

DENON

For U.S.A. & Canada model

Ver. 2

Please refer to the
MODIFICATION NOTICE.

SERVICE MANUAL

MODEL DRA-397 DRA-297 DRA-37

AM-FM STEREO RECEIVER

注意

サービスをおこなう前に、このサービスマニュアルを必ずお読みください。本機は、火災、感電、けがなどに対する安全性を確保するために、さまざまな配慮をおこなっており、また法的には「電気用品安全法」にもとづき、所定の許可を得て製造されております。従ってサービスをおこなう際は、これらの安全性が維持されるよう、このサービスマニュアルに記載されている注意事項を必ずお守りください。

● For purposes of improvement, specifications and design are subject to change without notice.

● 本機の仕様は性能改良のため、予告なく変更することがあります。
● 補修用性能部品の保有期間は、製造打切後8年です。

● Please use this service manual with referring to the operating instructions without fail.

● 修理の際は、必ず取扱説明書を参照の上、作業を行ってください。

● Some illustrations using in this service manual are slightly different from the actual set.

● 本文中に使用しているイラストは、説明の都合上現物と多少異なる場合があります。

DENON

TOKYO, JAPAN
Denon Brand Company, D&M Holdings Inc.

SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

CAUTION Please heed the points listed below during servicing and inspection.

◎ Heed the cautions!

Spots requiring particular attention when servicing, such as the cabinet, parts, chassis, etc., have cautions indicated on labels or seals. Be sure to heed these cautions and the cautions indicated in the handling instructions.

◎ Caution concerning electric shock!


(1) An AC voltage is impressed on this set, so touching internal metal parts when the set is energized could cause electric shock. Take care to avoid electric shock, by for example using an isolating transformer and gloves when servicing while the set is energized, unplugging the power cord when replacing parts, etc.

(2) There are high voltage parts inside. Handle with extra care when the set is energized.

◎ Caution concerning disassembly and assembly!

Though great care is taken when manufacturing parts from sheet metal, there may in some rare cases be burrs on the edges of parts which could cause injury if fingers are moved across them. Use gloves to protect your hands.

◎ Only use designated parts!

The set's parts have specific safety properties (fire resistance, voltage resistance, etc.). For replacement parts, be sure to use parts which have the same properties. In particular, for the important safety parts that are marked  on wiring diagrams and parts lists, be sure to use the designated parts.

◎ Be sure to mount parts and arrange the wires as they were originally!

For safety reasons, some parts use tape, tubes or other insulating materials, and some parts are mounted away from the surface of printed circuit boards. Care is also taken with the positions of the wires inside and clamps are used to keep wires away from heating and high voltage parts, so be sure to set everything back as it was originally.

◎ Inspect for safety after servicing!


Check that all screws, parts and wires removed or disconnected for servicing have been put back in their original positions, inspect that no parts around the area that has been serviced have been negatively affected, conduct an insulation check on the external metal connectors and between the blades of the power plug, and otherwise check that safety is ensured.

(Insulation check procedure)

Unplug the power cord from the power outlet, disconnect the antenna, plugs, etc., and turn the power switch on. Using a 500V insulation resistance tester, check that the insulation resistance between the terminals of the power plug and the externally exposed metal parts (antenna terminal, headphones terminal, microphone terminal, input terminal, etc.) is 1MΩ or greater. If it is less, the set must be inspected and repaired.

CAUTION Concerning important safety parts

Many of the electric and structural parts used in the set have special safety properties. In most cases these properties are difficult to distinguish by sight, and using replacement parts with higher ratings (rated power and withstand voltage) does not necessarily guarantee that safety performance will be preserved. Parts with safety properties are indicated as shown below on the wiring diagrams and parts lists in this service manual. Be sure to replace them with parts with the designated part number.

(1) Schematic diagrams ... Indicated by the  mark.

(2) Parts lists ... Indicated by the  mark.

Using parts other than the designated parts could result in electric shock, fires or other dangerous situations.

注意 サービス、点検時にはつぎのことにご注意願います。

◎ 注意事項をお守りください！

サービスのとき特に注意を必要とする個所についてはキャビネット、部品、シャーシなどにラベルや捺印で注意事項を表示しています。これらの注意書きおよび取扱説明書などの注意事項を必ずお守りください。

◎ 感電に注意！


(1) このセットは、交流電圧が印加されていますので通電時に内部金属部に触れると感電することがあります。従って通電サービス時には、絶縁トランスの使用や手袋の着用、部品交換には、電源プラグを抜くなどして感電にご注意ください。

(2) 内部には高電圧の部分がありますので、通電時の取扱には十分ご注意ください。

◎ 分解、組み立て作業時のご注意！

板金部品の端面の『バリ』は、部品製造時に充分管理をしておりますが、板金端面は鋭利となっている箇所がありますので、部品端面に触れたまま指を動かすとまれに怪我をする場合がありますので十分注意して作業して下さい。手の保護のために手袋を着用して下さい。

◎ 指定部品の使用！

セットの部品は難燃性や耐電圧など安全上の特性を持ったものとなっています。従って交換部品は、使用されていたものと同じ特性の部品を使用して下さい。特に配線図、部品表に  印で指定されている安全上重要な部品は必ず指定のものをご使用ください。

◎ 部品の取付けや配線の引きまわしは、元どおりに！

安全上、テープやチューブなどの絶縁材料を使用したり、プリント基板から浮かして取付けた部品があります。また内部配線は引きまわしやクランプによって発熱部品や高圧部品に接近しないように配慮されていますので、これらは必ず元どおりにして下さい。

◎ サービス後は安全点検を！


サービスのために取り外したねじ、部品、配線などが元どおりになっているか、またサービスした個所の周辺を劣化させてしまったところがないかなどを点検し、外部金属端子部と、電源プラグの刃の間の絶縁チェックをおこなうなど、安全性が確保されていることを確認してください。


(絶縁チェックの方法)

電源コンセントから電源プラグを抜き、アンテナやプラグなどを外し、電源スイッチを入れます。500V 絶縁抵抗計を用いて、電源プラグのそれぞれの端子と外部露出金属部 [アンテナ端子、ヘッドホン端子マイク端子、入力端子など] との間で、絶縁抵抗値が 1 MΩ 以上であること、この値以下のときはセットの点検修理が必要です。

注意 安全上重要な部品について

本機に使用している多くの電気部品、および機構部品は安全上、特別な特性を持っています。この特性はほとんどの場合、外観では判別つきにくく、またもとの部品より高い定格（定格電力、耐圧）を持ったものを使用しても安全性が維持されることは、限りません。安全上の特性を持った部品は、このサービスマニュアルの配線図、部品表に同じように表示していますので必ず指定されている部品番号のものを使用願います。

(1) 配線図...  マークで表示しています。

(2) 部品表...  マークで表示しています。

指定された部品と異なるものを使用した場合には、感電、火災などの危険を生じる恐れがあります。

ADJUSTMENT

Idling Current

Required measurement equipment: DC Voltmeter

1. Preparation

- (1) Avoid direct blow from an air conditioner or an electric fan, and adjust the unit at normal room temperature 15 °C ~ 30 °C (59 °F ~ 86 °F).
- (2) Presetting
 - POWER (Power source switch) OFF
 - SPEAKER (Speaker terminal) No load
(Do not connect speaker, dummy resistor, etc.)

2. Adjustment

- (1) Remove top cover and set VR501FL, VR501FR on MAIN Unit at fully counterclockwise (◯) position.
- (2) Connect DC Voltmeter to test points (FRONT-Lch: TP501, FRONT-Rch: TP502).
- (3) Connect power cord to AC Line, and turn power switch "ON".
- (4) Presetting.
 MASTER VOLUME : "----" counterclockwise (◯ min.)
 MODE : TONE DEFEAT
 FUNCTION : CD
- (5) Within 2 minutes after the power on, turn VR501FL clockwise (◯) to adjust the TEST POINT voltage to 1.5 mV \pm 0.5 mV DC.
- (6) After 10 minutes from the preset above, turn VR501FL to set the voltage to 2.0 mV \pm 0.5 mV DC.
- (7) Adjust the Variable Resistors of other channels in the same way.

調整

アイドリング電流の調整

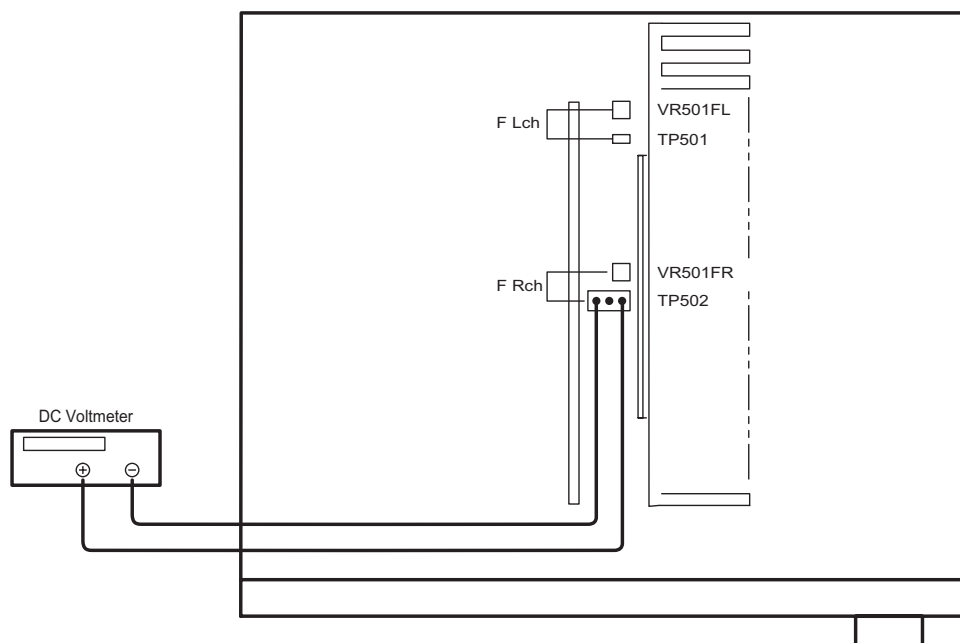
調整に必要な測定器： DC Voltmeter

1. 準備

- (1) セットをクーラ、扇風機のそばなど風通しの良い場所を避け、通常の使用状態に置きます。セットの周囲温度は 15 ~ 30 °C、湿度は常湿とします。
- (2) プリセット
 - 電源スイッチ OFF
 - スピーカ端子 無負荷
(スピーカ・ダミー抵抗器などを接続しない。)

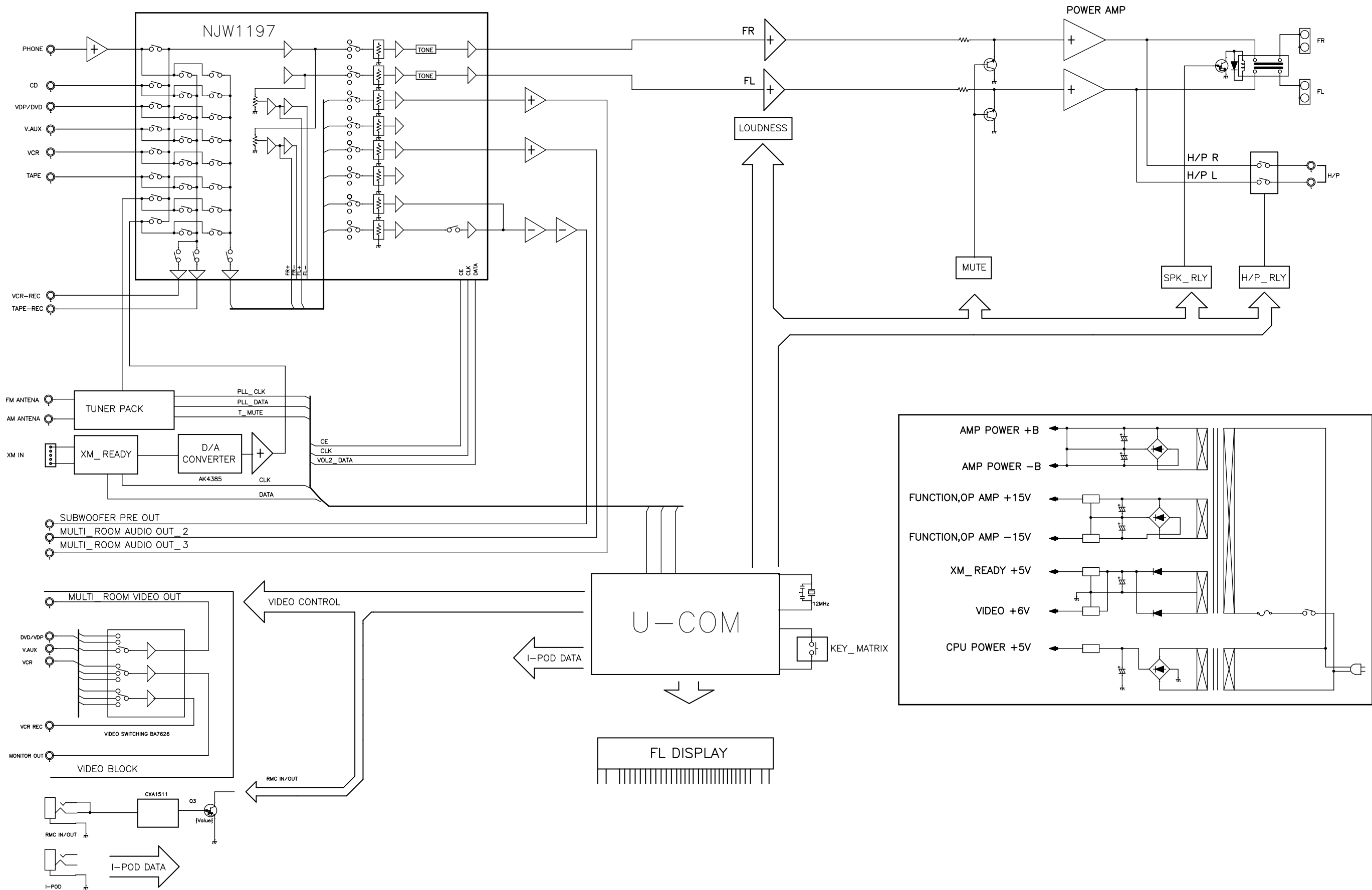
2. 調整

- (1) 上カバーをはずし、メイン基板の VR501FL, VR501FR を反時計方向 (◯) に回し切った状態にセットします。
- (2) テストポイント (FRONT-Lch: TP501, FRONT-Rch: TP502) に DC Voltmeter を接続します。
- (3) 電源コードを AC100V (95 ~ 105V の範囲でも可) に接続し、電源スイッチを "ON" にします。
- (4) ON 後、次のようにセットします。
 - MASTER VOLUME (音量調節つまみ) → 反時計方向 (◯) に回す、最小の状態にする。
 - SPEAKER (スピーカ端子) → 無負荷 (スピーカ、ダミー抵抗器などを接続しない。)
 - MODE : TONE DEFEAT
FUNCTION : CD
- (5) 2分以内に VR501FL を時計方向 (◯) に回しテストポイントの電圧を次のように調整します。
1.5mV \pm 0.5mV DC
- (6) 予備調整から 10 分後 VR501FL を回し、次のように電圧を設定します。
2.0mV \pm 0.5mV DC
- (7) 同じ方法で各チャンネルの可変抵抗を調整します。

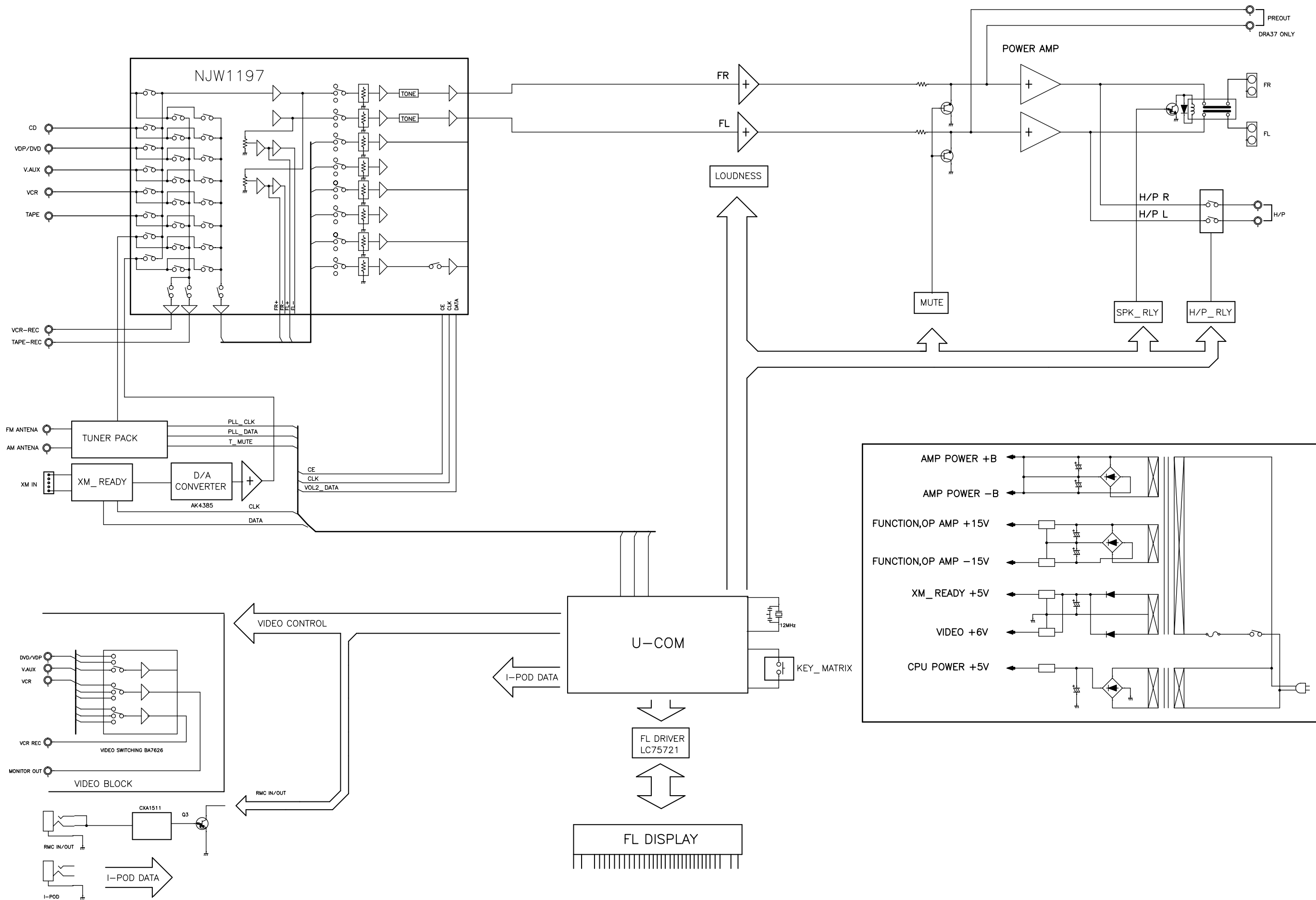


BLOCK DIAGRAM

DRA-397 model



DRA-297/37 model



LEVEL DIAGRAM

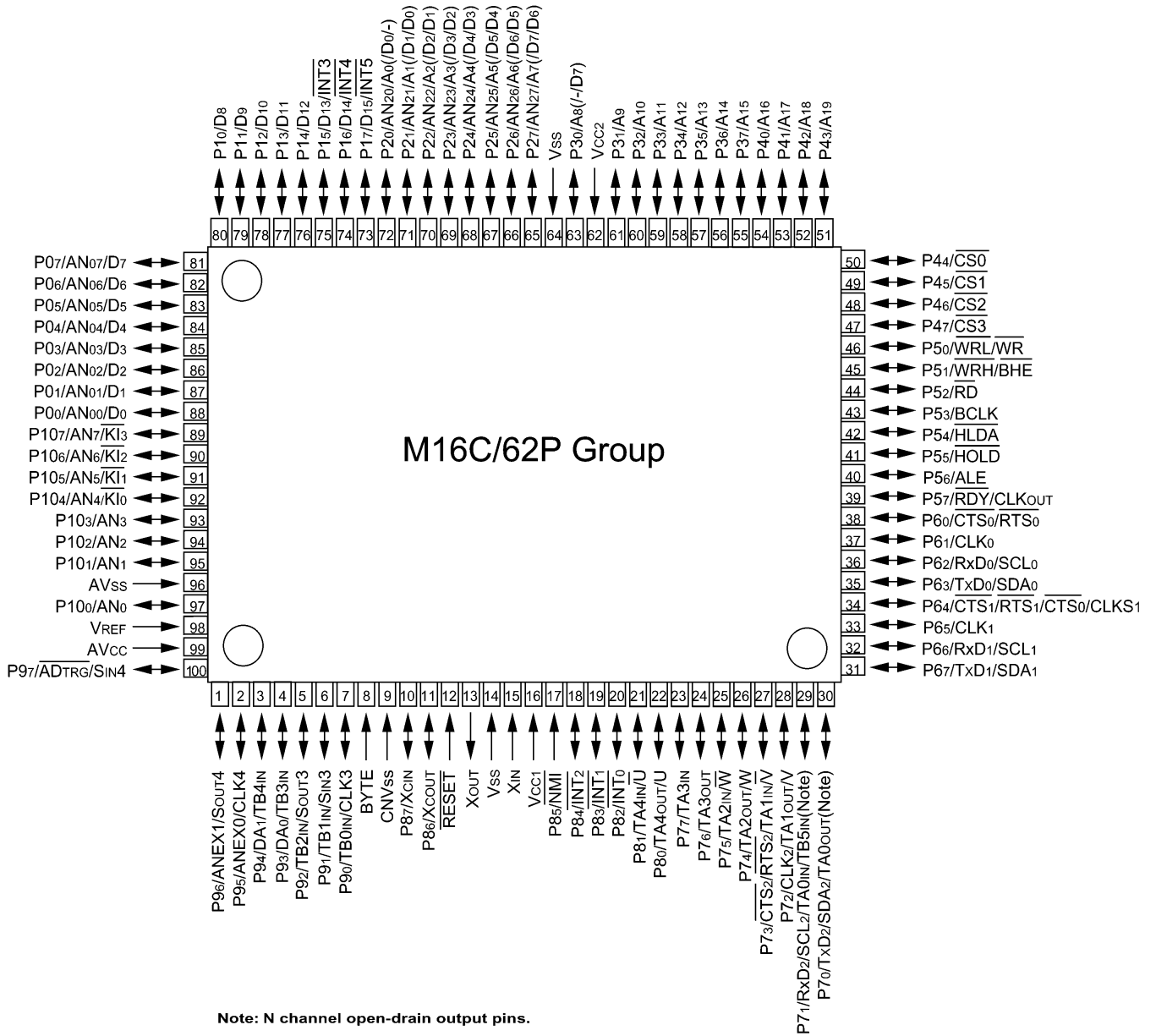


SEMICONDUCTORS

Only major semiconductors are shown, general semiconductors etc. are omitted to list.
 主な半導体を記載しています。汎用の半導体は記載を省略しています。

1. IC's

M30624FGPFG (IC401) FRONT P.W.B.



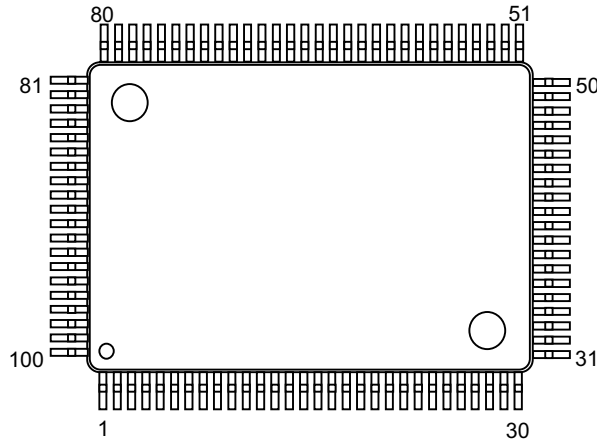
M30624FGPFG Terminal Function

PIN No.	Port Function	Port Name	I/O		Function
			P-ON	Standby	
1	P96	SIRIUS_TX	O	O/L	SIRIUS data transmission
2	P95	SIRIUS MUTE	O	O/L	SIRIUS MUTE control
3	P94	(HD CE)	O	O/L	HD Radio enable output
4	P93	MULT3 SW	O	O/L	ZONE3 output, HPF control
5	P92	HD Radio TX/(SDA)	O	O/L	HD Radio data transmission
6	P91	HD Radio RX/(SCL)	I	I	HD Radio Data reception
7	P90	(HD CLK)	O	O/L	HD Radio clock output
8	BYTE		I	-	Ext. data bus bit width switching
9	CNVSS		I	-	Processor mode switching
10	P87, XCIN	(HD RESET)	O	O/L	HD Radio reset output
11	P86, XCOU	FLT_RESET	O	O/L	FLT reset output
12	/RESET		I	-	Hard reset
13	XOUT		O	-	Oscillator connection
14	VSS		I	-	GND
15	XIN		I	-	Oscillator connection
16	VCC1		I	-	5V
17	P85	NMI	I	-	NMI interruption input
18	P84, /INT2	RS232C_TX	I	I	RS232C signal detection
19	P83, /INT1	REMOCON	I	I	Remote control input
20	P82, /INT0	PROTECTION	I	I	Unusual operation detection
21	P81	FLT_CLK	O	O/L	FLT clock output
22	P80	FLT_DATA	O	O/L	FLT data output
23	P77	FLT_CE1	O	O/L	FLT chip select output
24	P76	SPK_RLY_A	O	O/L	Speaker A Relay control
25	P75	CPU_5V_SW	O	O/L	CPU 5V control
26	P74	SPK_RLY_B	O	O/L	Speaker B Relay control
27	P73	(NC)		O/L	
28	P72, CLK2	iPod_DET	I	I	iPod connection detection
29	P71, RXD2/SCL2	iPod_RX	I	I	iPod data reception
30	P70, TXD2/SDA2	iPod_TX	O	O/L	iPod data transmission
31	P67, TXD1/SDA1	RS232C_TX	O	O/L	RS232C data reception
32	P66, RXD1/SCL1	RS232C_RX	I	I	RS232C data reception
33	P65, CLK1	PLL_DI	I	I	PLL data input
34	P64	PLL_DO/XM-DAC_DO	O	O/L	PLL/XM-DAC data output
35	P63, TxD0/SDA0	XM_TX	O	O/L	XM data transmission
36	P62, RXD0/SCL0	XM_RX	I	I	XM data reception
37	P61, CLK0	PLL_CLK/XM-DAC_CLK	O	O/L	PLL/XM-DAC clock output
38	P60	PLL_CE	O	O/L	PLL enable output
39	P57	/TUNED	I	I	TUNED detection
40	P56	/STEREO	I	I	STEREO broadcast detection
41	P55	RS232C_UPDATE_EPM			
42	P54	VOL_UP	I	I	Volume encoder input
43	P53	VOL_DOWN	I	I	Volume encoder input
44	P52	SELECT_DOWN	I	I	Select encoder input
45	P51	SELECT_UP	I	I	Select encoder input
46	P50	RS232C_UPDATE_CE	O	O/L	
47	P47	DC TRIGGER_2ON	O	O/L	Trigger Out2 ON/OFF control
48	P46	FUNCTION_UP	I	I	Function encoder input
49	P45	TUNER MUTE	O	O/L	TUNER MUTE control
50	P44	E2PROM_SCL	O	O/L	E2P Clock output
51	P43	E2PROM_SDA	I/O	O/L	E2PROM data transmission and reception
52	P42	ZONE3_MUTE	O	O/L	ZONE3 MUTE control
53	P41	ZONE2_MUTE	O	O/L	ZONE2 MUTE control
54	P40	STBY LED_RED	O	O/L	Standby LED(R) control

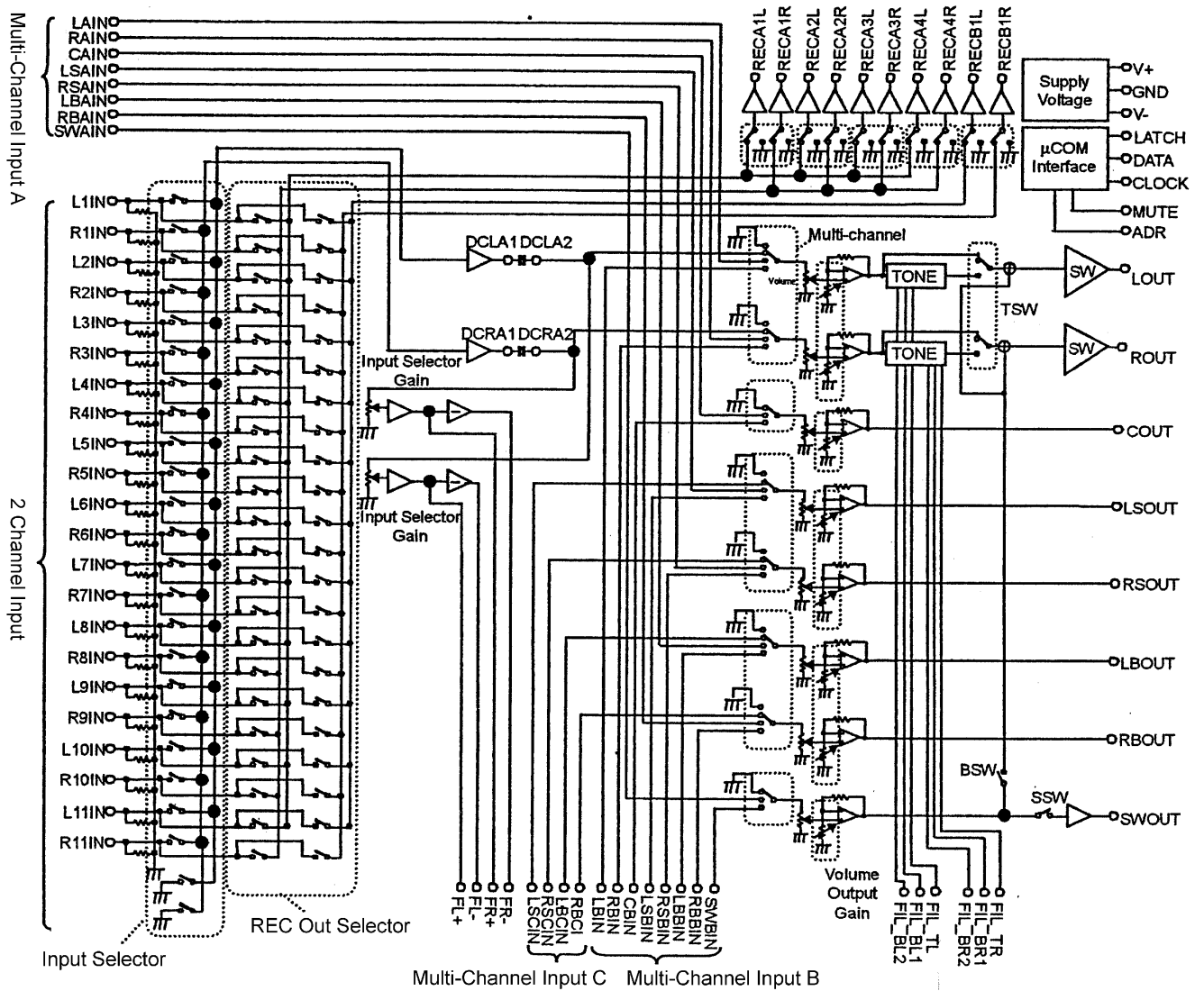
PIN No.	Port Function	Port Name	I/O		Function
			P-ON	Standby	
55	P37	HD Radio MUTE	O	O/L	HD Radio MUTE control
56	P36	DC TRIGGER 1	O	O/L	Trigger Out1 ON/OFF control
57	P35	H/P RELAY	O	O/L	H/P Relay control
58	P34	SW_MUTE	O	O/L	SW MUTE control
59	P33	VIDEO OFF	O	O/L	VIDEO Reg control
60	P32	HD Radio DET	I	I	HD Radio Installing detection
61	P31	HD Radio P/E	O	O/L	HD Radio power supply control
62	VCC2		I	-	5V
63	P30	(NC)			
64	VSS		I	-	GND
65	P27	XM_DBPOWER	O	O/L	XM Reg control
66	P26	XM_DIC_RESET	O	O/L	XM DIC reset output
67	P25	XM_DAC_PDN	O	O/L	XM DAC reset reset output
68	P24	XM_COMMAND	O	O/L	XM DIC CBM output
69	P23	XM_REQ	I	I	XM DIC Interrupt request
70	P22	H/P DET	I	I	H/P connection detection
71	P21	POWER RELAY	O	O/L	POWER RELAY control
72	P20	FUNCTION_DOWN	I	I	Function encoder input
73	P17, /INT5	POWER DOWN	I	I	CPU 5.6V detection
74	P16, /INT4	LOUDNESS ON	O	O/L	LOUDNESS ON/OFF control
75	P15, /INT3	POWER	I	I	POWER Key input detection
76	P14	MULT2 SW	O	O/L	ZONE3 output, HPF control
77	P13	STBY_LED_GREEN	O	O/L	Standby LED(G) control
78	P12	NJW1197W_LATCH	O	O/L	NJW1197 latch output
79	P11	NJW1197W_CLK	O	O/L	NJW1197 Clock output
80	P10	NJW1197W_DATA	O	O/L	NJW1197 data output
81	P07	MAIN_MUTE	O	O/L	MAIN MUTE control
82	P06	VIDEO_A	O	O/L	VIDEO output control
83	P05	VIDEO_B	O	O/L	VIDEO output control
84	P04	VIDEO_C	O	O/L	VIDEO output control
85	P03	VIDEO_D	O	O/L	VIDEO output control
86	P02	VIDEO_E	O	O/L	VIDEO output control
87	P01	ZONE2_VIDEO_MUTE	O	O/L	ZONE2 VIDEO MUTE control
88	P00	ZONE3_VIDEO_MUTE	O	O/L	ZONE3 VIDEO MUTE control
89	P107	(NC)			
90	P106, AN6	KEY_IN1	I	I	Key input
91	P105, AN5	KEY_IN2	I	I	Key input
92	P104, AN4	KEY_IN3	I	I	Key input
93	P103	(NC)			
94	P102	SIRIUS P/E	O	O/L	SIRIUS enable output
95	P101	XM MUTE	O	O/L	XM MUTE control
96	AVSS		I	-	GND
97	P100	XM_DACNS	O	O/L	XM DAC chip select input
98	VREF		I	-	standard voltage input
99	AVCC		I	-	5V
100	P97, RXD4/SCL4/STXD4	SIRIUS_RX	I	I	SIRIUS data reception

NJW1197 (IC101) INPUT P.W.B.

PIN FUNCTION



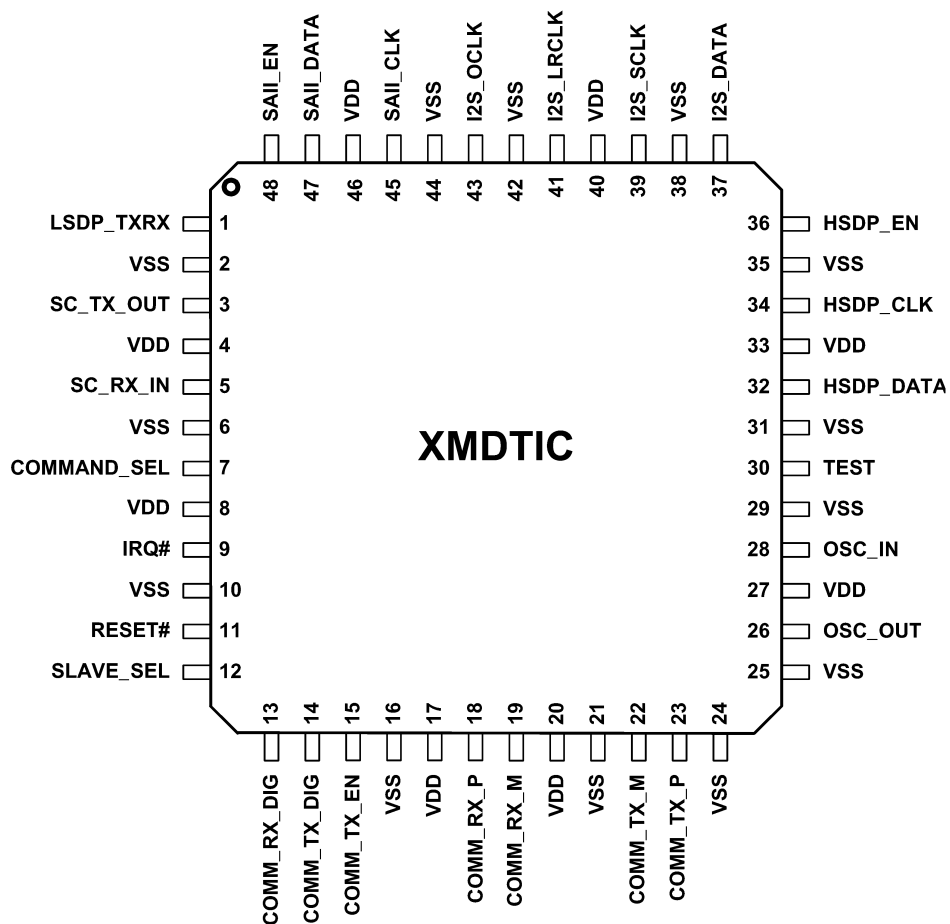
BLOCK DIAGRAM



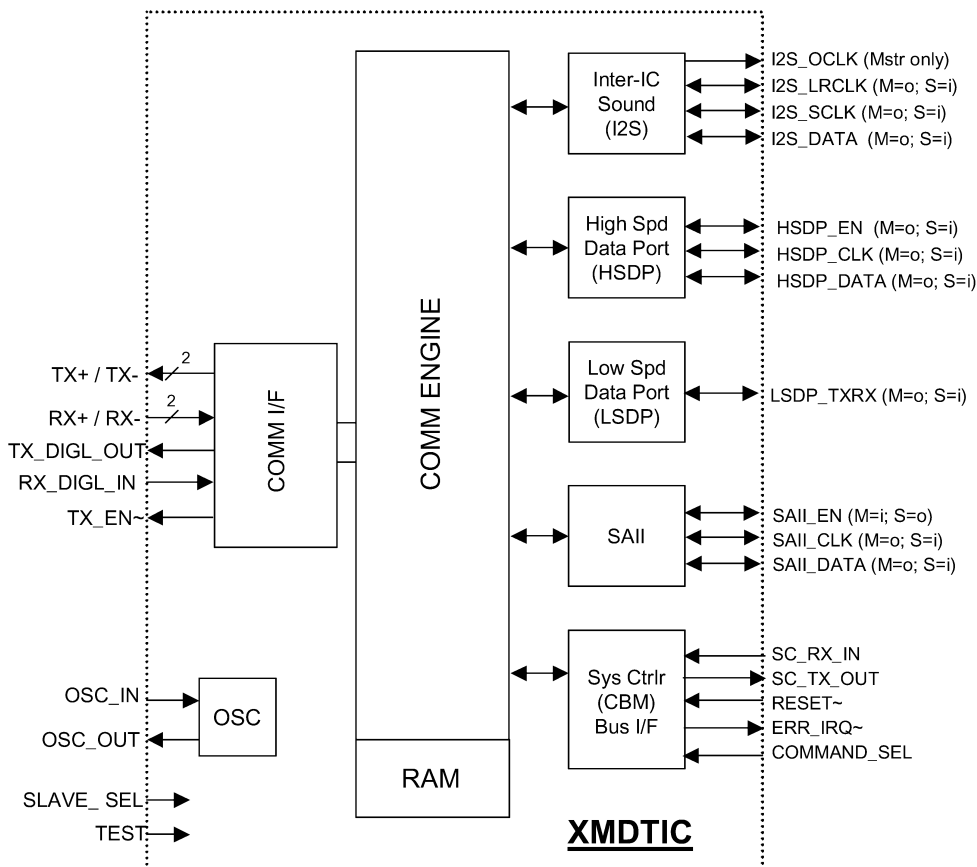
NJW1197 Terminal Function

No.	SYMBOL	FUNCTION	No.	SYMBOL	FUNCTION
1	ROUT	Rch output	51	DCR_IN	Multi-channel selector Rch input
2	COUT	Cch output	52	DCR_OUT	Input selector Rch output
3	LSOUT	LSch output	53	GND	Ground
4	RSOUT	RSch output	54	DCL_IN	Multi-channel selector Lch input
5	LBOUT	LBch output	55	DCL_OUT	Input selector Lch output
6	RBOUT	RBch output	56	GND	Ground
7	SWOUT	SWch output	57	REC_B1R	Input selector Rch REC output B1
8	GND	Ground	58	REC_B1L	Input selector Lch REC output B1
9	FIL_BL2	Lch Bass filter terminal 2	59	REC_A4R	Input selector Rch REC output A4
10	FIL_BL1	Lch Bass filter terminal 1	60	REC_A4L	Input selector Lch REC output A4
11	FIL_TL	Lch Treble filter terminal	61	REC_A3R	Input selector Rch REC output A3
12	TCAP	Switching noise rejection capacitor	62	REC_A3L	Input selector Lch REC output A3
13	FIL_BR2	Rch Bass filter terminal 2	63	REC_A2R	Input selector Rch REC output A2
14	FIL_BR1	Rch Bass filter terminal 1	64	REC_A2L	Input selector Lch REC output A2
15	FIL_TR	Rch Treble filter terminal	65	REC_A1R	Input selector Rch REC output A1
16	V+	+ Power supply voltage input	66	REC_A1L	Input selector Lch REC output A1
17	ADR	Chip address select input	67	VDDOUT	Internal Digital +Power Supply Output
18	V-	- Power supply voltage input	68	DATA	Control data signal input
19	L1IN	Input selector Lch input 1	69	CLOCK	Clock signal input
20	DCCAP_SW	Switching noise rejection capacitor	70	LATCH	Latch signal input
21	R1IN	Input selector Rch input 1	71	MUTE	External Mute control
22	DCCAP_RB	Switching noise rejection capacitor	72	FL+	Input selector gain control Lch no-inverted output
23	L2IN	Input selector Lch input 2	73	FL-	Input selector gain control Lch inverted output
24	DCCAP_LB	Switching noise rejection capacitor	74	FR+	Input selector gain control Rch no-inverted output
25	R2IN	Input selector Rch input 2	75	FR-	Input selector gain control Rch inverted output
26	DCCAP_RS	Switching noise rejection capacitor	76	GND	Ground
27	L3IN	Input selector Lch input 3	77	LSCIN	Multi-channel LSch input C
28	DCCAP_LS	Switching noise rejection capacitor	78	RSCIN	Multi-channel RSch input C
29	R3IN	Input selector Rch input 3	79	LBCIN	Multi-channel LBch input C
30	DCCAP_C	Switching noise rejection capacitor	80	RBCIN	Multi-channel RBch input C
31	L4IN	Input selector Lch input 4	81	GND	Ground
32	DCCAP_R	Switching noise rejection capacitor	82	LAIN	Multi-channel Lch input A
33	R4IN	Input selector Rch input 4	83	RAIN	Multi-channel Rch input A
34	DCCAP_L	Switching noise rejection capacitor	84	CAIN	Multi-channel Cch input A
35	L5IN	Input selector Lch input 5	85	LSAIN	Multi-channel LSch input A
36	GND	Ground	86	RSAIN	Multi-channel RSch input A
37	R5IN	Input selector Rch input 5	87	LBAIN	Multi-channel LBch input A
38	GND	Ground	88	RBAIN	Multi-channel RBch input A
39	L6IN	Input selector Lch input 6	89	SWAIN	Multi-channel SWch input A
40	L9IN	Input selector Lch input 9	90	GND	Ground
41	R6IN	Input selector Rch input 6	91	LBIN	Multi-channel Lch input B
42	R9IN	Input selector Rch input 9	92	RBIN	Multi-channel Rch input B
43	L7IN	Input selector Lch input 7	93	CBIN	Multi-channel Cch input B
44	L10IN	Input selector Lch input 10	94	LSBIN	Multi-channel LSch input B
45	R7IN	Input selector Rch input 7	95	RSBIN	Multi-channel RSch input B
46	R10IN	Input selector Rch input 10	96	LBBIN	Multi-channel LBch input B
47	L8IN	Input selector Lch input 8	97	RBBIN	Multi-channel RBch input B
48	L11IN	Input selector Lch input 11	98	SWBIN	Multi-channel SWch input B
49	R8IN	Input selector Rch input 8	99	GND	Ground
50	R11IN	Input selector Rch input 11	100	LOUT	Lch output

F2602-1 XMDTIC (IC203) XM-READY P.W.B.



Functional Description



F2602-1 XMDTIC Pin Descriptions

Pin #	Pin Name	Type	Function in Slave Mode	Function in Master Mode	Notes
1	LSDP_TXRX	S=In M=Out	Low Speed Data Port Output	Low Speed Data Port Input	LVTTTL S/T
3	SC_TX_OUT	S=Out M=Out	System Controller Bus (CBM) Transmit Data Out	System Controller Bus (CBM) Transmit Data Out	4mA, SLC
5	SC_RX_IN	S=In M=In	System Controller Bus (CBM) Receive Data In	System Controller Bus (CBM) Receive Data In	LVTTTL S/T
7	COMMAND_SEL	S=In M=In	Command Mode Select In (1= Command Mode, 0=Normal Mode)	Command Mode Select In (1= Command Mode, 0=Normal Mode)	LVTTTL S/T
9	IRQ#	S=Out M=Out	Interrupt Request Out (Active Low)	Interrupt Request Out (Active Low)	4mA Open Drain
11	RESET#	S=In M=In	Asynchronous Reset In, (Active Low)	Asynchronous Reset In, (Active Low)	LVTTTL S/T
12	SLAVE_SEL	S=In M=In	M/S Mode Select In (High = Slave Mode)	M/S Mode Select In (Low = Master Mode)	LVTTTL S/T
13	COMM_RX_DIG	S=In M=In	DT Comm Bus External Transceiver Receive Data In	DT Comm Bus External Transceiver Receive Data In	LVTTTL S/T
14	COMM_TX_DIG	Output	DT Comm Bus External Transceiver Transmit Data Out	DT Comm Bus External Transceiver Transmit Data Out	LVTTTL S/T
15	COMM_TX_EN	Output	DT Comm Bus External Transceiver Direction Out (1=Transmit, 0=Receive)	DT Comm Bus External Transceiver Direction Out (1=Transmit, 0=Receive)	LVTTTL S/T
18	COMM_RX_P	S=In M=In	DT Comm Bus Internal Receiver Differential Positive In	DT Comm Bus Internal Receiver Differential Positive In	LVDS in+
19	COMM_RX_M	S=In M=In	DT Comm Bus Internal Receiver Differential Negative In	DT Comm Bus Internal Receiver Differential Negative In	LVDS in-
22	COMM_TX_M	Output	DT Comm Bus Internal Transmitter Differential Negative Out	DT Comm Bus Internal Transmitter Differential Negative Out	LVDS out-
23	COMM_TX_P	Output	DT Comm Bus Internal Transmitter Differential Positive Out	DT Comm Bus Internal Transmitter Differential Positive Out	LVDS out+
26	OSC_OUT	Output	Crystal Output	Crystal Output	Crystal Buffer
28	OSC_IN	S=In M=In	Crystal Input	Crystal Input	Crystal Buffer
30	TEST	S=In M=In	Factory Test Mode Select (1=Test, 0= Normal Oper.)	Factory Test Mode Select (1=Test, 0= Normal Oper.)	LVTTTL S/T
32	HSDP_DATA	S=In M=Out	High Speed Data Port Data Input	High Speed Data Port Data Output	Out= 4mA, SLC In=LVTTTL S/T
34	HSDP_CLK	S=In M=Out	High Speed Data Port Clock Input	High Speed Data Port Clock Output	Out= 4mA, SLC In=LVTTTL S/T
36	HSDP_EN	S=Out M=In	High Speed Data Port Enable Output	High Speed Data Port Enable Input	Out= 4mA, SLC In=LVTTTL S/T
37	I2S_DATA	S=In M=Out	I2S Digital Port Data In	I2S Digital Audio Port Data Out	Out= 4mA, SLC In=LVTTTL S/T

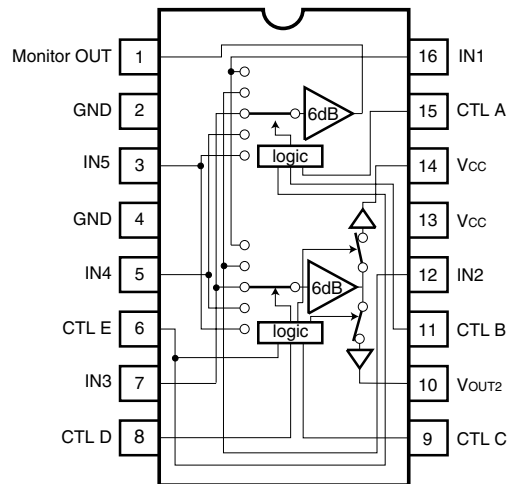
Pin #	Pin Name	Type	Function in Slave Mode	Function in Master Mode	Notes
39	I2S_SCLK	S=In M=Out	I2S Digital Audio Port Bit Clock In	I2S Digital Audio Port Bit Clock Out	Out= 4mA, SLC In=LVTTL S/T
41	I2S_LRCLK	S=In M=Out	I2S Digital Audio Port Left/Right Clock In	I2S Digital Audio Port Left/Right Clock Out	Out= 4mA, SLC In=LVTTL S/T
43	I2S_OCLK	S=In M=Out	I2S Digital Audio Port Oversample Clock (not used - connect to Gnd???)	I2S Digital Audio Port Oversample Clock Out	Out= 4mA, SLC
45	SAII_CLK	S=Out M=In	SAII Port Clock Output	SAII Port Clock Input	Out= 4mA, SLC 3.3V S/T
47	SAII_DATA	S=Out M=In	SAII Port Data Output	SAII Port Data Input	Out= 4mA, SLC In=LVTTL S/T
48	SAII_REQ	S=In M=Out	SAII Port Request Input	SAII Port Request Output	Out= 4mA, SLC In=LVTTL S/T

Pin#	Pin Name	Type	Function in Slave Mode	Function in Master Mode	Notes
4, 8, 17, 20, 27, 33, 40, 46	VDD	PWR	+3.3V Supply Voltage	+3.3V Supply Voltage	
2, 6, 10, 16, 21, 24, 25, 29, 31, 25, 38, 42, 44	VSS	GND	Digital Ground	Digital Ground	

Notes: All Inputs are 3.3V LVTTL compatible; S/T = Schmitt Trigger inputs; SLC = Slew Rate Controller Output

BA7626F (IC601) MAIN P.W.B.

Block diagram



Truth table

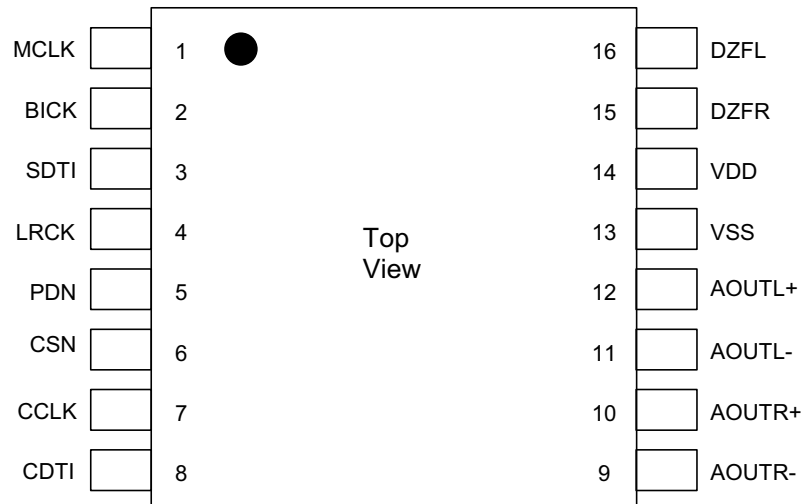
A	B	E	Monitor OUT
L	L	*	IN1
H	L	*	IN2
L	H	*	IN3
H	H	L	IN4
H	H	H	IN5

C	D	E	V _{OUT1}
L	L	*	—
H	L	*	IN2
L	H	*	IN3
H	H	L	IN4
H	H	H	IN5

C	D	E	V _{OUT2}
L	L	*	IN1
H	L	*	—
L	H	*	IN3
H	H	L	IN4
H	H	H	IN5

Note 1: * indicates "don't care" (H or L).

AK4385 (IC 207) XM-READY P.W.B.

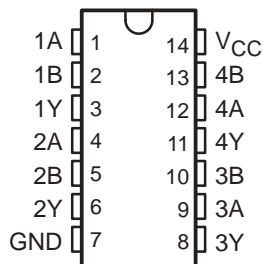


Pin function

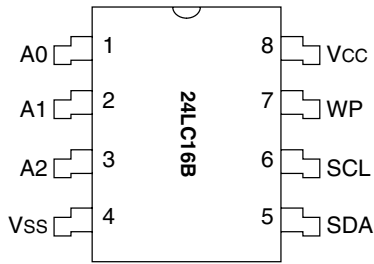
No.	Pin Name	I/O	Function
1	MCLK	I	Master Clock Input Pin An external TTL clock should be input on this pin.
2	BICK	I	Audio Serial Data Clock Pin
3	SDTI	I	Audio Serial Data Input Pin
4	LRCK	I	L/R Clock Pin
5	PDN	I	Power-Down Mode Pin When at “L”, the AK4385 is in the power-down mode and is held in reset. The AK4385 should always be reset upon power-up.
6	CSN	I	Chip Select Pin
7	CCLK	I	Control Data Input Pin
8	CDTI	I	Control Data Input Pin
9	AOATR-	O	Rch Negative Analog Output Pin
10	AOATR+	O	Rch Positive Analog Output Pin
11	AOATL-	O	Lch Negative Analog Output Pin
12	AOATL+	O	Lch Positive Analog Output Pin
13	VSS	-	Ground Pin
14	VDD	-	Power Supply Pin
15	DZFR	O	Rch Data Zero Input Detect Pin
16	DZFL	O	Lch Data Zero Input Detect Pin

Note: All input pins should not be left floating.

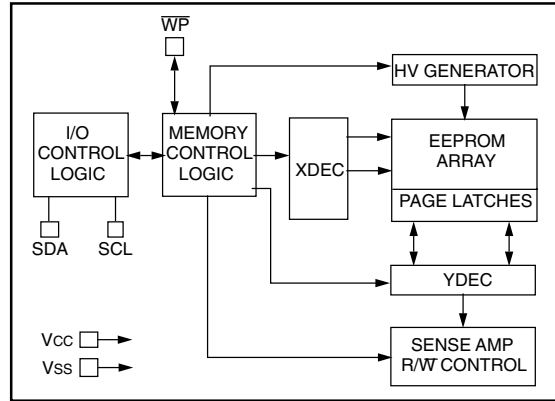
**SN74LV08A (IC 204) XM-READY P.W.B.
SN74HCT08 (IC 205, 206, 211) XM-READY**



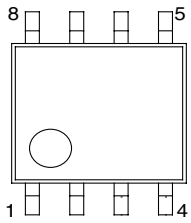
24LC16B (IC 404) FRONT P.W.B



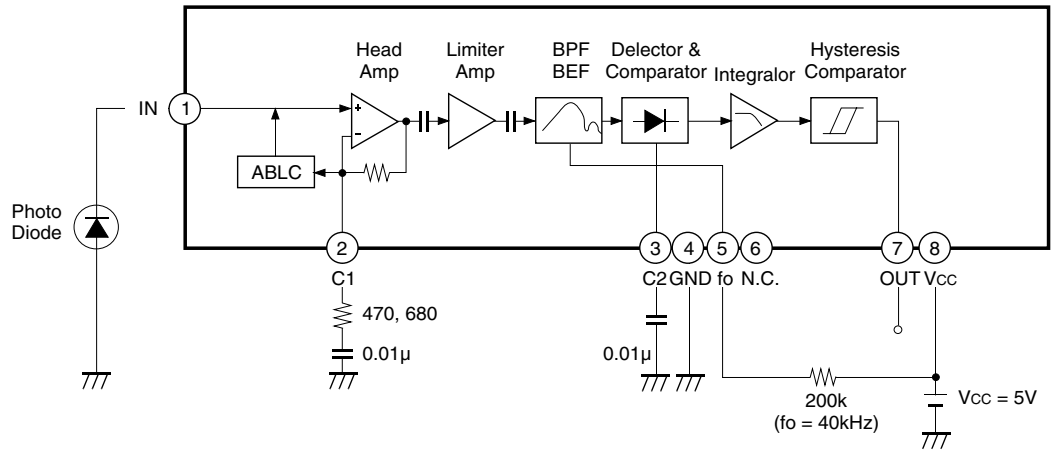
BLOCK DIAGRAM



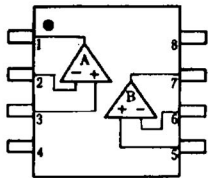
CXA1511M (IC 201) XM-READY P.W.B.



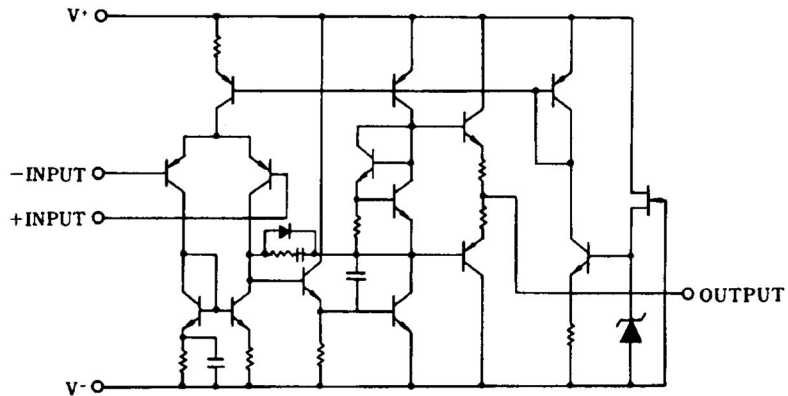
Block Diagram and Pin Configuration



**NJM2068 (IC 104, 108-113, 120) INPUT P.W.B.
(IC 209) XM-READY**



- 1. A OUTPUT
- 2. A-INPUT
- 3. A+INPUT
- 4. V-
- 5. B+INPUT
- 6. B-INPUT
- 7. B OUTPUT
- 8. V+

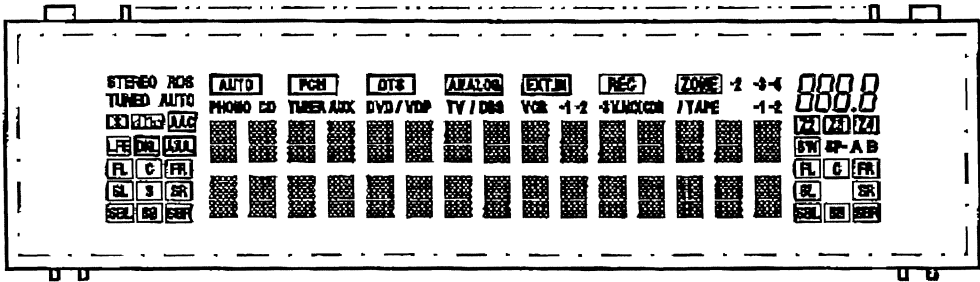


2. FL DISPLAY

16-ST-87GINK (FLT301) for DRA-397 model

62

1

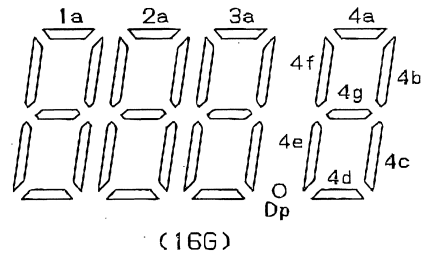
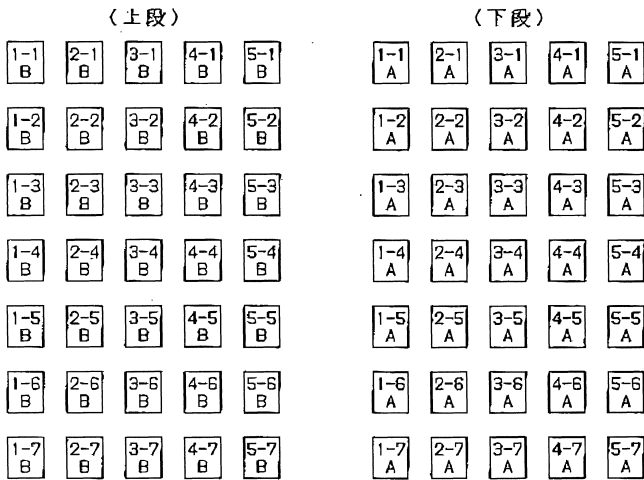
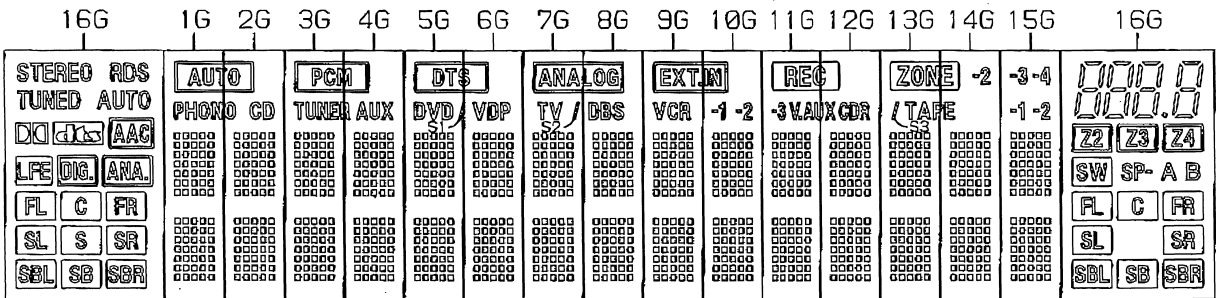


PIN CONNECTION

PIN NO.	6	6	6	5	5	5	5	5	5	4	4	4	4	4	~	5	4	3	2	1
CONNECTION	F	N	N	N	N	N	V	D	S	C	C	D	S	S	Q	N	N	N	N	F
	2	X	P	P	P	D	D	H	D	C	T	S	P	A	A	B	B	G	G	X

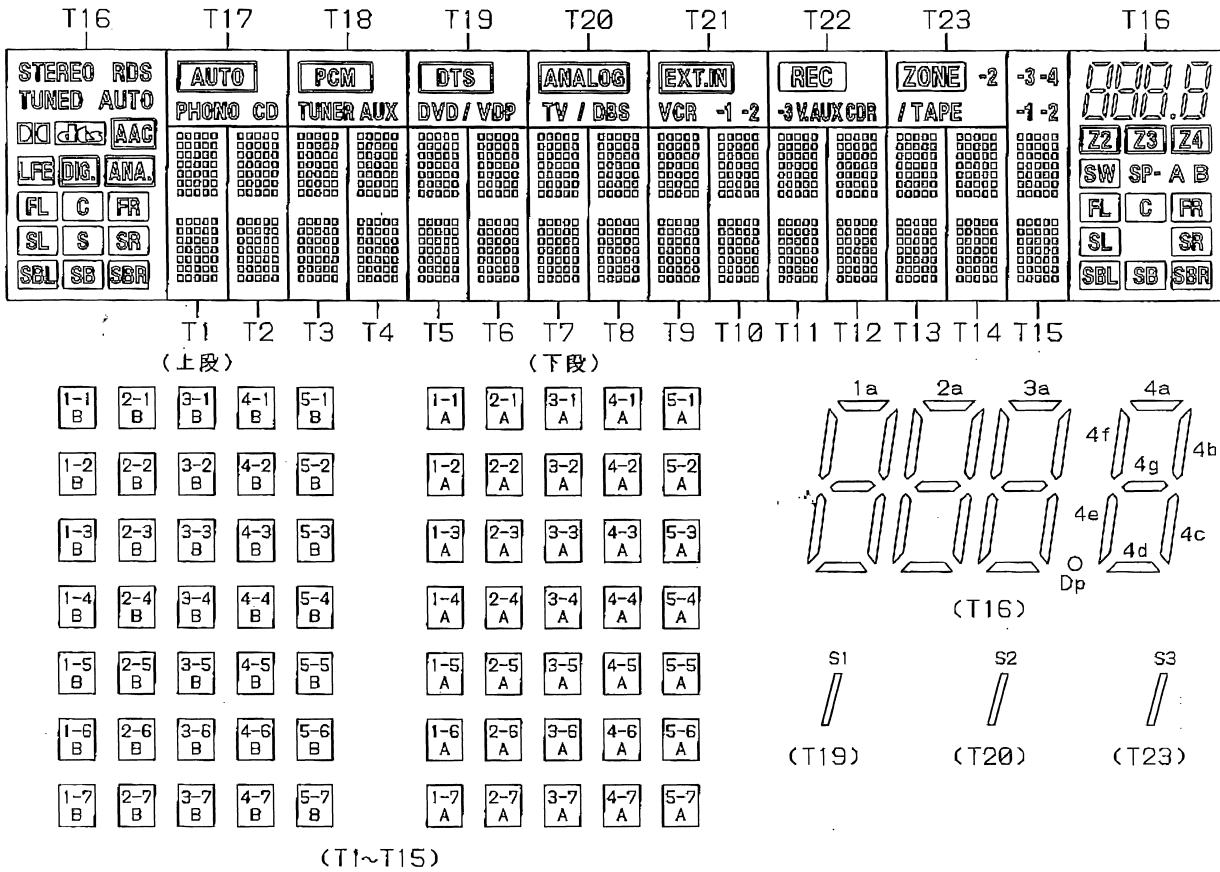
NOTE 1) F1, F2 --- Filament 4) NX ----- No extend pin
 2) NP ----- No pin 5) DL ----- Datum Line
 3) 16G ----- Grid

GRID ASSIGNMENT



(1G~15G)

TIMING ASSIGNMENT



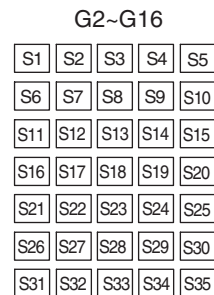
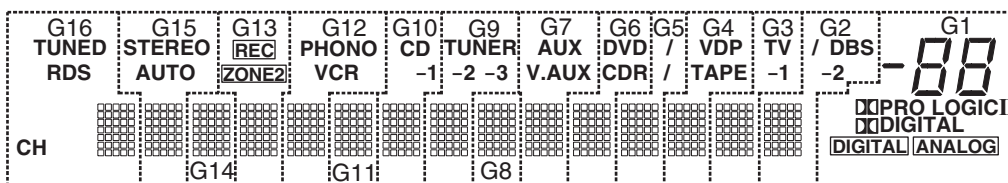
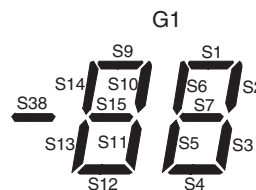
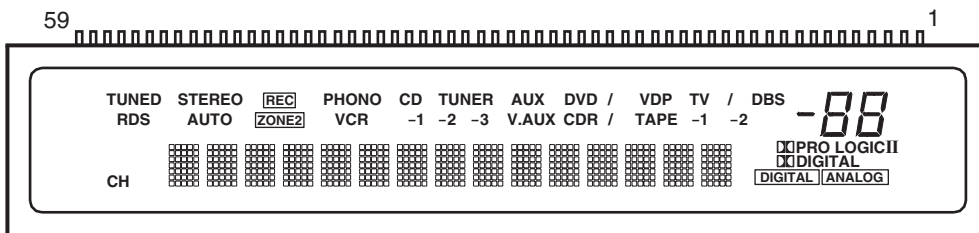
ANODE TIMING CHART

	T1~T14	T15	T16	T17	T18	T19	T20	T21	T22	T23
D0A	1-1A	1-1A	Dp							
D1A	2-1A	2-1A	1d							
D2A	3-1A	3-1A	2d							
D3A	4-1A	4-1A	3d							
D4A	5-1A	5-1A	4d							
D5A	1-2A	1-2A								
D6A	2-2A	2-2A	1e							
D7A	3-2A	3-2A	2e							
D8A	4-2A	4-2A	3e							
D9A	5-2A	5-2A	4e							
D10A	1-3A	1-3A								
D11A	2-3A	2-3A	1c							
D12A	3-3A	3-3A	2c							
D13A	4-3A	4-3A	3c							
D14A	5-3A	5-3A	4c							
D15A	1-4A	1-4A								
D16A	2-4A	2-4A	1g							
D17A	3-4A	3-4A	2g							
D18A	4-4A	4-4A	3g							
D19A	5-4A	5-4A	4g							
D20A	1-5A	1-5A								
D21A	2-5A	2-5A	1f							
D22A	3-5A	3-5A	2f							
D23A	4-5A	4-5A	3f							
D24A	5-5A	5-5A	4f							
D25A	1-6A	1-6A								
D26A	2-6A	2-6A	1b							
D27A	3-6A	3-6A	2b							
D28A	4-6A	4-6A	3b							
D29A	5-6A	5-6A	4b							
D30A	1-7A	1-7A								
D31A	2-7A	2-7A	1a							
D32A	3-7A	3-7A	2a							
D33A	4-7A	4-7A	3a							
D34A	5-7A	5-7A	4a							

ANODE TIMING CHART

	T1~T14	T15	T16	T17	T18	T19	T20	T21	T22	T23
D0B	1-1B	1-1B	Z2							
D1B	2-1B	2-1B	Z3							
D2B	3-1B	3-1B	Z4							
D3B	4-1B	4-1B								
D4B	5-1B	5-1B	DK							
D5B	1-2B	1-2B	DK							
D6B	2-2B	2-2B	AAC							
D7B	3-2B	3-2B	LFE							
D8B	4-2B	4-2B	ANA							
D9B	5-2B	5-2B	ANA							
D10B	1-3B	1-3B								
D11B	2-3B	2-3B								
D12B	3-3B	3-3B								
D13B	4-3B	4-3B	SW							
D14B	5-3B	5-3B	SP-							
D15B	1-4B	1-4B	A							
D16B	2-4B	2-4B	B							
D17B	3-4B	3-4B	FL (左)							
D18B	4-4B	4-4B	C (左)							
D19B	5-4B	5-4B	FR (左)							
D20B	1-5B	1-5B	SL (左)							
D21B	2-5B	2-5B	SR (左)							
D22B	3-5B	3-5B	SBL (左)							
D23B	4-5B	4-5B	SBR (左)							
D24B	5-5B	5-5B	SBR (左)							
D25B	1-6B	1-6B								
D26B	2-6B	2-6B	FL (左)							
D27B	3-6B	3-6B	C (左)							
D28B	4-6B	4-6B	FR (左)							
D29B	5-6B	5-6B	SL (左)							
D30B	1-7B	1-7B	S							
D31B	2-7B	2-7B	SBL (左)							
D32B	3-7B	3-7B	SBL (左)							
D33B	4-7B	4-7B	SBL (左)							
D34B	5-7B	5-7B	SBR (左)							
AD1		-3	STEREO	AUTO	PCM	DTS	ANALOG	EXT.IN	REC	ZONE
AD2		-4	RDS	PHONO	TUNER	DVD	TV	VCR	-3	-2
AD3		-1	TUNED	CD	AUX	S1	S2	-1	VAUX	S3
AD4		-2	AUTO		VDP	DBS	-2	COR	TAPE	

HNA-16SM13T (FL301) for DRA-297, 37 model



Pin Assignment

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CONNECTION	F1	F1	NP	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17
PIN NO.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CONNECTION	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36	S37
PIN NO.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	
CONNECTION	S38	G16	G15	G14	G13	G12	G11	G10	G9	G8	G7	G6	G5	G4	G3	G2	G1	F2	F2	

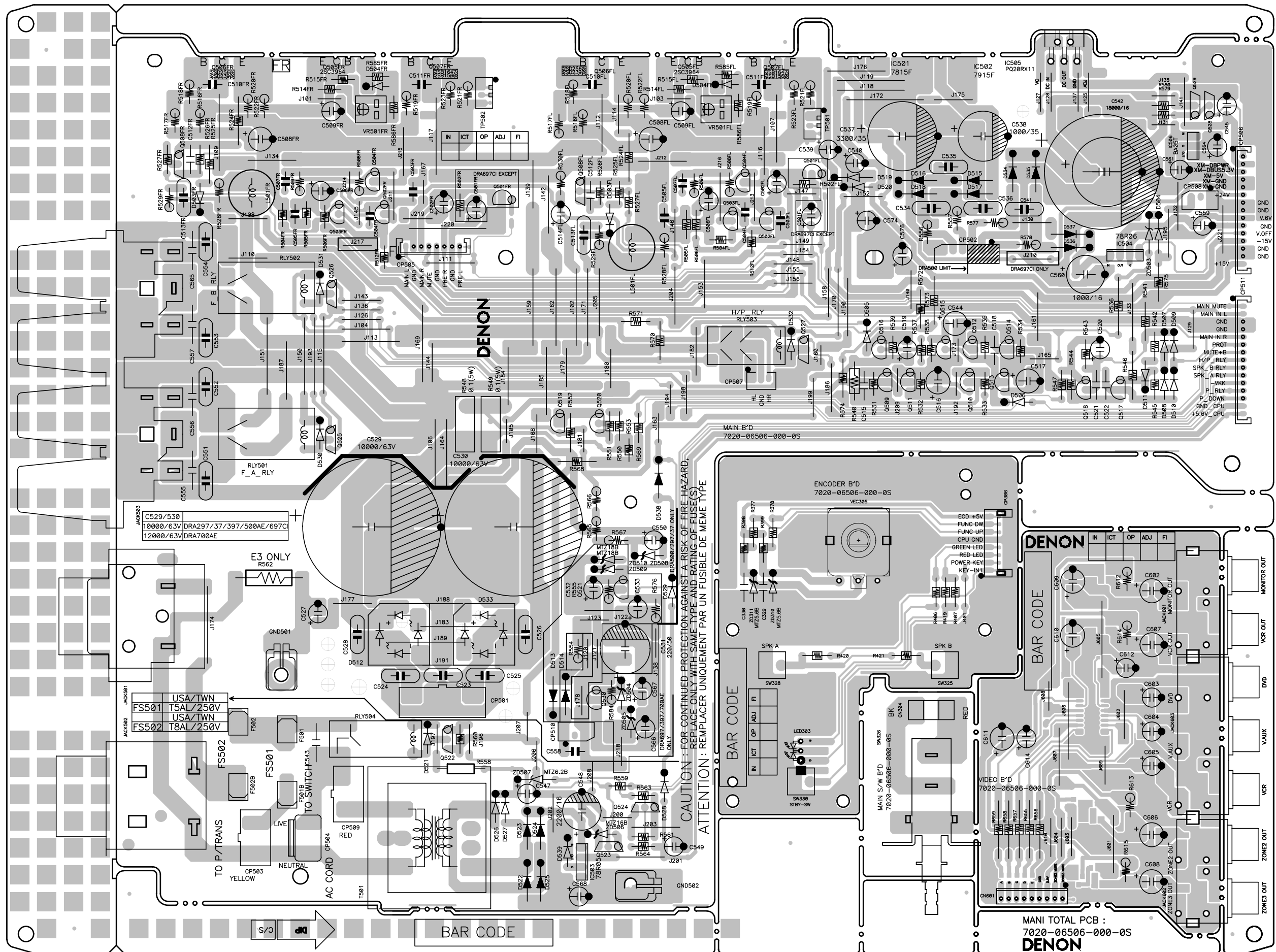
F1, F2 : Filament
 G1~G16: Grid
 S1~S38 : Anode

Anode & Grid Assignment

	G1	G2~G16		G1	G2~G16		G1	G2~G16		G1	G2~G16
S1	S1	S1	S10	S10	S10	S19	---	S19	S28	---	S28
S2	S2	S2	S11	S11	S11	S20	---	S20	S29	---	S29
S3	S3	S3	S12	S12	S12	S21	---	S21	S30	---	S30
S4	S4	S4	S13	S13	S13	S22	---	S22	S31	---	S31
S5	S5	S5	S14	S14	S14	S23	---	S23	S32	---	S32
S6	S6	S6	S15	S15	S15	S24	---	S24	S33	---	S33
S7	S7	S7	S16	---	S16	S25	---	S25	S34	---	S34
S8	---	S8	S17	DIGITAL	S17	S26	---	S26	S35	---	S35
S9	S9	S9	S18	PRO LOGIC II	S18	S27	---	S27			

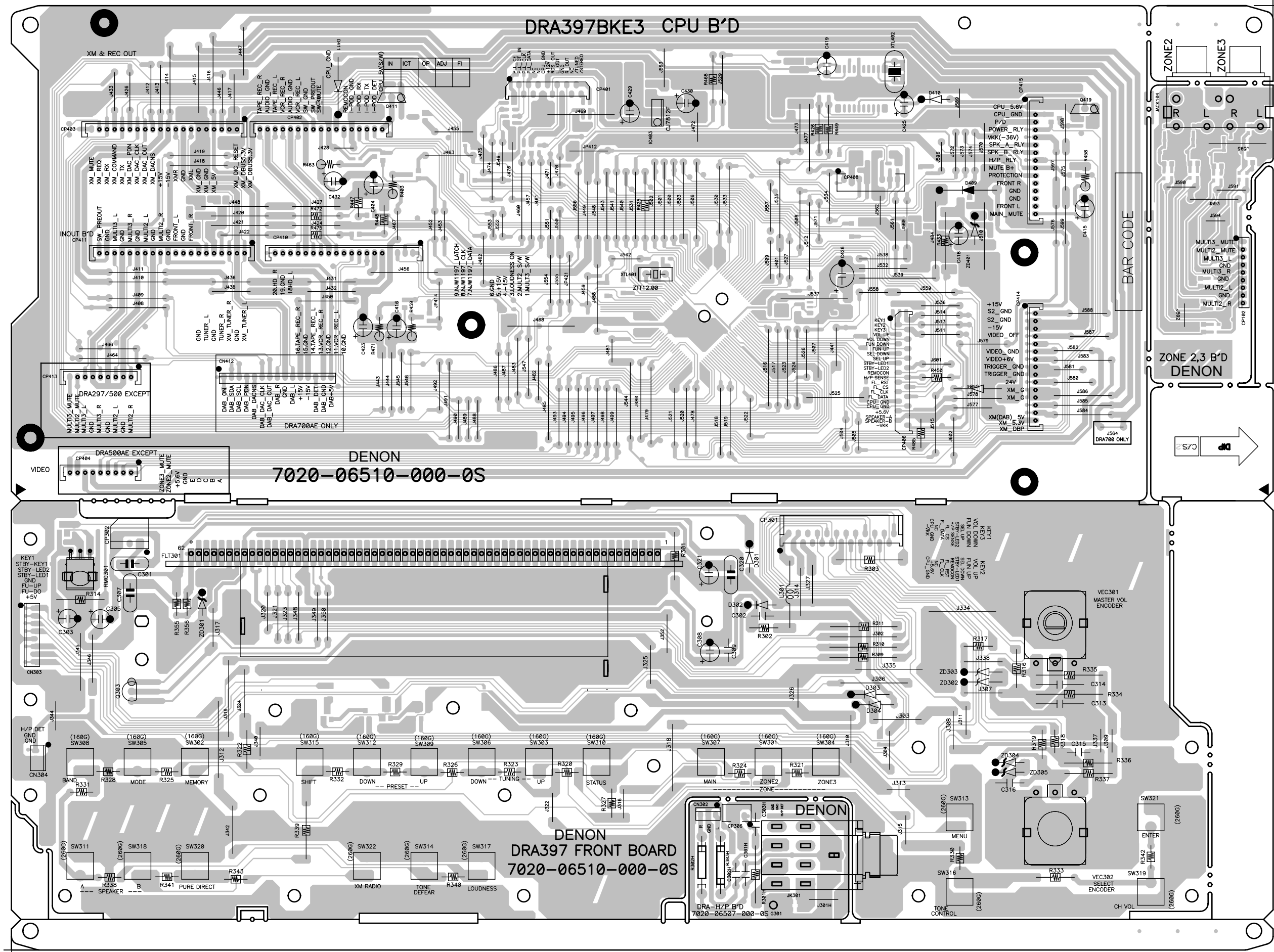
	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14	G15	G16
S36	DIGITAL	/	TV	VDP	/(DVD)	DVD	AUX	---	TUNER	CD	---	PHONO	REC	---	STEREO	TUNED
S37	ANALOG	-2	-1	TAPE	/(CDR)	CDR	V.AUX	---	-2	-1	---	VCR	ZONE2	---	AUTO	RDS
S38	S38	DBS	---	---	---	---	---	---	-3	---	---	---	---	---	---	CH

PRINTED WIRING BOARDS MAIN P.W.B. UNIT (for ALL model)

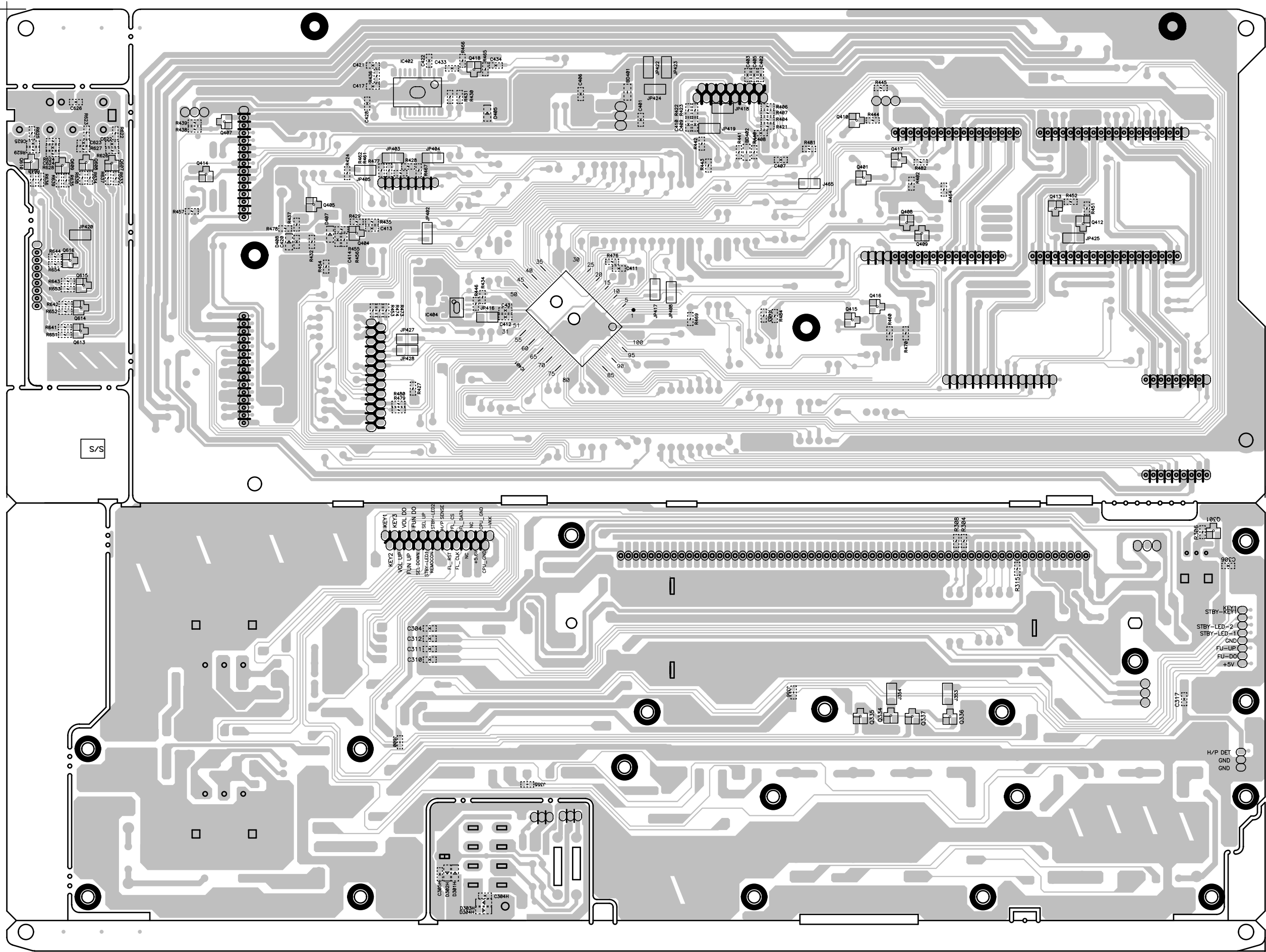


COMPONENT SIDE

FRONT P.W.B.UNIT (for DRA-397 model)

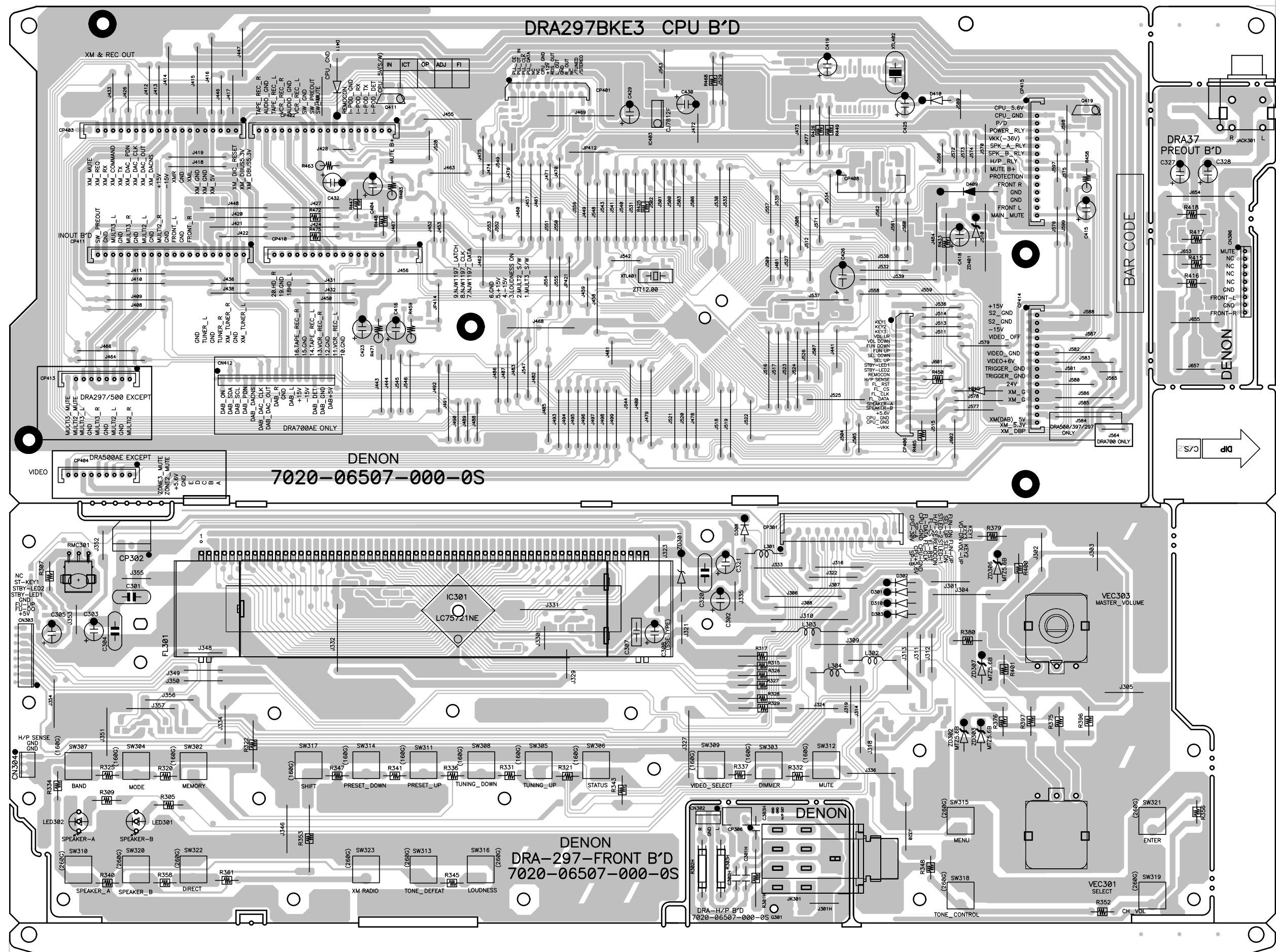


COMPONENT SIDE

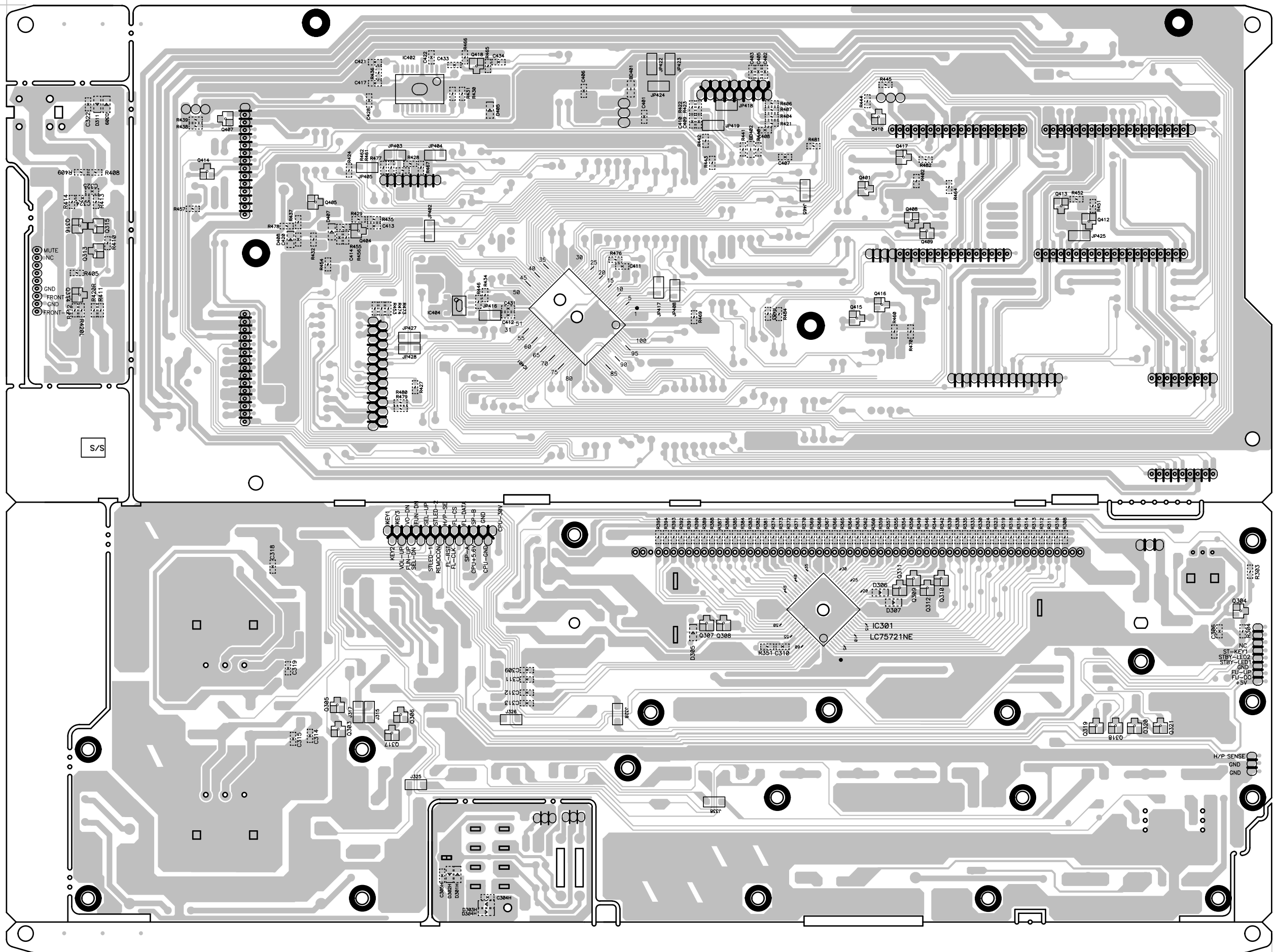


FOIL SIDE

FRONT P.W.B.UNIT (for DRA-297 model)

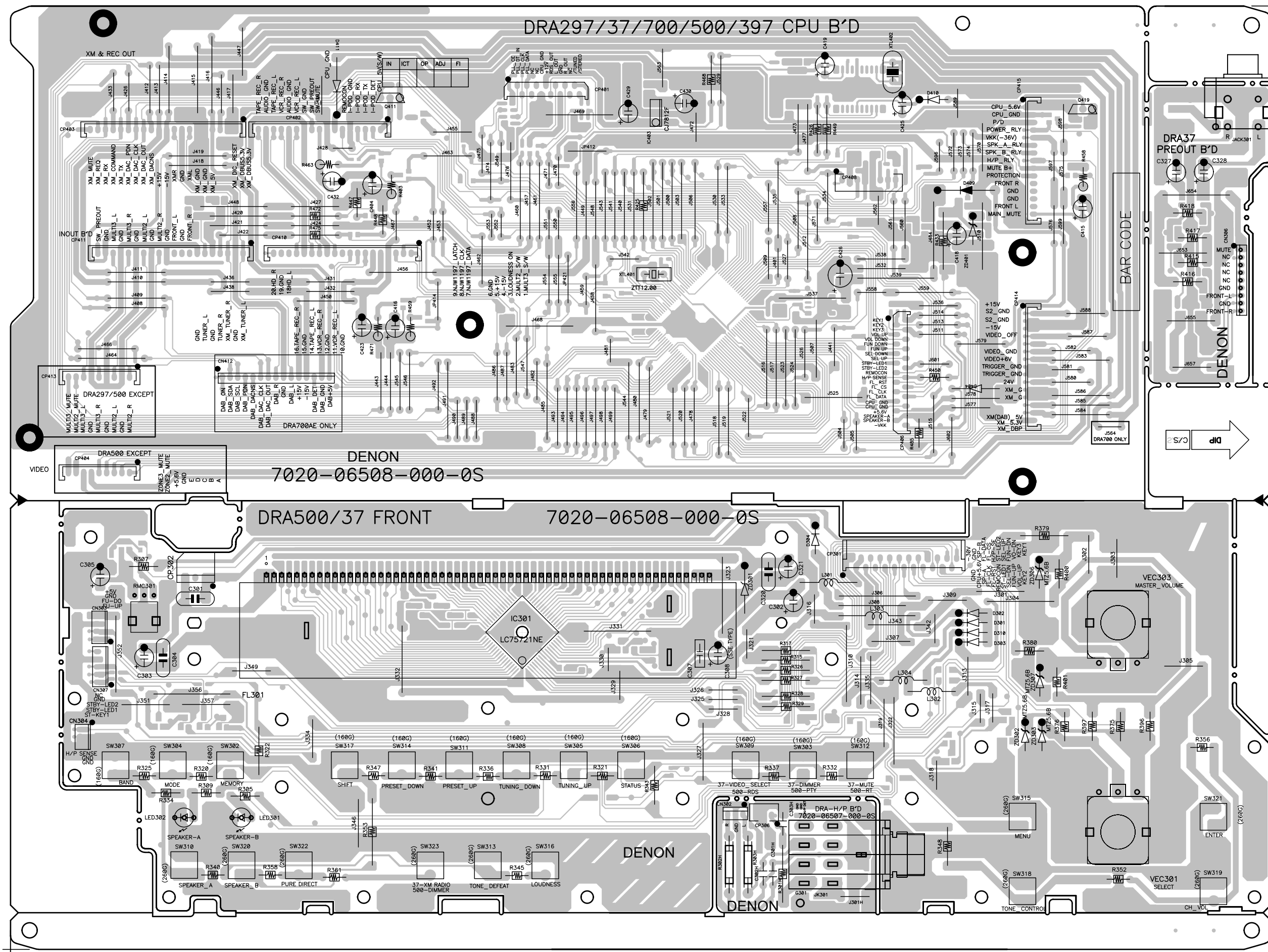


COMPONENT SIDE

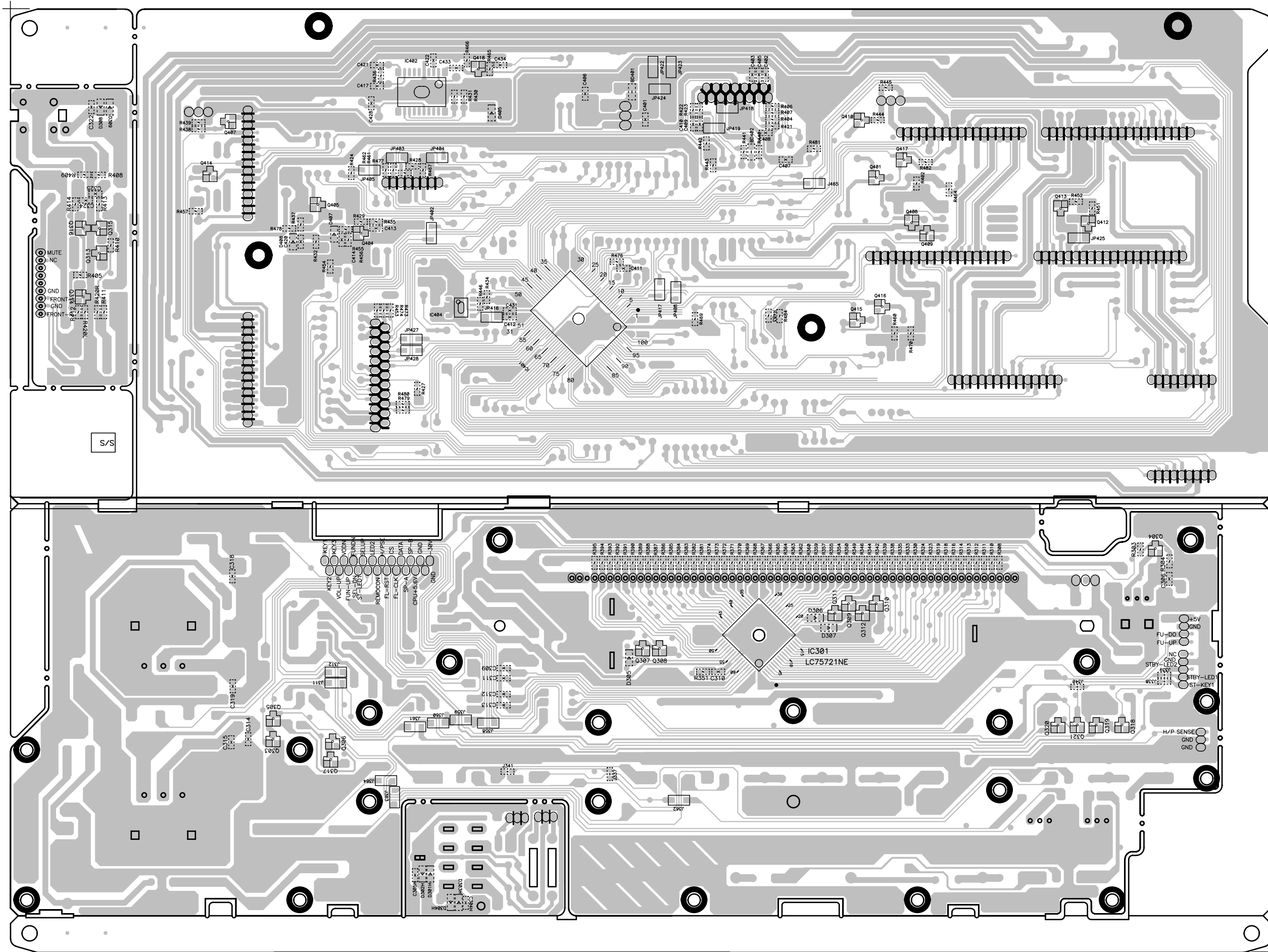


FOIL SIDE

FRONT P.W.B.UNIT (for DRA-37 model)

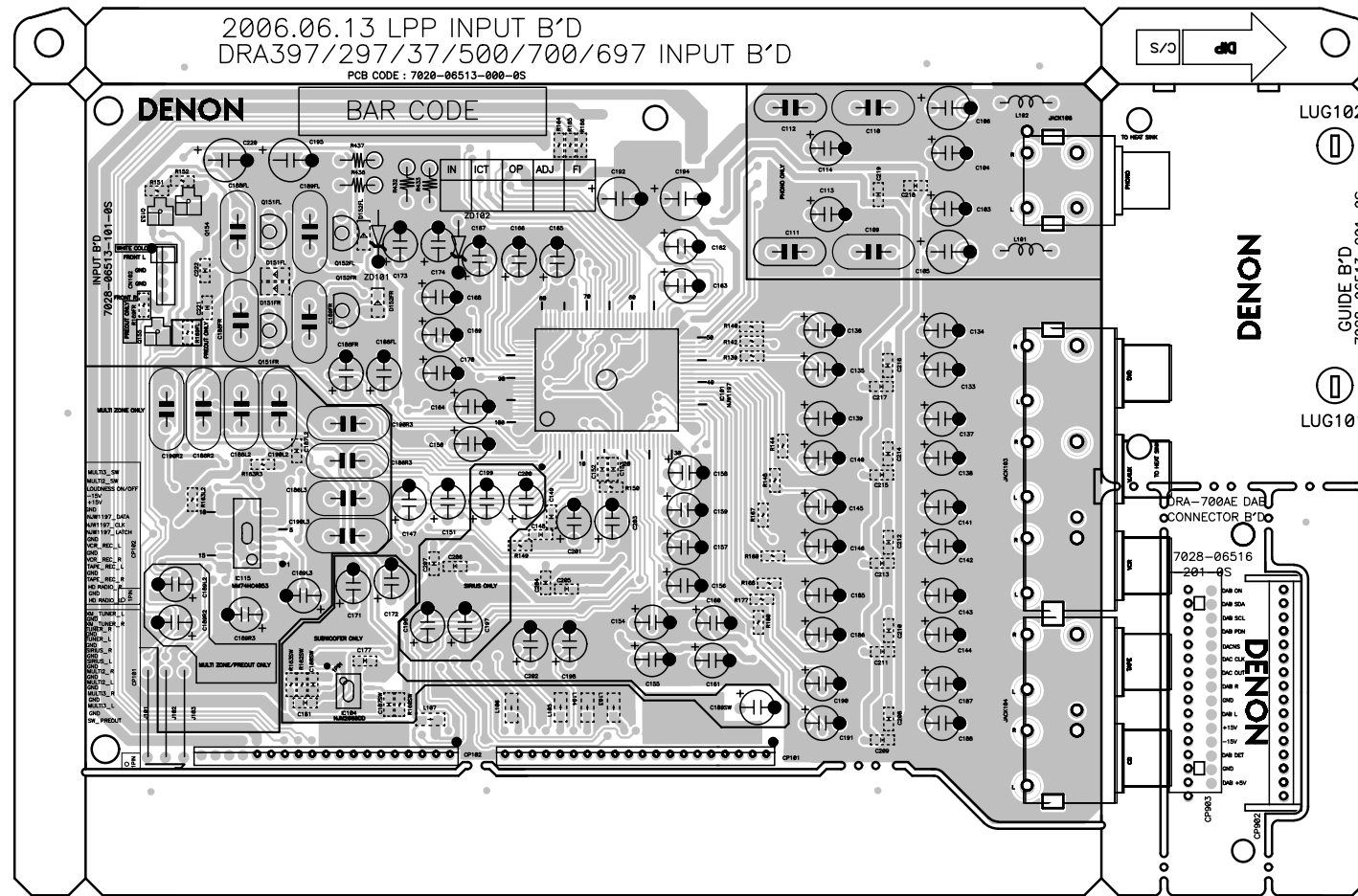


COMPONENT SIDE

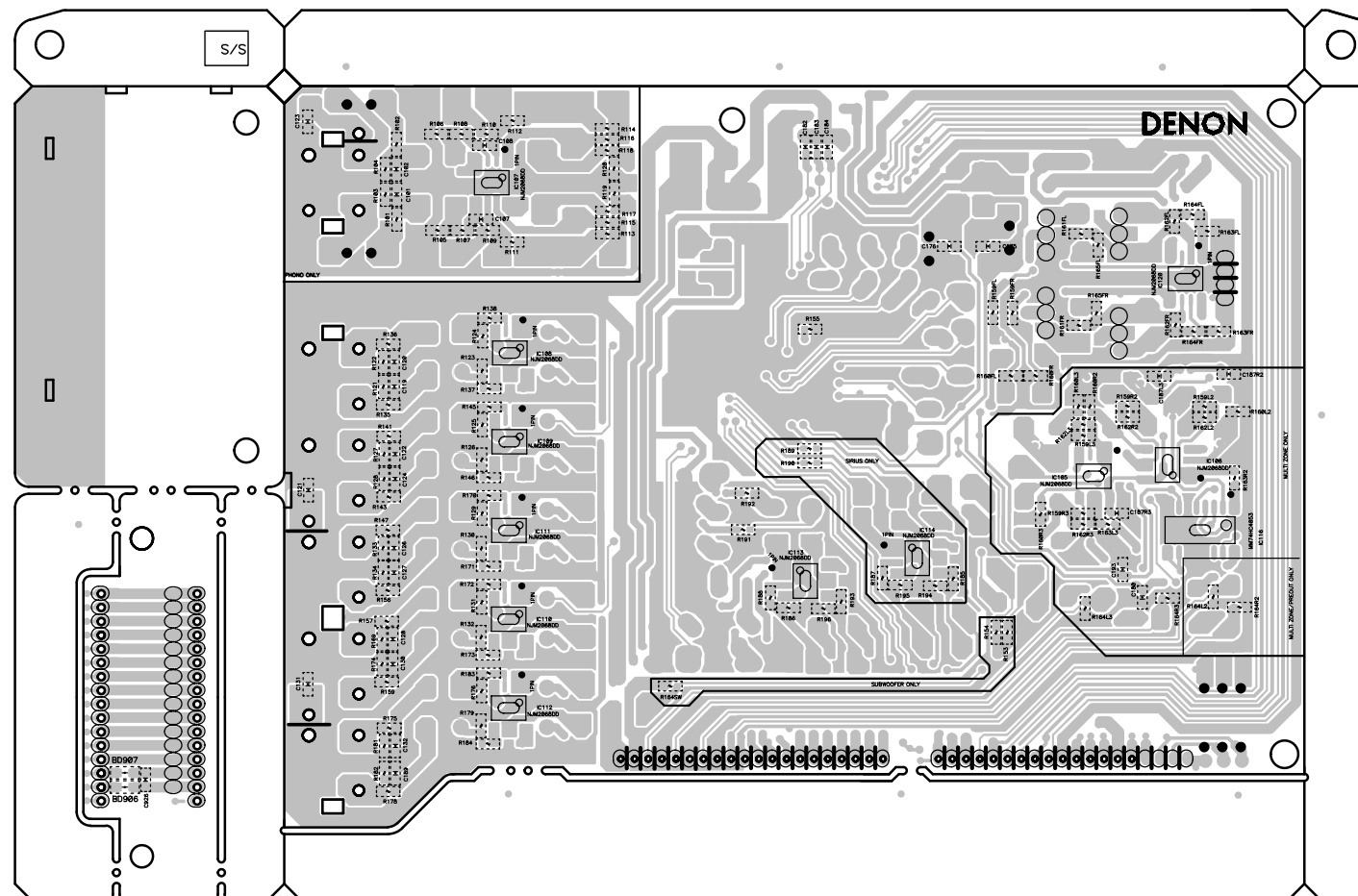


FOIL SIDE

INPUT P.W.B. UNIT (for ALL model)

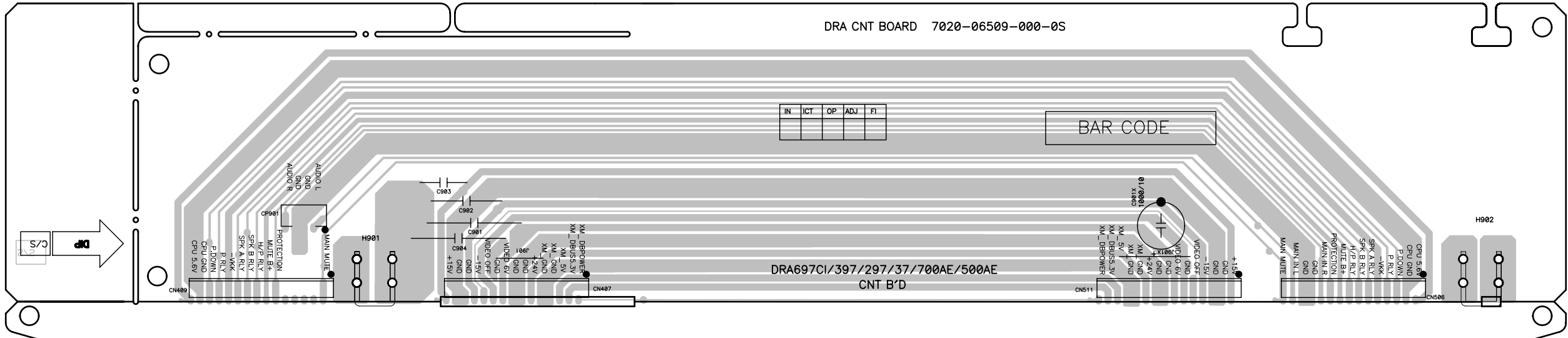


COMPONENT SIDE

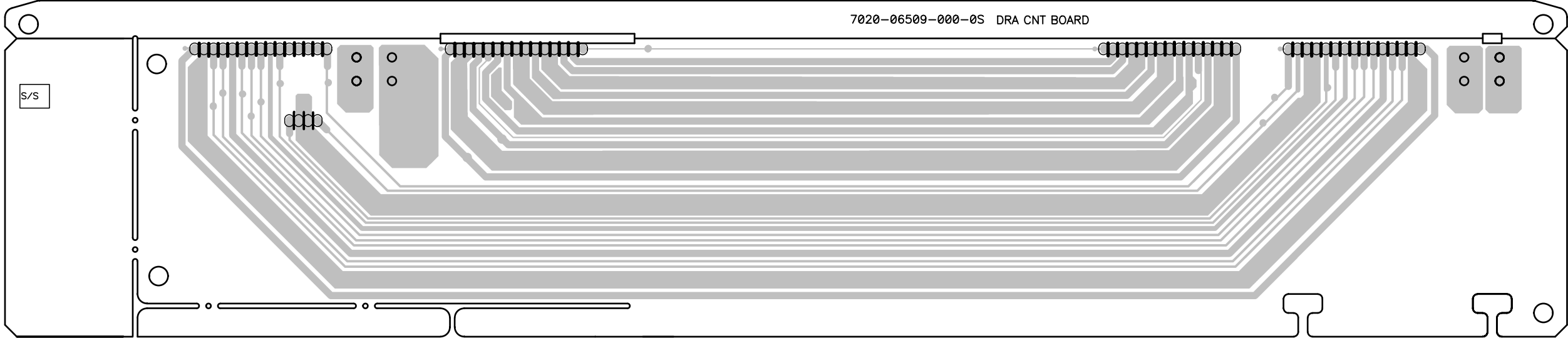


FOIL SIDE

CNT P.W.B. UNIT (for ALL model)

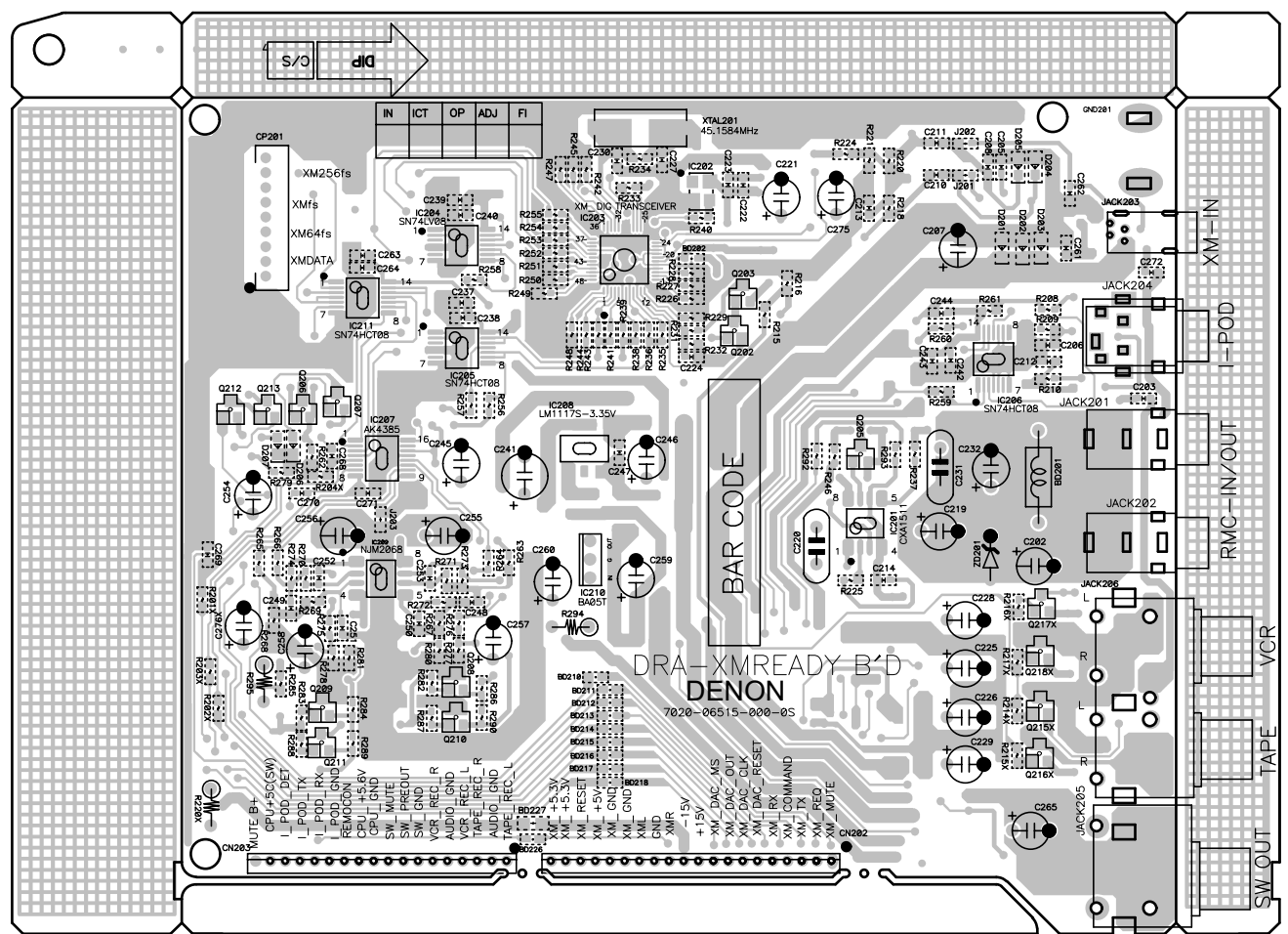


COMPONENT SIDE

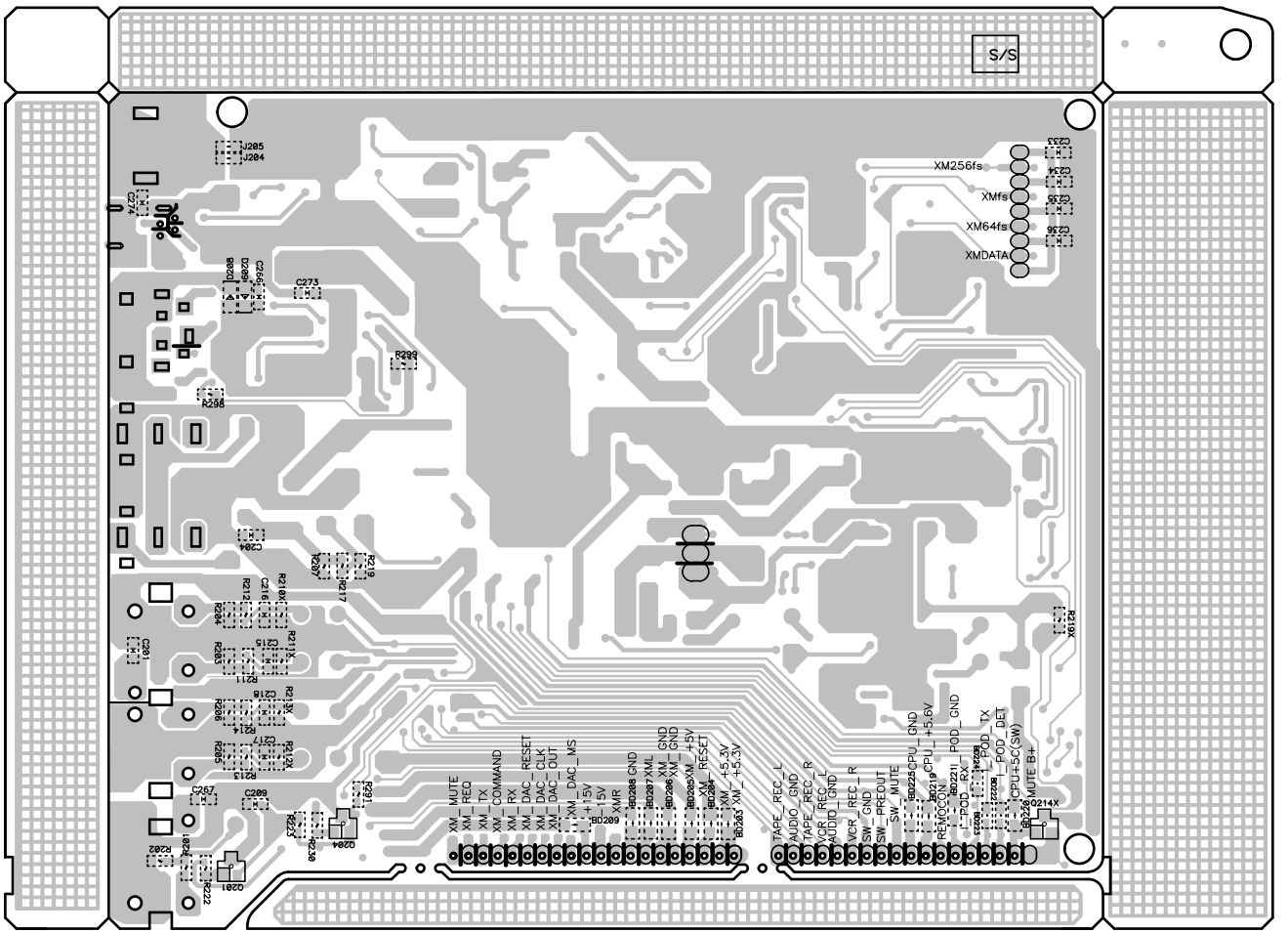


FOIL SIDE

XM-READY P.W.B. UNIT (for ALL model)

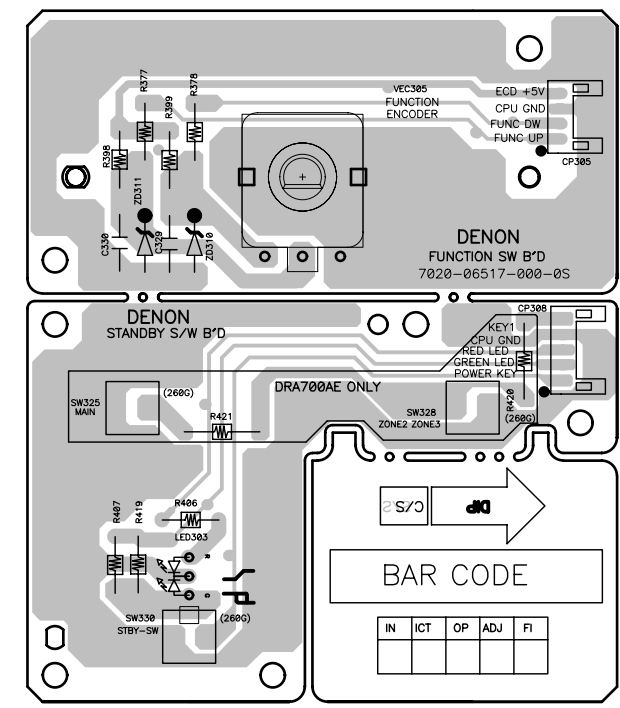


COMPONENT SIDE

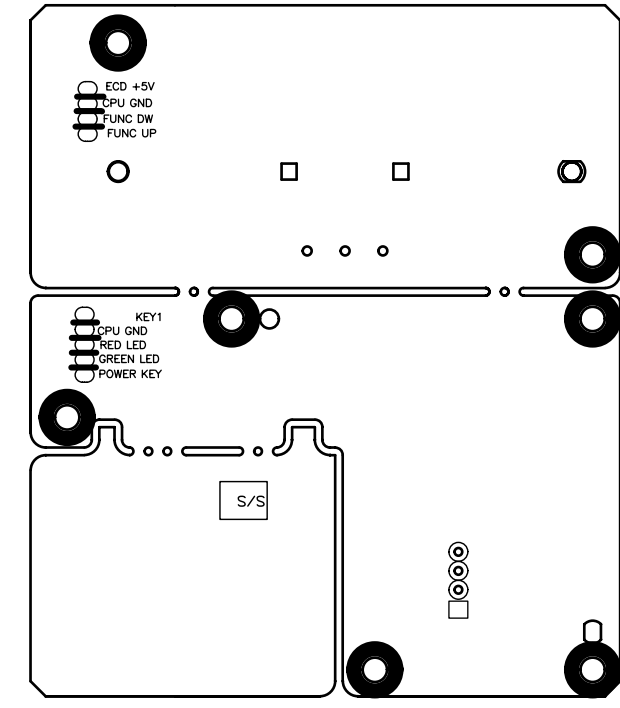


FOIL SIDE

FUNCTION SW P.W.B. UNIT (for DRA-37 model)



COMPONENT SIDE



FOIL SIDE

NOTE FOR PARTS LIST

- Part indicated with the mark "nsp" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including General-purpose Carbon Film Resistor in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)
- Not including General-purpose Carbon Chip Resistor in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:

Parts marked with this symbol \triangle have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

● **Resistors**

Ex.: RN 14K 2E 182 G FR

Type	Shape and performance	Power	Resistance	Allowable error	Others
RD : Carbon RC : Composition RS : Metal oxide film RW : Winding RN : Metal film RK : Metal mixture	2B : 1/8W 2E : 1/4W 2H : 1/2W 3A : 1W 3D : 2W 3F : 3W 3H : 5W	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20%	P : Pulse-resistant type NL : Low noise type NB : Non-burning type FR : Fuse-resistor F : Lead wire forming		

* **Resistance**

1 8 2 ⇒ 1800 ohm = 1.8 kohm
Indicates number of zeros after effective number.
2-digit effective number.
Units: ohm

1 R 2 ⇒ 1.2 ohm
1-digit effective number.
2-digit effective number, decimal point indicated by R.
Units: ohm

● **Capacitors**

Ex.: CE 04W 1H 2R2 M BP

Type	Shape and performance	Dielectric strength	Capacity	Allowable error	Others
CE : Aluminum foil electrolytic CA : Aluminum solid electrolytic CS : Tantalum electrolytic CQ : Film CK : Ceramic CC : Ceramic CP : Oil CM : Mica CF : Metallized CH : Metallized	0J : 6.3V 1A : 10V 1C : 16V 1E : 25V 1V : 35V 1H : 50V 2A : 100V 2B : 125V 2C : 160V 2D : 200V 2E : 250V 2H : 500V 2J : 630V	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20% Z : +80% -20% P : +100% -0% C : ±0.25pF D : ±0.5pF = : Others	HS : High stability type BP : Non-polar type HR : Ripple-resistant type DL : For change and discharge HF : For assuring high frequency U : UL part C : CSA part W : UL-CSA type F : Lead wire forming		

* **Capacity (electrolyte only)**

2 2 2 ⇒ 2200μF
Indicates number of zeros after effective number.
2-digit effective number.
Units: μF.

2 R 2 ⇒ 2.2μF
1-digit effective number.
2-digit effective number, decimal point indicated by R.
Units: μF.

* **Capacity (except electrolyte)**

2 2 2 ⇒ 2200pF=0.0022μF
(More than 2) — Indicates number of zeros after effective number.
2-digit effective number.
Units: pF.

2 2 1 ⇒ 220pF
(0 or 1) — Indicates number of zeros after effective number.
2-digit effective number.
Units: pF.

When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

部品表について

- nsp 印の部品は常時在庫していませんので供給に長時間を要することがあります。場合によっては、供給をお断りすることがあります。
- 部品を発注する際は特に数字の " 1 " と英字の " I " との区別をはっきり記入してください。
- 部品番号を表示していない部品は供給できません。
- \triangle 印の部品は安全上重要な部品です。交換するときは、安全および性能維持のため必ず指定の部品をご使用ください。
- ★印のついている部品は分解図中には記載していません。
- 汎用カーボン抵抗器は記載していません。定数は回路図を参照願います。
- 汎用カーボンチップ抵抗器は記載していません。定数は回路図を参照願います。
- 部品表の抵抗器、コンデンサの品名記号の読み方は表を参照してください。

● **抵抗器**

例) RN 14K 2E 182 G FR

RN 種類	14K 形状特性	2E 電力	182 抵抗値	G 許容差	FR その他
RD : カーボン RC : 固定体 RS : 金属系皮膜 RW : 巻線 RN : 金属皮膜 RK : 金属混合体	2B : 1/8 W 2E : 1/4 W 2H : 1/2 W 3A : 1 W 3D : 2 W 3F : 3 W 3H : 5 W	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20%	P : 耐パルス形 NL : 低雑音形 NB : 不燃形 FR : ヒューズ抵抗 F : リード線成形		

* **抵抗値**

18 2 ⇒ 1800Ω=1.8kΩ
有効数字につづく0の数を表わす。
2桁の有効数字を表わす。

1R 2 ⇒ 1.2Ω
1桁の有効数字を表わす。
2桁の有効数字で小数点はRで表わす。
単位はΩ

● **コンデンサ**

例) CE 04W 1H 2R2 M BP

CE 種類	04W 形状特性	1H 耐圧	2R2 容量	M 許容差	BP その他
CE : アルミ箔電解 CA : アルミ固体電解 CS : タンタル電解 CQ : フィルム CK : セラミック CC : セラミック CP : オイル CM : マイカ CF : メタライズド CH : メタライズド	0J : 6.3 V 1A : 10 V 1C : 16 V 1E : 25 V 1V : 35 V 1H : 50 V 2A : 100 V 2B : 125 V 2C : 160 V 2D : 200 V 2E : 250 V 2H : 500 V 2J : 630 V	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20% Z : +80% -20% P : +100% -0%	C : ±0.25pF D : ±0.5pF = : その他	HS : 高安定形 BP : 無極性形 HR : 耐リップル形 DL : 充放電対策用 HF : 高周波保証用 U : UL 部品 C : CSA 部品 W : UL-CSA 部品 F : リード線成形	

* **容量値**

● **電解コンデンサの場合**

22 2 ⇒ 2200μF
有効数字につづく0の数を表わす。
2桁の有効数字を表わす。
単位はμF

2R 2 ⇒ 2.2μF
1桁の有効数字を表わす。
2桁の有効数字で小数点はRで表わす。
単位はμF

● **電解コンデンサ以外の場合**

22 2 ⇒ 2200pF=0.0022μF
有効数字につづく0の数を表わす。
(0の数が2以上の場合)
2桁の有効数字を表わす。
単位はpF

22 1 ⇒ 220pF
有効数字につづく0の数を表わす。
(0の数が0または1の場合)
2桁の有効数字を表わす。
単位はpF

● **耐圧を交流で表示する場合は、耐圧表示の次に「AC」を表示します。**

PARTS LIST OF P.W.B. UNIT

* 本表に記載されている部品は、補修用部品のため製品に使用している部品とは一部、形状、寸法などが異なる場合があります。
 * The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.

* "nsp" 印の部品は常時在庫していませんので供給に長時間を要することがあります。場合によっては、供給をお断りする場合があります。
 * Part indicated with the mark "nsp" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.

MAIN P.W.B. UNIT ASSY

Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP						
IC503		00D 963 0057 806	IC KIA78R05PI		J126780500370S	
IC504		00D 963 0313 809	IC KIA78R06PI		J126780600210S	
IC506		00D 263 1092 003	IC BA05T		J126050000020S	
IC601		00D 963 0083 304	IC BA7626F		J171762600010S	
Q501FL		00D 960 0196 603	TR KTC2874B		J502287400010S	
Q501FR		00D 960 0196 603	TR KTC2874B		J502287400010S	
Q502FL		00D 960 0196 205	TR KSA992F		J5000992F0050S	
Q502FR		00D 960 0196 205	TR KSA992F		J5000992F0050S	
Q503FL		00D 960 0196 205	TR KSA992F		J5000992F0050S	
Q503FR		00D 960 0196 205	TR KSA992F		J5000992F0050S	
Q504FL		00D 960 0196 506	TR KSC1845F		J5021845F0000S	
Q504FR		00D 960 0196 506	TR KSC1845F		J5021845F0000S	
Q508FL		00D 960 0196 506	TR KSC1845F		J5021845F0000S	
Q508FR		00D 960 0196 506	TR KSC1845F		J5021845F0000S	
Q509		00D 960 0196 302	TR KTA1268BL		J5001268B0050S	
Q510,511		00D 960 0005 202	TR KTC3198Y		J5023198Y0000S	
Q512		00D 960 0196 302	TR KTA1268BL		J5001268B0050S	
Q513-515		00D 960 0005 202	TR KTC3198Y		J5023198Y0000S	
Q516,517		00D 960 0196 302	TR KTA1268BL		J5001268B0050S	
Q518		00D 960 0196 700	TR KTC3200BL		J5023200B0050S	
Q519,520		00D 960 0196 302	TR KTA1268BL		J5001268B0050S	
Q521		00D 960 0189 005	TR KSA916Y	for 297, 37	J5000916Y0050S	
Q522		00D 960 0196 409	TR 2SC1740SR		J5021740S0010S	
Q523		00D 963 0121 208	TR KRC107M		J6020107M0010S	
Q524		00D 960 0196 409	TR 2SC1740SR		J5021740S0010S	
Q525-527		00D 963 0219 602	TR KRC106M		J6020106M0010S	
Q528,529		00D 960 0097 304	TR KRC102M		J6020102M0010S	
Q530		00D 963 0226 705	TR KTC1027Y	for 397	J5021027Y0020S	
Q601		00D 960 0068 207	TR KTA1504Y(ASY)		J5201504Y0210S	
Q602		00D 960 0068 207	TR KTA1504Y(ASY)	for 397	J5201504Y0210S	
Q603		00D 960 0068 207	TR KTA1504Y(ASY)		J5201504Y0210S	
Q604		00D 960 0068 207	TR KTA1504Y(ASY)	for 397	J5201504Y0210S	
Q605,606		00D 963 0245 003	TR KRC106S (NF)		J522010600210S	
Q620,621		00D 963 0159 102	TR KRC111S (NM)		J522011100210S	
D501FL		00D 963 0219 709	D,SWITCHING 1N4148W		K005041480020S	
D501FR		00D 963 0219 709	D,SWITCHING 1N4148W		K005041480020S	
D502FL		00D 963 0219 709	D,SWITCHING 1N4148W		K005041480020S	
D502FR		00D 963 0219 709	D,SWITCHING 1N4148W		K005041480020S	
D503FL		00D 963 0020 309	D,SWITCHING 1SS133T		K000013300520S	
D503FR		00D 963 0020 309	D,SWITCHING 1SS133T		K000013300520S	
D504-511		00D 963 0020 309	D,SWITCHING 1SS133T		K000013300520S	
D512		00D 960 0197 107	D,RECTIFIER KBPC604 6A		K047604000020S	
D513		00D 963 0058 407	D,SWITCHING IN4007	for 297, 37	K000400700520S	
D514		00D 963 0058 407	D,SWITCHING IN4007	for 397	K000400700520S	
D515-518		00D 963 0058 407	D,SWITCHING IN4007		K000400700520S	
D519-521		00D 963 0020 309	D,SWITCHING 1SS133T		K000013300520S	

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
D522-525		00D 963 0058 407	D,SWITCHING IN4007		K000400700520S		
D526-532		00D 963 0020 309	D,SWITCHING 1SS133T		K000013300520S		
D533		00D 960 0197 107	D,RECTIFIER KBPC604 6A		K047604000020S		
D534-538		00D 963 0058 407	D,SWITCHING IN4007		K000400700520S		
D539		00D 963 0020 309	D,SWITCHING 1SS133T		K000013300520S		
D601-604		00D 963 0219 709	D,SWITCHING 1N4148W		K005041480020S		
D605-606		00D 963 0219 709	D,SWITCHING 1N4148W	for 397	K005041480020S		
ZD310,311		00D 960 0095 607	D,ZENER MTZJ5.6B	for 397, 297	K06005R644520S		
ZD501FL		00D 963 0279 804	D,ZENER UDZS4.3B		K06604R34P410S		
ZD501FR		00D 963 0279 804	D,ZENER UDZS4.3B		K06604R34P410S		
ZD502FL		00D 963 0295 503	D,ZENER UDZS3.6B		K06603R64P400S		
ZD502FR		00D 963 0295 503	D,ZENER UDZS3.6B		K06603R64P400S		
ZD503		00D 963 0314 206	D,ZENER MTZJ7.5B		K06007R544520S		
ZD504,505		00D 963 0314 206	D,ZENER MTZJ20B	for 397	K06020R044520S		
ZD506		00D 963 0314 206	D,ZENER MTZJ20B		K06020R044520S		
ZD507		00D 960 0095 704	D,ZENER MTZJ6.2B		K06006R244520S		
ZD508		00D 960 0095 500	D,ZENER MTZJ5.1B		K06005R144520S		
ZD509,510		00D 963 0148 605	LED,ROUND SML1216W	for 297, 37	K06018R044520S		
LED303		00D 963 0148 605	LEDSML1216W(REDF/GREEN)	for 397, 297	K500052600030S		
RESISTORS GROUP							
R508FL		00D 960 9004 301	R,METAL FILM 47-J,1/4W		C060047063050S		
R508FR		00D 960 9004 301	R,METAL FILM 47-J,1/4W		C060047063050S		
R509FL		00D 960 9005 902	R,METAL FILM 1.2K-J,1/4W		C060012263050S		
R509FR		00D 960 9005 902	R,METAL FILM 1.2K-J,1/4W		C060012263050S		
R516FL		00D 963 9006 285	R,FIXED1WJ-5.6K		N113135656220S		
R516FR		00D 963 9006 285	R,FIXED1WJ-5.6K		N113135656220S		
R517FL		00D 963 9006 285	R,FIXED1WJ-5.6K		N113135656220S		
R517FR		00D 963 9006 285	R,FIXED1WJ-5.6K		N113135656220S		
R518FL		00D 963 0215 907	R,METAL FILM 4.7-J,1W		C0604R7065050S		
R518FR		00D 963 0215 907	R,METAL FILM 4.7-J,1W		C0604R7065050S		
R519FL		00D 963 0215 907	R,METAL FILM 4.7-J,1W		C0604R7065050S		
R519FR		00D 963 0215 907	R,METAL FILM 4.7-J,1W		C0604R7065050S		
R520FL		00D 963 9006 269	R,FIXED1WJ-0.22		N113135622820S		
R520FR		00D 963 9006 269	R,FIXED1WJ-0.22		N113135622820S		
R521FL		00D 963 9006 269	R,FIXED1WJ-0.22		N113135622820S		
R521FR		00D 963 9006 269	R,FIXED1WJ-0.22		N113135622820S		
R522FL		00D 963 9006 269	R,FIXED1WJ-0.22		N113135622820S		
R522FR		00D 963 9006 269	R,FIXED1WJ-0.22		N113135622820S		
R523FL		00D 963 9006 269	R,FIXED1WJ-0.22		N113135622820S		
R523FR		00D 963 9006 269	R,FIXED1WJ-0.22		N113135622820S		
R528FL		00D 963 9006 256	R,FIXED1WJ-10		N113135610020S		
R528FR		00D 963 9006 256	R,FIXED1WJ-10		N113135610020S		
R529FL		00D 963 9006 256	R,FIXED1WJ-10		N113135610020S		
R529FR		00D 963 9006 256	R,FIXED1WJ-10		N113135610020S		
R530FL		00D 963 9006 256	R,FIXED1WJ-10		N113135610020S		
R540		00D 963 0232 906	R,METAL FILM 47K-F,1/4W		C060047343530S		
R548,549		00D 963 0144 502	R,CEMENT 0.1-J 5W		C141R10069000S		
R554		00D 963 0215 907	R,METAL FILM 4.7-J,1W		C0604R7065050S		
R555		00D 963 0310 404	R,METAL FILM 2.2K-J,1W	for 297, 37	C060022265050S		
R556,557		00D 963 0216 003	R,METAL FILM 0.22-J,1W		C060R22065050S		
R558		00D 963 0232 809	R,METAL FILM 10-J,1/4W		C060010063520S		
R562		00D 963 0244 305	R,METAL FILM 2.2M 0.5W		C060022564520S		

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
R565-567 R576 R577,578 R584 R612		00D 960 9005 642 00D 963 0310 501 00D 963 0216 003 00D 963 0310 404 00D 963 9005 639	R,METAL FILM 1.2K-J,1W R,METAL FILM 47K-J,1/4W R,METAL FILM 0.22-J,1W R,METAL FILM 2.2K-J,1W R,METAL FILM 100-J,1W	for 397	C060012265050S C060047363050S C060R22065050S C060022265050S C060010165060S		
R613 R614 R615 VR501FL		00D 963 9005 639 00D 963 9005 639 00D 963 9005 639 00D 963 0310 802	R,METAL FILM 100-J,1W R,METAL FILM 100-J,1W R,METAL FILM 100-J,1W VR,SEMI CERMET 1KB	for 397 for 397	C060010165060S C060010165060S C060010165060S C544102015130S		
VR501FR		00D 963 0310 802	VR,SEMI CERMET 1KB		C544102015130S		
CAPACITORS GROUP							
C329,330		00D 963 0233 303	C,CERAMIC 0.01UF-M/16V	for 397, 297	D005103773530S		
C501FL C501FR C502FL C502FR C503FL		00D 963 0312 004 00D 963 0312 004 00D 963 0311 306 00D 963 0311 306 00D 963 0216 207	C,ELECT 22UF-M/25V C,ELECT 22UF-M/25V C,ELECT 10UF-M/50V C,ELECT 10UF-M/50V C,CERAMIC 220PF 500V		D040220084050S D040220084050S D040100087070S D040100087070S D009092212500S		
C503FR C504FL C504FR C505FL C505FR		00D 963 0216 207 00D 963 0216 207 00D 963 0216 207 00D 963 0216 100 00D 963 0216 100	C,CERAMIC 220PF 500V C,CERAMIC 220PF 500V C,CERAMIC 220PF 500V C,CERAMIC 33PF-J/500V C,CERAMIC 33PF-J/500V		D009092212500S D009092212500S D009092212500S D00033006D050S D00033006D050S		
C506FL C506FR C507FL C507FR C508FL		00D 963 0311 500 00D 963 0311 500 - - 00D 963 0234 506	C,ELECT 100UF-M/10V C,ELECT 100UF-M/10V C,FILM 0.0022UF-J/100V C,FILM 0.0022UF-J/100V C,ELECT 47UF-M/50V (Pb Free)		D040101082070S D040101082070S D02022206C060S D02022206C060S D040470087070S		
C508FR C509FL C509FR C510FL C510FR		00D 963 0234 506 00D 963 0311 306 00D 963 0311 306 00D 963 9003 084 00D 963 9003 084	C,ELECT 47UF-M/50V (Pb Free) C,ELECT 10UF-M/50V C,ELECT 10UF-M/50V C,CERAMIC 100PF-K/500V C,CERAMIC 100PF-K/500V		D040470087070S D040100087070S D040100087070S D00410106D050S D00410106D050S		
C511FL C511FR C512FL C512FR C513FL		00D 963 9003 084 00D 963 9003 084 00D 960 9003 108 00D 960 9003 108 00D 963 9003 097	C,CERAMIC 100PF-K/500V C,CERAMIC 100PF-K/500V C,CERAMIC 0.022UF-Z/25V C,CERAMIC 0.022UF-Z/25V C,FILM -0.1UF-K/250V		D00410106D050S D00410106D050S D005223594520S D005223594520S D02010407H080S		
C513FR C514FL C515 C516 C517		00D 963 9003 097 00D 963 0311 403 00D 963 0020 202 00D 963 0311 607 00D 963 0130 309	C,FILM -0.1UF-K/250V C,ELECT 10UF-M/100V C,CERAMIC 0.1UF-Z/50V C,ELECT 100UF-M/16V C,ELECT 470UF-M/6.3V		D02010407H080S D04010008C050S D005104597530S D040101083090S D040471081230S		
C518 C519 C520 C521,522 C523-526		00D 963 0020 202 00D 963 0244 606 00D 963 0312 606 00D 963 0233 303 00D 963 9003 097	C,CERAMIC 0.1UF-Z/50V C,ELECT 0.1UF-M/50V (Pb Free) C,ELECT 2.2UF-M/50V(GREEN CAP) C,CERAMIC 0.01UF-M/16V C,FILM -0.1UF-K/250V		D005104597530S D040R10087080S D0402R2087270S D005103773530S D02010407H080S		
C527 C528 C529,530 C531 C532,533		00D 963 0311 102 00D 963 9003 097 00D 963 0149 400 00D 963 0312 402 00D 963 0311 102	C,ELECT 1UF-M/50V (Pb Free) C,FILM -0.1UF-K/250V CAP.E.GENERIC 1000UF/63V(M) C,ELECT 220UF-M/50V SY (Pb Free) C,ELECT 1UF-M/50V(Pb Free)	for 297, 37	D040010087150S D02010407H080S N211210388110S D040221087140S D040010087150S		
C534-536		-	C,FILM 0.047UF-J/100V		D02047306C060S		

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
C537		00D 963 0312 703	C,ELECT 3300UF-M/35V		D040332085050S		
C538		00D 963 0311 801	C,ELECT 1000UF-M/35V(SHL)		D040102085040S		
C539,540		00D 963 0311 102	C,ELECT 1UF-M/50V (Pb Free)		D040010087150S		
C541		00D 963 9003 097	C,FILM -0.1UF-K/250V		D02010407H080S		
C542		00D 963 0255 501	C,ELECT 18000UF-M/16V(10MM)		D040183083000S		
C543		00D 963 9006 191	C,CERAMIC AC13F472MDOA		D00847208K070S		
C544		00D 963 0234 506	C,ELECT 47UF-M/50V (Pb Free)	for 397	D040470087070S		
C544		00D 963 0312 101	C,ELECT 22UF-M/50V		D040220087060S		
C545		00D 963 0311 500	C,ELECT 100UF-M/10V		D040101082070S		
C546		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C547		00D 963 0311 102	C,ELECT 1UF-M/50V (Pb Free)		D040010087150S		
C548		00D 963 0312 509	C,ELECT 2200UF-M/16V		D040222083080S		
C549,550		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C551-554		-	C,FILM 0.01UF-J/100V		D02010306C060S		
C555-557		00D 963 0233 400	C,CERAMIC 2200PF-K/16V		D005222773530S		
C558		00D 963 9003 097	C,FILM -0.1UF-K/250V	for 397	D02010407H080S		
C559		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C560		00D 963 0311 704	C,ELECT 1000UF-M/16V		D040102083030S		
C561		00D 963 0311 607	C,ELECT 100UF-M/16V		D040101083090S		
C562,563	nsp	00D 963 0224 105	C,CERAMIC 1000PF-K/50V		D011102777160S		
C564		00D 963 0311 500	C,ELECT 100UF-M/10V		D040101082070S		
C565		00D 963 0233 400	C,CERAMIC 2200PF-K/16V		D005222773530S		
C566-567		00D 963 0311 102	C,ELECT 1UF-M/50V (Pb Free)	for 397	D040010087150S		
C568		00D 963 0311 102	C,ELECT 1UF-M/50V (Pb Free)		D040010087150S		
C570-573		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C601		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C602		00D 963 9005 901	C,ELECT 470UF-M/10V		D040471082060S		
C603-605		00D 963 0312 004	C,ELECT 22UF-M/25V		D040220084050S		
C606-608		00D 963 9005 901	C,ELECT 470UF-M/10V		D040471082060S		
C609-611		00D 963 0311 500	C,ELECT 100UF-M/10V		D040101082070S		
C612		00D 963 0312 004	C,ELECT 22UF-M/25V		D040220084050S		
C613	nsp	00D 963 0234 001	C,CERAMIC 0.047UF-Z/50V		D011473597160S		
C614		00D 963 0312 004	C,ELECT 22UF-M/25V		D040220084050S		
C616		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C617		-	C,CERAMIC 0.1UF-K/50V	for 397	D011104577161S		
C618-620		00D 963 9003 372	R,THICK 0-J,1/16W		C2000006M160S		
OTHERS PARTS GROUP							
BD601-609	nsp	00D 963 0220 002	BEAD,COIL 121JT		761101000020S		
CN304		00D 963 0301 109	CN,WIRE 350MM/2P		L000351020160S		
CN601	nsp	00D 963 0085 506	CN.WAFER 9P		L101100030910S		
CP306	nsp	00D 963 0160 900	CN.WAFER 2.0MM 8P	for 397, 297	L101220080010S		
CP501	nsp	00D 963 0066 208	CN.WAFER 3.96MM		L104353280300S		
CP502	nsp	00D 960 0128 804	CN.WAFER 2.5MM 6P		L102526700600S		
CP503		00D 963 0315 302	CN.WAFER 7.92MM		L108353280290S		
CP504		00D 963 0262 604	CN.WAFER 7.92MM		L108202000220S		
CP506	nsp	00D 963 0097 507	CN.WAFER 2.0MM 15P		L101100041510S		
CP507	nsp	00D 963 0235 806	CN.WAFER 2.0MM		L101220030000S		
CP508	nsp	00D 960 0123 207	CN.WAFER 2.5MM 3P		L102526700300S		
CP509		00D 963 0315 205	CN.WAFER 7.92MM		L108353280280S		
CP510	nsp	00D 960 0123 207	CN.WAFER 2.5MM 3P		L102526700300S		
CP511	nsp	00D 963 0097 507	CN.WAFER 2.0MM 15P		L101100041510S		

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
F501		00D 960 0005 804	HOLDER,FUSE CLIP		G645000050010S		
F501B		00D 960 0005 804	HOLDER,FUSE CLIP		G645000050010S		
F502		00D 960 0005 804	HOLDER,FUSE CLIP		G645000050010S		
F502B		00D 960 0005 804	HOLDER,FUSE CLIP		G645000050010S		
GND501,502		00D 960 9006 600	TERMINAL GND PLATE		3790040876010S		
JACK501		00D 963 0313 508	SOCKET,POWER RECEP TA 3P		G435206D00050S		
JACK503		00D 963 0119 906	TER,BOARD SCREW 8P JB-801A(V0)-02		G614801A0200YS		
JACK601		00D 963 0257 004	TER,RCA 2PIN	for 397	G601206B0100YS		
JACK602		00D 963 0257 004	TER,RCA 2PIN		G601206B0100YS		
JACK603		00D 963 0257 101	TER,RCA 3PIN		G606303B1010YS		
L501FL	nsp	00D 963 0313 003	COIL,INDUCTOR 0.5UH		D330R50000000S		
L501FR		00D 963 0313 003	COIL,INDUCTOR 0.5UH		D330R50000000S		
RLY501,502		00D 960 0181 702	RELAY G5PA-28 24V 5A		G680240502020S		
RLY503		00D 963 0218 506	RELAY BC3-24 24V 2A		G680240202040S		
RLY504		00D 963 0218 205	RELAY HL3-1A-9SH DC9V 1A		G680090102020S		
SW324		00D 963 0145 802	SW,PUSH SDDL-005-S(C-UL)		G000122006060S		
SW325		00D 963 0200 103	SW,TACT SKHV10920A	for 397	G180000270010S		
SW328		00D 963 0200 103	SW,TACT SKHV10920A	for 397	G180000270010S		
SW330		00D 963 0200 103	SW,TACT SKHV10920A	for 397, 297	G180000270010S		
TP501,502	nsp	00D 960 0161 405	CN.WAFER 3P		L101530140310S		
VEC305		00D 963 0095 208	SW,ENCODER EC16B24SA	for 397, 297	G121162400040S		
⚠ FS501,502		00D 963 0236 106	FUSE T8A /250V		N751228001110S		
⚠ T501		00D 963 0232 100	POWER TRANS 120V/60HZ		8200350150200S		

FRONT P.W.B. UNIT ASSY

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP							
IC301		00D 960 0180 004	IC LC7572	for 297, 37	J127757210010S		
IC401		00D 963 0354 402	IC CPU MICRO PROCESS(L020)	for 397 M30624FGPFP	8952397000010		
IC401		00D 963 0354 509	IC CPU MICRO PROCESS(L017)	for 297, 37 M30624FGPFP	8952297000010		
IC403		00D 960 0296 105	IC CJ7812F		J126781200220S		
IC404		00D 963 0313 605	IC 24LC16B		J000241600050S		
Q301		00D 963 0121 402	TR KRA104S	for 397	J520010400210S		
Q303		00D 960 0005 202	TR KTC3198Y	for 397	J5023198Y0000S		
Q303		00D 963 0121 606	TR KRC107S	for 297, 37	J522107S00210S		
Q304		00D 963 0121 402	TR KRA104S	for 297, 37	J520010400210S		
Q305,306		00D 963 0120 704	TR KRA102S(PB)	for 297, 37	J520010200210S		
Q307		00D 963 0120 801	TR KRC102S (NB)	for 297, 37	J522010200210S		
Q308-310		00D 963 0120 704	TR KRA102S(PB)	for 297, 37	J520010200210S		
Q311,312		00D 963 0120 801	TR KRC102S (NB)	for 297, 37	J522010200210S		
Q313-316		00D 963 0044 301	TR KTC2875B(MB)	for 37	J5222875B0010S		
Q317		00D 963 0121 606	TR KRC107S (NH)	for 297, 37	J522107S00210S		
Q318		00D 963 0120 704	TR KRA102S(PB)	for 297, 37	J520010200210S		
Q319,320		00D 963 0121 606	TR KRC107S (NH)	for 297, 37	J522107S00210S		
Q321		00D 963 0120 704	TR KRA102S(PB)	for 297, 37	J520010200210S		
Q334		00D 963 0120 704	TR KRA102S(PB)	for 397	J520010200210S		
Q335		00D 963 0121 606	TR KRC107S	for 397	J522107S00210S		
Q336		00D 963 0120 704	TR KRA102S(PB)	for 397	J520010200210S		
Q337		00D 963 0121 606	TR KRC107S	for 397	J522107S00210S		
Q401		00D 963 0120 704	TR KRA102S(PB)		J520010200210S		
Q404		00D 963 0121 509	TR KTC3875S		J522038750210S		
Q405		00D 960 0285 006	TR KRC104S		J522104S00210S		
Q408,409		00D 963 0044 301	TR KTC2875B		J5222875B0010S		
Q410		00D 963 0245 003	TR KRC106S (NF)		J522010600210S		
Q411		00D 963 0102 803	TR 2SA933S		J5000933S0050S		
Q412,413		00D 963 0044 301	TR KTC2875B		J5222875B0010S		
Q414		00D 963 0120 704	TR KRA102S(PB)		J520010200210S		
Q415		00D 963 0120 704	TR KRA102S(PB)	for 397, 37	J520010200210S		
Q416		00D 963 0120 704	TR KRA102S(PB)	for 397	J520010200210S		
Q417		00D 963 0120 704	TR KRA102S(PB)		J520010200210S		
Q607-610		00D 963 0044 301	TR KTC2875B	for 397	J5222875B0010S		
Q613-616		00D 963 0044 301	TR KTC2875B	for 397	J5222875B0010S		
D301		00D 963 0020 309	D,SWITCHING 1SS133T		K000013300520S		
D301H		00D 963 0219 709	D,SWITCHING 1N4148W		K005041480020S		
D302		00D 963 0020 309	D,SWITCHING 1SS133T		K000013300520S		
D302H		00D 963 0219 709	D,SWITCHING 1N4148W		K005041480020S		
D303		00D 963 0020 309	D,SWITCHING 1SS133T		K000013300520S		
D303H		00D 963 0219 709	D,SWITCHING 1N4148W		K005041480020S		
D304		00D 963 0020 309	D,SWITCHING 1SS133T	for 297, 37	K000013300520S		
D304H		00D 963 0219 709	D,SWITCHING 1N4148W		K005041480020S		
D305		00D 963 0020 309	D,SWITCHING 1SS133T	for 397	K000013300520S		
D305		00D 963 0219 709	D,SWITCHING 1N4148W	for 37	K005041480020S		
D306		00D 963 0020 309	D,SWITCHING 1SS133T	for 297	K000013300520S		
D306		00D 960 009 5607	D,SWITCHING 1N4148W	for 37	K005041480020S		
D307		00D 963 0020 309	D,SWITCHING 1SS133T	for 297	K000013300520S		
D307-309		00D 960 009 5607	D,SWITCHING 1N4148W	for 37	K005041480020S		
D310		00D 963 0020 309	D,SWITCHING 1SS133T	for 297, 37	K000013300520S		

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
D404		00D 963 0020 309	D,SWITCHING 1SS133T		K000013300520S		
D405		00D 963 0219 709	D,SWITCHING 1N4148W		K005041480020S		
D407,408		00D 963 0219 709	D,SWITCHING 1N4148W		K005041480020S		
D409		00D 963 0058 407	D,SWITCHING IN4007		K000400700520S		
D411		00D 963 0020 309	D,SWITCHING 1SS133T		K000013300520S		
ZD301		00D 960 0095 801	D,ZENER MTZJ6.8B		K06006R844520S		
ZD302-303		00D 960 0095 607	D,ZENER MTZJ5.6B	for 397	K06005R644520S		
ZD304		00D 960 0095 607	D,ZENER MTZJ5.6B		K06005R644520S		
ZD305		00D 960 0095 607	D,ZENER MTZJ5.6B		K06005R644520S		
ZD307		00D 960 0095 607	D,ZENER MTZJ5.6B	for 297, 37	K06005R644520S		
ZD401		00D 963 0047 502	D,ZENER MTZJ3.3B		K06003R344520S		
LED301,302		00D 960 0197 204	LED,ROUND HL50RDRF4T	for 297, 37	K500052015010S		
RESISTORS GROUP							
R302H		00D 960 9009 270	R,METAL FILM 470-J,2W		C060047166520S		
R303H		00D 960 9009 270	R,METAL FILM 470-J,2W		C060047166520S		
R403		00D 963 0128 007	R,METAL FILM 1K-J,1/4W		C060010263050S		
R458		00D 963 0128 007	R,METAL FILM 1K-J,1/4W		C060010263050S		
R459		00D 963 0128 007	R,METAL FILM 1K-J,1/4W	for 397, 37	C060010263050S		
R463		00D 963 0128 007	R,METAL FILM 1K-J,1/4W		C060010263050S		
R471		00D 963 0128 007	R,METAL FILM 1K-J,1/4W	for 397	C060010263050S		
CAPACITORS GROUP							
C301		-	C,FILM 0.1UF-J/100V		D02010406C060S		
C301H		00D 963 0233 206	C,CERAMIC 0.001UF-K/50V		D005102177530S		
C302		00D 963 0020 202	C,CERAMIC 0.1UF-Z/50V	for 397	D005104597530S		
C302		00D 963 0311 209	C,ELECT 10UF-M/50V	for 297, 37	D040100087060S		
C302H		00D 963 0233 206	C,CERAMIC 0.001UF-K/50V		D005102177530S		
C303		00D 960 9010 366	C,ELECT 47UF-M/16V	for 397	D040470083070S		
C303		00D 963 0311 005	C,ELECT 1UF-M/50V(Pb Free)	for 297, 37	D040010087090S		
C303H		00D 963 0233 303	C,CERAMIC 0.01UF-M/16V		D005103773530S		
C304	nsp	00D 963 0224 105	C,CERAMIC 1000PF-K/50V	for 397	D011102777160S		
C304		-	C,FILM 0.047UF-J/50V	for 297, 37	D020473167050S		
C304H	nsp	00D 963 9004 698	C,CERAMIC 0.01UF-K/50V		D011103777160S		
C305		00D 963 0311 005	C,ELECT 1UF-M/50V(Pb Free)	for 397	D040010087090S		
C305		00D 960 9010 366	C,ELECT 47UF-M/16V	for 297, 37	D040470083070S		
C305H	nsp	00D 963 9004 698	C,CERAMIC 0.01UF-K/50V		D011103777160S		
C306		00D 963 9010 641	C,CERAMIC 0.047UF-K/16V	for 397	D011473773160S		
C306		00D 963 0234 001	C,CERAMIC 0.047UF-Z/50V	for 297	D011473597160S		
C307		-	C,FILM 0.047UF-J/100V	for 397	D02047306C060S		
C307		-	C,FILM 0.047UF-J/100V	for 297, 37	D02047306C070S		
C308		00D 963 0311 209	C,ELECT 10UF-M/50V	for 397	D040100087060S		
C308		00D 960 9010 366	C,ELECT 47UF-M/16V	for 297, 37	D040470083070S		
C309		00D 963 0020 202	C,CERAMIC 0.1UF-Z/50V	for 397	D005104597530S		
C309	nsp	00D 963 0224 105	C,CERAMIC 1000PF-K/50V	for 297, 37	D011102777160S		
C310	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V	for 397	D010101167160S		
C310		00D 963 0233 701	C,CERAMIC30PF-J/50V	for 297, 37	D010300167160S		
C311,312	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V		D010101167160S		
C313		00D 963 0233 303	C,CERAMIC 0.01UF-M/16V	for 397	D005103773530S		
C313		00D 963 0223 601	C,CERAMIC 100PF-J/50V	for 297, 37	D010101167160S		
C314		00D 963 0233 303	C,CERAMIC 0.01UF-M/16V	for 397	D005103773530S		
C314	nsp	00D 963 9004 698	C,CERAMIC 0.01UF-K/50V	for 297, 37	D011103777160S		

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
C315		00D 963 0233 303	C,CERAMIC 0.01UF-M/16V	for 397	D005103773530S		
C315	nsp	00D 963 9004 698	C,CERAMIC0.01UF-K/50V	for 297, 37	D011103777160S		
C316		00D 963 0233 303	C,CERAMIC 0.01UF-M/16V	for 397	D005103773530S		
C317		00D 963 9010 641	C,CERAMIC 0.047UF-K/16V	for 397	D011473773160S		
C318,319	nsp	00D 963 9004 698	C,CERAMIC0.01UF-K/50V	for 297, 37	D011103777160S		
C320		-	C,FILM 0.047UF-J/100V	for 397	D02047306C060S		
C320		-	C,FILM 0.047UF-J/50V	for 297, 37	D020473167050S		
C321		00D 963 0311 005	C,ELECT 1UF-M/50V(Pb Free)		D040010087090S		
C322		-	C,CERAMIC 0.1UF-K/50V	for 37	D011104577161S		
C323		-	WIRE 1PJUMPER (0.6/52MM)	for 37	L045084006040S		
C324-326		-	C,CERAMIC100PF-J/50V	for 37	D010101167160S		
C327,328		-	C,ELECT 10UF-M/50V	for 37	D040100087070S		
C401	nsp	00D 963 9004 698	C,CERAMIC 0.01UF-K/50V		D011103777160S		
C402,403	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V		D010101167160S		
C404		00D 963 0244 606	C,ELECT 0.1UF-M/50V (Pb Free)		D040R10087080S		
C405	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V		D010101167160S		
C406,407	nsp	00D 963 9004 698	C,CERAMIC 0.01UF-K/50V		D011103777160S		
C408-410	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V		D010101167160S		
C411,412		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C413,414	nsp	00D 963 9004 698	C,CERAMIC 0.01UF-K/50V		D011103777160S		
C415		00D 963 0244 606	C,ELECT 0.1UF-M/50V (Pb Free)		D040R10087080S		
C416		00D 963 0244 606	C,ELECT 0.1UF-M/50V (Pb Free)	for 397, 37	D040R10087080S		
C418		00D 960 9010 010	C,ELECT 4.7UF-M/50V		D0404R7087250S		
C420	nsp	00D 963 9004 698	C,CERAMIC 0.01UF-K/50V		D011103777160S		
C423		00D 963 0244 606	C,ELECT 0.1UF-M/50V (Pb Free)	for 397	D040R10087080S		
C426		00D 963 0311 500	C,ELECT 100UF-M/10V		D040101082070S		
C429,430		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C431		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C432		00D 963 0244 606	C,ELECT 0.1UF-M/50V (Pb Free)		D040R10087080S		
C622-625	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V	for 397	D010101167160S		
C626		-	C,CERAMIC 0.1UF-K/50V	for 397	D011104577161S		
OTHERS PARTS GROUP							
BD401,402	nsp	00D 963 0220 002	BEAD,COIL 121JT		761101000020S		
CN302		00D 963 0314 400	CN,WIRE 240MM/3P		L000241030010S		
CN303		00D 963 0314 808	CN,WIRE 60MM/8P		L000600080040S		
CN304		00D 963 0246 002	CN,WIRE 80MM/3P		L000800030110S		
CN306		00D 963 0085 506	CN.WAFER 2.0MM 9P	for 37	L101100030910S		
CN307		00D 963 0314 701	CN,WIRE 60MM/5P	for 37	L000600050030S		
CP102	nsp	00D 963 0085 506	CN.WAFER 9P	for 397	L101100030910S		
CP301		00D 963 0315 409	CN.FPC 1.25MM 23P		L131102300010S		
CP302	nsp	00D 963 0236 009	CN.WAFER 2.5MM 3P		L102526803010S		
CP306	nsp	00D 963 0235 806	CN.WAFER 2.0MM		L101220030000S		
CP401		00D 963 0149 303	CN.FPC 1.25MM 15P		L131111500010S		
CP402		00D 963 0087 902	CN.WAFER 2.0MM 17P		L101100041710S		
CP403		00D 963 0315 001	CN.WAFER 2.0MM 20P		L101100042010S		
CP404	nsp	00D 963 0206 505	CN.WAFER 2.0MM 9P		L101100040910S		
CP406		00D 963 0161 103	CN.FPC 1.25MM 23P		L131112300010S		
CP408	nsp	00D 963 0060 709	CN.WAFER 2.0MM 8P		L101220080000S		
CP410	nsp	00D 963 0087 504	CN.WAFER 2.0MM 19P		L101100041910S		
CP411		00D 963 0315 001	CN.WAFER 2.0MM 20P		L101100042010S		
CP413	nsp	00D 963 0206 505	CN.WAFER 2.0MM 9P WAFER	for 397, 37	L101100040910S		
CP414,415	nsp	00D 963 0097 507	CN.WAFER 2.0MM 15P		L101100041510S		

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
G301		-	RING,TER WIRE 120MM/1P		8410121010060S		
JACK104 JACK301		00D 963 0146 209	TER,RCA 4PIN TER,RCA 2PIN	for 397 for 37	G602405B01000S G601207AE010YS		
JK301		00D 963 0294 708	JACK,D6.5 PHONE		G402PJ612AG0YS		
L301 L302-304	nsp	00D 960 0128 008 00D 960 0010 307	COIL,INDUCTOR 100UH COIL,INDUCTOR 10UH	for 297, 37	D330101001020S D330100700520S		
RMC301		00D 963 0217 808	MODULE,REMOCON NJL34H380A		E940343800010S		
SW301 SW302-309 SW310		00D 963 0095 305 00D 963 0095 305 00D 963 0095 305	SW,TACT SKHV10910D01 SW,TACT SKHV10910D01 SW,TACT SKHV10910D01	for 397 for 397	G180040500010S G180040500010S G180040500010S		
SW310 SW311 SW311 SW312 SW313,314		00D 963 0200 103 00D 963 0200 103 00D 963 0095 305 00D 963 0095 305 00D 963 0200 103	SW,TACT SKHV10920A SW,TACT SKHV10920A SW,TACT SKHV10910D01 SW,TACT SKHV10910D01 SW,TACT SKHV10920A	for 297, 37 for 397 for 297, 37	G180000270010S G180000270010S G180040500010S G180040500010S G180000270010S		
SW315 SW315 SW316 SW317 SW317		00D 963 0095 305 00D 963 0200 103 00D 963 0200 103 00D 963 0200 103 00D 963 0095 305	SW,TACT SKHV10910D01 SW,TACT SKHV10920A SW,TACT SKHV10920A SW,TACT SKHV10920A SW,TACT SKHV10910D01	for 397 for 297, 37 for 397 for 297, 37	G180040500010S G180000270010S G180000270010S G180000270010S G180040500010S		
SW318-322 SW323		00D 963 0200 103 00D 963 0200 103	SW,TACT SKHV10920A SW,TAC TSKHV10920A	for 297, 37	G180000270010S G180000270010S		
VEC301,302		00D 963 0095 208	SW,ENCODER EC16B24SA		G121162400040S		
FLT301 FL301		00D 963 0300 906 00D 963 0257 305	DISPLAY,FLT 16-ST-87GINK DISPLAY,FLT 16SM13T	for 397 for 297, 37	K530168700010S K530161300020S		
XTL401		00D 963 0217 701	RESONATOR ZTT12.00MT-TF		E830120000060S		
JP402 JP403 JP404 JP405 JP408		00D 963 0258 003 00D 963 0258 003 00D 963 0258 003 00D 963 0258 003 00D 963 0258 003	R,THICK 0-J,1/8W R,THICK 0-J,1/8W R,THICK 0-J,1/8W R,THICK 0-J,1/8W R,THICK 0-J,1/8W		C200000061300S C200000061300S C200000061300S C200000061300S C200000061300S		
JP416 JP417 JP418 JP419 JP420		00D 963 0258 003 00D 963 0258 003 00D 963 0258 003 00D 963 0258 003 00D 963 0258 003	R,THICK 0-J,1/8W R,THICK 0-J,1/8W R,THICK 0-J,1/8W R,THICK 0-J,1/8W R,THICK 0-J,1/8W	for 397	C200000061300S C200000061300S C200000061300S C200000061300S C200000061300S		
JP422 JP423 JP424 JP425 JP427		00D 963 0258 003 00D 963 0258 003 00D 963 0258 003 00D 963 0258 003 00D 963 0258 003	R,THICK 0-J,1/8W R,THICK 0-J,1/8W R,THICK 0-J,1/8W R,THICK 0-J,1/8W R,THICK 0-J,1/8W	for 397, 37 for 397, 37	C200000061300S C200000061300S C200000061300S C200000061300S C200000061300S		
JP428		00D 963 0258 003	R,THICK 0-J,1/8W		C200000061300S		
		- 00D 960 0184 408	HOLDER FLT HOLDER FLT	for 397 for 297, 37	4320210536000S 4320200026000S		

INPUT P.W.B. UNIT ASS'Y

Ref. No.	nsp	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP						
IC101		00D 963 0295 202	IC NJW1197			J084119700010S
IC104		00D 963 0202 305	IC NJM2068M			J121206800020S
IC105-107		00D 963 0202 305	IC NJM2068M	for 397		J121206800020S
IC108-113		00D 963 0202 305	IC NJM2068M			J121206800020S
IC115,116		00D 963 0116 103	IC MM74HC4053MX	for 397		J040744053040S
IC120		00D 963 0202 305	IC NJM2068M			J121206800020S
Q151FL		00D 960 0196 807	FET/2SN FET 2SK117Y (TYPE2)			J5441170Y0050S
Q151FR		00D 960 0196 807	FET/2SN FET 2SK117Y (TYPE2)			J5441170Y0050S
Q152FL		00D 960 0196 807	FET/2SN FET 2SK117Y (TYPE2)			J5441170Y0050S
Q152FR		00D 960 0196 807	FET/2SN FET 2SK117Y (TYPE2)			J5441170Y0050S
Q153,154		00D 963 0121 402	TR KRA104S			J520010400210S
Q155		00D 960 0285 006	TR KRC104S			J522104S00210S
D151FL		00D 963 0219 709	D,SWITCHING 1N4148W			K005041480020S
D151FR		00D 963 0219 709	D,SWITCHING 1N4148W			K005041480020S
D152FL		00D 963 0219 709	D,SWITCHING 1N4148W			K005041480020S
D152FR		00D 963 0219 709	D,SWITCHING 1N4148W			K005041480020S
ZD101,102		00D 963 0314 206	D,ZENER MTZJ7.5B			K06007R544520S
RESISTORS GROUP						
R432,433		00D 963 9005 668	R,METAL FILM 220-J,1W			C060022165050S
R436,437		00D 963 9005 639	R,METAL FILM 100-J,1W			C060010165060S
CAPACITORS GROUP						
C101,102	nsp	00D 963 0233 604	C,CERAMIC COG220PF-J/50V	for 397		D010221167160S
C103,104		00D 963 0311 306	C,ELECT 10UF-M/50V	for 397		D040100087070S
C105,106		00D 963 0312 305	C,ELECT 220UF-M/16V	for 397		D040221083110S
C107,108	nsp	00D 963 0223 601	C,CERAMIC COG100PF-J/50V	for 397		D010101167160S
C109,110		-	C,FILM 0.024UF-J/50V	for 397		D020243167050S
C111,112		-	C,FILM 0.0068UF-J/50V	for 397		D020682167050S
C113,114		00D 963 0311 306	C,ELECT 10UF-M/50V	for 397		D040100087070S
C119,120	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V			D010101167160S
C121		00D 963 9003 372	R,THICK 0-J,1/16W			C2000006M160S
C122	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V			D010101167160S
C123		-	C,CERAMIC 0.1UF-K/50V	for 397		D011104577161S
C124	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V			D010101167160S
C126-128	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V			D010101167160S
C130	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V			D010101167160S
C131		00D 963 9003 372	R,THICK 0-J,1/16W			C2000006M160S
C132	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V			D010101167160S
C133-146		00D 963 0311 306	C,ELECT 10UF-M/50V			D040100087070S
C147		00D 960 9010 010	C,ELECT 4.7UF-M/50V			D0404R7087250S
C148		-	C,CERAMIC 0.1UF-K/50V			D011104577161S
C149		00D 963 0276 108	C,CERAMIC 3300PF-K/50V			D011332777160S
C150		00D 963 0310 909	C,ELECT 1UF-M/50V			D040010087070S
C151		00D 960 9010 010	C,ELECT 4.7UF-M/50V			D0404R7087250S
C152		-	C,CERAMIC 0.1UF-K/50V			D011104577161S
C153		00D 963 0276 108	C,CERAMIC 3300PF-K/50V			D011332777160S
C154-161		00D 963 9005 862	C,ELECT 47UF-M/16V			D040470083080S
C162,163		00D 963 0311 306	C,ELECT 10UF-M/50V			D040100087070S
C164		00D 963 0310 909	C,ELECT 1UF-M/50V			D040010087070S
C165-172		00D 963 0311 306	C,ELECT 10UF-M/50V			D040100087070S
C173,174		00D 963 0311 607	C,ELECT 100UF-M/16V			D040101083090S

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
C175-177		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C180		-	C,CERAMIC 0.1UF-K/50V	for 397	D011104577161S		
C181	nsp	-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C182-184		00D 963 0223 601	C,CERAMIC 100PF-J/50V		D010101167160S		
C185,186		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C186FL		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C186FR		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C186L2		-	C,FILM 0.068UF-K/63V	for 397	D020683078060S		
C186L3		-	C,FILM 0.068UF-K/63V	for 397	D020683078060S		
C186R2		-	C,FILM 0.068UF-K/63V	for 397	D020683078060S		
C186R3		-	C,FILM 0.068UF-K/63V	for 397	D020683078060S		
C187		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C187L2	nsp	-	C,CERAMIC 0.1UF-K/50V	for 397	D011104577161S		
C187L3		-	C,CERAMIC 0.1UF-K/50V	for 397	D011104577161S		
C187R2		-	C,CERAMIC 0.1UF-K/50V	for 397	D011104577161S		
C187R3		-	C,CERAMIC 0.1UF-K/50V	for 397	D011104577161S		
C187SW		00D 963 0233 808	C,CERAMIC 47PF-J/50V		D010470167160S		
C188			00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S	
C188FL		-	C,FILM 0.068UF-K/63V		D020683078060S		
C188FR		-	C,FILM 0.068UF-K/63V		D020683078060S		
C188SW	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V		D010101167160S		
C189	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V		D010101167160S		
C189FL		-	C,FILM 0.024UF-J/50V		D020243167050S		
C189FR		-	C,FILM 0.024UF-J/50V		D020243167050S		
C189L2		00D 963 0311 306	C,ELECT 10UF-M/50V	for 397, 37	D040100087070S		
C189L3		00D 963 0311 306	C,ELECT 10UF-M/50V	for 397	D040100087070S		
C189R2		00D 963 0311 306	C,ELECT 10UF-M/50V	for 397, 37	D040100087070S		
C189R3		00D 963 0311 306	C,ELECT 10UF-M/50V	for 397	D040100087070S		
C189SW		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C190		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C190L2		-	C,FILM 0.068UF-K/63V	for 397, 37	D020683078060S		
C190L3		-	C,FILM 0.068UF-K/63V	for 397	D020683078060S		
C190R2		-	C,FILM 0.068UF-K/63V	for 397, 37	D020683078060S		
C190R3		-	C,FILM 0.068UF-K/63V	for 397	D020683078060S		
C191		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C192		00D 963 9005 875	C,ELECT 47UF-M/25V		D040470084070S		
C193		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C194,195		00D 963 9005 875	C,ELECT 47UF-M/25V		D040470084070S		
C198		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C201-203		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C204,205		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C208-217		-	C,CERAMIC 0.1UF-K/50V	for 397	D011104577161S		
C218-219		-	C,CERAMIC 0.1UF-K/50V	for 397	D011104577161S		
C220		00D 963 9005 875	C,ELECT 47UF-M/25V		D040470084070S		
C221,222		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
OTHERS PARTS GROUP							
CN102	nsp	00D 963 0314 303	CN,WIRE 180MM/4P		L000181040080S		
CP101		00D 963 0314 905	CN.WAFER 2.0MM 20P		L101100032010S		
CP102		00D 963 0086 204	CN.WAFER 2.0MM 19P		L101100031910S		
JACK103		00D 960 0268 803	TER,RCA 6PIN		G603603B09000S		
JACK104		00D 963 0146 209	TER,RCA 4PIN		G602405B01000S		
JACK106		00D 963 0158 501	TER,RCA 2PIN	for 397	G601207AE010YS		
L101,102	nsp	00D 963 0312 907	COIL,INDUCTOR 47UH	for 397	D330470001020S		
L103-107		00D 963 0220 002	BEAD,COIL 121JT		7611010000020S		

XM-READY P.W.B. UNIT ASS'Y

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP							
IC201		00D 960 0174 104	IC CXA1511M		J030151100010S		
IC201		00D 263 1092 003	IC BA05T		J126050000020S		
IC203		00D 262 3517 907	IC F2602		J080260200010S		
IC204		00D 262 2517 908	IC SN74LVO8APW		J040740800200S		
IC205,206		00D 262 2813 903	IC SN74AHCT08		J040740800190S		
IC207		00D 963 0294 902	IC AK4385		J042438500010S		
IC208		00D 963 0300 702	IC LM1117S		J126111733030S		
IC209		00D 963 0202 305	IC NJM2068M		J121206800020S		
IC211		00D 262 2813 903	IC SN74AHCT08		J040740800190S		
Q201		00D 963 0044 301	TR KTC2875B		J5222875B0010S		
Q202		00D 963 0245 003	TR KRC106S (NF)		J522010600210S		
Q203		00D 963 0121 402	TR KRA104S		J520010400210S		
Q204		00D 963 0044 301	TR KTC2875B		J5222875B0010S		
Q205		00D 963 0314 109	TR KRA106S (PF)		J520010600210S		
Q206		00D 963 0245 003	TR KRC106S (NF)		J522010600210S		
Q207		00D 963 0120 704	TR KRA102S(PB)		J520010200210S		
Q208-211		00D 963 0044 301	TR KTC2875B		J5222875B0010S		
Q212		00D 963 0245 003	TR KRC106S (NF)		J522010600210S		
Q213		00D 963 0120 704	TR KRA102S(PB)		J520010200210S		
D201-209		00D 963 0219 709	D,SWITCHING 1N4148W		K005041480020S		
ZD201		00D 960 0095 704	D,ZENER MTZJ6.2B		K06006R244520S		
RESISTORS GROUP							
R294,295		00D 963 9005 639	R,METAL FILM 100-J,1W		C060010165060S		
CAPACITORS GROUP							
C201		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C202		00D 963 0311 102	C,ELECT 1UF-M/50V (Pb Free)		D040010087150S		
C203		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C204	nsp	00D 963 9004 698	C,CERAMIC 0.01UF-K/50V		D011103777160S		
C205	nsp	00D 963 9006 528	C,CERAMIC 20PF-J/50V		D010200167160S		
C206	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V		D010101167160S		
C207		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C208	nsp	00D 963 9006 528	C,CERAMIC 20PF-J/50V		D010200167160S		
C209	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V		D010101167160S		
C210,211		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C212	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V		D010101167160S		
C213		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C214-218	nsp	00D 963 0223 601	C,CERAMIC 100PF-J/50V		D010101167160S		
C219		00D 960 9010 010	C,ELECT 4.7UF-M/50V		D0404R7087250S		
C220		-	C,FILM 0.012UF-J/100V		D02012306C060S		
C224		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C225,226		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C227		-	C,CERAMIC 8PF-D/50V		D010080117160S		
C228,229		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C230		-	C,CERAMIC 8PF-D/50V		D010080117160S		
C231		-	C,FILM 0.012UF-J/100V		D02012306C060S		
C232		00D 963 9005 875	C,ELECT 47UF-M/25V		D040470084070S		
C233-236		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
C237	nsp	00D 963 0224 105	C,CERAMIC 1000PF-K/50V		D011102777160S		
C238		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C239	nsp	00D 963 0224 105	C,CERAMIC 1000PF-K/50V		D011102777160S		
C240		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C241		00D 963 0311 607	C,ELECT 100UF-M/10V (Pb Free)		D040101082090S		
C242		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C243	nsp	00D 963 0224 105	C,CERAMIC 1000PF-K/50V		D011102777160S		
C244	nsp	00D 963 0233 808	C,CERAMIC 47PF-J/50V		D010470167160S		
C245,246		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C247	nsp	00D 963 9004 698	C,CERAMIC 0.01UF-K/50V		D011103777160S		
C248,249		00D 963 0276 108	C,CERAMIC 3300PF-K/50V		D011332777160S		
C250-253		00D 963 0224 008	C,CERAMIC 470PF-J/50V		D010471167160S		
C254		00D 963 0244 606	C,ELECT 0.1UF-M/50V (Pb Free)		D040R10087080S		
C255,256		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C257,258		00D 963 0312 208	C,ELECT 22UF-M/50V,6*11		D040220087100S		
C259,260		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C261,262	nsp	00D 963 9006 528	C,CERAMIC 20PF-J/50V		D010200167160S		
C263		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C264	nsp	00D 963 0224 105	C,CERAMIC 1000PF-K/50V		D011102777160S		
C265		00D 963 0311 306	C,ELECT 10UF-M/50V		D040100087070S		
C266,267		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
C268-271	nsp	00D 963 0233 808	C,CERAMIC 47PF-J/50V		D010470167160S		
C272,273		-	C,CERAMIC 0.1UF-K/50V		D011104577161S		
OTHERS PARTS GROUP							
BD201		00D 963 0312 800	COIL,LINE BFS2550A0F1		D320255000520S		
BD202	nsp	00D 963 0234 603	COIL,BEAD MB-160808		D340160800060S		
BD203-209	nsp	00D 963 0220 002	BEAD,COIL 121JT		7611010000020S		
BD210-218	nsp	00D 963 0234 603	COIL,BEAD MB-160808		D340160800060S		
BD219-221	nsp	00D 963 0220 002	BEAD,COIL 121JT		7611010000020S		
BD225	nsp	00D 963 0220 002	BEAD,COIL 121JT		7611010000020S		
BD226	nsp	00D 963 0234 603	COIL,BEAD MB-160808		D340160800060S		
BD227	nsp	00D 963 0220 002	BEAD,COIL 121JT		7611010000020S		
CN202		00D 963 0314 905	CN.WAFER 2.0MM 20P		L101100032010S		
CN203		00D 963 0085 302	CN.WAFER 2.0MM 17P		L101100031710S		
CP201	nsp	00D 963 0068 303	CN.WAFER 2.0MM		L101220090000S		
GND201		-	SHIELD PLATE GND		3070045526010S		
JACK201,202		00D 963 0244 703	JACK,D3.5 EARPHONE		G40130802000YS		
JACK203		00D 205 1362 009	CN.WAFER 4PIN		L109040000010S		
JACK204		00D 963 0294 601	JACK,D3.5 EARPHONE		G40100350000YS		
JACK205		00D 963 0146 005	TER,RCA 1PIN		G600107A0000YS		
JACK206		00D 963 0146 209	TER,RCA 4PIN		G602405B01000S		
XTAL201		00D 963 0313 304	CRYSTAL FCX-02(45.1584MHz)		E80545R150010S		

CTN P.W.B. UNIT ASS'Y

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
OTHERS PARTS GROUP							
CN407	nsp	00D 963 0097 303	CN.WAFER 2.0MM 15P		L101100031510S		
CN409	nsp	00D 963 0097 303	CN.WAFER 2.0MM 15P		L101100031510S		
CN506	nsp	00D 963 0097 303	CN.WAFER 2.0MM 15P		L101100031510S		
CN511	nsp	00D 963 0097 303	CN.WAFER 2.0MM 15P		L101100031510S		
CP901	nsp	00D 963 0235 903	CN.WAFER 2.0MM		L101220040000S		
H901,902	nsp	00D 960 0184 000	BRACKET SCREW		4010210196000S		

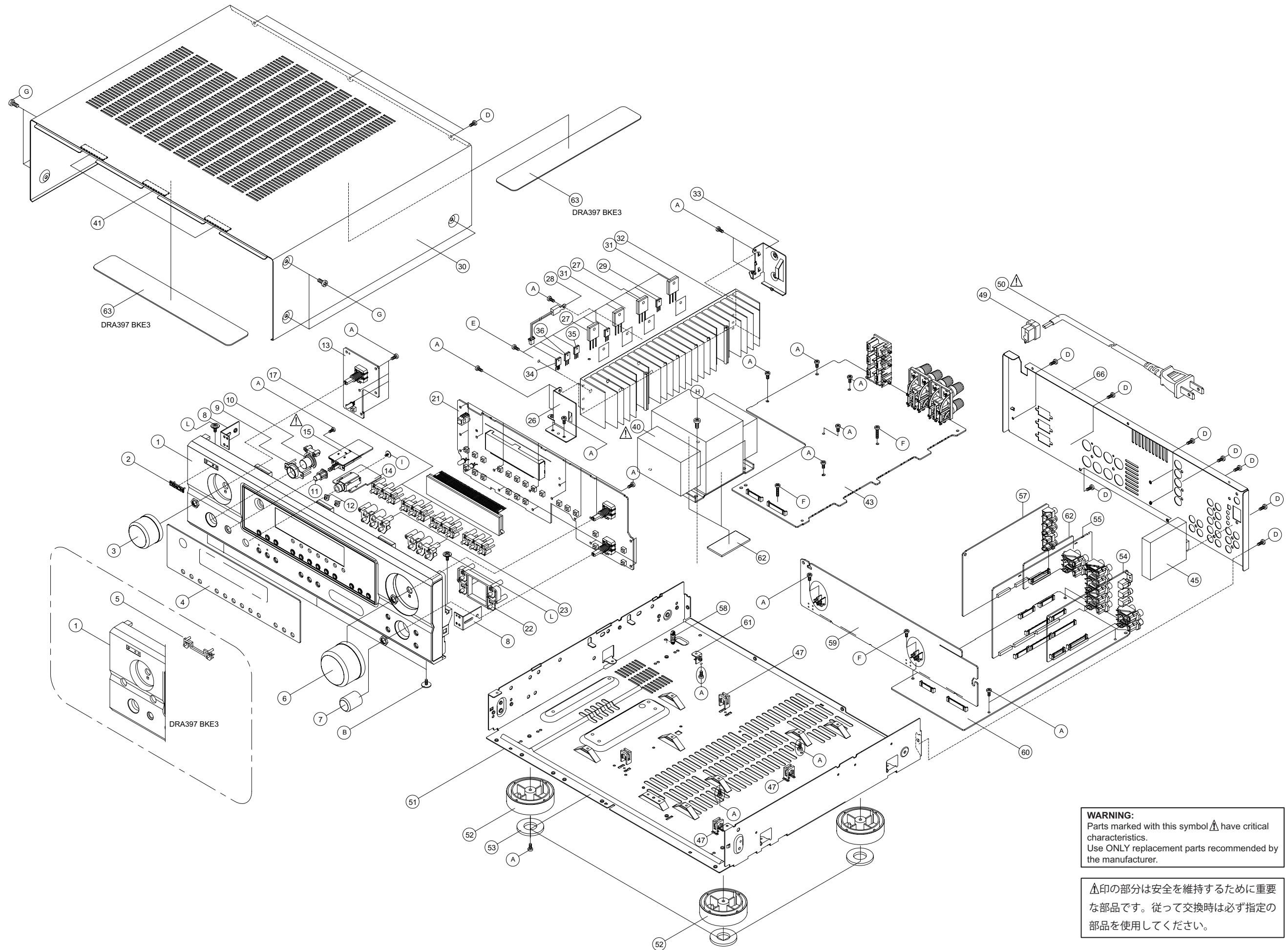
FUNCTION SW P.W.B. UNIT ASS'Y (for DRA-37 model)

Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP							
ZD310,311		00D 960 0095 607	D,ZENER MTZJ5.6B		K06005R644520S		
LED303		00D 963 0148 605	LEDSML1216W(REL/GREEN)		K500052600030S		
CAPACITORS GROUP							
C329,330		00D 963 0233 303	C,CERAMIC 0.01UF-M/16V		D005103773530S		
OTHERS PARTS GROUP							
CP305		00D 963 0228 101	CN.WAFER 2.0MM		L101220040010S		
CP308		00D 960 0254 901	CN.WAFER 2.0MM		L101220050010S		
SW330		00D 963 0200 103	SW,TACT SKHV10920A		G180000270010S		
VEC305		00D 963 0095 208	SW,ENCODER EC16B24SA		G121162400040S		

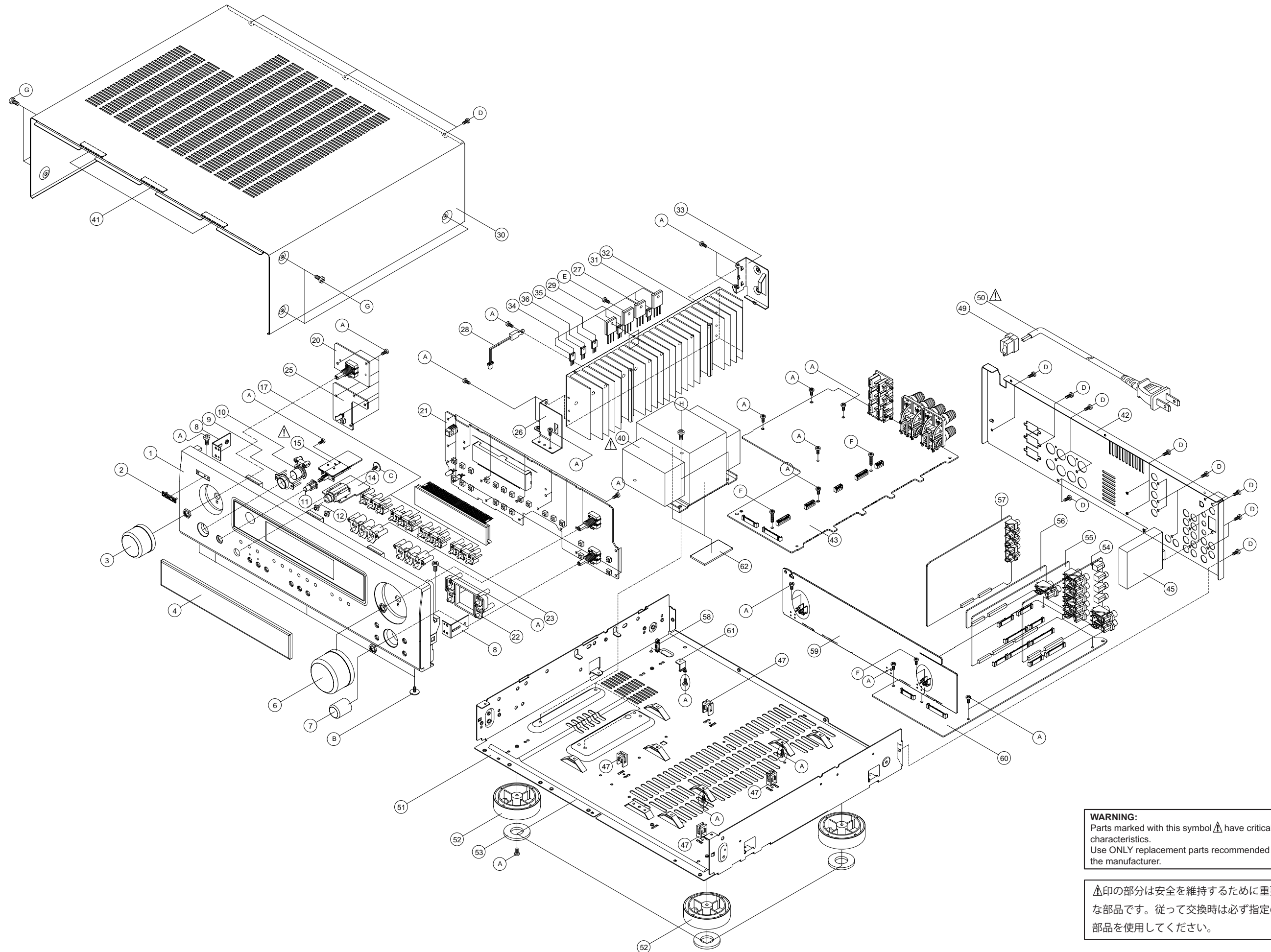
EXPLODED VIEW

DRA-397/297 model

DRA-397/297/37



DRA-37 model



PARTS LIST OF EXPLODED VIEW

* 本表に記載されている部品は、補修用部品のため製品に使用している部品とは一部、形状、寸法などが異なる場合があります。

* The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.

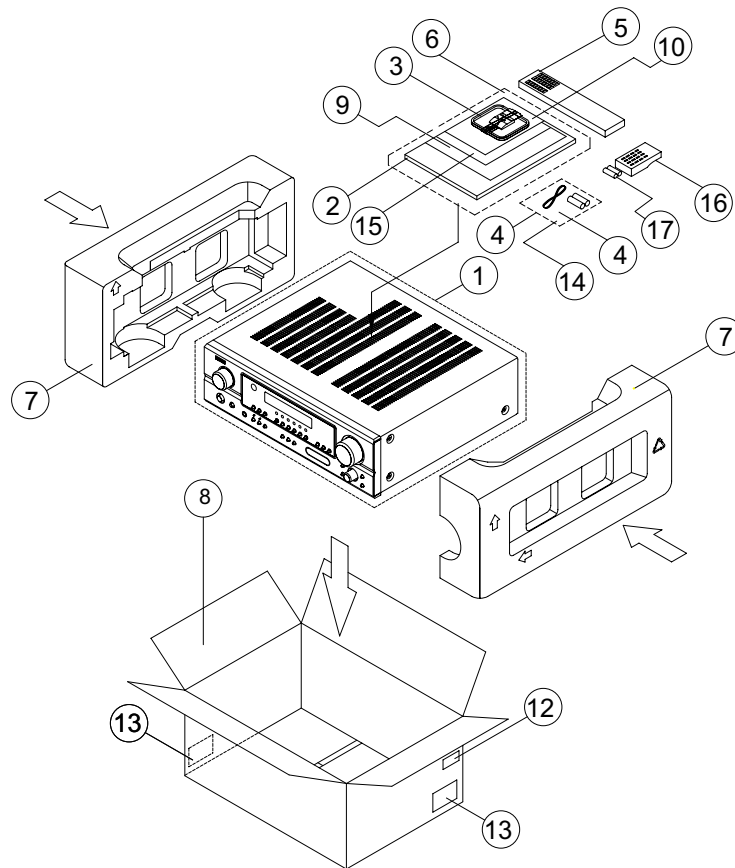
* "nsp" 印の部品は常時在庫していませんので供給に長時間を要することがあります。場合によっては、供給をお断りする場合があります。

* Part indicated with the mark "nsp" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.

	Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
⚠	44A		-	MAIN P.W.B. UNIT ASSY	for 397	7025HK0604010	1	
	43A		-	MAIN P.W.B. UNIT ASSY	for 297	7025HK0603010	1	
	43A		-	MAIN P.W.B. UNIT ASSY	for 37	7025HK0603040	1	
	13			P.C.B FUNCTION UNIT	for 297, 397			
	15			P.C.B POWER SW UNIT				
	43			P.C.B MAIN UNIT				
	57			P.C.B VIDEO UNIT				
	22A		-	FRONT P.W.B. UNIT ASSY	for 397	7025HK0604011	1	
	21A		-	FRONT P.W.B. UNIT ASSY	for 297	7025HK0603011	1	
	21A		-	FRONT P.W.B. UNIT ASSY	for 37	7025HK0603041	1	
14			P.C.B HEADPHONE UNIT					
21			P.C.B FRONT UNIT					
56			P.C.B PREOUT UNIT	for 37				
60			P.C.B CPU UNIT					
62			P.C.B ZONE UNIT	for 397				
20A		-	FUNCTION P.W.B. UNIT ASSY	for 37	7025HK0603044	1		
20			P.C.B FUNCTION SW UNIT					
25			P.C.B STANDBY SW UNIT					
54		-	XM-READY P.W.B. UNIT ASSY	for 397	7025HK0604013	1		
54		-	XM-READY P.W.B. UNIT ASSY	for 297	7025HK0603013	1		
54		-	XM-READY P.W.B. UNIT ASSY	for 37	7025HK0603043	1		
55		-	INPUT P.W.B. UNIT ASSY	for 397	7025HK0604012	1		
55		-	INPUT P.W.B. UNIT ASSY	for 297	7025HK0603012	1		
55		-	INPUT P.W.B. UNIT ASSY	for 37	7025HK0603042	1		
59		-	CNT P.W.B. UNIT ASSY	for 397	7025HK0604014	1		
59		-	CNT P.W.B. UNIT ASSY	for 297	7025HK0603014	1		
59		-	CNT P.W.B. UNIT ASSY	for 37	7025HK0603045	1		
1			00D 963 0304 203	PANEL FRONT	for 397	3067212741000S	1	*
1			00D 963 0304 300	PANEL FRONT	for 297	3067212741100S	1	*
1			00D 963 0316 107	PANEL FRONT	for 37	3067212731000S	1	*
2			00D 963 0051 501	BADGE DENON		5630210028000S	1	
3			00D 963 0298 306	KNOB INPUT ASSY	for 397	5088211278000SZ	1	
3			00D 963 0138 301	KNOB INPUT	for 297, 37	5087210961000S	1	
4			00D 963 0305 600	WINDOW DISPLAY	for 397	50772119220L0S	1	*
4			00D 963 0305 503	WINDOW DISPLAY	for 297	50772119220K0S	1	*
4			00D 963 0316 408	WINDOW DISPLAY	for 37	5077212283010S	1	*
5			00D 963 0316 709	BUTTON 2KEY	for 397	5097213171000S	1	
6			00D 963 0298 209	KNOB VOLUME ASSY	for 397	5088211268020SZ	1	
6			00D 963 0138 806	KNOB VOLUME	for 297, 37	5087210981000S	1	
7			00D 963 0152 905	KNOB SELECT	for 397	5087210958000SZ	1	
7			00D 963 0138 505	KNOB SELECT	for 297, 37	5087210971000S	1	
8	nsp		00D 963 0138 000	BRACKET SIDE L/R		4010211986000S	2	
9			00D 963 0137 807	LENS STANDBY		3710210503000S	1	
10			00D 963 0184 106	BUTTON STANDBY		5097212368000SZ	1	
11			00D 963 0184 009	BUTTON POWER		5097212358000SZ	1	
12			00D 960 0191 417	LENS LED		3710210043001S	2	

	Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
	17		00D 963 0094 801	BUTTON /3KEY(A)	for 397, 297	5090211741000S	1	
	17		00D 963 0094 801	BUTTON /3KEY(A)	for 37	5097211741000S	1	
	22		00D 963 0139 407	BUTTON 4KEY	for 397, 297	5097212341000S	1	
	22		00D 963 0316 602	BUTTON 4KEY	for 37	5097213161000S	1	
	23		00D 963 0139 106	BUTTON 3KEY	for 397, 297	5097212331000S	2	
	23		00D 963 0316 505	BUTTON 3KEY	for 37	5097213131000S	2	
	26	nsp	00D 960 0184 301	BRACKET HEAT SINK-F		4010210396000S	1	
	27		00D 963 0280 107	TR,2SC3964	Q505FR, Q505FL	J502396400000S	2	
	28		00D 960 0187 900	POSISTOR P43T7D330BW16		F320161001020S	1	
	29		00D 963 0044 107	TR,2SB1560-Y	for 397 Q507FR, Q507FL	J5011560Y0000S	2	
	29		00D 963 0313 906	TR,2SB2SB1559Y	for 297, 37 Q507FR, Q507FL	J5011559Y1170S	2	
	30	nsp	00D 963 0247 108	CABINET		3000210096400S	1	
	31		00D 963 0044 204	TR,2SD2390-Y	for 397 Q506FR, Q506FL	J5032390Y0000S	2	
	31		00D 963 0314 002	TR,2SD2SD2389Y	for 297, 37 Q506FL, Q506FR	J5032389Y1170S	2	
	32	nsp	-	HEAT SINK MAIN	for 397	2120210968100S	1	
	32	nsp	-	HEAT SINK MAIN	for 297, 37	2120210968000S	1	
	33	nsp	00D 960 0184 204	BRACKET HEAT SINK-B		4010210386000S	1	
	34		00D 263 1223 005	IC,PQ20RX11	IC505	J126201100010S	1	
	35		00D 960 0299 209	IC,CJ7815F	IC501	J126781500100S	1	
	36		00D 963 0219 505	IC,CJ7915F	IC502	J126791500070S	1	
⚠	40		00D 963 0307 103	POWER TRANS MAIN	for 397	8200880690010S	1	
⚠	40		00D 963 0306 900	POWER TRANS MAIN	for 297, 37	8200880570010S	1	*
	41	nsp	00D 963 0268 802	SHEET CABINET		1210210235000S	3	
	42		00D 963 0304 504	CHASSIS BACK	for 397	3207211946200S	1	*
	42		00D 963 0304 407	CHASSIS BACK	for 297	3207211946000S	1	*
	42		-	CHASSIS BACK	for 37	3207211946100S	1	*
	45		00D 963 0145 608	TUNER,FM/AM		E903014000020S	1	
	47	nsp	00D 960 0003 301	SUPPORTER PCB		4070001601010S	4	
⚠	49	nsp	00D 960 0192 403	STOPPER CORD AC		4380210002000S	1	
	50		00D 963 0292 205	CORD ASSY		L068125100020S	1	
	51	nsp	-	CHASSIS MAIN		3200210146306S	1	
	52	nsp	00D 963 0137 904	FOOT		4007210261000S	4	
	53	nsp	00D 963 0214 607	CUSHION FOOT		4050211295000S	4	
	58	nsp	-	SUPPORTER P.C.		4070210192000S	1	
	61	nsp	00D 960 0184 107	BRACKET SUPPORTER		4010210206000S	1	
	62	nsp	00D 963 0316 903	RUBBER SHEET		4050212635000S	2	
	63	nsp	00D 963 0317 009	PLATE TOP	for 397	4470211066000S	2	
★	64		00D 963 0315 603	CABLE,FLAT CARD 1.25MM		N712151743810S	1	
★	65		00D 963 0315 506	CABLE,FLAT CARD		L301171230020S	1	
★	66	nsp	00D 960 0183 807	TERMINAL	for 397	3790000090000S	1	
★	67		-	LABEL RATING		5527042410290S	1	
★	68	nsp	00D 513 3333 005	LABEL (TRANS)				
SCREWS								
	A	nsp	00D 963 0018 007	SCREW(3X8 B-TYPE ZNY/BH)	for 397, 297	B020030081B10S	50	
	A	nsp	00D 963 0018 007	SCREW(3X8 B-TYPE ZNY/BH)	for 37	B020030081B10S	57	
	B	nsp	00D 963 0136 701	SCREW(3X8 BK WASHER PI12)		1500001456020S	4	
	C	nsp	00D 960 9008 420	SCREW(3X8 ZnY WASHER PI12)	for 37	1500001456010S	1	
	D	nsp	00D 960 0108 701	SCREW(3X10 B-TYPE(DOT) BK/BH)	for 397, 37	B020030103B11S	24	
	D	nsp	00D 960 0108 701	SCREW(3X10 B-TYPE(DOT) BK/BH)	for 297	B020030103B11S	23	
	E	nsp	00D 963 9006 175	SCREW(3X14 P+S-WASHER ZNY/HH)		B018230141H11S	9	
	F	nsp	00D 963 0018 104	SCREW(3X17 B-TYPE ZNY/BH)		B020030171B10S	4	
	G	nsp	00D 963 0048 307	SCREW(4X8 B-TYPE(DOT) BK/BH)		1500040083B10S	6	
	H	nsp	00D 960 9008 417	SCREW(4X8 P+S-WASHER ZNY/BH)		B028940081B10S	4	
	I	nsp	00D 960 9008 420	SCREW(3X8 ZnY WASHER PI12)	for 397, 297	1500001456010S	1	
	L	nsp	00D 963 0136 507	SCREW(3X8 PI9.5 B-TYPE ZNY)	for 397, 297	1500001206010S	2	

PACKING VIEW



PARTS LIST OF PACKING & ACCESSORIES

* 本表に記載されている部品は、補修用部品のため製品に使用している部品とは一部、形状、寸法などが異なる場合があります。

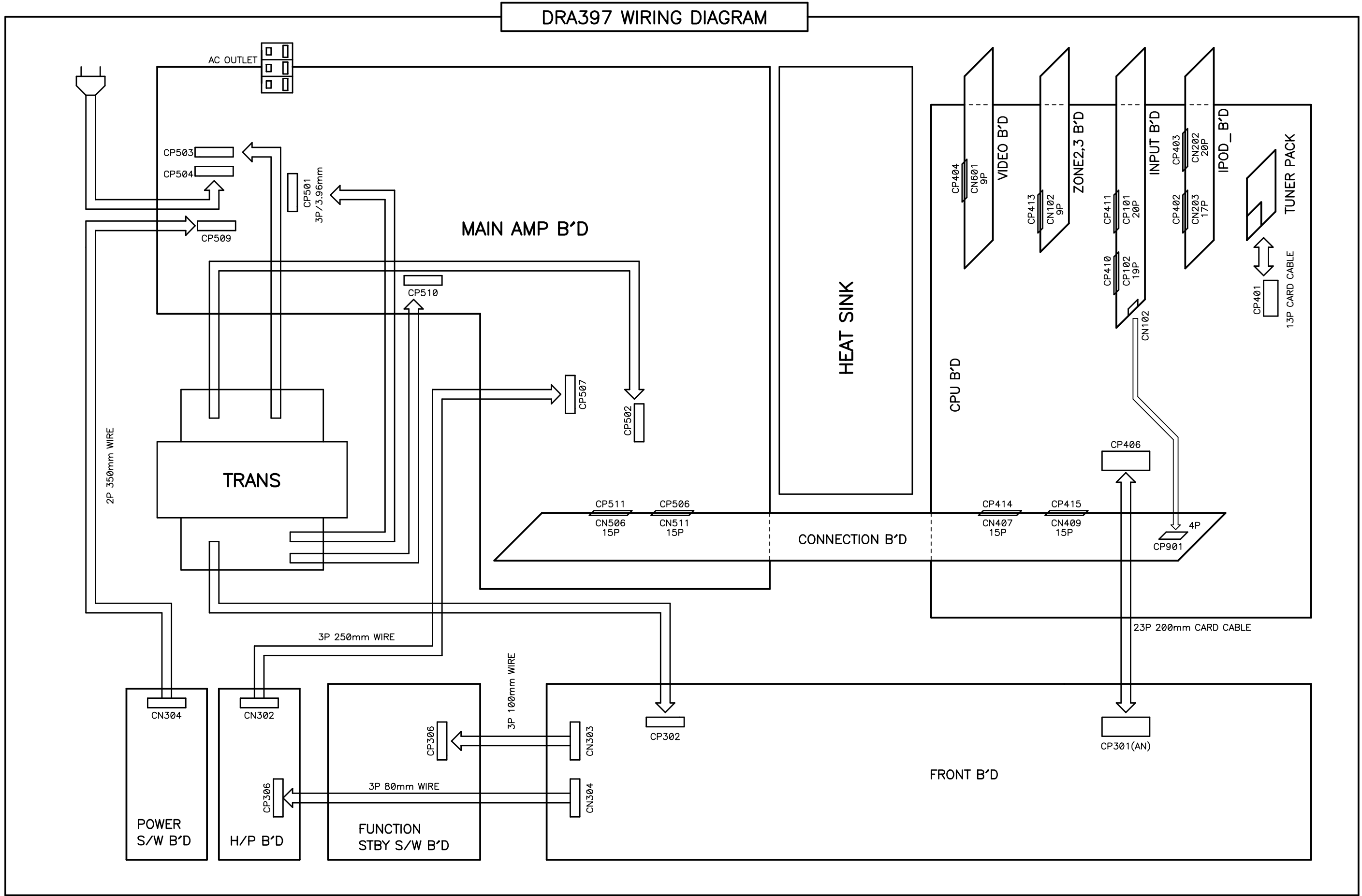
* The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.

* "nsp" 印の部品は常時在庫していませんので供給に長時間を要することがあります。場合によっては、供給をお断りする場合があります。

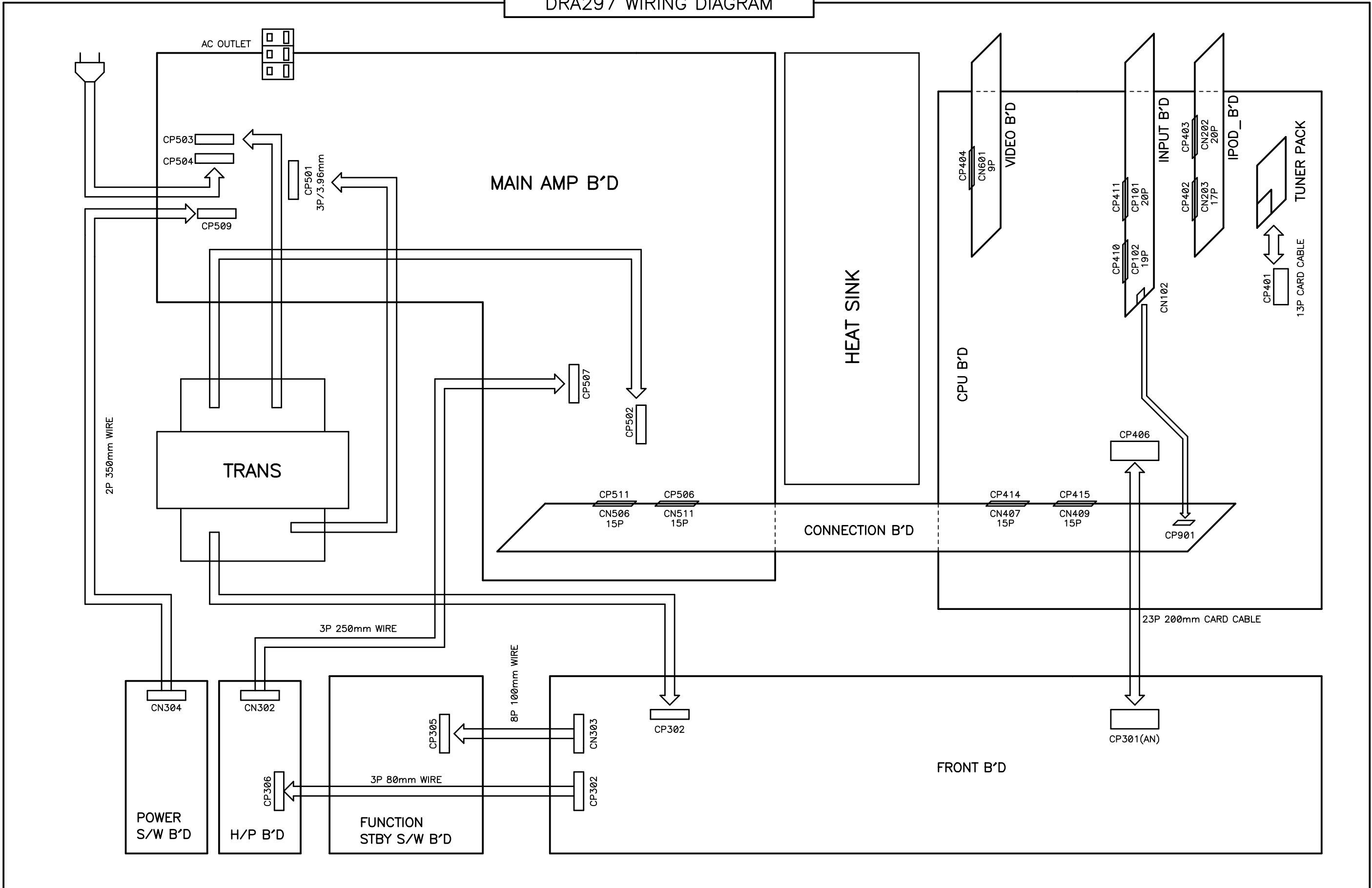
* Part indicated with the mark "nsp" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.

	Ref. No.	nsp	Part No.	Part Name	Remarks		Q'ty	New
	1	nsp	00D 963 0241 405	POLY BAG SET		6327040059000S	1	
	2		00D 963 0306 104	INSTRUCTION MANUAL	for 397	5707210130240S	1	*
	2		00D 963 0305 901	INSTRUCTION MANUAL	for 297	5707210130210S	1	*
	2		00D 511 4541 007	INSTRUCTION MANUAL	for 37	5707210130230S	1	*
	3		00D 231 0089 007	AM ANTENNA WIRE		E605010110010S	1	
	4		00D 963 0158 006	FM ANTENNA WIRE		E605010070001S	1	
	5		00D 963 0307 307	REMOTE CONTROL	for 397	8300105200010S	1	*
	5		00D 963 0307 404	REMOTE CONTROL	for 297, 37	8300105300010S	1	*
	6	nsp	00D 963 0045 106	POLY BAG		6330000240000S	1	
	7	nsp	00D 963 0193 101	CUSHION SNOW L/R		6230210154001S	1	
	8	nsp	00D 963 0306 502	BOX GIFT	for 397	6007210310730S	1	*
	8	nsp	00D 963 0306 405	BOX GIFT	for 297	6007210310720S	1	*
	8	nsp	00D 963 0316 806	BOX GIFT	for 37	6007210310760S	1	*
	9		-	CARD WARRANTY		5777001610036S	1	
	10		-	CARD S.S. LIST		5777001620019S	1	
	11		-	BATTERY DRY		-	2	
	12		-	LABEL UPC	for 397	5507002340800S	1	
	12		-	LABEL UPC	for 297	5507002360200S	1	
	12		-	LABEL UPC	for 37	5507002360230S	1	
	13		-	LABEL CONTROL		5500014920010S	2	
	14	nsp	00D 963 0268 006	POLY BAG ACCESSORY		6330210222000S	1	
	15		-	WARRANTY CARD-XM RADIO		5727001230051S	1	
	16		00D 963 0310 307	REMOTE CONTROL	for 397	8300105600010S	1	*
	17		-	BATTERY DRY	for 397	-	2	

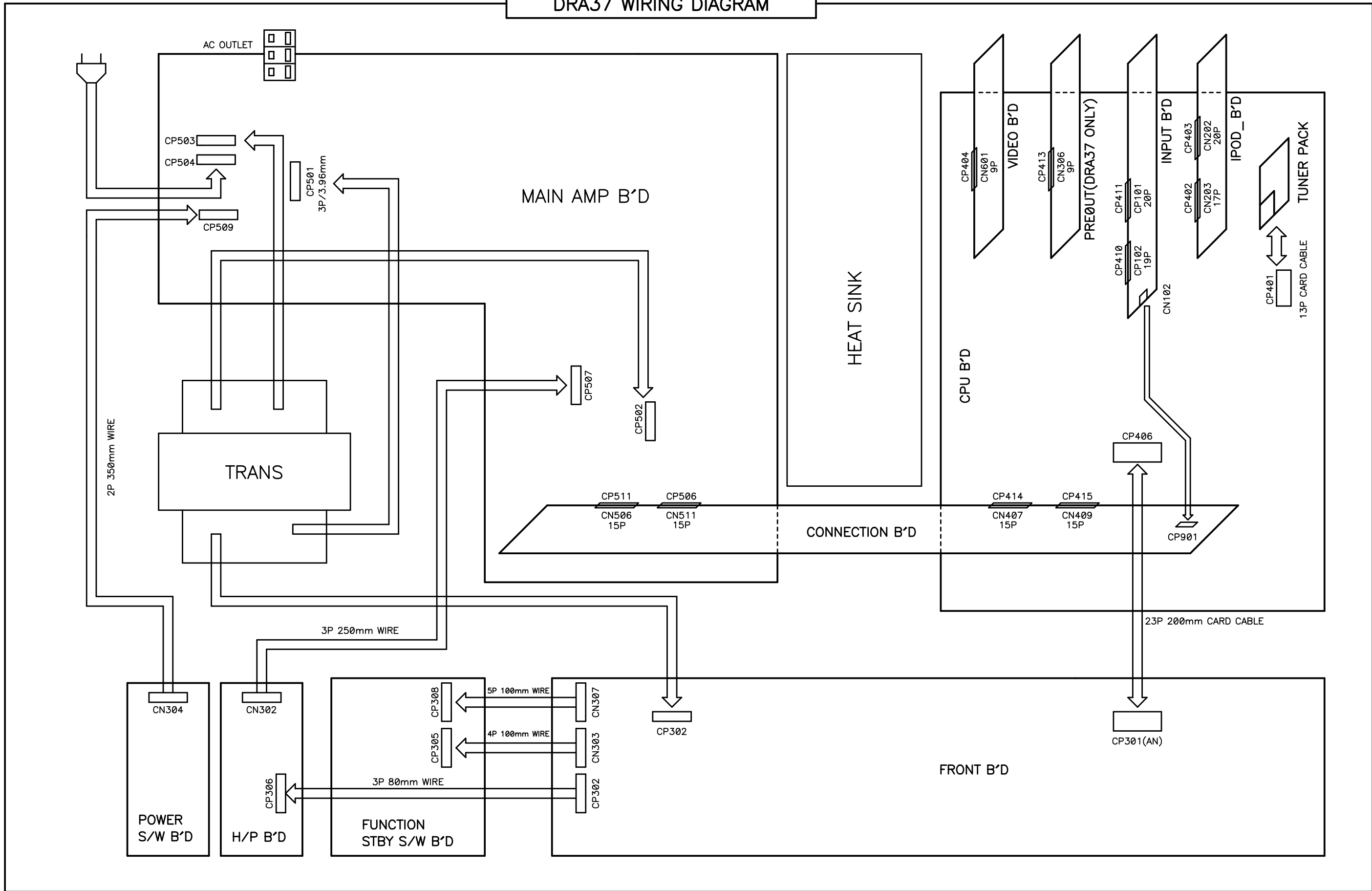
WIRING DIAGRAM



DRA297 WIRING DIAGRAM



DRA37 WIRING DIAGRAM



NOTE FOR SCHEMATIC DIAGRAM

WARNING:

Parts marked with this symbol \triangle have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

NOTICE:

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM
M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD.
P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT
NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE
WITHOUT PRIOR NOTICE.

配線図について

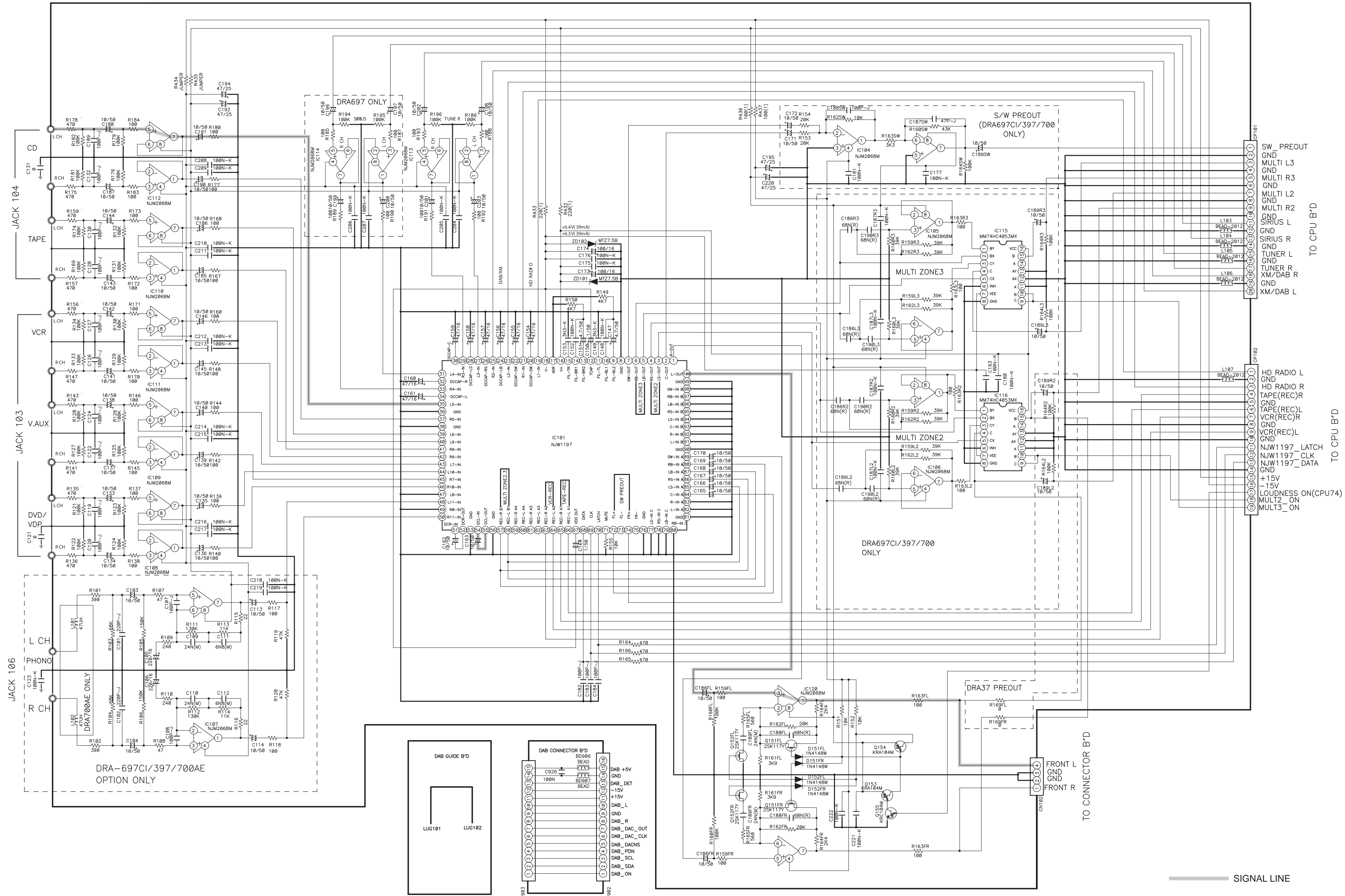
\triangle 印の部品は安全を維持するために重要な部品です。従って交換時は必ず指定の部品を使用してください。

注)

- (1) 指定なき抵抗値は Ω 、k は k Ω 、M は M Ω を示す。
- (2) 指定なきコンデンサーの値は μF 、p は pF を示す。
- (3) 各部の電圧は無信号の値を示す。
- (4) この配線図は基本配線図です。改良等のため変更することがありますのでご了承ください。

SCHEMATIC DIAGRAMS (1/8)

1 2 3 4 5 6 7 8 9 10 11

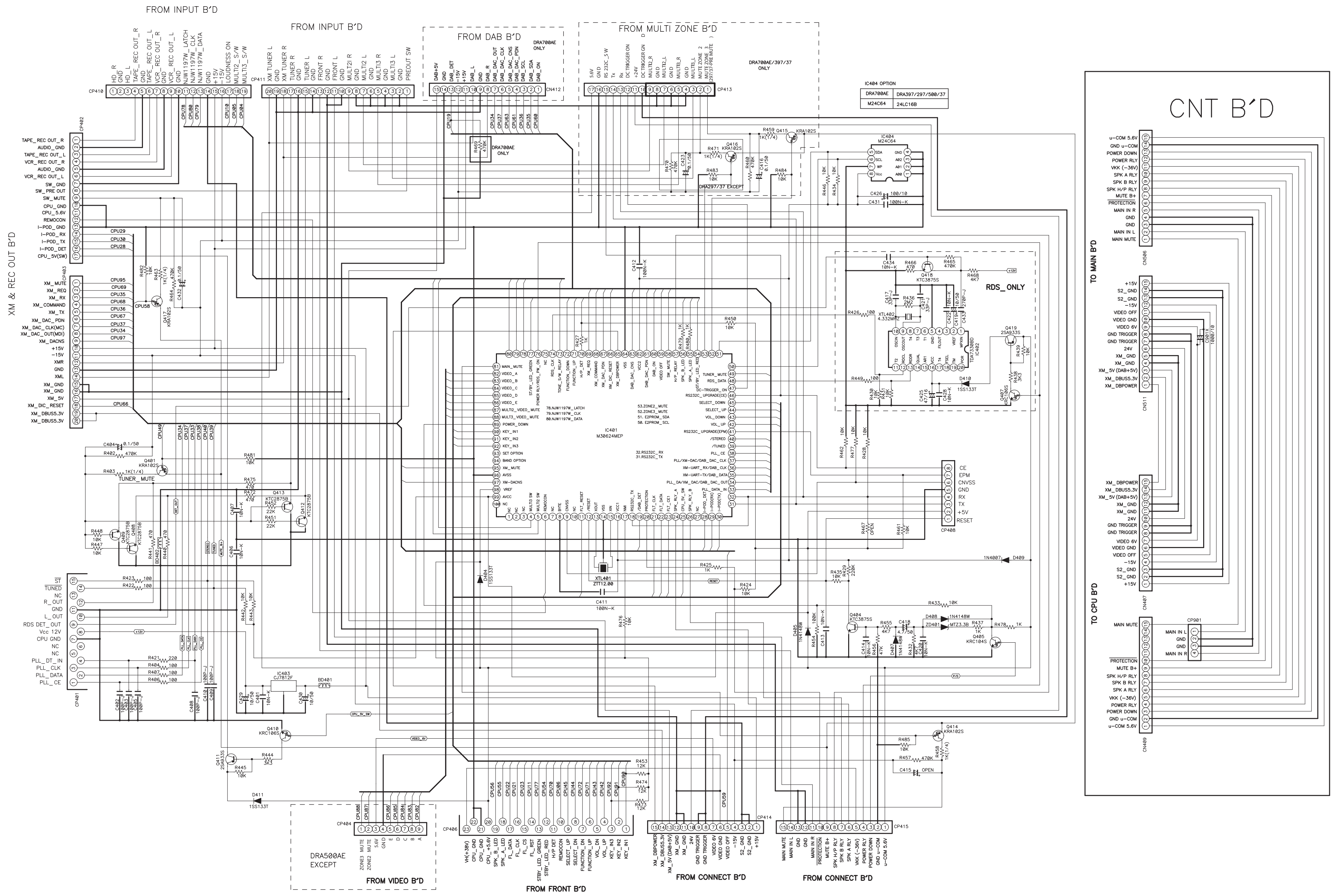


A
B
C
D
E
F
G
H

SCHEMATIC DIAGRAMS (1/8)
INPUT UNIT
(for ALL model)

SCHEMATIC DIAGRAMS (2/8)

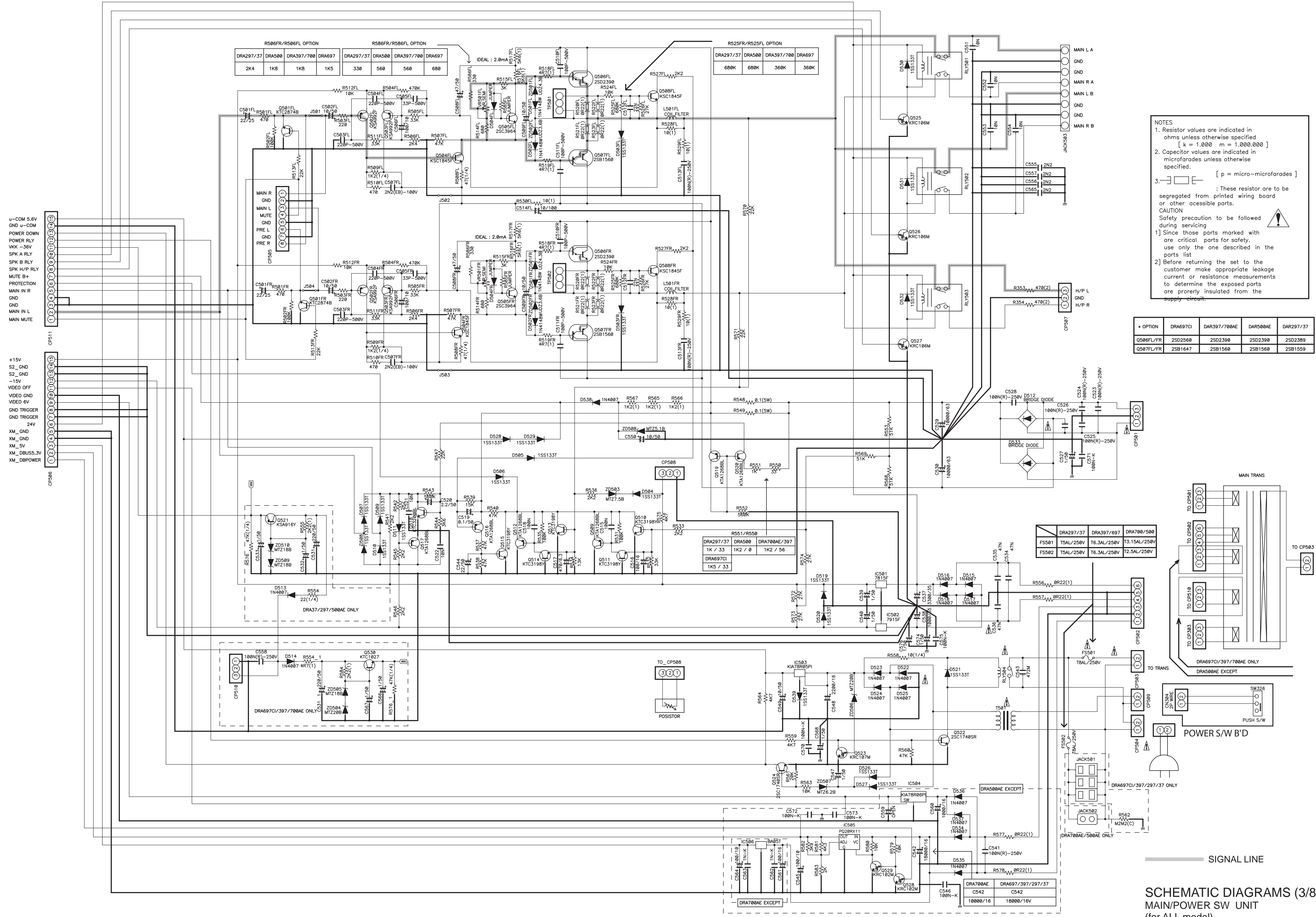
1 2 3 4 5 6 7 8 9 10 11



SCHEMATIC DIAGRAMS (2/8)
CPU/CNT UNIT
(for ALL model)

1 2 3 4 5 6 7 8 9 10 11

A
B
C
D
E
F
G
H



NOTES

- Resistor values are indicated in ohms unless otherwise specified
[k = 1.000 m = 1.000.000]
- Capacitor values are indicated in microfarads unless otherwise specified.
[p = micro-microfarads]
- These resistor are to be segregated from printed wiring board or other accessible parts.
CAUTION
Safety precaution to be followed during servicing
1) Since those parts marked with are critical parts for safety, use only the one described in the parts list
2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

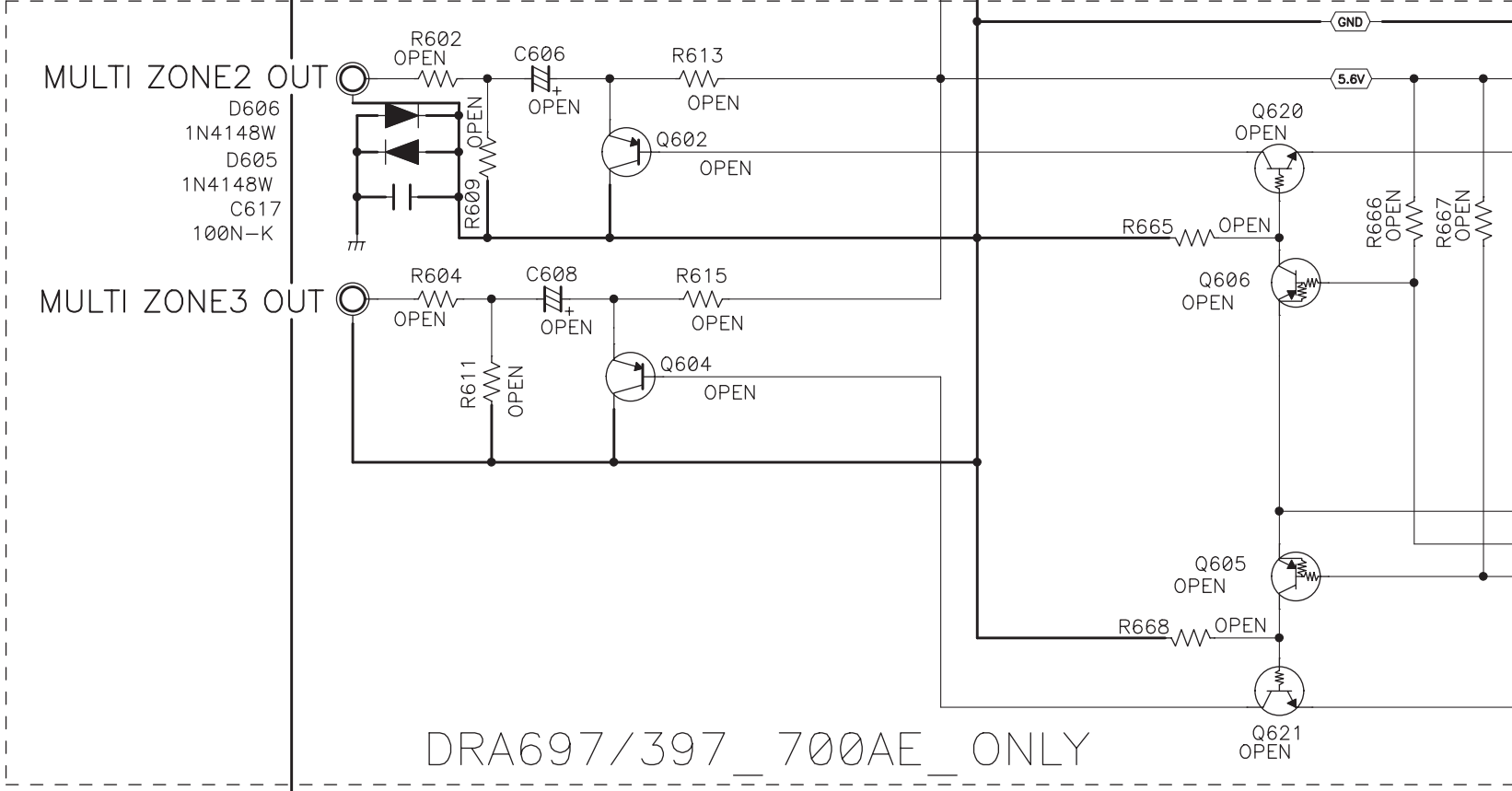
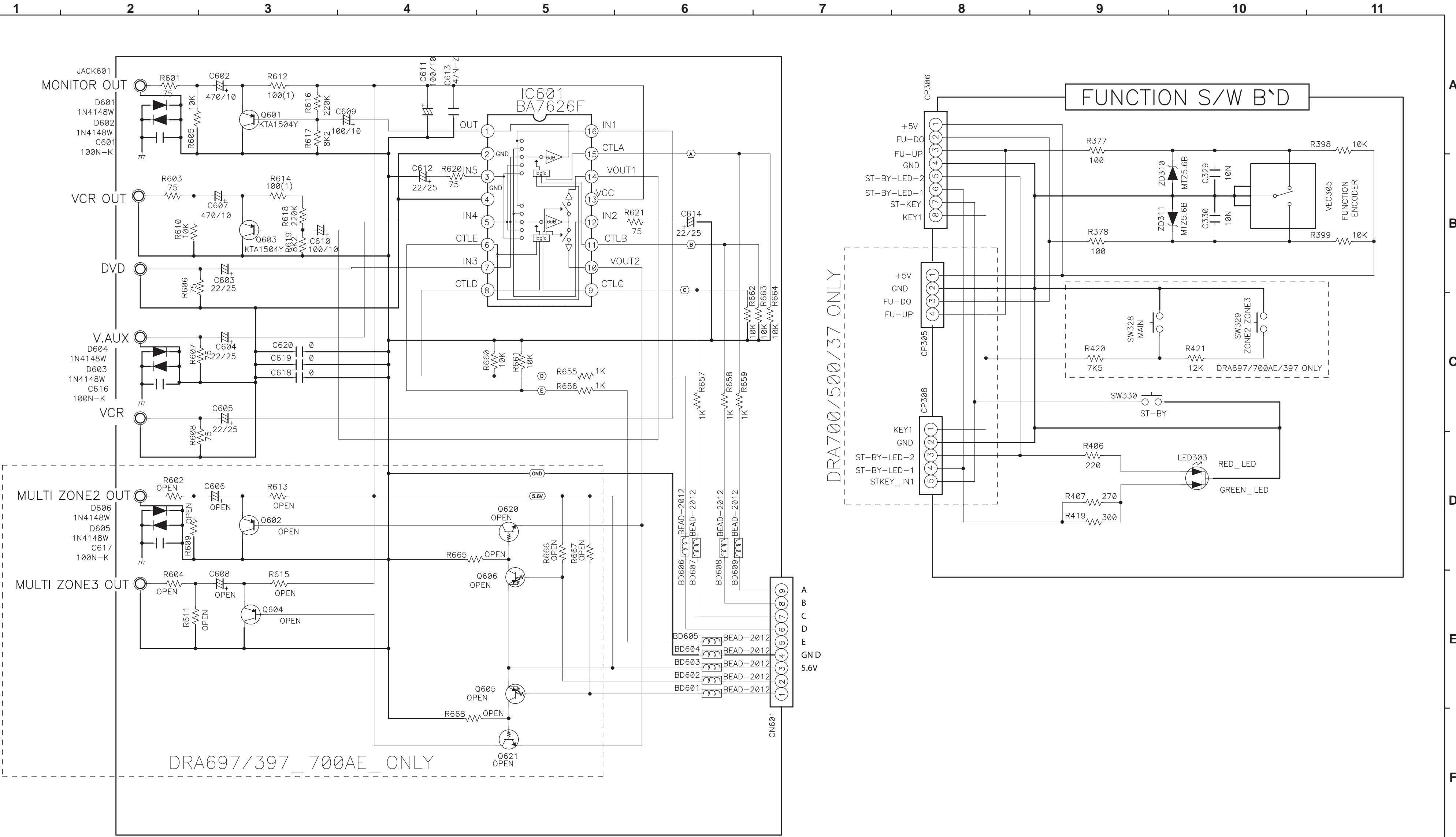
OPTION	DRA697CI	DAR397/700AE	DAR500AE	DAR297/37
Q506FL/FR	2SD2560	2SD2398	2SD2398	2SD2389
Q507FL/FR	2SB1647	2SB1568	2SB1568	2SB1559

DRA297/37	DRA397/697	DRA700/500
FS501	T5AL/250V	T6.3AL/250V
FS502	T5AL/250V	T6.3AL/250V

— SIGNAL LINE

SCHEMATIC DIAGRAMS (3/8)
MAIN/POWER SW UNIT
(for ALL model)

SCHEMATIC DIAGRAMS (4/8)

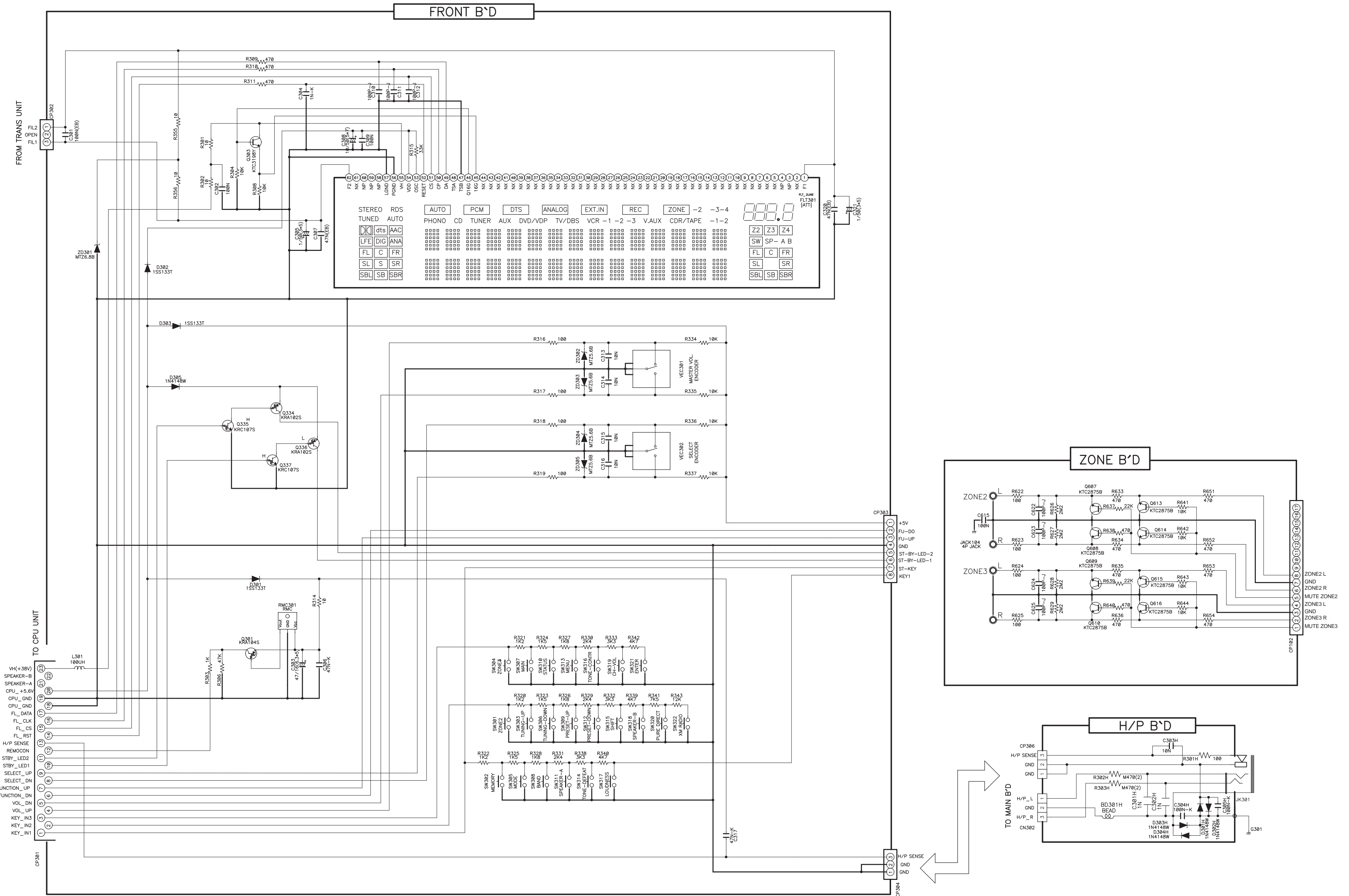


A	B	E	MONITOR OUT	C	D	E	V OUT2	C	D	E	V OUT1
L	L	*	IN1(VCR OUT)	L	L	*	IN1(VCR OUT)	L	L	*	-
H	L	*	IN2(MUTE)	H	L	*	-	H	L	*	IN2(X)
L	H	*	IN3(DVD/VIP)	L	H	*	IN3(DVD/VIP)	L	H	*	IN3(DVD/VIP)
H	H	L	IN4(V.AUX)	H	H	L	IN4(V.AUX)	H	H	L	IN4(V.AUX)
H	H	H	IN5(X)	H	H	H	IN5(MUTE)	H	H	H	IN5(MUTE)

SCHEMATIC DIAGRAMS (5/8)

1 2 3 4 5 6 7 8 9 10 11

A B C D E F G H

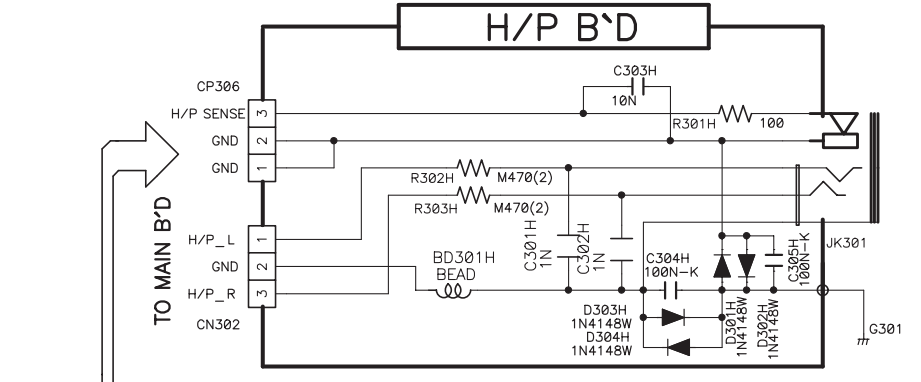
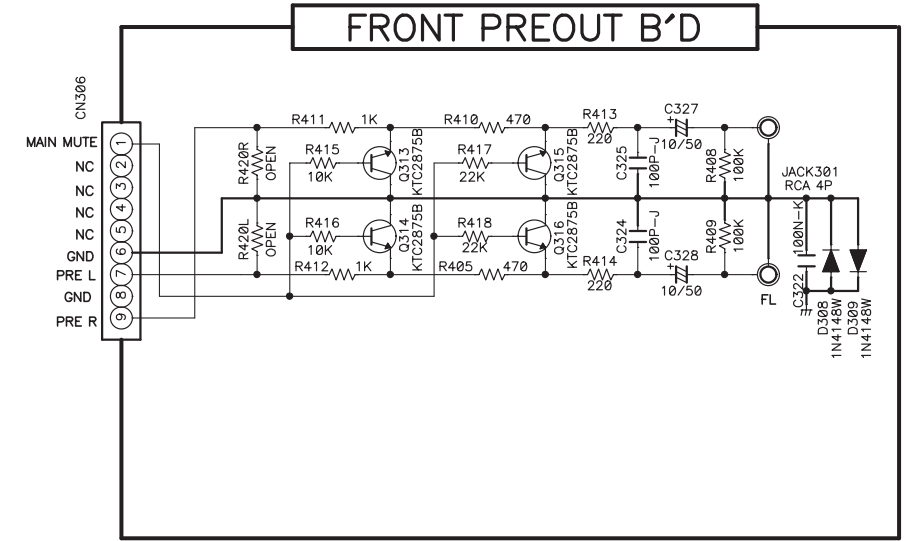
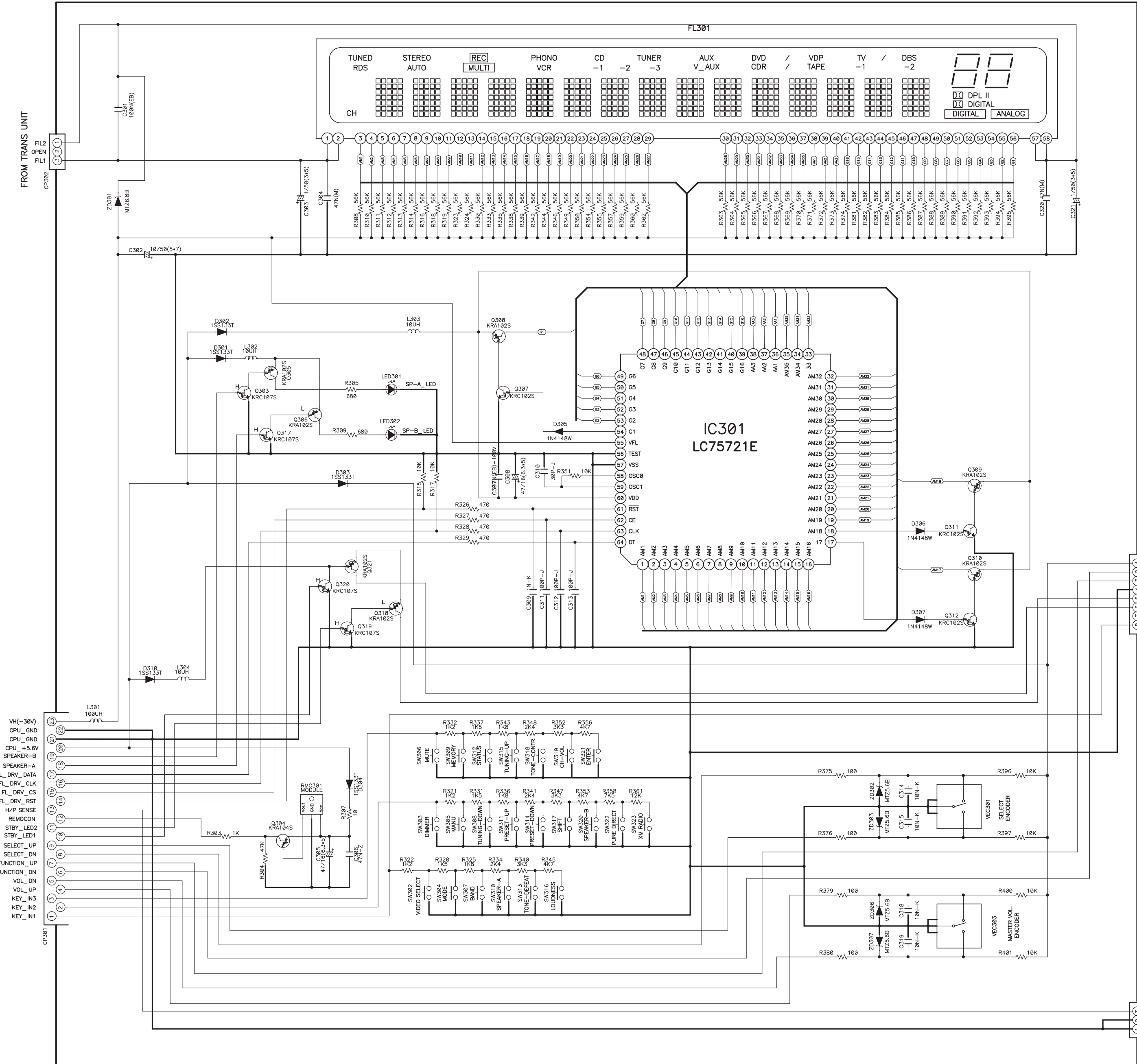


SCHEMATIC DIAGRAMS (5/8)
FRONT/HEAD PHONE/ZONE UNIT
(for DRA-397 model)

SCHEMATIC DIAGRAMS (6/8)

1 2 3 4 5 6 7 8 9 10 11

A B C D E F G H



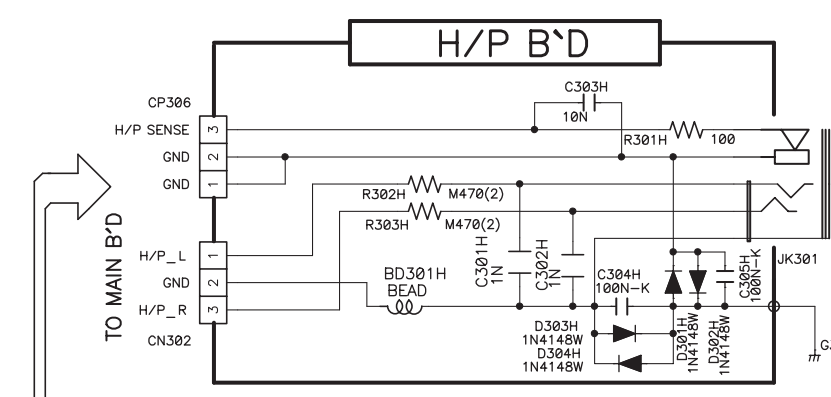
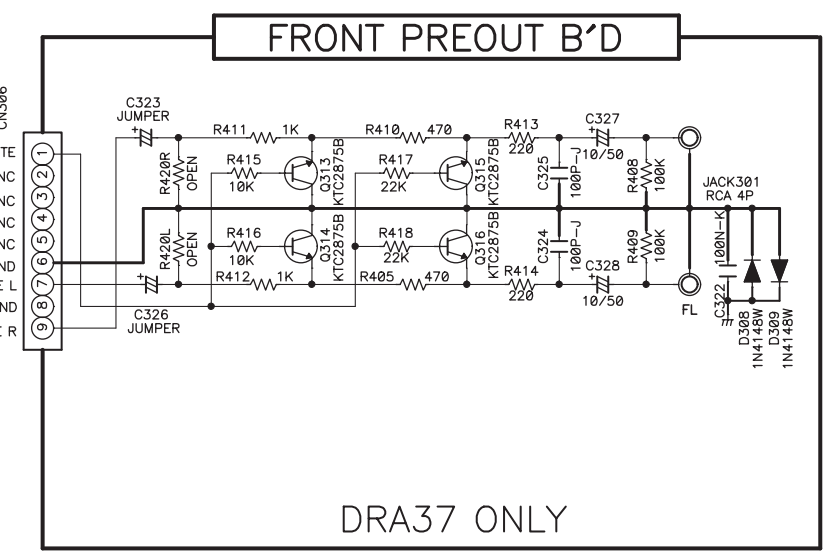
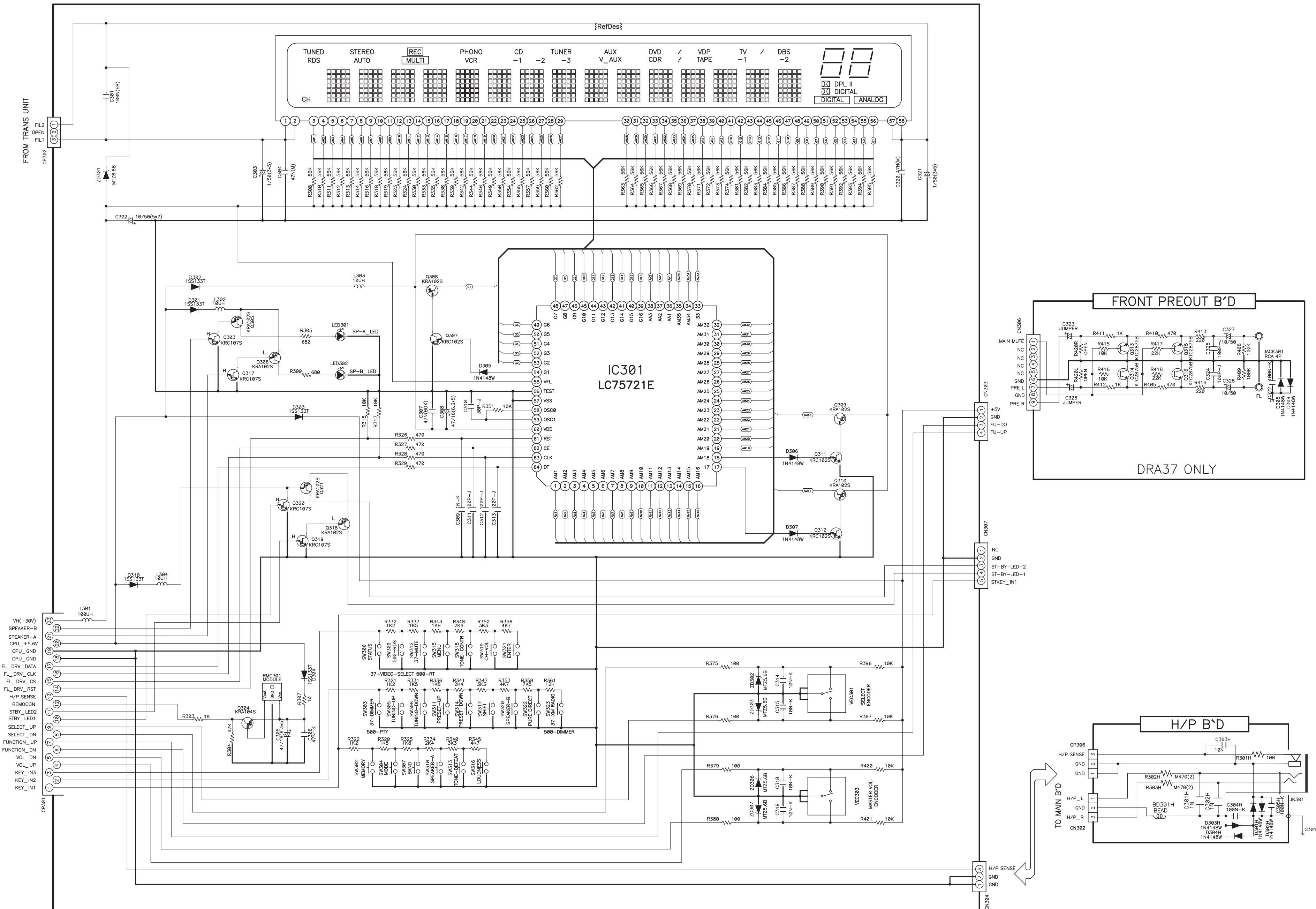
VH(-30V)
CPU_GND
CPU_GND
CPU_+5.6V
SPEAKER-B
SPEAKER-A
FL_DRV_DATA
FL_DRV_CLK
FL_DRV_CS
FL_DRV_RST
H/P SENSE
REMOCON
STBY_LED2
STBY_LED1
SELECT_UP
SELECT_DN
FUNCTION_UP
FUNCTION_DN
VOL_DN
VOL_UP
KEY_IN3
KEY_IN2
KEY_IN1

SCHEMATIC DIAGRAMS (6/8)
FRONT/HEAD PHONE/ZONE UNIT
(for DRA-297 model)

SCHEMATIC DIAGRAMS (7/8)

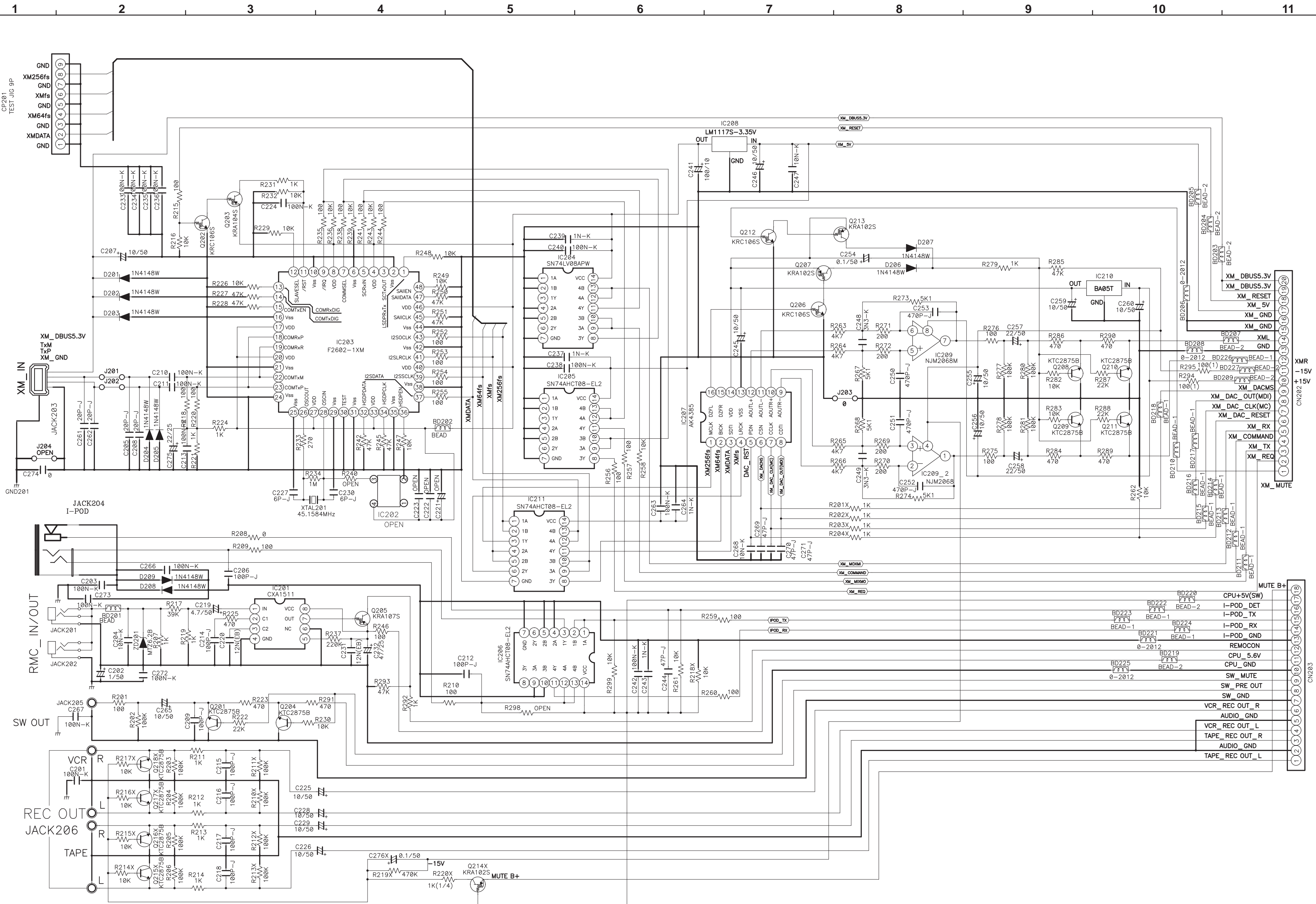
1 2 3 4 5 6 7 8 9 10 11

A B C D E F G H



SCHEMATIC DIAGRAMS (7/8)
FRONT/HEAD PHONE
/FRONT PREOUT UNIT
(for DRA-37 model)

SCHEMATIC DIAGRAMS (8/8)



SCHEMATIC DIAGRAMS (8/8)
XM READY UNIT
(for ALL model)