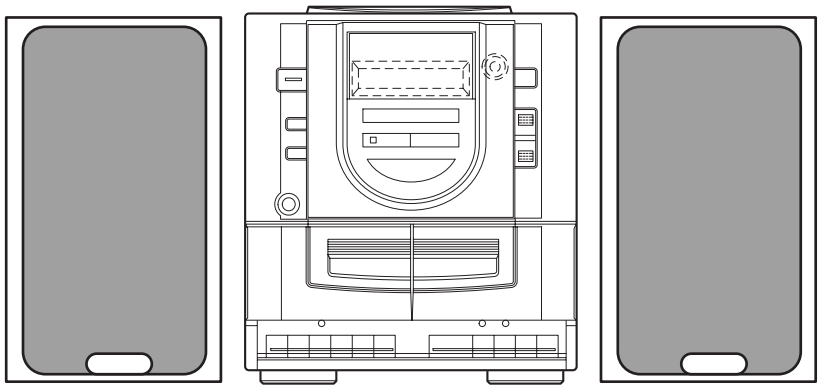
aiwa SERVICE

NSX-SZ6 LH



SERVICE MANUAL

COMPACT DISC
STEREO SYSTEM

BASIC TAPE MECHANISM : ZZM-2 YPR1NC
BASIC CD MECHANISM : KSM-213 CDM

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
NSX-SZ6	CX-NSZ6	SX-NSZ1	RC-AAS08

aiwa

S/M Code No. 09-00C-433-8S3

DATA

SPECIFICATIONS

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

<Amplifier section>

Power output	Rated: 4 W + 4 W (6 ohms, T.H.D. 1 %, 1 kHz) Reference: 5 W + 5 W (6 ohms, T.H.D. 10 %, 1 kHz)
Total harmonic distortion	0.2 % (1 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX: 600 mV
Outputs	SPEAKERS: 6 ohms or more PHONES: 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 8000 Hz
Recording system	AC bias
Heads	Deck 1: recording/playback x 1, erase x 1 Deck 2: playback x 1

<Compact disc player section>

Laser	Semiconductor laser (λ =780 nm)

<Speaker system SX–NSZ1>

Speaker system	1 way, bass reflex
Speaker units	Full range: 100 mm cone
Impedance	6 ohms
Dimensions (W x H x D)	200 x 288 x 186 mm
Weight	1.5 kg

<General>

Power requirements	120 V/ 220 - 230 V/ 240 V AC (switchable), 50 Hz/ 60Hz
Power consumption	28 W
Dimensions (W x H x D)	260 x 295 x 260 mm
Weight	3.4 kg

• Specifications and external appearance are subject to change without notice.

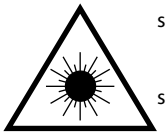
ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NED-912-010		IB,LH(P)CCE -SZ6
2	8A-NEC-701-010		RC UNIT,RC-AAS08
3	87-043-115-010		ANT,FEEDER FM
4	87-A90-030-010		ANT,LOOP AM-NC C

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.



s Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
s Advarsel: Usynlig laserstŒling ved Œbning, nŒr sikkerhedsafbrydere er ude af funktion. UndgŒ uds¾ttelse for strŒling.

VAROITUS!
Laiteen KŠyttŠminen muulla kuin tŠssŠ kŠyttšohjeessa mainitulla tavalla saataa altistaa kŠyt-tŠjŠn turvallisuusluokan 1 ylittŠvŠlle nŠkymŠttšmŠlle lasersŠteilylle.

VARNING!
Om apparaten anvŠnds pŒ annat sŠtt Šn vad som specificeras i denna bruksanvising, kan anvŠndaren utsŠttas fšr osynling laserstrŒlning, som šverskrider grŠnsen fšr laserklass 1.

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

ATTENTION
LÕutillisation de commandes, rž glages ou procž dures autres que ceux spž cifiž s peut entra”ner une dangereuse exposition aux radiations.

ADVARSEL
Usynlig laserstŒling ved Œbning, nŒr sikkerhedsafbrydereer ude af funktion. UndgŒ uds¾ttelse for strŒling.

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

CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

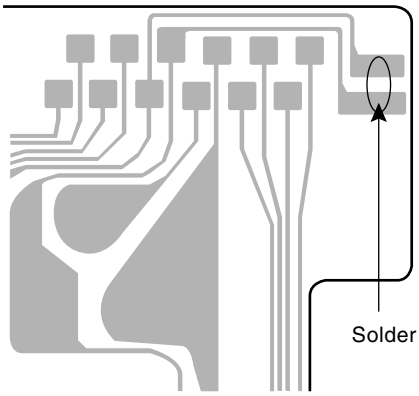
Precaution to replace Optical block

(KSS-213C)

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 right figure.

PICK-UP Assy P.W.B



NOTE ON BEFORE STARTING REPAIR

1. Forced discharge of electrolytic capacitor of power supply block

When repair is going to be attempted in the set that uses relay circuit in the power supply block, electric potential is kept charged across the electrolytic capacitors (C101, 102) even though AC power cord is removed. If repair is attempted in this condition, secondary defect can occur.
In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

① Remove the AC power cord.
② Connect a discharging resistor at an end of lead wire that has clips at both ends. Connect the other end of the lead wire to metal chassis.
③ Contact the other end of the discharging resistor to the positive (+) side (+VH) of C101. (For two seconds)
④ Contact the same end of the discharging resistor as step ③ to the negative (-) side (-VH) of C102 in the same way. (For two seconds)
⑤ Check that voltage across C101 and C102 has decreased to 1 V or less using a multimeter or an oscilloscope.

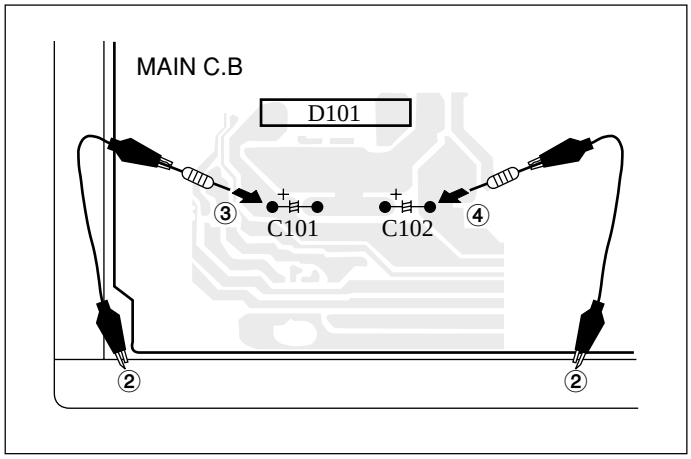


Fig-1

Select a discharging resistor referring to the following table.

Charging voltage (V) (C101, 102)	Discharging resistor (Ω)	Rated power (W)	Parts number
25-48	100	3	87-A00-247-090
49-140	220	5	87-A00-232-090

Note: The reference numbers (C101, C102) of the electrolytic capacitors can change depending on the models. Be sure to check the reference numbers of the charging capacitors on schematic diagram before starting the discharging work.

2. Check items before exchanging the MICROCOMPUTER

Be sure to check the following items before exchanging the MICROCOMPUTER. Exchange the MICROCOMPUTER after confirming that the MICROCOMPUTER is surely defective.

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is "H", the MICROCOMPUTER is judged to be operating correctly. When this terminal is "L", the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.
When the MICROCOMPUTER is not defective, the HOLD terminal can also go "L" when the POWER AMPLIFIER has any abnormalities that triggers the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to "L".

- Good or no good judgement of the MICROCOMPUTER

① Turn on the AC main power.
② Confirm that the main power is turned on and the HOLD terminal of the MICROCOMPUTER keeps the "H" level or not.
③ When the HOLD terminal is "L" level, the abnormality detection circuit is judged to be working correctly and the MICROCOMPUTER is judged to be good.

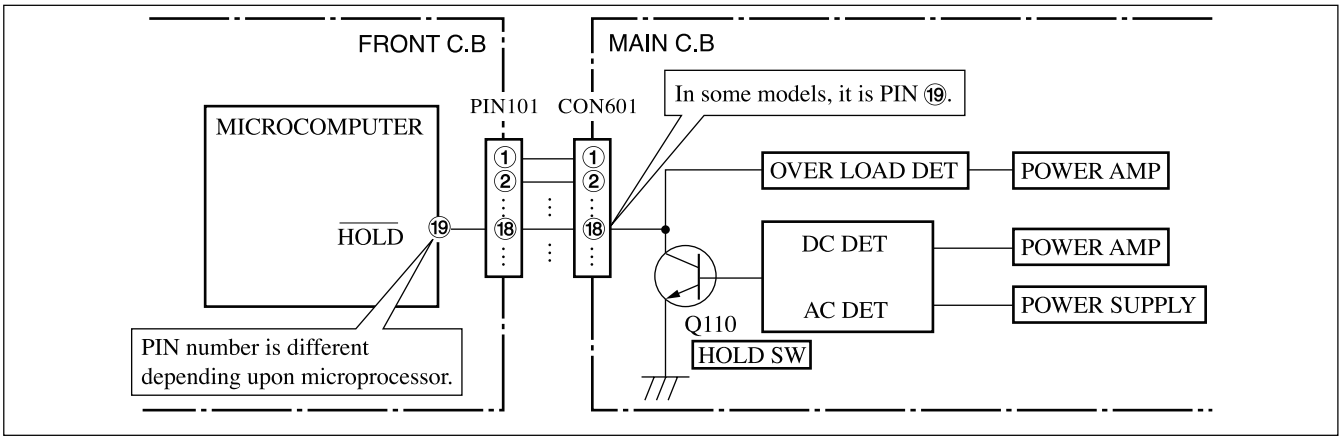


Fig-2-1

In such a case, check also if the POWER AMPLIFIER circuit or power supply circuit has any abnormalities or not.

2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.
When the above described phenomenon occurs, it can lead to wrong judgement as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

① Remove the AC power cord.

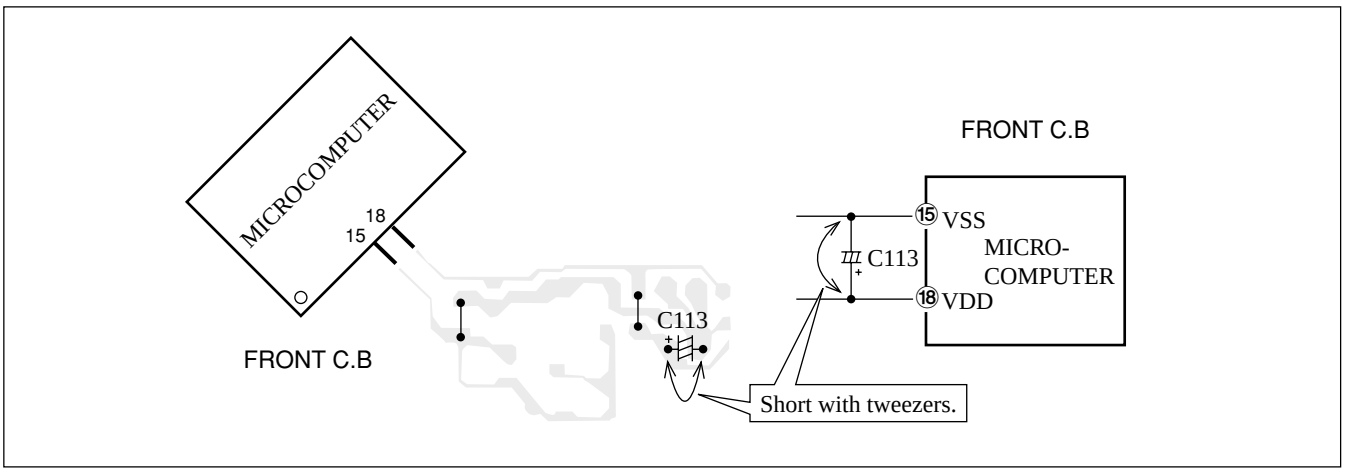


Fig-2-2

② Short both ends of the electrolytic capacitor C113 that is connected to VDD of the MICROCOMPUTER with tweezers.
③ Connect the AC power cord again. If the MICROCOMPUTER returns to the normal operation, the MICROCOMPUTER is good.

Note: The reference number or MICROCOMPUTER pin number of transistor (Q110) and electrolytic capacitor (C113) can change depending on the models. Be sure to check the reference numbers on schematic diagram before starting the discharging work.

2-3. Confirmation of soldering state of MICROCOMPUTER

Check the soldering state of the MICROCOMPUTER in addition to the above described procedures. Be sure to exchange the MICROCOMPUTER after surely confirming that the trouble is not caused by poor soldering but the MICROCOMPUTER itself.

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A21-591-010		C-IC,LC78641NE-D
	87-A21-722-010		IC,LA6548D
	87-A21-419-040		C-IC,NJM14558MD-TE2
	8A-NEC-602-010		C-IC,M38B57MCH-E249FP
	87-070-083-010		IC,GP1U281X
	87-A21-443-040		C-IC,M62495AFP
	87-A21-560-010		IC,LA1844L-A
	87-070-127-110		IC,LC72131 D
	87-A21-381-040		C-IC,LA9235M
TRANSISTOR			
	87-026-609-080		TR,KTA1266GR
	89-213-702-010		TR,2SB1370 (1.8W)
	87-026-610-080		TR,KTC3198GR
	87-A30-076-080		C-TR,2SC3052F
	87-A30-282-040		C-TR,DTA114TKA
	87-A30-075-080		C-TR,2SA1235F
	87-A30-256-010		TR,2SD1933
	87-A30-255-010		TR,2SB1342
	87-A30-090-080		FET,2SK2541
	87-A30-091-080		FET,2SJ460
	87-A30-062-080		C-TR,KRC104S
	87-A30-318-080		TR,CSA952K
	87-A30-492-080		TR,2SC5343G
	87-A30-234-080		TR,CSC4115BC
	87-A30-521-080		C-TR,2SC5345S(O)
	87-A30-489-080		C-TR,KRA107S
	89-503-602-080		C-FET,2SK360E
	89-327-143-080		C-TR,2SC27140
DIODE			
	87-A40-553-080		DIODE,1N4003 LES
	87-A40-777-080		ZENER,UZ30BSB
	87-020-465-080		DIODE,1SS133 (110MA)
	87-A40-764-080		ZENER,UZ10BSC
	87-A40-313-080		C-DIODE,MC 2840
	87-A40-269-080		C-DIODE,MC2836
	87-A40-270-080		C-DIODE,MC2838
	87-A40-758-080		ZENER,UZ8.2BSB
	87-A40-747-080		ZENER,UZ5.1BSB
	87-A40-743-080		ZENER,UZ4.3BSA
	87-A40-749-080		ZENER,UZ5.6BSB
	87-A40-739-080		ZENER,UZ2.7BSA
	87-A40-748-080		ZENER,UZ5.6BSA
	87-A40-760-080		ZENER,UZ9.1BSA
	87-A40-455-090		DIODE,RL203 GW
MAIN C.B			
C9	87-010-759-080		C-CAP,U, 0.1-25F
C10	87-010-759-080		C-CAP,U, 0.1-25F
C11	87-010-759-080		C-CAP,U, 0.1-25F
C12	87-010-759-080		C-CAP,U, 0.1-25F
C21	87-A12-442-000		CAP,E 3300-25 M SMG
C22	87-A10-831-080		CAP,E 1000-25 M SMG
C23	87-010-387-080		CAP,E 470-25 SME
C25	87-010-408-080		CAP, ELECT 47-50V
C26	87-010-408-080		CAP, ELECT 47-50V
C31	87-010-759-080		C-CAP,U, 0.1-25F
C32	87-012-286-080		CAP, U 0.01-25
C34	87-010-260-080		CAP, ELECT 47-25V
C35	87-010-406-080		CAP, ELECT 22-50
C36	87-010-112-080		CAP, ELECT 100-16V
C50	87-010-247-080		CAP, ELECT 100-50V
C51	87-010-247-080		CAP, ELECT 100-50V
C60	87-010-403-080		CAP, ELECT 3.3-50V
C61	87-010-260-080		CAP, ELECT 47-25V
C101	87-012-284-080		CAP, U 6800P-50
C102	87-012-284-080		CAP, U 6800P-50
C103	87-010-544-080		CAP, ELECT 0.1-50V
C104	87-010-544-080		CAP, ELECT 0.1-50V
C105	87-012-282-080		CAP, U 4700P-50
C106	87-012-282-080		CAP, U 4700P-50
C107	87-010-403-080		CAP, ELECT 3.3-50V
C108	87-010-403-080		CAP, ELECT 3.3-50V
C111	87-010-406-080		CAP, ELECT 22-50
C112	87-010-406-080		CAP, ELECT 22-50
C113	87-012-195-080		C-CAP,U 100P-50CH
C114	87-012-195-080		C-CAP,U 100P-50CH
C117	87-012-286-080		CAP, U 0.01-25
C118	87-012-286-080		CAP, U 0.01-25
C119	87-012-286-080		CAP, U 0.01-25
C120	87-012-286-080		CAP, U 0.01-25
C125	87-010-759-080		C-CAP,U, 0.1-25F
C126	87-010-759-080		C-CAP,U, 0.1-25F
C127	87-010-759-080		C-CAP,U, 0.1-25F
C128	87-010-759-080		C-CAP,U, 0.1-25F
C140	87-010-190-080		S CHIP F 0.01
C301	87-010-374-080		CAP, ELECT 47-10V
C302	87-010-759-080		C-CAP,U, 0.1-25F
C303	87-010-260-080		CAP, ELECT 47-25V
C304	87-010-260-080		CAP, ELECT 47-25V
C305	87-012-286-080		CAP, U 0.01-25
C306	87-010-405-080		CAP, ELECT 10-50V
C307	87-010-263-080		CAP, ELECT 100-10V
C308	87-012-349-080		C-CAP,S 1000P-50 CH
C309	87-010-546-080		CAP, ELECT 0.33-50V
C310	87-010-401-080		CAP, ELECT 1-50V
C311	87-012-193-080		C-CAP,U 82P-50 CH
C312	87-012-286-080		CAP, U 0.01-25
C313	87-010-260-080		CAP, ELECT 47-25V
C331	87-A10-504-080		C-CAP,U 0.047-16 K B
C332	87-010-401-080		CAP, ELECT 1-50V
C333	87-010-759-080		C-CAP,U, 0.1-25F
C334	87-010-759-080		C-CAP,U, 0.1-25F
C335	87-010-260-080		CAP, ELECT 47-25V
C336	87-012-195-080		C-CAP,U 100P-50CH
C337	87-010-759-080		C-CAP,U, 0.1-25F
C338	87-012-282-080		CAP, U 4700P-50
C339	87-A10-504-080		C-CAP,U 0.047-16 K B
C340	87-012-195-080		C-CAP,U 100P-50CH
C341	87-010-260-080		CAP, ELECT 47-25V
C342	87-012-286-080		CAP, U 0.01-25
C344	87-010-260-080		CAP, ELECT 47-25V
C345	87-012-286-080		CAP, U 0.01-25
C346	87-010-248-080		CAP, ELECT 220-10V
C347	87-012-286-080		CAP, U 0.01-25
C348	87-010-263-080		CAP, ELECT 100-10V
C349	87-012-286-080		CAP, U 0.01-25
C350	87-012-176-080		CAP 15P
C351	87-012-176-080		CAP 15P
C352	87-010-404-080		CAP, ELECT 4.7-50V
C353	87-012-286-080		CAP, U 0.01-25
C354	87-010-401-080		CAP, ELECT 1-50V
C355	87-010-759-080		C-CAP,U, 0.1-25F
C356	87-010-759-080		C-CAP,U, 0.1-25F
C357	87-010-759-080		C-CAP,U, 0.1-25F
C358	87-010-405-080		CAP, ELECT 10-50V
C359	87-012-195-080		C-CAP,U 100P-50CH
C360	87-012-349-080		C-CAP,S 1000P-50 CH
C361	87-010-544-080		CAP, ELECT 0.1-50V
C362	87-010-544-080		CAP, ELECT 0.1-50V
C363	87-010-759-080		C-CAP,U, 0.1-25F
C371	87-010-221-080		CAP, ELECT 470-10V
C372	87-010-759-080		C-CAP,U, 0.1-25F
C373	87-010-544-080		CAP, ELECT 0.1-50V
C374	87-010-236-080		CAP,E 1000-10 SME

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C375	87-010-759-080		C-CAP,U, 0.1-25F
C376	87-010-263-080		CAP, ELECT 100-10V
C377	87-010-759-080		C-CAP,U, 0.1-25F
C378	87-010-759-080		C-CAP,U, 0.1-25F
C379	87-010-759-080		C-CAP,U, 0.1-25F
C380	87-010-759-080		C-CAP,U, 0.1-25F
C381	87-010-759-080		C-CAP,U, 0.1-25F
C391	87-012-195-080		C-CAP,U 100P-50CH
C392	87-012-195-080		C-CAP,U 100P-50CH
C393	87-012-195-080		C-CAP,U 100P-50CH
C394	87-012-195-080		C-CAP,U 100P-50CH
C395	87-012-195-080		C-CAP,U 100P-50CH
C396	87-012-195-080		C-CAP,U 100P-50CH
C401	87-010-759-080		C-CAP,U, 0.1-25F
C402	87-010-759-080		C-CAP,U, 0.1-25F
C403	87-012-193-080		C-CAP,U 82P-50 CH
C404	87-012-193-080		C-CAP,U 82P-50 CH
C405	87-012-286-080		CAP, U 0.01-25
C406	87-012-286-080		CAP, U 0.01-25
C407	87-012-286-080		CAP, U 0.01-25
C408	87-012-286-080		CAP, U 0.01-25
C409	87-012-278-080		C-CAP,U 2200P-50 B
C410	87-012-278-080		C-CAP,U 2200P-50 B
C411	87-010-405-080		CAP, ELECT 10-50V
C412	87-010-405-080		CAP, ELECT 10-50V
C413	87-010-197-080		CAP, CHIP 0.01 DM
C421	87-012-275-080		C-CAP,U 1200P-50 B
C422	87-012-275-080		C-CAP,U 1200P-50 B
C423	87-012-274-080		CHIP CAP,U 1000P-50B
C424	87-012-274-080		CHIP CAP,U 1000P-50B
C425	87-010-263-080		CAP, ELECT 100-10V
C426	87-010-263-080		CAP, ELECT 100-10V
C427	87-012-188-080		C-CAP,U 47P-50 CH
C428	87-012-188-080		C-CAP,U 47P-50 CH
C429	87-010-598-080		C-CAP,S 0.068-16VRK
C430	87-010-598-080		C-CAP,S 0.068-16VRK
C431	87-012-284-080		CAP, U 6800P-50
C432	87-012-284-080		CAP, U 6800P-50
C433	87-010-546-080		CAP, ELECT 0.33-50V
C434	87-010-546-080		CAP, ELECT 0.33-50V
C435	87-010-263-080		CAP, ELECT 100-10V
C441	87-010-759-080		C-CAP,U, 0.1-25F
C442	87-010-759-080		C-CAP,U, 0.1-25F
C445	87-A10-039-080		C-CAP,U 470P-50 J CH
C452	87-010-382-080		CAP, ELECT 22-25V
C453	87-012-279-080		C-CAP,U 2700P-50 B
C454	87-012-279-080		C-CAP,U 2700P-50 B
C455	87-012-279-080		C-CAP,U 2700P-50 B
C456	87-012-286-080		CAP, U 0.01-25
C457	87-A12-361-080		CAP,M 5600P-100 J CP
C460	87-010-759-080		C-CAP,U, 0.1-25F
C461	87-012-158-080		C-CAP,S 390P-50 CH
C462	87-012-158-080		C-CAP,S 390P-50 CH
C470	87-A10-039-080		C-CAP,U 470P-50 J CH
C605	87-012-275-080		C-CAP,U 1200P-50 B
C606	87-012-275-080		C-CAP,U 1200P-50 B
C609	87-010-785-080		C-CAP,U0.015-25BK
C610	87-010-785-080		C-CAP,U0.015-25BK
C611	87-010-545-080		CAP, ELECT 0.22-50V
C612	87-010-545-080		CAP, ELECT 0.22-50V
C613	87-010-545-080		CAP, ELECT 0.22-50V
C614	87-010-545-080		CAP, ELECT 0.22-50V
C615	87-012-172-080		CAPACITOR CHIP U 10P CH
C616	87-010-248-080		CAP, ELECT 220-10V
C617	87-010-221-080		CAP, ELECT 470-10V
C618	87-010-405-080		CAP, ELECT 10-50V
C630	87-010-831-080		C-CAP,U 0.1-16 Z F
C671	87-010-831-080		C-CAP,U,0.1-16F
C672	87-010-831-080		C-CAP,U,0.1-16F
C677	87-012-286-080		CAP, U 0.01-25

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C771	87-010-263-080		CAP, ELECT 100-10V
C772	87-012-286-080		CAP, U 0.01-25
C782	87-012-286-080		CAP, U 0.01-25
C783	87-012-286-080		CAP, U 0.01-25
C784	87-012-286-080		CAP, U 0.01-25
C785	87-012-286-080		CAP, U 0.01-25
C786	87-012-286-080		CAP, U 0.01-25
C788	87-012-167-080		C-CAP,U 5P-50 CH
C789	87-A12-052-080		C-CAP,S 0.033-25 J B
C790	87-A12-052-080		C-CAP,S 0.033-25 J B
C791	87-010-759-080		C-CAP,U, 0.1-25F
C792	87-012-286-080		CAP, U 0.01-25
C793	87-010-404-080		CAP, ELECT 4.7-50V
C795	87-012-286-080		CAP, U 0.01-25
C796	87-012-286-080		CAP, U 0.01-25
C797	87-010-405-080		CAP, ELECT 10-50V
C798	87-012-286-080		CAP, U 0.01-25
C799	87-010-407-080		CAP, ELECT 33-50V
C800	87-010-829-080		CAP, U 0.047-16
C801	87-010-403-080		CAP, ELECT 3.3-50V
C802	87-010-829-080		CAP, U 0.047-16
C803	87-010-787-080		CAP, U 0.022-25
C804	87-010-263-080		CAP, ELECT 100-10V
C807	87-010-400-080		CAP, ELECT 0.47-50V
C808	87-010-401-080		CAP, ELECT 1-50V
C809	87-010-401-080		CAP, ELECT 1-50V
C810	87-010-759-080		C-CAP,U, 0.1-25F
C814	87-012-286-080		CAP, U 0.01-25
C815	87-010-400-080		CAP, ELECT 0.47-50V
C816	87-010-400-080		CAP, ELECT 0.47-50V
C821	87-010-405-080		CAP, ELECT 10-50V
C823	87-010-177-080		C-CAP,S 820P-50 SL
C824	87-010-404-080		CAP, ELECT 4.7-50V
C825	87-010-596-080		CAP, S 0.047-16
C836	87-012-286-080		CAP, U 0.01-25
C837	87-012-286-080		CAP, U 0.01-25
C842	87-012-286-080		CAP, U 0.01-25
C844	87-012-286-080		CAP, U 0.01-25
C850	87-010-260-080		CAP, ELECT 47-25V
C851	87-012-286-080		CAP, U 0.01-25
C852	87-012-286-080		CAP, U 0.01-25
C853	87-012-286-080		CAP, U 0.01-25
C858	87-010-759-080		C-CAP,U, 0.1-25F
C859	87-010-759-080		C-CAP,U, 0.1-25F
C860	87-012-286-080		CAP, U 0.01-25
C902	87-018-145-080		CAP, TC U 6.8P-50 K CH UP050
C908	87-012-174-080		CAP CHIP CERA SS 12P CHJ
C909	87-012-349-080		C-CAP,S 1000P-50 CH
C911	87-012-170-080		C-CAP,U 8P-50 CH
C912	87-012-195-080		C-CAP,U 100P-50CH
C913	87-012-286-080		CAP, U 0.01-25
C914	87-012-286-080		CAP, U 0.01-25
C915	87-012-286-080		CAP, U 0.01-25
C918	87-012-165-080		C-CAP,U 3P-50 CK
C920	87-012-180-080		C-CAP,U 22P-50 CH
C921	87-012-186-080		C-CAP,U 39P-50 CH
C922	87-012-174-080		CAP CHIP CERA SS 12P CHJ
C923	87-012-270-080		C-CAP,U 470P-50 K B
C924	87-012-174-080		CAP CHIP CERA SS 12P CHJ
C927	87-012-195-080		C-CAP,U 100P-50CH
C961	87-012-170-080		C-CAP,U 8P-50 CH
C962	87-010-401-080		CAP, ELECT 1-50V
C971	87-010-381-080		CAP, ELECT 330-16V
C972	87-010-404-080		CAP, ELECT 4.7-50V
C973	87-012-286-080		CAP, U 0.01-25
C974	87-012-286-080		CAP, U 0.01-25
C979	87-012-195-080		C-CAP,U 100P-50CH
C981	87-010-260-080		CAP, ELECT 47-25V
C982	87-010-759-080		C-CAP,U, 0.1-25F
C983	87-012-286-080		CAP, U 0.01-25

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C984	87-012-286-080		CAP, U 0.01-25
C985	87-012-195-080		C-CAP,U 100P-50CH
C987	87-012-286-080		CAP, U 0.01-25
C989	87-012-286-080		CAP, U 0.01-25
C990	87-012-195-080		C-CAP,U 100P-50CH
C991	87-012-176-080		CAP 15P
C992	87-012-176-080		CAP 15P
C993	87-012-274-080		CHIP CAP,U 1000P-50B
C994	87-012-195-080		C-CAP,U 100P-50CH
C995	87-012-274-080		CHIP CAP,U 1000P-50B
C996	87-012-195-080		C-CAP,U 100P-50CH
C997	87-010-759-080		C-CAP,U, 0.1-25F
C998	87-010-260-080		CAP, ELECT 47-25V
C999	87-A11-155-080		CAP,TC U 0.01-16 Z F
CF831	87-008-261-010		FILTER, SFE10.7MA5-A
CF832	87-008-261-010		FILTER, SFE10.7MA5
CN301	87-A60-424-010		CONN,16P V TOC-B
CN302	8A-NED-608-010		CONN,ASSY,6P
CN351	87-A60-625-010		CONN,8P V 2MM JMT
CN401	87-A60-620-010		CONN,3P V 2MM JMT
CNA351	8A-NEC-634-010		CONN ASSY,8P RPB
CNA401	8A-NEC-633-010		CONN ASSY,3P (PH)
D902	87-A40-916-040		C-VARI-CAP,HVC202A
D903	87-A40-916-040		C-VARI-CAP,HVC202A
⚠ F101	87-035-360-010		FUSE 630MA 250V T
⚠ FC101	87-A90-505-080		FUSE CLAMP,TP00351-51
⚠ FC102	87-A90-505-080		FUSE CLAMP,TP00351-51
FFC201	88-905-151-110		FF-CABLE, 5P 1.25 150MM
FFC301	8A-NEC-603-010		FF-CABLE,16P -1.0
FFC302	88-906-151-110		FF-CABLE,6P 1.25
J101	87-A60-602-010		JACK,DIA6.3 BLK ST W/SW TC
J103	87-A61-452-010		TERMINAL,SP 4P(MSC)
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J831	87-A60-202-010		TERMINAL,ANT 4P MSP-154V-02
⚠ JW1	87-A90-093-080		PROTECTOR,3A 491SERIES 60V
⚠ JW2	87-A90-093-080		PROTECTOR,3A 491SERIES 60V
JW134	87-008-372-080		FILTER, EM BL OIRNI
L101	87-A50-610-010		COIL,1UH K(MDEC)
L102	87-A50-610-010		COIL,1UH K(MDEC)
L451	87-007-342-010		COIL,OSC 85K BIAS
L801	87-A50-608-010		COIL,FM DET-N(TOK)
L802	87-A91-551-010		FLTR,PCFJZH-450 L(TOK)
L811	87-005-847-080		COIL,2.2UH(CECS)
L832	87-005-847-080		COIL,2.2UH(CECS)
L903	88-ZA1-602-110		COIL,FM-RF-U2 2G
L906	87-005-847-080		COIL,2.2UH(CECS)
L907	8A-NEC-611-010		COIL,FM-OSC-U 2G
L908	88-ZA1-624-010		COIL,FM IFT 7-6.2 (COILS)
L951	8A-NF8-667-010		COIL,AM PACK 4(TOK)
⚠ PT101	8A-NEC-609-010		PT,ANE-C LH
R790	87-012-286-080		CAP, U 0.01-25
⚠ RY101	87-045-389-010		RELAY,OSA-SS-212DM5
⚠ S1	87-A90-165-010		SW,SL 1-2-3 SWS2301
⚠ T101	87-A60-317-010		TERMINAL, 1P MSC
⚠ T102	87-A60-317-010		TERMINAL, 1P MSC
X301	87-A70-046-010		VIB,XTAL 16.934MHZ
X991	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309

FRONT C.B

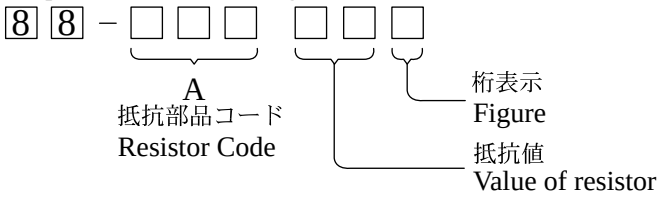
C201	87-010-401-040		CAP,E 1-50 SME
C202	87-010-759-080		C-CAP,U, 0.1-25F
C203	87-010-260-040		CAP,E 47-25 M 11L SME
C271	87-012-282-080		CAP, U 4700P-50
C272	87-010-112-040		CAP,E 100-16
C273	87-010-545-040		CAP,E 0.22-50 SME
C274	87-012-195-080		C-CAP,U 100P-50CH
C275	87-010-545-040		CAP,E 0.22-50 SME
C276	87-A10-248-080		C-CAP,U0.1-16KBR
C277	87-010-405-040		CAP,E 10-50
C278	87-012-195-080		C-CAP,U 100P-50CH
C279	87-010-405-040		CAP,E 10-50
C280	87-010-759-080		C-CAP,U, 0.1-25F
C281	87-012-270-080		CAP, U 470P-50
C282	87-010-177-080		C-CAP,S 820P-50 SL
C500	87-010-759-080		C-CAP,U, 0.1-25F
C501	87-010-406-080		CAP, ELECT 22-50
C505	87-010-829-080		CAP, U 0.047-16
C506	87-010-263-040		CAP,E 100-10
C507	87-010-246-040		CAP,E 47-35 SME
C508	87-010-192-080		C-CAP,S 0.022-50 F
C509	87-010-404-040		CAP,E 4.7-50 SME
C510	87-010-404-040		CAP,E 4.7-50 SME
C511	87-010-759-080		C-CAP,U, 0.1-25F
C512	87-010-263-040		CAP,E 100-10 SME
C514	87-012-274-080		CHIP CAP,U 1000P-50B
C516	87-012-286-080		C-CAP,U 0.01-25 K B
C517	87-010-759-080		C-CAP,U, 0.1-25F
C518	87-012-268-080		CAP,U 330P-50 K B GRM
C523	87-010-248-040		CAP,E 220-10 SME
C524	87-010-192-080		C-CAP,S 0.022-50 F
C525	87-010-401-040		CAP,E 1-50 SME
C526	87-012-172-080		CAPACITOR CHIP U 10P CH
C527	87-012-274-080		CHIP CAP,U 1000P-50B
C528	87-010-175-080		CAP 560P
C530	87-012-195-080		C-CAP,U 100P-50CH
C531	87-012-195-080		C-CAP,U 100P-50CH
C532	87-012-195-080		C-CAP,U 100P-50CH
C533	87-012-195-080		C-CAP,U 100P-50CH
C534	87-012-195-080		C-CAP,U 100P-50CH
C535	87-012-195-080		C-CAP,U 100P-50CH
C536	87-012-195-080		C-CAP,U 100P-50CH
C537	87-012-195-080		C-CAP,U 100P-50CH
C538	87-012-195-080		C-CAP,U 100P-50CH
C539	87-012-199-080		CAP 220P
C540	87-010-759-080		C-CAP,U, 0.1-25F
C541	87-016-459-040		CAP,E 470-10 SMG
C590	87-010-384-040		CAP,E 100-25 SME
CN500	87-009-345-010		CONN,2P H WHT PH
CN501	87-A60-673-010		CONN,9P H 2MM JMT
CNA501	8Z-ZM2-601-010		CONN ASSY,9P ZZM-2
EMI271	87-008-372-080		FILTER, EMI BL OIRNI
FL501	8A-NEC-601-010		FL,HNA-10SS15T
J271	87-A61-243-010		JACK,6.3 BLK MONO W/SW V MSC
L501	87-A50-655-010		COIL,CLK 4.19MHZ (TOKO)7KLY
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
S208	87-A90-095-080		SW,TACT EVQ11G04M
S209	87-A90-095-080		SW,TACT EVQ11G04M
S210	87-A90-095-080		SW,TACT EVQ11G04M
S211	87-A90-095-080		SW,TACT EVQ11G04M
S212	87-A90-095-080		SW,TACT EVQ11G04M
SFR501	87-024-431-080		SFR,3.3K RH063EC
VR271	87-NB7-602-010		VR,RTRY 10KAX1 1 V

CD MOTOR C.B

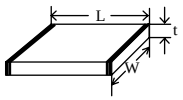
M2	9X-262-576-910		MOTOR GEAR ASSY
PIN3	91-564-722-110		CONNECTOR,6P
SW1	91-572-085-120		LEAF SW

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

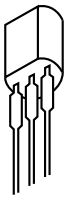
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

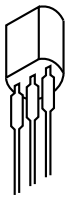
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION



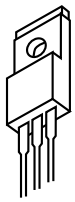
E C B

KTA1266GR
KTC3198GR
CSA952K



E C B

CSC4115BC
CD1585BC

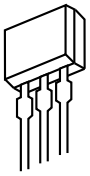


B C E

2SB1370

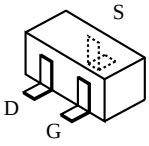
E C B

2SC5343G

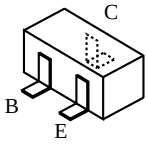


S D G

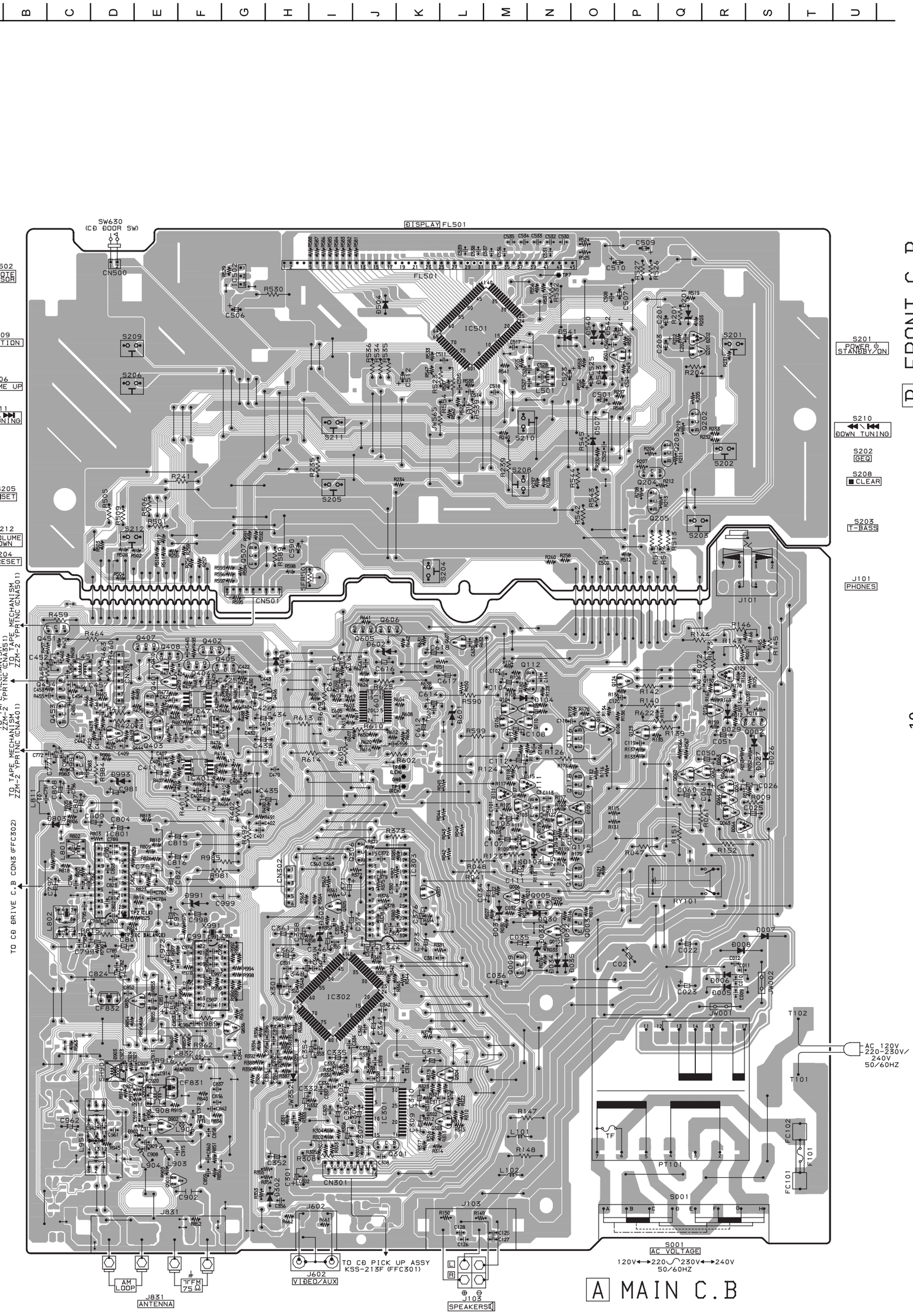
2SJ460
2SK2541



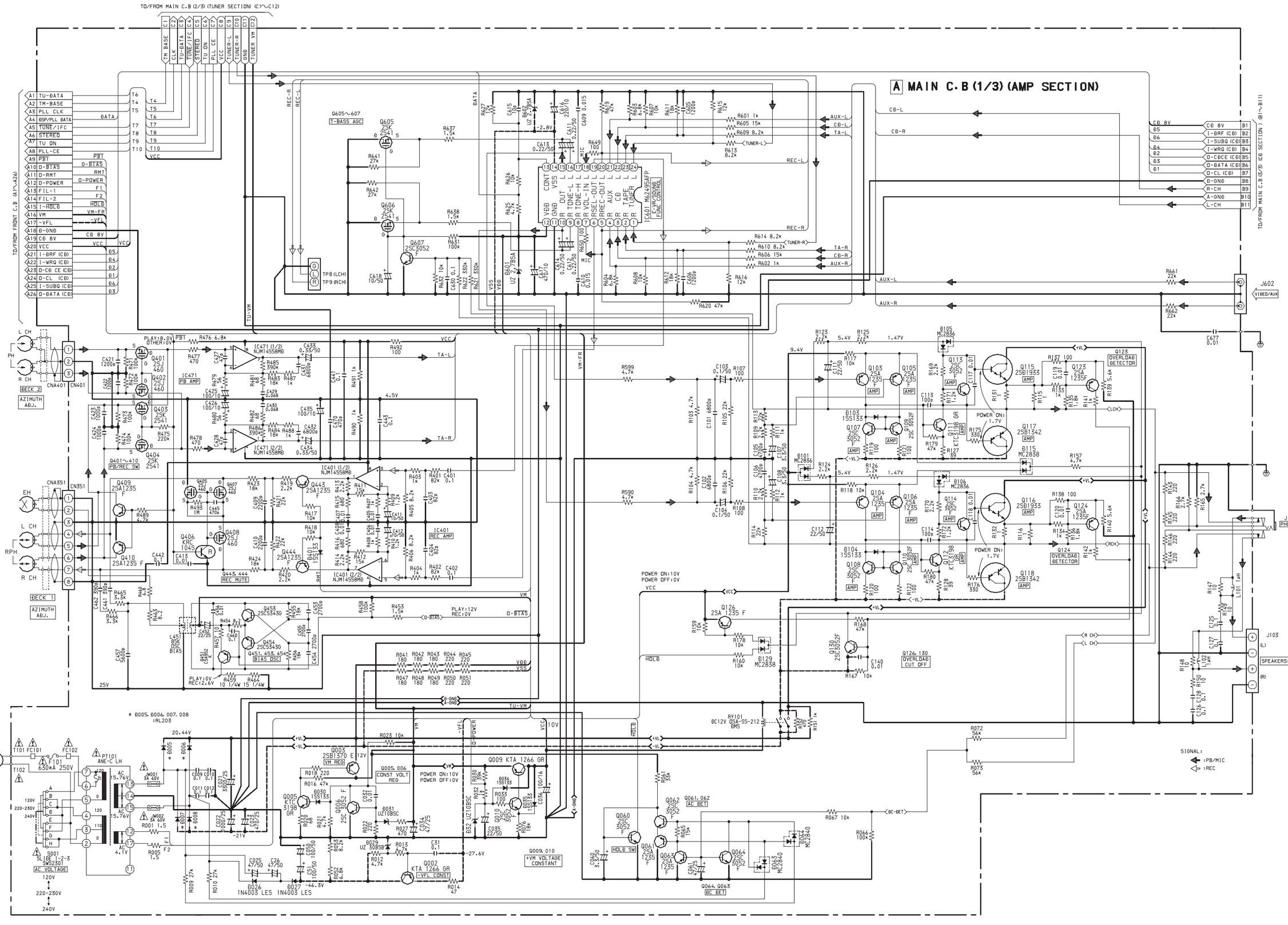
2SK360E



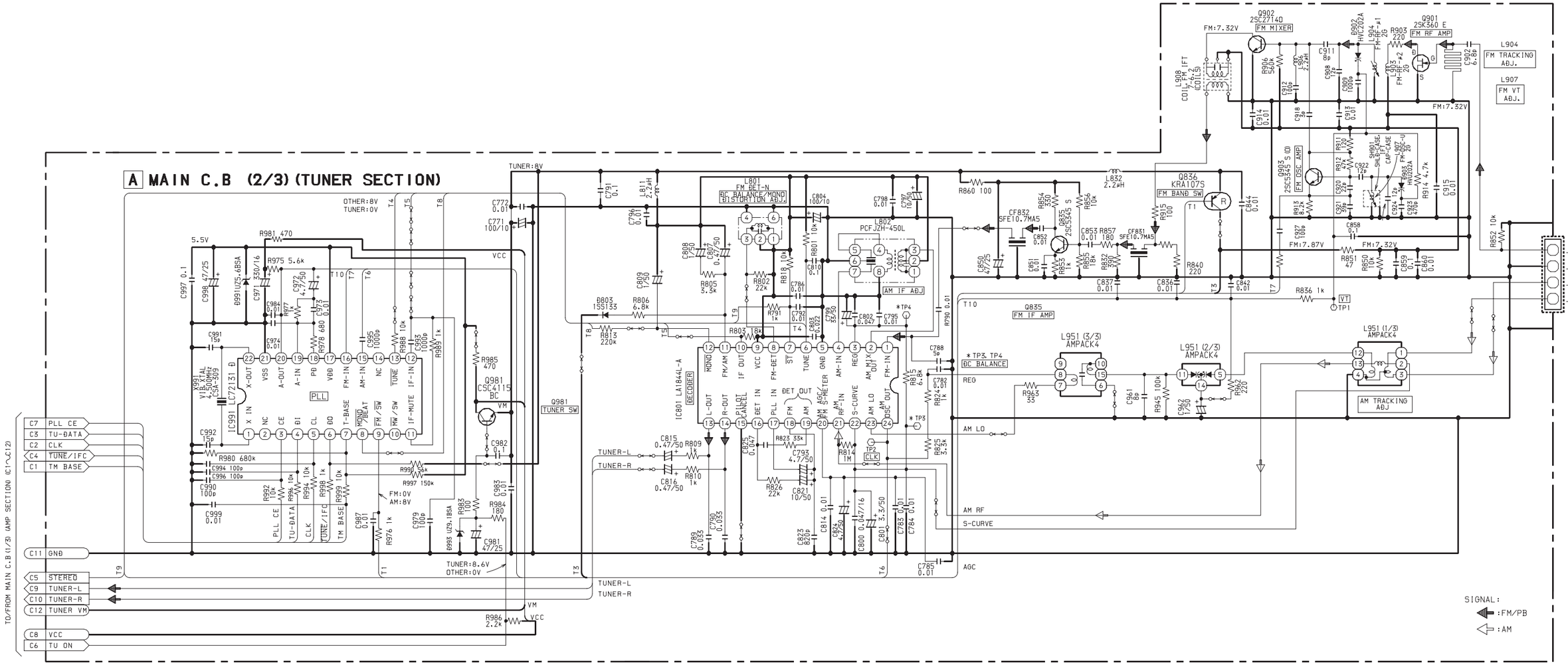
2SA1235F	DTA114TK
2SC3052F	DTA114TKA
2SC5345S(0)	KRA107S
2SC2714	KRA102S
CSD1306E	KRC104S


B FRONT C.B
A MAIN C.B
DISPLAY FL501
SW430 (CD DOOR SW)
IC502 REMOTE SENSOR
S209 FUNCTION
S206 ▲VOLUME UP
S211 UP TUNING
S205 ■SET
S212 ▼VOLUME DOWN
S204 ▶PRESET
S201 POWER ⏻ STANDBY/ON
S210 DOWN TUNING
S202 GEQ
S208 ■CLEAR
S203 T-BASS
J101 PHONES
TO TAPE MECHANISM ZZM-2 YPRTNC (CNA501)
TO TAPE MECHANISM ZZM-2 YPRTNC (CNA401)
TO CD DRIVE C.B CON3 (FFC302)
AM LOOP
FM 75Ω
J831 ANTENNA
J602 VIDEO/AUX
TO CD PICK UP ASSY KSS-213F (FFC301)
J103 SPEAKERS
S001 AC VOLTAGE
120V↔220V↔230V↔240V 50/60HZ
AC 120V 220-230V/ 240V 50/60HZ
T102
T101
PT101
TF
FC102
FC101
F101
JW001
JW002
RY101
CN500
CN501
CN302
CN301
IC501
IC302
IC301
IC303

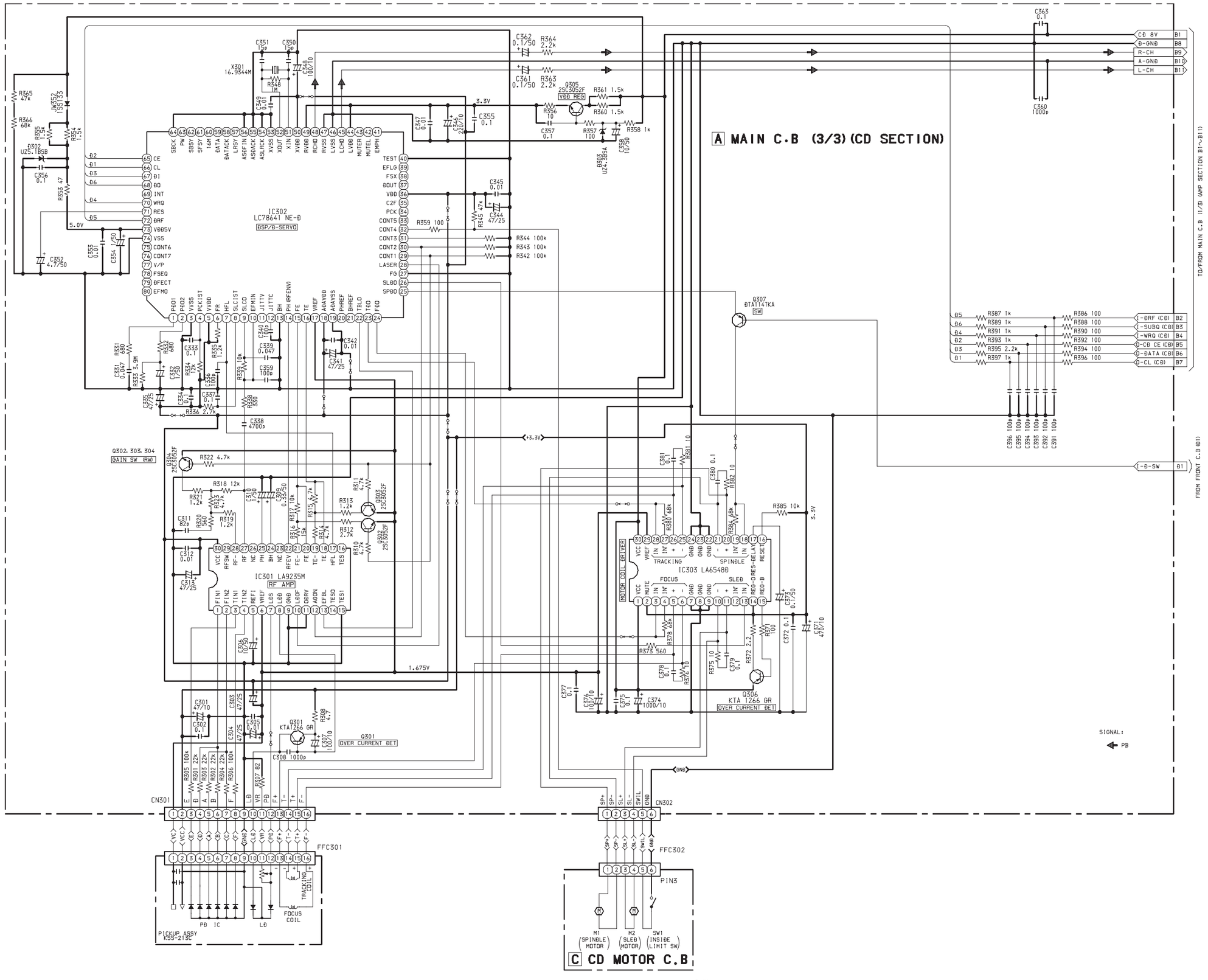
SCHEMATIC DIAGRAM – 1 (MAIN 1/3)



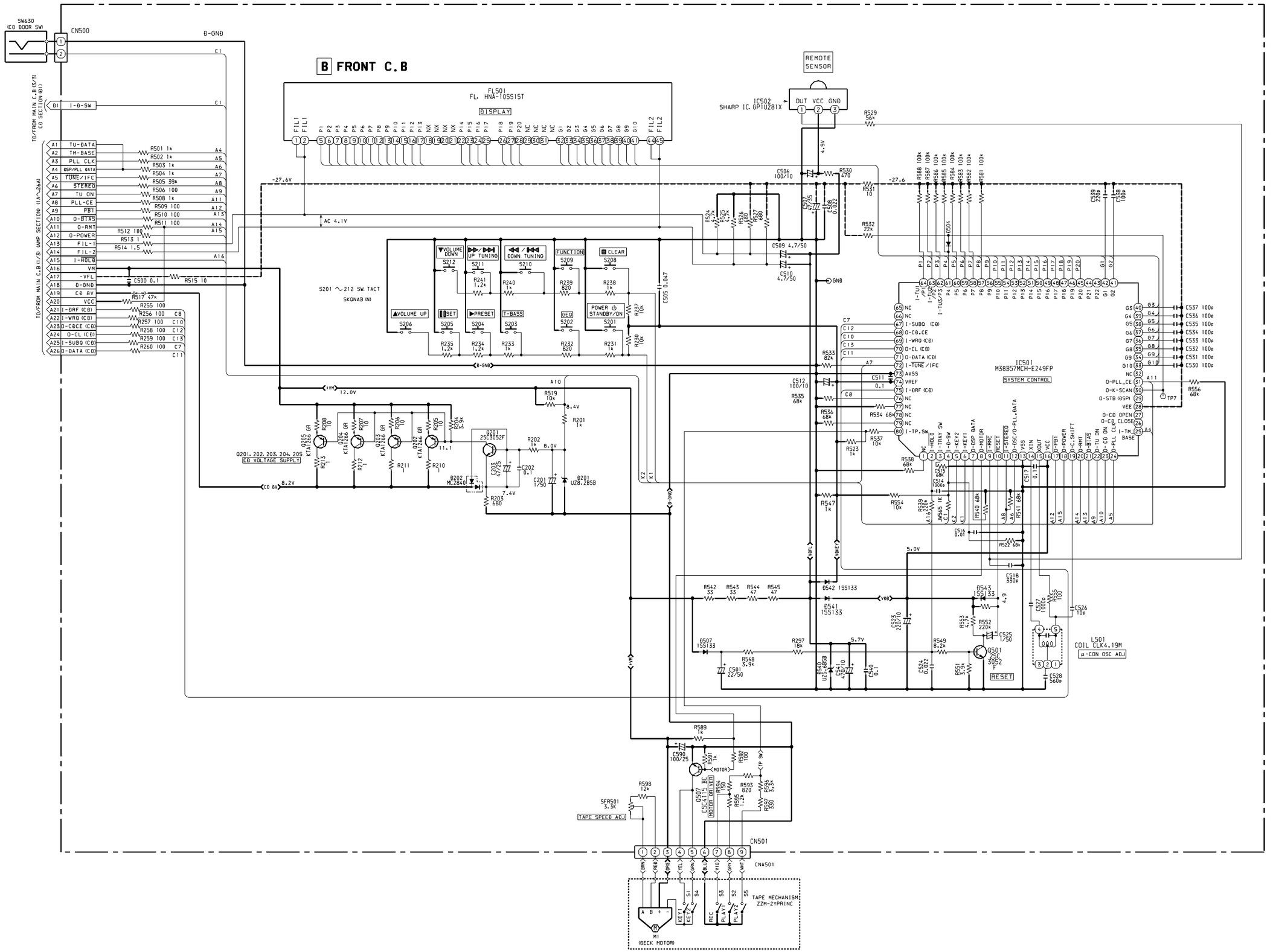
SCHEMATIC DIAGRAM – 2 (MAIN 2/3: TUNER SECTION)

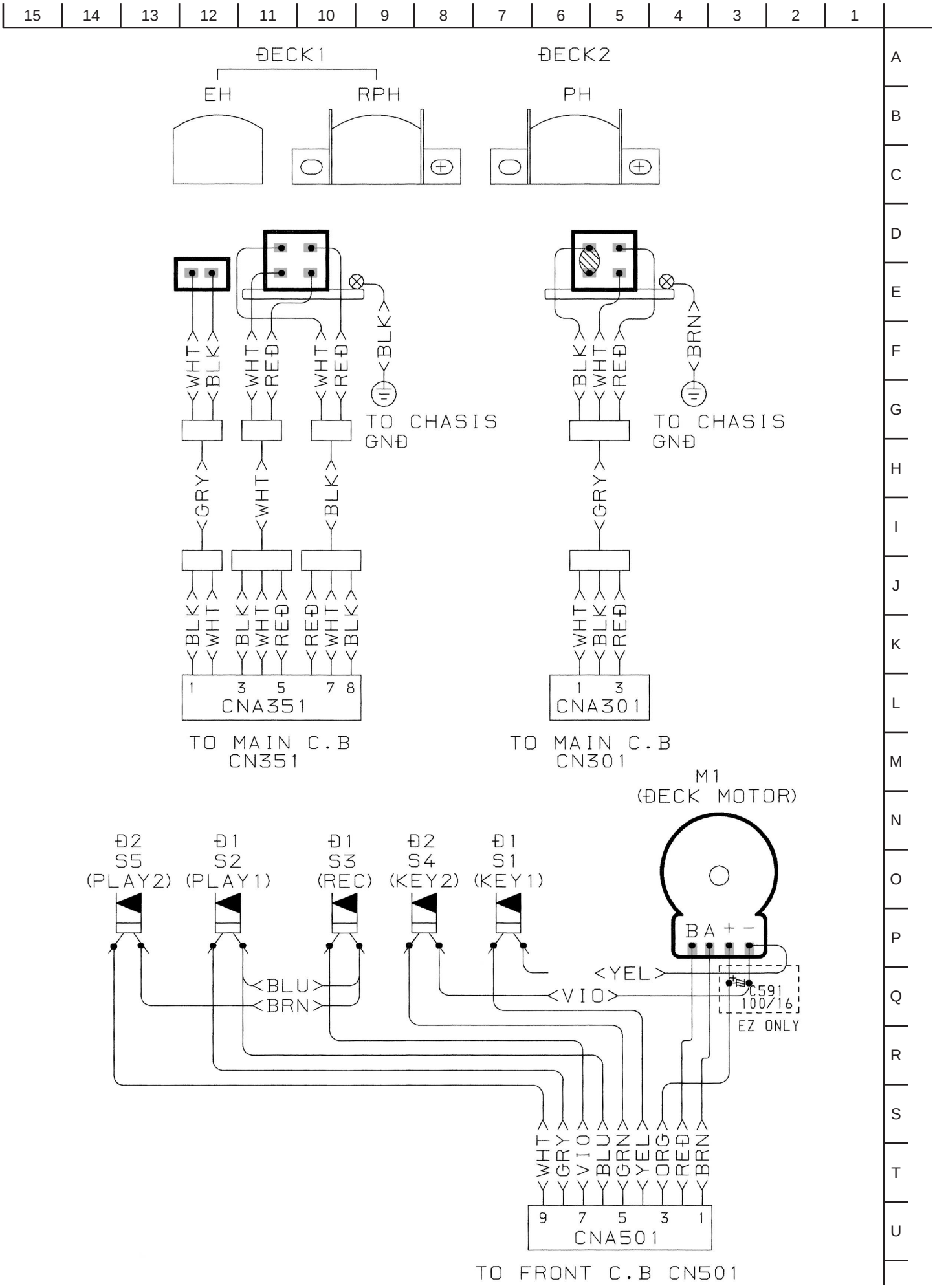


SCHEMATIC DIAGRAM – 3 (MAIN 3/3: CD SECTION)



SCHEMATIC DIAGRAM – 4 (FRONT)




ĐECK1
EH
RPH
ĐECK2
PH
WHT
BLK
WHT
REĐ
WHT
REĐ
BLK
TO CHASIS
GNĐ
GRY
WHT
BLK
BLK
WHT
BLK
WHT
REĐ
REĐ
WHT
BLK
1 3 5 7 8
CNA351
TO MAIN C.B
CN351
BLK
WHT
REĐ
BRN
TO CHASIS
GNĐ
GRY
WHT
BLK
REĐ
1 3
CNA301
TO MAIN C.B
CN301
M1
(ĐECK MOTOR)
Đ2
S5
(PLAY2)
Đ1
S2
(PLAY1)
Đ1
S3
(REC)
Đ2
S4
(KEY2)
Đ1
S1
(KEY1)
B A + –
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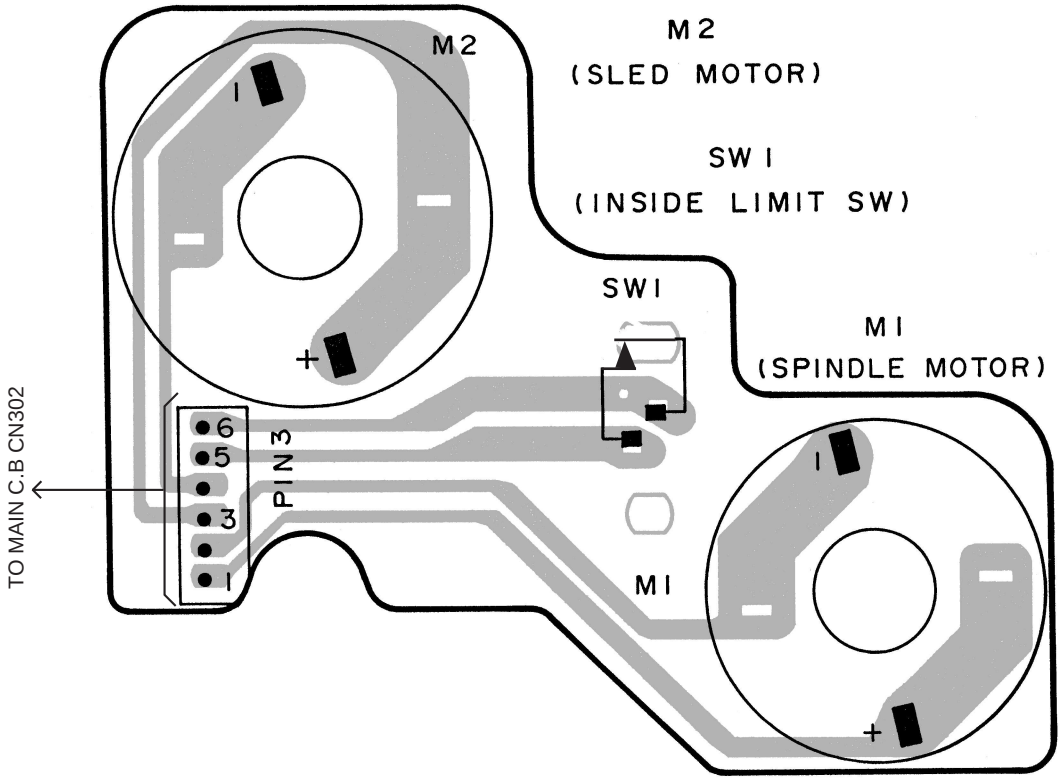
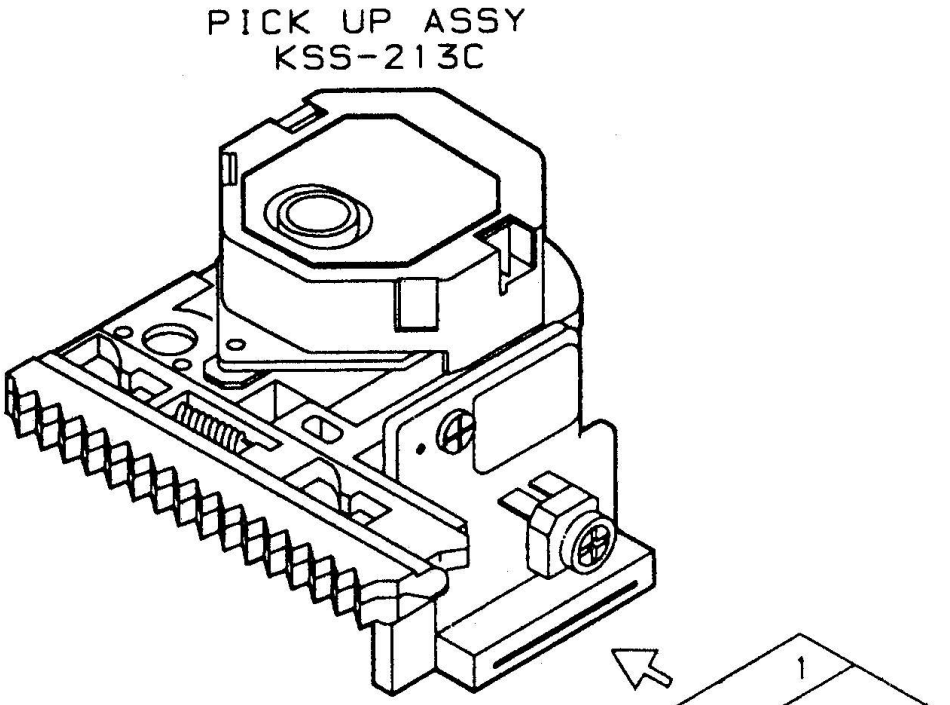
<BRN>
591
100/16
EZ ONLY
WHT
GRY
VIO
BLU
GRN
YEL
ORG
REĐ
BRN
9 7 5 3 1
CNA501
TO FRONT C.B CN501

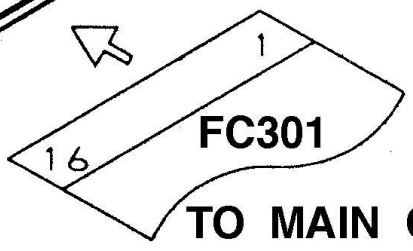
15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

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

C CD MOTOR C.B



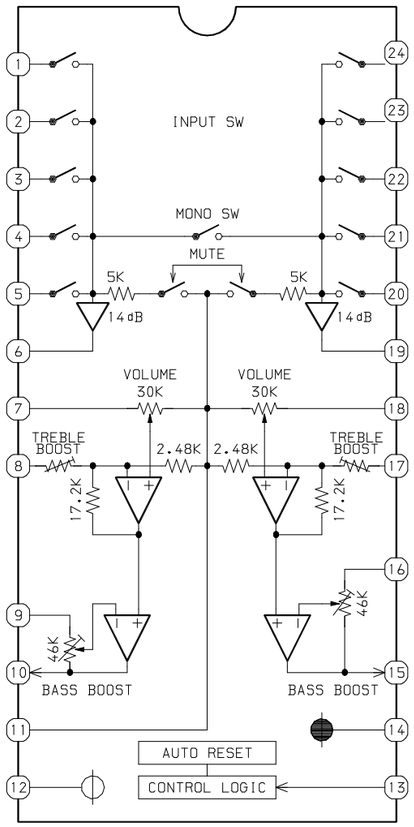




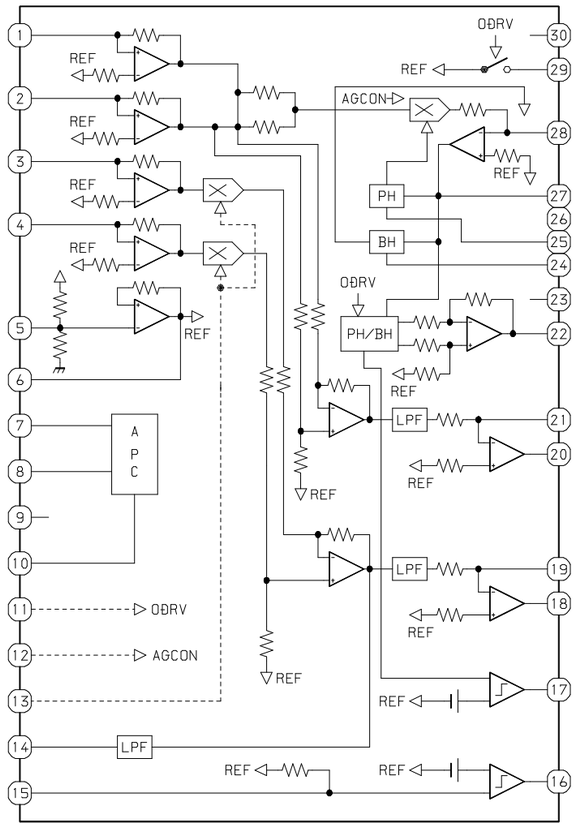
TO MAIN C.B CN301

IC BLOCK DIAGRAM

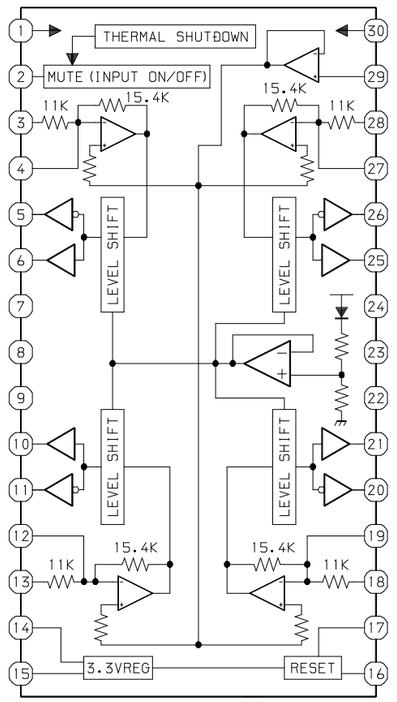
IC, M62495AFP



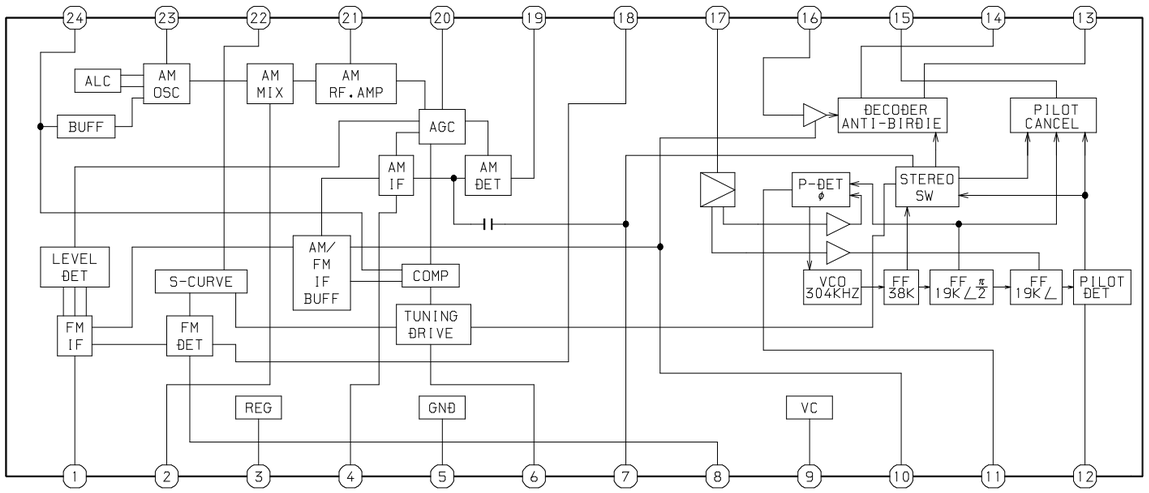
IC, LA9235M



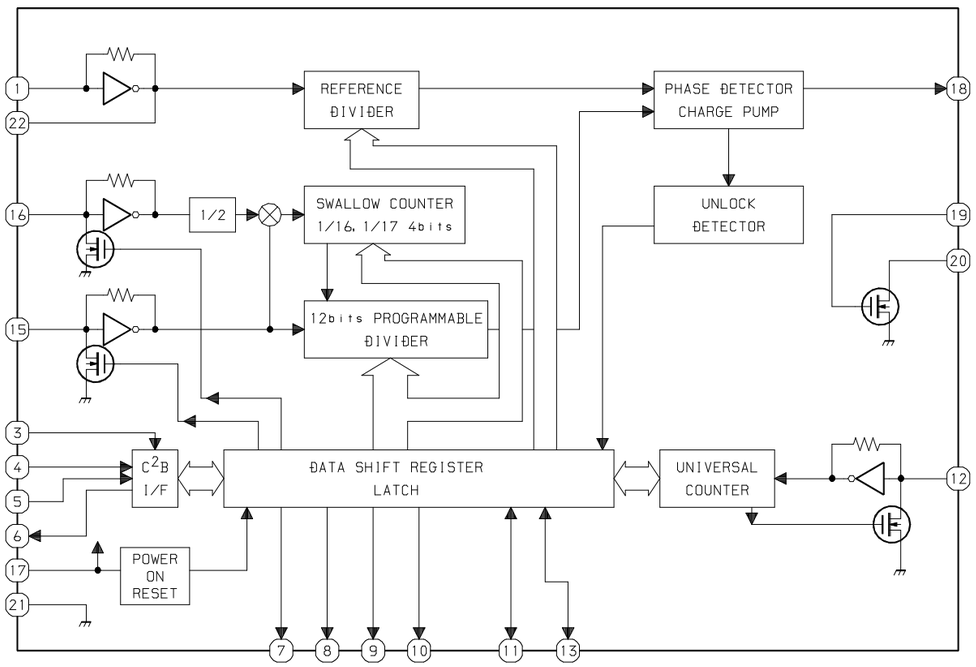
IC, LA6548D



IC, LA1844L-A

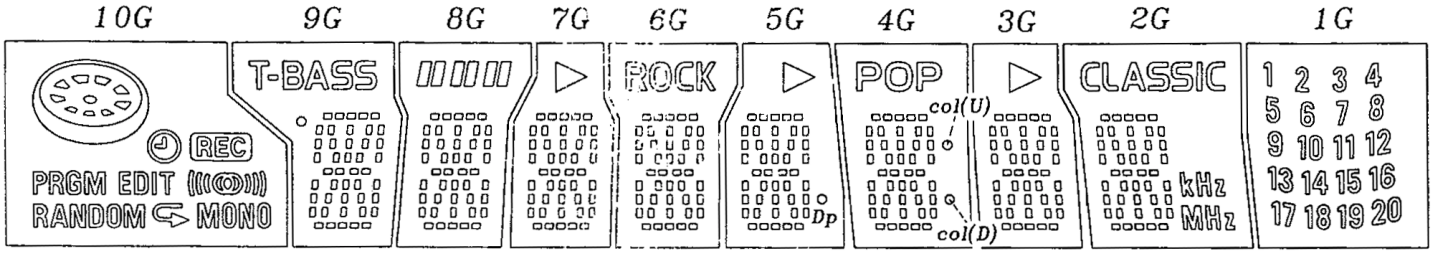


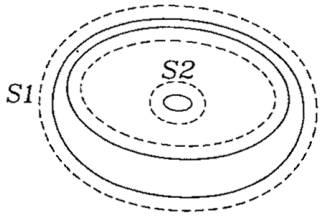
IC, LC72131D

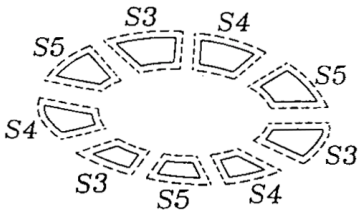


FL (HNA-10SS15T) GRID ASSIGNMENT & ANODE CONNECTION

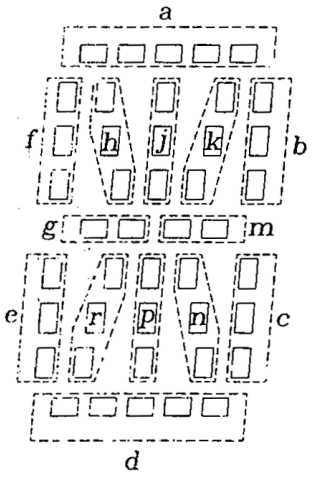
GRID ASSIGNMENT



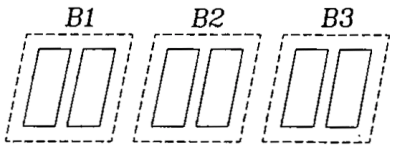




(10G)



(2G ~ 9G)



(8G)

ANODE CONNECTION

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	MONO	d	d	d	d	d	d	d	d	20
P2	((◎))	n	n	n	n	n	n	n	n	19
P3	REC	p	p	p	p	p	p	p	p	18
P4	◎	r	r	r	r	r	r	r	r	17
P5	EDIT	e	e	e	e	e	e	e	e	16
P6	⇦	c	c	c	c	c	c	c	c	15
P7	RANDOM	g	g	g	g	g	g	g	g	14
P8	PRGM	m	m	m	m	m	m	m	m	13
P9	S5	f	f	f	f	f	f	f	f	12
P10	S4	b	b	b	b	b	b	b	b	11
P11	S3	k	k	k	k	k	k	k	k	10
P12	S2	j	j	j	j	j	j	j	j	9
P13	S1	h	h	h	h	h	h	h	h	8
P14	—	a	a	a	a	a	a	a	a	7
P15	—	T-BASS	B1	▷	ROCK	▷	POP	▷	CLASSIC	6
P16	—	○	B2	—	—	Dp	col(U)	—	MHz	5
P17	—	—	B3	—	—	—	col(D)	—	kHz	4
P18	—	—	—	—	—	—	—	—	—	3
P19	—	—	—	—	—	—	—	—	—	2
P20	—	—	—	—	—	—	—	—	—	1

IC DESCRIPTION

IC, M38B57MCH - E249FP

Pin No.	Pin Name	I/O	Description
1	NC	—	Not connected.
2	$\overline{\text{I-HOLD}}$	I	Hold input.
3	I-TRAY SW	I	CD tray SW AD input.
4	I-D-SW	I	CD door open/close AD detection input (Not used).
5	I-KEY2	I	Key AD input 2.
6	I-KEY1	I	Key AD input 1.
7	O-DSP DATA	—	Not used.
8	O-MOTOR	O	Cassette deck motor control output.
9	$\overline{\text{I-RMC}}$	I	System remote control signal input (Active "L").
10	$\overline{\text{RESET}}$	I	Reset input for MICON.
11	$\overline{\text{I-STEREO}}$	I	Tuner stereo detect input.
12	O-DSC/ O-PLL.DATA	O	Function IC control output/PLL data output.
13	VSS	—	Connected to GND.
14	XIN	I	4.19MHZ oscillator circuit.
15	XOUT	O	4.19MHZ oscillator circuit.
16	VCC	—	Power supply.
17	$\overline{\text{O-PB1}}$	O	Cassette deck output switching $\overline{\text{PB1}}$/PB2.
18	O-POWER	O	Power control ON/$\overline{\text{OFF}}$ output.
19	O-C.SHIFT	O	Clock shift output for micro computer when tuner receiving broadcast.
20	O-RMT	O	REC MUTE output.
21	$\overline{\text{O-BIAS}}$	O	Bias $\overline{\text{ON}}$/OFF output.
22	O-TU ON	O	Tuner power supply ON/$\overline{\text{OFF}}$ output.
23	O-CD ON	O	CD power supply ON/$\overline{\text{OFF}}$ output.
24	O-PLL CLK	O	PLL IC clock output.
25	I-TM BASE	I	Reference clock input for timer switch.
26	O-CD CLOSE	O	CD tray close data output. (Not used)
27	O-CD OPEN	O	CD tray open data output. (Not used)
28	VEE	—	Power supply for FL display.
29	O-STB (DSP)	—	Not used.
30	O-K-SCAN	O	Initial scan output.
31	O.PLL_CE	O	Tuner PLL IC chip enable output.
32	NC	—	Not connected.
33	G10	O	FL grid output (G10).
34	G9	O	FL grid output (G9).
35	G8	O	FL grid output (G8).
36	G7	O	FL grid output (G7).
37	G6	O	FL grid output (G6).
38	G5	O	FL grid output (G5).
39	G4	O	FL grid output (G4).
40	G3	O	FL grid output (G3).
41	G2	O	FL grid output (G2).

Pin No.	Pin Name	I/O	Description
42	G1	O	FL grid output (G1).
43	P22	—	Not used.
44	P21	—	Not used.
45	P20	O	FL segment output (P20).
46	P19	O	FL segment output (P19).
47	P18	O	FL segment output (P18).
48	P17	O	FL segment output (P17).
49	P16	O	FL segment output (P16).
50	P15	O	FL segment output (P15).
51	P14	O	FL segment output (P14).
52	P13	O	FL segment output (P13).
53	P12	O	FL segment output (P12).
54	P11	O	FL segment output (P11).
55	P10	O	FL segment output (P10).
56	P9	O	FL segment output (P9).
57	P8	O	FL segment output (P8).
58	P7	O	FL segment output (P7).
59	P6	O	FL segment output (P6).
60	P5	O	FL segment output (P5).
61	P4	O	FL segment output (P4).
62	I-TU3/P3	I/O	TU3 diode input/FL segment output (P3).
63	I-TU2/P2	I/O	TU2 diode input/FL segment output (P2).
64	I-TU1/P1	I/O	TU1 diode input/FL segment output (P1).
65	NC	—	Not connected.
66	NC	—	Not connected.
67	I-SUB Q (CD)	I	SUB-Q data input.
68	O-CD.CE	O	CD data chip enable output.
69	I-WRQ (CD)	I	CD WRQ input.
70	O-CL (CD)	O	CD IC control clock output.
71	O-DATA (CD)	O	CD IC control data output.
72	$\overline{\text{I-TUNE}}$/IFC	I	Tuner SD detection input/Tuner IF count input.
73	AVSS	—	Connected to GND.
74	VREF	—	Power supply.
75	I-DRF (CD)	I	CD DRF input.
76	NC	—	Not used.
77	NC	—	Not used.
78	NC	—	Not connected.
79	NC	—	Not used.
80	I-TP.SW	I	Deck mechanism SW AD input.

IC, LC78641NE-D

Pin No.	Pin Name	I/O	Description
1	PDO1	O	Internal VCO control phase comparator output pin. (Pull down)
2	PDO2	O	Internal VCO control phase comparator output pin. OFF for rough servo, ON for phase servo. (Pull down)
3	VVSS	—	Internal VCO ground pin.
4	PCKIST	—	PDO output current adjustment resistor connection pin.
5	VVDD	—	Internal VCO power supply pin.
6	FR	—	VCO frequency range adjustment resistor connection pin. (Pull up)
7	HFL	I	Mirror detection signal input pin.
8	SLCIST	—	SLCO output current adjustment resistor connection pin.
9	SLCO	O	Control output.
10	EFMIN	I	EFM signal input pin.
11	JITTV	O	Jitter detection monitor pin. (Not used)
12	JITTC	O	Jitter detection monitor pin. (Pull down)
13	BH	I	BH signal input pin. (Connected to GND)
14	PH (RFENV)	I	PH signal or RFENV signal input pin.
15	FE	I	FE signal input pin.
16	TE	I	TE signal input pin.
17	VREF	I	VREF input pin.
18	ADAVDD	—	Servo A/D, D/A power supply pin.
19	ADAVSS	—	Servo A/D, D/A ground pin.
20	PHREF	O	PH reference output pin. (Not used)
21	BHREF	O	BH reference output pin. (Not used)
22	TBLO	O	Tracking balance output pin.
23	TDO	O	Tracking control output pin.
24	FDO	O	Focus control output pin.
25	SPDO	O	Spindle control output pin.
26	SLDO	O	Thread control output pin.
27	FG	I/O	Output driver VREF output pin. FG signal input pin. (Connected to GND)
28	LASER	O	Laser ON/OFF control pin.
29	CONT1	I/O	General-purpose input/output pin 1.
30	CONT2	I/O	General-purpose input/output pin 2.
31	CONT3	I/O	General-purpose input/output pin 3.
32	CONT4	I/O	General-purpose input/output pin 4.
33	CONT5	I/O	General-purpose input/output pin 5. (Not used)
34	PCK	O	EFM data playback clock monitor pin. Average 4.3218MHz when the phase is locked. (Not used)
35	C2F	—	C2 flag output pin. (Not used)
36	VDD	—	Digital power supply pin.
37	DOUT	O	Digital out output pin. (EIAJ format). (Not used)
38	FSX	O	Output pin for the 7.35kHz synchronization signal divided from the crystal oscillator. (Not used)

Pin No.	Pin Name	I/O	Description
39	EFLG	O	C1, C2 error correction monitor pin. (Not used)
40	TEST	I	Test input pin. (Connected to GND)
41	EMPH	I/O	Emphasis pin. Which becomes an input pin after reset and can be controlled externally. This becomes an emphasis monitor pin under control by command. (Not used)
42	MUTEL	O	L channel mute output pin. (Not used)
43	MUTER	—	R channel mute output pin. (Not used)
44	LVDD	—	L channel power supply pin.
45	LCHO	I	L channel output pin.
46	LVSS	—	L channel ground pin.
47	RVSS	O	R channel ground pin.
48	RCHO	I	R channel output pin.
49	RVDD	O	R channel power supply pin.
50	XVDD	O	Crystal oscillator power supply pin.
51	XIN	I	Connections for a 16.9344MHz crystal oscillator pin.
52	XOUT	O	
53	XVSS	I	Crystal oscillator ground pin.
54	ASLRCK	I	L/R clock input pin. (Connected to GND)
55	ASDACK	I	Bit clock input pin. (Connected to GND)
56	ASDFIN	—	L/R channel data input pin. (Connected to GND)
57	LRSY	—	L/R clock output pin. (Not used)
58	DATACK	O	Bit clock output pin. (Not used)
59	DATA	O	L/R channel data output pin. (Not used)
60	16M	O	16.9344MHz output pin. (Not used)
61	SFSY	O	Subcode frame synchronization signal output pin. This signal falls when the subcode is in the standby state. (Not used)
62	SBSY	O	Subcode clock synchronization signal output pin. (Not used)
63	PW	O	Subcode P, Q, R, S, T, U and W output pin. (Not used)
64	SBCK	I	Subcode readout clock input pin. (Connected to GND)
65	CE	I	Chip enable signal input pin.
66	CL	I	Data transfer clock input pin.
67	DI	I	Data input pin.
68	DO	O	Data output pin.
69	INT	O	Interruption signal output pin. (Not used)
70	WRQ	O	Interruption signal output pin.
71	RES	I	Reset input pin. This pin must be set low briefly after power is first applied.
72	DRF	O	Focus ON detect pin.
73	C2F	—	Microprocessor interface power supply.
74	VDD	—	Digital ground pin.
75	DOUT	I/O	General-purpose input/output pin 6. (Not used)
76	CONT7	I/O	General-purpose input/output pin 7. (Not used)
77	V/P	O	Rough servo/phase control automatic switching monitor output pin. “H” for rough servo and “L”for phase servo. (Not used)

Pin No.	Pin Name	I/O	Description
78	FSEQ	O	Synchronization signal detection output pin. Outputs a high level when the synchronization signal detected from the EFM signal and the internally generated synchronization signal agree. (Not used)
79	DEFECT	I/O	Defect pin. Which becomes an input pin after reset and can be controlled externally. This becomes the defect monitor pin under control by command. (Not used)
80	EFMO	O	EFM signal output pin. (Not used)

ADJUSTMENT <TUNER / DECK / FRONT>

< TUNER SECTION >

1. Clock frequency Check
   Settings : • Test point : TP2 (CLK)
   Method : Set to AM 1710kHz and check that the test point is 2160kHz ± 45Hz.

2. AM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to AM 1710kHz, 530kHz and check that the test point is less than 8.5V (1710kHz) and more than 0.6V (530kHz).

3. FM VT Adjustment
   Settings : • Test point : TP1 (VT)
   • Adjustment location : L907
   Method : Set to FM 108.0MHz and adjust L907 so that the test point is 7.0V ± 100mV.

4. AM Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L951(1/3) 999kHz
   Method : Set to AM 999kHz and adjust L951(1/3) to MAX.

5. FM Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   •Adjustment location : L904
   Method : Set to FM 87.5MHz and adjust L904 so that the test point is maximum.

6. AM IF Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L802 ..... 450kHz

7. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3, TP4 (DC Balance)
   : TP8(Lch), TP9 (Rch) (Distortion)
   • Adjustment location : L801
   • Input level : 60dBµV
   Method : Set to FM 98MHz and adjust L801 so that the voltage between TP3 and TP4 is 0V ± 0.04V.
   Then check the distortion is less than 1.3%.

< DECK SECTION >

1. Tape Speed Adjustment (DECK 1)
   Settings : • Test tape : TTA–100
   • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location : SFR501
   Method : Play back the test tape and adjust SFR501 so that the frequency counter reads 3000Hz ± 8Hz (FWD) and ± 45Hz (REV) with respect to forward speed.

2. Head Azimuth Adjustment (DECK 1, DECK 2)
   Settings : • Test tape : TTA–330
   • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location : Head azimuth adjustment screw
   Method : Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on REV PLAY mode.

3. PB Frequency Response Check (DECK 1, DECK 2)
   Settings : • Test tape : TTA–330
   • Test point :TP8 (Lch), TP9 (Rch)
   Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is 0dB ± 4dB.

4. REC/PB Frequency Response Check (DECK 1)
   Settings : • Test tape : TTA–602
   • Test point : TP8 (Lch), TP9 (Rch)
   • Input signal: 1 kHz, 8 kHz (LINE IN) (-20 UV)
   Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes 80mV. Record and play back the 1kHz and 8kHz signal and check that the output of the 8kHz signals is 0dB ± 5dB with respect to that of the 1 kHz signal.

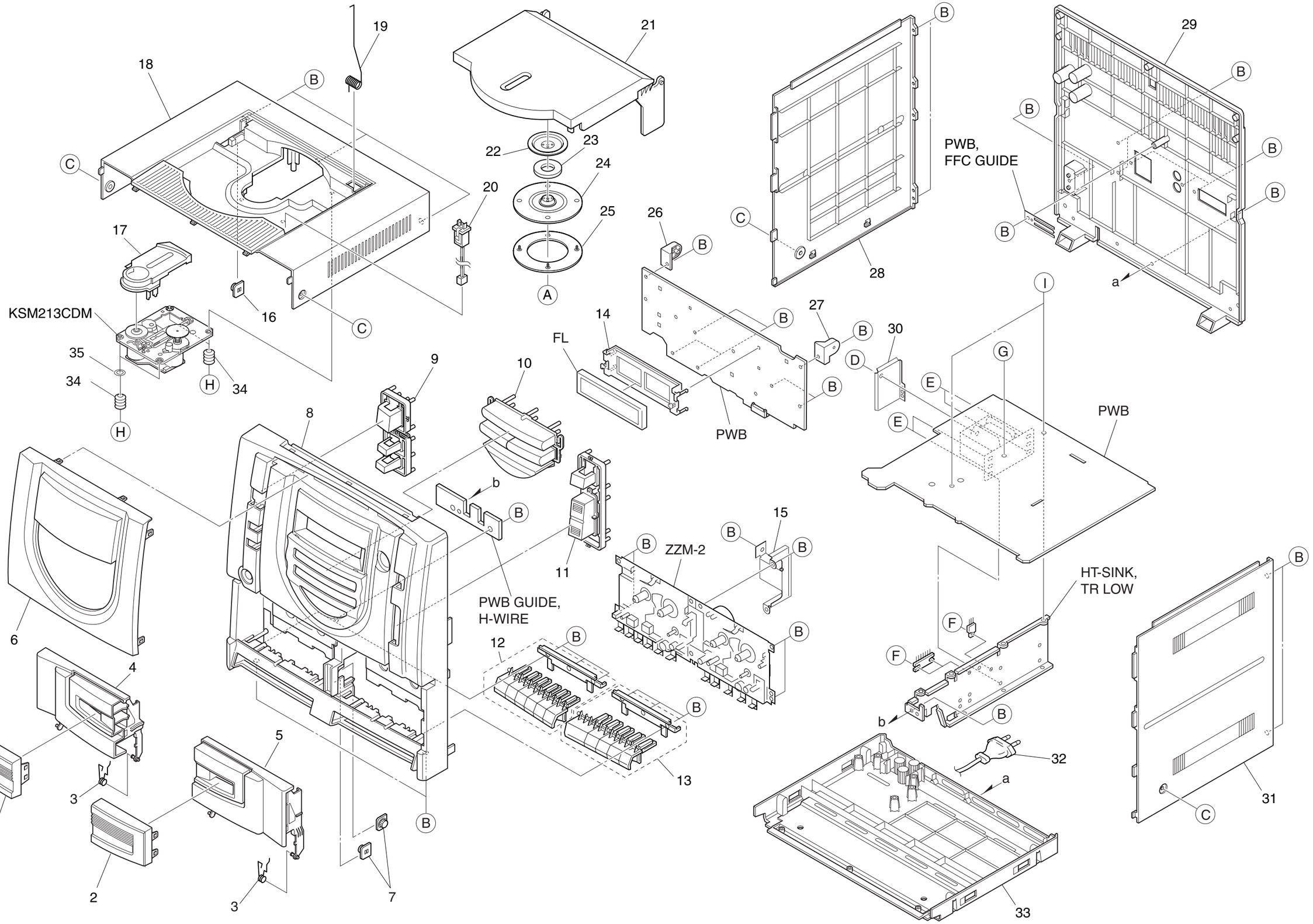
5. REC/PB Sensitivity Check (DECK 1)
   Settings : • Test tape : TTA–602
   • Test point : TP8 (Lch), TP9(Rch)
   • Input signal : 1kHz(LINE IN) (0 UV)
   Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP8, TP9 becomes 8mV. Record and play back the 1kHz signals and check that the output is –2dB ± 3.5dB.

6. PB Sensitivity Check (DECK 1, DECK 2)
   Settings : • Test tape : TTA–200
   • Test point :TP8 (Lch), TP9 (Rch)
   Method : Play back the test tape and check that the output level of the test point is 110mV ± 3.5dB.

< FRONT SECTION >

1. µ-CON OSC Adjustment
   Settings : • Test point : TP7 and (GND)
   • Adjustment location : L501
   Method : Insert AC plug while pressing TUNER function key. Adjust L501 so that the frequency at the test point is 233.4Hz ± 0.23Hz.

MECHANICAL EXPLODED VIEW 1 / 1



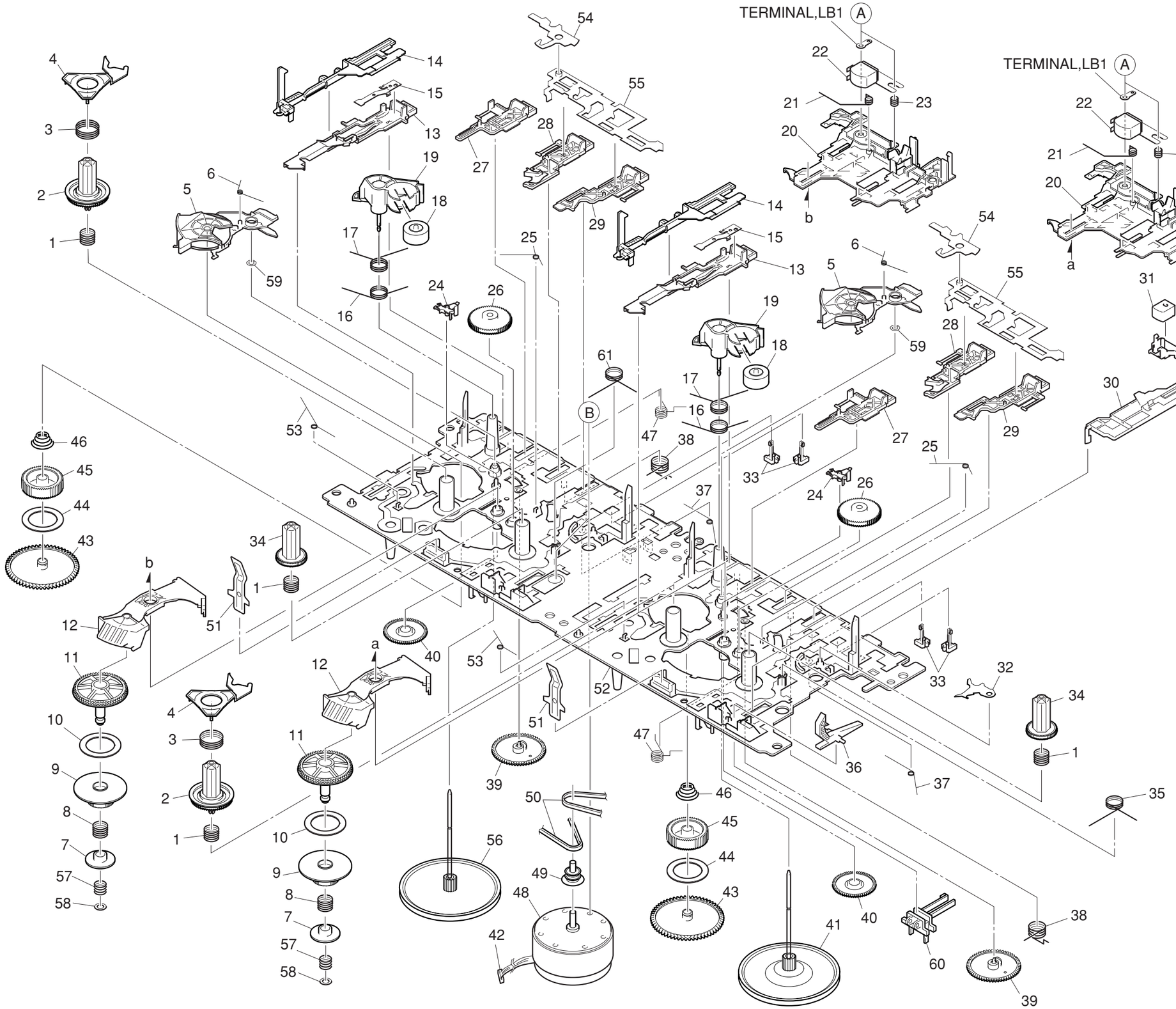
MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NED-005-010		WINDOW,CASS 1
2	8A-NED-006-010		WINDOW,CASS 2
3	82-NF7-218-010		SPR-T,CASS
4	8A-NED-002-010		BOX,CASS 1
5	8A-NED-003-010		BOX,CASS 2
6	8A-NED-034-010		WINDOW,DISPLAY CCE
7	86-NFZ-231-010		DMPR,70
8	8A-NED-001-110		CABI,FR
9	8A-NED-007-010		KEY,POWER
10	8A-NED-009-010		KEY,PLAY
11	8A-NED-008-010		KEY,UP/DOWN
12	8A-NED-010-110		KEY,CASS 1
13	8A-NED-011-010		KEY,CASS 2
14	8A-NFA-208-010		GUIDE,FL 100-25 ANFA
15	8A-NEC-206-010		HLDR,DECK
16	87-NF8-220-010		DMPR,150
17	88-CH6-019-110		PANEL,CD
18	8A-NED-012-210		PANEL,TOP
19	8A-NED-203-110		SPR,LID
20	87-036-389-010		SW,PUSH LOCK
21	8A-NED-033-110		LID,ASSY CD
22	84-CT5-209-010		PLATE,MAGNET
23	87-036-368-010		MAGNET
24	88-CD9-210-210		BASE,CHUCK
25	88-CD9-211-210		RING,CHUCK
26	8A-NED-201-010		HLDR,TOP L
27	8A-NED-202-010		HLDR,TOP R
28	8A-NEC-013-010		PANEL,LEFT
29	8A-NED-025-010		CABI,REAR LHSC1NC1
30	8A-NEC-201-110		HLDR,PT
31	8A-NEC-014-010		PANEL,RIGHT
⚠ 32	87-A80-157-010		AC CORD ASSY,E BLK CC
33	8A-NEC-205-010		CABI,BOTTOM
A	87-253-033-110		SCREW,U+2-4
B	87-067-703-010		TAPPING SCREW, BVT2+3-10
C	87-067-641-010		UTT2+3-8(W/O SLOT)BL
D	87-571-092-410		TAPPING SCREW, VIT+3-4
E	87-078-191-010		S-SCREW,IT+4-10
F	87-067-001-010		S-SCREW,BVWWST2+3-12 W/O SLOT
G	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
H	8A-NED-204-010		S-SCREW,MECH M3
I	87-067-579-010		TAPPING SCREW, BVT2+3-8
34	88-CH6-220-110		CUSH,CD A
35	8A-NED-209-010		CUSH,W5-8-1.5

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	GL	Light Green		

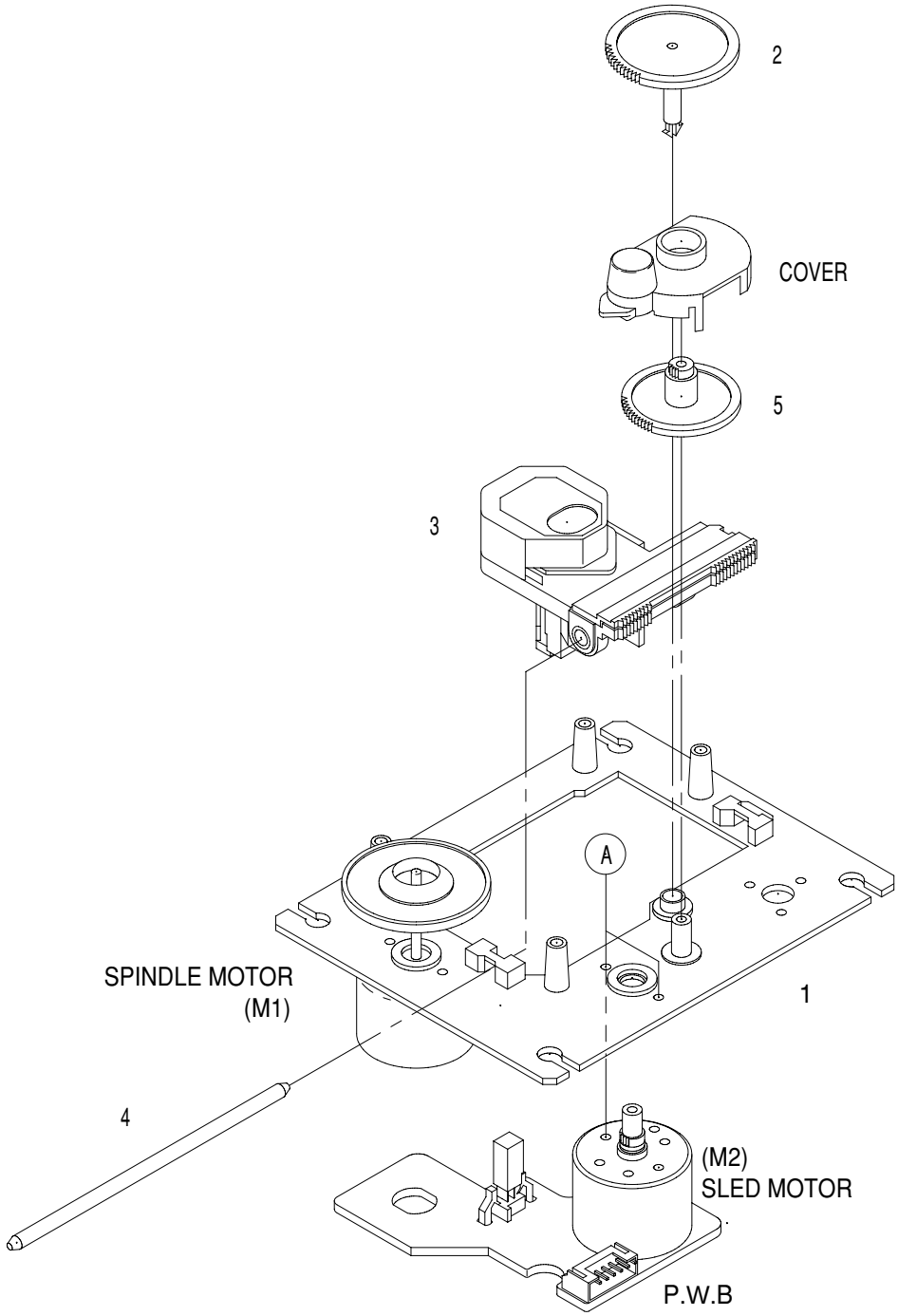
TAPE MECHANISM EXPLODED VIEW 1 / 1



TAPE MECHANISM PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM1-254-310		SPR-C,REEL R
2	8Z-ZM1-225-110		GEAR,REEL R
3	8Z-ZM1-253-210		SPR-C,AUTO SENSOR
4	8Z-ZM1-217-110		LEVER,AUTO SENSOR
5	8Z-ZM1-212-210		LEVER,T-UP
6	8Z-ZM1-245-310		SPR-T,AUTO
7	8Z-ZM1-236-010		CLR,SLIP FF/REW
8	8Z-ZM1-252-110		SPR-C,FF/REW
9	8Z-ZM2-213-010		GEAR,SLIP FR A ZZM-2
10	8Z-ZM1-269-010		FELT,FF/REW 2
11	8Z-ZM1-238-110		GEAR,SLIP FF/REW B 2
12	8Z-ZM1-237-110		LEVER,FF/REW 2
13	8Z-ZM1-209-510		LEVER,PAUSE
14	8Z-ZM1-218-210		LEVER,E-LOCK H
15	8Z-ZM1-256-010		SPR-P,PAUSE
16	8Z-ZM1-244-110		SPR-T,T-UP
17	8Z-ZM1-247-310		SPR-T,PINCH
18	8Z-ZM1-261-110		ROLLER ASSY,PINCH
19	8Z-ZM1-221-210		LEVER,PINCH
20	8Z-ZM1-205-310		LEVER,PLAY
21	8Z-ZM1-248-210		SPR-T,BRG
22	87-A90-403-110		HEAD,RPH MS15R
23	84-ZM2-227-310		SPR-C,AZIMUTH
24	8Z-ZM1-216-110		LEVER,AUTO
25	8Z-ZM1-246-110		SPR-T,AUTO 2
26	8Z-ZM2-214-110		GEAR,IDL REW ZZM-2
27	8Z-ZM2-212-010		LEVER,STOP ZZM-2
28	8Z-ZM1-207-010		LEVER,FF
29	8Z-ZM1-206-010		LEVER,REW
30	8Z-ZM1-210-010		LEVER,REC
31	87-A90-404-010		HEAD,EH LE15B
32	8Z-ZM2-218-010		LEVER,REC LOCK ZZM-2
33	87-A91-492-010		SW,LEAF MSW18560
34	8Z-ZM1-226-010		GEAR,REEL L
35	8Z-ZM1-241-210		SPR-T,PLAY
36	8Z-ZM1-220-110		LEVER,REC SENSOR
37	8Z-ZM1-249-210		SPR-T,FR
38	8Z-ZM1-242-310		SPR-T,FF/REW
39	8Z-ZM3-244-110		GEAR,CAM TD20
40	8Z-ZM1-232-010		GEAR,IDL FF/REW
41	8Z-ZM1-290-010		FLY-WHL ASSY,ZZM-1
42	8Z-ZM2-601-010		CONN ASSY,9P ZZM-2
43	8Z-ZM1-228-010		GEAR,SLIP T-UP B
44	8Z-ZM1-265-010		FELT,T-UP
45	8Z-ZM1-227-010		GEAR,SLIP T-UP A
46	8Z-ZM1-251-210		SPR-C,T-UP SLIP
47	8Z-ZM1-243-310		SPR-T,STOP/PAUSE
48	87-A91-532-010		MOT,MS15U2LW1A
49	8Z-ZM1-235-010		PULLEY,MOT
50	8Z-ZM2-216-010		BELT,MAIN M
51	8Z-ZM1-260-010		SPR-P,CASETTE
52	8Z-ZM2-201-510		CHAS ASSY,ZZM-2
53	8Z-ZM1-255-310		SPR-T,E-LOCK
54	8Z-ZM2-219-010		LEVER,E-OPEN ZZM-2
55	8Z-ZM1-214-310		LEVER,LOCK
56	8Z-ZM2-230-010		FLY-WHL ASSY,ZZM-2
57	8Z-ZM1-257-110		SPR-C,F/R
58	8Z-ZM1-275-010		W-L,1.47-4-0.25
59	87-B10-301-010		W-L,1.63-3.2-0.5 SLIT
60	87-A91-494-010		SW,LEAF MSW17820
61	8Z-ZM1-241-010		SPR-T,PLAY
A	84-ZM2-242-010		S-SCREW,AZ1-2-6.4
B	8Z-ZM2-220-110		V+2.6 ZZM-2

CD MECHANISM EXPLODED VIEW 1 / 1



CD MECHANISM PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	9X-262-620-210		MOTOR CHASSIS ASSY
2	92-626-907-010		GEAR(A)
3	87-A90-468-010		PICK UP KSS-213C
4	92-626-908-010		SHAFT SLED
5	92-627-003-020		GEAR(B)(RP)
A	97-621-255-150		SCREW+P2-3