XDP-4000X

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

SPECIFICATIONS

Power requirements	12 V DC car battery (negative ground, 10.5 V – 16 V)
Current drain	1 A
Frequency response	5 Hz – 20 kHz
Signal-to-noise ratio	105 dB (Optical input)
Harmonic distortion	0.003 % (Optical input)
Separation	95 dB at 1 kHz
Input/output terminals	BUS input (1) BUS output (1) Line input (RCA jack) (2) Line output (RCA jack) (4) Optical digital input (2)
Dimensions	Approx. 249 × 45 × 183 mm (9 7/8 × 1 13/16 × 7 1/4 in.) (w/h/d)
Mass	Approx. 2 kg (4 lb. 7 oz.)

Design and specifications are subject to change without notice.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

DIGITAL EQUALIZER PREAMPLIFIER

MICROFILM

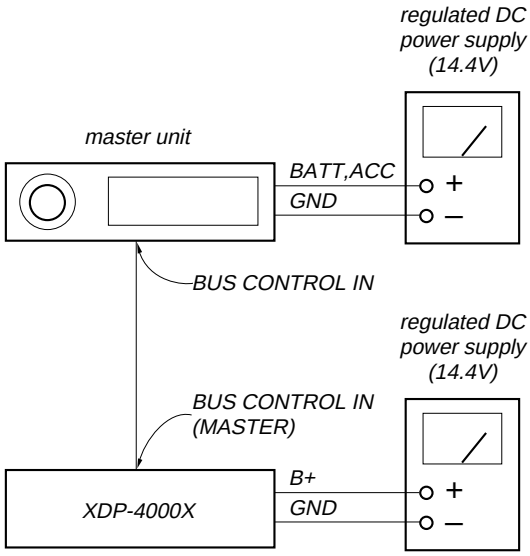
SONY®

SECTION 1
SERVICE NOTE

TABLE OF CONTENTS

METHOD OF OPERATING THE XDP-4000X

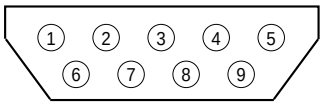
This set cannot be operated alone.
To operated this, it should be connected with a master unit such as CDX-C880 or XR-C9100 as shown below.



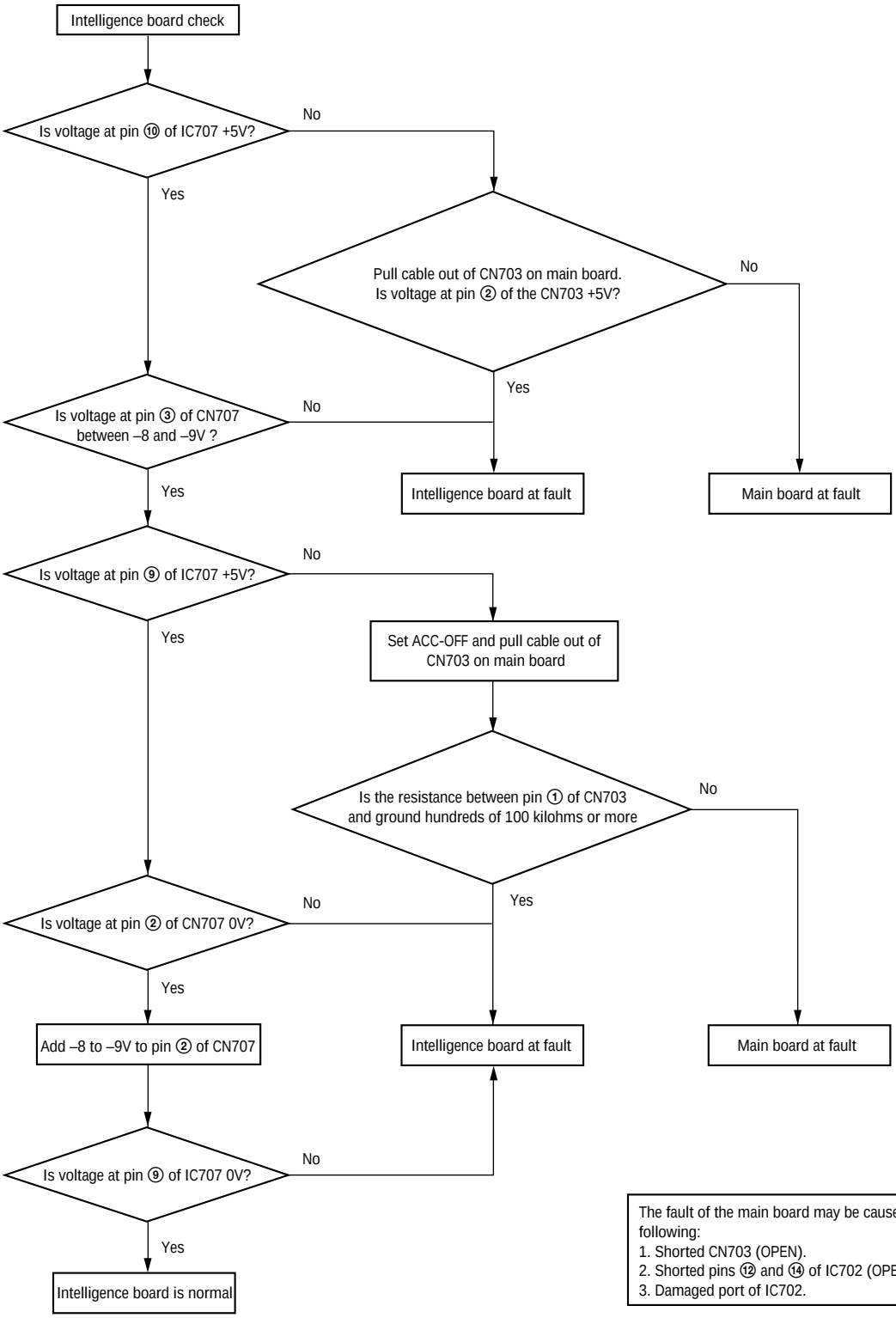
METHOD OF DETERMINING ACCEPTANCE OR REJECTION OF INTELLIGENCE BOARD (A-3317-137-A) OF XDP-4000X

• No parts in the intelligence board can be repaired.
If the intelligence board is defective, the whole board should be replaced.

Pin numbers of 9-pin D-SUB connector (CN707)
(viewed from the top of the set)



Note that the voltage given in the following descriptions is relative to the ground power pin.



The fault of the main board may be caused by one of the following:
1. Shorted CN703 (OPEN).
2. Shorted pins ⑫ and ⑭ of IC702 (OPEN).
3. Damaged port of IC702.

This section is extracted from instruction manual.

Operation

Operating this unit

You can control this unit from a Sony DSP controlled Master unit.

Note
There may be differences between the display items of this manual and the master unit.

Notes in operation

- Operating the MUTE (ATT) function on the unit is different from operating the function on the master unit. On this unit, when MUTE (ATT) is ON, the volume setting function cannot be operated; this is not a malfunction. The MUTE (ATT) function is not overridden by the volume function.
- Two units can not be used at same time.

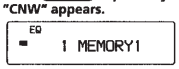
Selecting the stored memory settings

— Equalizer curve
You can select the stored equalizer curve (MEMORY1 to MEMORY10).

— Cut-off frequency (CNW)
You can select the stored cut-off frequency (Crossover Network) (MEMORY1 to MEMORY10).

1 Press (SOURCE) to select a source (radio, tape, CD, MD, etc.).

2 Press (SOUND) repeatedly until "EQ" or "CNW" appears.



3 Adjust the memory number by rotating the dial.
Adjust within three seconds after selecting the memory number. (After three seconds, the dial function reverts to volume control.)

Tip
If you want to change these memory settings, consult your dealer.

Listening to each program source in its registered equalizer curve

— Source Sound Memory
You can listen to the same source (CD, MD, TAPE, FM, AM, TV and AUX) always in the same equalizer curve even after changing the program source or turning the unit on and off again.

Registering an equalizer curve onto each disc

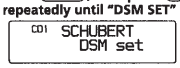
— Disc Sound Memory (DSM)
(CD/MD changer or CD/MD player with program memory function)

Once you have registered the desired equalizer curve for a disc, you can enjoy the same equalizer curve every time you play it.

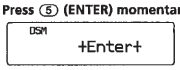
1 Play the desired disc.

2 Select the equalizer curve.

3 Press (SHIFT), then press (3) (PLAY MODE) repeatedly until "DSM SET" appears.



4 Press (5) (ENTER) momentarily.



When the DSM setting is complete, the display will go back to the normal playback mode.

Erasing the stored equalizer curve

1 Press (SHIFT), then press (3) (PLAY MODE) repeatedly until "DSM SET" appears.

2 Press (5) (ENTER) for two seconds.

Fonctionnement

Utilisation de cet appareil

Vous pouvez exploiter cet appareil au départ d'une unité maître à commande DSP de Sony.

Remarque
Il peut y avoir une différence entre les paramètres d'affichage présentés dans ce manuel et affichés sur l'appareil principal.

Remarques sur le fonctionnement

- Le fonctionnement de la fonction MUTE (ATT) est différent sur l'unité et sur l'appareil principal. Sur cette unité, lorsque MUTE (ATT) est réglé sur ON, la fonction de réglage du volume ne peut être actionnée; il ne s'agit pas d'un dysfonctionnement. La fonction MUTE (ATT) n'est pas supplantée par la fonction de volume.
- Il n'est pas possible d'utiliser deux appareils en même temps.

Sélection des réglages mémorisés

—Courbe d'égalisation
Vous pouvez sélectionner la courbe d'égaliseur mémorisée (MEMORY1 à MEMORY10).

— Fréquence de coupure (CNW)
Vous pouvez sélectionner la fréquence de coupure mémorisée (Circuit de recoupement) (MEMORY1 à MEMORY10).

1 Appuyez sur (SOURCE) pour sélectionner une source (radio, cassette, CD, MD, etc.).

2 Appuyez plusieurs fois de suite sur (SOUND) jusqu'à ce que l'indication "EQ" ou "CNW" apparaisse.

3 Réglez le numéro de mémoire en faisant tourner la molette
Effectuez le réglage dans les trois secondes après avoir sélectionné le numéro de mémoire. (Après trois secondes, la fonction de la molette revient à la commande du volume.)

Conseil
Si vous souhaitez modifier ces réglages mémorisés, adressez-vous à votre revendeur.

Ecoute d'une source programme avec sa courbe d'égaliseur mémorisée

— Mémoire de réglage sonore de source
Vous pouvez écouter une source déterminée (CD, MD, TAPE, FM, AM, TV et AUX) en activant toujours la même courbe d'égaliseur même après avoir changé la source programme ou mis l'appareil hors et sous tension.

Enregistrement d'une courbe d'égaliseur sur chaque disque

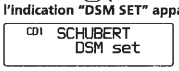
— Mémoire de réglage sonore de disque (DSM)
(Changeur CD/MD ou lecteur CD/MD doté de la fonction de mémoire de programmation)

Si vous avez enregistré la courbe d'égaliseur sur des disques, vous pouvez activer la même courbe d'égaliseur chaque fois que vous les écoutez.

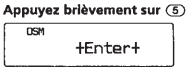
1 Démarrez la lecture du disque de votre choix.

2 Sélectionnez la courbe d'égaliseur.

3 Appuyez sur (SHIFT) et puis plusieurs fois de suite sur (3) (PLAY MODE) jusqu'à ce que l'indication "DSM SET" apparaisse.



4 Appuyez brièvement sur (5) (ENTER).

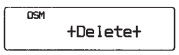


Lorsque le réglage DSM est terminé, l'affichage revient au mode de lecture normal.

Suppression d'une courbe d'égaliseur mémorisée

1 Appuyez sur (SHIFT) et puis plusieurs fois de suite sur (3) (PLAY MODE) jusqu'à ce que l'indication "DSM SET" apparaisse.

2 Appuyez sur (5) (ENTER) pendant deux secondes.

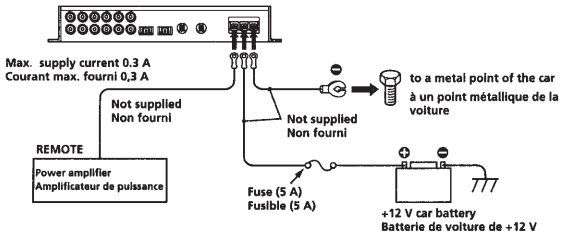


Connection

Caution

- Before making any connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the + 12 V power supply wire only after all the other wires have been connected.
- Be sure to press the reset button of the master unit after all the connections have been completed.
- If your car is equipped with a computer system for navigation or some other purpose, Do not remove the ground wire from the car battery. If you disconnect the wire, the computer memory may be erased. To avoid short circuits when making connections, disconnect the +12 V power supply wire until all the other leads have been connected.

Power connection wires



Notes on the power supply

- *Connect the +12 V power supply wire only after all the other wires have been connected.*
- *Make independent (separate) connections to the car battery of the power supply wires from the power amplifier and this unit.*
- *If you connect the power supply wire (from the + 12V terminal) directly to the car battery, be sure to use 5 A fuse, and place it on the wire as close as possible to the car battery. Also, be sure to use a wire which is at least 16-Gauge (AWG-16) or with a sectional area of at least 1.25 mm².*
- *Be sure to connect the ground wire of the unit securely to a metal point of the car. A loose connection may cause a malfunction of the amplifier.*
- *Be sure to connect the remote control power supply wire from the power amplifier to either the REM OUT of the unit or the AMP REM wire of the master unit which must be compatible with the Sony DSP system.*

Attaching the terminal cover

Pass the power supply wires through the supplied terminal cover, then connect the power supply wires and cover them with the terminal cover for protection, as shown below.

Equipment and accessories in the connections illustrations

	BUS cable		Mid-Low-Range speaker
	Câble BUS		Haut-parleur de médiums-graves
	RCA pin cord		Subwoofer
	Cordon à broche RCA		HP extrêmes-graves
	Optical cable		CD/MD changer (equipped with an analog output)
	Câble optique		Changeur CD/MD (doté d'une sortie analogique)
	Master unit (which can operate a digital preamplifier)		CD changer (equipped with a digital output)
	Appareil principal (pouvant commander un préamplificateur numérique)		Changeur CD (doté d'une sortie numérique)
	Power amplifier		Source selector (compatible with a analog system)
	Amplificateurr de puissance		Sélecteur de source (compatible avec un système analogique)
	Tweeter		TV tuner (USA model only)
	HP aigu		Syntoniseur de télévision (modèle pour les USA uniquement)
	Mid-High-Range speaker		
	Haut-parleur de médiums-aigus		

If you need some extra connecting cables or cords, you can find them in the Sony audio accessory lineup. For the equipment to be connected to the unit, refer to "Optional equipment."

Si vous avez besoin de câbles ou de cordons de connexion supplémentaires, vous les trouverez dans la gamme d'accessoires audio Sony. Pour l'équipement à raccorder à l'appareil, reportez vous à la section "Appareils en option."

Raccordement

Attention

- Avant d'établir quelque raccordement que ce soit, débranchez le fil de masse de la batterie de la voiture de manière à éviter tout court-circuit.
- Ne branchez le fil d'alimentation + 12 V qu'après que tous les autres fils ont été raccordés.
- Appuyez sur la touche de réinitialisation de l'appareil principal lorsque toutes les connexions ont été établies.
- Si votre voiture est équipée d'un ordinateur de bord pour la navigation ou à toute autre fin, ne débranchez pas le fil de masse de la batterie de la voiture. Si vous débranchez ce fil, toute la mémoire de l'ordinateur sera effacée. Pour éviter les courts-circuits lorsque vous établissez les connexions, débranchez le fil d'alimentation + 12 V tant que tous les autres fils n'ont pas été raccordés.

Fils de raccordement de l'alimentation

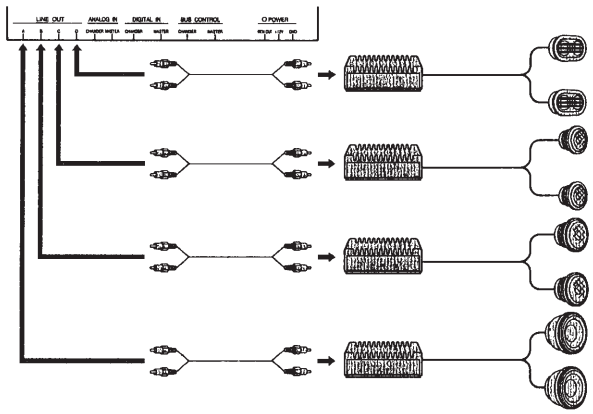
Remarques sur l'alimentation

- *Ne branchez le fil d'alimentation +12 V qu'après que tous les autres fils ont été raccordés.*
- *Réaliser des connexions indépendantes (séparées) vers la batterie de la voiture des fils d'alimentation électrique de l'amplificateur et de cet appareil.*
- *Si vous branchez le fil d'alimentation (raccordé à la borne + 12V) directement sur la batterie de la voiture, assurez-vous qu'un fusible d'une intensité d'au moins 5 A est installé sur les fils aussi près que possible de la batterie et que les fils sont d'une section supérieure à "16-Gauge" (AWG-16) ou de plus de 1,25 mm².*
- *Raccordez correctement le fil de masse de l'appareil à un point métallique de la voiture. Une connexion lâche risque de provoquer un dysfonctionnement de l'amplificateur.*
- *Raccordez le fil de télécommande de l'amplificateur de puissance sur la prise REM OUT de l'appareil ou AMP REM de l'appareil principal qui est compatible avec le système DSP Sony.*

Fixation du couvre-borne

Passez les fils d'alimentation à travers le couvre-borne fourni, puis raccorder les fils d'alimentation et les recouvrir du couvre-borne pour les protéger, comme illustré ci-dessous.

For the optional power amplifier
Pour l'amplificateur de puissance en option



Accessory connections (illustration numbers)
Connexions d'extension (numéros de l'exemple illustré)

	1	2	3	4	5	6	7
ANALOG		○		○		○	○
DIGITAL	○				○		○
			○	○	○		
ANALOG						○	○

Note

Make sure that the line out from the master unit is connected to the jack marked "MASTER" under "ANALOG IN" of the analog input on the unit and the CD/MD changer, the TV tuner (USA model only), and the source selector is connected to the jack marked "CHANGER" under "ANALOG IN" on the unit. If the connections are incorrect, either no sound will be heard or else altenator noise will be heard.

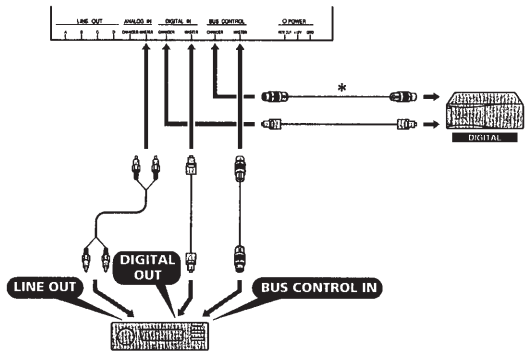
Remarque

Assurez-vous que la ligne de sortie de l'unité maître est raccordée à la prise marquée "MASTER" sous "ANALOG IN" de l'entrée analogique de l'appareil et du changeur de CD/MD, du syntoniseur TV (modèle pour les USA uniquement) et que le sélecteur de source est raccordé à la prise marquée "CHANGER" sous "ANALOG IN" de l'appareil. Si ces connexions sont incorrectes, aucun son ne sera émis ou bien le bruit de l'alternateur sera audible.

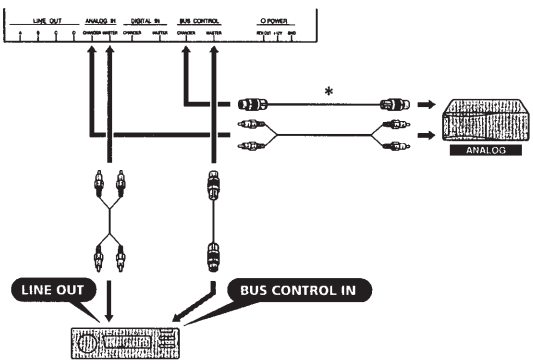
* *Supplied with this unit. (②)*
For the other connecting cables and cords, use the ones supplied with the other units or separately sold ones.

* *Fourni avec cet appareil. (②)*
Pour les autres câbles et cordons de connexion, utilisez ceux fournis avec les autres appareils ou vendus séparément.

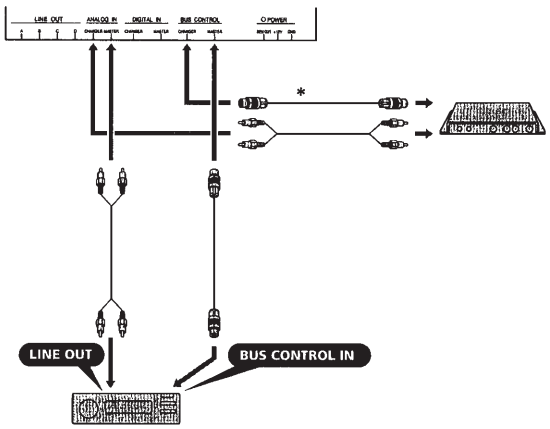
1 **With a CD changer (digital)**
Avec un changeur CD (numérique)



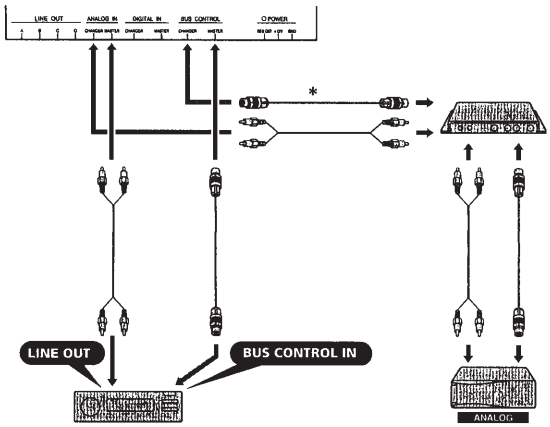
2 **With a CD/MD changer (analog)**
Avec le changeur CD/MD (analogique)



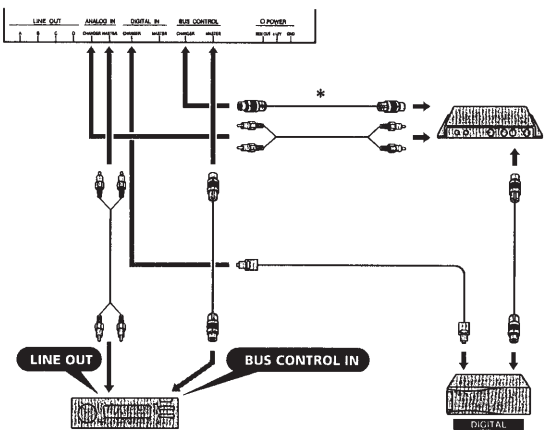
3 **With a TV tuner (USA model only)**
Avec un syntoniseur de télévision (modèle pour les USA uniquement)



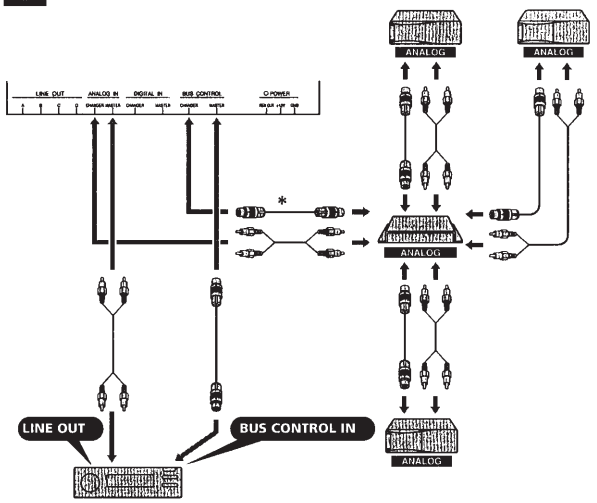
4 **With a TV tuner and a CD/MD changer (analog) (USA model only)**
Avec un syntoniseur de télévision et un changeur CD/MD (analogique) (modèle pour les USA uniquement)



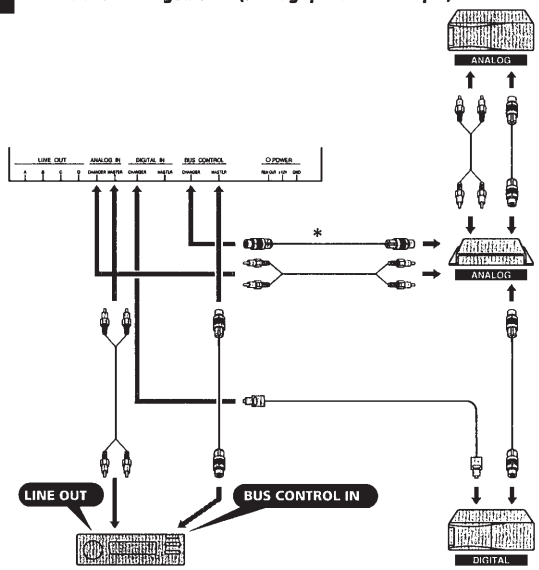
5 **With a TV tuner and a CD changer (digital) (USA model only)**
Avec un syntoniseur de télévision et un changeur CD (numérique) (modèle pour les USA uniquement)



6 **With several CD/MD changers (analog)**
Avec plusieurs changeurs CD/MD (analogiques)



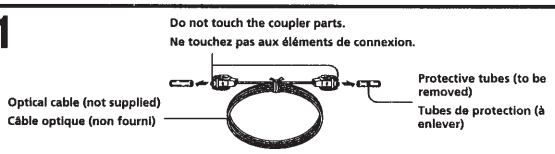
7 **With two CD changers (analog and digital)**
Avec deux changeurs CD (analogique et numérique)



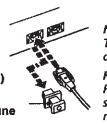
Connection of the optional optical cable (RC-97, etc.)

Raccordement du câble optique en option (RC-97, etc.)

1



2



Note
To disconnect the cable, pinch both sides of the connector and pull out.

Remarque
Pour débrancher le câble, pressez simplement le connecteur par les côtés et retirez-le.

Notes on the optical cable

Observe the following when connecting the cable.
— Make sure that the connector is plugged in firmly with the catches on either side of the connector being fully inserted into the socket.
— Do not forcibly bend the cable too much so that the bent part (arc) becomes less than 5 cm (2 in.) in radius. If you do so, sound may not be reproduced.
— Make sure that the cable does not get squeezed or constricted in any way by objects around it.
— Never let the coupler parts of the connectors get scratched or become contaminated with dirt.
— When using the optical cable, avoid routing it in places where there could be a considerable rise in temperature.

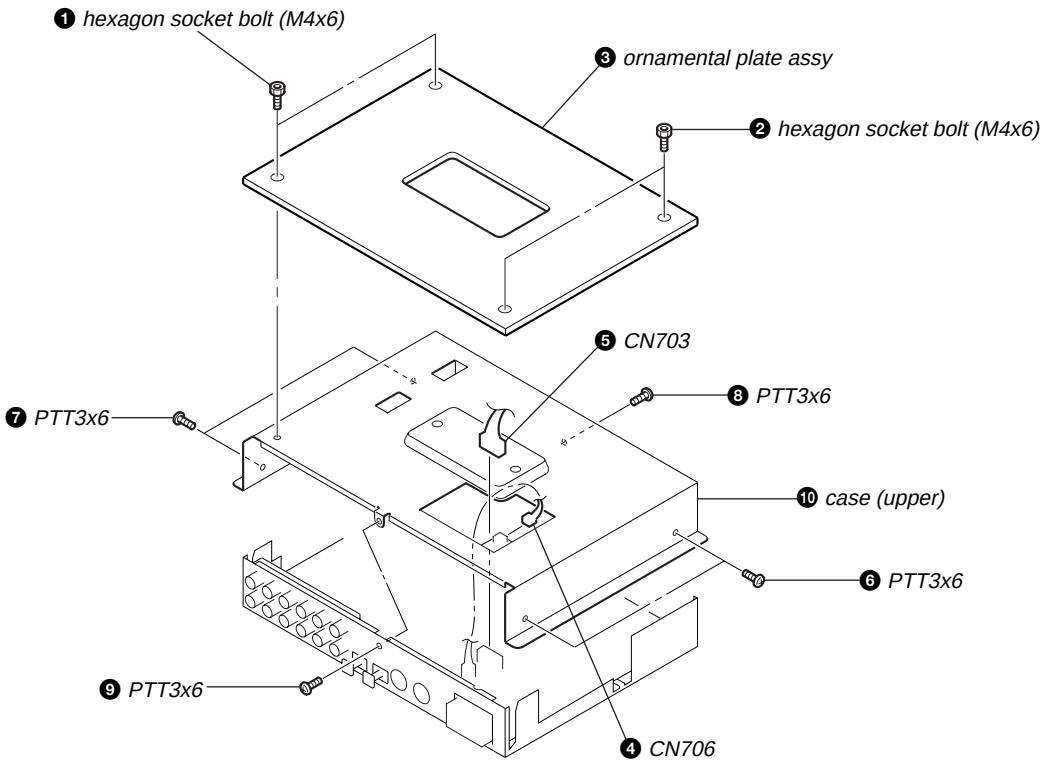
Remarques sur le câble optique

Observez les instructions suivantes lorsque vous branchez le câble.
— Assurez-vous que le connecteur est fermement enfiché et que les fixations situées de part et d'autre du connecteur sont insérées à fond dans la prise.
— Ne pliez pas le câble en forçant tellement que le rayon de la courbe (arc) fait moins de 5 cm (2 pouces). Vous risquez sinon de plus entendre aucun son.
— Assurez-vous que le câble ne soit pas écrasé ni coincé de quelque manière que ce soit par les objets avoisinants.
— Veillez à ce qu'aucun élément de connexion ne soit rayé ou contaminé de souillures.
— Si vous utilisez le câble optique, évitez de le faire passer par des endroits soumis à des élévations importantes de la température.

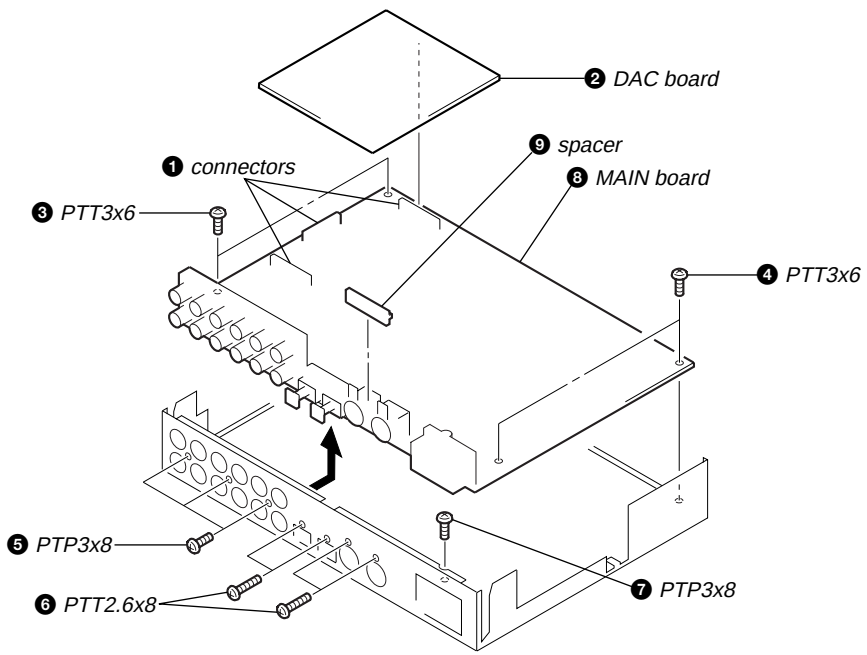
SECTION 3
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

3-1. CASE (UPPER)



3-2. MAIN BOARD



SECTION 4
DIAGRAMS

4-1. IC PIN DESCRIPTIONS

• IC502 CXD2710R (DIGITAL SIGNAL PROCESSOR)

Pin No.	Pin Name	I/O	Pin Description
1	AMPIN	I	Loop filter amplifier input for the PLL.
2	AMPOUT	O	Loop filter amplifier output for the PLL.
3	VDD	—	Digital power supply pin (+5 V)
4	VSS	—	Ground
5	AVSS1	—	Ground (for PLL)
6	VCOC	I	VCO control input
7	AVDD1	—	Power supply pin (for PLL) (+5 V)
8	VCOOUT	O	VCO output for the PLL. Not used. (open)
9	MCK1	I	Master clock (768Fs) input
10	MCK2	I	Master clock (384Fs) input
11	MCKOUT	O	Master clock (384Fs) output. Not used. (open)
12	MCKSEL	I	Input for clock signal setting internal VCO or MCK1 (pin ⑨). Internal VCO used: “L”, MCK1 (pin ⑨) used: “H” (Fixed at “L”.)
13	XMUTE	I	Output mute signal input of the serial interface. (“L”: mute ON) (Fixed at “H”.)
14	DIN	I	Program data serial input
15	VSS	—	Ground
16	SCK	I	Program data shift clock signal input
17	XLD	I	Program data load input
18	DOUT	O	Internal data serial output to the system control (IC702).
19	BUSY	O	Busy signal at serial data transfer output to the system control (IC702).
20	XCLR	I	Reset signal input from the system control (IC702). “L”: reset
21 – 27	TEST	I	Test pin (Normally connect to ground.)
28	VDD	—	Digital power supply pin (+5 V)
29	VSS	—	Ground
30 – 38	TEST	I	Test pin (Normally connect to ground.)
39	TEST	—	Test pin (Normally open.)
40	VSS	—	Ground
41 – 52	TEST	—	Test pin (Normally open.)
53	VDD	—	Digital power supply pin (+5 V)
54	VSS	—	Ground
55 – 64	TEST	—	Test pin (Normally open.)
65	VSS	—	Ground
66 – 74	TEST	—	Test pin (Normally open.)
75	EBDIR	I	Test pin (Normally connect to ground.)
76	UBDIR	I	Test pin (Normally connect to ground.)
77	TEST0	I	Test pin (Normally connect to ground.)
78	VDD	—	Digital power supply pin (+5 V)
79	VSS	—	Ground
80	TEST1	I	Test pin (Normally connect to ground.)
81	DTEST0	I	Test pin (Normally connect to ground.)
82	DTEST1	I	Test pin (Normally connect to ground.)
83	AVDD2	—	Power supply pin (for D-RAM) (+5 V)
84	AVSS2	—	Ground (for D-RAM)
85	AVDD3	—	Power supply pin (for D-RAM) (+5 V)
86	AVSS3	—	Ground (for D-RAM)
87	S3OUT	O	Serial data output of 1 sampling, 2 channel.
88	S2OUT	O	Serial data output of 1 sampling, 2 channel.
89	S1OUT	O	Serial data output of 1 sampling, 2 channel.
90	VSS	—	Ground
91	S3DI	I	Serial data input of 1 sampling, 2 channel.
92	S2DI	I	Serial data input of 1 sampling, 2 channel.

Pin No.	Pin Name	I/O	Pin Description
93	S1DI	I	Serial data input of 1 sampling, 2 channel.
94	BCK	I	Bit clock input of the serial input/output data.
95	LRCK	I	Sampling clock input of the serial input/output data.
96	$\overline{\text{LOCK}}$	O	Error output of the PLL unlock.
97	$\overline{\text{V}}$	O	Frequency divider output for the PLL.
98	VAR	I	PLL phase comparator variable input
99	REF	I	PLL phase comparator reference input
100	PD	O	PLL phase comparator charge pump output

• IC503, 504 CXD2711Q (DIGITAL SIGNAL PROCESSOR)

Pin No.	Pin Name	I/O	Pin Description
1	VSS	—	Ground
2	CRDY	O	Output of ready signal at serial data transfer to the system control (IC702). “H”: Ready
3	CCNT	I	Input of control/data from address bus for the system control (IC702). “L”: data input
4	XCWR	I	Strobe signal input for data writing from the system control (IC702). Data are written by a falling edge.
5	XCRD	I	Strobe signal input for data reading from the system control (IC702). “L”: data read
6	VDD	—	Power supply pin (+3.3 V)
7	CD0	I/O	Two-way data bus (LSB) with the system control (IC702).
8	CD1	I/O	Two-way data bus with the system control (IC702).
9	CD2	I/O	
10	CD3	I/O	
11	VSS	—	Ground
12	CD4	I/O	Two-way data bus with the system control (IC702).
13	CD5	I/O	
14	CD6	I/O	
15	CD7	I/O	Two-way data bus (MSB) with the system control (IC702).
16	VDD	—	Power supply pin (+3.3 V)
17	XMUTE	I	Mute control signal input of the audio data. “L”: mute. (Fixed at “H”.)
18	XCCS	I	Input of chip select signal from address bus. “L”: chip select
19	VSS	—	Ground
20	MCKO	O	Master clock signal (18.432 MHz) output. Not used. (open)
21	VSS	—	Ground
22	XT2O	O	System clock signal (36.864 MHz) output. Not used. (open)
23	XT2I	I	System clock signal (36.864 MHz) input
24	VSS	—	Ground
25	(BIST)	—	Test pin. Not used. (open)
26	(TCK)	—	Test pin. Not used. (open)
27	(TDI)	—	Test pin. Not used. (open)
28	(TENA1)	—	Test pin. Not used. (open)
29	(TDO)	—	Test pin. Not used. (open)
30	VST	I	Not used. (Fixed at “L”.)
31	VSS	—	Ground
32	XRST	I	Reset signal input. “L”: reset
33	BCLK	I/O	Block clock signal input/output. Not used. (open)
34	LRCK	I/O	L/R sampling clock signal input/output
35	BCK	I/O	Bit clock signal input/output
36	VSS	—	Ground
37	SIA	I	Serial audio data signal input A IC503: Serial audio data signal input from the digital signal processor (IC502). IC504: Serial audio data signal input from the digital signal processor (IC502).
38	SIB	I	Serial audio data signal input B IC503: Serial audio data signal input from the digital signal processor (IC502). IC504: Serial audio data signal input from the digital signal processor (IC502).
39	SOA	O	Serial audio data signal output A IC503: Serial audio data (high) signal output IC504: Serial audio data (sub) signal output
40	SOB	O	Serial audio data signal output B IC503: Serial audio data (high) signal output IC504: Serial audio data (low) signal output
41	VSS	—	Ground
42 – 45	TEST	I	Test pin. Not used. (Connect to ground.)

Pin No.	Pin Name	I/O	Pin Description
46	VDD	—	Power supply pin (+3.3 V)
47, 48	TEST	I	Test pin. Not used. (Connect to ground.)
49	VSS	—	Ground
50	MD00	I/O	IC503: External memory data signal input/output to IC512. IC504: External memory data signal input/output to IC518.
51	VSS	—	Ground
52	MD01	I/O	IC503: External memory data signal input/output to IC512. IC504: External memory data signal input/output to IC518.
53	MD02	I/O	
54	MD03	I/O	
55	VSS	—	Ground
56	MD04	I/O	IC503: External memory data signal input/output to IC512. IC504: External memory data signal input/output to IC518.
57	MD05	I/O	
58	MD06	I/O	
59	MD07	I/O	
60	VDD	—	Power supply pin (+3.3 V)
61	VSS	—	Ground
62	MD08	I/O	IC503: External memory data signal input/output to IC512. IC504: External memory data signal input/output to IC518.
63	MD09	I/O	
64	MD10	I/O	
65	MD11	I/O	
66	VDD	—	Power supply pin (+3.3 V)
67	MD12	I/O	IC503: External memory data signal input/output to IC512. IC504: External memory data signal input/output to IC518.
68	MD13	I/O	
69	MD14	I/O	
70	MD15	I/O	
71	VSS	—	Ground
72	XRAS	O	IC503: Row address strobe signal output to external memory (D-RAM: IC512). IC504: Row address strobe signal output to external memory (D-RAM: IC518).
73	MA09	O	Row address strobe signal output to external memory (D-RAM) or address signal output to external memory (ROM). Not used. (open)
74	MA10	O	
75	MA11	O	
76	VDD	—	Power supply pin (+3.3 V)
77	MA12	O	Row address strobe signal output to external memory (D-RAM) or address signal output to external memory (ROM). Not used. (open)
78	MA13	O	
79	MA14	O	
80	MA15	O	
81	VSS	—	Ground
82	MA00	O	IC503: Address signal output to external memory (D-RAM: IC512). IC504: Address signal output to external memory (D-RAM: IC518).
83	MA01	O	
84	VSS	—	Ground
85	MA02	O	IC503: Address signal output to external memory (D-RAM: IC512). IC504: Address signal output to external memory (D-RAM: IC518).
86	MA03	O	
87	VDD	—	Power supply pin (+3.3 V)
88	MA04	O	IC503: Address signal output to external memory (D-RAM: IC512). IC504: Address signal output to external memory (D-RAM: IC518).
89	MA05	O	
90, 91	VSS	—	Ground
92	MA06	O	IC503: Address signal output to external memory (D-RAM: IC512). IC504: Address signal output to external memory (D-RAM: IC518).
93	MA07	O	
94	VSS	—	Ground
95	MA08	O	IC503: Address signal output to external memory (D-RAM: IC512). IC504: Address signal output to external memory (D-RAM: IC518).
96, 97	MA16, 17	O	Address signal output to external memory. Not used. (open)
98	VDD	—	Power supply pin (+3.3 V)

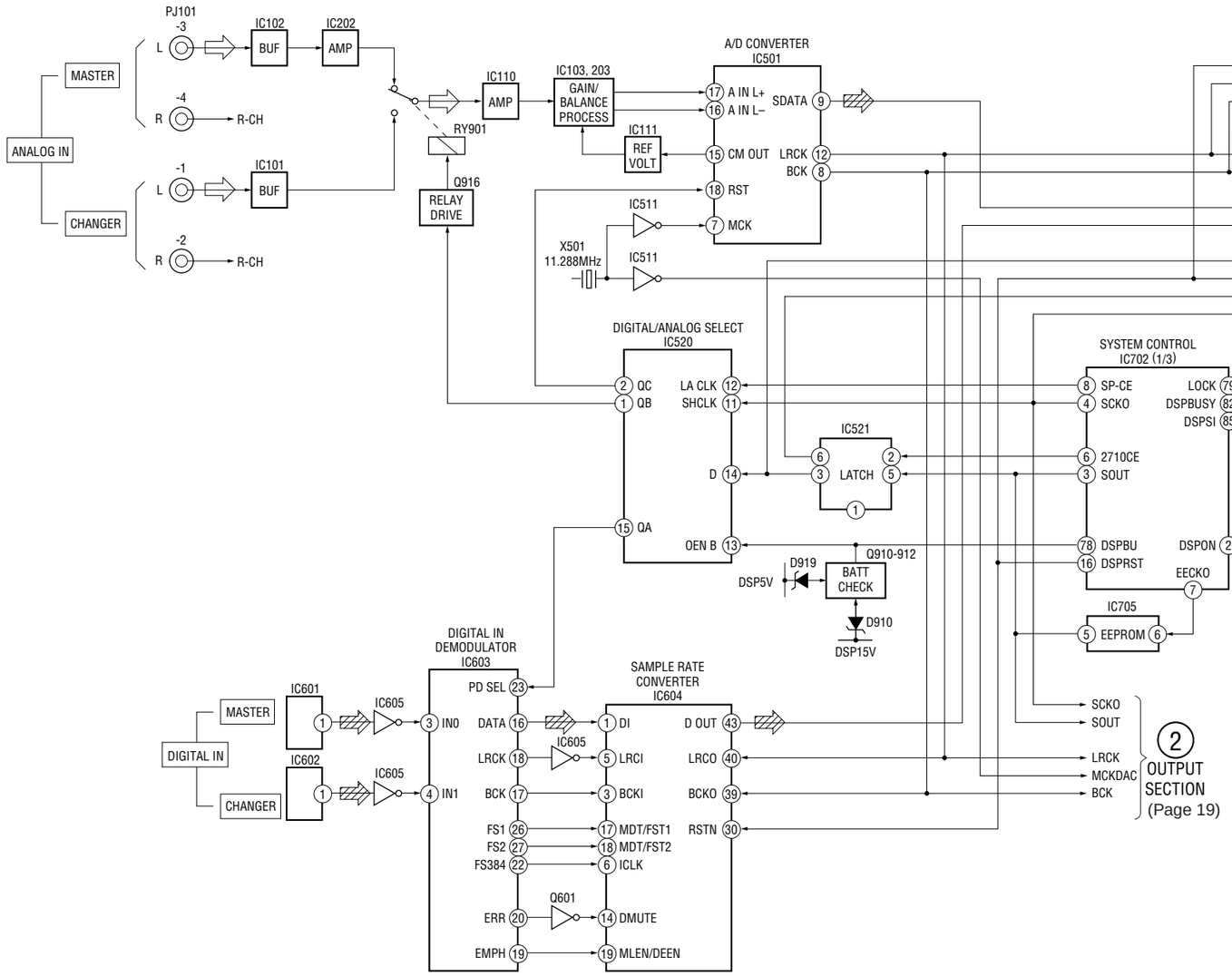
Pin No.	Pin Name	I/O	Pin Description
99	XMUTE	O	IC503: Write enable signal output to external memory (D-RAM: IC512). IC504: Write enable signal output to external memory (D-RAM: IC518).
100	XMODE	O	IC503: Output enable signal output to external memory (D-RAM: IC512). IC504: Output enable signal output to external memory (D-RAM: IC518).
101	VSS	—	Ground
102	XMCS	O	Chip select output to external memory (ROM). Not used. (open)
103	XCAS	O	IC503: Column address strobe signal output to external memory (D-RAM: IC512). IC504: Column address strobe signal output to external memory (D-RAM: IC518).
104	VSS	—	Ground
105	DEND	O	Internal operation monitor signal output (DMU END). Not used. (open)
106	VDD	—	Power supply pin (+3.3 V)
107	PEND	O	Internal operation monitor signal output (PROC END). Not used. (open)
108	ENC0	O	Internal operation monitor signal output (BUS ENC0). Not used. (open)
109	ENC1	O	Internal operation monitor signal output (BUS ENC1). Not used. (open)
110	ENC2	O	Internal operation monitor signal output (BUS ENC2). Not used. (open)
111	VSS	—	Ground
112	STOP	O	Internal operation monitor signal output (BUS STOP). Not used. (open)
113	HOLD	O	Internal operation monitor signal output (BUS HOLD). Not used. (open)
114	OVF	O	Overflow signal output at the operation. “H”: overflow. Not used. (open)
115	LIM	O	Fixed/float conversion limiter signal output. “H”: limiter on. Not used. (open)
116	BTIA	I	Bit signal input A
117	BTIB	I	Bit signal input B
118	BTOA	O	Bit signal output A. Not used. (open)
119	BTOB	O	Bit signal output B. Not used. (open)
120	VDD	—	Power supply pin (+3.3 V)

• IC702 HD6473048SF16 (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Pin Description
1	VCC	—	Power supply pin (+5 V)
2	DSPON	O	System, digital, analog and amplifier remote power supply control signal output.
3	SOUT	O	Serial data signal output
4	SCKO	O	Serial clock signal output
5	VCE0	O	Not used. (open)
6	2710CE	O	Program data load output to digatal signal processor (IC502).
7	EE-CKO	O	Connect to SCK pin of EEPROM (IC705).
8	SP-CE	O	Serial /Parallel chip enable signal output
9	DSPRDY	I	Data transfer ready signal input
10	VPP	—	Not used. (Connect to ground.)
11	VSS	—	Ground
12	EXT/IO (TX)	O	UART serial data signal output
13	UNISO	O	Bus serial data signal output
14	EXT/IO (RX)	I	UART serial data signal input
15	UNISI	I	Bus serial data signal input
16	DSPRST	O	DSP reset control signal output
17	UNICKI	I	Bus clock signal input
18 – 21	D0 – 3	I/O	Two-way data bus to external device. H: Bus off, Back up off.
22	VSS	—	Ground
23 – 34	D4 – 15	I/O	Two-way data bus to external device. H: Bus off, Back up off.
35	VDD	—	Power supply pin (+5 V)
36 – 43	A0 – 7	O	Address bus signal output to external device. H: Bus off, Back up off.
44	VSS	—	Ground
45 – 56	A8 – 19	O	Address bus signal output to external device. H: Bus off, Back up off.
57	VSS	—	Ground
58	AMUTE	O	Mute control signal output (Relay mute control)
59	MUT/PW	O	Mute power signal output
60	—	—	De-emphasis control signal output. Not used. (open)
61	NC	—	System clock signal output to external device. Not used. (open)
62	STBY	I	Hardware standby signal input. Fixed at “H”. (Connect to VDD.)
63	SYSRESET	I	Reset signal input
64	BU-IN	I	Back up detect signal input
65	VSS	—	Ground
66	X-IN	I	Oscillator (14.7456 MHz) connect pin
67	EX-IN	I	
68	VDD	—	Power supply pin (+5 V)
69	$\overline{AS}$	—	Address strobe signal output. Not used. (open)
70	$\overline{RD}$	O	Read signal output
71	$\overline{HWR}$	O	High write signal output
72	$\overline{LWR}$	O	Low write signal output
73	MD0	I	Operation mode control signal input. Fixed at “L”. (Connect to ground.)
74, 75	MD1, 2	I	Operation mode control signal input. Fixed at “H”. (Connect to VDD.)
76	AVDD	—	Power supply pin (+5 V)
77	AVREF	I	Reference voltage signal input
78	DSPBU	I	DSP BU signal input
79	LOCK (2710)	I	PLL unlock error detect signal input from digital signal processor (IC502).
80	—	—	Not used. (Connect to ground.)
81	VOLMAX	I	Not used. (Connect to ground.)
82	DSPBUSY	I	Busy signal input
83	SDI-AGC	I	AGC out signal input. Not used. (Connect to ground.)
84	BU-IN	I	Back up detect signal input
85	DSPSI (2710)	I	Data signal input from digital signal processor (IC502).

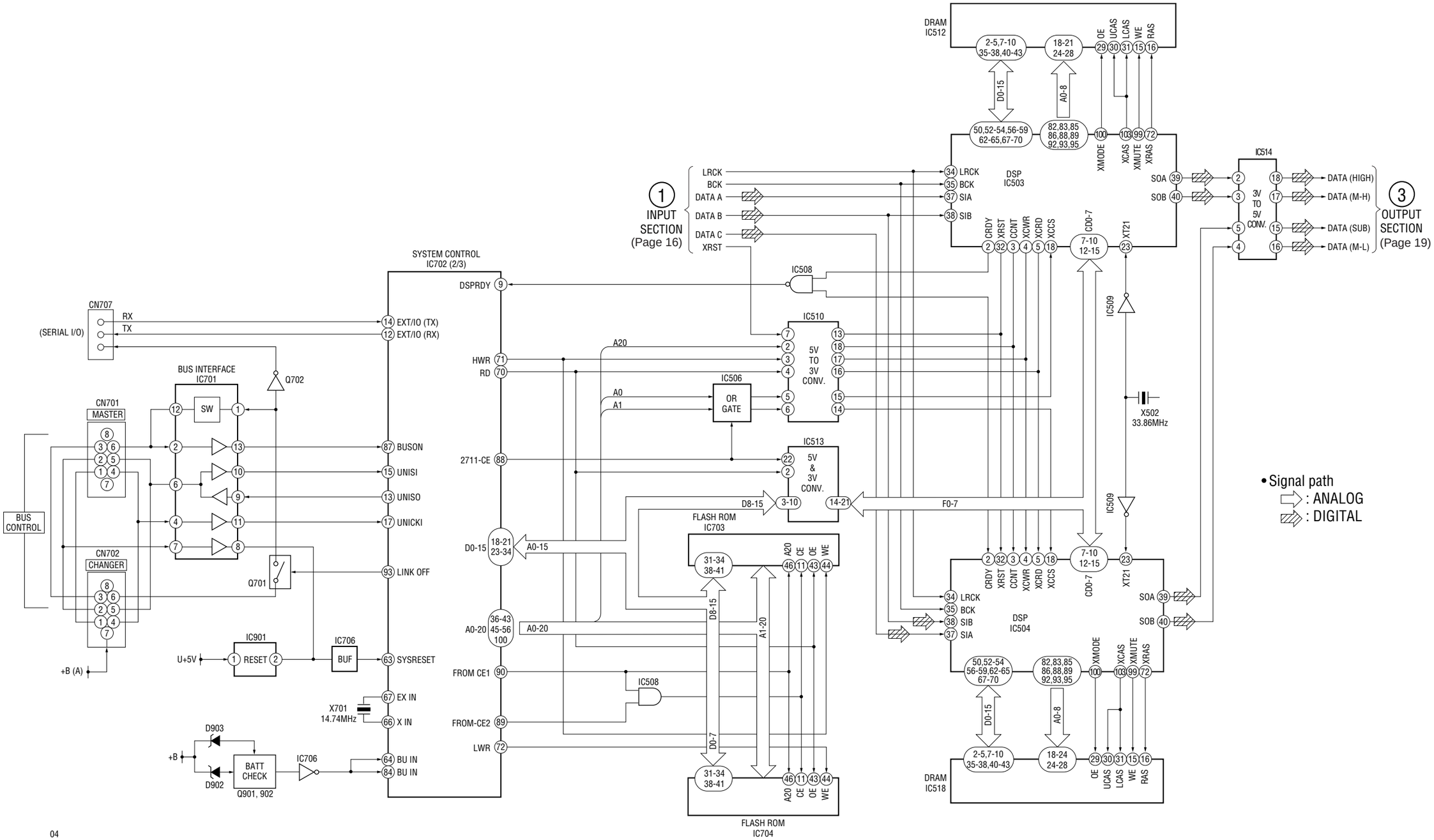
Pin No.	Pin Name	I/O	Pin Description
86	VSS	—	Ground
87	BUSON	I	Bus interface bus on signal input
88	2711-CE	O	Chip select signal output to digital signal processor (IC503, 504).
89, 90	FROM-CE2, 1	O	Chip select signal output for FLASH ROM.
91	BOOT	I	Forced boot mode detect signal input
92	VSS	—	Ground
93	LINKOFF	O	Bus interface link off signal output. “H”: Link off
94	—	—	Not used. (open)
95	SRD-AGC	—	Not used. (open)
96	VRCE1	O	Chip select signal output to electronic volume (IC303).
97	VRCE2	O	Chip select signal output to electronic volume (IC306).
98	VRCE3	O	Chip select signal output to electronic volume (IC309).
99	VRCE4	O	Chip select signal output to electronic volume (IC312).
100	A20	O	Address bus signal output to external device.

4-2. BLOCK DIAGRAM — INPUT SECTION —

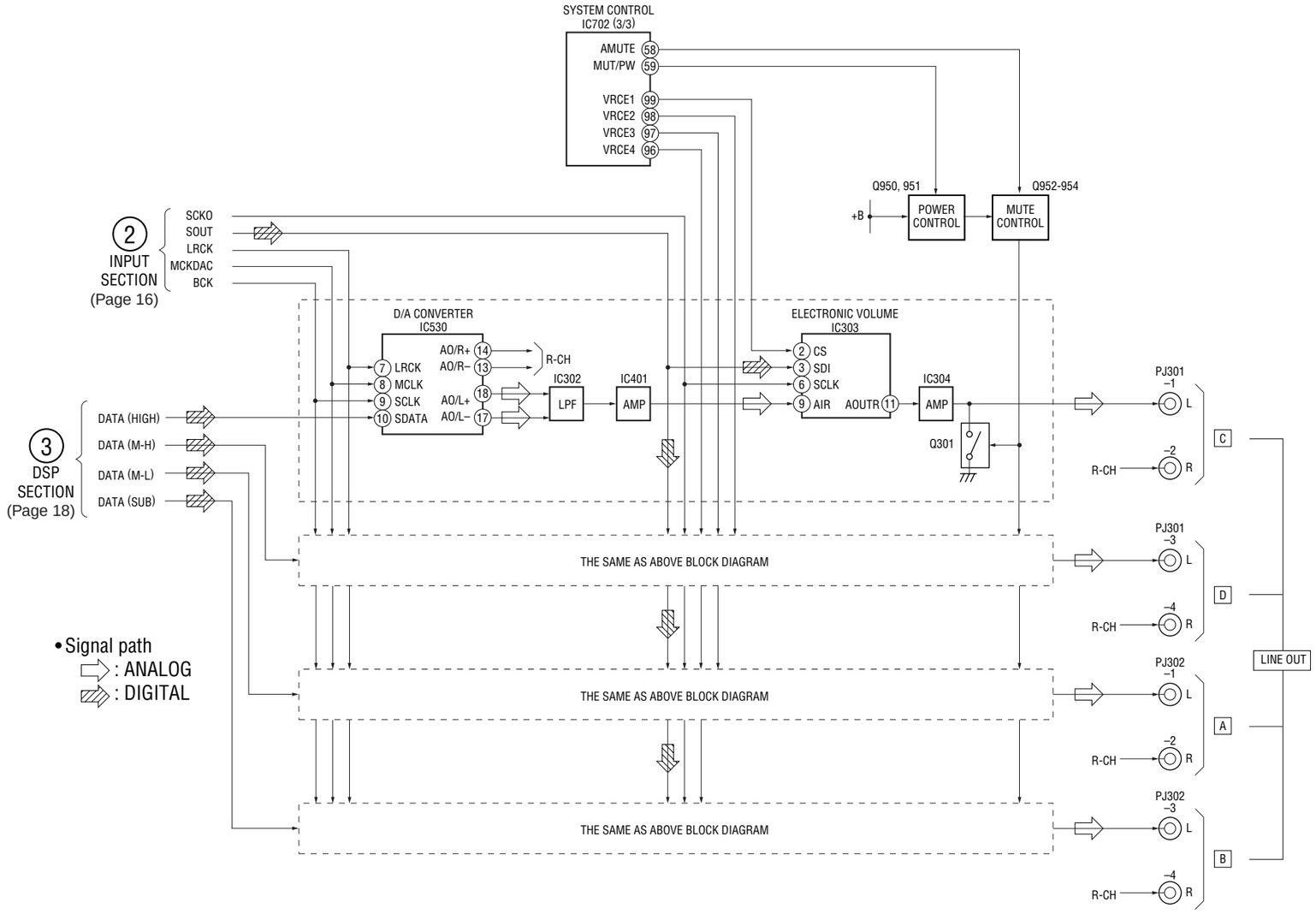


04

4-3. BLOCK DIAGRAM — DSP SECTION —



4-4. BLOCK DIAGRAM — OUTPUT SECTION —



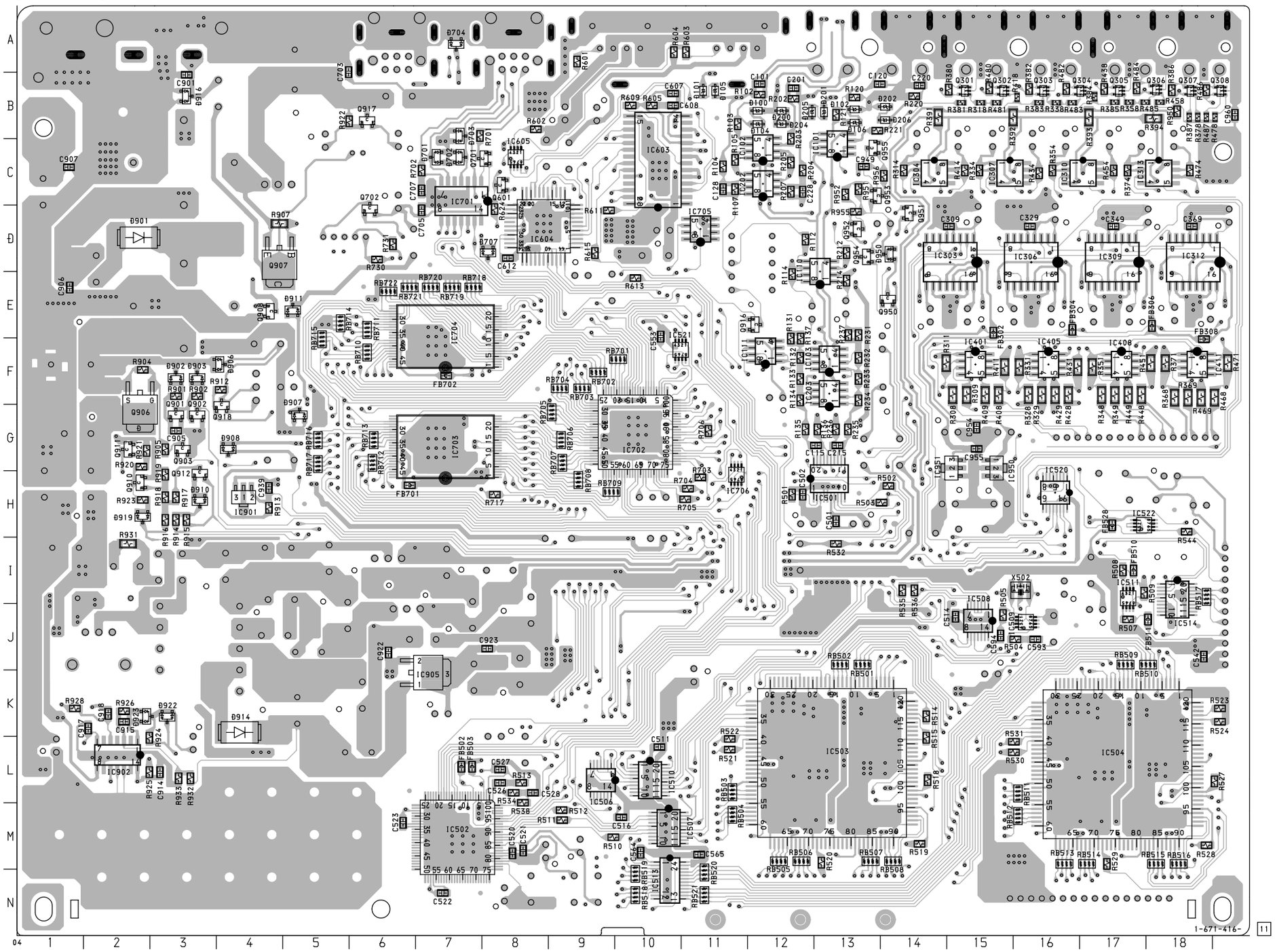
4-5. PRINTED WIRING BOARD — MAIN SECTION —

• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D100	B-12	IC508	J-15
D101	B-11	IC509	J-16
D102	B-13	IC510	L-10
D104	B-12	IC511	I-17
D105	B-11	(IC512)	L-13
D106	B-13	IC513	N-10
D200	B-12	IC514	I-18
D201	B-13	(IC518)	L-17
D202	B-14	IC520	H-16
D204	B-12	IC521	F-10
D205	B-12	IC522	H-17
D206	C-14	(IC601)	A-10
D701	C-7	(IC602)	A-11
D702	C-7	IC603	C-10
D703	B-7	IC604	D-8
D704	A-7	IC605	C-8
D707	D-8	IC701	C-7
D901	D-2	IC702	G-10
D902	F-3	IC703	G-7
D903	F-3	IC704	F-7
D906	F-4	IC705	D-11
D907	G-5	IC706	H-11
D908	G-4	IC901	H-4
(D909)	E-12	IC902	L-2
D910	H-3	(IC903)	J-6
D911	E-5	(IC904)	I-6
(D912)	J-4	IC905	K-7
(D913)	I-3	IC950	H-15
D914	K-4	IC951	H-14
(D915)	I-3		
D916	B-3	Q301	B-15
D919	H-2	Q302	B-15
D922	K-3	Q303	B-16
D923	K-2	Q304	B-17
(D924)	I-7	Q305	B-17
(D925)	I-6	Q306	B-18
D950	E-13	Q307	B-18
		Q308	B-18
IC101	C-13	Q601	C-8
IC102	C-12	Q701	C-7
IC103	F-13	Q702	D-6
IC110	D-12	Q901	G-3
IC111	F-12	Q902	G-3
IC202	C-12	Q903	G-3
IC203	F-13	Q906	G-2
IC303	D-14	Q907	D-4
IC304	C-14	Q908	E-4
IC306	D-16	(Q909)	F-4
IC307	C-15	Q910	H-2
IC309	D-17	Q911	G-2
IC310	C-17	Q912	H-3
IC312	D-18	(Q913)	C-4
IC313	C-18	(Q914)	J-2
IC401	F-15	Q916	E-12
IC405	F-16	Q917	B-6
IC408	F-17	Q918	G-4
IC411	F-18	Q950	E-14
IC501	H-13	Q951	D-14
IC502	M-7	Q952	D-13
IC503	L-13	Q953	C-14
IC504	L-17	Q954	D-13
IC506	L-9	Q955	C-14
IC507	M-10		

( ) : SIDE B

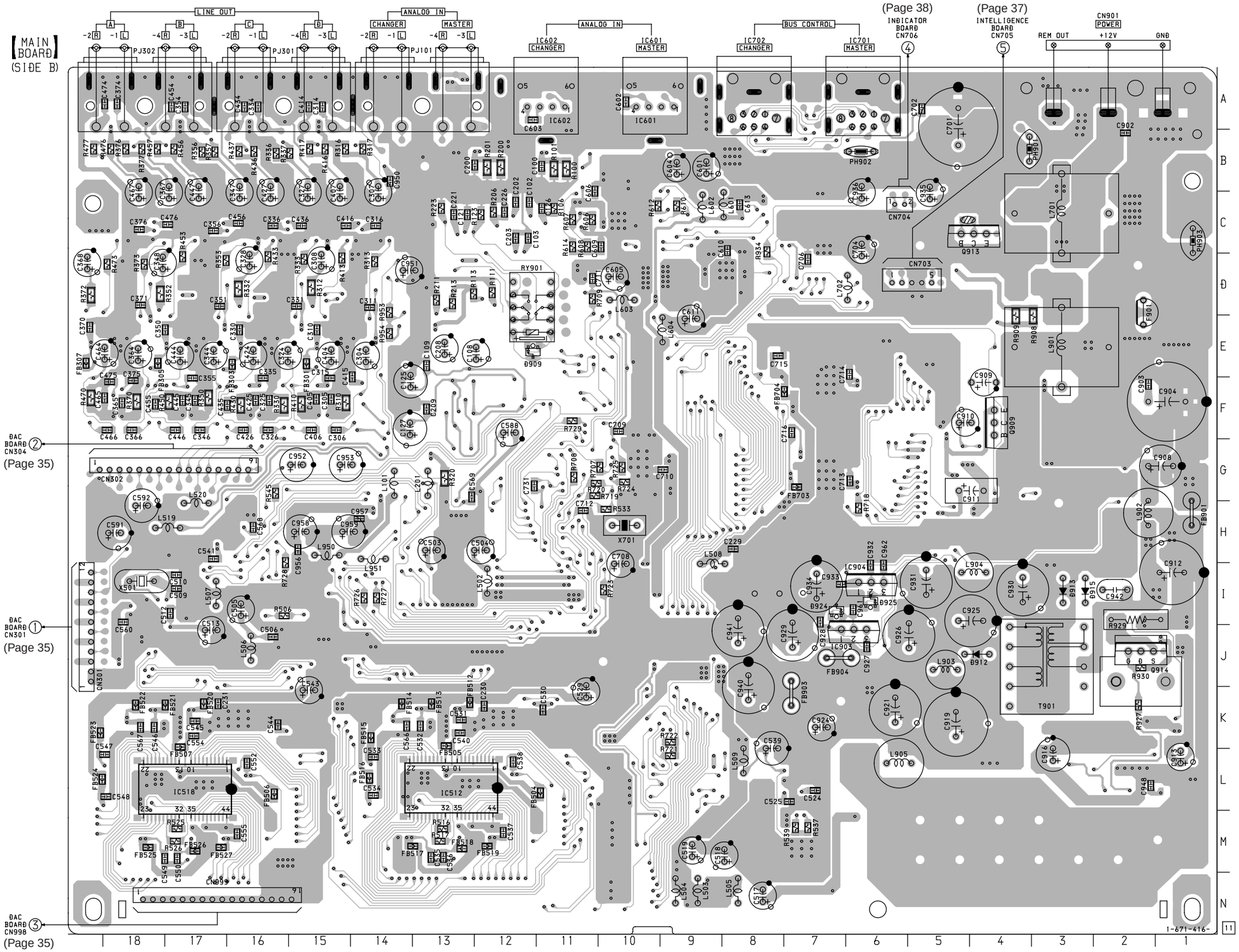
【MAIN BOARD】(SIDE A)



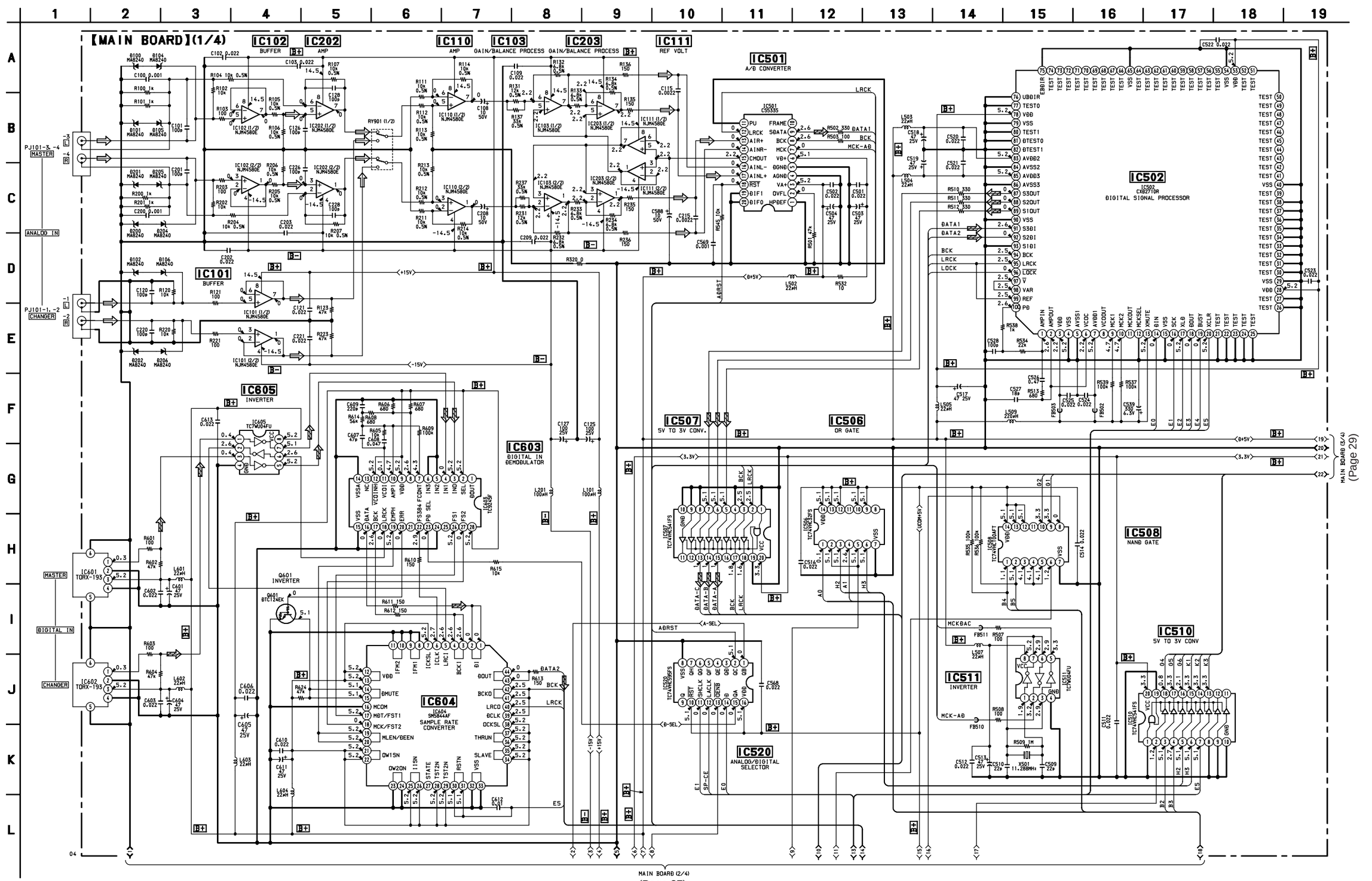
Note:

- ○——— : parts extracted from the component side.
- ○ : Through hole.
- ▒▒▒ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

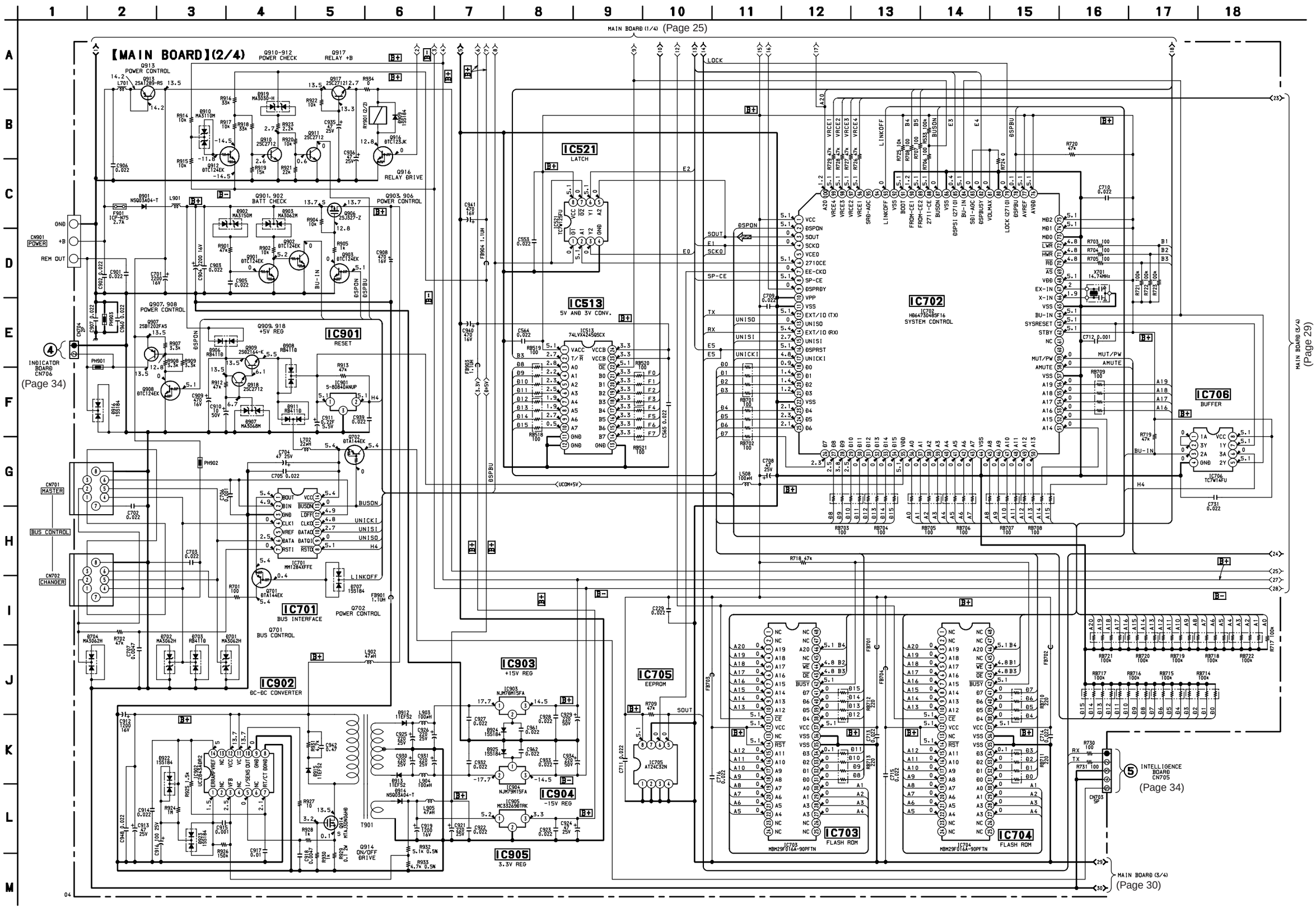
Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.


MAIN BOARD (SIDE B)
LINE OUT
ANALOG IN
CHANGER
MASTER
IC602 CHANGER
IC601 MASTER
IC702 CHANGER
IC701 MASTER
BUS CONTROL
(Page 38) INDICATOR BOARD CN706
(Page 37) INTELLIGENCE BOARD CN705
CN901 POWER
REM OUT
+12V
GND
DAC BOARD CN304 (Page 35)
DAC BOARD CN301 (Page 35)
DAC BOARD CN998 (Page 35)
1-671-416-11

4-6. SCHEMATIC DIAGRAM — MAIN SECTION (1/4) — • Refer to page 32 for Note and refer to page 39 for IC Block Diagrams.



4-7. SCHEMATIC DIAGRAM — MAIN SECTION (2/4) — • Refer to page 32 for Note and refer to page 40 for IC Block Diagrams.



4-8. SCHEMATIC DIAGRAM — MAIN SECTION (3/4) — • Refer to page 32 for Note.

【MAIN BOARD】
(3/4)

IC503
CXD2711Q
DIGITAL SIGNAL PROCESSOR

IC504
CXD2711Q
DIGITAL SIGNAL PROCESSOR

IC512
DRAM
IC512
MSW54V16258ASL
-45T5K

IC518
DRAM
IC518
MSW54V16258ASL
-45T5K

IC509
CLOCK OSC

IC514
3V TO 5V CONV.
IC514
TC74VHC541FS

IC522
INVERTER

MAIN BOARD (1/4) (Page 26)

MAIN BOARD (2/4)
(Page 28)

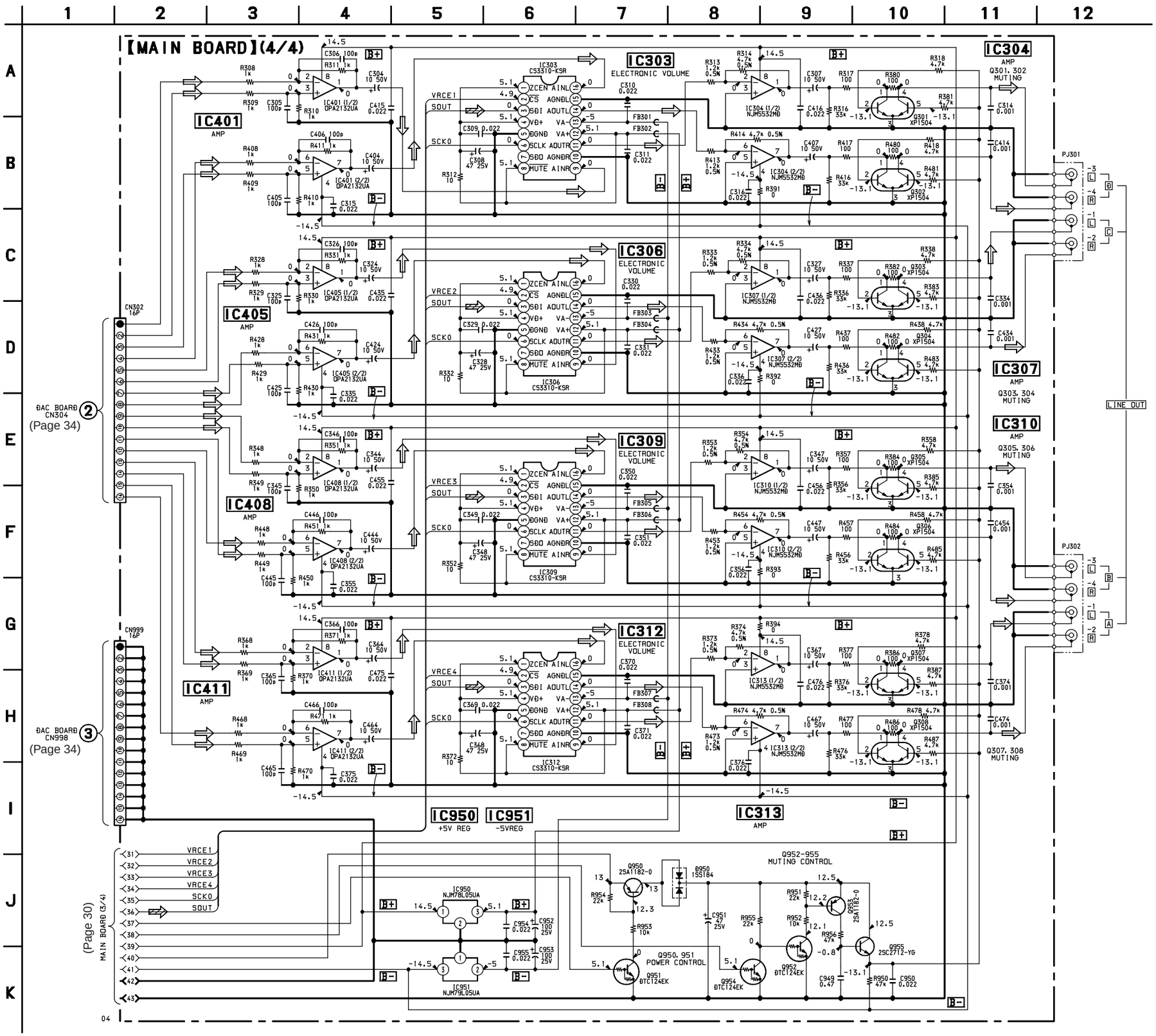
MAIN BOARD (2/4) (Page 28)

MAIN BOARD (4/4)
(Page 31)

① DAC BOARD CN303 (Page 33)

CN301
+15V 1
-15V 2
LRCK 3
BCK 4
DATA (HIGH) 5
DATA (M-H) 6
DATA (M-L) 7
DATA (SUB) 8
MCKDAC 9
+5V 10
DGND 11
DGND 12

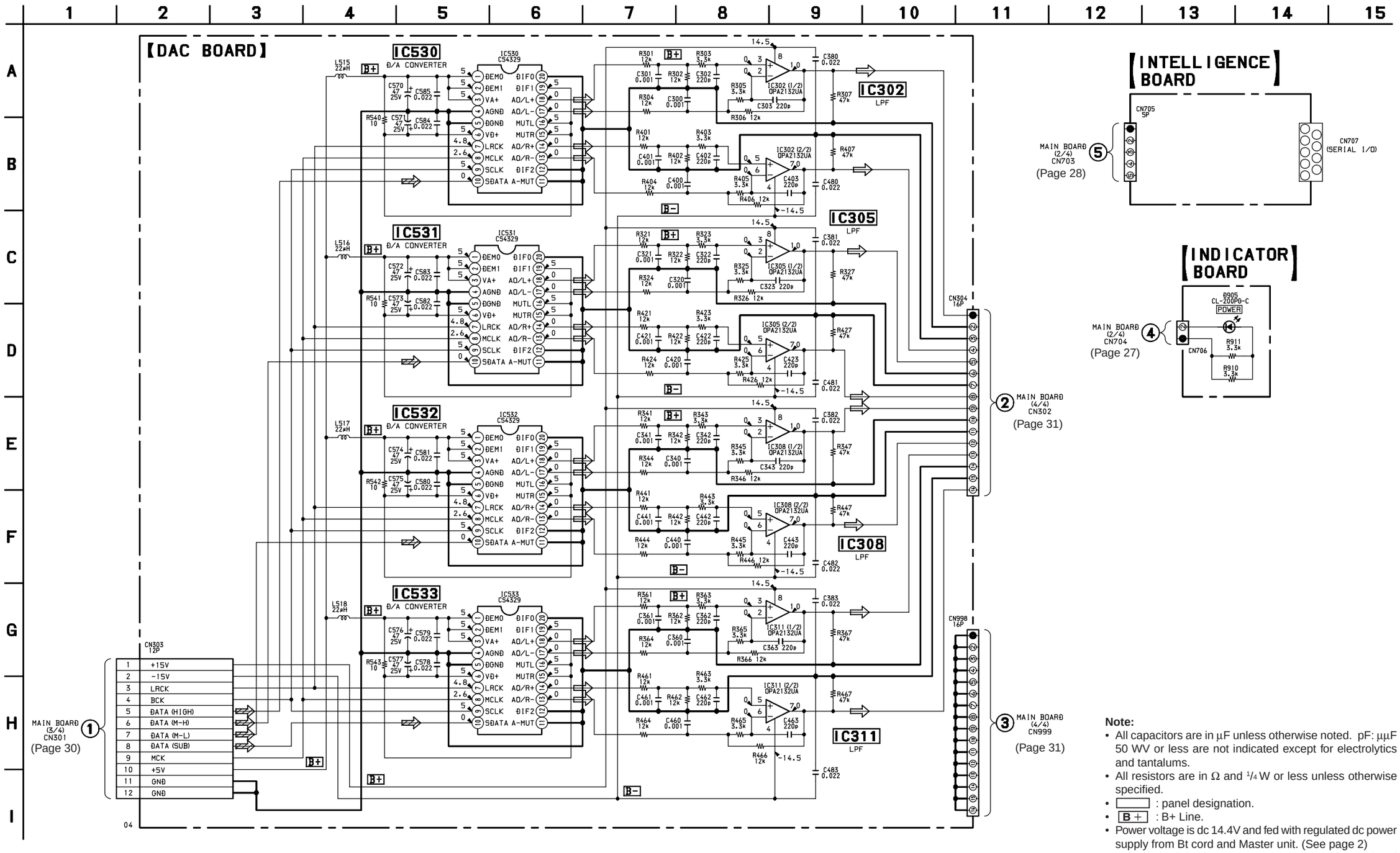
4-9. SCHEMATIC DIAGRAM — MAIN SECTION (4/4) — • Refer to page 39 for IC Block Diagrams.



Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from B+ cord and Master unit. (See page 2.)
- Voltage is dc with respect to ground under no-signal condition.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  - ⇨ : ANALOG
  - ⇨ : DIGITAL

4-10. SCHEMATIC DIAGRAM — DAC, INTELLIGENCE, INDICATOR SECTION — • Refer to page 40 for IC Block Diagrams.

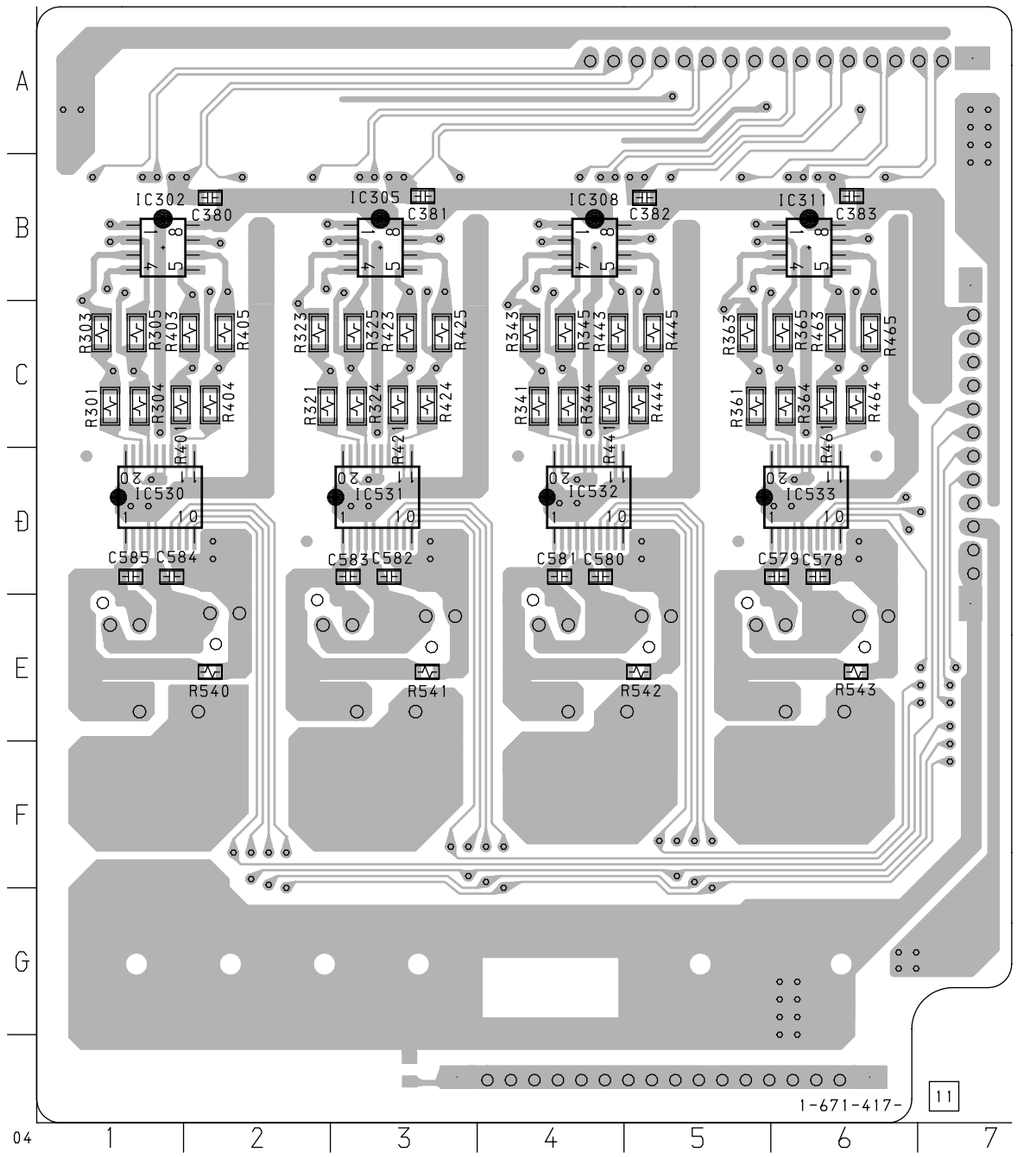


Note:

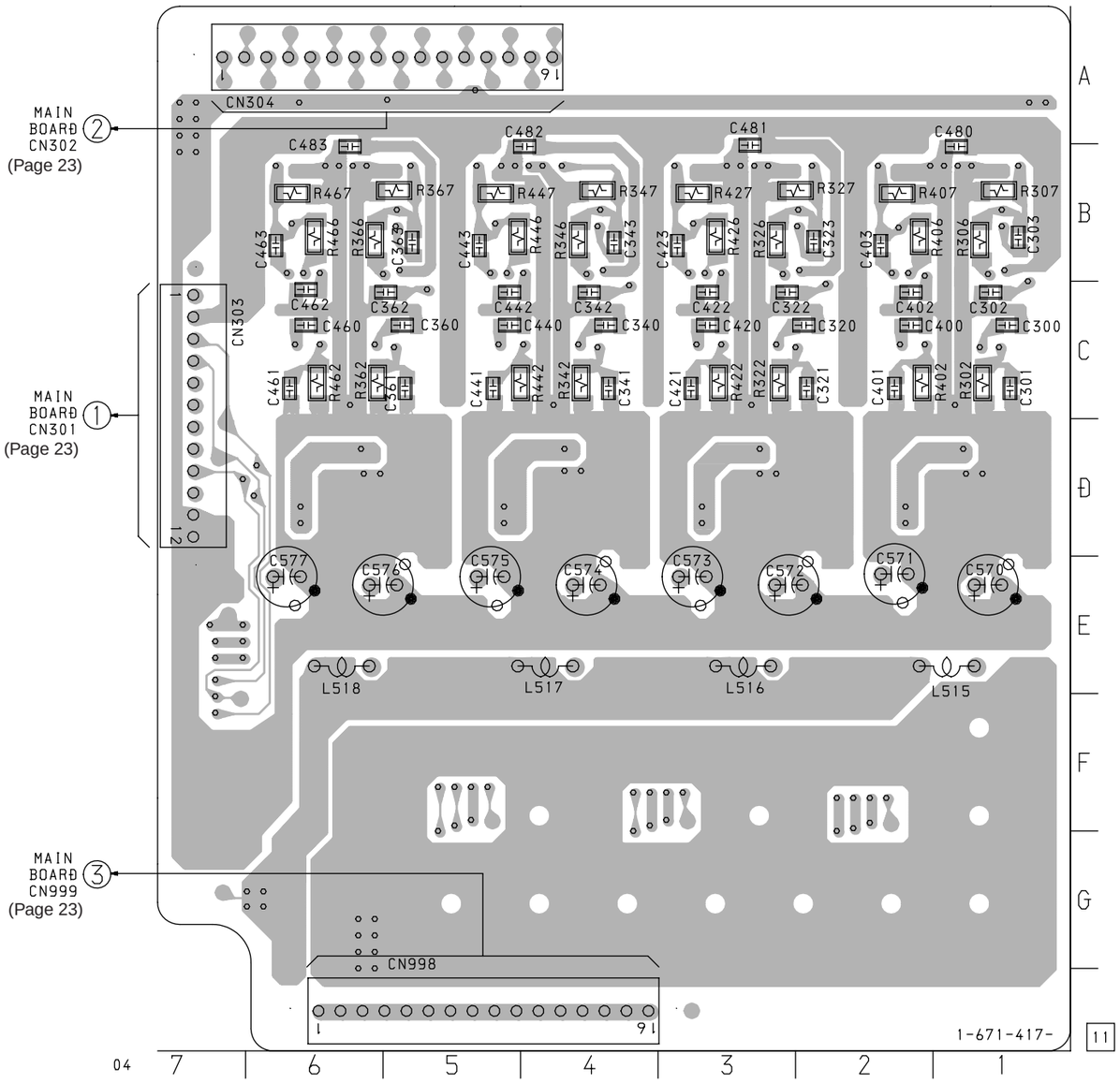
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- B + : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from Bt cord and Master unit. (See page 2)
- Voltage is dc with respect to ground under no-signal condition.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : ANALOG
  ⇨ : DIGITAL

4-11. PRINTED WIRING BOARD — DAC SECTION —

【ĐAC BOARĐ】(SIĐE A)



【ĐAC BOARĐ】(SIĐE B)



• **Semiconductor Location**

Ref. No.	Location
IC302	B-1
IC305	B-3
IC308	B-4
IC311	B-6
IC530	D-1
IC531	D-3
IC532	D-4
IC533	D-6

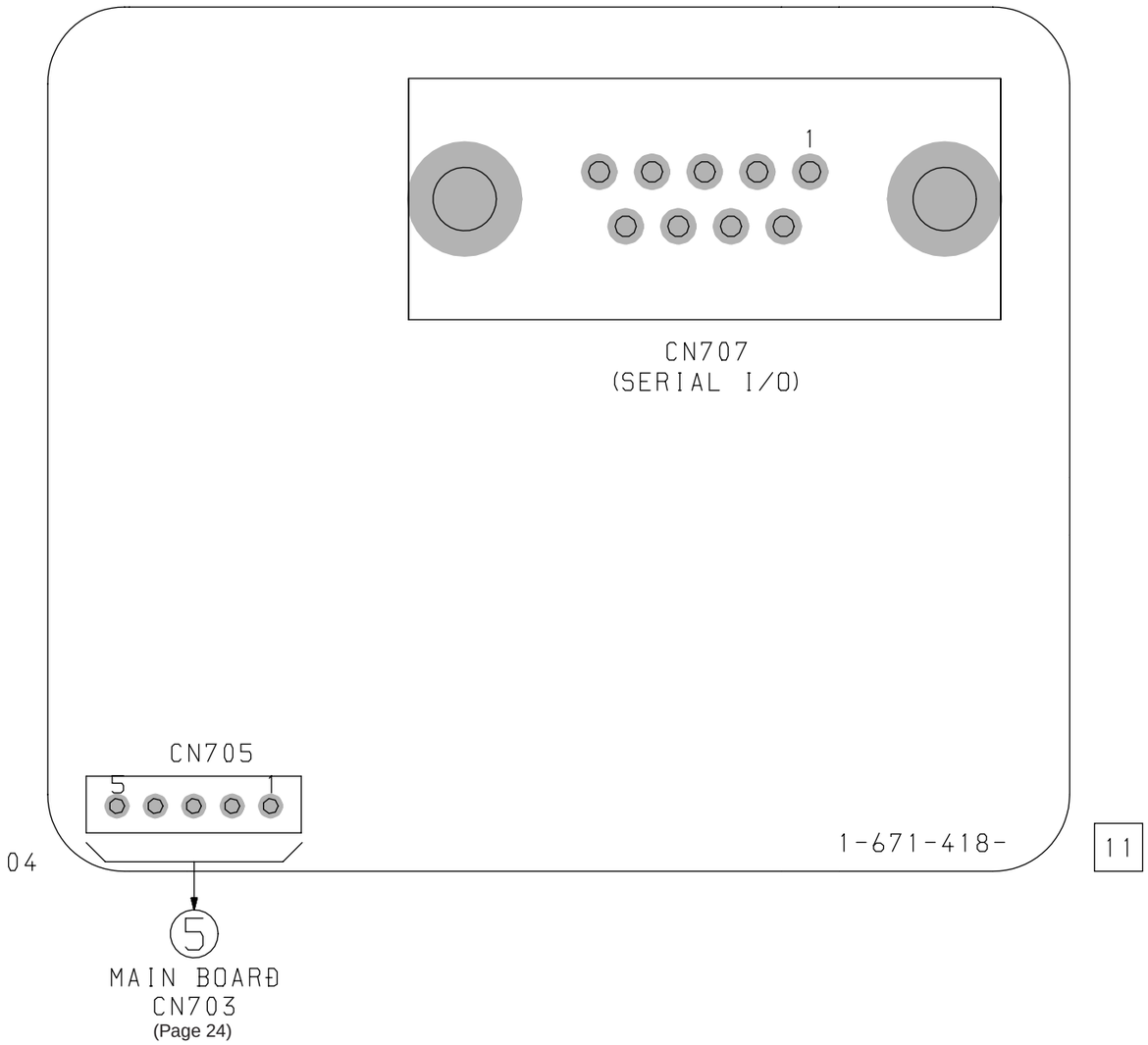
Note:

- ○——○ : parts extracted from the component side.
- ○ : Through hole.
- ▒▒▒ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

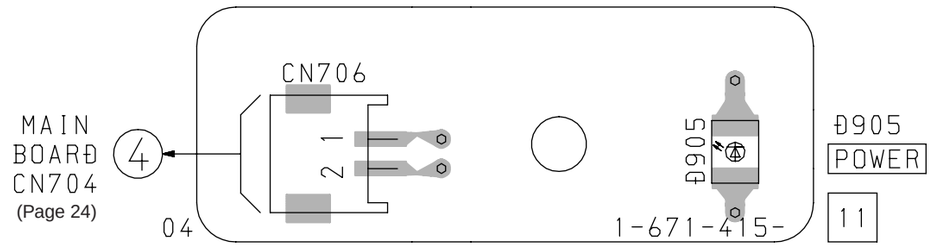
Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.

4-12. PRINTED WIRING BOARDS — INTELLIGENCE, INDICATOR SECTION —

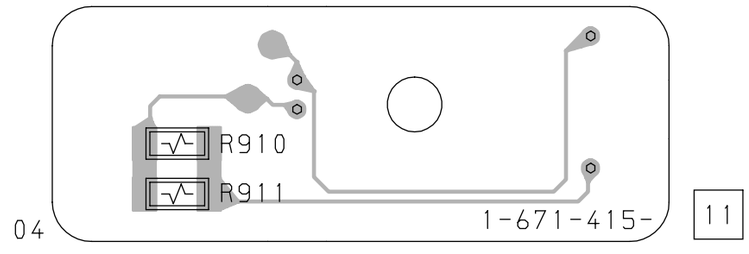
【INTELLIGENCE BOARD】



【INDICATOR BOARD】(SIDE A)



【INDICATOR BOARD】(SIDE B)



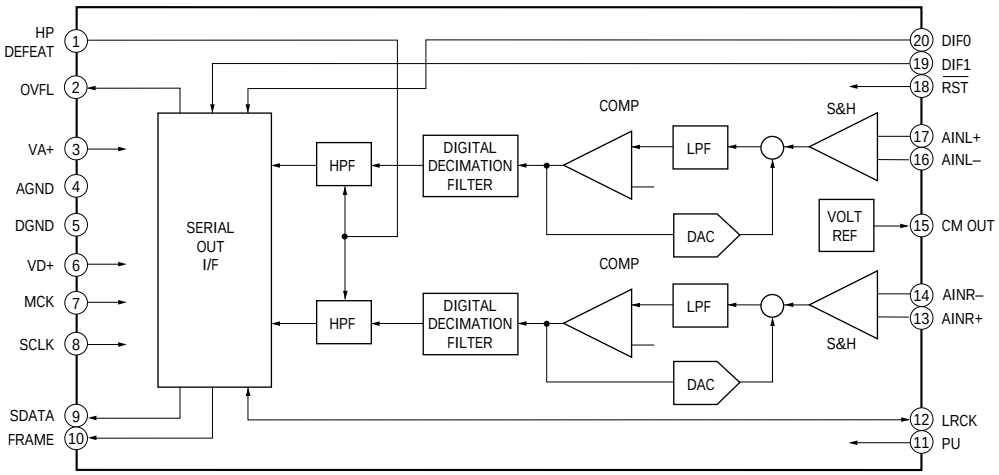
Note:

- ○——○ : parts extracted from the component side.
- ○ : Through hole.
- ▒▒▒ : Pattern from the side which enables seeing.
  (The other layer's patterns are not indicated.)

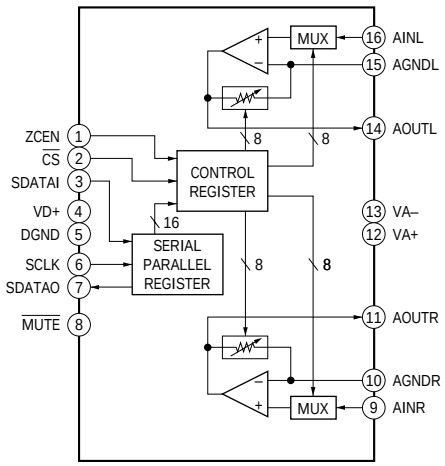
Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

• **IC Block Diagrams**

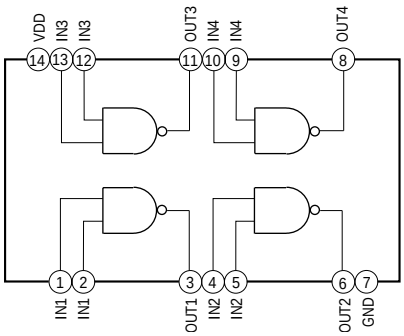
IC501 CS5335



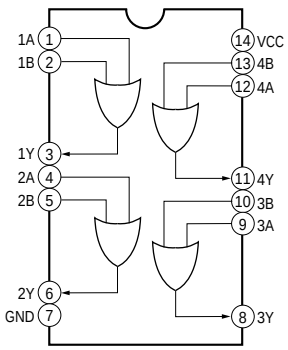
IC303, 306, 309, 312 CS3310-KSR



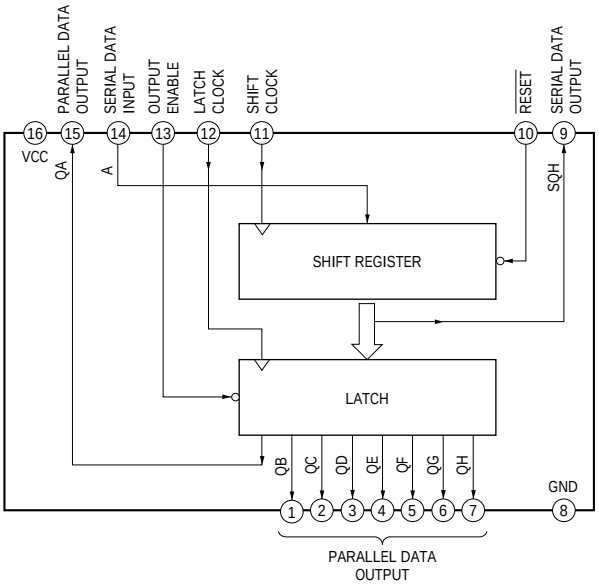
IC508 TC74VHCT00AFT



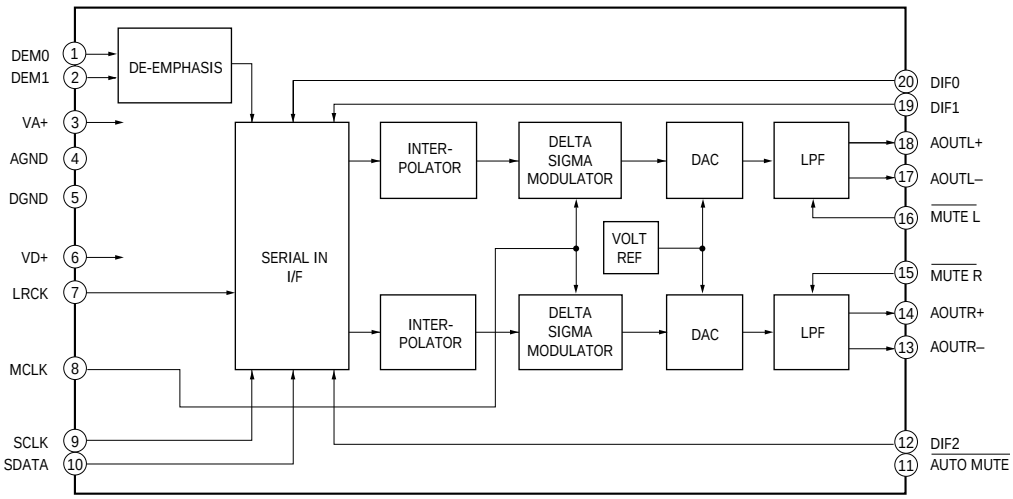
IC506 TC74VHC32FS



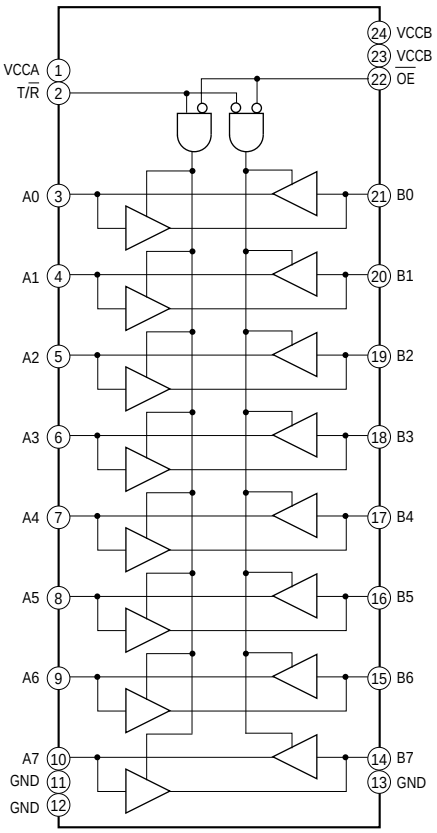
IC520 TC74VHC595FS



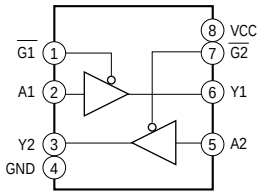
IC530–533 CS4329



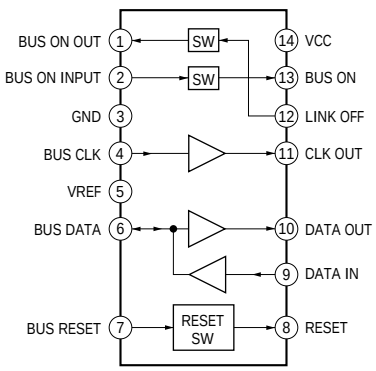
IC513 74LVX4245QSCX



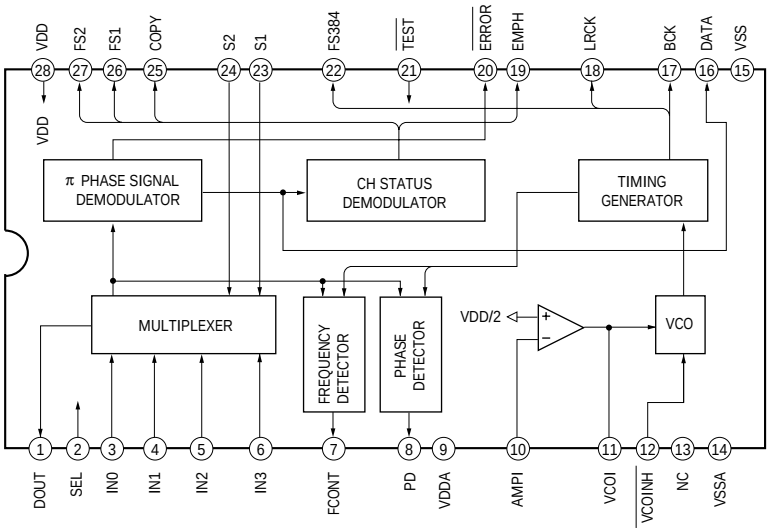
IC521 TC7W125FU



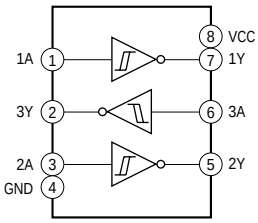
IC701 MM1284XFFE



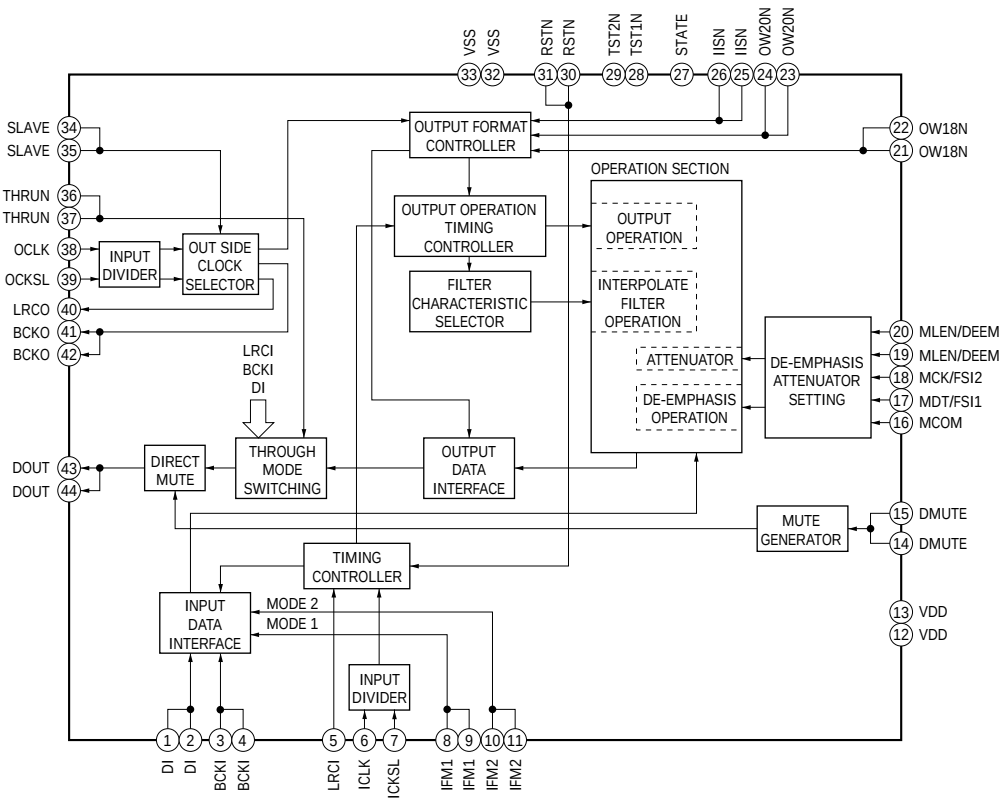
IC603 TC9245F



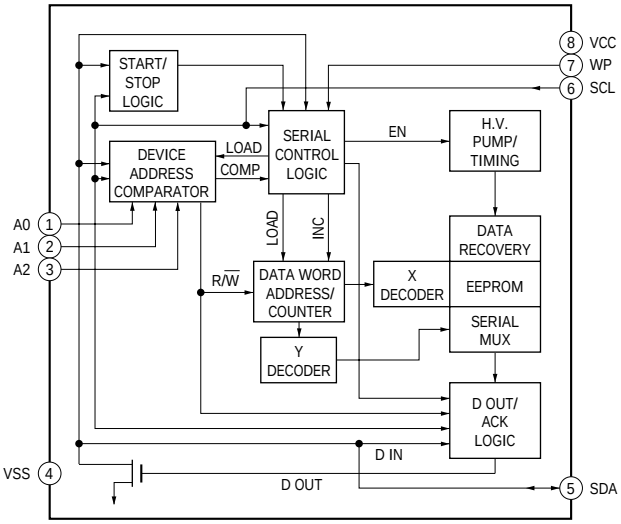
IC706 TC7W14FU



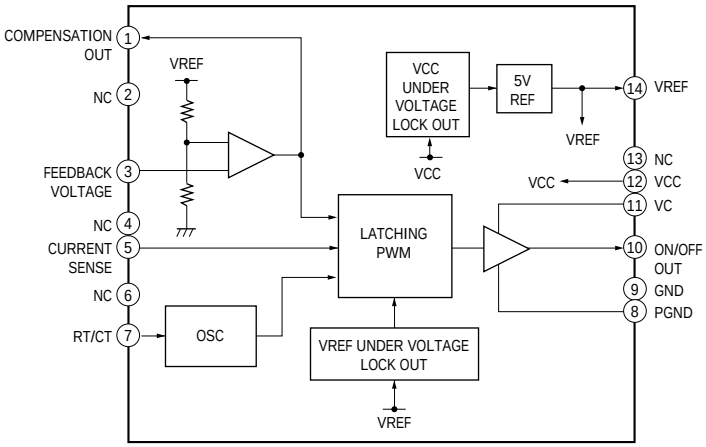
IC604 SM5844AF



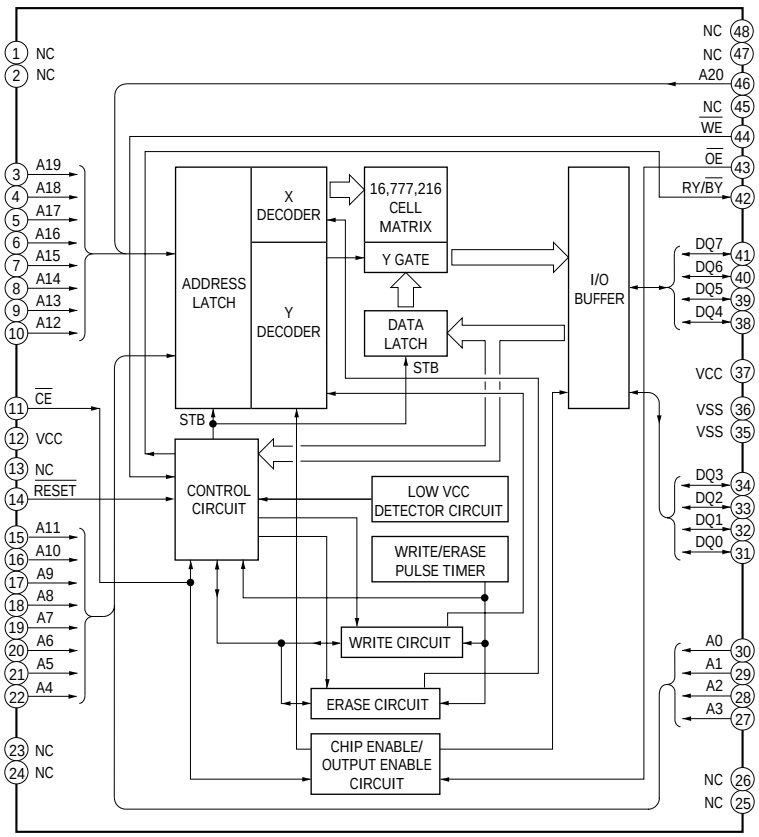
IC705 AT24C32N



IC902 UC2843ADR2



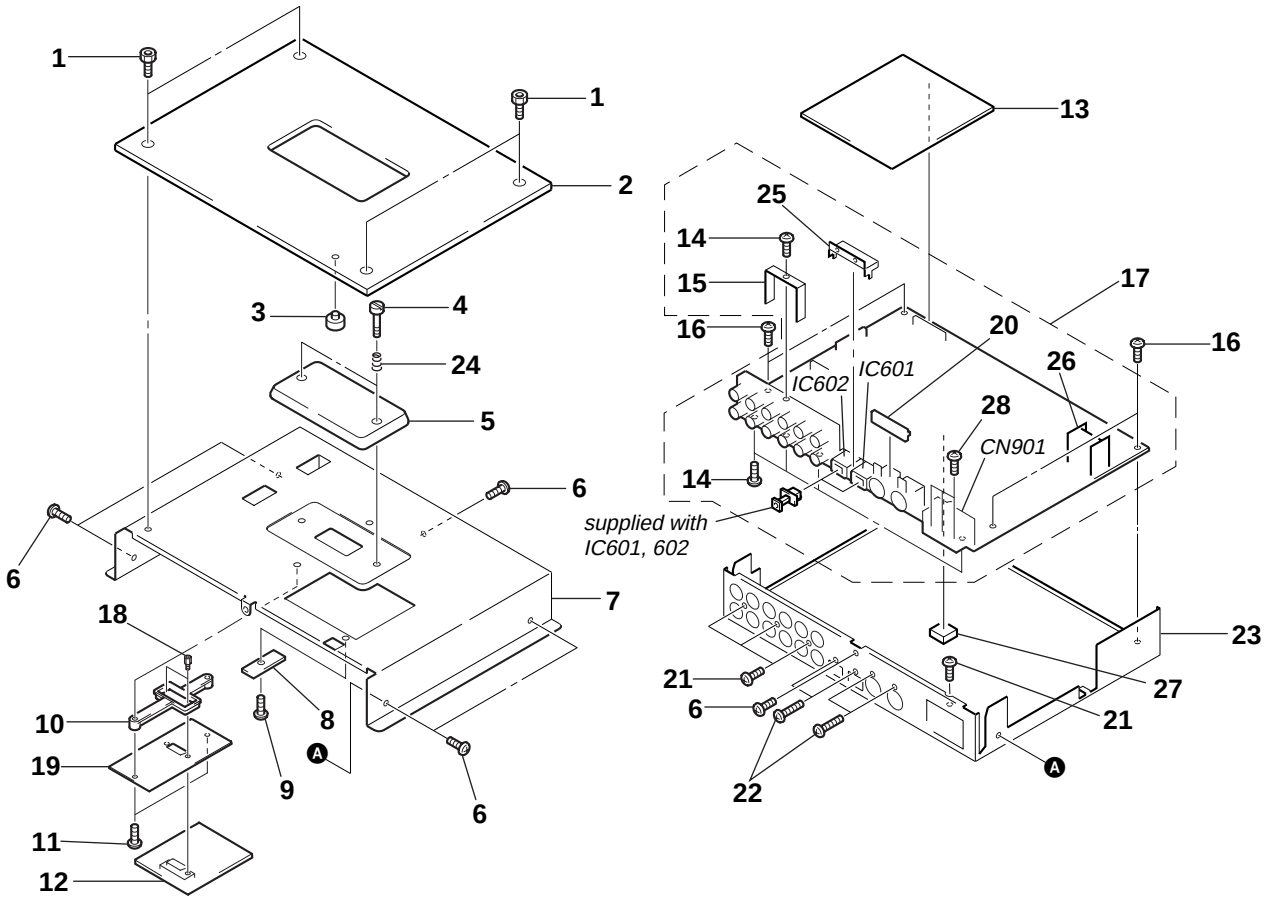
IC703, 704 MBM29F016-90PFTN



SECTION 5
EXPLODED VIEW

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories and packing materials are given in the last of this parts list.



Ref. No.	Part No.	Description	Remark
1	3-029-077-01	BOLT (M4X6), HEXAGON SOCKET	
* 2	X-3376-220-1	PLATE ASSY, ORNAMENTAL	
3	3-028-654-01	PLATE, LIGHT GUIDE	
4	3-028-653-01	SCREW, ORNAMENT	
5	3-028-652-01	PLATE, TRANSPARENT (US,Canadian)	
5	3-028-652-11	PLATE, TRANSPARENT (AEP,UK,E)	
6	3-029-420-01	SCREW (3X6), +PTT	
* 7	3-028-657-01	CASE (UPPER)	
* 8	1-671-415-11	INDICATOR BOARD	
9	7-685-791-09	SCREW +PTT 2.6X5 (S)	
* 10	3-028-867-01	BRACKET	
11	7-685-794-09	SCREW +PTT 2.6X10 (S)	
* 12	A-3317-137-A	INTELLIGENCE BOARD, COMPLETE	
* 13	A-3317-139-A	DAC BOARD, COMPLETE	
14	7-685-146-11	SCREW +P 3X8 TYPE2 NON-SLIT	
* 15	3-029-631-01	PLATE (PJ), GROUND	
16	3-344-501-01	SCREW (+PTT 3X6), GROUND POINT	

Ref. No.	Part No.	Description	Remark
* 17	A-3317-134-B	MAIN BOARD, COMPLETE	
18	3-028-857-01	SCREW, LOCK	
* 19	3-028-722-01	HOLDER	
20	3-028-656-01	SPACER	
21	3-028-893-01	SCREW (3X10), +PTP	
22	3-028-975-01	SCREW (2.6X8), +PTT	
* 23	3-028-658-01	CASE (LOWER)	
24	3-031-131-01	SPRING, CONE COIL	
* 25	3-932-734-01	COVER (CONNECTOR)	
* 26	3-010-507-01	HEAT SINK	
27	3-572-767-01	CUSHION	
28	3-912-432-01	SCREW (B) M4X8	
CN901	1-537-477-41	TERMINAL BOARD (3P) (POWER) (INCLUDING 28)	
IC601	8-749-923-62	IC TORX-193 (MASTER (DIGITAL IN))	
IC602	8-749-923-62	IC TORX-193 (CHANGER (DIGITAL IN))	

DAC

SECTION 6
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA.. : μA.. uPA.. : μPA..
  uPB.. : μPB.. uPC.. : μPC.. uPD.. : μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-3317-139-A	DAC BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C300	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C301	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C302	1-104-531-11	FILM CHIP	220PF	5%	50V
C303	1-104-531-11	FILM CHIP	220PF	5%	50V
C320	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C321	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C322	1-104-531-11	FILM CHIP	220PF	5%	50V
C323	1-104-531-11	FILM CHIP	220PF	5%	50V
C340	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C341	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C342	1-104-531-11	FILM CHIP	220PF	5%	50V
C343	1-104-531-11	FILM CHIP	220PF	5%	50V
C360	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C361	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C362	1-104-531-11	FILM CHIP	220PF	5%	50V
C363	1-104-531-11	FILM CHIP	220PF	5%	50V
C380	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C381	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C382	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C383	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C400	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C401	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C402	1-104-531-11	FILM CHIP	220PF	5%	50V
C403	1-104-531-11	FILM CHIP	220PF	5%	50V
C420	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C421	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C422	1-104-531-11	FILM CHIP	220PF	5%	50V
C423	1-104-531-11	FILM CHIP	220PF	5%	50V
C440	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C441	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C442	1-104-531-11	FILM CHIP	220PF	5%	50V
C443	1-104-531-11	FILM CHIP	220PF	5%	50V
C460	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C461	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C462	1-104-531-11	FILM CHIP	220PF	5%	50V
C463	1-104-531-11	FILM CHIP	220PF	5%	50V
C480	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C481	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C482	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C483	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V

Ref. No.	Part No.	Description			Remark
C570	1-126-022-11	ELECT	47uF	20%	25V
C571	1-126-022-11	ELECT	47uF	20%	25V
C572	1-126-022-11	ELECT	47uF	20%	25V
C573	1-126-022-11	ELECT	47uF	20%	25V
C574	1-126-022-11	ELECT	47uF	20%	25V
C575	1-126-022-11	ELECT	47uF	20%	25V
C576	1-126-022-11	ELECT	47uF	20%	25V
C577	1-126-022-11	ELECT	47uF	20%	25V
C578	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C579	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C580	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C581	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C582	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C583	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C584	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C585	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
		< CONNECTOR >			
CN303	1-785-716-11	PIN, CONNECTOR (PC BOARD) 12P			
CN304	1-785-717-11	PIN, CONNECTOR (PC BOARD) 16P			
CN998	1-785-717-11	PIN, CONNECTOR (PC BOARD) 16P			
		< IC >			
IC302	8-759-566-39	IC OPA2132UA/2K5			
IC305	8-759-566-39	IC OPA2132UA/2K5			
IC308	8-759-566-39	IC OPA2132UA/2K5			
IC311	8-759-566-39	IC OPA2132UA/2K5			
IC530	8-759-547-66	IC CS4329-KSR			
IC531	8-759-547-66	IC CS4329-KSR			
IC532	8-759-547-66	IC CS4329-KSR			
IC533	8-759-547-66	IC CS4329-KSR			
		< COIL >			
L515	1-414-185-41	INDUCTOR	22uH		
L516	1-414-185-41	INDUCTOR	22uH		
L517	1-414-185-41	INDUCTOR	22uH		
L518	1-414-185-41	INDUCTOR	22uH		
		< RESISTOR >			
R301	1-208-512-11	RES,CHIP	12K	2%	1/8W
R302	1-208-512-11	RES,CHIP	12K	2%	1/8W
R303	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R304	1-208-512-11	RES,CHIP	12K	2%	1/8W
R305	1-216-210-00	RES,CHIP	3.3K	2%	1/8W

Ref. No.	Part No.	Description			Remark
R306	1-208-512-11	RES,CHIP	12K	2%	1/8W
R307	1-216-238-00	RES,CHIP	47K	2%	1/8W
R321	1-208-512-11	RES,CHIP	12K	2%	1/8W
R322	1-208-512-11	RES,CHIP	12K	2%	1/8W
R323	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R324	1-208-512-11	RES,CHIP	12K	2%	1/8W
R325	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R326	1-208-512-11	RES,CHIP	12K	2%	1/8W
R327	1-216-238-00	RES,CHIP	47K	2%	1/8W
R341	1-208-512-11	RES,CHIP	12K	2%	1/8W
R342	1-208-512-11	RES,CHIP	12K	2%	1/8W
R343	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R344	1-208-512-11	RES,CHIP	12K	2%	1/8W
R345	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R346	1-208-512-11	RES,CHIP	12K	2%	1/8W
R347	1-216-238-00	RES,CHIP	47K	2%	1/8W
R361	1-208-512-11	RES,CHIP	12K	2%	1/8W
R362	1-208-512-11	RES,CHIP	12K	2%	1/8W
R363	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R364	1-208-512-11	RES,CHIP	12K	2%	1/8W
R365	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R366	1-208-512-11	RES,CHIP	12K	2%	1/8W
R367	1-216-238-00	RES,CHIP	47K	2%	1/8W
R401	1-208-512-11	RES,CHIP	12K	2%	1/8W
R402	1-208-512-11	RES,CHIP	12K	2%	1/8W
R403	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R404	1-208-512-11	RES,CHIP	12K	2%	1/8W
R405	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R406	1-208-512-11	RES,CHIP	12K	2%	1/8W
R407	1-216-238-00	RES,CHIP	47K	2%	1/8W
R421	1-208-512-11	RES,CHIP	12K	2%	1/8W
R422	1-208-512-11	RES,CHIP	12K	2%	1/8W
R423	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R424	1-208-512-11	RES,CHIP	12K	2%	1/8W
R425	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R426	1-208-512-11	RES,CHIP	12K	2%	1/8W
R427	1-216-238-00	RES,CHIP	47K	2%	1/8W
R441	1-208-512-11	RES,CHIP	12K	2%	1/8W
R442	1-208-512-11	RES,CHIP	12K	2%	1/8W
R443	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R444	1-208-512-11	RES,CHIP	12K	2%	1/8W
R445	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R446	1-208-512-11	RES,CHIP	12K	2%	1/8W
R447	1-216-238-00	RES,CHIP	47K	2%	1/8W
R461	1-208-512-11	RES,CHIP	12K	2%	1/8W
R462	1-208-512-11	RES,CHIP	12K	2%	1/8W
R463	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R464	1-208-512-11	RES,CHIP	12K	2%	1/8W
R465	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R466	1-208-512-11	RES,CHIP	12K	2%	1/8W
R467	1-216-238-00	RES,CHIP	47K	2%	1/8W
R540	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R541	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R542	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R543	1-216-603-11	METAL CHIP	10	0.5%	1/10W

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*	1-671-415-11	INDICATOR BOARD				
		**********				
		< CONNECTOR >				
* CN706	1-580-055-21	PIN, CONNECTOR 2P				
		< DIODE >				
D905	8-719-061-59	LED CL-200PG-C-TU (POWER)				
		< RESISTOR >				
R910	1-216-210-00	RES,CHIP	3.3K	5%	1/8W	
R911	1-216-210-00	RES,CHIP	3.3K	5%	1/8W	

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*	A-3317-137-A	INTELLIGENCE BOARD, COMPLETE				
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*	A-3317-134-B	MAIN BOARD, COMPLETE				
		**********				
*	3-010-507-01	HEAT SINK				
*	3-029-631-01	PLATE (PJ), GROUND				
*	3-932-734-01	COVER (CONNECTOR)				
	7-685-146-11	SCREW +P 3X8 TYPE2 NON-SLIT				
		< CAPACITOR >				
C100	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C101	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C102	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C103	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C108	1-126-059-11	ELECT	10uF	20%	50V	
C109	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C115	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V	
C120	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C121	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C125	1-126-023-11	ELECT	100uF	20%	25V	
C126	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C127	1-126-023-11	ELECT	100uF	20%	25V	
C128	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C200	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	
C201	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C202	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C203	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C208	1-126-059-11	ELECT	10uF	20%	50V	
C209	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C215	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V	
C220	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C221	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	
C226	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C228	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	

MAIN

Ref. No.	Part No.	Description			Remark
C229	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C230	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C231	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C304	1-126-059-11	ELECT	10uF	20%	50V
C305	1-104-527-11	FILM CHIP	100PF	5%	50V
C306	1-104-527-11	FILM CHIP	100PF	5%	50V
C307	1-126-059-11	ELECT	10uF	20%	50V
C308	1-126-022-11	ELECT	47uF	20%	25V
C309	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C310	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C311	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C314	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C315	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C316	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C324	1-126-059-11	ELECT	10uF	20%	50V
C325	1-104-527-11	FILM CHIP	100PF	5%	50V
C326	1-104-527-11	FILM CHIP	100PF	5%	50V
C327	1-126-059-11	ELECT	10uF	20%	50V
C328	1-126-022-11	ELECT	47uF	20%	25V
C329	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C330	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C331	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C334	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C335	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C336	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C344	1-126-059-11	ELECT	10uF	20%	50V
C345	1-104-527-11	FILM CHIP	100PF	5%	50V
C346	1-104-527-11	FILM CHIP	100PF	5%	50V
C347	1-126-059-11	ELECT	10uF	20%	50V
C348	1-126-022-11	ELECT	47uF	20%	25V
C349	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C350	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C351	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C354	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C355	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C356	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C364	1-126-059-11	ELECT	10uF	20%	50V
C365	1-104-527-11	FILM CHIP	100PF	5%	50V
C366	1-104-527-11	FILM CHIP	100PF	5%	50V
C367	1-126-059-11	ELECT	10uF	20%	50V
C368	1-126-022-11	ELECT	47uF	20%	25V
C369	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C370	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C371	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C374	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C375	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C376	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C404	1-126-059-11	ELECT	10uF	20%	50V
C405	1-104-527-11	FILM CHIP	100PF	5%	50V
C406	1-104-527-11	FILM CHIP	100PF	5%	50V
C407	1-126-059-11	ELECT	10uF	20%	50V
C414	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C415	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V

Ref. No.	Part No.	Description			Remark
C416	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C424	1-126-059-11	ELECT	10uF	20%	50V
C425	1-104-527-11	FILM CHIP	100PF	5%	50V
C426	1-104-527-11	FILM CHIP	100PF	5%	50V
C427	1-126-059-11	ELECT	10uF	20%	50V
C434	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C435	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C436	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C444	1-126-059-11	ELECT	10uF	20%	50V
C445	1-104-527-11	FILM CHIP	100PF	5%	50V
C446	1-104-527-11	FILM CHIP	100PF	5%	50V
C447	1-126-059-11	ELECT	10uF	20%	50V
C454	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C455	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C456	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C464	1-126-059-11	ELECT	10uF	20%	50V
C465	1-104-527-11	FILM CHIP	100PF	5%	50V
C466	1-104-527-11	FILM CHIP	100PF	5%	50V
C467	1-126-059-11	ELECT	10uF	20%	50V
C474	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C475	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C476	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C501	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C502	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C503	1-126-022-11	ELECT	47uF	20%	25V
C504	1-126-022-11	ELECT	47uF	20%	25V
C505	1-126-022-11	ELECT	47uF	20%	25V
C506	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C509	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C510	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C511	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C512	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C513	1-126-022-11	ELECT	47uF	20%	25V
C514	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C516	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C517	1-126-022-11	ELECT	47uF	20%	25V
C518	1-126-022-11	ELECT	47uF	20%	25V
C519	1-126-022-11	ELECT	47uF	20%	25V
C520	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C521	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C522	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C523	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C524	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C525	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C526	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C527	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C528	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C529	1-126-022-11	ELECT	47uF	20%	25V
C530	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C531	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C532	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C533	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C534	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V

Ref. No.	Part No.	Description			Remark
C535	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C536	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C537	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C538	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C539	1-126-596-11	ELECT	330uF	20%	6.3V
C540	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C541	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C542	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C543	1-126-022-11	ELECT	47uF	20%	25V
C544	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C545	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C546	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C547	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C548	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C549	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C550	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C552	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C553	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C554	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C555	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C560	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C564	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C565	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C566	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C567	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C568	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C569	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C588	1-126-059-11	ELECT	10uF	20%	50V
C591	1-126-023-11	ELECT	100uF	20%	25V
C592	1-126-023-11	ELECT	100uF	20%	25V
C593	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C594	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C601	1-126-022-11	ELECT	47uF	20%	25V
C602	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C603	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C604	1-126-022-11	ELECT	47uF	20%	25V
C605	1-126-022-11	ELECT	47uF	20%	25V
C606	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C607	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C608	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C609	1-163-259-11	CERAMIC CHIP	220PF	5%	50V
C610	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C611	1-126-022-11	ELECT	47uF	20%	25V
C612	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C613	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C701	1-126-768-11	ELECT	2200uF	20%	16V
C702	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C703	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C704	1-126-022-11	ELECT	47uF	20%	25V
C705	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C706	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C707	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C708	1-126-022-11	ELECT	47uF	20%	25V
C709	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C710	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C711	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C712	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C713	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C714	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C715	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C716	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C731	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C901	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C902	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C903	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C904	1-126-768-11	ELECT	2200uF	20%	16V
C905	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C906	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C907	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C908	1-126-316-51	ELECT	470uF	20%	16V
C909	1-126-316-51	ELECT	470uF	20%	16V
C910	1-126-059-11	ELECT	10uF	20%	50V
C911	1-125-705-11	DOUBLE LAYERS	0.22F		5.5V
C912	1-111-042-11	ELECT	1200uF	20%	16V
C913	1-126-022-11	ELECT	47uF	20%	25V
C914	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C915	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C916	1-126-023-11	ELECT	100uF	20%	25V
C917	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C918	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C919	1-111-042-11	ELECT	1200uF	20%	16V
C921	1-115-783-11	ELECT	220uF	20%	25V
C922	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C923	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C924	1-126-022-11	ELECT	47uF	20%	25V
C925	1-115-783-11	ELECT	220uF	20%	25V
C926	1-115-783-11	ELECT	220uF	20%	25V
C927	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C928	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C929	1-126-053-11	ELECT	220uF	20%	50V
C930	1-115-783-11	ELECT	220uF	20%	25V
C931	1-115-783-11	ELECT	220uF	20%	25V
C932	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C933	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C934	1-126-053-11	ELECT	220uF	20%	50V
C935	1-126-022-11	ELECT	47uF	20%	25V
C936	1-126-022-11	ELECT	47uF	20%	25V
C939	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C940	1-126-316-51	ELECT	470uF	20%	16V
C941	1-126-316-51	ELECT	470uF	20%	16V
C942	1-136-173-00	FILM	0.47uF	5%	50V
C948	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C949	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C950	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C951	1-126-022-11	ELECT	47uF	20%	25V
C952	1-126-023-11	ELECT	100uF	20%	25V

MAIN

Ref. No.	Part No.	Description			Remark
C953	1-126-023-11	ELECT	100uF	20%	25V
C954	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C955	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C956	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C957	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C958	1-126-023-11	ELECT	100uF	20%	25V
C959	1-126-023-11	ELECT	100uF	20%	25V
C960	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C961	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C962	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
		< CONNECTOR >			
CN301	1-785-605-11	PIN, CONNECTOR (PC BOARD) 12P			
* CN302	1-779-774-11	PIN, CONNECTOR (PC BOARD) 16P			
CN701	1-580-907-31	PLUG, CONNECTOR (MASTER (BUS CONTROL))			
CN702	1-580-907-31	PLUG, CONNECTOR (CHANGER (BUS CONTROL))			
CN703	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
CN901	1-537-477-41	TERMINAL BOARD (3P) (POWER)			
* CN999	1-779-774-11	PIN, CONNECTOR (PC BOARD) 16P			
		< DIODE >			
D100	8-719-018-04	DIODE MA8240-TX			
D101	8-719-018-04	DIODE MA8240-TX			
D102	8-719-018-04	DIODE MA8240-TX			
D104	8-719-018-04	DIODE MA8240-TX			
D105	8-719-018-04	DIODE MA8240-TX			
D106	8-719-018-04	DIODE MA8240-TX			
D200	8-719-018-04	DIODE MA8240-TX			
D201	8-719-018-04	DIODE MA8240-TX			
D202	8-719-018-04	DIODE MA8240-TX			
D204	8-719-018-04	DIODE MA8240-TX			
D205	8-719-018-04	DIODE MA8240-TX			
D206	8-719-018-04	DIODE MA8240-TX			
D701	8-719-400-56	DIODE MA3062-H			
D702	8-719-400-56	DIODE MA3062-H			
D703	8-719-975-40	DIODE RB411D			
D704	8-719-400-56	DIODE MA3062-H			
D707	8-719-801-78	DIODE 1SS184			
D901	8-719-028-74	DIODE NSQ03A04			
D902	8-719-106-89	DIODE RD15M-B2			
D903	8-719-401-63	DIODE MA3062M-TX			
D906	8-719-975-40	DIODE RB411D			
D907	8-719-106-17	DIODE RD6.8M-B2			
D908	8-719-975-40	DIODE RB411D			
D909	8-719-801-78	DIODE 1SS184			
D910	8-719-106-62	DIODE RD11M-B2			
D911	8-719-975-40	DIODE RB411D			
D912	8-719-987-67	DIODE 11EFS2			
D913	8-719-987-67	DIODE 11EFS2			
D914	8-719-028-74	DIODE NSQ03A04			
D915	8-719-987-67	DIODE 11EFS2			
D916	8-719-801-78	DIODE 1SS184			
D919	8-719-036-58	DIODE MA3030-H(TX)			

Ref. No.	Part No.	Description	Remark
D922	8-719-801-78	DIODE 1SS184	
D923	8-719-801-78	DIODE 1SS184	
D924	8-719-801-78	DIODE 1SS184	
D925	8-719-801-78	DIODE 1SS184	
D950	8-719-801-78	DIODE 1SS184	
		< IC LINK >	
F901	1-532-686-21	LINK, IC (ICP-N75) 2.7A	
		< FERRITE BEAD >	
FB301	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB302	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB303	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB304	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB305	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB306	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB307	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB308	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB502	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB503	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB504	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB505	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB506	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB507	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB510	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB511	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB512	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB513	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB514	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB515	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB516	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB517	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB518	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB519	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB520	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB521	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB522	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB523	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB524	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB525	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB526	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB527	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB528	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB701	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB702	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB703	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB704	1-469-152-21	INDUCTOR, FERRITE BEAD	
FB901	1-410-397-21	INDUCTOR, FERRITE BEAD	
FB903	1-410-397-21	INDUCTOR, FERRITE BEAD	
FB904	1-410-397-21	INDUCTOR, FERRITE BEAD	
		< IC >	
IC101	8-759-711-82	IC NJM4580E	

Ref. No.	Part No.	Description	Remark
IC102	8-759-711-82	IC NJM4580E	
IC103	8-759-711-82	IC NJM4580E	
IC110	8-759-711-82	IC NJM4580E	
IC111	8-759-711-82	IC NJM4580E	
IC202	8-759-711-82	IC NJM4580E	
IC203	8-759-711-82	IC NJM4580E	
IC303	8-759-539-56	IC CS3310-KSR	
IC304	8-759-064-92	IC NJM5532M-D	
IC306	8-759-539-56	IC CS3310-KSR	
IC307	8-759-064-92	IC NJM5532M-D	
IC309	8-759-539-56	IC CS3310-KSR	
IC310	8-759-064-92	IC NJM5532M-D	
IC312	8-759-539-56	IC CS3310-KSR	
IC313	8-759-064-92	IC NJM5532M-D	
IC401	8-759-566-39	IC OPA2132UA/2K5	
IC405	8-759-566-39	IC OPA2132UA/2K5	
IC408	8-759-566-39	IC OPA2132UA/2K5	
IC411	8-759-566-39	IC OPA2132UA/2K5	
IC501	8-759-547-67	IC CS5335-KSR	
IC502	8-752-372-30	IC CXD2710R	
IC503	8-752-379-58	IC CXD2711Q	
IC504	8-752-379-58	IC CXD2711Q	
IC506	8-759-079-60	IC TC74VHC32FS(EL)	
IC507	8-759-080-02	IC TC74VHC541FS(EL)	
IC508	8-759-491-45	IC TC74VHCT00AFT(EL)	
IC509	8-759-096-87	IC TC7WU04FU(TE12R)	
IC510	8-759-080-02	IC TC74VHC541FS(EL)	
IC511	8-759-096-87	IC TC7WU04FU(TE12R)	
IC512	8-759-498-43	IC MSM54V16258ASL-45TSK	
IC513	8-759-399-51	IC 74LVX4245QSCX	
IC514	8-759-080-02	IC TC74VHC541FS(EL)	
IC518	8-759-498-43	IC MSM54V16258ASL-45TSK	
IC520	8-759-080-08	IC TC74VHC595FS(EL)	
IC521	8-759-327-60	IC TC7W125FU-TE12R	
IC522	8-759-096-87	IC TC7WU04FU(TE12R)	
IC601	8-749-923-62	IC TORX-193 (MASTER (DIGITAL IN))	
IC602	8-749-923-62	IC TORX-193 (CHANGER (DIGITAL IN))	
IC603	8-759-547-68	IC TC9245F(ELP)	
IC604	8-759-375-46	IC SM5844AF	
IC605	8-759-096-87	IC TC7WU04FU(TE12R)	
IC701	8-759-284-87	IC MM1284XFFE	
IC702	8-759-537-80	IC HD6473048SF16	
IC703	8-759-568-91	IC MBM29FO16A-90PFTN-CNW01	
IC704	8-759-568-92	IC MBM29FO16A-90PFTN-CNW02	
IC705	8-759-443-04	IC AT24C32N-10SI-TR	
IC706	8-759-277-63	IC TC7W14FU(TE12R)	
IC901	8-759-542-91	IC S-80840ANUP-ED4-T2	
IC902	8-759-547-65	IC UC2843ADR2	
IC903	8-759-982-36	IC RC78M15FA	
IC904	8-759-701-70	IC NJM79M15FA	
IC905	8-759-443-30	IC MC33269DTRK-3.3	
IC950	8-759-711-58	IC NJM78L05UA	
IC951	8-759-045-17	IC NJM79L05UA	

Ref. No.	Part No.	Description	Remark
		< COIL >	
L101	1-414-189-31	INDUCTOR 100uH	
L201	1-414-189-31	INDUCTOR 100uH	
L502	1-414-185-41	INDUCTOR 22uH	
L503	1-414-185-41	INDUCTOR 22uH	
L504	1-414-185-41	INDUCTOR 22uH	
L505	1-414-185-41	INDUCTOR 22uH	
L506	1-414-185-41	INDUCTOR 22uH	
L507	1-414-185-41	INDUCTOR 22uH	
L508	1-414-189-31	INDUCTOR 100uH	
L509	1-414-193-41	INDUCTOR 220uH	
L519	1-414-189-31	INDUCTOR 100uH	
L520	1-414-189-31	INDUCTOR 100uH	
L601	1-414-185-41	INDUCTOR 22uH	
L602	1-414-185-41	INDUCTOR 22uH	
L603	1-414-185-41	INDUCTOR 22uH	
L604	1-414-185-41	INDUCTOR 22uH	
L701	1-411-669-12	INDUCTOR, FERRITE BEAD	
L702	1-414-185-41	INDUCTOR 22uH	
L901	1-411-669-12	INDUCTOR, FERRITE BEAD	
L902	1-411-595-11	INDUCTOR 47uH	
L903	1-402-971-11	INDUCTOR 100uH	
L904	1-402-971-11	INDUCTOR 100uH	
L905	1-411-595-11	INDUCTOR 47uH	
L950	1-414-189-31	INDUCTOR 100uH	
L951	1-414-189-31	INDUCTOR 100uH	
		< THERMISTOR >	
PH901	1-809-148-11	THERMISTOR PTH8L07AR2R0M1B510	
PH902	1-801-792-21	THERMISTOR, POSITIVE	
PH903	1-809-148-11	THERMISTOR PTH8L07AR2R0M1B510	
		< JACK >	
PJ101	1-770-068-41	JACK, PIN 4P (ANALOG IN)	
PJ301	1-770-068-41	JACK, PIN 4P (LINE OUT C,D)	
PJ302	1-770-068-41	JACK, PIN 4P (LINE OUT A,B)	
		< TRANSISTOR >	
Q301	8-729-012-88	TRANSISTOR XP1504-(TX)	
Q302	8-729-012-88	TRANSISTOR XP1504-(TX)	
Q303	8-729-012-88	TRANSISTOR XP1504-(TX)	
Q304	8-729-012-88	TRANSISTOR XP1504-(TX)	
Q305	8-729-012-88	TRANSISTOR XP1504-(TX)	
Q306	8-729-012-88	TRANSISTOR XP1504-(TX)	
Q307	8-729-012-88	TRANSISTOR XP1504-(TX)	
Q308	8-729-012-88	TRANSISTOR XP1504-(TX)	
Q601	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q701	8-729-901-06	TRANSISTOR DTA144EK	
Q702	8-729-901-06	TRANSISTOR DTA144EK	
Q901	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q902	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q903	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q906	8-729-033-37	FET 2SJ327-Z-T1	

MAIN

Ref. No.	Part No.	Description	Remark
Q907	8-729-822-84	TRANSISTOR 2SB1202FAST	
Q908	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q909	8-729-040-17	TRANSISTOR 2SD2164-K	
Q910	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q911	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q912	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q913	8-729-036-18	TRANSISTOR 2SA1289-RS	
Q914	8-729-030-73	FET MTAJ30N06HD	
Q916	8-729-027-50	TRANSISTOR DTC123JKA-T146	
Q917	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q918	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q950	8-729-030-31	TRANSISTOR 2SA1182-O(TE85L)	
Q951	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q952	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q953	8-729-030-31	TRANSISTOR 2SA1182-O(TE85L)	
Q954	8-729-027-52	TRANSISTOR DTC124EKA-T146	
Q955	8-729-230-49	TRANSISTOR 2SC2712-YG	

< RESISTOR >

Ref. No.	Part No.	Description			Remark
R100	1-208-486-61	RES,CHIP	1K	2%	1/8W
R101	1-208-486-61	RES,CHIP	1K	2%	1/8W
R102	1-208-462-41	RES,CHIP	10K	2%	1/10W
R103	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R104	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R105	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R106	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R107	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R111	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R112	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R113	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R114	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R120	1-208-462-41	RES,CHIP	10K	2%	1/10W
R121	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R123	1-208-526-41	RES,CHIP	47K	2%	1/10W
R131	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R132	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R133	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R134	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R135	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R136	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R137	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R200	1-208-486-61	RES,CHIP	1K	2%	1/8W
R201	1-208-486-61	RES,CHIP	1K	2%	1/8W
R202	1-208-462-41	RES,CHIP	10K	2%	1/10W
R203	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R204	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R205	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R206	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R207	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R211	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R212	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R213	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R214	1-208-806-11	RES,CHIP	10K	0.50%	1/10W

Ref. No.	Part No.	Description			Remark
R220	1-208-462-41	RES,CHIP	10K	2%	1/10W
R221	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R223	1-208-526-41	RES,CHIP	47K	2%	1/10W
R231	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R232	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R233	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R234	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R235	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R236	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R237	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R308	1-208-486-61	RES,CHIP	1K	2%	1/8W
R309	1-208-486-61	RES,CHIP	1K	2%	1/8W
R310	1-208-486-61	RES,CHIP	1K	2%	1/8W
R311	1-208-486-61	RES,CHIP	1K	2%	1/8W
R312	1-216-150-00	RES,CHIP	10	2%	1/8W
R313	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W
R314	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R316	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R317	1-208-365-61	RES,CHIP	100	2%	1/10W
R318	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R320	1-216-296-00	SHORT	0		
R328	1-208-486-61	RES,CHIP	1K	2%	1/8W
R329	1-208-486-61	RES,CHIP	1K	2%	1/8W
R330	1-208-486-61	RES,CHIP	1K	2%	1/8W
R331	1-208-486-61	RES,CHIP	1K	2%	1/8W
R332	1-216-150-00	RES,CHIP	10	2%	1/8W
R333	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W
R334	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R336	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R337	1-208-365-61	RES,CHIP	100	2%	1/10W
R338	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R348	1-208-486-61	RES,CHIP	1K	2%	1/8W
R349	1-208-486-61	RES,CHIP	1K	2%	1/8W
R350	1-208-486-61	RES,CHIP	1K	2%	1/8W
R351	1-208-486-61	RES,CHIP	1K	2%	1/8W
R352	1-216-150-00	RES,CHIP	10	2%	1/8W
R353	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W
R354	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R356	1-216-678-11	METAL CHIP	33K	0.5%	1/10W
R357	1-208-365-61	RES,CHIP	100	2%	1/10W
R358	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R368	1-208-486-61	RES,CHIP	1K	2%	1/8W
R369	1-208-486-61	RES,CHIP	1K	2%	1/8W
R370	1-208-486-61	RES,CHIP	1K	2%	1/8W
R371	1-208-486-61	RES,CHIP	1K	2%	1/8W
R372	1-216-150-00	RES,CHIP	10	2%	1/8W
R373	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W
R374	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R376	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R377	1-208-365-61	RES,CHIP	100	2%	1/10W
R378	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R380	1-208-365-61	RES,CHIP	100	2%	1/10W
R381	1-216-829-11	METAL CHIP	4.7K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R382	1-208-365-61	RES,CHIP	100	2%	1/10W
R383	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R384	1-208-365-61	RES,CHIP	100	2%	1/10W
R385	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R386	1-208-365-61	RES,CHIP	100	2%	1/10W
R387	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R391	1-216-296-00	SHORT	0		
R392	1-216-296-00	SHORT	0		
R393	1-216-296-00	SHORT	0		
R394	1-216-296-00	SHORT	0		
R408	1-208-486-61	RES,CHIP	1K	2%	1/8W
R409	1-208-486-61	RES,CHIP	1K	2%	1/8W
R410	1-208-486-61	RES,CHIP	1K	2%	1/8W
R411	1-208-486-61	RES,CHIP	1K	2%	1/8W
R413	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W
R414	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R416	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R417	1-208-365-61	RES,CHIP	100	2%	1/10W
R418	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R428	1-208-486-61	RES,CHIP	1K	2%	1/8W
R429	1-208-486-61	RES,CHIP	1K	2%	1/8W
R430	1-208-486-61	RES,CHIP	1K	2%	1/8W
R431	1-208-486-61	RES,CHIP	1K	2%	1/8W
R433	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W
R434	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R436	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R437	1-208-365-61	RES,CHIP	100	2%	1/10W
R438	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R448	1-208-486-61	RES,CHIP	1K	2%	1/8W
R449	1-208-486-61	RES,CHIP	1K	2%	1/8W
R450	1-208-486-61	RES,CHIP	1K	2%	1/8W
R451	1-208-486-61	RES,CHIP	1K	2%	1/8W
R453	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W
R454	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R456	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R457	1-208-365-61	RES,CHIP	100	2%	1/10W
R458	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R468	1-208-486-61	RES,CHIP	1K	2%	1/8W
R469	1-208-486-61	RES,CHIP	1K	2%	1/8W
R470	1-208-486-61	RES,CHIP	1K	2%	1/8W
R471	1-208-486-61	RES,CHIP	1K	2%	1/8W
R473	1-216-653-11	METAL CHIP	1.2K	0.5%	1/10W
R474	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R476	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R477	1-208-365-61	RES,CHIP	100	2%	1/10W
R478	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R480	1-208-365-61	RES,CHIP	100	2%	1/10W
R481	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R482	1-208-365-61	RES,CHIP	100	2%	1/10W
R483	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R484	1-208-365-61	RES,CHIP	100	2%	1/10W
R485	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R486	1-208-365-61	RES,CHIP	100	2%	1/10W
R487	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R501	1-216-089-00	RES,CHIP	47K	5%	1/10W
R502	1-208-425-61	RES,CHIP	330	2%	1/10W
R503	1-208-365-61	RES,CHIP	100	2%	1/10W
R504	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R505	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R506	1-216-121-11	RES,CHIP	1M	5%	1/10W
R507	1-208-365-61	RES,CHIP	100	2%	1/10W
R508	1-208-365-61	RES,CHIP	100	2%	1/10W
R509	1-216-121-11	RES,CHIP	1M	5%	1/10W
R510	1-208-425-61	RES,CHIP	330	2%	1/10W
R511	1-208-425-61	RES,CHIP	330	2%	1/10W
R512	1-208-425-61	RES,CHIP	330	2%	1/10W
R513	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R514	1-216-073-00	METAL CHIP	10K	5%	1/10W
R515	1-216-073-00	METAL CHIP	10K	5%	1/10W
R516	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R517	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R518	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R519	1-208-365-61	RES,CHIP	100	2%	1/10W
R520	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R521	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R522	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R523	1-216-073-00	METAL CHIP	10K	5%	1/10W
R524	1-216-073-00	METAL CHIP	10K	5%	1/10W
R525	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R526	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R527	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R528	1-208-365-61	RES,CHIP	100	2%	1/10W
R529	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R530	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R531	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R532	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R533	1-216-097-00	RES,CHIP	100K	5%	1/10W
R534	1-216-081-00	METAL CHIP	22K	5%	1/10W
R535	1-216-097-00	RES,CHIP	100K	5%	1/10W
R536	1-216-097-00	RES,CHIP	100K	5%	1/10W
R537	1-216-097-00	RES,CHIP	100K	5%	1/10W
R538	1-216-049-11	RES,CHIP	1K	5%	1/10W
R539	1-216-097-00	RES,CHIP	100K	5%	1/10W
R544	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R545	1-216-073-00	METAL CHIP	10K	5%	1/10W
R601	1-208-365-61	RES,CHIP	100	2%	1/10W
R602	1-216-089-00	RES,CHIP	47K	5%	1/10W
R603	1-208-365-61	RES,CHIP	100	2%	1/10W
R604	1-216-089-00	RES,CHIP	47K	5%	1/10W
R605	1-216-073-00	METAL CHIP	10K	5%	1/10W
R606	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R607	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R608	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R609	1-216-097-00	RES,CHIP	100K	5%	1/10W
R610	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R611	1-216-631-11	METAL CHIP	150	0.5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R612	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R613	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R614	1-216-091-00	METAL CHIP	56K	5%	1/10W
R615	1-216-073-00	METAL CHIP	10K	5%	1/10W
R624	1-216-089-00	RES,CHIP	47K	5%	1/10W
R701	1-208-365-61	RES,CHIP	100	2%	1/10W
R702	1-216-089-00	RES,CHIP	47K	5%	1/10W
R703	1-208-365-61	RES,CHIP	100	2%	1/10W
R704	1-208-365-61	RES,CHIP	100	2%	1/10W
R705	1-208-365-61	RES,CHIP	100	2%	1/10W
R706	1-208-365-61	RES,CHIP	100	2%	1/10W
R707	1-208-365-61	RES,CHIP	100	2%	1/10W
R708	1-208-365-61	RES,CHIP	100	2%	1/10W
R709	1-216-089-00	RES,CHIP	47K	5%	1/10W
R717	1-216-097-00	RES,CHIP	100K	5%	1/10W
R718	1-216-089-00	RES,CHIP	47K	5%	1/10W
R719	1-216-089-00	RES,CHIP	47K	5%	1/10W
R720	1-216-089-00	RES,CHIP	47K	5%	1/10W
R721	1-216-097-00	RES,CHIP	100K	5%	1/10W
R722	1-216-097-00	RES,CHIP	100K	5%	1/10W
R723	1-216-097-00	RES,CHIP	100K	5%	1/10W
R724	1-216-295-00	SHORT	0		
R725	1-216-073-00	METAL CHIP	10K	5%	1/10W
R726	1-216-089-00	RES,CHIP	47K	5%	1/10W
R727	1-216-089-00	RES,CHIP	47K	5%	1/10W
R728	1-216-089-00	RES,CHIP	47K	5%	1/10W
R729	1-216-089-00	RES,CHIP	47K	5%	1/10W
R730	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R731	1-216-627-11	METAL CHIP	100	0.5%	1/10W
R901	1-216-089-00	RES,CHIP	47K	5%	1/10W
R902	1-216-073-00	METAL CHIP	10K	5%	1/10W
R904	1-216-073-00	METAL CHIP	10K	5%	1/10W
R905	1-216-049-11	RES,CHIP	1K	5%	1/10W
R907	1-216-210-00	RES,CHIP	3.3K	5%	1/8W
R908	1-216-210-00	RES,CHIP	3.3K	5%	1/8W
R909	1-216-210-00	RES,CHIP	3.3K	5%	1/8W
R912	1-216-089-00	RES,CHIP	47K	5%	1/10W
R913	1-216-089-00	RES,CHIP	47K	5%	1/10W
R914	1-216-073-00	METAL CHIP	10K	5%	1/10W
R915	1-216-073-00	METAL CHIP	10K	5%	1/10W
R916	1-216-085-00	METAL CHIP	33K	5%	1/10W
R917	1-216-073-00	METAL CHIP	10K	5%	1/10W
R918	1-216-085-00	METAL CHIP	33K	5%	1/10W
R919	1-216-077-00	METAL CHIP	15K	5%	1/10W
R920	1-216-073-00	METAL CHIP	10K	5%	1/10W
R921	1-216-081-00	METAL CHIP	22K	5%	1/10W
R922	1-216-073-00	METAL CHIP	10K	5%	1/10W
R923	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R924	1-216-121-11	RES,CHIP	1M	5%	1/10W
R925	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R926	1-216-101-00	METAL CHIP	150K	5%	1/10W
R927	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R928	1-216-049-11	RES,CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R929	1-217-611-00	METAL	0.1	10%	2W
R930	1-216-049-11	RES,CHIP	1K	5%	1/10W
R931	1-216-214-00	RES,CHIP	4.7K	5%	1/8W
R932	1-208-799-11	RES,CHIP	5.1K	0.50%	1/10W
R933	1-216-667-11	METAL CHIP	4.7K	0.5%	1/10W
R934	1-216-295-00	SHORT	0		
R950	1-216-089-00	RES,CHIP	47K	5%	1/10W
R951	1-216-081-00	METAL CHIP	22K	5%	1/10W
R952	1-216-073-00	METAL CHIP	10K	5%	1/10W
R953	1-216-073-00	METAL CHIP	10K	5%	1/10W
R954	1-216-081-00	METAL CHIP	22K	5%	1/10W
R955	1-216-081-00	METAL CHIP	22K	5%	1/10W
R956	1-208-526-41	RES,CHIP	47K	2%	1/10W

< NETWORK RESISTOR >

RB501	1-233-576-11	RES, CHIP NETWORK	100	
RB502	1-233-576-11	RES, CHIP NETWORK	100	
RB503	1-233-576-11	RES, CHIP NETWORK	100	
RB504	1-233-576-11	RES, CHIP NETWORK	100	
RB505	1-233-576-11	RES, CHIP NETWORK	100	
RB506	1-233-576-11	RES, CHIP NETWORK	100	
RB507	1-233-576-11	RES, CHIP NETWORK	100	
RB508	1-233-576-11	RES, CHIP NETWORK	100	
RB509	1-233-576-11	RES, CHIP NETWORK	100	
RB510	1-233-576-11	RES, CHIP NETWORK	100	
RB511	1-233-576-11	RES, CHIP NETWORK	100	
RB512	1-233-576-11	RES, CHIP NETWORK	100	
RB513	1-233-576-11	RES, CHIP NETWORK	100	
RB514	1-233-576-11	RES, CHIP NETWORK	100	
RB515	1-233-576-11	RES, CHIP NETWORK	100	
RB516	1-233-576-11	RES, CHIP NETWORK	100	
RB517	1-233-576-11	RES, CHIP NETWORK	100	
RB518	1-233-576-11	RES, CHIP NETWORK	100	
RB519	1-233-576-11	RES, CHIP NETWORK	100	
RB520	1-233-576-11	RES, CHIP NETWORK	100	
RB521	1-233-576-11	RES, CHIP NETWORK	100	
RB701	1-233-576-11	RES, CHIP NETWORK	100	
RB702	1-233-576-11	RES, CHIP NETWORK	100	
RB703	1-233-576-11	RES, CHIP NETWORK	100	
RB704	1-233-576-11	RES, CHIP NETWORK	100	
RB705	1-233-576-11	RES, CHIP NETWORK	100	
RB706	1-233-576-11	RES, CHIP NETWORK	100	
RB707	1-233-576-11	RES, CHIP NETWORK	100	
RB708	1-233-576-11	RES, CHIP NETWORK	100	
RB709	1-233-576-11	RES, CHIP NETWORK	100	
RB710	1-216-182-00	RES, CHIP NETWORK	220	(3216)
RB711	1-216-182-00	RES, CHIP NETWORK	220	(3216)
RB712	1-216-182-00	RES, CHIP NETWORK	220	(3216)
RB713	1-216-182-00	RES, CHIP NETWORK	220	(3216)
RB714	1-233-810-21	RES, CHIP NETWORK	100K	(3216)
RB715	1-233-810-21	RES, CHIP NETWORK	100K	(3216)
RB716	1-233-810-21	RES, CHIP NETWORK	100K	(3216)
RB717	1-233-810-21	RES, CHIP NETWORK	100K	(3216)

Ref. No.	Part No.	Description	Remark
RB718	1-233-810-21	RES, CHIP NETWORK 100K (3216)	
RB719	1-233-810-21	RES, CHIP NETWORK 100K (3216)	
RB720	1-233-810-21	RES, CHIP NETWORK 100K (3216)	
RB721	1-233-810-21	RES, CHIP NETWORK 100K (3216)	
RB722	1-233-810-21	RES, CHIP NETWORK 100K (3216)	
		< RELAY >	
RY901	1-755-188-11	RELAY	
		< TRANSFORMER >	
T901	1-433-448-11	TRANSFORMER, DC-DC CONVERTER	
		< VIBRATOR >	
X501	1-781-205-11	VIBRATOR, CRYSTAL (11.288MHz)	
X502	1-767-446-21	VIBRATOR, CERAMIC (33.86MHz)	
X701	1-781-240-21	VIBRATOR, CERAMIC (14.74MHz)	

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ACCESSORIES & PACKING MATERIALS
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	3-864-854-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH)
	3-864-854-21	MANUAL, INSTRUCTION (GERMAN,ITALIAN) (AEP,UK,E)
	3-864-854-31	MANUAL, INSTRUCTION (PORTUGUESE, SPANISH) (AEP,UK,E)
	3-864-854-41	MANUAL, INSTRUCTION (DUTCH,SWEDISH) (AEP,UK,E)

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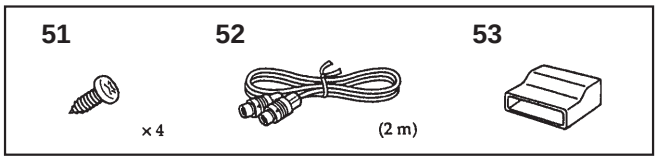
Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
51	3-367-410-01	SCREW (DIA. 5X15), TAPPING	
52	1-590-519-11	CORD (WITH CONNECTOR) (BUS CABLE) (2m)	
53	3-013-264-01	COVER, 3P TERMINAL TABLE	



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