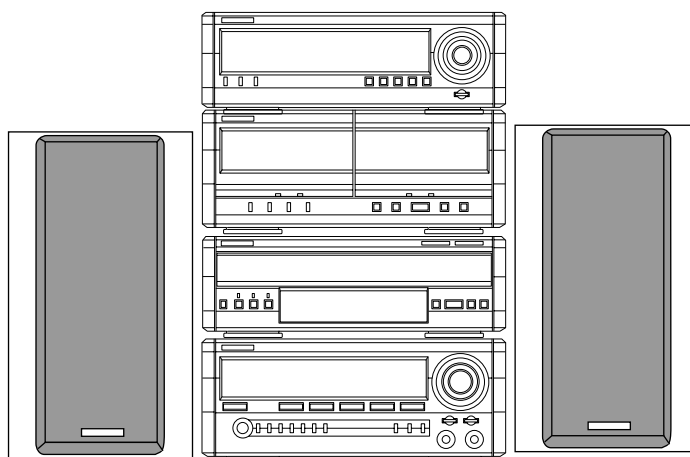




SERVICE MANUAL

COMPACT DISC STEREO
SYSTEM

BASIC TAPE MECHANISM : 2ZM-3MK2 PR4NM
BASIC CD MECHANISM : AZG-1 ZD3RNDM

SYSTEM	STEREO RECEIVER	CD PLAYER	CASSETTE DECK	GRAPHIC EQUALISER	SPEAKERS	REMOTE CONTROL
XR-H2000	MX-NH2000	DX-NH2000	FX-NH2000	GE-NH2000	SX-NDPH2100	RC-ZAS04

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual" XR-H2000 (LH), (S/M Code No. 09-001-427-6T1).
- If requiring information about the CD mechanism, see Service Manual of AZG-1 ZD3RNDM, (S/M Code No. 09-001-335-3N8).

aiwa

S/M Code No. 09-003-427-6R1

REVISION

DATA

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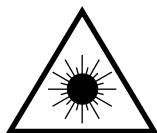
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PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

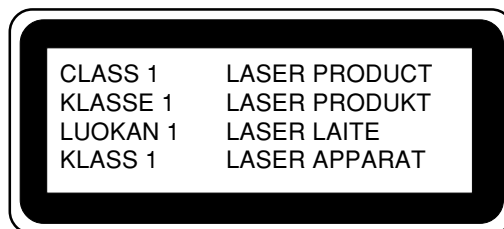
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRODUCT label is located on the rear exterior.

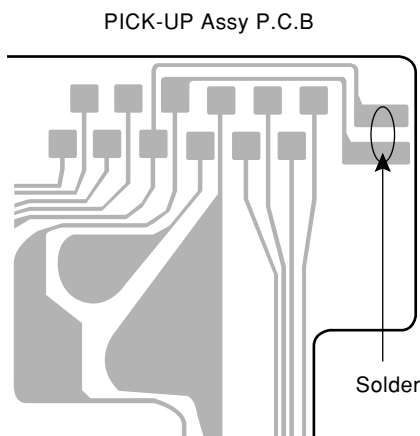


Precaution to replace Optical block

(KSS-213F)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in right figure.



SPECIFICATIONS

<STEREO RECEIVER MX-NH2000>

<FM tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

<AM Tuner section>

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

<Amplifier section>

Power output	90 W + 90 W (1 kHz, T.H.D. less than 10 %, 6 ohms)
Total harmonic distortion	0.1 % (8 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX: 310 mV (adjustable) MD: 310 mV (adjustable) MIC 1, MIC 2: 1.2 mV (10 kohms)
Outputs	LINE OUT: 175 mV SPEAKERS: accept speakers of 6 ohms or more SURROUND SPEAKERS: accept speakers of 8 ohms to 16 ohms PHONES (stereo jack): accepts headphones of 32 ohms or more

<General>

Power requirements	120 V/ 220V–230V/ 240 V AC switchable 50/60 Hz
Power consumption	135 W
Power consumption in standby mode	If the power-economizing mode is ECO OFF: 30 W If the power-economizing mode is ECO ON or ECO AUTO: 0.9 W
Dimensions of main unit (W x H x D)	260 x 122 x 338 mm
Weight of main unit	6.2 kg

<CD PLAYER DX-NH2000>

Laser	Semiconductor laser ($\lambda = 780$ nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable
Dimensions of main unit (W x H x D)	260 x 101 x 315 mm
Weight of main unit	2.3 kg

<CASSETTE DECK FX-NH2000>

Track format	4 tracks, 2 channels stereo
Frequency response	Type II (high/CrO ₂) tape: 50 Hz – 16000 Hz Type I (normal) tape: 50 Hz – 15000 Hz
Signal-to-noise ratio	60 dB (Dolby B NR ON, Type II tape peak level)
Recording system	AC bias, AC erase
Heads	Deck 1: Playback head x 1 Deck 2: Recording/playback head x 1, erase head x 1
Dimensions of main unit (W x H x D)	260 x 122 x 315 mm
Weight of main unit	2.0 kg

<GRAPHIC EQUALIZER GE-NH2000>

Dimensions of main unit (W x H x D)	260x 101 x 328 mm
Weight	1.8 kg

<SPEAKER SYSTEM SX–NDPH2100>

Cabinet type	3 way (magnetic shielded type)
Speakers	Woofer: 140 mm cone type x 2 Tweeter: 60 mm cone type Super tweeter: 20 mm ceramic type
Impedance	6 ohms
Output sound pressure level	88 dB/W/m
Dimensions (W x H x D)	250 x 443 x 250 mm
Weight	7.0 kg

• Design and specifications are subject to change without notice.

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• The word “BBE” and the “BBE symbol” are trademarks of BBE Sound, Inc.
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ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-SP1-902-010		IB, LH (ESP) M
2	8Z-NF5-702-010		RC UNIT, ZAS04
3	87-006-225-010		AM LOOP ANT NC2
4	87-043-115-010		ANT, FEEDER FM
△ 5	87-A91-017-010		PLUG, CONVERSION JT-0476

MODEL NO.

MX-NH2000

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C102	87-010-917-000		CAP,E 3300-50 M SMG
	8A-SP1-601-010		C-IC,UPD780228GF-065-3BA	C103	87-016-658-000		CAP,E 4700-35 M SMG
	87-A20-914-010		IC,SPS-442-1-F	C104	87-016-658-000		CAP,E 4700-35 M SMG
	87-A21-202-040		C-IC,M62445AFP	C105	87-012-368-080		C-CAP,S 0.1-50 F
	87-A20-804-040		C-IC,NJM2152M	C106	87-012-368-080		C-CAP,S 0.1-50 F
	87-A21-419-040		IC,NJM4558MD-TE2	C107	87-012-368-080		C-CAP,S 0.1-50 F
	87-A20-869-040		C-IC,M62449FP	C108	87-012-368-080		C-CAP,S 0.1-50 F
	87-A21-051-040		C-IC,BU9990-03FS	C109	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A21-018-040		C-IC,M65849BFP631D	C110	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A20-913-010		IC,LA1837NL	C111	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-070-127-110		IC,LC72131D	C112	87-010-196-080		CHIP CAPACITOR,0.1-25
TRANSISTOR				C113	87-010-247-080		CAP, ELECT 100-50V
	89-213-702-010		TR,2SB1370 (1.8W)	C114	87-010-385-080		CAP, ELECT 220-25V
	87-026-245-080		TR,DTC114ES	C115	87-010-385-080		CAP, ELECT 220-25V
	87-026-610-080		TR,KTC3198GR	C116	87-010-247-080		CAP, ELECT 100-50V
	87-A30-076-080		C-TR,2SC3052F	C117	87-010-430-080		CAP, ELECT 100-63
	87-A30-083-080		TR,CSD1489B	C118	87-010-263-080		CAP, ELECT 100-10V
	87-A30-075-080		C-TR,2SA1235F	C119	87-010-260-080		CAP, ELECT 47-25V
	87-026-609-080		TR,KTA1266GR	C120	87-010-403-080		CAP, ELECT 3.3-50V
	87-A30-087-080		C-FET,2SK2158	C121	87-010-174-080		C-CAP,S 470P-50
	87-A30-257-080		C-TR,2SD1306E	C122	87-010-403-080		CAP, ELECT 3.3-50V
	87-A30-086-080		C-TR,CSD1306E	C123	87-010-247-080		CAP, ELECT 100-50V
	87-A30-268-040		C-TR,2SA1514K(S)	C124	87-010-112-080		CAP, ELECT 100-16V
	87-A30-190-080		TR,CC5551	C125	87-010-235-080		CAP,E 470-16 SME
	87-A30-137-010		TR,2SD2494	C201	87-010-322-080		C-CAP,S 100P-50 CH
	87-A30-138-010		TR,2SB1625	C202	87-010-322-080		C-CAP,S 100P-50 CH
	87-A30-071-080		C-TR,RT1N 144C	C209	87-010-405-080		CAP, ELECT 10-50V
	87-A30-106-070		C-TR,CMBT5551	C210	87-010-405-080		CAP, ELECT 10-50V
	87-A30-072-080		C-TR,RT1P 144C	C211	87-010-183-080		C-CAP,S 2700P-50 B
	87-A30-073-080		C-TR,RT1N 141C	C212	87-010-183-080		C-CAP,S 2700P-50 B
	87-A30-074-080		C-TR,RT1P 141C	C213	87-010-187-080		CAP CHIP S5600P
	87-026-263-080		C-TR,RN1410	C214	87-010-187-080		CAP CHIP S5600P
	89-112-965-080		TR,2SA1296 GR	C215	87-010-405-080		CAP, ELECT 10-50V
	87-026-226-080		CHIP-TR,DTA143EK	C216	87-010-405-080		CAP, ELECT 10-50V
	87-A30-196-080		TR,2SC4115SRS	C217	87-010-408-080		CAP, ELECT 47-50V
	87-A30-186-010		FET,2SK3053	C218	87-010-408-080		CAP, ELECT 47-50V
DIODE				C219	87-A10-516-080		C-CAP,S 100P-200 J CH
	87-070-274-080		DIODE,1N4003 SEM	C220	87-A10-516-080		C-CAP,S 100P-200 J CH
	87-A40-547-090		DIODE,D5SBA20	C221	87-016-462-080		C-CAP,S 1-16 F
	87-017-447-010		DIODE,GBU4DL-6419	C222	87-016-462-080		C-CAP,S 1-16 F
	87-020-465-080		DIODE,1SS133 (110MA)	C223	87-010-405-080		CAP, ELECT 10-50V
	87-A40-269-080		C-DIODE,MC2836	C226	87-010-405-080		CAP, ELECT 10-50V
	87-A40-270-080		C-DIODE,MC2838	C227	87-010-407-080		CAP, ELECT 33-50V
	87-A40-435-080		ZENER,MTZJ30D	C229	87-010-407-080		CAP, ELECT 33-50V
	87-A40-500-080		ZENER,MTZJ30B	C230	87-010-408-080		CAP, ELECT 47-50V
	87-A40-345-080		ZENER,MTZJ10C	C231	87-010-192-080		C-CAP,S 0.022-50 F
	87-A40-004-080		ZENER,MTZJ16A	C232	87-010-192-080		C-CAP,S 0.022-50 F
	87-070-345-080		DIODE,IN4148	C233	87-010-401-080		CAP, ELECT 1-50V
	87-A40-752-080		ZENER,UZ6.2BSC	C234	87-010-401-080		CAP, ELECT 1-50V
	87-A40-370-090		DIODE,RK46-P20	C235	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-070-136-080		ZENER,MTZJ5.1B	C290	87-010-188-080		CAP,CHIP 6800P
	87-A40-488-080		DIODE,1SS244	C503	87-010-180-080		C-CER 1500P
	87-A40-438-080		ZENER,MTZJ4.7A	C504	87-010-180-080		C-CER 1500P
	87-A40-002-080		ZENER,MTZJ5.1C	C511	87-010-405-080		CAP, ELECT 10-50V
	87-017-931-080		ZENER,MTZJ5.6B	C512	87-010-405-080		CAP, ELECT 10-50V
	87-017-148-080		ZENER,HZS6A1L	C513	87-010-404-080		CAP, ELECT 4.7-50V
	87-A40-270-080		C-DIODE,MC2838	C514	87-010-404-080		CAP, ELECT 4.7-50V
MAIN C.B				C519	87-012-142-080		CAP, S 0.33-16
C101	87-010-917-000		CAP,E 3300-50 M SMG	C520	87-016-669-080		C-CAP,S 0.1-25 K B
				C521	87-016-083-080		C-CAP,S 0.15-16 RK
				C522	87-010-183-080		C-CAP,S 2700P-50 B
				C523	87-016-669-080		C-CAP,S 0.1-25 K B
				C525	87-010-404-080		CAP, ELECT 4.7-50V
				C526	87-010-404-080		CAP, ELECT 4.7-50V
				C531	87-010-405-080		CAP, ELECT 10-50V

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C532	87-010-263-080		CAP, ELECT 100-10V	C921	87-012-157-080		C-CAP,S 330P-50 CH
C533	87-010-263-080		CAP, ELECT 100-10V	C922	87-012-157-080		C-CAP,S 330P-50 CH
C534	87-010-406-080		CAP, ELECT 22-50	C923	87-012-157-080		C-CAP,S 330P-50 CH
C535	87-010-195-080		C-CAP,S 0.068-25 F	C951	87-010-401-080		CAP, ELECT 1-50V
C536	87-012-142-080		CAP, S 0.33-16	C952	87-010-263-080		CAP, ELECT 100-10V
C537	87-010-196-080		CHIP CAPACITOR,0.1-25	C953	87-010-380-080		CAP, ELECT 47-16V
C538	87-010-404-080		CAP, ELECT 4.7-50V	CN121	87-049-919-010		CONN,3P EH V WHT
C539	87-010-404-080		CAP, ELECT 4.7-50V	CN123	87-049-469-010		CONN,4P V
C540	87-010-314-080		C-CAP,S 22P-50J CH	CN601	87-099-196-010		CONN,8P 6216 V
C541	87-010-314-080		C-CAP,S 22P-50J CH	CN901	87-099-719-010		CONN,30P TYK-B (X)
C542	87-010-314-080		C-CAP,S 22P-50J CH	CN902	87-009-877-010		CONN,9P FG
C545	87-010-196-080		CHIP CAPACITOR,0.1-25	CN903	87-009-063-010		CONNECTOR 11P
C547	87-010-401-080		CAP, ELECT 1-50V	CN906	87-A60-058-010		CONN,10P V 9604S-10C
C548	87-010-401-080		CAP, ELECT 1-50V	CN907	87-A60-056-010		CONN,12P V 9604S-12C
C601	87-010-401-080		CAP, ELECT 1-50V	CN951	87-A60-109-010		CONN,2P V S2M-2W
C602	87-010-401-080		CAP, ELECT 1-50V	FB501	87-003-223-010		FERRITE BEAD BLO2RN2
C603	87-010-182-080		C-CAP,S 2200P-50 B	FB901	87-008-372-080		FILTER, EMI BL OIRNI
C604	87-010-182-080		C-CAP,S 2200P-50 B	J901	87-A60-602-010		JACK,DIA6.3 BLK ST W/SW TC
C605	87-010-369-080		C-CAP,S 0.033-25 K B	J902	87-A60-617-010		TERMINAL,SP 4P (MSC)
C606	87-010-369-080		C-CAP,S 0.033-25 K B	J903	87-A60-653-010		JACK,PIN 4P BLK/BLK
C607	87-010-405-080		CAP, ELECT 10-50V	J905	87-A60-658-010		JACK,PIN 6P WHITE/RED
C608	87-010-405-080		CAP, ELECT 10-50V	JW179	87-008-372-080		FILTER, EMI BL OIRNI
C609	87-010-374-080		CAP, ELECT 47-10V	L601	87-005-372-080		COIL S 1MHM
C610	87-010-374-080		CAP, ELECT 47-10V	L602	87-005-372-080		COIL S 1MHM
C611	87-010-405-080		CAP, ELECT 10-50V	L901	87-003-383-010		COIL,1UH-S
C612	87-010-112-080		CAP, ELECT 100-16V	L902	87-003-383-010		COIL,1UH-S
C613	87-010-173-080		C-CAP,S 390P-50 SL	△ PR201	87-002-330-080		ICP-N5
C614	87-010-173-080		C-CAP,S 390P-50 SL	R237	87-A00-262-080		RES,M/F 0.15-2W J
C668	87-010-190-080		S CHIP F 0.01	R238	87-A00-262-080		RES,M/F 0.15-2W J
C701	87-010-402-080		CAP, ELECT 2.2-50V	R239	87-A00-262-080		RES,M/F 0.15-2W J
C702	87-010-402-080		CAP, ELECT 2.2-50V	R240	87-A00-262-080		RES,M/F 0.15-2W J
C703	87-016-669-080		C-CAP,S 0.1-25 K B	R909	87-A00-440-050		RES,220-1/2W J RP
C704	87-016-669-080		C-CAP,S 0.1-25 K B	R910	87-A00-440-050		RES,220-1/2W J RP
C705	87-016-460-080		C-CAP,S 0.22-16 B	R911	87-A00-440-050		RES,220-1/2W J RP
C706	87-016-460-080		C-CAP,S 0.22-16 B	R912	87-A00-440-050		RES,220-1/2W J RP
C707	87-012-365-080		C-CAP,S 0.027-25VBK	R913	87-A00-527-080		RES,10-1/4W J NAT
C708	87-012-365-080		C-CAP,S 0.027-25VBK	R914	87-A00-527-080		RES,10-1/4W J NAT
C709	87-010-956-080		CHIP-CAP,S 0.068-25B	R915	87-A00-527-080		RES,10-1/4W J NAT
C710	87-010-956-080		CHIP-CAP,S 0.068-25B	R916	87-A00-527-080		RES,10-1/4W J NAT
C711	87-010-197-080		CAP, CHIP 0.01 DM	RY901	87-A90-713-010		RELAY,12V DQ12D1-OS (M)
C712	87-010-197-080		CAP, CHIP 0.01 DM	TH201	87-A91-081-080		C-THMS,100K-K 20P
C713	87-010-198-080		CAP, CHIP 0.022	TH202	87-A91-081-080		C-THMS,100K-K 20P
C714	87-010-198-080		CAP, CHIP 0.022	W101	8Z-SP1-627-010		F-CABLE,7P 2.5 280MM
C715	87-010-183-080		C-CAP,S 2700P-50 B	W601	88-908-281-110		FF-CABLE,8P 1.25 280MM
C716	87-010-183-080		C-CAP,S 2700P-50 B	W906	88-910-071-110		FF-CABLE,10P 1.25 70MM
C717	87-010-188-080		CAP,CHIP 6800P	W907	88-912-121-110		FF-CABLE,12P 1.25 120
C718	87-010-188-080		CAP,CHIP 6800P	WH102	87-A90-460-010		HLDR,WIRE 2.5-7P
C719	87-010-178-080		CHIP CAP 1000P				
C720	87-010-178-080		CHIP CAP 1000P				
C721	87-010-182-080		C-CAP,S 2200P-50 B	FRONT C.B			
C722	87-010-182-080		C-CAP,S 2200P-50 B	C101	87-010-196-080		CHIP CAPACITOR,0.1-25
C730	87-010-404-080		CAP, ELECT 4.7-50V	C201	87-010-192-080		C-CAP,S 0.022-50 F
C731	87-010-112-080		CAP, ELECT 100-16V	C202	87-010-498-040		CAP,E 10-16 5L
C735	87-010-314-080		C-CAP,S 22P-50 CH	C203	87-016-081-080		C-CAP,S 0.1-16 RK
C736	87-010-314-080		C-CAP,S 22P-50 CH	C204	87-010-981-040		CAP,E 22-35 5L SRE
C737	87-010-314-080		C-CAP,S 22P-50 CH	C205	87-010-194-080		CAP, CHIP 0.047
C738	87-010-196-080		CHIP CAPACITOR,0.1-25	C206	87-010-405-040		CAP,E 10-50
C901	87-010-182-080		C-CAP,S 2200P-50 B	C207	87-010-194-080		CAP, CHIP 0.047
C902	87-010-182-080		C-CAP,S 2200P-50 B	C208	87-A10-189-040		CAP,E 220-10
C903	87-010-196-080		CHIP CAPACITOR,0.1-25	C209	87-010-071-040		CAP,E 1-50 M 5L SRE
C904	87-010-196-080		CHIP CAPACITOR,0.1-25	C211	87-012-140-080		CAP 470P
C905	87-010-196-080		CHIP CAPACITOR,0.1-25	C220	87-016-669-080		C-CAP,S 0.1-25 K B
C906	87-010-196-080		CHIP CAPACITOR,0.1-25	C221	87-016-669-080		C-CAP,S 0.1-25 K B
C907	87-010-190-080		S CHIP F 0.01	C222	87-010-401-040		CAP,E 1-50 SME
C908	87-010-190-080		S CHIP F 0.01	C223	87-010-196-080		C-CAP,S 0.1-25 ZF
C909	87-012-368-080		C-CAP,S 0.1-50 F	C224	87-010-196-080		C-CAP,S 0.1-25 ZF
C910	87-012-368-080		C-CAP,S 0.1-50 F	C241	87-010-178-080		CHIP CAP 1000P
C911	87-012-141-080		CHIP-CAPACITOR,0.22-16F	C242	87-010-316-080		C-CAP,S 33P-50 CH
C913	87-010-196-080		CHIP CAPACITOR,0.1-25	C243	87-010-313-080		CAP, CHIP 18P
C920	87-012-157-080		C-CAP,S 330P-50 CH	C244	87-010-316-080		C-CAP,S 33P-50 CH

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C774	87-010-263-080		CAP, ELECT 100-10V	L832	87-005-847-080		COIL, 2.2UH (CECS)
C775	87-010-404-080		CAP, ELECT 4.7-50V	L981	87-NF4-650-010		COIL, AM PACK4N (TOK)
C776	87-012-286-080		CAP, U 0.01-25	X721	87-A70-061-010		VIB, XTAL 4.500MHZ CSA-309
C777	87-010-400-080		CAP, ELECT 0.47-50V				
C778	87-010-401-080		CAP, ELECT 1-50V				
				CONN 10P C.B			
C779	87-010-401-080		CAP, ELECT 1-50V	C190	87-010-196-080		CHIP CAPACITOR, 0.1-25
C780	87-010-196-080		CHIP CAPACITOR, 0.1-25	CN904	87-A60-575-010		CONN, 10P H 52303
C781	87-010-405-080		CAP, ELECT 10-50V	CN905	87-099-198-010		CONN, 10P 6216 V
C782	87-010-405-080		CAP, ELECT 10-50V				
C783	87-012-286-080		CAP, U 0.01-25				
				AC 1 C.B			
C784	87-012-286-080		CAP, U 0.01-25	△ PT101	8A-SP1-603-010		PT, ASP-1 LH
C785	87-010-805-080		CAP, S 1-16				
C786	87-010-805-080		CAP, S 1-16				
C787	87-012-280-080		CAP, U 3300P-50				
C788	87-012-280-080		CAP, U 3300P-50				
				AC 1 SW C.B			
C789	87-012-275-080		C-CAP, U 1200P-50 B	△ S101	87-036-173-010		SW, SL 2-2-4 SDKG(*)
C790	87-012-275-080		C-CAP, U 1200P-50 B				
C791	87-010-405-080		CAP, ELECT 10-50V				
C793	87-012-273-080		C-CAP, U 820P-50 B				
C794	87-010-406-080		CAP, ELECT 22-50				
				SUB TRANS C.B			
C795	87-010-194-080		C-CAP, S 0.047-25 ZF	△ C138	87-010-387-080		CAP, E 470-25 SME
C796	87-010-403-080		CAP, ELECT 3.3-50V	△ C140	87-A10-480-090		CAP, CER 4700P-250 M E KH
C797	87-012-278-080		CAP, U 2200P-50	△ C141	87-A10-480-090		CAP, CER 4700P-250 M E KH
C798	87-012-278-080		CAP, U 2200P-50	△ CN102	8Z-SP1-619-110		CONN ASSY, 4P
C799	87-010-829-080		CAP, U 0.047-16	△ PT102	8A-NF8-673-010		PT, SUB ANF-8 (H) KAMI
				△ RY101	87-A91-281-010		RELAY, AC DC12V OSA-SS-212DM5
C812	87-012-286-080		CAP, U 0.01-25	△ T101	87-A60-317-010		TERMINAL, 1P MSC
C813	87-010-196-080		CHIP CAPACITOR, 0.1-25	△ T102	87-A60-317-010		TERMINAL, 1P MSC
C814	87-012-286-080		CAP, U 0.01-25				
C819	87-010-197-080		CAP, CHIP 0.01 DM				
C820	87-010-260-080		CAP, ELECT 47-25V				
				AC 2 C.B			
C821	87-012-286-080		CAP, U 0.01-25	△ PR101	87-A90-195-080		PROTECTOR 7A 125V 49
C822	87-012-286-080		CAP, U 0.01-25	△ PR102	87-A90-195-080		PROTECTOR 7A 125V 49
C823	87-012-286-080		CAP, U 0.01-25	△ PR103	87-026-682-080		PROTECTOR, 10A 60V491
C828	87-010-196-080		CHIP CAPACITOR, 0.1-25	△ PR104	87-026-682-080		PROTECTOR, 10A 60V491
C829	87-010-196-080		CHIP CAPACITOR, 0.1-25	WH101	87-A90-460-010		HLDR, WIRE 2.5-7P
				VM C.B			
C959	87-010-196-080		CHIP CAPACITOR, 0.1-25	C127	87-016-143-080		CAP, E 3.3-50M SME
C960	87-010-196-080		CHIP CAPACITOR, 0.1-25				
C961	87-012-170-080		C-CAP, U 8P-50 CH				
CF801	87-008-261-010		FILTER, SFE10.7MA5-A				
CF802	87-008-261-010		FILTER, SFE10.7MA5-A				
				ECO C.B			
CN601	87-099-028-010		CONN, 11P 6216 H				
FFE801	A8-8ZA-190-030		8ZA-1 FEUNM				
J801	87-A60-657-010		TERMINAL, 4P HSP-154V5-02				
L771	87-A50-266-010		COIL, FM DET-2N (TOK)				
L772	87-A90-733-010		FLTR, PCFAZH-450				
L781	87-005-847-080		COIL, 2.2UH (CECS)				
L791	87-A50-209-010		COIL, 1 POLE MPX (MIT)				
L792	87-A50-209-010		COIL, 1 POLE MPX (MIT)				

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

Chip Resistor Part Coding



A
抵抗部品コード
Resistor Code

桁表示
Figure
抵抗値
Value of resistor

チップ抵抗 Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード : A Resistor Code : A
				外形／Form	L	W	t	
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION (MX-NH2000)



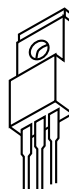
E C B

KTA1266GR
KTC3198GR



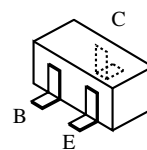
E C B

CC5551
CSD1489B



B C E

2SB1370
2SB1625
2SD2494

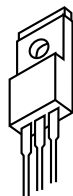


2SA1235	DTA143EK
2SA1514	RN1410
2SC3052	RT1N141C
2SD1306E	RT1N144C
CMBT5551	RT1P141C
CSD1306E	RT1P144C



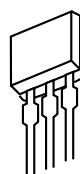
B C E

2SA1296



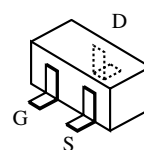
G D S

2SK3053

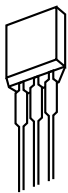


B C E

2SC4115S



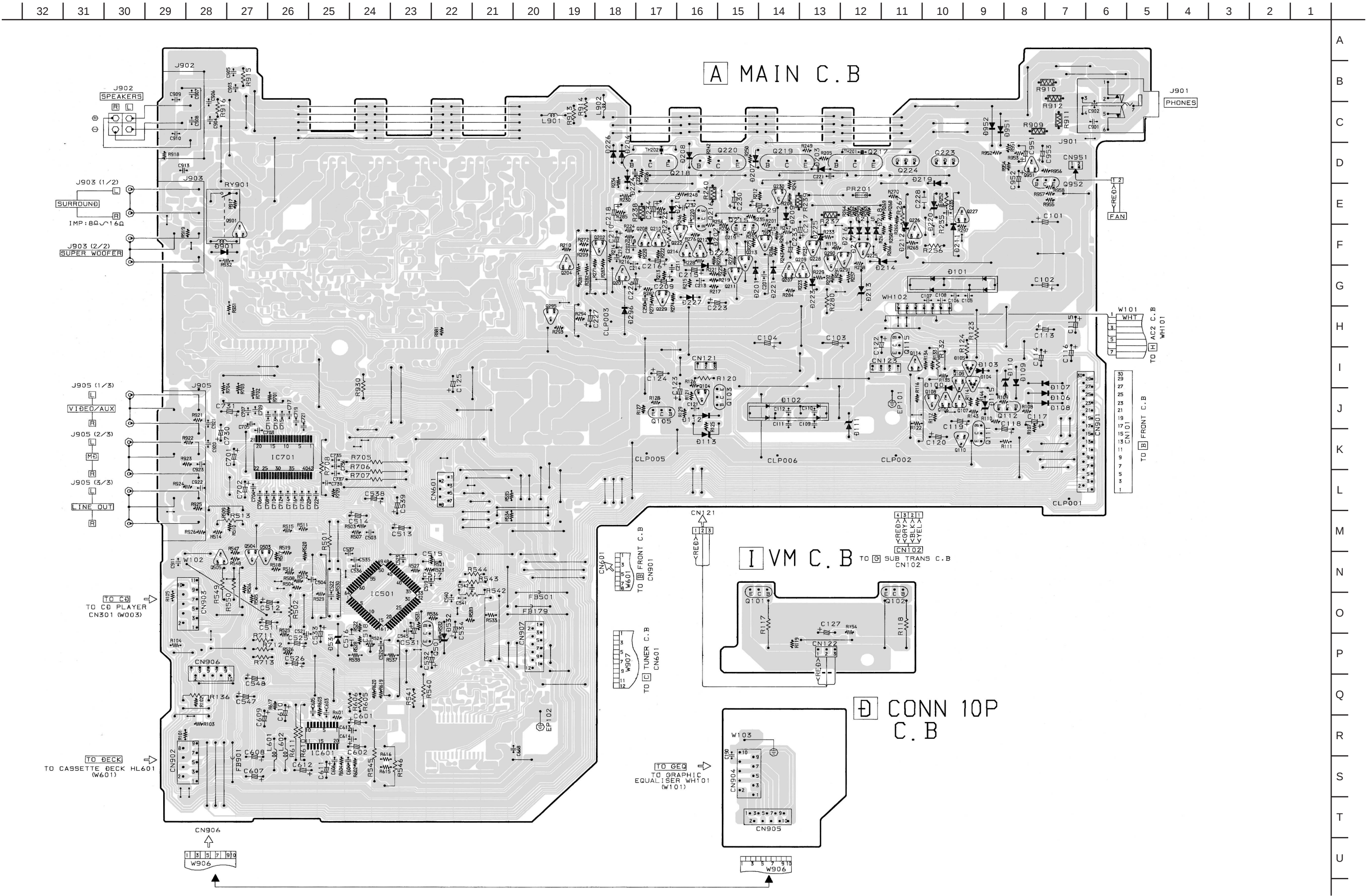
2SK2158



E C B

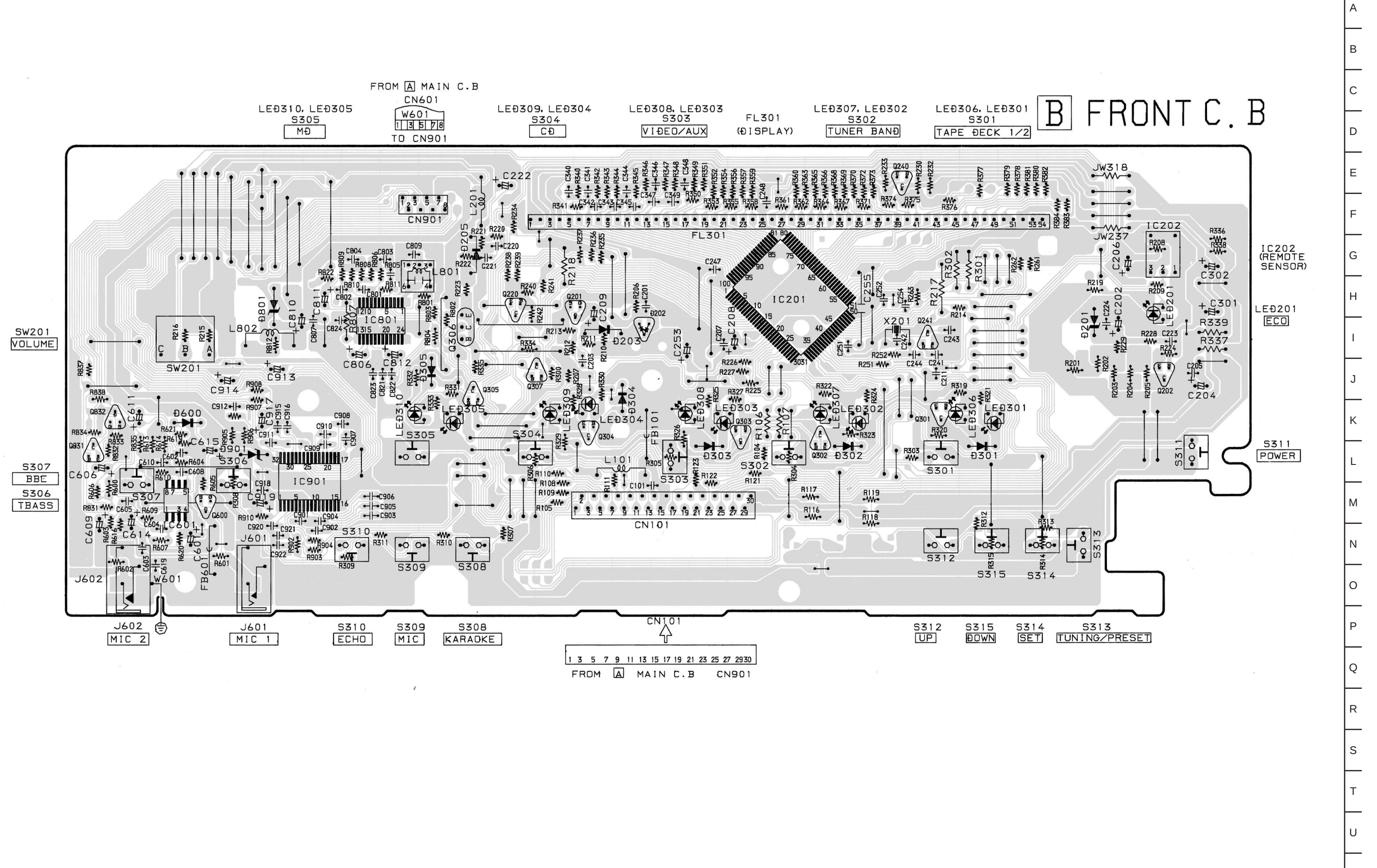
DTC114ES

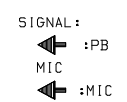
WIRING - 1 (MAIN / VM / CONN 10P : MX-NH2000)



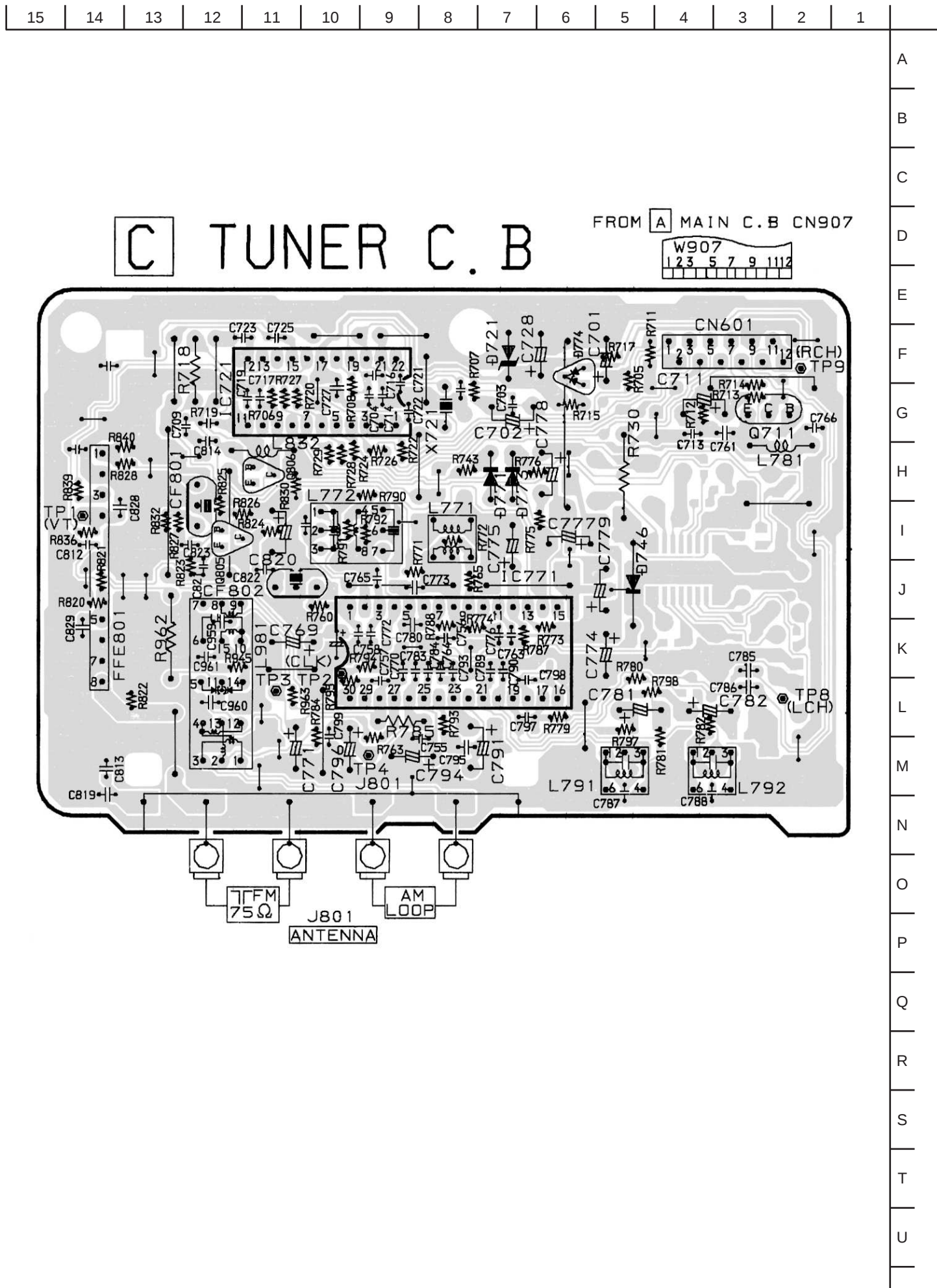
SCHEMATIC DIAGRAM-1 (MAIN / VM / CONN 10P : MX-NH2000)



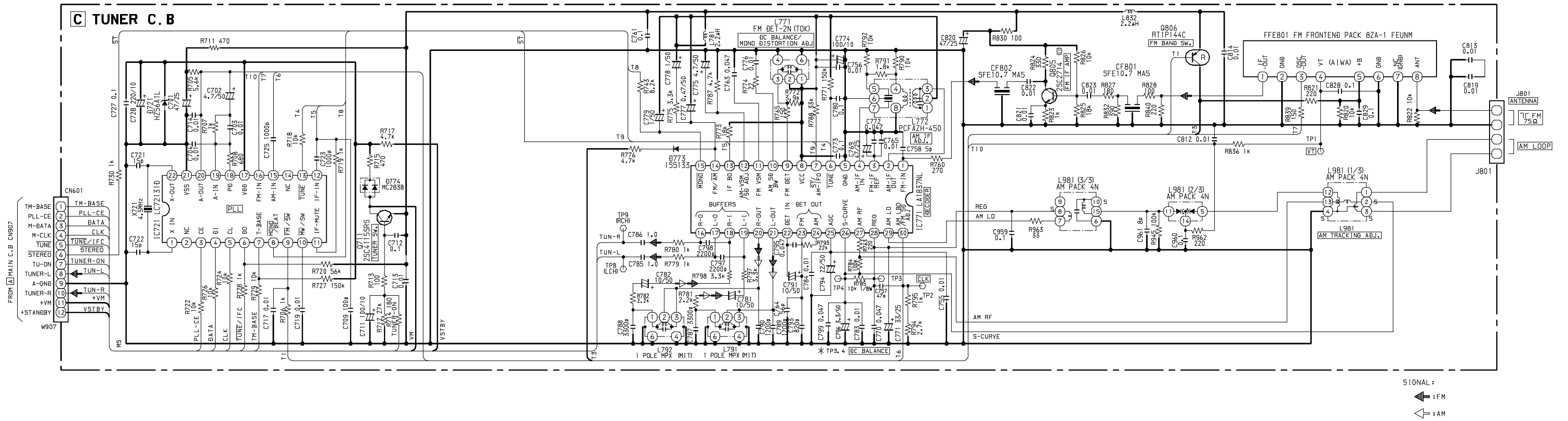


FROM ☐ MAIN C-B CN901

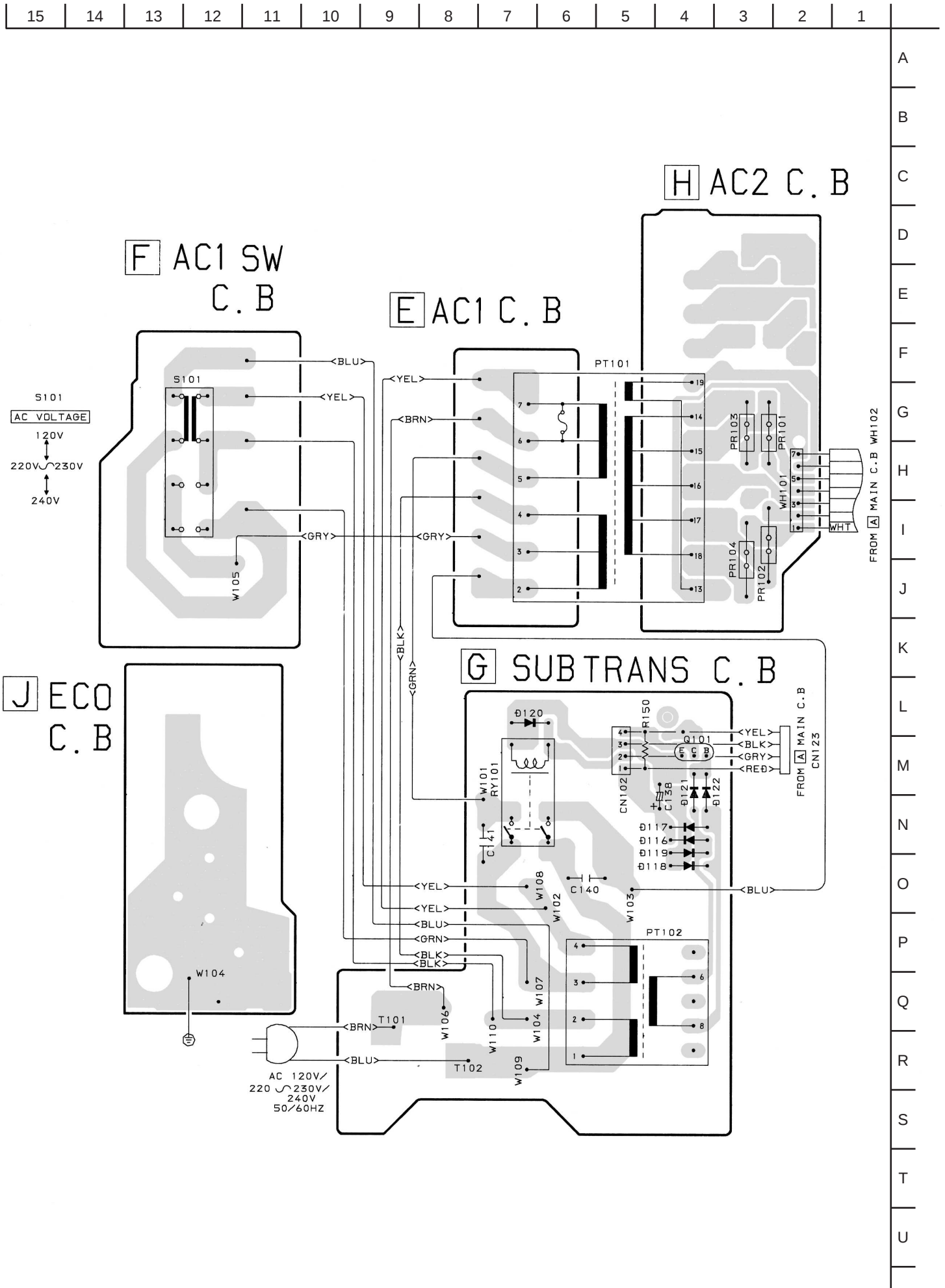
WIRING - 3 (TUNER : MX-NH2000)



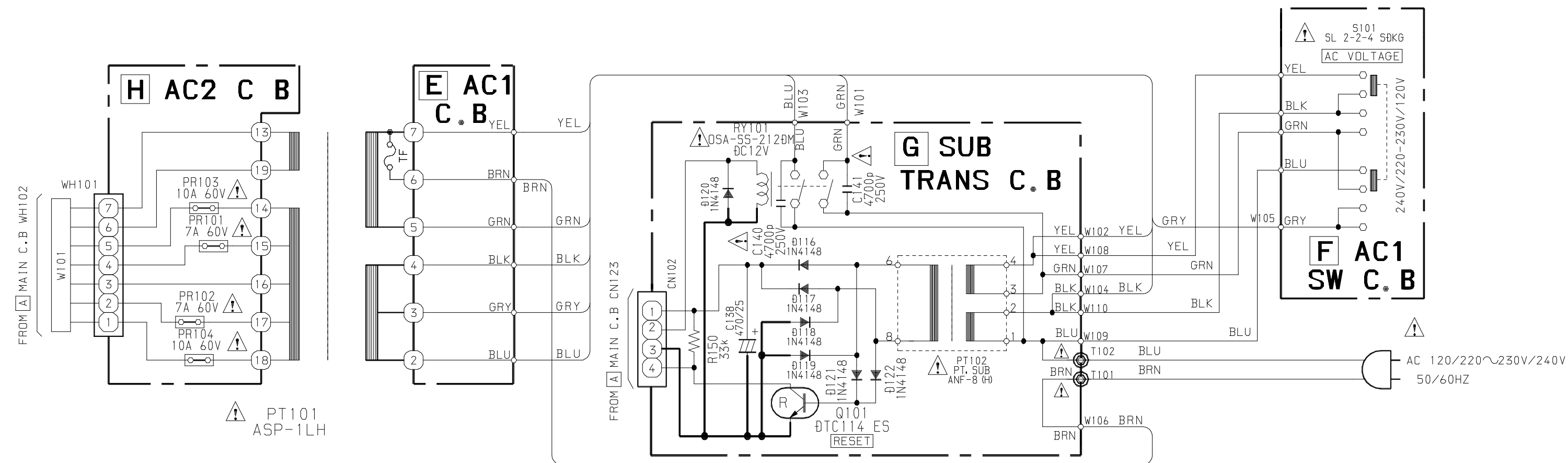
SCHEMATIC DIAGRAM – 3 (TUNER : MX-NH2000)



WIRING - 4 (AC1 / AC1 SW / SUB TRANS / AC2 / ECO : MX-NH2000)

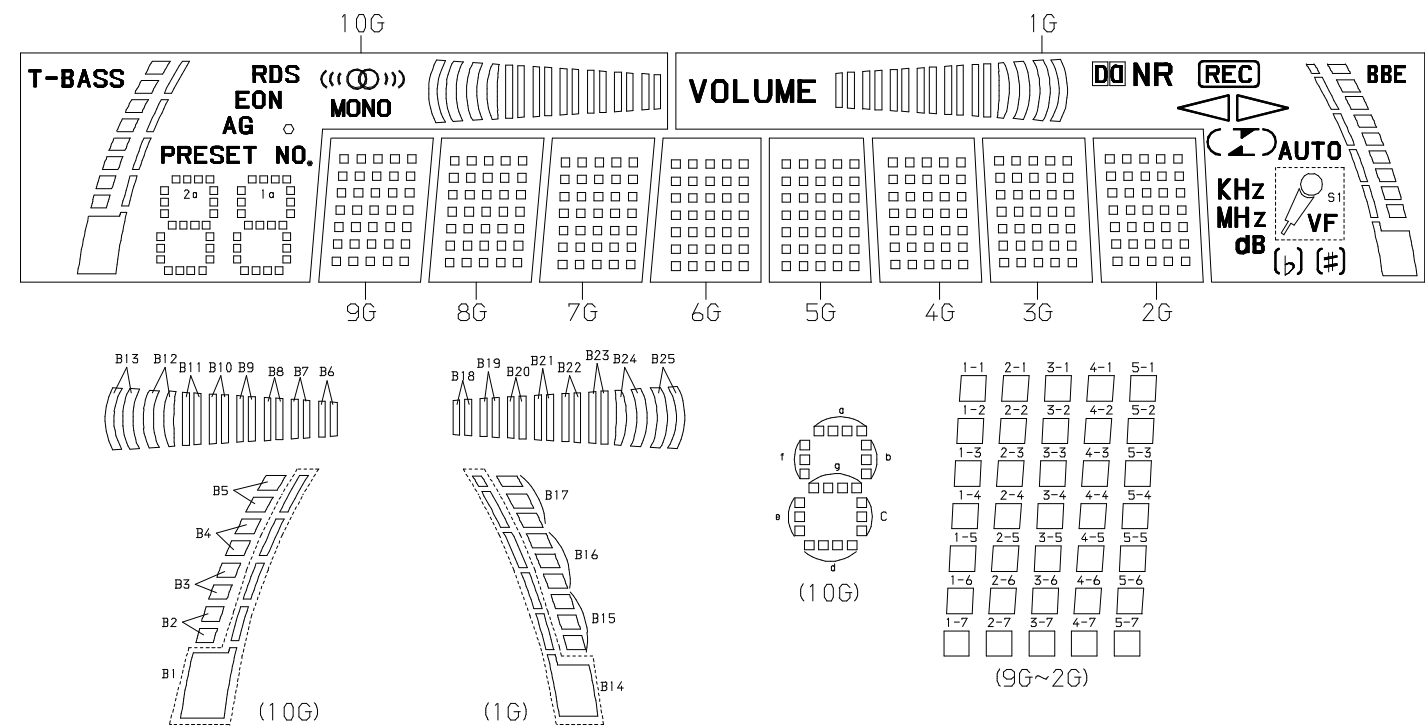


SCHEMATIC DIAGRAM – 4 (AC1 / AC1 SW / SUB TRANS / AC2 : MX-NH2000)



FL GRID (10-BT-218GNK) ASSIGNMENT AND ANODE CONNECTION (MX-NH2000)

GRID ASSIGNMENT

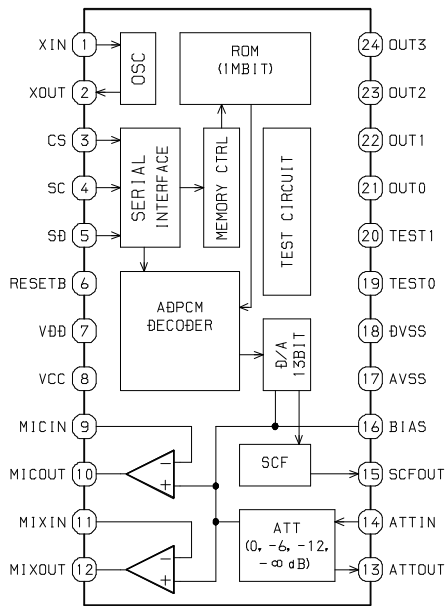


ANODE CONNECTION

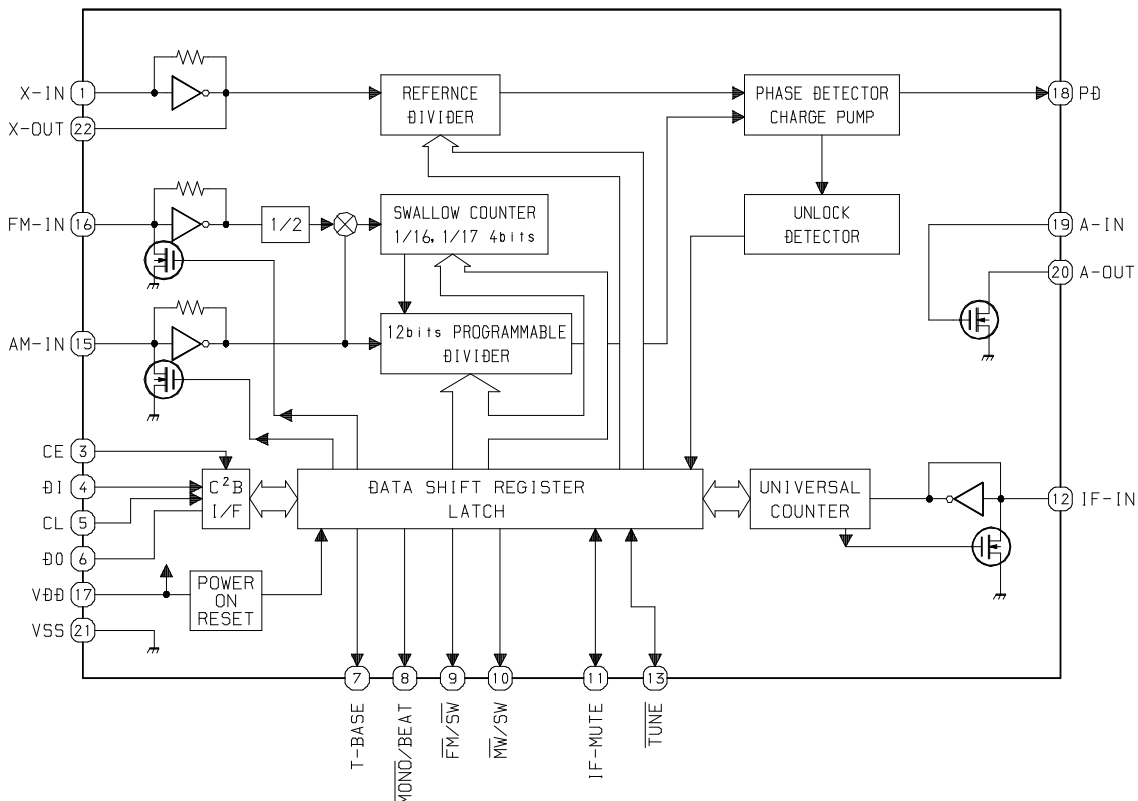
	10G	9G~2G	1G
P1	((()))	1-1	VOLUME
P2	B6	2-1	B18
P3	B7	3-1	B19
P4	B8	4-1	B20
P5	B9	5-1	B21
P6	B10	1-2	B22
P7	B11	2-2	B23
P8	B12	3-2	B24
P9	B13	4-2	B25
P10	MONO	5-2	NR
P11	RDS	1-3	REC
P12	EON	2-3	
P13	AG	3-3	
P14		4-3	
P15	PRESET No.	5-3	
P16	2a	1-4	
P17	2f	2-4	KHz
P18	2b	3-4	MHz
P19	2g	4-4	dB
P20	2e	5-4	(b)
P21	2c	1-5	b
P22	2d	2-5	S1
P23	1a	3-5	AUTO
P24	1f	4-5	#
P25	1b	5-5	(#)
P26	1g	1-6	B14
P27	1e	2-6	B17
P28	1c	3-6	B16
P29	1d	4-6	B15
P30	T-BASS	5-6	BBE
P31	B1	1-7	-
P32	B2	2-7	-
P33	B3	3-7	-
P34	B4	4-7	-
P35	B5	5-7	-

IC BLOCK DIAGRAM (MX-NH2000)

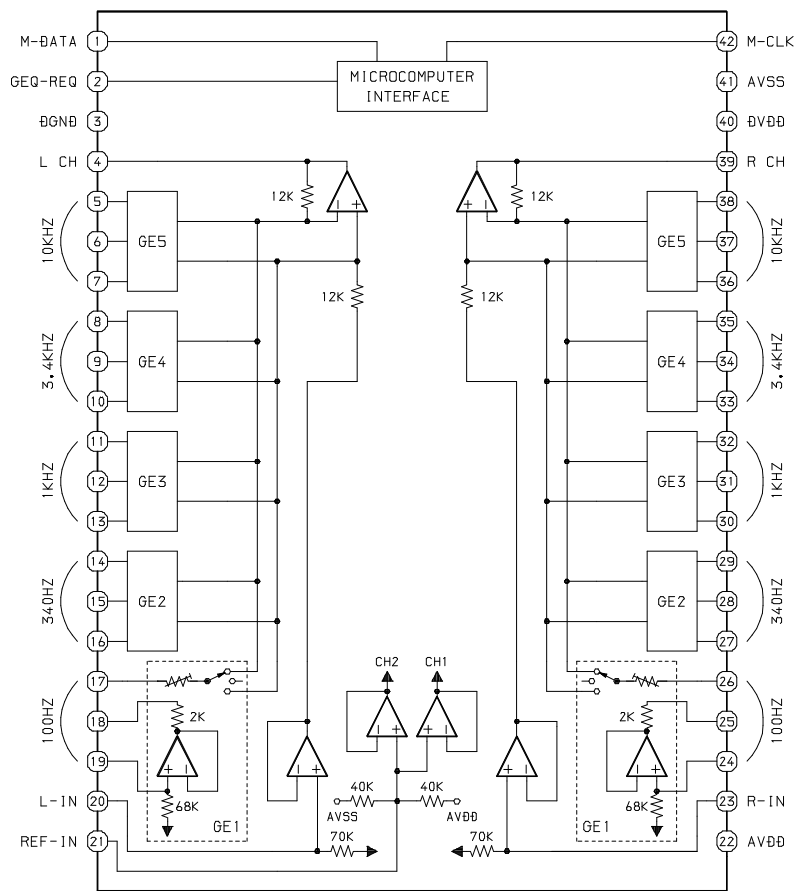
IC, BU9990-03FS



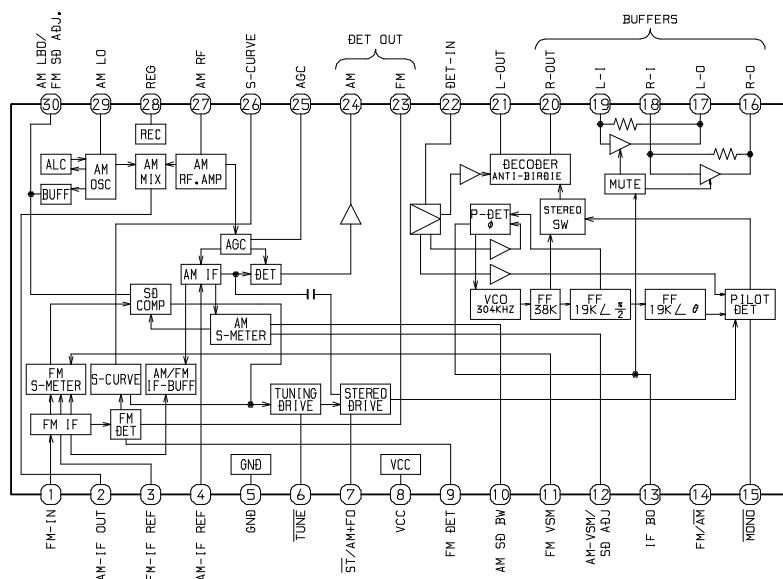
IC, LC72131D



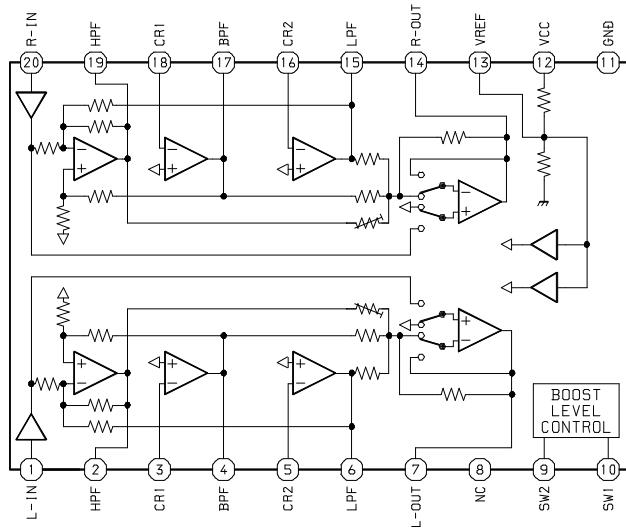
IC, M62449FP



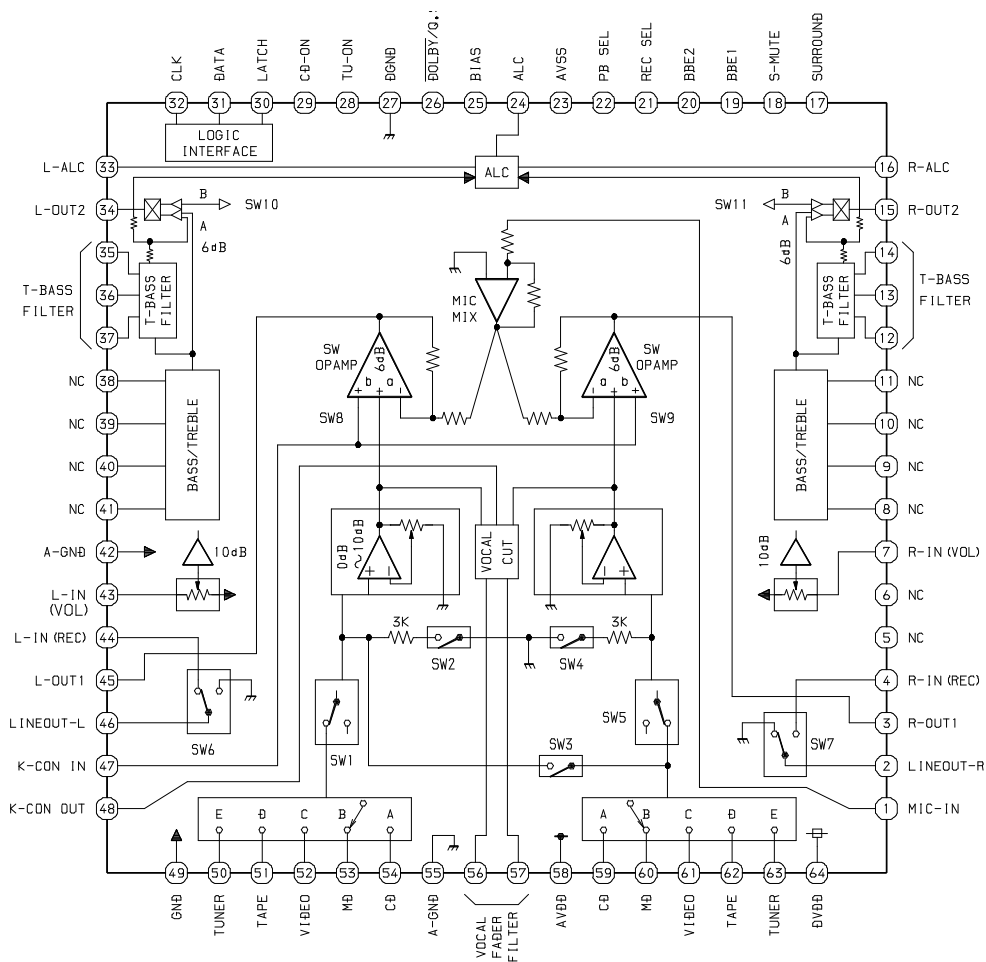
IC, LA1837NL



IC, NJM2152M



IC, M62445AFP



IC DESCRIPTION (MX-NH2000)

IC, UPD780228GF-065-3BA

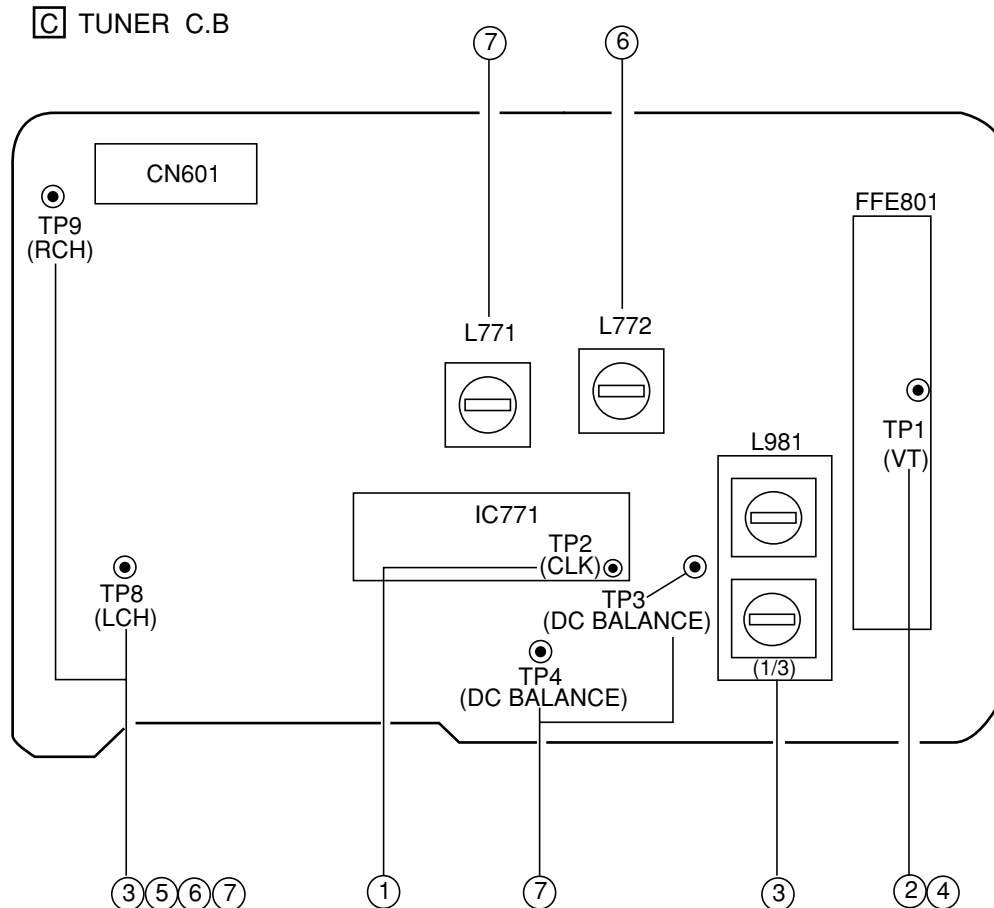
Pin No.	Pin Name	I/O	Description
1	$\overline{\text{K-SCAN}}$	O	Key scan output.
2	RHYTHM-CS	O	Chip select output to IC, BU9990-03FS.
3	RHYTHM-SCLK	O	Clock output to IC, BU9990-03FS.
4	RHYTHM-SD	O	Data output to IC, BU9990-03FS.
5	PLL CE	O	PLL IC chip enable output.
6	O-M/CLK	O	Main clock output.
7	O-M/DATA	O	Main data output.
8	O-M/STB	O	Main strobe output.
9	I/O-SERIAL	I/O	Communication port for GEQ, CD and DECK.
10	O-MUTE	O	System mute (ON when "H").
11	$\overline{\text{O-POWER}}$	O	System power supply (ON when "L").
12	DIMER 2	O	Dimmer control ("L" when 2).
13	O-MUTE S	O	Sound L, R, Center, SW Mute.
14	LED-ECO	O	ECO LED output.
15	NC	–	Not connected.
16	NC	–	Not connected.
17	IC	–	Connect to GND.
18	VSS	–	GND.
19	VDD	–	Power supply terminal.
20	LED-MD	O	MD LED output.
21	TM-BASE	I	Time base input.
22	$\overline{\text{TUNE/IFO}}$	I	Tuning detection input.
23	$\overline{\text{STEREO}}$	I	Stereo detection input.
24	NC	–	Not connected.
25	I-RE VOL A	I	Rotary Encoder Input A / B.
26	I-RE VOL B		
27	LED-CD	O	CD LED output.
28	NC	–	Not connected.
29	RDS-CLK	I	TUNER RDS IC clock input. (Not used.)
30	$\overline{\text{RESET}}$	I	Reset input.
31	I-RDS	I	Tuner RDS input. (Not used.)
32	GEQ-REQ	O	Latch output to IC, M62449FP.
33	COUNTER	I	Tape counter input.
34	$\overline{\text{I-RMC}}$	I	Remote controller input (Active "L").
35	$\overline{\text{I-SURR-OFF}}$	I	Stop surround function when using head phone.
36	O-SHIFT	O	Output for oscillated frequency shift.
37	VDD	–	Power supply terminal.
38	X2	–	4.19MHz oscillator circuit.
39	X1		
40	VSS	–	GND.
41	AVDD	–	Power supply terminal.
42	$\overline{\text{HOLD}}$	I	Power failure / over current detected input.

Pin No.	Pin Name	I/O	Description
43	I-RDS-SIG	I	Tuner tuning signal level A/D input. (Not used.)
44	I-MIC	I	MIC input level detection.
45	KEY1	I	KEY1 input.
46	KEY2	I	KEY2 input.
47	I-TEMPO	I	TEMPO input (100Hz, 3.3kHz).
48	I-GE-2	I	DEMO, TIMER, CLOCK, SPICE A, AUTO SPICE / FILL IN input.
49	I-GE-1	I	JOG, SPICE B SW input.
50	AVSS	–	GND.
51	LED-TAPE	O	Tape LED output.
52	LED-TUNER	O	Tuner LED output.
53	LED-VIDEO	O	Video LED output.
54~58	P1~P5	O	FL segment P1~P5 output.
59	P6/SEL3	I/O	FL segment P6 output. / Select 3 diode input.
60	P7/SEL2	I/O	FL segment P7 output. / Select 2 diode input.
61	P8/SEL1	I/O	FL segment P8 output. / Select 1 diode input.
62	P9/PROLOGIC	I/O	FL segment P9 output. / PROLOGIC select diode input.
63	P10/DEMO	I/O	FL segment P10 output. / DEMO select diode input.
64	P11/V-CD	I/O	FL segment P11 output. / V-CD select diode input
65~78	P12~P25	O	FL segment P12~P25 output.
79	VDD	–	Power supply terminal.
80	-VFL	–	Power FL display negative supply terminal.
81~90	P26~P35	O	FL segment P26~P35 output.
91~100	G10~G1	O	FL grid G10~G1 output.

IC, M65849BFP-631D

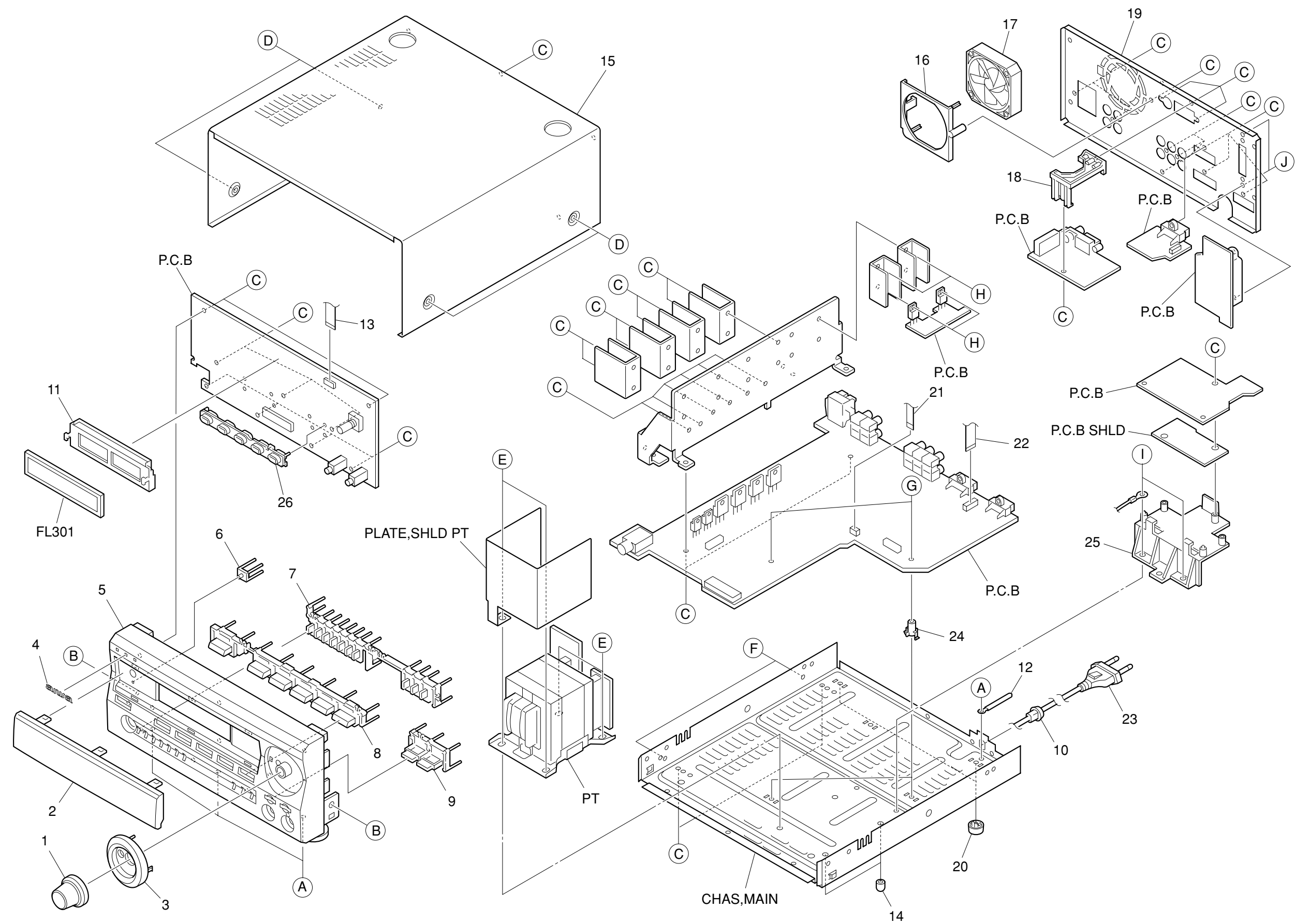
Pin No.	Pin Name	I/O	Description
1	MCLKONT	I	Controls build-in-clock generation circuit with external R.
2	TEST1	I	Test mode "H" : Normal / "L" : Test
3	CLOCK	I	Clock input via serial bus.
4	STB	I	Strobe input via serial bus.
5	DATA	I	Data input via serial bus
6	CKO	O	Clock output.
7	CKI	I	Clock input.
8	VCC	–	Power supply.
9	DSO	O	(L+R) or (L-R) or MIC signal output.
10	TEST	O	Memory/Mute/Sampling data output. (Not used.)
11	LPF11	I	Low pass filter 1 input 1.
12	LPF12	I	Low pass filter 1 input 2.
13	LPF1O	O	Low pass filter 1 output.
14	ADI	I	A/D integrator input.
15	ADO	O	A/D integrator output.
16	GND	–	Ground
17	DAI	I	D/A integrator input.
18	DAO	O	D/A integrator output
19	LPF21	I	Low pass filter 2 input 1.
20	LPF22	I	Low pass filter 2 input 2.
21	LPF2O	O	Low pass filter 2 output.
22	VIN	I	Feedback volume input.
23	OUT	O	Microphone output.
24	VREF	–	Reference.
25	R OUT	O	Right channel mixing output.
26	L OUT	O	Left channel mixing output.
27	DELAY OUT	O	Delay signal output.
28	R IN	I	Right channel mixing input.
29	L IN	I	Left channel mixing input.
30	VDD	–	Power supply.
31	MIC IN	I	Microphone input.
32	MVOL IN	I	Mix volume input.

ADJUSTMENT <TUNER> (MX-NH2000)



< TUNER SECTION >

1. Clock Check
Settings : • Test point : TP2
Method : Set to AM 1710kHz and check that the test point is 2160kHz $\pm$ 45Hz.
2. AM VT Check
Settings : • Test point : TP1
Method : Set to AM 1710kHz and AM 530kHz and check that the test point is less than 8.5V(1710kHz) and more than 0.6V(530kHz).
3. AM Tracking Adjustment
Settings : • Test point : TP8(Lch), TP9(Rch)
• Adjustment location :
L981(1/3) 1000kHz
Method : Set to MW 1000kHz and adjust L981(1/3) so that the test point is max.
4. FM VT Check
Settings : • Test point : TP1
Method : Set to FM 108.0MHz and check that the test point is less than 8.0V.
Set to FM 87.5MHz and check that the test point is more than 0.5V.
5. FM Tracking Check
Settings : • Test point : TP9(Lch), TP9(Rch)
Method : • Set to FM 98.0MHz and check that the test point is less than 9.0dB.
6. AM IF Adjustment
Settings : • Test point : TP8(Lch), TP9(Rch)
• Adjustment location :
L772 450kHz
7. DC Balance / Mono Distortion Adjustment
Settings : • Test point : TP3, TP4 (DC Balance)
TP8(Lch), TP9(Rch) (Distortion)
• Adjustment location : L771
• Input level : 60dB μ V
Method : Set to FM 98.0MHz and adjust L771 so that the voltage between TP3 and TP4 becomes 0V $\pm$ 0.04V.
Next, check that the distortion is less than 1.3%.



MECHANICAL PARTS LIST 1 / 1 (MX-NH2000)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-SP1-011-010		KNOB,RTRY VOL
2	8A-SP1-004-010		WINDOW,DISPLAY
3	8A-SP1-012-010		RING,VOL
4	87-CE3-023-010		BADGE,AIWA 30N SILV
5	8A-SP1-001-010		CABI,FR
6	8Z-SP1-015-010		REFLECTOR,ECO
7	8A-SP1-008-010		KEY,KARAOKE
8	8Z-SP1-010-010		KEY,ASSY FUN
9	8A-SP1-007-010		KEY,BBE
10	87-085-185-010		BUSHING, AC CORD (E)
11	88-SX1-203-210		GUIDE,FL
12	87-064-185-010		HLDR,WIRE
13	88-908-281-110		FF-CABLE, 8P 1.25 280MM
15	8A-SP1-027-010		CABI,STEEL LH
16	8Z-SP1-207-010		COVER, FAN
17	87-A91-232-010		FAN,F614R-12MC-22-350MM
18	88-AR1-203-010		HLDR,TU
19	8A-SP1-023-010		PANEL,REAR LHSM
20	87-085-213-010		FOOT,H12.5
21	88-904-151-110		FF-CABLE, 4P 1.25 150MM
22	88-910-071-110		FF-CABLE, 10P 1.25 70MM
△ 23	87-A80-092-010		AC CORD ASSY,E BLK SUN FAI
24	8Z-SP1-208-010		HLDR,PWB 13.5
25	8Z-SP1-209-010		HLDR,PWB ECO
26	8Z-SP1-202-010		GUIDE,LED FUN
A	87-067-688-010		BVTT+3-6
B	87-591-094-410		TAPPING SCREW, QIT+3-6
C	87-067-703-010		TAPPING SCREW, BVT2+3-10
D	87-B10-091-010		UTT2+3-10 W/O BLK
E	87-078-191-010		S-SCREW,IT+4-10
F	87-721-095-410		QT2+3-8GLD W/O SLOT
G	87-067-822-010		BVT2+3-20 W/O SLOT
H	87-067-758-010		BVT2+3-12 W/O SLOT
I	87-067-579-010		TAPPING SCREW, BVT2+3-8
J	81-653-215-010		SPECIAL SCREW, VT2.6-8

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange		

MODEL NO.

DX-NH2000

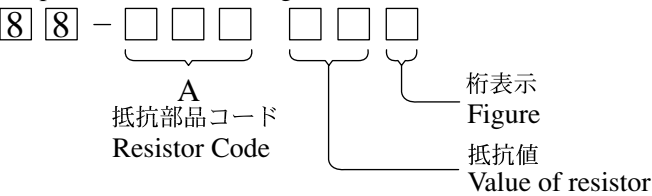
ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C7	87-010-197-080		CAP, CHIP 0.01 DM
	8A-SX1-608-010	C-IC,UPD78044HGF		C8	87-010-314-080		C-CAP,S 22P-50V
TRANSISTOR				C9	87-010-318-080		C-CAP,S 47P-50 CH
	87-026-263-080	C-TR,RN1410		C10	87-010-316-080		C-CAP,S 33P-50 CH
	87-A30-076-080	C-TR,2SC3052F		C11	87-010-196-080		CHIP CAPACITOR,0.1-25
DIODE				C12	87-010-197-080		CAP, CHIP 0.01 DM
	87-020-465-080	DIODE,1SS133 (110MA)		C14	87-010-405-040		CAP,E 10-50
	87-070-136-080	ZENER,MTZJ5.1B		C15	87-010-405-040		CAP,E 10-50
MAIN C.B.				C201	87-018-134-080		CAPACITOR,TC-U 0.01-16
C301	87-010-322-080	C-CAP,S 100P-50 CH		C202	87-010-197-080		CAP, CHIP 0.01 DM
C305	87-010-197-080	CAP, CHIP 0.01 DM		C203	87-010-197-080		CAP, CHIP 0.01 DM
C310	87-016-462-080	C-CAP,S 1-16 F		C253	87-010-178-080		CHIP CAP 1000P
C311	87-016-462-080	C-CAP,S 1-16 F		C254	87-010-178-080		CHIP CAP 1000P
C312	87-016-462-080	C-CAP,S 1-16 F		C255	87-010-178-080		CHIP CAP 1000P
C313	87-010-184-080	CHIP CAPACITOR 3300P(K)		C256	87-010-178-080		CHIP CAP 1000P
C314	87-010-402-040	CAP,E 2.2-50 SME		CN1	87-099-669-010		CONN,8P TUC-P8X-B1
CN301	87-009-241-010	CONNECTOR, 11P		CN2	87-099-559-010		CONN,13P TUC-P13X-B1
CN302	87-A60-061-010	CONN,06P V 9604S-06C		FL201	8Z-SX1-608-010		FL,6-BT-303GNK
CN303	87-099-015-010	CONN,13P 6216V		L1	87-005-152-080		COIL,10UH
CN304	87-099-667-010	CONN,8P TUC-P8P-B1		L2	87-005-152-080		COIL,10UH
CN305	87-099-570-010	CONN,13P TUC-P13P-B1		L3	87-005-152-080		COIL,10UH
FB301	87-008-372-080	FILTER, EMI BL OIRNI		L5	87-005-152-080		COIL,10UH
FB302	87-008-372-080	FILTER, EMI BL OIRNI		LED203	87-A40-263-080		LED,SLH-56PCT31 GRN
FB303	87-008-372-080	FILTER, EMI BL OIRNI		LED204	87-A40-263-080		LED,SLH-56PCT31 GRN
FB304	87-008-372-080	FILTER, EMI BL OIRNI		LED205	87-A40-317-080		LED,SLR-342VCT31 RED
FB305	87-008-372-080	FILTER, EMI BL OIRNI		LED206	87-A40-317-080		LED,SLR-342VCT31 RED
FB306	87-008-372-080	FILTER, EMI BL OIRNI		LED207	87-A40-317-080		LED,SLR-342VCT31 RED
FB307	87-008-372-080	FILTER, EMI BL OIRNI		S201	87-A90-095-080		SW,TACT EVQ11G04M
L301	87-005-130-080	COIL,10UH		S202	87-A90-095-080		SW,TACT EVQ11G04M
W1	88-913-121-110	FF-CABLE,P1.25		S203	87-A90-095-080		SW,TACT EVQ11G04M
W2	88-906-421-110	FF-CABLE,6P 1.25 420MM		S204	87-A90-095-080		SW,TACT EVQ11G04M
W3	88-SX1-610-010	CORD,FG 11P		S205	87-A90-095-080		SW,TACT EVQ11G04M
FRONT C.B.				S206	87-A90-095-080		SW,TACT EVQ11G04M
C1	87-010-264-040	CAP,E 100-10 5L		S207	87-A90-095-080		SW,TACT EVQ11G04M
C2	87-010-072-040	CAP,E 2.2-50 5L		S208	87-A90-095-080		SW,TACT EVQ11G04M
C4	87-010-246-040	CAP,E 47-35 SME		X1	87-A70-075-080		VIB,CER 4.19MHZ CRHF
C5	87-010-190-080	S CHIP F 0.01		KEY C.B.			
C6	87-010-196-080	CHIP CAPACITOR,0.1-25		S101	87-A90-095-080		SW,TACT EVQ11G04M
				S102	87-A90-095-080		SW,TACT EVQ11G04M

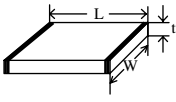
○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

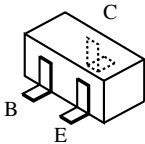
Chip Resistor Part Coding



チップ抵抗
Chip resistor

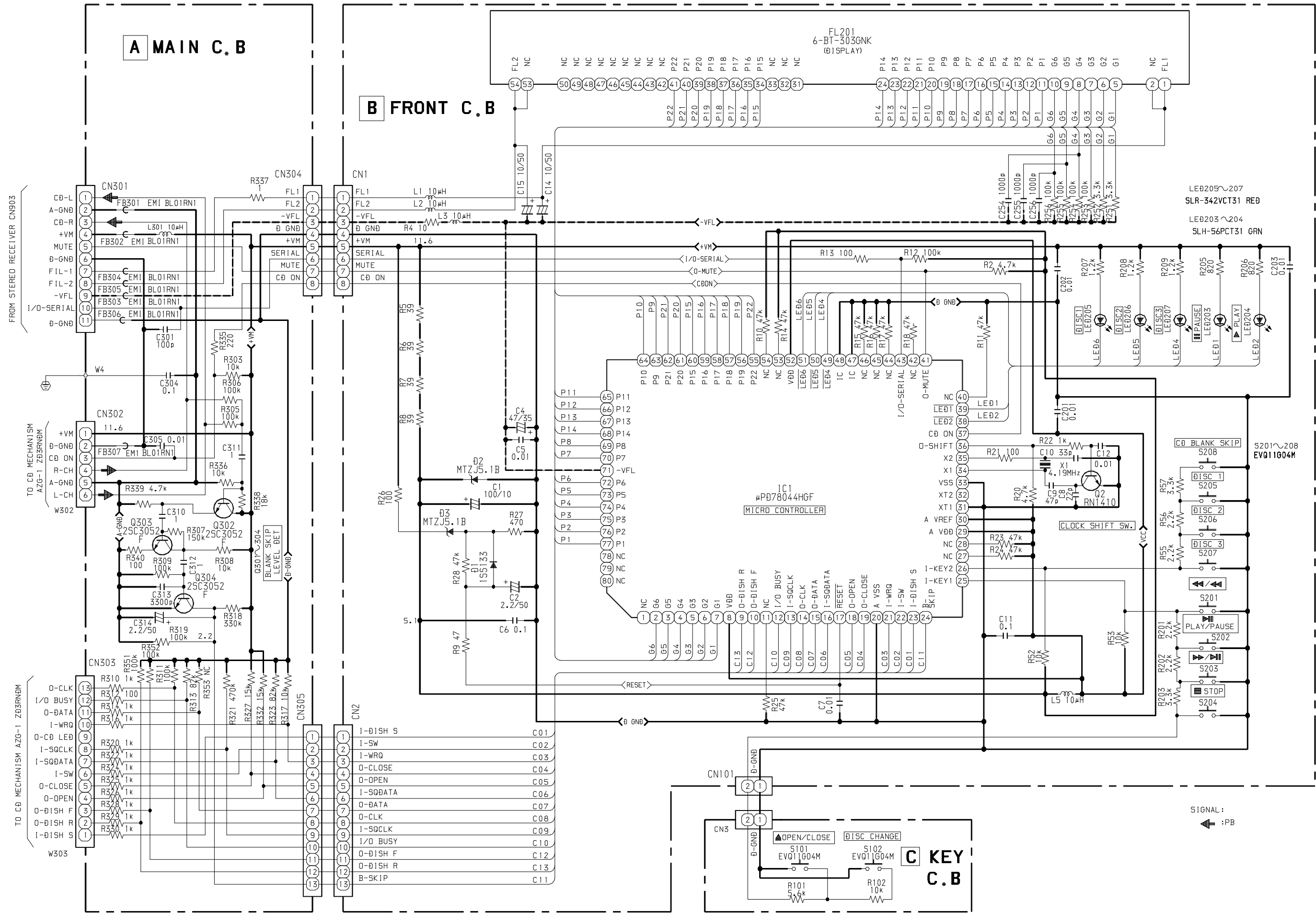
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード : A
				外形／Form	L	W	t	Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION (DX-NH2000)



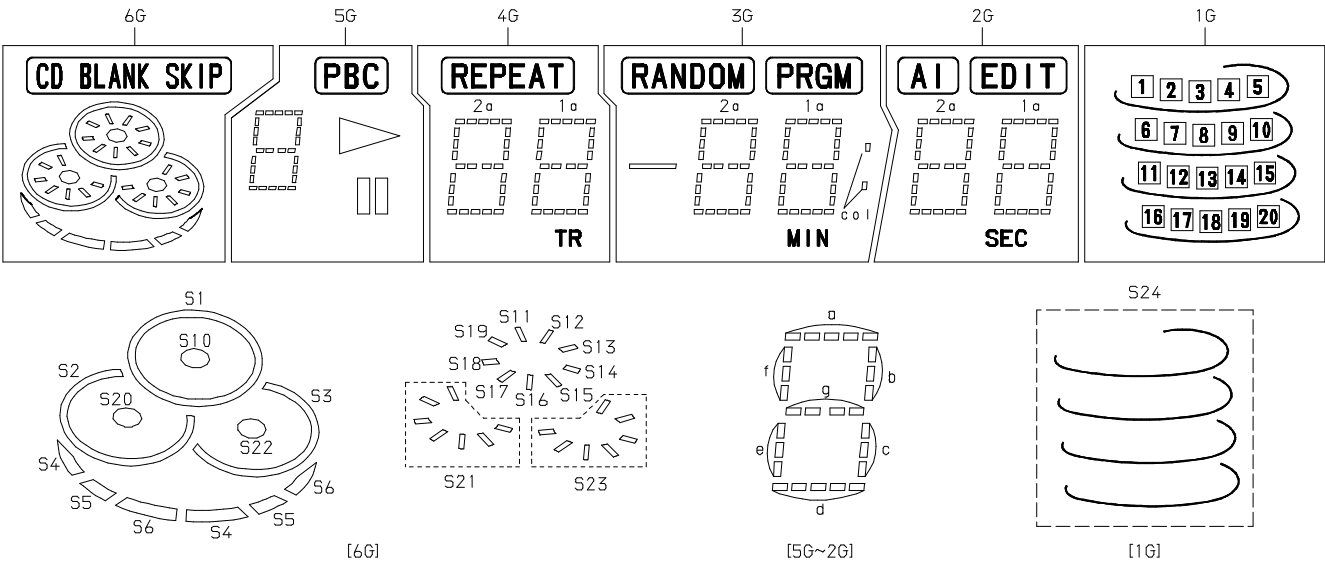
2SC3052
RN1410





FL GRID (6-BT-303GNK) ASSIGNMENT AND ANODE CONNECTION (DX-NH2000)

GRID ASSIGNMENT



ANODE CONNECTION

	6G	5G	4G	3G	2G	1G
P1	S10	a	1a	1a	1a	1
P2	S12	b	1b	1b	1b	2
P3	S11	f	1f	1f	1f	3
P4	S13	g	1g	1g	1g	4
P5	S19	c	1c	1c	1c	5
P6	S14	e	1e	1e	1e	6
P7	S18	d	1d	1d	1d	7
P8	S15	-	-	-	-	8
P9	S17	▶	2a	2a	2a	9
P10	S16	▢	2b	2b	2b	10
P11	S1	-	2f	2f	2f	11
P12	S20	-	2g	2g	2g	12
P13	S21	-	2c	2c	2c	13
P14	S2	-	2e	2e	2e	14
P15	S22	-	2d	2d	2d	15
P16	S23	-	TR	MIN	SEC	16
P17	S3	PBC	REPEAT	col	EDIT	17
P18	S4	(PBC)	(REPEAT)	PRGM	(EDIT)	18
P19	S5	-	-	(PRGM)	AI	19
P20	S6	-	-	RANDOM	(AI)	20
P21	CD BLANK SKIP	-	-	(RANDOM)	-	S24
P22	(CD BLANK SKIP)	-	-	-	-	-

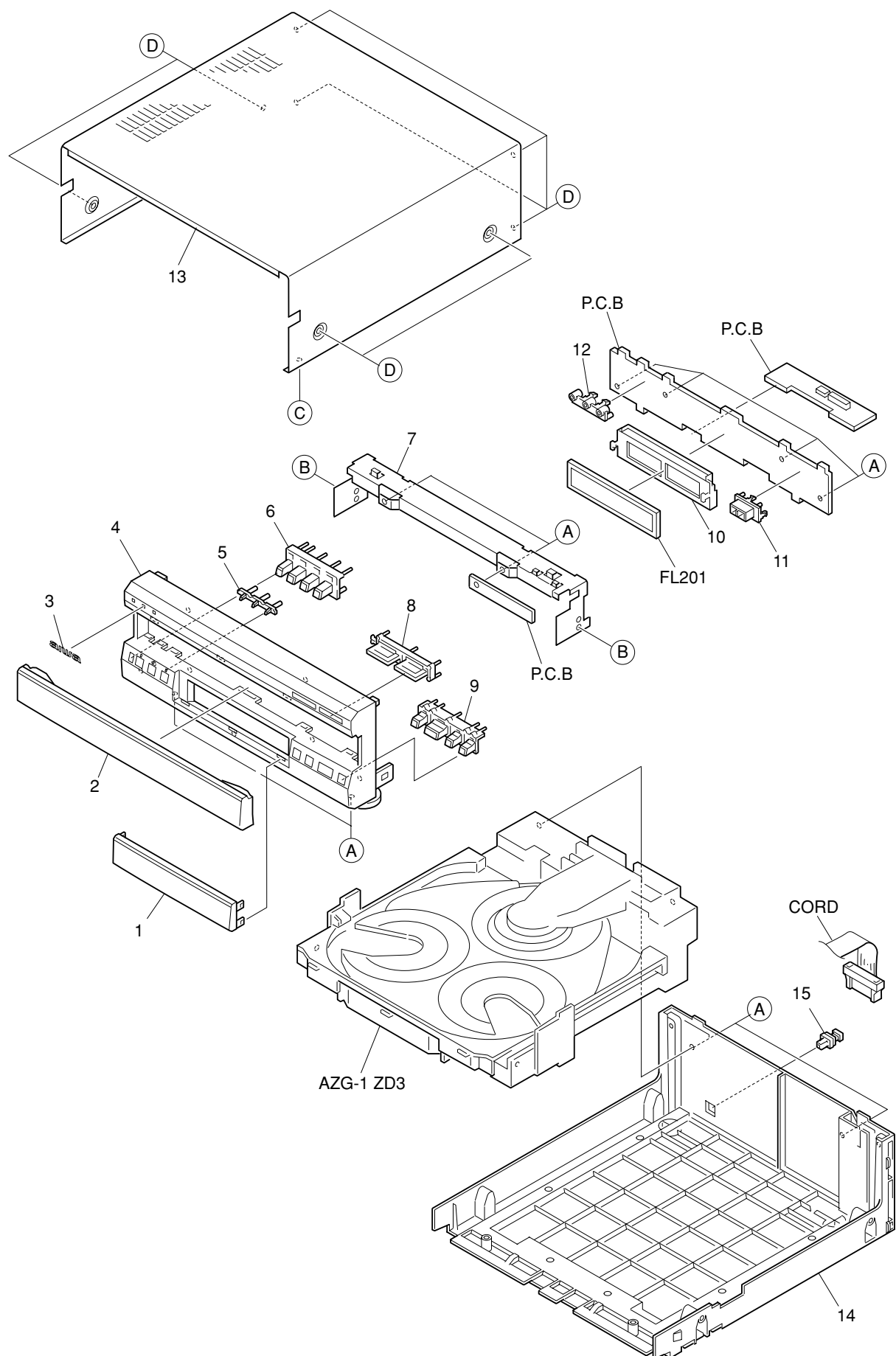
IC DESCRIPTION (DX-NH2000)

IC, UPD78044HGF

Pin No.	Pin Name	I/O	Description
1	NC	–	Not connected.
2~7	G6~G1	O	FL grid output G6~G1.
8	VDD	–	Power supply terminal.
9	O-DISH R	O	CD turntable reverse rotation output.
10	O-DISH F	O	CD turntable forward rotation output.
11	NC	–	Connected to pull-down resistor
12	I/O BUSY	I/O	DSP serial latch output.
13	I-SQCLK	I	DSP SUB Q read-out clock output.
14	O-CLK	O	CD clock output.
15	O-DATA	O	CD data output.
16	I-SQDATA	I	DSP serial data input.
17	$\overline{\text{RESET}}$	I	Reset input.
18	O-OPEN	O	CD tray open output.
19	O-CLOSE	O	CD tray close output.
20	A VSS	–	GND.
21	I-WRQ	I	CD WRQ input.
22	I-SW	I	CD motor key switch A/D input.
23	I-DISH S	I	CD turntable photo sensor A/D input.
24	B-SKIP	I	BLANK SKIP A/D input.
25	I-KEY1	I	Key1 A/D input.
26	I-KEY2	I	Key2 A/D input.
27	NC	–	Not connected.
28	NC	–	Not connected.
29	A VDD	–	Power supply terminal.
30	A VREF	–	Power supply terminal.
31	XT1	–	Connect to GND.
32	XT2	–	Connect to GND.
33	VSS	–	GND.
34	X1	–	4.19MHz oscillator circuit.
35	X2		
36	O-SHIFT	O	Micro controller clock shift output. (Shift when "L").
37	CD ON	O	Power supply output for CD circuit ("H": ON).
38	$\overline{\text{LED 2}}$	O	Play LED output.
39	$\overline{\text{LED 1}}$	O	Pause LED output.
40	NC	–	Not connected.
41	O-MUTE	O	CD Audio mute output.
42	NC	–	Connected to pull-down resistor.
43	I/O-SERIAL	I/O	Serial data input / output.
44~46	NC	–	Connected to pull-down resistor.
47,48	IC	–	Connect to GND.
49	$\overline{\text{LED4}}$	O	Disc1 LED output.
50	$\overline{\text{LED5}}$	O	Disc2 LED output.

Pin No.	Pin Name	I/O	Description
51	$\overline{\text{LED6}}$	O	Disc3 LED output.
52	VDD	–	Power supply terminal.
53	NC	–	Connected to pull-down resistor.
54	NC	–	Connected to pull-down resistor.
55	P22	O	FL segment output P22.
56	P19	O	FL segment output P19.
57	P18	O	FL segment output P18.
58	P17	O	FL segment output P17.
59	P16	O	FL segment output P16.
60	P15	O	FL segment output P15.
61	P20	O	FL segment output P20.
62	P21	O	FL segment output P21.
63	P9	O	FL segment output P9.
64	P10	O	FL segment output P10.
65	P11	O	FL segment output P11.
66	P12	O	FL segment output P12.
67	P13	O	FL segment output P13.
68	P14	O	FL segment output P14.
69, 70, 72~77	P8~P1	O	FL segment output P8~P1.
71	-VFL	–	FL display negative supply terminal.
78~80	NC	–	Not connected.

MECHANICAL EXPLODED VIEW 1 / 1 (DX-NH2000)



MECHANICAL PARTS LIST 1 / 1 (DX-NH2000)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-SX1-003-010		WINDOW, CD
2	8A-SX1-002-010		PANEL, TRAY
3	87-CE3-023-010		BADGE, AIWA 30N SILV
4	8A-SX1-001-010		CABI, FR
5	8Z-SX1-009-010		REFLECTOR, DISC
6	8Z-SX1-005-010		KEY, DISC
7	8Z-SX1-201-110		HLD, CD
8	8A-SX1-004-010		KEY, OPEN
9	8Z-SX1-008-010		KEY, ASSY OPE
10	88-SX1-203-210		GUIDE, FL
11	8Z-SX1-202-110		GUIDE, LED OPE
12	8Z-SX1-203-110		GUIDE, LED DISC
13	8A-SX1-014-010		CABI, STEEL LH
14	8A-SX1-010-010		CABI, REAR YLSM
15	84-ZG1-245-210		CAP, OPTICAL
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-721-097-410		QT2+3-12 GLD
C	87-067-633-010		TAPPING SCREW, BVT2+3-8
D	87-B10-091-010		UTT2+3-10 W/O SLOT BLK

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange		

FX-NH2000

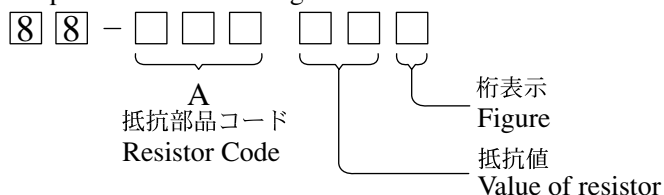
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IC					C360	87-010-183-080		C-CAP,S 2700P-50 B	
					C363	87-A10-292-080		CAP,M 5600P-50 J	
		87-A20-455-010	IC,HA12211		C370	87-010-196-080		CHIP CAPACITOR,0.1-25	
		87-A20-355-010	IC,CXA1553P		C371	87-010-179-080		CAP,CHIP S B1200P	
		8Z-SW1-609-040	C-IC,M38503M4-094FP T4		C372	87-010-179-080		CAP,CHIP S B1200P	
	87-020-454-010	IC,DN6851							
TRANSISTOR					C373	87-010-179-080		CAP,CHIP S B1200P	
					C374	87-010-179-080		CAP,CHIP S B1200P	
					C375	87-010-545-080		CAP, ELECT 0.22-50V	
					C376	87-010-545-080		CAP, ELECT 0.22-50V	
					C378	87-010-196-080		CHIP CAPACITOR,0.1-25	
		87-A30-087-080	C-FET,2SK2158						
		87-A30-074-080	C-TR,RT1P 141C						
		87-026-610-080	TR,KTC3198GR		C381	87-010-197-080		CAP, CHIP 0.01 DM	
		87-A30-073-080	C-TR,RT1N 141C		C382	87-010-318-080		C-CAP,S 47P-50 CH	
		87-A30-076-080	C-TR,2SC3052F		C383	87-010-197-080		CAP, CHIP 0.01 DM	
				C384	87-010-403-080		CAP, ELECT 3.3-50V		
	89-112-965-080	TR,2SA1296 (0.75W)		C385	87-010-184-080		CHIP CAPACITOR 3300P(K)		
	87-A30-085-070	C-TR,CSA1362GR							
	89-318-155-080	TR,2SC1815GR		C386	87-010-196-080		CHIP CAPACITOR,0.1-25		
	89-332-665-080	TR,2SC3266GR		C601	87-015-997-090		CAP,E 2200-16 SME		
	87-026-263-080	C-TR,RN1410		C602	87-010-381-080		CAP, ELECT 330-16V		
				C603	87-010-101-080		CAP, ELECT 220-16		
	87-A30-071-080	C-TR,RT1N 144C		C604	87-010-237-080		CAP, ELECT 1000-16V		
	87-026-463-080	TR,2SA933SRS							
DIODE					C605	87-010-198-080		CAP, CHIP 0.022	
					C606	87-010-404-080		CAP, ELECT 4.7-50V	
					C607	87-010-263-080		CAP, ELECT 100-10V	
					C609	87-010-196-080		CHIP CAPACITOR,0.1-25	
		87-020-465-080	DIODE,1SS133 (110MA)		C610	87-010-318-080		C-CAP,S 47P-50 CH	
	87-A40-269-080	C-DIODE,MC2836							
	87-017-931-080	ZENER,MTZJ5.6B		C611	87-010-312-080		C-CAP,S 15P-50 CH		
				C612	87-010-315-080		C-CAP,S 27P-50 CH		
MAIN C.B					C613	87-010-404-080		CAP, ELECT 4.7-50V	
					C614	87-010-197-080		CAP, CHIP 0.01 DM	
					C621	87-010-197-080		CAP, CHIP 0.01 DM	
	C301	87-010-318-080	C-CAP,S 47P-50 CH						
	C302	87-010-318-080	C-CAP,S 47P-50 CH	CN301	87-049-919-010		CONN,3P EH V WHT		
	C303	87-012-157-080	C-CAP,S 330P-50 CH	CN501	87-099-750-010		CONN,15P V 9604SC		
	C304	87-012-157-080	C-CAP,S 330P-50 CH	CN702	87-A60-062-010		CONN,05P V 9604S-05C		
	C305	87-012-145-080	CAP, CHIP S 270P CH	CN704	87-A60-060-010		CONN,07P V 9604S-07C		
				FB301	87-008-372-080		FILTER, EMI BL OIRNI		
	C306	87-012-145-080	CAP, CHIP S 270P CH						
	C307	87-010-196-080	CHIP CAPACITOR,0.1-25	FB601	87-008-372-080		FILTER, EMI BL OIRNI		
	C311	87-010-198-080	CAP, CHIP 0.022	FB602	87-008-372-080		FILTER, EMI BL OIRNI		
	C312	87-010-198-080	CAP, CHIP 0.022	FB603	87-008-372-080		FILTER, EMI BL OIRNI		
	C313	87-010-180-080	C-CER 1500P	L301	87-A50-049-010		COIL,TRAP 85K(COI)		
				L302	87-A50-049-010		COIL,TRAP 85K(COI)		
C314	87-010-180-080	C-CER 1500P							
C315	87-010-178-080	CHIP CAP 1000P	L351	87-007-342-010		COIL,OSC 85K BIAS			
C316	87-010-178-080	CHIP CAP 1000P	L601	87-005-130-080		COIL,10UH			
C317	87-0								

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
S703	87-A90-095-080		SW, TACT EVQ11G04M	SW2	87-A90-248-010		SW, MICROESE11SH2CXQ
S704	87-A90-095-080		SW, TACT EVQ11G04M	SW3	87-A90-248-010		SW, MICROESE11SH2CXQ
W701	88-905-331-110		FF-CABLE, 5P 1.25 330MM	SW4	87-036-110-010		SW, MICRO SPPB62
FRONT 2 C.B				SW5	87-036-110-010		SW, MICRO SPPB62
				SW6	87-036-110-010		SW, MICRO SPPB62
CN703	87-A60-060-010		CONN, 07P V 9604S-07C	SW8	87-A90-248-010		SW, MICRO ESE11SH2CXQ
D711	87-A40-496-040		LED, SLR-342PCT31 GRN	SW9	87-036-110-010		SW, MICRO SPPB62
D712	87-A40-496-040		LED, SLR-342PCT31 GRN	W1	82-ZM3-601-010		RBN, CORD 4P-75
D713	87-A40-496-040		LED, SLR-342PCT31 GRN	HEAD-1 C.B			
D714	87-070-278-010		LED, SLZ-738A-24-S	HEAD-2 C.B			
S711	87-A90-095-080		SW, TACT EVQ11G04M				
S712	87-A90-095-080		SW, TACT EVQ11G04M				
S713	87-A90-095-080		SW, TACT EVQ11G04M				
S714	87-A90-095-080		SW, TACT EVQ11G04M				
S715	87-A90-095-080		SW, TACT EVQ11G04M				
W702	88-907-301-110		FF-CABLE, 7P 1.25				
DECK C.B							
CN502	87-099-756-010		CONN, 15P 9604 S F				
SFR1	87-024-581-010		SFR, 3.3K DIA 6H				
SOL1	82-ZM1-618-010		SOL ASSY, 27				
SOL2	82-ZM1-618-010		SOL ASSY, 27				
SW1	87-A90-248-010		SW, MICROESE11SH2CXQ				

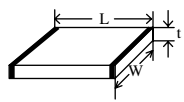
○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

Chip Resistor Part Coding



チップ抵抗 Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード : A Resistor Code : A
				外形／Form	L	W	t	
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION (FX-NH2000)



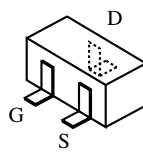
E C B

2SC1815GR
2SC3266GR
KTC3198GR

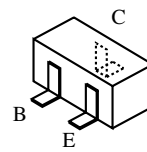


B C E

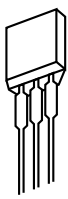
2SA1296



2SK2158

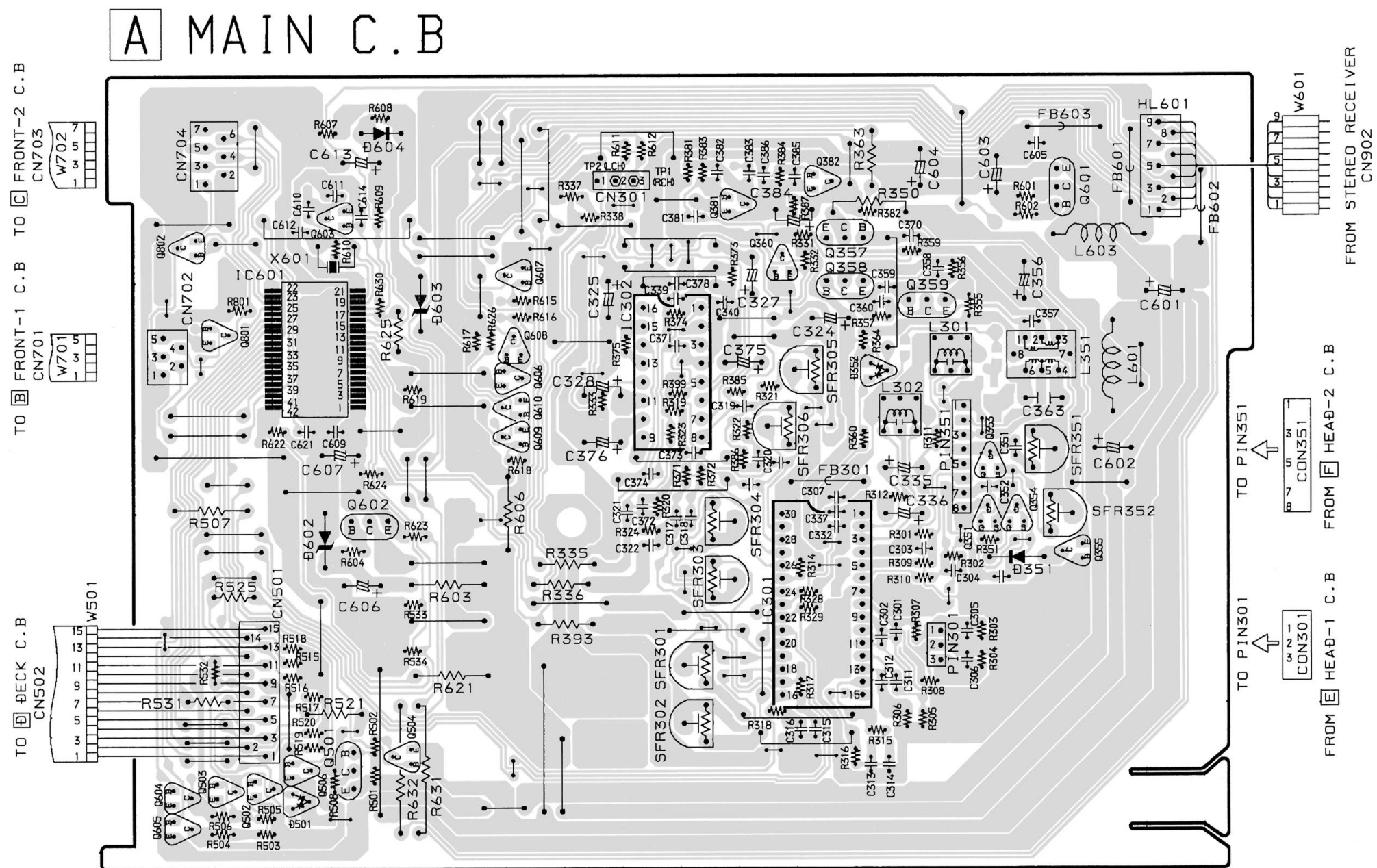
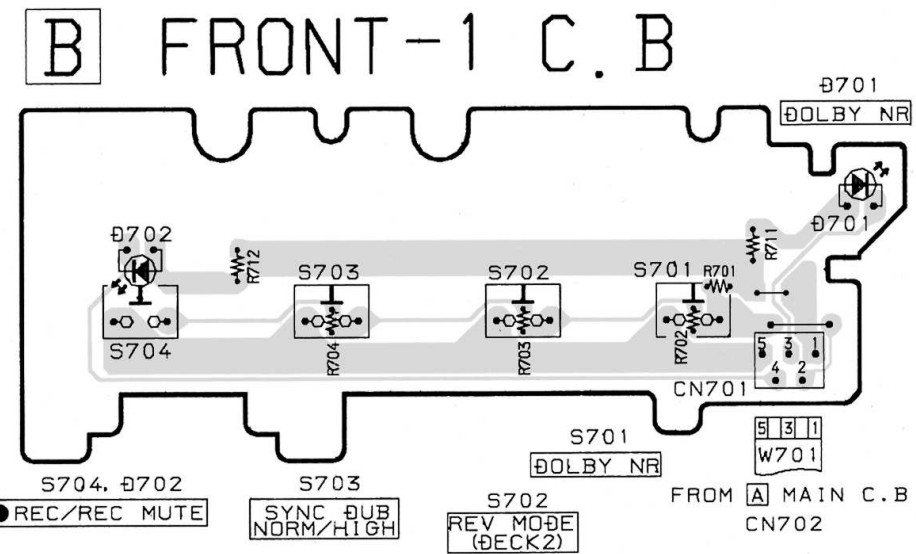


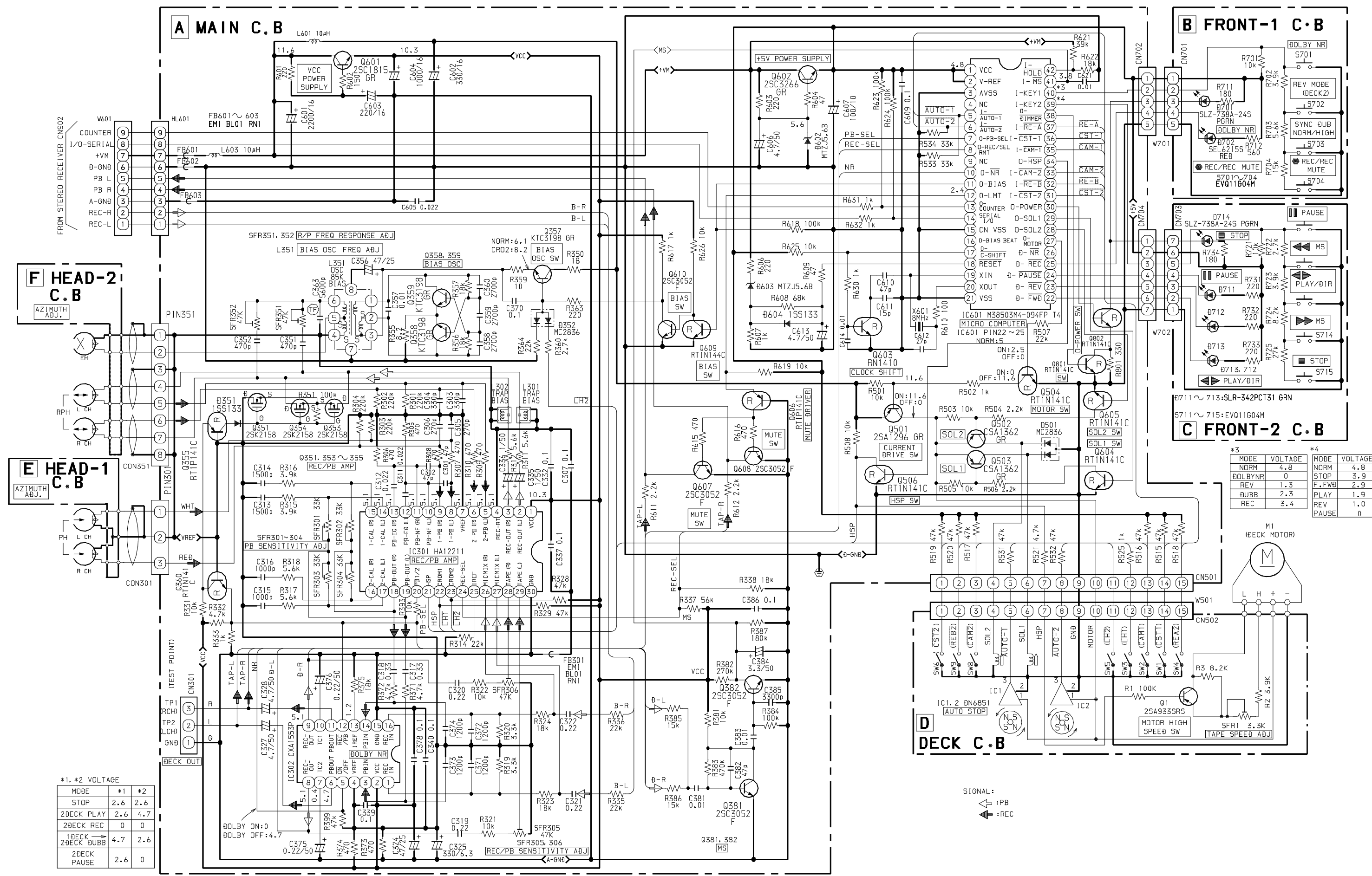
2SC3052
CSA1362
RN1410
RT1N141C
RT1N144C
RT1P141C



E C B

2SA933SRS



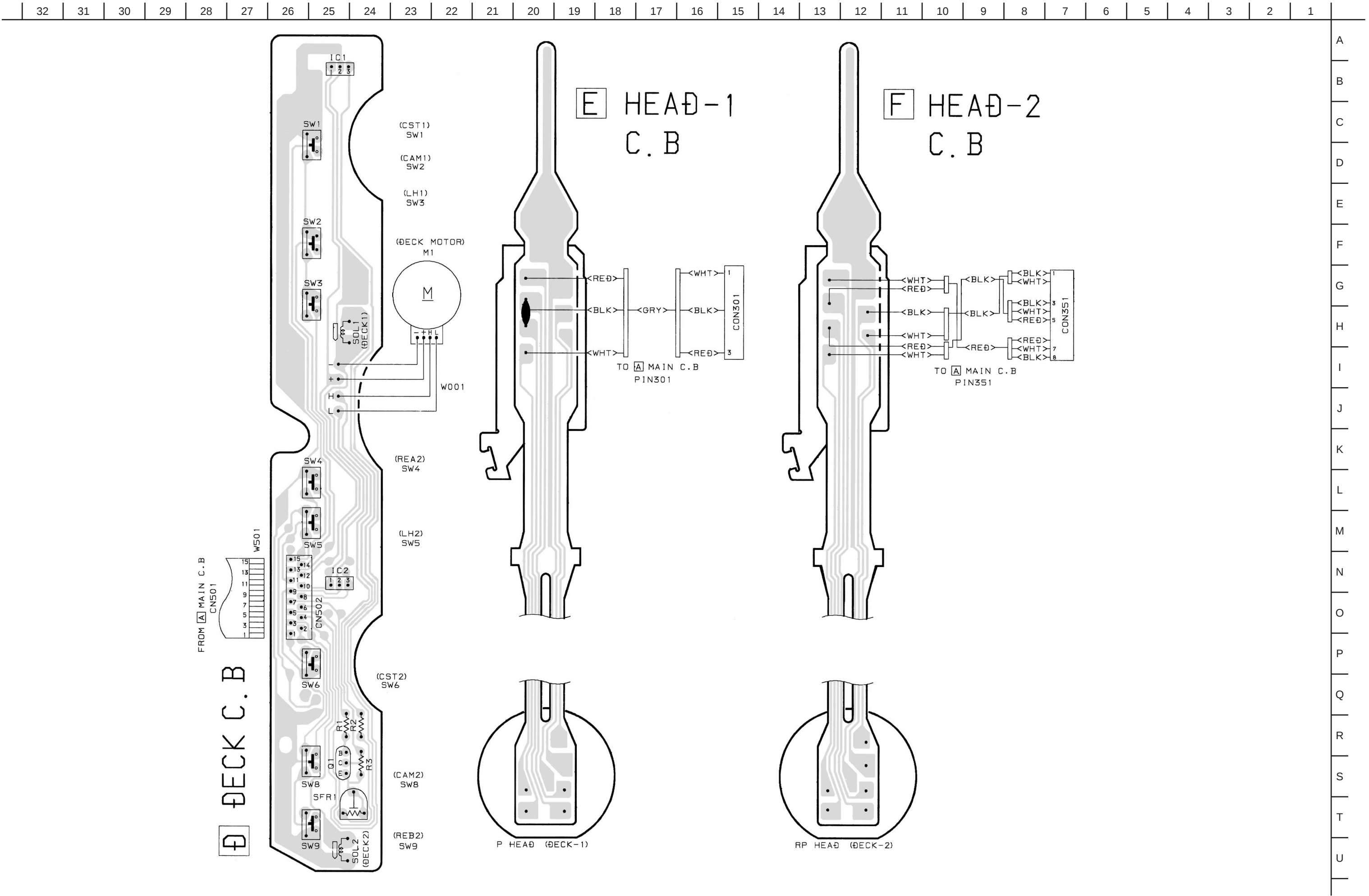


*1, *2 VOLTAGE

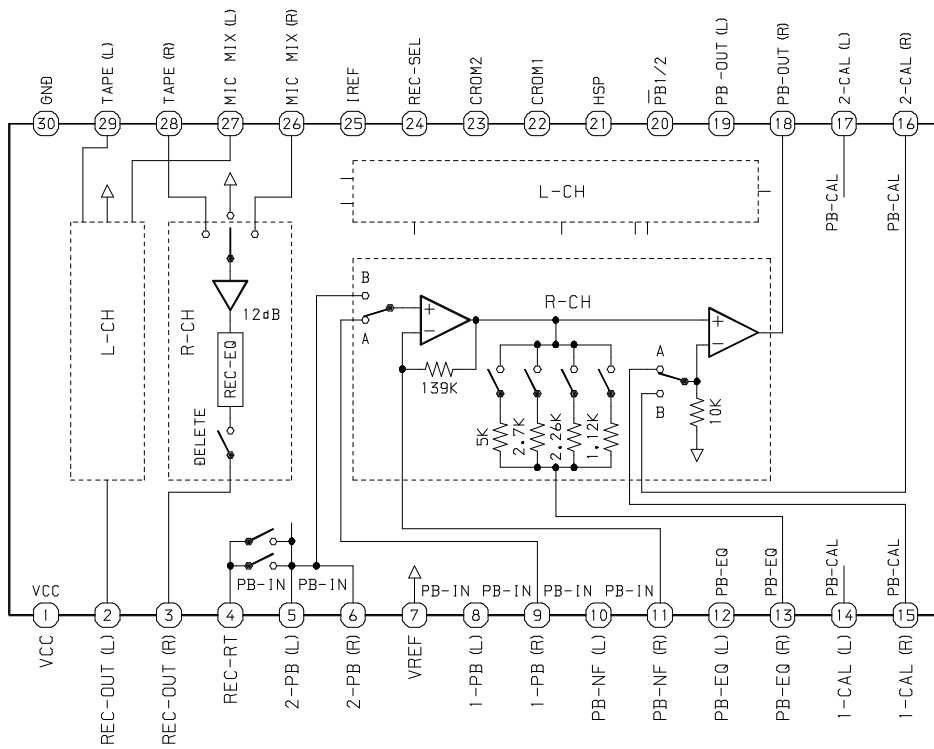
MODE	*1	*2
STOP	2.6	2.6
2DECK PLAY	2.6	4.7
2DECK REC	0	0
1DECK → 2DECK DUBB	4.7	2.6
2DECK PAUSE	2.6	0

*3	MODE	VOLTAGE	*4	MODE	VOLTAGE
	NORM	4.8		NORM	4.8
	DOLBYNR	0		STOP	3.9
	REV	1.3		F.FWD	2.9
	DUBB	2.3		PLAY	1.9
	REC	3.4		REV PAUSE	1.0
					0

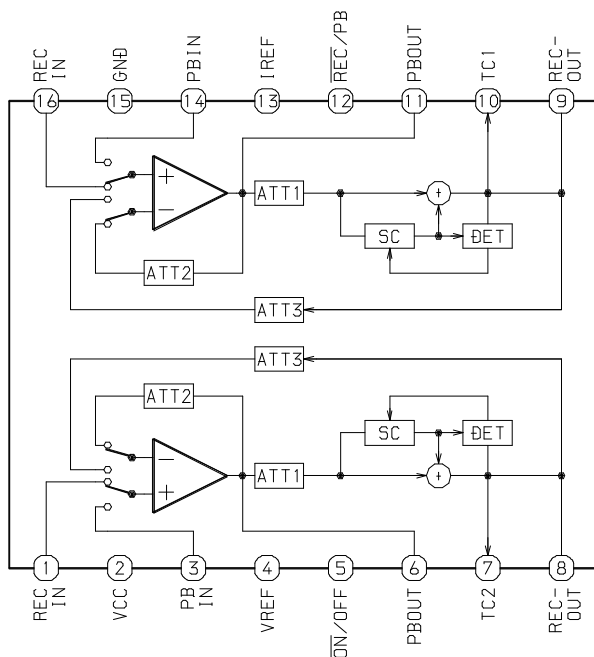
SIGNAL:
◀ :PB
▶ :REC



IC, HA12211



IC, CXA1553P



ATT:Attenuator
SC:Side Chain
DET:Detector

IC DESCRIPTION (FX-NH2000)

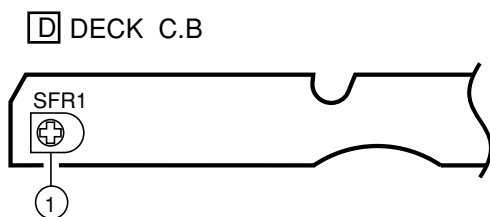
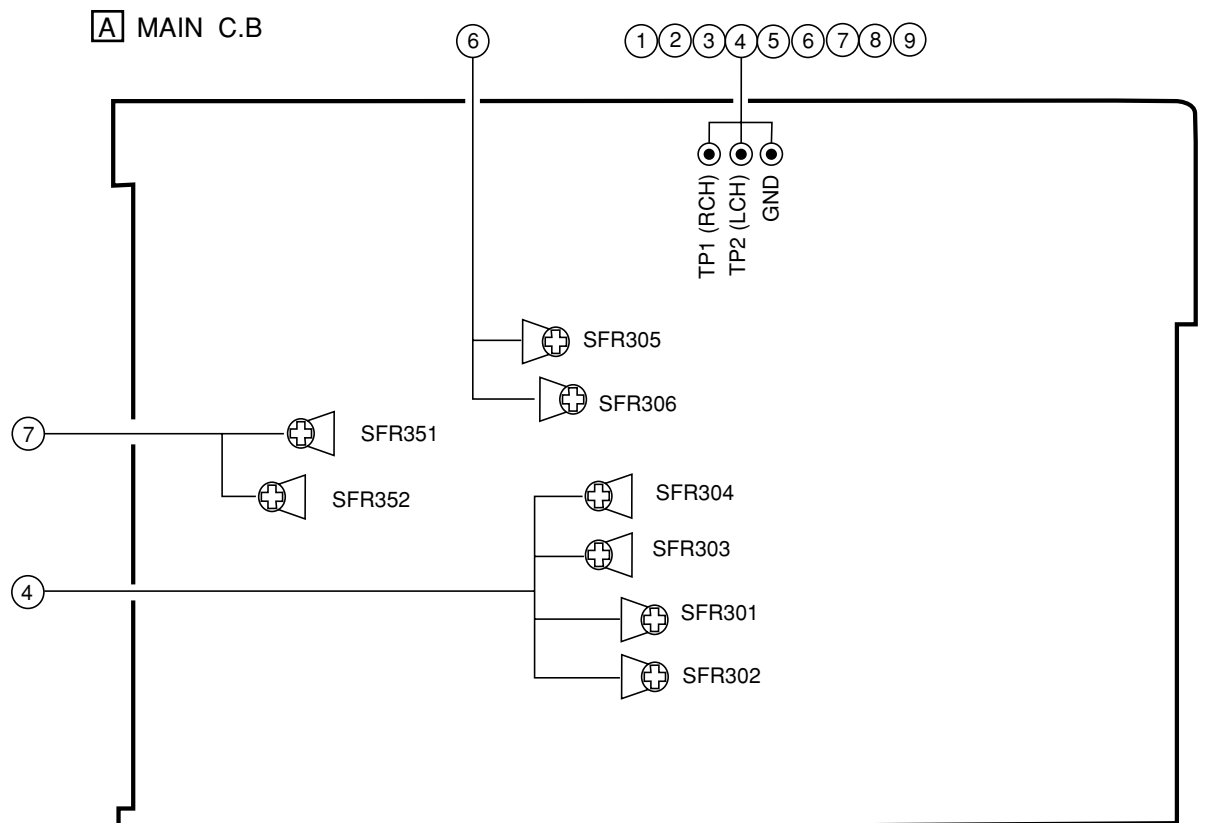
IC, M38503M4-094FP T4

Pin No.	Pin Name	I/O	Description			
1	VCC	–	IC power supply.			
2	V-REF	–	Connected to VCC.			
3	AVSS	–	Connected to GND.			
4	NC	–	Not connected.			
5	I-AUTO-1	I	Input of DECK 1 reel platform pulse.			
6	I-AUTO-2	I	Input of DECK 2 reel platform pulse.			
7	O-PB-SEL	O	Three-state output.		O-REC-SEL	O-PB-SEL
8	O-REC-SEL			L	TAPE	DECK 2 REC
				H	REC IN	DECK 2 PB
				H1-Z	REC MUTE	DECK 1 PB
9	NC	–	Not connected.			
10	O-NR	O	When NR is ON: “L”.			
11	O-BIAS	O	BIAS control.			
12	O-LMT	O	Output LINE MUTE. When MUTE: “H”.			
13	O-COUNTER	O	Output tape counter data.			
14	SERIAL I/O	I/O	Serial I/O terminal.			
15	CN VSS	–	Connected to GND.			
16	O-BIAS BEAT	O	For bias beat changeover. When in operation: “H”. Initial: “L”. (Not used)			
17	O-C SHIFT	O	While clock shift: “L” .			
18	RESET	I	RESET signal input pin.			
19	XIN	I	Crystal oscillation pin.			
20	XOUT	O	Crystal oscillation pin.			
21	VSS	–	Connected to GND.			
22	D-FWD	O	When Power is ON: “L” under STOP status. When FWD operates: flashing (“L” ↔ “H” repeated). While FF: fast flashing.			
23	D-REV	O	When Power is ON: “L” under STOP status. When RVS operates: flashing (“L” ↔ “H” repeated). While REW: fast flashing.			
24	D-PAUSE	O	When Power is ON: “L” under STOP status. While PAUSE: flashing (“L” ↔ “H” repeated).			
25	D-REC	O	While REC, DUBBING: “L”. While REC, MUTE: flashing.			
26	D-NR	O	When NR is ON: “L”. (Not used)			
27	O-MOTOR	O	When MOTOR is in operation or power on (500msec): “H”.			
28	O-SOL2	O	When DECK 2 solenoid is in operation: “H”.			
29	O-SOL1	O	When DECK 1 solenoid is in operation: “H”.			
30	O-POWER	O	When POWER of MX-NH2000 is ON: “H” .			
31	I-CST-2	I	DECK 2 cassette detection. When cassette exists: “L”.			
32	I-RE-B	I	DECK 2 side B REC enable. When recordable: “L”.			
33	I-CAM-2	I	DECK 2 cam. When switch is ON: “L”.			
34	O-HSP	O	Output high speed signal. High speed: “L”.			
35	I-CAM-1	I	DECK 1 mechanism cam. When switch is ON: “L”.			
36	I-CST-1	I	DECK 1 cassette detection. When cassette exists:“L”.			
37	I-RE-A	I	DECK 2 side A REC enable. When recordable: “L”			

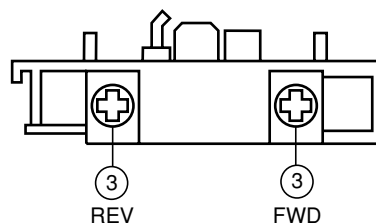
Pin No.	Pin Name	I/O	Description
38	O-DIMMER	O	Ordinarily “H”. When MX-NH2000 is in DIMMER 1 or 2 mode: “L”.
39	I-KEY2	I	KEY input 2. AD input.
40	I-KEY1	I	KEY input 1. AD input.
41	I-MS	I	MS input. AD input.
42	I-HOLD	I	System power supply monitor. AD input.

*PINs 22, 23, 24, 25, and 26 should be “H” when MX-NH2000 is in DIMMER 2 mode.

ADJUSTMENT <DECK> (FX-NH2000)



DECK-1 P, DECK-2R/P/E HEAD HEAD



< DECK SECTION >

1. Tape Normal Speed Adjustment

- Settings :
- Test tape : TTA-100 (Tape center)
 - Test point : TP1 (Rch), TP2 (Lch)
 - Adjustment location : SFR1

Method : Play back the test tape and adjust SFR1 so that the test point becomes $3000\text{Hz} \pm 5\text{Hz}$ (FWD). Then check REV speed is $3000\text{Hz} \pm 45\text{Hz}$.

2. High Speed Check

- Settings :
- Test tape : TTA-100 (Tape center)
 - Test point : TP1 (Rch), TP2 (Lch)

Method : After normal speed adjustment, play back (High speed) the test tape. Then check tape speed is $6000\text{Hz} \pm 400\text{Hz}$ (FWD).

3. Head Azimuth Adjustment

- Settings :
- Test tape : TTA-300
 - Test point : TP1 (Rch), TP2 (Lch)
 - Adjustment location : Head azimuth adjustment screw

Method : Play back the 10kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on each FWD PLAY and REV PLAY mode.

4. PB Sensitivity Adjustment (DECK1, DECK2)

- Settings :
- Test tape : TTA-200
 - Test point : TP1 (Rch), TP2 (Lch)
 - Adjustment location : SFR301 (DECK1, Lch)
SFR302 (DECK1, Rch)
SFR303 (DECK2, Lch)
SFR304 (DECK2, Rch)

Method : Play back the test tape and adjust SFRs so that the output level of the test point becomes 245mV (DECK2), 260mV (DECK1).

5. PB Frequency Response Check (DECK1, DECK2)

- Settings :
- Test tape : TTA-300
 - Test point : TP1 (Rch), TP2 (Lch)
- Method : Play back the 315Hz and 10kHz signals of the test tape and check that the output ratio of the 10kHz signal with respect to that of the 315Hz signal is 0dB. Next, check that the Lch and Rch difference level of 10kHz signal is less than 2dB.

6. REC/PB Sensitivity Adjustment (DECK2)

Settings : • Test tape : TTA-602 (NORMAL)
• Test point : TP1 (Rch), TP2 (Lch)
• Input signal : 1kHz (LINE IN)
• Adjustment location : SFR305 (Lch)
SFR306 (Rch)

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP1, TP2 becomes 0dB (17mV). Record and play back the 1kHz signals and adjust SFRs so that the output is 0dB $\pm$ 0.5dB.

7. REC/PB Frequency Response Adjustment (DECK2)

Settings : • Test tape : TTA-602 (NORMAL)
• Test point : TP2 (Lch), TP1 (Rch)
• Input signal : 1kHz / 10kHz
(LINE IN)
• Adjustment location : SFR351 (Lch)
SFR352 (Rch)

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP1, TP2 becomes 0dB (17mV). Record and play back the 1kHz and 10kHz signals and adjust SFRs so that the output level of the 10kHz signals becomes 0dB $\pm$ 0.5dB with respect to that of the 1kHz signal.

8. REC/PB Frequency Response Check (DECK2)

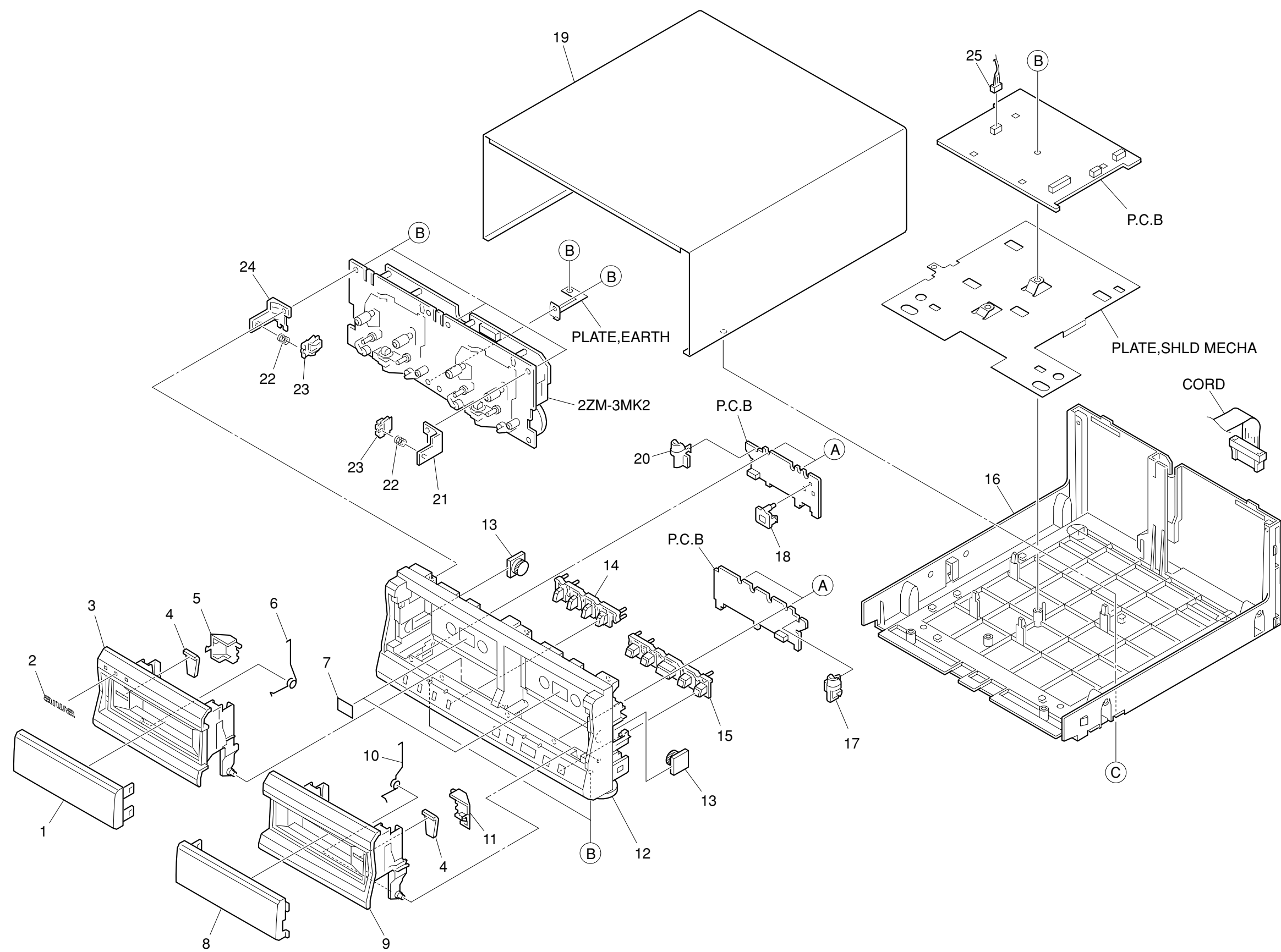
Settings : • Test tape : TTA-615 (CrO2)
• Test point : TP2 (Lch), TP1 (Rch)
• Input signal : 1kHz

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP1, TP2 becomes 0dB (17mV). Record and play back the 1kHz signal and check that the output is 0dB $\pm$ 2.0dB.

9. REC/PB Sensitivity Check (DECK2)

Settings : • Test tape : TTA-615 (CrO2)
• Test point : TP2 (Lch), TP1 (Rch)
• Input signal : 1kHz (LINE OUT)

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP1, TP2 becomes 170mV. Record and play back the 1kHz signal and check that the output is 0dB $\pm$ 2.0dB.



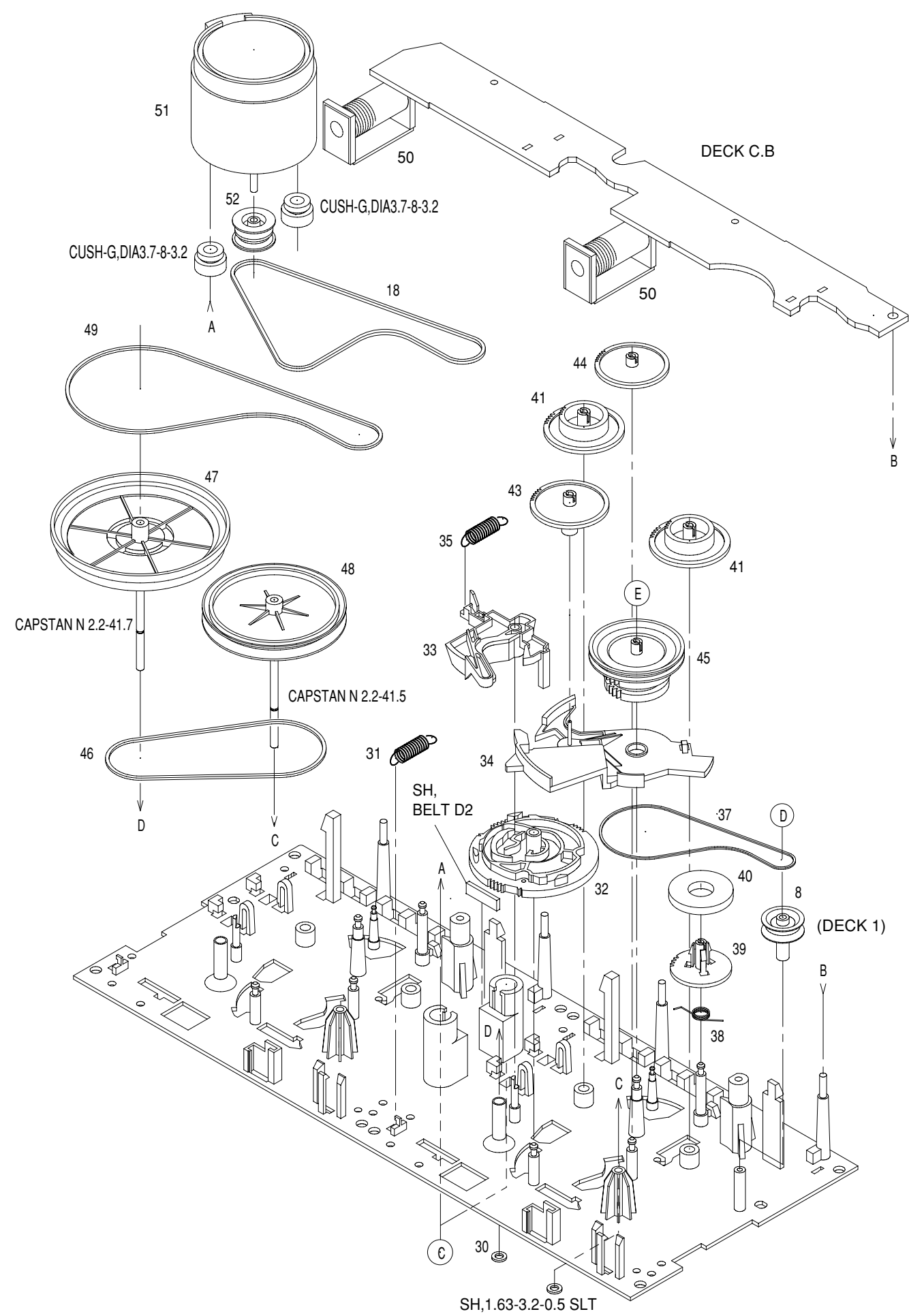
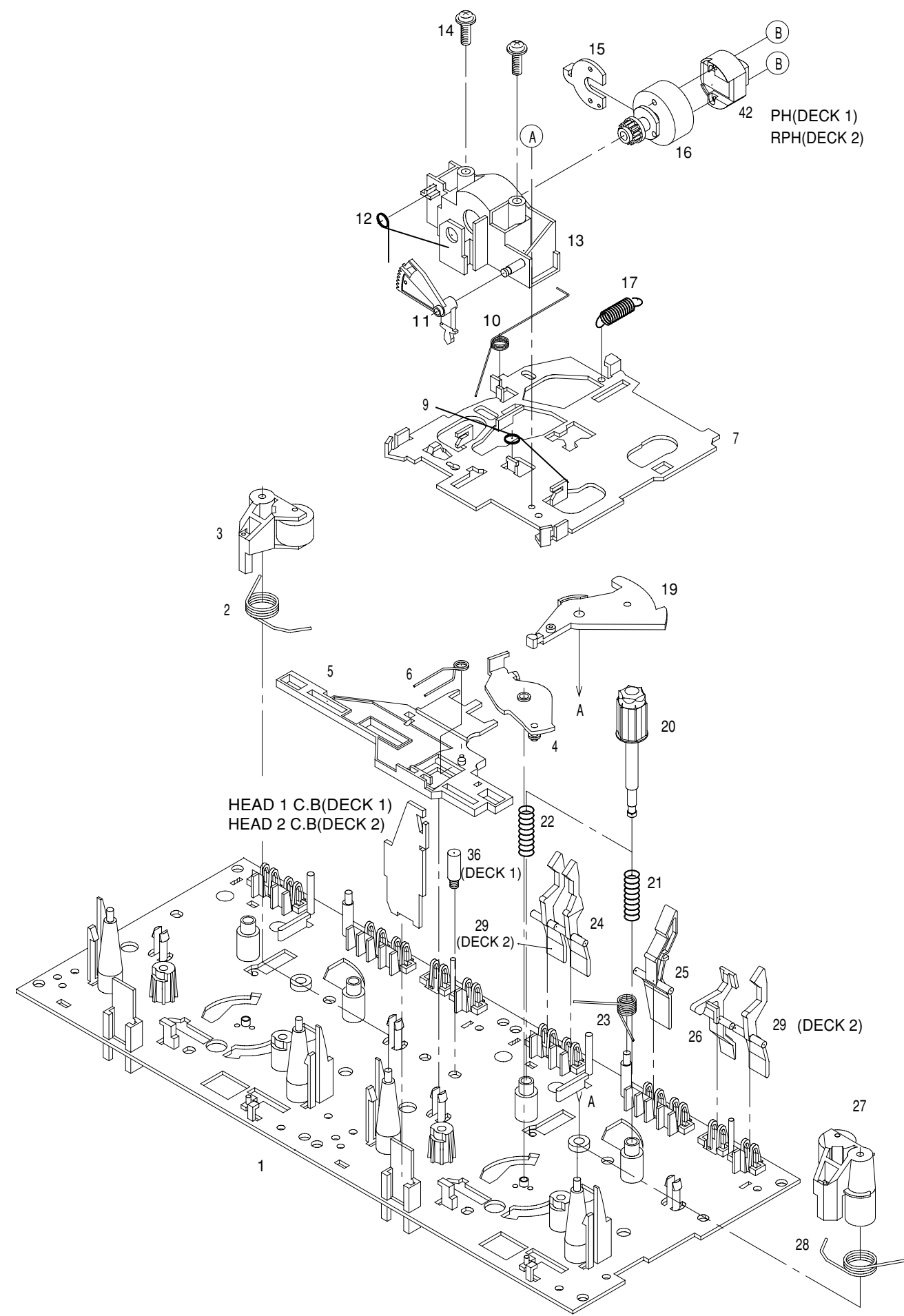
MECHANICAL PARTS LIST 1 / 1 (FX-NH2000)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-SW1-004-010		WINDOW,CASS 1
2	87-CE3-023-010		BADGE,AIWA 30N SILV
3	8A-SW1-002-010		BOX,CASS 1
4	8Z-SW1-013-010		REFLECTOR,CASS 1
5	8Z-SW1-201-010		COVER, REFLECTOR 1
6	82-NF5-218-010		SPR-T,EJECT 1 (SIN)
7	81-532-080-010		LABEL, CASS. COMPT
8	8A-SW1-005-010		WINDOW,CASS 2
9	8A-SW1-003-010		BOX,CASS 2
10	82-NF5-219-010		SPR-T,EJECT 2 (SIN)
11	8Z-SW1-202-010		COVER, REFLECTOR 2
12	8A-SW1-001-010		CABI,FR
13	87-NF8-220-010		DMPR,150
14	8A-SW1-011-010		KEY,ASSY REC
15	8Z-SW1-012-010		KEY,ASSY OPE
16	8A-SW1-019-010		CABI,REAR YLSM
17	8Z-SW1-206-110		GUIDE,LED CASS 2
18	8Z-SW1-204-110		GUIDE,LED REC
19	8A-SW1-024-010		CABI,STEEL LH
20	8Z-SW1-205-110		GUIDE,LED CASS 1
21	87-NF4-217-110		HLDR,LOCK 2
22	86-NF9-224-010		SPR-C,LOCK
23	82-NF5-229-010		PLATE,LOCK
24	87-NF4-216-010		HLDR,LOCK 1
25	86-NF5-618-110		CONN ASSY,8P RPB
A	87-067-579-010		TAPPING SCREW, BVT2+3-8
B	87-067-703-010		TAPPING SCREW, BVT2+3-10
C	87-067-633-010		TAPPING SCREW, BVT2+3-8

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange		

TAPE MECHANISM EXPLODED VIEW 1 / 1 (FX-NH2000)



TAPE MECHANISIM PARTS LIST 1 / 1 (FX-NH2000)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM3-301-510		CHAS ASSY,M2	36	82-ZM3-339-010		SHAFT,COUPLER N3 (DECK 1)
2	82-ZM1-258-110		SPR-T,PINCH L	37	86-ZM1-206-010		BELT,MAIN L
3	82-ZM1-341-110		LVR ASSY,PINCH L2	38	82-ZM1-322-010		SPR-T,FR60
4	82-ZM1-333-010		PLATE,LINK 2	39	82-ZM1-220-210		GEAR,IDLER
5	82-ZM1-266-11K		LVR,DIR	40	82-ZM3-616-010		RING MAGNET 4
6	82-ZM1-214-010		SPR-T,DIR	41	82-ZM1-216-31K		GEAR,REEL
7	82-ZM1-206-81K		CHAS,HEAD	42	87-A90-319-010		HEAD,PH HADKH2 FPC
8	82-ZM3-340-010		SH,BELT D2	42	87-A90-320-010		HEAD,RPH HADKH5 FPC
9	82-ZM1-269-210		SPR-T,BRG	43	82-ZM1-225-21K		GEAR,FR
10	82-ZM1-219-110		SPR-T,LINK	44	82-ZM1-226-010		GEAR,REW
11	82-ZM1-210-110		GEAR,H T	45	82-ZM3-333-310		SLIP DISK ASSY 2
12	82-ZM1-213-010		SPR-T,HEAD	46	82-ZM1-338-010		BELT FR4
13	82-ZM1-207-610		GUIDE,TAPE	47	82-ZM1-349-110		FLY-WHL,R W (DECK 2)
14	86-ZM4-206-010		S-SCREW,AZIMUTH	47	82-ZM3-338-110		FLY-WHL,R3 W (DECK 1)
15	82-ZM1-314-110		PLATE,HEAD	48	82-ZM1-348-010		FLY-WHL,L W (DECK 2)
16	82-ZM1-208-110		HLDR,HEAD	48	82-ZM1-348-010		FLY-WHL,L W (DECK 1)
17	82-ZM1-218-010		SPR-E,HB	49	82-ZM3-329-210		BELT,SBU R2
18	82-ZM1-263-110		LVR,EJECT L (DECK 1)	50	82-ZM1-245-210		HLDR,IC
18	82-ZM1-264-010		LVR,EJECT R (DECK 2)	51	87-045-347-010		MOT,SHU2L 70 (M1)
19	82-ZM1-222-21K		LVR,PLAY	52	82-ZM3-221-010		PULLEY,MOT 2M
20	82-ZM1-217-310		REEL TABLE	53	82-ZM1-288-010		SH,1.63-3.2-0.5 SLT
21	82-ZM1-244-510		SPR-C,BT	54	80-ZM6-243-010		SH,1.75-3.6-0.5 SLT
22	82-ZM1-285-310		SPR-C,BT L	55	82-ZM3-335-210		PULLEY,COUPLER M3 (DECK 1)
23	82-ZM1-257-010		SPR-T,CAS	56	82-ZM3-337-010		BELT,SBU MOT 2
24	82-ZM1-241-310		LVR,MC	A	85-ZM3-202-010		S-SCREW,TG
25	82-ZM1-242-010		LVR,CAS	B	80-ZM6-207-010		V+1.6-7
26	82-ZM1-243-010		LVR,STOP	C	82-ZM3-318-010		S-SCRW MOTOR M2
27	82-ZM1-344-110		LVR ASSY,PINCH R2	D	87-B10-043-010		W-P,0.99-4-0.25 SLT
28	82-ZM1-259-110		SPR-T,PINCH R	E	82-ZM3-334-010		PW,2.16-6-0.4
29	82-ZM1-240-11K		LVR,REC (DECK 2)				
31	82-ZM1-255-310		SPR-E,LVR DIR				
32	82-ZM3-305-01K		GEAR,CAM M2				
33	82-ZM1-227-21K		LVR,TRIG				
34	82-ZM3-306-11K		LVR,FR M2				
35	82-ZM1-265-110		SPR-E,TRIG				

MODEL NO.

GE-NH2000

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C407	87-012-158-080		C-CAP,S 390P-50 CH
	8A-SU1-608-010		IC,LC866448W	C408	87-A11-144-080		CAP,TC U 0.1-50 K B
	87-A21-023-040		C-IC,BA3835F	FL201	8Z-SU1-605-010		FL,BJ699GK
				L101	87-005-152-080		COIL,10UH
				L102	87-005-130-080		COIL,10UH
TRANSISTOR				L103	87-005-130-080		COIL,10UH
	87-026-263-080		C-TR,RN1410	L104	87-005-152-080		COIL,10UH
DIODE				L301	87-003-097-080		COIL,1UH
	87-070-136-080		ZENER,MTZJ5.1B	LED201	87-A40-380-080		LED,SEL6510C-TP5 GRN
	87-017-931-080		ZENER,MTZJ5.6B	LED202	87-A40-380-080		LED,SEL6510C-TP5 GRN
	87-020-465-080		DIODE,1SS133 (110MA)	LED203	87-A40-380-080		LED,SEL6510C-TP5 GRN
MAIN C.B				LED204	87-A40-380-080		LED,SEL6510C-TP5 GRN
C101	87-010-550-040		CAP,E 100-6.3 GAS	LED205	87-A40-380-080		LED,SEL6510C-TP5 GRN
C103	87-010-497-040		CAP,E 4.7-35 GAS	LED206	87-A40-380-080		LED,SEL6510C-TP5 GRN
C105	87-010-312-080		C-CAP,S 15P-50 CH	LED207	87-A40-380-080		LED,SEL6510C-TP5 GRN
C106	87-010-320-080		CHIP CAP 68P	LED208	87-A40-380-080		LED,SEL6510C-TP5 GRN
C107	87-010-316-080		C-CAP,S 33P-50 CH	S301	87-A90-095-080		SW,TACT EVQ11G04M
C108	87-010-196-080		CHIP CAPACITOR,0.1-25	S302	87-A90-095-080		SW,TACT EVQ11G04M
C109	87-010-196-080		CHIP CAPACITOR,0.1-25	S303	87-A90-095-080		SW,TACT EVQ11G04M
C110	87-012-368-080		C-CAP,S 0.1-50 F	S304	87-A90-095-080		SW,TACT EVQ11G04M
C111	87-010-552-040		CAP,E 22-16 GAS	S305	87-A90-095-080		SW,TACT EVQ11G04M
C201	87-012-140-080		CAP 470P	S306	87-A90-095-080		SW,TACT EVQ11G04M
C202	87-012-369-080		C-CAP,S 0.047-50F	S307	87-A90-095-080		SW,TACT EVQ11G04M
C203	87-010-404-040		CAP,E 4.7-50 SME	S308	87-A90-095-080		SW,TACT EVQ11G04M
C204	87-010-405-040		CAP,E 10-50	S309	87-A90-095-080		SW,TACT EVQ11G04M
C205	87-010-405-040		CAP,E 10-50	S310	87-A90-095-080		SW,TACT EVQ11G04M
C206	87-010-405-040		CAP,E 10-50	S311	87-A90-095-080		SW,TACT EVQ11G04M
C301	87-010-196-080		CHIP CAPACITOR,0.1-25	S312	87-A90-095-080		SW,TACT EVQ11G04M
C302	87-010-196-080		CHIP CAPACITOR,0.1-25	S314	87-A90-095-080		SW,TACT EVQ11G04M
C303	87-010-197-080		CAP,CHIP 0.01 DM	S315	87-A90-095-080		SW,TACT EVQ11G04M
C304	87-010-182-080		C-CAP,S 2200P-50 B	S316	87-A91-076-010		SW,RTRY RE0121PVB25FINA1
C401	87-010-196-080		CHIP CAPACITOR,0.1-25	W101	8Z-SU1-608-010		CORD,52305-101BLK
C402	87-010-196-080		CHIP CAPACITOR,0.1-25	WH101	87-A90-882-010		HLDR,WIRE 10P 1.5 51016
C403	87-010-196-080		CHIP CAPACITOR,0.1-25	X101	87-A70-070-080		VIB,CER 5.76MHZ CRHF
C404	87-010-196-080		CHIP CAPACITOR,0.1-25				
C405	87-010-196-080		CHIP CAPACITOR,0.1-25				
C406	87-010-196-080		CHIP CAPACITOR,0.1-25				

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

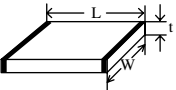
Chip Resistor Part Coding



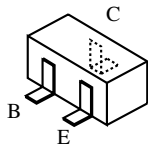
A
抵抗部品コード
Resistor Code

桁表示
Figure
抵抗値
Value of resistor

チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法/Dimensions (mm)				抵抗コード : A Resistor Code : A
				外形/Form	L	W	t	
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

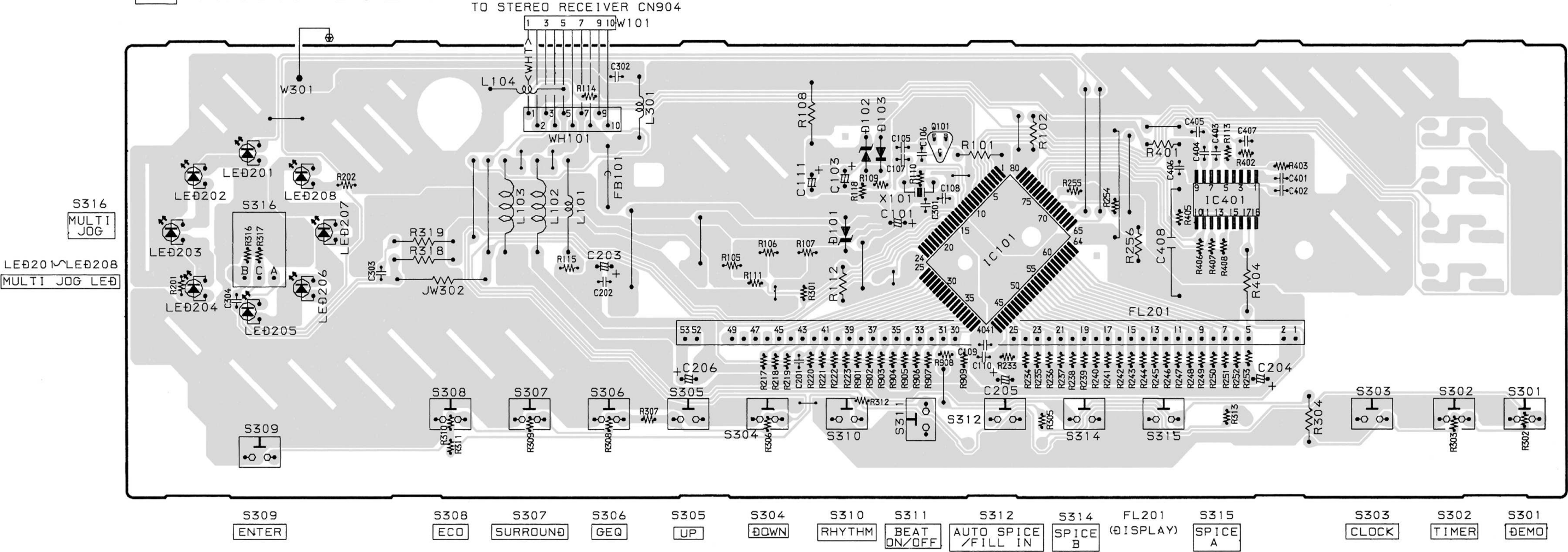
TRANSISTOR ILLUSTRATION (GE-NH2000)

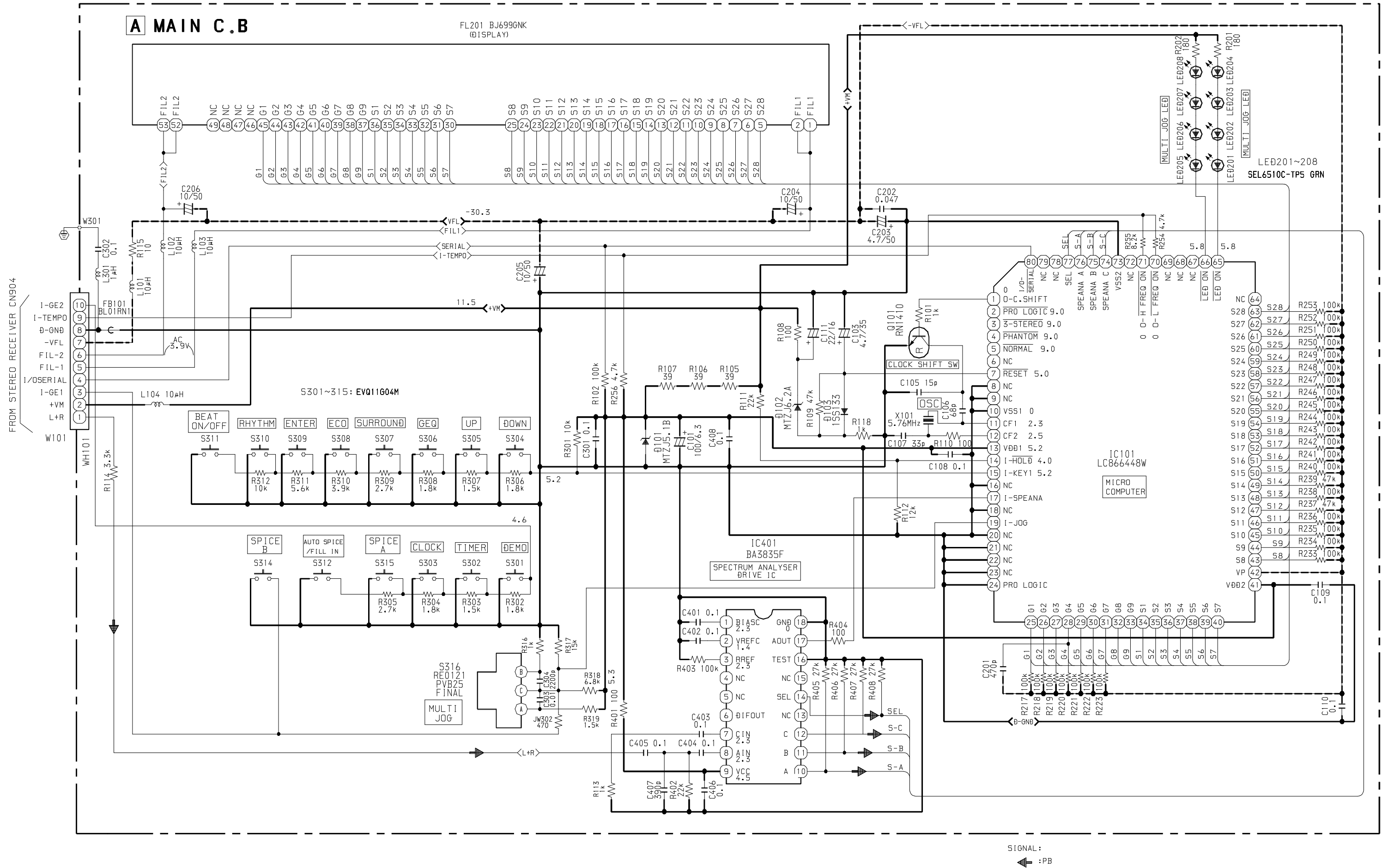


RN1410

32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

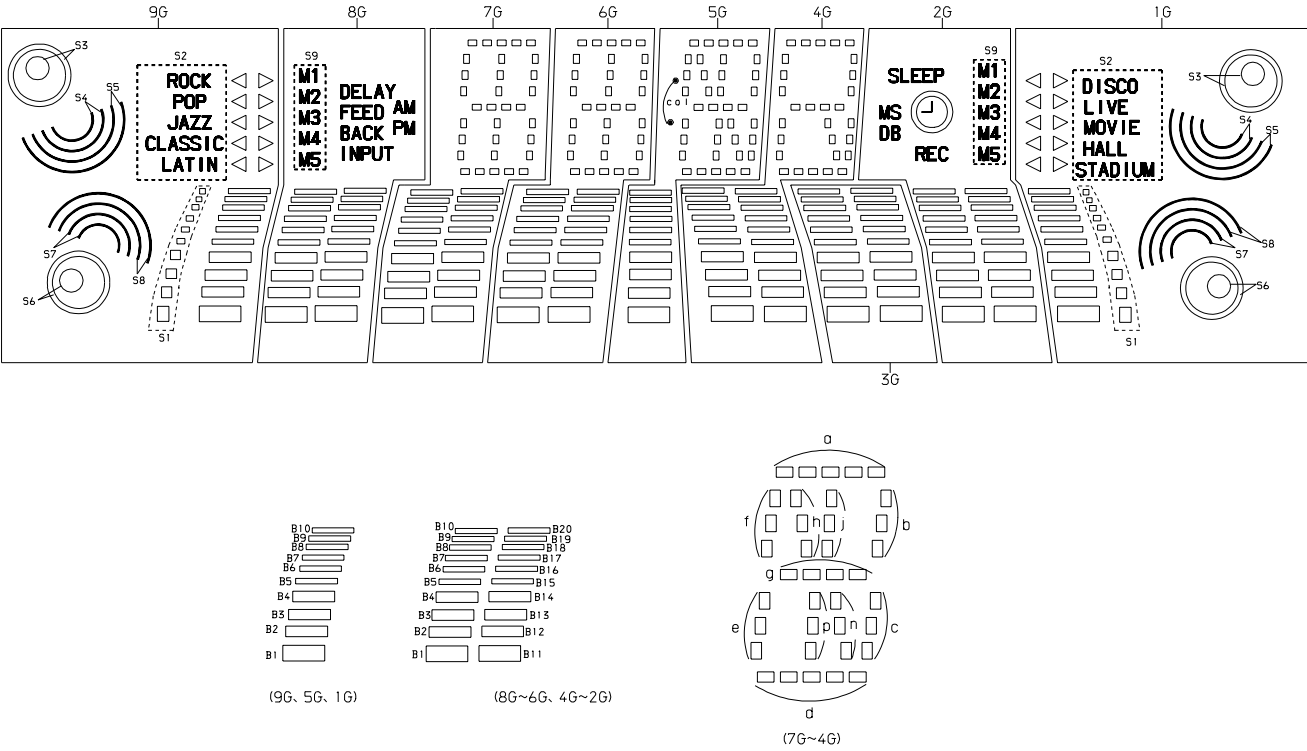
A MAIN C.B





FL GRID ASSIGNMENT AND ANODE CONNECTION (GE-NH2000)

GRID ASSIGNMENT

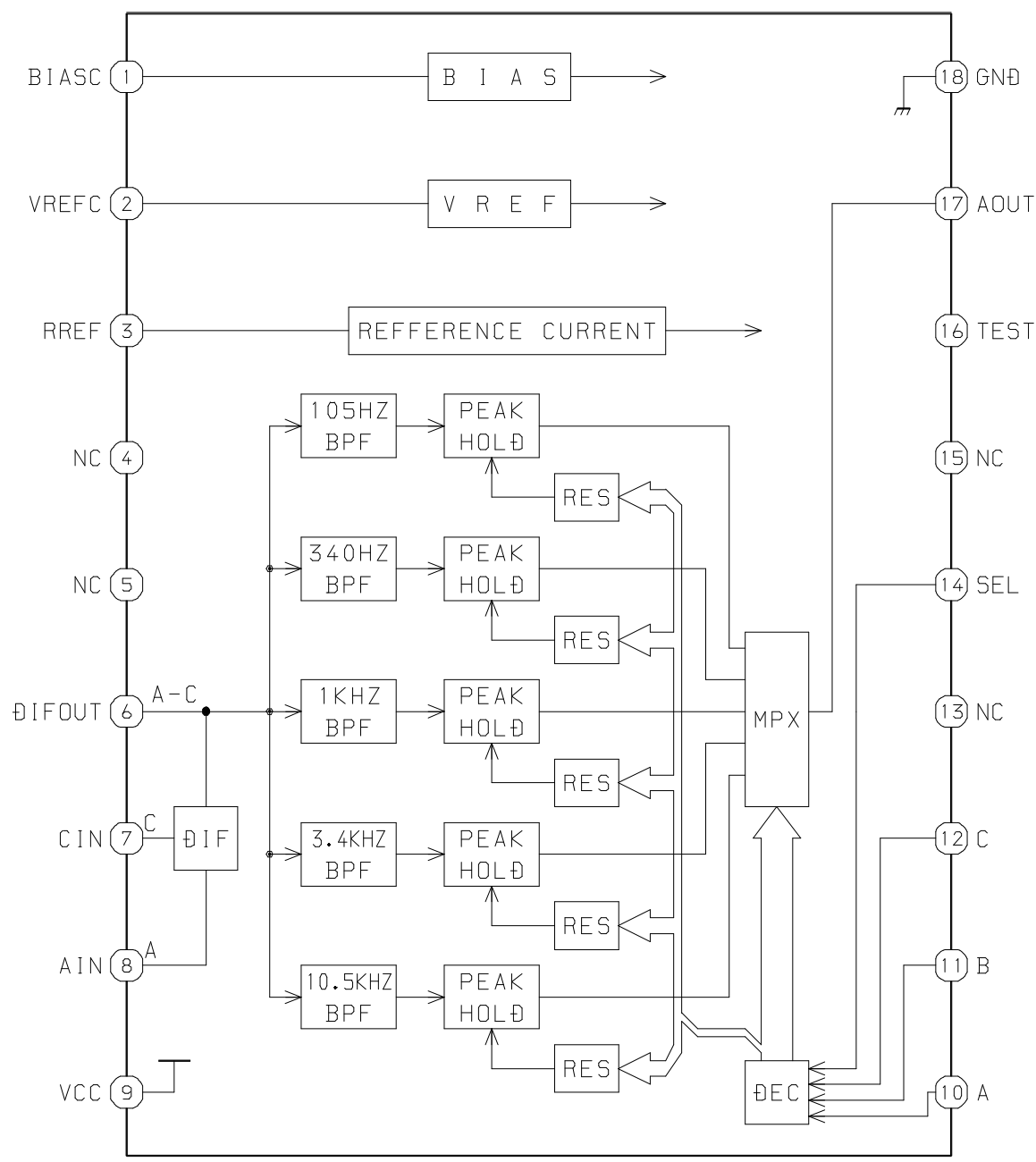


ANODE CONNECTION

	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	[M1]	—	a	a	a	a	—	—	[M1]
P2	[M2]	S9	b	b	b	b	—	S9	[M2]
P3	[M3]	DELAY	f	f	f	f	—	SLEEP	[M3]
P4	[M4]	FEED BACK	g	g	g	g	—		[M4]
P5	[M5]	INPUT	c	c	c	c	—	REC	[M5]
P6	[ROCK]	AM	e	e	e	e	—	MS	[DISCO]
P7	[POP]	PM	d	d	d	d	—	DB	[LIVE]
P8	S1	B11	B11	B11	h	B11	B11	B11	S1
P9	B1	B1	B1	B1	B1	B1	B1	B1	B1
P10	S6	B12	B12	n	B12	B12	B12	B12	S6
P11	B2	B2	B2	B2	B2	B2	B2	B2	B2
P12	S7	B13	B13	co l(L)	B13	B13	B13	B13	S7
P13	B3	B3	B3	B3	B3	B3	B3	B3	B3
P14	S8	B14	B14	co l(F)	B14	B14	B14	B14	S8
P15	B4	B4	B4	B4	B4	B4	B4	B4	B4
P16	S3	B15	B15	—	B15	B15	B15	B15	S3
P17	B5	B5	B5	B5	B5	B5	B5	B5	B5
P18	S4	B16	B16	—	B16	B16	B16	B16	S4
P19	B6	B6	B6	B6	B6	B6	B6	B6	B6
P20	S5	B17	B17	—	B17	B17	B17	B17	S5
P21	B7	B7	B7	B7	B7	B7	B7	B7	B7
P22	S2	B18	B18	—	B18	B18	B18	B18	S2
P23	B8	B8	B8	B8	B8	B8	B8	B8	B8
P24	[JAZZ]	B19	B19	—	B19	B19	B19	B19	[MOVIE]
P25	B9	B9	B9	B9	B9	B9	B9	B9	B9
P26	[CLASSIC]	B20	B20	—	B20	B20	B20	B20	[HALL]
P27	B10	B10	B10	B10	B10	B10	B10	B10	B10
P28	[LATIN]	—	j, p	j, p	j, p	n	—	—	[SATADIUM]

IC BLOCK DIAGRAM (GE-NH2000)

IC, BA3835F

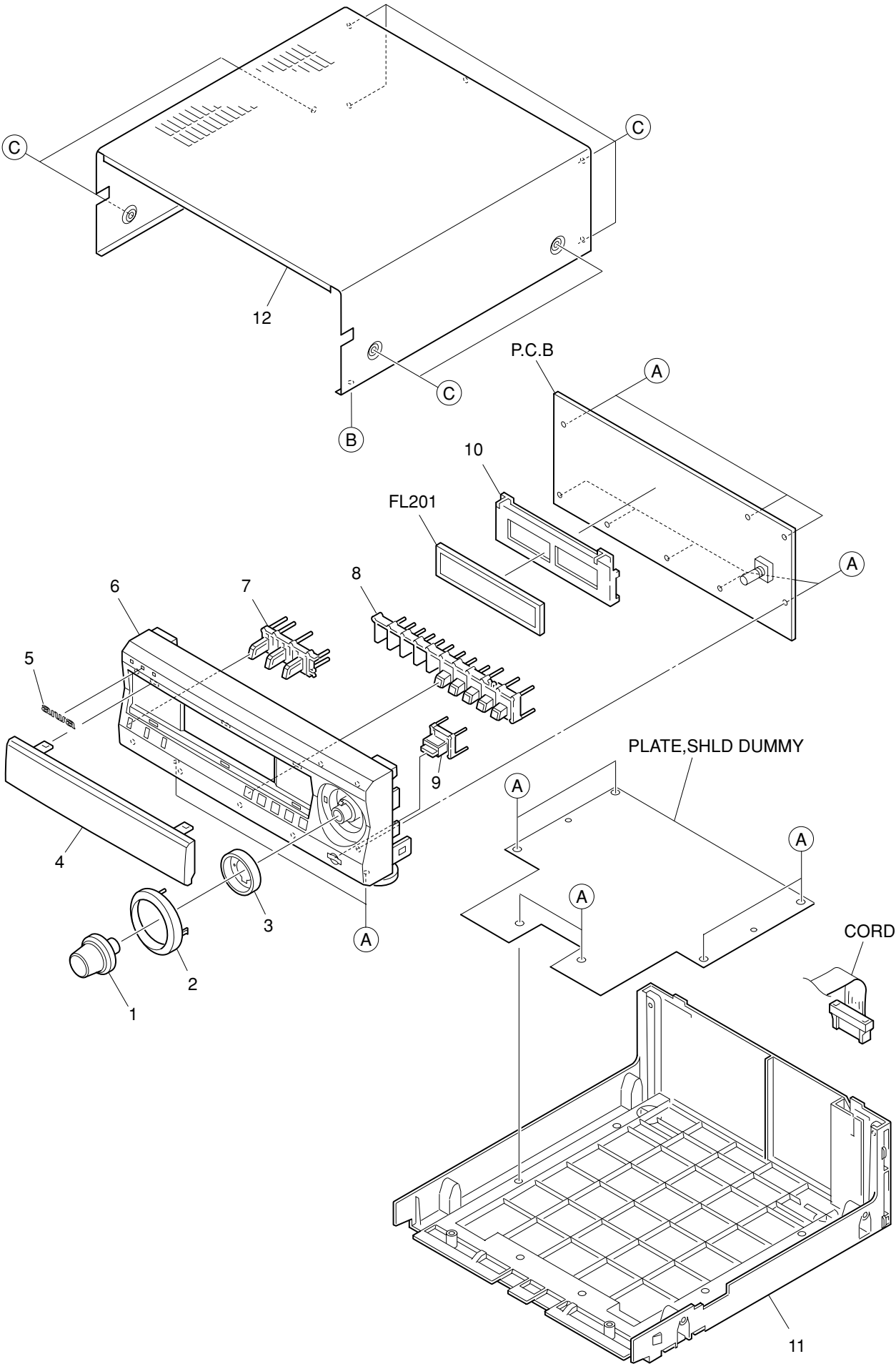


IC DESCRIPTION (GE-NH2000)

IC, LC866448W

Pin No.	Pin Name	I/O	Description
1	O-C.SHIFT	O	Micro computer clock shift output.
2	PRO LOGIC	O	PRO LOGIC LED output.
3	3-STEREO	O	3 STEREO LED output.
4	PHANTOM	O	PHANTOM LED output.
5	NORMAL	O	NORMAL LED output.
6	NC	–	Not connected.
7	RESET	I	Reset input.
8	NC	–	Connected to GND.
9	NC	–	Connected to GND.
10	VSS1	–	GND.
11	CF1	–	Connected to crystal oscillator (5.76MHz).
12	CF2	–	
13	VDD1	–	Power supply.
14	I-HOLD	I	System power supply monitor AD input.'H':Normal operation.'L':to stop clock and main memory.
15	I-KEY1	I	KEY 1 AD input.
16	NC	–	Connected to GND.
17	I-SPEANA	I	Spectrum analyzer level AD input.
18	NC	–	Connected to GND.
19	I-JOG	I	Jog rotary encoder input.
20~23	NC	–	Connected to GND.
24	PRO LOGIC	I	Input prologic switch "H" when prologic ,"L" when not prologic.
25~33	G1~G9	O	FL gird output.
34~40	S1~S7	O	FL Segment output.
41	VDD2	–	Connected to GND.
42	VP	–	Power FL display negative supply terminal.
43~63	S8~S28	O	FL Segment S8~S28 output.
64	NC	–	Not used.
65	LED ON	O	MULTI JOG LED output.
66	LED ON	O	MULTI JOG LED output.
67~69,72	NC	–	Not connected.
70	O-L FREQ ON	O	Spectrum analyzer low frequency output.
71	O-H FREQ ON	O	Spectrum analyzer high frequency output.
73	VSS2	–	GND.
74	SPEANA C	O	Spectrum analyzer band switch output C.
75	SPEANA B	O	Spectrum analyzer band switch output B.
76	SPEANA A	O	Spectrum analyzer band switch output A.
77	SEL	O	Spectrum analyzer band switch output select .
78~79	NC	–	Not connected.
80	I/O-SERIAL	I/O	Input/output serial data for communication.

MECHANICAL EXPLODED VIEW 1 / 1 (GE-NH2000)



MECHANICAL PARTS LIST 1 / 1 (GE-NH2000)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-SU1-007-010		KNOB, RTRY JOG
2	8A-SU1-006-010		RING, JOG
3	8Z-SU1-005-010		REFLECTOR, JOG
4	8A-SU1-004-010		WINDOW, DISPLAY
5	87-CE3-023-010		BADGE, AIWA 30N SILV
6	8A-SU1-001-010		CABI, FR YJS
7	8A-SU1-009-010		KEY, DEMO
8	8Z-SU1-008-010		KEY, GEQ
9	8A-SU1-010-010		KEY, ENTER
10	88-SU1-201-110		GUIDE, FL
11	8A-SU1-014-010		CABI, REAR YLSM
12	8A-SU1-011-010		CABI, STEEL LH
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-067-633-010		TAPPING SCREW, BVT2+3-8
C	87-B10-091-010		UTT2+3-10 BLK

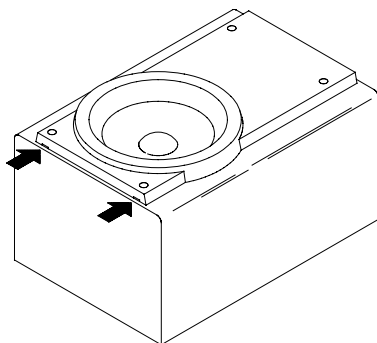
COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange		

SPEAKER DISASSEMBLY INSTRUCTIONS

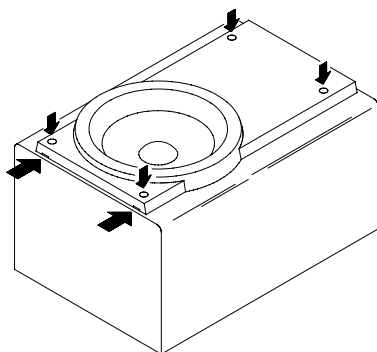
Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



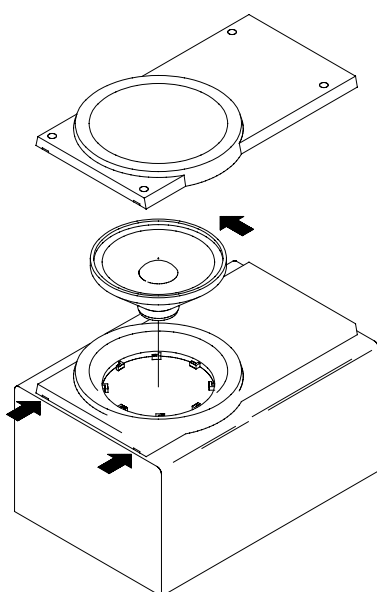
Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

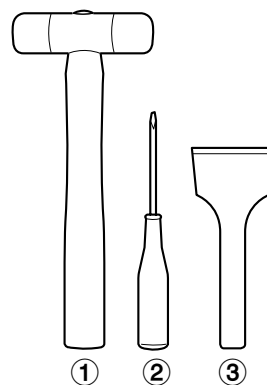


Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



Type.4



TOOLS

- ① Plastic head hammer
- ② (⊖) flat head screwdriver
- ③ Cut chisel

How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.
2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.
3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

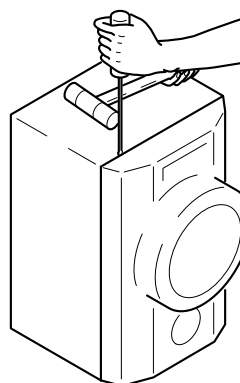


Fig-1

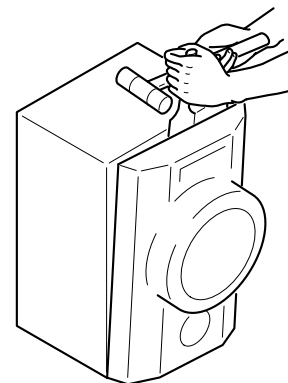


Fig-2

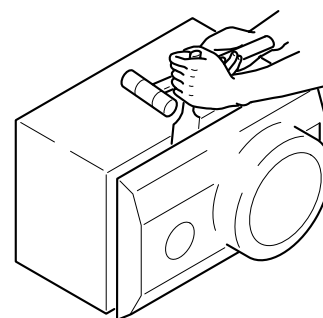


Fig-3

How to Attach the PANEL, FR

Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

SPEAKER PARTS LIST SX-NDPH2100 (YLTL)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	88-NS5-610-010		CORD, SPKR
2	8A-SSM-005-010		PANEL, FR L
3	8A-SSM-001-010		PANEL, FR R
4	8A-SSM-004-010		PANEL, TW
5	8A-SSM-002-010		GRILLE, FRAME ASSY
6	8Z-SSM-009-010		PROTECTOR, TW
7	8A-SSM-601-010		SPKR, W 150
8	8Z-NSY-608-010		SPKR, CERAMIC ASSY
9	88-SSM-603-010		SPKR, TW 60

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