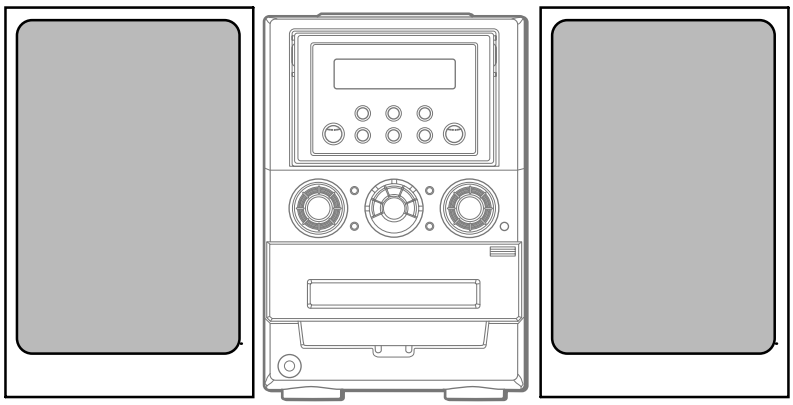
aiwa SERVICE

XR-M200
XR-M201

LH, U, K, G, HA, HR, HS

EZ



SERVICE MANUAL

COMPACT DISC STEREO SYSTEM

BASIC TAPE MECHANISM : 2ZM-1 YR9NC / YR11NC
BASIC CD MECHANISM : 3ZG-3 E3NC

SYSTEM	TYPE	TAPE MECHANISM	CD MECHANISM	REMOTE CONTROLLER
XR–M200	LH, U, K, HA, HR, HS	2ZM–1 YR9NC	3ZG–3 E3NC	RC–AAT11
XR–M200	G	2ZM–1 YR11NC		
XR–M201	EZ	2ZM–1 YR9NC		

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual" XR-M200 <LH,U,K,HA,HR,HS> / XR-M201 <EZ> (S/M Code No. 09-004-425-1T1).
- This Service Manual does not include "TAPE MECHANISM EXPLODED VIEW & PARTS LIST" for 2ZM-1 YR11NC. This items will be issued in the next Supplement.

aiwa

S/M Code No. 09-006-425-1R1

REVISION DATA

SPECIFICATIONS

Main unit XR-M200/201

<FM Tuner section>

Tuning range 87.5 MHz to 108 MHz

Usable sensitivity (IHF) **LH,U,HA,HR:** 13.2 dBf
EZ,K,HS,G: 16.8 dBf

Antenna terminal 75 ohms (unbalanced)

<AM Tuner section> (LH,U,HA,HR only)

Tuning range **LH,U,HA:**
530 kHz to 1710 kHz (10 kHz step)
531 kHz to 1602 kHz (9 kHz step)
HR:
531 kHz to 1602 kHz (9 kHz step)
530 kHz to 1710 kHz (10 kHz step)

Usable sensitivity 350 µV/m

Antenna Loop antenna

<MW Tuner section> (EZ,K,HS,G only)

Tuning range 531 kHz to 1602 kHz (9 kHz step)
530 kHz to 1710 kHz (10 kHz step)

Usable sensitivity 350 µV/m

Antenna Loop antenna

<LW Tuner section> (EZ,K,HS,G only)

Tuning range 144 kHz to 290 kHz

Usable sensitivity 1400 µV/m

Antenna Loop antenna

<Amplifier section>

Mid-high frequency amplifier

Power output **LH,HA,HR:**
Rated: 10 W + 10 W
(16 ohms, T.H.D. 10 %, 1 kHz)
Reference: 8 W + 8 W
(16 ohms, T.H.D. 1 %, 1 kHz)
U:
8 W + 8 W (200 Hz – 20 kHz,
T.H.D. less than 1 %, 16 ohms)
10 W + 10 W (1 kHz,
T.H.D. less than 10 %, 16 ohms)
EZ,K,HS,G:
Rated: 8 W + 8 W (16 ohms,
T.H.D. 1 %, 1 kHz / DIN 45500)
Reference: 10 W + 10 W (16 ohms,
T.H.D. 10 %, 1 kHz / DIN 45324)

Total harmonic distortion 0.15 %
(5 W, 1 kHz, 16 ohms, DIN AUDIO)
EZ,K,HS,G only:
DIN MUSIC POWER: 20 W + 20 W

Low frequency amplifier

Power output **LH,HA,HR:**
Rated: 30 W + 30 W
(6 ohms, T.H.D. 10 %, 75 Hz)
Reference: 25 W + 25 W
(6 ohms, T.H.D. 1 %, 75 Hz)
U:
25 W + 25 W (35 Hz – 200 Hz,
T.H.D. less than 1 %, 6 ohms)
30 W + 30 W (75 Hz,
T.H.D. less than 10 %, 6 ohms)
EZ,K,HS,G
Rated: 25 W + 25 W (6 ohms,
T.H.D. 1 %, 75 Hz / DIN 45500)
Reference: 30 W + 30 W (6 ohms,
T.H.D. 10 %, 75 Hz / DIN 45324)

Total harmonic distortion 0.15 %
(12.5 W, 75 Hz, 6 ohms, DIN AUDIO)
EZ,K,HS,G only:
DIN MUSIC POWER: 65 W + 65 W

Inputs VIDEO/AUX: 0.4 V
MD: 0.4 V

Outputs LINE OUT: 0.4 V (47 kohms load)
SPEAKERS HIGH FREQ:
accepts speakers of 16 ohms or more
SPEAKERS LOW FREQ:
accepts speakers of 6 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 Hz – 16000 Hz
Normal tape: 50 Hz – 15000 Hz

Signal-to-noise ratio 50 dB
(CrO_2 tape peak level above 1 kHz)

Recording system AC bias

Heads Recording/playback head x 1
Erase head x 1

<Compact disc player section>

Laser Semiconductor laser (λ =780 nm)

D/A converter 1 bit dual

Signal-to-noise ratio 75 dB (1 kHz, 0 dB)

Harmonic distortion 0.1 % (1 kHz, 0 dB)

Wow and flutter Unmeasurable

<General>

Power requirements **LH,HA,HR:** AC : 120 V/220 V – 240 V, switchable 50/60 Hz
U: AC : 120 V, 60 Hz
EZ,K,HS,G: AC : 230 V, 50 Hz

Power consumption **LH,HA,HR:** 95 W
U: 80 W
EZ,K,HS,G: 90 W

Dimensions of main unit (W x H x D) 175 x 260 x 299 mm
(7 x $10^1/_4$ x $11^7/_8$ in.)

Weight of main unit 5.5 kg (12 lbs 2 oz)

Standby power consumption If the power-economizing mode is on:
1.0 W
If the power-economizing mode is off:
LH,HA,HR,EZ,K,HS,G: 13 W
U: 12 W

Speaker system

Cabinet type 3 way, built in subwoofer
(magnetic shield type)

Speakers Subwoofer:
130 mm ($5^1/_8$ in.) cone type
Full range:
100 mm (4 in.) cone type
Super tweeter:
20 mm ($^{13}/_{16}$ in.) ceramic type

Impedance 6 ohms / 16 ohms

Output sound pressure level 86 dB/W/m

Dimensions (W x H x D) 162 x 258 x 200 mm
($6^1/_2$ x $10^1/_4$ x $7^7/_8$ in.)

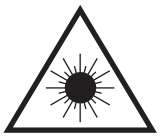
Weight 3.2 kg (7 lbs 1 oz)

• 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 saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

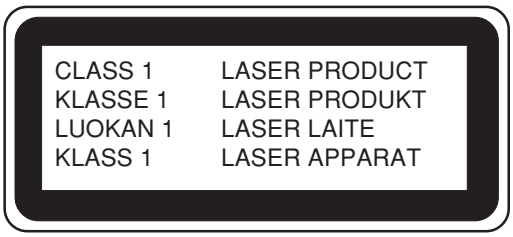
VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

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

ATTENTION
L'utillisation 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.

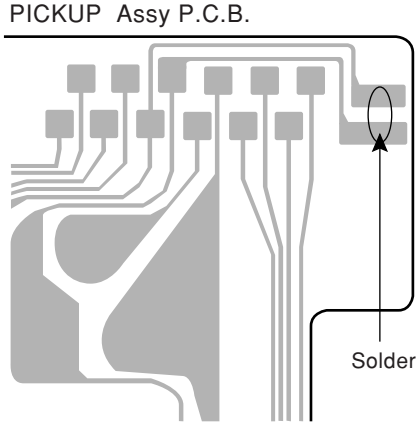


Precaution to replace Optical block

(KSS – 213F)

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

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



CAUTION WHEN SERVICING

The 3 FFCs connected to the Motorised Front Panel is movable with the Motorised Front Panel.
To prevent the FFCs from being trap in between the Motorised Front Panel and the Front Cabinet, the FFCs must be arrange as shown in Fig. 1.

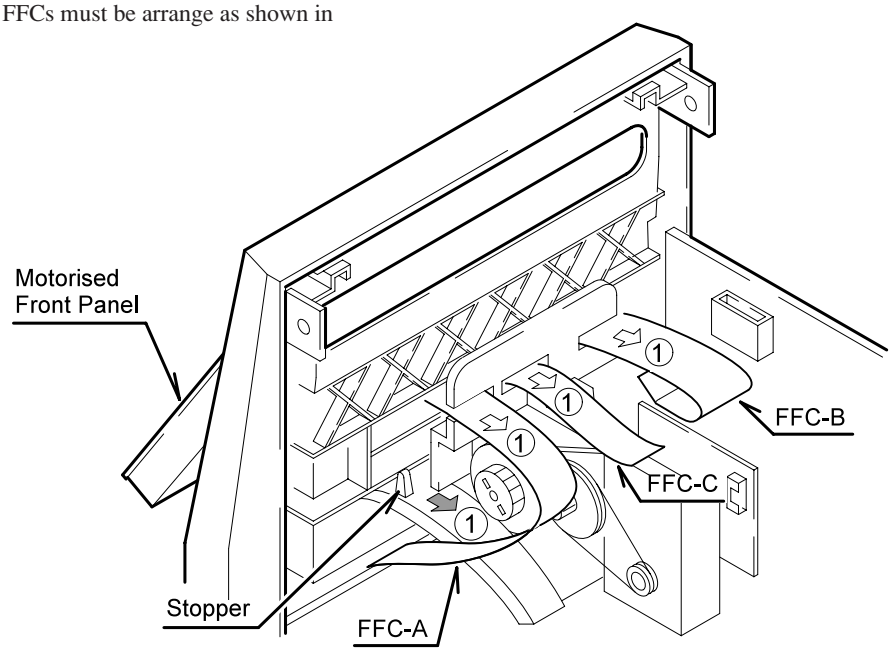


Fig - 1 Remove Slack of FFCs

1. Remove slack of FFCs

1) Return the Motorised Front Panel to its upright position slowly while at the same time pull the FFCs (FFC-A/-B/-C) near to the slot to remove any slack that is formed in between the Motorised Front Panel and the Front Cabinet.

Note: To remove the Motorised Front Panel, rotate GEAR, PUSHER as shown in Fig. 2.

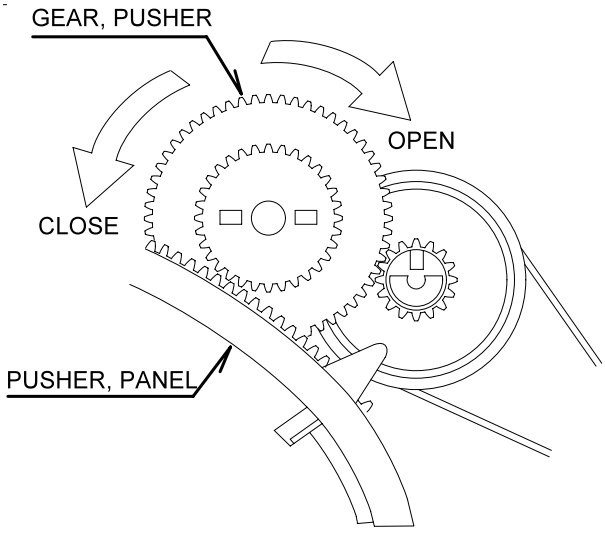


Fig - 2 GEAR, PUSHER

2. Arranging FFC-B

1) Fold the end of the FFC-B at an angle of 45 degrees.
2) Connect FFC-B to CN202 of MAIN C.B.
3) Put FFC-B onto the Plastic Plate to prevent it from sagging.

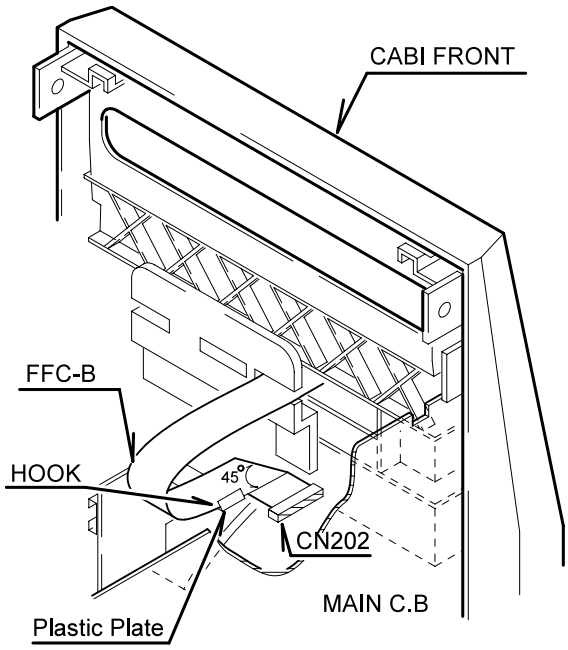


Fig - 3 FFC-B Top View

Note: FFC-B is easy to trap in between the CD unit and the Front Cabinet when assembling the CD unit to the set.
Arrange FFC-B as shown in Fig. 4.

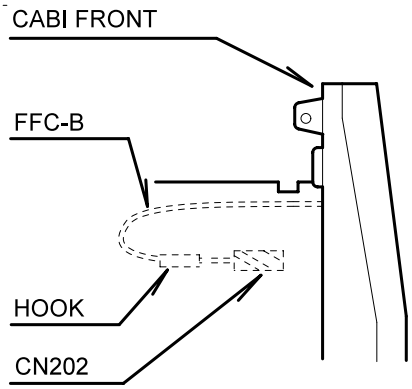


Fig - 4 FFC-B Side View

3. Assembling CD unit

1) Assemble CD unit to the Front Cabinet.
2) Connect FFC-D to CN1 of MAIN C.B (①).
3) Connect FFC-C to CN4 of CD C.B (②).
4) Connect the motor wire to CN600 of MOTOR C.B (③).

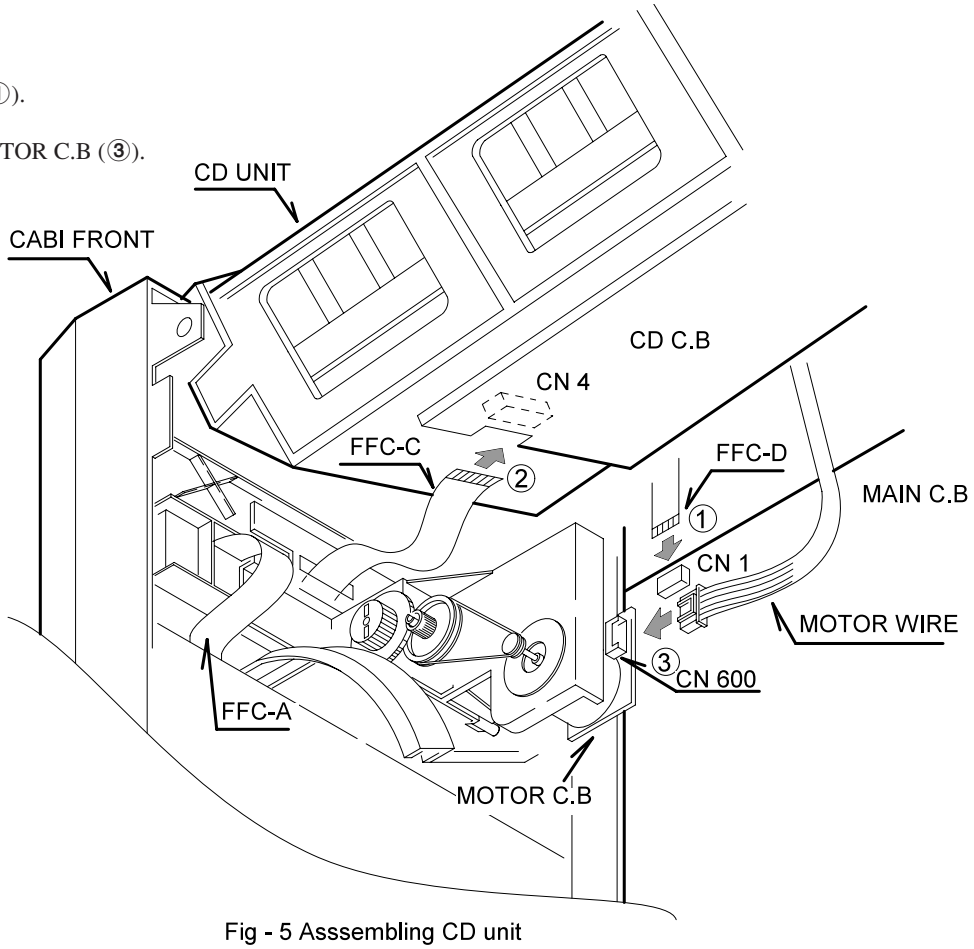


Fig - 5 Asssembling CD unit

4. Arranging FFC-C

1) Hook the motor wire to the wire binder (①).
2) Let the FFC-C go through the motor wire (②).
3) Pull the wire binder and strap FFC-C to the CD C.B and away from the gears.

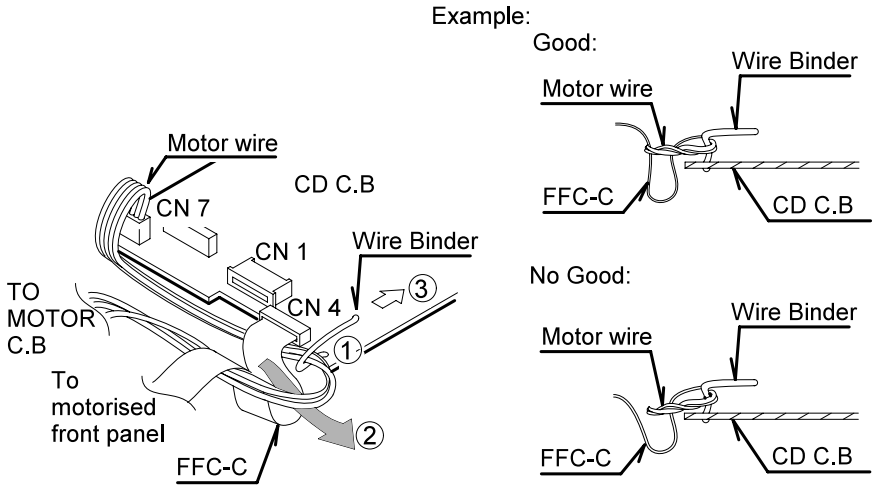


Fig - 6 Arranging FFC-C

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A20-446-010		C-IC,LA9241ML
	87-020-454-010		IC,DN6851
	87-A20-459-010		C-IC,LC78622ED
	87-A20-157-010		IC,TA2092N
	87-001-536-010		IC,NJM78M05FA
	87-070-391-040		IC,BA4558F
	87-001-982-010		IC,TA7291S
	8A-CL8-685-010		C-IC,M38258MCM-072FP<U,LH>
	8A-CL8-686-010		C-IC,M38258MCM-075FP<EXCEPT U,LH>
	87-017-889-010		IC,NJM4558LD
	87-A20-914-010		IC,SPS-442-1-F
	87-A21-443-040		C-IC,M62495AFP
	87-070-127-110		IC,LC72131D
	87-A20-913-010		IC,LA1837NL
	87-A20-440-040		C-IC,BU1920FS<EZ>
TRANSISTOR			
	87-026-463-080		TR,2SA933S
	87-026-297-080		C-TR,DTA144TK
	87-026-239-080		C-TR,DTC114TK
	89-109-521-080		TR,2SA952K
	89-318-155-080		TR,2SC1815GR
	89-213-702-010		TR,2SB1370E
	87-026-610-080		TR,KTC3198GR
	89-333-317-080		TR,2SC3331T
	87-A30-076-080		C-TR,2SC3052F
	87-026-211-080		C-TR,DTA144EK
	87-A30-196-080		TR,2SC4115SRS
	87-A30-075-080		C-TR,2SA1235F
	87-A30-087-080		C-FET,2SK2158
	89-327-125-080		C-TR,2SC2712GR
	87-A30-257-080		C-TR,2SD1306E
	87-A30-086-070		C-TR,CSD1306E<U,LH>
	87-A30-190-080		TR,CC5551
	87-A30-215-010		TR,2SD2025
	87-A30-214-010		TR,2SB1344
	87-A30-106-070		C-TR,CMBT5551
	87-A30-268-040		C-TR,2SA1514K(S)
	87-A30-484-080		C-TR,KRA102S<G>
	87-A30-074-080		C-TR,RT1P 141C<EXCEPT G>
	87-A30-198-080		TR,KTC3199GR
	89-112-965-080		TR,2SA1296GR
	87-A30-197-080		TR,KTA1267GR
	87-026-218-080		TR,DTC144ES
	87-A30-127-010		TR,2SD2478
	87-A30-126-010		TR,2SB1616
	87-A30-269-040		C-FET,2SJ461-T1
	87-026-219-080		TR,DTA144ES
	87-026-210-080		C-TR,DTC144EK
	89-327-143-080		C-TR,2SC2714O
	87-A30-072-080		C-TR,RT1P144C
	89-505-434-540		C-FET,2SK543(4/5)<K,EZ,HS,G>
DIODE			
	87-020-465-080		DIODE,1SS133
	87-A40-270-080		C-DIODE,MC2838
	87-070-022-010		DIODE,IN5402
	87-A40-455-090		DIODE,RL203 GW
	87-A40-206-080		ZENER,UZ10BSC
	87-A40-906-080		C-DIODE,DCC010<G>
	87-A40-313-080		C-DIODE,MC 2840<EXCEPT G>
	87-A40-488-080		DIODE,1SS244
	87-002-693-080		C-DIODE,1SS357
	87-A40-350-080		ZENER,MTZJ 4.7C<EXCEPT U,LH>
	87-A40-745-080		ZENER,UZ4.7BSA<U,LH>
	87-A40-739-080		ZENER,UZ2.7BSA
	87-027-349-080		ZENER,HZ6A1L
	87-027-513-080		ZENER,HZ6B2L<EXCEPT U,LH>
	87-002-646-080		ZENER,HZ5C1<U,LH>
MAIN C.B			
C101	87-A10-520-000		CAP,E 3300-35 M SMG
C102	87-A10-520-000		CAP,E 3300-35 M SMG
C103	87-A10-712-080		C-CAP,S 0.22-50 Z F
C104	87-A10-712-080		C-CAP,S 0.22-50 Z F
C105	87-A10-520-000		CAP,E 3300-35 M SMG
C106	87-016-051-000		CAP,E 2200-35 M SMG
C107	87-A10-712-080		C-CAP,S 0.22-50 Z F
C108	87-A10-712-080		C-CAP,S 0.22-50 Z F
C109	87-012-140-080		CAP,470P
C110	87-010-408-080		CAP,ELECT 47-50V
C111	87-010-197-080		CAP,CHIP 0.01 DM
C112	87-010-384-080		CAP,ELECT 100-25V
C113	87-010-381-080		CAP,ELECT 330-16V
C116	87-010-374-080		CAP,ELECT 47-10V
C117	87-010-403-080		CAP,ELECT 3.3-50V
C118	87-010-404-080		CAP,ELECT 4.7-50V
C119	87-010-178-080		CHIP CAP,1000P
C120	87-010-404-080		CAP,ELECT 4.7-50V
C303	87-010-177-080		C-CAP,S 820P-50 SL
C304	87-010-177-080		C-CAP,S 820P-50 SL
C307	87-010-263-080		CAP,ELECT 100-10V
C308	87-010-263-080		CAP,ELECT 100-10V
C311	87-010-195-080		C-CAP,S 0.068-25 F
C312	87-010-195-080		C-CAP,S 0.068-25 F
C313	87-010-186-080		CAP,CHIP 4700P
C314	87-010-186-080		CAP,CHIP 4700P
C315	87-010-374-080		CAP,ELECT 47-10V
C317	87-010-546-080		CAP,ELECT 0.33-50V
C318	87-010-546-080		CAP,ELECT 0.33-50V
C321	87-010-405-080		CAP,ELECT 10-50V
C340	87-010-197-080		CAP,CHIP 0.01DM<K,EZ,HS,G>
C349	87-010-322-080		C-CAP,S 100P-50 CH<K,EZ,HS,G>
C350	87-010-322-080		C-CAP,S 100P-50 CH<K,EZ,HS,G>
C361	87-010-374-080		CAP,ELECT 47-10V
C362	87-010-401-080		CAP,ELECT 1-50V
C381	87-010-178-080		CHIP CAP,1000P<K,EZ,HS,G>
C382	87-010-179-080		CAP,CHIP S B1200P<K,EZ,HS,G>
C384	87-012-156-080		C-CAP,S 220P-50 CH
C386	87-010-197-080		CAP,CHIP 0.01DM<K,EZ,HS,G>
C393	87-010-178-080		CHIP CAP,1000P<K,EZ,HS,G>
C401	87-010-401-080		CAP,ELECT 1-50V
C402	87-010-401-080		CAP,ELECT 1-50V
C403	87-010-321-080		CHIP CAPACITOR,82P(J)
C404	87-010-321-080		CHIP CAPACITOR,82P(J)
C405	87-010-188-080		CAP,CHIP 6800P
C406	87-010-188-080		CAP,CHIP 6800P
C407	87-010-426-080		C-CAP,S 0.012-25 B
C408	87-010-426-080		C-CAP,S 0.012-25 B
C451	87-010-198-080		CAP,CHIP 0.022
C452	87-010-382-080		CAP,ELECT 22-25V
C453	87-010-183-080		C-CAP,S 2700P-50 B
C454	87-010-183-080		C-CAP,S 2700P-50 B
C455	87-010-183-080		C-CAP,S 2700P-50 B
C456	87-010-197-080		CAP,CHIP 0.01 DM
C458	87-010-178-080		CHIP CAP,1000P
C459	87-010-175-080		CAP,560P
C461	87-012-158-080		C-CAP,S 390P-50 CH
C462	87-012-158-080		C-CAP,S 390P-50 CH
C501	87-010-546-080		CAP,ELECT 0.33-50V
C502	87-010-546-080		CAP,ELECT 0.33-50V
C503	87-010-193-080		CHIP CAPACITOR,0.033
C504	87-010-193-080		CHIP CAPACITOR,0.033
C505	87-010-184-080		CHIP CAPACITOR,3300P(K)
C506	87-010-184-080		CHIP CAPACITOR,3300P(K)
C507	87-010-403-080		CAP,ELECT 3.3-50V

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C508	87-010-403-080		CAP,ELECT 3.3-50V
C509	87-010-322-080		C-CAP,S 100P-50 CH
C510	87-010-322-080		C-CAP,S 100P-50 CH
C511	87-010-186-080		CAP,CHIP 4700P
C512	87-010-186-080		CAP,CHIP 4700P
C513	87-010-403-080		CAP,ELECT 3.3-50V
C514	87-010-403-080		CAP,ELECT 3.3-50V
C515	87-010-260-080		CAP,ELECT 47-25V
C516	87-010-260-080		CAP,ELECT 47-25V
C517	87-012-156-080		C-CAP,S 220P-50 CH
C518	87-012-156-080		C-CAP,S 220P-50 CH
C519	87-010-322-080		C-CAP,S 100P-50 CH
C520	87-010-322-080		C-CAP,S 100P-50 CH
C521	87-010-993-080		C-CAP,S 0.056-25 B
C522	87-010-993-080		C-CAP,S 0.056-25 B
C523	87-010-196-080		CHIP CAPACITOR,0.1-25
C524	87-010-196-080		CHIP CAPACITOR,0.1-25
C525	87-010-188-080		CAP,CHIP 6800P<K,EZ,HS,G>
C526	87-010-188-080		CAP,CHIP 6800P<K,EZ,HS,G>
C528	87-010-197-080		CAP,CHIP 0.01 DM
C530	87-010-196-080		CHIP CAPACITOR,0.1-25
C531	87-010-196-080		CHIP CAPACITOR,0.1-25
C532	87-010-196-080		CHIP CAPACITOR,0.1-25
C550	87-010-177-080		C-CAP,S 820P-50 SL<K,EZ,HS,G>
C551	87-010-177-080		C-CAP,S 820P-50 SL<K,EZ,HS,G>
C563	87-010-260-080		CAP,ELECT 47-25V
C571	87-010-805-080		CAP,S 1-16
C572	87-010-805-080		CAP,S 1-16
C600	87-010-184-080		CHIP CAPACITOR,3300P(K)
C601	87-010-180-080		C-CAP,CER 1500P
C602	87-010-180-080		C-CAP,CER 1500P
C609	87-010-213-080		C-CAP,S 0.015-50 B
C610	87-010-213-080		C-CAP,S 0.015-50 B
C611	87-010-545-080		CAP,ELECT 0.22-50V
C612	87-010-545-080		CAP,ELECT 0.22-50V
C613	87-010-545-080		CAP,ELECT 0.22-50V
C614	87-010-545-080		CAP,ELECT 0.22-50V
C615	87-010-154-080		CAP,CHIP 10P
C616	87-010-408-080		CAP,ELECT 47-50V
C617	87-010-408-080		CAP,ELECT 47-50V
C625	87-010-405-080		CAP,ELECT 10-50V
C626	87-010-405-080		CAP,ELECT 10-50V
C636	87-010-194-080		C-CAP,S 0.047-25ZF<G>
C637	87-010-194-080		C-CAP,S 0.047-25ZF<G>
C661	87-010-178-080		CHIP CAP,1000P<K,EZ,HS,G>
C690	87-010-263-080		CAP,ELECT 100-10V
C691	87-018-137-080		CAPACITOR,3300P
C697	87-010-378-080		CAP,ELECT 10-16V
C698	87-010-263-080		CAP,ELECT 100-10V
C699	87-010-194-080		CAP,CHIP 0.047
C701	87-010-381-080		CAP,ELECT 330-16V
C702	87-010-404-080		CAP,ELECT 4.7-50V
C703	87-010-197-080		CAP,CHIP 0.01 DM
C704	87-010-197-080		CAP,CHIP 0.01 DM
C710	87-010-322-080		C-CAP,S 100P-50 CH
C711	87-010-112-080		CAP,ELECT 100-16V
C712	87-010-196-080		CHIP CAPACITOR,0.1-25
C713	87-010-197-080		CAP,CHIP 0.01 DM
C714	87-010-197-080		CAP,CHIP 0.01 DM
C715	87-010-322-080		C-CAP,S 100P-50KB<K,EZ,HS,G>
C721	87-010-312-080		C-CAP,S 15P-50 CH
C722	87-010-312-080		C-CAP,S 15P-50 CH
C723	87-010-178-080		CHIP CAP,1000P
C725	87-010-178-080		CHIP CAP,1000P
C727	87-010-196-080		CHIP CAPACITOR,0.1-25
C728	87-010-248-080		CAP,ELECT 220-10V
C755	87-010-197-080		CAP,CHIP 0.01 DM
C756	87-010-197-080		CAP,CHIP 0.01 DM
C757	87-010-318-080		C-CAP,S 47P-50 CH
C758	87-010-149-080		C-CAP,S 5P-50 CH
C761	87-010-196-080		CHIP CAPACITOR,0.1-25
C762	87-010-197-080		CAP,CHIP 0.01 DM
C763	87-010-194-080		CAP,CHIP 0.047
C764	87-010-319-080		C-CAP,S 56P-50 CH<HR,U,HA,LH>
C765	87-010-197-080		CAP,CHIP 0.01 DM
C766	87-010-197-080		CAP,CHIP 0.01 DM
C767	87-010-405-080		CAP,ELECT 10-50V
C768	87-010-197-080		CAP,CHIP 0.01 DM
C769	87-010-408-080		CAP,ELECT 47-50V
C770	87-015-821-080		C-CAP,0.047
C771	87-010-407-080		CAP,ELECT 33-50V
C772	87-010-194-080		CAP,CHIP 0.047
C773	87-010-196-080		CHIP CAPACITOR,0.1-25
C774	87-010-263-080		CAP,ELECT 100-10V
C775	87-010-421-080		CAP,ELECT 4.7-50V
C776	87-010-197-080		CAP,CHIP 0.01 DM
C777	87-010-400-080		CAP,ELECT 0.47-50V
C778	87-010-071-080		CAP,ELECT 1-50 M 5L SRE
C779	87-010-401-080		CAP,ELECT 1-50V
C780	87-010-196-080		CHIP CAPACITOR,0.1-25
C781	87-010-405-080		CAP,ELECT 10-50V
C782	87-010-405-080		CAP,ELECT 10-50V
C783	87-010-197-080		CAP,CHIP 0.01 DM
C784	87-010-197-080		CAP,CHIP 0.01 DM
C785	87-010-403-080		CAP,ELECT 3.3-50V
C786	87-010-403-080		CAP,ELECT 3.3-50V
C787	87-010-184-080		CHIP CAPACITOR,3300P(K)
C788	87-010-184-080		CHIP CAPACITOR,3300P(K)
C789	87-010-179-080		CAP,CHIP S B1200P
C790	87-010-179-080		CAP,CHIP S B1200P
C791	87-010-405-080		CAP,ELECT 10-50V
C793	87-010-177-080		C-CAP,S 820P-50 SL<HR,U,HA,LH>
C793	87-010-179-080		CAP,CHIP S B1200P<K,EZ,HS,G>
C794	87-010-406-080		CAP,ELECT 22-50
C795	87-010-596-080		CAP,S 0.047-16
C796	87-010-403-080		CAP,ELECT 3.3-50V
C797	87-010-180-080		C-CAP,CER 1500P<HR,K,EZ,HS,G>
C797	87-010-182-080		C-CAP,S 2200P-50 B<U,HA,LH>
C798	87-010-180-080		C-CAP,CER 1500P<HR,K,EZ,HS,G>
C798	87-010-182-080		C-CAP,S 2200P-50 B<U,HA,LH>
C799	87-010-194-080		CAP,CHIP 0.047
C803	87-A10-207-080		CAP,TCS 0.01-50KBUP050<K,EZ,HS,G>
C814	87-010-197-080		CAP,CHIP 0.01 DM
C820	87-010-408-080		CAP,ELECT 47-50V
C821	87-010-197-080		CAP,CHIP 0.01 DM
C822	87-010-197-080		CAP,CHIP 0.01 DM
C823	87-010-197-080		CAP,CHIP 0.01 DM
C824	87-010-197-080		CAP,CHIP 0.01 DM
C828	87-010-196-080		CHIP CAPACITOR,0.1-25
C829	87-010-196-080		CHIP CAPACITOR,0.1-25
C861	87-012-156-080		C-CAP,S 220P-50 CH<EZ>
C869	87-010-197-080		CAP,CHIP 0.01 DM<EZ>
C871	87-010-184-080		CHIP CAPACITOR,3300P(K)<K,EZ,HS,G>
C872	87-012-156-080		C-CAP,S 470P-50 J CH<EZ>
C873	87-012-140-080		CAP,470P<EZ>
C874	87-010-405-080		CAP,ELECT 10-50V<EZ>
C875	87-010-196-080		CHIP CAPACITOR,0.1-25<EZ>
C876	87-010-405-080		CAP,ELECT 10-50V<EZ>
C877	87-010-197-080		CAP,CHIP 0.01 DM<EZ>
C878	87-010-316-080		C-CAP,S 33P-50 CH<EZ>
C879	87-010-314-080		C-CAP,S 22P-50V<EZ>
C940	87-010-197-080		CAP,CHIP 0.01DM<K,EZ,HS,G>
C942	87-010-151-080		C-CAP,S 7P-50 CH<K,EZ,HS,G>
C947	87-010-197-080		CAP,CHIP 0.01DM<K,EZ,HS,G>
C949	87-014-049-080		CAP,PP 470P-100 J<K,EZ,HS,G>
C952	87-010-197-080		CAP,CHIP 0.01DM<K,EZ,HS,G>
C957	87-010-147-080		C-CAP,S 3P-50 CH<K,EZ,HS,G>
C958	87-010-197-080		CAP,CHIP 0.01DM<K,EZ,HS,G>
C959	87-010-196-080		CHIP CAPACITOR,0.1-25
C960	87-010-196-080		CHIP CAPACITOR,0.1-25

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C961	87-010-152-080		C-CAP,S 8P-50 CH<HR,U,HA,LH>
C962	87-010-401-080		CAP,ELECT 1-50V<K,EZ,HS,G>
CF801	87-008-261-010		FLTR,CF SFE10.7MA5<HR,U,HA,LH>
CF801	87-008-423-010		FLTR,CF SFE10.7MS3G-A<K,EZ,HS,G>
CF802	82-785-747-010		CF,MS2 GHY R<K,EZ,HS,G>
CF802	87-008-261-010		FLTR,CF SFE10.7MA5<HR,U,HA,LH>
CN1	87-099-210-010		CONN,5P 6216 H
CN202	87-A61-250-010		CONN,25P V
CN203	87-009-030-010		CONN,2P PH M
CN351	87-A60-624-010		CONN,7P V 2MM JMT
CN603	87-A60-996-010		CONN,13P V BLK TAC-L13X-A3
FB502	87-003-223-080		FERRITE BEAD BL02RN2<K,EZ,HS,G>
FFC101	8A-CL9-671-010		F-CABLE,9P 2.5
FFE801	A8-6ZA-19C-170		6ZA-1 YFEENC<K,EZ,HS,G>
FFE801	A8-8ZA-193-070		8ZA-1 YFEUNC<HR,U,HA,LH>
J501	87-A61-237-010		JACK,3.5 ST W/O SW
J541	87-A61-157-010		JACK,PIN 2P R/W/BL V(SEPA) KM
J602	87-A60-885-010		JACK,PIN 6P R/W MSC
J801	87-A60-202-010		TERMINAL,ANT4P MSP154V02<HR,U,HA,LH>
J801	87-A60-403-010		TERMINAL,ANT2P HSP312V05<K,EZ,HS,G>
L451	87-007-342-010		COIL,OSC 85K BIAS
L501	87-005-366-010		COIL,1UH
L502	87-005-366-010		COIL,1UH
L770	87-005-847-080		COIL,2.2UH(CECS)
L771	87-A50-266-010		COIL,FM DET-2N(TOK)
L772	88-CL4-693-010		FLTR,PCFAYH-450(TOK)
L832	87-005-847-080		COIL,2.2UH(CECS)
L861	87-005-847-080		COIL,2.2UH(CECS)<EZ>
L941	87-A50-020-010		COIL,ANT LW(COI)252KHZ<K,EZ,HS,G>
L942	87-A50-019-010		COIL,OSC LW(COI)856KHZ<K,EZ,HS,G>
L981	87-NF4-650-010		COIL,AM PACK 4N(TOK)<HR,U,HA,LH>
L981	87-NF4-651-110		COIL,AM PACK2N(TOM)<K,EZ,HS,G>
⚠ PR601	87-A91-153-080		FUSE,630MA 125V 251<U>
⚠ PR601	87-026-689-080		PROTECTOR,1A 60V 491<EXCEPT U>
R543	87-A00-258-080		RES,M/F 0.22-1W J
R544	87-A00-258-080		RES,M/F 0.22-1W J
R545	87-A00-258-080		RES,M/F 0.22-1W J
R546	87-A00-258-080		RES,M/F 0.22-1W J
TC942	87-011-253-080		TRIMER,30P LAR<K,EZ,HS,G>
W101	87-A90-510-010		HLDR,WIRE 2.5-9P
X721	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309
X861	87-A70-091-010		VIB,XTAL 4.332MHZ CSA-309<EZ>

FRONT CNTL C.B

C309	87-010-198-080		CAP,CHIP 0.022
C313	87-010-071-040		CAP,E 1-50 M 5L SRE
C314	87-A10-189-040		CAP,E 220-10
C316	87-010-197-080		CAP,CHIP 0.01 DM
C319	87-010-185-080		C-CAP,S 3900P-50KB
C329	87-010-198-080		CAP,CHIP 0.022
C330	87-010-318-080		C-CAP,S 47P-50 CH
C331	87-010-312-080		C-CAP,S 15P-50 CH
C335	87-010-316-080		C-CAP,S 33P-50 CH
C341	87-010-954-080		C-CAP,0.22-16R
C344	87-010-318-080		C-CAP,S 47P-50 CH
CN301	87-A61-247-010		CONN,25P H
CN303	87-A61-249-010		CONN,15P H
CN304	87-A61-248-010		CONN,22P H
FFC301	8A-CL8-704-110		FF-CABLE,25P 1.0 240MM
FFC303	8A-CL8-706-010		FF-CABLE,15P 1.0 170MM
FFC304	8A-CL8-705-110		FF-CABLE,22P 1.0 210MM
LCD301	8A-CL8-682-010		LCD,ACL8
LED301	87-A40-229-040		LED,SLR-342VR TB7 RED
LED307	87-A40-831-010		LED,SELU1E10CXM-LF70 BLUE-DEF
LED308	87-A40-831-010		LED,SELU1E10CXM-LF70 BLUE-DEF
S301	87-A90-095-080		SW,TACT EVQ11G04M
S303	87-A90-095-080		SW,TACT EVQ11G04M
S310	87-A90-095-080		SW,TACT EVQ11G04M
S312	87-A90-095-080		SW,TACT EVQ11G04M
S314	87-A90-095-080		SW,TACT EVQ11G04M
S316	87-A90-095-080		SW,TACT EVQ11G04M
S318	87-A90-095-080		SW,TACT EVQ11G04M
S319	87-A90-095-080		SW,TACT EVQ11G04M
X301	87-A70-124-080		VIB,CER 8.0MHZ

FRONT SEC C.B

C301	87-010-178-080		CHIP CAP,1000P
C304	87-010-405-040		CAP,E 10-50
C340	87-010-197-080		CAP,CHIP 0.01DM
CN302	8A-CL8-703-010		CONN ASSY,9P DECK<EXCEPT U,LH>
CN302	87-CL4-704-010		CONN ASSY,9P DECK<U,LH>
CN305	87-A61-248-010		CONN,22P H
CN306	8A-CL8-640-010		CONN ASSY,2P
LED302	87-A40-228-040		LED,SLR-342MG T31 GREEN
LED303	87-A40-228-040		LED,SLR-342MG T31 GREEN
LED304	87-A40-228-040		LED,SLR-342MG T31 GREEN
LED305	87-A40-228-040		LED,SLR-342MG T31 GREEN
LED306	87-A40-228-040		LED,SLR-342MG T31 GREEN
S302	87-A90-095-080		SW,TACT EVQ11G04M
S304	87-A90-095-080		SW,TACT EVQ11G04M
S305	87-A90-095-080		SW,TACT EVQ11G04M
S306	87-A90-095-080		SW,TACT EVQ11G04M
S307	87-A90-095-080		SW,TACT EVQ11G04M
S308	87-A90-095-080		SW,TACT EVQ11G04M
S309	87-A90-095-080		SW,TACT EVQ11G04M
S315	87-A90-095-080		SW,TACT EVQ11G04M
S317	87-A90-095-080		SW,TACT EVQ11G04M
S351	87-A91-671-010		SW,RTRY JOG RE0121PVB20FINA
S352	87-A91-670-010		SW,RTRY VOL

CD C.B

C1	87-010-403-080		CAP,ELECT 3.3-50V
C2	87-010-197-080		CAP,CHIP 0.01DM
C3	87-010-263-080		CAP,ELECT 100-10V
C4	87-010-248-080		CAP,ELECT 220-10V
C5	87-010-197-080		CAP,CHIP 0.01DM
C6	87-010-374-080		CAP,ELECT 47-10V
C7	87-012-349-080		C-CAP,S 1000P-50 CH
C8	87-010-198-080		CAP,CHIP 0.022
C9	87-010-263-080		CAP,ELECT 100-10V
C10	87-010-263-080		CAP,ELECT 100-10V
C12	87-010-401-080		CAP,ELECT 1-50V
C13	87-010-197-080		CAP,CHIP 0.01DM
C14	87-010-405-080		CAP,ELECT 10-50V
C16	87-010-545-080		CAP,ELECT 0.22-50V
C17	87-012-349-080		C-CAP,S 1000P-50 CH
C18	87-010-213-080		C-CAP,S 0.015-50 B
C20	87-010-193-080		CHIP CAPACITOR,0.033
C23	87-010-992-080		C-CAP,S 0.047-25 B
C29	87-010-186-080		CAP,CHIP 4700P
C30	87-012-156-080		C-CAP,S 220P-50 CH
C31	87-010-545-080		CAP,ELECT 0.22-50V
C32	87-010-374-080		CAP,ELECT 47-10V
C33	87-010-401-080		CAP,ELECT 1-50V
C34	87-010-182-080		C-CAP,S 2200P-50KB<U,LH>
C34	87-010-186-080		CAP,CHIP 4700P<EXCEPT U,LH>
C35	87-010-197-080		CAP,CHIP 0.01DM
C36	87-010-374-080		CAP,ELECT 47-10V
C37	87-010-404-080		CAP,ELECT 4.7-50V
C38	87-010-196-080		CHIP CAPACITOR,0.1-25
C39	87-012-349-080		C-CAP,S 1000P-50 CH
C40	87-010-147-080		C-CAP,S 3P-50 CH
C41	87-A10-294-080		CAP,M 8200P-50 J
C42	87-010-314-080		C-CAP,S 22P-50V
C45	87-010-196-080		CHIP CAPACITOR,0.1-25
C46	87-010-196-080		CHIP CAPACITOR,0.1-25
C47	87-010-196-080		CHIP CAPACITOR,0.1-25<K,EZ,HS,G>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C48	87-010-315-080		C-CAP,S 27P-50 CH
C50	87-012-140-080		CAP,470P
C51	87-010-994-080		C-CAP,S 680P-50 CH
C57	87-010-316-080		C-CAP,S 33P-50 CH
C58	87-010-316-080		C-CAP,S 33P-50 CH
C59	87-010-263-080		CAP,ELECT 100-10V
C60	87-010-196-080		CHIP CAPACITOR,0.1-25
C61	87-010-196-080		CHIP CAPACITOR,0,1-25
C62	87-010-370-080		CAP,E 330-6.3 SME
C65	87-010-404-080		CAP,ELECT 4.7-50V
C66	87-010-196-080		CHIP CAPACITOR,0.1-25
C67	87-010-263-080		CAP,ELECT 100-10V
C68	87-010-322-080		C-CAP,S 100P-50 CH
C75	87-010-197-080		CAP,CHIP 0.01DM
C76	87-A10-102-080		CAP,E 1000-10 REA
C77	87-010-263-080		CAP,ELECT 100-10V
C78	87-010-197-080		CAP,CHIP 0.01DM
C79	87-010-197-080		CAP,CHIP 0.01DM
C80	87-010-112-080		CAP,ELECT 100-16V
C81	87-010-405-080		CAP,ELECT 10-50V
C82	87-010-405-080		CAP,ELECT 10-50V
C83	87-010-181-080		CAP,CHIP S 1800P
C84	87-010-181-080		CAP,CHIP S 1800P
C90	87-010-197-080		CAP,CHIP 0.01DM
C91	87-010-404-080		CAP,ELECT 4.7-50V
C92	87-010-387-080		CAP,E 470-25 SME
C93	87-010-197-080		CAP,CHIP 0.01DM
C94	87-010-197-080		CAP,CHIP 0.01DM
C95	87-010-197-080		CAP,CHIP 0.01 DM
C96	87-010-221-080		CAP,ELECT 470-10V
C97	87-010-197-080		CAP,CHIP 0.01 DM
C98	87-012-154-080		C-CAP,S 150P-50 CH
C99	87-010-196-080		CHIP CAPACITOR,0.1-25
C100	87-010-196-080		CHIP CAPACITOR,0.1-25
C101	87-010-322-080		C-CAP,S 100P-50 CH
C102	87-010-322-080		C-CAP,S 100P-50 CH
C103	87-010-322-080		C-CAP,S 100P-50 CH
C104	87-010-322-080		C-CAP,S 100P-50 CH
C105	87-010-322-080		C-CAP,S 100P-50 CH
C110	87-010-196-080		CHIP CAPACITOR,0.1-25
C130	87-010-197-080		CAP,CHIP 0.01 DM
C131	87-010-112-080		CAP,ELECT 100-16V
C140	87-010-196-080		CHIP CAPACITOR,0.1-25
C141	87-010-318-080		C-CAP,S 47P-50 CH
C142	87-015-819-080		CAPACITOR,0.01
C143	87-010-404-080		CAP,ELECT 4.7-50V
C145	87-010-196-080		CHIP CAPACITOR,0.1-25
C150	87-010-263-080		CAP,ELECT 100-10V
C151	87-010-197-080		CAP,CHIP 0.01 DM
C152	87-010-178-080		CHIP CAP,1000P
C302	87-010-197-080		CAP,CHIP 0.01DM
CN1	87-A60-248-010		CONN,16P H CFF1416
CN3	87-A60-131-010		CONN,6P V FE
CN4	87-A61-249-010		CONN,15P H
CN5	87-099-210-010		CONN,5P 6216 H
CN6	87-A60-130-010		CONN,5P V FE
CN7	8A-CL8-707-010		CONN ASSY,5P DOOR
D150	87-A40-558-010		LED,SLZ-8128A-01-A
FFC1	8A-CL8-702-010		FF-CABLE,16P 1.0 140MM
FFC3	88-906-171-110		FF-CABLE,6P 1.25
FFC5	88-905-301-110		FF-CABLE,5P 300MM
FFC6	88-905-201-110		FF-CABLE,5P 1.25
JW61	87-A90-896-080		F-BEAD,035600STY7<K,EZ,HS,G>
L1	87-003-102-080		COIL,10UH
R70	87-029-124-090		RESISTOR,FUSE 1/4W 2.2
R73	87-029-361-090		FUSING RESISTOR,1/2W-3.3
R144	87-029-361-090		FUSING RESISTOR,1/2W-3.3
SFR130	87-024-176-080		SEMI-FIXED RESISTOR,100K
X1	87-A70-046-010		VIB,XTAL 16.934MHZ

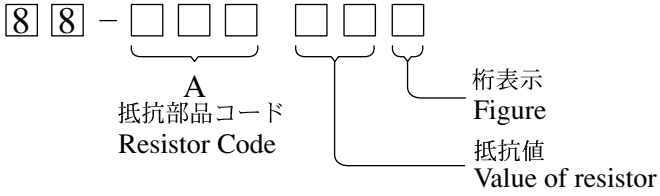
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
PAMP C.B			
C203	87-010-400-080		CAP,ELECT 0.47-50V
C204	87-010-400-080		CAP,ELECT 0.47-50V
C207	87-010-196-080		CHIP CAPACITOR,0.1-25
C208	87-010-196-080		CHIP CAPACITOR,0.1-25
C209	87-010-187-080		CAP,CHIP S5600P
C210	87-010-187-080		CAP,CHIP S5600P
C211	87-010-404-080		CAP,ELECT 4.7-50V
C212	87-010-404-080		CAP,ELECT 4.7-50V
C213	87-010-322-080		C-CAP,S 100P-50 CH
C214	87-010-322-080		C-CAP,S 100P-50 CH
C215	87-010-184-080		CHIP CAPACITOR,3300P(K)
C216	87-010-184-080		CHIP CAPACITOR,3300P(K)
C217	87-010-403-080		CAP,ELECT 3.3-50V
C218	87-010-403-080		CAP,ELECT 3.3-50V
C219	87-010-260-080		CAP,ELECT 47-25V
C220	87-010-260-080		CAP,ELECT 47-25V
C221	87-A10-946-080		C-CAP,S 220P-100 J CH<EXCEPT U,LH>
C221	87-012-156-080		C-CAP,S 220P-50 J CH GRM<U,LH>
C222	87-A10-946-080		C-CAP,S 220P-100 J CH<EXCEPT U,LH>
C222	87-012-156-080		C-CAP,S 220P-50 J CH GRM<U,LH>
C223	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C224	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C225	87-010-186-080		CAP,CHIP 4700P
C226	87-010-186-080		CAP,CHIP 4700P
C229	87-010-544-080		CAP,ELECT 0.1-50V
C230	87-010-544-080		CAP,ELECT 0.1-50V
C231	87-010-196-080		CHIP CAPACITOR,0.1-25
C232	87-010-196-080		CHIP CAPACITOR,0.1-25
C233	87-010-993-080		C-CAP,S 0.056-25 B
C234	87-010-993-080		C-CAP,S 0.056-25 B
C235	87-010-196-080		CHIP CAPACITOR,0.1-25
C236	87-010-196-080		CHIP CAPACITOR,0.1-25
C237	87-010-197-080		CAP,CHIP 0.01 DM
C263	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C264	87-012-141-080		CHIP-CAPACITOR,0.22-16F
CN201	87-A61-011-010		CONN,13P H BLK TAC-L13P-A3
J201	87-A60-238-010		TERMINAL,SP 4P(MSC)
L201	87-003-383-010		COIL,1UH-S
L202	87-003-383-010		COIL,1UH-S
R247	87-A00-258-080		RES,M/F 0.22-1W J
R248	87-A00-258-080		RES,M/F 0.22-1W J
R249	87-A00-258-080		RES,M/F 0.22-1W J
R250	87-A00-258-080		RES,M/F 0.22-1W J
R251	87-A00-258-080		RES,M/F 0.22-1W J
R252	87-A00-258-080		RES,M/F 0.22-1W J
TH201	87-A91-042-080		C-THMS,100K 55001
TH202	87-A91-042-080		C-THMS,100K 55001
MOTOR C.B			
CN600	87-A60-115-010		CONN,5P H S2M-5WR
M600	87-A91-069-010		MOT,RF-370CA15370
S600	87-036-109-010		SW,MICRO SPPB61
S601	87-036-109-010		SW,MICRO SPPB61
PT C.B			
C101	87-010-387-080		CAP,E 470-25 SME
CN101	87-A61-110-010		CONN,9P V TID-A
⚠ F101	87-035-222-010		FUSE,1AT<K,EZ,HS,G>
⚠ F101	87-035-190-010		FUSE,2AT<HR,HA,LH>
⚠ F101	87-035-488-010		FUSE,3.15A 125V D UL<U>
⚠ FC101	87-033-213-080		CLAMP,FUSE
⚠ FC102	87-033-213-080		CLAMP,FUSE
⚠ PR101	87-026-690-080		FUSE,5A 125V 251<U>
⚠ PR101	87-026-681-080		PROTECTOR,5A 60V 491<EXCEPT U>
⚠ PR102	87-026-690-080		FUSE,5A 125V 251<U>
⚠ PR102	87-026-681-080		PROTECTOR,5A 60V 491<EXCEPT U>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
⚠ PR103	87-A90-070-080		FUSE,3.5A 125V 251<U>
⚠ PR103	87-A90-473-080		PROTECTOR,3.5A 491 60V<EXCEPT U>
⚠ PR104	87-A90-070-080		FUSE,3.5A 125V 251<U>
⚠ PR104	87-A90-473-080		PROTECTOR,3.5A 491 60V<EXCEPT U>
⚠ PT101	8A-CL8-603-010		PT,EZ EI66-60<K,EZ,HS,G>
⚠ PT101	8A-CL8-602-010		PT,H EI66-60<HR,HA,LH>
⚠ PT101	8A-CL8-601-010		PT,U EI66-60<U>
⚠ PT102	8A-NF8-662-010		PT,SUB ANF-8(E)<K,EZ,HS,G>
⚠ PT102	8A-NF8-673-010		PT,SUB ANF-8(H)KAMI<HR,HA,LH>
⚠ PT102	8A-NF8-661-010		PT,SUB ANF-8(U)<U>
⚠ RY101	87-A91-281-010		RELAY,AC DC12V OSASS212DM5<HR,HA,LH>
⚠ RY101	87-A90-976-010		RELAY,AC12VSDT-S-112LMR<U,K,EZ,HS,G>
⚠ SW101	87-A90-234-010		SW,SL 1-2-2 SW2201<HR,HA,LH>
⚠ T101	87-A60-317-010		TERMINAL,1P MSC
⚠ T102	87-A60-317-010		TERMINAL,1P MSC
DECK C.B			
CON1	87-009-352-010		CONN,9P H WHT PH
SFR1	87-024-581-010		SFR,3.3K H KVSF637A
SOL2	82-ZM3-628-010		SOL ASSY,23 SO
SW2	87-036-110-010		SW,MICRO SPPB62
SW3	87-036-110-010		SW,MICRO SPPB62
SW4	87-036-110-010		SW,MICRO SPPB62
SW5	87-036-110-010		SW,MICRO SPPB62
SW6	87-A90-248-010		SW,MICRO ESE11SH2CXQ
W1	82-ZM1-625-010		RBN-CORD,4P-55

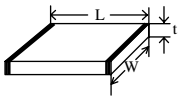
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
RELAY C.B<EXCEPT G>			
CN301	88-CL4-701-010		CONN ASSY,7P RPEH<EXCEPT G>
LOAD C.B			
CON6	87-099-210-010		CONN,5P H BLK 6216
M1	87-045-305-010		MOT,RF-500TB
SW1	87-036-110-010		SW,MICRO SPPB62
SW2	87-036-110-010		SW,MICRO SPPB62
DRIVE C.B			
CON3	87-A60-086-010		CONN,06P H 6216
M20	87-045-358-010		MOT,RF-310TA 43
M21	87-045-363-010		MOT,MDN4RA3ET
SW1	87-A90-042-010		SW,LEAF MSW-17310MVPO
HEAD C.B<G ONLY>			
CN301	88-CL4-701-010		CONN ASSY,7P RPEH<G>

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

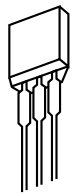
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

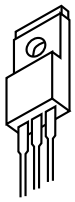
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION



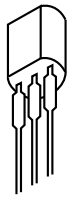
E C B

2SA933
2SC4115
DTA144ES
DTC144ES
KTA1267
KTC3199



B C E

2SB1344
2SB1370
2SB1616
2SD2025
2SD2478

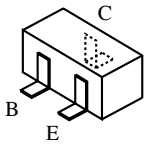


E C B

2SA1296
2SC1815
KTC3198

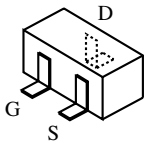
E C B

2SA952
CC5551

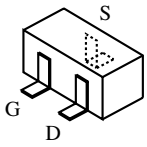


2SA1235
2SA1514
2SC2712
2SC2714
2SC3052
2SD1306
CMBT5551
CSD1306

DTA144EK
DTA144TK
DTC114TK
DTC144EK
KRA102S
RT1P141C
RT1P144C



2SJ461
2SK2158



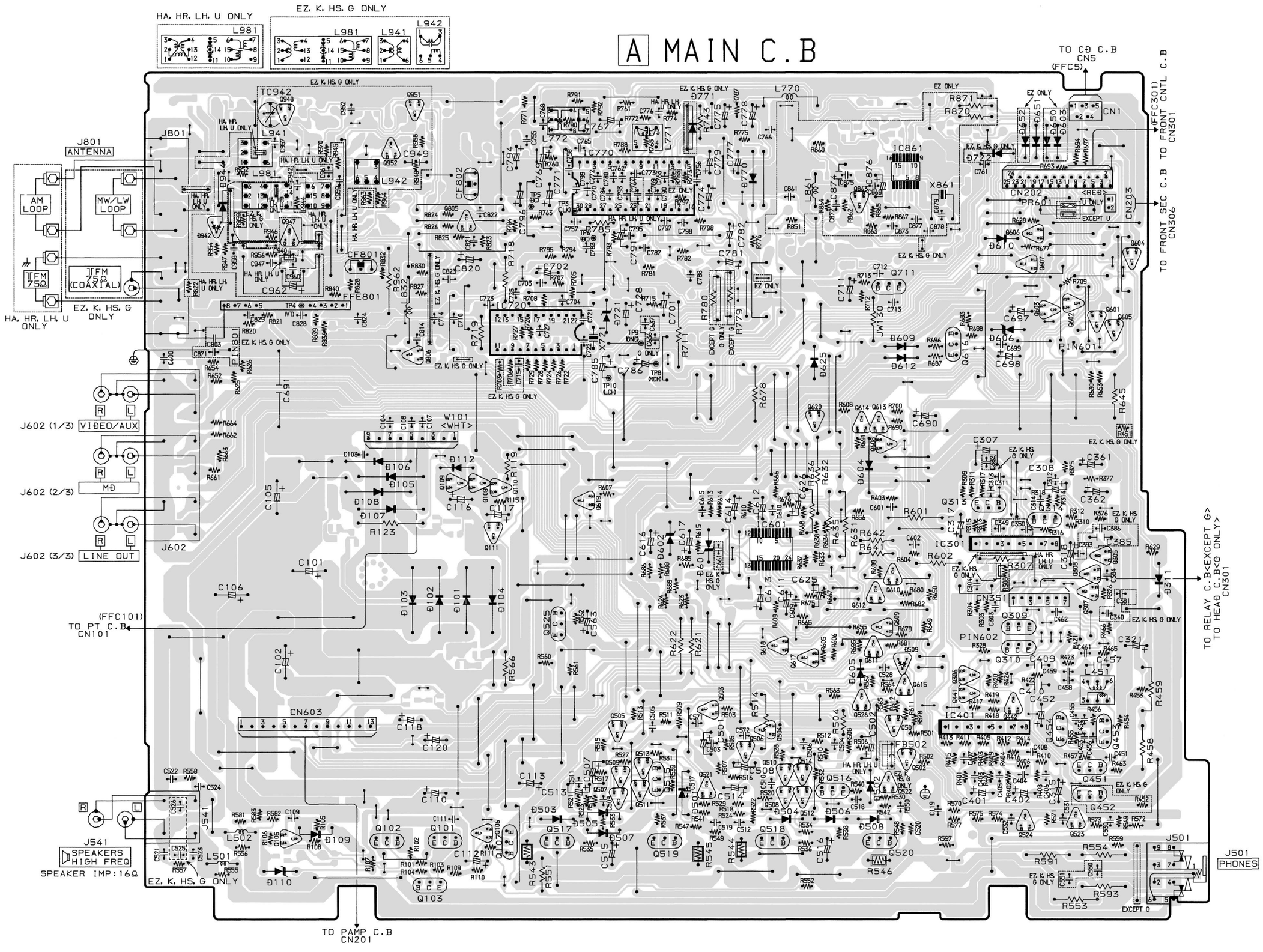
2SK543

E C B

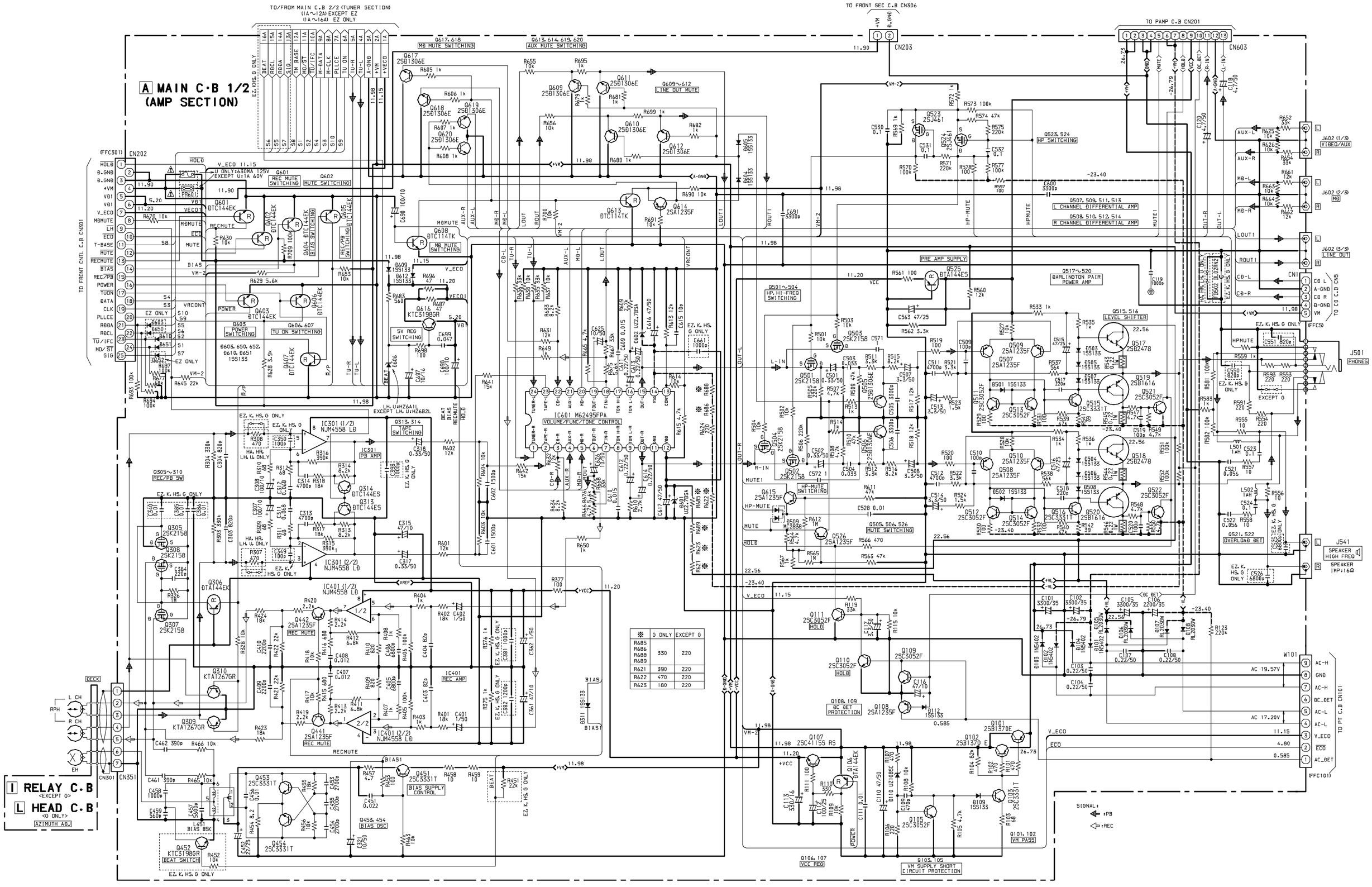
2SC3331

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

A B C D E F G H I J K L M N O P Q R S T U

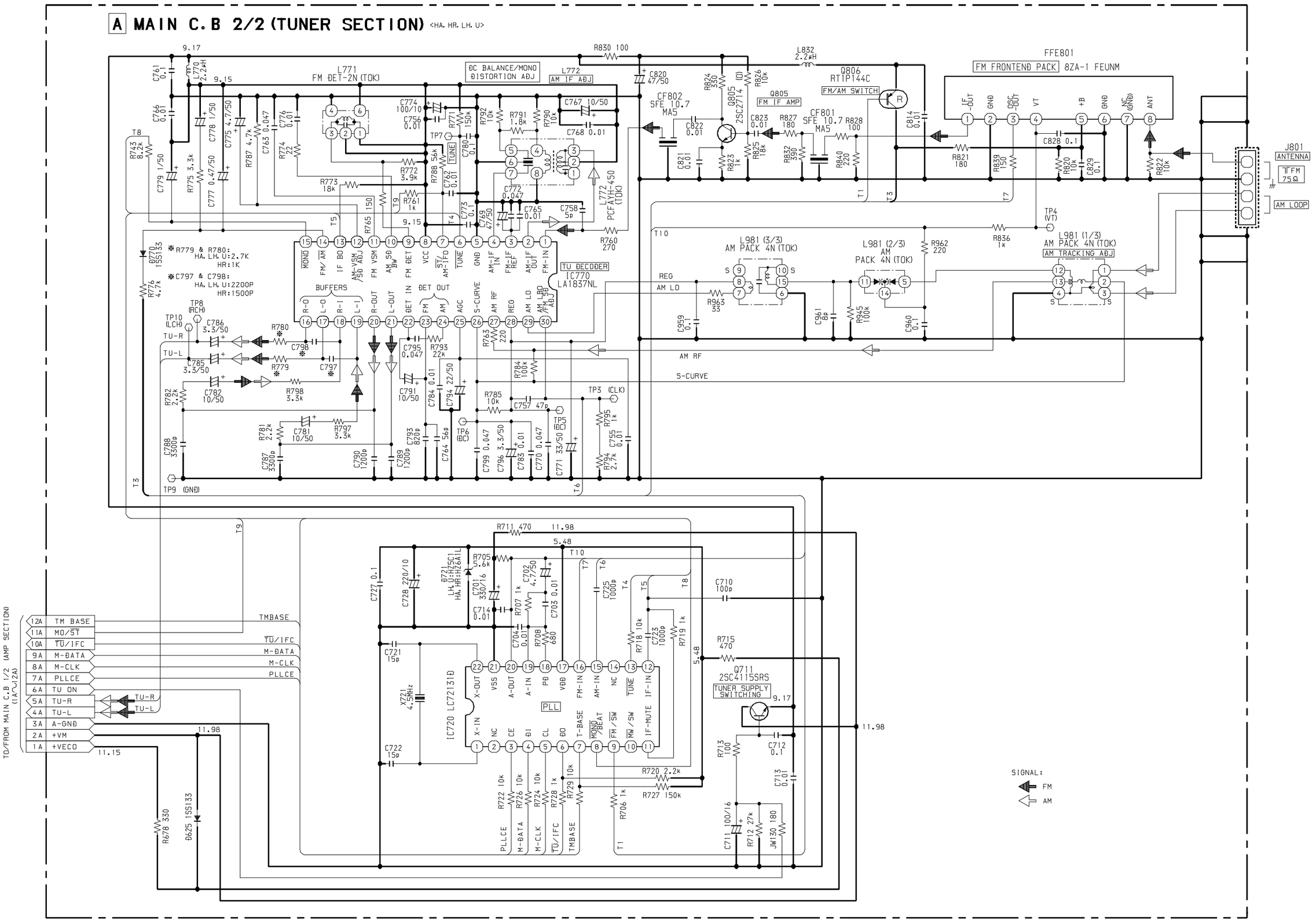


SCHEMATIC DIAGRAM – 1 (MAIN : 1 / 2 <AMP SECTION> / RELAY / HEAD)

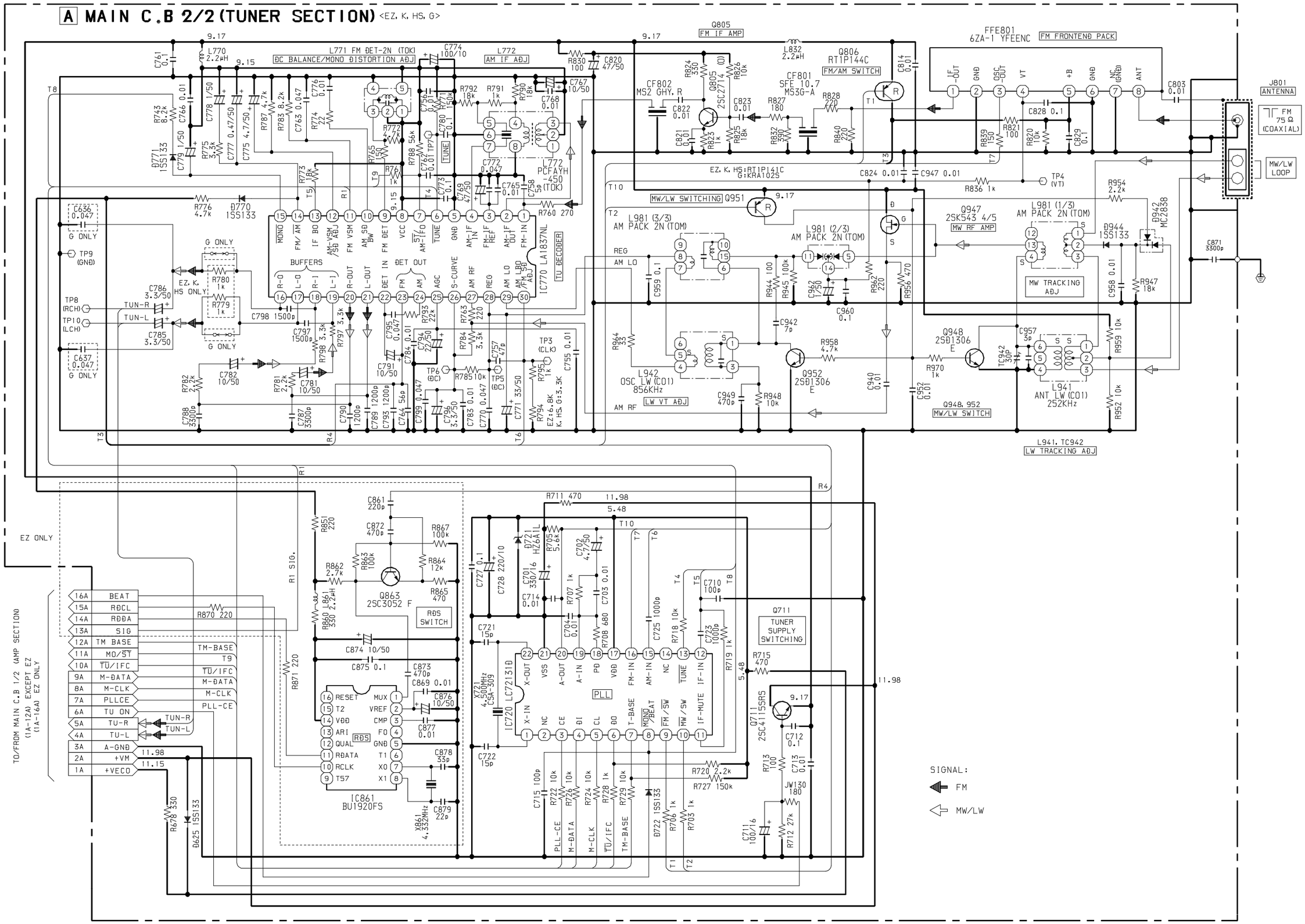


※	G ONLY	EXCEPT G
R685 R686 R688 R689	330	220
R621	390	220
R622	470	220
R623	180	220

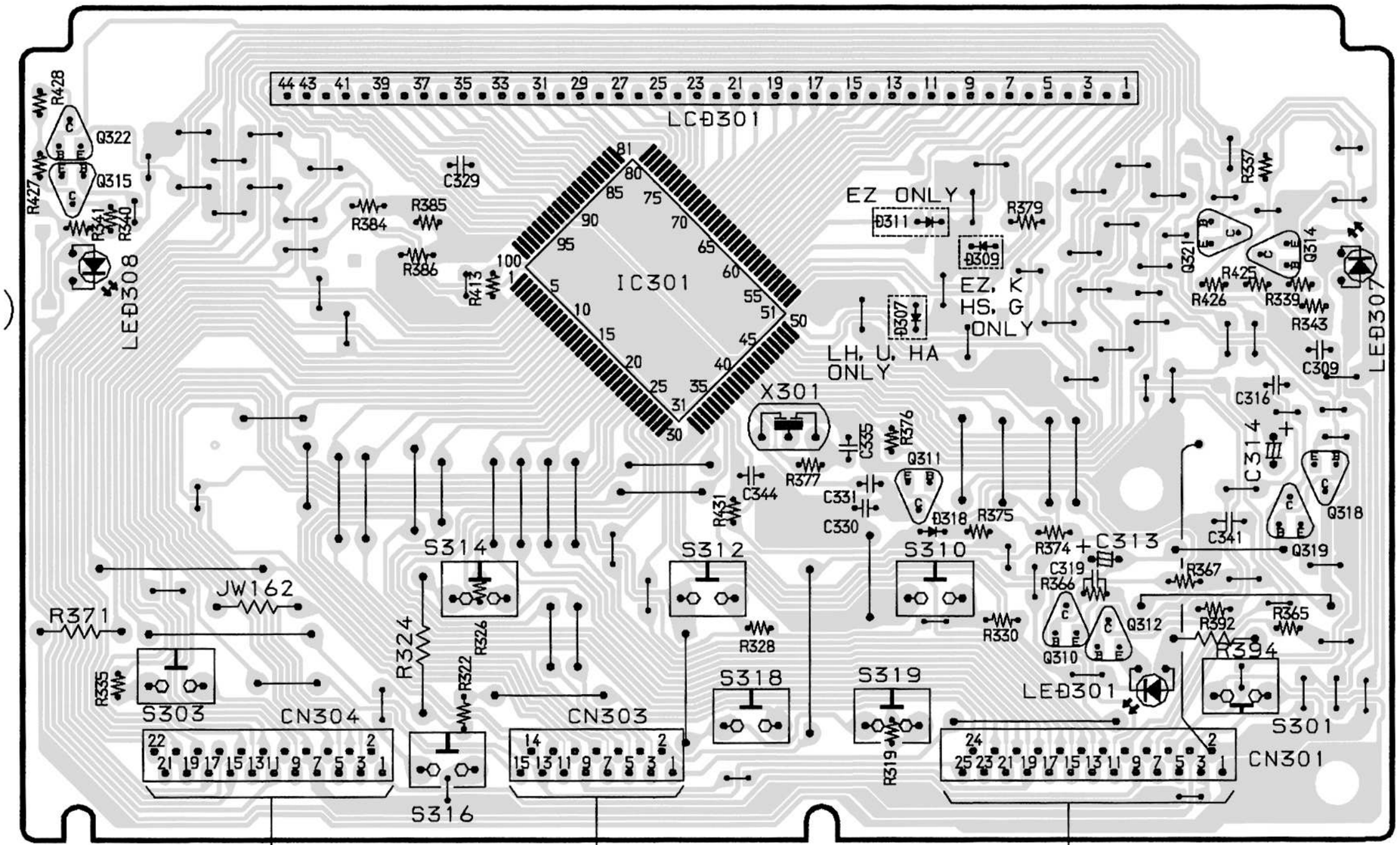
SCHEMATIC DIAGRAM – 2 (MAIN : 2 / 2 <TUNER SECTION>) <LH, U, HA, HR>

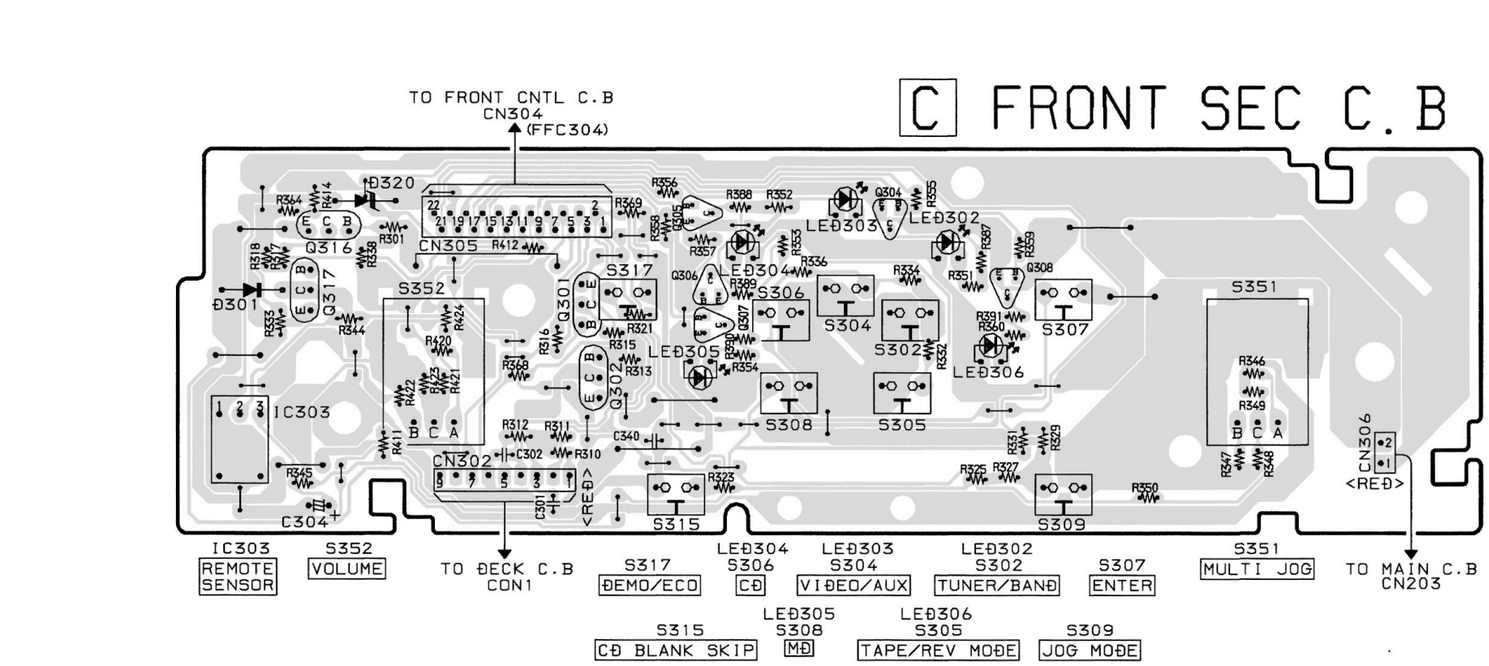


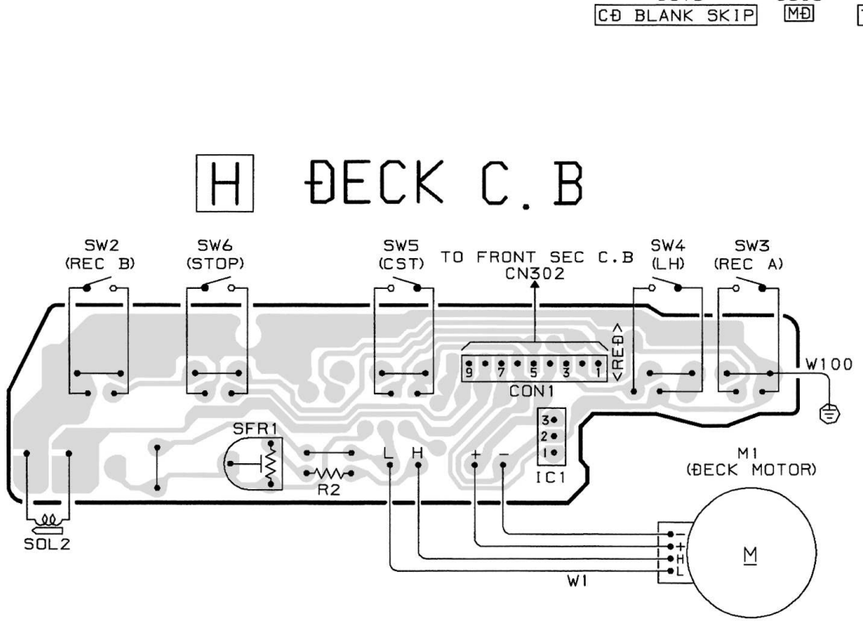
SCHEMATIC DIAGRAM – 3 (MAIN : 2 / 2 <TUNER SECTION>) <EZ, K, HS, G>

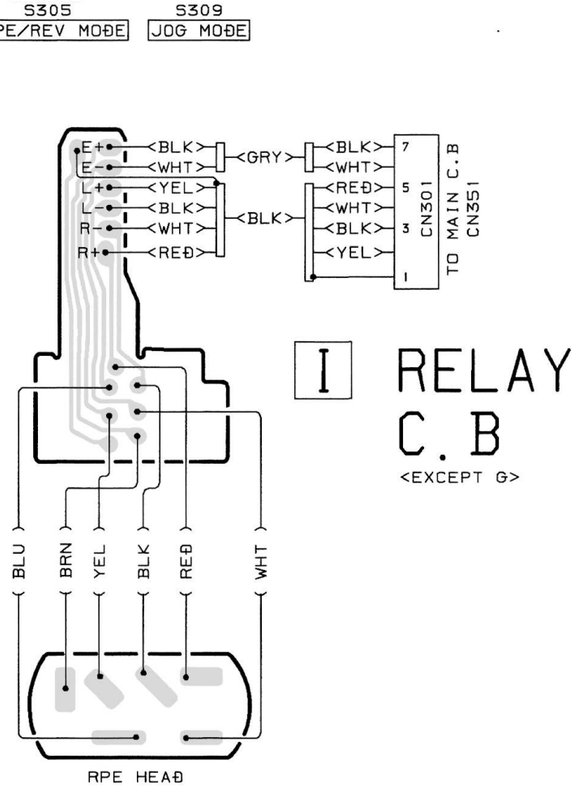


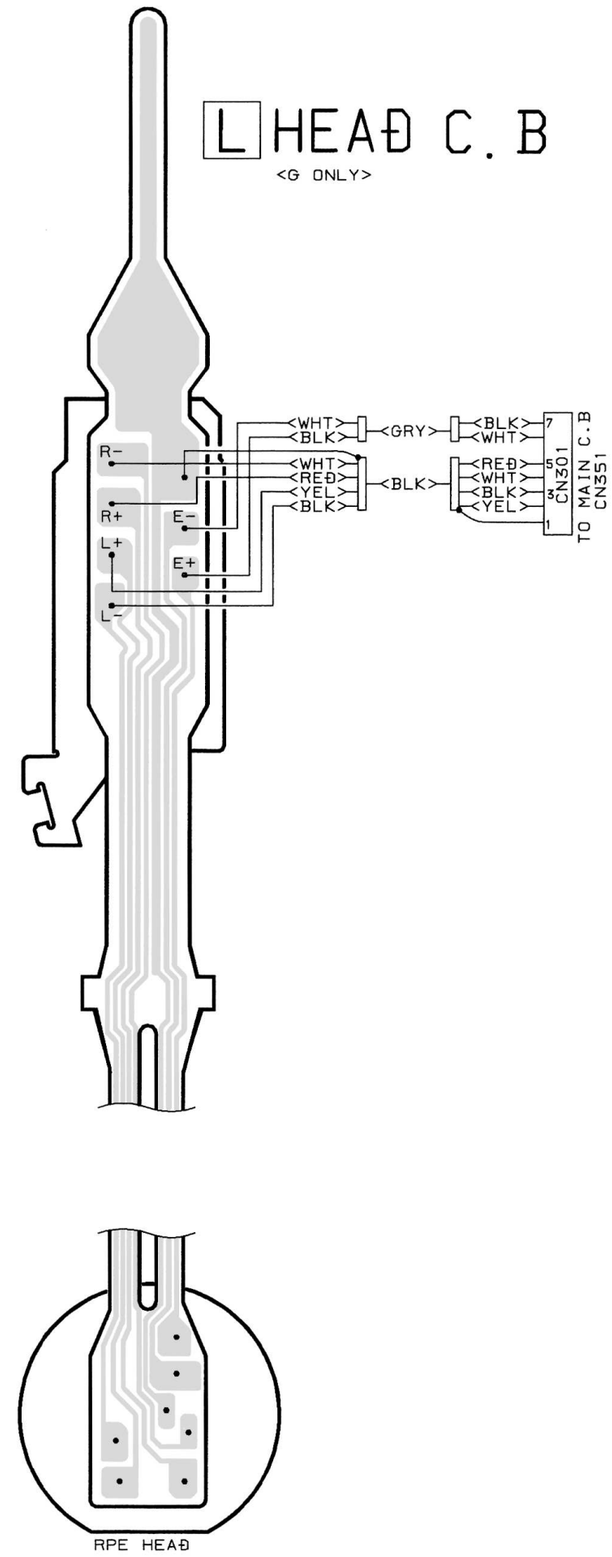
B FRONT CNTL C.B



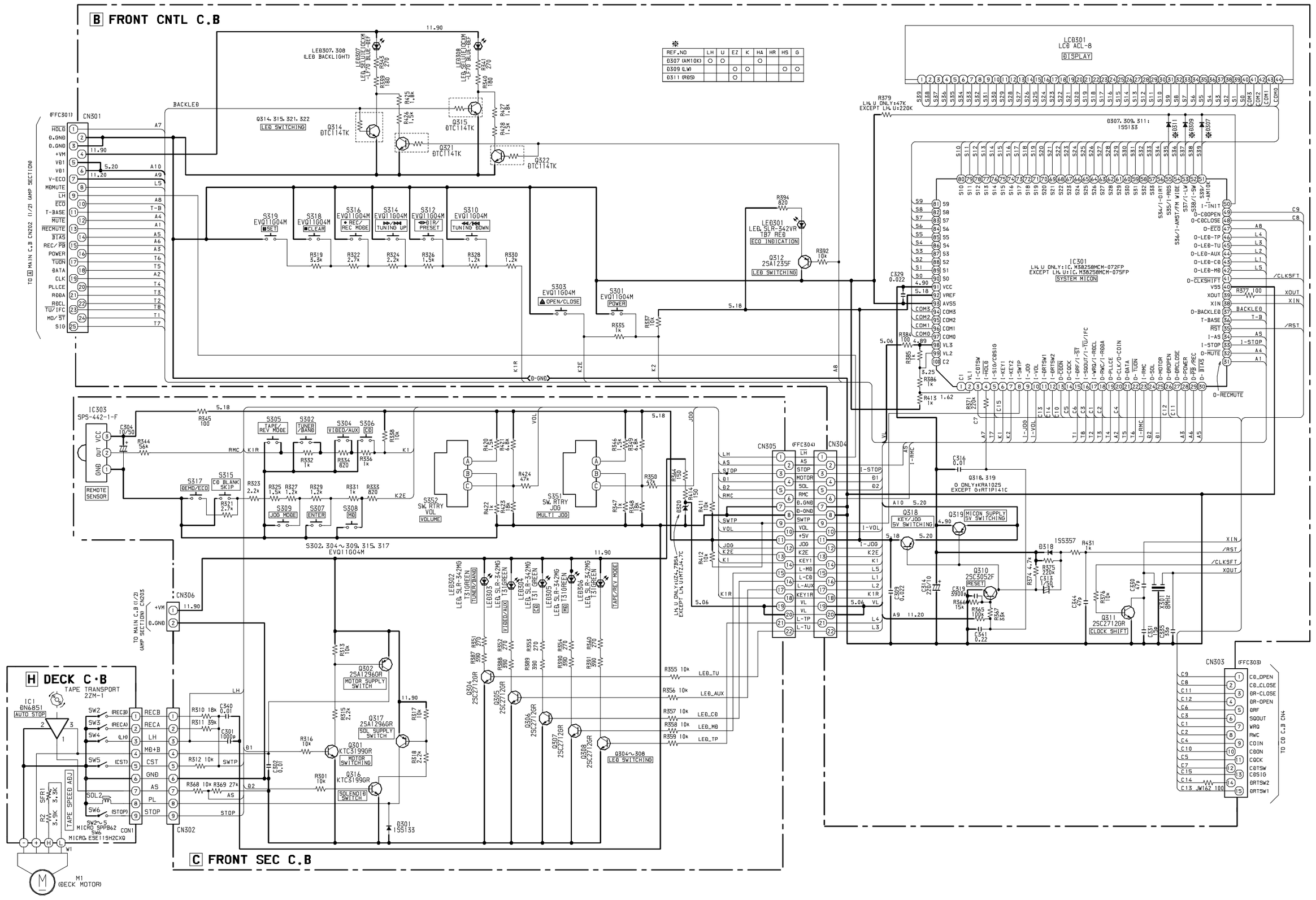

C FRONT SEC C.B
TO FRONT CNTL C.B
CN304
(FFC304)
IC303
REMOTE SENSOR
S352
VOLUME
TO DECK C.B
CON1
S317
DEMO/ECO
LED304
S306
CD
LED303
S304
VIDEO/AUX
LED302
S302
TUNER/BAND
S307
ENTER
S351
MULTI JOG
TO MAIN C.B
CN203
S315
CD BLANK SKIP
LED305
S308
MD
LED306
S305
TAPE/REV MODE
S309
JOG MODE

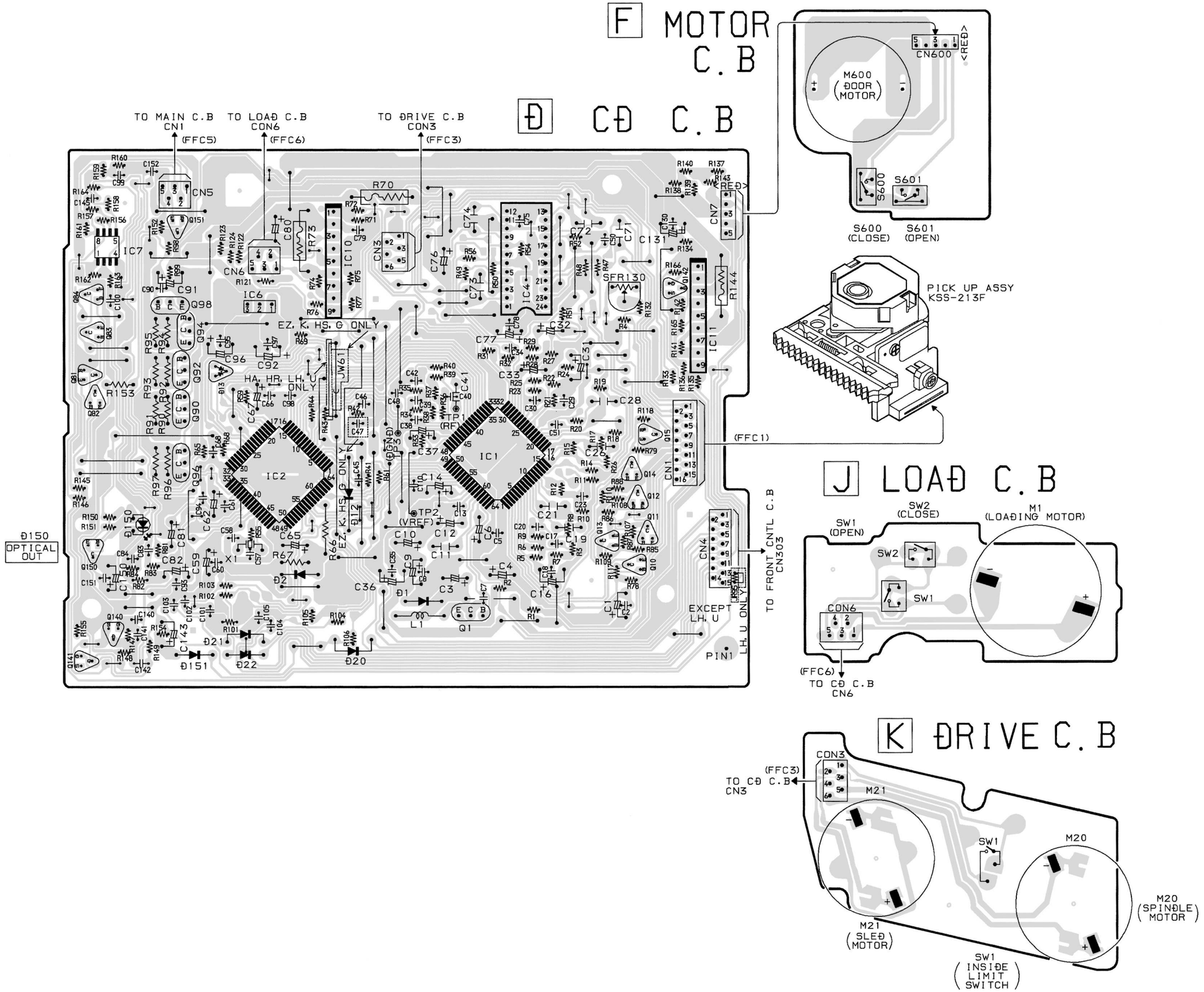

H DECK C.B
SW2
(REC B)
SW6
(STOP)
SW5
(CST)
TO FRONT SEC C.B
CN302
SW4
(LH)
SW3
(REC A)
CON1
W100
SFR1
R2
IC1
M1
(DECK MOTOR)
SOL2
W1


I RELAY C.B
<EXCEPT G>
E+
E-
L+
L-
R-
R+
BLK
WHT
GRY
YEL
RED
CN301
TO MAIN C.B
CN351
BLU
BRN
YEL
BLK
RED
WHT
RPE HEAD

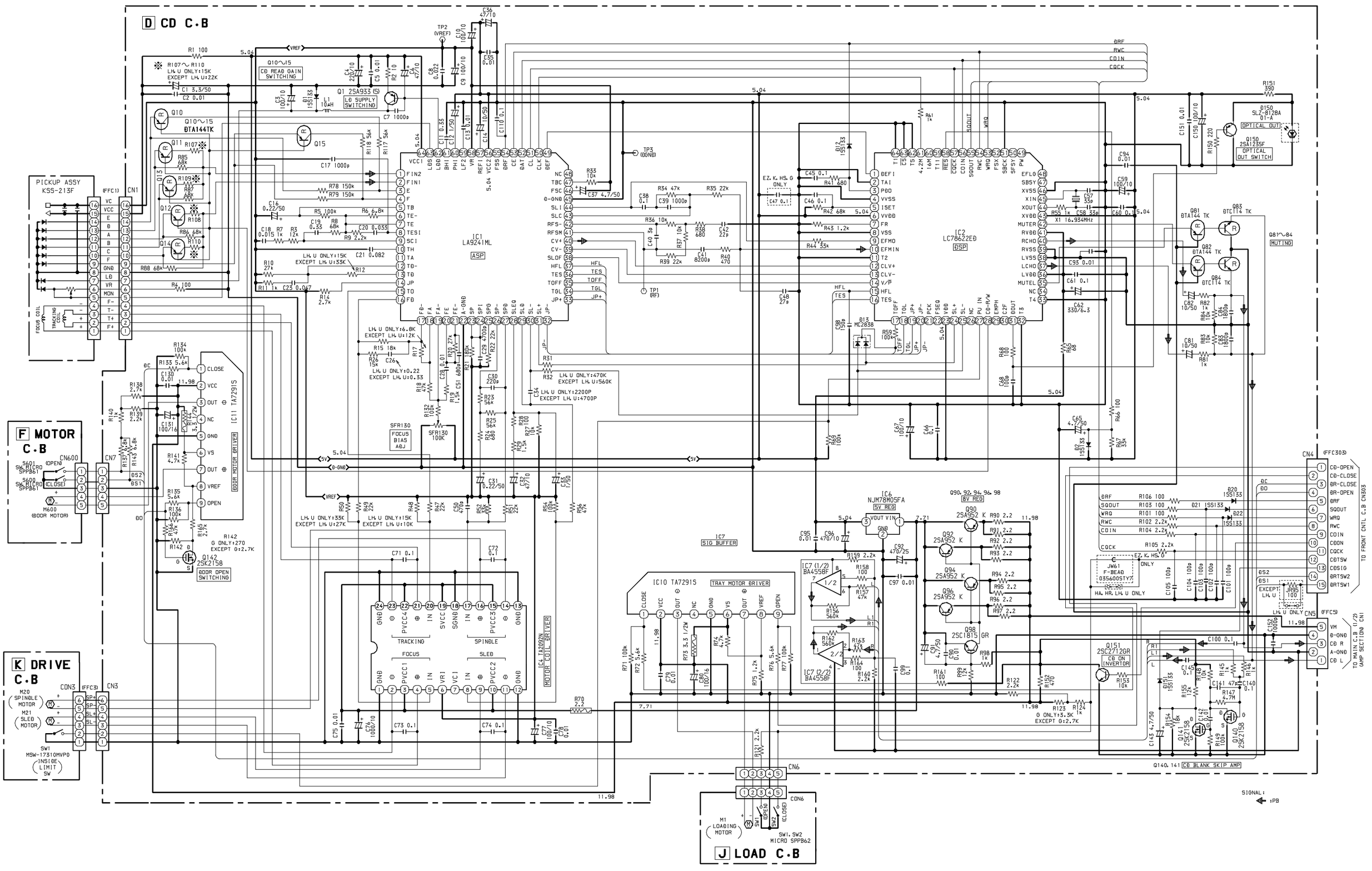

L HEAD C.B
<G ONLY>
R-
R+
L+
L-
E-
E+
WHT
BLK
GRY
RED
YEL
CN301
TO MAIN C.B
CN351
RPE HEAD

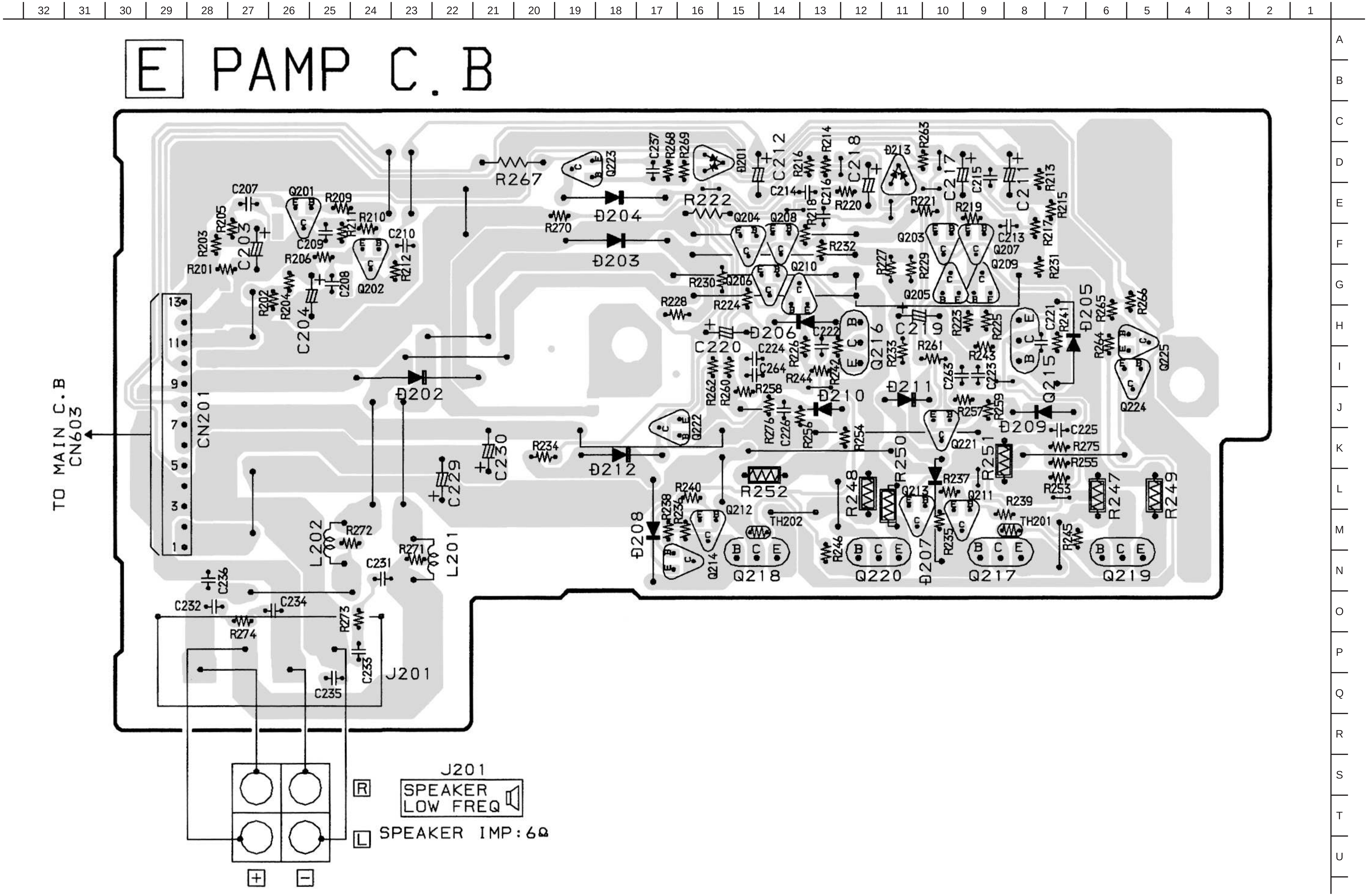
SCHEMATIC DIAGRAM – 4 (FRONT CNTL / FRONT SEC / DECK)

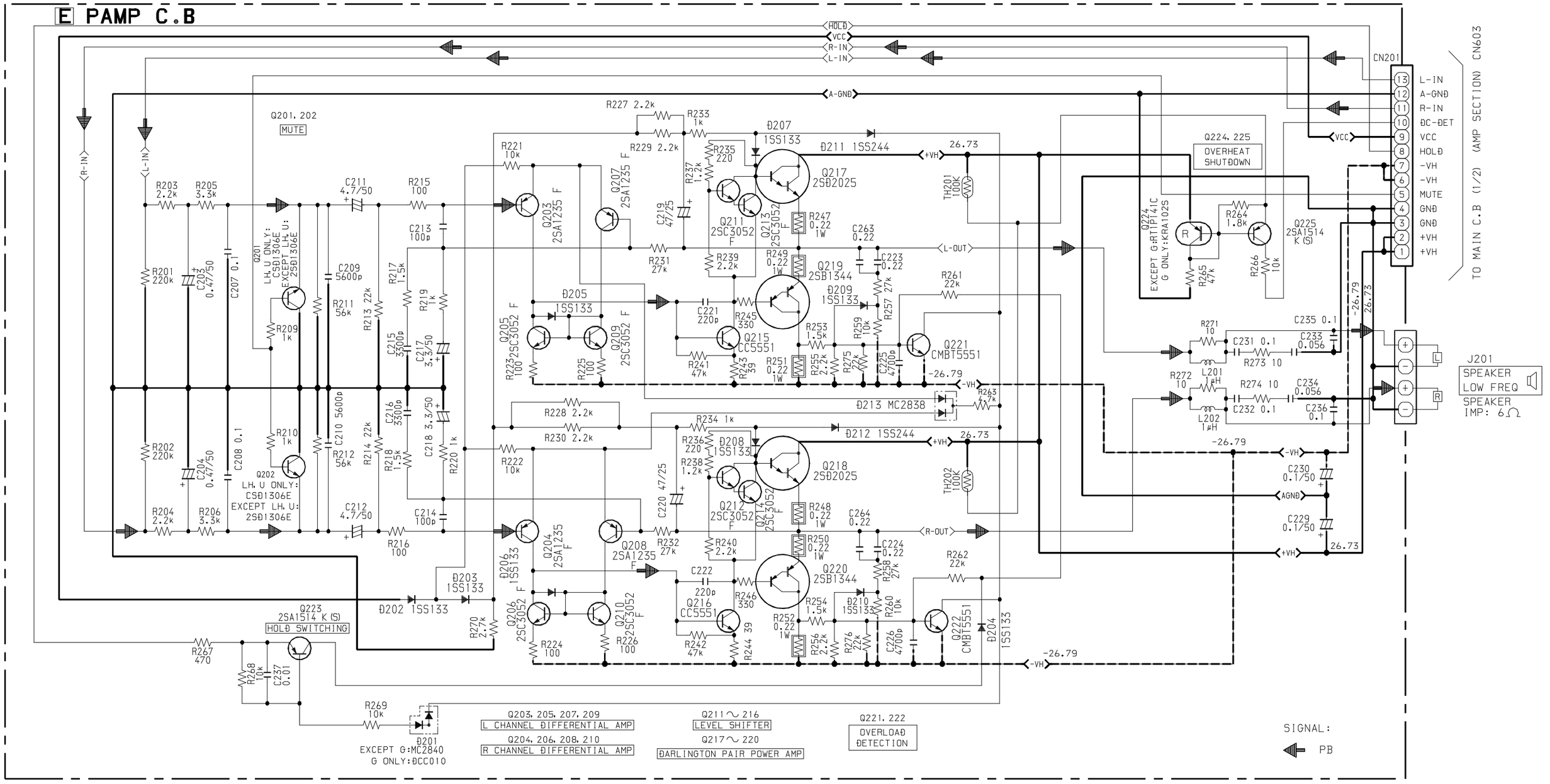


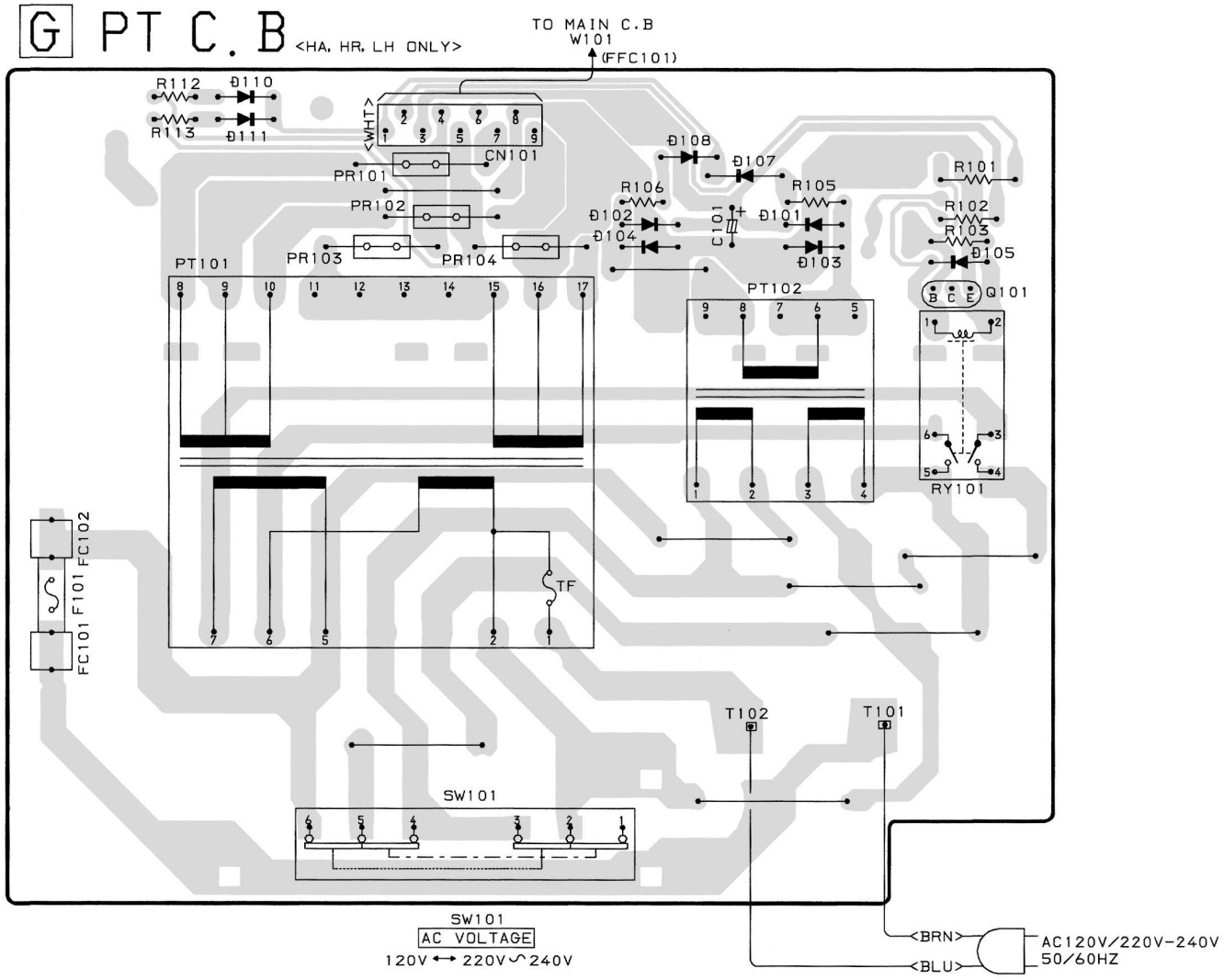

F MOTOR C.B
M600 (DOOR MOTOR)
CN600
<RED>
S600 (CLOSE)
S601 (OPEN)
PICK UP ASSY KSS-213F
(FFC1)
Đ CĐ C.B
TO MAIN C.B CN1 (FFC5)
TO LOAĐ C.B CON6 (FFC6)
TO ĐRIVE C.B CON3 (FFC3)
EZ, K, HS, G ONLY
HA, HR, LH, U ONLY
EXCEPT LH, U
LH, U ONLY
TO FRONT CNTL C.B CN303
Đ150 OPTICAL OUT
J LOAĐ C.B
SW2 (CLOSE)
M1 (LOAĐING MOTOR)
SW1 (OPEN)
(FFC6) TO CĐ C.B CN6
K ĐRIVE C.B
(FFC3) TO CĐ C.B CN3
M21 (SLEĐ MOTOR)
M20 (SPINĐLE MOTOR)
SW1 (INSIĐE LIMIT SWITCH)

SCHEMATIC DIAGRAM – 5 (CD / MOTOR / LOAD / DRIVE)

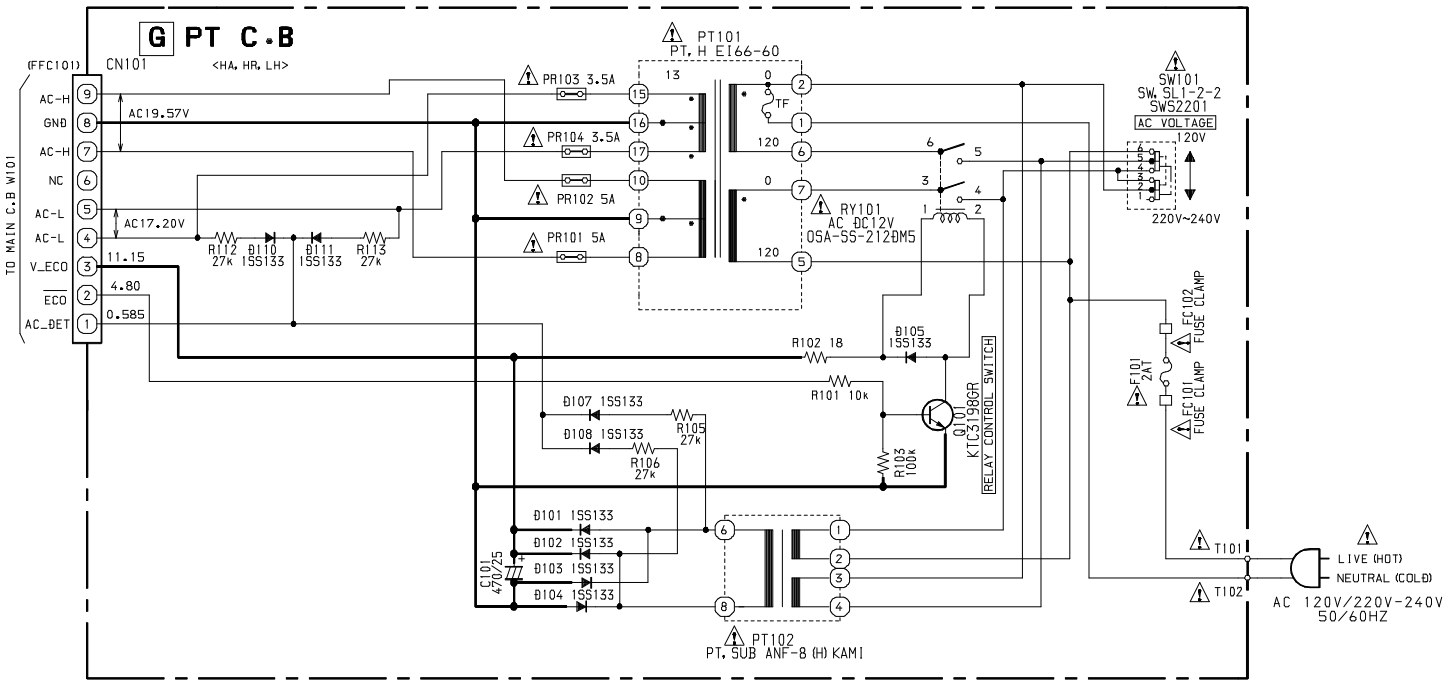


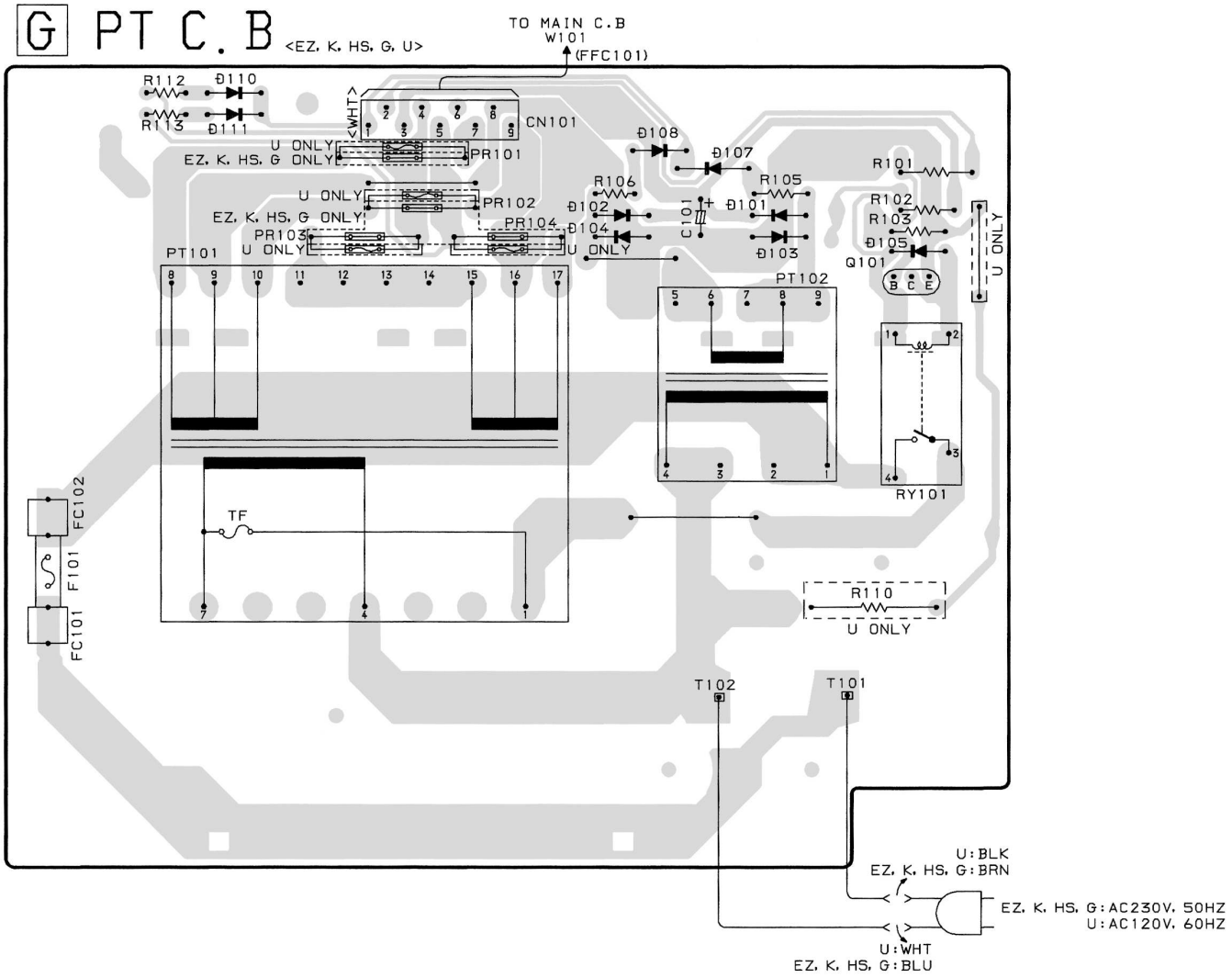

32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
A B C D E F G H I J K L M N O P Q R S T U
E PAMP C.B
TO MAIN C.B CN603
CN201
J201
SPEAKER LOW FREQ
SPEAKER IMP:6Ω
R
L


E PAMP C.B
HOLD
VCC
R-IN
L-IN
A-GND
CN201
TO MAIN C.B (1/2) (AMP SECTION) CN603
J201
SPEAKER
LOW FREQ
SPEAKER
IMP: 6Ω
Q201, 202
MUTE
Q224, 225
OVERHEAT
SHUTDOWN
EXCEPT G:RT1P141C
G ONLY:KRA102S
Q225
2SA1514
K (S)
Q223
2SA1514 K (S)
HOLD SWITCHING
Q203, 205, 207, 209
L CHANNEL DIFFERENTIAL AMP
Q204, 206, 208, 210
R CHANNEL DIFFERENTIAL AMP
Q211 ~ 216
LEVEL SHIFTER
Q217 ~ 220
DARLINGTON PAIR POWER AMP
Q221, 222
OVERLOAD
DETECTION
D201
EXCEPT G:MC2840
G ONLY:DCC010
SIGNAL:
PB

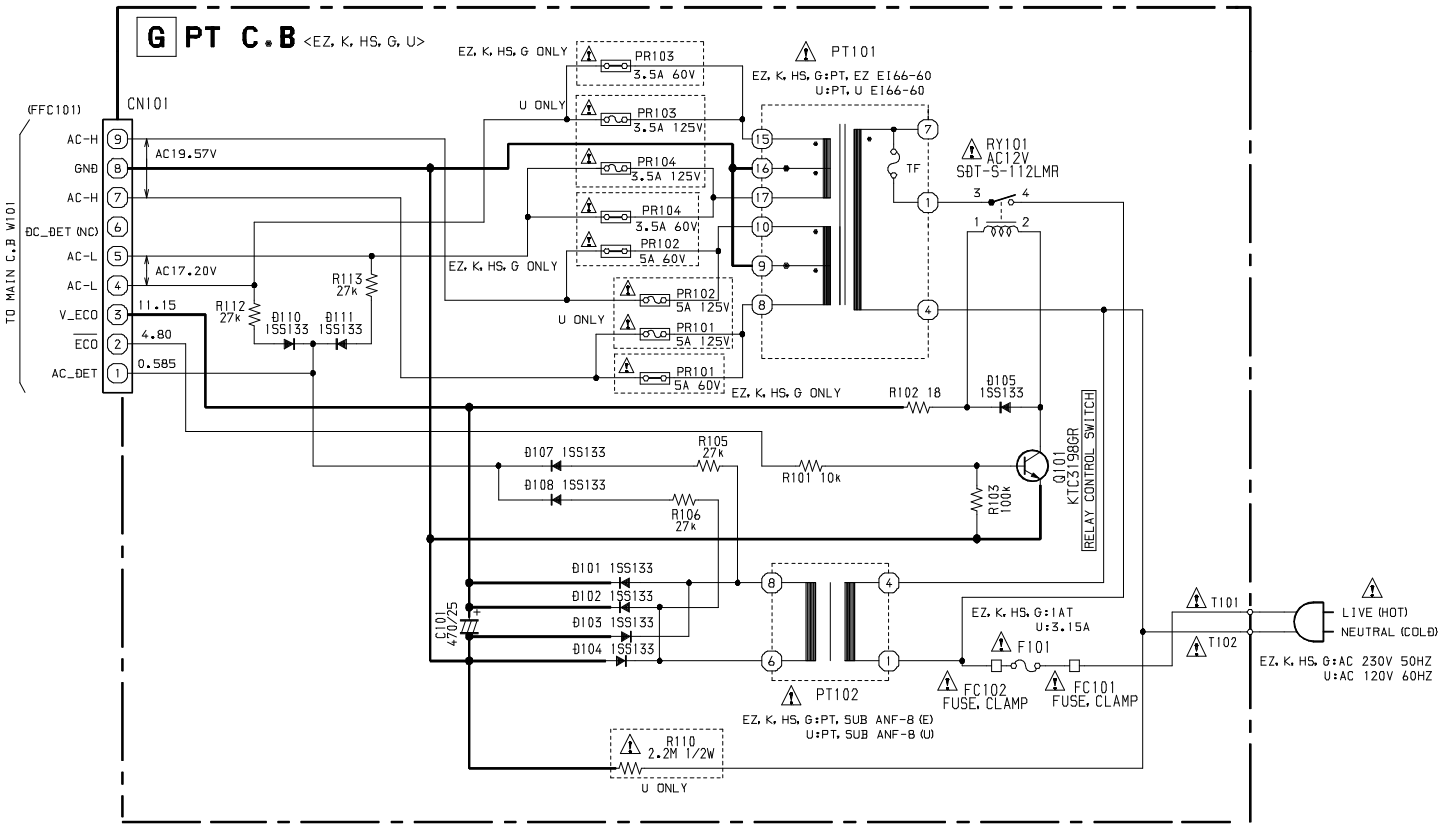

G PT C.B
<HA, HR, LH ONLY>
TO MAIN C.B
W101
(FFC101)
R112
D110
R113
D111
WHT
CN101
PR101
PR102
PR103
PR104
D108
D107
R106
D102
D104
C101
R105
D101
D103
R101
R102
R103
D105
Q101
B C E
PT101
PT102
RY101
TF
FC101 F101 FC102
T102
T101
SW101
SW101
AC VOLTAGE
120V ↔ 220V ∿ 240V
<BRN>
<BLU>
AC120V/220V-240V
50/60HZ

SCHEMATIC DIAGRAM – 7 (PT) <LH, HA, HR>

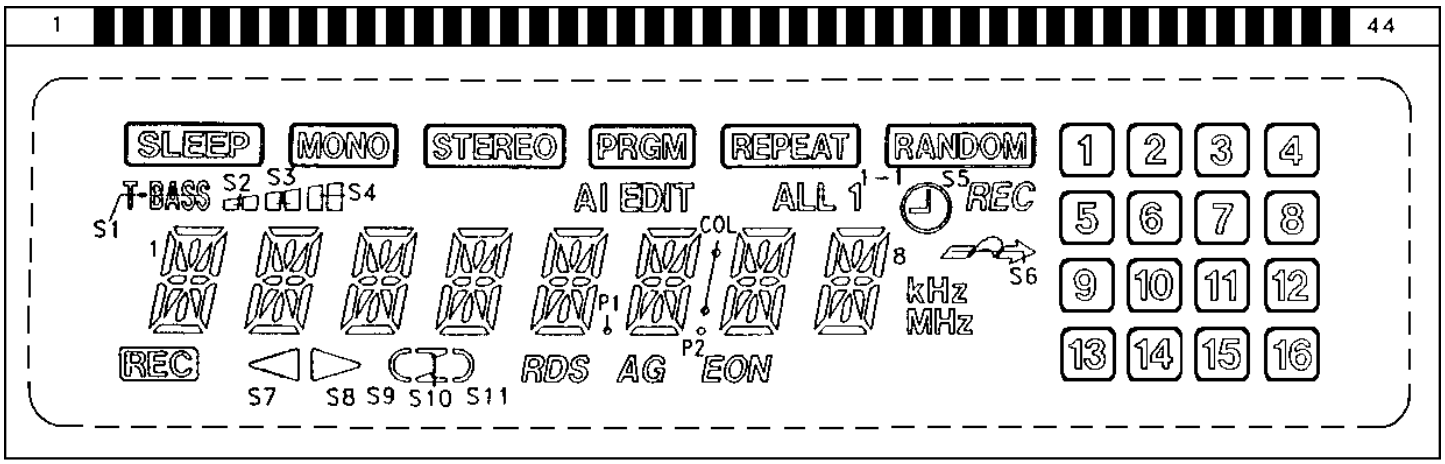



G PT C.B <EZ, K, HS, G, U>
TO MAIN C.B
W101
(FFC101)
CN101
PR101
PR102
PR103
PR104
PT101
PT102
R112
R113
Đ110
Đ111
Đ108
Đ107
R106
R105
Đ102
Đ101
Đ104
Đ103
C101
R101
R102
R103
Đ105
Q101
RY101
TF
FC102
F101
FC101
R110
T102
T101
U ONLY
EZ, K, HS, G ONLY
U:BLK
EZ, K, HS, G:BRN
EZ, K, HS, G:AC230V, 50HZ
U:AC120V, 60HZ
U:WHT
EZ, K, HS, G:BLU

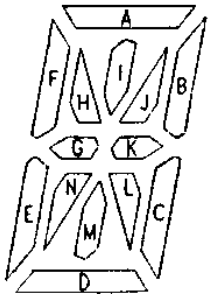
SCHEMATIC DIAGRAM – 8 (PT) <EZ, K, HS, G, U>



LCD DISPLAY

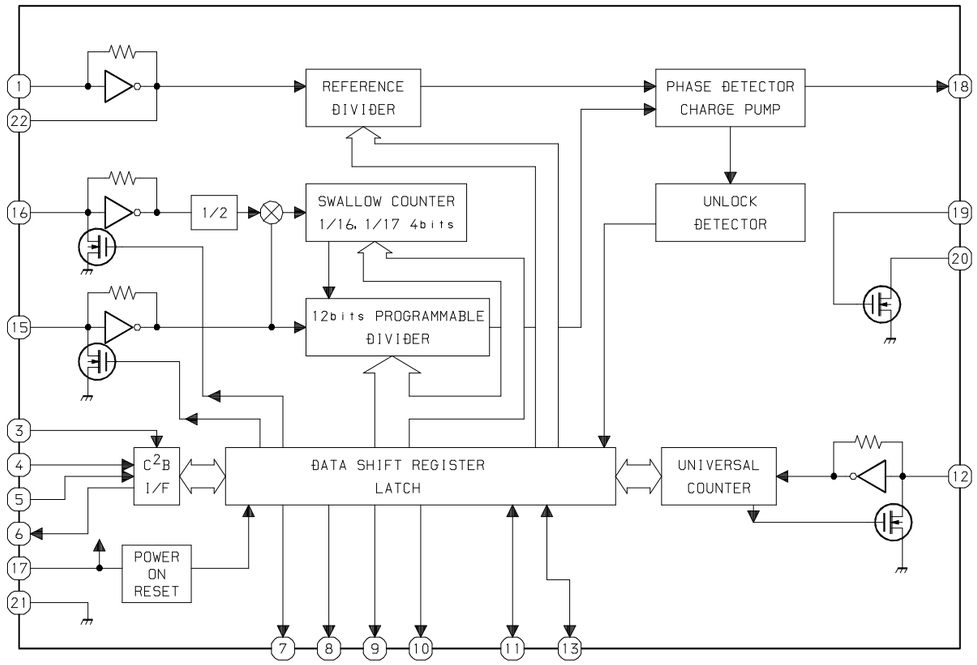


PIN No.	COM1	COM2	COM3	COM4	PIN No.	COM1	COM2	COM3	COM4
1	1D	1E	1F	SLEEP	23	6M	6K	6J	6A
2	1N	1G	1H	1I	24	6L	6C	6B	/
3	1M	1K	1J	1A	25	7D	7E	7F	REPEAT
4	1L	1C	1B	S2	26	7N	7G	7H	7I
5	2D	2E	2F	S3	27	7M	7K	7J	7A
6	2N	2G	2H	2I	28	7L	7C	7B	ALL
7	2M	2K	2J	2A	29	8D	8E	8F	RANDOM
8	2L	2C	2B	S4	30	8N	8G	8H	8I
9	3D	3E	3F	MONO	31	8M	8K	8J	8A
10	3N	3G	3H	3I	32	8L	8C	8B	S5
11	3M	3K	3J	3A	33	MHz	kHz	S6	REC
12	3L	3C	3B	S9	34	13	9	5	1
13	4D	4E	4F	S10	35	14	10	6	2
14	4N	4G	4H	4I	36	15	11	7	3
15	4M	4K	4J	4A	37	16	12	8	4
16	4L	4C	4B	STEREO	38	COL	P2	EON	1 – 1
17	5D	5E	5F	S11	39	AG	P1	AI	PRGM
18	5N	5G	5H	5I	40	S8	S7	REC	S1
19	5M	5K	5J	5A	41	/	/	/	COM4
20	5L	5C	5B	RDS	42	/	/	COM3	/
21	6D	6E	6F	EDIT	43	/	COM2	/	/
22	6N	6G	6H	6I	44	COM1	/	/	/

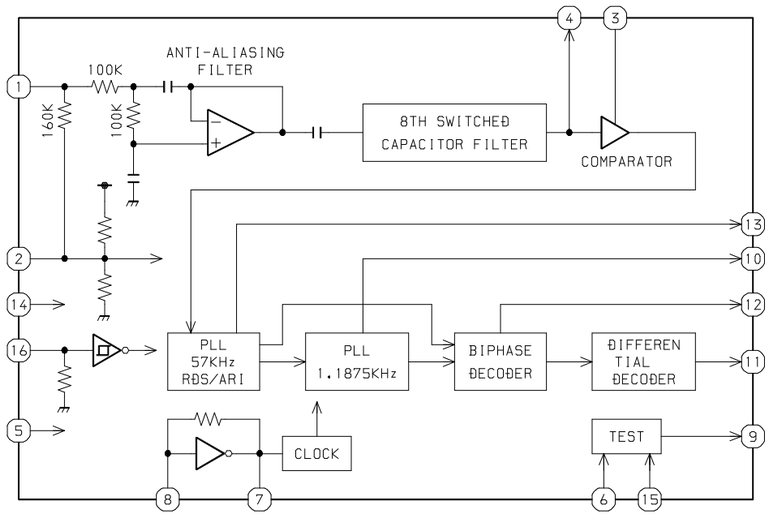


IC BLOCK DIAGRAM

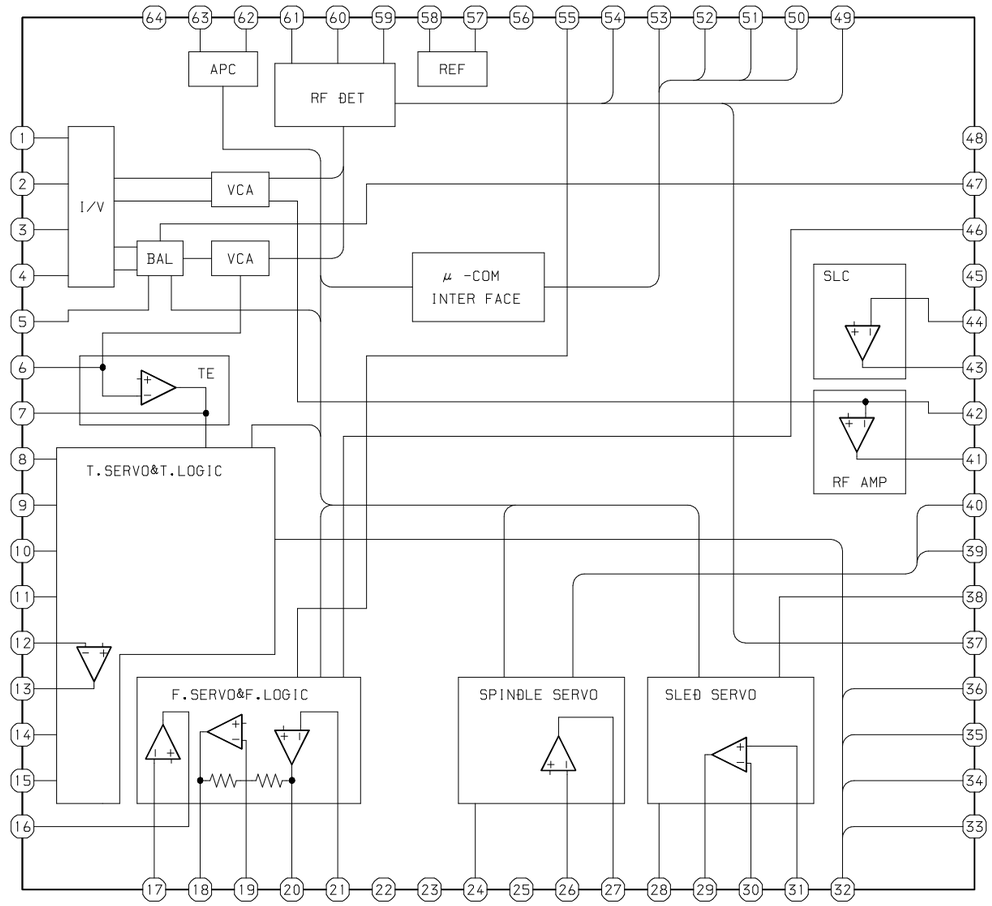
IC, LC72131Đ



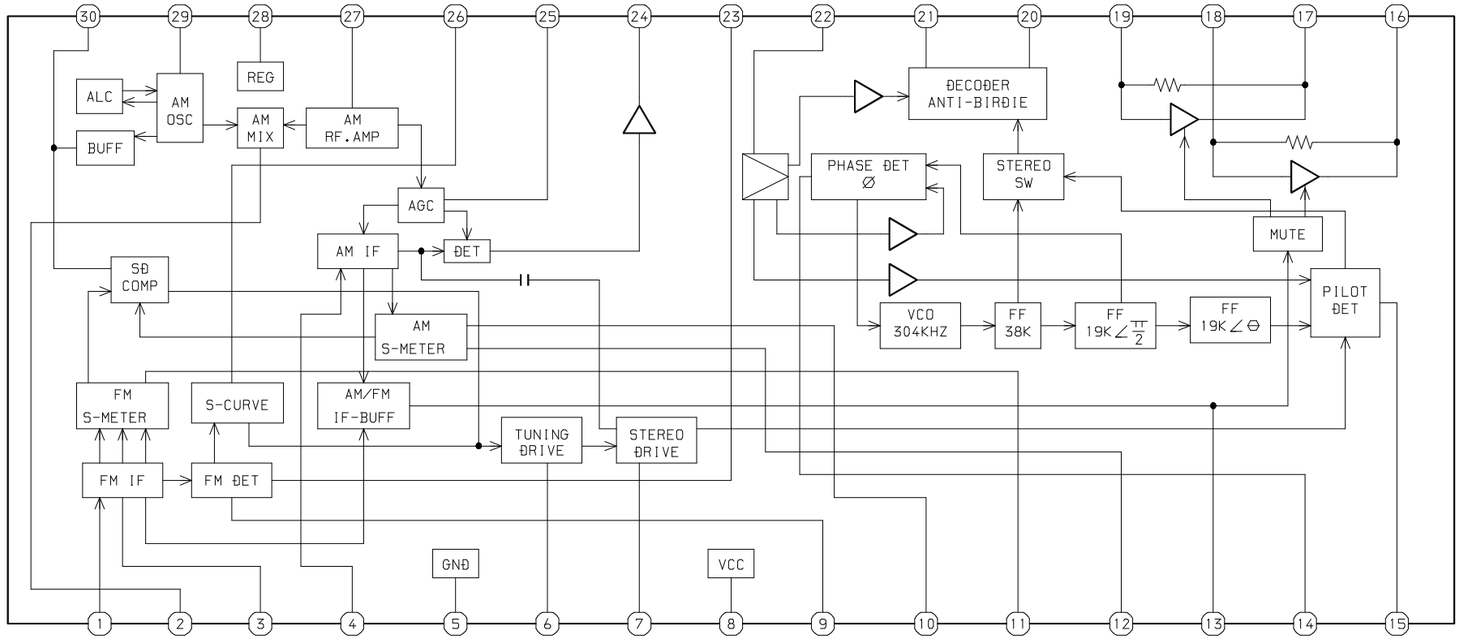
IC, BU1920FS



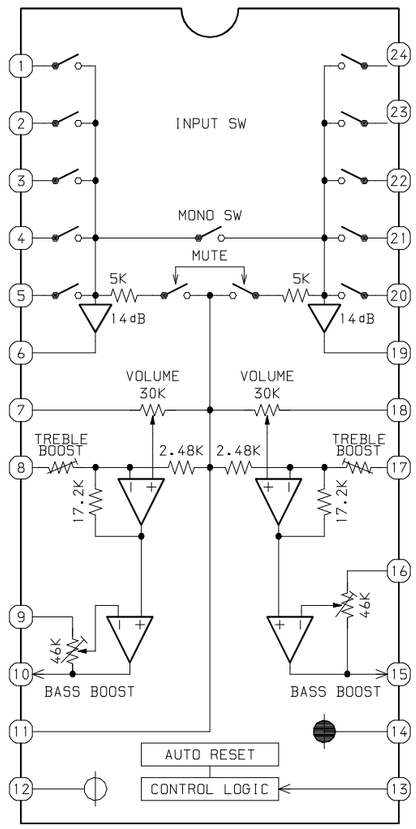
IC, LA9241ML



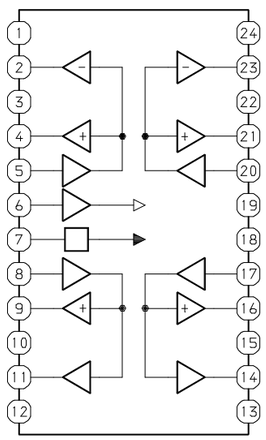
IC, LA1837NL



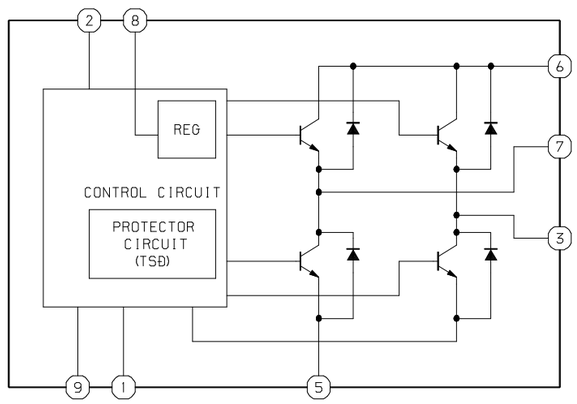
IC, M62495AFP



IC, TA2092N



IC, TA7291S



IC DESCRIPTION

IC, M38258-075FP <EXCEPT LH,U> / M38258MCM-072FP <LH,U ONLY>

Pin No.	Pin Name	I/O	Description
1	C1	–	Not used.
2	VL1	I	LCD driver supply voltage VL1.
3	I-CDTSW	I	CD tray switch A/D input.
4	I-$\overline{\text{HOLD}}$	I	Hold level A/D input.
5	I-SIG/CDSIG	I	RDS signal strength A/D input <EZ only> / CD signal strength A/D input.
6	I-KEY1	I	Key 1 A/D input.
7	I-KEY2	I	Key 2 A/D input.
8	I-SWTP	I	Cassette detect switch A/D input.
9	I-JOG	I	Multi jog A/D input.
10	I-VOL	I	Volume jog A/D input.
11	I-DRTSW1	I	Front panel position detect 1.
12	I-DRTSW2	I	Front panel position detect 2.
13	O-$\overline{\text{CDON}}$	O	CD ON/$\overline{\text{OFF}}$ control output.
14	O-CQCK	O	CD clock output.
15	I-DRF/I-$\overline{\text{ST}}$	I	CD DRF input / Tuner stereo input.
16	I-SQOUT/I-$\overline{\text{TU}}$/IFC	I	CD SQOUT input / Tuner $\overline{\text{TUNE}}$, IFC input.
17	I-WRQ/I-RDCL	I	CD WRQ input / RDS clock input <EZ only>.
18	O-RWC/I-RDDA	O/I	CD control data output / RDS data input <EZ only>.
19	O-PLLCE	O	PLL chip enable output.
20	O-CLK/O-COIN	O	Common serial clock output / Command to CD DSP output.
21	O-DATA	O	Common serial data output.
22	O-$\overline{\text{TUON}}$	O	Tuner $\overline{\text{ON}}$/OFF control.
23	I-RMC	I	Remote control data input.
24	O-SOL	O	Deck solenoid ON/$\overline{\text{OFF}}$ output.
25	O-MOTOR	O	Deck motor ON/$\overline{\text{OFF}}$ output.
26	O-DROPEN	O	Front panel open output.
27	O-DRCLOSE	O	Front panel close output.
28	O-POWER	O	Power ON/$\overline{\text{OFF}}$ control output.
29	O-$\overline{\text{PB}}$/REC	O	Deck $\overline{\text{PLAYBACK}}$ / RECORD select output.
30	O-$\overline{\text{BIAS}}$	O	Record 85kHz oscillator ON/$\overline{\text{OFF}}$ output.
31	O-$\overline{\text{RECMUTE}}$	O	Record mute output.
32	O-$\overline{\text{MUTE}}$	O	Mute control output.
33	I-STOP	I	Deck stop signal input.
34	I-AS	I	Deck autostop signal input.
35	$\overline{\text{RST}}$	I	Micon $\overline{\text{RESET}}$ input.
36	T-BASE	I	8Hz time base input from PLL.
37	O-BACKLED	O	Backlit LED control signal.
38	XIN	I	8MHz ceralock.
39	XOUT	O	8MHz ceralock.
40	VSS	I	GND.
41	O-$\overline{\text{CLKSHIFT}}$	O	Micon clock shift output.

Pin No.	Pin Name	I/O	Description
42	O-LED-MD	O	MD function LED ON/OFF output.
43	O-LED-CD	O	CD function LED ON/OFF output.
44	O-LED-AUX	O	AUX function LED ON/OFF output.
45	O-LED-TU	O	TUNER function LED ON/OFF output.
46	O-LED-TP	O	TAPE functiom LED ON/OFF output.
47	O-$\overline{\text{ECO}}$	O	Economical mode $\overline{\text{ON}}$/OFF output.
48	O-CDCLOSE	O	CD tray close output.
49	O-CDOPEN	O	CD tray open output.
50	I-INIT	I	Didoe matrix detection input.
51	S39/I-AM10K	O/I	LCD segment S39 ouput / AM10k selection input <LH, U, HA only>.
52	S38/I-SW	O/I	LCD segment S38 output / SW selection input (not used).
53	S37/I-LW	O/I	LCD segment S37 output / LW selection input <EZ, K, HS, G only>.
54	S36/I-AMST/FM WIDE	O/I	LCD segment S36 output / AMST, FM WIDE selection input (not used).
55	S35/I-RDS	O/I	LCD segment S35 output / RDS selection input <EZ only>.
56	S34/I-OIRT	O/I	LCD segment S34 output / OIRT selection input (not used).
57 ~ 90	S33 ~ S0	O	LCD segment S33 ~ S0 output.
91	VCC	I	Power supply.
92	VREF	I	A/D converter reference voltage.
93	AVSS	I	Analogue GND.
94 ~ 97	COM3 ~ COM0	O	LCD common output.
98	VL3	I	LCD driver supply voltage VL3.
99	VL2	I	LCD driver supply voltage VL2.
100	C2	–	Not used.

IC, LA9241ML

Pin No.	Pin Name	I/O	Description
1	FIN2	I	Connects to the pickup's photo diode; adding this pin to pin FIN1 generates RF signal, and subtracting it generates FE signal.
2	FIN1	I	Connects to the pickup's photo diode.
3	E	I	Connects to the pickup's photo diode; subtracting this pin from pin F generates TE signal.
4	F	I	Connects to the pickup's photo diode.
5	TB	I	Input for DC component of TE signal.
6	TE–	I	Connects to the resistor between this pin and TE pin for setting the gain of TE signal.
7	TE	O	Output for TE signal.
8	TESI	I	Input for TES (Track Error Sense) comparator, TE signal is band-passed and inputted.
9	SCI	I	Input for shock detection.
10	TH	I	For setting tracking gain time constant.
11	TA	O	TA amplifier output pin.
12	TD–	I	For constructing tracking phase compensation constant between TD and VR pins.
13	TD	O	For setting tracking phase compensation.
14	JP	I	For setting the amplifier of tracking jump signal (kick pulse).
15	TO	O	Output for tracking control signal.
16	FD	O	Output for focusing control signal.
17	FD–	I	For constructing focusing phase compensation constant between FD and FA pins.
18	FA	O	For constructing focusing phase compensation constant between FD– and FA– pins.
19	FA–	I	For constructing focusing phase compensation constant between FA and FE pins.
20	FE	O	Output for FE signal.
21	FE–	I	Connects to the gain-setting resistor of FE signal between this pin and FE pin.
22	A-GND	–	GND for analog signals.
23	SP	O	Single end output of CV+ and CV– pin input signal.
24	SPI		
25	SPG	I	Connects to the gain-setting resistor during spindle 12cm mode.
26	SP–	I	Connects to spindle phase compensation constant together with SPD pin.
27	SPD	O	Output for spindle control signal.
28	SLEQ	I	Connects to sled phase compensation constant.
29	SLD	O	Output for sled control signal.
30	SL–	I	Input for sled-sending signal from microcontroller.
31	SL+	I	Input for sled-sending signal.
32	JP–	I	Input for tracking-jump signal from DSP.
33	JP+		
34	TGL	I	Input for tracking gain control signal from DSP; gain is low if TGL = "H".
35	TOFF	I	Input for tracking off control signal from DSP; off if TOFF = "H".
36	TES	O	Outputs TES signal to DSP.
37	HFL	O	HIGH FREQUENCY LEVEL; used to determine whether the main beam is on a pit or on a mirror.
38	SLOF	I	Input for sled servo off control.

Pin No.	Pin Name	I/O	Description
39	CV–	I	Input for CLV error signal from DSP.
40	CV+		
41	RFSM	O	Output for RF.
42	RFS–	O	For setting RF gain and 3T compensation constant together with RFSM.
43	SLC	O	SLICE LEVEL CONTROL; output for controlling the data slice level of DSP with RF waveform.
44	SLI	I	Input for controlling the data slice level of DSP.
45	D-GND	–	GND for digital system.
46	FSC	O	Output pin for focus search smoothing capacitor.
47	TBC	I	(Tracking Balance Control) EF balance variable range setting pin.
48	NC	–	Not connected.
49	DEF	O	Output for disk defect detection.
50	CLK	I	Standard clock input; DSP's 4.23MHz is inputted.
51	CL	I	Clock input for microcontroller command.
52	DAT	I	Data input for microcontroller command.
53	CE	I	Chip-enable input for microcontroller command.
54	DRF	O	Detect RF; output for RF level detection.
55	FSS	I	(Focus Search Mode) = search/+search against reference voltage switching pin. (Not used)
56	VCC2	–	VCC pin for servo and digital systems.
57	REFI	I	For connecting pass capacitor to reference voltage.
58	VR	O	Reference voltage output.
59	LF2	–	For setting disk defect-detection time constant.
60	PHI	–	Connects to capacitor for RF signal peak hold.
61	BHI	–	Connects to capacitor for RF signal bottom hold.
62	LDD	O	Output for APC circuit.
63	LDS	I	Input for APC circuit.
64	VCC1	–	VCC pin for RF system.

IC, LC78622ED

Pin No.	Pin Name	I/O	Description
1	DEFI	I	Defect detection signal (DEF) input.
2	TAI	I	Test input. A pull-down resistor is built in. (Must be connected to 0V.)
3	PDO	O	External VCO control phase comparator output.
4	VVSS	–	Internal VCO ground. (Must be connected to 0V.)
5	ISET	O	PDO output current adjustment resistor connection.
6	VVDD	–	Internal VCO power supply.
7	FR	–	VCO frequency range adjustment.
8	VSS	–	Digital system ground. (Must be connected to 0V.)
9	EFMO	O	Slice level control; EFM signal output.
10	EFMIN	I	Slice level control; EFM signal input.
11	T2	I	Test input. A pull-down resistor is built in. (Must be connected to 0V.)
12	CLV+	O	Disc motor control output. Three-value ouput is also possible when specified by microprocessor command.
13	CLV–		
14	V/$\overline{P}$	O	Rough servo/phase control automatic switching monitor output. Outputs a high level during rough servo and a low level during phase control.
15	HFL	I	Track detection signal input. This is a Schmitt input.
16	TES	I	Tracking error signal input. This is a Schmitt input.
17	TOFF	O	Tracking off output.
18	TGL	O	Tracking gain switching output. Increase the gain when low.
19	JP+	O	Track jump output. Three-value output is also possible when specified by microprocessor command.
20	JP–		
21	PCK	O	EFM data playback clock monitor. Outputs 4.3218 MHz when the phase is locked. (Not used)
22	FSEQ	O	Synchronization signal detection ouput. Outputs a high level when the synchronization signal detected from the EFM signal and the internally generated synchronization signal agree. (Not used)
23	VDD	–	Digital system power supply.
24	SL+	O	Serial data command sled signal output terminal from microprocessor.
25	SL–		
26	NC	–	Not connected.
27	PU IN	I	CD pickup inside limit switch.
28	CD-R/W	I	CD-R/CD-RW disc select control.
29	EMPH	O	De-emphasis monitor pin. A high level indicates playback of a de-emphasis disk. (Not used)
30	C2F	O	C2 flag output. (Not used)
31	DOUT	O	Digital output (EIAJ format).
32	T3	I	Test input. A pull-down resistor is built in. (Must be connected to 0V.)
33	T4		
34	NC	–	Not connected.
35	MUTEL	O	Left channel one-bit D/A converter mute output.
36	LVDD	–	Left channel one-bit D/A converter power supply.
37	LCHO	O	Left channel one-bit D/A converter output.
38	LVSS	–	Left channel one-bit D/A converter ground. (Must be connected to 0V.)

Pin No.	Pin Name	I/O	Description
39	RVSS	–	Right channel one-bit D/A converter ground. (Must be connected to 0V.)
40	RCHO	O	Right channel one-bit D/A converter output.
41	RVDD	–	Right channel one-bit D/A converter power supply.
42	MUTER	O	Right channel one-bit D/A converter mute ouput.
43	XVDD	–	Crystal oscillator power supply.
44	XOUT	O	Connections for a 16.934MHz crystal oscillator element.
45	XIN	I	
46	XVSS	–	Crystal oscillator ground. (Must be connected to 0V.)
47	SBSY	O	Subcode block synchronization signal output. (Not used)
48	EFLG	O	C1, C2 single and double error correction monitor pin. (Not used)
49	PW	O	Subcode P, Q, R, S, T, U, V and W output. (Not used)
50	SFSY	O	Subcode frame synchronization signal output. This signal falls when the subcode are in the standby state. (Not used)
51	SBCK	I	Subcode readout clock input. This is a Schmitt input. (Must be connected to 0V when unused)
52	FSX	O	Output for the 7.35 kHz synchronization signal divided from the crystal oscillator. (Not used)
53	WRQ	O	Subcode Q output standby output.
54	RWC	I	Readwrite control input. This is a Schmitt input.
55	SQOUT	O	Subcode Q output.
56	COIN	I	Command input from the control microprocessor.
57	$\overline{\text{CQCK}}$	I	Input for both the command input acquisition clock and the SQOUT pin subcode readout clock input. This is a Schmitt input.
58	$\overline{\text{RES}}$	I	Chip reset pin. This pin must be set low briefly after power is first applied.
59	T11	O	Test output. Leave open. (Normally outputs a low level). (Not used)
60	16M	O	16.9344 MHz output. (Not used)
61	4.2M	O	4.2336 MHz output.
62	T5	I	Test input. A pull-down resistor is built in. (Must be connected to 0V.)
63	$\overline{\text{CS}}$	I	Chip select input. A pull-down resistor is built in. (Must be connected to 0V if not controlled.)
64	T1	I	Test input. No pull-down resistor. (Must be connected to 0V.)

IC, LC72131D

<table>
<tr><th>Pin No.</th><th>Pin Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>1</td><td>X-IN</td><td>I</td><td rowspan="2">A crystal oscillator (4.5MHz) is connected between these pins.</td></tr>
<tr><td>22</td><td>X-OUT</td><td>O</td></tr>
<tr><td>2</td><td>NC</td><td>–</td><td>Not connected.</td></tr>
<tr><td>3</td><td>CE</td><td>I</td><td>To enable the IC. Active "H".</td></tr>
<tr><td>4</td><td>DI</td><td>I</td><td>Digital data input from CPU (M38258MCM) when relevant key is operated.
Active "H".</td></tr>
<tr><td>5</td><td>CL</td><td>I</td><td>To clock in the data DI.</td></tr>
<tr><td>6</td><td>DO</td><td>O</td><td>Digital data output to CPU (M38258MCM).</td></tr>
<tr><td>7</td><td>TM-BASE</td><td>O</td><td>Outputs a reference clock signal (8Hz) for the clock.</td></tr>
<tr><td>8</td><td>$\overline{\text{MONO}}$ / BEAT</td><td>O</td><td>Outputs "H" when MONO / BEAT is switched.</td></tr>
<tr><td>9</td><td>$\overline{\text{FM}}$ / $\overline{\text{SW}}$</td><td>O</td><td>Output "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="3">3 BAND</th></tr>
<tr><th>AM</th><th>FM</th><th>LW</th><th>MW</th><th>FM</th><th>MW</th><th>SW</th><th>FM</th></tr>
<tr><td>H</td><td>L</td><td>H</td><td>H</td><td>L</td><td>H</td><td>L</td><td>L</td></tr>
</table></td></tr>
<tr><td>10</td><td>$\overline{\text{MW}}$ / SW</td><td>O</td><td>Outputs "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="3">3 BAND</th></tr>
<tr><th>AM</th><th>FM</th><th>LW</th><th>MW</th><th>FM</th><th>MW</th><th>SW</th><th>FM</th></tr>
<tr><td>L</td><td>L</td><td>H</td><td>L</td><td>L</td><td>L</td><td>H</td><td>L</td></tr>
</table></td></tr>
<tr><td>11</td><td>IF-MUTE</td><td>O</td><td>To control internal counter.</td></tr>
<tr><td>12</td><td>IF-IN</td><td>I</td><td>General purpose counter input.</td></tr>
<tr><td>13</td><td>$\overline{\text{TUNE}}$</td><td>I</td><td>Receives "L" when station is tuned.</td></tr>
<tr><td>14</td><td>NC</td><td>–</td><td>Not connected.</td></tr>
<tr><td>15</td><td>AM-IN</td><td>I</td><td>Receives the AM local oscillator frequency signal.</td></tr>
<tr><td>16</td><td>FM-IN</td><td>I</td><td>Receives the FM local oscillator frequency signal.</td></tr>
<tr><td>17</td><td>VDD</td><td>–</td><td>Supply power to IC (+5V).</td></tr>
<tr><td>18</td><td>PD</td><td>O</td><td>PLL charge pump output.</td></tr>
<tr><td>19</td><td>A-IN</td><td>I</td><td rowspan="2">The MOS transistor used for PLL active low pass filter.</td></tr>
<tr><td>20</td><td>A-OUT</td><td>O</td></tr>
<tr><td>21</td><td>VSS</td><td>–</td><td>Ground.</td></tr>
</table>

ADJUSTMENT <TUNER / DECK / CD>

< TUNER SECTION >

1. Clock Frequency Check
   Settings : • Test point : TP3 (CLK)
   Method : Set to AM 1710kHz (LH,U,HA), AM 1602kHz (HR), MW 1602kHz (EZ,K,HS,G) and check that the test point is 2160kHz ± 45Hz (LH,U,HA), 2052kHz ± 45Hz (EZ,K,HS,G,HR),

2. AM (MW) VT Check
   Settings : • Test point : TP4 (VT)
   Method : Set to AM 1710kHz (LH,U,HA), AM 1602kHz (HR), MW 1602kHz (EZ,K,HS,G) and check that the test point is less than 8.5V (LH,U,HA,HR), less than 8.0V (EZ,K,HS,G). Then set to AM 530kHz (LH,U,HA), AM 531kHz (HR), MW 531kHz (EZ,K,HS,G) and check that the test point is more than 0.6V (LH,U,HA, EZ,K,HS,G), more than 0.3V (HR).

3. AM (MW) Tracking Adjustment
   Settings : • Test point : TP8 (RCH)
   TP9 (GND)
   TP10 (LCH)
   • Adjustment location : L981 (1/3)
   Method : Set to AM 1000kHz (LH,U,HA), AM 999kHz (HR), MW 999kHz (EZ,K,HS,G) and adjust L981(1/3) so that the test point becomes maximum.

4. AM IF Adjustment
   Settings : • Test point : TP8 (RCH)
   TP9 (GND)
   TP10 (LCH)
   L772 ..... 450kHz

5. LW VT Adjustment <EZ,K,HS,G only>
   Settings : • Test point : TP4 (VT)
   • Adjustment location : L942
   Method : Set to LW 144kHz and adjust L942 so that the test point becomes 1.3V ± 0.05V. Then set to LW 290kHz and check that the test point is less than 8.0V.

6. LW Tracking Adjustment <EZ,K,HS,G only>
   Settings : • Test point : TP8 (RCH)
   TP9 (GND)
   TP10 (LCH)
   • Adjustment 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.

7. FM VT Check
   Settings : • Test point : TP4 (VT)
   Method : Set to FM 108.0MHz (87.5MHz) and check that the test point is less than 8.0V (108.0MHz) and more than 0.5V (87.5MHz).

8. FM Tracking Check
   Settings : • Test point : TP8 (RCH)
   TP9 (GND)
   TP10 (LCH)
   Method : Set to FM 98.0MHz and check that the test point is less than 8dBuV (LH,U,HA,HR), less than 13dBuV (EZ,K,HS,G).

9. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP5 (DC), TP6 (DC)
   • Adjustment location : L771
   • Input level : 60dBuV
   Method : Set to FM 98.0MHz and adjust L771 so that the voltage between TP5 and TP6 becomes 0V ± 0.04V. Next, check that the distortion is less than 1.0%.

10. FM Separation Check
    Settings : • Test point : TP8 (RCH)
    TP9 (GND)
    TP10 (LCH)
    • Input level : 60dBuV
    Method : Set to FM 98.0MHz and check that the test point is more than 25dB (LH,U,HA,HR), more than 12dB (EZ,K,HS,G).

< DECK SECTION >

11. Tape Speed Adjustment
    Settings : • Test tape : TTA–100
    • Test point : J602 (3/3) LINE OUT
    • Adjustment location : SFR1
    Method : Play back the 3kHz signal of the test tape and adjust SFR1 for 3000Hz ± 5Hz (FWD) and FWD PLAY speed ± 45Hz (REV).

12. Head Azimuth Adjustment
    Settings : • Test tape : TTA–300
    • Test point : J602 (3/3) LINE OUT
    • Adjustment location : Head azimuth adjustment screw
    Method : Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on REV PLAY mode.

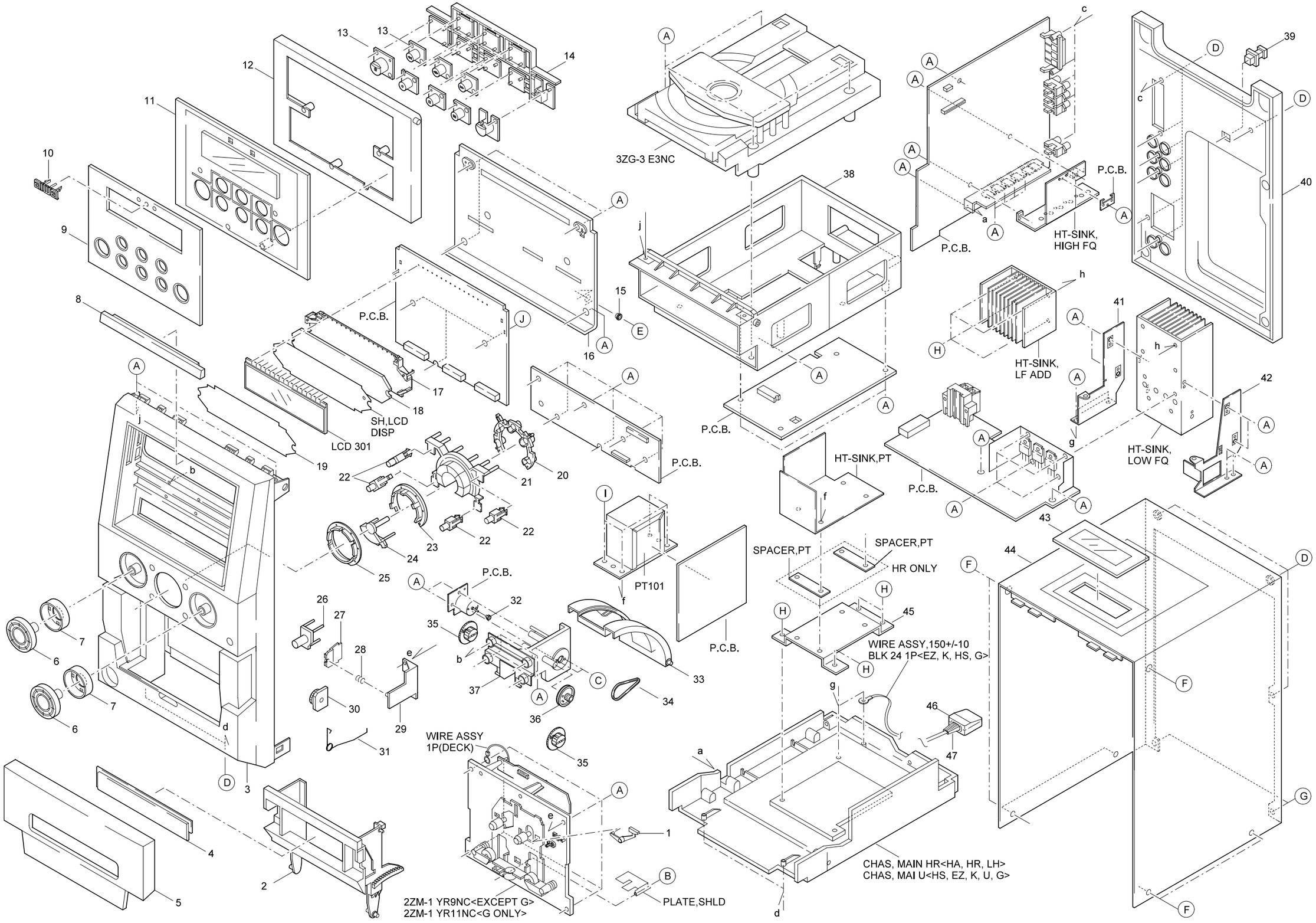
13. PB Frequency Response Check
    Settings : • Test tape : TTA–320
    • Test point : J602 (3/3) LINE OUT
    Method : Play back the 315Hz and 10kHz signals of the test tape and check that the output ratio of the 10kHz signal with respect to that of the 315Hz signal is –3dB ± 3dB.

14. REC/PB Frequency Response Check
    Settings : • Test tape : TTA–602
    • Test point : J602 (3/3) LINE OUT
    Method : Input a –20VU (0dB) signal to the AUX terminal. Record the 1kHz and 8kHz signals on the test tape and play back them. Check that the difference between the record level and theplay back level at 1kHz and 8kHz signal is –2dB to ± 3dB.

< CD SECTION >

15. Focus Bias Adjustment
    Settings : • Test disc : TCD–782
    • Test point : TP1 (RF), TP2 (VREF)
    • Adjustment location : SFR130
    Method : Play back the test disc (TCD–782, Track No. 2) and adjust SFR130 so that the RF level is maximum and the jitter is minimum

MECHANICAL EXPLODED VIEW 1 / 1



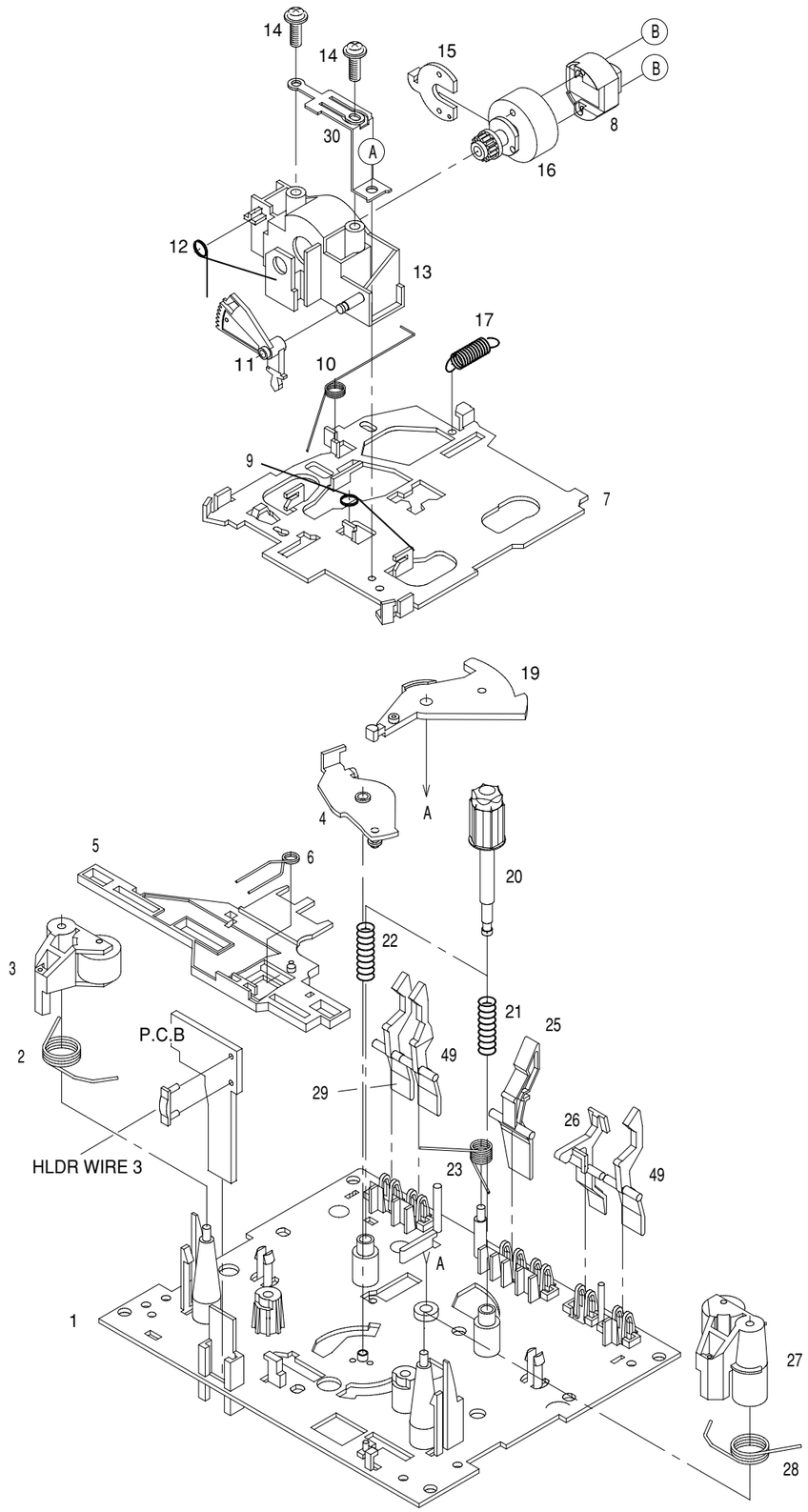
MECHANICAL PARTS LIST 1 / 1

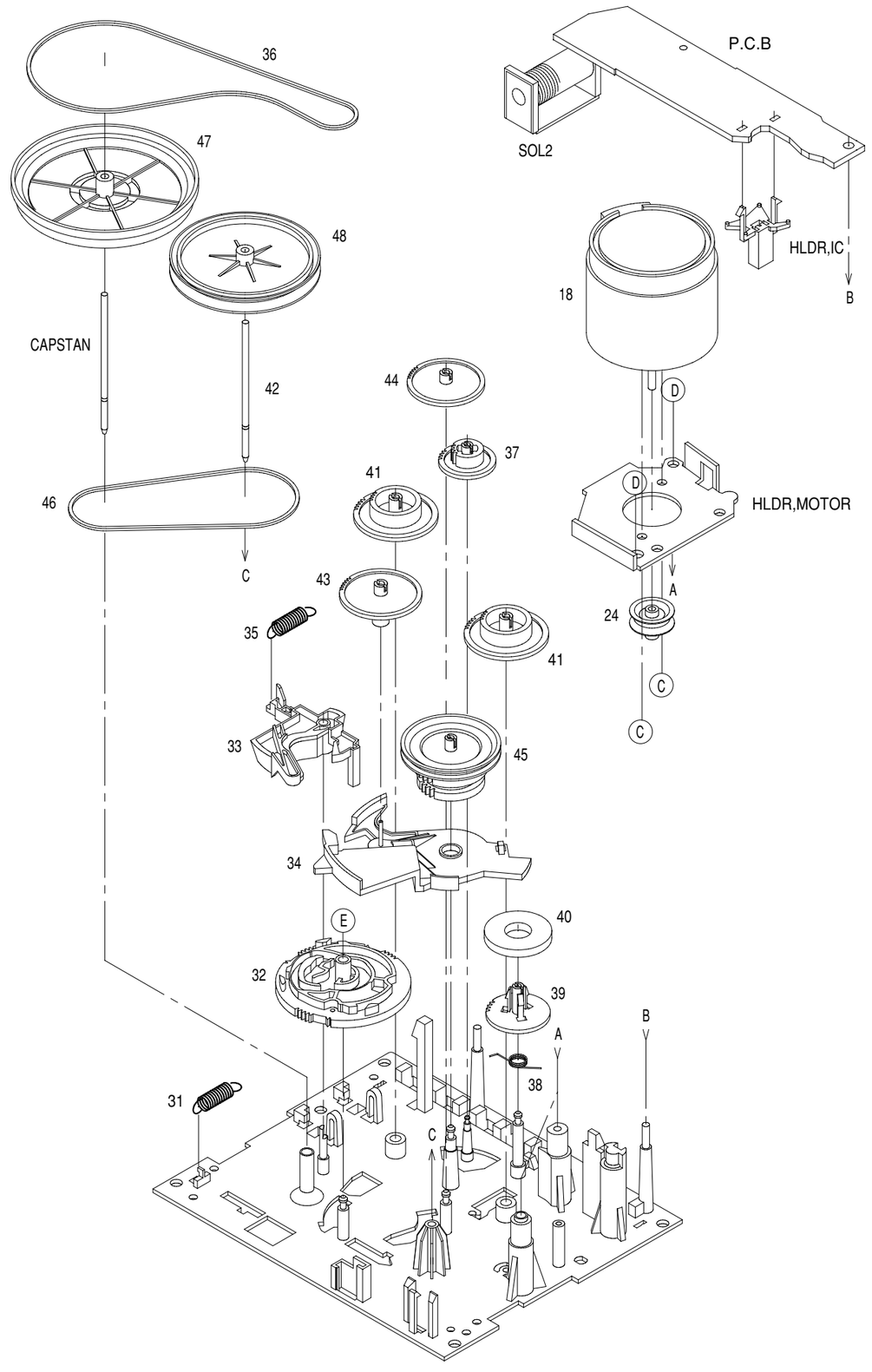
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM1-264-010		LVR,EJECT R
2	8A-CL8-201-010		FRAME,CASS
3	8A-CL8-002-110		CABI,FR EZ<EZ>
3	8A-CL8-001-110		CABI,FR U<EXCEPT EZ>
4	8A-CL8-053-010		WINDOW,CASS
5	8A-CL8-031-010		PANEL,CASS
6	8A-CL8-076-010		KNOB,RTRY VOL
7	8A-CL8-071-010		RING,VOL
8	8A-CL8-036-010		PANEL,TRAY
9	8A-CL8-041-010		PANEL,FR<EXCEPT EZ>
9	8A-CL8-042-010		PANEL,FR EZ<EZ>
10	8Z-CL7-107-010		BADGE,AIWA SILVER
11	8A-CL8-051-010		WINDOW,PANEL
12	8A-CL8-046-010		BASE,WINDOW PANEL
13	8A-CL8-065-010		CAP, CONTROL
14	8A-CL8-066-010		FRAME,CONTROL
15	8A-CL8-218-010		HLDR,PIVER
16	8A-CL8-217-010		COVER, WINDOW PANEL
17	8A-CL8-204-010		GUIDE,LCD DISP
18	8A-CL8-084-010		LENS,LCD DISP
19	8A-CL8-230-010		HLDR,LCD DISP
20	8A-CL8-202-010		GUIDE,LED FUNC
21	8A-CL8-061-010		KEY,FUNC
22	8A-CL8-063-010		CAP, MODE
23	8A-CL8-081-010		REFLECTOR,FUNC
24	8A-CL8-048-010		PLATE,FUNC
25	8A-CL8-072-010		RING,FUNC
26	8A-CL8-083-110		LENS,RC
27	82-NF5-229-010		PLATE,LOCK
28	86-NF9-224-010		SPR-C,LOCK
29	87-NF4-217-110		HLDR,LOCK 2
30	87-NF8-220-010		DMPR,150
31	88-CL4-220-010		SPR-T,CASS
32	8A-CL8-211-010		PULLEY,MOTOR
33	8A-CL8-216-010		SLIDER,PANEL
34	8A-CL8-215-010		BELT,1.4-97.1
35	8A-CL8-213-010		GEAR,SLIDER
36	8A-CL8-212-010		PULLEY,RELLAY
37	8A-CL8-210-010		HLDR,MECHA
38	8A-CL8-206-010		HLDR,CD
39	84-ZG1-245-210		CAP,OPTICAL
40	8A-CL8-014-110		PANEL,REAR EZ<EZ>
40	8A-CL8-018-010		PANEL,REAR HA<HA>
40	8A-CL8-015-010		PANEL,REAR HRJ<HR>
40	8A-CL8-022-010		PANEL,REAR GSC<G>
40	8A-CL8-017-010		PANEL,REAR HS<HS>
40	8A-CL8-013-010		PANEL,REAR K<K>
40	8A-CL8-016-010		PANEL,REAR LH<LH>
40	8A-CL8-011-010		PANEL,REAR U<U>
41	8A-CL8-228-010		HLDR,HT-SINK LF L
42	8A-CL8-229-010		HLDR,HT-SINK LF R
43	8A-CL8-055-010		WINDOW,TOP
44	8A-CL8-026-010		CABI,TOP
45	8A-CL8-226-010		HLDR,TRANS
⚠ 46	87-099-811-010		PLUG,ADPTR CONV(K)<K>
⚠ 47	87-A80-105-010		AC CORD ASSY,AZ<HA>
⚠ 47	87-A80-143-010		AC CORD ASSY,E BLK<K>
⚠ 47	87-A80-092-010		AC CORD ASSY,EBLKFAI<HR,EZ,LH>
⚠ 47	87-A80-155-010		AC CORD ASSY,HS TS<HS>
⚠ 47	87-A80-110-010		AC CORD ASSY,U SPT-2W<U>
⚠ 47	87-A80-146-010		AC CORD ASSY,G<G>
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-571-032-410		VIT+2-3
C	87-261-092-010		SCREW, V+3-4
D	87-B10-230-010		BVT2+3-10 W/O SLOT SILVER CR
E	87-723-076-410		QT2+2.6-12 BLK
F	87-B10-231-010		QT1+3-12 SILVER CR
G	87-B10-250-010		BVT2+3-12 W/O SLOT CR SILVER
H	87-067-758-010		BVT2+3-12 W/O SLOT
I	87-581-170-410		UIT+4-8
J	87-761-095-410		VFT2+3-8 W/O SLOT

COLOR NAME TABLE

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

TAPE MECHANISM EXPLODED VIEW 1 / 1 (2ZM–1 YR9NC)

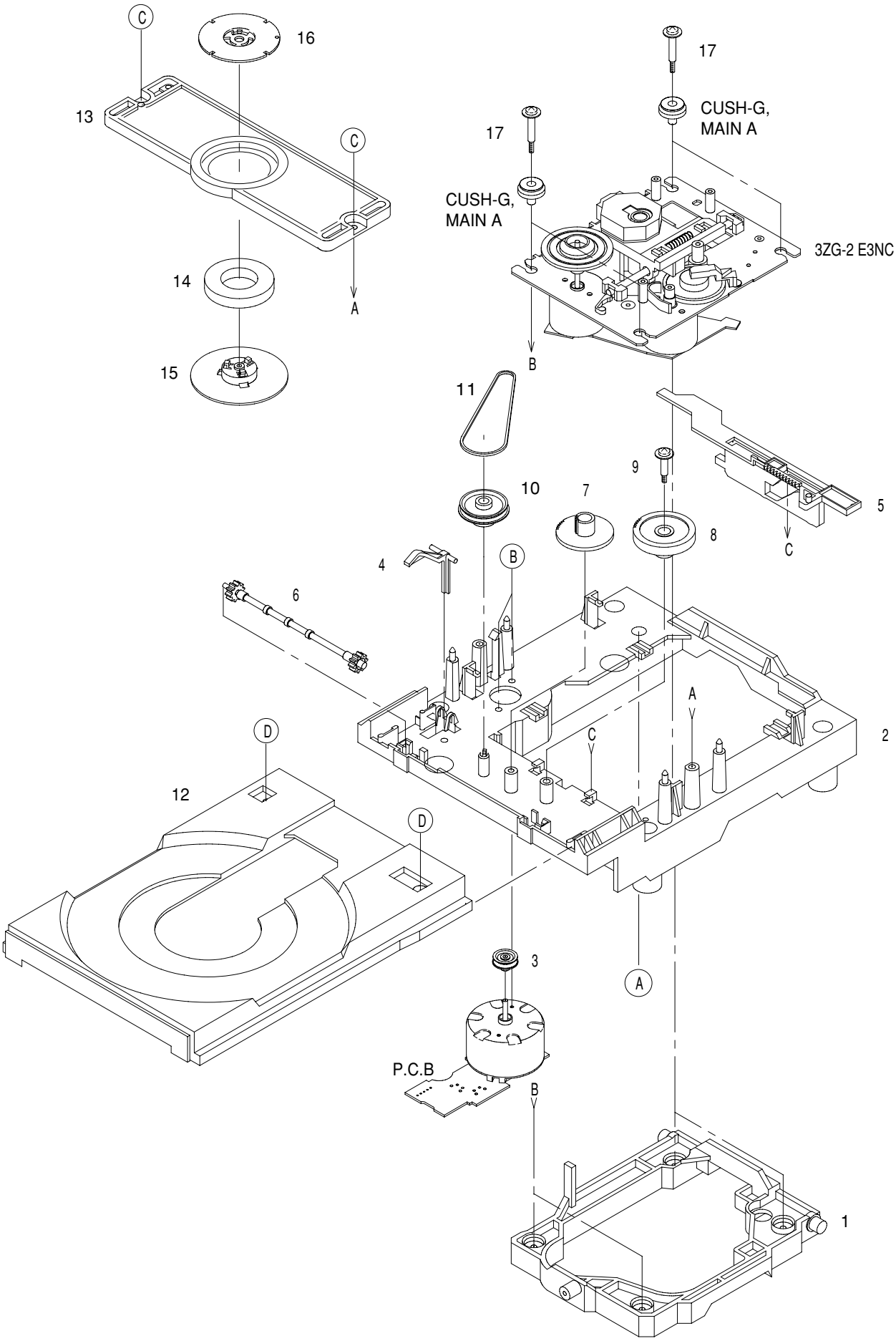




TAPE MECHANISM PARTS LIST 1 / 1 (2ZM–1 YR9NC)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM1-327-310		CHAS ASSY,RM
2	82-ZM1-258-210		SPR-T,PINCH L
3	82-ZM1-341-210		LVR ASSY,PINCH L2
4	82-ZM1-333-210		PLATE,LINK2
5	82-ZM1-266-310		LVR,DIR
6	82-ZM1-214-010		SPR-T,DIR
7	82-ZM1-206-910		CHAS,HEAD
8	87-A91-176-010		HEAD,RPH HADKH56
9	82-ZM1-269-210		SPR-T,BRG
10	82-ZM1-219-110		SPR-T,LINK
11	82-ZM1-210-110		GEAR,H T
12	82-ZM1-213-010		SPR-T,HEAD
13	82-ZM1-207-910		GUIDE,TAPE
14	82-ZM1-283-310		S-SCREW,AZIMUTH
15	82-ZM1-314-110		PLATE,HEAD
16	82-ZM1-208-310		HLDR,HEAD
17	82-ZM1-218-010		SPR-E,HB
18	87-045-347-010		MOT,SHU2L 70
19	82-ZM1-222-210		LVR,PLAY
20	82-ZM1-217-410		REEL TABLE
21	82-ZM1-244-510		SPR-C,BT
22	82-ZM1-285-410		SPR-C,BT L
23	82-ZM1-257-010		SPR-T,CAS
24	82-ZM1-247-210		PULLEY,MOTOR
25	82-ZM1-242-010		LVR,CAS
26	82-ZM1-243-010		LVR,STOP
27	82-ZM1-344-210		LVR ASSY,PINCH R2
28	82-ZM1-259-210		SPR-T,PINCH R
29	82-ZM1-240-110		LVR,REC(*)
30	82-ZM1-298-010		SPR-P EARTH
31	82-ZM1-255-310		SPR-E,LVR DIR
32	82-ZM1-221-310		GEAR,CAM(*)
33	82-ZM1-227-310		LVR,TRIG
34	82-ZM1-224-410		LVR,FR
35	82-ZM1-305-210		SPR-E,TRIG 2
36	82-ZM1-340-010		BELT,SBU MAIN2
37	82-ZM1-223-010		GEAR,PLAY
38	82-ZM1-322-010		SPR-T,FR 60
39	82-ZM1-220-210		GEAR,IDLER
40	82-ZM3-616-010		RING MAGNET 4
41	82-ZM1-216-510		GEAR,REEL
42	82-ZM1-236-010		CAPSTAN,2-41.5
43	82-ZM1-225-210		GEAR,FR
44	82-ZM1-226-010		GEAR,REW
45	82-ZM3-333-310		SLIP DISK ASSY 2
46	82-ZM1-338-110		BELT,FR 4
47	82-ZM1-349-110		FLY-WHL,R W
48	82-ZM1-348-110		FLY-WHL,L W
49	82-ZM1-241-310		LVR,MC
A	82-ZM1-315-010		S-SCREW GUIDE TAPE
B	80-ZM6-207-010		V+1.6-7
C	87-251-070-410		U+2.6-3
D	87-741-073-410		UT2+2.6-6 GLD
E	87-B10-008-010		W-P,2.08-8-0.4-SLIP

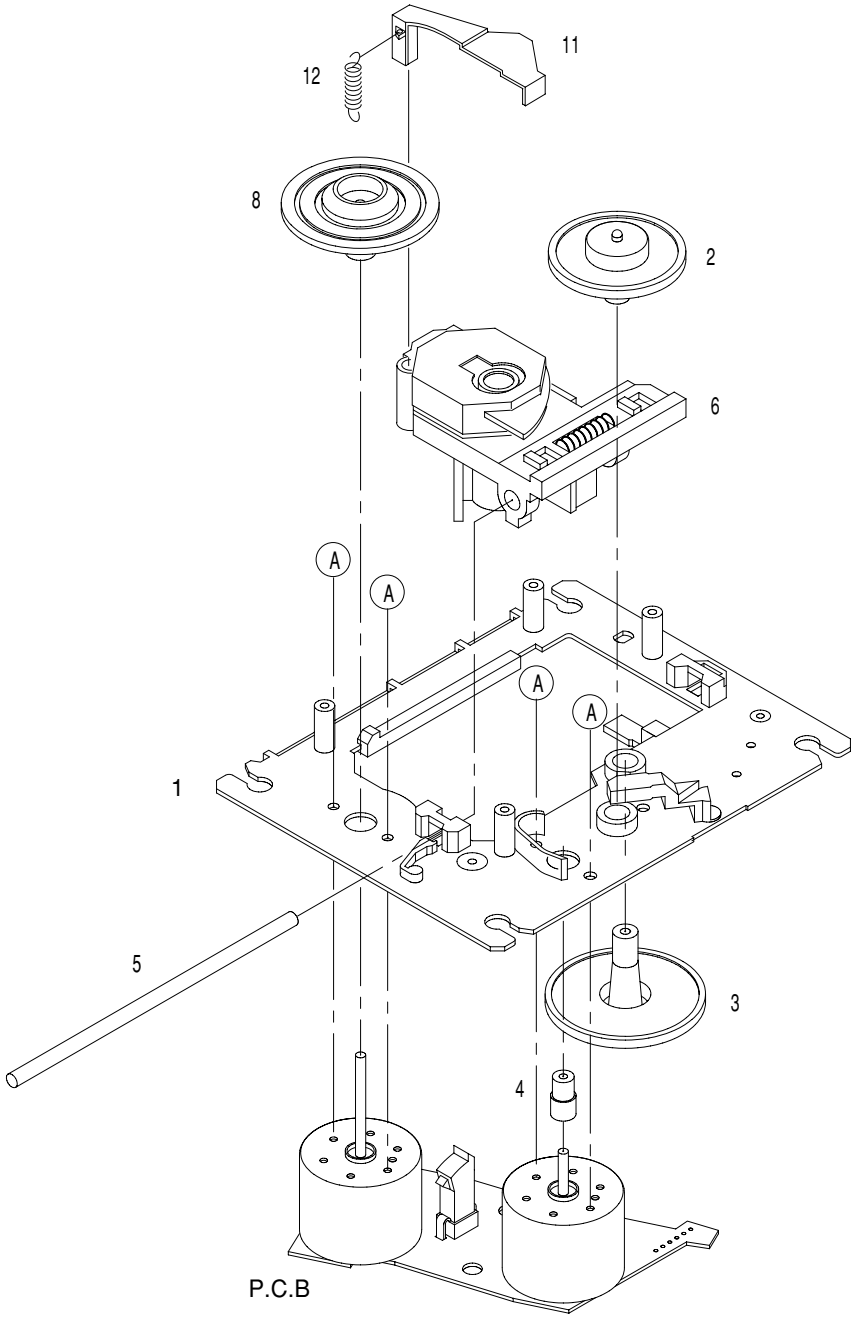
CD MECHANISM EXPLODED VIEW 1 / 2 (3ZG–3 E3NC)



CD MECHANISM PARTS LIST 1 / 2 (3ZG–3 E3NC)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG3-224-510		HLDR M2
2	83-ZG3-228-610		CHAS,L6
3	83-ZG3-208-010		PULLEY,MOTOR
4	83-ZG3-213-010		LVR,SW
5	83-ZG3-209-610		CAM,SLIDE
6	83-ZG3-207-010		GEAR,TRAY
7	83-ZG3-204-210		GEAR,C
8	83-ZG3-205-010		GEAR,D
9	83-ZG3-217-010		S-SCREW,GEAR D
10	83-ZG3-220-210		GEAR,PULLEY 2
11	83-ZG3-214-010		BELT,L
12	83-ZG3-229-410		TRAY,CD 2
13	83-ZG3-210-110		HLDR,CHUCK
14	83-ZG3-602-010		RING,MAG
15	83-ZG3-212-010		CAP,DISC
16	83-ZG3-211-010		PLATE,DISC
17	81-ZG1-254-010		S-SCREW,MECH HLDR
A	87-067-945-110		VFT2+3-12(F10)
B	87-251-071-410		U+2.6-4
C	87-512-074-210		SCREW, 2+2.6-8
D	87-352-075-210		VT2+2.6-10

CD MECHANISM EXPLODED VIEW 2 / 2 (3ZG–2 E3NC)



CD MECHANISM PARTS LIST 2 / 2 (3ZG–2 E3NC)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG2-243-210		CHAS ASSY,SHT
2	83-ZG2-235-010		GEAR,A3
3	83-ZG2-205-210		GEAR,B
4	83-ZG2-236-010		GEAR MOTOR 3
5	83-ZG2-253-010		SHAFT,SLIDE 5
6	87-A90-836-010		PICKUP,KSS-213F
8	83-ZG2-227-210		TURN TABLE,C1
11	83-ZG2-245-410		LEVER,SHUTTER
12	83-ZG2-250-110		SPR-E,SHT 2
A	87-261-032-210		SCREW V+2-3

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CL8-905-010		IB,E(9L)-C<EZ>
1	8A-CL8-910-010		IB,G(E)-C<G>
1	8A-CL8-902-010		IB,H(ECA)-C<HR>
1	8A-CL8-904-010		IB,K(E)-C<K>
1	8A-CL8-903-010		IB,LH(ESP)-C<HA,LH>
1	8A-CL8-901-010		IB,U(ESF)-C<U>
2	87-043-115-010		ANT,FEEDER FM<HR,U,HA,LH>
2	87-A90-118-010		ANT,WIRE FM(Z)<K,EZ,HS,G>
3	87-A90-030-010		ANT,LOOP AM-NC C
⚠ 4	87-A91-017-010		PLUG,CONVERSION JT-0476<HR,LH>
5	8A-CLB-961-010		RC UNIT,RC-AAT11

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