

# SERVICE MANUAL

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COMPACT DISC STEREO  
SYSTEM

BASIC TAPE MECHANISM : ZZM-1AR3NC  
BASIC CD MECHANISM : DA11T3C

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# SPECIFICATIONS

## HR MODEL

### Tuner

#### FM

Tuning range 87.5 - 108.0 MHz  
Usable sensitivity (IHF) 13.2 dBf  
Antenna terminals 75 ohms (unbalanced)

#### AM

Tuning range 531/530 - 1,602/1,710 kHz  
(9/10 kHz step)  
Usable sensitivity 350 µV/m  
Antenna Loop antenna

### Tape deck

Track format 4 tracks, 2 channels  
Frequency response Normal tape: 50 - 12,500 Hz (EIAJ)  
Recording system AC bias  
Erasing system Magnet erase  
Heads Recording/playback head (1)  
Erasure head (1)

### CD player

Wow and flutter Unmeasurable  
Scanning method Non-contact optical scanner  
(semiconductor laser)

### Amplifier

Power output 1.9 W + 1.9 W  
(7 ohms, T.H.D. 1%, 1 kHz)  
2.5 W + 2.5 W  
(7 ohms, T.H.D. 10%, 1 kHz)  
Input AUX (400 mV)  
Output SPEAKERS: 7 ohms or more  
PHONES: Stereo mini-jack

### General (Main unit)

Power requirements 110 - 120/220 - 240 V AC,  
switchable, 50/60 Hz  
Power consumption 20 W  
Dimensions (W x H x D) 146 x 216 x 206 mm  
Weight 2.1 kg

### Speaker

Speakers 100 mm cone type, 7 ohms  
Dimensions (W x H x D) 130 x 214 x 191 mm  
Weight 0.85 kg

- Design and specifications are subject to change without notice.

## K, EZ, HS MODELS

### Tuner

#### FM

Tuning range 87.5 - 108.0 MHz  
Usable sensitivity (IHF) 13.2 dBf  
Antenna terminals 75 ohms (unbalanced)

#### MW

Tuning range 531/530 - 1,602/1,710 kHz  
(9/10 kHz step)  
Usable sensitivity 350 µV/m  
Antenna Loop antenna

#### LW

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

### Tape deck

Track format 4 tracks, 2 channels  
Frequency response Normal tape: 50 - 12,500 Hz (EIAJ)  
Recording system AC bias  
Erasing system Magnet erase  
Heads Recording/playback head (1)  
Erasure head (1)

### CD player

Wow and flutter Unmeasurable  
Scanning method Non-contact optical scanner  
(semiconductor laser)

### Amplifier

Power output 1.9 W + 1.9 W (7 ohms, T.H.D. 1%,  
1 kHz/DIN45500)  
2.5 W + 2.5 W (7 ohms, T.H.D.  
10%, 1 kHz/DIN45324)  
6.0 W + 6.0 W (DIN MUSIC POWER)  
Input AUX (400 mV)  
Output SPEAKERS: 7 ohms or more  
PHONES: Stereo mini-jack

### General (Main unit)

Power requirements AC 220 V, 60 Hz (HS MODEL)  
AC 230 V, 60 Hz (K, EZ MODELS)

Power consumption 20 W  
Dimensions (W x H x D) 146 x 216 x 206 mm  
Weight 2.1 kg

### Speaker

Speakers 100 mm cone type, 7 ohms  
Dimensions (W x H x D) 130 x 214 x 191 mm  
Weight 0.85 kg

- Design and specifications are subject to change without notice.

## ACCESSORIES/PACKAGE LIST

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CLD-906-010		IB, EZ (9L) FM<EVS, EZL>
1	8A-CLD-901-010		IB, H (ECA) FM<HRS>
1	8A-CLD-905-010		IB, K (E) FM<KS>
2	87-A90-030-010		ANT, LOOP AM-NC C
3	87-A90-118-010		ANT, WIRE FM (Z) <EXCEPT HRS>

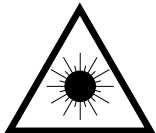
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
3	87-A90-064-010		FEEDER-ANT, FM (SHS) <HRS>
4	87-099-726-010		PLUG, ADPTR CONV (K) <KS>
4	87-A91-017-010		PLUG, CONVERSION JT-0476<HRS>
5	8A-CLB-961-010		RC UNIT, RC-AAT11

# PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

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

## WARNING!

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



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

## VAROITUS!

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

## WARNING!

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

## CAUTION

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

## ATTENTION

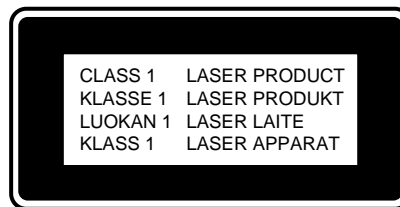
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

## ADVARSEL!

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

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

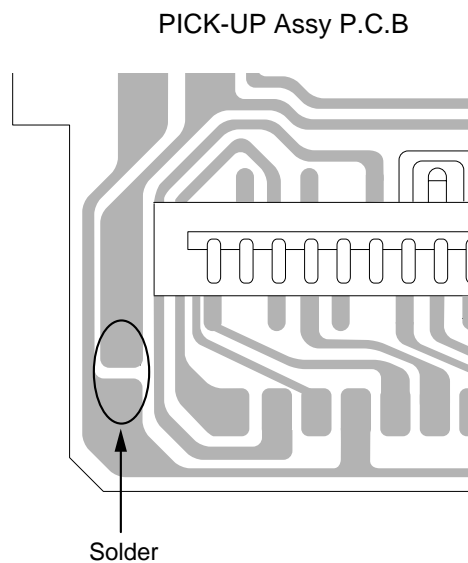
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



## Precaution to replace Optical block (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.



# ELECTRICAL MAIN PARTS LIST

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
<b>IC</b>				C271	87-010-221-080		CAP, ELECT 470-10V
	87-A21-064-010	IC,LA4227		C272	87-010-221-080		CAP, ELECT 470-10V
	87-A21-443-040	C-IC,M62495AFP		C278	87-010-405-080		CAP, ELECT 10-50V
	87-A20-446-010	C-IC,LA9241ML		C279	87-010-385-080		CAP, ELECT 220-25V
	87-A20-459-010	C-IC,LC78622ED		C280	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A21-093-010	IC,LA6541D		C281	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A21-431-010	IC,BA4560N		C291	87-012-286-080		CAP, U 0.01-25
	8A-CLD-630-010	C-IC,LC867132V-5S27		C292	87-012-286-080		CAP, U 0.01-25<HRS,HSS>
	87-A20-650-010	IC,RPM6938-V11		C292	87-018-134-080		CAPACITOR,TC-U 0.01-16<KS,EZS,EZL>
	87-070-127-110	IC,LC72131 D		C293	87-012-286-080		CAP, U 0.01-25
	87-A20-913-010	IC,LA1837NL		C294	87-012-286-080		CAP, U 0.01-25
				C295	87-018-127-080		CAP, CER 470P-50V<KS,EZS,EZL>
				C296	87-018-127-080		CAP, CER 470P-50V<KS,EZS,EZL>
				C297	87-A11-154-080		CAP,TC U 4700P-16 Z F<KS,EZS,EZL>
				C298	87-A11-154-080		CAP,TC U 4700P-16 Z F<KS,EZS,EZL>
<b>TRANSISTOR</b>				C301	87-016-495-000		CAP,E 3300-25 M SMG
	89-318-154-080	TR,2SC1815 (0.4W)		C306	87-010-404-080		CAP, ELECT 4.7-50V
	87-026-463-080	TR,2SA933S (0.3W)		C307	87-010-401-080		CAP, ELECT 1-50V
	89-112-965-080	TR,2SA1296 (0.75W)		C308	87-010-221-080		CAP, ELECT 470-10V
	87-026-291-080	TR,DTC124XS		C310	87-010-248-080		CAP, ELECT 220-10V
	89-213-702-010	TR,2SB1370 (1.8W)		C311	87-010-263-080		CAP, ELECT 100-10V
	87-026-462-080	TR,2SC1740 S(RS 0.3W)		C312	87-010-385-080		CAP, ELECT 220-25V
	87-026-215-080	TR,DTC114YS		C316	87-010-263-080		CAP, ELECT 100-10V
	87-026-290-080	TR,DTA124X		C317	87-A11-145-080		CAP,TC U 0.01-50 Z F
	89-109-332-380	TR,2SA933RS		C331	87-010-401-080		CAP, ELECT 1-50V
	89-113-187-080	TR,2SA1318TU		C332	87-010-384-080		CAP, ELECT 100-25V
	87-026-239-080	TR,DTC114TK (0.2W)		C333	87-A11-148-080		CAP,TC U 0.1-50 Z F
	87-026-213-080	CHIP-TR,DTC114YK		C334	87-010-404-080		CAP, ELECT 4.7-50V
	87-026-464-080	TR,DTC114TS (0.3W)		C335	87-018-119-080		CAP, CER 100P-50V<HRS>
	87-A30-072-080	C-TR,RT1P 144C		C701	87-010-381-080		CAP, ELECT 330-16V
	89-327-143-080	TR,2SC2714 (0.1W)		C702	87-010-404-080		CAP, ELECT 4.7-50V
	89-505-434-540	C-FET,2SK543 (4/5)<EXCEPT HRS>		C703	87-012-286-080		CAP, U 0.01-25
	87-A30-086-070	C-TR,CSD1306E<EXCEPT HRS>		C704	87-012-286-080		CAP, U 0.01-25
	87-A30-074-080	C-TR,RT1P 141C<EXCEPT HRS>		C705	87-A10-592-080		C-CAP,S 0.015-50 J B<HRS>
				C706	87-A10-592-080		C-CAP,S 0.015-50 J B<HRS>
<b>DIODE</b>				C709	87-012-195-080		C-CAP,U 100P-50CH
	87-070-345-080	DIODE,IN4148		C713	87-012-286-080		CAP, U 0.01-25<EXCEPT HRS>
	87-017-978-080	DIODE,IN4003		C714	87-012-286-080		CAP, U 0.01-25
	87-020-465-080	DIODE,1SS133 (110MA)		C715	87-012-195-080		C-CAP,U 100P-50CH<EXCEPT HRS>
	87-A40-345-080	ZENER,MTZJ10C		C717	87-012-286-080		CAP, U 0.01-25
	87-A40-648-080	ZENER,MTZJ8.2A		C719	87-012-286-080		CAP, U 0.01-25
	87-027-702-080	DIODE,ZENER HZ6C2L (200MA)		C720	87-012-195-080		C-CAP,U 100P-50CH
	87-A40-234-080	ZENER,MTZJ5.6A		C721	87-012-176-080		CAP 15P
	87-017-149-080	ZENER,HZS6A2L		C722	87-012-176-080		CAP 15P
	87-A40-465-010	DIODE,FR202		C723	87-012-274-080		CHIP CAP,U 1000P-50B
	87-A40-442-080	ZENER,MTZJ9.1A		C725	87-018-131-080		CAP, CER 1000P-50V<EXCEPT HRS>
	87-A40-498-080	ZENER,MTZJ24B<HRS>		C725	87-012-274-080		CHIP CAP,U 1000P-50B<HRS>
	87-A40-270-080	C-DIODE,MC2838<EXCEPT HRS>		C727	87-010-196-080		CHIP CAPACITOR,0.1-25
				C728	87-010-260-080		CAP, ELECT 47-25V
				C729	87-012-274-080		CHIP CAP,U 1000P-50B
<b>MAIN C.B</b>				C731	87-012-286-080		CAP, U 0.01-25
C211	87-010-401-080	CAP, ELECT 1-50V		C733	87-010-987-080		C-CAP,S 1500P-50 CH<HRS>
C212	87-010-401-080	CAP, ELECT 1-50V		C733	87-012-280-080		CAP, U 3300P-50<EXCEPT HRS>
C237	87-010-371-080	CAP, ELECT 470-6.3V		C734	87-010-987-080		C-CAP,S 1500P-50 CH<HRS>
C239	87-010-401-080	CAP, ELECT 1-50V		C734	87-012-280-080		CAP, U 3300P-50<EXCEPT HRS>
C240	87-010-401-080	CAP, ELECT 1-50V		C735	87-010-987-080		C-CAP,S 1500P-50 CH<HRS>
C247	87-010-401-080	CAP, ELECT 1-50V		C736	87-010-987-080		C-CAP,S 1500P-50 CH<HRS>
C248	87-010-401-080	CAP, ELECT 1-50V		C737	87-A10-592-080		C-CAP,S 0.015-50 J B<HRS>
C251	87-010-404-080	CAP, ELECT 4.7-50V		C738	87-A10-592-080		C-CAP,S 0.015-50 J B<HRS>
C257	87-010-401-080	CAP, ELECT 1-50V		C751	87-010-220-080		C-CAP,S 0.018-25 B<HRS>
C258	87-010-401-080	CAP, ELECT 1-50V		C752	87-010-220-080		C-CAP,S 0.018-25 B<HRS>
C261	87-010-401-080	CAP, ELECT 1-50V		C752	87-012-282-080		CAP, U 4700P-50<EXCEPT HRS>
C262	87-010-401-080	CAP, ELECT 1-50V		C753	87-012-195-080		C-CAP,U 100P-50CH<EXCEPT HRS>
C263	87-012-286-080	CAP, U 0.01-25<KS,EZS,EZL>		C755	87-012-286-080		CAP, U 0.01-25<EXCEPT HRS>
C263	87-012-274-080	CHIP CAP,U 1000P-50B<HRS,HSS>		C756	87-012-286-080		CAP, U 0.01-25
C264	87-012-286-080	CAP, U 0.01-25<KS,EZS,EZL>		C757	87-012-188-080		C-CAP,U 47P-50 CH
C264	87-012-274-080	CHIP CAP,U 1000P-50B<HRS,HSS>		C758	87-012-167-080		C-CAP,U 5P-50 CH
C265	87-010-263-080	CAP, ELECT 100-10V		C761	87-010-196-080		CHIP CAPACITOR,0.1-25<EXCEPT HRS>
C266	87-010-263-080	CAP, ELECT 100-10V		C762	87-012-286-080		CAP, U 0.01-25<EXCEPT HRS>
C267	87-010-112-080	CAP, ELECT 100-16V		C763	87-010-829-080		CAP, U 0.047-16
C268	87-010-112-080	CAP, ELECT 100-16V					

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C764	87-012-337-080		C-CAP,U 56P-50 CH<HRS>	J202	87-A60-659-010		TERMINAL,SPKR 4P HSP-134V-05Z
C764	87-012-271-080		CAP, U 560P-50<KS,EZS,EZL>	J203	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
C765	87-012-286-080		CAP, U 0.01-25	J801	87-A60-702-010		TERMINAL,ANT 4P CJ-9036<HRS>
C766	87-010-197-080		CAP, CHIP 0.01 DM<EXCEPT HRS>	J801	87-033-241-010		TERMINAL,ANT AJ-2039<EXCEPT HRS>
C768	87-012-286-080		CAP, U 0.01-25	JR11	87-012-286-080		CAP, U 0.01-25<KS,EZS,EZL>
C769	87-010-260-080		CAP, ELECT 47-25V	L201	87-005-366-010		COIL, 1UH
C770	87-010-829-080		CAP, U 0.047-16	L202	87-005-366-010		COIL, 1UH
C771	87-010-383-080		CAP, ELECT 33-25V	L301	87-003-098-080		COIL, 2.2UH<HRS>
C772	87-010-829-080		CAP, U 0.047-16	L302	87-008-372-080		FILTER, EMI BL OIRNI<KS,EZS,EZL>
C773	87-010-196-080		CHIP CAPACITOR,0.1-25	L771	87-A50-266-010		COIL,FM DET-2N(TOK)
C774	87-010-263-080		CAP, ELECT 100-10V	L772	87-A91-110-010		FLTR,PCFJZH-450 (TOK)
C775	87-010-404-080		CAP, ELECT 4.7-50V	L781	87-005-847-080		COIL, 2.2UH(CECS) <EXCEPT HRS>
C776	87-012-286-080		CAP, U 0.01-25	L832	87-005-847-080		COIL, 2.2UH(CECS) <EXCEPT HRS>
C777	87-010-400-080		CAP, ELECT 0.47-50V<HRS>	L941	87-A50-020-010		COIL,ANT LW(COI) <EXCEPT HRS>
C777	87-010-493-080		CAP,E 0.47-50 GAS<EXCEPT HRS>	L942	87-A50-019-010		COIL,OSC LW(COI) <EXCEPT HRS>
C778	87-010-401-080		CAP, ELECT 1-50V	L981	8Z-ZA1-665-010		COIL,AM PACK 2(TOK) <EXCEPT HRS>
C779	87-010-401-080		CAP, ELECT 1-50V	L981	8Z-ZA1-667-010		COIL,AM PACK 4F(TOK) <HRS>
C780	87-010-196-080		CHIP CAPACITOR,0.1-25	TC942	87-A91-658-010		TRIMMER,30P 4.0X4.5 ECRL<EXCEPT HRS>
C781	87-010-405-080		CAP, ELECT 10-50V	X721	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309
C782	87-010-405-080		CAP, ELECT 10-50V				
C783	87-012-286-080		CAP, U 0.01-25	FR C.B			
C784	87-012-286-080		CAP, U 0.01-25				
C785	87-010-401-080		CAP, ELECT 1-50V<HRS>	C601	87-012-178-080		C-CAP,U 18P-50 CH
C785	87-010-402-080		CAP, ELECT 2.2-50V<EXCEPT HRS>	C602	87-012-182-080		C-CAP,U 27P-50 CH
C786	87-010-401-080		CAP, ELECT 1-50V<HRS>	C603	87-012-337-080		C-CAP,U 56P-50 CH
C786	87-010-402-080		CAP, ELECT 2.2-50V<EXCEPT HRS>	C604	87-012-176-080		CAP 15P
C787	87-012-275-080		C-CAP,U 1200P-50 B<EXCEPT HRS>	C605	87-012-186-080		C-CAP,U 39P-50 CH
C788	87-012-275-080		C-CAP,U 1200P-50 B<EXCEPT HRS>	C607	87-A11-148-080		CAP,TC U 0.1-50 Z F
C789	87-012-275-080		C-CAP,U 1200P-50 B	C608	87-010-831-080		C-CAP,U,0.1-16F
C790	87-012-275-080		C-CAP,U 1200P-50 B	C610	87-010-248-080		CAP, ELECT 220-10V
C791	87-010-405-080		CAP, ELECT 10-50V	C611	87-A11-148-080		CAP,TC U 0.1-50 Z F
C793	87-012-273-080		C-CAP,U 820P-50 B	C612	87-010-248-080		CAP, ELECT 220-10V
C794	87-010-406-080		CAP, ELECT 22-50	C613	87-010-402-080		CAP, ELECT 2.2-50V
C795	87-010-596-080		CAP, S 0.047-16	C614	87-A11-148-080		CAP,TC U 0.1-50 Z F
C796	87-010-403-080		CAP, ELECT 3.3-50V	C615	87-010-400-080		CAP, ELECT 0.47-50V
C797	87-012-276-080		CAP, CHIP SS 1500 PBK<EXCEPT HRS>	C616	87-010-401-080		CAP, ELECT 1-50V
C798	87-012-276-080		CAP, CHIP SS 1500 PBK<EXCEPT HRS>	C617	87-A11-112-080		CAP,TC U 1000P-50 J CH
C799	87-010-829-080		CAP, U 0.047-16	C618	87-010-560-040		CAP,E 10-50 GAS
C812	87-012-286-080		CAP, U 0.01-25	C620	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z
C814	87-012-286-080		CAP, U 0.01-25<EXCEPT HRS>	C627	87-A10-826-080		C-CAP,S 1-10 K B
C820	87-010-260-080		CAP, ELECT 47-25V	C628	87-010-263-080		CAP, ELECT 100-10V
C821	87-012-286-080		CAP, U 0.01-25	C630	87-A11-148-080		CAP,TC U 0.1-50 Z F
C822	87-012-286-080		CAP, U 0.01-25	C631	87-010-831-080		C-CAP,U,0.1-16F
C823	87-012-286-080		CAP, U 0.01-25	C633	87-012-286-080		CAP, U 0.01-25
C828	87-010-196-080		CHIP CAPACITOR,0.1-25	C634	87-012-286-080		CAP, U 0.01-25
C829	87-010-196-080		CHIP CAPACITOR,0.1-25	C635	87-012-286-080		CAP, U 0.01-25
C830	87-010-265-080		CAP, ELECT 33-16V<EXCEPT HRS>	CN601	87-099-029-010		CONN,12P 6216H
C940	87-012-286-080		CAP, U 0.01-25<EXCEPT HRS>	CNA602	8A-CLD-623-010		CONN ASSY,2P LED
C942	87-012-168-080		C-CAP,U 6P-50 CH<EXCEPT HRS>	L601	87-003-171-010		COIL,15UH TROIDAL
C947	87-012-286-080		CAP, U 0.01-25<EXCEPT HRS>	L603	87-003-171-010		COIL,15UH TROIDAL
C949	87-A10-039-080		C-CAP,U 470P-50 J CH<EXCEPT HRS>	LCD601	8A-CLD-610-010		LCD,AIW4239ACL-13
C952	87-012-286-080		CAP, U 0.01-25<EXCEPT HRS>	LED609	87-A40-626-010		LED,L-934ID RED
C958	87-010-197-080		CAP, CHIP 0.01 DM<EXCEPT HRS>	S601	87-A91-704-080		SW,TACT EVQ 214 05R
C959	87-010-831-080		C-CAP,U,0.1-16F<EXCEPT HRS>	S602	87-A91-704-080		SW,TACT EVQ 214 05R
C959	87-010-196-080		CHIP CAPACITOR,0.1-25<HRS>	S603	87-A91-704-080		SW,TACT EVQ 214 05R
C960	87-010-196-080		CHIP CAPACITOR,0.1-25	S604	87-A91-704-080		SW,TACT EVQ 214 05R
C961	87-012-170-080		C-CAP,U 8P-50 CH<HRS>	S605	87-A91-704-080		SW,TACT EVQ 214 05R
C962	87-010-401-080		CAP, ELECT 1-50V<EXCEPT HRS>	S608	87-A91-704-080		SW,TACT EVQ 214 05R
C963	87-010-196-080		CHIP CAPACITOR,0.1-25<HRS>	S609	87-A91-704-080		SW,TACT EVQ 214 05R
C999	87-A11-155-080		CAP,TC U 0.01-16 Z F<KS,EZS,EZL>	S610	87-A91-704-080		SW,TACT EVQ 214 05R
CF801	87-008-423-010		CERAMIC FILTER, SFE10.7<EXCEPT HRS>	S611	87-A91-704-080		SW,TACT EVQ 214 05R
CF801	87-008-261-010		FILTER, SFE10.7MA5-A<HRS>	S612	87-A91-704-080		SW,TACT EVQ 214 05R
CF802	82-785-747-010		CF MS2 GHY R<EXCEPT HRS>	S613	87-A91-704-080		SW,TACT EVQ 214 05R
CF802	87-008-261-010		FILTER, SFE10.7MA5-A<HRS>	S614	87-A91-704-080		SW,TACT EVQ 214 05R
CN201	87-099-014-010		CONN,12P 6216 V	X601	87-030-273-010		VIB,XTAL 32.768K5PPM
CN202	87-099-569-010		CONN,12P TUC-P12P-B1	X602	87-030-376-080		VIB,CER CSA5.76MG200
CN301	87-099-043-010		CONN 2P EH				
FFE801	A8-6ZA-19C-170		6ZA-1 YFEENC<EXCEPT HRS>	CD C.B			
FFE801	A8-8ZA-193-070		8ZA-1 YFEUNC<HRS>				
J201	87-A60-420-010		JACK,3.5 ST (MSC)	C30	87-010-260-080		CAP, ELECT 47-25V
				C401	87-010-403-080		CAP, ELECT 3.3-50V

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C402	87-A11-132-080		CAP,TC U 0.01-50 K B	C492	87-010-221-080		CAP, ELECT 470-10V
C403	87-010-263-080		CAP, ELECT 100-10V	C493	87-012-286-080		CAP, U 0.01-25
C404	87-010-248-080		CAP, ELECT 220-10V	C494	87-A11-132-080		CAP,TC U 0.01-50 K B
C405	87-A11-132-080		CAP,TC U 0.01-50 K B	C495	87-A11-116-080		CAP,TC U 1500P
C406	87-010-374-080		CAP, ELECT 47-10V	C496	87-A11-144-080		CAP,TC U 0.1-50 K B
C407	87-018-131-080		CAP, CER 1000P-50V	C501	87-010-248-080		CAP, ELECT 220-10V
C408	87-A11-136-080		CAP,TC U 0.022-50 K B	C507	87-010-406-080		CAP, ELECT 22-50
C409	87-010-248-080		CAP, ELECT 220-10V	C508	87-010-406-080		CAP, ELECT 22-50
C410	87-010-263-080		CAP, ELECT 100-10V	C509	87-010-401-080		CAP, ELECT 1-50V
C412	87-010-401-080		CAP, ELECT 1-50V	C510	87-010-401-080		CAP, ELECT 1-50V
C414	87-010-405-080		CAP, ELECT 10-50V	C511	87-012-274-080		CHIP CAP,U 1000P-50B
C415	87-010-831-080		C-CAP,U,0.1-16F	C512	87-012-274-080		CHIP CAP,U 1000P-50B
C416	87-010-545-080		CAP, ELECT 0.22-50V	C516	87-012-276-080		CAP, CHIP SS 1500 PBK
C417	87-012-268-080		C-CAP,U 330P-50 B	C517	87-012-276-080		CAP, CHIP SS 1500 PBK
C418	87-010-785-080		C-CAP,U0.015-25BK	C521	87-010-401-080		CAP, ELECT 1-50V
C420	87-A11-070-080		C-CAP,U 0.033-16 K B	C522	87-010-401-080		CAP, ELECT 1-50V
C422	87-012-280-080		CAP, U 3300P-50	C523	87-012-274-080		CHIP CAP,U 1000P-50B
C423	87-A10-504-080		C-CAP,U 0.047-16 K B	C524	87-012-274-080		CHIP CAP,U 1000P-50B
C425	87-012-272-080		C-CAP,U 680P-50 B	C529	87-012-274-080		CHIP CAP,U 1000P-50B
C427	87-012-195-080		C-CAP,U 100P-50CH	C530	87-012-274-080		CHIP CAP,U 1000P-50B
C429	87-012-282-080		CAP, U 4700P-50	C531	87-018-205-080		CAP, CERA-SOL 0.022
C430	87-012-199-080		CAP 220P	C534	87-010-248-080		CAP, ELECT 220-10V
C431	87-010-545-080		CAP, ELECT 0.22-50V	C543	87-012-286-080		CAP, U 0.01-25
C432	87-010-374-080		CAP, ELECT 47-10V	C544	87-018-124-080		CAP, CER 270P-50V
C433	87-010-401-080		CAP, ELECT 1-50V	C545	87-012-274-080		CHIP CAP,U 1000P-50B
C434	87-012-280-080		CAP, U 3300P-50	C546	87-010-263-080		CAP, ELECT 100-10V
C435	87-A11-132-080		CAP,TC U 0.01-50 K B	C551	87-012-282-080		CAP, U 4700P-50
C436	87-010-374-080		CAP, ELECT 47-10V	C552	87-012-274-080		CHIP CAP,U 1000P-50B
C437	87-010-404-080		CAP, ELECT 4.7-50V	C553	87-A11-145-080		CAP,TC U 0.01-50 Z F
C439	87-012-274-080		CHIP CAP,U 1000P-50B	C555	87-012-266-080		C-CAP,U 220P-50 B<KS,EZS,EZL>
C440	87-012-162-080		C-CAP,U 1P-50 CK	C556	87-012-266-080		C-CAP,U 220P-50 B<KS,EZS,EZL>
C442	87-012-178-080		C-CAP,U 18P-50 CH	C557	87-018-131-080		CAP, CER 1000P-50V<KS,EZS,EZL>
C443	87-012-195-080		C-CAP,U 100P-50CH	C558	87-018-131-080		CAP, CER 1000P-50V<KS,EZS,EZL>
C444	87-012-195-080		C-CAP,U 100P-50CH	C559	87-A11-145-080		CAP,TC U 0.01-50 Z F<KS,EZS,EZL>
C445	87-010-831-080		C-CAP,U,0.1-16F	CN203	87-099-558-010		CONN,12P TUC-P12X-B1
C446	87-010-831-080		C-CAP,U,0.1-16F	CN205	87-A60-109-010		CONN,2P V S2M-2W
C447	87-010-831-080		C-CAP,U,0.1-16F	CN401	87-A60-424-010		CONN,16P V TOC-B
C448	87-012-182-080		C-CAP,U 27P-50 CH	CN501	87-A60-110-010		CONN,4P V S2M-4W
C449	87-012-195-080		C-CAP,U 100P-50CH	CN502	87-049-469-010		CONN,4P V
C450	87-012-270-080		CAP, U 470P-50	CNA402	8A-CLD-624-010		CONN ASSY,6P CD-ME
C451	87-012-199-080		CAP 220P	JW444	87-003-098-080		COIL,2.2UH
C455	87-010-263-080		CAP, ELECT 100-10V	L401	87-003-102-080		COIL, 10UH
C456	87-012-195-080		C-CAP,U 100P-50CH	L404	87-003-152-080		COIL, 100UH
C457	87-012-176-080		CAP 15P	L501	87-007-342-010		COIL,OSC 85K BIAS
C458	87-012-176-080		CAP 15P	R540	87-029-124-010		RES,FUSE 2.2-1/4
C459	87-010-263-080		CAP, ELECT 100-10V	SFR430	87-024-437-080		SFR100K,RH063EC
C460	87-015-819-080		CAPACITOR,0.01	SW501	8Z-CD9-609-010		SW,SL 1-6-2 PS62D01
C461	87-A11-132-080		CAP,TC U 0.01-50 K B	X401	8Z-CD5-633-010		VIB, CER16.93MHZ FCR16.93M2
C462	87-010-248-080		CAP, ELECT 220-10V				
C463	87-A11-132-080		CAP,TC U 0.01-50 K B				
C465	87-010-404-080		CAP, ELECT 4.7-50V	LED C.B			
C466	87-010-831-080		C-CAP,U,0.1-16F	CN603	87-A60-109-010		CONN,2P V S2M-2W
C467	87-010-263-080		CAP, ELECT 100-10V	LED601	87-A40-161-010		LED,L-1154SGD
C469	87-A11-092-080		CAP,TC U 150P-50 J CH	LED602	87-A40-161-010		LED,L-1154SGD
C470	87-010-544-080		CAP, ELECT 0.1-50V	LED603	87-A40-161-010		LED,L-1154SGD
C471	87-A11-148-080		CAP,TC U 0.1-50 Z F	LED604	87-A40-161-010		LED,L-1154SGD
C472	87-A11-148-080		CAP,TC U 0.1-50 Z F	LED605	87-A40-161-010		LED,L-1154SGD
C473	87-A11-148-080		CAP,TC U 0.1-50 Z F	LED606	87-A40-161-010		LED,L-1154SGD
C474	87-A11-148-080		CAP,TC U 0.1-50 Z F				
C475	87-A11-145-080		CAP,TC U 0.01-50 Z F	PT C.B			
C476	87-010-236-080		CAP,E 1000-10 SME	C903	87-A11-146-080		CAP,TC U 0.022-50 Z F
C477	87-012-286-080		CAP, U 0.01-25	C904	87-A11-146-080		CAP,TC U 0.022-50 Z F
C478	87-010-263-080		CAP, ELECT 100-10V	C905	87-A11-146-080		CAP,TC U 0.022-50 Z F
C479	87-012-286-080		CAP, U 0.01-25	C906	87-A11-146-080		CAP,TC U 0.022-50 Z F
C480	87-010-221-080		CAP, ELECT 470-10V	CNA901	8A-CLD-627-010		CONN ASSY,2P PWR
C481	87-010-405-080		CAP, ELECT 10-50V	△F902	87-035-219-010		FUSE, 500MA'T'<HRS,HSS>
C482	87-010-405-080		CAP, ELECT 10-50V	FB901	87-008-372-080		FILTER, EMI BL OIRNI<KS,EZS,EZL>
C489	87-A11-148-080		CAP,TC U 0.1-50 Z F	FB902	87-008-372-080		FILTER, EMI BL OIRNI<KS,EZS,EZL>
C490	87-A11-148-080		CAP,TC U 0.1-50 Z F	FC903	87-A90-505-080		FUSE CLAMP,TP00351-51<HRS,HSS>
C491	87-A11-132-080		CAP,TC U 0.01-50 K B	FC904	87-A90-505-080		FUSE CLAMP,TP00351-51<HRS,HSS>

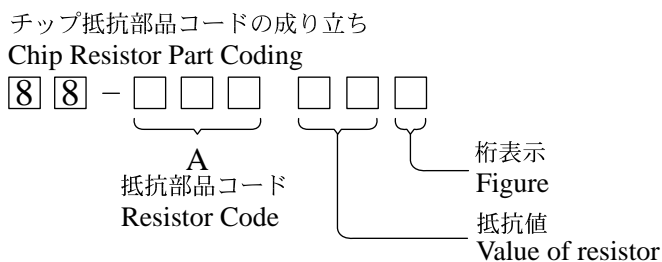
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
△PR901	87-A90-091-080		PROTECTOR, 2A 491
△SW901	87-A90-178-010		SW SL1-1-2<HRS>
△TM901	87-A60-317-010		TERMINAL, 1P MSC
△TM902	87-A60-317-010		TERMINAL, 1P MSC

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

- 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.

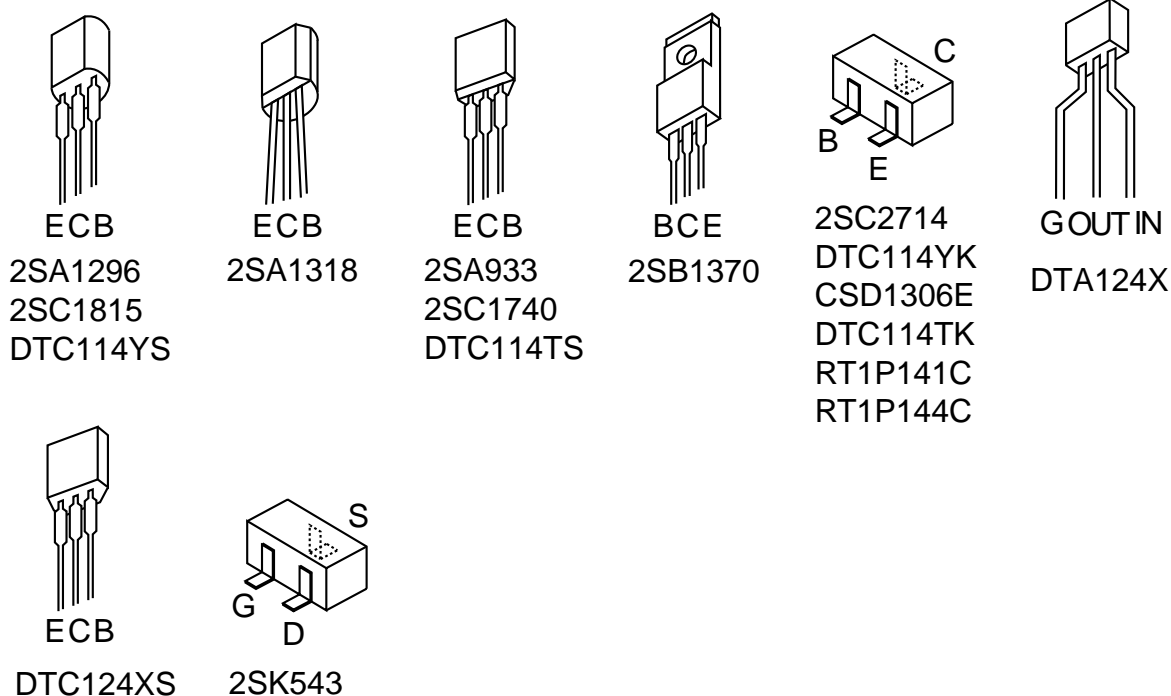
チップ抵抗部品コード/CHIP RESISTOR PART CODE



チップ抵抗  
Chip resistor

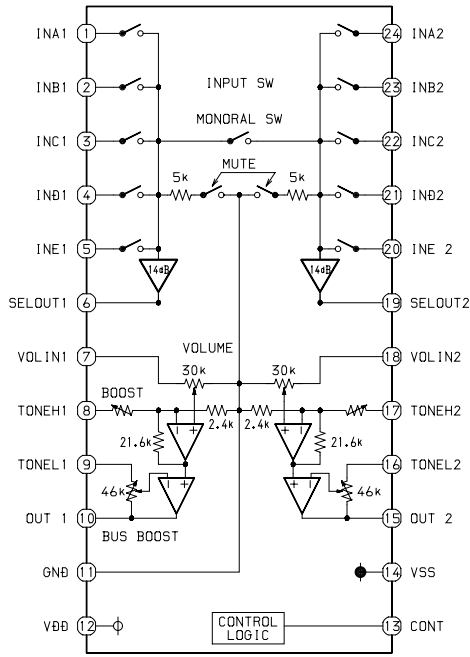
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法/Dimensions (mm)			抵抗コード : A Resistor Code : A	
				外形/Form	L	W		t
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION

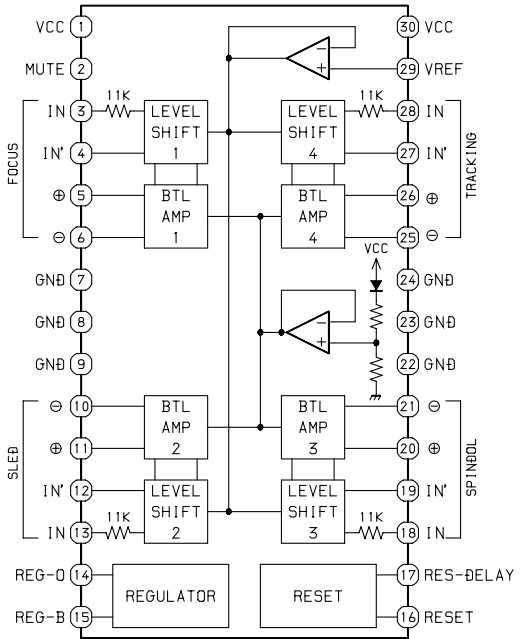


# IC BLOCK DIAGRAM

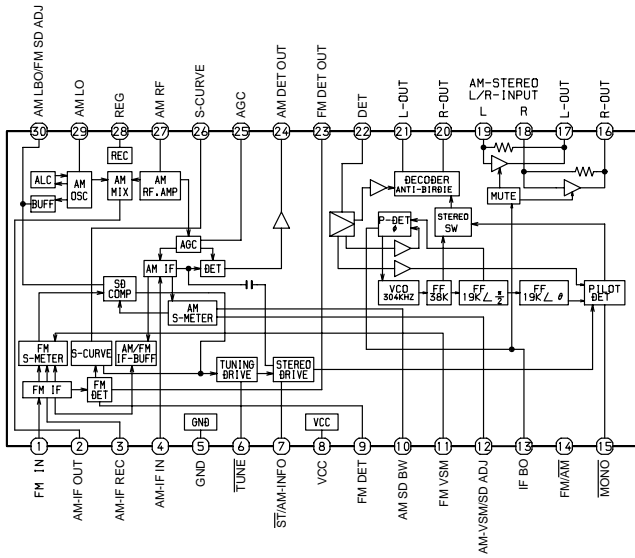
## IC, M62495AFP



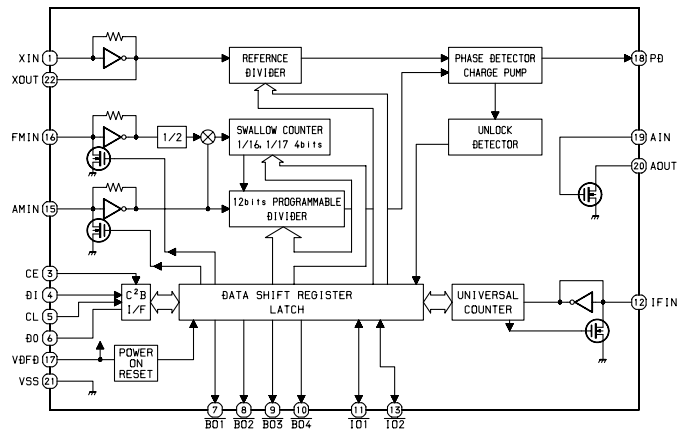
## IC, LA6541D



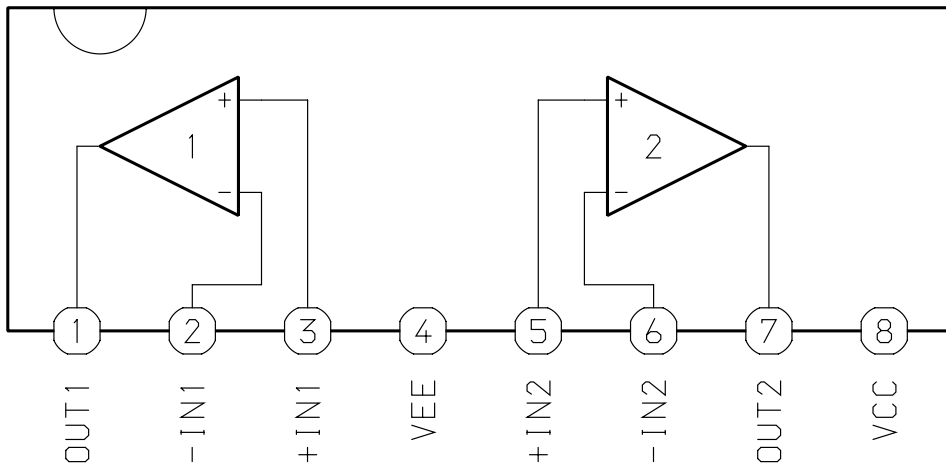
## IC, LA1837NL



## IC, LC72131D

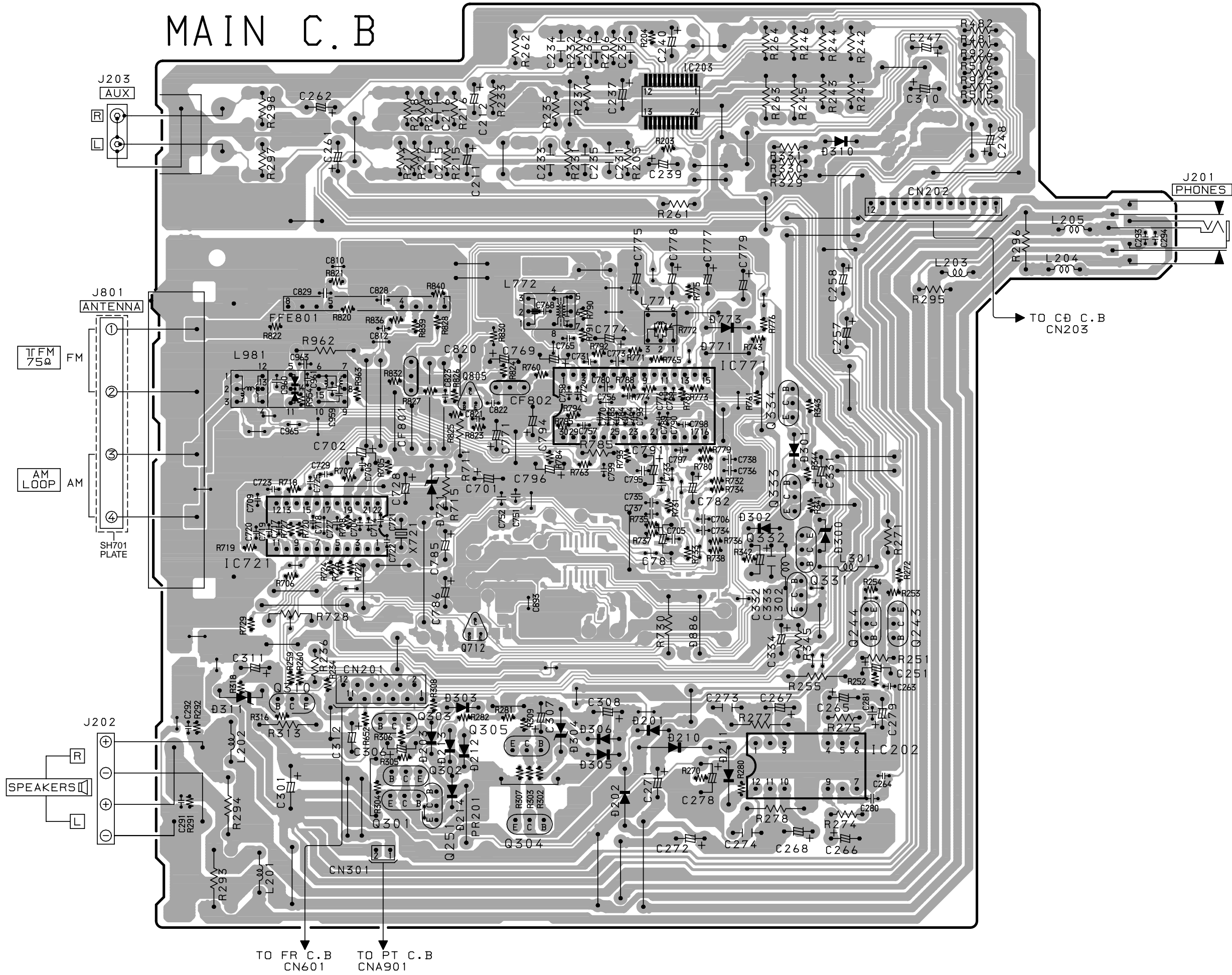


## IC, BA4560N

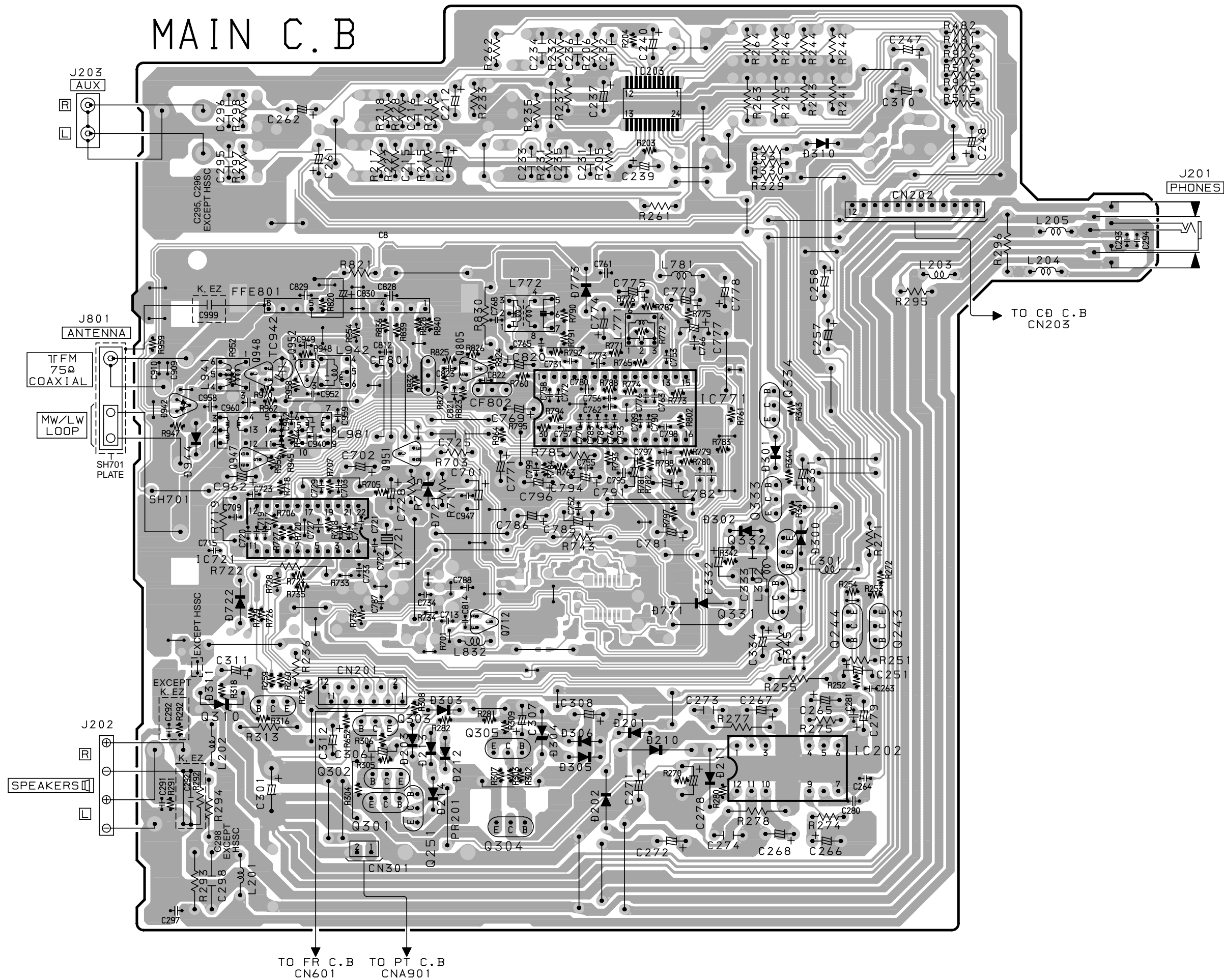




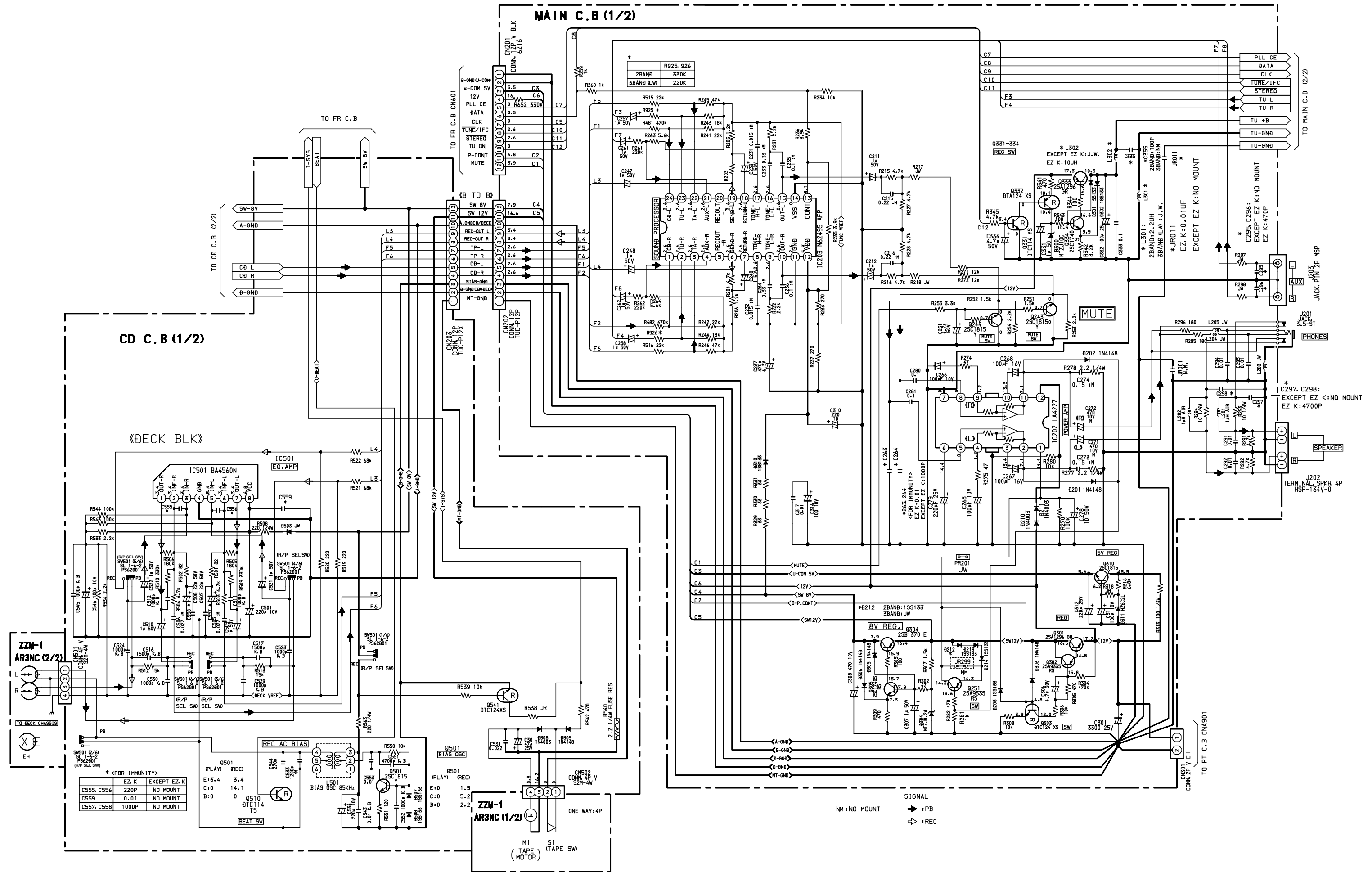
# MAIN C.B



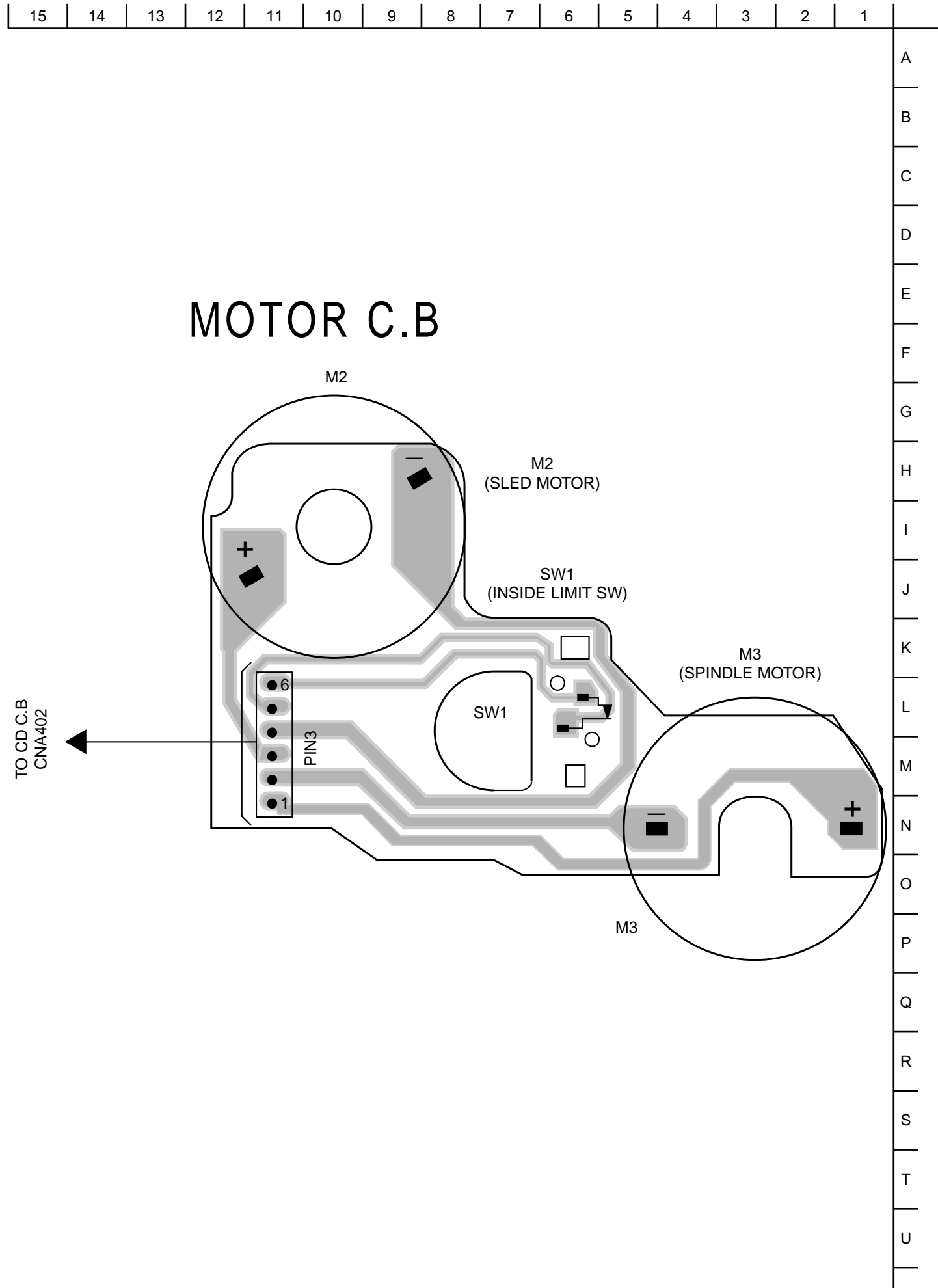
A  
B  
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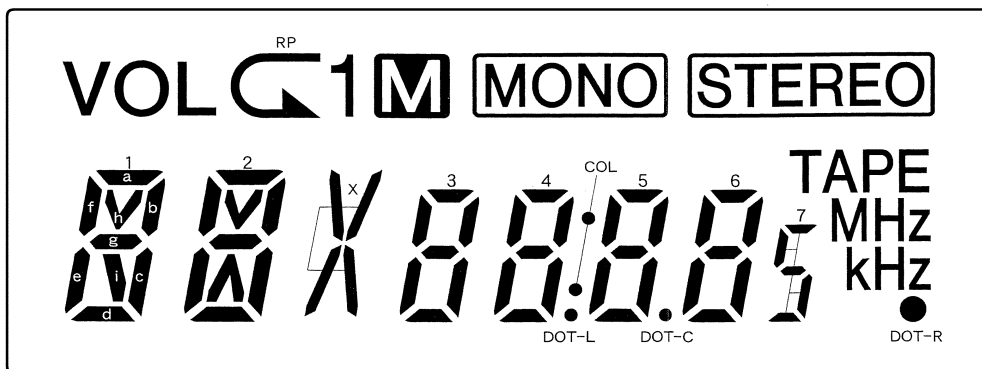
SCHEMATIC DIAGRAM-1 (MAIN)



WIRING-3 (MOTOR)



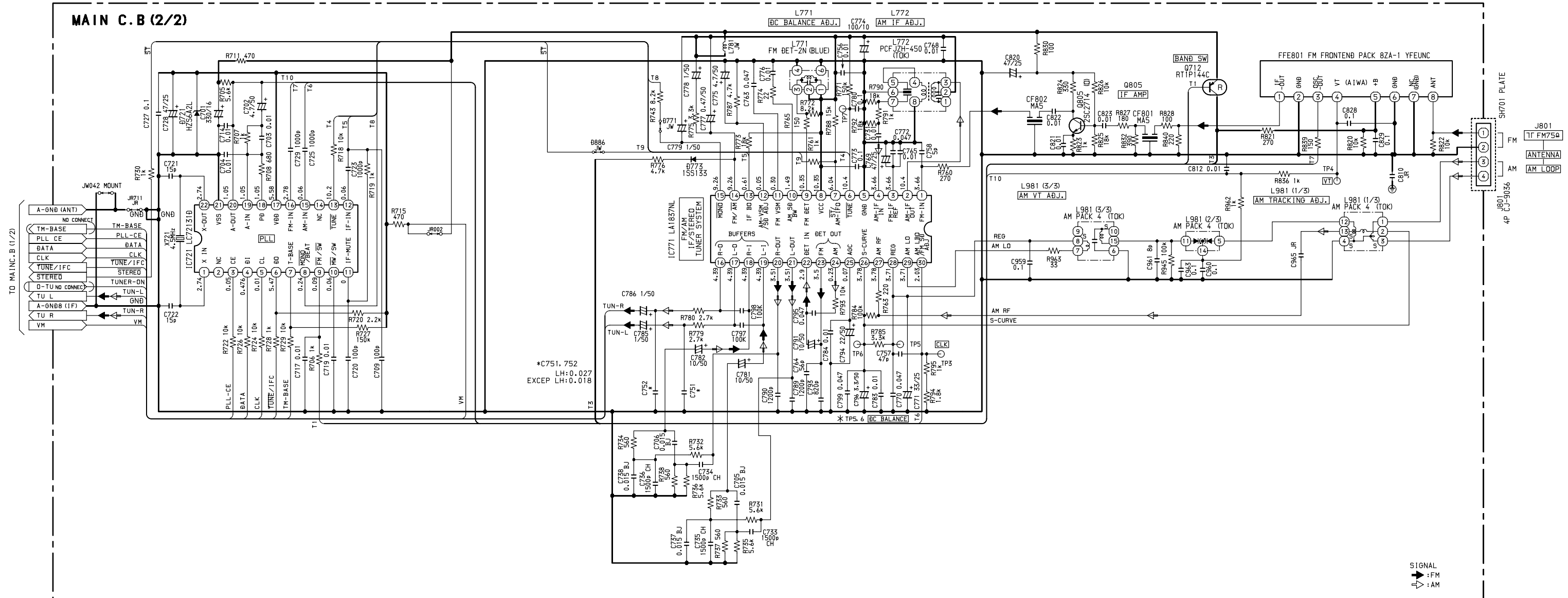
FL (AIWA4239ACL-13) GRID ASSIGNMENT/ANODE CONNECTION  
 GRID ASSIGNMENT



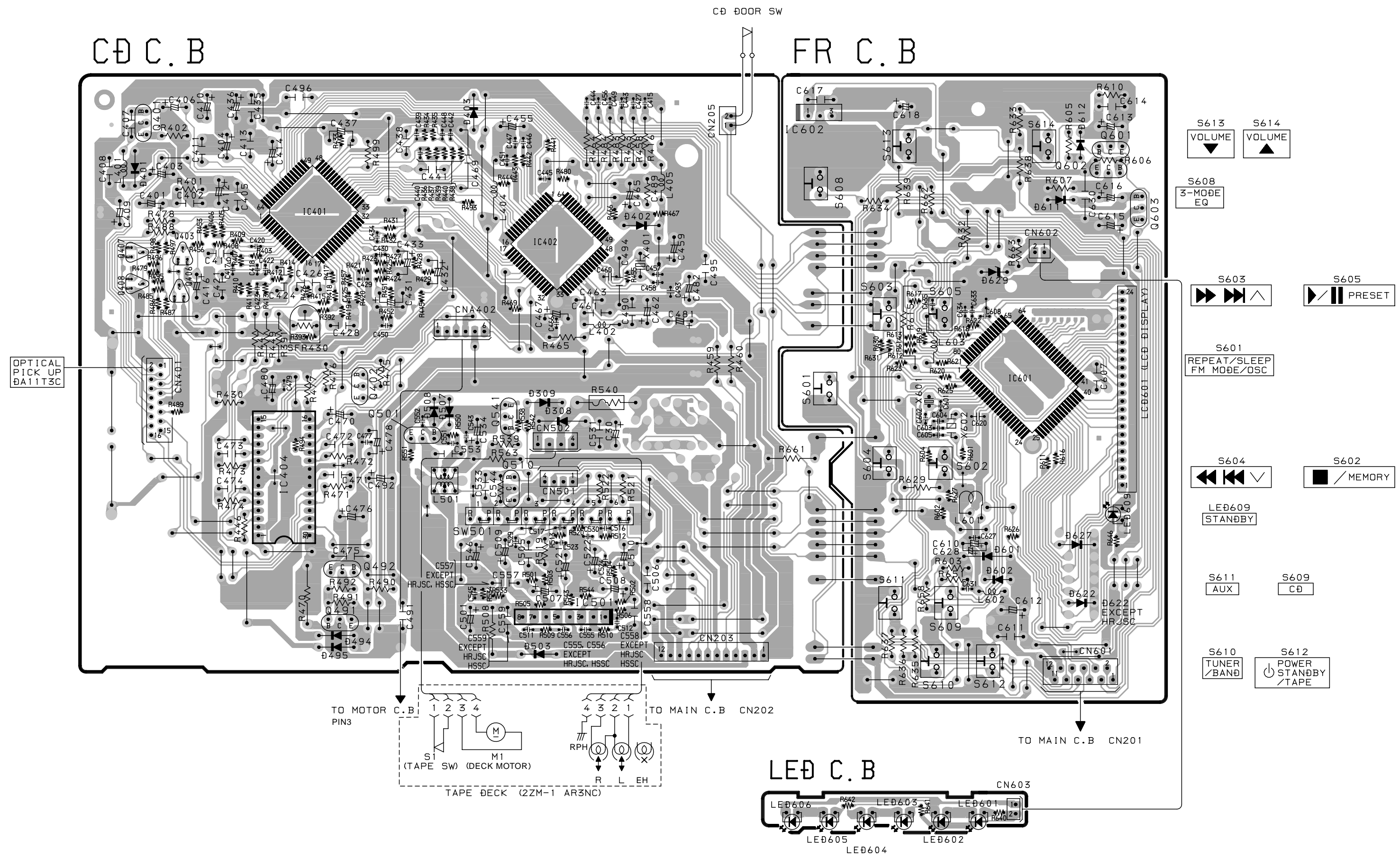
ANODE CONNECTION

NO	COM1	COM2	COM3
1	2b	2c	2d
2	1b	1c	1d
3	1a	1f	1e
4	1h	1g	1i
5	—	—	VOL
6	2a	2f	2e
7	2h	2g	2i
8	3f	3e	RP
9	3a	3g	3d
10	3b	3c	1
11	4f	4e	M
12	4a	4g	4d
13	4b	4c	X
14	col	DOT-L	MONO
15	5f	5e	DOT-R
16	5a	5g	5d
17	5b	5c	DOT-C
18	6f	6e	STEREO
19	6a	6g	6d
20	6b	6c	7
21	TAPE	MHz	KHz
22	COM1	—	—
23	—	COM2	—
24	—	—	COM3

SCHEMATIC DIAGRAM-2 (TUNER: HR)

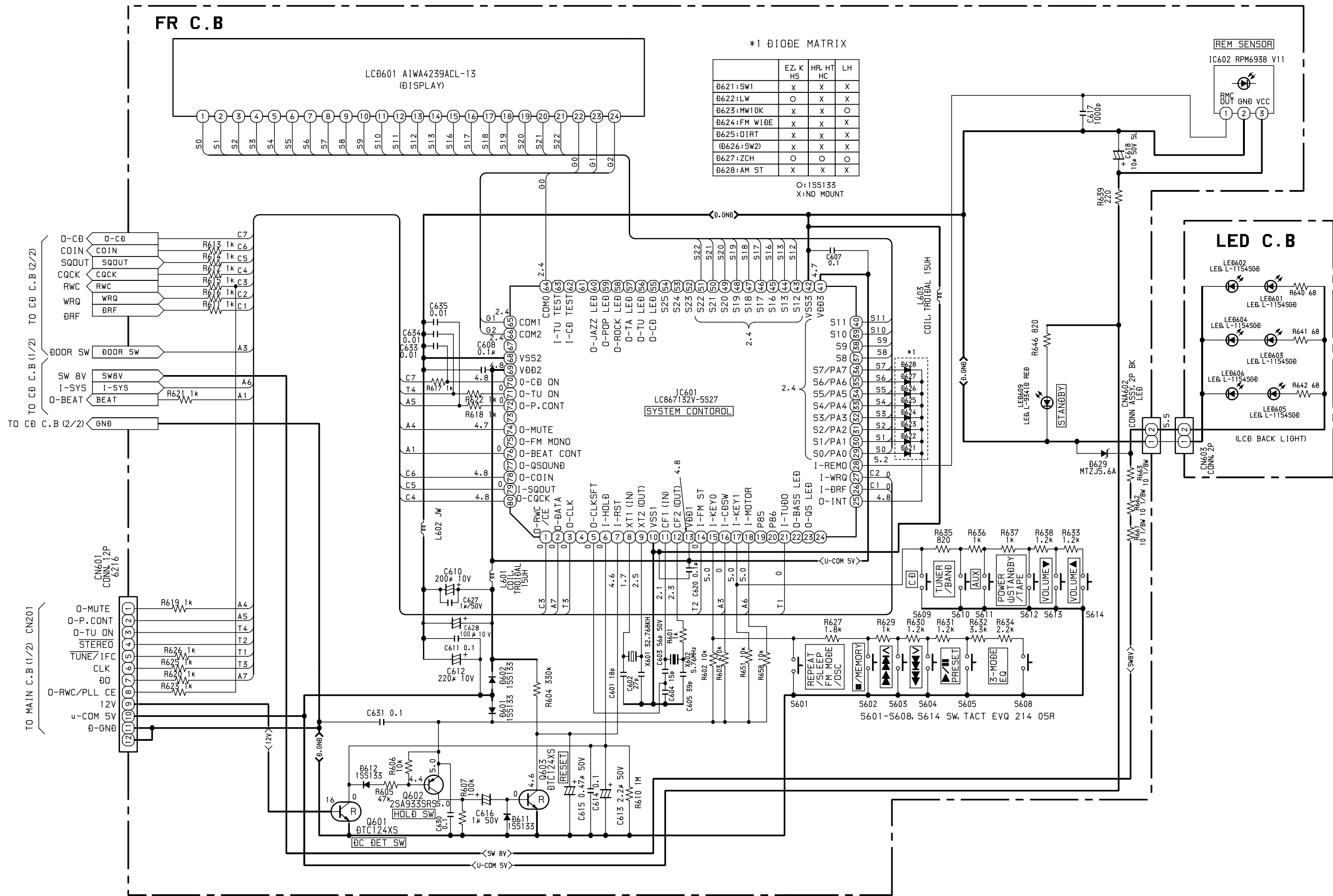








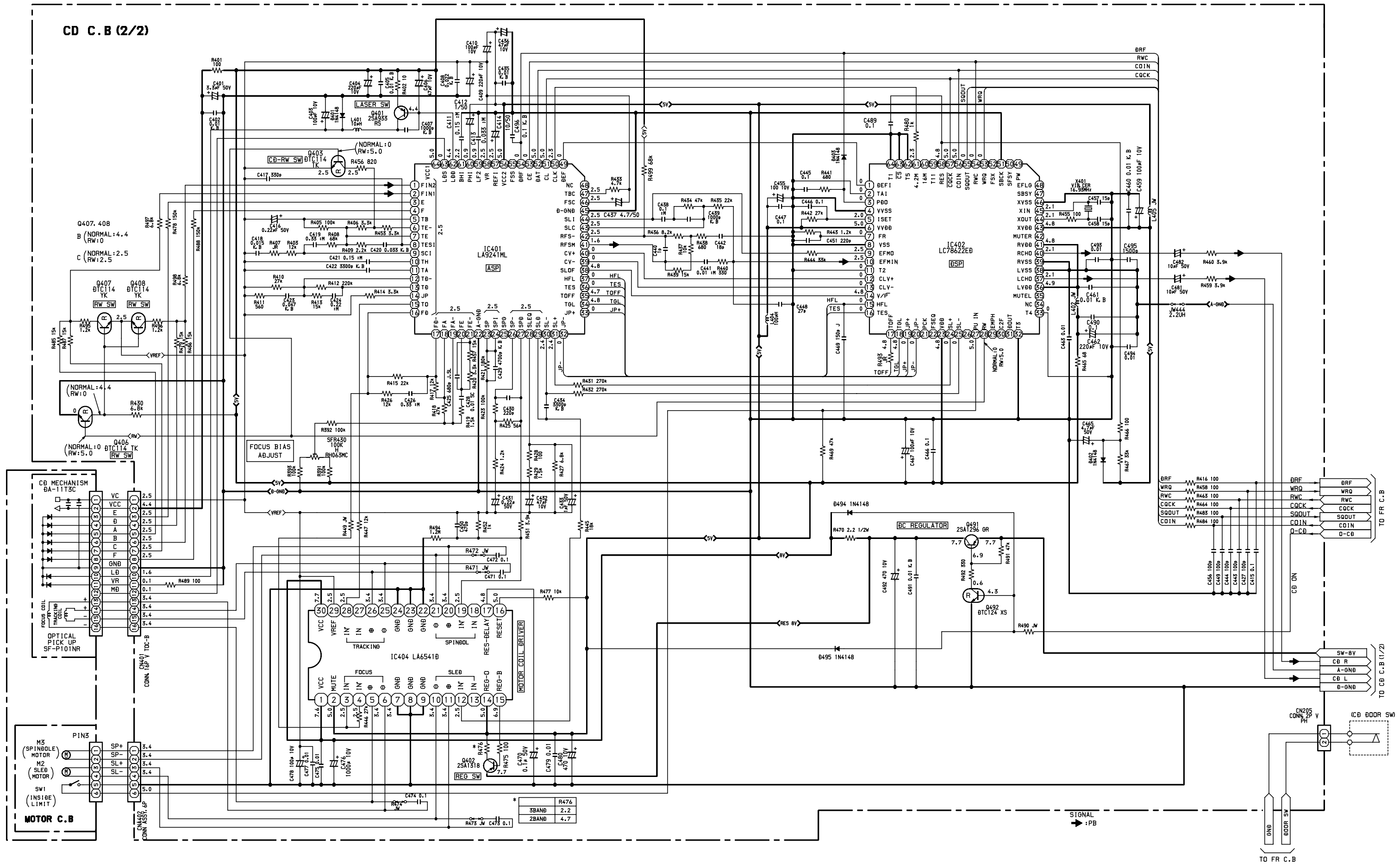
SCHEMATIC DIAGRAM-4 (FRONT)



\*1 DIODE MATRIX

	EZ. K HS	HR. HT HC	LH
B621:SW1	X	X	X
B622:LW	O	X	X
B623:MW10K	X	X	O
B624:FM WIDE	X	X	X
B625:DIRT	X	X	X
(B626:SW2)	X	X	X
B627:ZCH	O	O	O
B628:AM ST	X	X	X

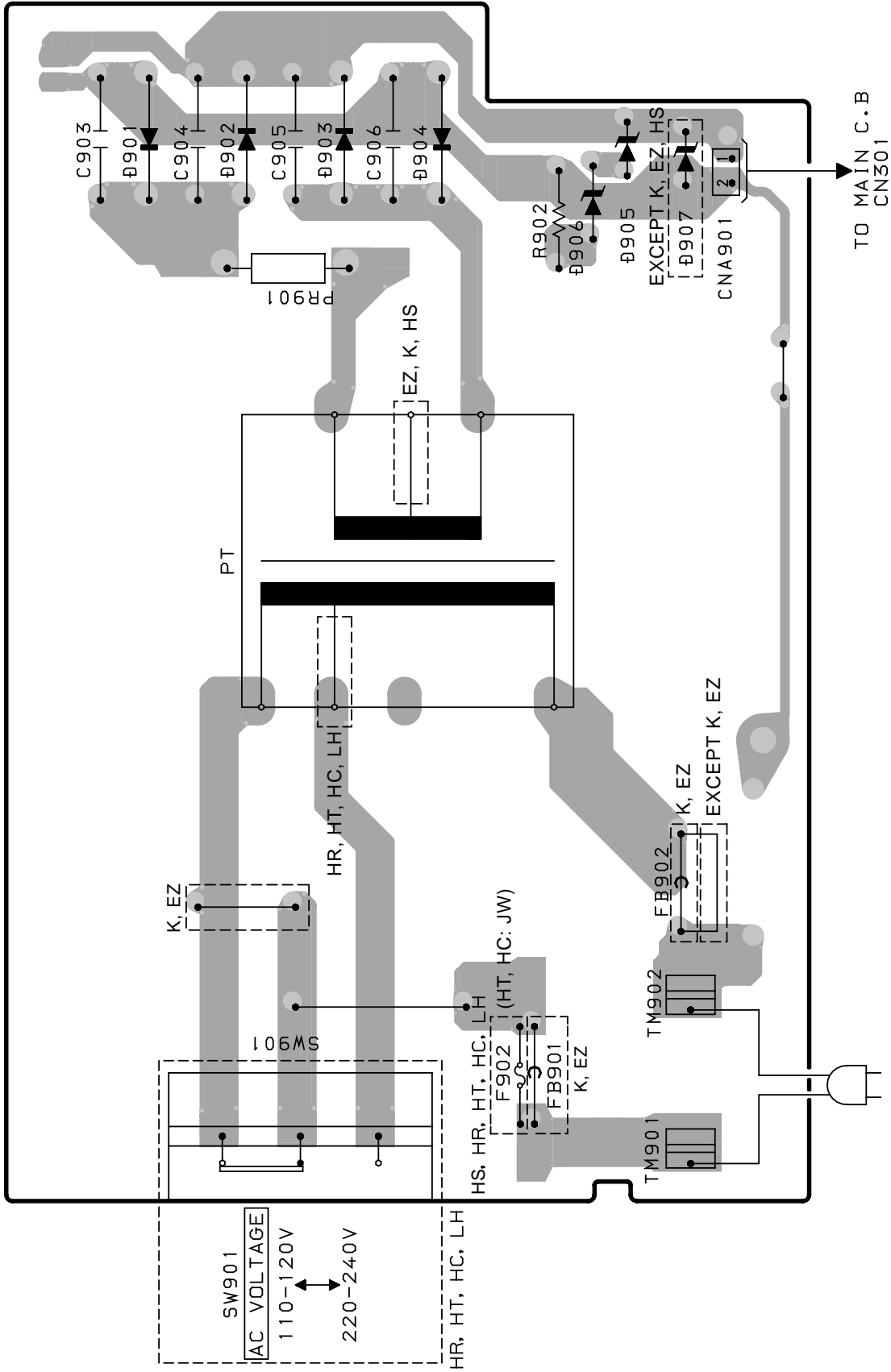
O: 1SS133  
X: NO MOUNT



WIRING-5 (PT)

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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PT C.B



HR, HT, HC, LH: AC 110-120V/220-240V 50/60Hz

K, EZ: AC 230V 50Hz

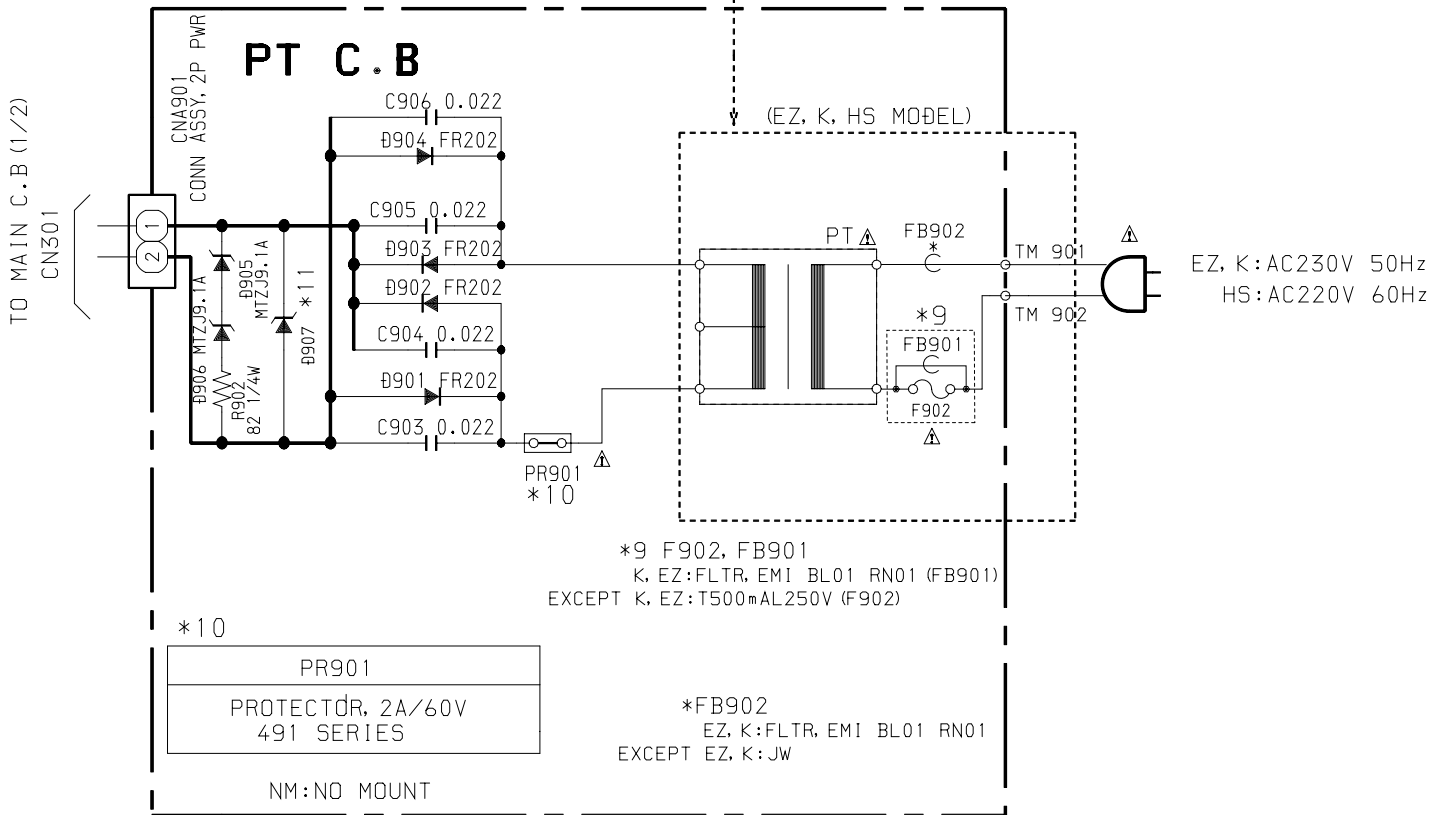
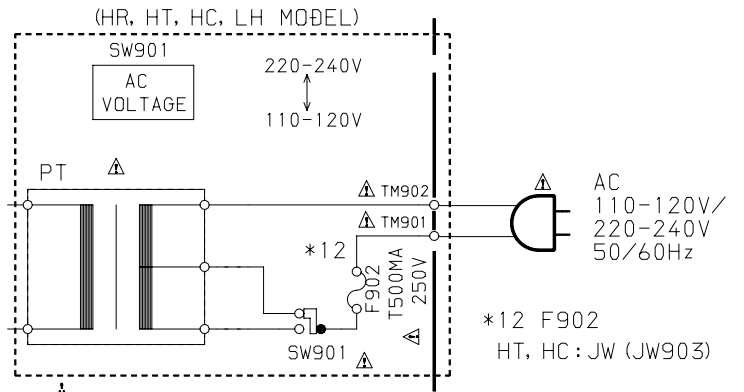
HS: AC 220V 60Hz

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

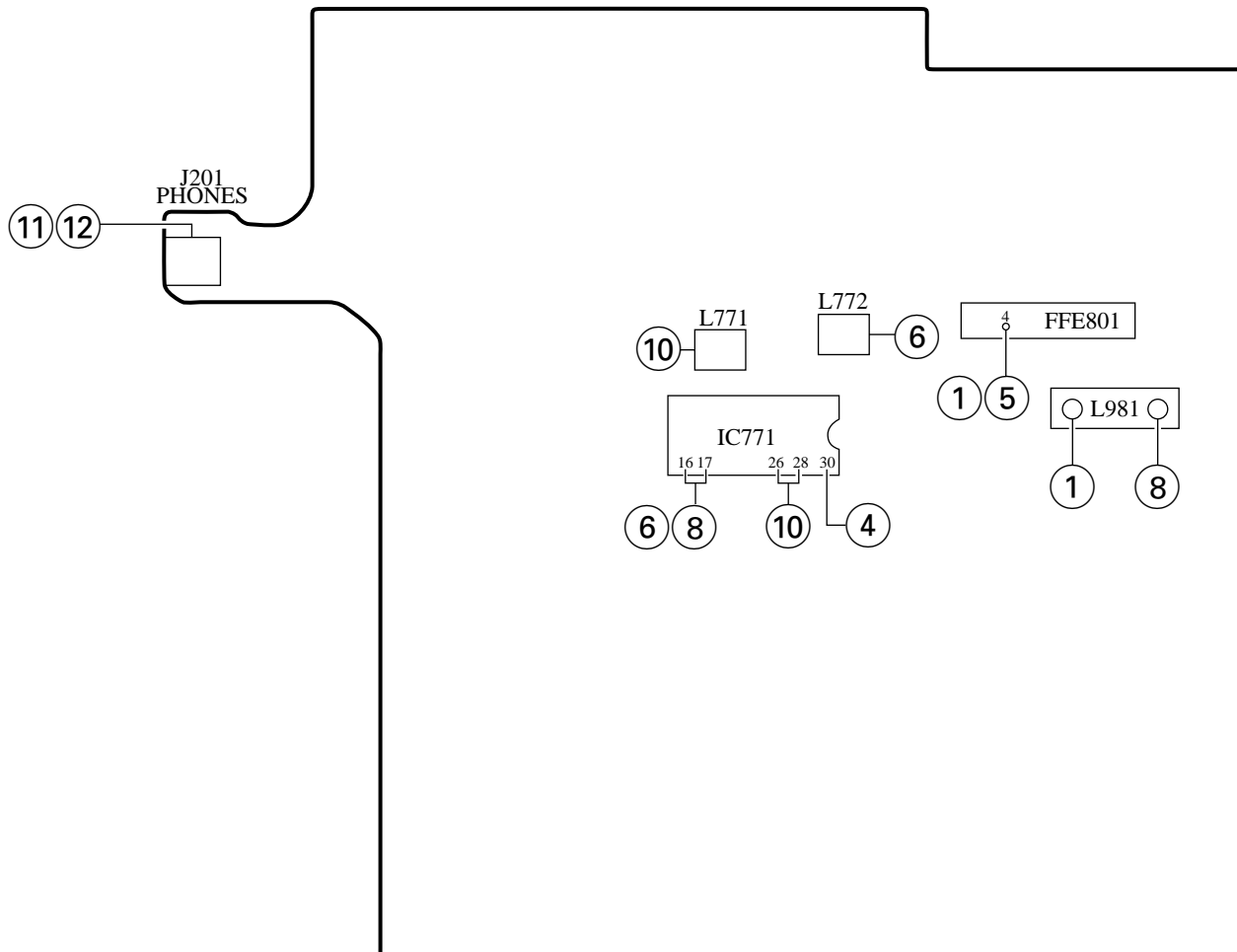
# SCHEMATIC DIAGRAM-6 (POWER)

\*11: ⌀907

HR, LH,	ZENER, MTZJ24B
EZ, K, HS	NO MOUNT

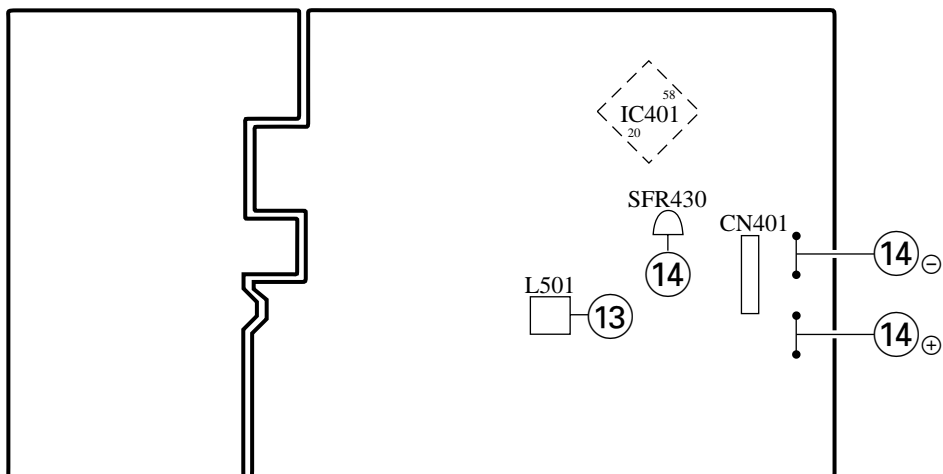


MAIN C.B (Component side)

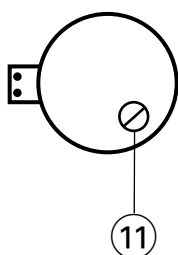


FR C.B

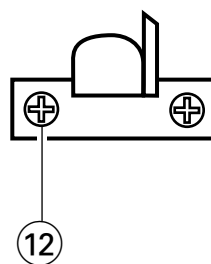
CD C.B (Component side)



M1 (TAPE MOTOR)

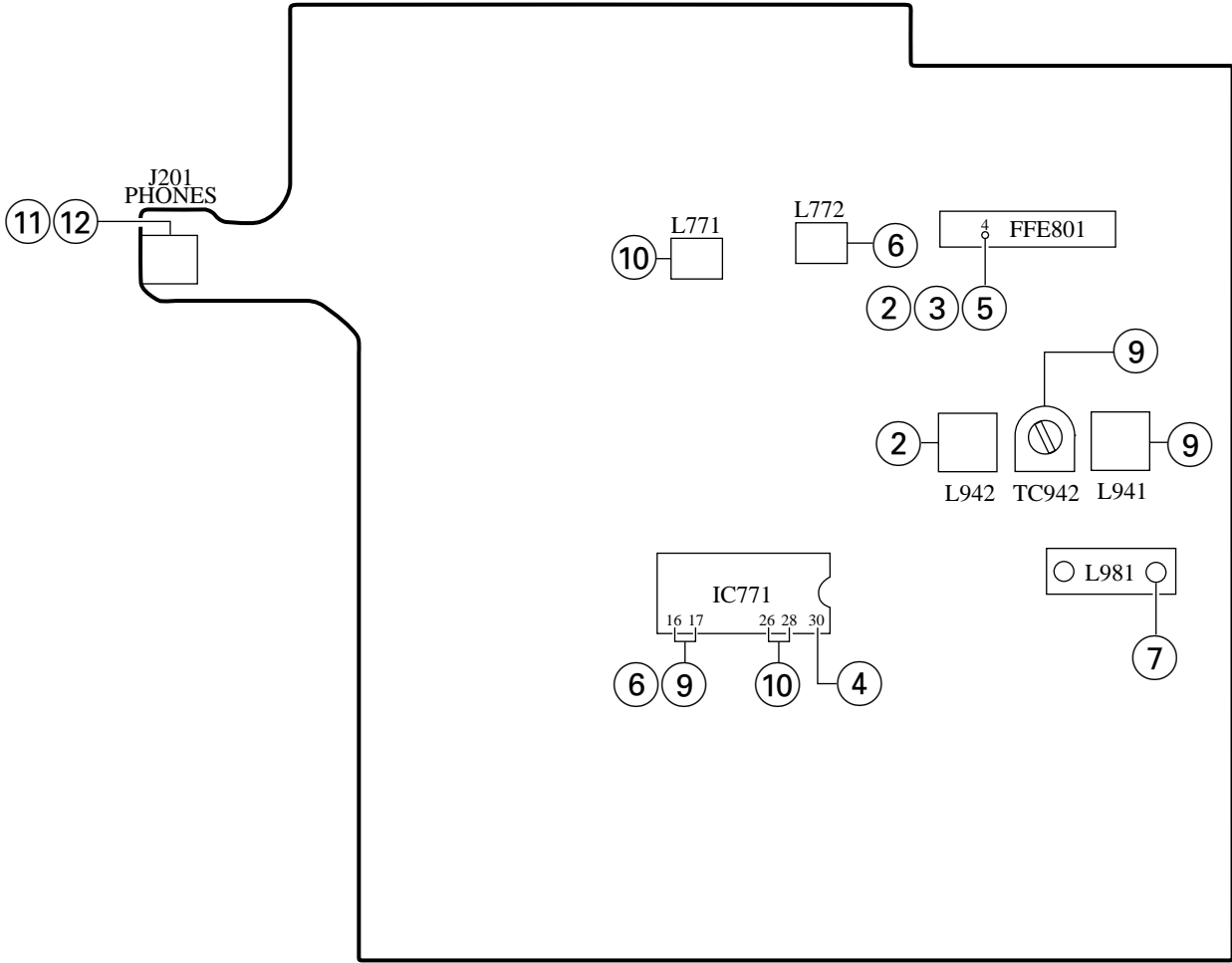


RPH



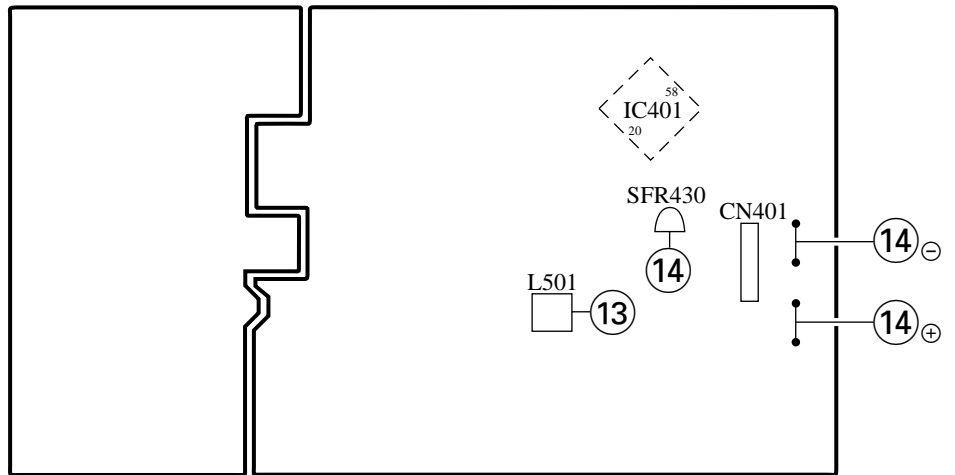
<K, EZ, HS>

### MAIN C.B (Component side)

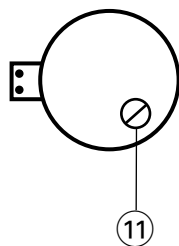


### FR C.B

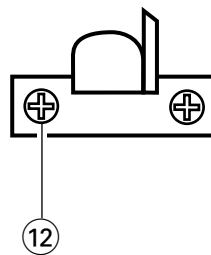
### CD C.B (Component side)



### M1 (TAPE MOTOR)



### RPH



## < TUNER SECTION >

1. AM/MW VT Adjustment <HR>  
Test point: FFE801 (4PIN)  
Adjustment location: L981 (3/3)  
7.5V±0.05V ..... 1710kHz  
0.3V (CHECK) ..... 530kHz
2. LW VT Adjustment <K, EZ, HS>  
Test point: FFE801 (4PIN)  
Adjustment location: L942  
1.3V±0.05V ..... 144kHz  
8.0V (CHECK) ..... 290kHz
3. MW VT Check <K, EZ, HS>  
Test point: FFE801 (4PIN)  
8.0V ..... 1602kHz  
0.6V ..... 531kHz
4. Clock Frequency Check  
Settings: Test point: IC771 (LA1837NL) 30PIN  
Method: Set to AM 1602kHz and check that the test point becomes 2052kHz±45Hz.
5. FM VT Check  
Test point: FFE801 (4PIN)  
8.0V ..... 108.0MHz  
0.5V ..... 87.5MHz
6. IF Adjustment  
Settings: • Test point: IC771 (LA1837NL) 16, 17PIN  
• Adjustment location: L772  
Method: Adjust L772 so that the output level at 1000kHz/999kHz becomes maximum.
7. AM/MW Tracking Adjustment <K, EZ, HS>  
L981 (1/3) ..... 603kHz
8. AM Tracking Adjustment <HR>  
Settings: • Test point: IC771 (LA1837NL) 16, 17PIN  
• Adjustment location: L981 (1/3)  
Method: Adjust L981 (1/3) so that the output level at 1000kHz/999kHz becomes maximum.
9. LW Tracking Adjustment <K, EZ, HS>  
Settings: • Test point: IC771 (LA1837NL) 16, 17PIN  
• Adjustment location: L941, TC942  
Method: Set the TC942 to mechanical center.  
Adjust L941 so that the output level at 144kHz becomes maximum.  
Adjust TC942 so that the output level at 290kHz becomes maximum.  
Repeat above procedure 2 or 3 times.
10. DC Balance Adjustment  
Settings: • Test point: IC771 (LA1837NL) 26, 28PIN  
• Adjustment location: L771  
• Frequency: 98.0MHz  
Method: Set to FM 98.0MHz and adjust L771 so that the voltage between 26PIN and 28PIN becomes 0V±0.04V.

## < TAPE SECTION >

11. Tape speed Adjustment  
Settings: • Test tape: TTA-100  
• Test point: J201 (PHONES jack)  
• Adjustment location: SFR of deck motor  
Method: Play back the test tape and adjust SFR so that the frequency counter reads 3000Hz ±30Hz.
12. Head Azimuth Adjustment  
Settings: • Test tape: TTA-320  
• Test point: J201 (PHONES jack)  
• Adjustment location: Azimuth adjustment screw.  
Method: Play back the 8kHz signal of the test tape and adjust screw so that the output becomes maximum.
13. Bias frequency Adjustment  
L501 ..... 85kHz ±0.5kHz

## < CD SECTION >

14. FE Balance Adjustment  
Settings: • Test point: ⊖IC401, PIN58 (VR),  
⊕IC401, PIN20 (FE)  
• Adjustment location: SFR430  
Method: Play back the disc and adjust SFR430 so that the test point voltage becomes 0V.

IC DESCRIPTION  
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	O	Signal 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 ( $\pm$ search/+ search) select pin. (Not connected)
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 PDO 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	T2	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
12, 13	CLV+, CLK-	O	Disc motor control output. Three level output is possible using command.	
14	V/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 PB clock monitoring pin 4.3218 MHz when phase is locked in. (Not Connected)	
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. (Not Connected)	
23	VDD	—	Digital system power supply pin.	
24	SL+	O	Moves the sled to outer circumference.	
25	SL-	O	Moves the sled to inner circumference.	
26	—	—	Not connected.	
27	PUIN	I	CD pickup inner switch detection.	
28	RW	O	Read, wright signal. (Not Connected)	
29	EMPH	O	De-emphasis monitor output pin. De-emphasis disc is being played back at H. (Not Connected)	
30	C2F	O	C2 flag output pin. (Not Connected)	
31	DOUT	O	DIGITAL OUT output pin. (EIAJ format). (Not Connected)	
32, 33	T3, T4	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. (Not Connected)
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.

Pin No.	Pin Name	I/O	Description
39	RVSS	—	R-channel 1-bit DAC. R-channel GND. Be sure to connect to 0V. R-channel output pin. R-channel power supply pin. R-channel mute output pin. (Not Connected)
40	RCHO	O	
41	RVDD	—	
42	MUTER	O	
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. (Not Connected)
48	EFLG	O	C1, C2, single and dual correction monitoring pin. (Not Connected)
49	PW	O	Subcode P, Q, R, S, T, U and W output pin. (Not Connected)
50	SFSY	O	Subcode frame sync signal output pin. Falls down when subcode enters standby. (Not Connected)
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. (Not Connected)
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	$\overline{\text{CQCK}}$	I	Command input read clock or subcode read input clock from SQOUT pin
58	RES	I	LC78622 reset input pin. Set this pin to L once when the main power is turned on.
59	T11	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	T5	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
63	$\overline{\text{CS}}$	I	Chip select signal input pin with built-in pull-down resistor. Be sure to connect to 0V while it is not controlling.
64	T1	I	Test signal input pin without built-in pull-down resistor. Be sure to connect to 0V.

## IC, LC867132V-5S27

Pin No.	Pin Name	I/O	Description
1	O-RMC/CE	O	CD read/write control output and TU CE.
2	O-DATA	O	Data output to M62495FP.
3	O-CLK	O	Output CLK to tuner PLL.
4	—	—	Not Connected.
5	O-CLK SFT	O	Clock shift output of the microcomputer.
6	I-HOLD	I	Hold status detection.
7	I-RST	I	Microcomputer reset.
8	XT1 (IN)	I	Connected to 32.768KHZ crystal oscillator.
9	XT2 (OUT)	O	
10	VSS1	—	GND.
11	CF1 (IN)	I	Connected to 6MHZ Ceramic Filter.
12	CF2 (OUT)	O	
13	VDD1	—	Power supply for microcomputer (+5V).
14	I-FM ST	I	FM STEREO status input.
15	I-KEYO	I	KEY AD input.
16	I-CD SW	I	CD DOOR SW status detection input.
17	I-KEY1	I	KEY AD input.
18	I-MOTOR	I	DECK MECHA MOTOR status input.
19	P85	I	REC status input. (Not connected)
20	P86	I	FM, AM status input. (Not connected)
21	I-TU DO	I	Data input from tuner PLL.
22	O-BASS LED	O	BASS LED ON/OFF control output. (Not connected)
23	O-QS LED	O	Q-Sound LED ON/OFF control output. (Not connected)
24	—	—	Not connected.
25	O-INT	O	INT DIODE MATRIX detection output.
26	I-DRF	I	CD RF level detection input.
27	I-WRQ	I	CD sub-code Q standby input.
28	I-REMO	I	Remote control input.
29	S0/PA0	O	LCD segment output. (SW)
30	S1/PA1	O	LCD segment output. (LW)
31	S2/PA2	O	LCD segment output. (MW 10K)
32	S3/PA3	O	LCD segment output. (FM WIDE)
33	S4/PA4	O	LCD segment output. (OIRT)
34	S5/PA5	O	LCD segment output. (SW2)
35	S6/PA6	O	LCD segment output. (ZCH)
36	S7/PA7	O	LCD segment output. (AM ST)
37-40	S8~S11	O	LCD segment output.
41	VDD3	—	Power supply for microcomputer (+5V).
42	VSS3	—	GND.
43-51	S12~S13, S16-S22	O	LCD segment output.
52-54	S23-S25	O	LCD segment output. (Not connected)

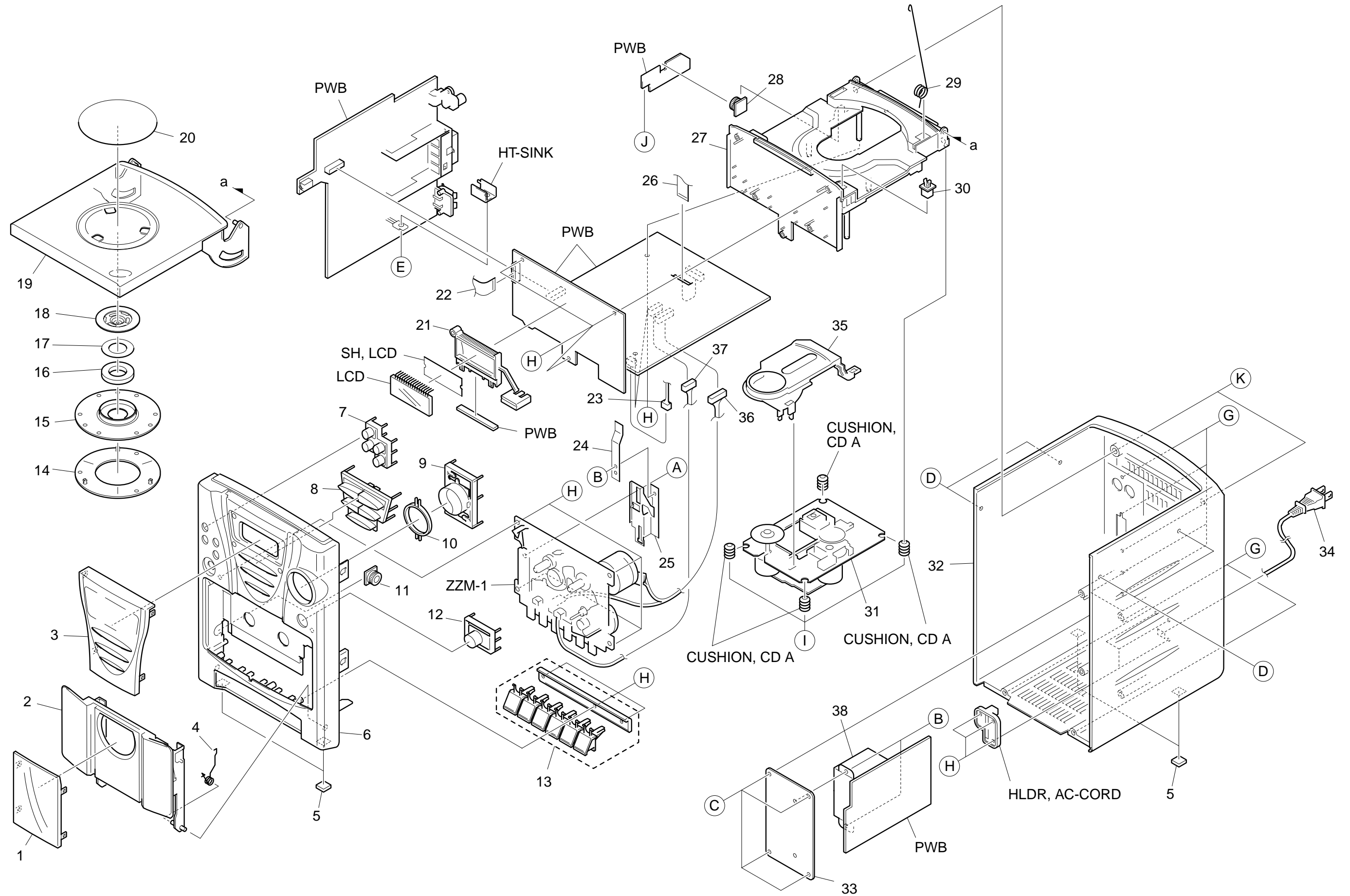
Pin No.	Pin Name	I/O	Description
55	O-CD LED	O	LED ON/OFF control output for CD functions. (Not connected)
56	O-TU LED	O	LED ON/OFF control output for TU functions. (Not connected)
57	O-TA LED	O	LED ON/OFF control output for TAPE functions. (Not Connected)
58	O-ROCK LED	O	LED ON/OFF control output for ROCK. (Not connected)
59	O-POP LED	O	LED ON/OFF control output for POP. (Not connected)
60	O-JAZZ LED	O	LED ON/OFF control output for JAZZ. (Not connected)
61	—	—	Not connected.
62	I-CD TEST	I	
63	I-TU TEST	I	
64-66	COM0-COM2	O	LCD common output.
67	—	—	Not connected.
68	VSS2	—	GND.
69	VDD2	—	Power supply for microcomputer (+5V).
70	O-CD ON	O	CD PWR control output.
71	O-TU ON	O	TU PWR control output.
72	O-P.CONT	O	Power supply control output.
73	—	—	Not connected.
74	O-MUTE	O	Main mute output.
75	O-FM MONO	O	FM mono/stereo output.
76	O-BEAT CONT	O	BEAT switch over output.
77	O-QSOUND	O	Q-Sound ON/OFF output.
78	O-COIN	O	CD command output.
79	I-SQOUT	I	CD sub-code Q input.
80	O-CQCK	O	CLK for CD commands/sub-codes.

# MECHANICAL PARTS LIST 1/1

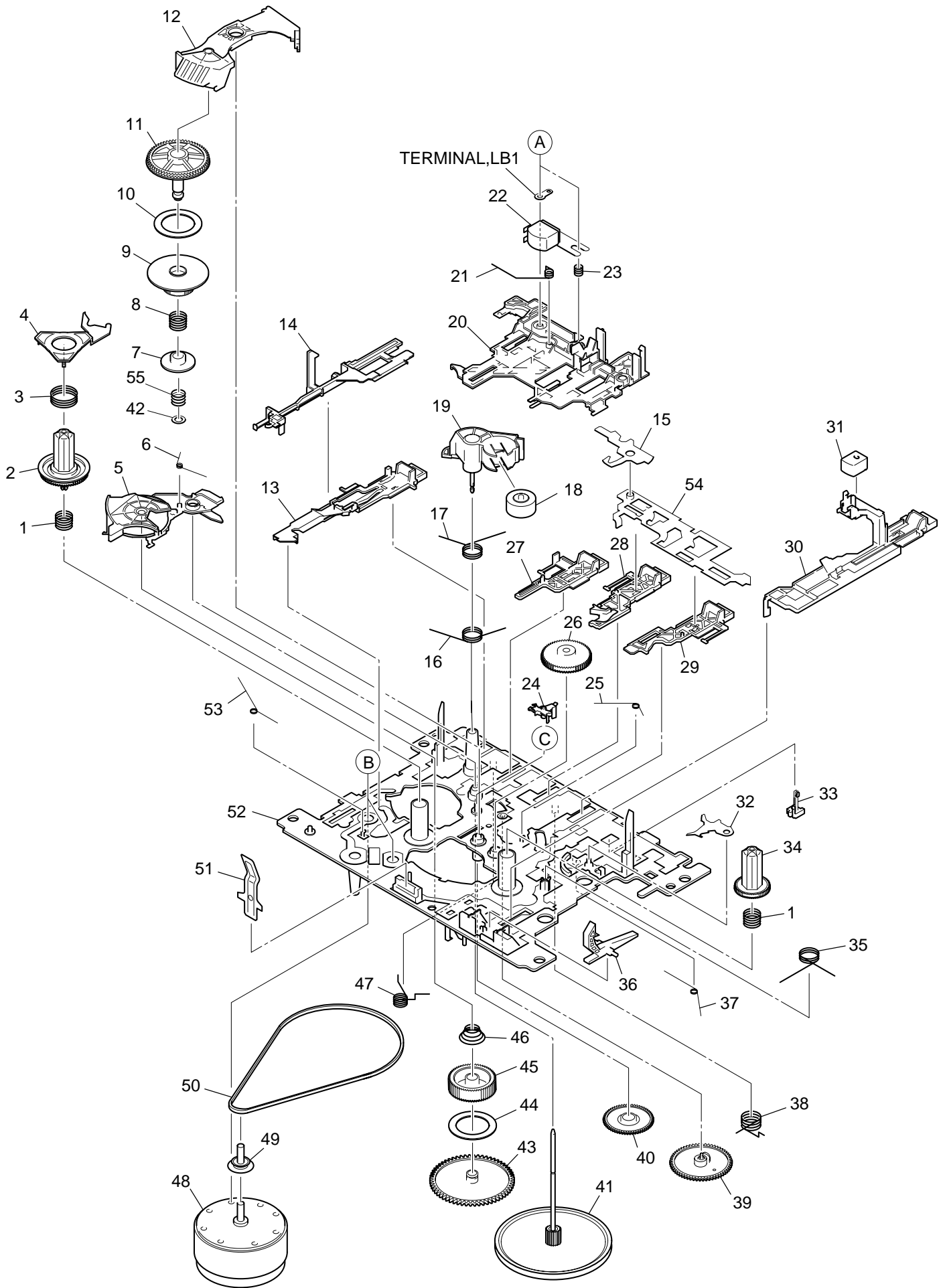
REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CLD-096-010		WINDOW,CASS-E<EZL>	25	8A-CLD-210-010		PLATE,REC
1	8A-CLD-007-010		WINDOW,CASS<EXCEPT EZL>	26	8A-CLD-620-010		FF-CABLE,16P CD-RF
2	8A-CLD-006-010		BOX,CASS	27	8A-CLD-003-011		CHAS,CD
3	8A-CLD-008-010		WINDOW,LCD<EXCEPT EZL>	28	87-063-165-010		OIL-DMPR 150
3	8A-CLD-097-010		WINDOW,LCD-E<EZL>	29	8A-CLD-212-010		SPR-T,CD
4	8A-CLD-213-010		SPR-T,CASS	30	87-036-389-010		SW,PUSH LOCK
5	8A-CLD-216-010		CUSHION,FOOT	31	M8-ZZK-E90-070		DA11T3C
6	8A-CLD-001-010		CABI,FR	32	8A-CLD-032-010		CABI,REAR LH<HR>
7	8A-CLD-011-010		BTN,FUNCTION	32	8A-CLD-033-010		CABI,REAR EZ<EXCEPT HR>
8	8A-CGD-010-010		BTN,CD-V<EZL>	33	8A-CLD-214-010		HLD,PT
8	8A-CLD-012-010		BTN,CD<EXCEPT EZL>	34	87-A80-092-010		AC CORD ASSY,E BLK SUN FAI<EXCEPT HSS>
9	8A-CLD-010-010		BTN,VOL	34	87-A80-155-010		AC CORD ASSY,HS TS<HSS>
10	8A-CLD-009-010		RING,VOL<EXCEPT EZL>	35	8Z-CT9-064-010		PANEL CD
10	8A-CGD-009-010		RING,VOL-V<EZL>	36	8A-CLD-625-010		CONN ASSY,4P TA-ME
11	87-063-164-010		OIL-DMPR 80	37	8A-CLD-626-010		CONN ASSY,4P RPH
12	8A-CLD-013-010		BTN,EQ	38	8A-CLD-642-010		PT,H<HR,HSS>
13	8A-CLD-014-010		KEY,CASS	A	8A-CDA-222-010		S-SCREW,CASS+2.6-4
14	8Z-CT6-214-010		RING,CHUCK	B	87-067-566-010		TAPPING SCREW, VFTT+3-6
15	8Z-CT6-213-010		BASE,CHUCK	C	87-661-097-410		TAPPING SCREW, VFT1+3-12
16	87-036-368-010		MAGNET	D	87-B10-118-010		QT2+3-12 W/O NI
17	86-CT9-222-010		PLATE,MAGNET	E	87-741-102-410		UT2+3-20
18	86-CT9-217-010		HLD,CHUCK A(S)	F	87-751-094-410		VT2+3-6 W10SL0T
19	8A-CGD-005-010		BOX,CD-V<EZL>	G	87-B10-269-010		UT2+3-12 W/O CR
19	8A-CLD-004-010		BOX,CD<EXCEPT EZL>	H	87-741-096-410		UT2+3-10
20	8A-CLD-005-010		WINDOW,CD<EXCEPT EZL>	I	8A-CK4-223-010		S-SCREW,CD
20	8A-CLD-095-010		WINDOW,CD-E<EZL>	J	87-661-095-410		VFT1+3-8
21	8A-CLD-201-010		HLD,LCD				
22	8A-CLD-621-010		FF-CABLE,12P FR-MAIN				
23	8A-CLD-622-010		CONN ASSY,2P DOOR				
24	8A-CLD-211-010		SPR-P,REC				

## 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
LA	Aqua Blue				



# TAPE MECHANISM EXPLODED VIEW 1/1

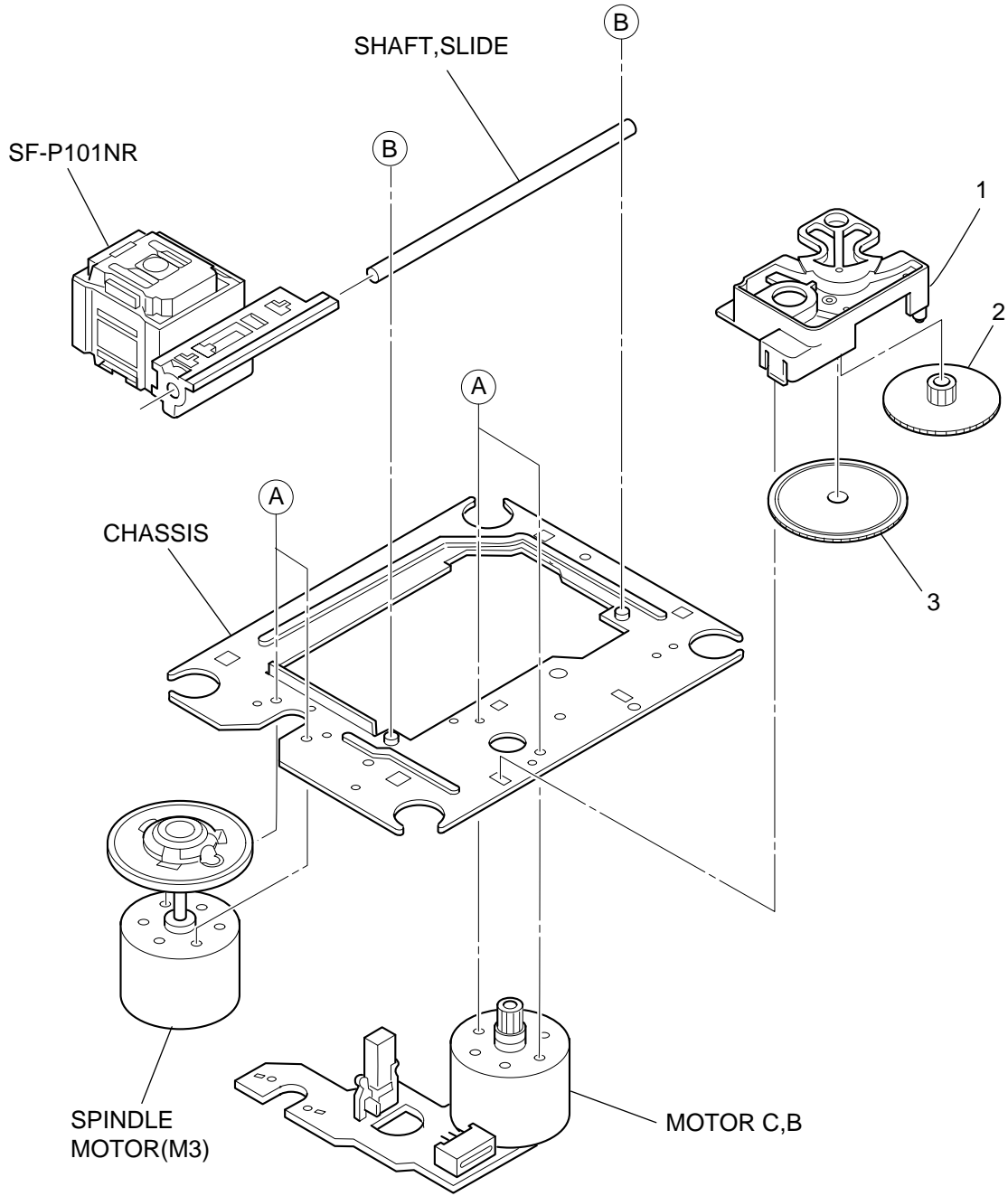




# TAPE MECHANISM PARTS LIST 1/1

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM1-254-310		SPR-C, REEL R	31	87-A91-819-010		HEAD, EH 2NSS-2200
2	8Z-ZM1-225-110		GEAR, REEL R	32	8Z-ZM1-215-010		LEVER, REC LOCK
3	8Z-ZM1-253-210		SPR-C, AUTO SENSOR	33	87-A91-492-010		SW, LEAF MSW18560
4	8Z-ZM1-217-110		LEVER, AUTO SENSOR	34	8Z-ZM1-226-010		GEAR, REEL L
5	8Z-ZM1-212-110		LEVER, T-UP	35	8Z-ZM1-241-210		SPR-T, PLAY
6	8Z-ZM1-245-310		SPR-T, AUTO	36	8Z-ZM1-220-110		LEVER, REC SENSOR
7	8Z-ZM1-236-010		CLR, SLIP FF/REW	37	8Z-ZM1-249-210		SPR-T, FR
8	8Z-ZM1-252-110		SPR-C, FF/REW	38	8Z-ZM1-242-310		SPR-T, FF/REW
9	8Z-ZM1-230-010		GEAR, SLIP FF/REW A	39	8Z-ZM3-244-010		GEAR, CAM TD20
10	8Z-ZM1-269-010		FELT, FF/REW 2	40	8Z-ZM1-232-010		GEAR, IDL FF/REW
11	8Z-ZM1-238-110		GEAR, SLIP FF/REW B 2	41	82-ZM1-290-010		FLY-WHL ASSY, ZZM1
12	8Z-ZM1-237-110		LEVER, FF/REW 2	42	8Z-ZM1-275-010		W-L, 1.47-4-0.25
13	8Z-ZM1-283-010		LEVER, PAUSE 2	43	8Z-ZM1-228-010		GEAR, SLIP T-UP B
14	8Z-ZM1-222-010		LEVER, E-LOCK M	44	8Z-ZM1-265-010		FELT, T-UP
15	8Z-ZM1-219-010		LEVER, E-OPEN	45	8Z-ZM1-227-010		GEAR, SLIP T-UP A
16	8Z-ZM1-244-110		SPR-T, T-UP	46	8Z-ZM1-251-210		SPR-C, T-UP SLIP
17	8Z-ZM1-247-310		SPR-T, PINCH	47	8Z-ZM1-243-310		SPR-T, STOP/PAUSE
18	8Z-ZM1-261-110		ROLLER ASSY, PINCH	48	87-A91-825-010		MOT, M09Y/Z
19	8Z-ZM1-221-210		LEVER, PINCH	49	8Z-ZM1-271-010		PULLEY, MOT ZZM-1
20	8Z-ZM1-205-310		LEVER, PLAY	50	8Z-ZM1-264-010		BELT, MAIN S
21	8Z-ZM1-248-210		SPR-T, BRG	51	8Z-ZM1-260-010		SPR-P, CASSETTE
22	87-A91-830-010		HEAD, RP-7442	52	8Z-ZM1-201-610		CHAS ASSY, ZZM-1
23	84-ZM2-227-310		SPR-C, AZIMUTH	53	8Z-ZM1-255-310		SPR-T, E-LOCK
24	8Z-ZM1-216-110		LEVER, AUTO	54	8Z-ZM1-214-210		LEVER, LOCK
25	8Z-ZM1-246-110		SPR-T, AUTO 2	55	8Z-ZM1-257-110		SPR-C, F/R
26	8Z-ZM1-233-110		GEAR, IDL REW	A	84-ZM2-242-010		S-SCREW, AZ1-2-6.4
27	8Z-ZM1-208-010		LEVER, STOP	B	8Z-ZM1-270-110		V+2.6 ZZM-1
28	8Z-ZM1-207-010		LEVER, FF	C	87-B10-301-010		W-L, 1.63-3.2-0.5 SLIT
29	8Z-ZM1-206-010		LEVER, REW				
30	8Z-ZM1-211-210		LEVER, REC 2				

# CD MECHANISM EXPLODED VIEW 1/1



# CD MECHANISM PARTS LIST 1/1

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

# SPEAKER PARTS LIST 1/1

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CLD-635-010		SPKR,10MM 7OHM 8W Y000411
2	8A-CLD-025-010		FRAME,NET ASSY<EXCEPT EZL>
2	8A-CGD-012-010		FRAME,NET-V ASSY<EZL>
3	8A-CLD-021-010		CABI,SPKR-FR
4	8A-CLD-026-010		PLATE,GATE
5	8A-CLD-216-010		CUSHION,FOOT
A	87-741-096-410		UT2+3-10
B	87-741-104-410		UT2+3-30 GLD

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