

# SERVICE MANUAL

COMPACT DISC STEREO  
CASSETTE RECEIVER

BASIC TAPE MECHANISM : ZZM-3 PR1NM  
BASIC CD MECHANISM : 6ZG-1 ZRDM

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER	STEREO TURNTABLE
Z-L500 (EZ)	CX-ZL500	SX-WZL500	RC-ZAS02	—
Z-L500 (K)				PX-E860

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual" Z-L500 (K, EZ), (S/M Code No. 09-002-424-0T2).
- If requiring information about the CD mechanism, see Service Manual of 6ZG-1, (S/M Code No. 09-001-338-7N2).
- If requiring information about the Stereo Turntable, see Service Manual of PX-E860 (K), (S/M Code No. 09-993-322-0R4).

# aiwa

S/M Code No. 09-003-424-0R2

REVISION

DATA

## SPECIFICATIONS

### <FM tuner section>

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

### <MW tuner section>

<b>Tuning range</b>	530 kHz to 1710 kHz (10 kHz step) 531 kHz to 1602 kHz (9 kHz step)
<b>Usable sensitivity</b>	350 $\mu$ V/m
<b>Antenna</b>	Loop antenna

### <LW tuner section>

<b>Tuning range</b>	144 kHz to 290 kHz
<b>Usable sensitivity</b>	1400 $\mu$ V/m
<b>Antenna</b>	Loop antenna

### <Amplifier section>

#### Mid-high frequency amplifier

<b>Power output</b>	Rated: 20 W + 20 W (8 ohms, T.H.D. 1 %, 1 kHz) Reference: 25 W + 25 W (8 ohms, T.H.D. 10 %, 1 kHz) <b>EZ:</b> DIN MUSIC POWER: 45 W + 45W
<b>Total harmonic distortion</b>	0.15 % (10 W, 1 kHz, 8 ohms, DIN AUDIO<EZ only>)

#### Low frequency amplifier

<b>Power output</b>	Rated: 60 W + 60 W (6 ohms, T.H.D. 1 %, 75 Hz) Reference : 75 W + 75 W (6 ohms, T.H.D. 10 %, 75 Hz) <b>EZ:</b> DIN MUSIC POWER: 135 W + 135W
<b>Total harmonic distortion</b>	0.15 % (30 W, 75 Hz, 6 ohms, DIN AUDIO<EZ only>)

<b>Inputs</b>	VIDEO/AUX/PHONO IN: 500 mV
<b>Outputs</b>	CD DIGITAL OUT (OPTICAL) SPEAKERS HIGH FREQ: accept speakers of 8 ohms or more SPEAKERS LOW FREQ: accept speakers of 6 ohms or more PHONES (stereo jack): accepts headphones of 32 ohms or more

### <Cassette deck section>

<b>Track format</b>	4 tracks, 2 channels stereo
<b>Frequency response</b>	50 Hz – 12500 Hz
<b>Recording system</b>	AC bias
<b>Heads</b>	Deck 1 : Playback head x 1 Deck 2 : Recording/Playback head x 1, erase head x 1

### <Compact disc player section>

<b>Laser</b>	Semiconductor laser ( $\lambda$ =780 nm)
<b>D-A converter</b>	1 bit dual
<b>Signal-to-noise ratio</b>	85 dB (1 kHz, 0 dB)
<b>Harmonic distortion</b>	0.05 % (1 kHz, 0 dB)
<b>Wow and flutter</b>	Unmeasurable

### <Speaker system SX-WZL500>

<b>Cabinet type</b>	3 way, built-in subwoofer
<b>Speakers</b>	Subwoofer: 220 mm (8 <sup>3</sup> / <sub>4</sub> in.) cone type Full range: 120 mm (4 <sup>3</sup> / <sub>4</sub> in.) cone type Super tweeter: 20 mm (1 <sup>3</sup> / <sub>16</sub> in.) ceramic type
<b>Impedance</b>	6 ohms/8 ohms
<b>Output sound pressure level</b>	89 dB/W/m
<b>Dimensions (W x H x D)</b>	260 x 495x 261 mm (10 <sup>1</sup> / <sub>4</sub> x 19 <sup>1</sup> / <sub>2</sub> x 10 <sup>3</sup> / <sub>8</sub> in.)
<b>Weight</b>	5.8 kg (12 lbs. 14 oz.)

### <General>

<b>Power requirements</b>	230 V AC, 50 Hz
<b>Power consumption</b>	150 W
<b>Dimensions of main unit (W x H x D)</b>	360 x 395.3 x 385.1 mm (14 <sup>1</sup> / <sub>4</sub> x 15 <sup>5</sup> / <sub>8</sub> x 15 <sup>1</sup> / <sub>4</sub> in.)
<b>Weight of main unit</b>	10.9 kg (24 lbs.)

• Design and specifications are subject to change without notice.

• The word "BBE"and the "BBE symbol" are trademarks of BBE Sound, Inc.

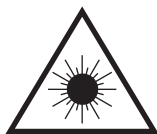
Under license from BBE Sound,Inc.

## 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 ylittävälle näkymättömälle lasersäteilylle.

### WARNING!

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

### CAUTION

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

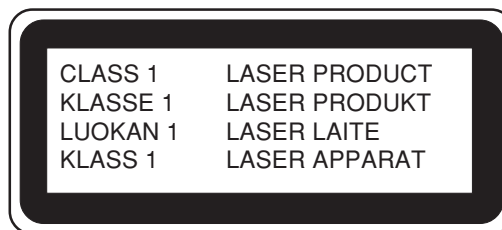
### ATTENTION

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

### ADVARSEL

Usynlig laserstråling ved åbning, når 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.



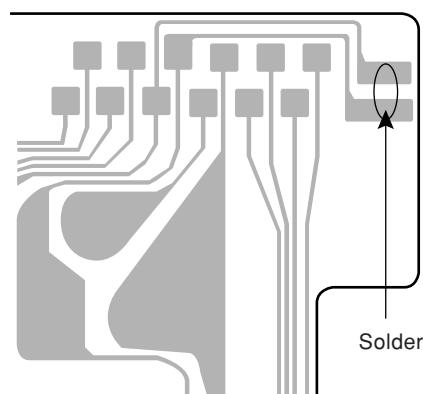
## Precaution to replace Optical block

### (KSS-213F)

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

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

PICK-UP Assy P.C.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.

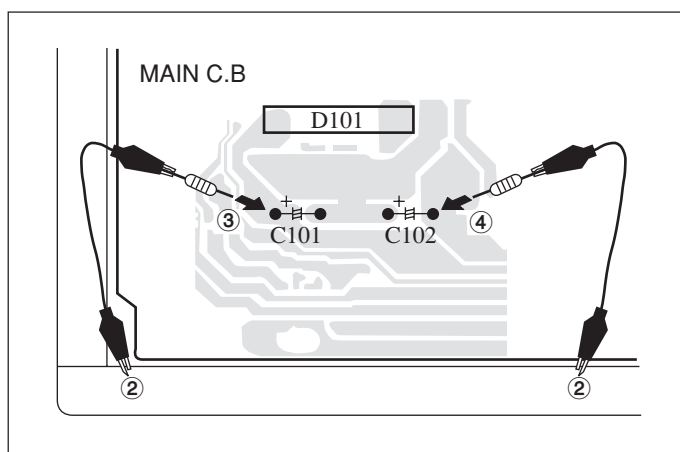


Fig-1

Select a discharging resistor referring to the following table.

Charging voltage (V) (C101, 102)	Discharging resistor ( $\Omega$ )	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.

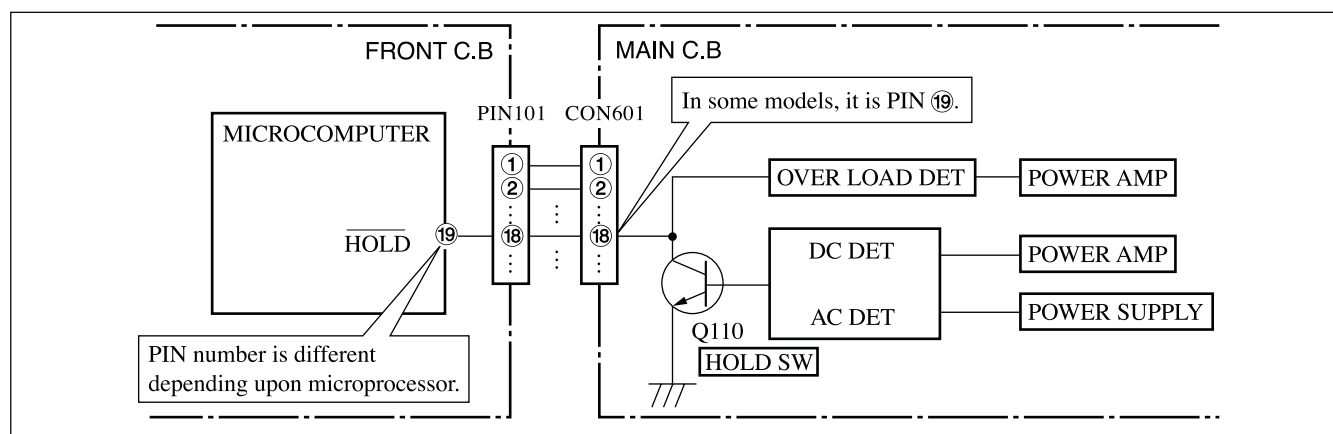


Fig-2-1

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.

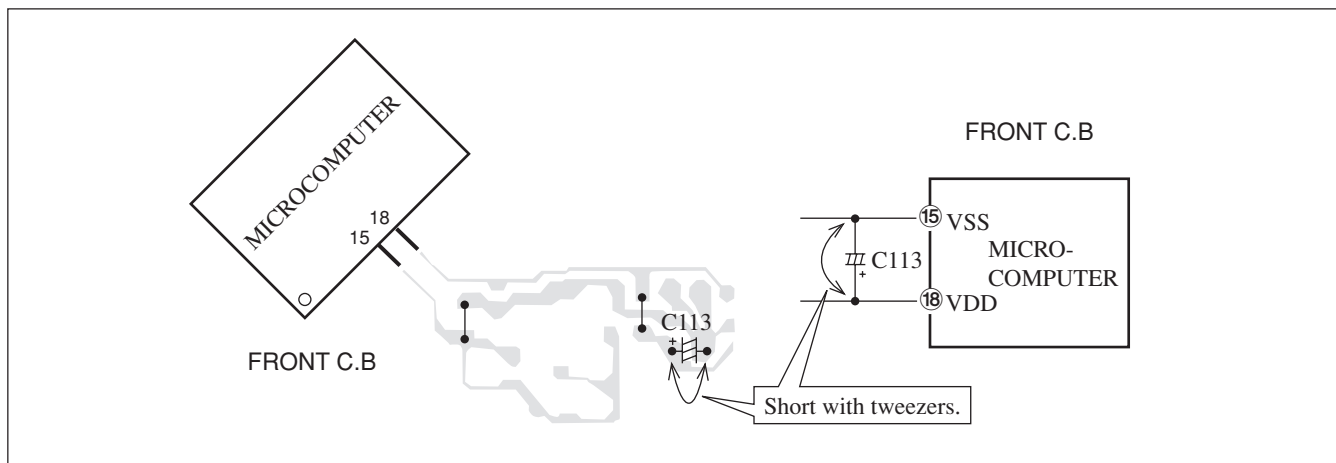


Fig-2-2

- 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	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C9	87-A10-712-080		CHIP CAPACITOR,0.22-50
	8A-MA5-656-010	C-IC,LC876580W-5P44		C10	87-A10-712-080		CHIP CAPACITOR,0.22-50
	87-A21-417-010	IC,STK490-310		C11	87-A10-712-080		CHIP CAPACITOR,0.22-50
	87-A21-396-010	IC,STK490-040		C12	87-A10-712-080		CHIP CAPACITOR,0.22-50
	87-A21-021-040	C-IC,BU2099FV		C15	87-A10-712-080		CHIP CAPACITOR,0.22-50
	87-A21-419-040	C-IC,NJM14558MD-TE2		C16	87-A10-712-080		CHIP CAPACITOR,0.22-50
	87-A21-577-040	C-IC,M61506FP		C17	87-A10-712-080		CHIP CAPACITOR,0.22-50
	87-A21-482-010	IC,RPM 6938-H4		C18	87-A10-712-080		CHIP CAPACITOR,0.22-50
	87-A21-401-040	C-IC,M61503FP		C19	87-010-917-000		CAP,E 3300-50
	87-A21-415-010	IC,LA1843		C20	87-010-917-000		CAP,E 3300-50
	87-070-127-110	IC,LC72131 D		C21	87-A10-520-000		CAP,E 3300-35 SME
	87-A21-269-010	IC,EW732		C22	87-A10-520-000		CAP,E 3300-35 SME
	87-A20-440-040	IC,BU1920FS		C23	87-A10-520-000		CAP,E 3300-35 M SME
				C24	87-A10-520-000		CAP,E 3300-35 M SME
				C25	87-010-247-080		CAP, ELECT 100-50V
TRANSISTOR				C26	87-010-247-080		CAP, ELECT 100-50V
	87-026-609-080	TR,KTA1266GR		C30	87-010-430-080		CAP, ELECT 100-63V
	89-213-702-010	TR,2SB1370 (1.8W)		C31	87-010-263-080		CAP, ELECT 100-10V
	87-026-610-080	TR,KTC3198GR		C32	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
	87-A30-076-080	C-TR,2SC3052F		C34	87-010-247-080		CAP, ELECT 100-50V
	87-A30-075-080	C-TR,2SA1235F		C35	87-010-380-080		CAP, ELECT 47-16V
	87-A30-257-080	C-TR,2SD1306E		C36	87-010-381-080		CAP, ELECT 330-16V
	87-026-245-080	TR,DTC114ES		C38	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
	87-A30-198-080	TR,KTC3199GR		C60	87-010-403-080		CAP, ELECT 3.3-50 M 11L SME
	87-A30-484-080	C-TR,KRA102S		C61	87-010-260-080		CAP, ELECT 47-25V
	87-A30-107-070	C-TR,CMBT5401		C101	87-010-178-080		CHIP CAP 1000P-50 KB C2012
	87-A30-106-040	C-TR,CMBT5551		C102	87-010-178-080		CHIP CAP 1000P-50 KB C2012
	87-A30-087-080	C-FET,2SK2158		C103	87-010-405-080		CAP, ELECT 10-50V
	87-A30-468-080	C-TR,KRC102S-RTK		C104	87-010-405-080		CAP, ELECT 10-50V
	87-A30-091-080	FET,2SJ460		C107	87-010-404-080		CAP, ELECT 4.7-50V
	87-A30-090-080	FET,2SK2541		C108	87-010-404-080		CAP, ELECT 4.7-50V
	87-A30-104-080	C-TR,RT1N 144C		C109	87-010-166-080		C-CAP,S 100P-50 J SL
	87-A30-329-080	TR,CD1585BC		C110	87-010-166-080		C-CAP,S 100P-50 J SL
	87-A30-318-080	TR,CSA952K		C111	87-010-405-080		CAP, ELECT 10-50V
	89-333-317-080	TR,2SC3331 (T/U)		C112	87-010-405-080		CAP, ELECT 10-50V
	87-A30-269-040	C-FET,2SJ461-T1		C113	87-010-866-080		CAP, ELECT 10-63 M VX
	89-327-143-080	C-TR,2SC27140(0.1W)		C114	87-010-866-080		CAP, ELECT 10-63 M VX
	87-A30-489-080	C-TR,KRA 107S		C119	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
	87-A30-234-080	TR,CSC4115BC		C120	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
	87-A30-086-070	C-TR,CSD1306E		C123	87-010-176-080		C-CAP,S 680P-50 SL
	87-A30-074-080	C-TR,RT1P141C		C124	87-010-176-080		C-CAP,S 680P-50 SL
	89-503-602-080	C-FET,2SK360E		C125	87-012-368-080		C-CAP,S 0.1-50 ZF
				C126	87-012-368-080		C-CAP,S 0.1-50 ZF
				C127	87-012-368-080		CHIP CAPACITOR,0.1-50
				C128	87-012-368-080		CHIP CAPACITOR,0.1-50
DIODE				C129	87-010-191-080		C-CAP,S 0.015-50 ZF GRM
	87-A40-393-090	DIODE,1N5402GW(F20)		C130	87-010-191-080		C-CAP,S 0.015-50 ZF GRM
	87-020-465-080	DIODE,1SS133 (110MA)		C133	87-010-186-080		CAP,CHIP 4700P-50 KB C2012
	87-017-447-010	DIODE,GBU 4DL-6419		C134	87-010-404-080		CAP, ELECT 4.7-50V
	87-A40-455-080	DIODE,RL203 GW		C140	87-010-186-080		C-CAP,S 4700P-50 KB C2012
	87-070-274-080	DIODE,1N4003 SEM		C160	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A40-780-080	ZENER,UZ33BSD		C203	87-010-183-080		C-CAP,S 2700P-50 KB GRM
	87-020-465-080	DIODE,1SS133		C204	87-010-183-080		C-CAP,S 2700P-50 KB GRM
	87-A40-764-080	ZENER,UZ10BSC		C205	87-010-170-080		C-CAP,S 220P-50 J SL
	87-A40-553-080	DIODE,1N4003 LES		C206	87-010-170-080		C-CAP,S 220P-50 J SL
	87-A40-313-080	C-DIODE,MC 2840		C209	87-010-403-080		CAP, ELECT 3.3-50V
	87-A40-270-080	C-DIODE,MC2838		C210	87-010-403-080		CAP, ELECT 3.3-50V
	87-A40-269-080	C-DIODE,MC2836		C211	87-010-184-080		CHIP CAPACITOR 3300P-50
	87-A40-768-080	ZENER, UZ16BSA		C212	87-010-184-080		CHIP CAPACITOR 3300P-50
	87-017-154-080	ZENER,HZS6C3L		C213	87-010-403-080		CAP, ELECT 3.3-50V
	87-A40-751-080	ZENER,UZ6.2BSB		C214	87-010-403-080		CAP, ELECT 3.3-50V
	87-A40-739-080	ZENER,UZ2.7BSA		C217	87-010-405-080		CAP, ELECT 10-50V
	87-017-149-080	ZENER,HZS6A2L		C218	87-010-405-080		CAP, ELECT 10-50V
				C220	87-010-405-080		CAP, ELECT 10-50V
				C223	87-010-190-080		CAP, CHIP 0.01-50 ZF C2012
MAIN C.B				C224	87-010-190-080		CAP, CHIP 0.01-50 ZF C2012
C3	87-A10-712-080	CHIP CAPACITOR,0.22-50		C228	87-010-405-080		CAP, ELECT 10-50V
C4	87-A10-712-080	CHIP CAPACITOR,0.22-50		C229	87-010-993-080		C-CAP,S 0.056-25 B
C5	87-A10-712-080	CHIP CAPACITOR,0.22-50		C230	87-010-993-080		C-CAP,S 0.056-25 B
C6	87-A10-712-080	CHIP CAPACITOR,0.22-50		C231	87-010-196-080		CHIP CAPACITOR,0.1-25

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C232	87-010-196-080		CHIP CAPACITOR,0.1-25	C630	87-A10-201-080		CAP, S 0.33-16
C233	87-010-190-080		CAP, CHIP 0.01-50	C631	87-010-185-080		C-CAP,S 3900P-50 B
C234	87-010-190-080		CAP, CHIP 0.01-50	C632	87-010-185-080		C-CAP,S 3900P-50 B
C241	87-016-081-080		C-CAP, S 0.1-16 KR GRM	C633	87-010-193-080		CHIP CAPACITOR,0.033-25
C242	87-016-081-080		C-CAP, S 0.1-16 KR GRM	C634	87-010-193-080		CHIP CAPACITOR,0.033-25
C301	87-010-178-080		CHIP CAP 1000P-50 KB C2012	C669	87-010-322-080		C-CAP,S 100P-50 CH
C302	87-010-178-080		CHIP CAP 1000P-50 KB C2012	C670	87-010-322-080		C-CAP,S 100P-50 CH
C303	87-010-178-080		CHIP CAP 1000P-50 KB C2012	C673	87-010-182-080		C-CAP,S 2200P-50 B
C304	87-010-178-080		CHIP CAP 1000P-50 KB C2012	C677	87-010-197-080		C-CAP, S 0.01-25 KB C2012
C307	87-010-263-080		CAP, ELECT 100-10V	C678	87-010-197-080		C-CAP, S 0.01-25 KB C2012
C308	87-010-263-080		CAP, ELECT 100-10V	C771	87-010-263-080		CAP, ELECT 100-10V
C309	87-010-318-080		C-CAP,S 47P-50 CH	C772	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C310	87-010-318-080		C-CAP,S 47P-50 CH	C779	87-010-426-080		C-CAP,S 0.012-25 KB
C313	87-010-188-080		CAP CHIP S6800P-50 KB C2012	C780	87-010-426-080		C-CAP,S 0.012-25 KB
C314	87-010-188-080		CAP CHIP S6800P-50 KB C2012	C782	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C315	87-010-263-080		CAP, ELECT 100-10V	C783	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C317	87-010-546-080		CAP, ELECT 0.33-50V	C784	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C318	87-010-546-080		CAP, ELECT 0.33-50V	C785	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C326	87-010-198-080		CAP, CHIP 0.022-25	C786	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C327	87-012-368-080		CHIP CAPACITOR,0.1-50	C788	87-010-149-080		C-CAP,S 5P-50 CH
C360	87-010-401-080		CAP, ELECT 1-50V	C789	87-A10-801-080		C-CAP,S 0.022-16 JB
C365	87-010-197-080		C-CAP,S 0.01-25 KB	C790	87-A10-801-080		C-CAP,S 0.022-16 JB
C399	87-012-140-080		CAP 470P-50	C791	87-010-196-080		CHIP CAPACITOR,0.1-25
C401	87-010-544-080		CAP, ELECT 0.1-50V	C792	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C402	87-010-544-080		CAP, ELECT 0.1-50V	C793	87-010-404-080		CAP, ELECT 4.7-50V
C403	87-010-321-080		CHIP CAPACITOR,82P-50J CH	C795	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C404	87-010-321-080		CHIP CAPACITOR,82P-50J CH	C796	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C405	87-010-197-080		CAP, CHIP 0.01-25 KB C2012	C797	87-010-405-080		CAP, ELECT 10-50V
C406	87-010-197-080		CAP, CHIP 0.01-25 KB C2012	C798	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C407	87-010-197-080		CAP, CHIP 0.01-25 KB C2012	C799	87-010-407-080		CAP, ELECT 33-50V
C408	87-010-197-080		CAP, CHIP 0.01-25 KB C2012	C800	87-012-369-080		C-CAP,S 0.047-50F
C409	87-010-182-080		C-CAP,S 2200P-50 B	C801	87-010-403-080		CAP, ELECT 3.3-50V
C410	87-010-182-080		C-CAP,S 2200P-50 B	C802	87-010-194-080		CAP, CHIP 0.047-25 ZF
C411	87-010-405-080		CAP, ELECT 10-50V	C803	87-010-198-080		CAP, CHIP 0.022-25
C412	87-010-405-080		CAP, ELECT 10-50V	C804	87-010-263-080		CAP, ELECT 100-10V
C452	87-010-382-080		CAP, ELECT 22-25V	C807	87-010-400-080		CAP, ELECT 0.47-50V
C453	87-010-183-080		C-CAP,S 2700P-50 B	C808	87-010-401-080		CAP, ELECT 1-50V
C454	87-010-183-080		C-CAP,S 2700P-50 B	C809	87-010-401-080		CAP, ELECT 1-50V
C455	87-010-183-080		C-CAP,S 2700P-50 B	C810	87-010-196-080		CHIP CAPACITOR,0.1-25
C456	87-010-197-080		CAP, CHIP 0.01-25	C814	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C458	87-010-178-080		CHIP CAP 1000P-50	C815	87-010-403-080		CAP, ELECT 3.3-50V
C459	87-010-175-080		CAP 560P-50 J SL	C816	87-010-403-080		CAP, ELECT 3.3-50V
C460	87-016-669-080		CAP, CHIP 0.01-25	C818	87-010-180-080		C-CAP,S 1500P-50 KB
C461	87-012-158-080		C-CAP,S 390P-50 CH	C821	87-010-405-080		CAP, ELECT 10-50V
C462	87-012-158-080		C-CAP,S 390P-50 CH	C823	87-012-349-080		C-CAP,S 1000P-50 CH
C507	87-010-196-080		CHIP CAPACITOR,0.1-25	C824	87-010-405-080		CAP, ELECT 10-50
C518	87-010-196-080		CHIP CAPACITOR,0.1-25	C825	87-010-596-080		CAP, S 0.047-16
C519	87-010-404-080		CAP, ELECT 4.7-50V	C831	87-010-406-080		CAP,E 22-50V
C520	87-010-404-080		CAP, ELECT 4.7-50V	C842	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C521	87-010-546-080		CAP, ELECT 0.33-50V	C844	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C522	87-010-546-080		CAP, ELECT 0.33-50V	C850	87-010-260-080		CAP, ELECT 47-25V
C523	87-010-256-080		CAP, ELECT 0.68-50V	C851	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C524	87-010-256-080		CAP, ELECT 0.68-50V	C852	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C525	87-010-545-080		CAP, ELECT 0.22-50V	C853	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C526	87-010-545-080		CAP, ELECT 0.22-50V	C858	87-010-196-080		CHIP CAPACITOR,0.1-25
C601	87-010-179-080		CAP,CHIP S 1200P-50 KB GRM	C859	87-010-196-080		CHIP CAPACITOR,0.1-25
C602	87-010-179-080		CAP,CHIP S 1200P-50 KB GRM	C860	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C605	87-010-179-080		CAP,CHIP S 1200P-50 KB GRM	C869	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C606	87-010-179-080		CAP,CHIP S 1200P-50 KB GRM	C871	87-012-156-080		C-CAP,S 220P-50 J CH
C609	87-010-213-080		C-CAP,S 0.015-25 B	C872	87-012-156-080		C-CAP,S 220P-50 J CH
C610	87-010-213-080		C-CAP,S 0.015-25 B	C873	87-012-140-080		C-CAP,S 470P-50 J CH
C611	87-010-545-080		CAP, ELECT 0.22-50V	C874	87-010-405-080		CAP,E 10-50V
C612	87-010-545-080		CAP, ELECT 0.22-50V	C875	87-010-196-080		CHIP CAPACITOR,0.1-25
C613	87-010-545-080		CAP, ELECT 0.22-50V	C876	87-010-405-080		CAP,E 10-50V
C614	87-010-545-080		CAP, ELECT 0.22-50V	C877	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C615	87-010-154-080		CAP CHIP 10P-50 D CH GRM	C878	87-010-316-080		C-CAP,S 33P-50 J CH
C616	87-010-385-080		CAP, ELECT 220-25V	C879	87-010-314-080		C-CAP,S 22P-50 J CH
C617	87-010-385-080		CAP, ELECT 220-25V	C940	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C618	87-010-405-080		CAP, ELECT 10-50V	C942	87-010-149-080		C-CAP,S 5P-50 CH
C620	87-010-263-080		CAP, ELECT 100-10 M 11L SME	C947	87-010-197-080		CAP, CHIP 0.01-25 KB C2012

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C948	87-012-140-080		C-CAP,S 470P-50 J CH
C952	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C957	87-010-311-080		C-CAP,S 12P-50 J CH
C958	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C959	87-010-196-080		CHIP CAPACITOR,0.1-25
C960	87-010-196-080		CHIP CAPACITOR,0.1-25
C962	87-010-401-080		CAP,E 1-50V
C963	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z
C971	87-010-381-080		CAP, ELECT 330-16V
C972	87-010-404-080		CAP, ELECT 4.7-50V
C973	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C974	87-010-197-080		CAP, CHIP 0.01-25 KB C2012
C979	87-010-322-080		C-CAP,S 100P-50 CH
C981	87-010-260-080		CAP, ELECT 47-25V
C982	87-010-196-080		CHIP CAPACITOR,0.1-25
C983	87-010-197-080		CAP, CHIP 0.01-25
C984	87-010-197-080		CAP, CHIP 0.01-25
C985	87-010-322-080		C-CAP,S 100P-50 J CH
C987	87-010-197-080		CAP, CHIP 0.01-25
C989	87-010-197-080		CAP, CHIP 0.01-25
C991	87-010-312-080		C-CAP,S 15P-50 CH
C992	87-010-312-080		C-CAP,S 15P-50 CH
C993	87-010-178-080		CHIP CAP 1000P-50
C995	87-010-178-080		CHIP CAP 1000P-50
C997	87-010-196-080		CHIP CAPACITOR,0.1-25
C998	87-010-260-080		CAP, ELECT 47-25V
C999	87-A11-132-080		CAP,TC U 0.01-50 KB
CF831	87-008-423-010		FLTR,CF SFE10.7MS3G-A
CF832	82-785-747-010		CF,MS2 GHY,R
CN301	87-A60-620-010		CONN,3P V 2MM JMT
CN351	87-A60-625-010		CONN,8P V 2MM JMT
CN601	87-099-719-010		CONN,30P TYK-B(X)
CN602	87-A60-131-010		CONN,6P V FE
CNA1	8A-NF8-654-010		CONN ASSY,11P TID-A(480)
FB301	87-A90-896-080		F-BEAD,035600STY7
FB602	87-A90-896-080		F-BEAD,035600STY7
FC602	88-906-321-110		FF-CABLE, 6P 1.25
FFE831	A8-6ZA-191-130		6ZA-1 FEENM
J201	87-A60-483-010		JACK,DIA6.3 BLK ST W/S KM
J203	87-A60-238-010		TERMINAL,SP 4P (MSC)
J205	87-A61-157-010		JACK,PIN 2P R/W/BL V(SEPA)KM
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J832	87-A60-403-010		TERMINAL,ANT PAL 2P HSP-312 V05
L101	87-003-383-010		COIL,1UH-S
L102	87-003-383-010		COIL,1UH-S
L201	87-003-383-010		COIL,1UH-S
L202	87-003-383-010		COIL,1UH-S
L451	87-007-342-010		COIL,OSC 85K BIAS
L801	87-A50-540-010		COIL,FM DET(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)
L861	87-005-847-080		COIL,2.2UH(CECS)
L941	87-A50-020-010		COIL,ANT LW (COI)252KHZ
L942	87-A50-019-010		COIL,OSC LW (COI)856KHZ
L951	8A-NF8-668-010		COIL,AM PACK 2(TOK)
R129	87-A00-262-080		RES,M/F 0.15-2W J
R130	87-A00-262-080		RES,M/F 0.15-2W J
R143	87-A00-440-050		RES,220-1/2W J RP
R144	87-A00-440-050		RES,220-1/2W J RP
R145	87-A00-440-050		RES,220-1/2W J RP
R146	87-A00-440-050		RES,220-1/2W J RP
R233	87-A00-258-080		RES,M/F 0.22-1W J
R234	87-A00-258-080		RES,M/F 0.22-1W J
R991	87-010-322-080		C-CAP, S 100P-50 J CH GRM
R993	87-010-322-080		C-CAP, S 100P-50 J CH GRM
R995	87-010-322-080		C-CAP, S 100P-50 J CH GRM
SFR451	87-A90-432-080		SFR,30K H NVZ6TLTA
SFR452	87-A90-432-080		SFR,30K H NVZ6TLTA
TC942	87-011-253-080		TRIMMER,CER 30P 4.0X4.5

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
WH1	87-A91-179-010		HLDR,WIRE 2.5-11P
X861	87-A70-091-010		VIB,XTAL 4.332MHZ CSA-309
X991	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309
MICON C.B			
C101	87-010-498-040		CAP,E 10-16 M 5L SRE
C102	87-010-194-080		CAP, CHIP 0.047-25 Z F
C103	87-010-194-080		CAP, CHIP 0.047-25 Z F
C105	87-A11-242-040		CAP,E 220-10 M 5L SRM
C106	87-A11-242-040		CAP,E 220-10 M 5L SRM
C107	87-010-196-080		CHIP CAPACITOR,0.1-25
C111	87-016-460-080		C-CAP,S 0.22-16 K B
C112	87-010-493-040		CAP,E 0.47-50 GAS
C113	87-010-178-080		CHIP CAP 1000P-50
C114	87-018-209-080		CAP TC U 0.1-50 ZF UP 050
C116	87-010-196-080		C-CAP,S 0.1-25 ZF C2012
C122	87-012-369-080		C-CAP,S 0.047-50F
C123	87-010-408-040		CAP,E 47-50 SME
C124	87-010-421-040		CAP,E 4.7-50 5L
C125	87-010-421-040		CAP,E 4.7-50 5L
C132	87-012-156-080		C-CAP,S 220P-50 CH
C133	87-010-316-080		C-CAP,S 33P-50 CH
C134	87-010-178-080		C-CAP,S 1000P-50KB
C135	87-018-209-080		CAP, TCU 0.1-50
C137	87-010-313-080		CAP, CHIP 18P-50
C138	87-010-196-080		CHIP CAPACITOR,0.1-25
C188	87-010-194-080		CAP, CHIP 0.047-25
C193	87-010-197-080		CAP, CHIP 0.01-25
C251	87-010-196-080		CHIP CAPACITOR,0.1-25
C252	87-012-156-080		C-CAP,S 220P-50 CH
C253	87-010-322-080		C-CAP,S 100P-50 CH
C301	87-012-358-080		C-CAP,S 0.47-10 F Z
C302	87-012-158-080		C-CAP,S 390P-50 CH
C303	87-012-358-080		C-CAP,S 0.47-10 F Z
C304	87-012-358-080		C-CAP,S 0.47-10 F Z
C305	87-010-196-080		CHIP CAPACITOR,0.1-25
C306	87-010-196-080		CHIP CAPACITOR,0.1-25
C310	87-010-196-080		CHIP CAPACITOR,0.1-25
C311	87-010-405-040		CAP,E 10-50
C411	87-012-157-080		C-CAP,S 330P-50 CH
C412	87-010-405-040		CAP,E 10-50
C421	87-010-197-080		CAP, CHIP 0.01-25
C422	87-010-182-080		C-CAP,S 2200P-50 B
C940	87-012-145-080		CAP, CHIP S 270P-50
C941	87-012-145-080		CAP, CHIP S 270P-50
C942	87-012-145-080		CAP, CHIP S 270P-50
C943	87-012-145-080		CAP, CHIP S 270P-50
C944	87-012-145-080		CAP, CHIP S 270P-50
C945	87-012-145-080		CAP, CHIP S 270P-50
C946	87-012-145-080		CAP, CHIP S 270P-50
C947	87-012-145-080		CAP, CHIP S 270P-50
C948	87-012-145-080		CAP, CHIP S 270P-50
C949	87-012-145-080		CAP, CHIP S 270P-50
C950	87-012-145-080		CAP, CHIP S 270P-50
C951	87-012-145-080		CAP, CHIP S 270P-50
C952	87-012-145-080		CAP, CHIP S 270P-50
CN101	87-099-720-010		CONN,30P TYK-B(P)
CN102	87-A60-162-010		CONN,14P H FE
CN103	87-A60-160-010		CONN,12P H FE
CN104	87-A60-159-010		CONN,11P H FE
CN301	87-A60-156-010		CONN,8P H FE
FB001	87-A90-896-080		F-BEAD,035600STY7
FC102	88-914-231-110		FF-CABLE,14P 1.25
FC104	88-911-151-110		FF-CABLE,11P 1.25
FL101	8A-MA5-651-010		FL,BJ746GNK
L101	87-A50-333-010		COIL,OSC 9.43MHZ
LED131	87-A40-317-080		LED,SLR-342VCT31 RED
LED201	87-A40-496-040		LED,SLR-342PCT31 GRN
LED202	87-A40-317-080		LED,SLR-342VCT31 RED



REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
LED204	87-A40-496-040	LED,SLR-342PCT31	GRN
LED205	87-A40-317-080	LED,SLR-342VCT31	RED
LED208	87-A40-496-040	LED,SLR-342PCT31	GRN
LED210	87-A40-317-080	LED,SLR-342VCT31	RED
LED211	87-A40-496-040	LED,SLR-342PCT31	GRN
LED212	87-A40-317-080	LED,SLR-342VCT31	RED
S401	87-A90-095-080	SW,TACT EVQ11G04M	
S402	87-A90-095-080	SW,TACT EVQ11G04M	
S405	87-A90-095-080	SW,TACT EVQ11G04M	
S421	87-A91-625-010	SW,RTRY EC12E24308-30MM	
CNTL C.B			
C651	87-010-182-080	C-CAP,S 2200P-50	B
C652	87-010-197-080	CAP, CHIP 0.01-25	
C661	87-010-196-080	C-CAP,S 0.1-25	ZF
C663	87-012-156-080	C-CAP,S 220P-50	CH
C846	87-010-196-080	C-CAP,S 0.1-25	ZF
CN661	87-A60-160-010	CONN,12P H FE	
FC661	88-912-151-110	FF-CABLE,12P 1.25	
LED675	87-A40-317-080	LED,SLR-342VCT31	RED
LED676	87-A40-317-080	LED,SLR-342VCT31	RED
LED677	87-A40-317-080	LED,SLR-342VCT31	RED
LED678	87-A40-317-080	LED,SLR-342VCT31	RED
LED679	87-A40-317-080	LED,SLR-342VCT31	RED
LED682	87-A40-619-040	LED,SLR-56PT-T31-W	GRN
LED683	87-A40-619-040	LED,SLR-56PT-T31-W	GRN
LED684	87-A40-619-040	LED,SLR-56PT-T31-W	GRN
LED685	87-A40-619-040	LED,SLR-56PT-T31-W	GRN
LED698	87-A40-619-040	LED,SLR-56PT-T31-W	GRN
S651	87-A91-624-010	SW,RTRY EC12E1240405-20MM	
S805	87-A90-095-080	SW,TACT EVQ11G04M	
S806	87-A90-095-080	SW,TACT EVQ11G04M	
S807	87-A90-095-080	SW,TACT EVQ11G04M	
S808	87-A90-095-080	SW,TACT EVQ11G04M	
S809	87-A90-095-080	SW,TACT EVQ11G04M	
S821	87-A90-095-080	SW,TACT EVQ11G04M	
S822	87-A90-095-080	SW,TACT EVQ11G04M	
S823	87-A90-095-080	SW,TACT EVQ11G04M	
S824	87-A90-095-080	SW,TACT EVQ11G04M	
S826	87-A90-095-080	SW,TACT EVQ11G04M	
S827	87-A90-095-080	SW,TACT EVQ11G04M	
S828	87-A90-095-080	SW,TACT EVQ11G04M	
S829	87-A90-095-080	SW,TACT EVQ11G04M	
S830	87-A90-095-080	SW,TACT EVQ11G04M	
S831	87-A90-095-080	SW,TACT EVQ11G04M	
S836	87-A90-095-080	SW,TACT EVQ11G04M	
S837	87-A90-095-080	SW,TACT EVQ11G04M	
S838	87-A90-095-080	SW,TACT EVQ11G04M	
S842	87-A90-095-080	SW,TACT EVQ11G04M	
S843	87-A90-095-080	SW,TACT EVQ11G04M	
S845	87-A90-095-080	SW,TACT EVQ11G04M	
S846	87-A90-095-080	SW,TACT EVQ11G04M	
S849	87-A90-095-080	SW,TACT EVQ11G04M	
S850	87-A90-095-080	SW,TACT EVQ11G04M	
S851	87-A90-095-080	SW,TACT EVQ11G04M	

# KEY CD C.B

CN701	87-A60-156-010	CONN,8P H FE
FC701	88-908-231-110	FF-CABLE,8P 1.25
S751	87-A90-095-080	SW,TACT EVQ11G04M
S752	87-A90-095-080	SW,TACT EVQ11G04M
S753	87-A90-095-080	SW,TACT EVQ11G04M
S754	87-A90-095-080	SW,TACT EVQ11G04M
S755	87-A90-095-080	SW,TACT EVQ11G04M
S756	87-A90-095-080	SW,TACT EVQ11G04M
S757	87-A90-095-080	SW,TACT EVQ11G04M

# PT C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C101	87-010-387-080	CAP,E 470-25	SME
C116	87-010-403-040	CAP,E 3.3-50	SME
CN101	87-A61-122-010	CONN,11P V TID-A	
F101	87-035-458-010	FUSE,4A 250V T 218	
FC1	87-033-213-080	CLAMP, FUSE PFC5000	
FC2	87-033-213-080	CLAMP, FUSE PFC5000	
PR101	87-026-682-080	PROTECTOR,10A 60V491	
PR104	87-026-682-080	PROTECTOR,10A 60V491	
PT1	8A-MA5-662-010	PT,AMA-5 EZ	
PT2	8A-NF8-662-010	PT,SUB ANF-8 (E)	
RY102	87-A90-976-010	RELAY,AC12V SDT-S-112LMR	
T1	87-A60-317-010	TERMINAL, 1P MSC	
T2	87-A60-317-010	TERMINAL, 1P MSC	

# DECK C.B

CN1	87-099-753-010	CONN,11P H 9604
SFR1	87-024-581-010	SFR,3.3K DIA6V K0A
SW1	87-A90-673-010	SW,MICRO ESE11SH1C
SW2	87-A91-500-010	SW,MICRO MPU11470MLB0
SW3	87-A91-500-010	SW,MICRO MPU11470MLB0
SW4	87-A91-500-010	SW,MICRO MPU11470MLB0
SW5	87-A90-673-010	SW,MICRO ESE11SH1C

TRANSISTOR ILLUSTRATION



E C B

KTA1266GR  
KTC3198GR  
CD1585BC  
CSA952K



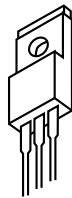
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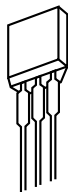
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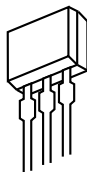
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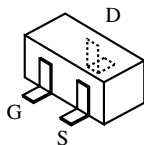
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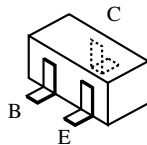


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2SJ460  
2SK2541

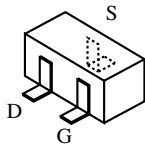


2SK2158  
2SJ461-T1



2SA1235F  
2SC2714O  
2SC3052F  
CMBT5551  
CMBT5401  
RT1N144C

2SD1306E  
KRA102S  
KRC102S-RTK  
KRA107S  
CSD1306E  
RT1P141C



2SK360E

○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



A  
抵抗部品コード  
Resistor Code

桁表示  
Figure  
抵抗値  
Value of resistor

チップ抵抗  
Chip resistor

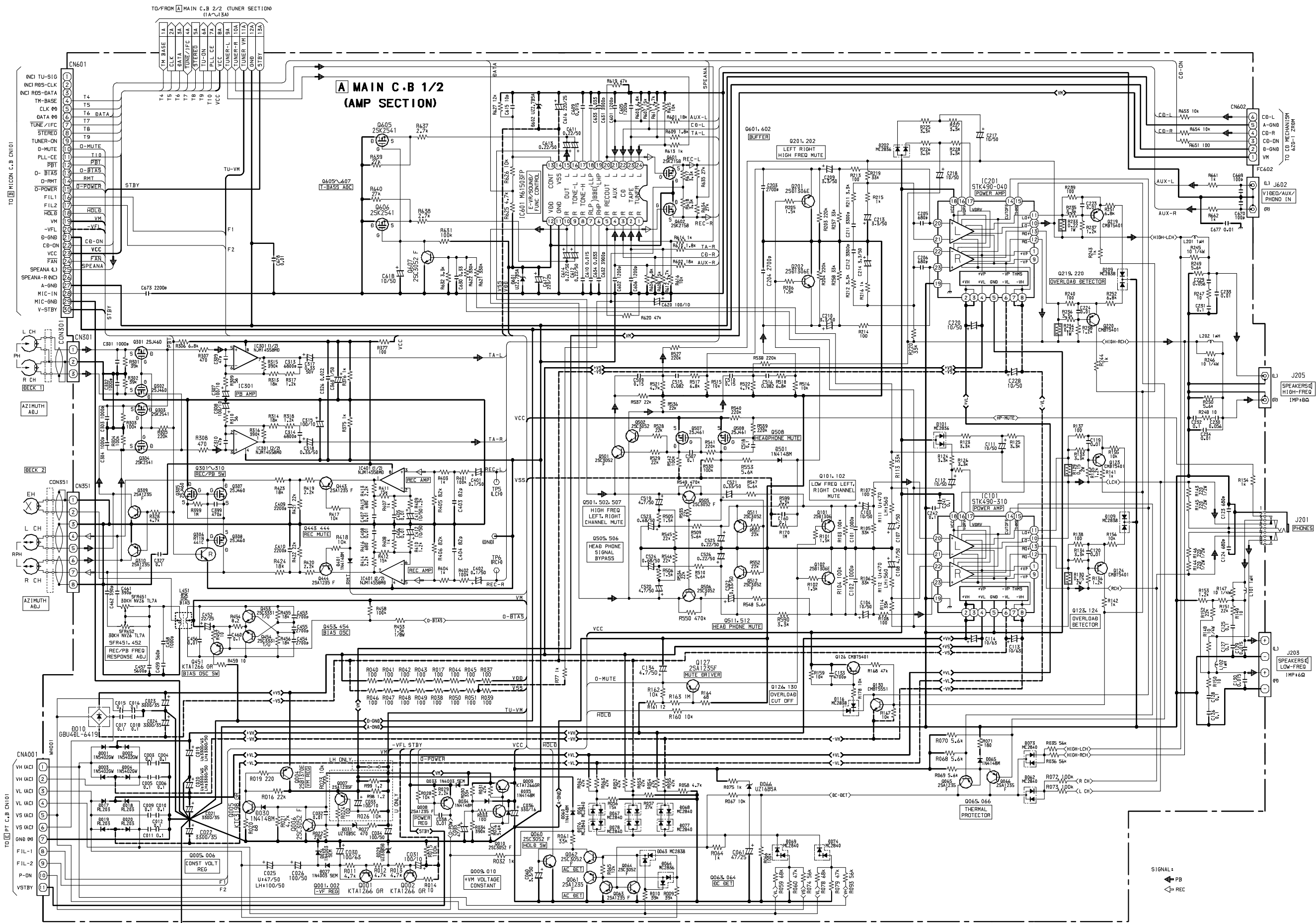
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード : A Resistor Code : A
				外形／Form	L	W	t	
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128



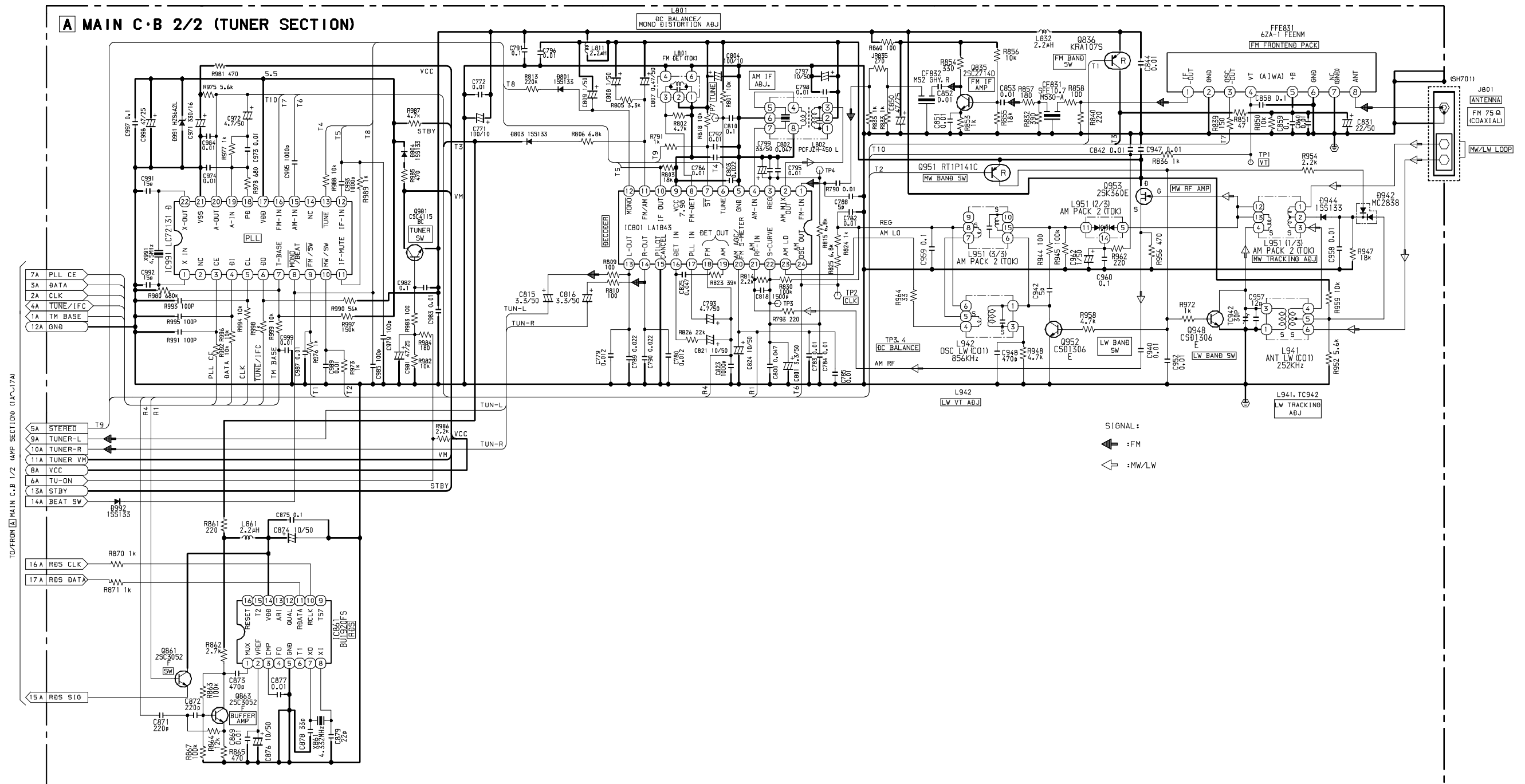


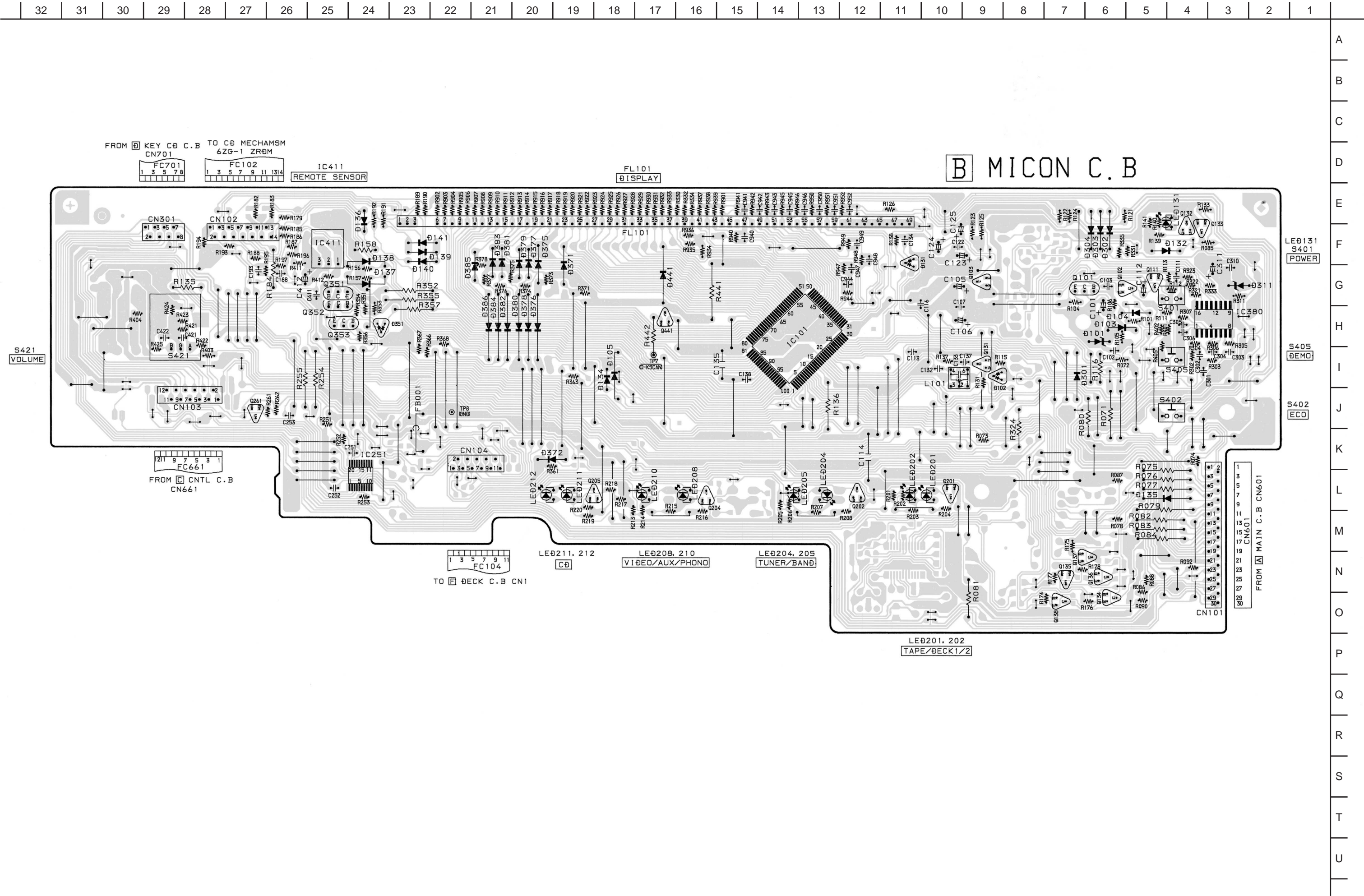


SCHEMATIC DIAGRAM – 1 (MAIN 1/2 :AMP SECTION)

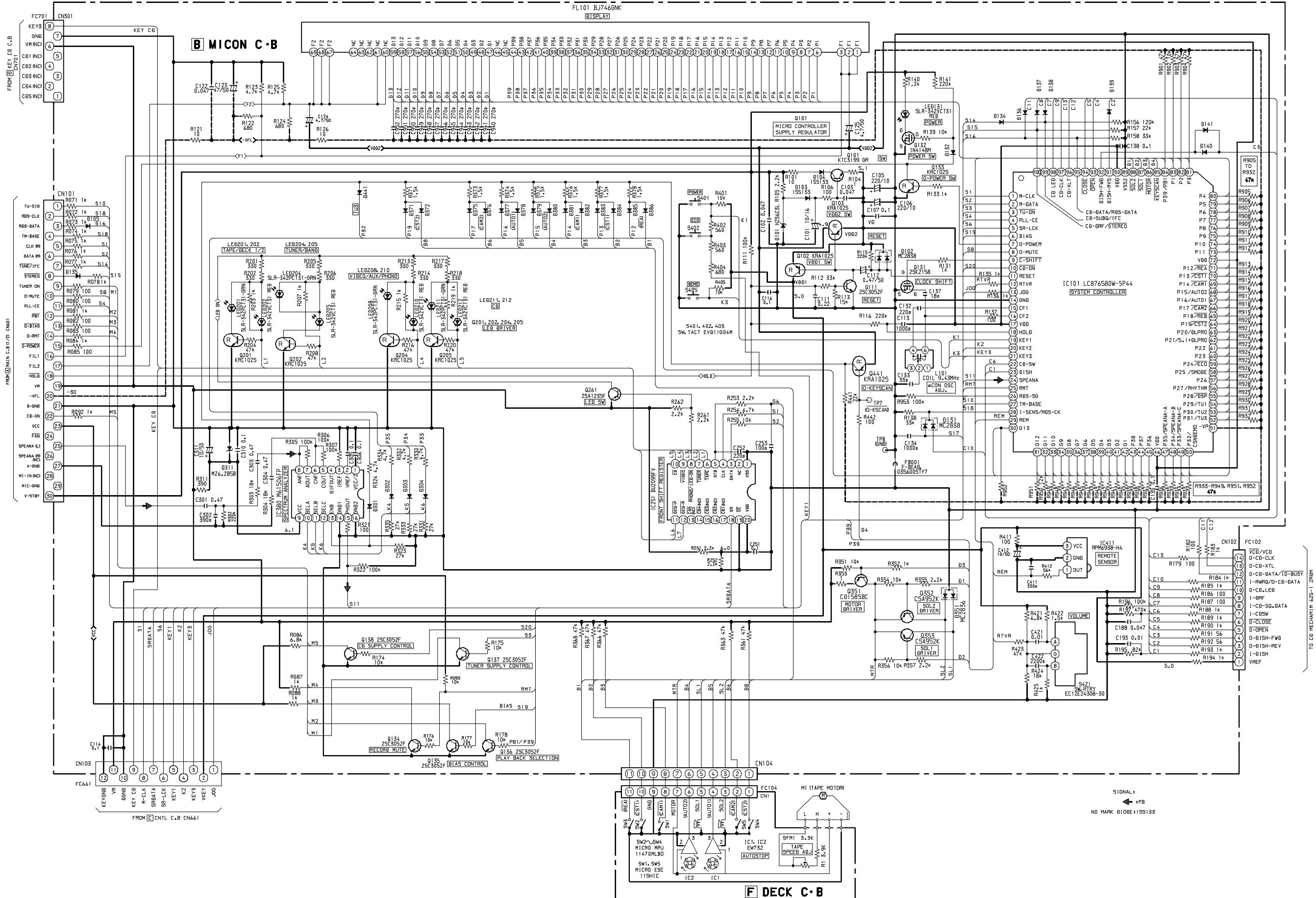


SCHEMATIC DIAGRAM – 2 (MAIN 2/2:TUNER SECTION)

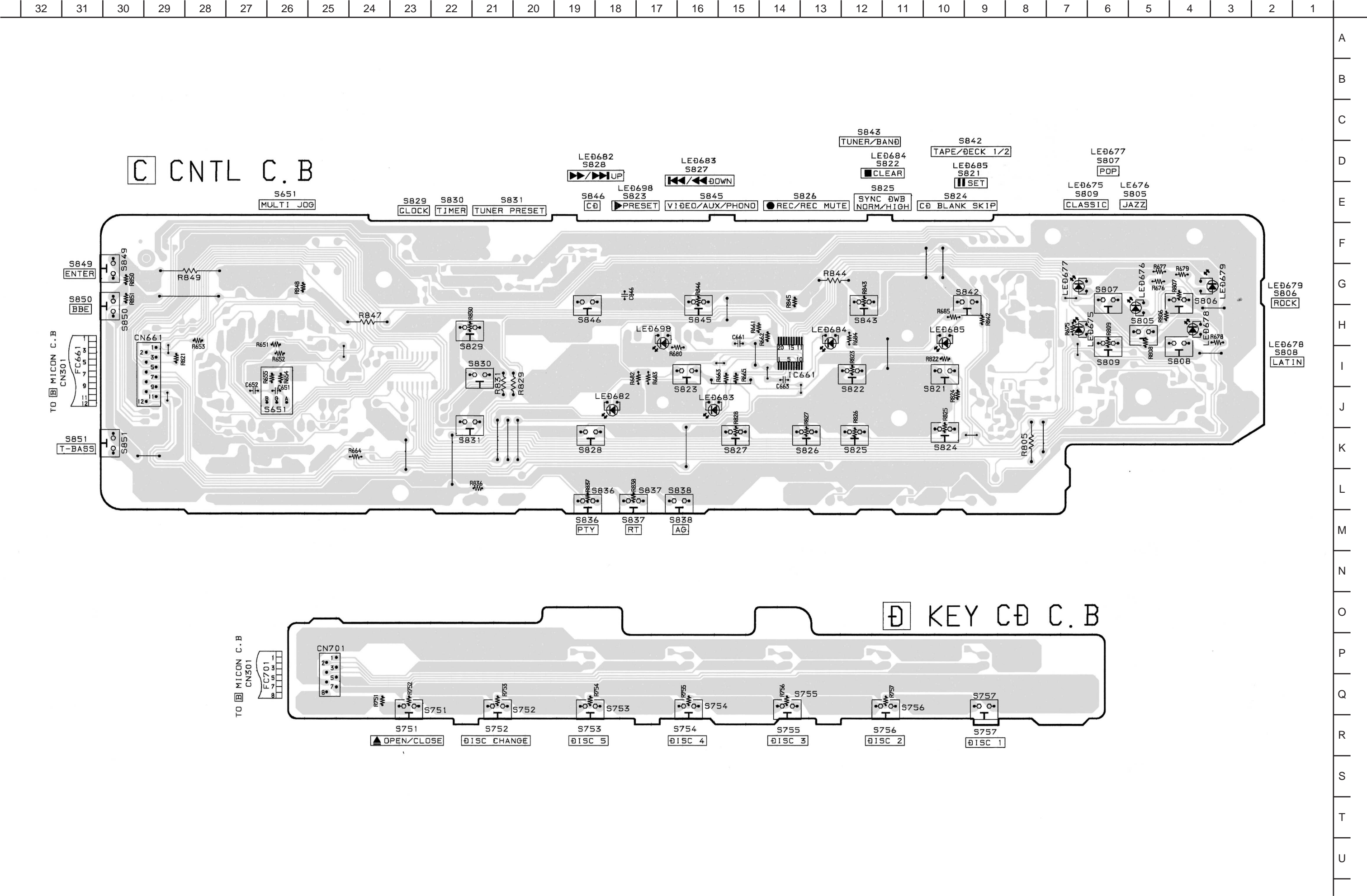




### SCHEMATIC DIAGRAM – 3 (MICON / DECK)

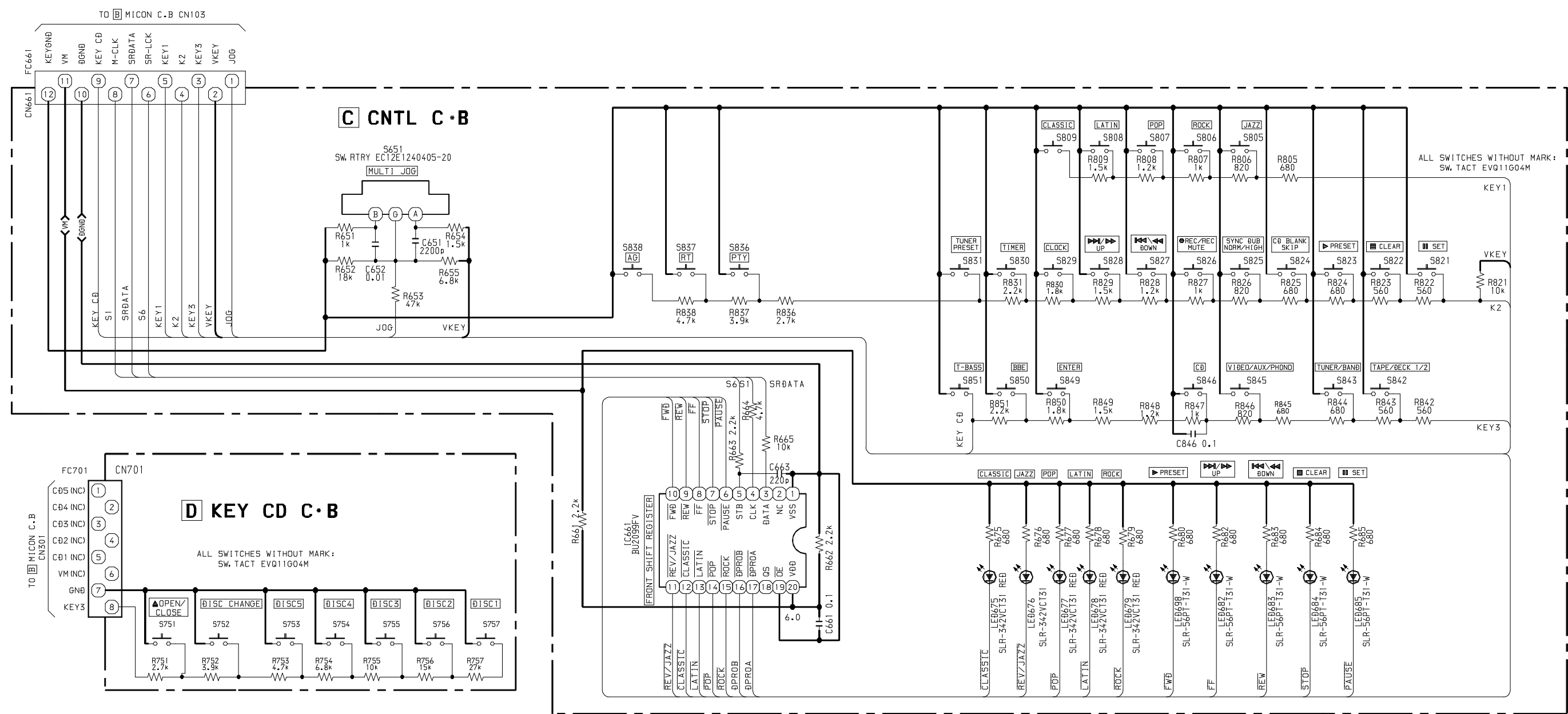




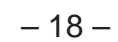


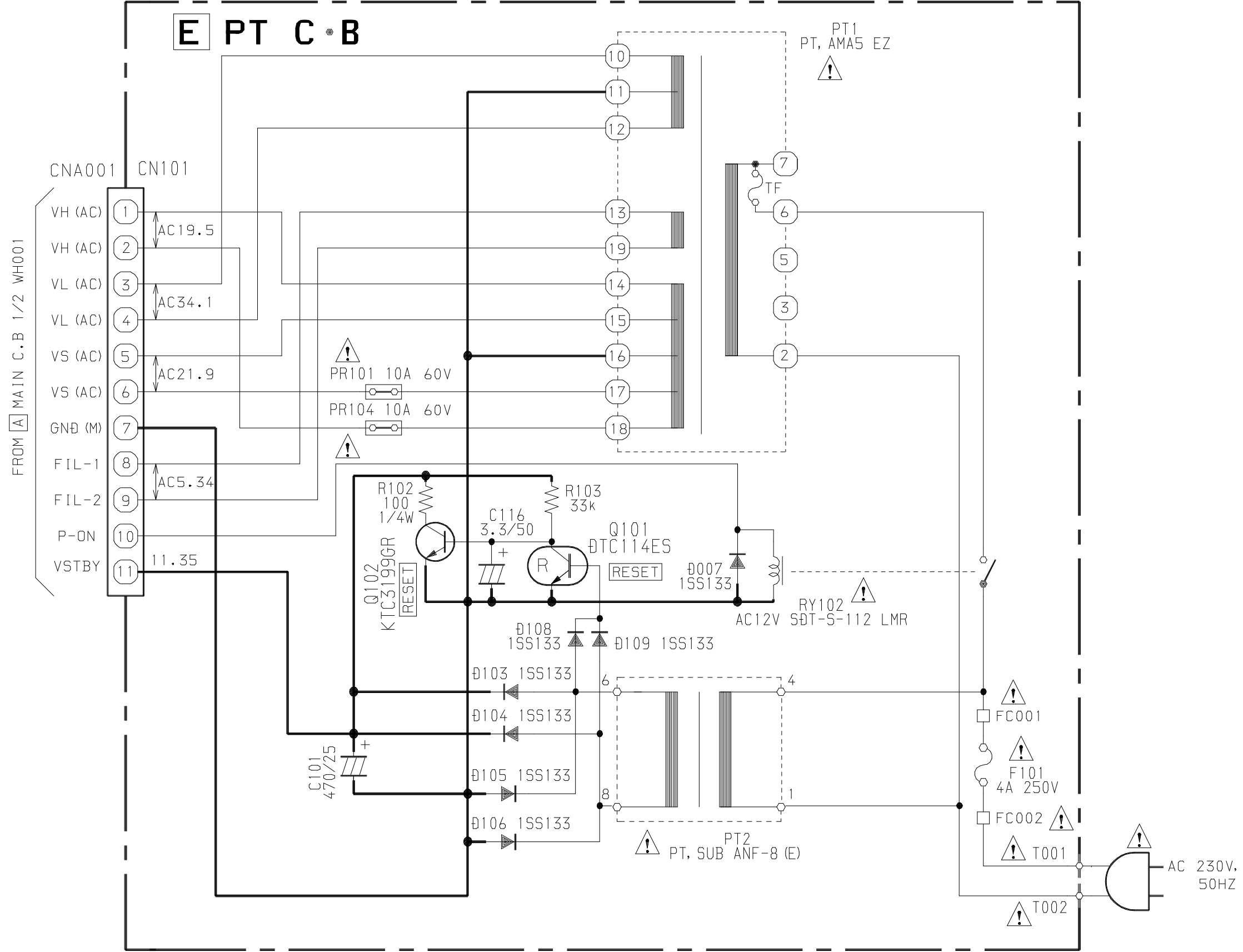


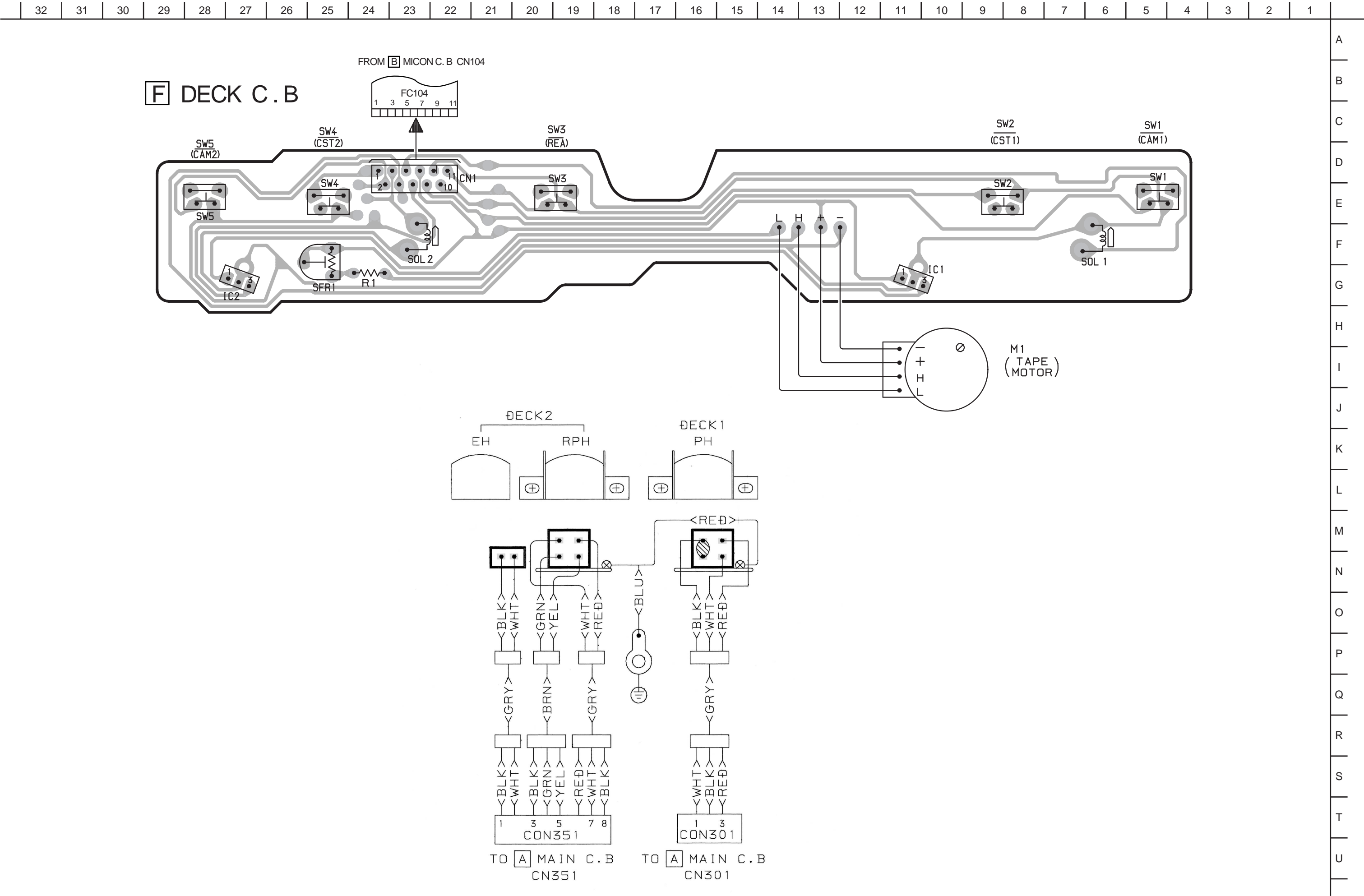
SCHEMATIC DIAGRAM – 4 (CNTL / KEY CD)



A
B
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## IC DESCRIPTION

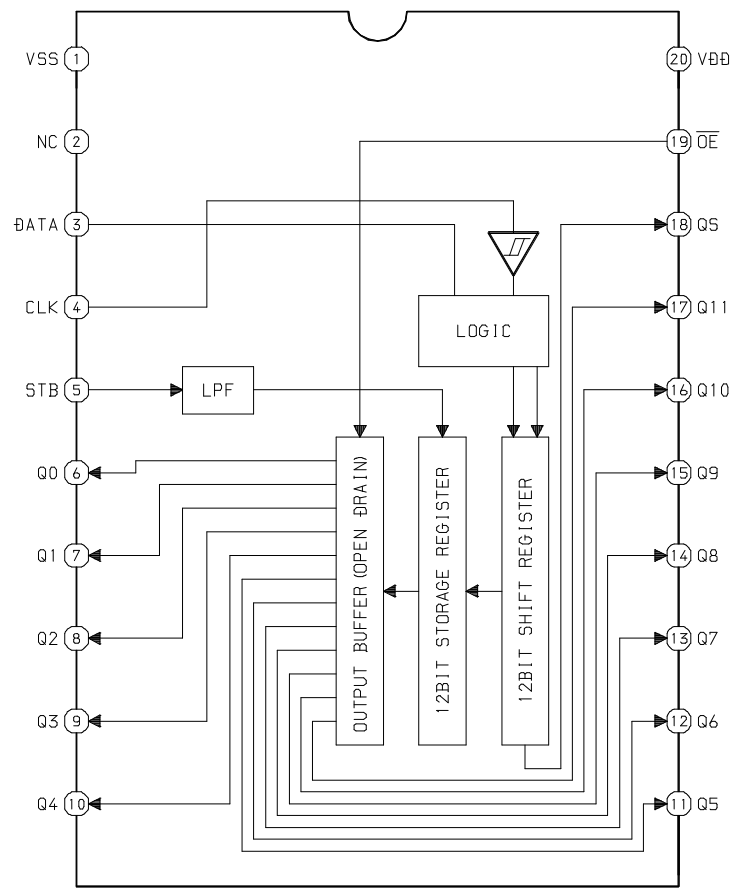
IC, LC876580W-5P44

Pin No.	Pin Name	I/O	Description
1	M-CLK	O	Main IC control serial CLOCK output.
2	M-DATA	O	Main IC control serial DATA output.
3	$\overline{\text{TU-ON}}$	O	Tuner supply control. L: ON.
4	PLL-CE	O	TUNER PLL IC control CHIP ENABLE output.
5	SR-LCK	O	SHIFT REGISTER IC control LATCH CLOCK output.
6	BIAS	O	Recording bias control.
7	O-POWER	O	System power control output. H: POWER ON.
8	O-MUTE	O	System mute control output. H: MUTE ON.
9	$\overline{\text{C-SHIFT}}$	O	Microcomputer CLOCK SHIFT control output. L: SHIFT UP (initial H).
10	$\overline{\text{CD-ON}}$	I	CD supply control.
11	RESET	I	Reset input.
12	RTVR	I	Waveform input for VOL rotary encoder.
13	JOG	I	Waveform input for JOG rotary encoder.
14	GND	–	Connected to GND.
15	CF1	I	Oscillator input for system clock (9.43MHz).
16	CF2	O	Oscillator output for system clock (9.43MHz).
17	VDD	–	Power supply.
18	HOLD	I	System HOLD input (A/D level port).
19 ~ 21	KEY1 ~ 3	I	Tact key matrix 1 ~ 3 input.
22	CD-SW	I	CD MECHA SW matrix input.
23	DISH	I	CD turntable photo sensor input.
24	SPEANA	I	Spectrum analyser level detection input.
25	RMT	I	Record ON/OFF control.
26	RDS_SG	I	During TUNER FUNC, RDS Signal level input.
27	TM-BASE	I	Reference signal input for clock.
28	I-SENS/ RDS-CK	I	During CD FUNC, CD DSP SENS input./ During TUNER FUNC, RDS serial clock input.
29	REM	I	Remote control signal input.
30 ~ 42	G13 ~ G1	O	FL grid G13 ~ G1 output.
43 ~ 45	P38 ~ P36	O	FL segment P38 ~ P36 output.
46	VDD	–	Power supply.
47	P35/SPEANA–A	O	FL segment P35 output/Spectrum analyser BPF switching control A output.
48	P34/SPEANA–B	O	FL segment P34 output/Spectrum analyser BPF switching control B output.
49	P33/SPEANA–C	O	FL segment P33 output/Spectrum analyser BPF switching control C output.
50	P32/CSNDEMO	O/I	FL segment P32 output/While initializing, DEMO MODE switching input. L: Normal DEMO. H: CASINO DEMO (Not used).
51	–VP	–	Power supply for FL input.
52	P31/TU3	O/I	FL segment P31 output/TUNER location switching 3 input.
53	P30/TU2	O/I	FL segment P30 output/TUNER location switching 2 input.
54	P29/TU1	O/I	FL segment P29 output/TUNER location switching 1 input.
55	P28/ $\overline{\text{DSP}}$	O/I	FL segment P28 output/DSP setting switching input. H: Absent (Not used).

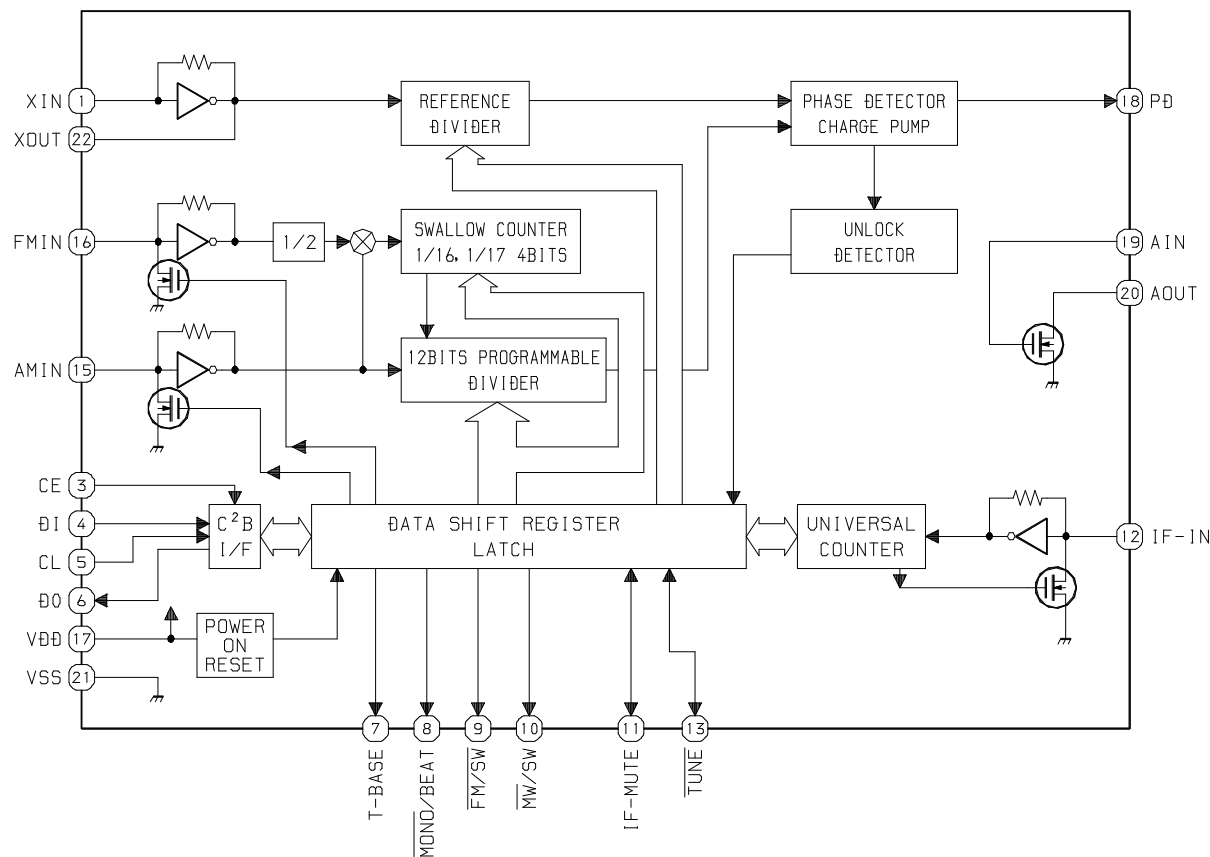
Pin No.	Pin Name	I/O	Description
56	P27/RHYTHM	O/I	FL segment P27 output/RHYTHM setting switching input. H: Present (Not used).
57	P26	O	FL segment P26 output.
58	P25/5MODE	O/I	FL segment P25 output/GEQ 5MODE/4MODE setting input. H: 5 MODE (Not used).
59	P24/ $\overline{\text{ECO}}$	O/I	FL segment P24 output/ECO setting switching input. H: ECO mode off (Not used).
60, 61	P23, P22	O	FL segment P23, P22 output.
62	P21/5.1+DLPRO	O/I	FL segment P21 output/5.1CH+DOLBY PROLOGIC setting switching input. H: Existent (Not used).
63	P20/DLPRO	O/I	FL segment P20 output/DOLBY PROLOGIC setting switching input. H: Existent (Not used).
64	P19/ $\overline{\text{CST2}}$	O/I	FL segment P19 output/Deck 2 cassette existence detection SW input. L: Existent.
65	P18/ $\overline{\text{REB}}$	O/I	FL segment P18 output/Deck 2 side-B recording able/disable detection SW input. L: Able (Not used).
66	P17/ $\overline{\text{CAM2}}$	O/I	FL segment P17 output/Deck 2 cam-operation detection SW input. L: ON.
67	P16/AUTO1	O/I	FL segment P16 output/Deck 1 reel-rotation detection signal input.
68	P15/AUTO2	O/I	FL segment P15 output/Deck 2 reel-rotation detection signal input.
69	P14/ $\overline{\text{CAM1}}$	O/I	FL segment P14 output/Deck 1 cam-operation detection SW input. L: ON.
70	P13/ $\overline{\text{CST1}}$	O/I	FL segment P13 output/Deck 2 cassette existence detection SW input. L: Existent.
71	P12/ $\overline{\text{REA}}$	O/I	FL segment P12 output/Deck 2 side-A recording able/disable detection SW input. L: Able.
72	VDD	–	Power supply.
73 ~ 83	P11 ~ P1	O	FL segment P11 ~ P1 output.
84	P39/PB1	O/I	FL segment P39 output/Deck 1/2 select control. H: Deck 1.
85	$\overline{\text{KEYSCAN}}$	O	Segment input timing output. L: Input timing.
86	$\overline{\text{MOTOR}}$	O	DECK MECHA motor control output. L: ON.
87	$\overline{\text{SOL1}}$	O	DECK 1 MECHA plunger control output. L: ON.
88	$\overline{\text{SOL2}}$	O	DECK 2 MECHA plunger control output. L: ON.
89	VSS2	–	Connected to GND.
90	VDD	–	Power supply.
91	DISH-RVS	O	CD turntable control output. H: Reverse rotation.
92	DISH-FWD	O	CD turntable control output. H: Forward rotation.
93	$\overline{\text{OPEN}}$	O	CD tray control output. L: OPEN.
94	$\overline{\text{CLOSE}}$	O	CD tray control output. L: CLOSE.
95	CD-DATA/ RDS-DATA	O/I	During CD FUNC, CD DSP control serial data output/ During TUNER FUNC, RDS serial data input.
96	CD-XLT	O	CD DSP control serial LATCH output. LATCH when drop.
97	CD-CLK	O	CD DSP control serial CLOCK output.
98	CD-LED	O	CD flash window LED control output. H: ON
99	CD-SUBQ/ IFC	I	During CD FUNC, SUBQ serial data input/ During TUNER FUNC, IF COUNT data input.
100	$\overline{\text{CD-DRF}}$ / $\overline{\text{STEREO}}$	I	During CD FUNC, radio frequency detection input/ During TUNER STEREO signal input.

IC BLOCK DIAGRAM

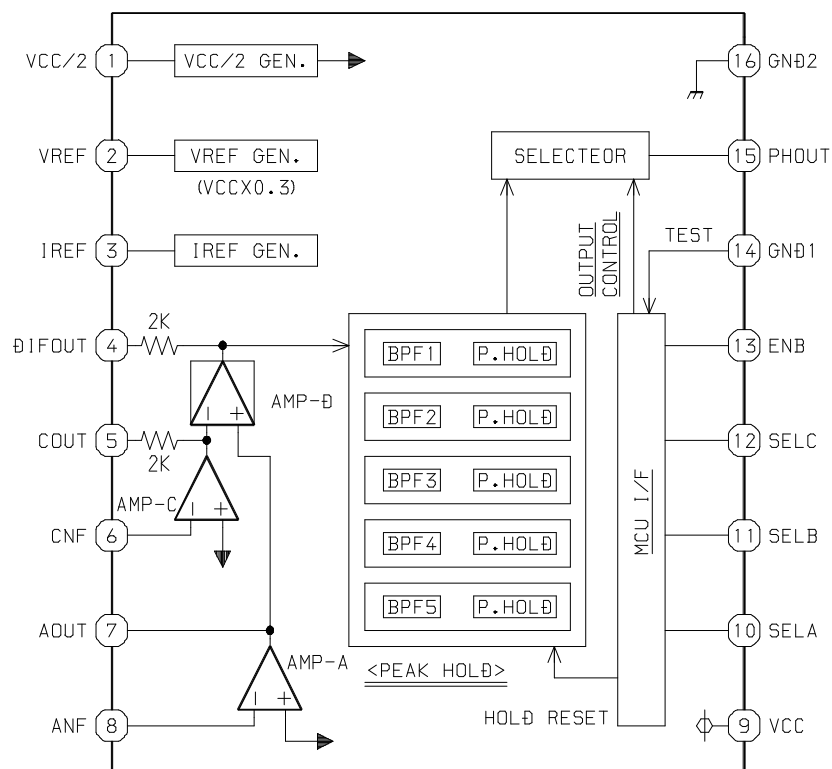
IC,BU2099FV



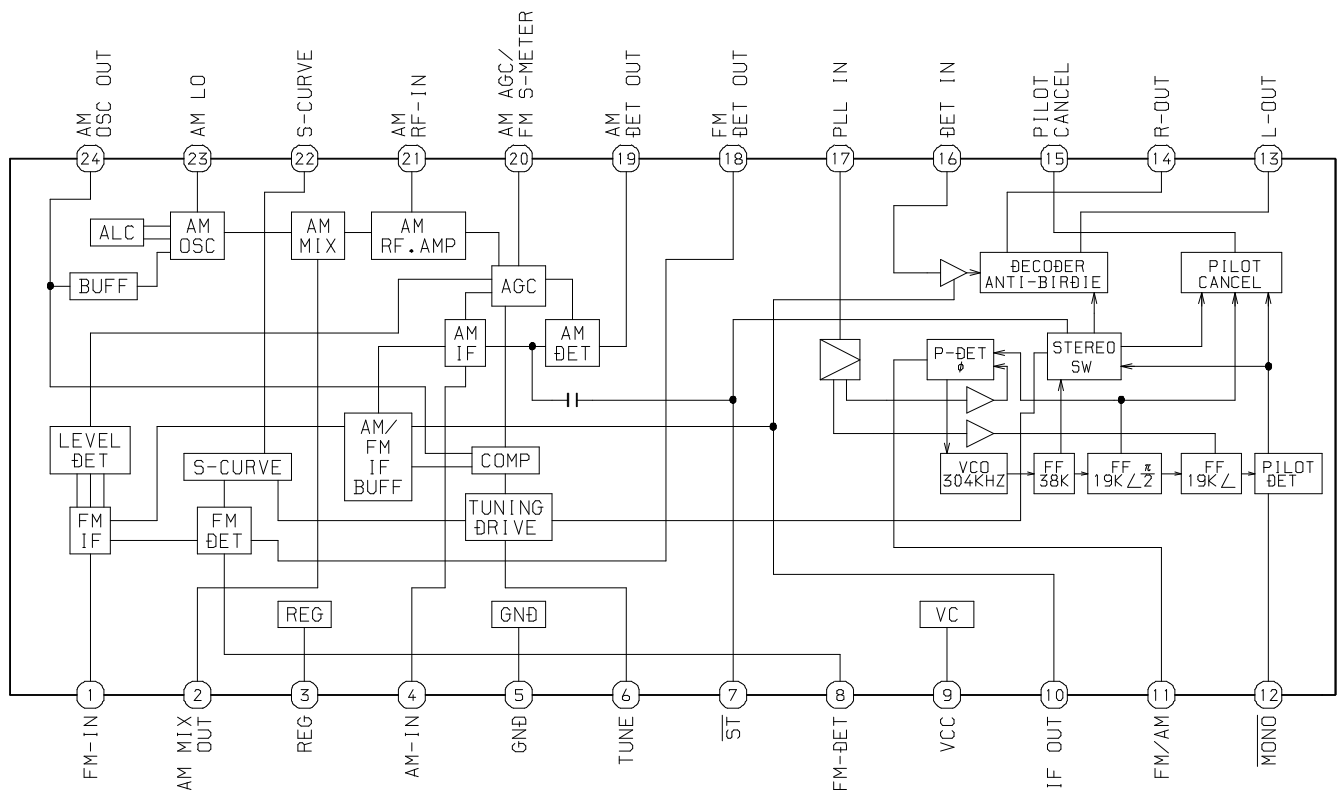
IC,LC72131D



# IC, M61506FP

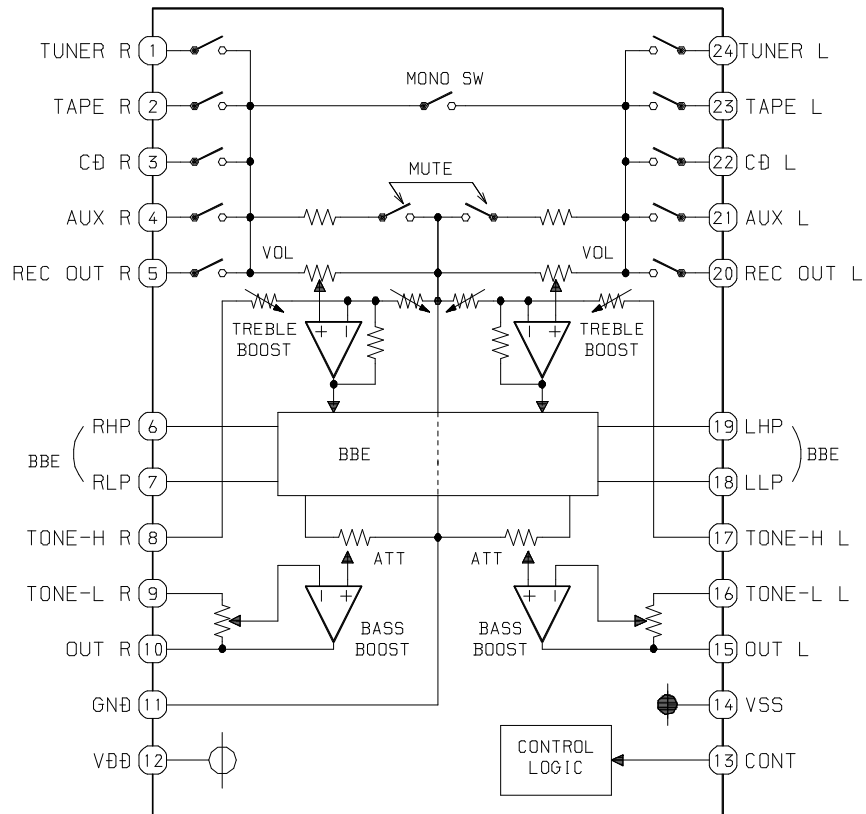


# IC, LA1843

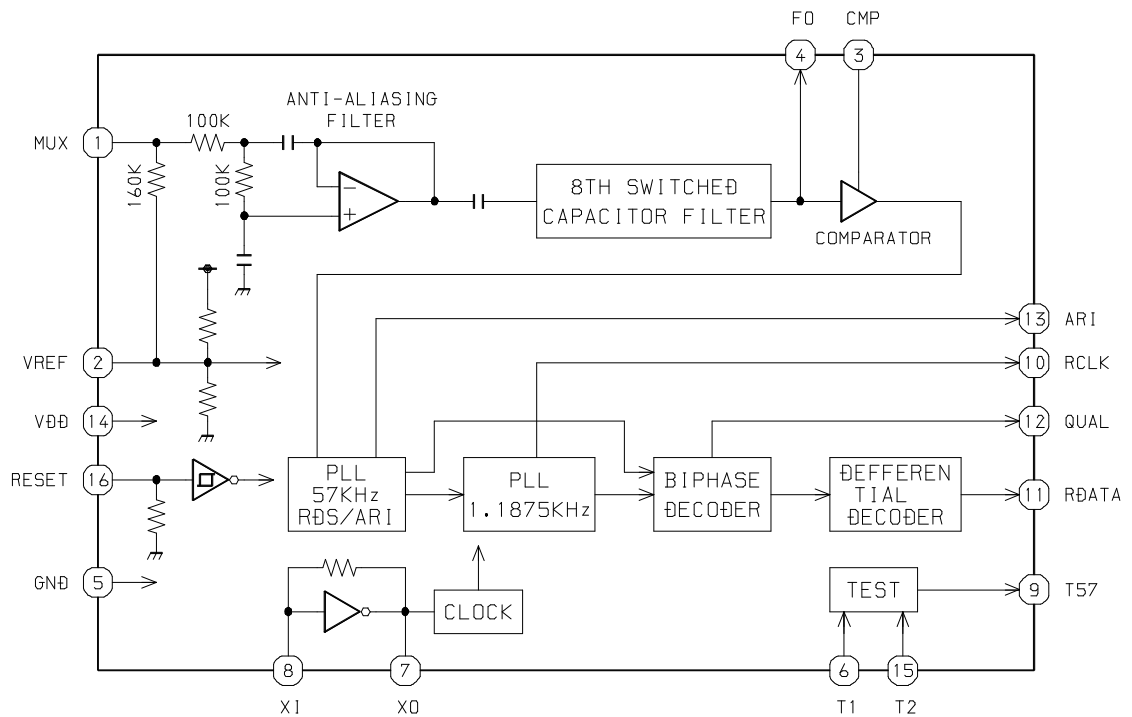




# IC, M61503FP

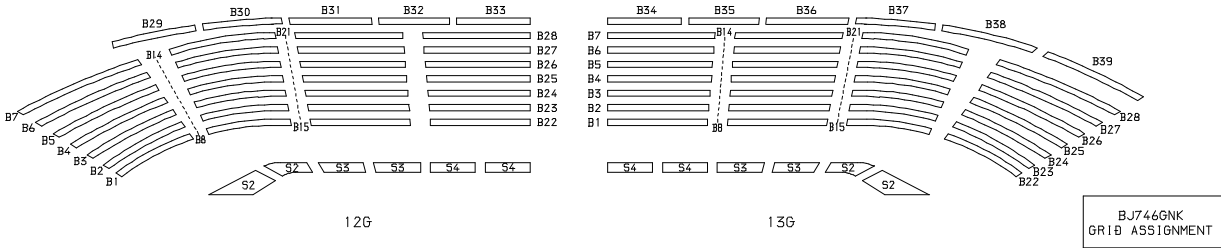
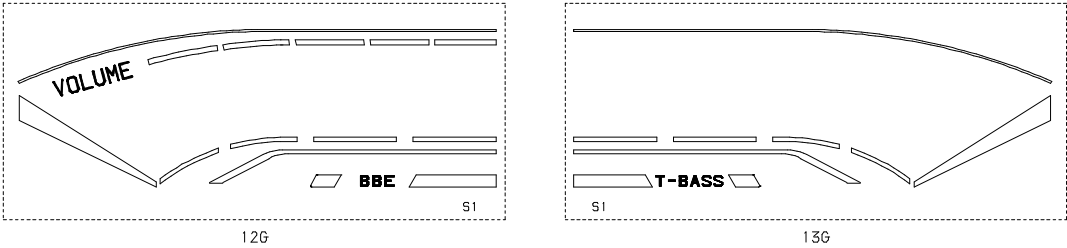
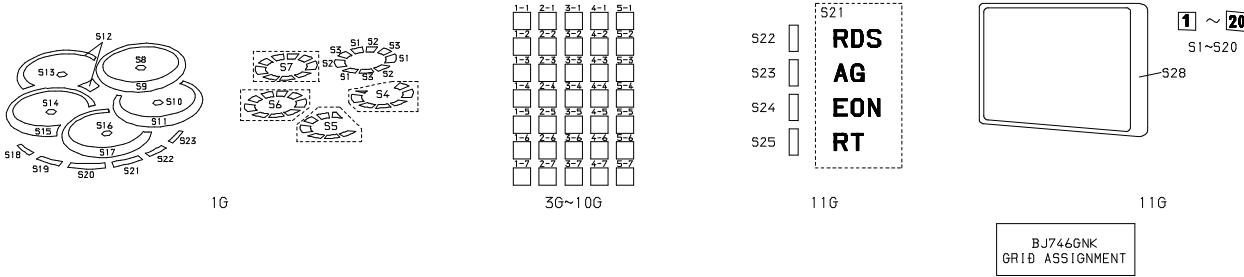
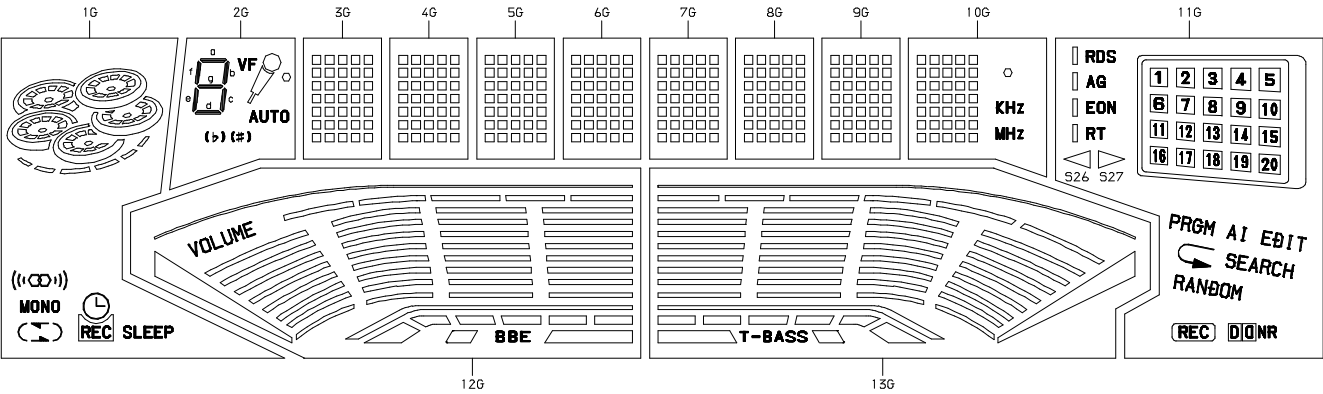


# IC, BU1920FS















FL (BJ746GNK) GRID ASSIGNMENT & ANODE CONNECTION

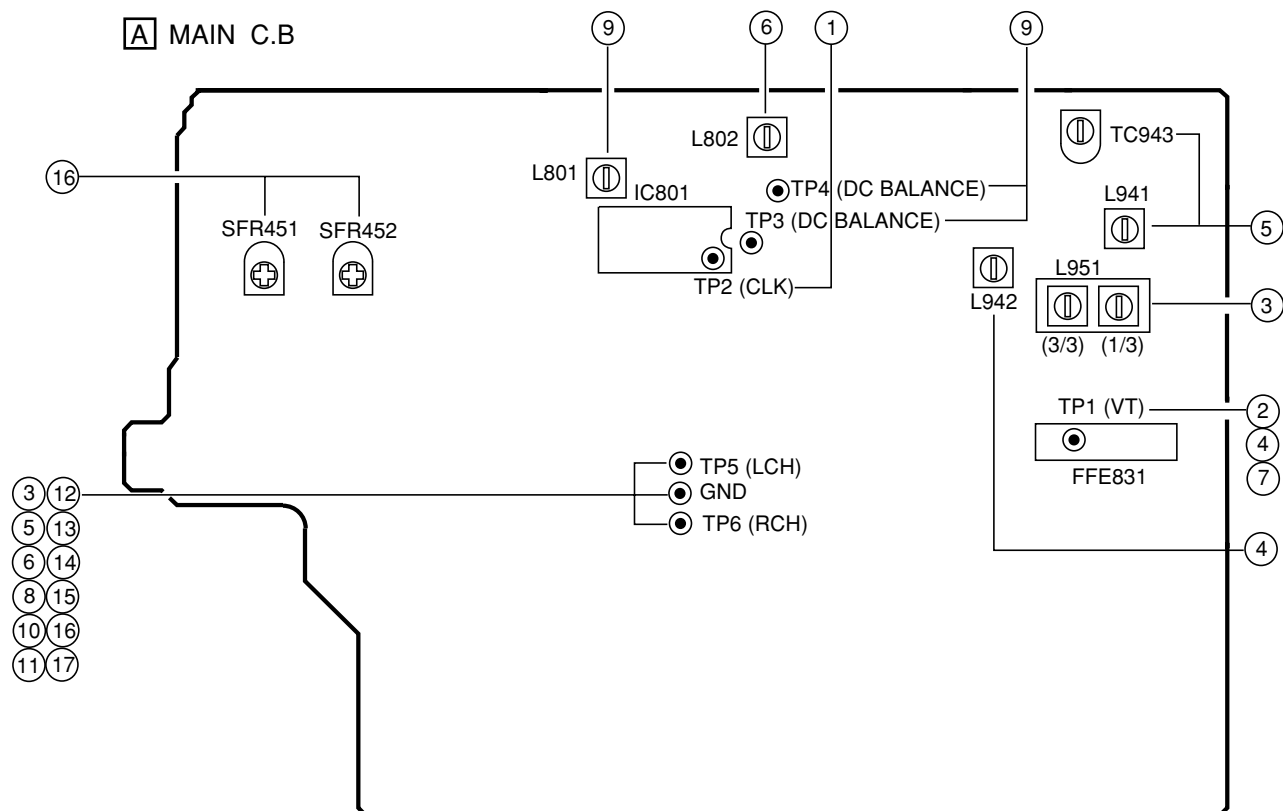
GRID ASSIGNMENT



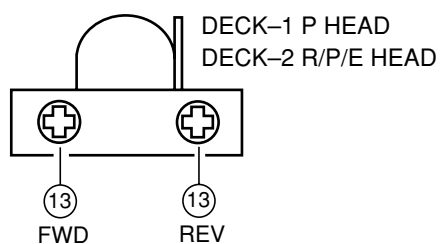
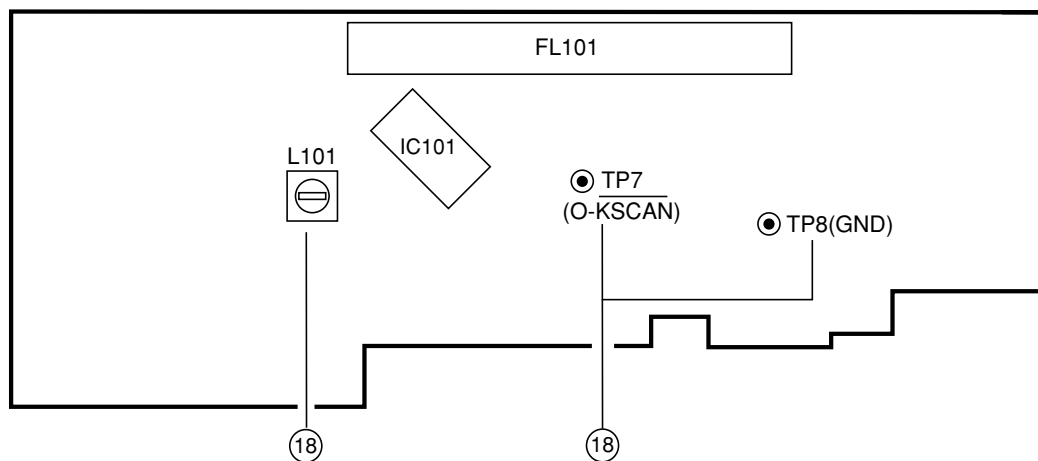
# ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G
P1	<b>SLEEP</b>	–	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	S28	S1	S1
P2		–	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	S1	S2	S2
P3		–	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	S2	S3	S3
P4		–	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	S3	S4	S4
P5		–	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	S4	B1	B1
P6		–	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	S5	B8	B8
P7	<b>MONO</b>	–	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	S6	B15	B15
P8		–	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	S7	B22	B22
P9	–	–	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	S8	B2	B2
P10	–	–	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	S9	B9	B9
P11	–	–	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	S10	B16	B16
P12	S7	–	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	S11	B23	B23
P13	S13	–	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	S12	B3	B3
P14	S12	–	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	S13	B10	B10
P15	S8	–	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	S14	B17	B17
P16	S1		1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	S15	B24	B24
P17	S3	<b>VF</b>	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	S16	B4	B4
P18	S2		3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	S17	B11	B11
P19	S9	a	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	S18	B18	B18
P20	S6	b	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	S19	B25	B25
P21	S14	f	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	S20	B5	B5
P22	S15	g	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	S21	B12	B12
P23	S18	c	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	 NR	B19	B19
P24	S19	e	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5		B26	B26
P25	S20	d	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	S22	B6	B6
P26	S21	<b>AUTO</b>	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	S23	B13	B13
P27	S22	<b>(b)</b>	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	S24	B20	B20
P28	S23	<b>(#)</b>	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	S25	B27	B27
P29	S5	–	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	S26	B7	B7
P30	S16	–	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	S27	B14	B14
P31	S17	–	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	<b>EDIT</b>	B21	B21
P32	S4	–	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	<b>AI</b>	B28	B28
P33	S10	–	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	<b>PRGM</b>	B29	B34
P34	S11	–	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	<b>SEARCH</b>	B30	B35
P35	–	–	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7		B31	B36
P36	–	–	–	–	–	–	–	–	–		<b>RANDOM</b>	B32	B37
P37	–	–	–	–	–	–	–	–	–	<b>KHz</b>	–	B33	B38
P38	–	–	–	–	–	–	–	–	–	<b>MHz</b>	–	–	B39

# ADJUSTMENT <TUNER / DECK / MICON>



## B MICON C.B



## < TUNER SECTION >

1. Clock Frequency Check  
 Settings : • Test point : TP2 (CLK)  
 Method : Set to MW 1602kHz and check that the test point is 2052kHz  $\pm$  45Hz.
2. MW VT Check  
 Settings : • Test point : TP1 (VT)  
 Method : Set to MW 1602kHz and check that the test point is less than 8.0V. Then set to MW 531kHz and check that the test point is more than 0.6V.
3. MW Tracking Adjustment  
 Settings : • Test point : TP5 (Lch), TP6 (Rch)  
 • Adjustment location : L951 (1/3)  
 Method : Set to MW 999kHz and adjust L951 (1/3) so that the test point becomes maximum.
4. LW VT Adjustment  
 Settings : • Test point : TP1 (VT)  
 • Adjustment location : L942  
 Method : Set to LW 144kHz and adjust L942 so that the test point becomes 1.3V  $\pm$  0.05V. Then set to LW 290kHz and check that the test point is less than 8.0V.
5. LW Tracking Adjustment  
 Settings : • Test point : TP5 (Lch), TP6 (Rch)  
 • Adjustment location :  
 L941 ..... 144kHz  
 TC943 ..... 290kHz  
 Method : Set up TC943 to center before adjustment. The level at 144kHz is adjusted to MAX by L941. Then the level at 290kHz is adjusted to MAX by TC943.
6. AM IF Adjustment  
 Settings : • Test point : TP5 (Lch), TP6 (Rch)  
 • Adjustment location :  
 L802 ..... 450kHz
7. FM VT Check  
 Settings : • Test point : TP1 (VT)  
 Method : Set to FM 108.0MHz and check that the test point is less than 8.0V. Then set to FM 87.5MHz and check that the test point is more than 0.5V.
8. FM Tracking Check  
 Settings : • Test point : TP5 (Lch), TP6 (Rch)  
 Method : Set to FM 98.0MHz and check that the test point is less than 13dB $\mu$ V.
9. DC Balance / Mono Distortion Adjustment  
 Settings : • Test point : TP3, TP4 (DC balance)  
 • Adjustment location : L801  
 • Input level : 60dB $\mu$ V  
 Method : Set to FM 98.0MHz and adjust L801 so that the distortion is minimum. Then check the voltage between TP3 and TP4 is 0V  $\pm$  300mV.
10. Output Level Check  
 <MW>  
 Settings : • Test point : TP5 (Lch), TP6 (Rch)  
 • Input level : 74dB $\mu$ V  
 Method : Set to MW 999kHz and check that the test point is 50mV  $\pm$  3dB.  
 <FM>  
 Settings : • Test point : TP5 (Lch), TP6 (Rch)  
 • Input level : 60dB $\mu$ V  
 Method : Set to FM 98.0MHz and check that the test point is 100mV  $\pm$  3dB.
11. FM Separation Check  
 Settings : • Test point : TP5 (Lch), TP6 (Rch)  
 • Input level : 60dB $\mu$ V  
 Method : Set to FM 98.0MHz and check that the test point is more than 12dB.

## < DECK SECTION >

### 12. Tape Speed Adjustment (DECK 2)

Settings : • Test tape : TTA-100

- Test point : TP5(Lch), TP6(Rch)
- Adjustment location : SFR1

Method : Play back the test tape and adjust SFR1 so that the frequency counter reads  $3000\text{Hz} \pm 5\text{Hz}$  and  $\pm 45\text{Hz}$  (REV) with respect to forward speed.

### 13. Head Azimuth Adjustment (DECK 1, DECK 2)

Settings : • Test tape : TTA-330

- Test point : TP5(Lch), TP6(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.

### 14. PB Frequency Response Check (DECK 1, DECK 2)

Settings : • Test tape : TTA-330

- Test point : TP5(Lch), TP6(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 within 5dB.

### 15. PB Sensitivity Check (DECK 1, DECK 2)

Settings : • Test tape : TTA-200

- Test point : TP5(Lch), TP6(Rch)

Method : Play back the test tape and check that the output level of the test point is  $140\text{mV} \pm 3\text{dB}$ .

### 16. REC/PB Frequency Response Adjustment (DECK 2)

Settings : • Test tape : TTA-602

- Test point : TP5(Lch), TP6(Rch)
- Input signal : 1kHz / 8kHz (LINE IN)
- Adjustment location : SFR451 (Lch)  
SFR452 (Rch)

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP5, TP6 becomes -20VU. Record and play back the 1kHz and 8kHz signals and adjust SFRs so that the output of the 8kHz signals becomes  $0.5\text{dB} \pm 0.5\text{dB}$  with respect to that of the 1kHz signal.

### 17. REC/PB Sensitivity Check (DECK 2)

Settings : • Test tape : TTA-602

- Test point : TP5(Lch), TP6(Rch)
- Input signal : 1kHz (LINE IN)

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP5, TP6 becomes 0VU. Record and play back the 1kHz signals and check that the output is  $0\text{dB} \pm 3.0\text{dB}$ .

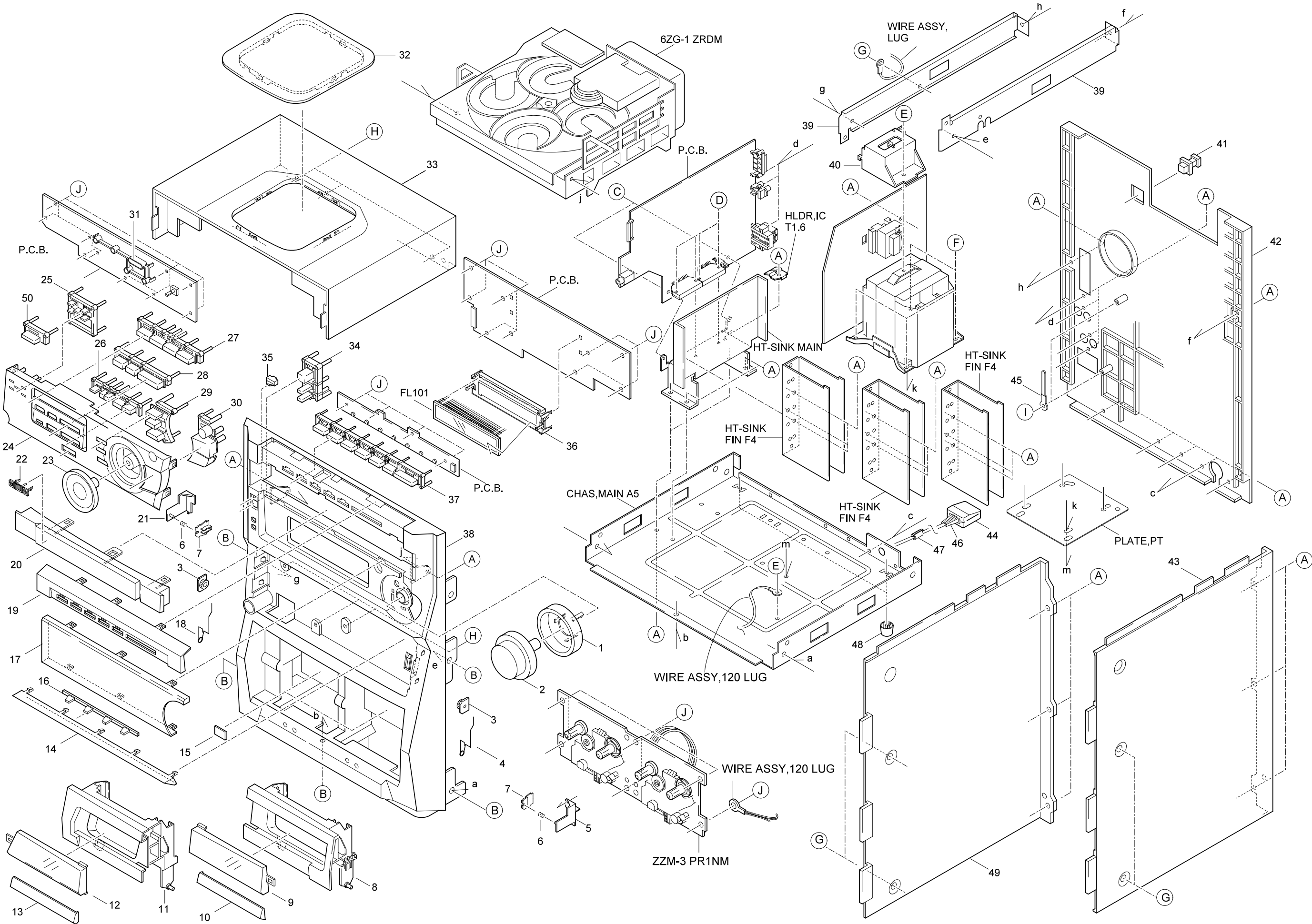
## < MICON SECTION >

### 18. $\mu$ -CON OSC Adjustment

Settings : • Test point : TP7 (O-KSCAN)

- Adjustment location : L101

Method : Insert AC plug while pressing TUNER function key. Adjust L101 so that the frequency at the test point is  $208.80\text{Hz} \pm 0.21\text{Hz}$ .



# MECHANICAL PART LIST 1 / 1

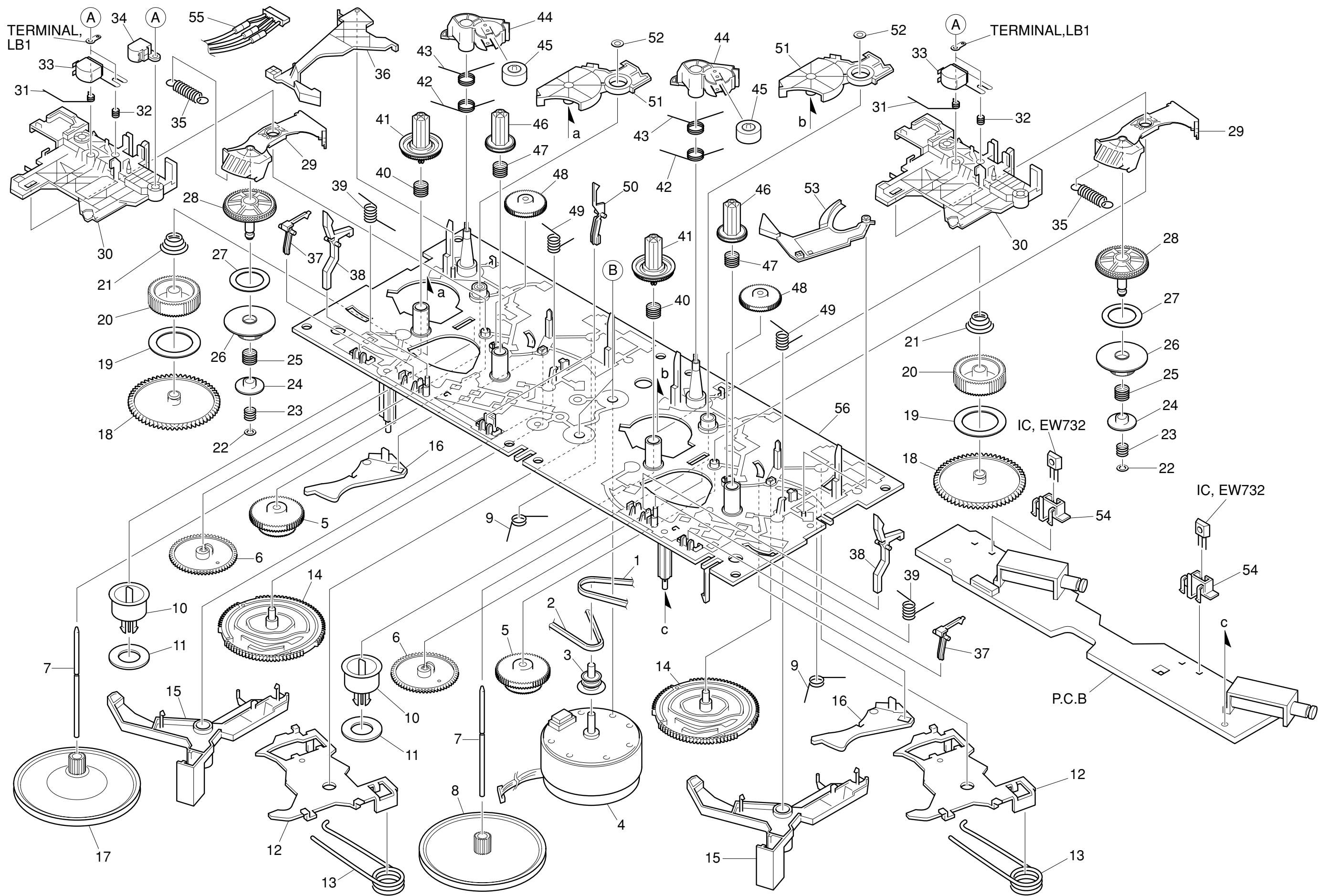
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MA3-095-010		RING,VOL
2	8A-MA3-090-010		KNOB,RTRY MAIN
3	87-NF8-220-010		DMPR,150
4	8A-MA5-208-010		SPR-T,EJECT 2
5	87-NF4-217-110		HLDR,LOCK 2
6	86-NF9-224-010		SPR-C,LOCK
7	82-NF5-229-010		PLATE,LOCK
8	8A-MA3-026-110		BOX,CASS R
9	8A-MA3-056-010		WINDOW,CASS R
10	8A-MA5-036-010		PANEL,CASS R 5
11	8A-MA3-025-110		BOX,CASS L
12	8A-MA3-055-010		WINDOW,CASS L
13	8A-MA5-035-010		PANEL,CASS L 5
14	8A-MA5-041-010		PANEL,FUN 4F
15	81-532-080-010		LABEL, CASS. COMPT
16	8A-MA5-102-010		REFLECTOR,FUN 4F
17	8A-MA5-051-010		WINDOW,DISP RDS 5
18	8A-MA5-207-010		SPR-T,EJECT 1
19	8A-MA5-034-010		PANEL,CD
20	8A-MA5-037-010		PANEL ASSY,TRAY 5
21	87-NF4-216-010		HLDR,LOCK 1
22	87-B00-002-010		BADGE,AIWA 30 ABS SIL
23	8A-MA3-093-010		KNOB ASSY,RTRY JOG
24	8A-MA5-031-010		PANEL,FR RDS 5
25	8A-MA5-080-010		KEY ASSY,GEQ 5M
26	8A-MA3-084-010		KEY ASSY,FF
27	8A-MA5-066-010		KEY,FUN 4F
28	8A-MA5-081-010		KEY ASSY,PLAY
29	8A-MA3-071-010		KEY,TIMER
30	8A-MA3-073-010		KEY,ENTER
31	8A-MA3-210-010		GUIDE,LED OPE
32	8A-MA3-057-010		WINDOW,TOP
33	8A-MA3-020-110		CABI, TOP
34	8A-MA3-075-010		KEY,POWER
35	8A-MA3-101-010		REFLECTOR, POWER

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
36	87-MA5-203-010		GUIDE,FL
37	8A-MA3-061-010		KEY,CD
38	8A-MA5-001-210		CABI,FR U 5
39	88-MA1-208-210		JOINT,CABI
40	8A-DB8-209-010		HLDR,PWB PT
41	84-ZG1-245-210		CAP,OPTICAL
42	8A-MA5-013-010		CABI,REAR KSTNM
43	8A-MA5-046-010		PANEL,SIDE R 5
44	87-099-811-010		PLUG,ADPTR CONV (K) <K>
45	87-064-185-010		HLDR,WIRE
46	87-A80-148-010		AC CORD ASSY,E BLK<EZ>
46	87-A80-143-010		AC CORD ASSY,E BLK<K>
47	87-085-185-010		BUSHING, AC CORD (E)
48	87-MA3-062-010		FOOT, H17
49	8A-MA5-045-010		PANEL,SIDE L 5
50	8A-MA3-070-010		KEY RDS
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-591-095-410		TAPPING SCREW, QIT+3-8 (GLD)
C	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
D	87-067-581-010		BVT2+3-15 W/O
E	87-067-688-010		BVTT+3-6
F	87-067-975-010		S-SCREW,1T+4-8
G	87-067-641-010		UTT2+3-8 (W/O SLOT)BL
H	87-067-758-010		BVT2+3-12 W/O SLOT
I	87-067-579-010		TAPPING SCREW, BVT2+3-8
J	87-078-060-010		BVIT3PB+3-10

## 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		





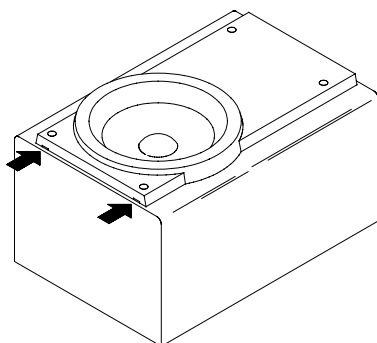
# TAPE MECHANISM PART LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM3-227-010		BELT,MAIN M3	31	8Z-ZM3-233-010		SPR-T,BRG M3
2	8Z-ZM3-235-010		BELT,MAIN L	32	84-ZM2-227-310		SPR-C,AZIMUTH
3	8Z-ZM1-235-010		PULLEY,MOT	33	87-A90-403-110		HEAD,RPH MS15R
4	87-045-347-010		MOT,SHU2L 70	34	87-A90-404-010		HEAD,EH LE15B
5	8Z-ZM1-232-010		GEAR,IDL FF/REW	35	8Z-ZM3-239-010		SPR-E,FR
6	8Z-ZM3-244-010		GEAR,CAM TD20	36	8Z-ZM3-211-010		LEVER,EJECT R
7	8Z-ZM3-242-010		SHAFT,CAP M3	37	8Z-ZM3-225-010		LEVER,STOP
8	8Z-ZM3-228-010		FLY-WHL,M3	38	8Z-ZM3-221-010		LEVER,CAS
9	8Z-ZM3-231-010		SPR-T,TRIG	39	8Z-ZM3-234-010		SPR-T,LVR CAS
10	8Z-ZM3-213-010		CLR,MG	40	8Z-ZM3-223-010		SPR-C,REEL R M3
11	82-ZM3-616-010		RING MAGNET 4	41	8Z-ZM1-225-110		GEAR,REEL R
12	8Z-ZM3-243-010		LEVER ASSY,HD UP	42	8Z-ZM3-240-010		SPR-T,T-UP M3
13	8Z-ZM3-238-010		SPR-T,HD UP	43	8Z-ZM3-237-010		SPR-T,PINCH M3
14	8Z-ZM3-219-010		GEAR,CAM M3	44	8Z-ZM3-215-010		LEVER,PINCH M3
15	8Z-ZM3-206-010		LEVER,TRIG	45	8Z-ZM1-261-110		ROLLER ASSY,PINCH
16	8Z-ZM3-209-010		LEVER,CAM FR	46	8Z-ZM1-226-010		GEAR,REEL L
17	8Z-ZM2-211-010		FLY-WHL,ZZM-2	47	8Z-ZM3-222-010		SPR-C,REEL L M3
18	8Z-ZM1-228-010		GEAR,SLIP T-UP B	48	8Z-ZM3-251-010		GEAR,IDL REW M3
19	8Z-ZM1-265-010		FELT,T-UP	49	8Z-ZM3-236-010		SPR-T,PLAY M3
20	8Z-ZM1-227-010		GEAR,SLIP T-UP A	50	82-ZM1-240-110		LVR,REC(*)
21	8Z-ZM1-251-110		SPR-C,T-UP SLIP	51	8Z-ZM3-216-010		LEVER,T-UP M3
22	8Z-ZM1-275-010		W-L,1,47-4-0.25	52	87-B10-301-010		W-L,1.63-3.2-05 SLIT
23	8Z-ZM1-257-010		SPR-C,F/R	53	8Z-ZM3-212-010		LEVER,EJECT L
24	8Z-ZM1-236-010		CLR,SLIP FF/REW	54	8Z-ZM3-214-010		HLDR,IC
25	8Z-ZM3-226-010		SPR-C,FR M3	55	86-ZM3-605-110		CONN ASSY,8P -RPB
26	8Z-ZM3-250-010		GEAR,SLIP F/R A M3	56	8Z-ZM3-203-010		CHAS ASSY,M3
27	8Z-ZM1-269-010		FELT,FF/REW 2	A	84-ZM2-242-010		S-SCREW,AZ1-2-6.4
28	8Z-ZM1-238-110		GEAR,SLIP FF/REW B 2	B	8Z-ZM2-220-110		V+2.6 ZZM-2
29	8Z-ZM3-220-010		LEVER,FR M3				
30	8Z-ZM3-205-010		LEVER,PLAY M3				

# SPEAKER DISASSEMBLY INSTRUCTIONS

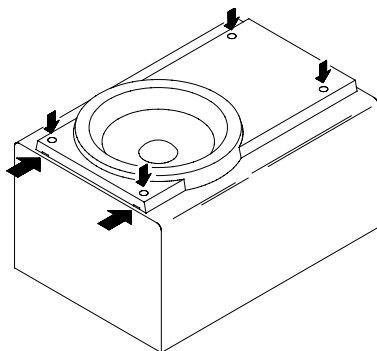
## Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



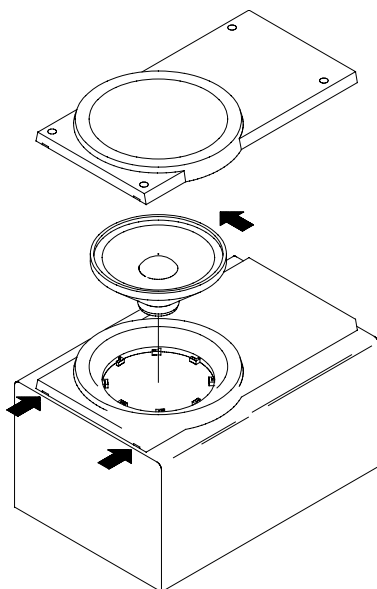
## Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

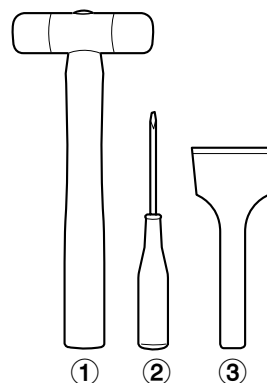


## Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



## Type.4



## TOOLS

- ① Plastic head hammer
- ② (⊖) flat head screwdriver
- ③ Cut chisel

## How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.
2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.
3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

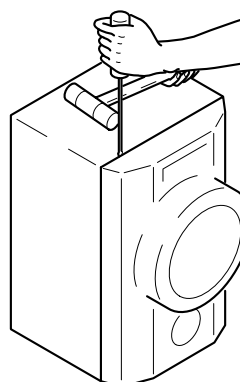


Fig-1

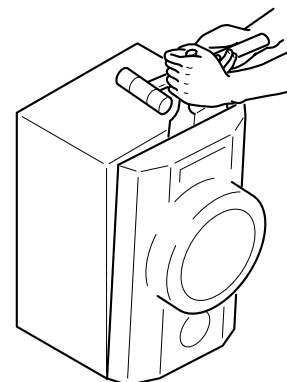


Fig-2

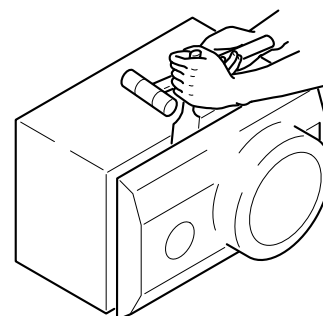


Fig-3

## How to Attach the PANEL, FR

Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

## SPEAKER PARTS LIST SX-WZL500 (YSL, YSC)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MS5-001-010		PANEL, FR
2	8A-MS5-015-010		PANEL, DUCT RING
3	8A-MS5-002-010		GRILLE, FRAME ASSY A
4	8A-MS5-005-010		GRILLE, FRAME ASSY B
5	8A-MS5-602-010		SPKR, W 200
6	8A-MS5-604-010		SPKR, M 120
7	88-MS1-608-010		SPKR, CERAMIC
8	88-NS3-605-010		CAP,
9	88-MS1-610-010		CORD, SPKR
10	88-NS5-611-010		CORD, SPKR B/L
11	8A-MS5-013-010		CORD, PACKING

## ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MA5-905-010		IB, K(E) M<K>
1	8A-MA5-906-010		IB, EZ(9L) M<EZ>
2	8Z-NF9-701-210		RC UNIT, ZAS02
3	87-A90-118-010		ANT, WIRE FM(Z)
4	87-A90-030-010		ANT, LOOP AM-NC C

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