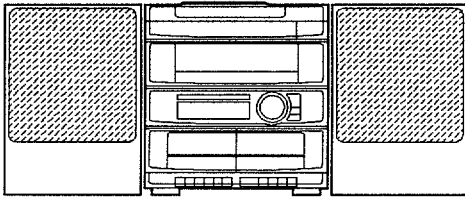


aiwa



Z-R500 Z-R524 Z-R525



COMPACT DISC STEREO
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : TN-21ZSW-1406
- BASIC CD MECHANISM : 6ZG-1 SDFNM
- TYPE: LH<500>, U<524, 525>

SYSTEM	SPEAKER	CD - CASSEIVER	REMOTE CONTROLLER
Z-R500 (TYPE : LH)	SX-FZR500	CX-ZR500	RC UNIT, 7AS05
Z-R524 (TYPE : U)	SX-ZR525 SX-R240	CX-ZR525	
Z-R525 (TYPE : U)	SX-ZR525		

- If requiring information about the CD mechanism, see Service Manual of 6ZG-1, S/M Code No.09-975-198-00T
- If requiring information about the Speaker, see Service Manual of SX-FZR500/SX-ZR525/SX-R240, S/M Code No.09-975-200-0FP

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SPECIFICATIONS

<FM tuner section>

Tuning range 87.5 MHz to 108 MHz
Usable sensitivity(IHF) 16.2 dBf
Antenna 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 μ V/m
Antenna Loop antenna

<Amplifier section>

Power output* LH:
 50 W + 50 W
 THD less than 10 %, 6 ohms)
 U:
 100 W + 100 W (50 Hz - 20 kHz,
 THD less than 1 %, 6 ohms)
 *without connecting to the
 SURROUND SPEAKERS.

Total Harmonic distortion LH:
 0.15 % (20 W, 1 kHz, 6 ohms)
 U:
 0.15 % (50 W, 1 kHz, 6 ohms,
 DIN AUDIO)

Inputs

LH:
 VIDEO/AUX:150 mV (adjustable)
 PHONO: 250 mV
 MIC 1, MIC 2: 1.0 mV (10 kohms)
 U:
 VIDEO/AUX:210 mV (adjustable)
 PHONO: 350 mV
 MIC 1, MIC 2: 2.4 mV (10 kohms)

Outputs

CD DIGITAL OUT (OPTICAL)
 LH:
 SUPER WOOFER: 1.6 V
 U:
 SUPER WOOFER: 2.5 V
 SPEAKERS: accept speakers of
 6 ohms or more
 SURROUND SPEAKERS: accept
 speakers of 16 ohms or more
 PHONES (stereo jack): accepts
 headphones of 32 ohms or more

<Cassette deck section>

Track format 4 tracks, 2 channels stereo
Frequency response Type I (normal) tape: 50 Hz -
 15000 Hz
 Type II (high/CrO₂) tape: 50 Hz -
 16000 Hz

Signal-to-noise ratio 48 dB (high/CrO₂ tape)

Recording system AC bias

Heads

Deck 1: Recording/playback
 head x 1
 Erase head x 1
 Deck 2: Playback head x 1

<Compact disc player section>

Laser Semiconductor laser ($\lambda = 780$ nm)
D-A converter 1 bit dual
Signal-to-noise ratio 85 dB (1 kHz, 0 dB)
Harmonic distortion 0.03% (1 kHz, 0 dB)
Wow and flutter Unmeasurable

<Speaker system SX-FZR500>(LH)

Cabinet type 3 way, bass reflex with surround
 speaker
Speakers Woofer:
 220 mm (8³/₄ in.) cone type
 Tweeter:
 80mm (3¹/₄ in.) cone type
 Super tweeter:
 20 mm (1³/₁₆ in.) ceramic type
 Surround speaker:
 80mm (3¹/₄ in.) cone type
Impedance Front speaker: 6 ohms
 Surround speaker: 16 ohms

Output sound pressure level 90 dB/W/m

Dimensions (W x H x D) 270 x 444 x 265 mm
 (10³/₄ x 17¹/₂ x 10¹/₂ in.)
Weight 5.3 kg (11 lbs 11 oz.)

<Speaker system SX-ZR525> (U)

Cabinet type 3 way, bass reflex
Speakers Woofer:
 220 mm (8³/₄ in.) cone type
 Tweeter:
 60mm (2³/₈ in.) cone type
 Super tweeter:
 20 mm (1³/₁₆ in.) ceramic type
Impedance 6 ohms

Output sound pressure level 89 dB/W/m

Dimensions (W x H x D) 260 x 444 x 275 mm
 (10¹/₄ x 17¹/₂ x 10⁷/₈ in.)
Weight 4.6 kg (10 lbs 2 oz.)

<General>

Power requirements LH:
 120 V/220-230 V/240 V AC,
 (switchable) 50/60 Hz
 U:
 120 V AC, 60 Hz

Power consumption

LH:
 105 W
 U:
 115 W

Dimensions of main unit

360 x 393 x 382 mm
 (14¹/₄ x 15¹/₂ x 15¹/₈ in.)

Weight of main unit

LH:
 9 kg (19 lbs 13 oz.)
 U:
 9.2 kg (20 lbs 5 oz.)

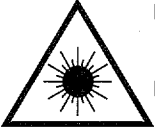
• Design and specifications are subject to change without notice.

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!

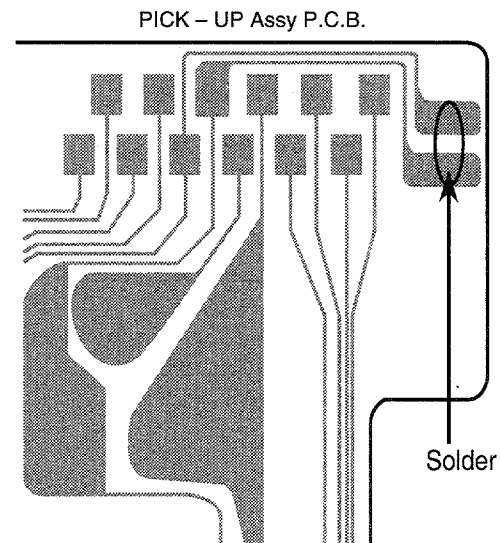
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

Precaution to replace Optical block

(KSS-213B)

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

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



CAUTION

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

ATTENTION

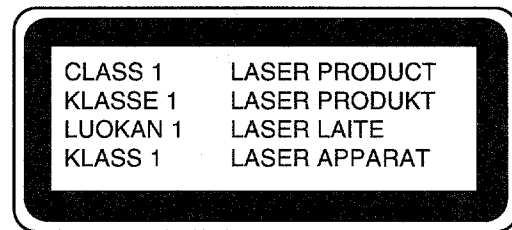
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL

Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer 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.



ELECTRICAL MAIN PARTS LIST

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C112	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
	87-MA7-651-010		C-IC,LC866556W-5E47	C113	87-010-406-080		CAP,E 22-50 M SME
	87-A20-593-010		IC,SPS-442-1-A	C116	87-010-406-080		CAP,E 22-50 M SME
	87-A20-501-040		C-IC,BA7762FS	C117	87-010-430-080		CAP,E 100-63 SME
	87-A20-083-010		IC,BA3835S	C118	87-010-263-080		CAP,E 100-10 SME
	87-017-888-080		C-IC,NJM4558MD	C119	87-010-260-080		CAP,E 47-25 SME
	87-A20-456-040		C-IC,BH3810FS	C120	87-010-403-080		CAP,E 3.3-50 M SME
	87-A20-451-040		C-IC,BU9262FS<LH>	C121	87-012-140-080		C-CAP,S 470P-50 J CH
	87-A20-450-040		C-IC,BH3864F	C122	87-010-263-080		CAP,E 100-10 SME<U>
	87-070-127-110		IC,LC72131D	C123	87-010-382-080		CAP,E 22-25 M SME
	87-A20-438-010		IC,LA1837	C124	87-010-112-080		CAP,E 100-16 M SME
				C125	87-010-235-080		CAP,E 470-16 SME
				C129	87-010-393-080		CAP,E 100-35 M SME
TRANSISTOR				C201	87-010-256-080		CAP,E 0.68-50 7L SRA
	89-213-702-010		TR,2SB1370E	C202	87-010-256-080		CAP,E 0.68-50 7L SRA
	87-026-610-080		TR,KTC3198GR	C205	87-010-183-010		C-CAP,S 2700P-50 K B GRM<LH>
	87-A30-076-080		C-TR,2SC3052F	C205	87-010-184-080		C-CAP,S 3300P-50 K B GRM<U>
	87-A30-083-080		TR,CSD1489B	C206	87-010-183-010		C-CAP,S 2700P-50 K B GRM<LH>
	87-A30-075-080		C-TR,2SA1235F	C206	87-010-184-080		C-CAP,S 3300P-50 K B GRM<U>
	87-026-609-080		TR,KTA1266GR	C207	87-010-404-080		CAP,E 4.7-50 M SME
	87-A30-086-080		C-TR,CSD1306E	C208	87-010-404-080		CAP,E 4.7-50 M SME
	87-A30-106-080		C-TR,CMBT5551	C209	87-010-404-080		CAP,E 4.7-50 M SME
	87-A30-111-080		TR,C2N5401	C210	87-010-404-080		CAP,E 4.7-50 M SME
	87-A30-097-010		TR,FN1016	C211	87-010-186-080		C-CAP,S 4700P-50 K B
	87-A30-098-010		TR,FP1016	C212	87-010-186-080		C-CAP,S 4700P-50 K B
	87-A30-089-010		FET,2SK2723	C213	87-010-260-080		CAP,E 47-25 SME
	87-A30-072-080		C-TR,RT1P 144C	C214	87-010-260-080		CAP,E 47-25 SME
	87-A30-073-080		C-TR,RT1N 141C	C215	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
	87-A30-087-080		C-FET,2SK2158	C219	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
	87-A30-074-080		C-TR,RT1P 141C	C220	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
	89-327-143-080		C-TR,2SC2714(O)	C221	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
	87-A40-269-080		C-TR,RN1410	C222	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
				C223	87-010-194-080		C-CAP,S 0.047-25 Z F
DIODE				C225	87-010-322-080		C-CAP,S 100P-50 J CH<LH>
	87-017-447-010		DIODE,GBU4DL-6419<LH>	C225	87-A10-516-080		C-CAP,S 100P-200 J C<U>
	87-A40-115-060		DIODE,R5603M<U>	C226	87-010-322-080		C-CAP,S 100P-50 J CH<LH>
	87-017-437-080		DIODE,1N4148M	C226	87-A10-516-080		C-CAP,S 100P-200 J C<U>
	87-A40-269-080		C-DIODE,MC2836	C233	87-010-318-080		C-CAP,S 47P-50 J CH
	87-A40-270-080		C-DIODE,MC2838	C234	87-010-318-080		C-CAP,S 47P-50 J CH
	87-070-274-080		DIODE,1N4003 SEM	C242	87-010-405-080		CAP,E 10-50 M SME<LH>
	87-A40-341-080		ZENER,MTZJ36A	C242	87-010-406-080		CAP,E 22-50 M SME<U>
	87-A40-246-080		DIODE,1N4148T-72	C243	87-010-197-080		C-CAP,S 0.01-25 K B
	87-A40-345-080		ZENER,MTZJ10C	C301	87-010-318-080		C-CAP,S 47P-50 J CH
	87-017-932-080		ZENER,MTZJ6.2B	C302	87-010-318-080		C-CAP,S 47P-50 J CH
	87-070-178-090		DIODE,1N5402-BD54	C303	87-012-145-080		C-CAP,S 270P-50 J CH
	87-070-136-080		ZENER,MTZJ5.1B	C304	87-012-145-080		C-CAP,S 270P-50 J CH
	87-A40-003-080		ZENER,MTZJ4.3A	C305	87-012-155-080		C-CAP,S 180P-50 J CH
	87-017-931-080		ZENER,MTZJ5.6B<LH>	C306	87-012-155-080		C-CAP,S 180P-50 J CH
	87-A40-234-080		ZENER,MTZJ5.6A	C307	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
				C309	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
				C310	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
MAIN C.B				C311	87-010-198-080		C-CAP,S 0.022-25 K B
	87-NF7-640-010		CONN ASSY,8P-RPB	C312	87-010-198-080		C-CAP,S 0.022-25 K B
	88-906-221-110		FF-CABLE,6P 1.25	C313	87-010-180-080		C-CAP,S 1500P-50 K B
△ C101	87-016-043-090		CAP,E 3300-50 M VR<LH>	C314	87-010-180-080		C-CAP,S 1500P-50 K B
△ C101	87-A10-059-090		CAP,E 3300-75<U>	C315	87-010-179-080		C-CAP,S 1200P-50 K B
△ C102	87-016-043-090		CAP,E 3300-50 M VR<LH>	C316	87-010-179-080		C-CAP,S 1200P-50 K B
△ C102	87-A10-059-090		CAP,E 3300-75<U>	C321	87-012-142-080		C-CAP,S 0.33-16 Z F
△ C103	87-010-453-090		CAP,E 4700-25 M<LH>	C322	87-012-142-080		C-CAP,S 0.33-16 Z F
△ C103	87-A10-056-090		CAP,E 4700-35 M<U>	C324	87-010-260-080		CAP,E 47-25 SME
△ C104	87-010-453-090		CAP,E 4700-25 M<LH>	C325	87-010-370-080		CAP,E 330-6.3 M SME
△ C104	87-A10-056-090		CAP,E 4700-35 M<U>	C327	87-010-404-080		CAP,E 4.7-50 M SME
				C328	87-010-404-080		CAP,E 4.7-50 M SME
C105	87-012-368-080		C-CAP,S 0.1-50 Z F	C332	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C106	87-012-368-080		C-CAP,S 0.1-50 Z F	C335	87-010-401-080		CAP,E 1-50 M SME
C107	87-012-368-080		C-CAP,S 0.1-50 Z F	C336	87-010-401-080		CAP,E 1-50 M SME
C108	87-012-368-080		C-CAP,S 0.1-50 Z F	C337	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C109	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	C339	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C110	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	C340	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C111	87-010-196-080		C-CAP,S 0.1-25 Z F C2012				

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C351	87-012-140-080		C-CAP,S 470P-50 J CH	C783	87-015-819-080		C-CAP,0.01-50 K B
C352	87-012-140-080		C-CAP,S 470P-50 J CH	C784	87-010-197-080		C-CAP,S 0.01-25 K B
C354	87-010-175-080		C-CAP,S 560P-50 J SL<U>	C785	87-010-400-080		CAP,E 0.47-50 M SME<LH>
C355	87-010-178-080		C-CAP,S 1000P-50 K B<U>	C785	87-010-401-080		CAP,E 1-50 M SME<U>
				C786	87-010-400-080		CAP,E 0.47-50 M SME<LH>
C356	87-010-260-080		CAP,E 47-25 SME				
C357	87-010-197-080		C-CAP,S 0.01-25 K B	C786	87-010-401-080		CAP,E 1-50 M SME<U>
C358	87-010-183-080		C-CAP,S 2700P-50 K B	C787	87-010-184-080		C-CAP,S 3300P-50 K B
C359	87-010-183-080		C-CAP,S 2700P-50 K B	C788	87-010-184-080		C-CAP,S 3300P-50 K B
C360	87-010-183-080		C-CAP,S 2700P-50 K B	C789	87-010-179-080		C-CAP,S 1200P-50 K B
				C790	87-010-179-080		C-CAP,S 1200P-50 K B
C370	87-010-196-080		C-CAP,S 0.1-25 Z F C2012				
C373	87-010-197-080		C-CAP,S 0.01-25 K B	C791	87-010-405-080		CAP,E 10-50 M SME
C374	87-010-197-080		C-CAP,S 0.01-25 K B	C793	87-010-178-080		C-CAP,S 1000P-50 K B
C378	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	C794	87-010-406-080		CAP,E 22-50 M SME
C379	87-010-382-080		CAP,E 22-25 M SME	C795	87-010-596-080		C-CAP,S 0.047-16 K R
				C796	87-010-403-080		CAP,E 3.3-50 M SME
C380	87-010-382-080		CAP,E 22-25 M SME				
C386	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	C797	87-010-182-080		C-CAP,S 2200P-50 K B
C388	87-010-154-080		C-CAP,S 10P-50 D CH	C798	87-010-182-080		C-CAP,S 2200P-50 K B
C421	87-010-401-080		CAP,E 1-50 M SME	C799	87-010-194-080		C-CAP,S 0.047-25 Z F
C422	87-010-401-080		CAP,E 1-50 M SME	C812	87-010-197-080		C-CAP,S 0.01-25 K B
				C813	87-010-197-080		C-CAP,S 0.01-25 K B
C516	87-010-196-080		C-CAP,S 0.1-25 Z F C2012				
C611	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	C814	87-010-197-080		C-CAP,S 0.01-25 K B
C615	87-010-183-080		C-CAP,S 2700P-50 K B	C815	87-010-197-080		C-CAP,S 0.01-25 K B
C619	87-010-263-080		CAP,E 100-10 SME	C816	87-010-197-080		C-CAP,S 0.01-25 K B
C620	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	C819	87-010-197-080		C-CAP,S 0.01-25 K B
				C820	87-010-408-080		CAP,E 47-50 SME
C621	87-010-263-080		CAP,E 100-10 SME				
C622	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	C821	87-010-197-080		C-CAP,S 0.01-25 K B
C623	87-010-194-080		C-CAP,S 0.047-25 Z F	C822	87-010-197-080		C-CAP,S 0.01-25 K B
C629	87-010-196-080		C-CAP,S 0.1-25 Z F	C823	87-010-197-080		C-CAP,S 0.01-25 K B
C646	87-010-322-080		C-CAP,S 100P-50 J CH	C828	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
				C829	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C647	87-010-322-080		C-CAP,S 100P-50 J CH				
C701	87-010-381-080		CAP,E 330-16 SME	C959	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C702	87-010-404-080		CAP,E 4.7-50 M SME	C960	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C703	87-010-197-080		C-CAP,S 0.01-25 K B	C961	87-010-152-080		C-CAP,S 8P-50 D CH
C704	87-010-197-080		C-CAP,S 0.01-25 K B	CF801	87-008-261-010		FLTR,CFSFE10.7MA5
				CF802	87-008-261-010		FLTR,CFSFE10.7MA5
C711	87-010-263-080		CAP,E 100-10 SME				
C712	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	△ F201	87-026-691-080		FUSE,10A 125V 251<U>
C713	87-010-197-080		C-CAP,S 0.01-25 K B	△ F202	87-026-691-080		FUSE,10A 125V 251<U>
C714	87-010-197-080		C-CAP,S 0.01-25 K B	FFB801	A8-72A-290-030		72A-2 FEUNM
C721	87-010-312-080		C-CAP,S 15P-50 J CH	J252	87-A60-024-010		JACK,DIA6.3 BLK ST W/SW KM
				J253	87-099-474-010		JACK,PIN 3P BLK W/SW
C722	87-010-312-080		C-CAP,S 15P-50 J CH				
C723	87-010-178-080		C-CAP,S 1000P-50 K B	J254	87-A60-238-010		TERMINAL,SP 4P (MSC)
C725	87-010-178-080		C-CAP,S 1000P-50 K B	J601	87-A60-419-010		JACK,PIN 4P R/W W/O SW
C727	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	J801	87-A60-202-010		TERMINAL,ANT 4P MSP-154V-02
C728	87-010-248-080		CAP,E 220-10 SME	L201	87-003-383-010		COIL,1UH K
				L202	87-003-383-010		COIL,1UH K
C755	87-010-197-080		C-CAP,S 0.01-25 K B				
C756	87-010-197-080		C-CAP,S 0.01-25 K B	L301	87-A50-049-010		COIL,TRAP 85K(COI)
C757	87-010-318-080		C-CAP,S 47P-50 J CH	L302	87-A50-049-010		COIL,TRAP 85K(COI)
C758	87-010-149-080		C-CAP,S 5P-50 CH	L351	87-007-342-010		COIL,OSC 85KHZ BIAS
C761	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	L601	87-003-231-080		C-COIL,2125 1 UH K ML
				L644	83-XM1-617-080		C-COIL,BK2125 HM601<U>
C762	87-010-197-080		C-CAP,S 0.01-25 K B				
C763	87-010-194-080		C-CAP,S 0.047-25 Z F	L770	87-005-849-080		COIL,10UH K CECS
C765	87-010-197-080		C-CAP,S 0.01-25 K B	L771	87-A50-165-010		COIL,FM DET-N(TOK)
C766	87-010-197-080		C-CAP,S 0.01-25 K B	L772	87-A90-245-010		FLTR,CFAZH-450 (TOK)
C767	87-010-405-080		CAP,E 10-50 M SME	L832	87-005-847-080		COIL,2.2UH K CECS
				L981	87-NF4-650-010		COIL,AM PACK4N(TOK)
C768	87-010-197-080		C-CAP,S 0.01-25 K B				
C769	87-010-408-080		CAP,E 47-50 SME	△ PR201	87-026-681-080		PROTECTOR,5A 491 SERIES<LH>
C770	87-015-835-080		C-CAP,0.047-50 K B	△ PR202	87-026-681-080		PROTECTOR,5A 491 SERIES<LH>
C771	87-010-407-080		CAP,E 33-50 SME	R123	87-022-200-080		RES,M/F 0.56-1 W J<U>
C772	87-010-194-080		C-CAP,S 0.047-25 Z F	R229	87-A00-257-080		RES,M/F 0.15-1W J<LH>
				R230	87-A00-257-080		RES,M/F 0.15-1W J<LH>
C773	87-010-196-080		C-CAP,S 0.1-25 Z F C2012				
C774	87-010-263-080		CAP,E 100-10 SME	R231	87-A00-262-080		RES,M/F 0.15-2W J<U>
C775	87-010-404-080		CAP,E 4.7-50 M SME	R232	87-A00-262-080		RES,M/F 0.15-2W J<U>
C776	87-010-197-080		C-CAP,S 0.01-25 K B	RY101	87-045-389-010		RELAY,12V OSA-SS-212DM5
C777	87-010-400-080		CAP,E 0.47-50 M SME	RY201	87-045-382-010		RELAY,12V OUAZ-SH-112L<LH>
				SFR301	87-024-438-080		SFR,220K H RH063MC
C778	87-010-401-080		CAP,E 1-50 M SME				
C779	87-010-401-080		CAP,E 1-50 M SME	SFR302	87-024-438-080		SFR,220K H RH063MC
C780	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	SFR303	87-024-438-080		SFR,220K H RH063MC
C781	87-010-405-080		CAP,E 10-50 M SME	SFR304	87-024-438-080		SFR,220K H RH063MC
C782	87-010-405-080		CAP,E 10-50 M SME	SFR351	87-024-436-080		SFR,47K H RH063MC
				SFR352	87-024-436-080		SFR,47K H RH063MC

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
TH201	87-A90-221-080		C-THMS,100K<LH>	C666	87-010-319-080		C-CAP,S 56P-50 J CH<LH>
TH202	87-A90-221-080		C-THMS,100K<LH>	C670	87-010-263-040		CAP,E 100-10 M SME<LH>
W001	84-MA1-683-110		F-CABLE,7P-2.5				
X721	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309				
				C671	87-010-196-080		C-CAP,S 0.1-25 Z F C2012<LH>
				C701	87-010-260-080		CAP,E 47-25 SME
				C702	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
				C703	87-010-374-080		CAP,E 47-10 M SME
				C704	87-010-992-080		C-CAP,S 0.047-25 K B MK212
FRONT C.B							
	85-MA7-611-010		CONN ASSY,10P,MECHA				
	88-914-231-110		FF-CABLE,14P 1.25 230 MM	C705	87-010-401-080		CAP,E 1-50 M SME
C101	87-010-404-080		CAP,E 4.7-50 M SME	C706	87-010-184-080		C-CAP,S 3300P-50 K B
C102	87-010-404-080		CAP,E 4.7-50 M SME	C707	87-010-592-080		C-CAP,S 0.022-16 K R
C103	87-010-408-080		CAP,E 47-50 SME	C708	87-016-463-080		C-CAP, 0.33-16 K B C3216
				C709	87-016-081-080		C-CAP,S 0.1-16 K R
C104	87-018-208-080		CAP,TC U 0.047-50 Z F UP050				
C151	87-010-401-080		CAP,E 1-50 M SME	C710	87-016-463-080		C-CAP, 0.33-16 K B C3216
C152	87-010-178-080		C-CAP,S 1000P-50 K B	C711	87-010-592-080		C-CAP,S 0.022-16 K R
C153	87-010-194-080		C-CAP,S 0.1-25 Z F C2012	C712	87-010-405-080		CAP,E 10-50 M SME
C160	87-010-401-080		CAP,E 1-50 M SME	C713	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
				C714	87-010-184-080		C-CAP,S 3300P-50 K B
C162	87-010-196-080		C-CAP,S 0.1-25 Z F C2012				
C163	87-010-400-080		CAP,E 0.47-50 M SME	C715	87-010-401-080		CAP,E 1-50 M SME
C173	87-010-316-080		C-CAP,S 33P-50 J CH	C716	87-010-992-080		C-CAP,S 0.047-25 K B MK212
C174	87-010-194-080		C-CAP,S 0.047-25 Z F	FB601	87-008-372-080		FLTR,EMIBL01 RN1
C175	87-010-320-080		C-CAP,S 68P-50 J CH	FL101	87-MA7-655-010		FL,BJ543GK
				J601	87-099-659-010		JACK,6.3 0
C176	87-010-196-080		C-CAP,S 0.1-25 Z F C2012				
C178	87-010-198-080		C-CAP,S 0.022-25 K B	J602	87-099-659-010		JACK,6.3 0
C179	87-010-198-080		C-CAP,S 0.022-25 K B	L651	87-005-448-080		COIL,220UH K FLR50<LH>
C180	87-010-312-080		C-CAP,S 15P-50 J CH	LED241	87-017-733-080		LED,SEL1250SMTPS
C191	87-010-405-080		CAP,E 10-50 M SME	LED242	87-017-733-080		LED,SEL1250SMTPS
C192	87-010-178-080		C-CAP,S 1000P-50 K B<LH>	LED243	87-017-733-080		LED,SEL1250SMTPS
C192	87-012-145-080		C-CAP,S 270P-50 CH<U>	LED244	87-017-733-080		LED,SEL1250SMTPS
C193	87-018-209-080		CAP,TC U 0.1-50 Z F UP050	LED245	87-017-733-080		LED,SEL1250SMTPS
C201	87-010-263-080		CAP,E 100-10 SME	S301	87-A90-095-080		SW,TACT EVQ11G04M
C202	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	S302	87-A90-095-080		SW,TACT EVQ11G04M
C203	87-010-248-080		CAP,E 220-10 SME	S303	87-A90-095-080		SW,TACT EVQ11G04M
C401	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	S304	87-A90-095-080		SW,TACT EVQ11G04M
C402	87-012-158-080		C-CAP,S 390P-50 J CH GRM	S305	87-A90-095-080		SW,TACT EVQ11G04M
C403	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	S306	87-A90-095-080		SW,TACT EVQ11G04M
C404	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	S307	87-A90-095-080		SW,TACT EVQ11G04M
C405	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	S308	87-A90-095-080		SW,TACT EVQ11G04M
C406	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	S309	87-A90-095-080		SW,TACT EVQ11G04M
C407	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	S317	87-A90-095-080		SW,TACT EVQ11G04M
C501	87-010-382-080		CAP,E 22-25 M SME	S318	87-A90-095-080		SW,TACT EVQ11G04M
C502	87-010-384-080		CAP,E 100-25 M SME	S323	87-A90-095-080		SW,TACT EVQ11G04M
C601	87-010-405-040		CAP,E 10-50 M SME	S324	87-A90-095-080		SW,TACT EVQ11G04M
C602	87-010-186-080		C-CAP,S 4700P-50 K B	S325	87-A90-095-080		SW,TACT EVQ11G04M
C603	87-010-405-040		CAP,E 10-50 M SME	S326	87-A90-095-080		SW,TACT EVQ11G04M
C604	87-010-382-080		CAP,E 22-25 M SME	S327	87-A90-095-080		SW,TACT EVQ11G04M
C605	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	S328	87-A90-095-080		SW,TACT EVQ11G04M
C606	87-010-248-040		CAP,E 220-10 M SME	S329	87-A90-095-080		SW,TACT EVQ11G04M
C607	87-010-545-040		CAP,E 0.22-50 M SME	S330	87-A90-095-080		SW,TACT EVQ11G04M<LH>
C608	87-010-322-080		C-CAP,S 100P-50 J CH	S331	87-A90-095-080		SW,TACT EVQ11G04M<LH>
C609	87-010-321-080		C-CAP,S 82P-50 J CH	S332	87-A90-095-080		SW,TACT EVQ11G04M
C610	87-010-196-080		C-CAP,S 0.1-25 Z F C2012	S333	87-A90-095-080		SW,TACT EVQ11G04M
C612	87-010-176-080		C-CAP,S 680P-50 J SL	S334	87-A90-095-080		SW,TACT EVQ11G04M<LH>
C613	87-010-322-080		C-CAP,S 100P-50 J CH	S335	87-A90-095-080		SW,TACT EVQ11G04M<LH>
C614	87-010-177-080		C-CAP,S 820P-50 J SL	S336	87-A90-095-080		SW,TACT EVQ11G04M<LH>
C651	87-010-183-080		C-CAP,S 2700P-50 K B<LH>	SFR501	87-024-169-080		SFR,2.2K H RH0638C
C652	87-010-183-080		C-CAP,S 2700P-50 K B<LH>	SW190	87-A90-461-010		SW,RTRY EVQVBCFK124B
C653	87-010-401-040		CAP,E 1-50 M SME<LH>	VR601	87-MA7-750-010		VR,SL 10KA<U>
C654	87-010-401-040		CAP,E 1-50 M SME<LH>	X171	87-A70-070-080		VIB,CER 5.76MHZ CRHF
C655	87-010-374-080		CAP,E 47-10 M SME<LH>				
C656	87-010-196-080		C-CAP,S 0.1-25 Z F C2012<LH>				
C657	87-010-196-080		C-CAP,S 0.1-25 Z F C2012<LH>	CD KEY C.B			
C658	87-010-181-080		C-CAP,S 1800P-50 K B<LH>	S310	87-A90-095-080		SW,TACT EVQ11G04M
C659	87-010-197-080		C-CAP,S 0.01-25 K B<LH>	S311	87-A90-095-080		SW,TACT EVQ11G04M
C660	87-010-213-080		C-CAP,S 0.015-25 K B<LH>	S312	87-A90-095-080		SW,TACT EVQ11G04M
C661	87-010-213-080		C-CAP,S 0.015-25 K B<LH>	S313	87-A90-095-080		SW,TACT EVQ11G04M
C662	87-010-180-080		C-CAP,S 1500P-50 K B<LH>	S314	87-A90-095-080		SW,TACT EVQ11G04M
C663	87-010-197-080		C-CAP,S 0.01-25 K B<LH>	S315	87-A90-095-080		SW,TACT EVQ11G04M
C664	87-012-393-080		C-CAP,S 0.22-16 K W5R<LH>	S316	87-A90-095-080		SW,TACT EVQ11G04M
C665	87-010-319-080		C-CAP,S 56P-50 J CH<LH>				

REF. NO. PART NO. KANRI NO. DESCRIPTION

AC1 C.B

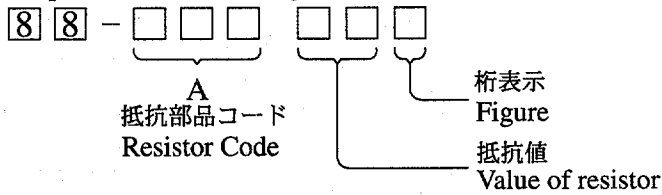
△ F101	87-035-190-010	FUSE, 2A 250V T 218<LH>
△ F101	87-035-490-010	FUSE, 5A 125V T 237<U>
△ FC001	87-033-147-010	FUSE CLAMP, MT20<LH>
△ FC1	87-A90-505-080	FUSE CLAMP, PT00351<U>
△ FC002	87-033-147-010	FUSE CLAMP, MT20<LH>
△ FC2	87-033-213-010	FUSE CLAMP, PT00351<U>
△ PT101	87-MA7-647-010	PT, 7MA7 LH<LH>
△ PT101	87-MA7-646-010	PT, 7MA7 U<U>
△ SW101	87-A90-165-010	SW, SL 1-2-3 SWS2301<LH>
△ T001	82-304-743-010	TERMINAL, 1P<LH>
△ T1	87-A60-317-010	TERMINAL, 1P MSC<U>
△ T002	82-304-743-010	TERMINAL, 1P<LH>
△ T2	87-A60-317-010	TERMINAL, 1P MSC<U>

AC2 C.B

△ F1	87-026-691-080	FUSE, 10A 125V 251<U>
△ F2	87-026-691-080	FUSE, 10A 125V 251<U>
△ F5	87-026-691-080	FUSE, 10A 125V 251<U>
△ F6	87-026-691-080	FUSE, 10A 125V 251<U>
△ PR001	87-026-682-080	PROTECTOR, 10A 491SERIES<LH>
△ PR002	87-026-682-080	PROTECTOR, 10A 491SERIES<LH>
△ PR005	87-026-682-080	PROTECTOR, 10A 491SERIES<LH>
△ PR006	87-026-682-080	PROTECTOR, 10A 491SERIES<LH>

○チップ抵抗部品コード/CHIP RESISTOR PART CODE

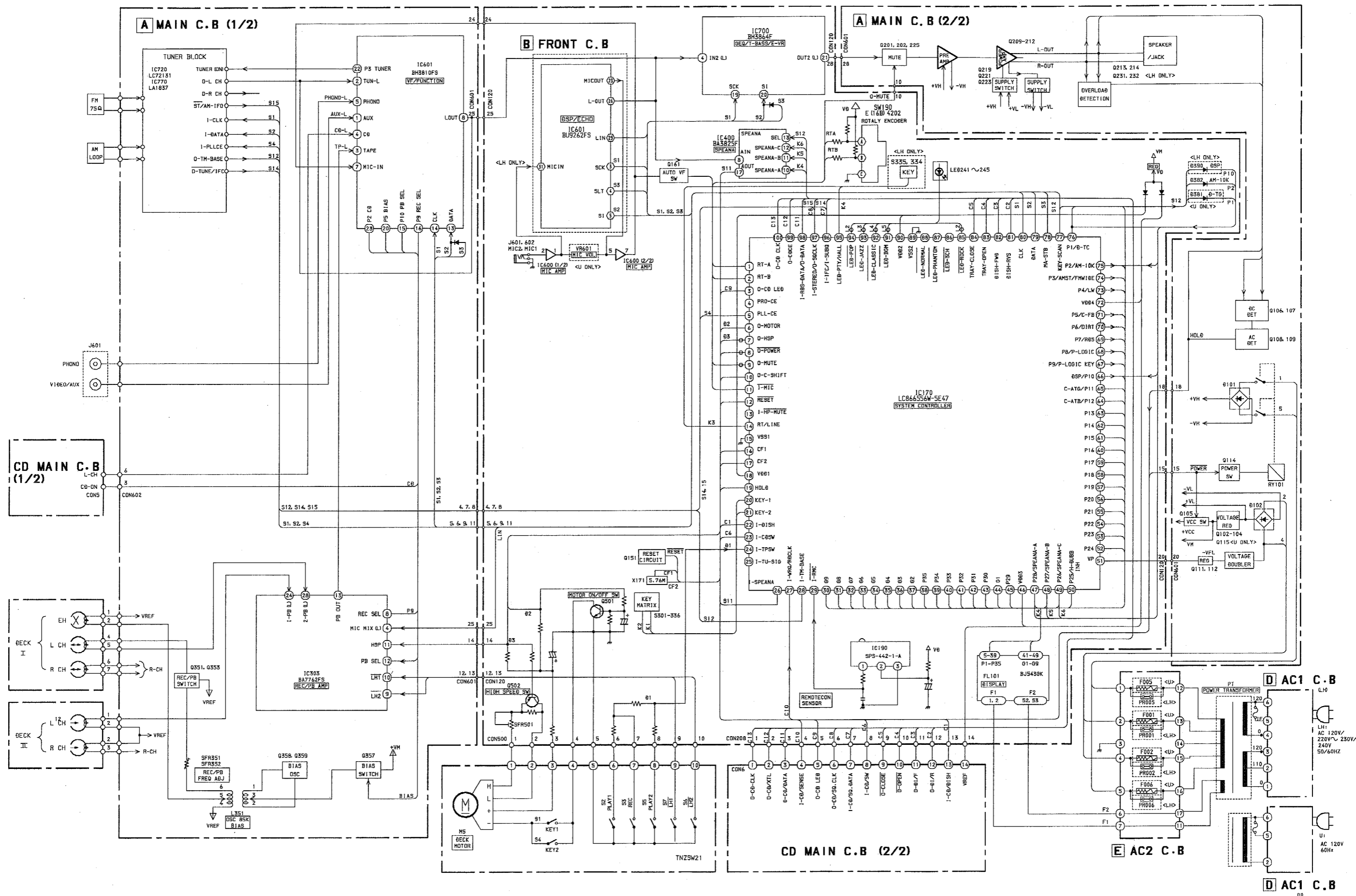
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

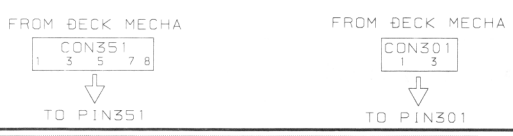
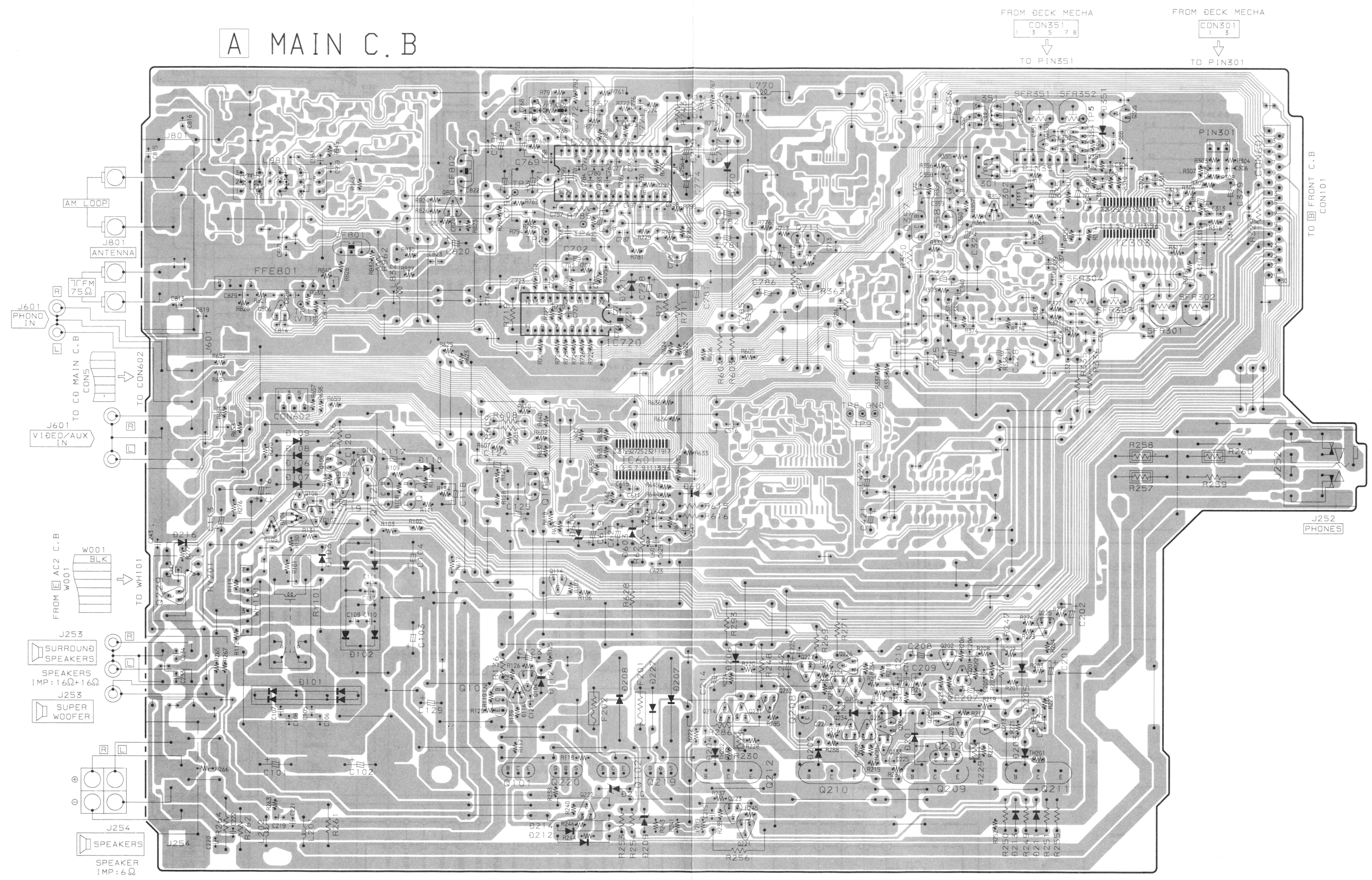
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法/Dimensions (mm)			抵抗コード : A Resistor Code : A	
				外形/Form	L	W		t
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

BLOCK DIAGRAM (MAIN / FRONT)



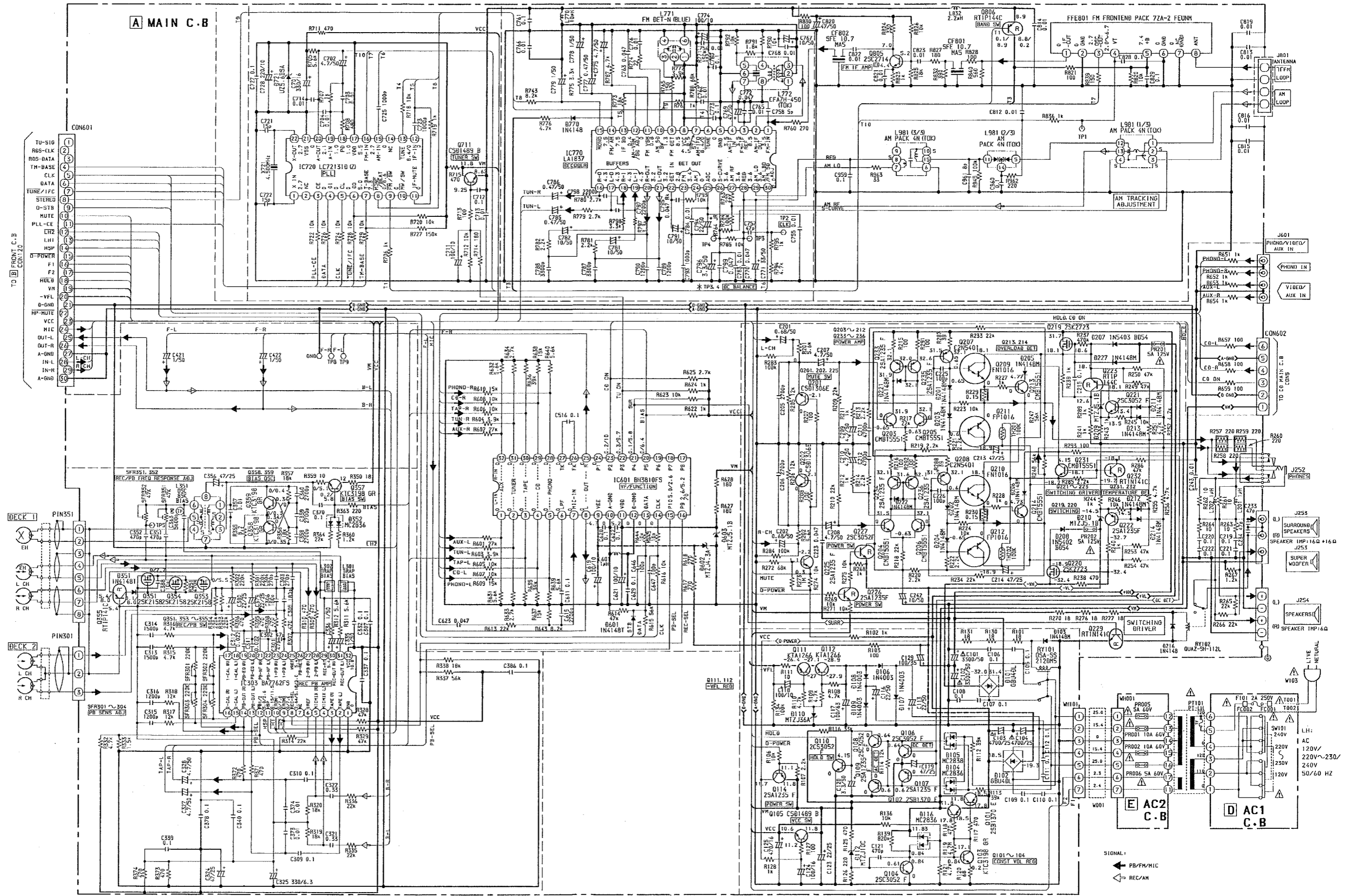
A
B
C
D
E
F
G
H
I
J

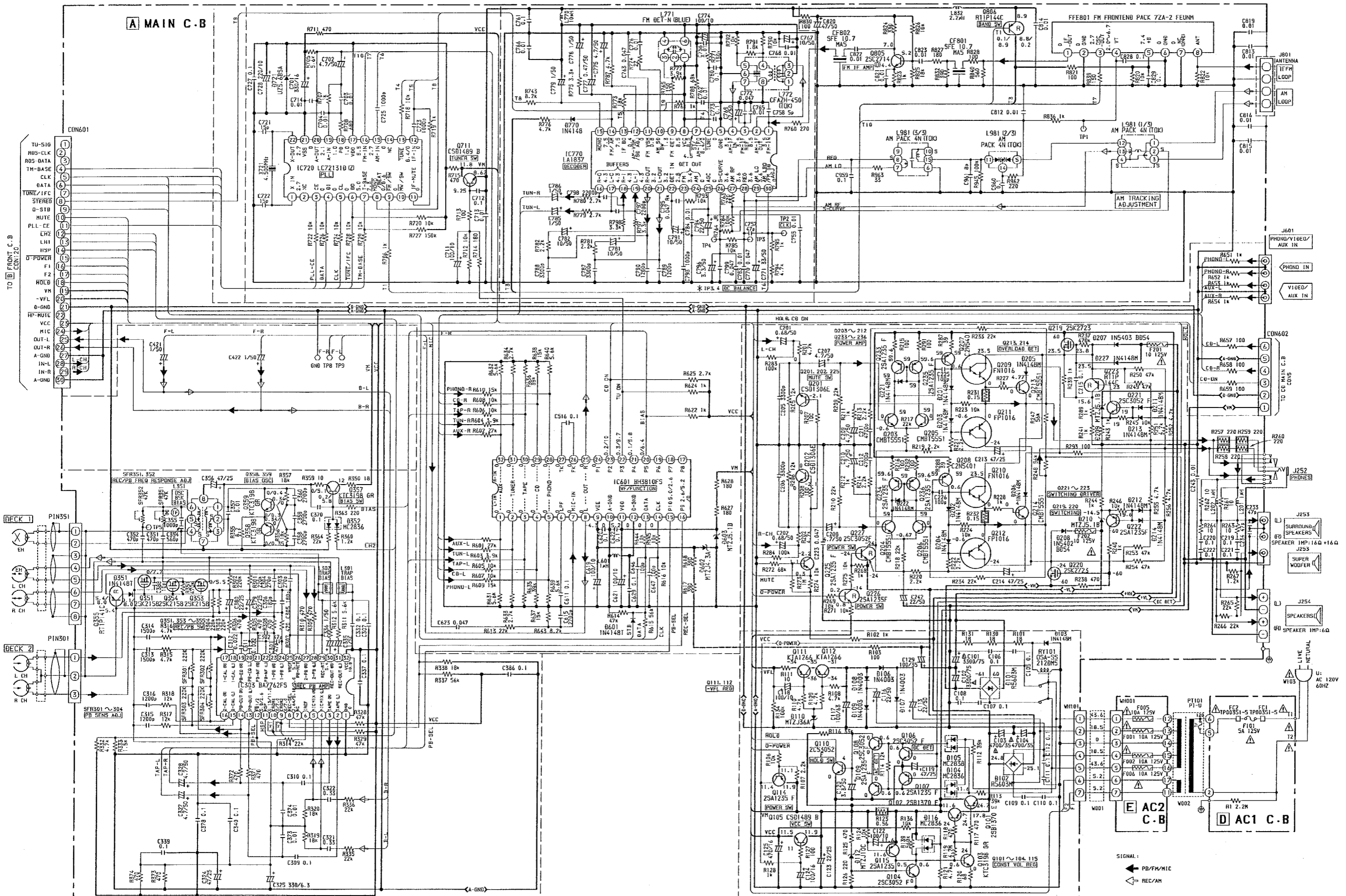
A MAIN C. B

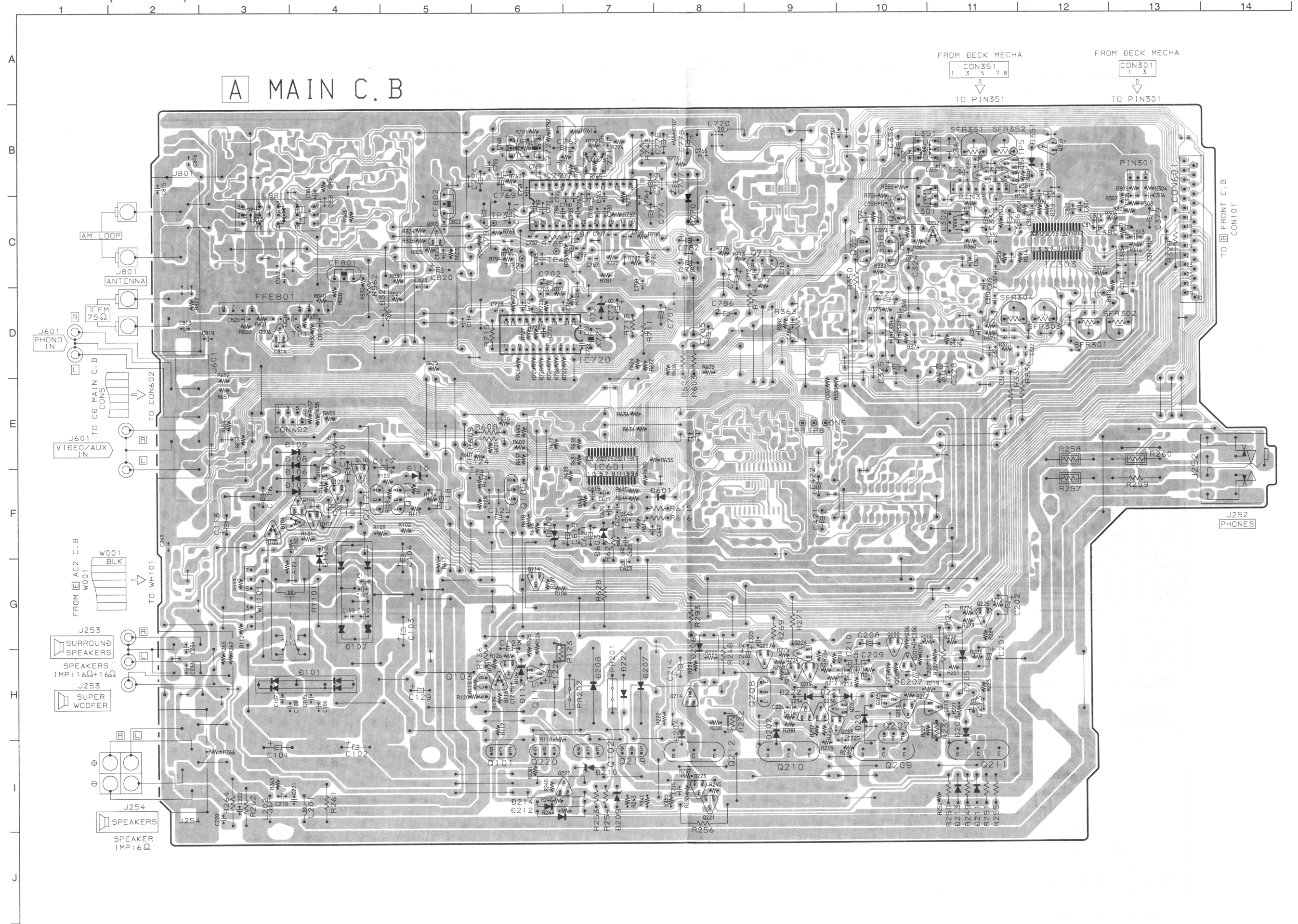


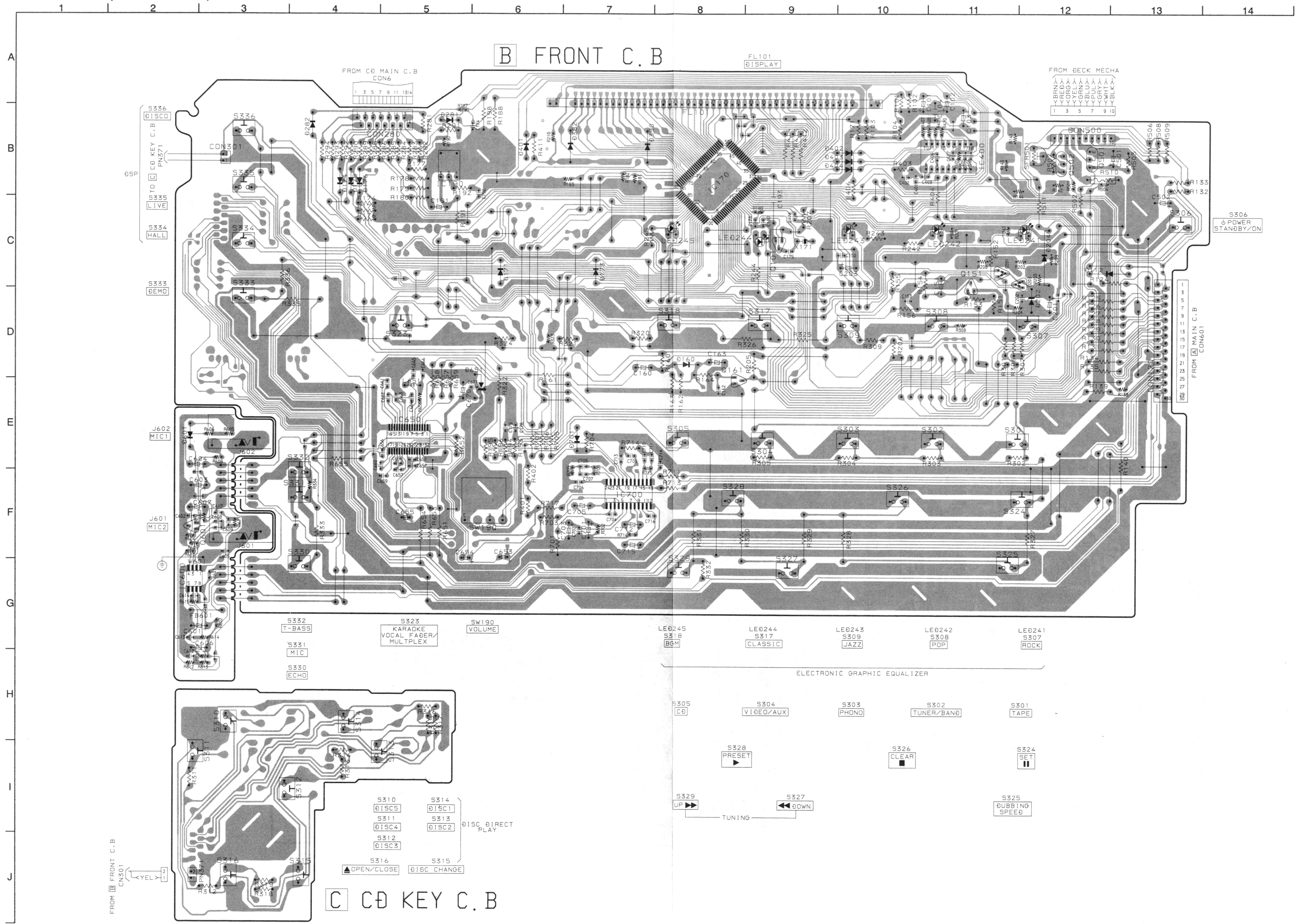
TO FRONT C. B
CON101

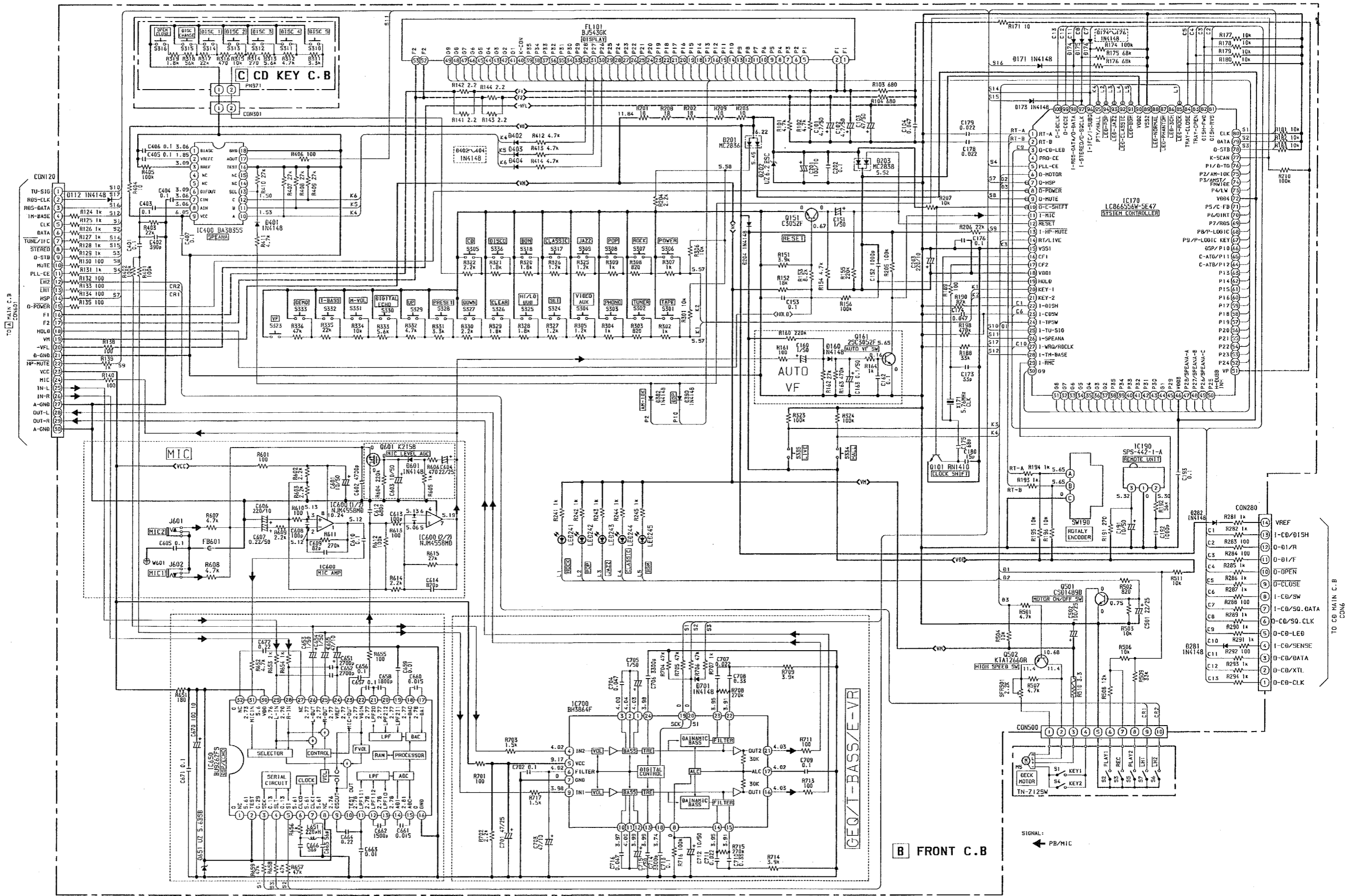
J252 PHONES

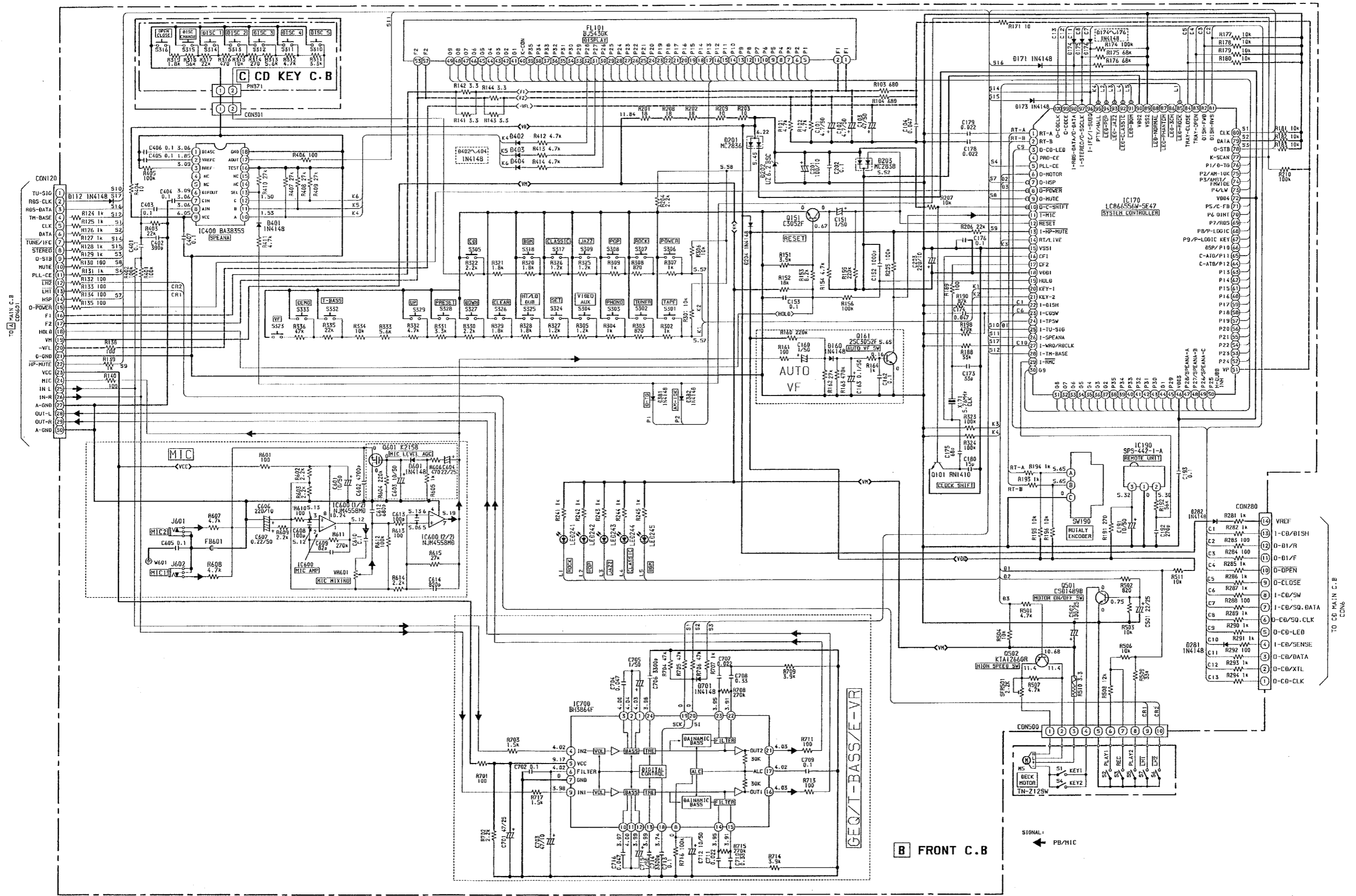


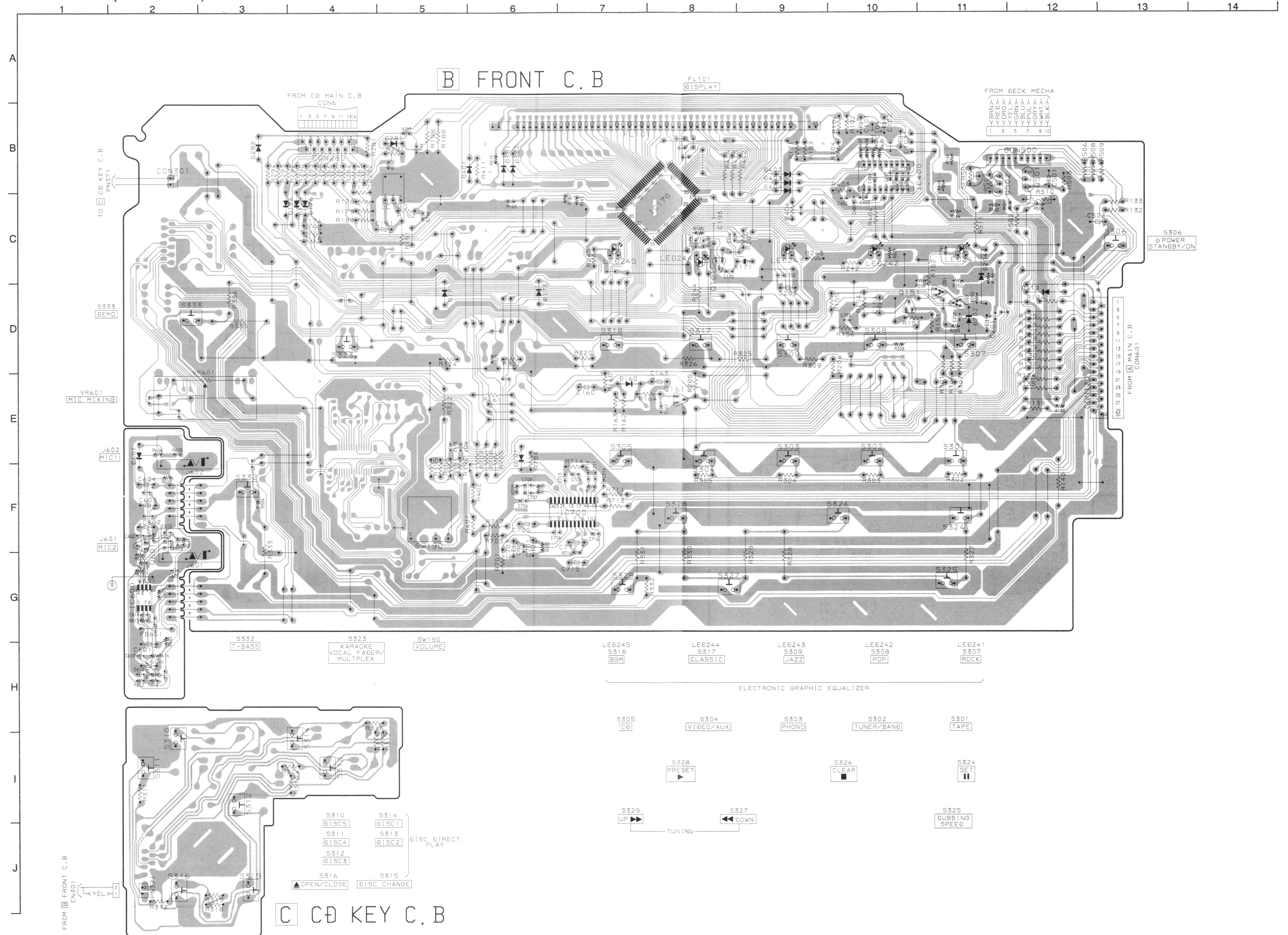




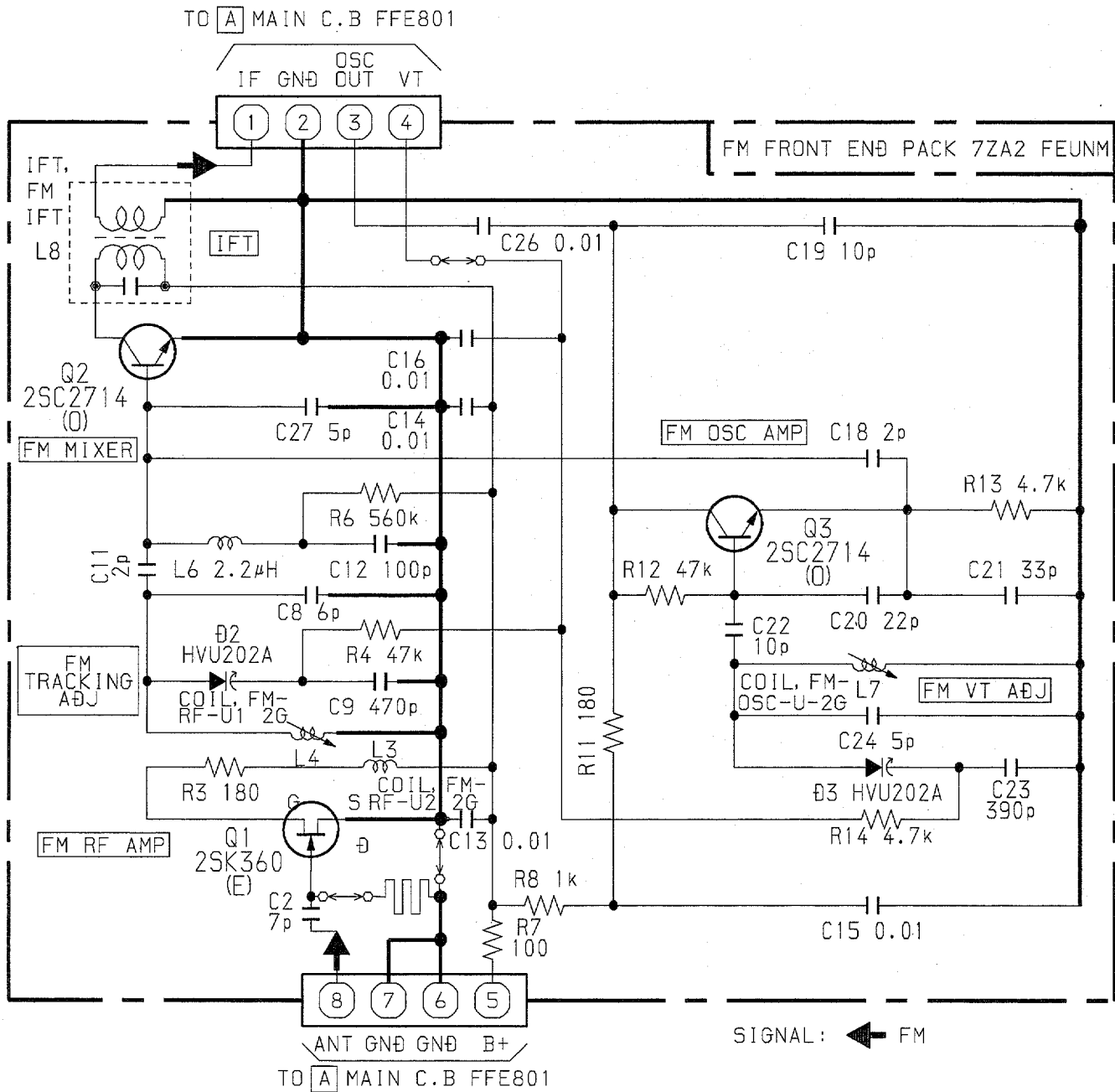








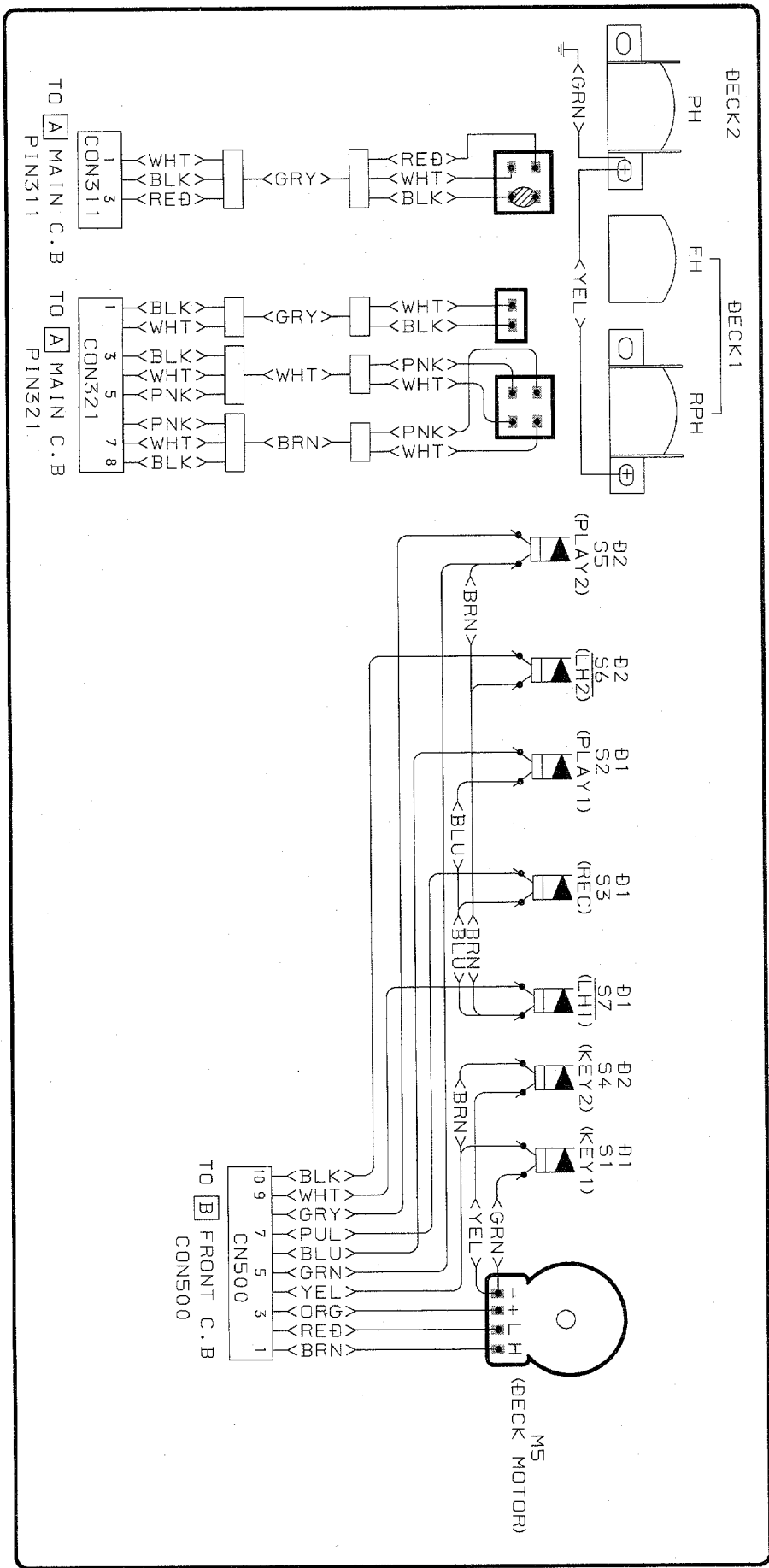
SCHEMATIC DIAGRAM - 5 (7ZA-2 TUNER FRONT END)

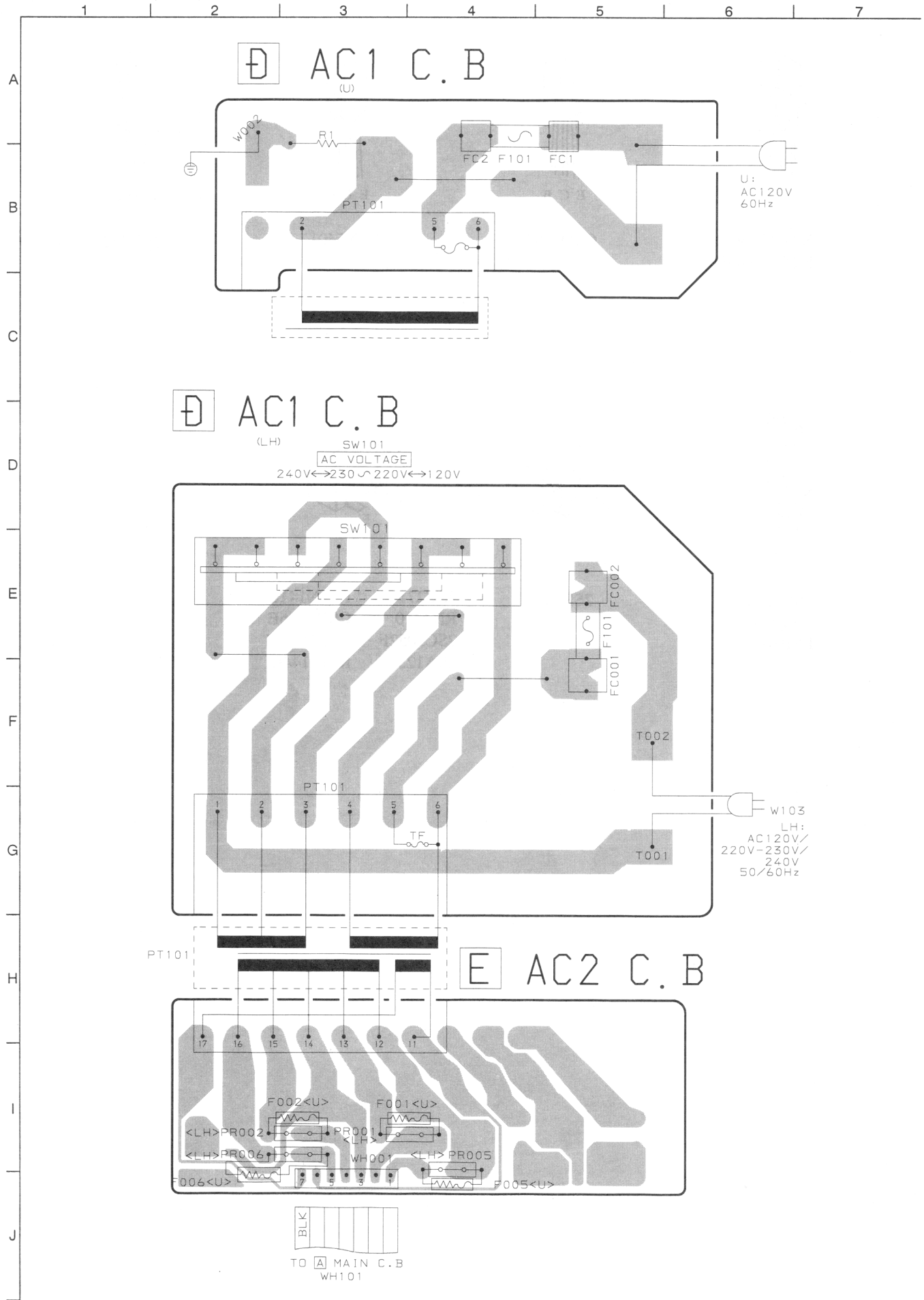


WIRING - 5 (DECK)

1 2 3 4 5 6 7

A B C D E F G H I J





TRANSISTOR ILLUSTRATION



E C B

KTA1266GR
KTC3198GR



E C B

CSD1489B



E B C

C2N5401



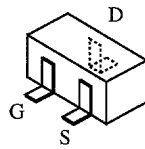
G D S

2SK2723



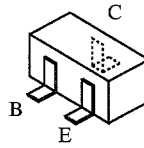
B C E

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FN1016
FP1016



D
G S

2SK2158

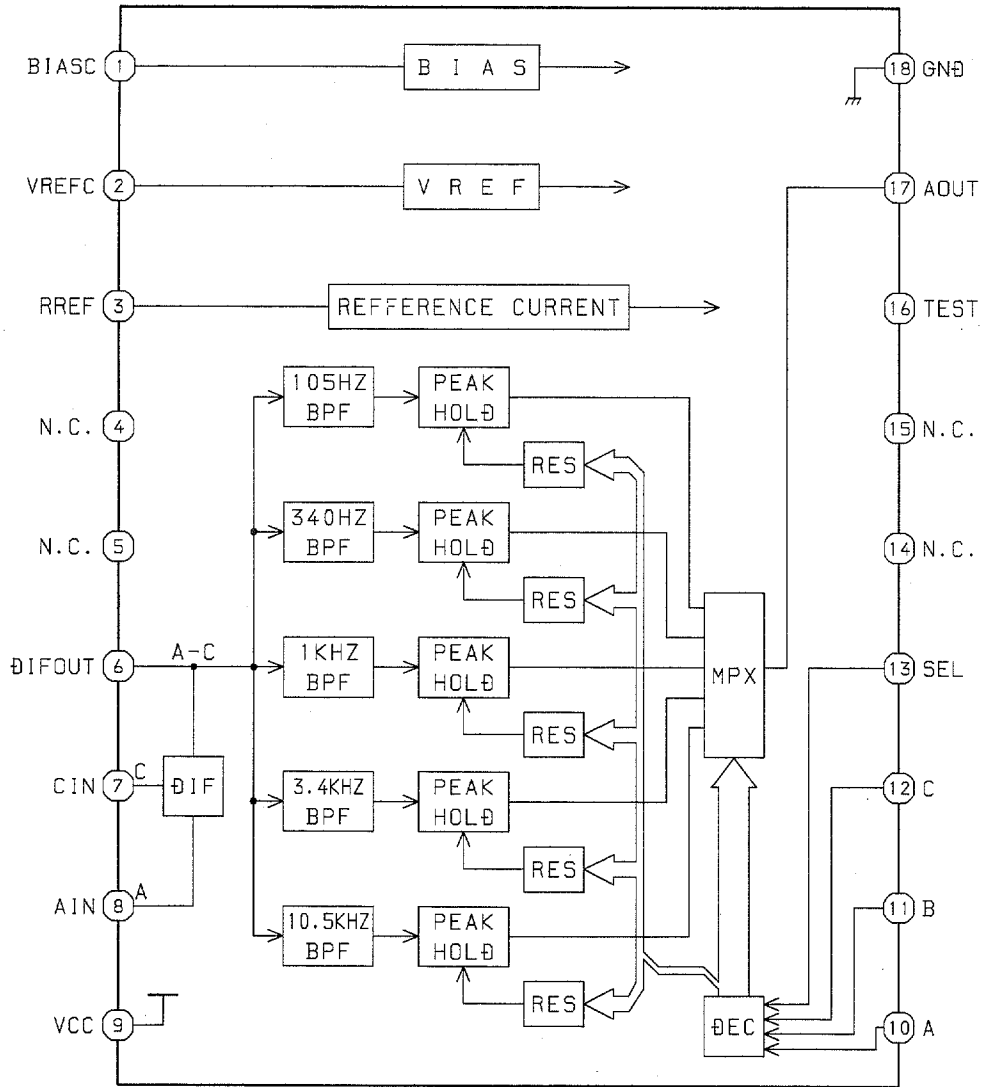


C
B E

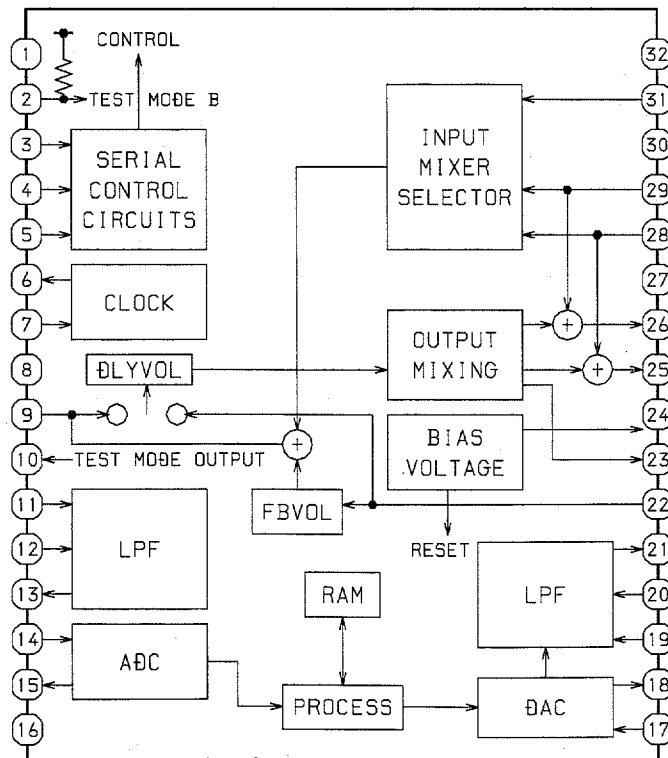
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RN1410 CSD1306E
2SC3052F CMBT5551
2SA1235F RT1P144C

IC BLOCK DIAGRAM

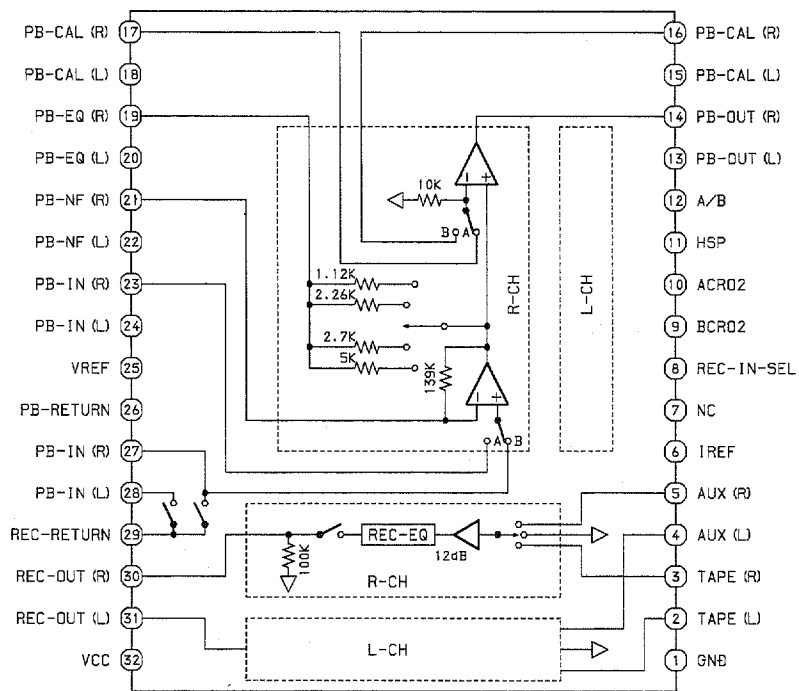
IC, BA3835S



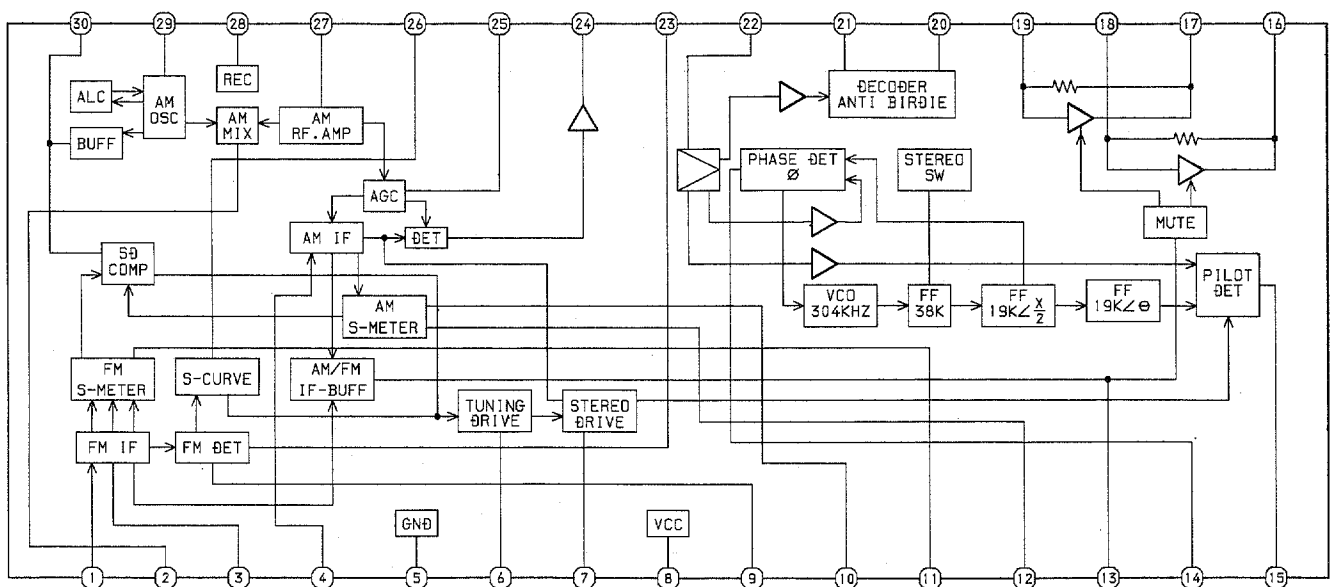
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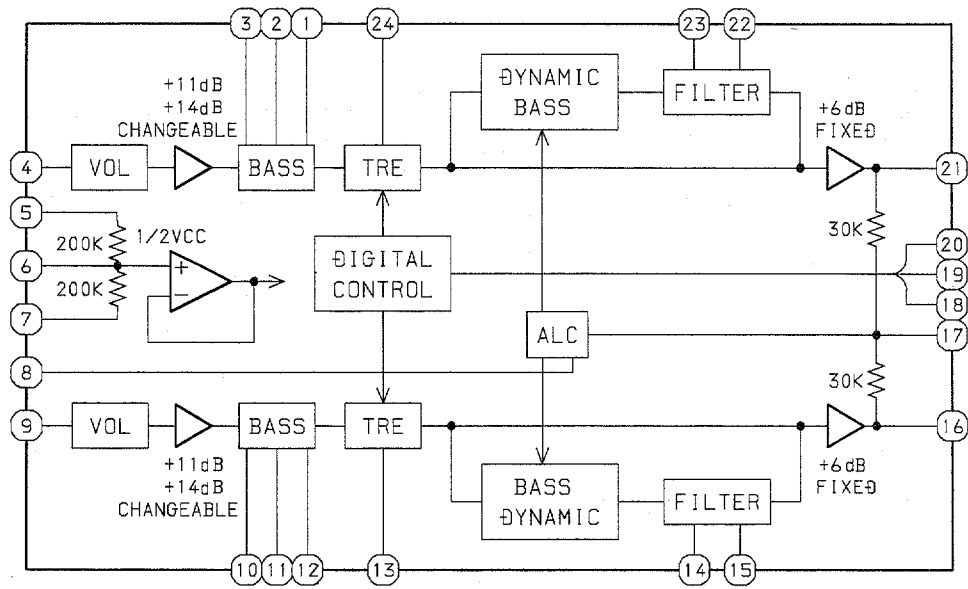
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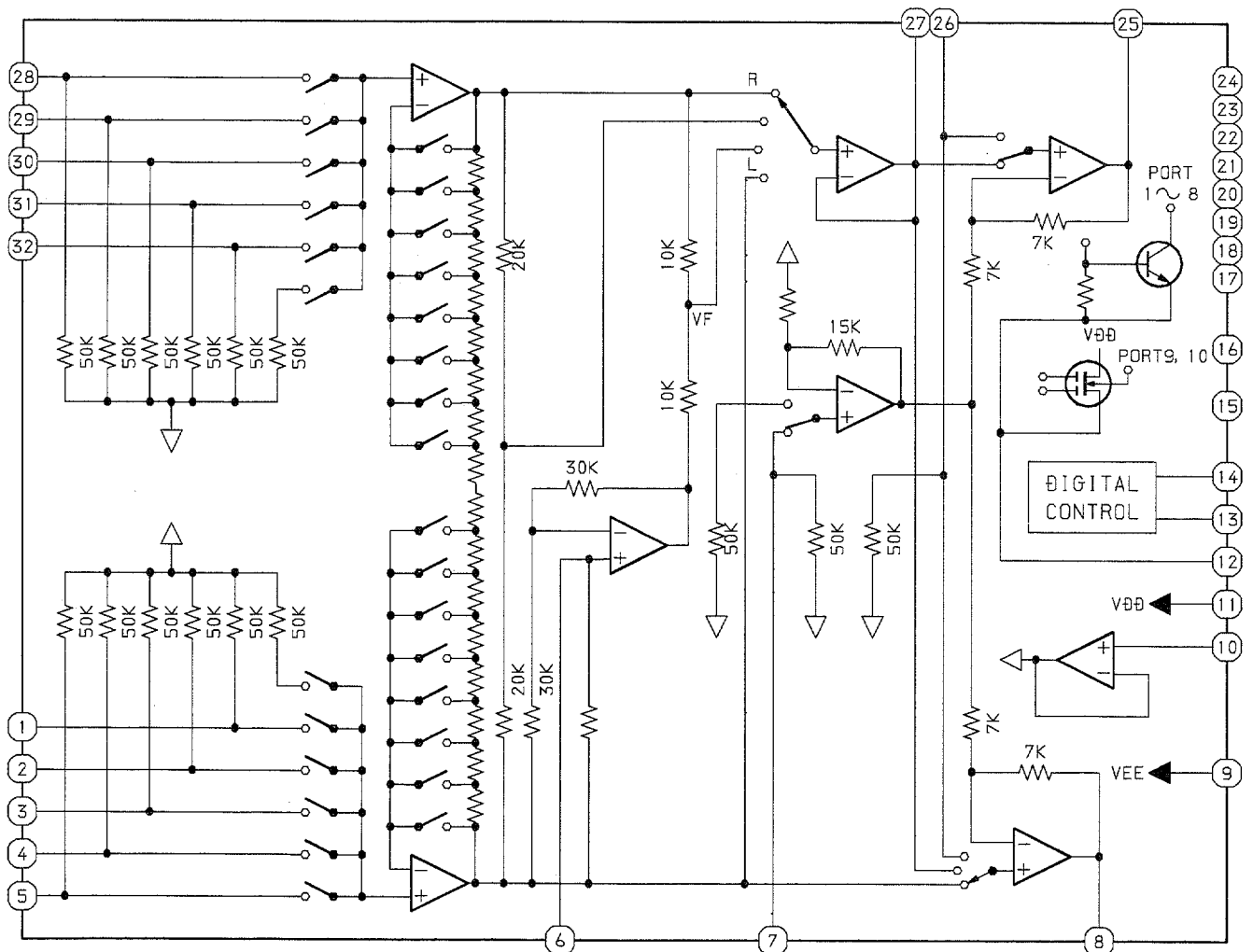
IC, LA1837



IC, BH3864F

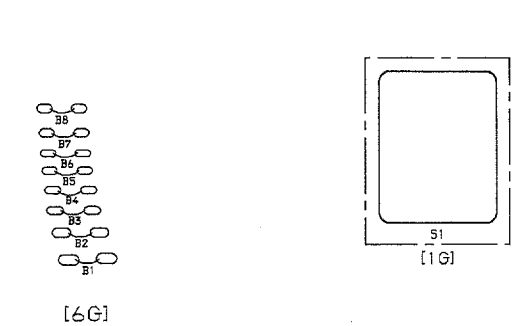
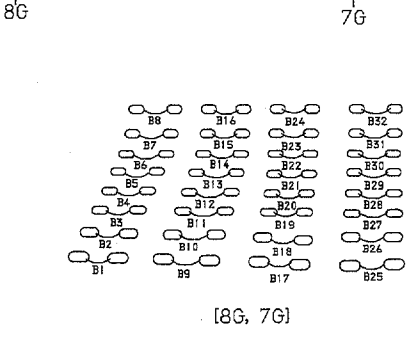
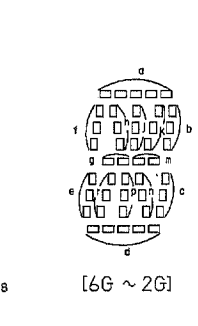
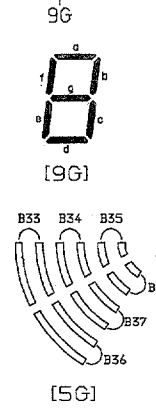
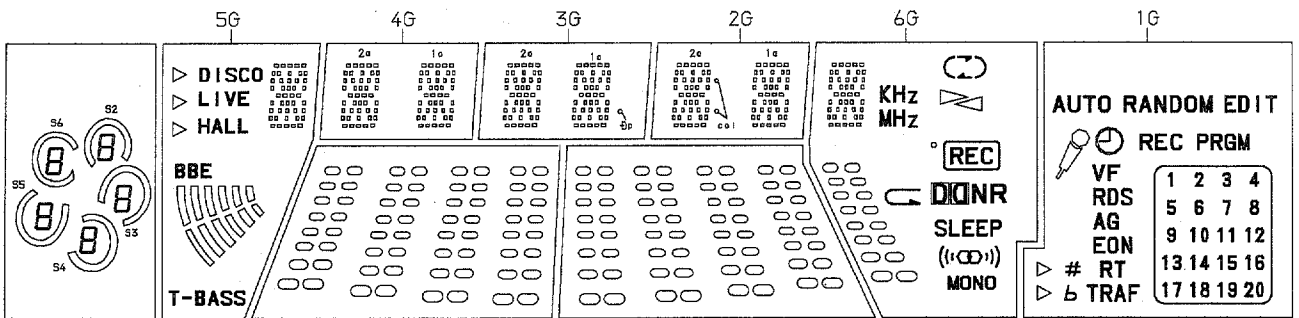


IC, BH3810FS








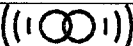









FL GRID ASSIGNMENT & ANODE CONNECTION

GRID ASSIGNMENT



ANODE CONNECTION

	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	S4	B8	B8	1d	1d	1d	1d	1d	RANDOM
P2	3e	B16	B16	1n	1n	1n	1n	1n	PRGM
P3	3c	B24	B24	1p	1p	1p	1p	1p	EDIT
P4	3g	B32	B32	1r	1r	1r	1r	1r	S1
P5	3f	B7	B7	1e	1e	1e	1e	1e	1
P6	3b	B15	B15	1c	1c	1c	1c	1c	2
P7	3a, 3d	B23	B23	1g	1g	1g	1g	1g	3
P8	S5	B31f	B31	1m	1m	1m	1m	1m	4
P9	4e	B6	B6	1f	1f	1f	1f	1f	5
P10	4c	B14	B14	1b	1b	1b	1b	1b	6
P11	4g	B22	B22	1k	1k	1k	1k	1k	7
P12	4f	B30	B30	1j	1j	1j	1j	1j	8
P13	4b	B5	B5	1h	1h	1h	1h	1h	9
P14	4a, 4d	B13	B13	1a	1a	1a	1a	1a	10
P15	S2	B21	B21	 NR	B35	-	0p	col (F)	11
P16	1a, 1d	B29	B29		B34	-	-	col (L)	12
P17	1b	B4	B4		B33	2d	2d	2d	13
P18	1f	B12	B12	○	BBE	2n	2n	2n	14
P19	1g	B20	B20		B38	2p	2p	2p	15
P20	1c	B28	B28	B8	B37	2r	2r	2r	16
P21	1e	B3	B3	B7	B36	2e	2e	2e	17
P22	S6	B11	B11	B6	T-BASS	2c	2c	2c	18
P23	5a, 5d	B19	B19	B5	 (HALL)	2g	2g	2g	19
P24	5f	B27	B27	B4	 (LIVE)	2m	2m	2m	20
P25	5g	B2	B2	B3	 (DISCO)	2f	2f	2f	RDS
P26	5g	B10	B10	B2	DISCO LIVE HALL	2b	2b	2b	AG
P27	5c	B18	B18	B1	-	2k	2k	2k	EON
P28	5e	B26	B26		-	2j	2j	2j	RT
P29	S3	B1	B1	MONO	-	2h	2h	2h	TRAF
P30	2a, 2d	B9	B9		-	2a	2a	2a	REC
P31	2b	B17	B17		-	-	-	-	
P32	2f	B25	B25	MHz	-	-	-	-	 VF
P33	2g	-	-	KHz	-	-	-	-	AUTO
P34	2c	-	-		-	-	-	-	 (b)
P35	2e	-	-	SLEEP	-	-	-	-	 (#)
P36	-	-	-	-	-	-	-	-	b #

IC DESCRIPTION

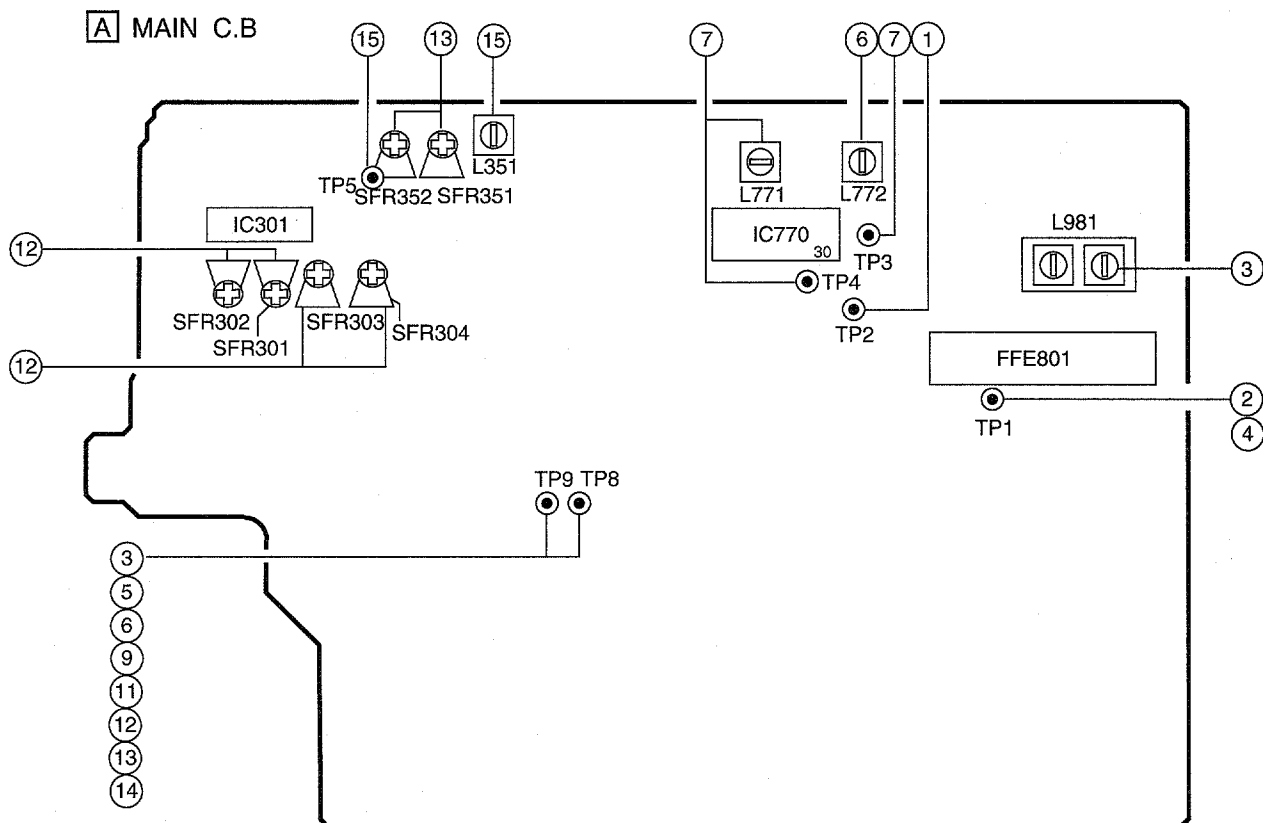
IC, LC866556W-5E47

Pin No.	Pin Name	I/O	Description
1	RT-A	I	Rotary encoder A input.
2	RT-B	I	Rotary encoder B input.
3	O-CD-LED	O	CD flash window ON/OFF output.
4	PRO-CE	O	Prologic IC chip enable output.(Not used)
5	PLL-CE	O	PLL (LC72131) IC chip enable output.
6	O-MOTOR	O	Deck motor ON/OFF output.
7	O-HSP	O	Tape deck motor high speed ON/OFF output.
8	O-POWER	O	System power supply ON/OFF output.
9	O-MUTE	O	System mute ON/OFF output.
10	O-C-SHIFT	O	MICON clock shift ON/OFF output.
11	I-MIC	I	Microphone input for Auto VF display.
12	RESET	I	Reset input.
13	I-HP-MUTE	I	Headphone insert detect input. Active : "H".
14	RT/LIVE	I	Display radio text (RDS) / Live sound effect (DSP) key input
15	VSS 1	-	GND.
16	CF 1	-	5.76MHz oscillator circuit.
17	CF 2	-	
18	VDD 1	-	Power supply input.
19	HOLD	I	Supply voltage hold detect A/D input.
20	KEY-1	I	KEY input.(A/D)
21	KEY-2	I	
22	I-DISH	I	CD turntable photo sensor A/D converter input.
23	I-CDSW	I	CD mechanical switch A/D converter input.
24	I-TPSW	I	Tape mechanical switch A/D converter input.
25	I-TU-SIG	I	Tuner signal detect input.
26	I-SPEANA	I	A/D input for spectrum analyzer display.
27	I-WRQ/RDCLK	I	CD WRQ input / Tuner RDS clock input.
28	I-TM-BASE	I	Reference clock input for timer watch.
29	I-RMC	I	System remote control signal input.
30~37	G9~G2	O	FL grid output G9~G2 .
38~43	P35~P30	O	FL segment output P35~P30.
44	G1	O	FL grid output G1.
45	P29	O	FL segment output P29.
46	VDD3	-	Power supply input.
47	P28/SPEANA-A	O	FL segment P28 output / Spectrum analyzer band switching output.
48	P27/SPEANA-B	O	FL segment P27 output / Spectrum analyzer band switching output.
49	P26/SPEANA-C	O	FL segment P26 output / Spectrum analyzer band switching output.
50	P25/H-DUBB INH	I/O	FL segment P25 output / High dubbing inhibit input to diode.
51	VP	-	Power supply input for FL display.
52~63	P24~P13	O	FL segment output P13~P24.
64	P12/C-ATB	I/O	FL segment P12 output / C-ATB diode detect input.
65	P11/C-ATG	I/O	FL segment P11 output / C-ATG diode detect input .

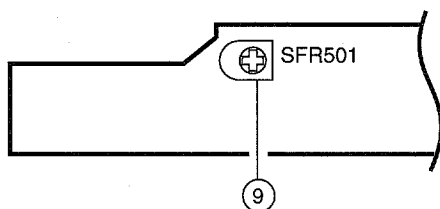
Pin No.	Pin Name	I/O	Description
66	P10/DSP	I/O	FL segment P10 output / DSP diode detect input.
67	P9/P-LOGIC KEY	I/O	FL segment P9 output / Prologic key diode detect input.
68	P8/P-LOGIC	I/O	FL segment P8 output / PROLOGIC diode detect input.
69	P7/RDS	I/O	FL segment P7 output / RDS diode detect input.
70	P6/OIRT	I/O	FL segment P6 output / OIRT diode detect input.
71	P5/C-FB	I/O	FL segment P5 output / C-FB diode detect input.
72	VDD4	-	Power supply input.
73	P4/LW	I/O	FL segment P4 output / LW diode detect input.
74	P3/AMST/FMWIDE	I/O	FL segment P3 output / AMST/FMWIDE diode detect input.
75	P2/AM-10K	I/O	FL segment P3 output / AM10K diode detect input.
76	P1/D-TG	I/O	FL segment P1 output / D-TG diode detect input.
77	K-SCAN	O	Switch SCAN timing output.
78	O-STB	O	Serial data strobe output for MAIN,FRONT C.B.
79	DATA	O	Serial data output for MAIN,FRONT C.B.
80	CLK	O	Serial clock output for MAIN,FRONT C.B.
81	DISH-RVS	O	CD turntable reverse rotation output.
82	DISH-FWD	O	CD turntable forward rotation output.
83	TRAY-OPEN	O	CD tray open data output.
84	TRAY-CLOSE	O	CD tray close data output.
85	$\overline{\text{LED-ROCK}}$	O	ROCK LED $\overline{\text{ON/OFF}}$ output.
86	$\overline{\text{LED-3CH}}$	O	3CH LED $\overline{\text{ON/OFF}}$ output.
87	$\overline{\text{LED-PHANTOM}}$	O	PHANTOM LED $\overline{\text{ON/OFF}}$ output.
88	$\overline{\text{LED-NORMAL}}$	O	NORMAL LED $\overline{\text{ON/OFF}}$ output.
89	VSS 2	-	GND.
90	VDD 2	-	Power supply input.
91	$\overline{\text{LED-BGM}}$	O	BGM LED $\overline{\text{ON/OFF}}$ output.
92	$\overline{\text{LED-CLASSIC}}$	O	CLASSIC LED $\overline{\text{ON/OFF}}$ output.
93	$\overline{\text{LED-JAZZ}}$	O	JAZZ LED $\overline{\text{ON/OFF}}$ output.
94	$\overline{\text{LED-POP}}$	O	POP LED $\overline{\text{ON/OFF}}$ output.
95	PTY/HALL	I/O	Display the program type (RDS) / Hall sound effect (DSP) key input.
96	I-IFC/I-SUBQ	I	Tune IF count serial data input /CD SUB Q data input.
97	I-STEREO/O-SQCLK	I/O	Tuner stereo detected input/CD SQ CLOCK output.
98	I-RDS-DAT/O-DAT	I/O	RDS data input/CD data output.
99	O-CDCE	O	CD CE output.
100	O-CDCLK	O	CD CLOCK output.

Pin No.	Pin Name	I/O	Description						
1	X IN	I/O	A crystal oscillator (7.2MHz) is connected between these pins.						
22	X-OUT								
2	NC	-	Not used.						
3	CE	I	To enable the IC. Active "H".						
4	DI	I	Digital data input from CPU (LC866556W-5E47) when relevant key is operated. Active "H".						
5	CLK	I	To clock in the data DI.						
6	DO	O	Digital data output to CPU (LC866556W-5E47).						
7	TM-BASE	O	Outputs a reference clock signal (8Hz) for the clock.						
8	MONO / BEAT	O	Outputs "H" when MONO / BEAT is switched.						
9	$\overline{\text{FM}} / \overline{\text{SW}}$	O	Output "L" or "H" as follows: <table border="1" style="margin-left: 20px;"> <tr><td colspan="2">2 BAND</td></tr> <tr><td>FM</td><td>SW</td></tr> <tr><td>L</td><td>L</td></tr> </table>	2 BAND		FM	SW	L	L
2 BAND									
FM	SW								
L	L								
10	$\overline{\text{MW}}/\text{SW}$	O	Outputs "L" or "H" as follows: <table border="1" style="margin-left: 20px;"> <tr><td colspan="2">2 BAND</td></tr> <tr><td>MW</td><td>SW</td></tr> <tr><td>L</td><td>H</td></tr> </table>	2 BAND		MW	SW	L	H
2 BAND									
MW	SW								
L	H								
11	IF-MUTE	O	To control internal counter.						
12	IF-IN	I	General purpose counter input.						
13	$\overline{\text{TUNE}}$	I	Receives "L" when station is tuned.						
14	NC	-	Not used.						
15	AM-IN	I	Receives the AM local oscillator frequency signal.						
16	FM-IN	I	Receives the FM local oscillator frequency signal.						
17	VDD	-	Supply power to IC (+5V).						
18	PD	O	PLL charge pump output.						
19	A-IN	I	The MOS transistor for PLL active low pass filter.						
20	A-OUT	O							
21	VSS	-	Ground.						

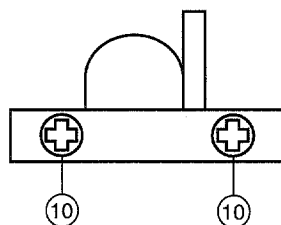
ADJUSTMENT <TUNER / DECK>



[B] FRONT C.B



DECK-1 R / P, DECK-2 P



< TUNER SECTION >

1. Clock Check
 Settings : • Test point : TP2
 Method : Set to MW 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 check that the test point is less than 7.0V.
 Set to AM 530kHz and check that the test point is more than 0.6V.
3. AM Tracking Adjustment
 Settings : • Test point : TP8, TP9
 • Adjustment location :
 L981 1000kHz
 Method : The level at 1000kHz is adjusted to MAX by L981.
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 1.0V.
5. FM Tracking Check
 Settings : • Test point : TP8, TP9
 Method : • Set to FM 98.0MHz and check that the test point is 5 \pm 6dB.
6. AM IF Adjustment
 Settings : • Test point : TP8, TP9
 • Adjustment location :
 L772 1000kHz
 Method : The level at 1000kHz is adjusted to MAX by L772.

7. DC Balance / Mono Distortion Adjustment

- Settings : • Test point : TP3, TP4
• Adjustment location : L771
• Input level : 54dB

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%.

8. Auto Stop Level Check

AM

Method : Check auto stop at AM 1000kHz is within $50 \pm 10dB$.

FM

Method : Check auto stop at FM 98.0MHz is within $17 \sim 32dB$.

12. PB Sensitivity Adjustment (DECK 1, DECK 2)

- Settings : • Test tape : TTA-210
• Test point : TP8, TP9

• Adjustment location :
SFR301 (DECK 1, Lch)
SFR302 (DECK 1, Rch)
SFR303 (DECK 2, Lch)
SFR304 (DECK 2, Rch)

Method : Play back the 400Hz signals of the test tape and adjust SFRs so that the output level of the test point becomes $300mV \pm 10mV$.

13. REC/PB Frequency Response Adjustment

- Settings : • Test tape : TTA-602
• Test point : TP8, TP9
• Input signal : 1kHz / 10kHz
• 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 TP8 and TP9 becomes 17mV. Record and playback the 1kHz and 10kHz signals and adjust SFRs so that the output of the 10kHz signals becomes $0dB \pm 0.5dB$ with respect to that of the 1kHz signal.

14. REC/PB Frequency Response CrO2 check

- Settings : • Test tape : TTA-615
• Test point : TP8, TP9

Method : Playback the 1kHz and 10kHz signals of the test tape and check that the output ratio of the 10kHz with respect to that of the 1kHz signal is $\pm 1dB$.

15. Bias OSC Frequency Adjustment

- Settings : • Test point : TP5
• Adjustment location : L351

Method : Set to the REC mode. Adjust L351 so that the frequency counter of the test point is $85kHz \pm 2kHz$.

< DECK SECTION >

9. Tape Speed Adjustment

- Settings : • Test tape : TTA-100
• Test point : TP8, TP9
• Adjustment location : SFR501

Method : Play back the test tape and adjust SFR501 so that the frequency counter reads $3000Hz \pm 5Hz$.

10. Head Azimuth Adjustment

- Settings : • Test tape : TTA-300
• Test point : TP8, TP9
• 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.

11. PB Frequency Response Check (DECK 1, DECK 2)

- Settings : • Test tape : TTA-300
• Test point : TP8, TP9

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 within 4dB.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

IHF Sensitivity : 6dB \pm 6dB
(THD 3%) [at 87.5 / 98.0MHz / 108.0MHz]
S/N 50dB Quieting sensitivity :
(STEREO) 31dB \pm 5dB
[at 87.5 / 98.0 / 108.0MHz]
Signal to noise ratio : MONO :
More than 65dB
[at 98.0MHz]
STEREO :
More than 64dB
[at 98.0MHz]
Distortion : MONO :
Less than 1.3%
[at 98.0MHz]
STEREO :
Less than 2%
[at 98.0MHz]
Stereo separation : More than 25dB
[at 98.0MHz]
Intermediate frequency : 10.7MHz

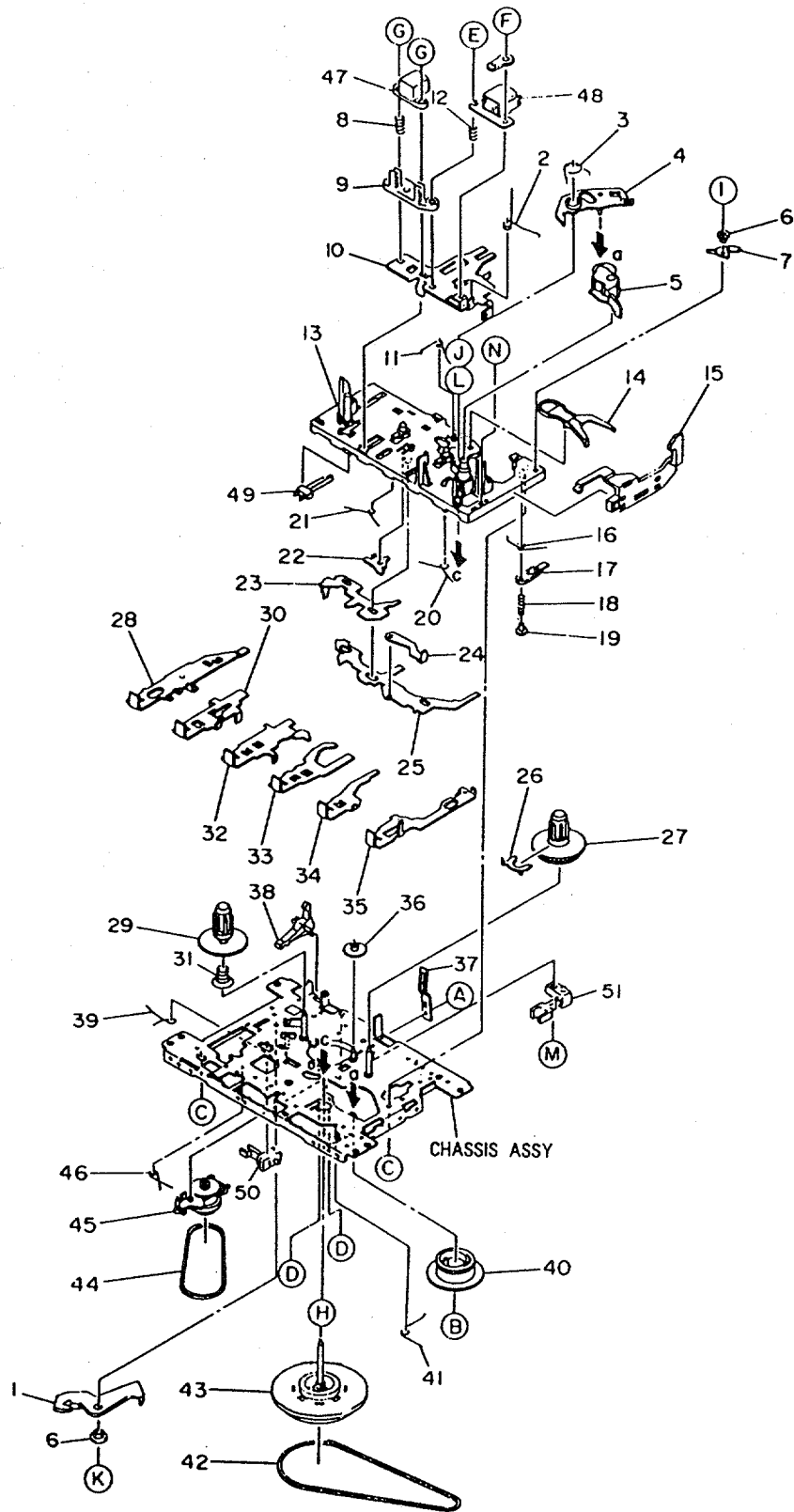
<AM SECTION>

Sensitivity : 54dB \pm 6dB
(S/N 20 dB) [at 600kHz]
52dB \pm 6dB
[at 1000kHz / 1400kHz]
Distortion : Less than 1.5%
[at 1000kHz]
Intermediate frequency : 450kHz

<DECK SECTION>

Tape speed : 3000Hz \pm 3%
Wow & flutter : Less than 0.35% (R.M.S)
Take-up torque : 30 ~ 60g-cm (FWD, REV)
F.F & REW torque : 55 ~ 140g-cm
Back tension : 2 ~ 5g-cm
PB Output level : 2.7V \pm 1.5dB(SP 2V)
REC/PB Output level : 1.6V \pm 2dB(SP 2V)
Noise level (PB) : Less than 190mV(CrO2, DOLBYOFF)
Less than 300mV(NORM, DOLBYOFF)
Noise level (REC/PB) : Less than 35mV/12mV(NORM,
DOLBYOFF)
Less than 23mV/10mV(CrO2,
DOLBYOFF)
Distortion (REC/PB) : Less than 2.0% (NORM, CrO2)
Crosstalk : More than 55dB (1kHz, SP 2V)
Channel separation : More than 40dB (1kHz, SP 2V)
Erasing ratio : More than 60dB (at 125Hz, SP 2V)
Test tape : NORM : TTA-602
CrO2 : TTA-615

TAPE MECHANISM EXPLODED VIEW 1/2

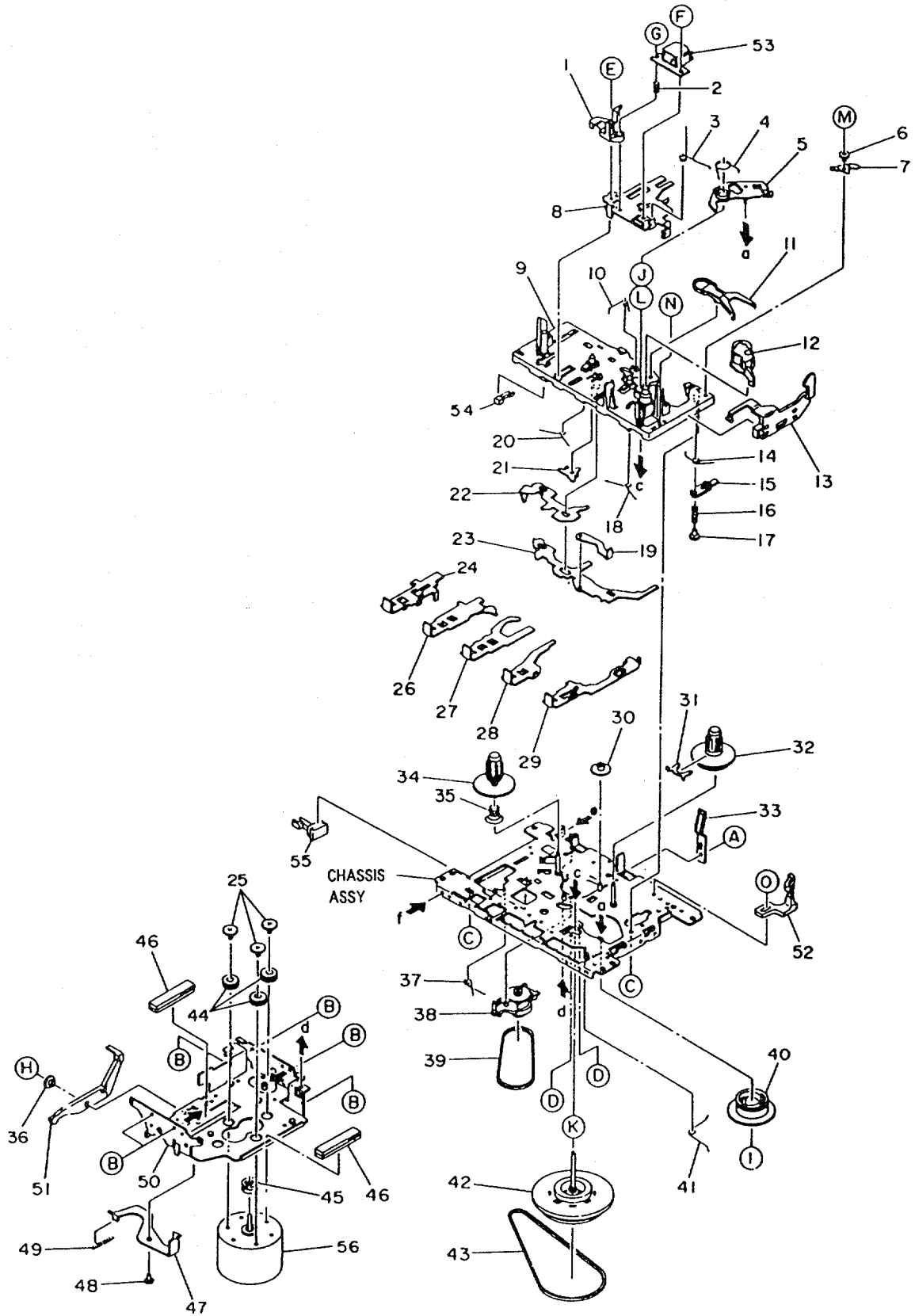


TAPE MECHANISM PARTS LIST 1/2

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	S1-921-020-010		REC ARM	34	S1-921-140-660		STOP BUTTON LEVER
2	S1-921-030-090		PANEL P SPRING	35	S1-921-140-610		PAUSE BUTTON LEVER
3	S1-921-260-050		GEAR PLATE SPRING				
4	S1-921-265-020		GEAR PLATE ASSY	36	S1-821-100-700		FF GEAR
5	S1-921-043-100		PINCH ROLLER ARM ASSY	37	S1-829-100-010		PACK SPRING
				38	S1-821-100-690		RECORD SAFETY LEVER
6	S1-921-140-370		P ARM COLLER	39	S1-921-140-210		REC BUTTON LEVER SPRING
7	S1-921-140-340		P ARM	40	S1-921-260-020		CAM GEAR
8	S1-821-030-080		EH SPRING				
9	S1-921-030-060		HEAD BASE	41	S1-921-140-160		E ACTUATOR SPRING
10	S1-921-030-140		HEAD PANEL	42	S1-921-090-240		MAIN BELT
				43	S1-921-093-030		FLYWHEEL ASSY
11	S1-921-141-8A0		M CONTROL SPRING	44	S1-821-070-110		RF BELT
12	S1-821-030-070		AZIMUTH SPRING	45	S1-921-073-040		RF CLUTCH ASSY
13	S1-921-143-180		BASE ASSY				
14	S1-921-260-4A0		SENSING LEVER	46	S1-921-140-170		P.S.LEVER SPRING
15	S1-921-130-020		EJECT SLIDE LEVER	47	S6-202-140-190		E HEAD
				48	S6-201-010-750		R.P.HEAD RP-7442BS
16	S1-921-141-3A0		P CONTROL SPRING	49	S6-401-011-490		LEAF SW MSW-1541T
17	S1-921-140-550		PAUSE LEVER(E)	50	S6-401-011-610		LEAF SW MSW-17820MVEI
18	S1-921-140-120		PAUSE LEVER SPRING				
19	S1-921-140-110		PAUSE STOPPER	51	S6-401-010-380		LEAF SW MSW-1275
20	S1-921-140-150		BUTTON LEVER SPRING(B)	A	S9-179-000-000		C TAP SCREW M2-3
				B	S9-422-000-000		P WASHER CUT 12-3.8-0.3
21	S1-921-140-140		BUTTON LEVER SPRING(A)	C	S9-679-000-000		P TAP SCREW M2-5
22	S1-921-140-200		PR STOPPER	D	S9-999-180-090		TAP SCREW M2-4.5
23	S1-921-140-090		SWITCH ACTUATOR				
24	S1-921-140-640		E KICK LEVER	E	S9-922-000-000		AZIMUTH SCREW M2-8
25	S1-921-140-080		PUSH BUTTON ACTUATOR	F	S9-115-000-000		+ BIND SCREW M2-3
				G	S9-223-000-000		SCREW,M2-7.5
26	S1-921-050-060		SENER	H	S9-882-000-000		P WASHER 2-3.5-0.4
27	S1-921-053-030		TAKE UP REEL ASSY	I	S9-999-200-410		P TAP SCREW M2-3
28	S1-921-140-220		REC BUTTON LEVER				
29	S1-921-053-040		SUPPLY REEL ASSY	J	S9-999-030-130		P WASHER CUT 1.45-3.8-0.
30	S1-921-140-230		PLAY BUTTON LEVER	K	S9-180-000-000		C TAP SCREW M2-4
				L	S9-999-000-030		P WASHER 2.1-4-0.13
31	S1-821-100-990		BACK TENSION SPRING	M	S9-181-000-000		C TAP SCREW M2-5
32	S1-921-140-240		REW BUTTON LEVER	N	S9-P05-200-610		S TAPPING SCREW M2-6
33	S1-921-140-250		FF BUTTON LEVER				

TAPE MECHANISM EXPLODED VIEW 2 / 2



TAPE MECHANISM PARTS LIST 2 / 2

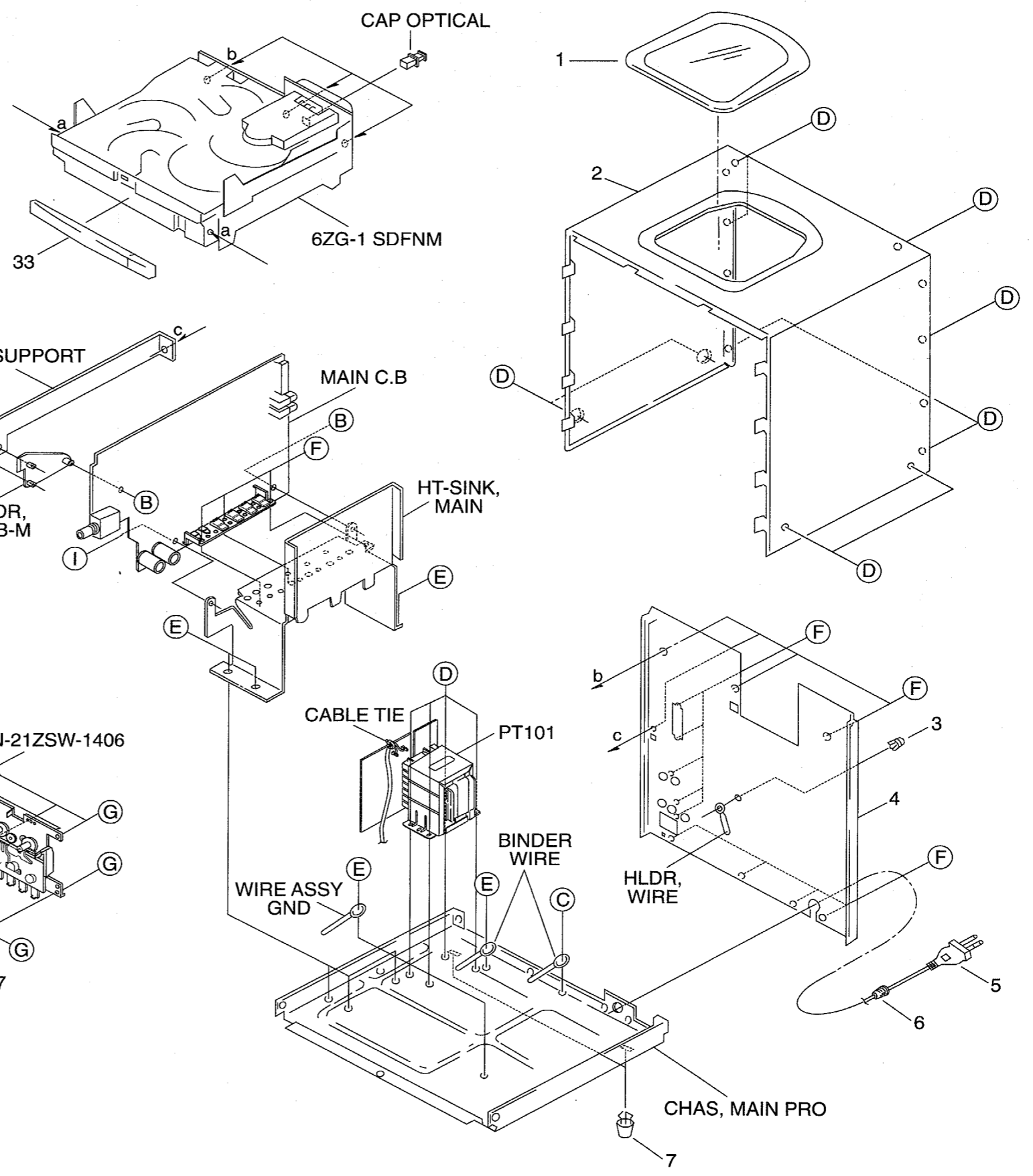
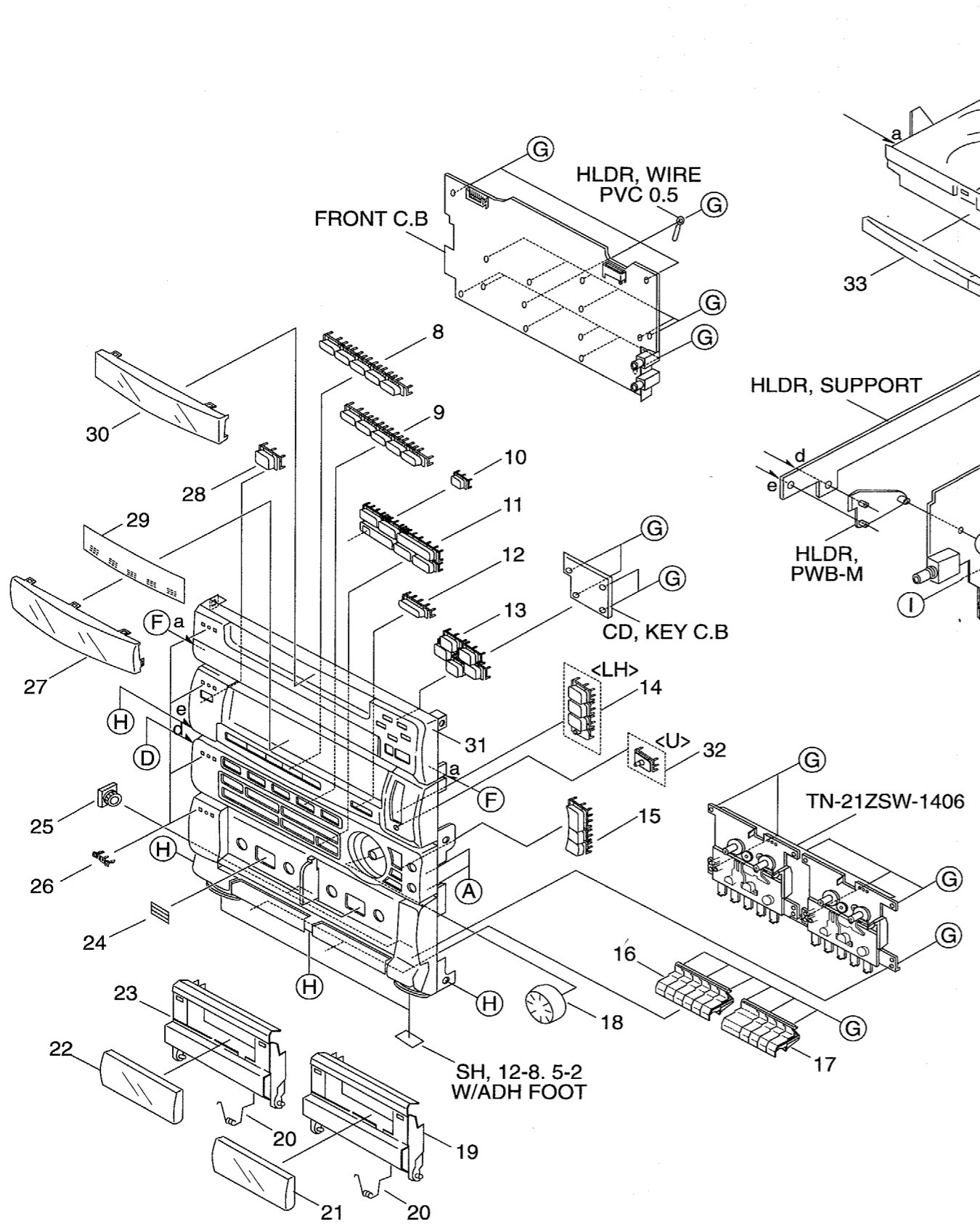
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	S1-921-030-4A0		HEAD BASE	37	S1-921-140-170		P.S.LEVER SPRING
2	S1-821-030-070		AZIMUTH SPRING	38	S1-921-073-040		RF CLUTCH ASSY
3	S1-921-030-090		PANEL P SPRING	39	S1-821-070-110		RF BELT
4	S1-921-260-050		GEAR PLATE SPRING	40	S1-921-260-020		CAM GEAR
5	S1-921-265-020		GEAR PLATE ASSY				
6	S1-921-140-370		P ARM COLLER	41	S1-921-140-160		E ACTUATOR SPRING
7	S1-921-140-340		P ARM	42	S1-921-093-040		FLYWHEEL ASSY
8	S1-921-030-110		HEAD PANEL	43	S1-921-090-240		MAIN BELT
9	S1-921-143-100		BASE ASSY	44	S1-820-130-060		MOTOR RUBBER
10	S1-921-141-8A0		M CONTROL SPRING	45	S1-921-120-130		MOTOR PULLEY
11	S1-921-260-4A0		SENSING LEVER	46	S1-921-120-120		ANTI VIBR FELT MAT
12	S1-921-043-100		PINCH ROLLER ARM ASSY	47	S1-821-120-680		P KICK LEVER (A)
13	S1-921-130-020		EJECT SLIDE LEVER	48	S1-821-120-230		PK COLLER SCREW A
14	S1-921-141-3A0		P CONTROL SPRING	49	S1-821-120-250		P KICK LEVER SPRING
15	S1-921-140-550		PAUSE LEVER(E)	50	S1-921-120-110		MOTOR BRACKET
16	S1-921-140-120		PAUSE LEVER SPRING	51	S1-921-120-090		P KICK LEVER
17	S1-921-140-110		PAUSE STOPPER	52	S6-401-011-250		LEAF SW MSW-1664
18	S1-921-140-150		BUTTON LEVER SPRING(B)	53	S6-201-010-750		R.P.HEAD RP-7442BS
19	S1-821-011-590		E KICK LEVER	54	S6-401-011-490		LEAF SW MSW-1541T
20	S1-921-140-140		BUTTON LEVER SPRING(A)	55	S6-401-011-610		LEAF SW MSW-17820MVEI
21	S1-921-140-200		PR STOPPER	56	S6-002-030-290		MOTOR EG530YD-2BH
22	S1-921-140-090		SWITCH ACTUATOR	A	S9-179-000-000		C TAP SCREW M2-3
23	S1-921-140-080		PUSH BUTTON ACTUATOR	B	S9-180-000-000		C TAP SCREW M2-4
24	S1-921-140-230		PLAY BUTTON LEVER	C	S9-679-000-000		P TAP SCREW M2-5
25	S1-821-120-020		MOTOR COLLER SCREW	D	S9-999-180-090		TAP SCREW M2-4.5
26	S1-921-140-240		REW BUTTON LEVER	E	S9-004-000-000		SCREW M2-6
27	S1-921-140-250		FF BUTTON LEVER	F	S9-115-000-000		+ BIND SCREW M2-3
28	S1-921-140-260		STOP BUTTON LEVER	G	S9-922-000-000		AZIMUTH SCREW M2-8
29	S1-921-140-610		PAUSE BUTTON LEVER	H	S9-182-000-000		C TAP SCREW M2-6
30	S1-821-100-700		FF GEAR	I	S9-422-000-000		P WASHER CUT 12-3.8-0.3
31	S1-921-050-060		SENSOR	J	S9-999-030-130		P WASHER CUT 1.45-3.8
32	S1-921-053-030		TAKE UP REEL ASSY	K	S9-882-000-000		P WASHER 2-3.5-0.4
33	S1-829-100-010		PACK SPRING	L	S9-999-000-030		P WASHER 2.1-4-0.13
34	S1-921-053-040		SUPPLY REEL ASSY	M	S9-999-200-410		P TAP SCREW M2-3
35	S1-821-100-990		BACK TENSION SPRING	N	S9-P05-200-610		S TAPPING SCREW M2-6
36	S1-821-120-650		COLLER B	O	S9-661-000-000		CAP TAP SCREW M2-5

ACCESSORIES / PACKAGE LIST

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	87-MA7-902-019		IB,LH (ES)-M <LH>
1	87-ma7-905-019		IB,U (ESF)-M <U>
2	87-MA8-701-119		RC UNIT, 7AS05
3	87-A90-030-016		ANT, LOOP AM-NC C
4	87-043-115-019		FEEDER-ANT, FM
△ 5	87-A90-312-016		PLUG, CONVERSION WTN-1157R1 <LH>



MECHANICAL PARTS LIST 1 / 1

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MA3-042-010		WINDOW, TOP<LH>	20	85-MA7-201-010		SPR-T, EJECT
1	87-MAT-009-010		WINDOW, TOP<U>	21	87-MA7-051-010		WINDOW, CASS R
2	87-MA5-027-010		CABI, STEEL	22	87-MA7-050-010		WINDOW, CASS L
3	87-084-077-010		RIVET NYL3.5-4.5	23	87-MA7-030-010		BOX, CASS L<LH>
4	87-MA7-011-010		PANEL, REAR LHSTNM<LH>	23	87-MA7-032-010		BOX, CASS L(E)<U>
4	87-MA7-014-010		PANEL, REAR USTNM (525)<U>	24	81-532-080-010		LBL, CASS-COMPT
△ 5	87-050-079-010		AC CORD ASSY, E BLK<LH>	25	87-063-164-010		OIL-DMPR,
△ 5	87-050-053-010		AC CORD ASSY, U-2<U>	26	82-NE8-032-010		BADGE, AIWA 27.5 ABS GLD
△ 6	87-085-185-010		BUSHING, AC CORD(E) CM-22B<LH>	27	87-MA5-024-010		WINDOW, AMP
△ 6	87-085-189-010		BUSHING, AC CORD(U) CM-22C<U>	28	87-MA5-012-010		KEY, POWER
7	87-MA3-062-010		FOOT, H17	29	87-MA7-080-010		PLATE, GEQ
8	87-MA5-014-010		KEY, GEQ	30	87-MA5-023-010		WINDOW, CD
9	87-MA7-063-010		KEY, FUN	31	87-MA7-001-010		CABI, FR HE<LH>
10	87-MA7-069-010		KEY, DUBB	31	87-MA7-004-010		CABI, FR U (525)<U>
11	87-MA7-061-010		KEY, PLAY	32	87-MA7-068-010		KEY, DEMO<U>
12	87-MA7-062-010		KEY, KARAOKE	32	87-MA5-009-010		PANEL, TRAY
13	87-MA5-011-010		KEY, DIRECT	A	81-MK1-210-010		S-SCREW, BFT2+3-16
14	87-MA5-013-010		KEY, DSP<LH>	B	87-067-579-010		BVT2+3-8 W/O SLOT
15	87-MA6-005-010		KEY, T-BASS<LH>	C	87-067-585-010		BVTT+4-6
15	87-MA7-067-010		KEY, T-BASS<U>	D	87-067-641-010		UTT2+3-8 W/O SLOT BLK
16	87-MA7-064-010		KEY, CASS 1	E	87-067-688-010		BVTT+3-6
17	87-MA7-065-010		KEY, CASS 2	F	87-067-703-010		BVT2+3-10 W/O SLOT
18	87-MA3-027-010		KNOB, RTRY MAIN	G	87-641-096-410		UT1+3-10
19	87-MA7-031-010		BOX, CASS R<LH>	H	87-591-094-410		QIT+3-6
19	87-MA7-033-010		BOX, CASS R(E)<U>	I	87-NF4-224-010		S-SCREW, IT3B+3-8

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース	
番号	連絡内容
G-	-
G-	-
G-	-

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