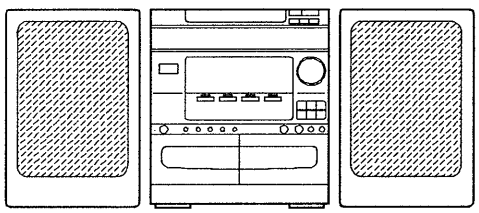
aiwa

aiwa SERVICE

CX-NV30
CX-NV33
CX-NAP1MK2

SERVICE MANUAL



COMPACT DISC STEREO
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : 2ZM–3 PR7N
- BASIC CD MECHANISM : 4ZG–1 SFRNM
- TYPE: HE,HR,HK,LH,G, U,K,E1,EE,EZ,EEZ,Z

CD–CASSEIVER	REMOTE CONTROLLER	SPEAKER
CX–NV30 (TYPE: HE,HR,HK,LH,G)	RC–T503	SX–FNV50
CX–NV33 (TYPE: EE,EEZ)		
CX–NV30 (TYPE: E1,EE,EZ,K,U)		SX–NV30
CX–NAP1MK2 (TYPE: Z)		SX–FNV50

If requiring information about the CD mechanism, see Service Manual of 4ZG-1, S/M Code No. 09-955-101-70T.

S/M Code No. 09–956–094–4FE

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SPECIFICATIONS

TUNER / AMPLIFIER

<FM section>

Frequency range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	16.2 dBf (75 ohms,1.8μV)
Antenna	75 ohms (unbalanced)

<AM section> (LH,G,U only)

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

<MW section> (Except LH,G,U)

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

<SW section> (HE,HR,HK)

Frequency range	5.95 MHz to 17.90 MHz (1 kHz step)
Antenna	Wire antenna

<LW section> (E1,EE,EZ,K,Z)

Frequency range	144 kHz to 290 kHz
Usable sensitivity	1400 μV/m
Antenna	Loop antenna

<Amplifier section>

Power output (Without connecting to the SURROUND SPEAKERS)	HR : Rated 22 W + 22 W (6 ohms, T.H.D. 1%, 1kHz) Reference 30 W + 30 W (6 ohms, T.H.D. 10%, 1kHz) HE,HK : 30 W + 30 W (6 ohms, T.H.D. 10%, 1kHz) E1,EE,EZ,K,Z : Rated 20 W + 20 W (6 ohms, T.H.D. 1%, 1kHz/DIN 45500) Reference 24 W + 24 W (6 ohms, T.H.D. 10%, 10kHz/DIN 45324) DIN MUSIC POWER 45 W + 45 W LH,G : 30 W + 30 W (6 ohms, T.H.D. 10%, 1kHz, without connecting to the SURROUND SPEAKER) U : 20 watts per channel minimum RMS, both channels driven at 6 ohms From 65Hz to 15kHz with no more than 1% total harmonic distortion
Harmonic distortion	HE,HR,HK,LH,G : 0.1% (15W,1kHz, 6 ohms) E1,EE,EZ,K,U,Z : 0.1% (10W,1kHz, 6 ohms)
Input	HE,HR,HK,LH,G : VIDEO/AUX : 400mV (21 kohms) MIC 1,MIC 2 : 1mV(10 kohms) E1,EE,EZ,K,Z : VIDEO/AUX : 150mV (adjustable) MIC 1,MIC 2 : 1.7mV(10 kohms) U : VIDEO/AUX : 400mV (21 kohms) MIC 1,MIC 2 : 1.7mV (10 kohms)
Output	HE,HR,HK,LH,G : SUPER WOOFER : 1.3V E1,EE,EZ,K,Z : SUPER WOOFER : 1.1V SPEAKERS : accepts speakers of 6 ohms or more SURROUND SPEAKERS : accepts speakers of 16 ohms or more PHONES (stereo minijack) : accepts headphones of 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	CrO_2 tape : 50 – 16000 Hz Normal tape : 50 – 15000 Hz
Signal-to-noise ratio	HE,HR,HK,LH,G : 48 dB (CrO2 tape) E1,EE,EZ,K : 60 dB (DOLBY B NR ON, CRO2 tape peak level above 5kHz)
Recording system	AC bias
Heads	DECK 1 : Playback head x 1 DECK 2 : Recording / playback / erasure head x 1

<CD player section>

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

<Speaker system> SX-NV30 (E1,EE,EZ,K,U)

Cabinet type	3 way, bass reflex (magnetic sealed type)
Speaker	Woofer : 140 mm (5⅝ in.) cone type Tweeter : 60 mm (2⅜ in.) cone type Super tweeter : 20 mm (13/16 in.) ceramic type
Impedance	6 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	206 x 302 x 230 mm (8⅛ x 12 x 9⅛ in.)
Weight	2.8 kg (6 lbs. 3oz)

<Speaker system> SX-FNV50 (HE,HR,HK,LH,G,33EE,33EZ)

Cabinet type	3 way, bass reflex (magnetic sealed type)
Speaker	Woofer : 140 mm (5⅝ in.) cone type Tweeter : 80mm (3¼in.) cone type Super tweeter : 50mm (2 in.) ceramic type Surround speaker : 80mm (3¼ in.)
Impedance	Front speaker : 6 ohms Surround speaker : 16 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	206 x 302 x 265 mm (8⅛ x 12 x 10½ in.)
Weight	3.6 kg (7 lbs. 15oz)

<General>

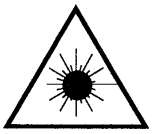
Power requirements	HE,HR,HK,LH : AC 120V/ 220V-240V, switchable 50/60 Hz E1,EE,EZ,K,Z : AC 230 V, 50 Hz G : 230-240 V AC, fixed, 50 Hz U : AC 120 V, 60 Hz
Power consumption (System total)	HE,HR,HK,LH,G : 90 W E1,EE,EZ,K,Z : 123 W U : 60 W
Dimensions (W x H x D)	260 x 308 x 339 mm (10¼ x 12¼ x 13⅜ in.)
Weight	6.5 kg (14 lbs. 5 oz)

- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
  "DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

PROTECTION OF EYES WHEN 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 laserståling 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.

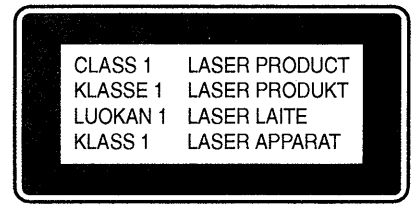
VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

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 laserståling 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.

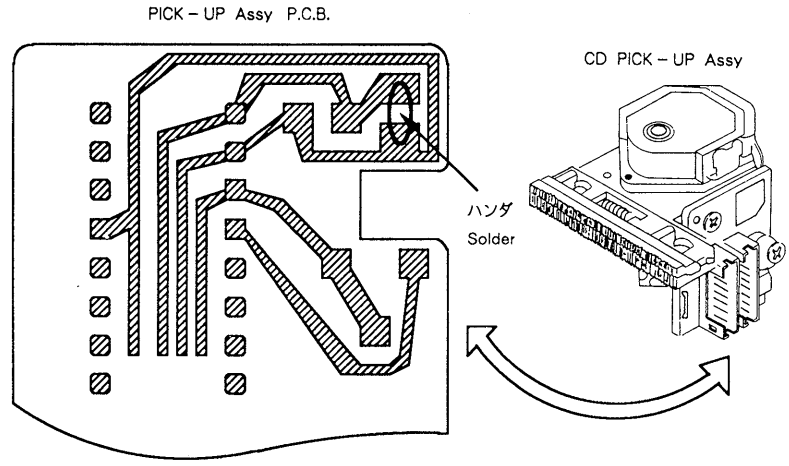


PRECAUTION TO REPLACE OPTICAL BLOCK

(KSS – 210A)

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 figure below.



ELECTRICAL MAIN PARTS LIST

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	85-NF7-606-110		IC,UPD78044BGF-016
	87-070-343-010		IC,SPS-440-1
	87-070-163-019		IC,STK405-030<K,E1,U,EE,EZ,Z>
	87-070-267-019		IC,STK405-050<LH,HK,HE,G,HR>
	87-070-121-010		IC,HA12185NT
	87-017-374-019		IC,TC4094BP
	87-001-874-019		IC,HA12134A<K,E1,U,EE,EZ,Z>
	87-070-277-019		IC,BA3839
	87-070-263-019		IC,TA2041N<EXCEPT K,E1,U,EE,EZ>
	87-002-727-019		IC,NJM4558L
	87-070-272-019		IC,TA2078P
	87-027-666-019		IC,TC4052BP
	87-017-698-080		IC,M65843FP<HE,HK,HR>
	87-070-127-019		IC,LC72131
	87-017-714-019		IC,LA1836
TRANSISTOR			
	89-213-702-019		TR,2SB1370E
	89-113-187-889		TR,2SA1318 TU
	87-026-610-089		TR,KTC3198GR
	89-332-665-089		TR,2SC3266GR
	87-026-609-089		TR,KTA1266GR
	87-026-462-089		TR,2SC1740S (RS)
	89-406-555-089		TR,2SD655E
	87-026-286-089		TR,DTA143ES
	89-502-466-089		TR FET 2SK246-BL (TPE2)
	89-333-317-089		TR,2SC3331T
	89-109-521-089		TR,2SA952K
	89-112-965-089		TR,2SA1296GR
	87-026-463-089		TR,2SA933S(RS)<LH,HE,HK,G,U,HR>
	87-026-218-089		TR,DTC144ES<EXCEPT K,E1,U,EE,EZ>
	89-328-785-089		TR,2SC2878-A (E2-M)<HE,HK,HR>
	89-319-233-089		TR,2SC1923(O)
	89-502-415-089		FET,2SK241GR
	89-501-615-089		FET,2SK161GR<LH,HE,HK,G,U,HR>
	87-026-269-089		TR,DTA114ES<EXCEPT LH,G,U>
	87-026-214-089		TR,DTA114YS
	89-320-011-089		TR,2SC2001K<K,E1,U,EE,EZ,Z>
	89-505-446-089		FET,2SK544 F
DIODE			
	87-017-011-089		DIODE,LT 1N4003L<U>
	87-020-465-089		DIODE,1SS133
	87-001-916-089		ZENER UTZJ10B
	87-001-909-089		ZENER UTZJ 24B
	87-002-225-019		DIODE DBF 40C-K10
	87-001-914-089		ZENER UTZJ 6.2B
	87-001-911-089		ZENER,UTZJ4.7A (TAPG)
	87-001-559-089		DIODE,1SS 131 (T-72)
	87-001-913-089		ZENER UTZJ5.6B<HE,HK,HR>
	87-001-912-089		ZENER,UTZJ 5.1B
	87-027-900-089		VARI-CAP,1SV147
MAIN C.B			
BPF831	87-030-105-010		FLTR,BPMB6A<K,E1,U,EE,EZ,Z>
C102	87-010-399-099		CAP,E 3300-35 SME
C103	87-010-398-099		CAP,E 2200-35V
C104	87-010-381-089		CAP,E 330-16 SME
C105	87-010-101-089		CAP,E 220-16 SME
C109	87-010-401-089		CAP,E 1-50 SME
C112	87-010-405-089		CAP,E 10-50 SME
C113	87-010-403-089		CAP,E 3.3-50 SME
C114	87-010-263-089		CAP,E 100-10 SME 5X11<U>
C116	87-018-127-089		CAP,TC-U 470P-50 B
C200	87-018-208-089		CAP,TC-U 0.047-50 F
C201	87-010-404-089		CAP,E 4.7-50 SME
C202	87-010-404-089		CAP,E 4.7-50 SME
C203	87-018-132-089		CAP,TC-U 2200P-16 X
C204	87-018-132-089		CAP,TC-U 2200P-16 X
C205	87-010-400-089		CAP,E 0.47-50 SME
C206	87-010-400-089		CAP,E 0.47-50 SME
C207	87-010-402-089		CAP,E 2.2-50 SME
C208	87-010-402-089		CAP,E 2.2-50 SME
C209	87-010-405-089		CAP,E 10-50 SME
C210	87-010-405-089		CAP,E 10-50 SME
C213	87-018-098-089		CAP,TC-U 3.3P-50 SL
C214	87-018-098-089		CAP,TC-U 3.3P-50 SL
C219	87-018-203-089		CAP,TC-U 8200P-16<K,E1,U,EE,EZ,Z>
C220	87-018-203-089		CAP,TC-U 8200P-16<K,E1,U,EE,EZ,Z>
C221	87-018-134-089		CAP,TC-U 0.01-16<K,E1,U,EE,EZ,Z>
C222	87-018-134-089		CAP,TC-U 0.01-16<K,E1,U,EE,EZ,Z>
C230	87-010-384-089		CAP,E 100-25 SME
C231	87-018-205-089		CAP,TC-U 0.022-25 F
C251	87-018-131-089		CAP,TC-U 1000P-50 B
C252	87-018-131-089		CAP,TC-U 1000P-50 B
C303	87-018-124-089		CAP,TC-U 270P-50 B
C304	87-018-122-089		CAP,TC-U 180P-50 B
C305	87-018-122-089		CAP,TC-U 180P-50 B
C306	87-018-124-089		CAP,TC-U 270P-50 B
C307	87-010-401-089		CAP,E 1-50 SME
C308	87-010-401-089		CAP,E 1-50 SME
C313	87-018-195-089		CAP,TC-U 1200P-16<LH,HK,HE,G,U,HR>
C313	87-018-197-089		CAP,TC-U 1800P-16<K,E1,U,EE,EZ,Z>
C314	87-018-195-089		CAP,TC-U 1200P-16<LH,HK,HE,G,U,HR>
C314	87-018-197-089		CAP,TC-U 1800P-16<K,E1,U,EE,EZ,Z>
C315	87-018-195-089		CAP,TC-U 1200P-16 X
C316	87-018-195-089		CAP,TC-U 1200P-16 X
C317	87-010-401-089		CAP,E 1-50 SME
C318	87-010-401-089		CAP,E 1-50 SME
C319	87-010-400-089		CAP,E 0.47-50SME<K,E1,U,EE,EZ,Z>
C320	87-010-400-089		CAP,E 0.47-50SME<K,E1,U,EE,EZ,Z>
C321	87-010-544-089		CAP,E 0.1-50
C322	87-010-544-089		CAP,E 0.1-50
C324	87-010-546-089		CAP,E 0.33-50SME<LH,HK,HE,G,U,HR>
C325	87-010-546-089		CAP,E 0.33-50SME<LH,HK,HE,G,U,HR>
C351	87-018-121-089		CAP,TC-U 150P-50 B
C352	87-018-121-089		CAP,TC-U 150P-50 B
C381	87-018-130-089		CAP,TC-U 820P-50B<LH,HK,HE,G,U,HR>
C382	87-018-130-089		CAP,TC-U 820P-50B<LH,HK,HE,G,U,HR>
C451	87-018-123-089		CAP,TC-U 220P-50 B
C452	87-018-123-089		CAP,TC-U 220P-50 B
C453	87-018-131-089		CAP,TC-U 1000P-50B<K,E1,U,EE,EZ,Z>
C454	87-018-131-089		CAP,TC-U 1000P-50B<K,E1,U,EE,EZ,Z>
C456	87-010-405-089		CAP,E 10-50 SME
C459	87-018-131-089		CAP,TC-U 1000P-50 B
C461	87-018-198-089		CAP,TC-U 2700P-16 X
C462	87-018-198-089		CAP,TC-U 2700P-16 X
C463	87-018-198-089		CAP,TC-U 2700P-16 X
C501	87-018-130-089		CAP,TC-U 820P-50<K,E1,U,EE,EZ,Z>
C502	87-018-130-089		CAP,TC-U 820P-50<K,E1,U,EE,EZ,Z>
C503	87-010-401-089		CAP,E 1-50 SME<K,E1,U,EE,EZ,Z>
C504	87-010-401-089		CAP,E 1-50 SME<K,E1,U,EE,EZ,Z>
C505	87-010-545-089		CAP,E 0.22-50SME<K,E1,U,EE,EZ,Z>
C506	87-010-545-089		CAP,E 0.22-50SME<K,E1,U,EE,EZ,Z>
C515	87-010-400-089		CAP,E 0.47-50SME<K,E1,U,EE,EZ,Z>
C516	87-010-400-089		CAP,E 0.47-50SME<K,E1,U,EE,EZ,Z>
C519	87-010-405-089		CAP,E 10-50 SME
C521	87-018-199-089		CAP,TC-U 3300P-16<K,E1,U,EE,EZ,Z>
C522	87-018-106-089		CAP,TC-U 15P-50 SL
C523	87-018-134-089		CAP,TC-U 0.01-16 Y
C524	87-010-402-089		CAP,E 2.2-50 SME
C525	87-018-134-089		CAP,TC-U 0.01-16 Y<LH,HK,HE,G,HR>
C526	87-010-371-089		CAP,E 470-6.3
C531	87-010-545-089		CAP,E 0.22-50 SME
C532	87-010-263-089		CAP,E 100-10 SME 5X11

* EZ REPRESENT EZ AND EEZ.

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C533	87-010-400-089		CAP,E 0.47-50 SME
C535	87-010-400-089		CAP,E 0.47-50 SME
C536	87-010-401-089		CAP,E 1-50 SME
C537	87-010-401-089		CAP,E 1-50 SME
C538	87-018-205-089		CAP,TC-U 0.022-25 F
C539	87-010-382-089		CAP,E 22-25 SME
C543	87-018-131-089		CAP,TC-U 1000P-50<K,E1,U,EE,EZ,Z>
C543	87-018-195-089		CAP,TC-U 1200P-16<LH,HK,HE,G,U>
C544	87-018-131-089		CAP,TC-U 1000P-50<K,E1,U,EE,EZ,Z>
C544	87-018-195-089		CAP,TC-U 1200P-16<LH,HK,HE,G,U,HR>
C545	87-018-205-089		CAP,TC-U 0.022-25 F
C547	87-010-546-089		CAP,E 0.33-50 SME
C548	87-010-546-089		CAP,E 0.33-50 SME
C601	87-018-205-089		CAP,TC-U 0.022-25 F
C701	87-010-404-089		CAP,E 4.7-50 SME
C702	87-018-134-089		CAP,TC-U 0.01-16 Y
C703	87-018-134-089		CAP,TC-U 0.01-16 Y
C704	87-018-131-089		CAP,TC-U 1000P-50 B
C711	87-010-263-089		CAP,E 100-10 SME 5X11
C712	87-010-112-089		CAP,E 100-16
C722	87-018-103-089		CAP,TC-U 8.2P-50 SL
C723	87-018-131-089		CAP,TC-U 1000P-50 B
C725	87-018-131-089		CAP,TC-U 1000P-50 B
C727	87-018-134-089		CAP,TC-U 0.01-16 Y
C728	87-010-248-089		CAP,E 220-10 SME
C771	87-010-405-089		CAP,E 10-50 SME
C773	87-018-209-089		CAP,TC-U 0.1-50 F
C774	87-010-263-089		CAP,E 100-10 SME 5X11
C775	87-010-405-089		CAP,E 10-50 SME
C776	87-018-134-089		CAP,TC-U 0.01-16 Y<LH,G>
C777	87-010-400-089		CAP,E 0.47-50 SME
C778	87-010-401-089		CAP,E 1-50 SME
C779	87-010-401-089		CAP,E 1-50 SME
C780	87-018-134-089		CAP,TC-U 0.01-16 Y
C781	87-010-401-089		CAP,E 1-50 SME<K,E1,U,EE,EZ,Z>
C782	87-010-401-089		CAP,E 1-50 SME<K,E1,U,EE,EZ,Z>
C787	87-018-199-089		CAP,TC-U 3300P-16<K,E1,U,EE,EZ,Z>
C788	87-018-199-089		CAP,TC-U 3300P-16<K,E1,U,EE,EZ,Z>
C789	87-018-195-089		CAP,TC-U 1200P-16<K,E1,U,EE,EZ,Z>
C790	87-018-195-089		CAP,TC-U 1200P-16<K,E1,U,EE,EZ,Z>
C791	87-010-401-089		CAP,E 1-50 SME
C793	87-018-203-089		CAP,TC-U 8200P-16X<EXCEPT LH,G,U>
C793	87-018-203-089		CAP,TC-U 8200P-16<LH,HK,HE,G,U,HR>
C794	87-010-260-089		CAP,E 47-25 SME
C796	87-010-403-089		CAP,E 3.3-50 SME
C799	87-010-412-089		CAP,E 10-25 5L
C802	87-018-104-089		CAP,TC-U 10P-50<LH,HK,HE,G,U,HR>
C802	87-018-105-089		CAP,TC-U 12P-50<K,E1,U,EE,EZ,Z>
C804	87-018-102-089		CAP,TC-U 6.8P-50<LH,HK,HE,G,U,HR>
C805	87-018-097-089		CAP,TC-U 2.2P-50<K,E1,U,EE,EZ,Z>
C805	87-018-098-089		CAP,TC-U 3.3P-50<LH,HK,HE,G,U,HR>
C806	87-018-096-089		CAP,TC-U 1P-50 SL
C807	87-018-106-089		CAP,TC-U 15P-50<K,E1,U,EE,EZ,Z>
C807	87-018-100-089		CAP,TC-U 4.7P-50<LH,HK,HE,G,U,HR>
C808	87-018-119-089		CAP,TC-U 100P-50 B
C809	87-018-134-089		CAP,TC-U 0.01-16 Y
C810	87-018-134-089		CAP,TC-U 0.01-16 Y
C811	87-018-116-089		CAP,TC-U 56P-50 SL
C812	87-018-107-089		CAP,TC-U 18P-50 SL
C813	87-018-134-089		CAP,TC-U 0.01-16 Y
C814	87-018-134-089		CAP,TC-U 0.01-16 Y
C815	87-018-134-089		CAP,TC-U 0.01-16 Y
C819	87-018-134-089		CAP,TC-U 0.01-16 Y
C820	87-010-260-089		CAP,E 47-25 SME
C821	87-018-134-089		CAP,TC-U 0.01-16 Y
C822	87-018-103-089		CAP,TC-U 8.2P-50 SL
C823	87-018-107-089		CAP,TC-U 18P-50<K,E1,U,EE,EZ,Z>
C823	87-018-111-089		CAP,TC-U 27P-50<LH,HK,HE,G,U,HR>
C831	87-018-105-089		CAP,TC-U 12P-50<K,E1,U,EE,EZ,Z>
C831	87-018-102-089		CAP,TC-U 6.8P-50 <LH,HK,HE,G,U,HR>
C832	87-018-108-089		CAP,TC-U 20P-50<K,E1,U,EE,EZ,Z>
C834	87-018-103-089		CAP,TC-U 8.2P-50<K,E1,U,EE,EZ,Z>
C847	87-018-134-089		CAP,TC-U 0.01-16 Y
C849	87-018-134-089		CAP,TC-U 0.01-16 Y
C850	87-018-134-089		CAP,TC-U 0.01-16 Y<EXCEPT U>
C901	87-018-209-089		CAP,TC-U 0.1-50 F<EXCEPT U>
C941	87-018-106-089		CAP,TC-U 15P-50 SL<HE,HK,HR>
C942	87-018-104-089		CAP,TC-U 10P-50<K,E1,U,EE,EZ,Z>
C943	87-018-134-089		CAP,TC-U 0.01-16 Y<HE,HK,HR>
C944	87-014-051-089		CAP,PP 560P-100 J<HE,HK,HR>
C945	87-018-134-089		CAP,TC-U 0.01-16 Y<HE,HK,HR>
C946	87-010-401-089		CAP,E 1-50 SME
C949	87-014-050-089		CAP,PP 510P-100J<K,E1,U,EE,EZ,Z>
C950	87-014-073-089		CAP,PP 4700P-100J<HE,HK,HR>
C951	87-018-134-089		CAP,TC-U 0.01-16 Y<HE,HK,HR>
C952	87-018-134-089		CAP,TC-U 0.01-16<EXCEPT LH,G,U>
C953	87-018-134-089		CAP,TC-U 0.01-16 Y<HE,HK,HR>
C954	87-010-400-089		CAP,E 0.47-50 SME<HE,HK,HR>
C955	87-018-134-089		CAP,TC-U 0.01-16 Y<HE,HK,HR>
C956	87-010-263-089		CAP,E 100-10 SME 5X11<HE,HK,HR>
C957	87-018-107-089		CAP,TC-U 18P-50 SL<K,E1,U,EE,EZ,Z>
C958	87-018-134-089		CAP,TC-U 0.01-16 Y<K,E1,U,EE,EZ,Z>
C960	87-010-544-089		CAP,E 0.1-50
C988	87-018-205-089		CAP,TC-U 0.022-25 F
C997	87-018-209-089		CAP,TC-U 3900P-16X<EXCEPT HE,HK,HR>
C999	87-018-209-089		CAP,TC-U 0.1-50 F<HE,HK,HR>
CF741	87-030-354-019		VIB,BFU 450C<HE,HK,HR>
CF801	87-008-261-019		FLTR,SFE10.7MA5-A<LH,HE,HK,G,U,HR>
CF801	87-008-534-019		FLTR,SFE10.7MS3GH-B<K,E1,U,EE,EZ,Z>
CF802	87-008-264-019		FLTR,SFE 10.7MS2-A<K,E1,U,EE,EZ,Z>
CF802	87-008-261-019		FLTR,SFE10.7MA5-A<LH,HE,HK,G,U,HR>
J250	87-099-678-019		JACK,6.3 W/S BLK
J253	87-099-474-019		JACK,PIN 3P<EXCEPT G,U,33EE,33EZ,Z>
J253	87-099-802-019		JACK,PIN 3P<G,U,33EE,33EZ,Z>
J254	87-033-227-019		TERMINAL,SP 4P R (Z)
J652	87-099-715-019		JACK,PIN 2P
J801	87-033-235-019		TERMINAL,ANT (H)<LH,HK,HE,G,U,HR>
J801	87-033-230-019		TERMINAL,ANT AJ-2016<K,E1,U,EE,EZ,Z>
L201	87-003-383-019		COIL,1UH-S<K,E1,U,EE,EZ,Z>
L202	87-003-383-019		COIL,1UH-S<K,E1,U,EE,EZ,Z>
L403	87-007-341-019		COIL,TRAP 85K
L404	87-007-341-019		COIL,TRAP 85K
L451	87-007-336-019		COIL,OSC 85K BIAS
L701	81-631-643-019		COIL 1 POLE MPX<K,E1,U,EE,EZ,Z>
L702	81-631-643-019		COIL 1 POLE MPX<K,E1,U,EE,EZ,Z>
L741	87-006-259-019		COIL,FM DET
L742	81-631-612-019		CFMT 450A<HE,HK,HR>
L742	82-NT1-659-019		FLTR,CFAZ-450 2NT<EXCEPT HE,HK,HR>
L770	87-003-102-089		COIL,10UH
L801	87-006-249-019		COIL,ANT FM3/4TS,L4
L802	87-006-243-019		COIL,ANT FM2-3/4TS,L
L803	87-006-244-019		COIL,RF FM 3-1/2T,L4
L804	87-006-246-019		COIL,RF FM 3-1/2T,L4
L805	87-003-098-089		COIL,2.2UH
L806	87-003-102-089		COIL,10UH<LH,HE,HK,G,U,HR>
L806	87-003-145-089		COIL,8.2UH LAL02<K,E1,U,EE,EZ,Z>
L807	87-007-259-019		COIL,FM OSC (7K)N
L831	87-006-245-019		COIL,RF FM4TSR,L4<K,E1,U,EE,EZ,Z>
L832	87-003-098-089		COIL,2.2UH
L941	87-006-320-019		COIL,ANT LW(SG1)<K,E1,U,EE,EZ,Z>
L941	87-006-319-019		COIL,ANT SW(SG1)<HE,HK,HR>
L942	87-007-338-019		COIL,OSC LW(SG1)<K,E1,U,EE,EZ,Z>
L942	87-007-337-019		COIL,OSC SW(SG1)<HE,HK,HR>
L943	87-005-372-089		COIL,S 1MH TAPG<HE,HK,HR>
L944	87-005-372-089		COIL,S 1MH TAPG<HE,HK,HR>
L981	85-NF7-618-019		AM PACK 1,(SG1)<LH,G,U>
L981	85-NF7-619-019		AM PACK 2,(SG1)<K,E1,U,EE,EZ,Z>
L981	85-NF7-620-019		AM PACK 3,(SG1)<HE,HK,HR>
R105	87-022-050-089		RESIS METAL 1W-0.22J
R106	87-022-050-089		RESIS METAL 1W-0.22J

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
R114	87-022-184-089		RES METAL 0.33-1W<U>
R229	87-022-184-089		RES METAL 0.33-1W
R230	87-022-184-089		RES METAL 0.33-1W
RY102	87-045-382-019		RELAY,OUAZ-SH-112<EXT K,E1,U,E,EZ,Z>
SFR301	87-024-174-089		SFR,33K DIA6 V<K,E1,U,EE,EZ,Z>
SFR301	87-024-438-089		SFR,220K RH063EC<LH,HE,HK,G,U,HR>
SFR302	87-024-174-089		SFR,33K DIA6 V<K,E1,U,EE,EZ,Z>
SFR302	87-024-438-089		SFR,220K RH063EC<LH,HE,HK,G,U,HR>
SFR303	87-024-174-089		SFR,33K DIA6 V<K,E1,U,EE,EZ,Z>
SFR303	87-024-438-089		SFR,220K RH063EC<LH,HE,HK,G,U,HR>
SFR304	87-024-174-089		SFR,33K DIA6 V<K,E1,U,EE,EZ,Z>
SFR304	87-024-438-089		SFR,220K RH063EC<LH,HE,HK,G,U,HR>
SFR311	87-024-175-089		SFR,47K DIA6 V<K,E1,U,EE,EZ,Z>
SFR312	87-024-175-089		SFR,47K DIA6 V<K,E1,U,EE,EZ,Z>
SFR451	87-024-175-089		SFR,47K DIA6 V
SFR452	87-024-175-089		SFR,47K DIA6 V
SFR722	87-024-171-089		SFR,4.7K DIA6 V NTP
TC721	87-011-253-089		TRIMER,30P LAR
TC801	87-011-252-089		TRIMER 10P LAR
TC803	87-011-252-089		TRIMER 10P LAR<K,E1,U,EE,EZ,Z>
TC807	87-011-252-089		TRIMER 10P LAR
TC941	87-011-254-089		TRIMER,20P LAR<HE,HK,HR>
TC942	87-011-253-089		TRIMER,30P LAR<EXCEPT LH,G,U>
VR651	82-NF5-660-019		VR,50KBX2 RK14K12A<K,E1,U,EE,EZ,Z>
W101	83-NEG-679-019		F-CABLE,5P-2.5
X703	84-508-618-019		VIB,CER CSB 456 F/5
X721	87-030-372-019		VIB,XTAL 7.2MHZ

FRONT C.B

C220	87-010-544-049		CAP,E 0.1-50 SME
C221	87-010-544-049		CAP,E 0.1-50 SME
C222	87-010-408-049		CAP,E 47-50 SME
C223	87-010-405-049		CAP,E 10-50 SME
C224	87-010-401-049		CAP,E 1-50 SME
C225	87-010-263-049		CAP,E 100-10
C226	87-010-401-049		CAP,E 1-50 SME
C227	87-010-248-049		CAP,E 220-10 SME
C228	87-018-205-089		CAP,TC-U 0.022-25 F
C229	87-018-127-089		CAP,TC-U 470P-50 B
C250	87-018-122-089		CAP,TC-U 180P-50 B
C251	87-018-107-089		CAP,TC-U 18P-50 SL
C302	87-018-205-089		CAP,TC-U 0.022-25 F
C401	87-010-545-049		CAP,E 0.22-50 SME
C402	87-018-131-089		CAP,TC-U 1000P-50 B
C508	87-010-112-049		CAP,E 100-16
C563	87-018-205-089		CAP,TC-U 0.022-25<EXT K,E1,U,EE,EZ>
C600	87-010-544-049		CAP,E 0.1-50 SME
C601	87-018-116-089		CAP,TC-U 56P-50 SL
C602	87-010-544-049		CAP,E 0.1-50 SME
C603	87-018-209-089		CAP,TC-U 0.1-50 F
C606	87-018-195-089		CAP,TC-U 1200P-16<EXT HE,HK,HR>
C606	87-018-122-089		CAP,TC-U 180P-50B<HE,HK,HR>
C607	87-010-406-049		CAP,E 22-50 SME<HE,HK,HR>
C608	87-010-405-049		CAP,E 10-50 SME<HE,HK,HR>
C612	87-010-544-049		CAP,E 0.1-50 SME
C615	87-010-401-049		CAP,E 1-50 SME
C616	87-018-196-089		CAP,TC-U 1500P-16 X
C617	87-018-196-089		CAP,TC-U 1500P-16 X
C618	87-010-260-049		CAP,E 47-25 SME
C620	87-010-405-049		CAP,E 10-50 SME
C630	87-010-263-049		CAP,E 100-10
C651	87-010-401-049		CAP,E 1-50 SME
C652	87-010-401-049		CAP,E 1-50 SME
C701	87-018-132-089		CAP,TC-U 2200P-16X<HE,HK,HR>
C702	87-018-134-089		CAP,TC-U 0.01-16 Y<HE,HK,HR>
C707	87-018-134-089		CAP,TC-U 0.01-16 Y<HE,HK,HR>
C711	87-018-134-089		CAP,TC-U 0.01-16 Y<HE,HK,HR>
C712	87-018-132-089		CAP,TC-U 2200P-16 X<HE,HK,HR>
C714	87-010-260-049		CAP,E 47-25 SME<HE,HK,HR>
C720	87-010-401-049		CAP,E 1-50 SME<HE,HK,HR>
C721	87-018-133-089		CAP,TC-U 4700P-16X<HE,HK,HR>
C722	87-010-263-049		CAP,E 100-10<HE,HK,HR>
C724	87-018-127-089		CAP,TC-U 470P-50 B<HE,HK,HR>
C725	87-018-127-089		CAP,TC-U 470P-50 B<HE,HK,HR>
C726	87-010-374-049		CAP,E 47-10<HE,HK,HR>
C799	87-018-134-089		CAP,TC-U 0.01-16 Y
C800	87-018-205-089		CAP,TC-U 0.022-25 F
CON601	88-802-043-029		CONN,ASSY 4P<EXCEPT K,E1,U,EE,EZ>
FL101	85-NF7-608-019		FL,8-BT-177GK
J600	82-NF7-630-019		JACK,3.5 MO
J601	82-NF7-630-019		JACK,3.5 MO
L201	87-007-340-019		COIL,CLOCK 4.19MHZ
L701	87-005-456-089		COIL,1000UH FLR50,K<HE,HK,HR>
LED322	87-070-201-089		LED,SLP9118C-51-S-T1
LED323	87-070-201-089		LED,SLP9118C-51-S-T1
LED324	87-070-201-089		LED,SLP9118C-51-S-T1
LED325	87-070-201-089		LED,SLP9118C-51-S-T1
LED330	87-017-784-080		LED,SEL 1550CM TP8
LED331	87-017-784-080		LED,SEL 1550CM TP8
LED332	87-017-784-080		LED,SEL 1550CM TP8
LED333	87-017-784-080		LED,SEL 1550CM TP8
LED334	87-017-784-080		LED,SEL 1550CM TP8
S302	87-036-397-089		SW,TACT SKQNAB
S303	87-036-397-089		SW,TACT SKQNAB
S308	87-036-397-089		SW,TACT SKQNAB
S309	87-036-397-089		SW,TACT SKQNAB
S310	87-036-397-089		SW,TACT SKQNAB
S311	87-036-397-089		SW,TACT SKQNAB
S312	87-036-397-089		SW,TACT SKQNAB
S313	87-036-397-089		SW,TACT SKQNAB
S314	87-036-397-089		SW,TACT SKQNAB
S316	87-036-397-089		SW,TACT SKQNAB
S317	87-036-397-089		SW,TACT SKQNAB
S318	87-036-397-089		SW,TACT SKQNAB
S319	87-036-397-089		SW,TACT SKQNAB
S320	87-036-397-089		SW,TACT SKQNAB
S321	87-036-397-089		SW,TACT SKQNAB
S322	87-036-397-089		SW,TACT SKQNAB
S323	87-036-397-089		SW,TACT SKQNAB
S324	87-036-397-089		SW,TACT SKQNAB
S325	87-036-397-089		SW,TACT SKQNAB
S326	87-036-397-089		SW,TACT SKQNAB<ET K,E1,U,EE,EZ>
S327	87-036-397-089		SW,TACT SKQNAB<ET K,E1,U,EE,EZ>
S328	87-036-397-089		SW,TACT SKQNAB
S329	87-036-397-089		SW,TACT SKQNAB<ET K,E1,U,EE,EZ>
VR600	83-NM1-627-019		VR,10KB RK11K1130<HE,HK,HR>
VR601	81-MX4-637-019		VR,10KA RK11K1130

MVR C.B

C553	87-018-199-089		CAP,TC-U 3300P-16<ET K,E1,U,EE,EZ>
C554	87-018-199-089		CAP,TC-U 3300P-16<ET K,E1,U,EE,EZ>
C555	87-018-196-089		CAP,TC-U 1500P-16<ET K,E1,U,EE,EZ>
C556	87-010-384-049		CAP,E 100-25SME<ET K,E1,U,EE,EZ>
C557	87-010-401-049		CAP,E 1-50SME<ET K,E1,U,EE,EZ>
C558	87-010-401-049		CAP,E 1-50SME<ET K,E1,U,EE,EZ>
C559	87-010-371-049		CAP,E 470-6.3<ET K,E1,U,EE,EZ>
C560	87-018-134-089		CAP,TC-U 0.01-16<ET K,E1,U,EE,EZ>
C561	87-018-134-089		CAP,TC-U 0.01-16<ET K,E1,U,EE,EZ>
C588	87-018-196-089		CAP,TC-U 1500P-16<ET K,E1,U,EE,EZ>
C589	87-018-196-089		CAP,TC-U 1500P-16<ET K,E1,U,EE,EZ>
C590	87-018-199-089		CAP,TC-U 3300P-16<ET K,E1,U,EE,EZ>
C591	87-018-199-089		CAP,TC-U 3300P-16<ET K,E1,U,EE,EZ>
MVR801	81-MX4-635-019		VR,50KBX2 RK16812MG<K,E1,U,EE,EZ>
MVR801	85-NF7-605-019		VR,50KBX2 RK16812SH<HE,HR,HK,LH,G>
S304	87-036-397-089		SW,TACT SKQNAB
S305	87-036-397-089		SW,TACT SKQNAB
S306	87-036-397-089		SW,TACT SKQNAB
S307	87-036-397-089		SW,TACT SKQNAB

* ET/EXT IS THE ABBREVIATION OF EXCEPT.

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
KEY C.B			
S301	87-036-397-089		SW,TACT SKQNAB
AC C.B			
PT C.B			
⚠	82-304-743-019		TERMINAL,1P
⚠	87-033-147-019		CLAMP,FUSE
⚠F101	87-035-337-019		FUSE 2A 250V<LH,HE,HK,G,HR>
⚠F101	87-035-359-019		FUSE,500MA TE<K,E1,EE,EZ,Z>
⚠F101	87-035-412-019		FUSE,T1.25 250V UL<U>
⚠PT101	83-NE2-610-019		PT,3NE2 HU<U>
⚠PT101	83-NE2-611-019		PT,3NE2 EKZ<K,E1,EE,EZ,Z>
⚠PT101	83-NE2-655-019		PT,HM(EI-66)<LH,HE,HK,G,U,HR>
⚠SW101	87-036-388-019		SW,SL 1-2-2<LH,HE,HK,G,HR>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
DECK C.B			
SFR1	87-024-581-089		SFR,3.3K DIA 6H
SOL1	82-ZM1-618-010		SOL ASSY, 27
SOL2	82-ZM1-618-010		SOL ASSY, 27
SW1	87-036-378-010		SW, PUSH 1-1-1 SH2
SW2	87-036-378-010		SW, PUSH 1-1-1 SH2
SW3	87-036-378-010		SW, PUSH 1-1-1 SH2
SW4	87-036-378-010		SW, PUSH 1-1-1 SH2
SW5	87-036-378-010		SW, PUSH 1-1-1 SH2
SW6	87-036-378-019		SW, PUSH 1-1-1 SH2
SW8	87-036-378-019		SW, PUSH 1-1-1 SH2
RELAY-1 C.B			
RELAY-2 C.B			

TRANSISTOR ILLUSTRATION

E C B

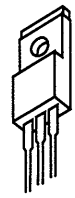
2SA1296GR
2SC3266GR
2SC2878
2SD655E
KTA1266GR
KTC3198GR

E C B

2SA952K
2SC2001K
2SC1923

E C B

2SA933S
2SC1740S
DTA114ES/YS
DTA143ES
DTC144ES



B C E

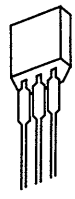
2SB1370E

E C B

2SC1318TU
2SC3331T

S G D

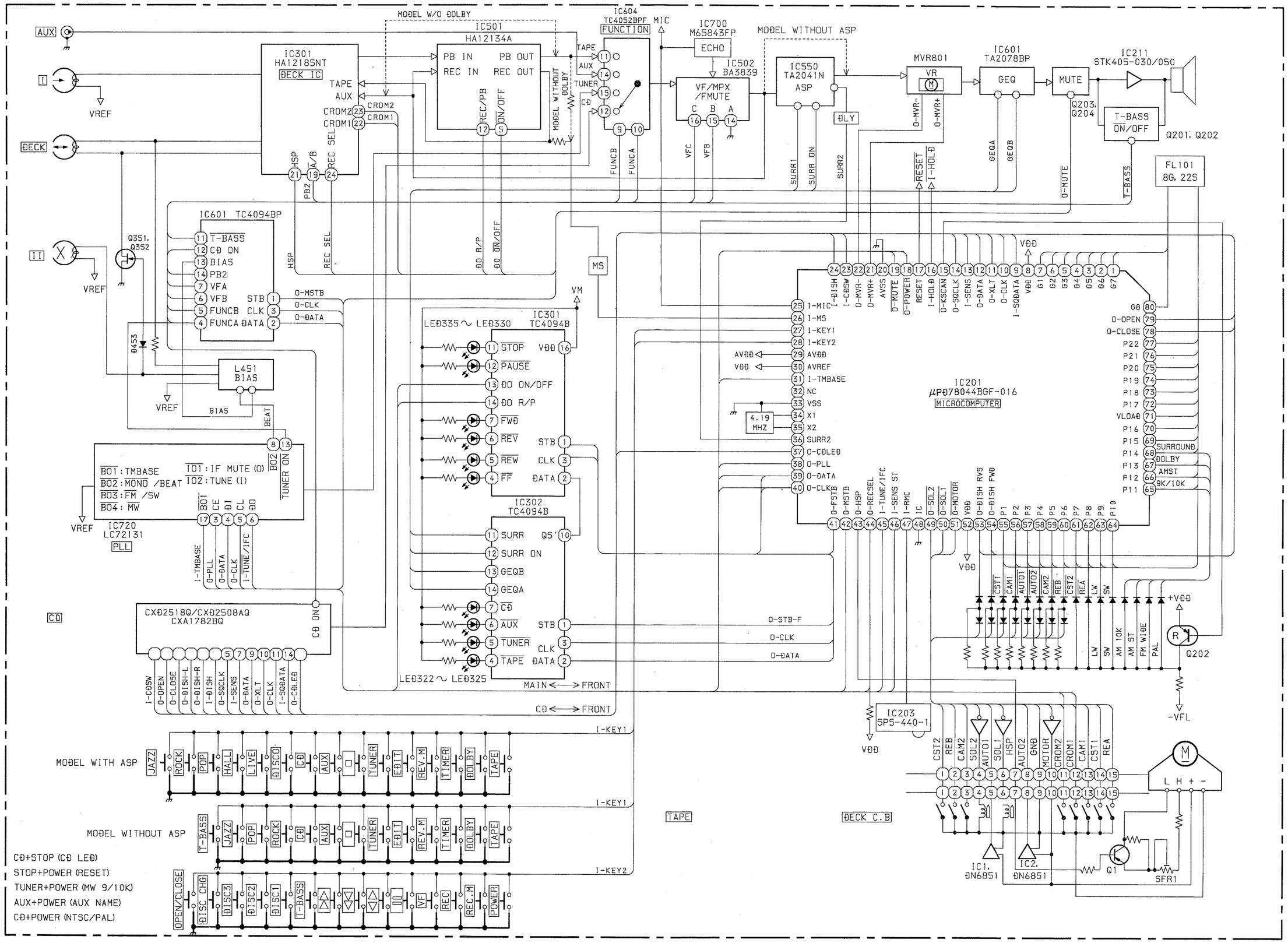
2SK246



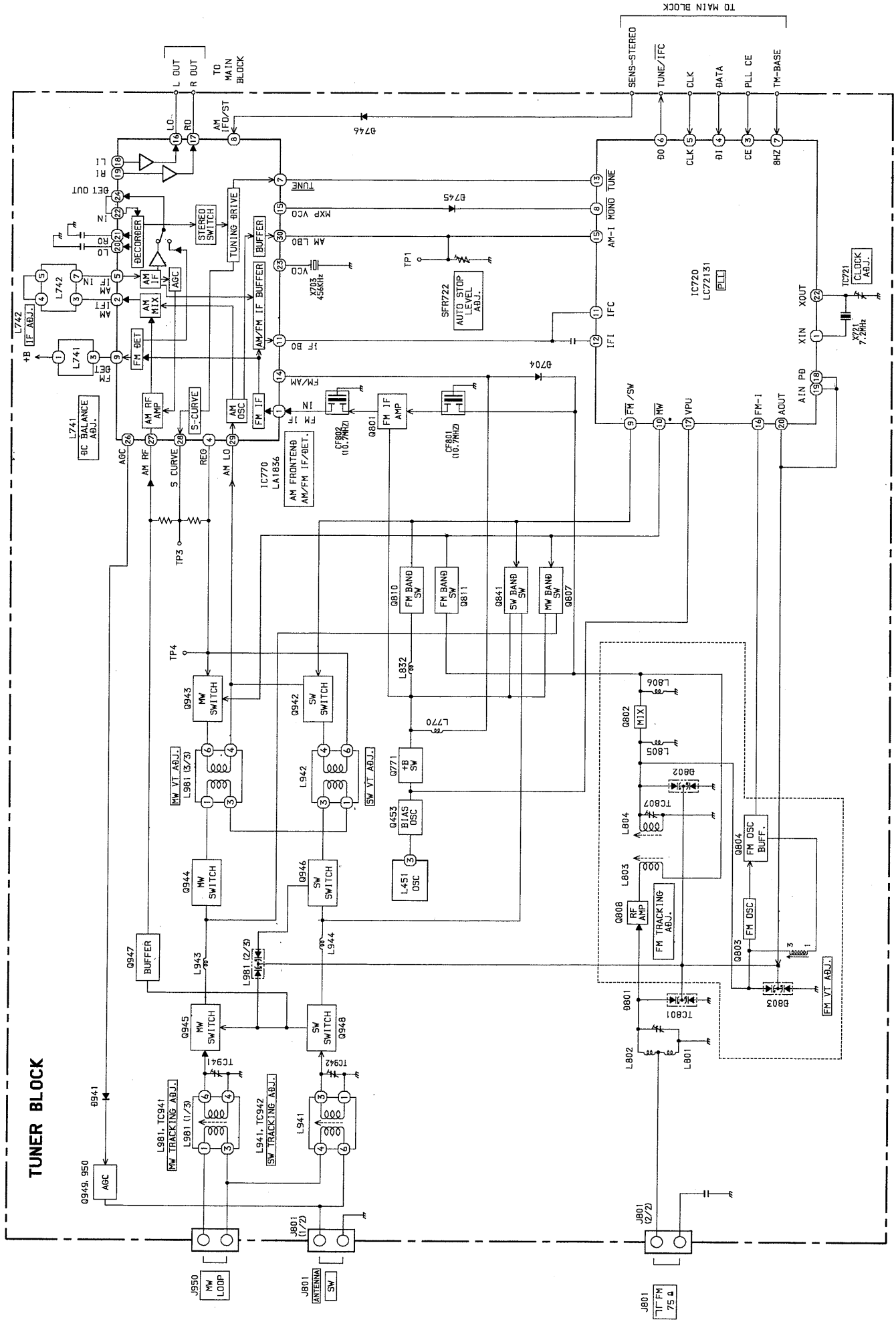
D S G

2SK161
2SK241
2SK544

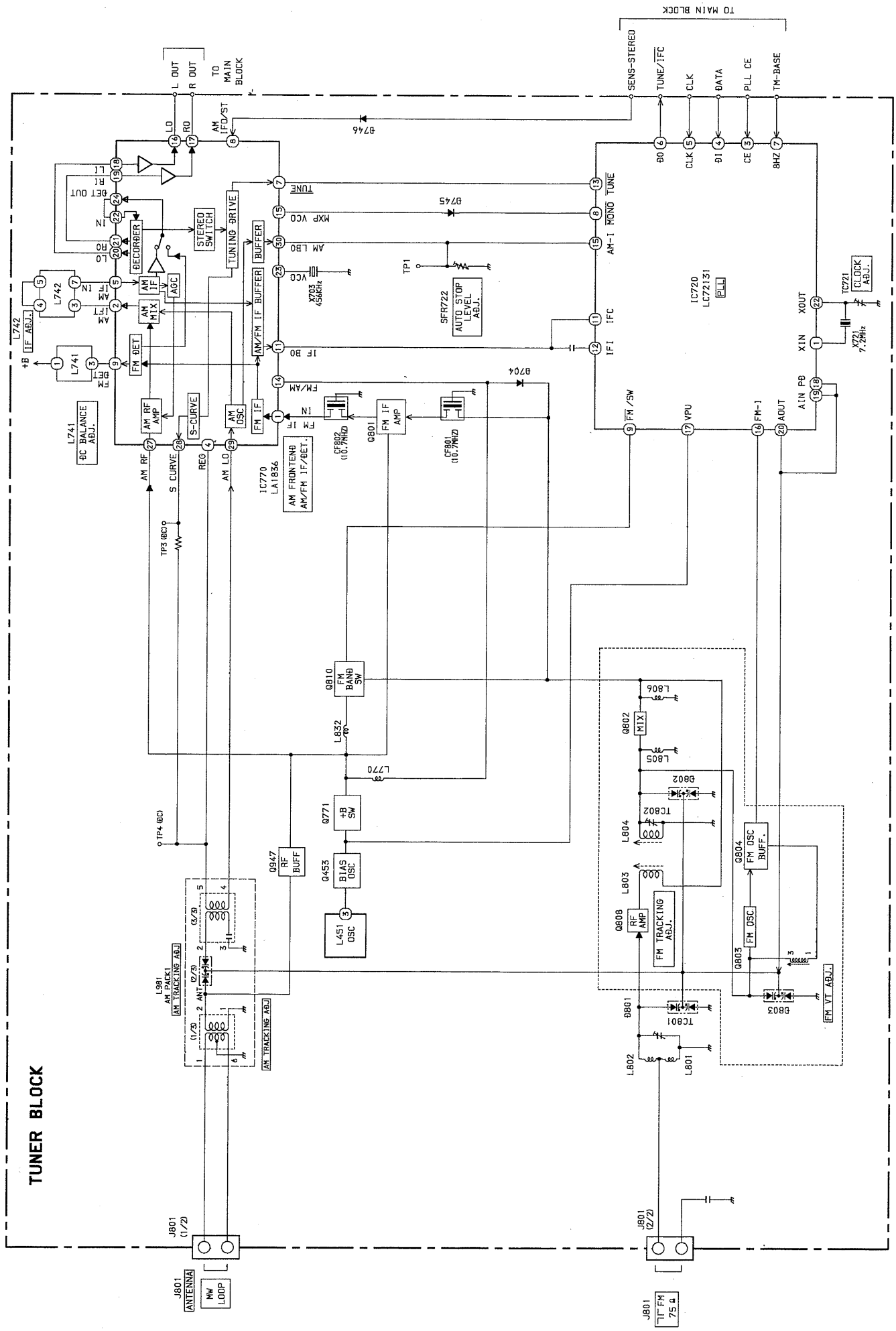
BLOCK DIAGRAM-1 (MAIN / FRONT)



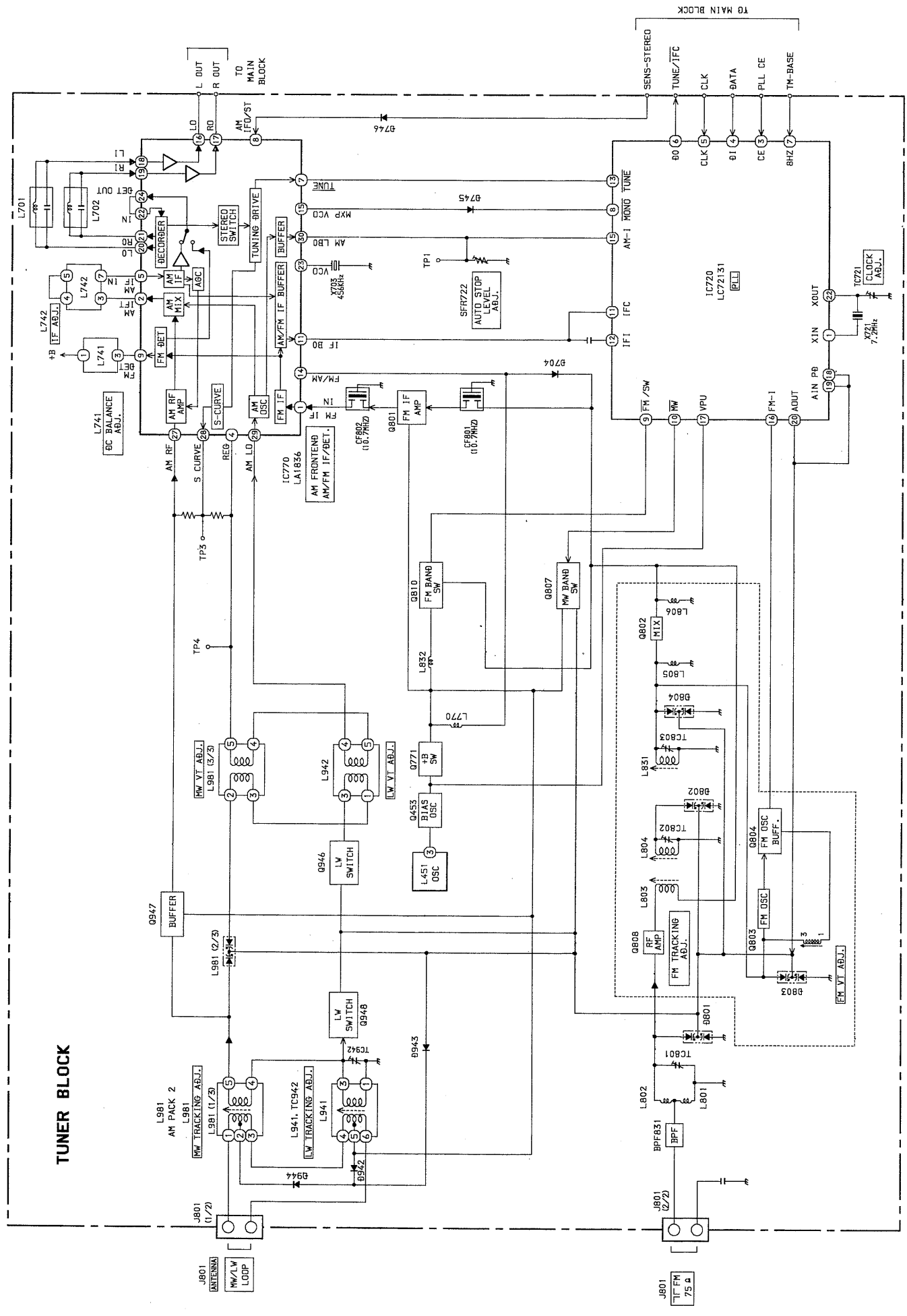
BLOCK DIAGRAM-2 (MAIN : HE,HK,HR)



BLOCK DIAGRAM-3 (MAIN : LH,U,G)



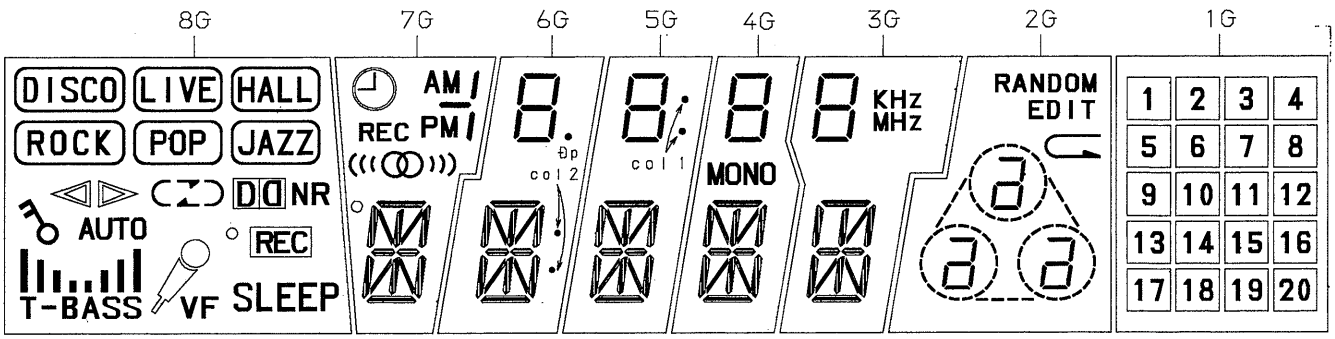
BLOCK DIAGRAM-4 (MAIN : EE,EZ,EEZ,K,Z)

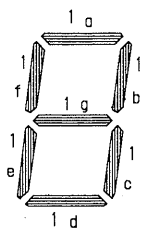


FL GRID ASSIGNMENT & ANODE CONNECTION

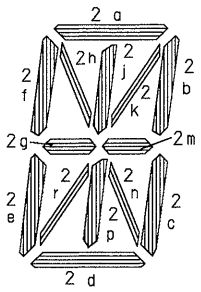
FL, 8-BT-177GK

GRID ASSIGNMENT

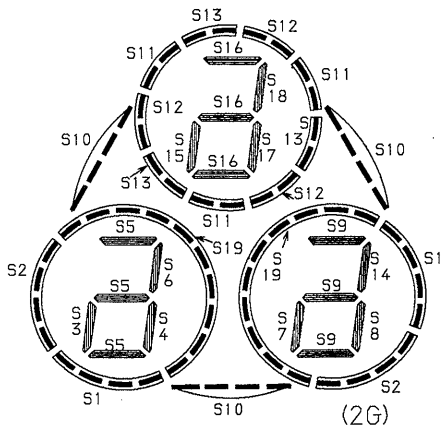




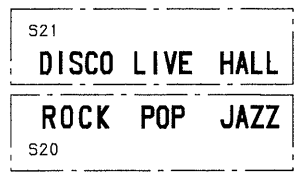
(6G ~ 3G)



(7G ~ 3G)



(2G)



(8G)

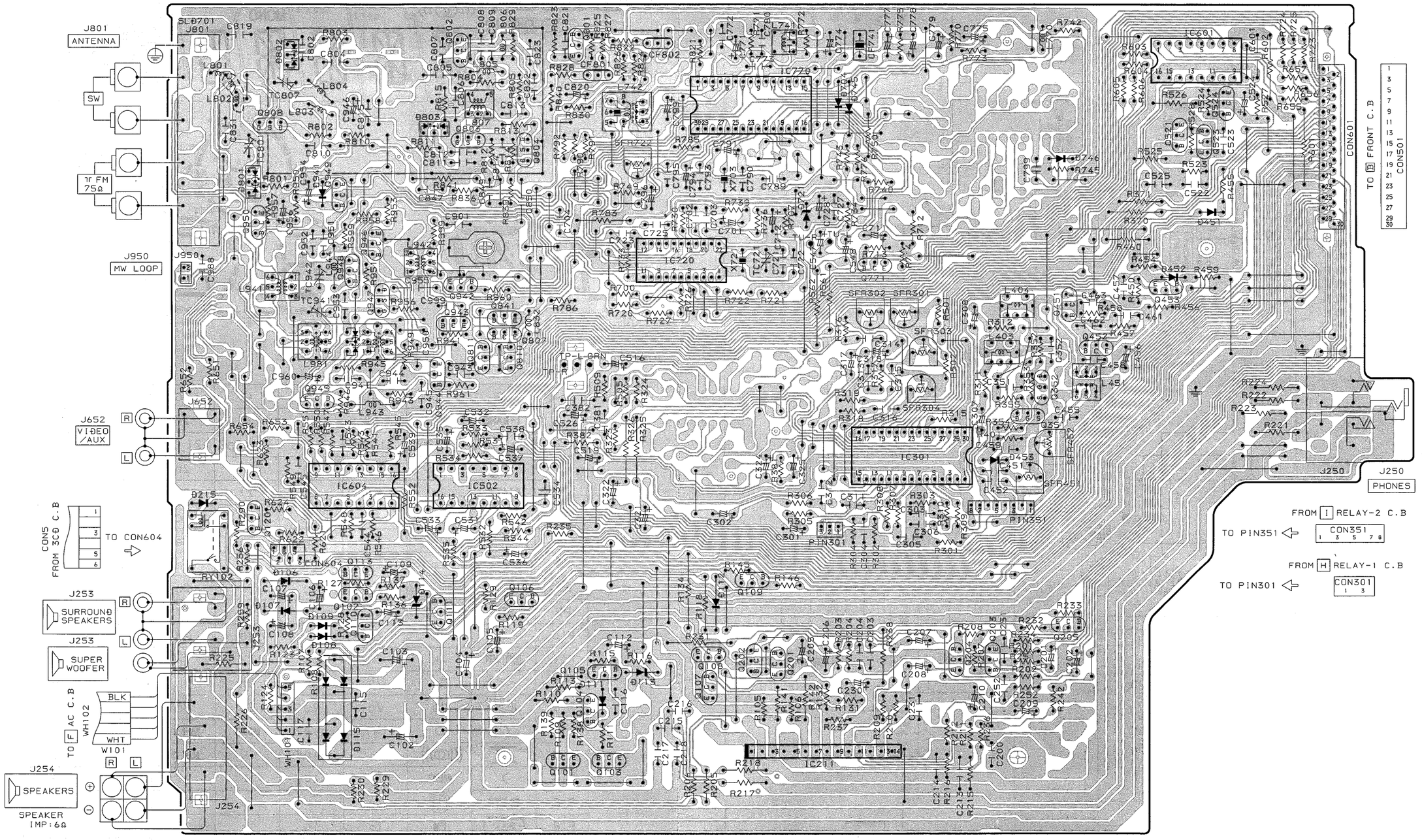
ANODE CONNECTION

	8G	7G	6G	5G	4G	3G	2G	1G
P1	T-BASS	2d	2d	2d	2d	2d	S1	**20**
P2		2j ,2p	2j ,2p	2j ,2p	2j, 2p	2j, 2p	S2	**19**
P3		2n	2n	2n	2n	2n	S3	**18**
P4	AUTO	2r	2r	2r	2r	2r	S4	**17**
P5	VF	2c	2c	2c	2c	2c	S5	**16**
P6	(DISCO)	2e	2e	2e	2e	2e	S6	**15**
P7	(LIVE)	2m	2m	2m	2m	2m	S7	**14**
P8	(HALL)	2g	2g	2g	2g	2g	S8	**13**
P9	REC	2f	2f	2f	2f	2f	S9	**12**
P10	○	2b	2b	2b	2b	2b	S10	**11**
P11	DOLBY NR	2k	2k	2k	2k	2k	S11	**10**
P12		2h	2h	2h	2h	2h	S12	**9**
P13		2a	2a	2a	2a	2a	S13	**8**
P14		○	col	col (ĐN)	MONO	MHz	S14	**7**
P15			Đp	col (UP)	-	kHz	S15	**6**
P16		REC	1d	1d	1d	1d	S16	**5**
P17	SLEEP		1e	1e	1e	1e	S17	**4**
P18	(ROCK)	PM	1c	1c	1c	1c	S18	**3**
P19	(POP)	AM	1g	1g	1g	1g	S19	**2**
P20	(JAZZ)	—	1f	1f	1f	1f		**1**
P21	S20	/	1b	1b	1b	1b	EDIT	
P22	S21	-	1a	1a	1a	1a	RANDOM	-

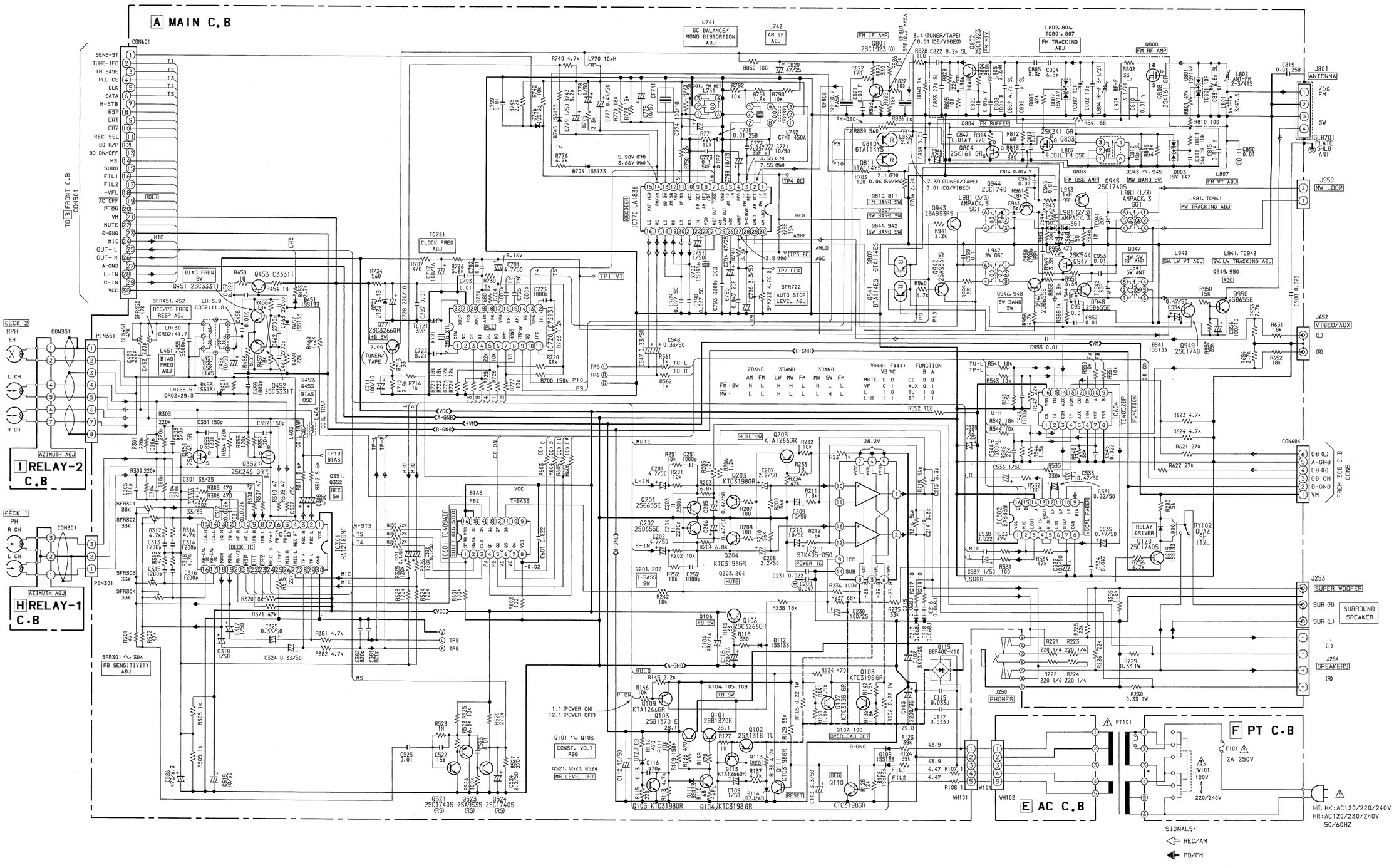
1 2 3 4 5 6 7 8 9 10 11 12 13 14

A B C D E F G H I J

A MAIN C.B

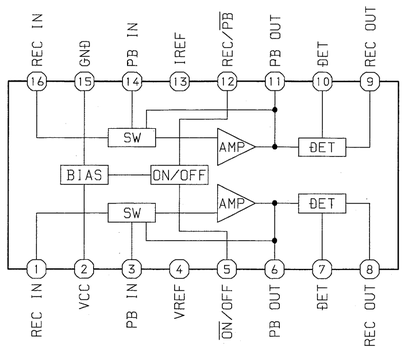


SCHEMATIC DIAGRAM-1 (MAIN : HE,HK,HR)

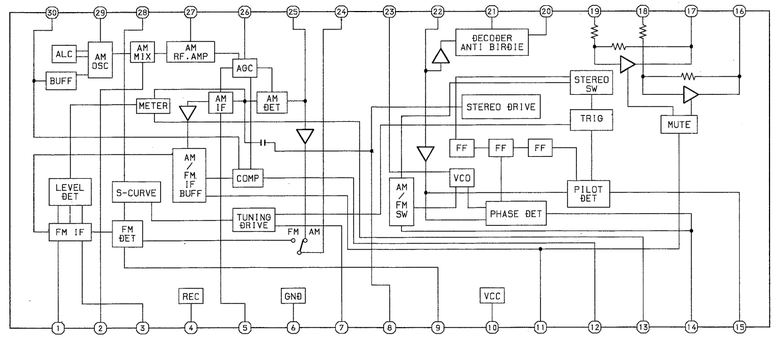


IC BLOCK DIAGRAM-1

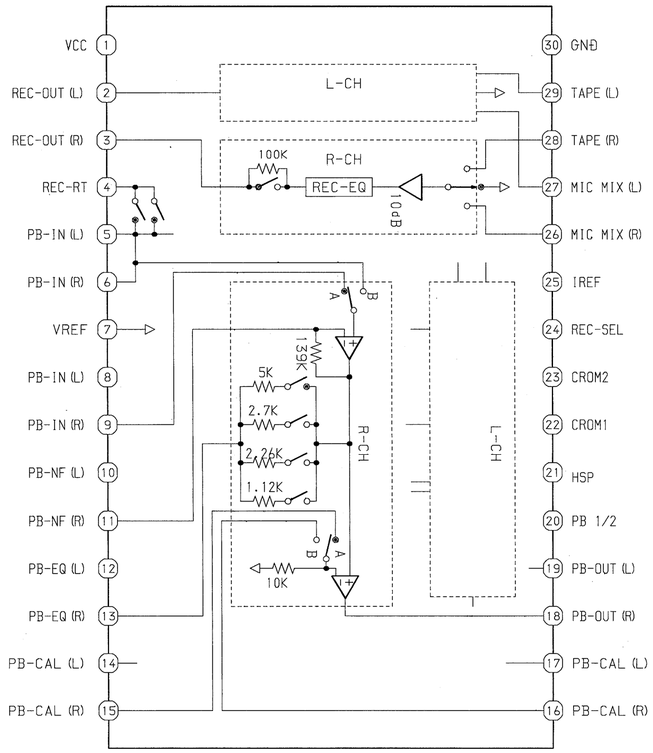
IC, HA12134A



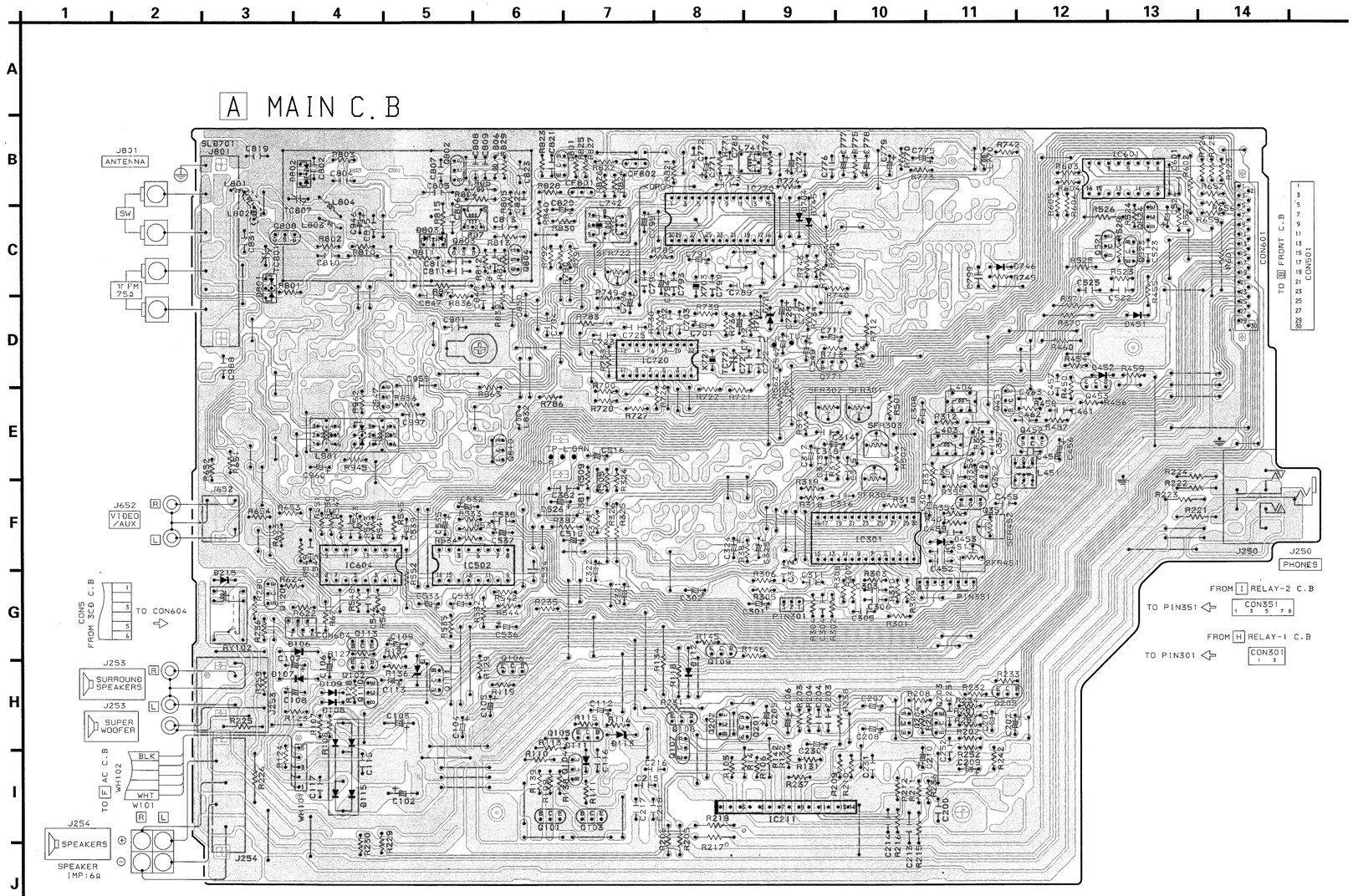
IC, LA1836



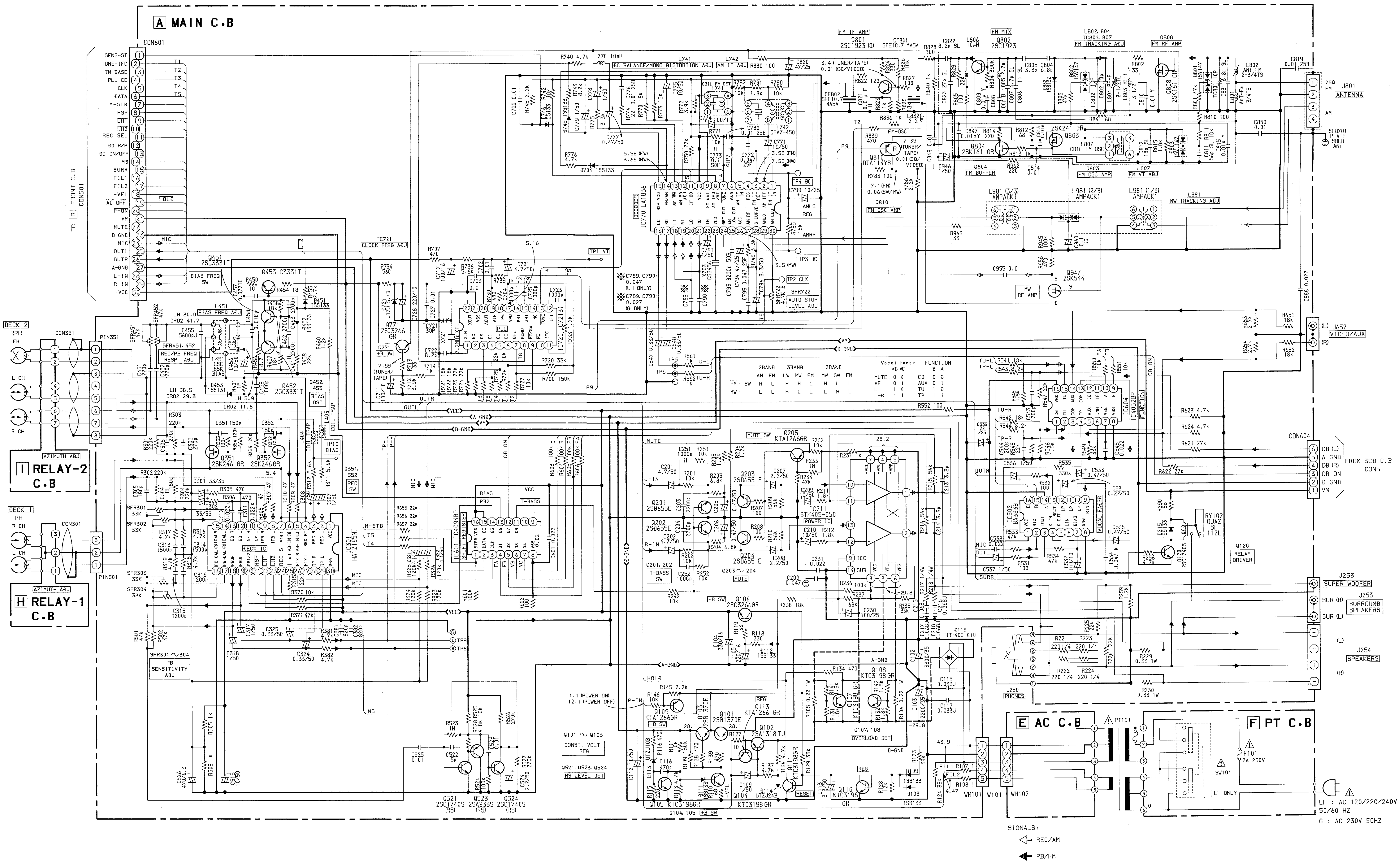
IC, HA12185NT



WIRING-2 (MAIN : LH,G)

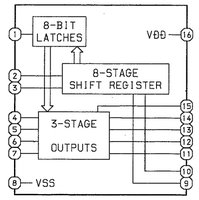


SCHEMATIC DIAGRAM-2 (MAIN : LH,G)

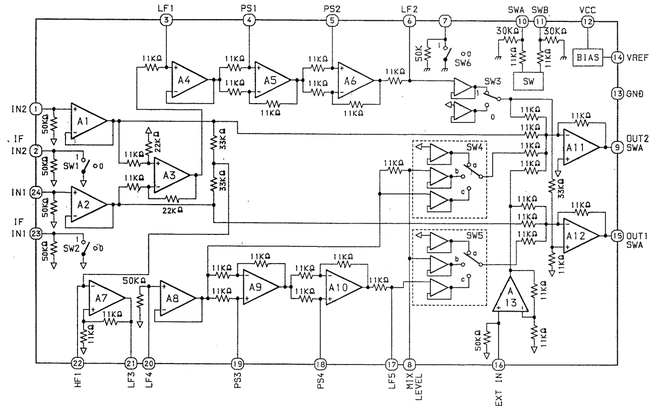


IC BLOCK DIAGRAM-2

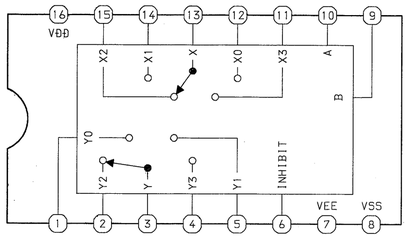
IC, TC4094BP



IC, TA2041N



IC, TC4052BP

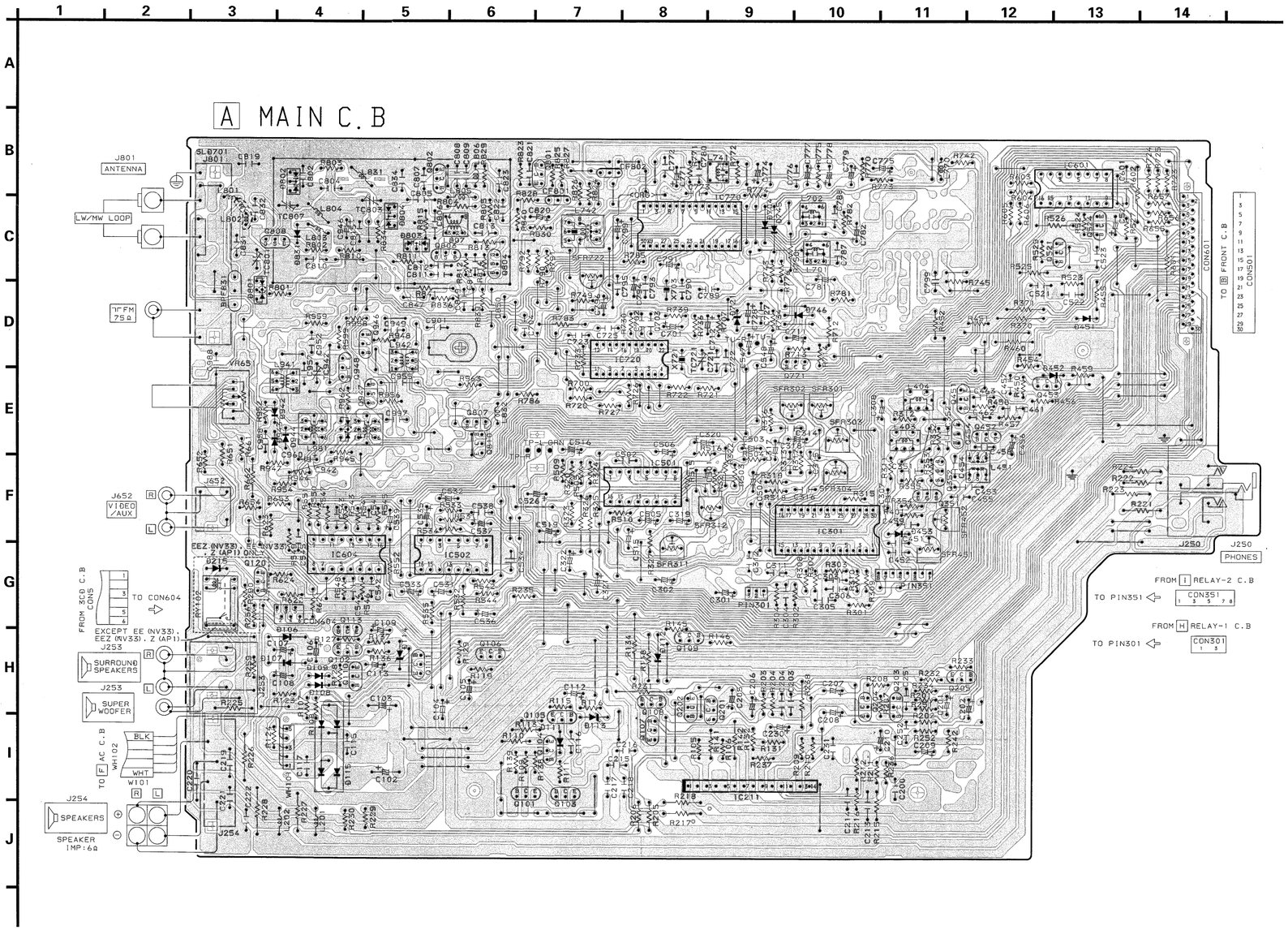


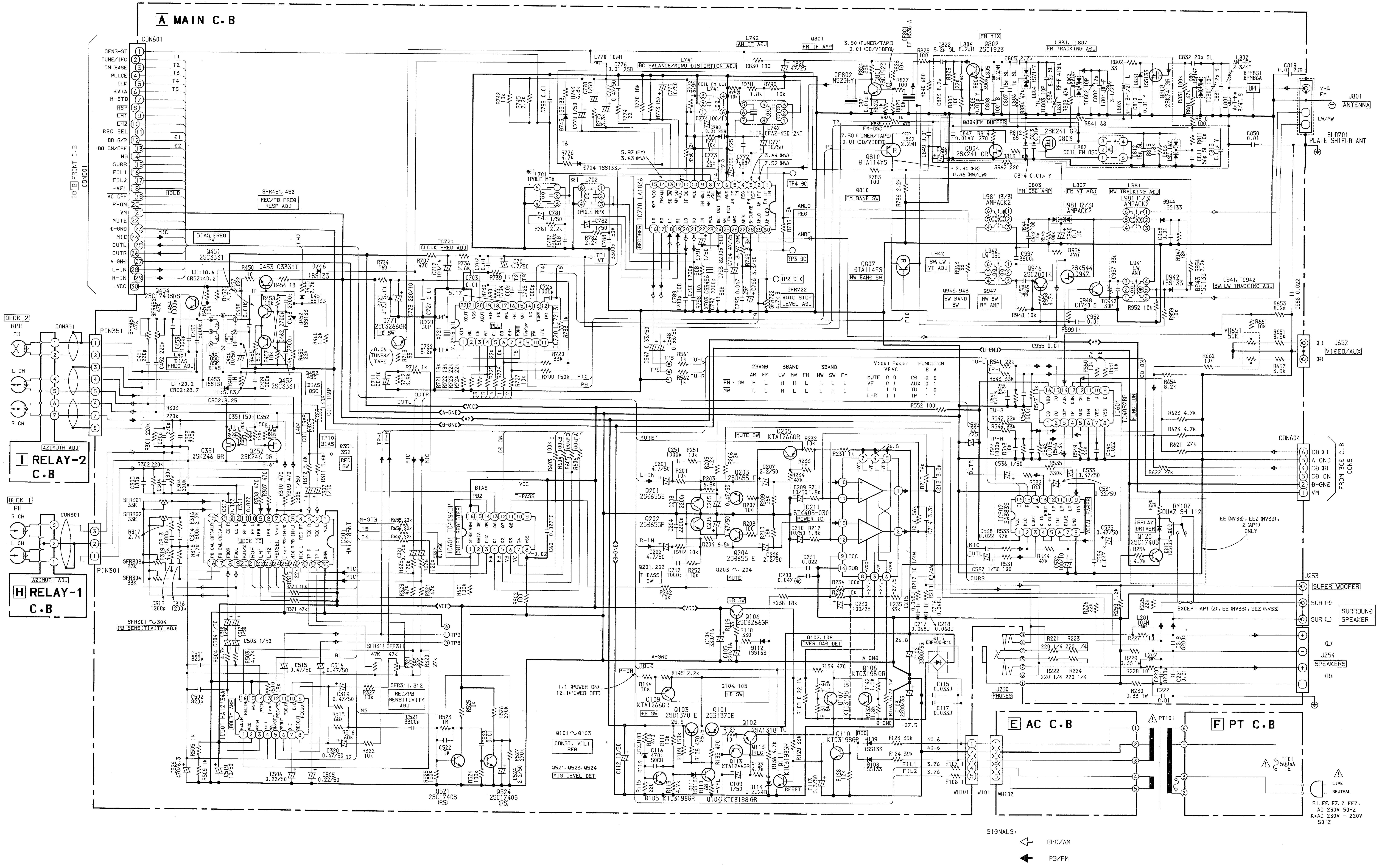
TRUTH TABLE

CONTROL INPUTS			ON SWITCH	
INHIBIT	B	A		
L	L	L	Y0	X0
L	L	H	Y1	X1
L	H	L	Y2	X2
L	H	H	Y3	X3
H	X	X	·—	—

L:LOW LEVEL
H:HIGH LEVEL
H:IRRELEVANT

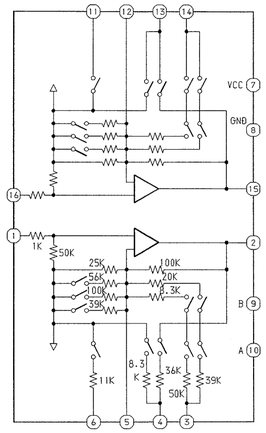
WIRING-3 (MAIN : EE,EZ,EEZ,K,Z)



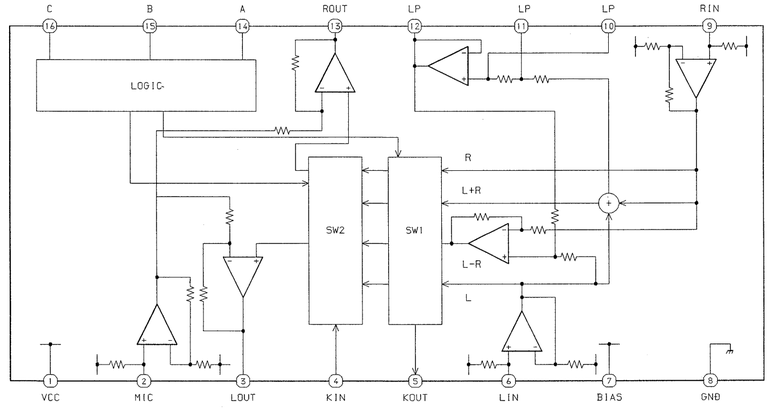

A MAIN C.B
CON601
TO B FRONT C.B CON501
DECK 2
DECK 1
I RELAY-2 C.B
H RELAY-1 C.B
AZIMUTH ADJ
SFR301 ~ 304 PB SENSITIVITY ADJ
SFR451, 452 REC/PB FREQ RESP ADJ
BIAS FREQ SW
TC721 CLOCK FREQ ADJ
IC720 LC72131
IC770 LA1836
L741 DC BALANCE/MONO DISTORTION ADJ
L742 AM IF ADJ
Q801 FM IF AMP
Q802 2SC1923 FM MIX
L831, TC807 FM TRACKING ADJ
Q804 FM BUFFER
Q803 FM OSC AMP
L807 FM VT ADJ
L981 MW TRACKING ADJ
L941, TC942 SW, LW TRACKING ADJ
SFR722 AUTO STOP LEVEL ADJ
J801 ANTENNA
J652 VIDEO/AUX
IC301 HA12185NT DECK IC
IC501 HA12134A DOLBY AMP
IC601 TC4094BP SHIFT REGISTER
IC211 STK405-030 POWER IC
IC604 TC4052BP FUNCTION
IC502 BA3839 VOCAL FADER
SFR311, 312 REC/PB SENSITIVITY ADJ
Q101 ~ Q103 CONST. VOLT REG
Q521, Q523, Q524 MIS LEVEL DET
Q107, 108 OVERLOAD DET
RY102 OUAZ SH 112
RELAY DRIVER
EE (NV33), EEZ (NV33), Z (AP1) ONLY
EXCEPT AP1 (Z), EE (NV33), EEZ (NV33)
CON604 FROM 3CD C.B CON5
J253 SUPER WOOFER
SURROUND SPEAKER
J254 SPEAKERS
J250 PHONES
E AC C.B
F PT C.B
PT101
F101 500mA TE
LIVE
NEUTRAL
E1, EE, EZ, Z, EEZ: AC 230V 50HZ
K:AC 230V - 220V 50HZ
SIGNALS:
REC/AM
PB/FM

IC BLOCK DIAGRAM-3

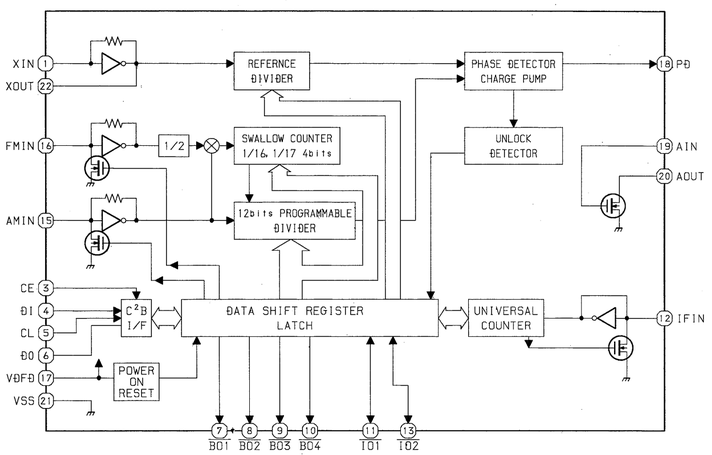
IC, TA2078N



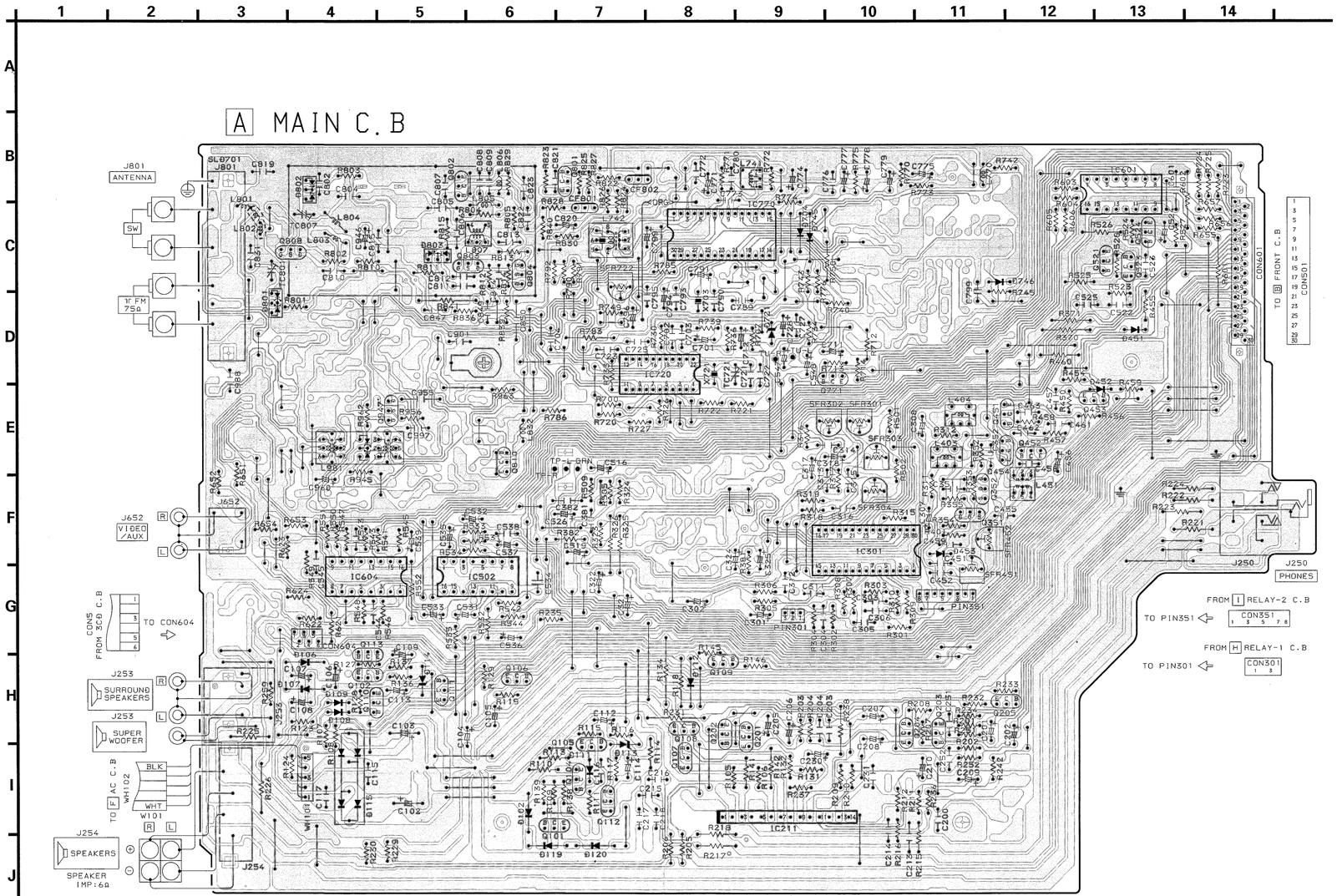
IC, BA3839



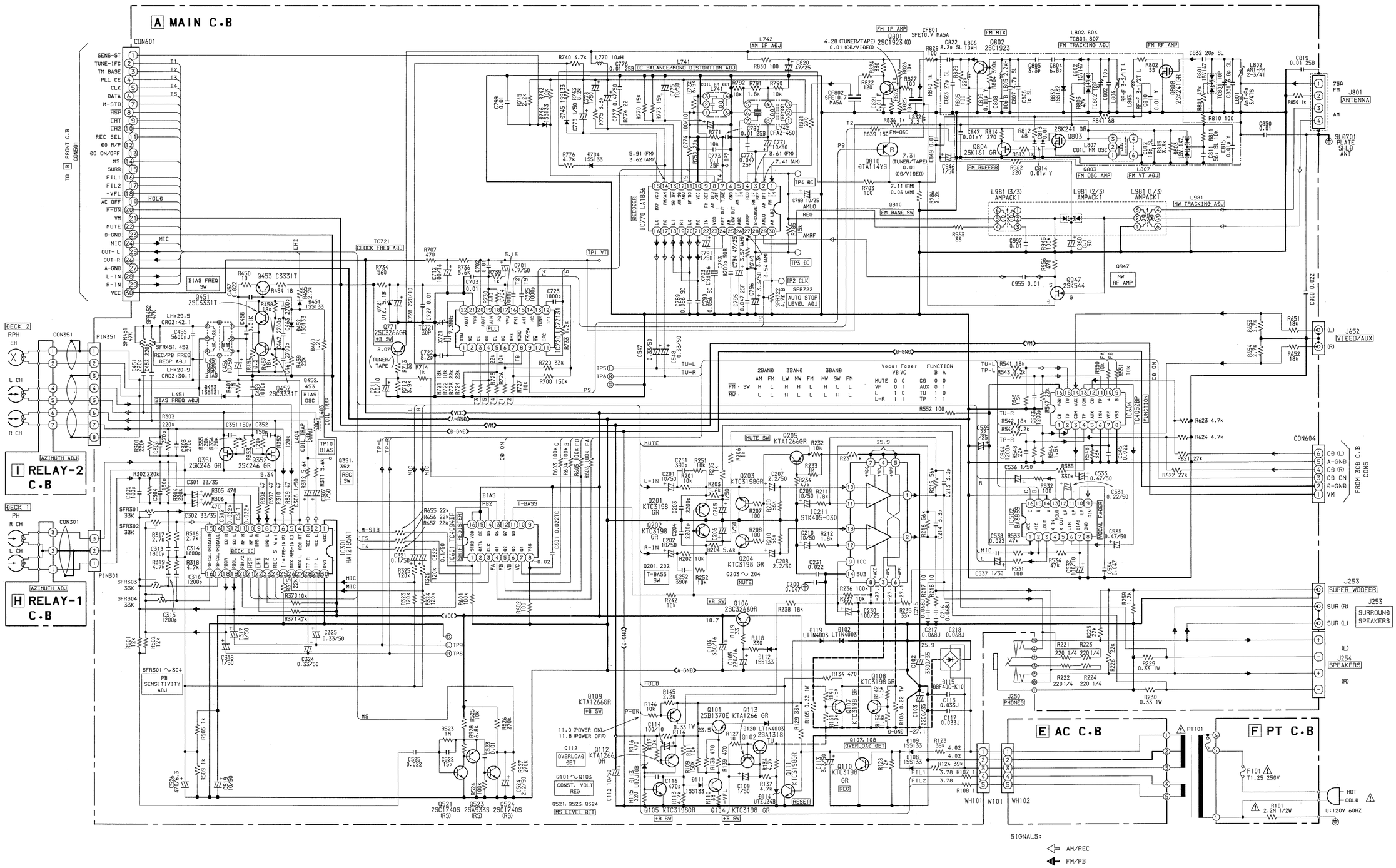
IC, LC72131

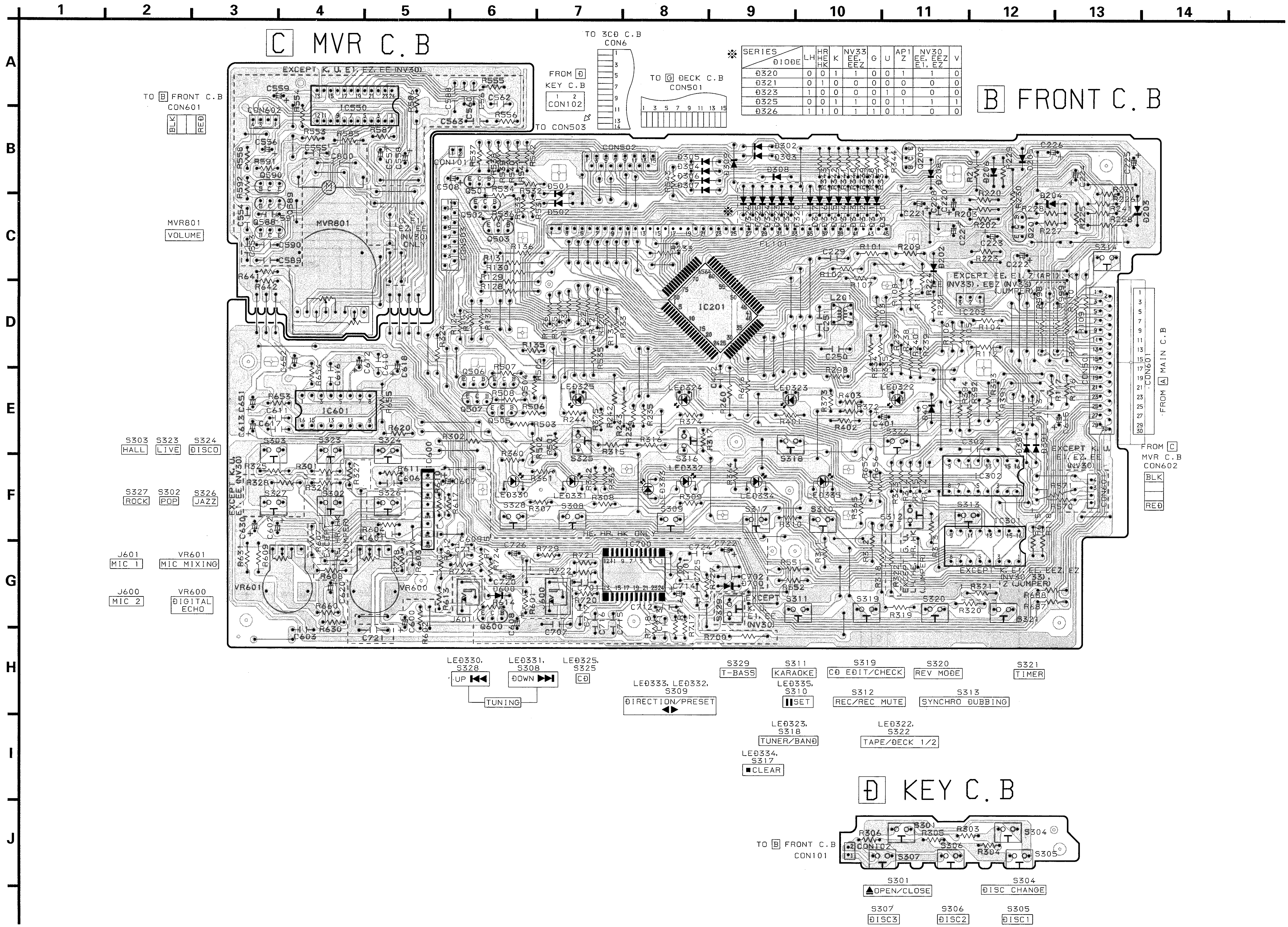


WIRING-4 (MAIN : U)



SCHEMATIC DIAGRAM-4 (MAIN : U)

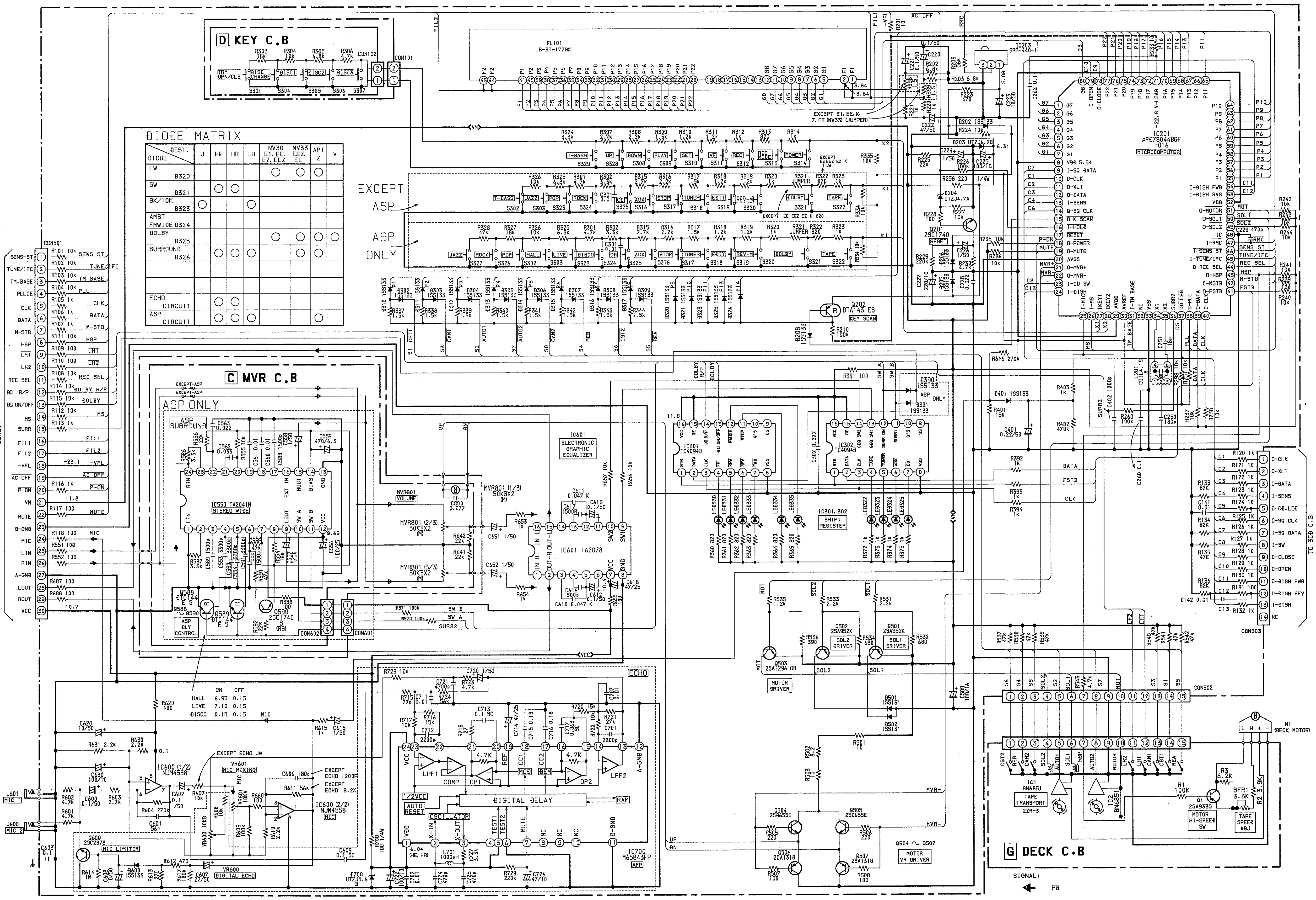


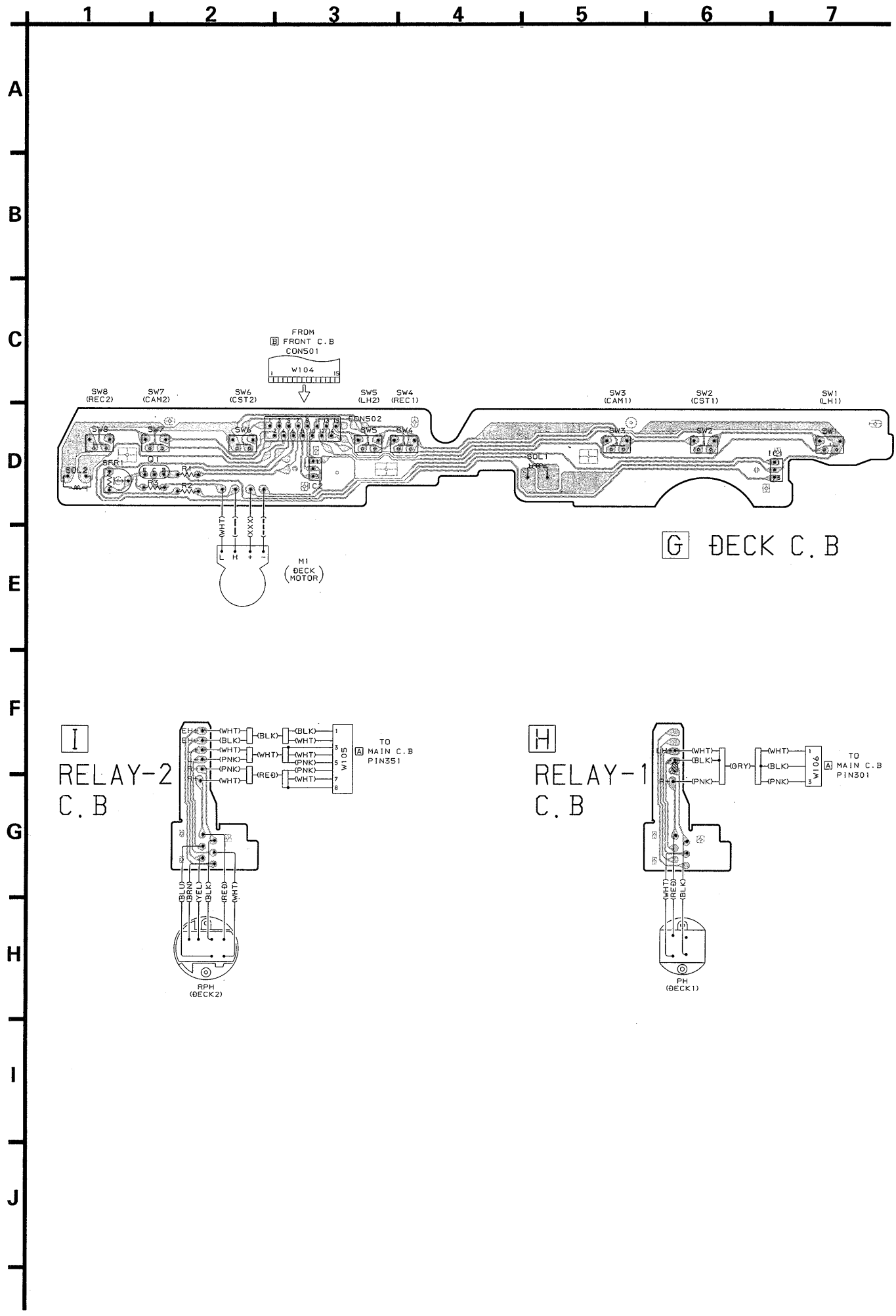


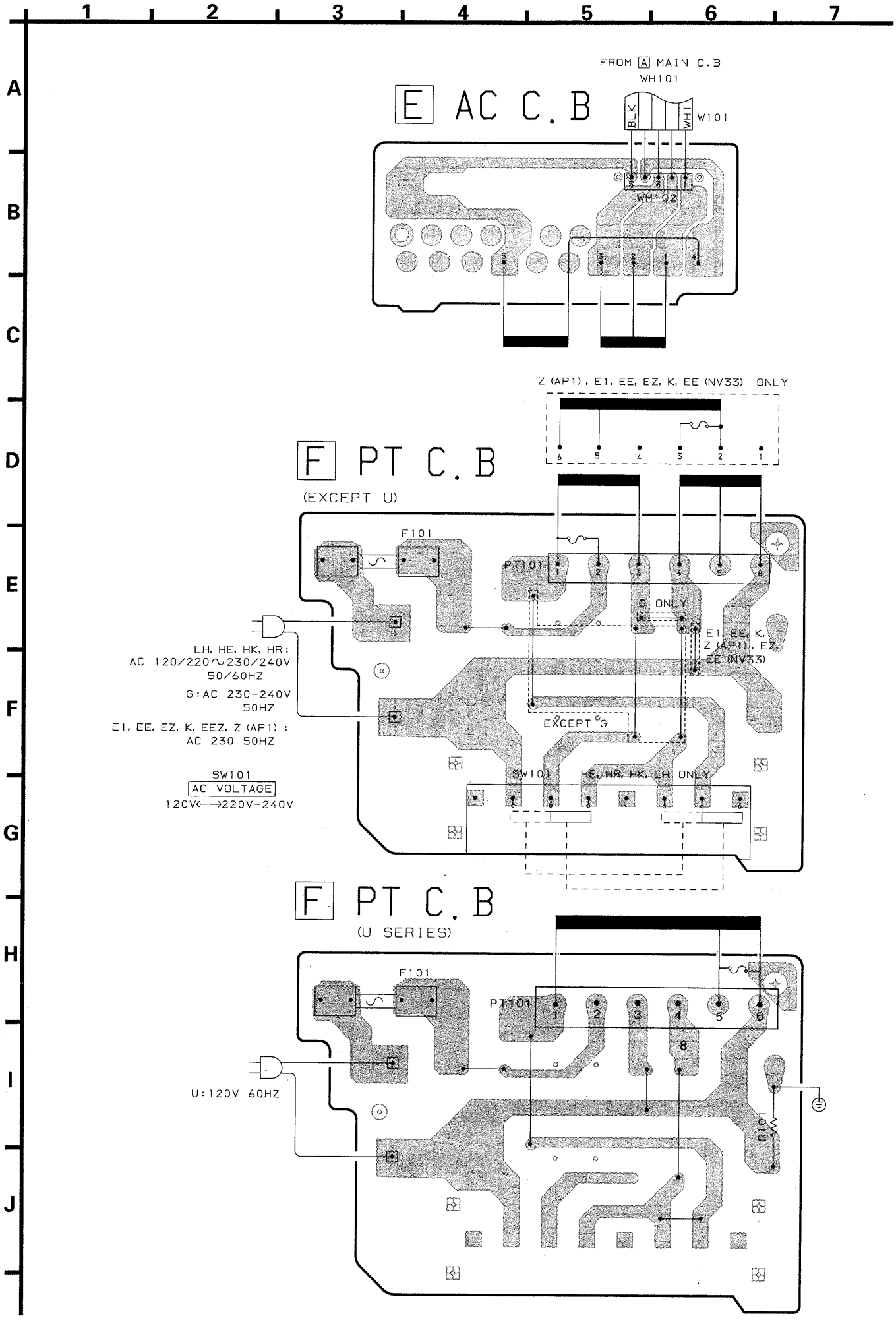
※

SERIES / ĐIOĐE	LH	HR HE HK	K	NV33 EE, EEZ	G	U	AP1 Z	NV30 EE, EEZ E1, EZ	V
Đ320	0	0	1	1	0	0	1	1	0
Đ321	0	1	0	0	0	0	0	0	0
Đ323	1	0	0	0	0	1	0	0	0
Đ325	0	0	1	1	0	0	1	1	1
Đ326	1	1	0	1	1	0	1	0	0

SCHEMATIC DIAGRAM-5 (FRONT)




1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
FROM
B FRONT C.B
CON501
W104
SW8 (REC2)
SW7 (CAM2)
SW6 (CST2)
SW5 (LH2)
SW4 (REC1)
SW3 (CAM1)
SW2 (CST1)
SW1 (LH1)
CON502
SOL2
SOL1
SRR1
R1
R2
R3
C1
C2
(WHT)
(XXX)
L H + −
M1
DECK MOTOR
G DECK C.B
I
RELAY-2 C.B
EH
5H
R
(WHT)
(BLK)
(PNK)
(RED)
W105
A MAIN C.B PIN351
(BLU)
(BRN)
(YEL)
RPH (DECK2)
H
RELAY-1 C.B
LH
(GRY)
W106
PH (DECK1)


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
FROM A MAIN C.B
WH101
E AC C.B
BLK
WHT
W101
WH102
Z (AP1), E1, EE, EZ, K, EE (NV33) ONLY
F PT C.B
(EXCEPT U)
F101
PT101
G ONLY
E1, EE, K,
Z (AP1), EZ,
EE (NV33)
LH, HE, HK, HR:
AC 120/220~230/240V
50/60HZ
G:AC 230-240V
50HZ
E1, EE, EZ, K, EEZ, Z (AP1) :
AC 230 50HZ
EXCEPT G
SW101
AC VOLTAGE
120V←→220V-240V
SW101
HE, HR, HK, LH ONLY
F PT C.B
(U SERIES)
F101
PT101
U:120V 60HZ
R10

IC DESCRIPTION

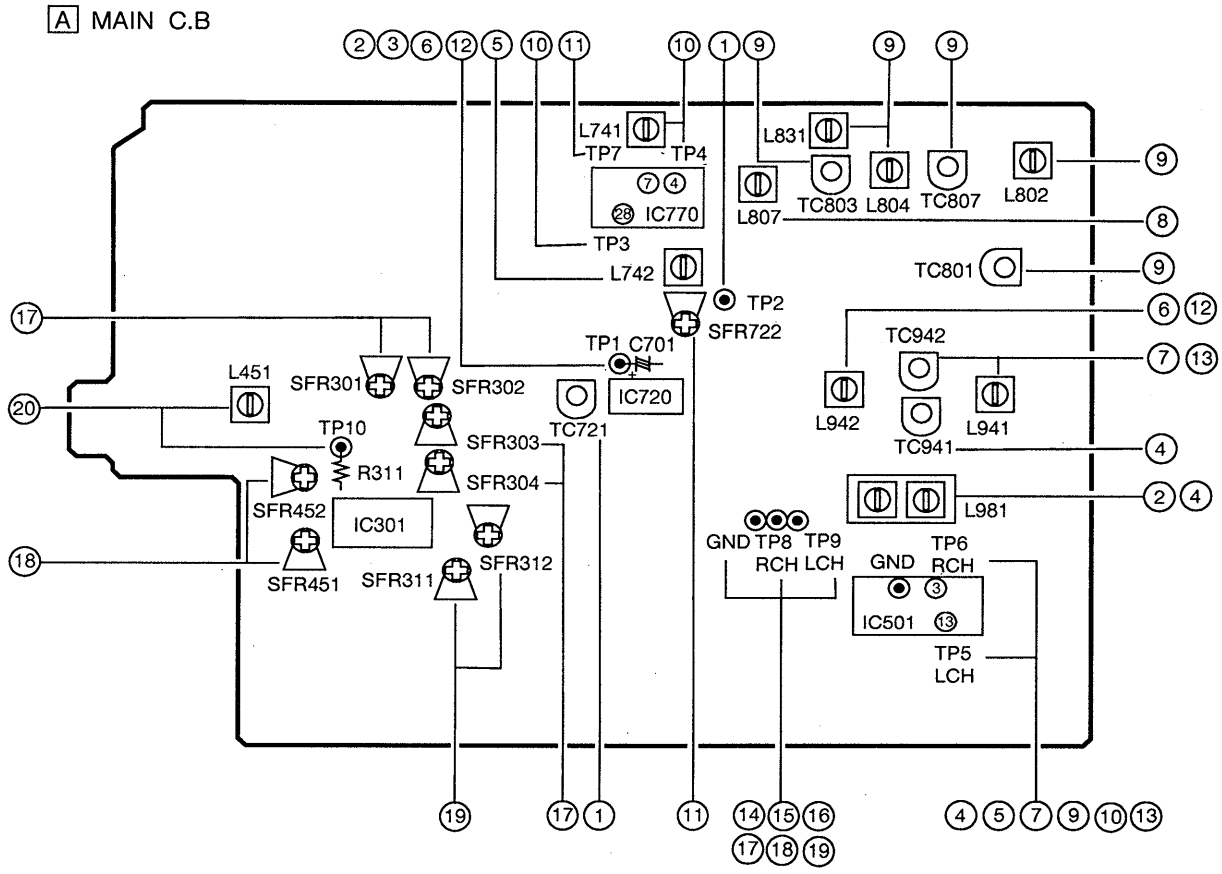
IC, μPD78044BGF-016

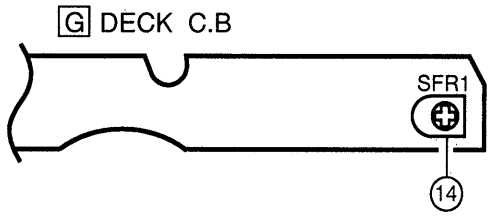
Pin No.	Pin Name	I/O	Description
1~7	G7 ~G1	O	Digit output for FL display.
8	VDD	-	Power supply terminal. (+5V)
9	I-SQDATA	I/O	CD IC control input/output.
10	O-CLK		
11	O-XLT		
12	O-DATA		
13	I-SENS		
14	O-SQCLK	I/O	Serial data output to control the signal processing IC for CD.
15	$\overline{\text{O-KSCAN}}$	I/O	Segment input permitted output. (Low active)
16	$\overline{\text{I-HOLD}}$	I/O	Power failure detected input. (Low when Hold)
17	$\overline{\text{RESET}}$	I	System reset input.
18	$\overline{\text{O-POWER}}$	I/O	System power supply $\overline{\text{ON}}$/OFF output.
19	O-MUTE	I/O	System mute ON/OFF output.
20	AVSS	-	GND.
21	O-MVR +	I/O	Motor volume up output.
22	O-MVR –	I/O	Motor volume down output.
23	I-CD SW	I/O	CD Mechanical switch AD input.
24	I-DISH	I/O	CD turntable photo sensor A/D input.
25	I-MIC	I/O	Mic level A/D input for auto vocal fader.
26	I-MS	I/O	A/D input of key data from DECK button.
27	I-KEY 1	I/O	KEY1 A/D input.
28	I-KEY 2	I/O	KEY2 A/D input.
29	AVDD	-	Power supply terminal.
30	AVREF	I	Reference voltage. (+5V)
31	I-TMBASE	I	Input a reference clock signal (8Hz) to the clock.
32	NC	-	-
33	VSS	-	GND.
34	X1	I	4.19MHz clock oscillator input.
35	X2	-	4.19MHz clock oscillator input.
36	SURR 2	I/O	ASP surround IC control output.
37	$\overline{\text{O-CD LED}}$	I/O	CD flash window LED $\overline{\text{ON}}$/OFF output.
38	O-PLL	I/O	PLL IC chip enable output.
39	O-DATA	I/O	PLL shift register data output.
40	O-CLK	I/O	PLL shift register clock output.
41	O-FSTB	I/O	Shift register data latch strobe output.
42	O-MSTB	I/O	Shift register data latch strobe output.
43	O-HSP	I/O	Deck motor high speed ON/$\overline{\text{OFF}}$ output.
44	O-REC SEL	I/O	Deck recording input switch.(HiZ-RMT, H-MIX, L-TAPE)

	OFF	DISCO	LIVE	HALL
SURR ON	0	1	1	1
SURR 1	0	0	1	0
SURR 2	0	0	1	1

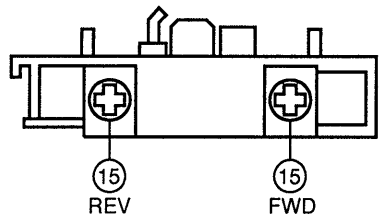
Pin No.		I/O	Description
44	O-REC SEL	I/O	"HiZ" (MUTE) REC muting; "H" (MIX) Manual dubbing; "L" (TAPE) Synchronize dubbing; Dolby On : "L"(TAPE) Dolby Off : "H" (MIX) Tuner/Aux/CD Recording
45	$\overline{\text{I-TUNE/IFT}}$	I/O	SD detected input or serial data input of IF count to and from Tuner. (Active low)
46	$\overline{\text{I-SENS ST}}$	I/O	Stereo detected input to and from Tuner. (Active low)
47	$\overline{\text{I-RMC}}$	I/O	System remote controller input.
48	IC	-	Internal connection. (connected to GND)
49	$\overline{\text{O-SOL2}}$	O	Mechanism solenoid drive control output to DECK 2. "L" when ON.
50	$\overline{\text{O-SOL1}}$	O	Mechanism solenoid drive control output to DECK 1. "L" when ON.
51	$\overline{\text{O-MOTOR}}$	O	Mechanism main motor drive control output to DECKs. "L" when ON.
52	VDD	-	Power supply terminal. (+5V)
53	O-DISH RVS	O	Mechanism 3 disc table drive control output to IC203. "H" during forward rotation.
54	O-DISH FWD	O	Mechanism 3 disc table drive control output to IC203. "H" during reverse rotation.
55 ~ 70	P1 ~ P16	O	Segment output for FL display.
71	VLOAD	-	-27V power supply for FL pull down.
72~77	P17~22	O	Segment output for FL display.
78	O-CLOSE	O	CD tray close.
79	O-OPEN	O	CD tray open.
80	G8	O	Digit output for FL display.

ADJUSTMENT – 1 <TUNER / DECK>





DECK–1 P, DECK–2 R / P / E HEAD



< TUNER SECTION >

1. Clock Frequency Adjustment
   Settings : • Test point : TP2
   • Adjustment location : TC721
   Method : Set to MW 1710kHz (HE,HR,HK,LH,U), 1602kHz (E1,EE,EZ,K,G,Z) and adjust TC721 so that the test point becomes 2160kHz ± 0.01kHz (HE,HR,HK,LH,U), 2052kHz ± 0.01kHz (E1,EE,EZ,K,G,Z).

2. MW VT Adjustment <HE, HR, HK>
   Settings : • Test point : TP1 (VT)
   • Ajustment location : L981
   Method : Set to MW 1710kHz and adjust L981 so that the test point becomes 8.5V ± 0.05V. Then set to MW 530kHz and check that the test point is more than 0.3V.

3. MW VT Check <Except HE,HR,HK>
   Settings : • Test point : TP1 (VT)
   Method : Set to MW 1710kHz (LH,U), 1602kHz (E1,EE,EZ,K,G,Z) and check that the test point is 7.0V ± 1.0V (LH,U), 6.8V ± 1.0V (E1,EE,EZ,K,G).

4. MW Tracking Adjustment<HE, HR, HK>
   Settings : • Test point : TP-5, TP-6
   • Ajustment location :
   L981 ..... 600kHz
   TC941 ..... 1400kHz
   Method : Set up TC941 to center before adjustment. The level at 600kHz is adjusted to MAX by L981. Then the level at 1400kHz is adjusted to MAX by TC941.

   <LH,U,G,E1,EE,EZ,K,Z>
   Settings : • Test point : TP-5, TP-6
   • Ajustment location :
   L981 ..... 600kHz
   TC941 ..... 1400kHz
   Method : Set to MW 600kHz and adjust L981 so that the test point becomes maximum. Then set to MW 1400kHz (except LH,U) and adjust TC941 so that the test point becomes maximum.

5. AM IF Adjustment
   Settings : • Test point : TP-5, TP-6
   L742 ..... 999kHz
   (E1,EE,EZ,K,G,Z)
   L742 .....1000kHz
   (HE,HR,HK,LH,U)

Method : Set to MW 999kHz (E1,EE,EZ,K,G,Z), MW 1000kHz (HE,HR,HK,LH,U) and adjust L742 so that the test point becomes maximum.

6. SW VT Adjustment <HE, HR, HK>
   Settings : • Test point : TP1 (VT)
   • Ajustment location : L942
   Method : Set to SW 17.9MHz and adjust L942 so that the test point becomes 8.0V ± 0.05V.

7. SW Tracking Adjustment <HE, HR, HK>
   Settings : • Test point : TP-5, TP-6
   • Adjustment location :
   L941 ..... 5.95MHz
   TC942 ..... 17.9MHz
   Method : Set up TC942 to center before adjustment. The level at 5.95MHz is adjusted to MAX by L941. Then the level at 17.9MHz is adjusted to MAX by TC942.

8. FM VT Adjustment
   Settings : • Test point : TP1 (VT)
   • Adjustment location : L807
   Method : Set to FM 87.5MHz and adjust L807 so that test point is 2.9V ± 0.05V.

9. FM Tracking Adjustment
   Settings : • Test point : TP5, TP6
   • Adjustment location :
   L802,L804,L831 ..... 87.5MHz
   TC801,TC803,TC807..... 108.0MHz
   Method : • The level at 87.5MHz is adjusted by L802, L804 (HE,HR,HK,LH,G,U) and L831 (E1,EE,EZ,K,Z). Then the level at 108.0MHz is adjusted by TC801, TC807 (HE,HR,HK,LH,G,U) and TC803 (E1,EE,EZ,K,Z) so that the distortion is less than 3%.

10. DC Balance / Mono Distortion Adjustment
    Settings : • Test point : TP3, TP4 (DC balance)
    TP5, TP6 (Distortion)
    • Ajustment location : L741
    • Input level : 54dB
    Method : Set to FM 98.0MHz and adjust L741 so that the voltage between TP3 and TP4 becomes 0V ± 0.04V.
    Next, check that the distortion is less than 1.3%.

11. Auto Stop Level Adjustment
    Settings : • Test point : TP7
    • Adjustment location : SFR722
    • Input level : 20dB
    Method : Set to FM 98.0 MHz and adjust voltage low (about 0.01V) by SFR722. After that voltage high (about 7.0V) by 2dB down.

12. LW VT Adjustment <E1,EE,EZ,K,Z>
    Settings : • Test point : TP1 (VT)
    • Ajustment location : L942
    Method : Set to LW 144kHz and adjust L942 so that the test point becomes 1.5V ± 0.05V.

13. LW Tracking Adjustment <E1,EE,EZ,K,Z>
    Settings : • Test point : TP5,TP6
    • Ajustment location :
    L941 ..... 144kHz
    TC942 ..... 290kHz
    Method : Set up TC942 to center before adjustment. The level at 144kHz is adjusted to MAX by L941. Then the level at 290kHz is adjusted to MAX by TC942.

< DECK SECTION >

14. Tape Speed Adjustment
    Settings : • Test tape : TTA–100
    • Test point : TP8, TP9
    • Adjustment location : SFR1
    Method : Play back the test tape by DECK 2 and adjust SFR1 so that the frequency counter reads 3000Hz ± 5Hz.

15. 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.

16. 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 is with respect to that of the 315Hz signal is ± 2dB.

17. PB Sensitivity Adjustment
    Settings : • Test tape : TTA–200
    • 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 test tape and adjust SFRs so that the output level of the test point becomes 300mV.

18. REC/PB Frequency Response Adjustment
    Settings : • Test tape : TTA–602
    • Test point : TP8, TP9
    • Input signal : 1kHz / 10kHz (LINE IN)
    • Adjutment location : SFR451 (Lch)
    SFR452 (Rch)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes 210mV. Record and play back the 1kHz and 10kHz signals and adjust SFRs so that the output of the 10kHz signals becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

19. REC/PB Sensitivity Adjustment (E1,EE,EZ,K,Z)
    Settings : • Test tape : TTA–602
    • Test point : TP8, TP9
    • Input signal : 1kHz (LINE IN)
    • Adjutment location : SFR311 (Lch)
    SFR312 (Rch)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes 21mV. Record and play back the 1kHz signals and adjust SFRs so that the output is 21mV ± 0.5dB.

20. Bias OSC Frequency Adjustment
    Settings : • Test tape : TTA–601
    • Test point : TP10 (R311)
    • Adjustment location : L451
    Method : Set to the REC mode. Adjust L451 so that the frequency counter of the test point becomes minimum.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

S/N 50dB Quieting sensitivity :	
	35dB ± 5dB (except Z)
	36dB ± 5dB (Z only)
	(87.5 / 98.0 / 108.0MHz)
Signal to noise ratio :	More than 64dB (98.0MHz)
Distortion :	Less than 2.0%
	(98.0MHz)
Stereo separation :	More than 25dB (98.0MHz)
	(HE,HR,HK,LH,G,U)
	More than 20dB (98.0MHz)
	(E1,EE,EZ,K,Z)
Intermediate frequency :	10.7MHz

<AM(MW) SECTION>

Sensitivity :	58 ± 6dB
(S/N 20 dB)	[at 600kHz (LH,U)]
	[at 603kHz
	(HE,HR,HK,E1,EE,EZ,K,Z)]
	56 ± 6dB
	[at 1000 / 1400kHz (LH,U)]
	[at 999 / 1404kHz
	(HE,HR,HK,E1,EE,EZ,K,Z)]
Distortion :	Less than 1.5%
	[at 1000kHz (LH,U)]
	[at 999kHz
	(HE,HR,HK,E1,EE,EZ,K,Z)]
Intermediate frequency :	450kHz

<SW SECTION> (HE, HR, HK)

Sensitivity :	37 ~ 45dB (5.95MHz)
(S/N 20dB)	30 ~ 38dB (12MHz)
	30 ~ 38dB (17.97MHz)
Distortion :	More than 1.5% (12MHz)
Intermediate frequency :	450kHz

<LW SECTION> (E1,EE,EZ,K)

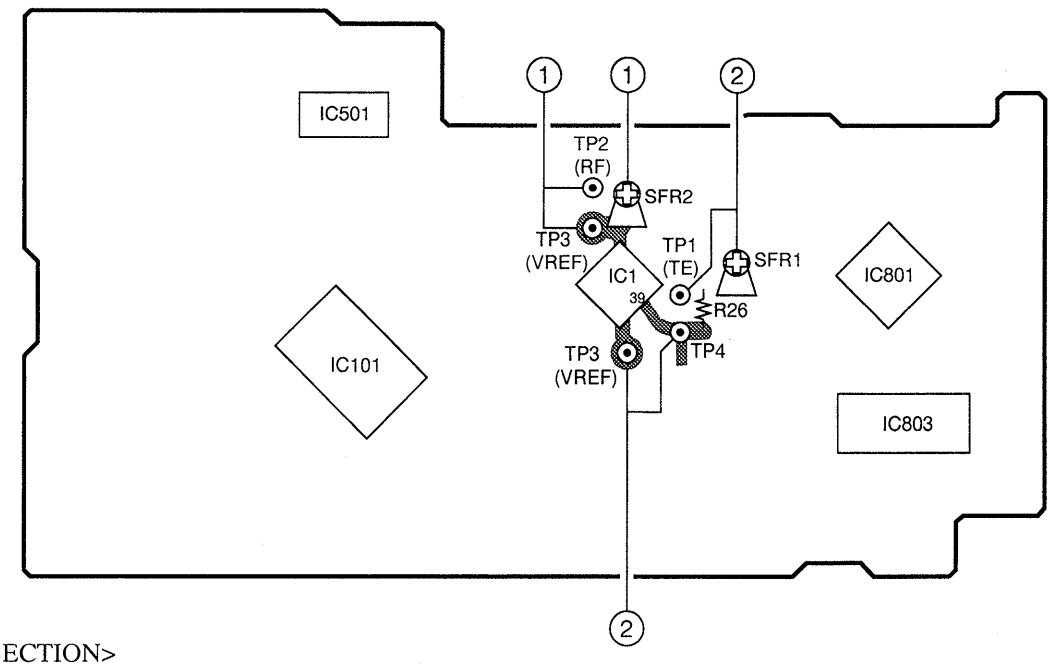
Sensitivity :	68 ± 5dB (144kHz)
(S/N 20dB)	65 ± 5dB (198/290kHz)
Distortion :	Less than 1.5% (198kHz)
Intermediate frequency :	450kHz

<DECK SECTION>

Tape speed :	3000Hz ± 45Hz
Wow & flutter :	Less than 0.4% (R.M.S)
Take-up torque :	25 ~ 55g-cm (FWD, REV)
F.F torque :	75 ~ 180g-cm
REW torque :	75 ~ 130g-cm
Back tension :	3 ± 4g-cm (FWD, REV)
PB Output level :	2.6V ± 3dB (HE,HR,HK,LH,G,U)
	2.7V ± 3dB (E1,EE,EZ,K,Z)
REC/PB Output level :	2.0V ± 3dB
	(SP OUT 2V)
Distortion (REC/PB) :	Less than 3.0% (NORM, CrO2)
Noise level (PB) :	Less than 15mV (HE,HR,HK,LH,G,U)
	Less than 8mV (E1,EE,EZ,K,Z)
	(DOLBY NR ON / OFF
	CrO_2 Vol MAX.)
	Less than 20mV (HE,HR,HK,LH,G,U)
	Less than 12mV (E1,EE,EZ,K,Z)
	(DOLBY NR ON / OFF
	NORM. Vol MAX.)
Noise level (REC/PB) :	Less than 15mV (HE,HR,HK,LH,G,U)
	Less than 9mV (E1,EE,EZ,K,Z)
	(DOLBY NR ON / OFF CrO2)
	Less than 20mV (HE,HR,HK,LH,G,U)
	Less than 13mV (E1,EE,EZ,K,Z)
	(DOLBY NR ON / OFF NORM)
Crosstalk :	More than 60dB (1kHz, 0VU)
Channel separation :	More than 40dB (1kHz, 0VU)
Erasing ratio :	More than 60dB (at 125Hz)
Test tape :	NORMAL : TTA-602
	CrO_2 : TTA-610

ADJUSTMENT – 2 <CD>

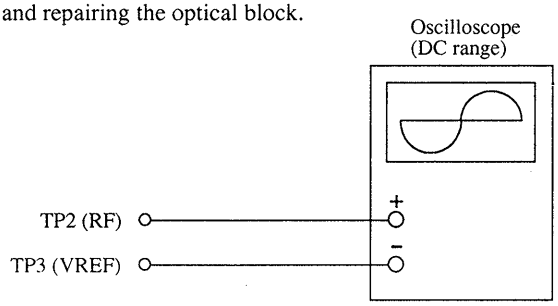
3CD C.B



<CD SECTION>

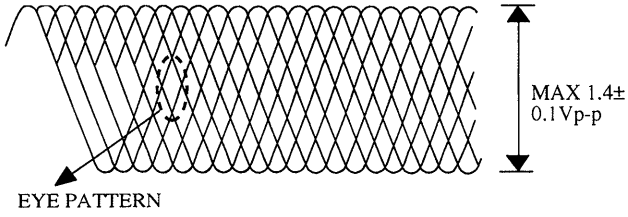
Note : Connect a probe (10:1) of the frequency counter or the oscilloscope to a test point.

1. Focus Bias Adjustment
   Make the focus bias adjustment when replacing and repairing the optical block.



1) Connect an oscilloscope to the test points TP2 (RF) and TP3 (VREF).
2) Turn on the power switch.
3) Insert test disc TCD-782 (YEDS-18) and play back the second composition.
4) Adjust SFR2 so that RF signal of the test point TP2 (RF) is MAX and CLEARREST.

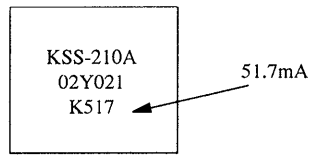
RF signal waveform



must be CLEAR and MAX

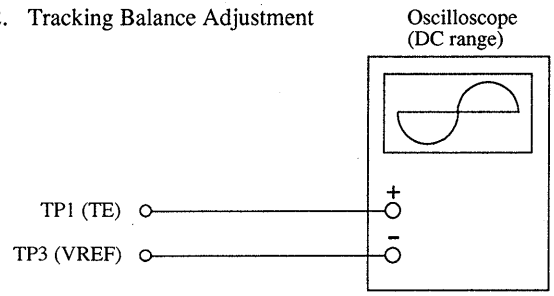
VOLT / DIV: 0.5V
TIME / DIV: 1μs

Note : The current of the laser signal can be checked with the voltages on both sides of R2 (10Ω). The difference for the specified value shown on the level must be within ± 6.0mA.

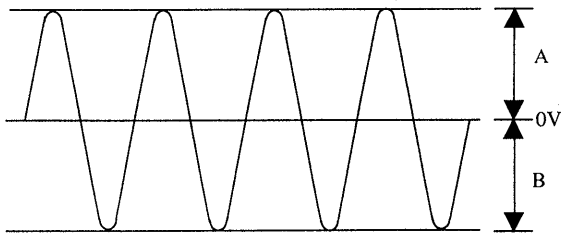


$$\text{Laser current Iop} = \frac{\text{Voltage across R2}}{10\Omega}$$

2. Tracking Balance Adjustment



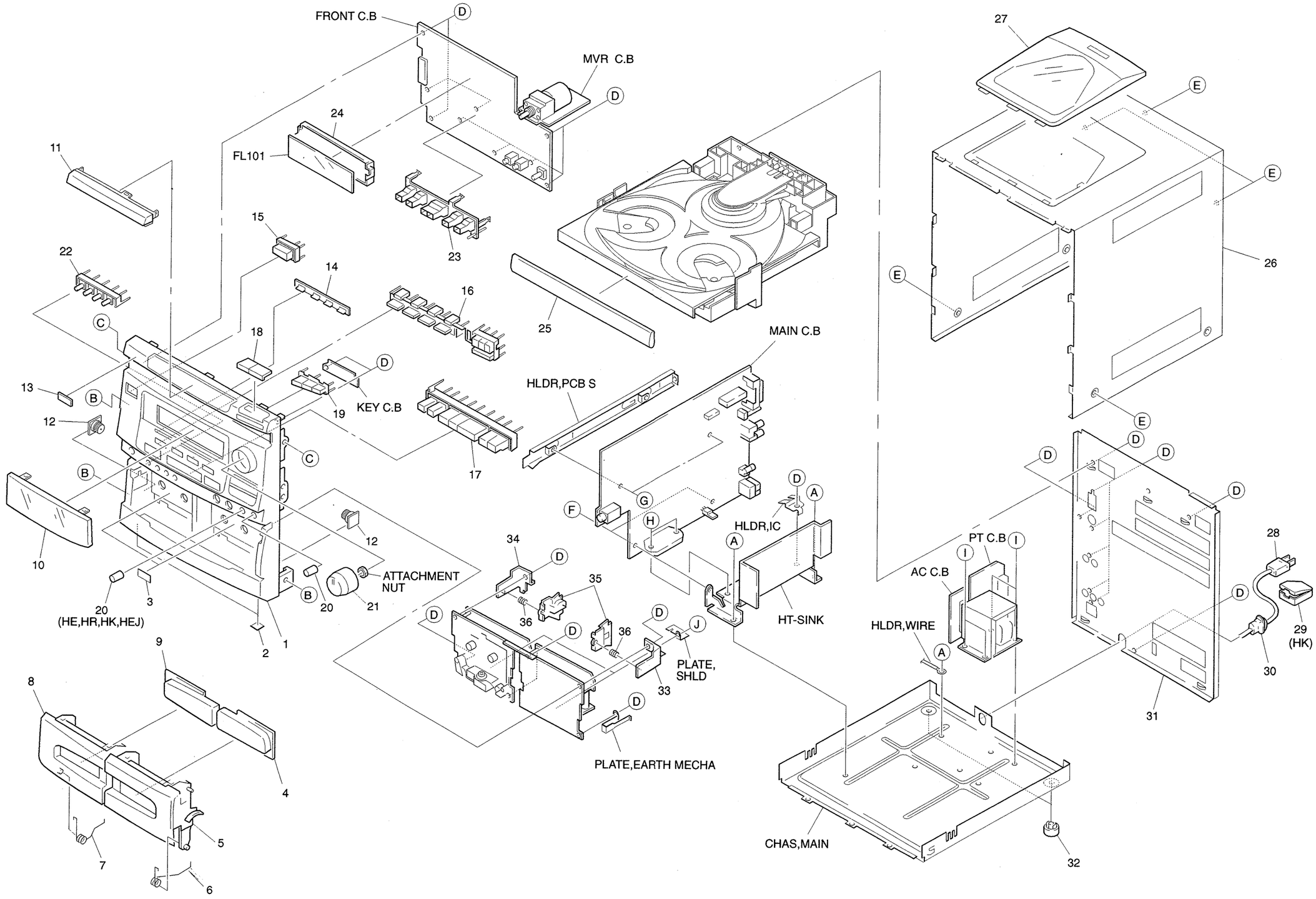
1) Short circuit betweeb TP3 (VREF) and TP4.
2) Connect an oscilloscope to the test points TP1 (TE) and TP3 (VREF).
3) Turn on the power switch.
4) Insert test disc TCD-782 (YEDS-18) and press the PLAY button.
5) Adjust SFR1 so that the waveform on the oscilloscope is vertically symmetrical as shown in the figure below.
6) After the adjustment is completed, remove the connected lead wires from the test point TP3 (VREF) and TP4.



A=B

VOLT / DIV: 200mV
TIME / DIV: 1mS

MECHANICAL EXPLODED VIEW 1/1

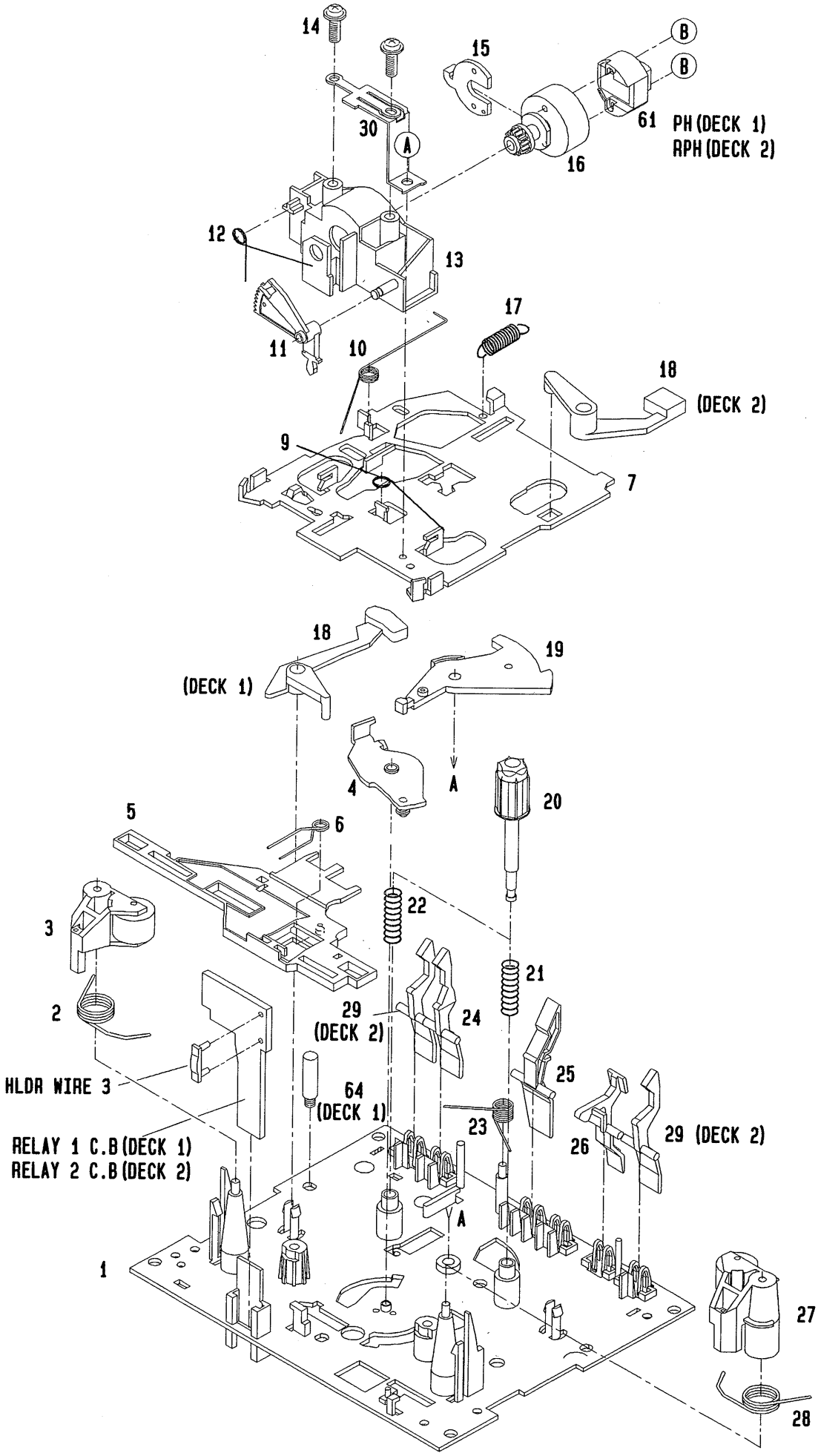


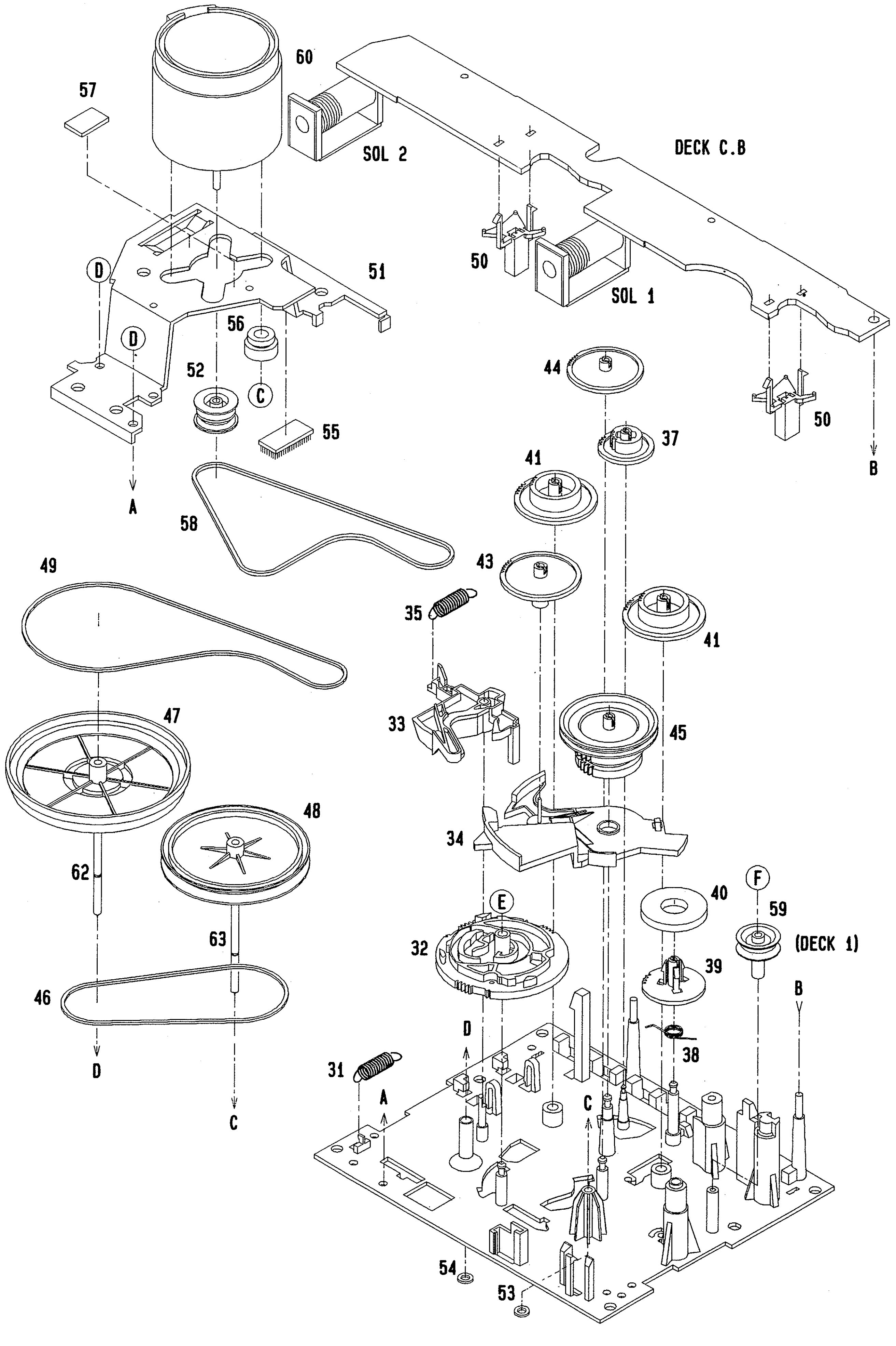
MECHANICAL PARTS LIST 1/1

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-NF7-023-019		CAB,FR AP1MK2<ZAP1MK2>
1	85-NF7-022-019		CAB,FR E<K,E1,EE,EZ,EEZ>
1	85-NF7-046-019		CAB,FR E V33<33EE,33EEZ>
1	85-NF7-056-019		CAB,FR G<G>
1	85-NF7-001-019		CAB,FR HE<HK,HE,HR>
1	85-NF7-021-019		CAB,FR LH<LH>
1	85-NF7-031-019		CAB,FR U<U>
2	80-VT1-202-019		FELT,12.5-15.5-2
3	81-532-080-019		LBL,CASS-COMPT
4	85-NE8-016-019		WINDOW,CASS R
5	85-NE8-004-019		BOX,CASS R<LH,HK,HE,HR>
5	85-NE8-030-019		BOX,CASS R E<EXCEPT LH,HK,HE,HR>
6	82-NF5-219-019		SPR-T,EJECT 2 (SIN)
7	82-NF5-218-019		SRT-T,EJECT 1 (SIN)
8	85-NE8-003-019		BOX,CASS L<LH,HK,HE,HR>
8	85-NE8-029-019		BOX,CASS L E<EXCEPT LH,HK,HE,HR>
9	85-NE8-015-019		WINDOW,CASS L
10	85-NE8-013-019		WINDOW,DISPLAY
11	85-NE8-014-019		WINDOW,CD
12	87-063-165-019		OIL-DMPR 150
13	82-NE6-067-019		BADGE AIWA 30N
14	85-NF7-020-019		IND,FN
15	85-NE8-005-019		KEY,POWER
16	85-NF7-009-019		KEY,ASP<EXCEPT K,E1,U,EE,EZ>
16	85-NF7-008-019		KEY,GEQ<K,E1,U,EE,EZ>
17	85-NF7-010-010		KEY,PLAY
18	85-NF7-007-019		KEY,OPEN
19	85-NF7-006-019		KEY,CD
20	85-NE8-011-019		KNOB,MIC
21	85-NE8-012-019		KNOB,VOL
22	85-NF7-011-019		KEY,VF<EXCEPT K,E1,U,EE,EZ>
22	85-NF7-012-019		KEY,VF 4<K,E1,U,EE,EZ>
23	85-NF7-201-019		GUIDE,PLAY
24	85-NF7-210-019		GUIDE,FL
25	85-NF7-018-019		PANEL,TRAY<HK,HE,HR>
25	85-NF7-040-019		PANEL,TRAY E<EXCEPT LH,HK,HE,HR>
25	85-NF7-039-019		PANEL,TRAY LH<LH>
26	85-NF5-007-019		CAB,STEEL
27	85-NF5-031-119		WINDOW,TOP
⚠ 28	87-050-100-019		AC CORD ASSY K3P<K>
⚠ 28	87-050-079-019		AC CORD ASSY,E<EXCEPT K,G,U>
⚠ 28	87-050-081-119		AC CORD ASSY,G<G>
⚠ 28	87-050-053-019		AC CORD ASSY,U-2<U>
⚠ 29	87-099-811-018		PLUG,ADPTR CONV(K)<HK>
30	87-085-185-010		BUSHING,AC CORD E<EXCEPT U>
30	87-085-189-019		BUSHING,CORD U<U>
31	85-NF7-049-019		PANEL,REAR E1BNM<E1>
31	85-NF7-035-019		PANEL,REAR EEBNM<EE>
31	85-NF7-058-019		PANEL,REAR EEBNM V33<33EE>
31	85-NF7-037-019		PANEL,REAR EZBNM<EZ,EEZ>
31	85-NF7-057-019		PANEL,REAR GBNM<G>
31	85-NF7-055-019		PANEL,REAR HEBNM<HE>
31	85-NF7-002-019		PANEL,REAR HEJBNM<HEJ>
31	85-NF7-052-019		PANEL,REAR HKJBNM<HK>
31	85-NF7-025-019		PANEL,REAR HRJBNM<HR>
31	85-NF7-036-019		PANEL,REAR KBNM<K>
31	85-NF7-024-019		PANEL,REAR LHBNM<LH>
31	85-NF7-003-019		PANEL,REAR UBNM<U>
31	85-NF7-038-019		PANEL,REAR ZBNM<ZAP1MK2>
31	85-NF7-061-019		PANEL,REAR EEZBNM V33<33EEZ>
32	87-085-221-019		FOOT,H 13.5
33	82-NF5-227-019		HLDR,LOCK 2N
34	82-NF5-226-019		HLDR,LOCK 1N
35	82-NF5-229-019		PLATE,LOCK
36	82-NF5-228-019		SPR-C,LOCK
A	87-067-688-019		BVTT+3-6
B	87-591-094-419		QIT+3-6 GOLD
C	87-721-097-419		QT2+3-12 GLD
D	87-067-703-019		BVT2+3-10 (W/O SLOT)
E	87-067-641-019		UTT2+3-8 W/O SLOT BLK
F	87-067-633-019		BVT2+3-8 W/CONVEX
G	87-078-084-019		BVTT+3-6 W/CONVEX
H	87-067-581-019		BVT2+3-15 W/O SLOT
I	87-078-019-019		S-SCREW,IT+4-6
J	87-571-032-419		VIT+2-3

TAPE MECHANISM EXPLODED VIEW 1/1





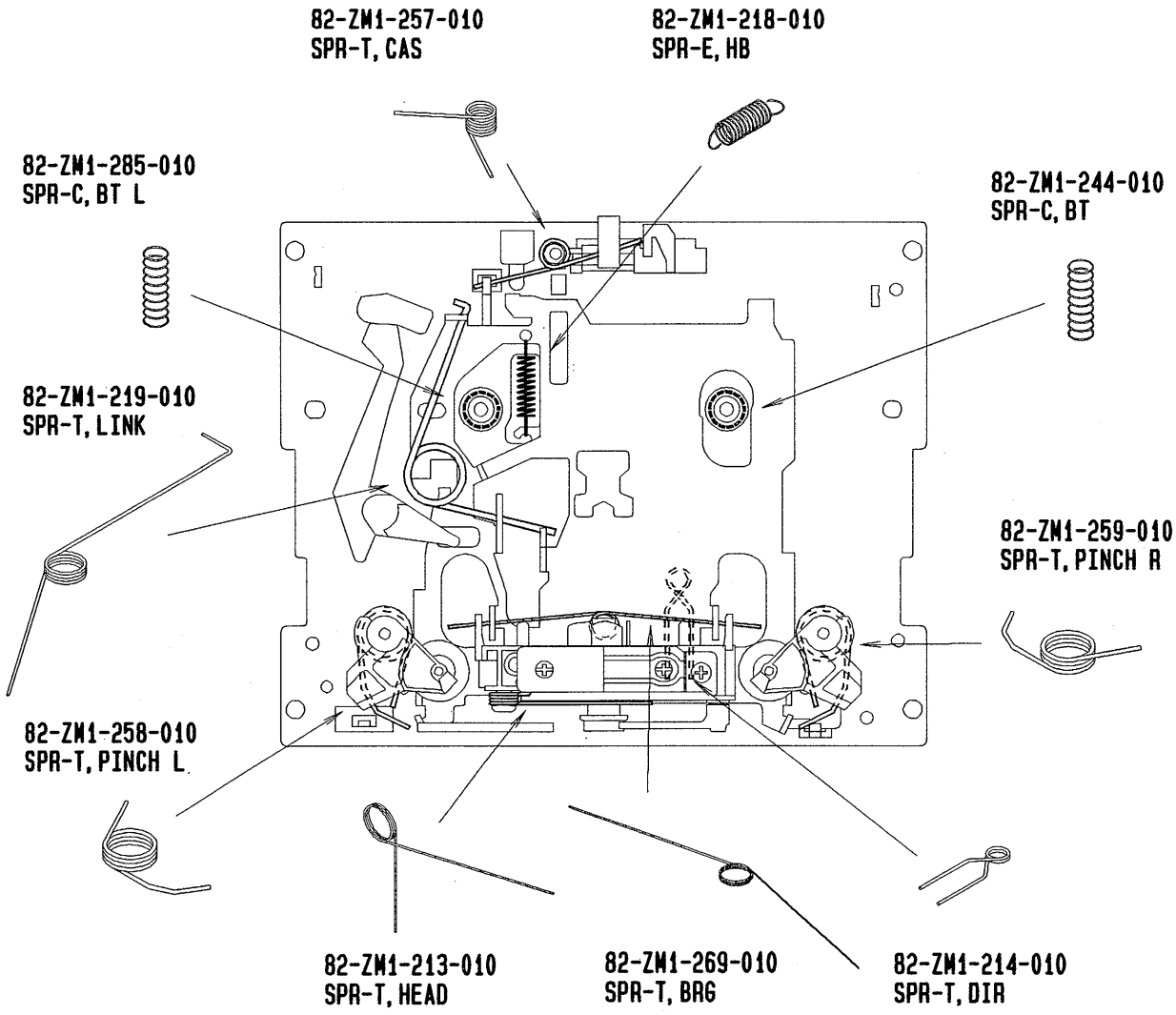
60
57
SOL 2
DECK C.B
50
51
SOL 1
D
D
56
52
C
44
55
37
50
41
A
B
58
43
49
35
41
33
47
45
34
48
40
F
62
59
E
(DECK 1)
32
63
39
B
46
D
38
D
31
A
C
C
54
53

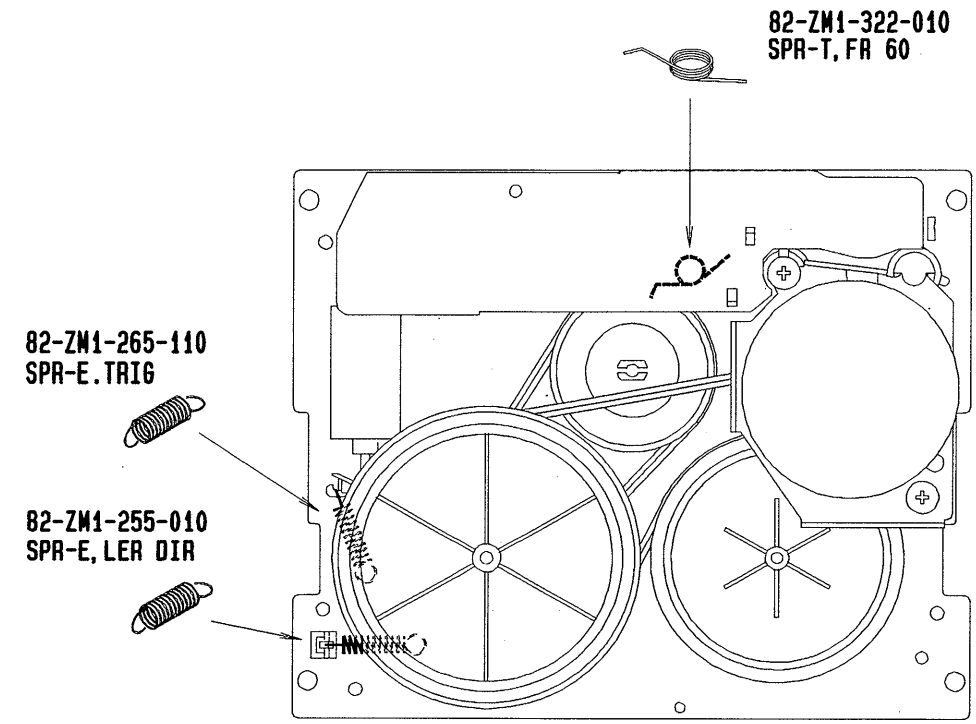
TAPE MECHANISM PARTS LIST 1/1

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

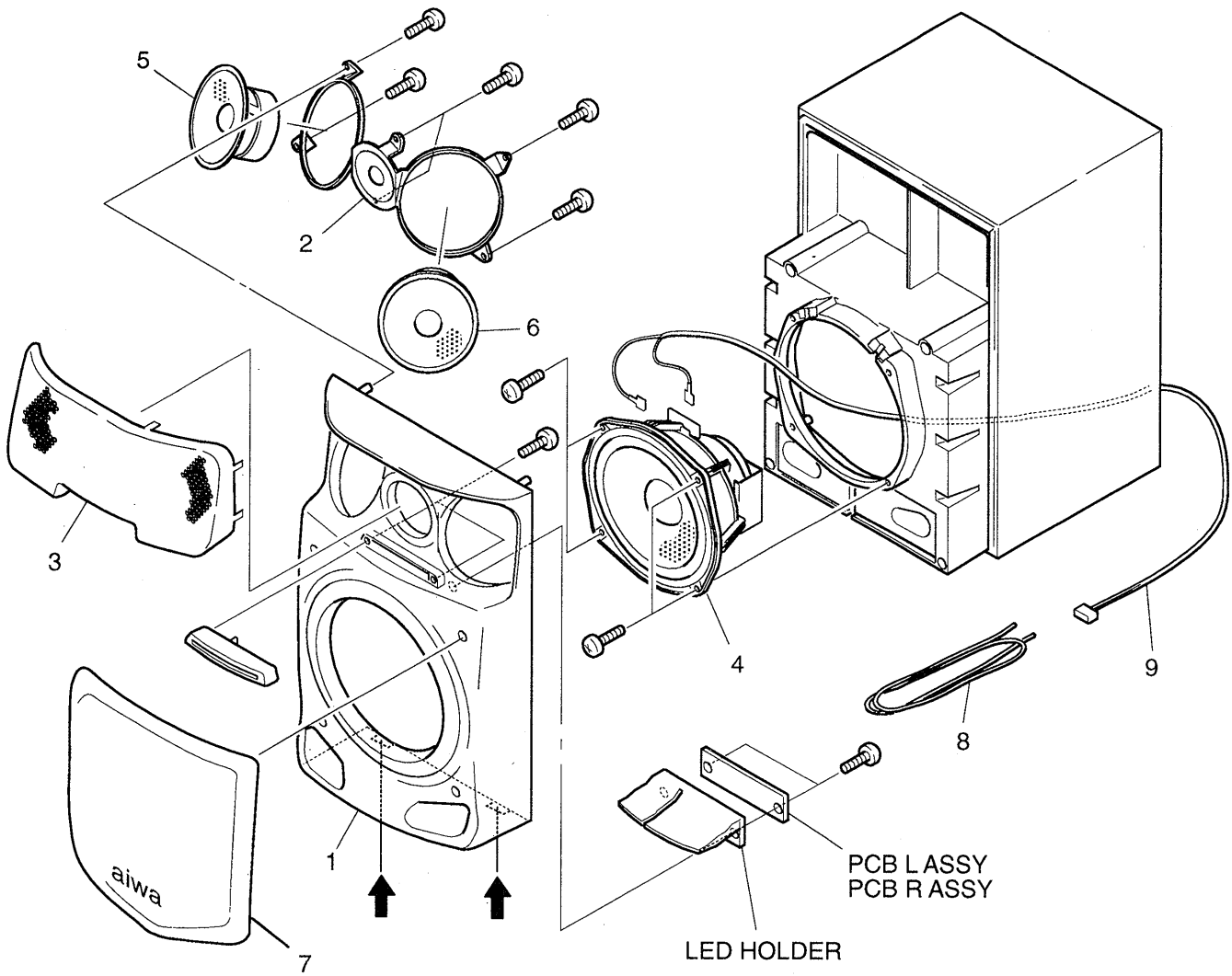
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM1-327-210		CHAS ASSY,RN (DECK 1)
1	82-ZM3-219-010		CHAS ASSY,PR6 (DECK 2)
2	82-ZM1-258-010		SPR-T,PINCH L
3	82-ZM1-248-110		LVR ASSY,PINCH L
4	82-ZM1-295-210		PLATE ASSY,LINK
5	82-ZM1-266-010		LVR,DIR
6	82-ZM1-214-010		SPR-T,DIR
7	82-ZM1-206-210		CHAS,HEAD
9	82-ZM1-269-010		SPR-T,BRG
10	82-ZM1-219-010		SPR-T,LINK
11	82-ZM1-210-010		GEAR,H T
12	82-ZM1-213-010		SPR-T,HEAD
13	82-ZM1-207-010		GUIDE,TAPE
14	82-ZM1-283-210		S-SCREW,AZIMUTH
15	82-ZM1-314-110		PLATE,HEAD
16	82-ZM1-208-010		HLDR,HEAD
17	82-ZM1-218-010		SPR-E,HB
18	82-ZM1-263-110		LVR,EJECT L (DECK 1)
18	82-ZM1-264-010		LVR,EJECT R (DECK 2)
19	82-ZM1-222-010		LVR,PLAY
20	82-ZM1-217-110		REEL TABLE
21	82-ZM1-244-110		SPR-C,BT
22	82-ZM1-285-110		SPR-C,BT L
23	82-ZM1-257-010		SPR-T,CAS
24	82-ZM1-241-110		LVR,MC
25	82-ZM1-242-010		LVR,CAS
26	82-ZM1-243-010		LVR,STOP
27	82-ZM1-253-110		LVR ASSY,PINCH R
28	82-ZM1-259-010		SPR-T,PINCH R
29	82-ZM1-240-110		LVR,REC (DECK 2)
30	82-ZM1-298-010		SPR-P,EARTH
31	82-ZM1-255-110		SPR-E,LVR DIR
32	82-ZM1-221-110		GEAR,CAM
33	82-ZM1-227-110		LVR,TRIG
34	82-ZM1-224-110		LVR,FR
35	82-ZM1-265-110		SPR-E,TRIG
37	82-ZM1-223-010		GEAR,PLAY
38	82-ZM1-322-019		SPR-T,FR60
39	82-ZM1-220-210		GEAR,IDLER
40	82-ZM1-316-010		RING MAGNET 3
41	82-ZM1-216-210		GEAR,REEL
43	82-ZM1-225-010		GEAR,FR
44	82-ZM1-226-010		GEAR,REW
45	82-ZM1-228-210		SLIP DISK ASSY
46	82-ZM1-328-010		BELT,FR 2 (DECK 1)
46	82-ZM1-335-010		BELT,FR 2 (DECK 2)
47	82-ZM1-238-610		FLY-WHL ASSY,R (DECK 2)
47	82-ZM3-210-510		FLY-WHL ASSY,R2 (DECK 1)
48	82-ZM1-235-310		FLY-WHL ASSY,L (DECK 2)
48	82-ZM3-208-410		FLY-WHL ASSY,L2 (DECK 1)
49	82-ZM3-206-010		BELT,R
50	82-ZM1-245-210		HLDR,IC
51	82-ZM3-215-010		HLDR,MC
52	82-ZM3-202-010		PULLEY,MOT 2M
53	82-ZM1-288-010		SH,1.63-3.2-0.5 SLT
54	80-ZM6-243-010		SH,1.75-3.6-0.5 SLT
55	80-ZM6-230-010		SH,BELT
56	82-ZM1-308-110		CUSH-G DIA3.7-9-3.2
57	86-575-361-010		CUSH-G,6-8-0.8
58	82-ZM3-205-010		BELT,L
59	82-ZM3-204-010		PULLEY,COUPLER (DECK 1)
60	87-045-347-010		MOT,SHU2L 70(M1)
61	87-046-398-010		HEAD,PH YK50P-BS409(PH)
61	87-046-399-010		HEAD,RPH YK56R-BS409(RPH)
62	82-ZM1-312-010		CAPSTAN N 2.2-41.7
63	82-ZM1-313-010		CAPSTAN N 2-41.5
64	82-ZM3-216-019		SHAFT T COUPLER N
A	82-ZM1-315-010		S-SCREW,GVIDE TAPE
B	80-ZM6-207-010		V+1.6-7
C	82-ZM1-309-010		S-SCRW,MOTOR
D	87-067-178-010		VTT+2.6-3
E	82-ZM1-597-019		PW,2.15-6.8-0.4 SLT
F	87-067-972-010		PW,1.05-3-0.25 SLT

SPRING APPLICATION POSITION





SPEAKER EXPLODED VIEW 1/1 (SX-FNV50)



矢印の位置にマイナスドライバーを差し込んで、パネルをはずして、各々のスピーカー・ユニットのビスを取り、スピーカー・ユニットをはずしてください。

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.

SPEAKER PARTS LIST 1/1 (SX-FNV50)

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-NS6-001-019		PANEL FR
2	85-NS5-011-019		ADAPTOR ASSY
3	85-NS6-010-019		SPEAKER GRILL
4	85-NS6-602-019		SPEAKER WOOFER
5	83-NS8-606-019		SPEAKER MID
6	83-NS8-608-019		SPEAKER
7	85-NS6-011-019		GRILL FRAME ASSY
8	85-NS6-611-019		SPEAKER CORD Y/B
9	83-NS5-613-010		SPEAKER CORD ASSY

SPEAKER PARTS LIST (SX-NV30)

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-NS1-001-019		PANEL FR,R
2	85-NS1-002-019		PANEL FR,L
3	85-NS7-007-019		GRILL FRAME ASSY
4	85-NS6-602-019		SPEAKER WOOFER
5	83-MS3-604-019		SPEAKER TWEETER
6	82-MSE-610-019		CERAMIC
7	83-NS8-009-019		DIAPHRAGM
8	83-096-614-019		SPEAKER CORD

ACCESSORIES / PACKAGE LIST

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-NF7-904-019		IB,E-EGI(M)-30<E1,EE,EZ>
1	85-NF7-909-019		IB,E-EGI(M)-33<33EE>
1	85-NF7-903-019		IB,E-ESF(M)-30<K,E1,EE,EZ>
1	85-NF7-908-019		IB,E-ESF(M)-33<33EE>
1	85-NF7-910-019		IB,E-GIE(M)-AP1<Z>
1	85-NF7-901-019		IB,H-ECA(M)<HK,HE,HR>
1	85-NF7-902-019		IB,H-ESF(M)<LH,G>
1	85-NF7-907-019		IB,U-ESF(M)<U>
2	85-NF7-641-019		RC,RC-T503
3	87-006-240-019		AM LOOP ANT CON(KO)<HE,HK,HR>
3	87-006-225-019		AM LOOP ANT NC2<EXCEPT HE,HK,HR>
3	87-043-095-019		ANTENNA WIRE<HE,HK,HR>
4	87-043-115-01B		ANT,FEEDER FM<LH,HE,HK,G,U,HR>
4	87-043-106-019		FM,WIRE ANT (Z)<K,E1,EE,EZ,Z>
5	87-099-789-019		PLUG,ADPTR IR44<LH,HE,HR>

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－　－	
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