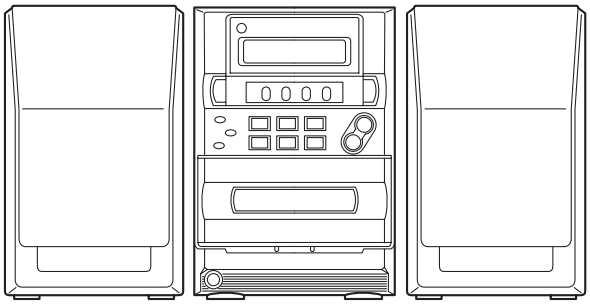
aiwa SERVICE

LCX-357 HS(S) EZ(S)

HR(S) K(S)



SERVICE MANUAL

COMPACT DISC STEREO SYSTEM

BASIC TAPE MECHANISM : 2ZM-1YR8N
BASIC CD MECHANISM : DA11T3C

aiwa

S/M Code No. 09-003-339-9N1

DATA

TABLE OF CONTENTS

SPECIFICATIONS

HR MODEL

MAIN UNIT

FM tuner section

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

AM tuner section

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

Amplifier section

Power output	5.5 W + 5.5 W (4 ohms, T.H.D. 1%, 1 kHz) 7.0 W + 7.0 W (4 ohms, T.H.D. 10%, 1 kHz)
Input	AUX: 500 mV
Outputs	SPEAKERS: accept speakers of 4 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	Normal tape: 50 Hz – 15000 Hz
Recording system	AC bias
Heads	Recording/playback × 1 Erase head × 1

Compact disc player section

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit linear
Wow and flutter	Unmeasurable

SPEAKER SYSTEM

Speakers	100 mm cone type
Impedance	4 ohms
Dimensions (W × H × D)	140 × 231.5 × 198 mm
Weight	1.1 kg

GENERAL

Power requirements	120/220-240V AC, switchable 50/60 Hz
Power consumption	32 W
Dimensions of main unit (W × H × D)	160 × 231.5 × 197 mm
Weight of main unit	2.6 kg

- Design and specifications are subject to change without notice.

HS MODEL

MAIN UNIT

FM tuner section

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

MW tuner section

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

LW tuner section

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

Amplifier section

Power output	Rated: 5.5 W + 5.5 W (4 ohms, T.H.D. 1%, 1 kHz/DIN 45500) Reference: 7.0 W + 7.0 W (4 ohms, T.H.D. 10%, 1 kHz/DIN 45324)
Input	AUX: 500 mV
Outputs	SPEAKERS: accept speakers of 4 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	Normal tape: 50 Hz – 15000 Hz
Recording system	AC bias
Heads	Recording/playback × 1 Erase head × 1

Compact disc player section

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit linear
Wow and flutter	Unmeasurable

SPEAKER SYSTEM

Speakers	100 mm cone type
Impedance	4 ohms
Dimensions (W × H × D)	140 × 231.5 × 198 mm
Weight	1.1 kg

GENERAL

Power requirements	220V AC, 60 Hz
Power consumption	31 W
Dimensions of main unit (W × H × D)	160 × 231.5 × 197 mm
Weight of main unit	2.6 kg

- Design and specifications are subject to change without notice.

K MODEL

MAIN UNIT

FM tuner section

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

MW tuner section

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

LW tuner section

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

Amplifier section

Power output	Rated: 5.5 W + 5.5 W (4 ohms, T.H.D. 1%, 1 kHz/DIN 45500) Reference: 7.0 W + 7.0 W (4 ohms, T.H.D. 10%, 1 kHz/DIN 45324)
Input	AUX: 500 mV
Outputs	SPEAKERS: accept speakers of 4 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	Normal tape: 50 Hz – 15000 Hz
Recording system	AC bias
Heads	Recording/playback × 1 Erase head × 1

Compact disc player section

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit linear
Wow and flutter	Unmeasurable

SPEAKER SYSTEM

Speakers	100 mm cone type
Impedance	4 ohms
Dimensions (W × H × D)	140 × 231.5 × 198 mm
Weight	1.1 kg

GENERAL

Power requirements	230V AC, 50 Hz
Power consumption	31 W
Dimensions of main unit (W × H × D)	160 × 231.5 × 197 mm
Weight of main unit	2.6 kg

- Design and specifications are subject to change without notice.

EZ MODEL

MAIN UNIT

FM tuner section

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

MW tuner section

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

LW tuner section

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

Amplifier section

Power output	Rated: 5.5 W + 5.5 W (4 ohms, T.H.D. 1%, 1 kHz/DIN 45500) Reference: 7.0 W + 7.0 W (4 ohms, T.H.D. 10%, 1 kHz/DIN 45324) DIN MUSIC POWER 10 W + 10 W
Input	AUX: 500 mV
Outputs	SPEAKERS: accept speakers of 4 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	Normal tape: 50 Hz – 15000 Hz
Recording system	AC bias
Heads	Recording/playback × 1 Erase head × 1

Compact disc player section

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	1 bit linear
Wow and flutter	Unmeasurable

SPEAKER SYSTEM

Speakers	100 mm cone type
Impedance	4 ohms
Dimensions (W × H × D)	140 × 231.5 × 198 mm
Weight	1.1 kg

GENERAL

Power requirements	230V AC, 50 Hz
Power consumption	31 W
Dimensions of main unit (W × H × D)	160 × 231.5 × 197 mm
Weight of main unit	2.6 kg

- Design and specifications are subject to change without notice.

ACCESSORIES/PACKAGE LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

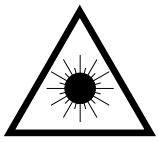
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CLA-906-010		IB,EZ(9L)B<EZS>
1	8A-CLA-901-010		IB,H(ECA)B<HRJ>
1	8A-CLA-905-010		IB,K(E)B<KS>
2	8A-CLB-961-010		RC UNIT,RC-AAT11
3	87-A90-030-010		ANT,LOOP AM-NC C
4	87-043-115-010		ANT,FEEDER FM<HRJ>
5	87-A90-118-010		ANT,WIRE FM (Z)<EZS,HSS,KS>
⚠ 6	87-A91-017-010		PLUG,CONVERSION JT-0476<HRJ>
⚠ 7	87-099-726-010		PLUG,ADPTR CONV(K)<KS>

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

VAROITUS!

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

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.

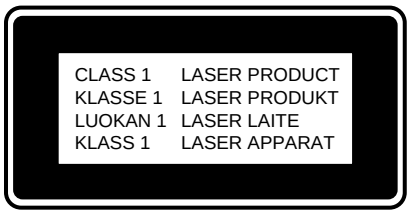
ATTENTION

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

ADVARSEL!

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

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

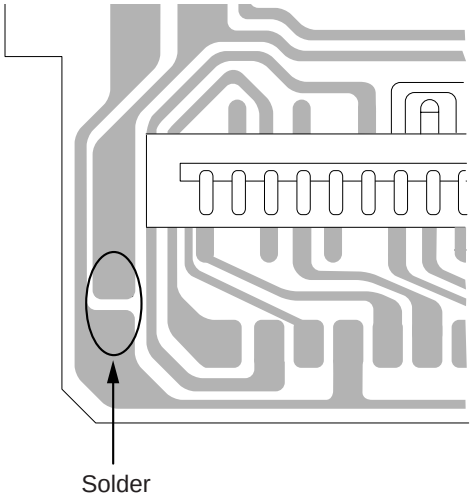


Precaution to replace Optical block (SF-P101NR)

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.

PICK-UP Assy P.C.B



ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-020-454-010		IC,DN6851
	87-A20-734-010		IC,TDA2007A
	87-A21-443-040		C-IC,M62495AFP
	8A-CLA-620-010		IC,LC8672408A-5P33
	87-A21-245-010		IC,RPM6938-V4
	87-A21-145-040		C-IC,BA4560F-E2
	87-A20-446-010		C-IC,LA9241ML
	87-A20-459-010		C-IC,LC78622ED
	87-A21-093-010		IC,LA6541D
	87-070-127-110		IC,LC72131 D
	87-A20-913-010		IC,LA1837NL
	87-A20-440-040		C-IC,BU1920FS<EZS,HSS,KS>
TRANSISTOR			
	87-026-610-080		TR,KTC3198GR
	89-213-702-010		TR,2SB1370 (1.8W)
	89-420-052-080		TR,2SD2005 (1.2W)
	87-A30-185-010		TR,2SD1381FQR
	87-026-313-080		TR,DTC343TS
	87-026-609-080		TR,KTA1266GR
	87-026-218-080		TR,DTC144ES (0.2W)
	87-026-237-080		CHIP-TR,DTC124XK
	87-026-223-080		TR,DTC143TK
	89-320-011-080		TR,2SC2001 (15W)
	89-112-965-080		TR,2SA1296 (0.75W)
	89-109-521-080		TR,2SA952 (0.6W)
	87-A30-091-080		FET,2SJ460
	87-A30-090-080		FET,2SK2541
	87-A30-151-080		TR,2SA1993F
	89-333-317-080		TR,2SC3331 (0.5W)
	87-026-291-080		TR,DTC124XS
	87-A30-227-080		TR,2SB1010Q
	87-026-463-080		TR,2SA933S (0.3W)
	87-026-210-080		CHIP-TR,DTC144EK
	87-026-239-080		TR,DTC114TK (0.2W)
	87-A30-196-080		TR,2SC4115SRS<EZS,HSS,KS>
	89-327-143-080		TR,2SC2714 (0.1W)
	87-A30-072-080		C-TR,RT1P 144C
	87-A30-076-080		C-TR,2SC3052F<EZS,HSS,KS>
	89-505-434-540		C-FET,2SK543(4/5)<EZS,HSS,KS>
	87-A30-257-080		C-TR,2SD1306E<EZS,HSS,KS>
	87-A30-074-080		C-TR,RT1P 141C<EZS,HSS,KS>
DIODE			
	87-020-465-080		DIODE,1SS133 (110MA)
	87-A40-393-090		DIODE,1N5402GW(F20)
	87-070-334-080		ZENER,MTZJ10B
	87-017-932-080		ZENER,MTJ6.2B
	87-A40-347-080		ZENER,MTZJ2.2B
	87-070-136-080		ZENER,MTZJ5.1B
	87-020-027-080		CHIP-DIODE 1SS184
	87-027-825-080		ZENER,HZ9A3L
	87-A40-234-080		ZENER,MTZJ5.6A<EZS,HSS,KS>
	87-A40-270-080		C-DIODE,MC2838<EZS,HSS,KS>
MAIN C.B			
C101	87-010-190-080		S CHIP F 0.01
C102	87-010-190-080		S CHIP F 0.01
C103	87-010-190-080		S CHIP F 0.01
C104	87-010-404-080		CAP, ELECT 4.7-50V
C105	87-010-403-080		CAP, ELECT 3.3-50V
C106	87-010-192-080		C-CAP,S 0.022-50 F
C107	87-010-192-080		C-CAP,S 0.022-50 F
C108	87-010-192-080		C-CAP,S 0.022-50 F
C109	87-010-192-080		C-CAP,S 0.022-50 F
C110	87-010-190-080		S CHIP F 0.01
C111	87-016-658-090		CAP,E 4700-35 SMG
C112	87-012-140-080		CAP 470P
C113	87-010-197-080		CAP, CHIP 0.01 DM
C114	87-010-408-080		CAP, ELECT 47-50V
C115	87-010-112-080		CAP, ELECT 100-16V
C116	87-010-101-080		CAP, ELECT 220-16
C118	87-010-263-080		CAP, ELECT 100-10V
C119	87-010-190-080		S CHIP F 0.01
C120	87-010-401-080		CAP, ELECT 1-50V
C121	87-010-396-080		CAP,E 470-35 SME
C122	87-010-213-080		C-CAP,S 0.015-50 B
C123	87-010-196-080		CHIP CAPACITOR,0.1-25
C124	87-010-402-080		CAP, ELECT 2.2-50V
C125	87-010-402-080		CAP, ELECT 2.2-50V
C126	87-010-408-080		CAP, ELECT 47-50V
C127	87-010-248-080		CAP, ELECT 220-10V
C128	87-010-393-080		CAP, ELECT 100-35V
C129	87-010-248-080		CAP, ELECT 220-10V
C130	87-010-393-080		CAP, ELECT 100-35V
C131	87-010-393-080		CAP, ELECT 100-35V
C132	87-010-237-080		CAP, ELECT 1000-16V
C136	87-010-197-080		CAP, CHIP 0.01 DM
C137	87-010-197-080		CAP, CHIP 0.01 DM
C138	87-010-197-080		CAP, CHIP 0.01 DM
C139	87-010-197-080		CAP, CHIP 0.01 DM
C143	87-010-401-080		CAP, ELECT 1-50V
C144	87-010-401-080		CAP, ELECT 1-50V
C147	87-010-190-080		S CHIP F 0.01
C150	87-010-263-080		CAP, ELECT 100-10V
C151	87-010-263-080		CAP, ELECT 100-10V
C152	87-010-182-080		C-CAP,S 2200P-50 B
C153	87-010-166-080		C-CAP,S 100P-50 SL
C154	87-010-545-080		CAP, ELECT 0.22-50V
C155	87-010-545-080		CAP, ELECT 0.22-50V
C157	87-010-404-080		CAP, ELECT 4.7-50V
C158	87-010-545-080		CAP, ELECT 0.22-50V
C159	87-010-545-080		CAP, ELECT 0.22-50V
C161	87-010-404-080		CAP, ELECT 4.7-50V
C162	87-010-405-080		CAP, ELECT 10-50V
C163	87-010-405-080		CAP, ELECT 10-50V
C164	87-010-405-080		CAP, ELECT 10-50V
C165	87-010-405-080		CAP, ELECT 10-50V
C166	87-010-404-080		CAP, ELECT 4.7-50V
C167	87-010-404-080		CAP, ELECT 4.7-50V
C169	87-012-368-080		C-CAP,S 0.1-50 F<EZS,HSS,KS>
C170	87-012-368-080		C-CAP,S 0.1-50 F<EZS,HSS,KS>
C171	87-010-404-080		CAP, ELECT 4.7-50V
C172	87-010-408-080		CAP, ELECT 47-50V
C173	87-010-405-080		CAP, ELECT 10-50V
C175	87-010-237-080		CAP, ELECT 1000-16V
C176	87-012-368-080		C-CAP,S 0.1-50 F<EZS,HSS,KS>
C300	87-010-986-080		C-CAP,S 820P-50 J CH
C301	87-010-198-080		CAP, CHIP 0.022
C302	87-010-986-080		C-CAP,S 820P-50 J CH
C303	87-010-180-080		C-CER 1500P
C304	87-010-180-080		C-CER 1500P
C305	87-010-263-080		CAP, ELECT 100-10V
C306	87-010-263-080		CAP, ELECT 100-10V
C307	87-010-956-080		CHIP-CAP,S 0.068-25B
C308	87-010-956-080		CHIP-CAP,S 0.068-25B
C309	87-010-187-080		CAP CHIP S5600P
C310	87-010-187-080		CAP CHIP S5600P
C311	87-010-374-080		CAP, ELECT 47-10V
C312	87-010-546-080		CAP, ELECT 0.33-50V
C313	87-010-546-080		CAP, ELECT 0.33-50V
C314	87-010-401-080		CAP, ELECT 1-50V
C315	87-010-401-080		CAP, ELECT 1-50V
C316	87-010-182-080		C-CAP,S 2200P-50 B
C317	87-010-182-080		C-CAP,S 2200P-50 B
C318	87-010-188-080		CAP,CHIP 6800P

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C319	87-010-188-080		CAP,CHIP 6800P
C320	87-010-184-080		CHIP CAPACITOR 3300P(K)
C321	87-010-184-080		CHIP CAPACITOR 3300P(K)
C322	87-010-321-080		CHIP CAPACITOR,82P(J)
C323	87-010-321-080		CHIP CAPACITOR,82P(J)
C324	87-010-401-080		CAP, ELECT 1-50V
C325	87-010-374-080		CAP, ELECT 47-10V
C326	87-010-198-080		CAP, CHIP 0.022
C327	87-010-183-080		C-CAP,S 2700P-50 B
C328	87-010-183-080		C-CAP,S 2700P-50 B
C329	87-010-183-080		C-CAP,S 2700P-50 B
C330	88-266-810-810		CAP, CER 0.01<EZS,HSS,KS>
C331	87-010-382-080		CAP, ELECT 22-25V
C332	87-010-187-080		CAP CHIP S5600P
C333	87-010-178-080		CHIP CAP 1000P
C334	87-010-175-080		CAP 560P
C335	87-012-158-080		C-CAP,S 390P-50 CH
C336	87-012-158-080		C-CAP,S 390P-50 CH
C337	87-010-198-080		CAP, CHIP 0.022
C350	87-010-178-080		CHIP CAP 1000P
C351	87-010-178-080		CHIP CAP 1000P
C353	87-010-178-080		CHIP CAP 1000P
C701	87-010-381-080		CAP, ELECT 330-16V
C702	87-010-404-080		CAP, ELECT 4.7-50V
C703	87-012-286-080		CAP, U 0.01-25
C704	87-012-286-080		CAP, U 0.01-25
C709	87-012-195-080		C-CAP,U 100P-50CH
C711	87-010-263-080		CAP, ELECT 100-10V
C712	87-010-831-080		C-CAP,U,0.1-16F
C713	87-012-286-080		CAP, U 0.01-25<EZS,HSS,KS>
C714	87-012-286-080		CAP, U 0.01-25
C715	87-012-195-080		C-CAP,U 100P-50CH<EZS,HSS,KS>
C717	87-012-286-080		CAP, U 0.01-25
C719	87-012-286-080		CAP, U 0.01-25
C720	87-012-195-080		C-CAP,U 100P-50CH
C721	87-012-176-080		CAP 15P
C722	87-012-176-080		CAP 15P
C723	87-012-274-080		CHIP CAP,U 1000P-50B
C725	87-018-131-080		CAP, CER 1000P-50V<EZS,HSS,KS>
C727	87-010-196-080		CHIP CAPACITOR,0.1-25
C728	87-010-248-080		CAP, ELECT 220-10V
C729	87-012-274-080		CHIP CAP,U 1000P-50B
C731	87-012-286-080		CAP, U 0.01-25
C752	87-012-284-080		CAP, U 6800P-50<EZS,HSS,KS>
C753	87-012-195-080		C-CAP,U 100P-50CH<EZS,HSS,KS>
C755	87-012-286-080		CAP, U 0.01-25<EZS,HSS,KS>
C756	87-012-286-080		CAP, U 0.01-25
C757	87-012-188-080		C-CAP,U 47P-50 CH
C758	87-012-167-080		C-CAP,U 5P-50 CH
C761	87-010-196-080		CHIP CAPACITOR,0.1-25<EZS,HSS,KS>
C762	87-012-286-080		CAP, U 0.01-25<EZS,HSS,KS>
C763	87-010-829-080		CAP, U 0.047-16
C764	87-012-337-080		C-CAP,U 56P-50 CH<HRJ>
C765	87-012-286-080		CAP, U 0.01-25
C766	87-010-197-080		CAP, CHIP 0.01 DM<EZS,HSS,KS>
C768	87-012-286-080		CAP, U 0.01-25
C769	87-010-260-080		CAP, ELECT 47-25V
C770	87-010-829-080		CAP, U 0.047-16
C771	87-010-383-080		CAP, ELECT 33-25V
C772	87-010-829-080		CAP, U 0.047-16
C773	87-010-196-080		CHIP CAPACITOR,0.1-25
C774	87-010-263-080		CAP, ELECT 100-10V
C775	87-010-404-080		CAP, ELECT 4.7-50V
C776	87-012-286-080		CAP, U 0.01-25
C777	87-010-400-080		CAP, ELECT 0.47-50V
C778	87-010-401-080		CAP, ELECT 1-50V
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	87-012-286-080		CAP, U 0.01-25
C784	87-012-286-080		CAP, U 0.01-25
C785	87-010-401-080		CAP, ELECT 1-50V<HRJ>
C785	87-010-405-080		CAP, ELECT 10-50V<EZS,HSS,KS>
C786	87-010-401-080		CAP, ELECT 1-50V<HRJ>
C786	87-010-405-080		CAP, ELECT 10-50V<EZS,HSS,KS>
C787	87-012-287-080		C-CAP,U 0.015-25 F<EZS,HSS,KS>
C788	87-012-287-080		C-CAP,U 0.015-25 F<EZS,HSS,KS>
C789	87-012-275-080		C-CAP,U 1200P-50 B
C790	87-012-275-080		C-CAP,U 1200P-50 B
C791	87-010-405-080		CAP, ELECT 10-50V
C793	87-012-275-080		C-CAP,U 1200P-50 B<EZS,HSS,KS>
C793	87-012-273-080		C-CAP,U 820P-50 B<HRJ>
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	87-012-276-080		CAP, CHIP SS 1500 PBK
C798	87-012-276-080		CAP, CHIP SS 1500 PBK
C799	87-010-829-080		CAP, U 0.047-16
C803	87-018-047-080		CAP, CER 0.01-16V<EZS,HSS,KS>
C812	87-012-286-080		CAP, U 0.01-25
C814	87-012-286-080		CAP, U 0.01-25<EZS,HSS,KS>
C820	87-010-260-080		CAP, ELECT 47-25V
C821	87-012-286-080		CAP, U 0.01-25
C822	87-012-286-080		CAP, U 0.01-25
C823	87-012-286-080		CAP, U 0.01-25
C824	87-012-172-080		CAPACITOR CHIP U 10P CH<EZS,HSS,KS>
C828	87-010-196-080		CHIP CAPACITOR,0.1-25
C829	87-010-196-080		CHIP CAPACITOR,0.1-25
C859	87-012-286-080		CAP, U 0.01-25<EZS,HSS,KS>
C861	87-012-199-080		CAP 220P<EZS,HSS,KS>
C862	87-012-199-080		CAP 220P<EZS,HSS,KS>
C863	87-012-270-080		CAP, U 470P-50<EZS,HSS,KS>
C864	87-010-405-080		CAP, ELECT 10-50V<EZS,HSS,KS>
C865	87-010-196-080		CHIP CAPACITOR,0.1-25<EZS,HSS,KS>
C866	87-010-405-080		CAP, ELECT 10-50V<EZS,HSS,KS>
C867	87-012-286-080		CAP, U 0.01-25<EZS,HSS,KS>
C868	87-012-184-080		C-CAP,U 33P-50 CH<EZS,HSS,KS>
C869	87-012-180-080		C-CAP,U 22P-50 CH<EZS,HSS,KS>
C909	87-012-286-080		CAP, U 0.01-25<EZS,HSS,KS>
C910	87-012-286-080		CAP, U 0.01-25<EZS,HSS,KS>
C940	87-012-286-080		CAP, U 0.01-25<EZS,HSS,KS>
C942	87-012-172-080		CAPACITOR CHIP U 10P CH<EZS,HSS,KS>
C947	87-012-286-080		CAP, U 0.01-25<EZS,HSS,KS>
C949	87-A10-039-080		C-CAP,U 470P-50 J CH<EZS,HSS,KS>
C952	87-012-286-080		CAP, U 0.01-25<EZS,HSS,KS>
C958	87-010-197-080		CAP, CHIP 0.01 DM<EZS,HSS,KS>
C959	87-010-831-080		C-CAP,U,0.1-16F<EZS,HSS,KS>
C960	87-010-196-080		CHIP CAPACITOR,0.1-25
C961	87-012-170-080		C-CAP,U 8P-50 CH<HRJ>
C962	87-010-401-080		CAP, ELECT 1-50V<EZS,HSS,KS>
C963	87-010-196-080		CHIP CAPACITOR,0.1-25<HRJ>
C965	88-108-000-080		C-JUMPER,U<EZS,HSS,KS>
CF801	87-008-423-010		CERAMIC FILTER, SFE10.7<EZS,HSS,KS>
CF801	87-008-261-010		FILTER, SFE10.7MA5-A<HRJ>
CF802	82-785-747-010		CF MS2 GHY R<EZS,HSS,KS>
CF802	87-008-261-010		FILTER, SFE10.7MA5-A<HRJ>
CON301	87-099-832-010		CONN,8P S2M-8W
⚠F101	87-035-457-010		FUSE,3.15A 250V TW/C
FC101	87-033-213-080		CLAMP, FUSE
FC102	87-033-213-080		CLAMP, FUSE
FFE801	A8-6ZA-19C-170		6ZA-1 YFEENC<EZS,HSS,KS>
FFE801	A8-8ZA-193-070		8ZA-1 YFEUNC<HRJ>
J101	8A-CLA-624-010		JACK,PIN 3P AUX
J102	87-A60-754-010		TERMINAL,SPK 4P MSP-154V-05
J103	87-A60-420-010		JACK,3.5 ST (MSC)
J104	87-099-608-010		JACK, DC HEC3800<EZS,HSS,KS>
J801	87-A60-202-010		TERMINAL,ANT 4P MSP-154V-02<HRJ>
J801	87-A60-880-010		TERMINAL,ANT-PAL 2P MSP-313V-0 <EZS,HSS,KS>

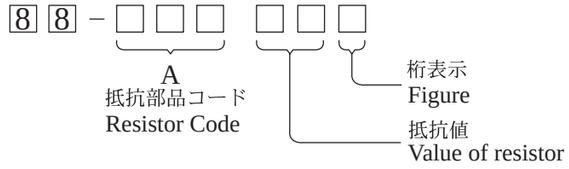
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
L101	87-005-366-010		COIL, 1UH
L102	87-005-366-010		COIL, 1UH
L104	87-005-676-080		COIL,2.2UH K LF5.0S
L302	87-007-342-010		COIL,OSC 85K BIAS
L771	87-A50-266-010		COIL,FM DET-2N(TOK)
L772	87-A90-733-010		FLTR,PCFAZH-450 (TOK)
L773	87-NF4-650-010		COIL,AM PACK 4N(TOK)
L781	87-005-847-080		COIL,2.2UH(CECS)<EZS,HSS,KS>
L832	87-005-847-080		COIL,2.2UH(CECS)<EZS,HSS,KS>
L851	87-005-847-080		COIL,2.2UH(CECS)<EZS,HSS,KS>
L941	87-A50-020-010		COIL,ANT LW(COI)<EZS,HSS,KS>
L942	87-A50-019-010		COIL,OSC LW(COI)<EZS,HSS,KS>
L981	87-NF4-650-010		COIL,AM PACK 4N(TOK)<HRJ>
L981	87-NF4-651-110		COIL,AM PACK2N(TOM)<EZS,HSS,KS>
⚠PR100	87-A90-091-080		PROTECTOR,2A 491
R103	87-022-480-080		RES,NF 2.2-1/4W J
R118	87-029-118-090		RES,FUSE 220-1/2W J
R362	87-029-090-010		RES FUSE,22-1/4
TC942	87-011-164-010		CAPACITOR,TRIMMER 30P<EZS,HSS,KS>
WH101	87-099-043-010		CONN 2P EH
X721	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309
X851	87-A70-184-010		VIB,XTAL 4.332MHZ HC-49/U<EZS,HSS,KS>
FRONT C.B			
C201	87-010-375-080		CAP,E 330-10 SME
C202	87-012-350-080		C-CAP,1-25 F
C203	87-010-197-080		CAP, CHIP 0.01 DM
C205	87-010-178-080		CHIP CAP 1000P
C208	87-010-197-080		CAP, CHIP 0.01 DM
C209	87-010-196-080		CHIP CAPACITOR,0.1-25
C210	87-010-196-080		CHIP CAPACITOR,0.1-25
C211	87-010-314-080		C-CAP,S 22P-50V
C212	87-010-318-080		C-CAP,S 47P-50 CH
C213	87-010-154-080		CAP CHIP 10P
C214	87-012-149-080		C-CAP,S 30P-50 CH
C215	87-010-312-080		C-CAP,S 15P-50 CH
C216	87-010-400-080		CAP, ELECT 0.47-50V
C217	87-010-196-080		CHIP CAPACITOR,0.1-25
CN201	87-099-720-010		CONN,30P TYK-B(P)
CN202	87-A60-404-010		CONN,3P TKX-P03P-F1
CN203	8A-CLA-621-010		CONN ASSY,9P MOTOR
L206	87-003-098-080		COIL,2.2UH
LCD201	8Z-CL8-665-110		LCD,ZCL-8
S200	87-A90-095-080		SW,TACT EVQ11G04M
S201	87-A90-095-080		SW,TACT EVQ11G04M
S202	87-A90-095-080		SW,TACT EVQ11G04M
S203	87-A90-095-080		SW,TACT EVQ11G04M
S204	87-A90-095-080		SW,TACT EVQ11G04M
S205	87-A90-095-080		SW,TACT EVQ11G04M
S206	87-A90-095-080		SW,TACT EVQ11G04M
S207	87-A90-095-080		SW,TACT EVQ11G04M
S208	87-A90-095-080		SW,TACT EVQ11G04M
S209	87-A90-095-080		SW,TACT EVQ11G04M
S214	87-A90-095-080		SW,TACT EVQ11G04M
S215	87-A90-095-080		SW,TACT EVQ11G04M
S216	87-A90-095-080		SW,TACT EVQ11G04M
S217	87-A90-095-080		SW,TACT EVQ11G04M
S218	87-A90-095-080		SW,TACT EVQ11G04M
S219	87-A90-095-080		SW,TACT EVQ11G04M
S220	87-A90-095-080		SW,TACT EVQ11G04M
X201	87-030-364-010		VIB,XTAL 32.768K CT
X202	87-A70-185-080		VIB,CER 5.76MHZ TF21
CD C.B			
C500	87-016-459-040		CAP,E 470-10 SMG
C502	87-016-459-040		CAP,E 470-10 SMG
C503	87-016-459-040		CAP,E 470-10 SMG
C505	87-010-196-080		CHIP CAPACITOR,0.1-25
C507	87-010-196-080		CHIP CAPACITOR,0.1-25
C510	87-010-197-080		CAP, CHIP 0.01 DM
C513	87-010-196-080		CHIP CAPACITOR,0.1-25
C514	87-010-196-080		CHIP CAPACITOR,0.1-25
C515	87-012-157-080		C-CAP,S 330P-50 CH
C516	87-010-545-080		CAP, ELECT 0.22-50V
C521	87-010-186-080		CAP,CHIP 4700P
C525	87-010-176-080		C-CAP,S 680P-50 SL
C528	87-012-156-080		C-CAP,S 220P-50 CH
C529	87-010-545-080		CAP, ELECT 0.22-50V
C530	87-012-140-080		CAP 470P
C531	87-010-374-080		CAP, ELECT 47-10V
C532	87-010-401-080		CAP, ELECT 1-50V
C533	87-010-184-080		CHIP CAPACITOR 3300P(K)
C535	87-010-145-080		C-CAP,S 1P-50 CH
C536	87-010-312-080		C-CAP,S 15P-50 CH
C537	87-010-309-080		C-CAP,1000P-50 CH
C538	87-010-196-080		CHIP CAPACITOR,0.1-25
C539	87-010-404-080		CAP, ELECT 4.7-50V
C540	87-010-196-080		CHIP CAPACITOR,0.1-25
C541	87-010-405-080		CAP, ELECT 10-50V
C542	87-010-369-080		C-CAP,S 0.033-25 K B
C545	87-010-197-080		CAP, CHIP 0.01 DM
C546	87-010-374-080		CAP, ELECT 47-10V
C547	87-010-263-080		CAP, ELECT 100-10V
C548	87-010-248-080		CAP, ELECT 220-10V
C549	87-010-198-080		CAP, CHIP 0.022
C550	87-010-248-080		CAP, ELECT 220-10V
C551	87-010-166-080		C-CAP,S 100P-50 SL
C552	87-010-197-080		CAP, CHIP 0.01 DM
C553	87-010-374-080		CAP, ELECT 47-10V
C555	87-010-403-080		CAP, ELECT 3.3-50V
C556	87-010-197-080		CAP, CHIP 0.01 DM
C557	87-010-197-080		CAP, CHIP 0.01 DM
C558	87-010-197-080		CAP, CHIP 0.01 DM
C559	87-010-315-080		C-CAP,S 27P-50 CH
C560	87-010-263-080		CAP, ELECT 100-10V
C561	87-010-196-080		CHIP CAPACITOR,0.1-25
C562	87-010-196-080		CHIP CAPACITOR,0.1-25
C563	87-012-156-080		C-CAP,S 220P-50 CH
C564	87-010-197-080		CAP, CHIP 0.01 DM
C565	87-010-263-080		CAP, ELECT 100-10V
C566	87-010-196-080		CHIP CAPACITOR,0.1-25
C568	87-010-197-080		CAP, CHIP 0.01 DM
C570	87-010-197-080		CAP, CHIP 0.01 DM
C571	87-010-248-080		CAP, ELECT 220-10V
C572	87-010-196-080		CHIP CAPACITOR,0.1-25
C573	87-010-197-080		CAP, CHIP 0.01 DM
C574	87-010-197-080		CAP, CHIP 0.01 DM
C578	87-010-197-080		CAP, CHIP 0.01 DM
C579	87-010-263-080		CAP, ELECT 100-10V
C582	87-010-197-080		CAP, CHIP 0.01 DM
C583	87-010-405-080		CAP, ELECT 10-50V
C584	87-010-170-080		S CHIP SL 220P(K)
C586	87-010-170-080		S CHIP SL 220P(K)
C587	87-010-166-080		C-CAP,S 100P-50 SL
C589	87-010-166-080		C-CAP,S 100P-50 SL
C590	87-010-166-080		C-CAP,S 100P-50 SL
C591	87-010-166-080		C-CAP,S 100P-50 SL
C592	87-010-166-080		C-CAP,S 100P-50 SL
C593	87-010-197-080		CAP, CHIP 0.01 DM
C594	87-010-263-080		CAP, ELECT 100-10V
C596	87-010-404-080		CAP, ELECT 4.7-50V
C597	87-010-197-080		CAP, CHIP 0.01 DM
C598	87-010-197-080		CAP, CHIP 0.01 DM
C601	87-010-197-080		CAP, CHIP 0.01 DM
CN501	87-009-345-010		CONN,2P PH H
CN510	87-009-034-010		CONN,6P PH V
CN520	87-A60-248-010		CONN,16P H CFF1416
L501	87-005-647-080		COIL,10UH K LF5S

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
L502	87-005-659-080		COIL,100UH K LF5.0S
R503	87-029-019-010		RES, FUSEIBLE 1/2W-2.2
SFR501	87-A90-787-080		SFR,100K H HOKU
X501	87-A70-046-010		VIB,XTAL 16.934MHZ
LED C.B			
D941	87-A40-365-080		LED,L-1154 SGD
D942	87-A40-365-080		LED,L-1154 SGD
D943	87-A40-365-080		LED,L-1154 SGD
D944	87-A40-365-080		LED,L-1154 SGD
D945	87-A40-365-080		LED,L-1154 SGD
D946	87-A40-365-080		LED,L-1154 SGD
D947	87-A40-365-080		LED,L-1154 SGD
D948	87-A40-365-080		LED,L-1154 SGD
D949	87-A40-365-080		LED,L-1154 SGD
AC C.B			
C181	87-010-197-080		CAP, CHIP 0.01 DM<EZS,HSS,KS>
C182	87-010-197-080		CAP, CHIP 0.01 DM<EZS,HSS,KS>
CNA101	8A-CLA-630-010		CONN ASSY,2P PT
⚠SW1	87-A90-178-010		SW SL1-1-2<HRJ>
⚠T1	87-A60-317-010		TERMINAL, 1P MSC
⚠T2	87-A60-317-010		TERMINAL, 1P MSC
MOTOR C.B			
M2	9X-262-576-910		MOTOR GEAR ASSY
PIN3	91-564-722-110		CONNECTOR 6P
SW1	91-572-085-120		LEAF SW
DECK C.B			
CN1	87-009-352-010		CONN,9P PH H
SFR1	87-024-581-010		SFR,3.3K DIA6V K0A
SOL2	82-ZM1-618-410		SOL ASSY,27K
SW2	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW3	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW5	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW6	87-A90-248-010		SW,MICRO ESE11SH2CXQ
RELAY C.B			

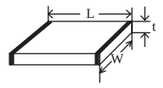
- Regarding connectors, they are not stocked as they are not the initial order items.
  The connectors are available after they are supplied from connector manufacturers upon the order is received.

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

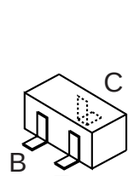
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



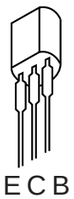
チップ抵抗
Chip resistor

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

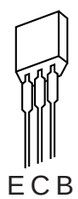
TRANSISTOR ILLUSTRATION



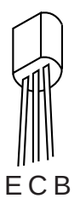
2SC2714
2SD1306
DTC114TK
DTC143TK
DTC144EK
RT1P141C
PT1P144C



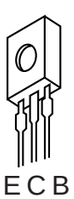
2SA1296
2SC1815
KTC3198



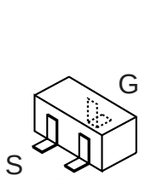
2SC4115
DTC124XS
DTC343TS



2SA933
2SB1010
2SC2001
SS8050

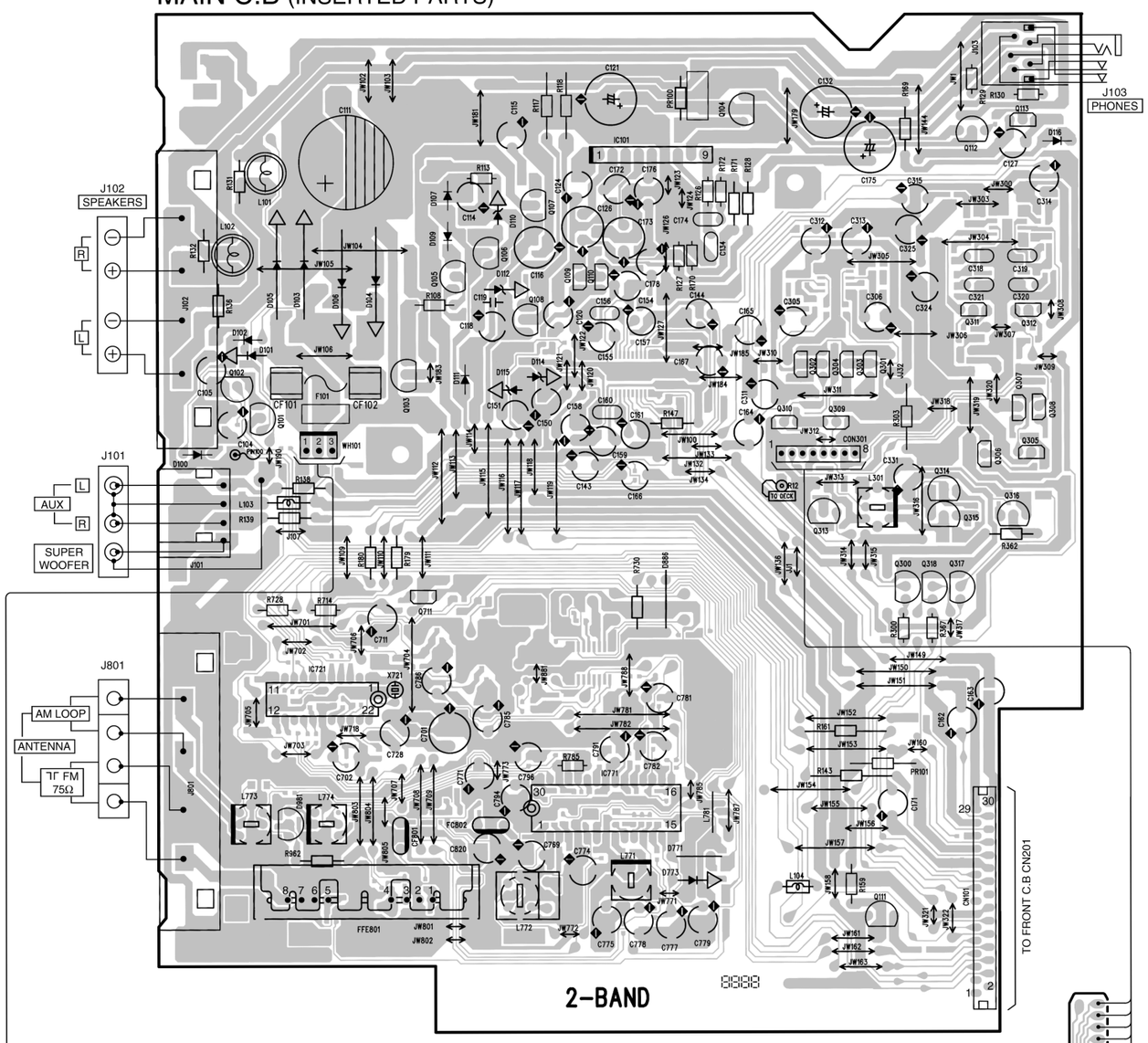


2SD1381

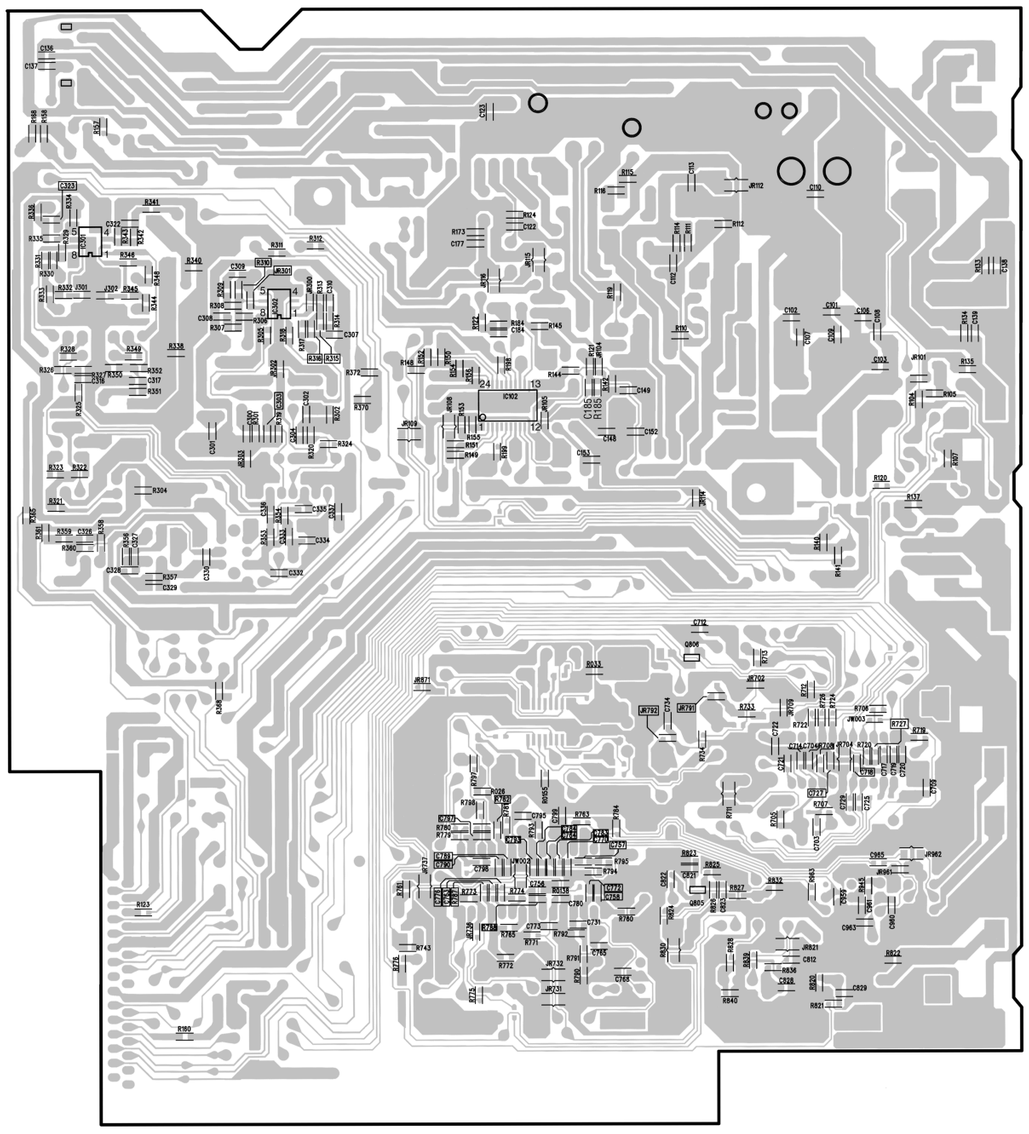


2SK543

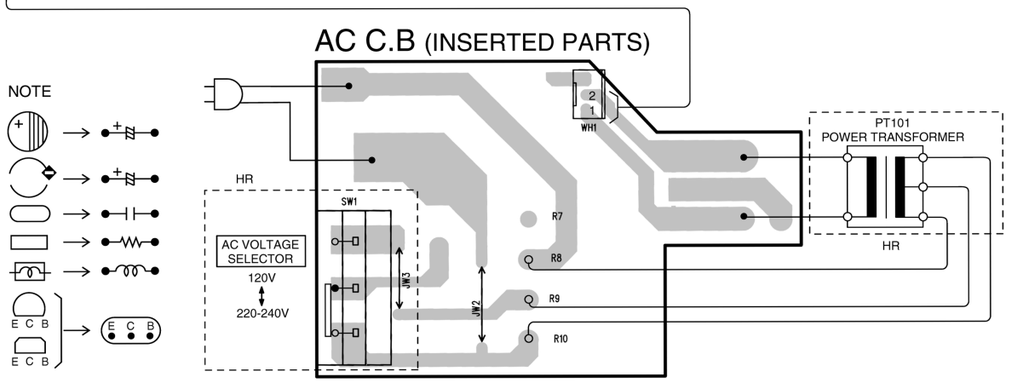
MAIN C.B (INSERTED PARTS)



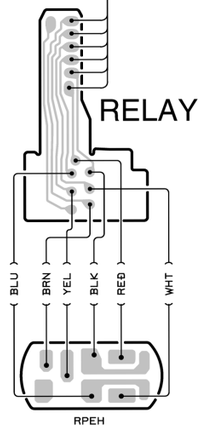
MAIN C.B (CHIP PARTS)



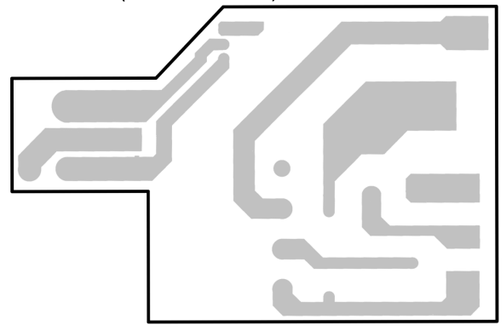
AC C.B (INSERTED PARTS)



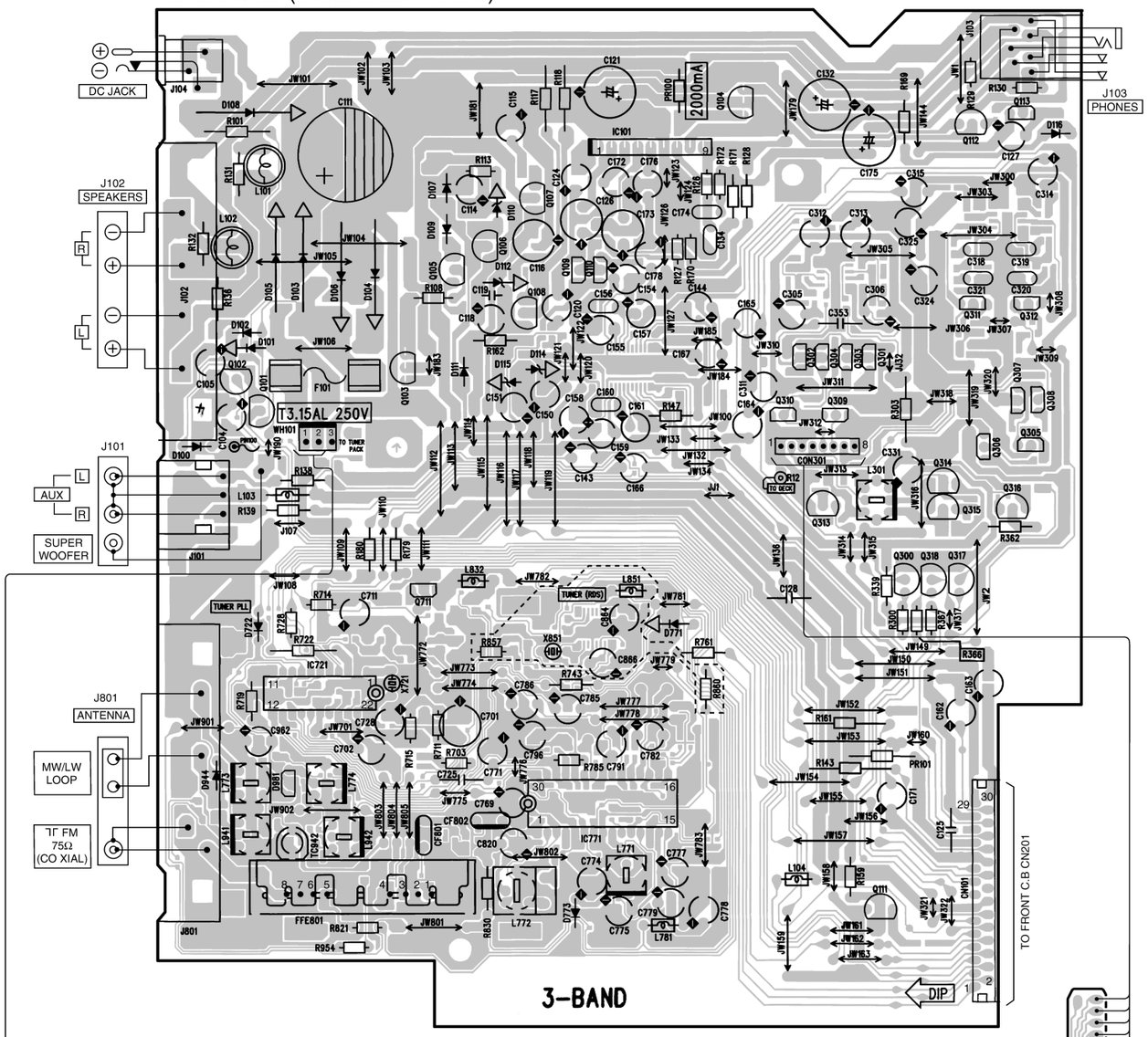
RELAY C.B



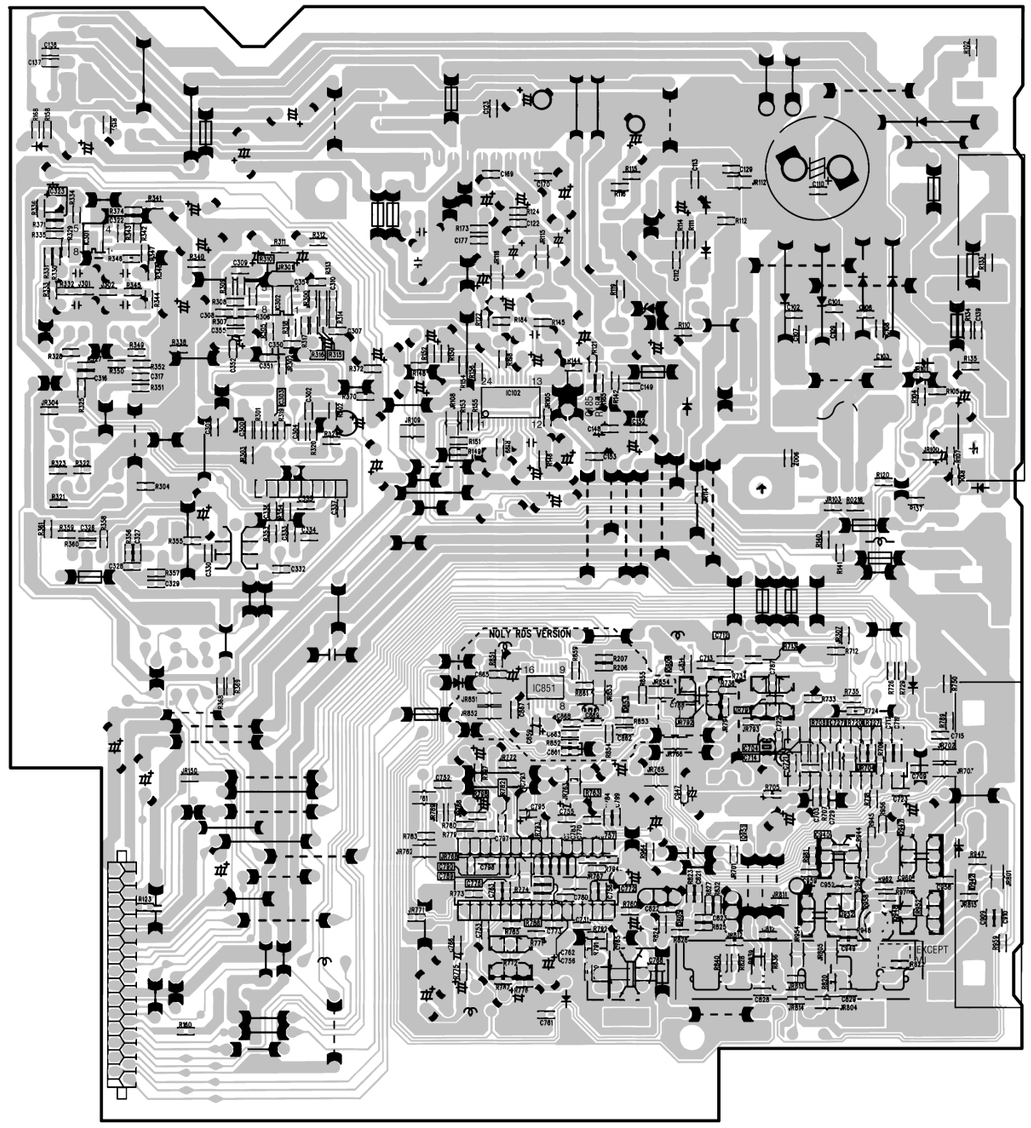
AC C.B (CHIP PARTS)



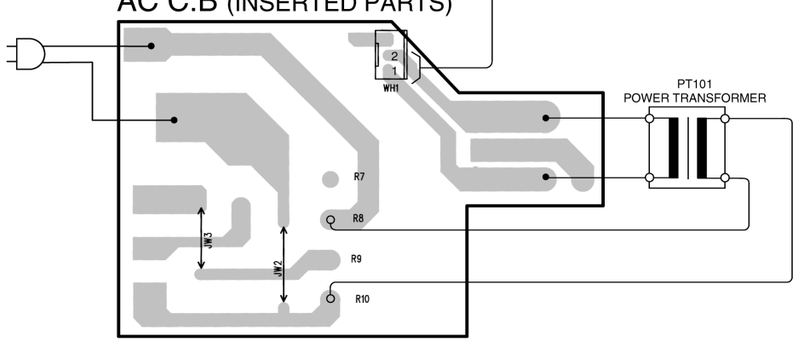
MAIN C.B (INSERTED PARTS)



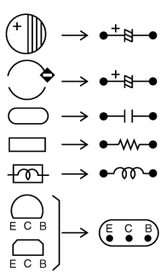
MAIN C.B (CHIP PARTS)



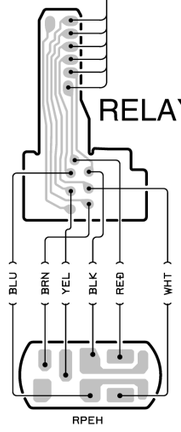
AC C.B (INSERTED PARTS)



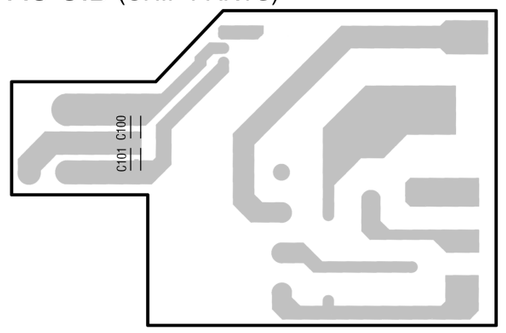
NOTE



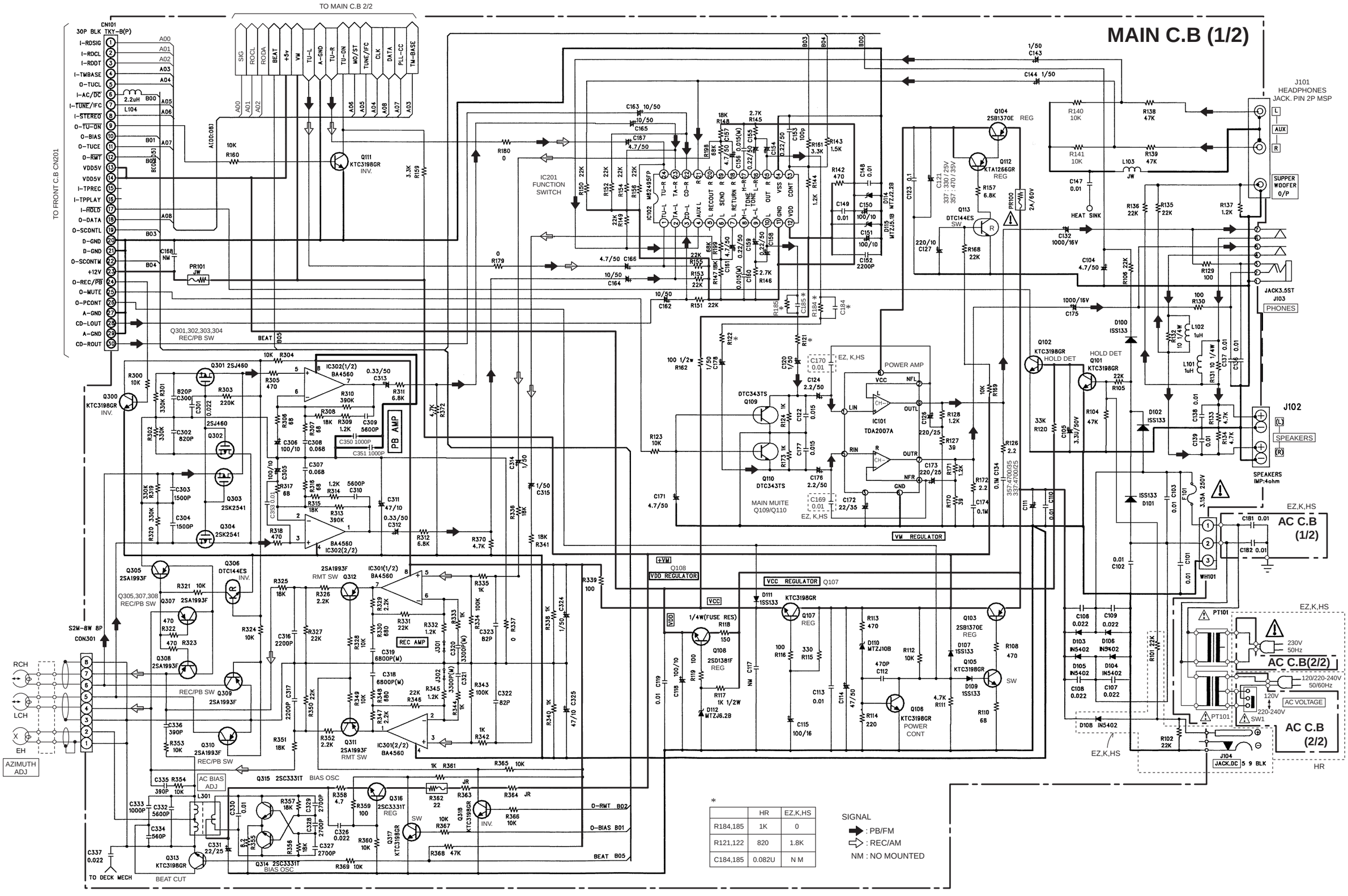
RELAY C.B



AC C.B (CHIP PARTS)



SCHEMATIC DIAGRAM-1 (MAIN 1/2)

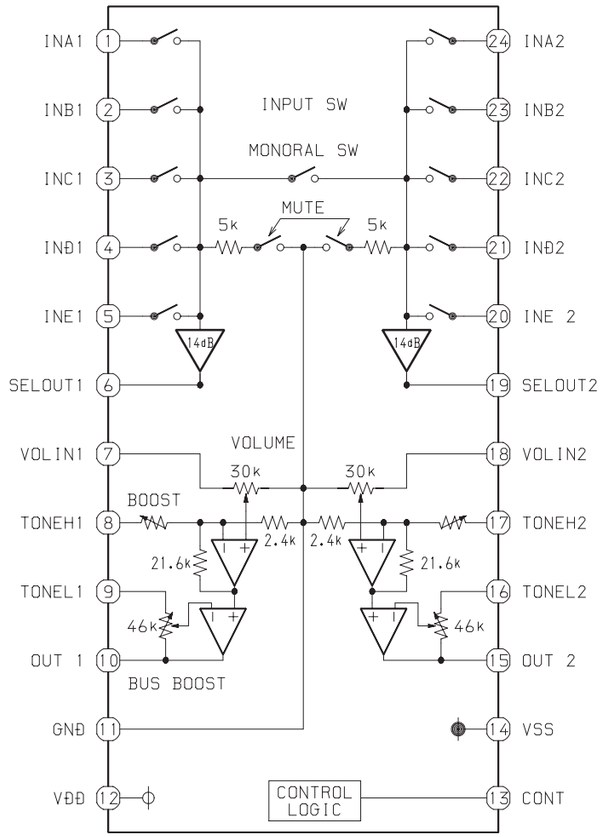


*

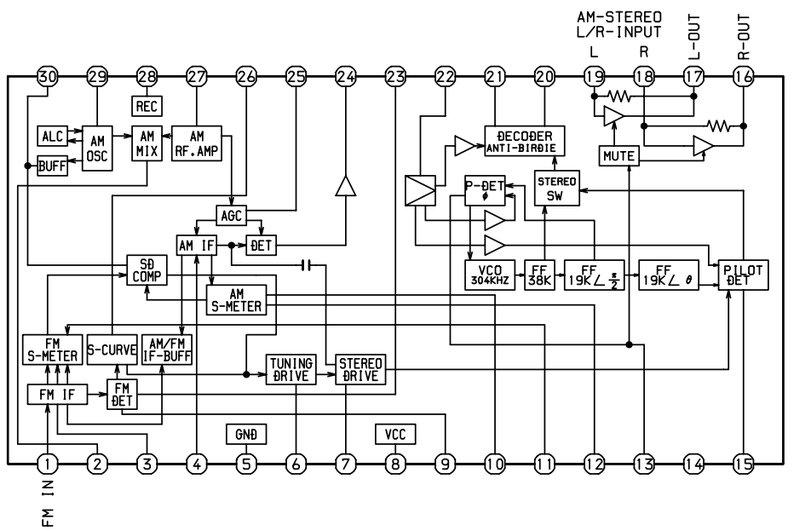
	HR	EZ,K,HS
R184,185	1K	0
R121,122	820	1.8K
C184,185	0.082U	N M

IC BLOCK DIAGRAM

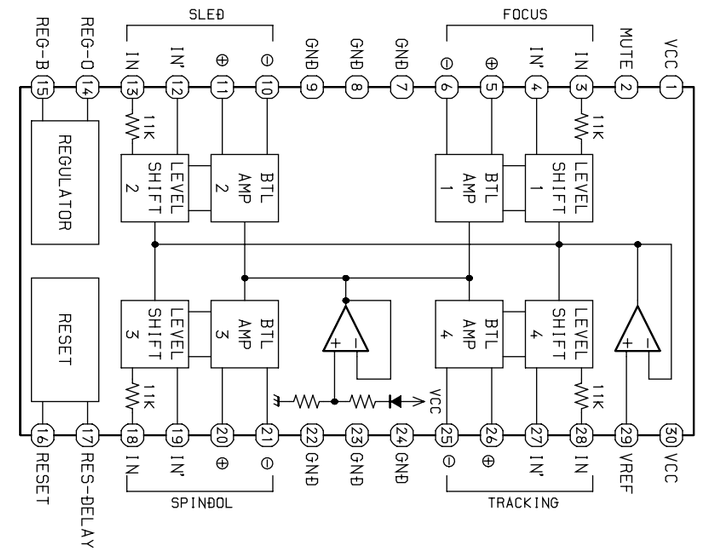
IC, M62495AFP



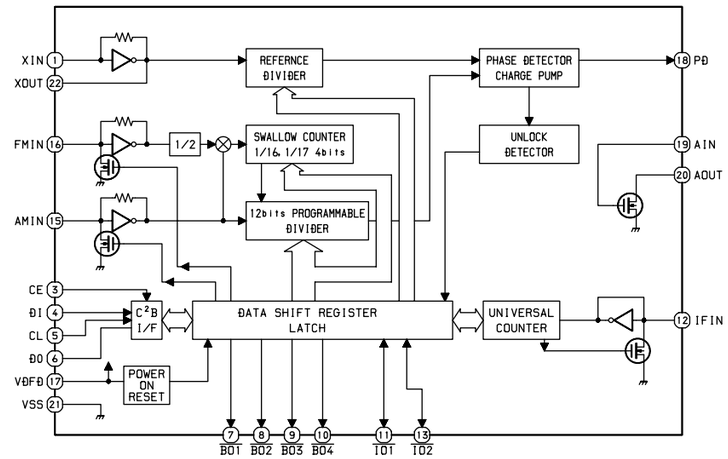
IC, LA1837NL



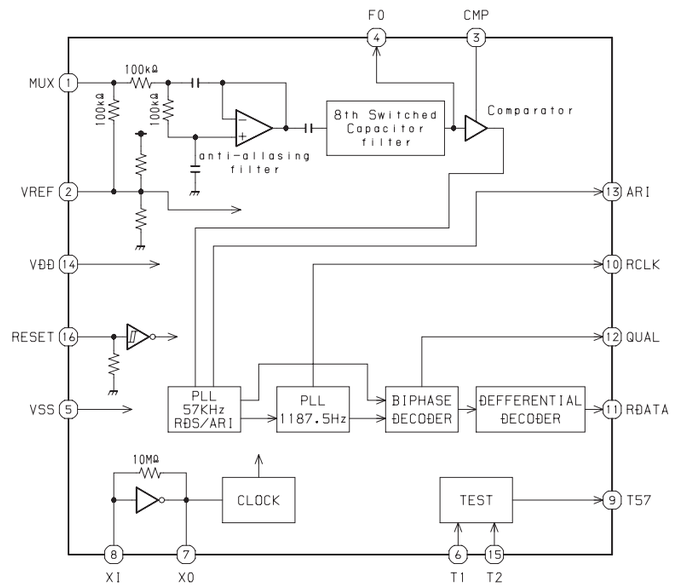
IC, LA6541D



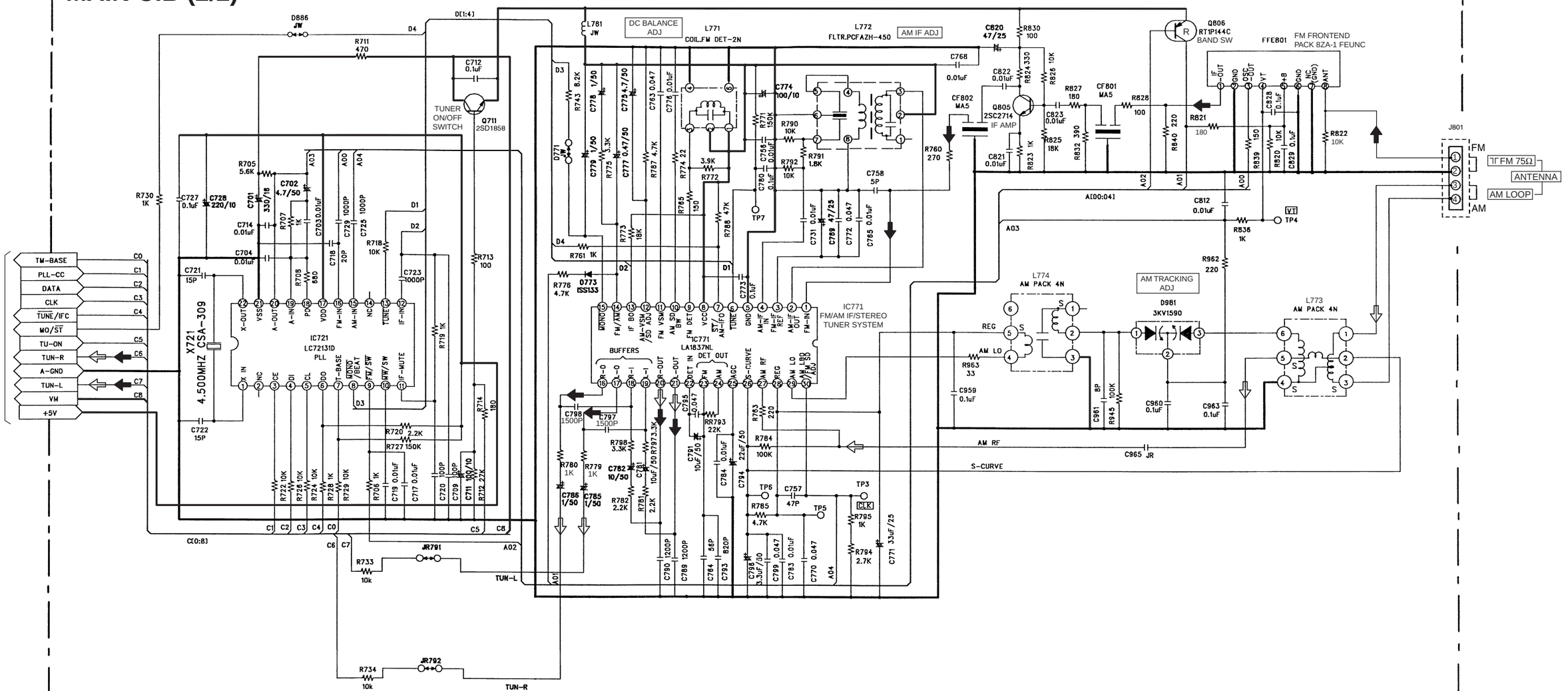
IC, LC72131D



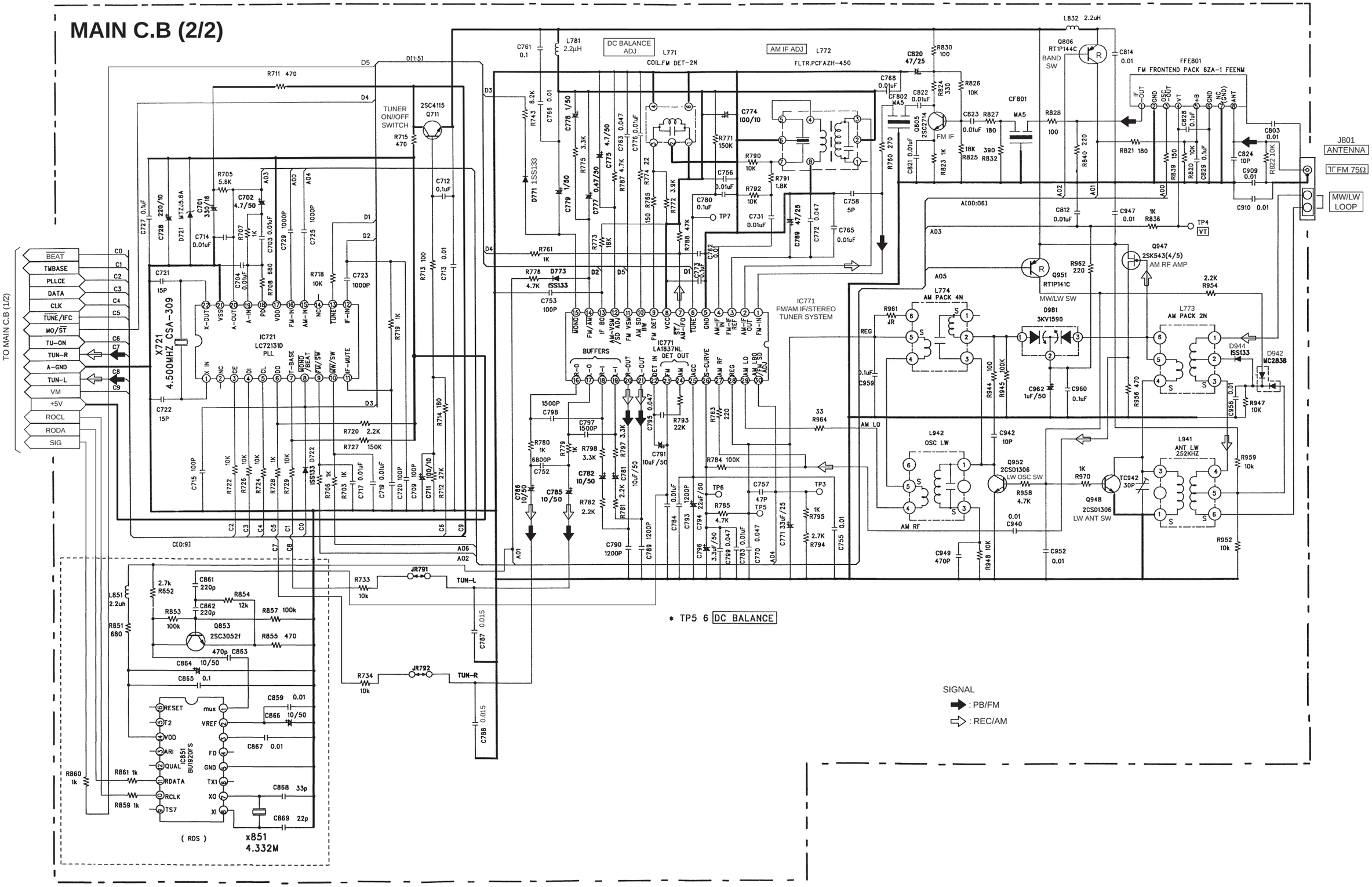
IC, BU1920FS



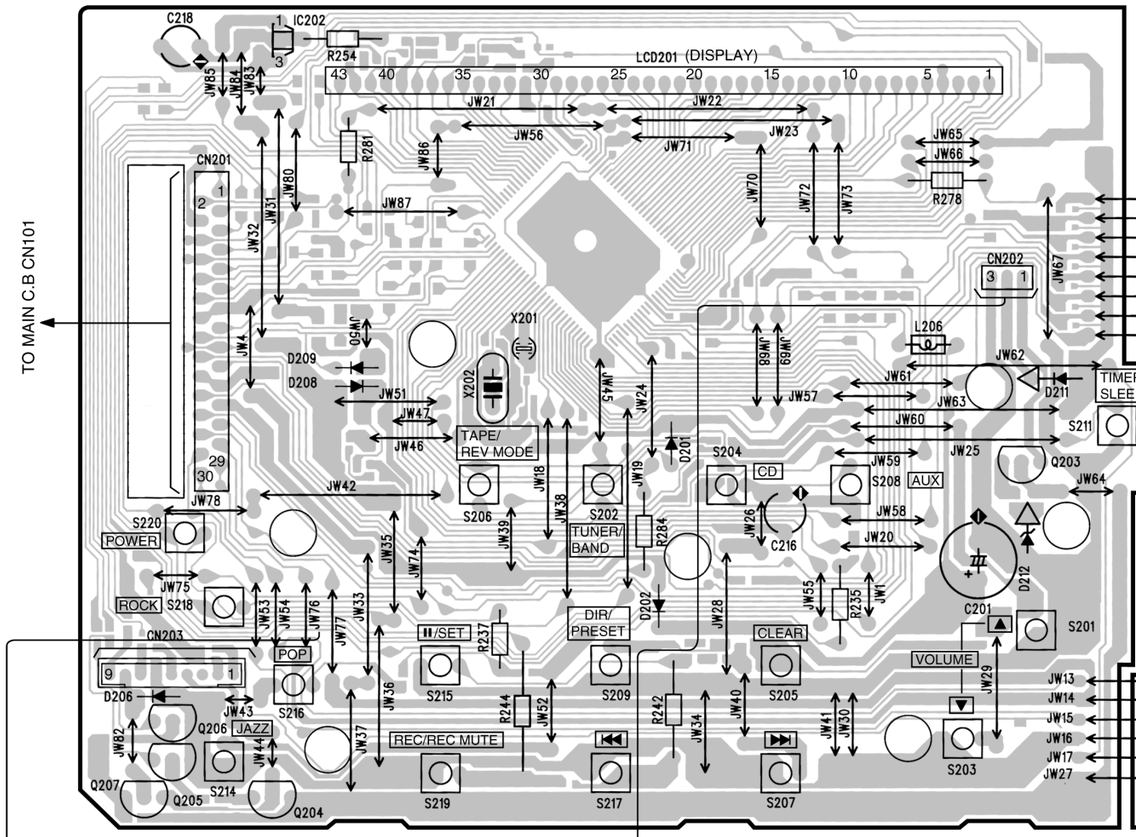
MAIN C.B (2/2)


TO MAIN C.B (1/2)
TM-BASE
PLL-CC
DATA
CLK
TUNE/IFC
MO/ST
TU-ON
TUN-R
A-GND
TUN-L
VM
+5V
C0
C1
C2
C3
C4
C5
C6
C7
C8
IC721
LC72131D
PLL
X721
4.500MHZ CSA-309
IC771
LA1837NL
FM/AM IF/STEREO
TUNER SYSTEM
DC BALANCE ADJ
AM IF ADJ
L771
COIL,FM DET-2N
L772
FLTR,PCFAZH-450
Q806
RT1P144C
BAND SW
FFE801
FM FRONTEND
PACK 8ZA-1 FEUNC
Q805
2SC2714
IF AMP
CF801
CF802
TUNER
ON/OFF
SWITCH
Q711
2SD1858
L774
AM PACK 4N
L773
AM PACK 4N
AM TRACKING
ADJ
D981
3KV1590
J801
FM
IF FM 75Ω
ANTENNA
AM LOOP
AM
TP3
TP4
TP5
TP6
TP7
JR791
JR792
TUN-L
TUN-R
AM RF
S-CURVE
SIGNAL
: PB/FM
: REC/AM
N M : NO MOUNTED

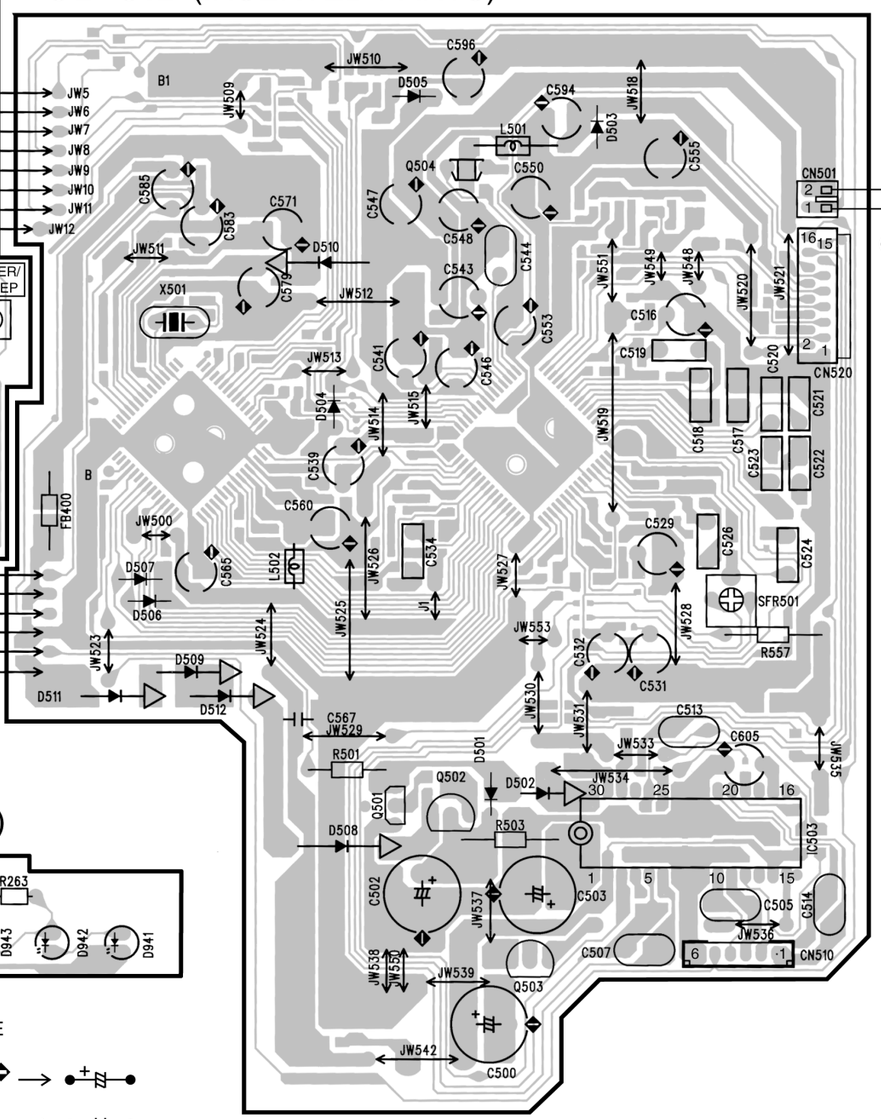
MAIN C.B (2/2)


TO MAIN C.B (1/2)
BEAT
TMBASE
PLLCE
DATA
CLK
TUNE/IFC
MO/ST
TU-ON
TUN-R
A-GND
TUN-L
VM
+5V
ROCL
RODA
SIG
TUNER ON/OFF SWITCH
2SC4115 Q711
DC BALANCE ADJ
L771 COIL.FM DET-2N
AM IF ADJ
L772 FLTR.PCFAZH-450
L832 2.2uH
Q806 RT1P144C BAND SW
FFE801 FM FRONTEND PACK 6ZA-1 FEENM
J801 ANTENNA
FM 75Ω
MW/LW LOOP
FM IF
IC771 FM/AM IF/STEREO TUNER SYSTEM
IC721 LC72131D PLL
X721 4.500MHZ CSA-309
IC771 LA1837NL DET OUT
BUFFERS
IC851 BU1920FS
(RDS)
x851 4.332M
Q947 2SK543(4/5) AM RF AMP
Q951 RT1P141C MW/LW SW
L774 AM PACK 4N
L773 AM PACK 2N
D981 3KV1590
D944 1SS133
D942 MC2838
L942 OSC LW
Q952 2CSD1306 LW OSC SW
Q948 2CSD1306 LW ANT SW
L941 ANT LW 252KHZ
TC942 30P
AM LO
AM RF
JR791
JR792
TUN-L
TUN-R
* TP5 6 DC BALANCE
SIGNAL
: PB/FM
: REC/AM

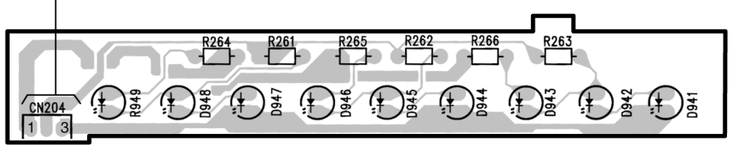
FRONT C.B (INSERTED PARTS)



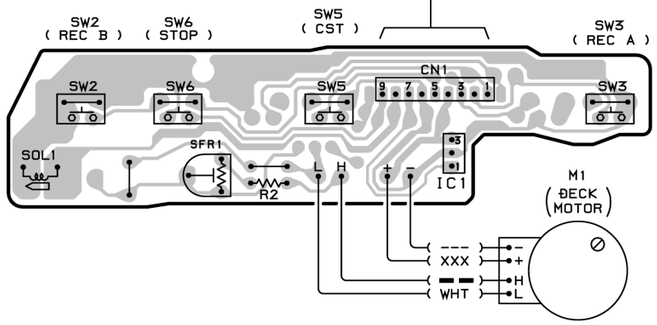
CD C.B (INSERTED PARTS)



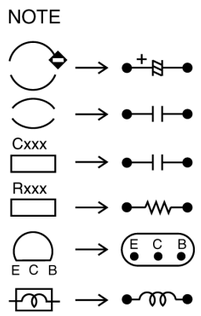
LED C.B (INSERTED PARTS)



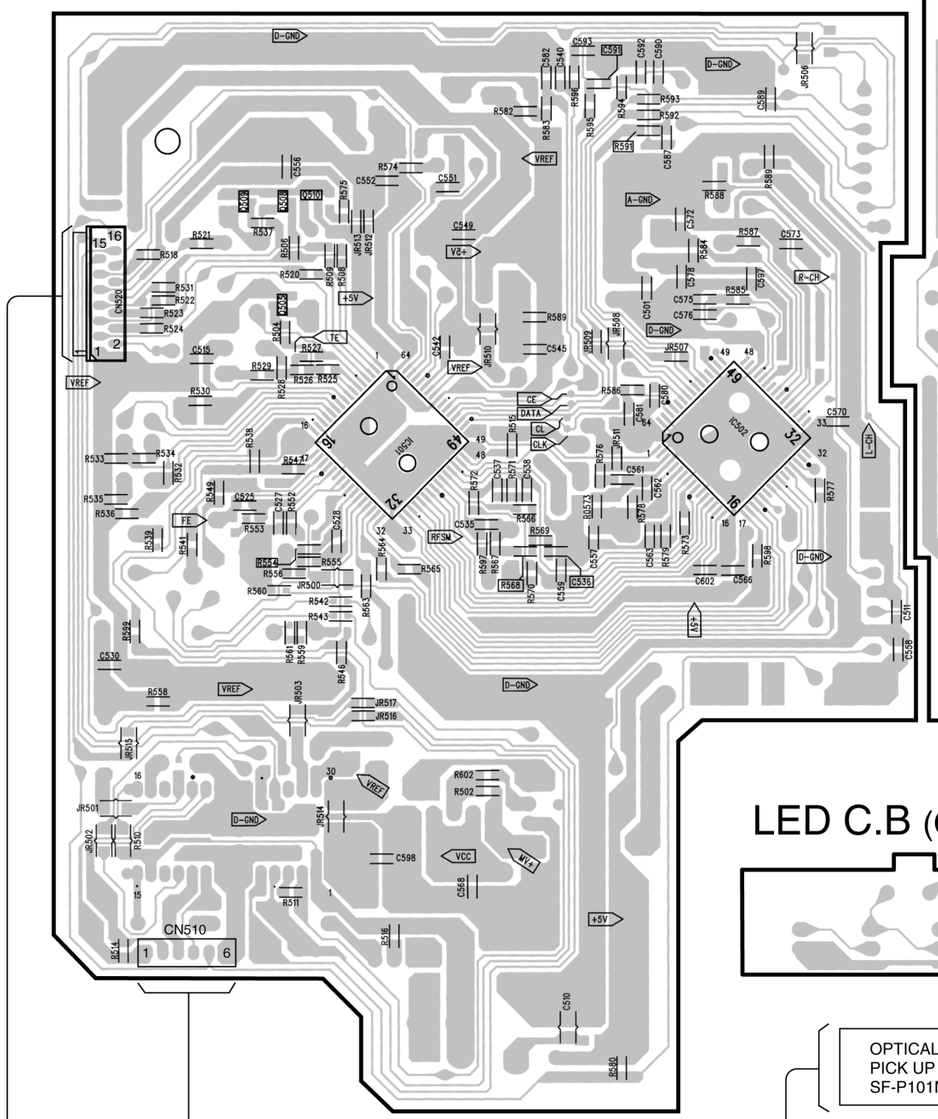
DECK C.B



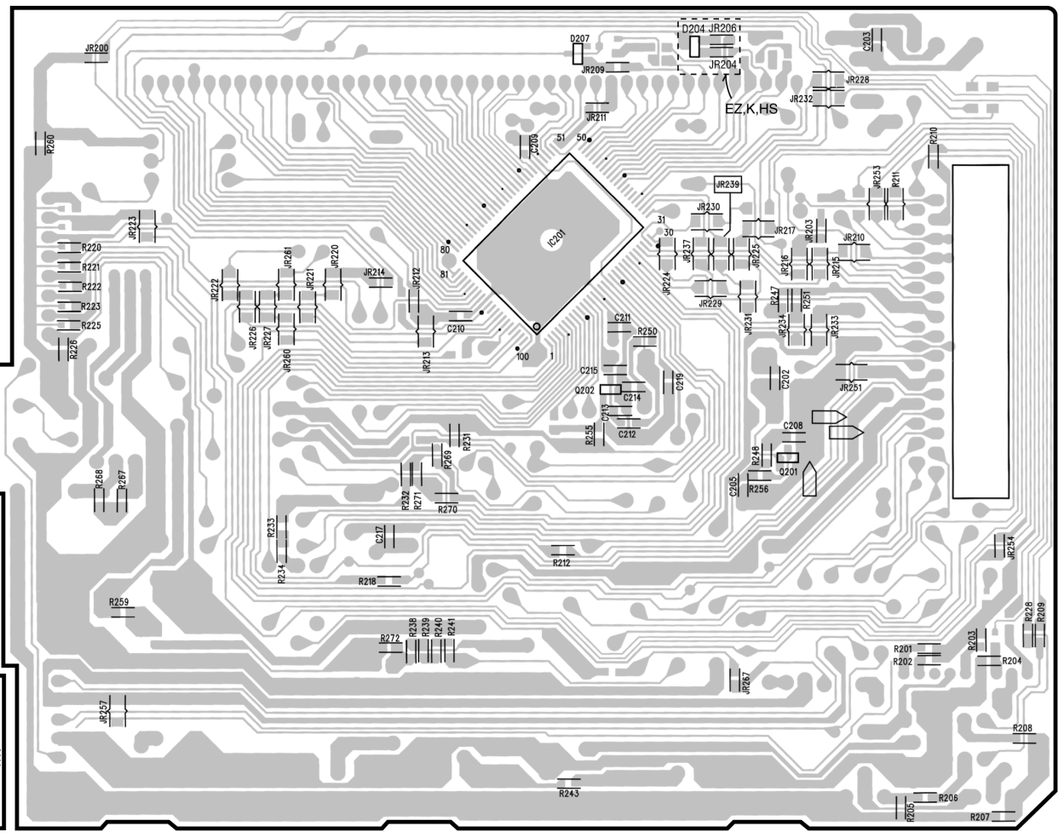
NOTE



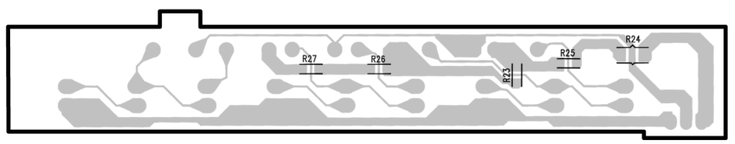
CD C.B (CHIP PARTS)



FRONT C.B (CHIP PARTS)

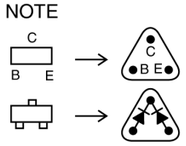


LED C.B (CHIP PARTS)

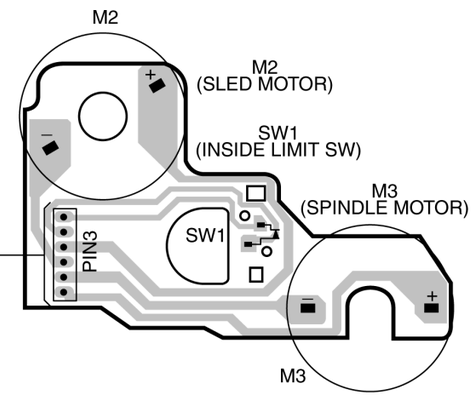


OPTICAL
PICK UP
SF-P101NR

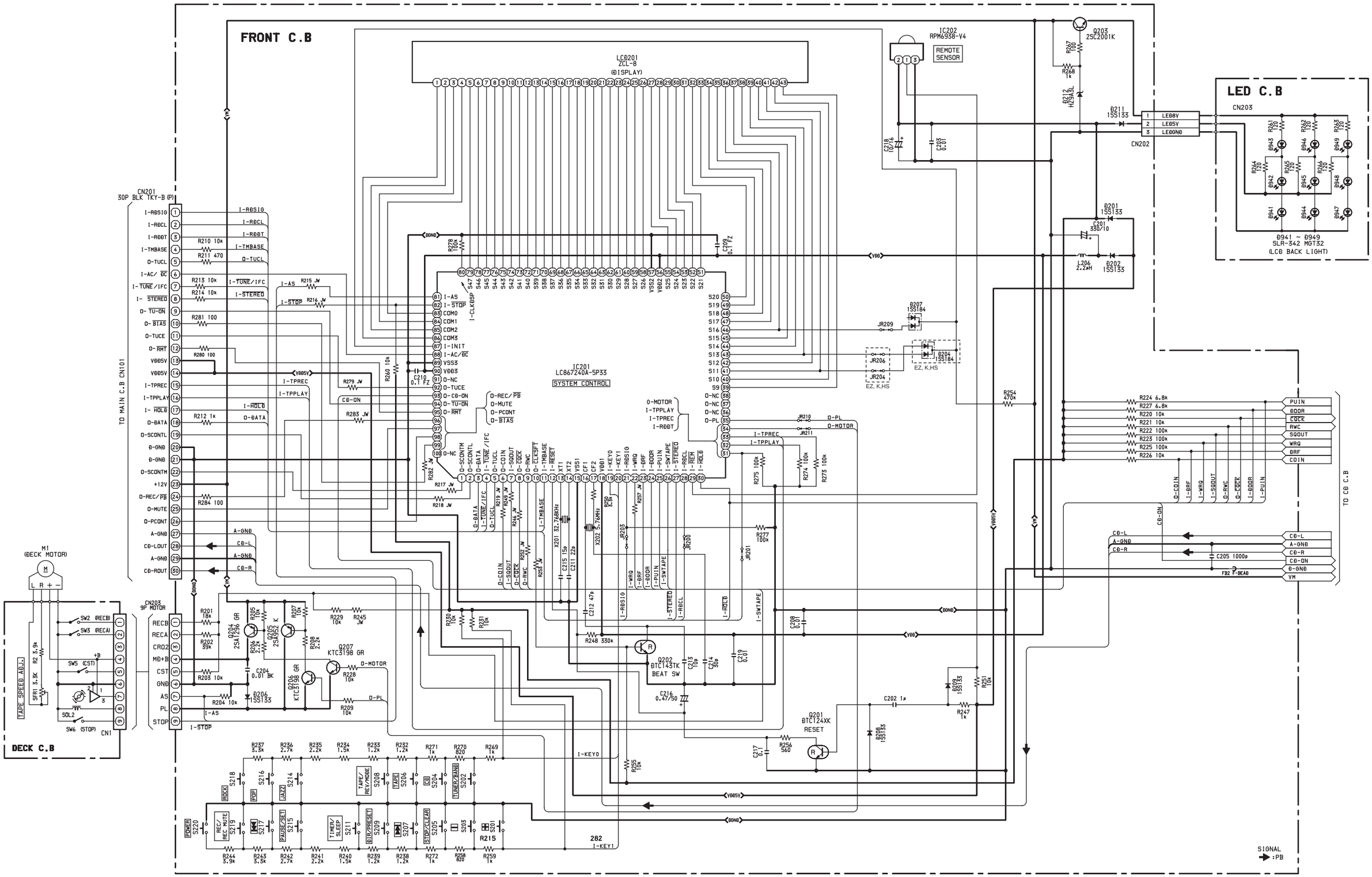
NOTE



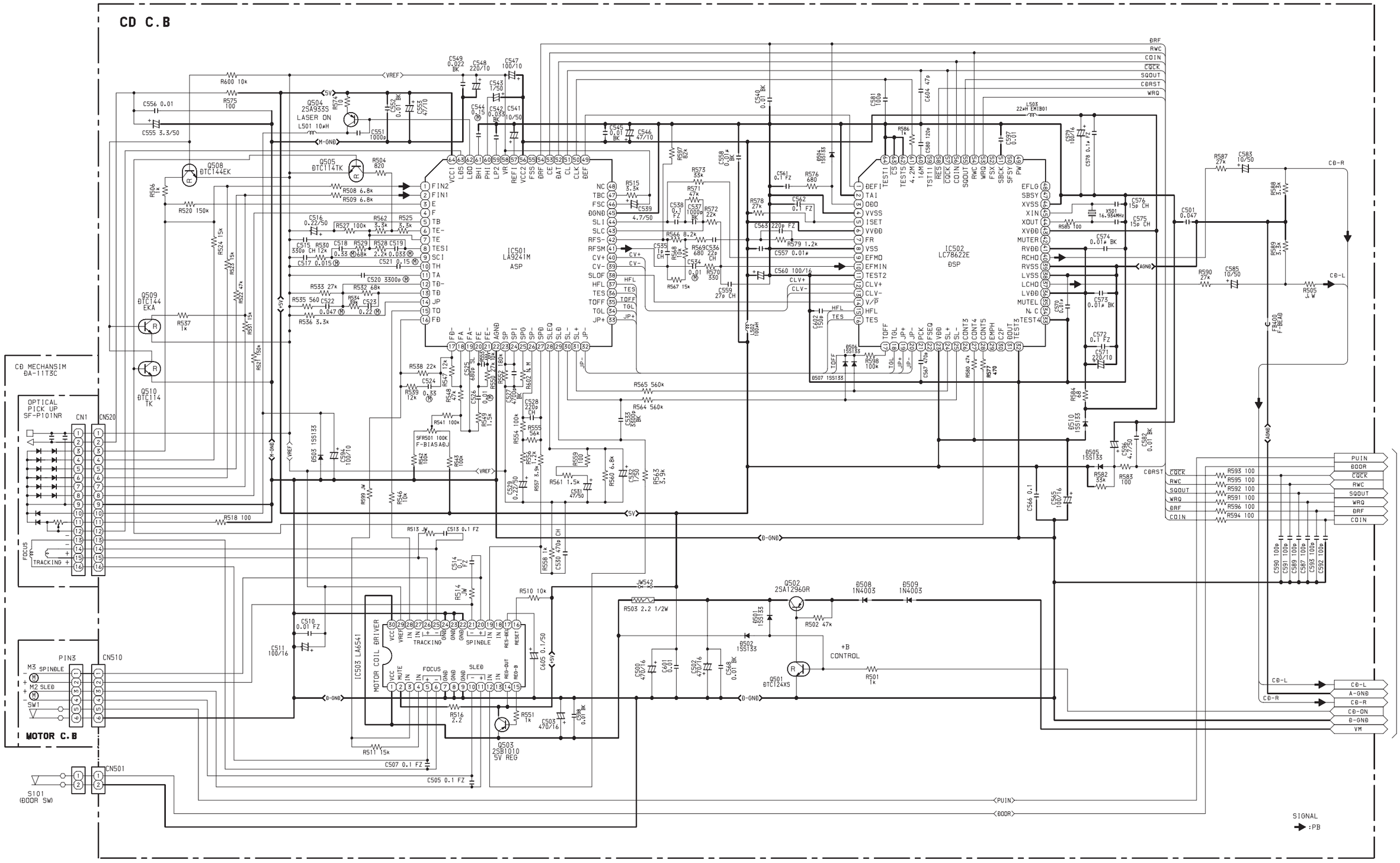
MOTOR C.B



SCHEMATIC DIAGRAM-4 (FRONT)



SCHEMATIC DIAGRAM-5 (CD)



VOLTAGE CHART

IC101 TDA2007A (V)

PIN	1	2	3	4	5	6	7	8	9
TU	1.4	0.7	11	0.74	1.4	GN	9.9	20.4	9.9
CD	1.4	0.7	11	0.72	1.4	GN	9.9	20.4	9.9

IC102 M62495AFP (V)

PIN	1	2	3	4	5	6	7	8	9	10	11	12
TU	2.4	2.4	2.4	2.39	NC	2.4	2.4	2.39	2.4	2	2.4	5.34
TAPE	2.4	2.4	2.4	2.38	NC	2.4	2.4	2.38	2.4	2	2.4	5.33
CD	2.4	2.4	2.4	2.35	NC	2.4	2.4	2.35	2.4	2	2.4	5.29
PIN	13	14	15	16	17	18	19	20	21	22	23	24
TU	2.5	GND	2.4	2.42	2.4	2.4	2.4	NC	2.4	2	2.4	2.4
TAPE	2.5	GND	2.4	2.4	2.4	2.4	2.4	NC	2.4	2	2.4	2.4
CD	2.5	GND	2.4	2.4	2.4	2.4	2.4	NC	2.4	2	2.4	2.4

IC301 BA4560 (V)

PIN	1	2	3	4	5	6	7	8
TAPE	4.2	4.5	4.2	GND	4.2	4.2	4.2	8.69
REC	4.2	4.2	4.1	GND	4.1	4.2	4.2	8.68

IC302 BA4560 (V)

PIN	1	2	3	4	5	6	7	8
TAPE	4.2	4.5	4.2	GND	4.2	4.2	4.2	8.69
REC	4.2	4.2	4.1	GND	4.1	4.2	4.2	8.68

IC721 LC72131D PLL (V)

PIN	1	2	3	4	5	6	7	8	9	10	11
FM	2.7	0	2.5	0.96	1	5.5	2	0	0.8	0	0
MW	2.7	0	0	0	0	5.5	2	0	9.1	0	0
LW	2.7	0	0	0	0	5.5	2	0	9.3	9	0
PIN	12	13	14	15	16	17	18	19	20	21	22
FM	0	9.1	NC	7.7	2.1	0	0	0	0	0	2.7
MW	0	9.2	NC	2.7	0	5.5	0.9	0.91	4.3	0	2.7
LW	0	9.3	NC	2.71	0	5.5	0.9	0.99	1.3	0	2.7

IC851 BU1920FS RDS (V) (HS, K, EZ MODELS)

PIN	1	2	3	4	5	6	7	8
FM(RDS)	0.4	0.6	0.4	0	0.9	6.7	0.9	0.62
PIN	9	10	11	12	13	14	15	16
FM(RDS)	0.7	0.9	0.9	0.83	0	0.4	0.9	0.89

IC771 LA1837NL (V)

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
FM	3.6	9.1	3.6	3.56	GN	0	0	9.09	9.1	1	2.5	0	0.5	8	8
MW	3.6	9.3	3.5	3.54	GN	9.2	5.5	9.31	9.3	1	0	0	0.5	5	5.6
LW	3.6	9.4	3.6	3.54	GN	9.3	5.5	9.43	9.4	1	0	0.79	0.5	5.1	5.7
PIN	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
FM	4.3	4.3	4.3	4.29	3.4	3.4	2.8	3.54	0	0	3.6	3.6	3.6	3.6	2.2
MW	4.3	4.3	4.3	4.27	3.4	3.4	2.8	2.7	0.7	1	3.6	3.54	3.6	3.6	2
LW	4.3	4.3	4.3	4.28	3.4	3.4	2.8	2.58	0.9	1	3.6	3.54	3.6	3.6	2

FM FFE801 (V)

PIN	1	2	3	4	5	6	7	8
FM	0	GND	0	2.47	7.1	GN	0	0
MW	0	GND	0	4.34	0	GN	0	0

IC501 LA9241M CD (V)

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
dynamics	2.5	2.5	2.6	2.55	2.5	2.5	2.5	2.54	2.5	3	2.5	2.52	2.6	2.5	2.6
stafics	2.5	2.5	2.5	2.52	2.5	2.5	2.5	2.51	2.5	2	2.5	2.51	2.5	2.5	2.5
PIN	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
dynamics	2.6	2.5	2.5	2.54	2.6	2.5	GN	2.51	2.5	3	2.5	2.6	2.5	2.6	2.4
stafics	2.5	2.5	0	2.49	2.5	2.5	GN	0	0	3	2.5	2.51	2.5	2.5	2.3
PIN	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
dynamics	2.4	0	0	4.99	0	1.2	0	0	0	0	2.3	2.43	2.6	2.5	GN
stafics	2.3	0	0	4.94	4.8	0	0	4.92	0	0	1.6	2.4	2.6	2.5	GN
PIN	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
dynamics	2.5	2.6	NC	0	2.4	4.7	4.8	0	4.9	NC	5	2.53	2.5	2.3	2.4
stafics	2.5	2.5	NC	0	0	0	4.8	0	0	NC	0	2.51	2.5	1	1
PIN	61	62	63	64											
dynamics	2.2	3.6	0	0											
stafics	2.2	4.3	0	0											

IC502 LC78622E CD (V)

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
dynamics	0	0	1.5	0	2	4.9	0.3	0	2.7	3	0	0	0	0	0
stafics	0	0	0	0	2	4.9	0	0	2.5	3	0	0	0	4.9	0
PIN	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
dynamics	1.8	0	5	0	0	2.5	NC	4.19	0	0	NC	4.98	0	NC	NC
stafics	0	4.9	4.9	0	0	2.5	NC	4.95	0	0	NC	4.93	0	NC	NC
PIN	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
dynamics	2.5	0	0	NC	NC	4.9	2.1	0	0	2	4.9	NC	5	2	2.5
stafics	0	0	0	NC	NC	4.8	2.1	0	0	2	4.8	NC	5	2	2.2
PIN	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
dynamics	0	NC	NC	NC	NC	0	NC	0.75	0	0	4.8	4.6	5	NC	2
stafics	0	NC	NC	NC	NC	0	NC	0	0	0	4.8	4.77	5	NC	2
PIN	61	62	63	64											
dynamics	2.4	0	0	0											
stafics	235	0	0	0											

IC503 LA6541 CD (V)

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
dynamics	9.9	5	2.5	2.52	4.6	4.5	GN	GN	GN	5	4.6	2.52	NC	5	9.3
stafics	10	5	2.5	2.51	4.7	4.7	GN	GN	GN	5	4.7	2.51	NC	5	9.5
PIN	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
dynamics	5	4.9	NC	2.53	4.9	4	GN	GN	GN	5	4.5	NC	2.5	2.5	9.8
stafics	4.9	4.8	NC	2.51	4.7	4.6	GN	GN	GN	5	4.7	NC	2.5	2.5	10

IC201 LA867240A-5P33 CPU (V)

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
TU	0	0	0	0	0	0	0.8	0	0	0	1.9	4.67	1.8	2.6	0
TAPE	0	0	0	0	0	0	0	0	0	2	1.9	4.6	1.6	2.7	0
CD	0	0	0	0	0	4.8	0	4.65	0	2	1.9	4.63	1.6	2.6	0
PIN	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
TU	2.2	2.3	4.8	4.91	4.9	2.4	0.8	0.96	4.9	0	4.9	0	0.6	4.9	5.3
TAPE	2.3	2.3	4.8	4.91	4.9	0	0.8	0.96	4.9	1	1.8	0	0	4.9	5.3
CD	2.2	2.3	4.8	4.88	4.9	0	0.8	0.91	4.9	2	2.4	0	0	4.9	5.3
PIN	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
TU	0.5	0	0	0	0	0	0	2.5	2.4	2	2.4	2.49	2.4	2.5	2.5
TAPE	0	0	0	4.73	0	0	0	2.46	2.5	2	2.4	2.46	2.4	2.4	2.4
CD	0	0	0	0	0	0	0	2.34	2.3	2	2.3	2.33	2.3	2.3	2.3
PIN	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
TU	2.4	2.5	2.5	2.49	2.5	2.5	2.5	2.5	2.5	2	4.8	0	2.4	2.4	2.4
TAPE	2.4	2.4	2.4	2.43	2.4	2.4	1.7	1.9	2.5	2	4.8	0	2.4	2.4	2.4
CD	2.3	2.3	2.3	2.32	2.4	2.5	2.3	2.33	2.3	2	4.8	0	2.3	2.3	2.3
PIN	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
TU	2.5	2.5	2.5	2.47	2.4	2.4	2.4	2.4	2.4	2	2.5	2.47	2.4	2.5	2.5
TAPE	2.5	2.4	2.4	2.43	2.4	2.4	2.5	2.42	2.4	2	2.4	2.43	2.4	2.5	2.5
CD	2.3	2.4	2.3	2.34	2.4	2.4	2.3	2.34	2.4	2	2.3	2.35	2.4	2.3	2.3
PIN	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
TU	2.5	2.5	2.5	2.48	0	0	4.9	2.48	2.5	2	2.5	2.94	5.3	0	4.8
TAPE	2.5	2.5	2.5	2.46	0	0	0	2.45	2.5	2	2.5	3.54	5.3	0	4.8
CD	2.4	2.4	2.4	2.36	0	0	4.8	2.4	2.4	2	2.4	2.05	5.3	0	4.8
PIN	91	92	93	94	95	96	97	98	99	100					
TU	0	0	0	0	0	0	0	0.98	4.8	0					
TAPE	0	0	0	4.75	0	0	0	0.99	4.7	0					
CD	0	0	4.7	4.72	0	0	0	1.12	4.7	0					

Q101	KTC3198GR			Q102	KTC3198GR			Q103	2SB1370			Q105	KTC3198GR		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
dynamics	0.7	0	0	dynamics	0	0	5.3	dynamics	21	21	12	dynamics	0.7	0	20
stafics(v)	0.7	0	0	stafics(v)	0	0	5.3	stafics(v)	21	21	12	stafics(v)	0.6	0	20

Q106	KTC3198GR			Q107	KTC3198GR			Q108	2SD1381F			Q104	2SB1370E		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
dynamics	0.7	0	1	TAPE	12	11	12	TU (V)	6.2	6	16	dynamics	21	21	21
stafics(v)	0.7	0	91	CD (V)	12	12	11	CD (V)	6.2	6	16	stafics(v)	21	21	22

Q112	KTA1266GR			Q113	DTC144ES			Q109	DTC343TS			Q110	DTC343TS		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
dynamics	20	21	21	dynamics	7.1	0	0	dynamics	0	0	0	dynamics	0	0	0
stafics(v)	20	21	22	stafics(v)	7.1	0	0	stafics(v)	1.4	0	0	stafics(v)	1.4	0	0

Q111	2SC1815Y			Q300	KTC3198GR			Q301	2SJ460			Q302	2SJ460		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
TU (V)	0	0	10	PB(V)	0	0	7.2	PB(V)	7	4	4.2	PB(V)	7	4.2	4
CD (V)	0.7	0	0	REC(V)	0.7	0	0	REC(V)	0	4	4.1	REC(V)	0	4.1	4.1

Q303	2SK2541			Q304	2SK2541			Q305	2SJ460			Q306	DTC144ES		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
PB(V)	7	4.2	4.2	PB(V)	7	4.2	4.2	PB(V)	3.5	4	4.2	PB(V)	7.2	0	0
REC(V)	0	4.2	4.1	REC(V)	0	4.2	4.1	REC(V)	17	9	4.2	REC(V)	0	0	16

Q307	2SJ460			Q308	2SJ460			Q309	2SA1993			Q310	2SA1993F		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
PB(V)	3.6	4.2	4.2	PB(V)	3.6	4.2	4.2	PB(V)	7.2	4	4.2	PB(V)	7.2	4.2	4.2
REC(V)	17	4.5	9.2	REC(V)	17	4.5	9.2	REC(V)	4.2	4	4.2	REC(V)	4.2	3.6	4.2

Q311	2SA1993F			Q313	KTC1898GR			Q314	2SC3331T			Q315	2SC3331T		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
PB(V)	8.7	4.2	4.2	PB(V)	0.5	4.2	0	PB(V)	0	0	0	PB(V)	0	0	0
REC(V)	3.6	4.2	4.2	REC(V)	2.3	4.2	1.7	REC(V)	0.7	1	6.2	REC(V)	0.8	0.7	6.3

Q316	2SC3331T			Q317	KTC1898GR			Q318	KTC3198GR			Q204	2SA1296GR		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
PB(V)	0	0	11	PB(V)	0.7	0	0	PB(V)	0	0	8.7	PB(V)	11	12	12
REC(V)	7.4	6.6	8.5	REC(V)	0	0	7.5	REC(V)	0.7	0	0	REC(V)	11	12	12

Q205	2SA952K			Q206	KTC3198GR			Q207	KTC3198GR			Q201	DTC124XK		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
PB(V)	0	12	12	PB(V)	0	0	12	PB(V)	0.7	0	0	CD(V)	0	0	4.7
REC(V)	12	12	0	REC(V)	0	0	12	REC(V)	0.7	0	0	TU(V)	0	0	4.7

Q202	DTC143TK			Q203	2SC2001K			Q711	C4115			Q853	2SC3052		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
CD(V)	2	0	0	CD(V)	8.4	7.7	12	CD(V)	0	0	12	RDS(V)	1.5	0.9	3.8
TU(V)	0	0	0.5	TU(V)	8.4	7.7	12	TU(V)	9.8	9	12				

HS, K, EZ

Q805	2SC2714			Q806	RTIP144C			Q951	RTIP141C			Q947	2SK543		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
FM(V)	5.2	4.5	7.2	FM(V)	0.8	9.1	9	FM(V)	9.1	9	0	FM(V)	0	9.1	0.4
AM(V)	5.4	4.2	7.3	AM(V)	0	9.3	0	AM(V)	0.8	9	9.3	AM(V)	0	9.3	0.4

HS, K, EZ

Q952	2SD1306			Q948	2SD1306			Q501	DTC124XS			Q502	2SA1296GR		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
MW(V)	1.9	1.2	1.2	MW(V)	1.9	1.1	1.1	dynamics	4.5	0	0.2	dynamics	9.6	10	10
LW(V)	0	1.1	1.1	LW(V)	0	1.1	1.1	stafics(v)	4.5	0	0.2	stafics(v)	9.5	10	10

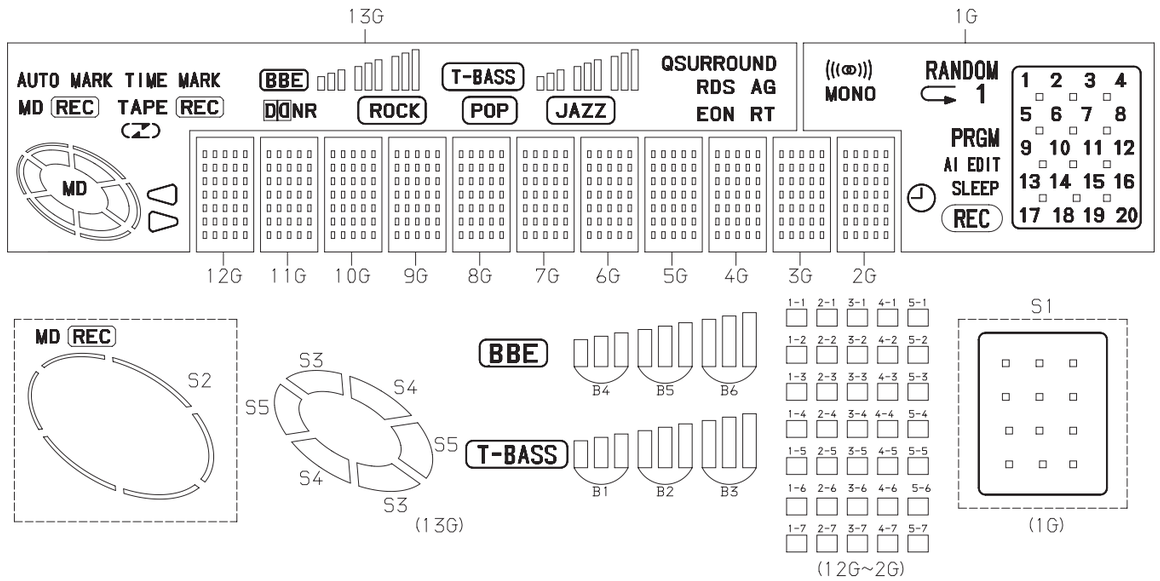
HS, K, EZ

Q503	2SA1296GR			Q504	2SA933RS			Q505	DTC114TK			Q508	DTC144EK		
PIN	B	E	C	PIN	B	E	C	PIN	B	E	C	PIN	B	E	C
dynamics	9.8	10	5	dynamics	4.2	4.8	1.6	dynamics	0.1	2	2.5	dynamics	4.3	2.5	2.5
stafics(v)	9.7	10	5.2	stafics(v)	3.7	4.4	2.1	stafics(v)	0.1	3	2.5	stafics(v)	4.4	2.5	2.5

Q509	DTC144EK			Q510	DTC114TK		
PIN	B	E	C	PIN	B	E	C
dynamics	4.3	2.5	2.5	dynamics	0.1	0	4.3
stafics(v)	4.4	2.5	2.5	stafics(v)	0.1	0	4.4

FL (13-ST-36GNAK) GRID ASSIGNMENT/ANODE CONNECTION

GRID ASSIGNMENT

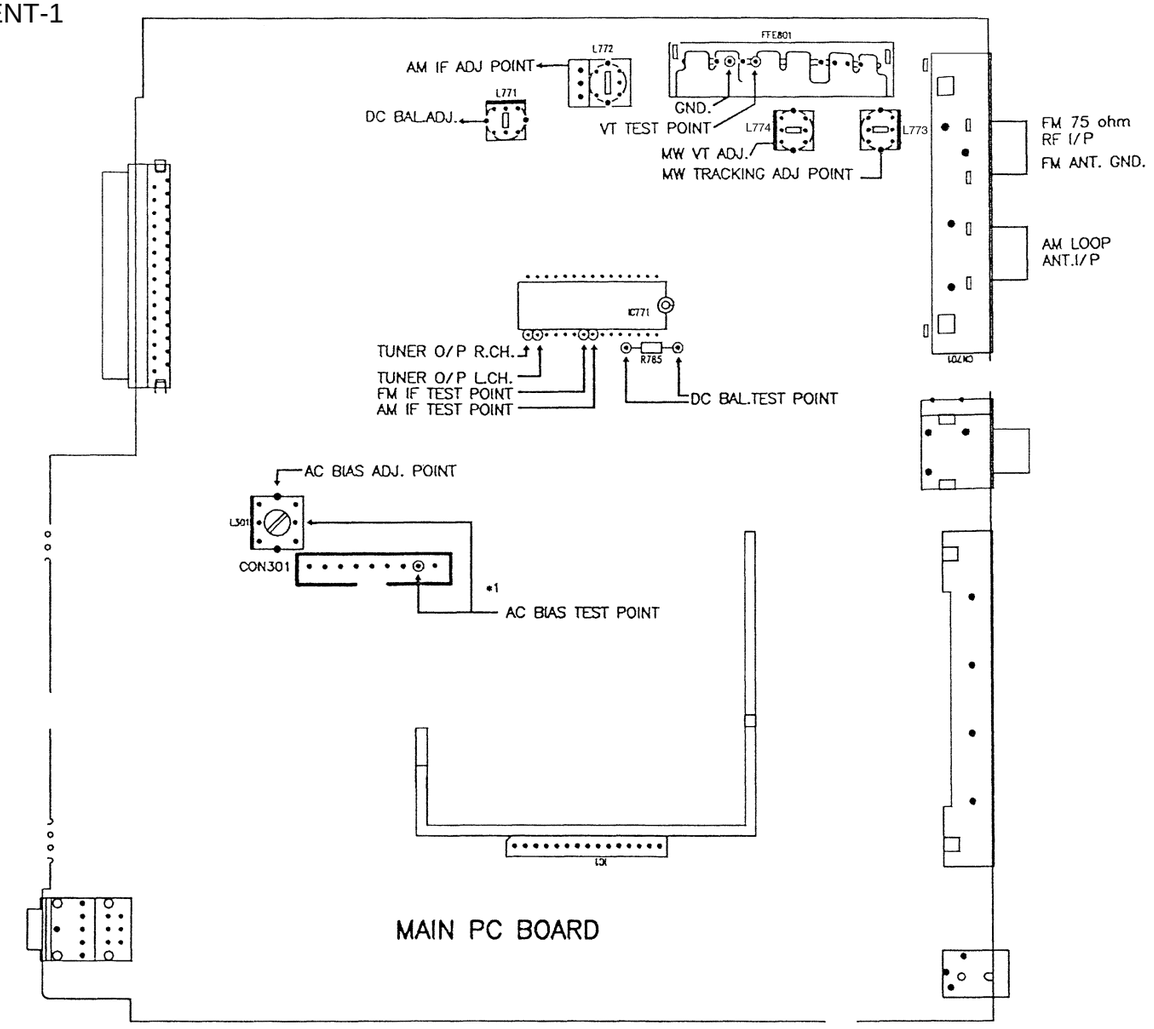


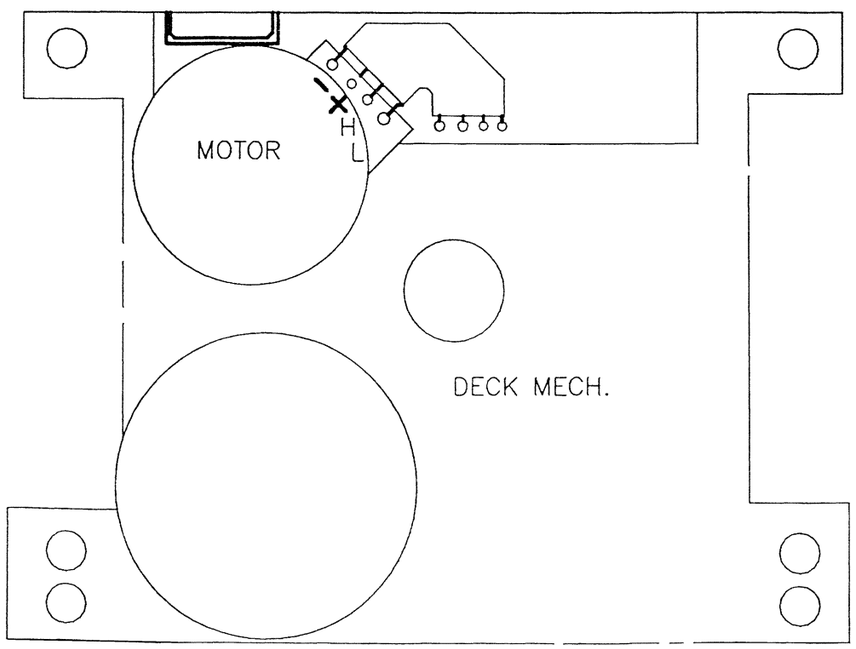
ANODE CONNECTION

	13G	12G~2G	1G
P1	JAZZ	1-1	1
P2	POP	2-1	↪
P3	ROCK	3-1	MONO
P4	DOLBY NR	4-1	RANDOM
P5	RT	5-1	((∞))
P6	EON	1-2	PRGM
P7	AG	2-2	AI
P8	RDS	3-2	EDIT
P9	B1	4-2	SLEEP
P10	B2	5-2	🕘
P11	B3	1-3	REC
P12	T-BASS	2-3	(CALENDAR) 1
P13	B4	3-3	2
P14	B5	4-3	3
P15	B6	5-3	4
P16	BBE	1-4	5
P17	◁	2-4	6
P18	▷	3-4	7

	13G	12G~2G	1G
P19	☽	4-4	8
P20	☄	5-4	9
P21	☾	1-5	10
P22	TAPE REC	2-5	11
P23	S2	3-5	12
P24	S3	4-5	13
P25	S4	5-5	14
P26	S5	1-6	15
P27	MD	2-6	16
P28	TIME MARK	3-6	17
P29	AUTO MARK	4-6	18
P30	QSURROUND	5-6	19
P31	-	1-7	20
P32	-	2-7	S1
P33	-	3-7	-
P34	-	4-7	-
P35	-	5-7	-

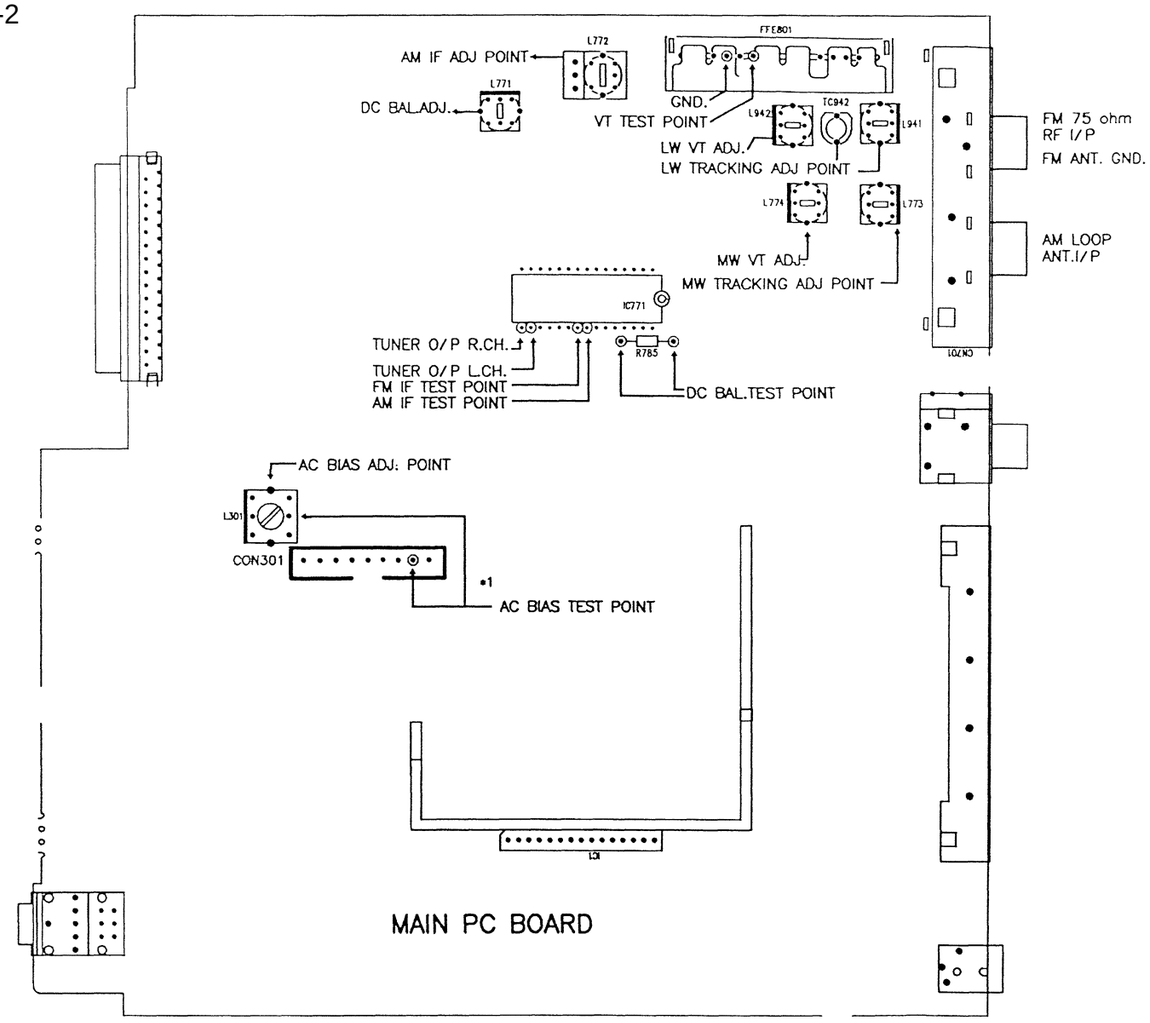
ELECTRICAL ADJUSTMENT-1
(HR MODEL)

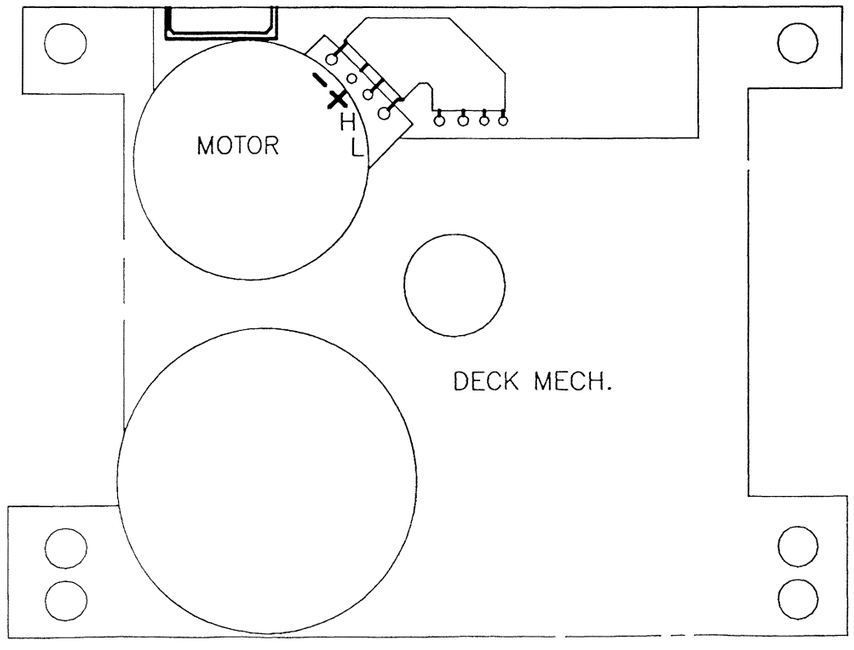




ADJASTMENT ITEM	ADJ. POINT	TEST POINT	SET FREQ.	SETTING
MW VT ADJ.	L774	FFE801 4PIN TO GND.	1602KHz OR 1710KHz	6.5V+/-0.1V
MW VT CHECK	-	FFE801 4PIN TO GND.	531KHz OR 530KHz	<= 2.0V
MW TRACKING ADJ.	L773	TUNER O/P L/R	999KHz OR 1000KHz	MAX.Output Sine Wave(Min.Dist.)
FM VT ADJ.	-	FFE801 4PIN TO GND.	108 MHz	<= 8V
FM VT CHECK	-	FFE801 4PIN TO GND.	87.5MHz	<= 2.5V
DC BAL. ADJ.	L771	Both Terminal OF R785	98 MHz	0 mv (+/- 20 mv)
FM IF CHECK	-	IC771 PIN 22	10.7 MHz	-
AM IF ADJ.	L772	IC771 PIN 24	450 KHz	-
REC. BAIAS FREQ ADJ:	-	*1	-	80KHz +/- 3KHz (With R/P HEAD)
REC.BIAS LEVEL ONLY CHECK	L301	*1	-	(With R/P HEAD)
BEAT CUT ST / ON MONO/OFF	TEST ONLY	*1	FM 98MHz Deck REC.	4 KHz +/- 1 KHz
TAPE SPEED	MOTOR	SPEAKER OUTPUT	-	3000Hz +3/-2%
DECK R/P HEAD ADJ.	R/P HEAD	SPEAKER OUTPUT	8 KHz TEST TAPE	-

ELECTRICAL ADJUSTMENT-2
(HS, K, EZ MODELS)





ADJASTMENT ITEM	ADJ. POINT	TEST POINT	SET FREQ.	SETTING
MW VT ADJ.	L774	FFE801 4PIN TO GND.	1602KHz	5.5V+/-0.1V
MW VT CHECK	-	FFE801 4PIN TO GND.	531KHz OR 530KHz	<= 2.0V
MW TRACKING ADJ.	L773	TUNER O/P L/R	1000 KHz	MAX.Output Sine Wave(Min.Dist.)
LW VT ADJ.	L942	FFE801 4PIN TO GND.	290KHz	5.0V+/-0.1V
LW VT CHECK	TEST ONLY	FFE801 4PIN TO GND.	144KHz	<= 2.5V
LW TRACKING ADJ.	TC942	TUNER O/P L/R	290KHz	MAX.Output Sine Wave(Min.Dist.)
	L941	TUNER O/P L/R	144KHz	
FM VT ADJ.	-	FFE801 4PIN TO GND.	108 MHz	<= 8V
FM VT CHECK	-	FFE801 4PIN TO GND.	87.5MHz	<= 2.5V
DC BAL. ADJ.	L771	Both Terminal OF R785	98 MHz	0 mv (+/- 20 mv)
FM IF CHECK	-	IC771 PIN 22	10.7 MHz	-
AM IF ADJ.	L772	IC771 PIN 24	450 KHz	-
REC. BAIAS FREQ ADJ.	-	*1	-	80KHz +/- 3KHz (With R/P HEAD)
REC.BIAS LEVEL ONLY CHECK	L301	*1	-	(With R/P HEAD)
BEAT CUT ST / ON MONO/OFF	TEST ONLY	*1	FM 98MHz Deck REC.	4 KHz +/- 1 KHz
TAPE SPEED	MOTOR	SPEAKER OUTPUT	-	3000Hz +3/-2%
DECK R/P HEAD ADJ.	R/P HEAD	SPEAKER OUTPUT	8 KHz TEST TAPE	-

IC DESCRIPTION

IC, LC867240A-5P33

Pin No.	Pin Name	I/O	Description
1	O-SCONTM	O	M62439SP control. open drain output.
2	O-SCONTL	O	
3	O-DATA	O	Tuner control. CMOS output.
4	I-$\overline{\text{TUNE}}$/IFC	I	Tuner control.
5	O-TUCL	O	Tuner control. CMOS output.
6	O-COIN	O	CD control. open drain output.
7	I-SQOUT	I	CD control.
8	O-$\overline{\text{CQCK}}$	O	CD control. open drain output.
9	O-RWC	O	
10	O-$\overline{\text{CLKSFT}}$	O	Clock shift output. “L” during shift. open drain output.
11	I-TMBASE	I	8 Hz time base input.
12	I-$\overline{\text{RESET}}$	I	Reset input.
13	XT1	I	Input pin.
14	XT2	O	Output pin for 32.768kHz crystal oscillation.
15	VSS1	—	GND.
16, 17	CF1, CF2	I/O	Main clock input/output 5.76 MHz.
18	VDD1	—	+5V.
19	I-KEY0	I	KEY0 A/D input.
20	I-KEY1	I	KEY1 A/D input.
21	I-RDSIG	I	RDS signal level input. (A/D input)
22	I-WRQ	I	CD control.
23	I-DRF	I	
24	I-DOOR	I	CD door SW detection SW input. “L” at CLOSE.
25	I-PUIN	I	CD pick-up detection SW input. “L” at ON.
26	I-SWTAPE	I	Tape detection SW input. (A/D input)
27	I-$\overline{\text{STEREO}}$	I	Monaural/stereo indication selector input. “L” at stereo.
28	I-RDCL	I	RDS clock input.
29	I-$\overline{\text{REM}}$	I	Remote control input. (fall-down edge interrupt input)
30	I-$\overline{\text{HOLD}}$	I	Hold mode detection. “L” at hold mode.
31	I-RDDT	I	RDS data input.
32	I-TPREC	I	Tape REC detection input. “H” at REC.
33	I-TPPLAY	I	Tape PLAY detection input. “H” at PLAY.
34	O-MOTOR	O	Mechanism deck motor ON/OFF output. “H” at ON. CMOS output.
35	O-PL	O	Mechanism deck plunger solenoid ON/OFF output. “H” at ON. CMOS output .
36-38	O-NC	O	Not used.
39-55	S9-S25	O	LCD SEG terminal Initial setting output. (S10 to S16)
56	VDD2	—	+5V.
57	VSS2	—	GND.
58-79	S26-S47	O	LCD SEG terminal .
80	I-CLKDSP	I	Watch indication select input “L”: 12H. “H”: 24H.
81	I-AS	I	Auto stop. counter input .

Pin No.	Pin Name	I/O	Description
82	I-$\overline{\text{STOP}}$	I	Tape stop input.
83-86	COM0-COM3	O	LCD common output.
87	I-INIT	I	Initial setting input.
88	I-AC/$\overline{\text{DC}}$	O	Beat selector output. “H” during selection. CMOS output .
89	VSS3	—	GND.
90	VDD3	—	5V.
91	O-NC	O	Not used.
92	O-TUCE	O	Tuner chip enable output. CMOS output .
93	O-CD-ON	O	“H” output during CD function. CMOS output.
94	O-$\overline{\text{TU-ON}}$	O	“H” output during TU function. Open drain output.
95	O-$\overline{\text{RMT}}$	O	REC mute output. “H” during mute. Open drain output.
96	O-$\overline{\text{REC}}$/$\overline{\text{PB}}$	O	REC/PB select output. “H” during PB. Open drain output.
97	O-MUTE	O	Mute output. “H” during mute. Open drain output.
98	O-PCONT	O	Power control output. “H” at ON. CMOS output.
99	O-$\overline{\text{BIAS}}$	O	REC bias ON/OFF output. “H” at ON. Open drain output.
100	O-NC	O	Not used.

IC, LA9241ML

Pin No.	Pin Name	I/O	Description
1	FIN2	I	Pin to which external pickup photo diode is connected. RF signal is created by adding with the FIN1 pin signal. FE signal is created by subtracting from the FIN1 pin signal.
2	FIN1	I	Pin to which external pickup photo diode is connected.
3	E	I	Pin to which external pickup photo diode is connected. TE signal is created by subtracting from the F pin signal.
4	F	I	Pin to which external pickup photo diode is connected.
5	TB	I	DC component of the TE signal is input.
6	TE–	I	Pin to which external resistor setting the TE signal gain is connected between the TE pin.
7	TE	O	TE signal output pin.
8	TESI	I	TES “Track Error Sense” comparator input pin. TE signal is passed through a band-pass filter then input.
9	SCI	I	Shock detection signal input pin.
10	TH	I	Tracking gain time constant setting pin.
11	TA	O	TA amplifier output pin.
12	TD–	I	Pin to which external tracking phase compensation constants are connected between the TD and VR pins.
13	TD	I	Tracking phase compensation setting pin.
14	JP	I	Tracking jump signal (kick pulse) amplitude setting pin.
15	TO	O	Tracking control signal output pin.
16	FD	O	Focusing control signal output pin.
17	FD–	I	Pin to which external focusing phase compensation constants are connected between the FD and FA pins.
18	FA	I	Pin to which external focusing phase compensation constants are connected between the FD– and FA– pins.
19	FA–	I	Pin to which external focusing phase compensation constants are connected between the FA and FE pins.
20	FE	O	FE signal output pin.
21	FE–	I	Pin to which external FE signal gain setting resistor is connected between the FE pin.
22	AGND	—	Analog signal GND.
23	SP	—	Single ended output of the CV+ and CV– pin input signal.
24	SPI	I	Spindle amp input.
25	SPG	I	Pin to which external spindle gain setting resistor in 12 cm mode is connected.
26	SP–	I	Pin to which external spindle phase compensation constants are connected together with SPD pin.
27	SPD	O	Spindle control signal output pin.
28	SLEQ	I	Pin to which external sled phase compensation constants are connected.
29	SLD	O	Sled control signal output pin.
30, 31	SL–, SL+	I	Sled advance signal input pin from microprocessor.
32, 33	JP–, JP+	I	Tracking jump signal input pin from DSP.
34	TGL	I	Tracking gain control signal input from DSP. Low gain when TGL = H.
35	TOFF	I	Tracking off control signal input pin from DSP. Off when TOFF = H.

Pin No.	Pin Name	I/O	Description
36	TES	O	Pin from which TES signal is output to DSP.
37	HFL	O	“High Frequency Level” is used to judge whether the main beam position is on top of bit or on top of mirror.
38	SLOF	I	Sled servo off control input pin.
39, 40	CV–, CV+	I	CLV error signal input pin from DSP.
41	RFSM	O	RF output pin.
42	RFS–	I	RF gain setting and EFM signal 3T compensation constant setting pin together with RFSM pin.
43	SLC	O	“Slice Level Control” is the output pin which controls the RF signal data slice level by DSP.
44	SLI	I	Input pin which control the data slice level by the DSP.
45	DGND	—	Digital system GND.
46	FSC	O	Output pin to which external focus search smoothing capacitor is connected.
47	TBC	I	“Tracking Balance Control” EF balance variable range setting pin.
48	NC	—	No connection.
49	DEF	O	Disc defect detector output pin.
50	CLK	I	Reference clock input pin. 4.23 MHz of the DSP is input.
51	CL	I	Microprocessor command clock input pin.
52	DAT	I	Microprocessor command data input pin.
53	CE	I	Microprocessor command chip enable input pin.
54	DRF	O	“Detect RF” RF level detector output.
55	FSS	I	“Focus Search Select” focus search mode (± search/+ search) select pin.
56	VCC2	—	Servo system and digital system Vcc pin.
57	REFI	—	Pin to which external bypass capacitor for reference voltage is connected.
58	VR	O	Reference voltage output pin.
59	LF2	I	Disc defect detector time constant setting pin.
60	PH1	I	Pin to which external capacitor for RF signal peak holding is connected.
61	BH1	I	Pin to which external capacitor for RF signal bottom holding is connected.
62	LDD	O	APC circuit output pin.
63	LDS	I	APC circuit input pin.
64	VCC1	—	RF system Vcc pin.

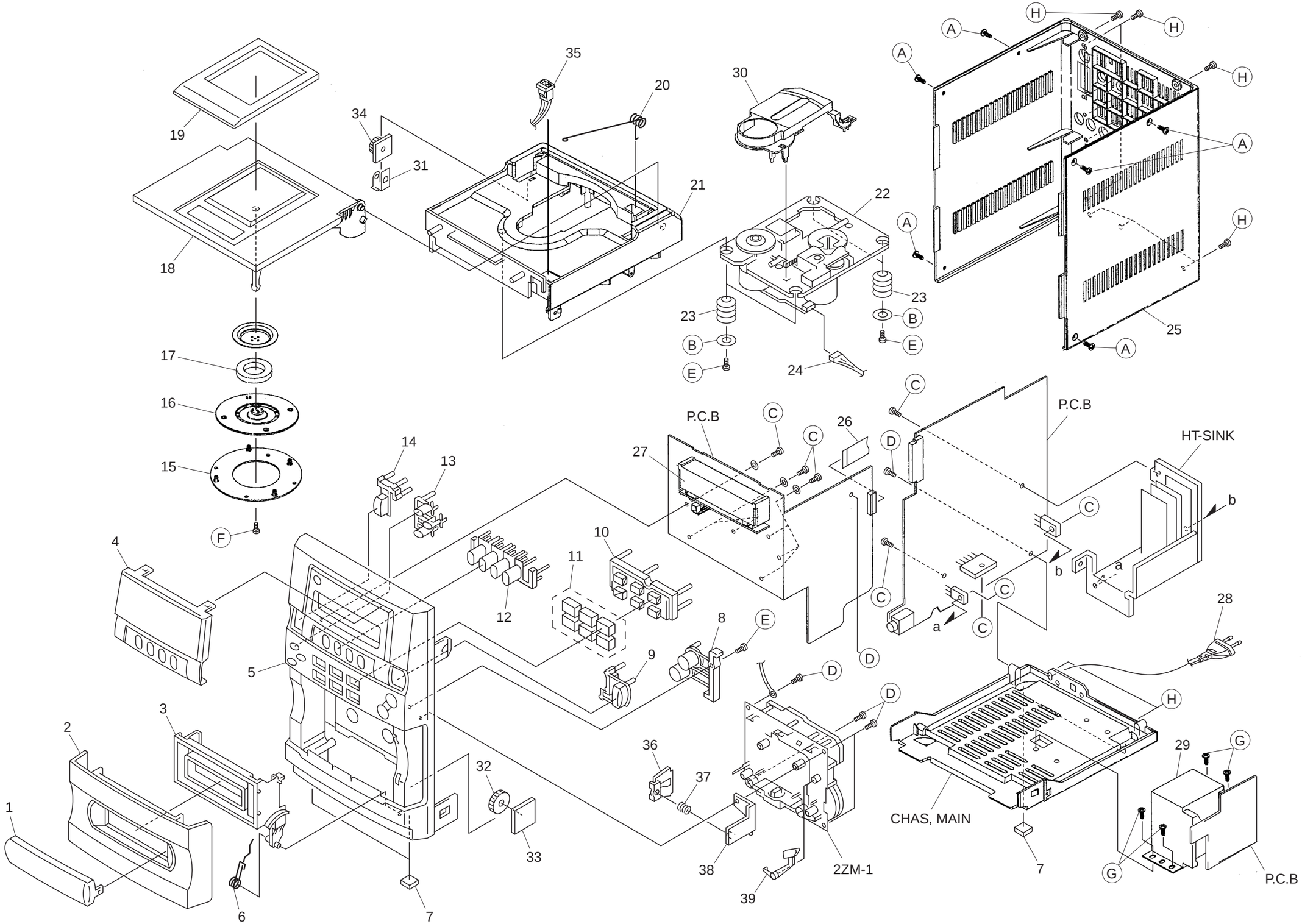
IC, LC78622ED

Pin No.	Pin Name	I/O	Description	
1	DEFI	I	Defect sense signal (DEF) input pin. (Connect to 0V when not used).	
2	TAI	I	For PLL.	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
3	PDO	O		Phase comparator output pin to control external VCO.
4	VVSS	—		GND pin for built-in VCO. Be sure to connect to 0V.
5	ISET	I		Pin to which external resistor adjusting the PD0 output current.
6	VVDD	—		Power supply pin for built-in VCO.
7	FR	I		Pin for VCO frequency range adjustment.
8	VSS	—	Digital system GND. Be sure to connect to 0V.	
9	EFMO	O	For slice level control.	EFM signal output pin.
10	EFMIN	I		EFM signal input pin.
11	TEST2	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
12, 13	CLV+, CLV–	O	Disc motor control output. Three level output is possible using command.	
14	V/$\overline{P}$	O	Rough servo or phase control automatic selection monitoring output pin. Rough servo at H. Phase servo at L.	
15	HFL	I	Track detect signal input pin. Schmidt input.	
16	TES	I	Tracking error signal input pin. Schmidt input.	
17	TOFF	O	Tracking OFF output pin.	
18	TGL	O	Tracking gain selection output pin. Gain boost at L.	
19, 20	JP+, JP–	O	Track jump control signal output pin. Three level output is possible using command.	
21	PCK	O	EFM data playback clock monitoring pin 4.3218 MHz when phase is locked in.	
22	FSEQ	O	Sync signal detection output pin. H when the sync signal which is detected from EFM signal and thesync signal which is internally generated agree.	
23	VDD	—	Digital system power supply pin.	
24-28	SL+, SL–, CONT3-5	I/O	General purpose input/output pin 1 to 5.	The pin is controlled by the serial data command from microprocessor. When the pin is not used, set the pin to the input terminal and connect to 0V, or alternately set the pin to output terminal and leave the pin open.
29	EMPH	O	De-emphasis monitor output pin. De-emphasis disc is being played back at H.	
30	C2F	O	C2 flag output pin.	
31	DOUT	O	DIGITAL OUT output pin. (EIAJ format).	
32, 33	TEST3, TEST4	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
34	N.C.	—	Not used. Set the pin to open.	
35	MUTEL	O	L-channel 1-bit DAC.	L-channel mute output pin.
36	LVDD	—		L-channel power supply pin.
37	LCHO	O		L-channel output pin.
38	LVSS	—		L-channel GND. Be sure to connect to 0V.
39	RVSS	—	R-channel 1-bit DAC.	R-channel GND. Be sure to connect to 0V.
40	RCHO	O		R-channel output pin.
41	RVDD	—		R-channel power supply pin.
42	MUTER	O		R-channel mute output pin.

Pin No.	Pin Name	I/O	Description
43	XVDD	—	Crystal oscillator power supply pin.
44	XOUT	O	Pin to which external 16.9344 MHz crystal oscillator is connected.
45	XIN	I	
46	XVSS	—	Crystal oscillator GND pin. Be sure to connect to 0V.
47	SBSY	O	Subcode block sync signal output pin.
48	EFLG	O	C1, C2, single and dual correction monitoring pin.
49	PW	O	Subcode P, Q, R, S, T, U and W output pin.
50	SFSY	O	Subcode frame sync signal output pin. Falls down when subcode enters standby.
51	SBCK	I	Subcode read clock input pin. Schmidt input. (Be sure to connected to 0V when not in use.)
52	FSX	O	Pin outputting the 7.35 kHz sync signal which is generated by dividing frequency of crystal oscillator.
53	WRQ	O	Subcode Q output standby output pin.
54	RWC	I	Read/write control input pin. Schmidt input.
55	SQOUT	O	Subcode Q output pin.
56	COIN	I	Command input pin from microprocessor.
57	$\overline{CQCK}$	I	Command input read clock or subcode read input clock from SQOUT pin
58	$\overline{RES}$	I	LC78622 reset input pin. Set this pin to L once when the main power is turned on.
59	TST11	O	Test signal output pin. Use this pin as open (normally L output).
60	16M	O	16.9344 MHz output pin.
61	4.2M	O	4.2336 MHz output pin.
62	TEST5	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
63	$\overline{CS}$	I	Chip select signal input pin with built-in pull-down resistor. Be sure to connect to 0V while it is not controlling.
64	TEST1	I	Test signal input pin without built-in pull-down resistor. Be sure to connect to 0V.

Note: The same potential must be applied to the respective power supply terminals. (VDD, VVDD, LVDD, RVDD, XVDD)

MECHANICAL EXPLODED VIEW 1/1



MECHANICAL PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CLA-007-010		WINDOW,CASS
2	8A-CLA-005-010		LID,CASS
3	8A-CLA-006-010		BOX,CASS
4	8A-CLA-004-010		WINDOW,DISP
5	8A-CLA-001-010		CABI,FRONT<HRJ,HSS>
5	8A-CLA-023-010		CABI,FRONT EZ<EZS,KS>
6	8Z-CL8-209-010		SPR-T,CASS
7	8Z-CL8-204-010		CUSH,FOOT
8	8A-CLA-010-010		KEY,VOL
9	8A-CLA-013-010		KEY,TIMER /SLEEP
10	8A-CLA-008-010		KEY,CONT
11	8A-CLA-009-010		KEY,CONT CAP SET
12	8A-CLA-015-010		KEY,FUNC
13	8A-CLA-011-010		KEY,GEQ
14	8A-CLA-012-010		KEY,POWER
15	8Z-CDB-170-010		BASE,CHUCK
16	88-CD9-211-210		RING,CHUCK
17	87-036-368-010		MAGNET
18	8A-CLA-002-010		LID,CD
19	8A-CLA-014-010		WINDOW,CD
20	8Z-CL8-205-010		SPR-T,CD
21	8A-CLA-003-010		CHAS,CD
22	M8-ZZK-E90-070		DA11T3C
23	88-CT6-206-010		CUSHION,CD
24	8Z-CL8-681-010		CONN ASSY,6P CD MOTOR
25	8A-CLA-024-010		CABI,REAR EZ<EZS,HSS,KS>
25	8A-CLA-030-010		CABI,REAR H<HRJ>
26	8Z-CL8-682-010		FF-CABLE, 16P 1.0 180MM
27	8Z-CL8-201-010		GUIDE,LCD
⚠ 28	87-A80-006-010		AC CORD ASSY HS<HSS>
⚠ 28	87-A80-092-010		AC CORD ASSY,E BLK SUN FAI <EZS,KS>
⚠ 28	87-A80-083-010		AC CORD,HC BLK<HRJ>
⚠ 29	8A-CLA-626-010		PT,EZ ACL-A<EZS,HSS,KS>
⚠ 29	8A-CLA-625-010		PT,H ACL-A<HRJ>
30	8Z-CDB-169-010		PANEL,CD SANYO
31	8Z-CL8-214-010		DMPR,HLDR BE
32	84-CD5-215-010		GEAR
33	84-CD5-216-010		BRACKET
34	86-NFZ-231-010		DMPR,70
35	87-064-108-110		HLDR,NC LUTCH
A	87-B10-239-010		QT2+3-8 W/O CR
B	8Z-CL8-220-010		W,30-0856-01-01-01
C	87-067-579-010		TAPPING SCREW, BVT2+3-8
D	87-067-703-010		TAPPING SCREW, BVT2+3-10
E	87-342-074-010		UT2+2.6-8
F	87-571-033-410		TAPPING SCREW, VIT+2-4
G	87-761-097-410		VFT2+3-12 SLOT
H	87-B10-230-010		BVT2+3-10 W/O SLOT SILVER CR

COLOR NAME TABLE

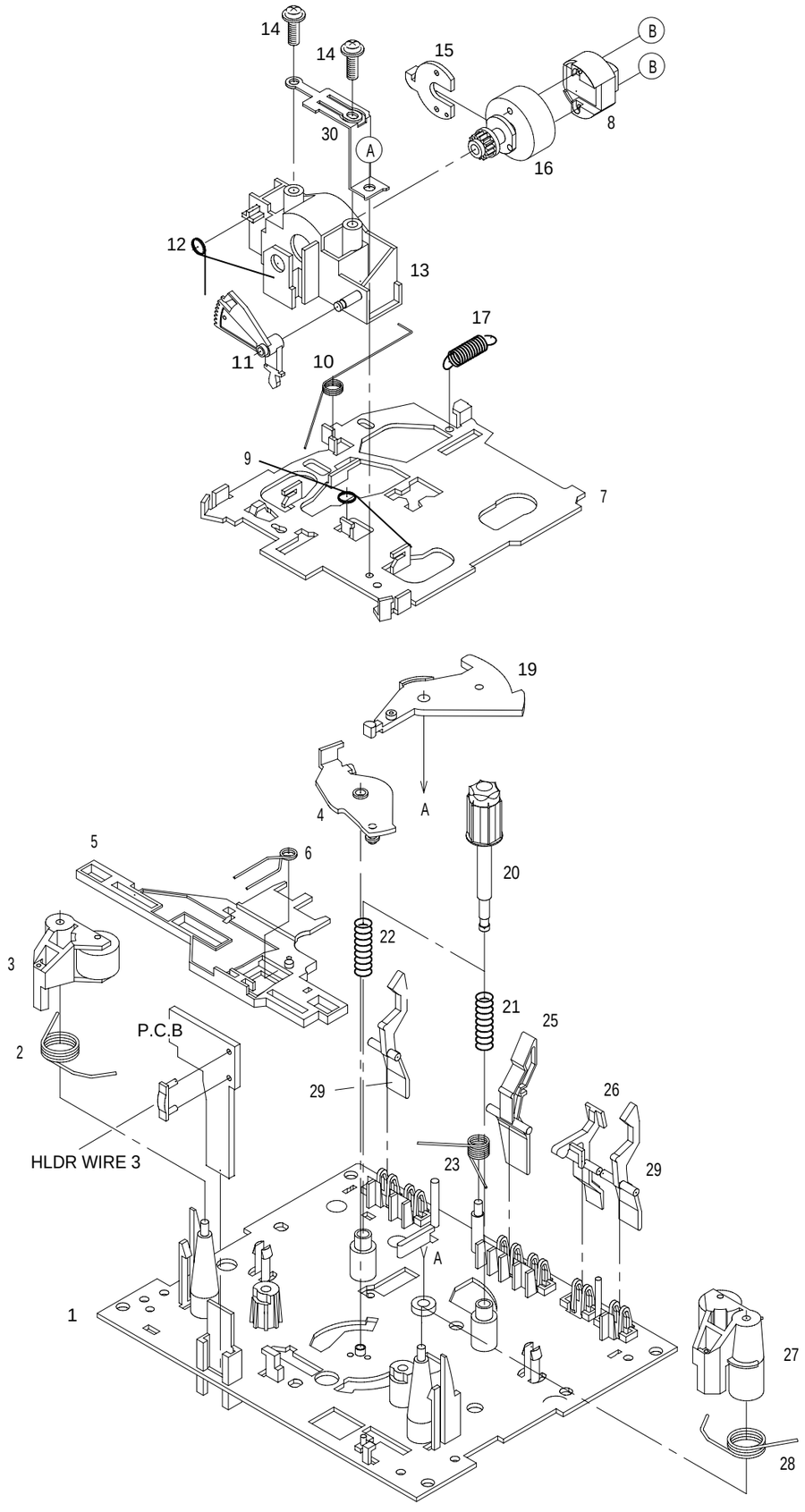
Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent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

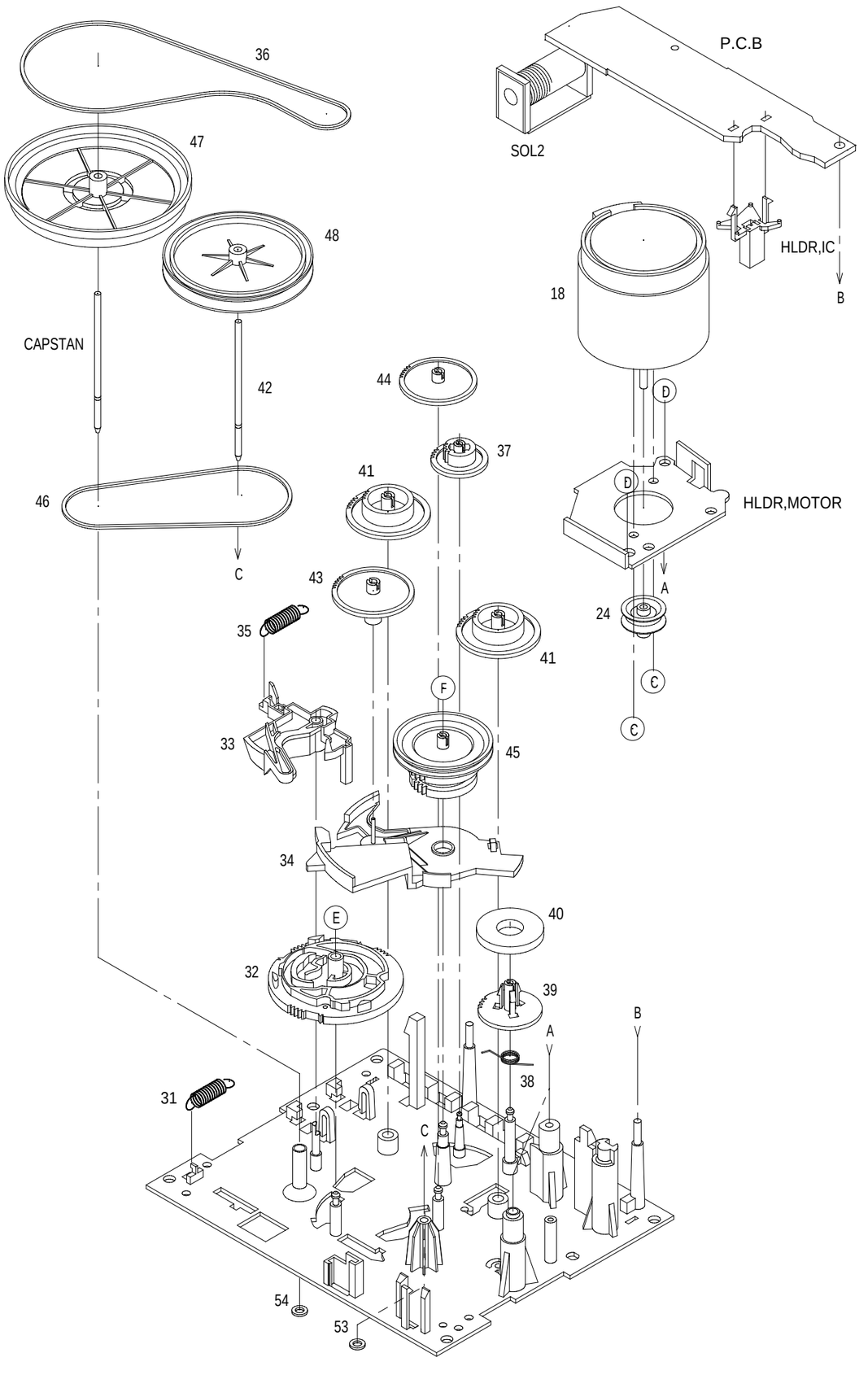
TAPE MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

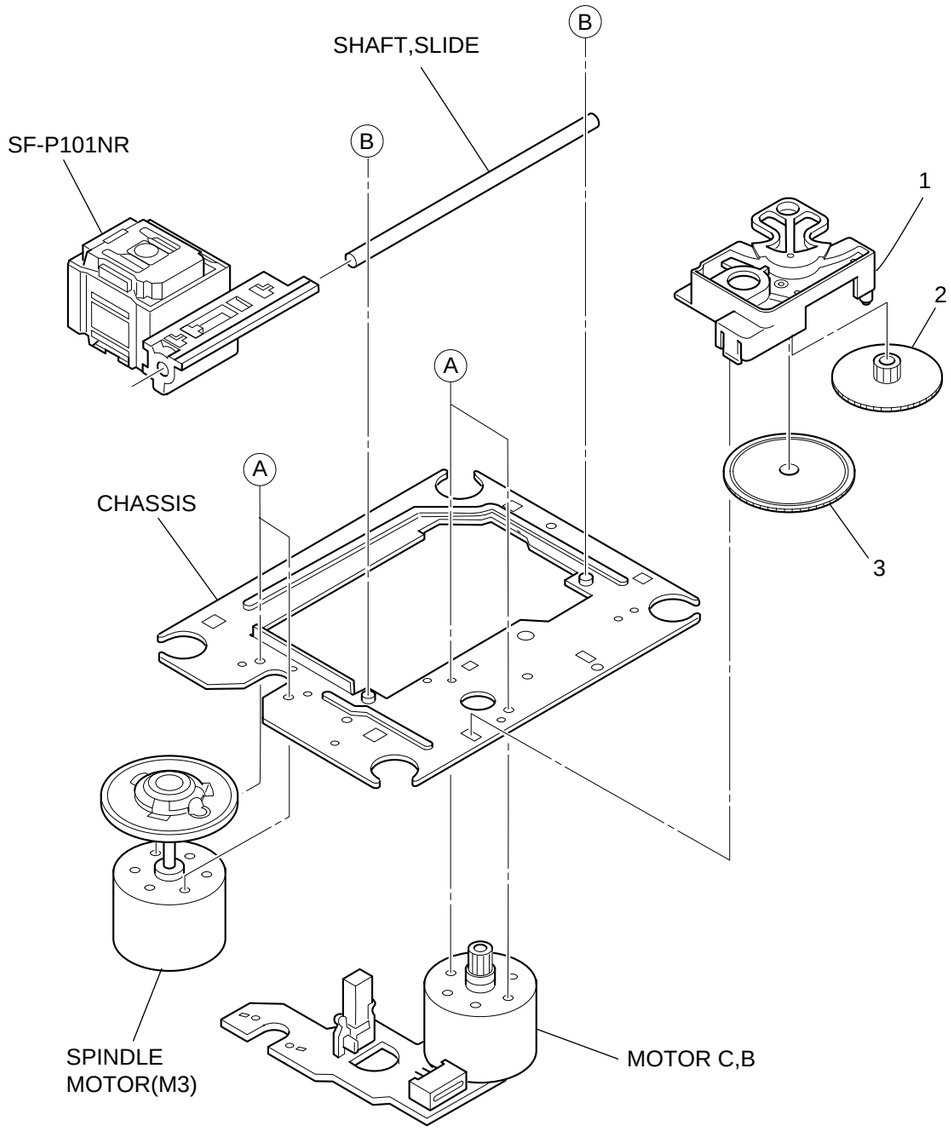
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM1-327-310		CHAS ASSY,RM
2	82-ZM1-258-210		SPR-T,PINCH L
3	82-ZM1-341-210		LVR ASSY,PINCH L2
4	82-ZM1-295-310		PLATE ASSY LINK
5	82-ZM1-266-310		LVR,DIR
6	82-ZM1-214-010		SPR-T,DIR
7	82-ZM1-206-910		CHAS,HEAD
8	87-046-399-110		HEAD,PPH YK56R-BS411
9	82-ZM1-269-210		SPR-T,BRG
10	82-ZM3-323-110		SPR-T,LINK 3
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-ZM1-247-110		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-ZM1-216-410		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
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

TAPE MECHANISM EXPLODED VIEW 1/1





CD MECHANISM EXPLODED VIEW 1/1

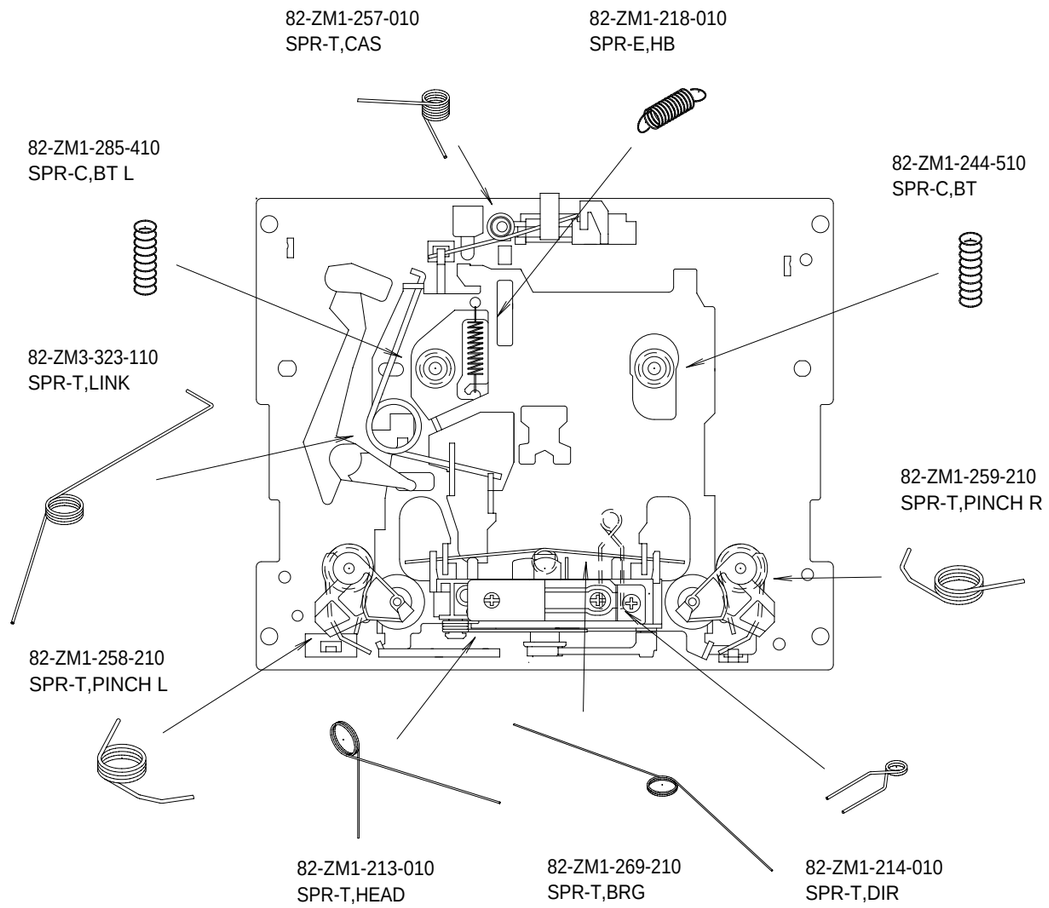


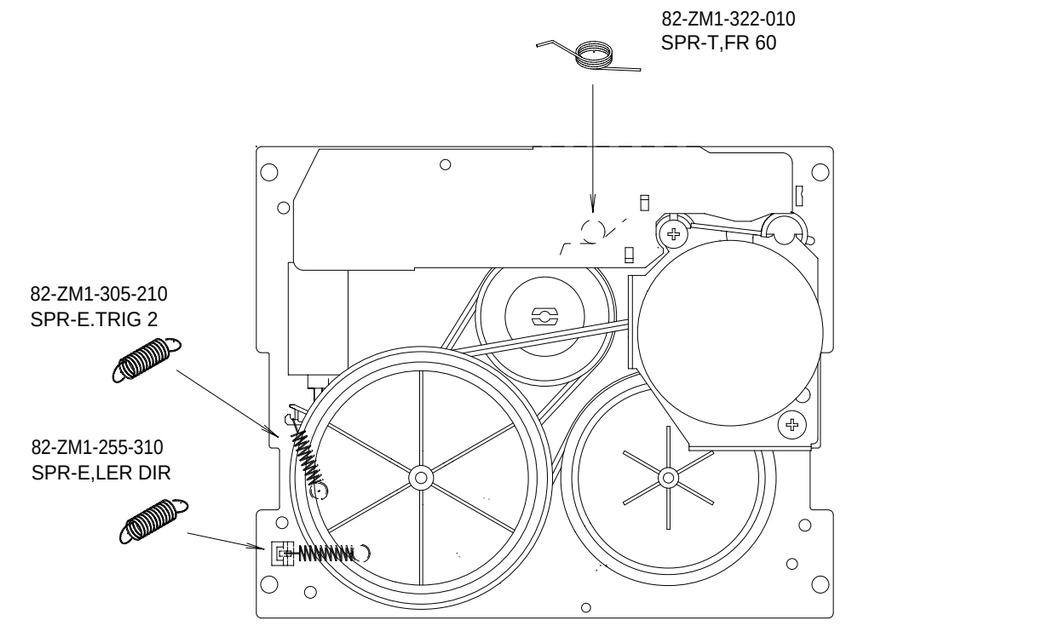
CD MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S2-121-A28-400		COVER GEAR
2	S2-511-A21-000		GEAR MIDDLE
3	S2-511-A21-100		GEAR,DRIVE
A	S1-PN2-03R-OSE		SCR PAN PCS 2-3
B	87-261-073-410		SCR S-TPG FLT 2.6-6
ALL	M8-ZZK-E90-070		DA11T3C

SPRING APPLICATION POSITION





SPEAKER PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CLA-602-010		SPKR, 40HM 8W ACL-A
2	8A-CLA-017-010		CABI,FR SPKR
3	8A-CLA-022-010		CLOTH,SPKR
4	8A-CLA-019-010		FRAME,SPKR
5	86-CL9-214-010		HLDR,CORD(SPKR)
6	8Z-CL8-207-010		HLDR,TRANS
7	8Z-CL8-694-110		CORD,SPKR GRY

アイワ株式会社 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 (代表)
AIWA CO.,LTD. 2–11, IKENOHATA 1–CHOME, TAITO-KU, TOKYO 110-8710, JAPAN TEL:03 (3827) 3111

737004 Printed in Singapore