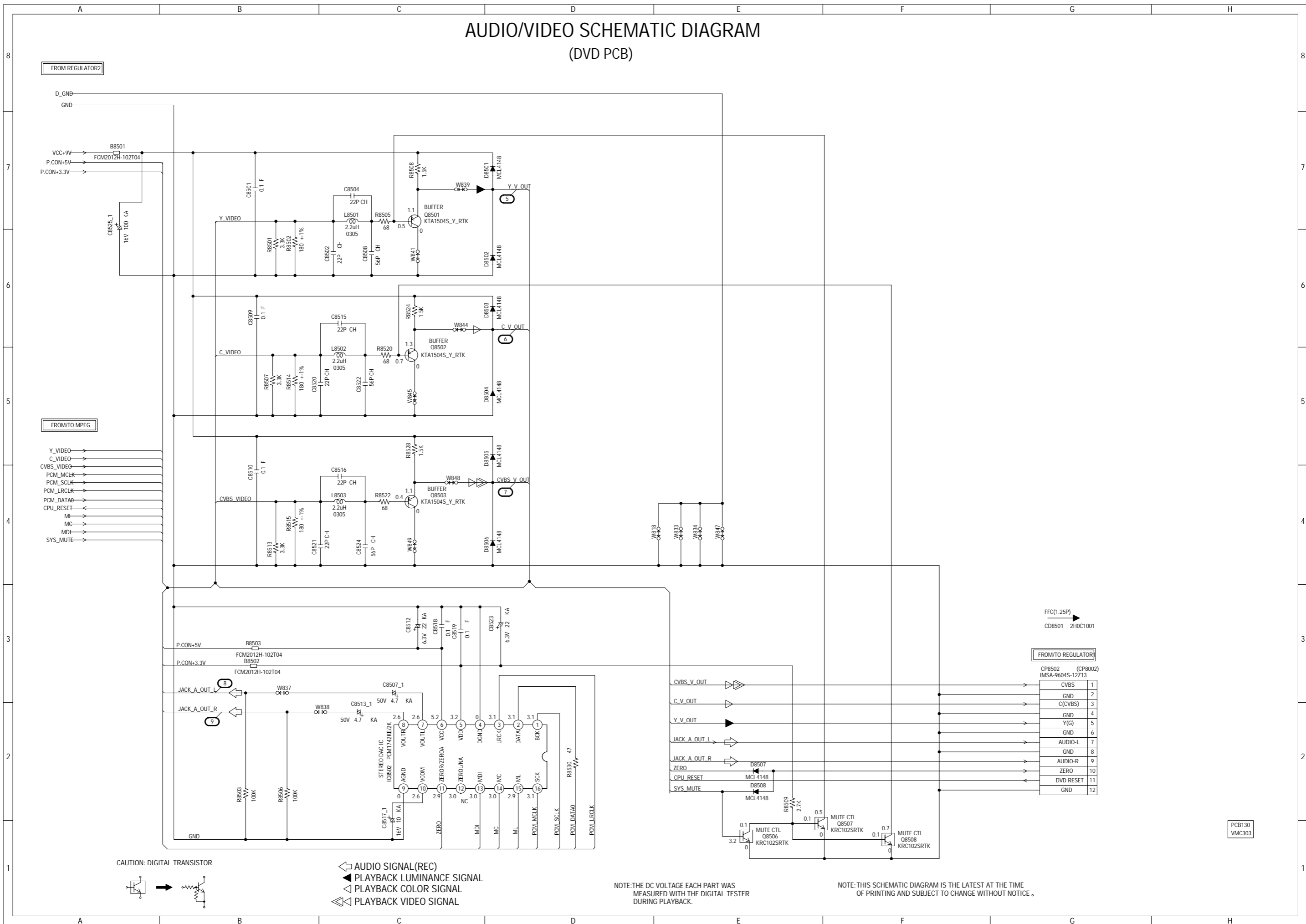


- FROM/TO MPEG
- ← F_CE
 - ← F_WE/DQML
 - ← F_OE
 - ← DATA0
 - ← DATA1
 - ← DATA2
 - ← DATA3
 - ← DATA4
 - ← DATA5
 - ← DATA6
 - ← DATA7
 - ← DATA8
 - ← DATA9
 - ← DATA10
 - ← DATA11
 - ← DATA12
 - ← DATA13
 - ← DATA14
 - ← DATA15
 - ← ADDR1
 - ← ADDR2
 - ← ADDR3
 - ← ADDR4
 - ← ADDR5
 - ← ADDR6
 - ← ADDR7
 - ← ADDR8
 - ← ADDR9
 - ← ADDR10
 - ← ADDR11
 - ← ADDR12
 - ← ADDR13
 - ← ADDR14
 - ← ADDR15
 - ← ADDR16
 - ← ADDR17
 - ← ADDR18
 - ← ADDR19
 - ← ADDR20
 - ← DQ15
 - ← DQ14
 - ← DQ13
 - ← DQ12
 - ← DQ11
 - ← DQ10
 - ← DQ9
 - ← DQ8
 - ← DQ7
 - ← DQ6
 - ← DQ5
 - ← DQ4
 - ← DQ3
 - ← DQ2
 - ← DQ1
 - ← DQ0
 - ← SMI_CLK
 - ← SMI_DOMU
 - ← SMI_DQML
 - ← SMI_WE
 - ← SMI_CAS
 - ← SMI_RAS
 - ← SMI_CS0
 - ← AD13
 - ← AD12
 - ← AD11
 - ← AD10
 - ← AD9
 - ← AD8
 - ← AD7
 - ← AD6
 - ← AD5
 - ← AD4

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

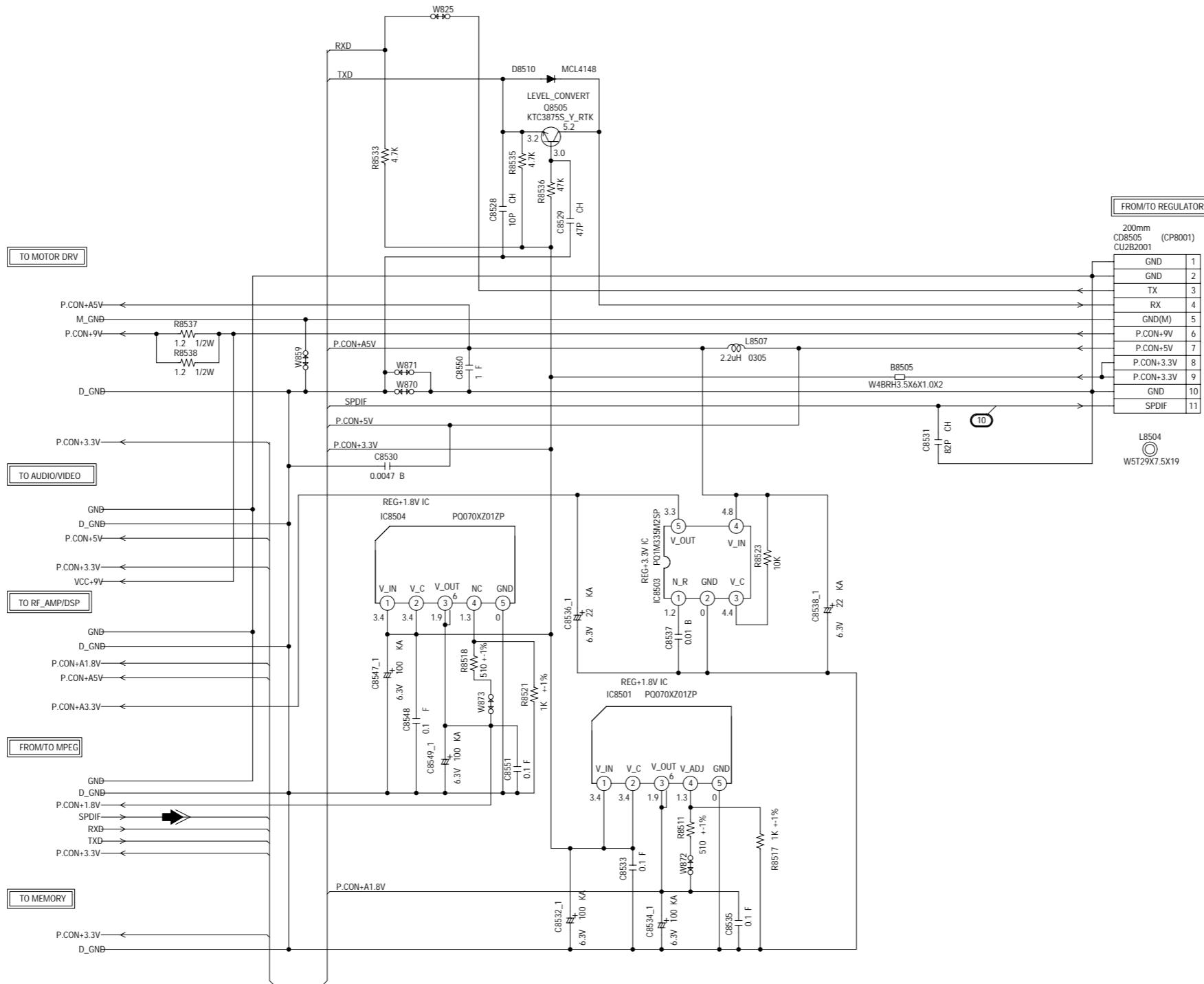
NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

AUDIO/VIDEO SCHEMATIC DIAGRAM (DVD PCB)



REGULATOR2 SCHEMATIC DIAGRAM

(DVD PCB)



FROM/TO REGULATOR

200mm	
CD8505	(CP8001)
CU2B2001	
GND	1
GND	2
TX	3
RX	4
GND(M)	5
P.CON+9V	6
P.CON+5V	7
P.CON+3.3V	8
P.CON+3.3V	9
GND	10
SPDIF	11

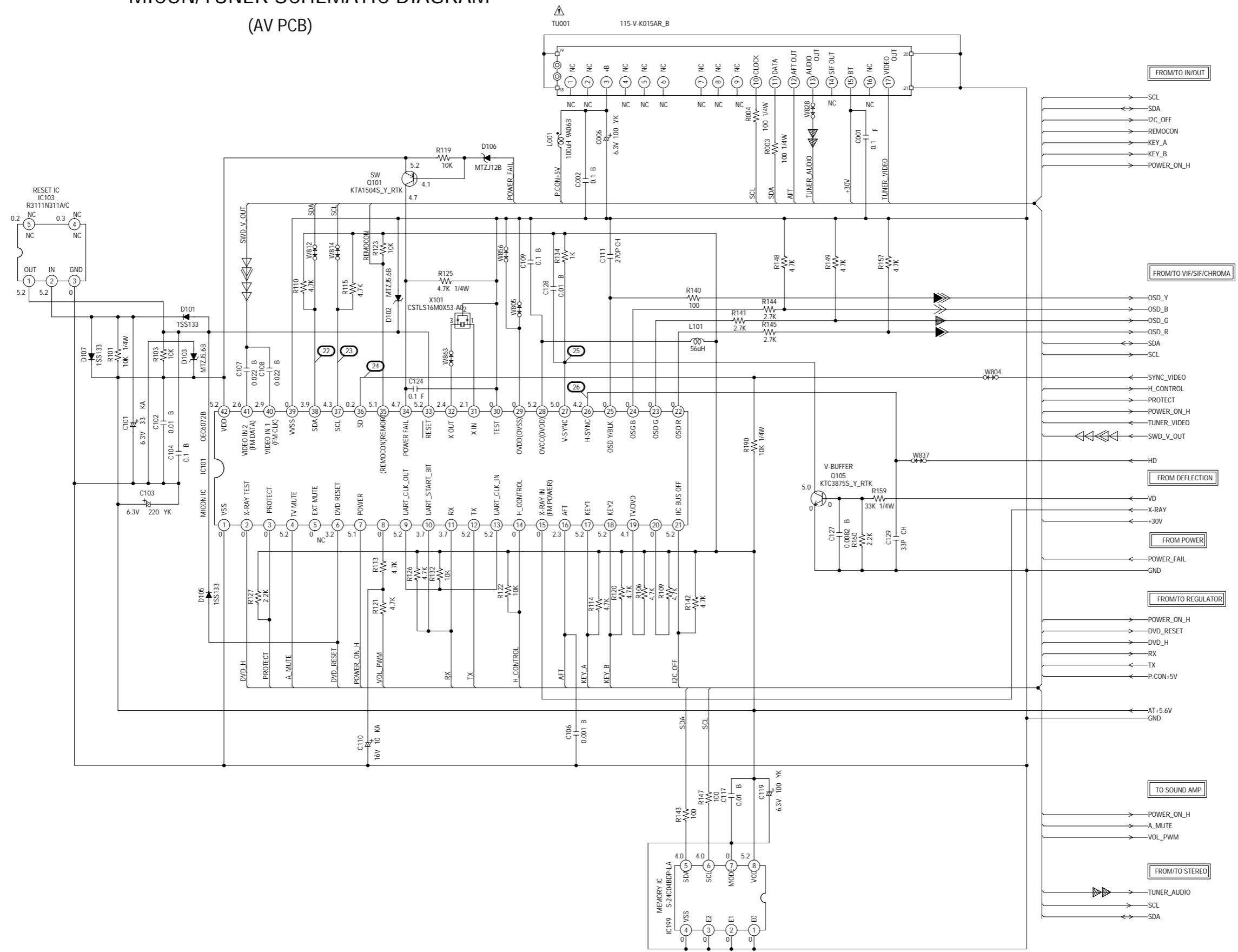
← DIGITAL AUDIO SIGNAL(PB)

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.

PCB130
VMC303

MICON/TUNER SCHEMATIC DIAGRAM (AV PCB)



PCB250
TMB555

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 AN POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

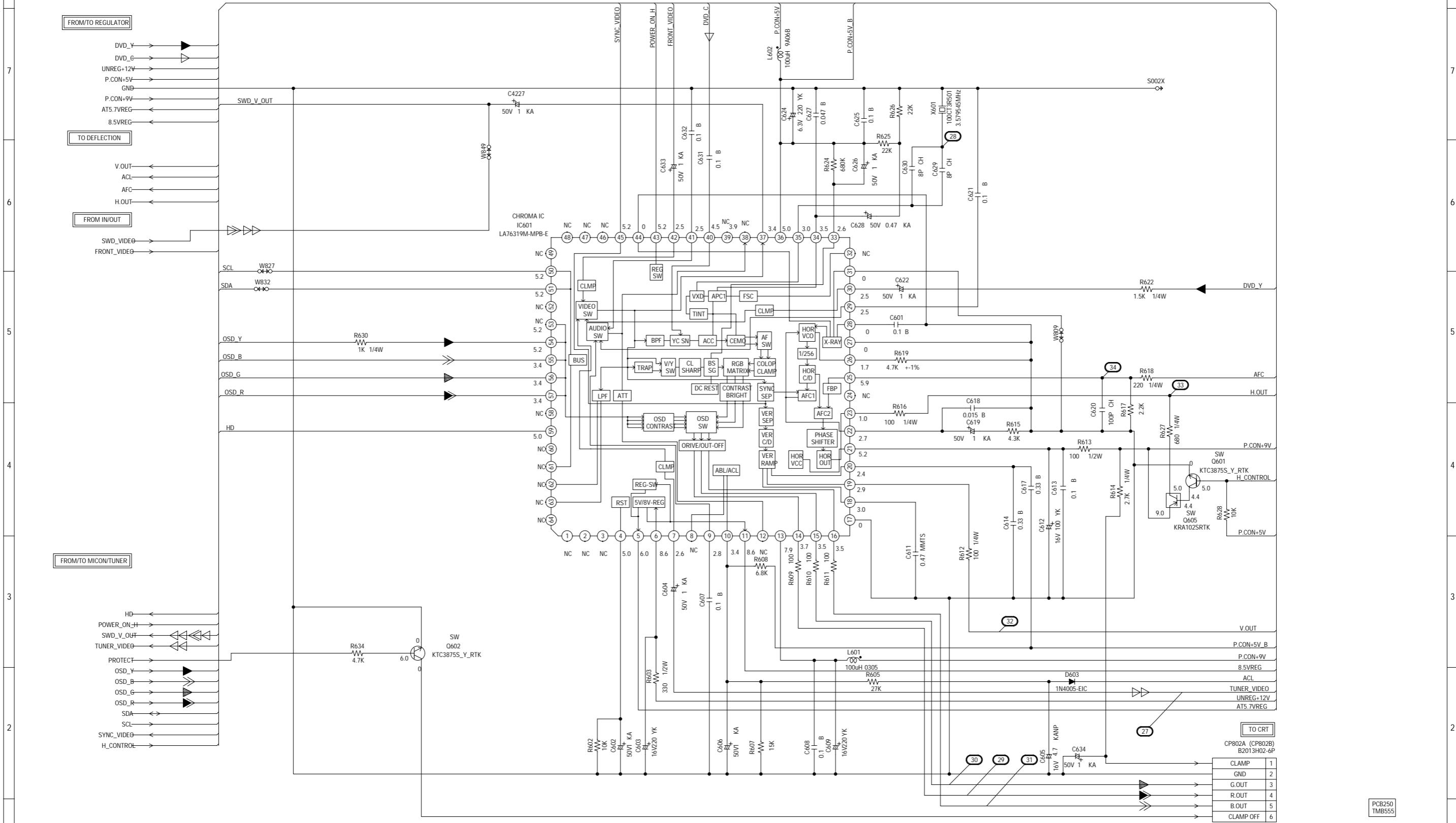
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

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

- LUMINANCE SIGNAL
- B.SIGNAL
- G.SIGNAL
- R.SIGNAL
- TUNER VIDEO SIGNAL
- PLAYBACK VIDEO SIGNAL
- TUNER AUDIO SIGNAL

VIF/SIF/CHROMA SCHEMATIC DIAGRAM

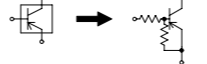
(AV PCB)



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.

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

CAUTION: DIGITAL TRANSISTOR

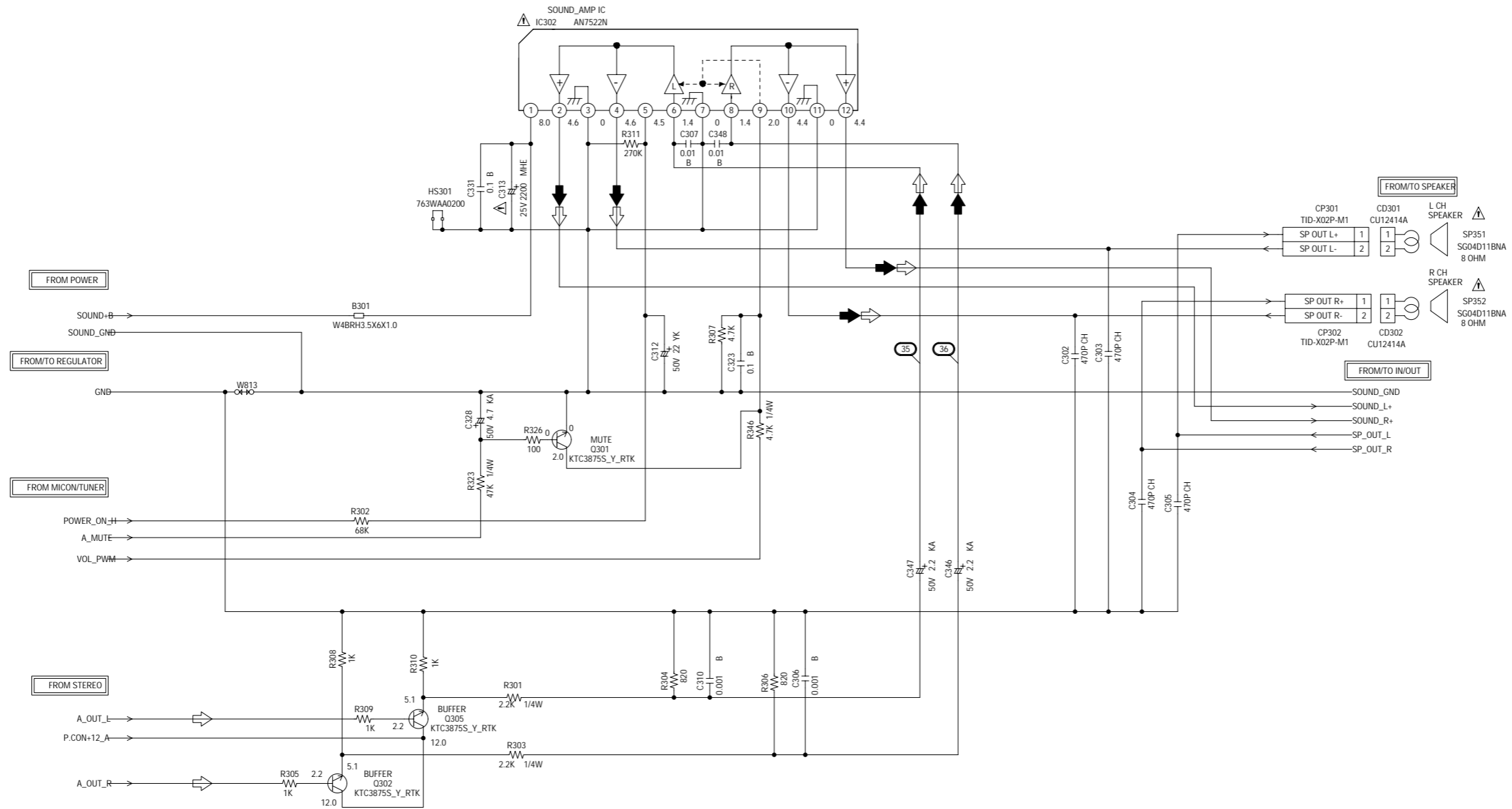


- ▶ PLAYBACK LUMINANCE SIGNAL
- ▶▶ PLAYBACK COLOR SIGNAL
- ▶▶▶ B.SIGNAL
- ▶▶▶ G.SIGNAL
- ▶▶▶ R.SIGNAL

- ▶▶▶ TUNER VIDEO SIGNAL
- ▶▶▶ TUNER AUDIO SIGNAL
- ▶▶▶ PLAYBACK VIDEO SIGNAL

PCB250
TM8555

SOUND AMP SCHEMATIC DIAGRAM (AV PCB)



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.

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

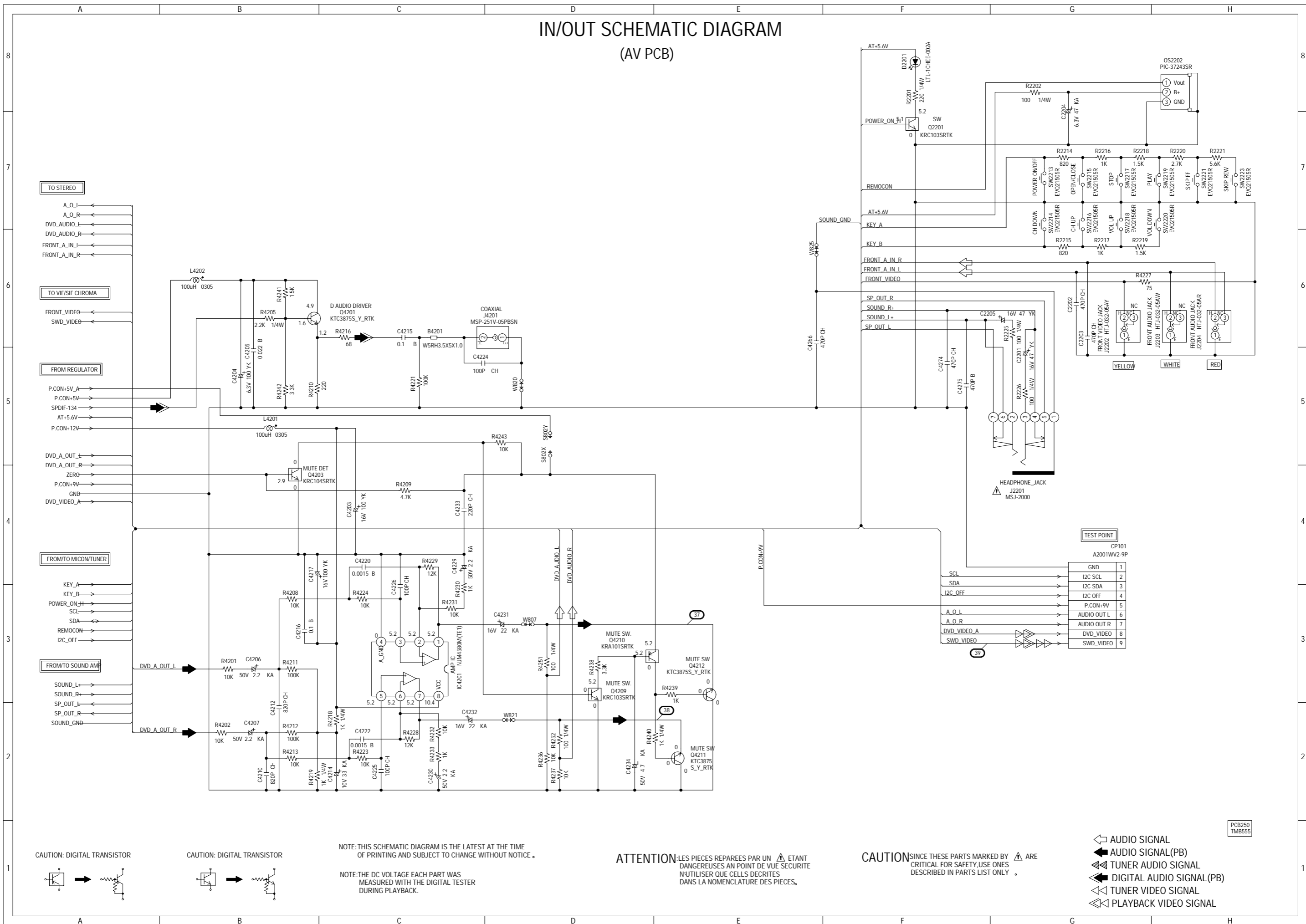
CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

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

AUDIO SIGNAL
 AUDIO SIGNAL (PB)

PCB250
TM8555

IN/OUT SCHEMATIC DIAGRAM (AV PCB)



TO STEREO

TO VIF/SIF CHROMA

FROM REGULATOR

FROM/TO MICON/TUNER

FROM/TO SOUND AMP

CAUTION: DIGITAL TRANSISTOR

CAUTION: DIGITAL TRANSISTOR

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 À UN 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.

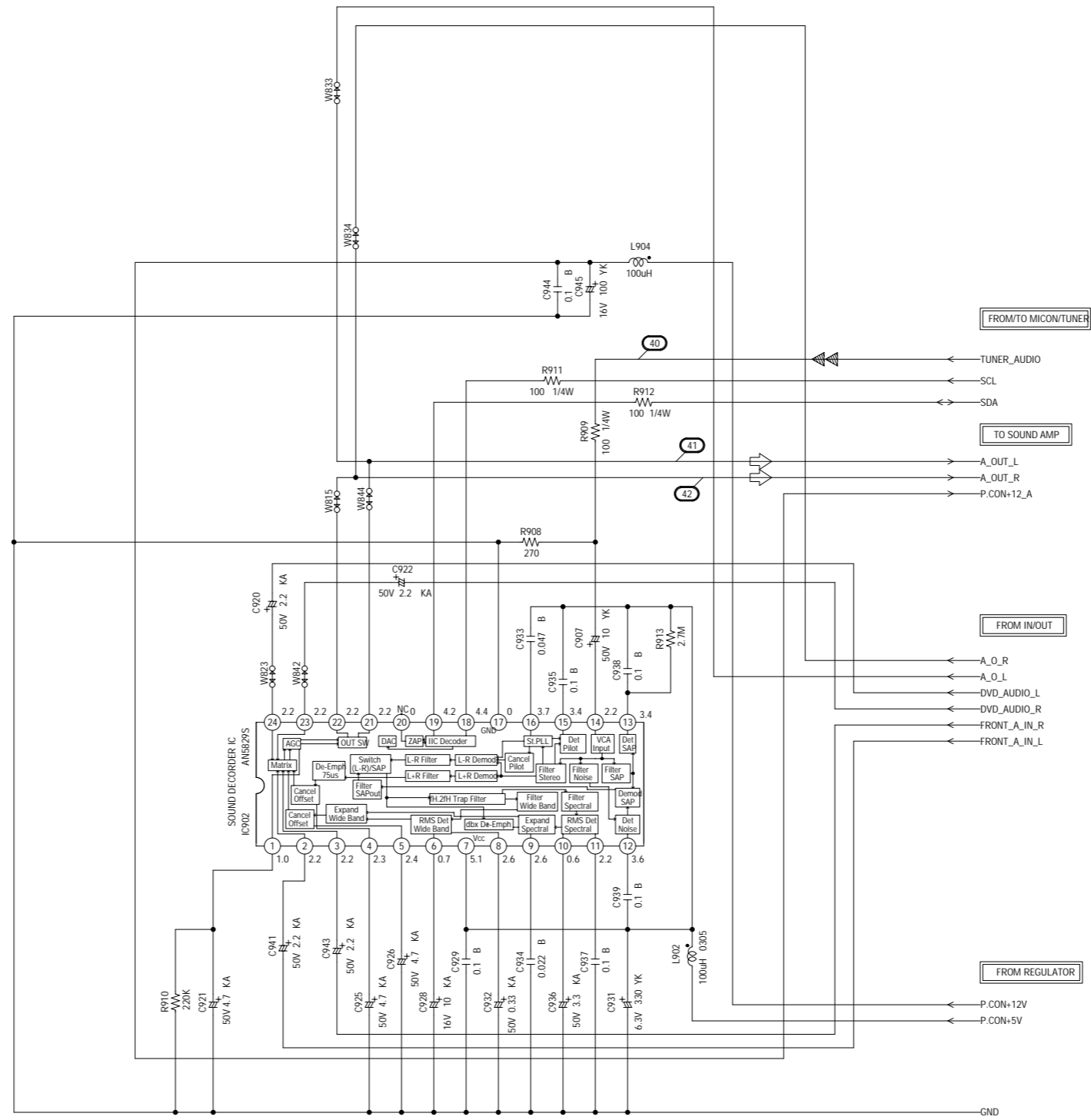
TEST POINT

CP101 A2001WV2-9P	
GND	1
I2C SCL	2
I2C SDA	3
I2C OFF	4
P.CON+9V	5
A.O.L	6
A.O.R	7
DVD_VIDEO_A	8
SWD_VIDEO	9

PCB250
TM8555

- AUDIO SIGNAL
- AUDIO SIGNAL(PB)
- TUNER AUDIO SIGNAL
- DIGITAL AUDIO SIGNAL(PB)
- TUNER VIDEO SIGNAL
- PLAYBACK VIDEO SIGNAL

STEREO SCHEMATIC DIAGRAM (AV PCB)



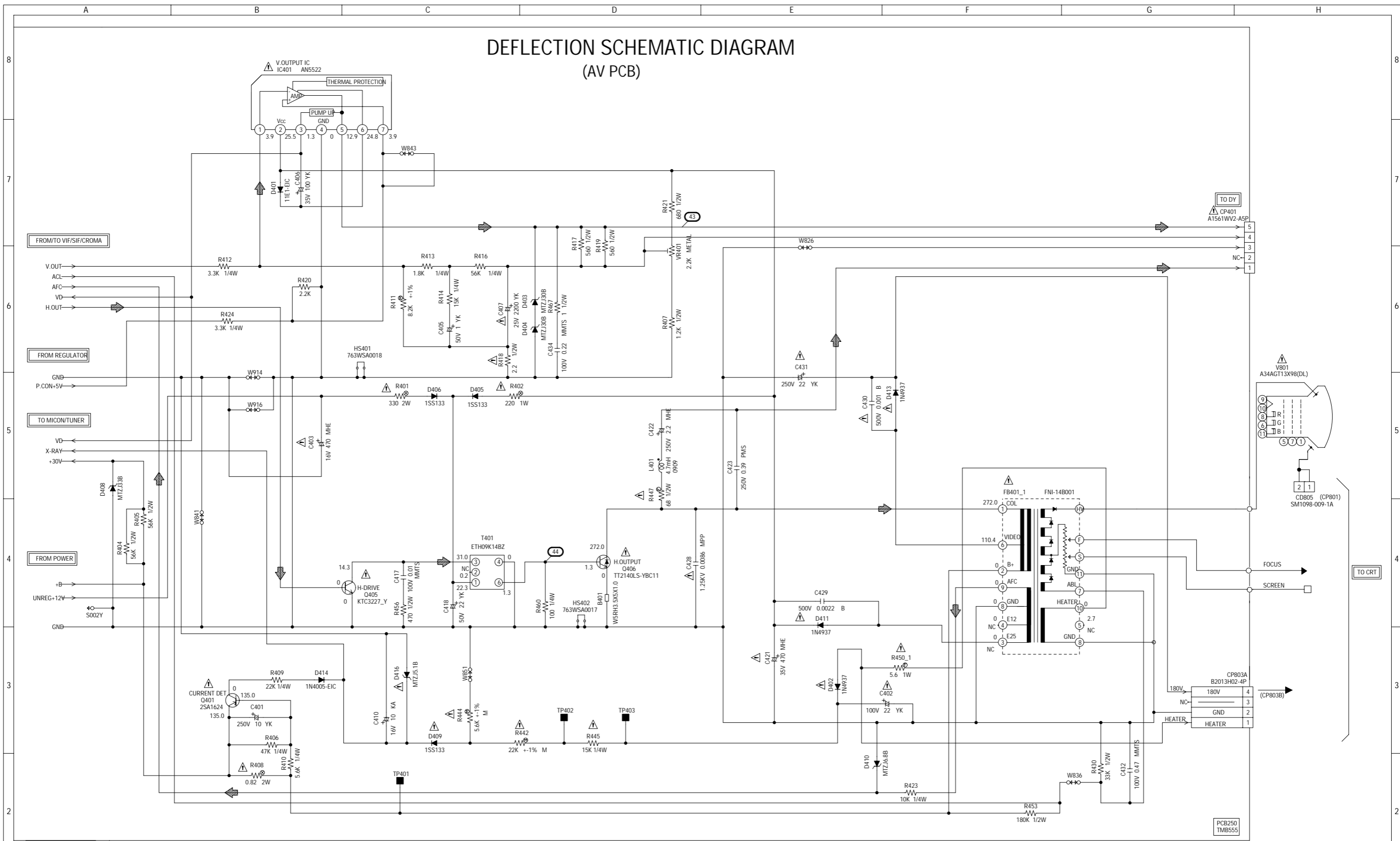
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

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

TUNER AUDIO SIGNAL
 AUDIO SIGNAL

PCB250
TMB555

DEFLECTION SCHEMATIC DIAGRAM (AV PCB)



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.

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.

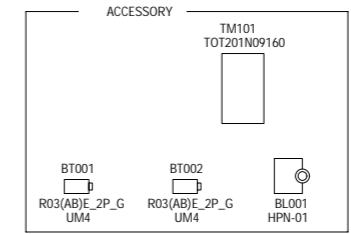
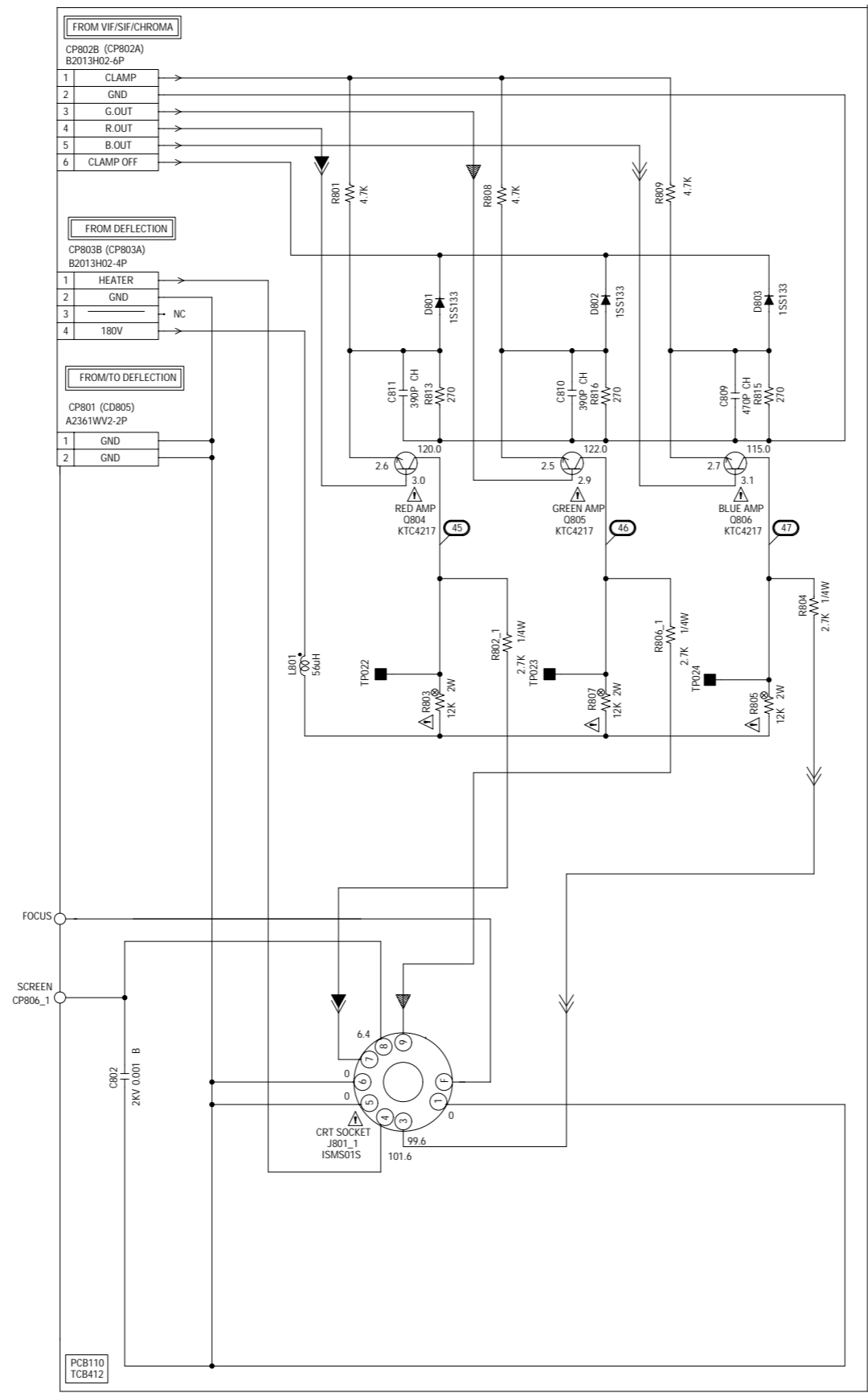
ATTENTION - LES PIÈCES RÉPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIÈCES.

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

DEFLECTION SIGNAL

CRT SCHEMATIC DIAGRAM

(CRT PCB)



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.

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

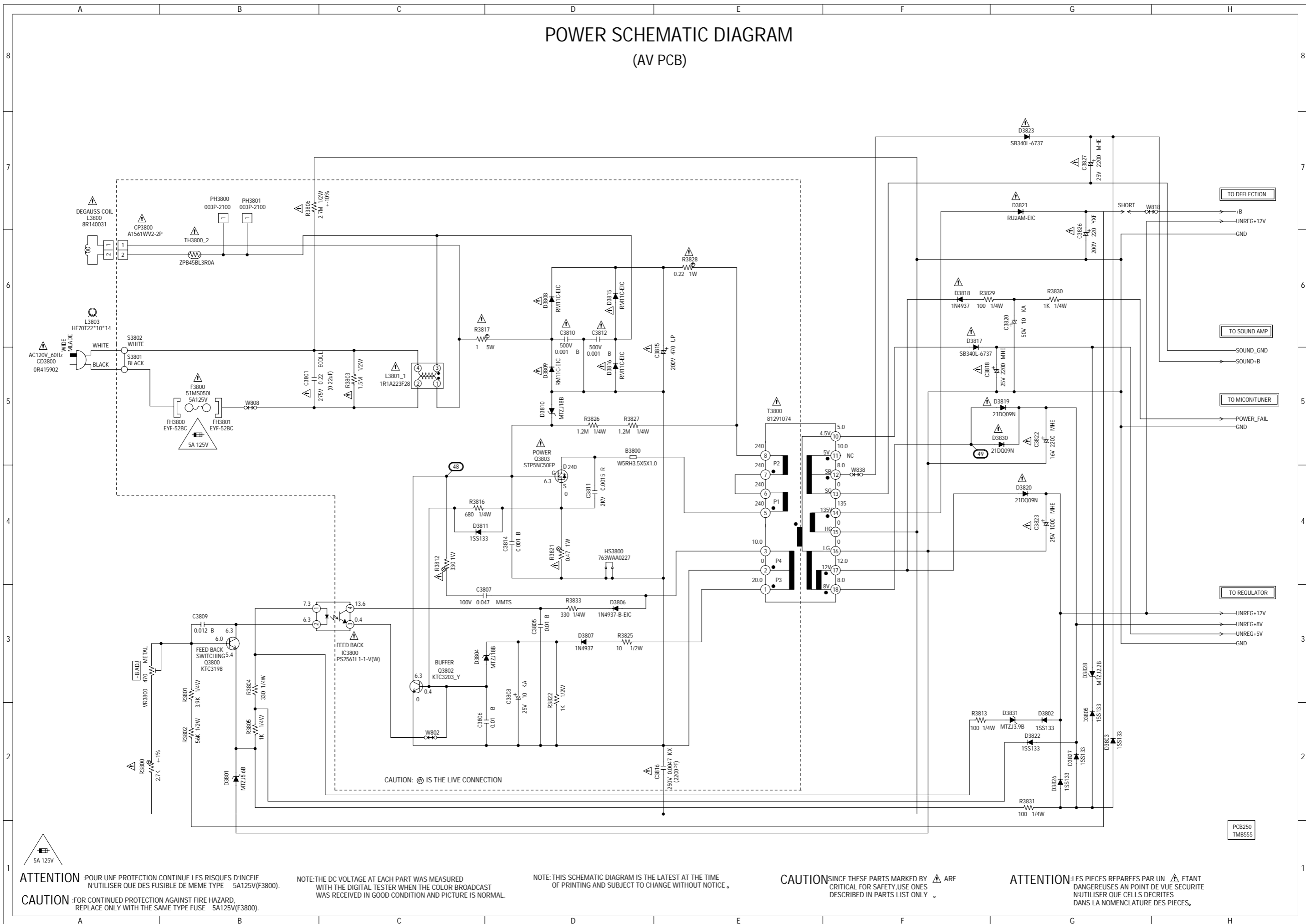
CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

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

R.SIGNAL
 G.SIGNAL
 B.SIGNAL

POWER SCHEMATIC DIAGRAM

(AV PCB)



ATTENTION :POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE 5A125V(F3800).
CAUTION :FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE 5A125V(F3800).

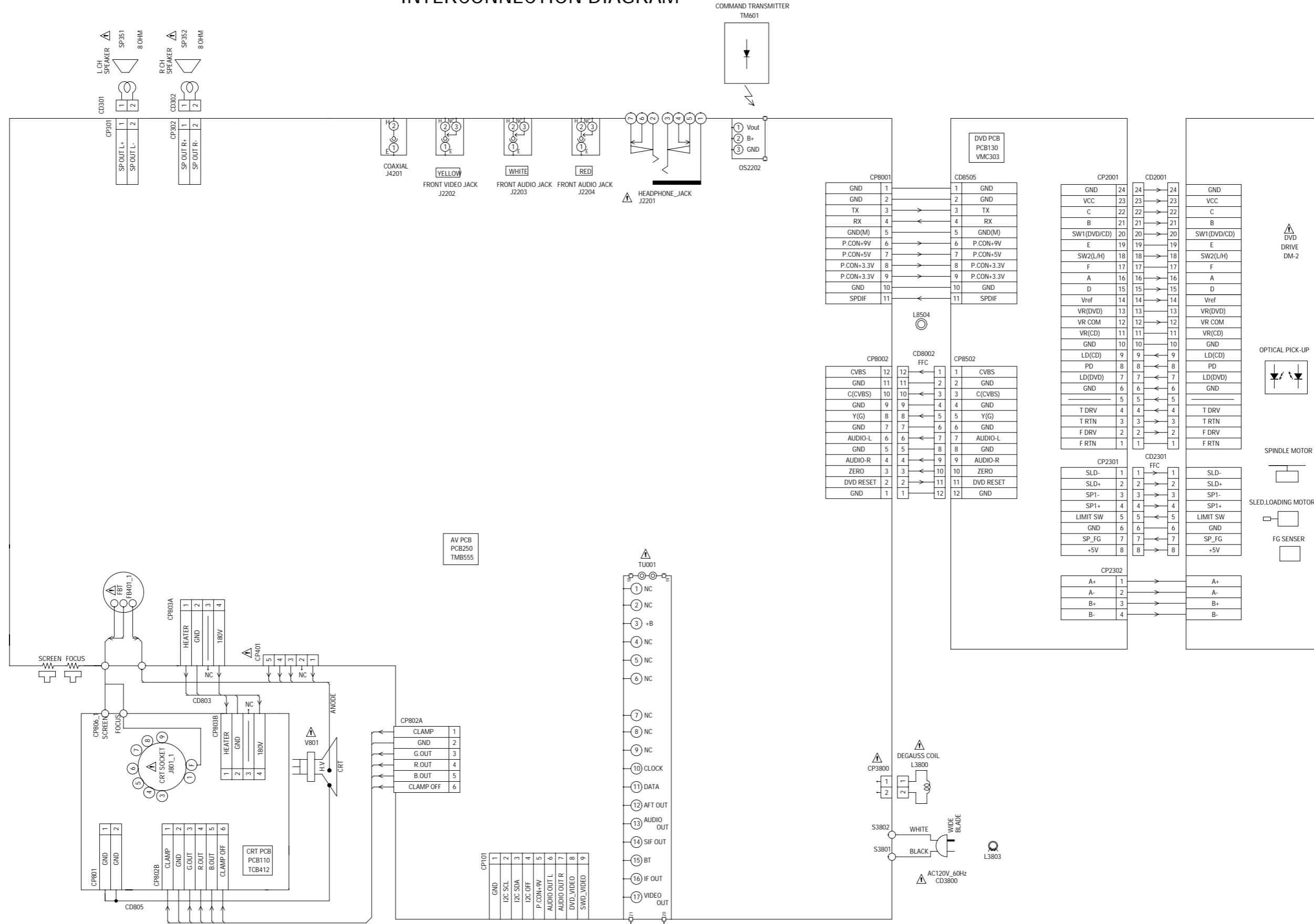
NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

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

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

ATTENTION:LES PIECES REPARÉES PAR UN ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES.

INTERCONNECTION DIAGRAM

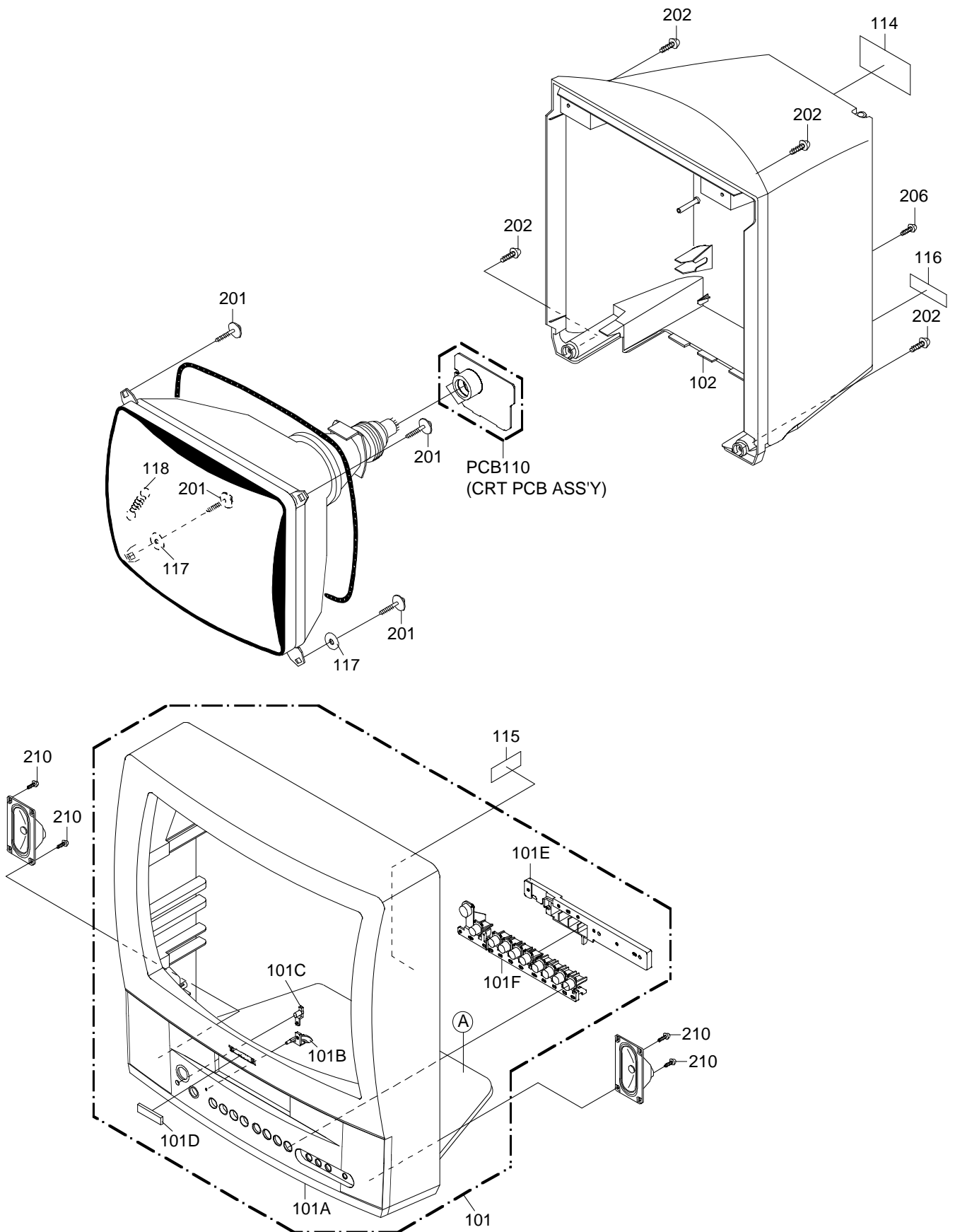


NOTE: THIS INTERCONNECTION DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

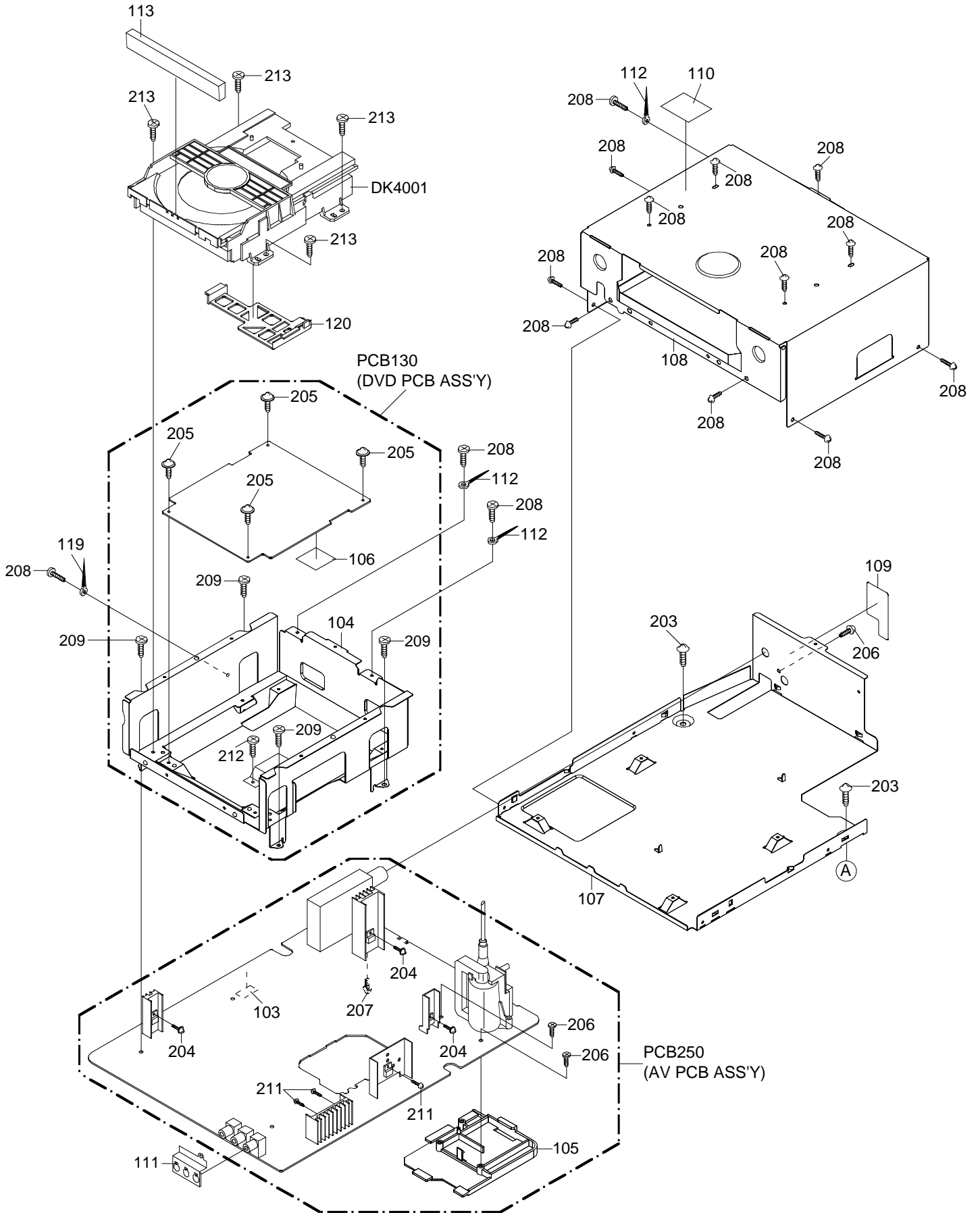
ATTENTION: LES PIÈCES RÉPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

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

MECHANICAL EXPLODED VIEW



MECHANICAL EXPLODED VIEW



MECHANICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
101	AE000715	A5J102A720	CABINET,FRONT ASSY	
101A	AD301808	701WPJ1168	CABINET,FRONT	
101B	AD301664	713WPA0248	GLASS,LED	
101C	AD301663	713WPA0249	GUIDE,REMOCON	
101D	AD301657	723549A011	BADGE,BRAND	
101E	AD301661	735WPAA493	STOPPER,BUTTON	
101F	AD301658	735WPBA527	BUTTON,FRAME	
102	AE000716	A5J102A740	CABINET,BACK ASSY	
103	AD302081	724WNAA001	SHEET,PVC	5x10xT0.3
104	AE002617	761WSA0135	ANGLE,DECK	
105	BZ710699	761WPA0249	HOLDER,FBT	
106	AD302398	7232020746	SHEET,IC	
107	AD301810	702WSA0165	PLATE,BOTTOM	
108	AE001041	702WSA0191	SHIELD,TOP	
109	AD301812	7230007593	SHEET,JACK	
110	AD301688	7260000341	SHEET,CAUTION	
111	AD302077	752WSA0333	SHIELD,JACK	
112	BZ710039	8995034000	CORD CLIP UL CO.	
113	AD301813	712WPJ0793	PLATE,TRAY-FRONT	
114	AE002619	722549A276	SHEET,RATING	
115	AD300007	7230006755	SHEET,CAUTION	
116	AD301816	7260000343	SHEET,CRT NO.	
117	AD302158	800WROA002	SHEET,CRT SUPPORT	
118	AD300759	741WUA0021	SPRING,EARTH	
119	AD300758	899EFBA001	WIRING CLIP	
120	AE001352	92P100038A	HOLDER FFC	
201	BZ710321	8121F50B84	SCREW,TAP TITE(P) FAI20 FLAT	5x28
202	BZ710035	8117540A64	SCREW,TAPPING(B0) TRUSS	4x16
203	BZ710320	8117540804	SCREW,TAPPING(B0) TRUSS	4x8
204	BZ710239	8109I30A04	SCREW,TAP TITE(B) WH7	3x10
205	BZ710562	8109I30804	SCREW,TAP TITE(B) WH7	3x8
206	BZ710678	8109230804	SCREW,TAP TITE(B) BIND	3x8
207	BZ710019	8109630802	SCREW,TAP TITE(B) BRAZIER	3x8
208	BZ710408	8109630604	SCREW,TAP TITE(B) BRAZIER	3x6
209	BZ710581	8109230704	SCREW,TAP TITE(B) R BIND	3x7
210	BZ710030	8110630804	SCREW,TAP TITE(P) BRAZIER	3x8
211	BZ710018	8107630804	SCREW,TAP TITE(S) BRAZIER	3x8
212	BZ710337	8107930604	SCREW,CUP(S)	3x6
213	AE002618	810F130804	SEMS(F)	3x8
---	AD302402	791WHA0061	LAMIFILM BAG	
---	AD301669	792WHA0412	PACKAGE,TOP	
---	AE001366	792WHA0478	PACKAGE,BOTTOM	
---	AD301910	793WCD1476	GIFT BOX	
---	AE000719	A5J102A975	INSTRUCTION BOOK KIT	
---	AD302404	J5500817	REGISTRATION CARD	
---	AE000720	J5J10201A	INSTRUCTION BOOK	
---	AD302406	JB5UD200	POLYBAG,INSTRUCTION(RED CAUTION)	

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description
RESISTORS			
△R401	AD301016	R3X28A331J	R,METAL OXIDE 330 OHM 2W
△R402	AD300783	R3X181221J	R,METAL OXIDE 220 OHM 1W
△R408	BZ210009	R3X28AR82J	R,METAL OXIDE 0.82 OHM 2W
△R418	BZ210053	R002T22R2J	RC 2.2 OHM 1/2W
△R442	AD300419	R4X5T6223F	R,METAL 22K OHM 1/6W
△R444	AD300036	R4X5T6562F	R,METAL 5.6K OHM 1/6W
△R445	AD302182	R002T4153J	RC 15K OHM 1/4W
△R447	BZ210021	R65582680J	R,FUSE 68 OHM 1/2W
R450	AD301761	R635815R6J	R,FUSE 5.6 OHM 1W
△R803	BZ210050	R3X18A123J	R,METAL OXIDE 12K OHM 2W
△R805	BZ210050	R3X18A123J	R,METAL OXIDE 12K OHM 2W
△R807	BZ210050	R3X18A123J	R,METAL OXIDE 12K OHM 2W
△R3803	BZ210206	R002T2155J	RC 1.5M OHM 1/2W
△R3806	BZ210080	R0G3K2275K	RC 2.7M OHM 1/2W
△R3812	BZ210217	R3X181331J	R,METAL OXIDE 330 OHM 1W
△R3817	BZ210188	R5Y2CD010J	R,CEMENT 1 OHM 5W
△R3821	AD300659	R3X181R47J	R,METAL OXIDE 0.47 OHM 1W
△R3828	BZ210190	R63581R22J	R,FUSE 0.22 OHM 1W
R8537	AE002014	R002021R2J	RC 1.2 OHM 1/2W
R8538	AE002014	R002021R2J	RC 1.2 OHM 1/2W
CAPACITORS			
C313	BZ110101	E5EZF3222M	CE 2200 UF 25V
△C402	BZ110195	E02LU8220M	CE 22 UF 100V
△C403	BZ110016	E5EZF2471M	CE 470 UF 16V
△C407	BZ210176	E02LF3222M	CE 2200 UF 25V
C423	BZ110136	P4J7F3394J	CMPP 0.39 UF 250V PMS
△C428	BZ110258	P4N8FJ862H	CMPP 0.0086UF 1.25KV
C431	BZ110204	E0ELFD220M	CE 22 UF 250V
C802	AD300078	C0JBB0713K	CC 0.001 UF 2KV B
C3007	AD302087	E02L05010M	CE 1 UF 50V
△C3801	BZ110025	P2122B224M	CMP 0.22 UF 275V ECQUL
C3810	BZ110080	C0J0B0513K	CC 0.001 UF 500V B
C3811	BZ110191	C03L0R7E3K	CC 0.0015UF 2KV R
C3812	BZ110080	C0J0B0513K	CC 0.001 UF 500V B
△C3815	BZ110012	E51CGC471M	CE 470 UF 200V
△C3816	AD301391	CD39E0MQ3M	CC 0.0047UF 250V
C3818	BZ110101	E5EZF3222M	CE 2200 UF 25V
△C3820	BZ110188	E50HU5100M	CE 10 UF 50V
△C3822	AD300125	E5EZF2222M	CE 2200 UF 16V
△C3823	BZ110032	E5EZF3102M	CE 1000 UF 25V
△C3826	BZ110130	E62NFC221M	CE 220 UF 200V
C3827	BZ110101	E5EZF3222M	CE 2200 UF 25V
DIODES			
D101	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D102	BZ410021	D97U05R61B	DIODE,ZENER MTZJ5.6B T-77
D103	BZ410021	D97U05R61B	DIODE,ZENER MTZJ5.6B T-77
D105	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D106	AD300070	D97U01201B	DIODE,ZENER MTZJ12B T-77
D107	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D401	BZ410043	D2WT011E10	DIODE,SILICON 11E1-EIC
△D402	AD300731	D2WXN49370	DIODE,SILICON 1N4937
D403	BZ410019	D97U03001B	DIODE,ZENER MTZJ30B T-77
D404	BZ410019	D97U03001B	DIODE,ZENER MTZJ30B T-77
D405	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D406	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D408	BZ410037	D97U03301B	DIODE,ZENER MTZJ33B T-77
D409	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D410	BZ410022	D97U06R81B	DIODE,ZENER MTZJ6.8B T-77
D411	AD300731	D2WXN49370	DIODE,SILICON 1N4937
D413	AD300731	D2WXN49370	DIODE,SILICON 1N4937
D414	BZ410085	D2WXN40050	DIODE,SILICON 1N4005-EIC
△D416	BZ410020	D97U05R11B	DIODE,ZENER MTZJ5.1B T-77
D603	BZ410085	D2WXN40050	DIODE,SILICON 1N4005-EIC
D801	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D802	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D803	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D2001	BZ410120	DDARDS1210	DIODE,SILICON KDS121RTK
D2002	BZ410121	DDARDS1200	DIODE,SILICON KDS120RTK
D2201	BZ410087	0021E2Q140	LED LTL-1CHEE-002A
D3003	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D3005	BZ410085	D2WXN40050	DIODE,SILICON 1N4005-EIC

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description
DIODES			
D3006	BZ410085	D2WXN40050	DIODE,SILICON 1N4005-EIC
D3007	BZ410021	D97U05R61B	DIODE,ZENER MTZJ5.6B T-77
D3008	BZ410085	D2WXN40050	DIODE,SILICON 1N4005-EIC
D3009	BZ410064	D97U03R91B	DIODE,ZENER MTZJ3.9B T-77
D3801	BZ410021	D97U05R61B	DIODE,ZENER MTZJ5.6B T-77
D3802	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D3803	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D3804	AD300671	D97U01801B	DIODE,ZENER MTZJ18B T-77
D3805	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D3806	AD301703	D2W0N49370	DIODE,SILICON 1N4937-B-EIC
D3807	AD300731	D2WXN49370	DIODE,SILICON 1N4937
△D3808	BZ410062	D2WTRM11C0	DIODE,SILICON RM11C-EIC
△D3809	BZ410062	D2WTRM11C0	DIODE,SILICON RM11C-EIC
D3810	AD300671	D97U01801B	DIODE,ZENER MTZJ18B T-77
D3811	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
△D3815	BZ410062	D2WTRM11C0	DIODE,SILICON RM11C-EIC
△D3816	BZ410062	D2WTRM11C0	DIODE,SILICON RM11C-EIC
△D3817	BZ410115	D2LKB340L0	DIODE,SCHOTTKY SB340L-6737
△D3818	AD300731	D2WXN49370	DIODE,SILICON 1N4937
△D3819	BZ410010	D28T21DQN9	DIODE,SCHOTTKY 21DQ09N-TA2B1
△D3820	BZ410010	D28T21DQN9	DIODE,SCHOTTKY 21DQ09N-TA2B1
△D3821	BZ410080	D2WXRU2AM0	DIODE,SILICON RU2AM-EIC
D3822	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
△D3823	BZ410115	D2LKB340L0	DIODE,SCHOTTKY SB340L-6737
D3826	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D3827	BZ410006	D1VT001330	DIODE,SILICON 1SS133T-77
D3828	BZ410067	D97U02R21B	DIODE,ZENER MTZJ2.2B T-77
△D3830	BZ410010	D28T21DQN9	DIODE,SCHOTTKY 21DQ09N-TA2B1
D3831	BZ410064	D97U03R91B	DIODE,ZENER MTZJ3.9B T-77
D8501	BZ410119	DDDRL41480	DIODE,SILICON MCL4148
D8502	BZ410119	DDDRL41480	DIODE,SILICON MCL4148
D8503	BZ410119	DDDRL41480	DIODE,SILICON MCL4148
D8504	BZ410119	DDDRL41480	DIODE,SILICON MCL4148
D8505	BZ410119	DDDRL41480	DIODE,SILICON MCL4148
D8506	BZ410119	DDDRL41480	DIODE,SILICON MCL4148
D8507	BZ410119	DDDRL41480	DIODE,SILICON MCL4148
D8508	BZ410119	DDDRL41480	DIODE,SILICON MCL4148
D8510	BZ410119	DDDRL41480	DIODE,SILICON MCL4148
ICS			
IC101	AE001450	I55D06072B	IC OEC6072B
IC103	BZ611057	IC7J0311A0	IC R3111N311A/C-TR
IC199	AE002671	A5G701A255	IC S-24C04BDP-LA
△IC302	AD302184	I0FSP7522N	IC AN7522N
△IC401	BZ611053	I01TD55220	IC AN5522
IC601	AD301765	I03FC63190	IC LA76319M-MPB-E
IC902	AD300059	I01FF58290	IC AN5829S
IC2001	AD302391	I5PKL63160	IC STM6316ATXXZ
IC2301	AE000100	I06F030180	IC M63018FP
IC2304	AD301770	I07E00358F	IC BA10358F-E2
IC2305	BZ611130	I0GF9XZ010	IC PQ070XZ01ZP
△IC3001	BZ611015	I1KA97805A	IC KIA7805API
IC3002	BZ611015	I1KA97805A	IC KIA7805API
IC3005	BZ611033	I1KA97809A	IC KIA7809API
△IC3800	AD301771	000220001W	PHOTO COUPLER PS2561L1-1-V(W)
IC4002	AD302392	I5PK055890	IC STM5589AVA
IC4003	AD301774	I5CF0CU040	IC SN74AHC04PWR
IC4007	AE000526	IF8J064007	IC IC42S16400-7T
	AE002726	IF3J00HGT7	IC HY57V641620HGT-7
IC4012	AE000527	I5PJ060ET9	IC M29W160ET90N6
IC4201	AE001295	I0QJ045800	IC NJM4580M(TE1)
IC8501	BZ611130	I0GF9XZ010	IC PQ070XZ01ZP
IC8502	AD301777	I17F0742K0	IC PCM1742KE/2K
IC8503	AE000101	I0GF9M3350	IC PQ1M335M2SP
IC8504	BZ611130	I0GF9XZ010	IC PQ070XZ01ZP
TRANSISTORS			
Q101	BZ510108	TAAA1504SY	TRANSISTOR,SILICON KTA1504S_Y_RTK
Q105	BZ510109	TCAA3875SY	TRANSISTOR,SILICON KTC3875S_Y_RTK
Q301	BZ510109	TCAA3875SY	TRANSISTOR,SILICON KTC3875S_Y_RTK
Q302	BZ510109	TCAA3875SY	TRANSISTOR,SILICON KTC3875S_Y_RTK
Q305	BZ510109	TCAA3875SY	TRANSISTOR,SILICON KTC3875S_Y_RTK
△Q401	BZ510004	TA3T016240	TRANSISTOR,SILICON 2SA1624-AA

or

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description
TRANSISTORS			
△Q405	BZ510097	TCAT03227Y	TRANSISTOR,SILICON
△Q406	AD301779	TD3Q021400	TRANSISTOR,SILICON
Q601	BZ510109	TCAA3875SY	TRANSISTOR,SILICON
Q602	BZ510109	TCAA3875SY	TRANSISTOR,SILICON
Q605	BZ510090	TPAAB05001	COMPOUND TRANSISTOR
△Q804	BZ510091	TCA0042170	TRANSISTOR,SILICON
△Q805	BZ510091	TCA0042170	TRANSISTOR,SILICON
△Q806	BZ510091	TCA0042170	TRANSISTOR,SILICON
Q2001	BZ510112	T67J1036K0	TRANSISTOR,SILICON
Q2002	BZ510001	T6YJ1037K0	TRANSISTOR,SILICON
Q2003	BZ510109	TCAA3875SY	TRANSISTOR,SILICON
Q2004	BZ510113	T27T030180	FET
Q2005	BZ510113	T27T030180	FET
Q2006	BZ510112	T67J1036K0	TRANSISTOR,SILICON
Q2007	BZ510109	TCAA3875SY	TRANSISTOR,SILICON
Q2008	BZ510109	TCAA3875SY	TRANSISTOR,SILICON
Q2201	BZ510067	TNAAC05002	COMPOUND TRANSISTOR
Q3000	BZ510057	TAAT01281Y	TRANSISTOR,SILICON
Q3001	BZ510071	TNAAB05003	COMPOUND TRANSISTOR
△Q3003	AD301780	TCA0043690	TRANSISTOR,SILICON
Q3004	BZ510057	TAAT01281Y	TRANSISTOR,SILICON
Q3005	BZ510105	TCAT03209Y	TRANSISTOR,SILICON
Q3006	BZ510070	TCAT032034	TRANSISTOR,SILICON
Q3007	BZ510109	TCAA3875SY	TRANSISTOR,SILICON
Q3008	BZ510070	TCAT032034	TRANSISTOR,SILICON
Q3009	BZ510105	TCAT03209Y	TRANSISTOR,SILICON
Q3010	BZ510057	TAAT01281Y	TRANSISTOR,SILICON
Q3800	BZ510069	TCATC31980	TRANSISTOR,SILICON
Q3802	BZ510070	TCAT032034	TRANSISTOR,SILICON
△Q3803	BZ510093	TJXG5NC500	FET
Q4001	BZ510109	TCAA3875SY	TRANSISTOR,SILICON
Q4002	BZ510109	TCAA3875SY	TRANSISTOR,SILICON
Q4003	BZ510108	TAAA1504SY	TRANSISTOR,SILICON
Q4201	BZ510109	TCAA3875SY	TRANSISTOR,SILICON
Q4203	BZ510088	TNAAD05001	COMPOUND TRANSISTOR
Q4209	BZ510067	TNAAC05002	COMPOUND TRANSISTOR
Q4210	BZ510107	TPAAA05001	COMPOUND TRANSISTOR
Q4211	BZ510109	TCAA3875SY	TRANSISTOR,SILICON
Q4212	BZ510109	TCAA3875SY	TRANSISTOR,SILICON
Q8501	BZ510108	TAAA1504SY	TRANSISTOR,SILICON
Q8502	BZ510108	TAAA1504SY	TRANSISTOR,SILICON
Q8503	BZ510108	TAAA1504SY	TRANSISTOR,SILICON
Q8505	BZ510109	TCAA3875SY	TRANSISTOR,SILICON
Q8506	BZ510071	TNAAB05003	COMPOUND TRANSISTOR
Q8507	BZ510071	TNAAB05003	COMPOUND TRANSISTOR
Q8508	BZ510071	TNAAB05003	COMPOUND TRANSISTOR
COILS & TRANSFORMERS			
L001	BZ310156	021375101K	COIL
L101	BZ310030	021LA6560K	COIL
L401	BZ310004	021679472K	COIL
L601	BZ310041	02167F101J	COIL
L602	BZ310156	021375101K	COIL
L801	AD301781	021673560K	COIL
L902	BZ310041	02167F101J	COIL
L904	BZ310041	02167F101J	COIL
L2001	AE000529	0216S4100J	COIL
L2002	AE000529	0216S4100J	COIL
L2004	AE000095	02167F2R7J	COIL
L3000	AD301785	02167E100K	COIL
L3001	AD301785	02167E100K	COIL
△L3800	BZ310076	028R140031	COIL,DEGAUSS
△L3801	AD301786	029T000110	COIL,LINE FILTER
L3803	BZ310181	02A6B2E0A1	CORE,FERRITE
L4001	BZ310039	02167F220J	COIL
L4002	BZ310039	02167F220J	COIL
L4003	BZ310039	02167F220J	COIL
L4004	BZ310039	02167F220J	COIL
L4201	BZ310041	02167F101J	COIL
L4202	BZ310041	02167F101J	COIL
L8501	BZ310191	02167F2R2J	COIL
L8502	BZ310191	02167F2R2J	COIL

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description
			MISCELLANEOUS
CP802A	BZ614333	067U006049	WIRE HOLDER
CP802B	BZ614333	067U006049	WIRE HOLDER
CP803A	BZ614334	067U004029	WIRE HOLDER
CP803B	BZ614334	067U004029	WIRE HOLDER
CP8502	AD301798	069J7C0019	CONNECTOR PCB SIDE
CUS011	BZ710149	800WFAA008	CUSHION C
△DK4001	AE001342	169E00026A	DECK CD
EL001	BZ614044	124120301A	EYE LET
EL002	BZ614043	124116281A	EYE LET
F3800	BZ614504	081PC05005	FUSE
△FB401	AD301650	043214037F	TRANSFORMER,FLYBACK
FH3800	BZ614005	06710T0006	HOLDER,FUSE
FH3801	BZ614005	06710T0006	HOLDER,FUSE
OS2202	BZ614199	077Q004017	REMOTE RECEIVER
PH3800	BZ614444	069D01001A	CONNECTOR PCB SIDE
PH3801	BZ614444	069D01001A	CONNECTOR PCB SIDE
△SP351	BZ614200	070C533019	SPEAKER
△SP352	BZ614200	070C533019	SPEAKER
TM101	AD301799	076D0GD010	TRANSMITTER
△TU001	AE000273	0163300005	RF UNIT
△TH3800	BZ410079	DF5EL3R0A0	DEGAUSS ELEMENT
△V801	AD301801	098Q1404D1	CRT W/DY
X101	BZ613019	1002T01606	CERAMIC OSCILLATOR
X601	AD302003	100CT3R505	CRYSTAL
X2001	AD301802	100BT02003	CRYSTAL
X4001	AD301803	100BT02701	CRYSTAL
			B2013H02-6P
			B2013H02-6P
			B2013H02-4P
			B2013H02-4P
			IMSA-9604S-12Z13
			CV-VLM102
			XRY20X30BD
			XRY16X28BD
			51MS050L
			FNI-14B001
			EYF-52BC
			EYF-52BC
			PIC-37243SR
			003P-2100
			003P-2100
			SG04D11BNA
			SG04D11BNA
			TOT201N09160
			115-V-K015AR_B
			ZPB45BL3R0A
			A34AGT13X98(DL)
			CSTLS16M0X53-A0
			HC-49/C
			HC-49U/S
			HC-49U/S
RESISTOR			
	RC.....	CARBON RESISTOR	
CAPACITORS			
	CC.....	CERAMIC CAPACITOR	
	CE.....	ALUMI ELECTROLYTIC CAPACITOR	
	CP.....	POLYESTER CAPACITOR	
	CPP.....	POLYPROPYLENE CAPACITOR	
	CPL.....	PLASTIC CAPACITOR	
	CMP.....	METAL POLYESTER CAPACITOR	
	CMPL.....	METAL PLASTIC CAPACITOR	
	CMPP.....	METAL POLYPROPYLENE CAPACITOR	

TOSHIBA CORPORATION

1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN