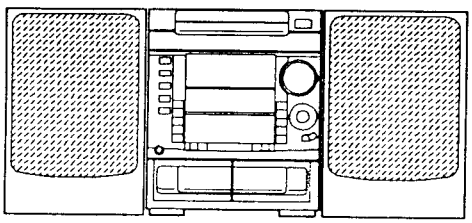
aiwa

aiwa SERVICE

NSX-F9

SERVICE MANUAL



COMPACT DISC STEREO
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : 2ZM-3MK-PR4NM
- BASIC CD MECHANISM : 6ZG–1 DFNM
- TYPE : HE, LH

SYSTEM	CD – CASSEIVER	SPEAKER	REMOTE CONTROLLER
NSX-F9	CX-NF9	SX–NAVF9	RC UNIT, 6AS01

- If requiring information about the Speaker, see Service Manual of SX-NAVF9, S/M Code No. 09-971-177-4FP.

S/M Code No. 09–96B–173–5FP

TABLE OF CONTENTS

SPECIFICATIONS

<FM Tuner section>

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

<MW Tuner section>

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

<SW Tuner section> (HE)

Tuning range	5.900 MHz to 17.900 MHz
Antenna	Wire antenna

<Amplifier section>

Power output	Rated 160 W + 160 W (6 ohms,T.H.D.1%,1 kHz)) Reference: 200 W + 200 W (6 ohms, T.H.D.10%,1 kHz)
	*(without connecting to the SURROUND SPEAKERS)
Total harmonic distortion	0.1% (20 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX : 150 mV(adjustable) MIC 1,MIC 2: 1mV (10 kohms)
Outputs	LINE OUT: 200mV SUPER WOOFER: 3.1 V SPEAKERS: accept speakers of 6 ohms or more SURROUND SPEAKERS: accept speakers of 16 ohms or more PHONES (stereo jack) : accepts headphones of 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	CRo_2 tape: 50 Hz – 16000 Hz Normal tape: 50 Hz –15000 Hz
Singnal-to noise ratio	60 dB (Dolby B NR ON, CrO_2 tape peak level)
Recording system	AC bias
Heads	Deck 1 : playback head x 1 Deck 2 : Recording/Playback/ erase head x 1

<Compact disc player section>

Laser	Semiconductor laser (λ =780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	83 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Speaker system SX–NAVF9>

Cabinet type	3 way, bass reflex (magnetic shielded type)
Speakers	Woofer : 160 mm cone type Tweeter : 80 mm cone type Super tweeter: 20 mm ceramic type
Impedance	6 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	260 x 353 x 330mm
Weight	5.9 kg

<General>

Power requirements	120 V / 220 – 230 V / 240 V AC, switchable 50/60 Hz
Power consumption	210 W
Dimensions of main unit (W x H x D)	300 x357.5 x 374 mm
Weight of main unit	13 kg

- Design and specifications are subject to change without notice.

- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
  "DOLBY" and the double-D symbol ⧫⧫ are trademarks of Dolby Laboratories Licensing Corporation.

- The word "BBE"and the "BBE symbol" are trademarks of BBE Sound, Inc.
  Under license from BBE Sound,Inc.

CD DIASSEMBLY INSTRUCTIONS

1. ピックアップの交換方法
   1) TRAY をｵｰﾌﾟﾝさせる。
      stopper を矢印の方向へ押し、SHAFT SLED 半分だけ抜く。
   2) GEAR MAIN CAMを反時計方向（"a" の方向）に回し、figure 1のようにCDﾒｶを持ち上げる。
   3) SHAFT SLED を抜く。
   4) CDﾒｶを下げてPICK UPを交換する。
   5) CDﾒｶをfigure 1のように上げて、SHAFT SLEDを取り付ける。

1. How to replace PICK UP.
   1) Open the TRAY.
      Push the stopper to arrow direction and release half of the SHAFT SLED.
   2) Turn GEAR MAIN CAM to the counterclockwise (arrow "a") direction, and lift up CD mechanism. (figure 1)
   3) Remove SHAFT SLED.
   4) CD mechanism in down position, replace PICK UP.
   5) Lift up CD mechanism (figure 1), and Reassemble the SHAFT SLED.

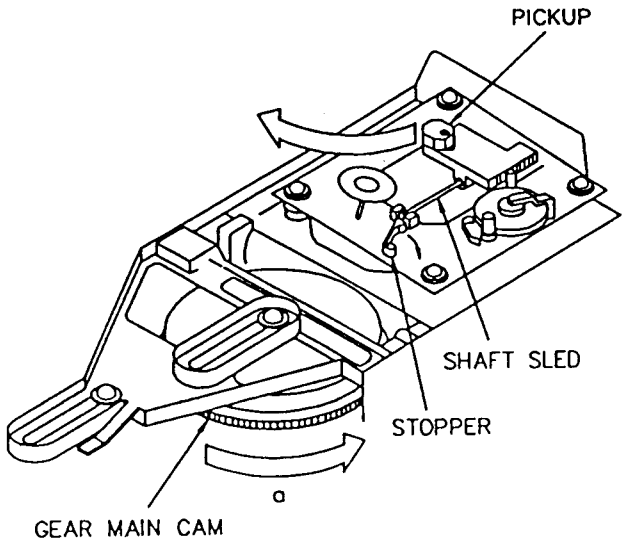


Figure 1

2. 5巻ﾁｪﾝｼﾞｬｰﾌﾞﾛｯｸの外し方 (figure 2)
   1) CD基板のFFC2本を外し、ﾋﾞｽ5本を外す。
   2) 5巻ﾁｪﾝｼﾞｬｰﾌﾞﾛｯｸを後から持ち上げて外す。
      (PANEL TRAY を外さなくても、5ﾁｪﾝｼﾞｬｰﾌﾞﾛｯｸを後から外すことができる。)

2. How to remove 5CD CHANGER BLOCK (figure 2)
   1) Remove the two FFC of the CD circuit board, and remove the five SCREWS.
   2) Lift 5 CD CHANGER BLOCK from behind, and remove it.
      (5CD CHANGER BLOCK can be removed even if PANEL TRAY are not removed.)

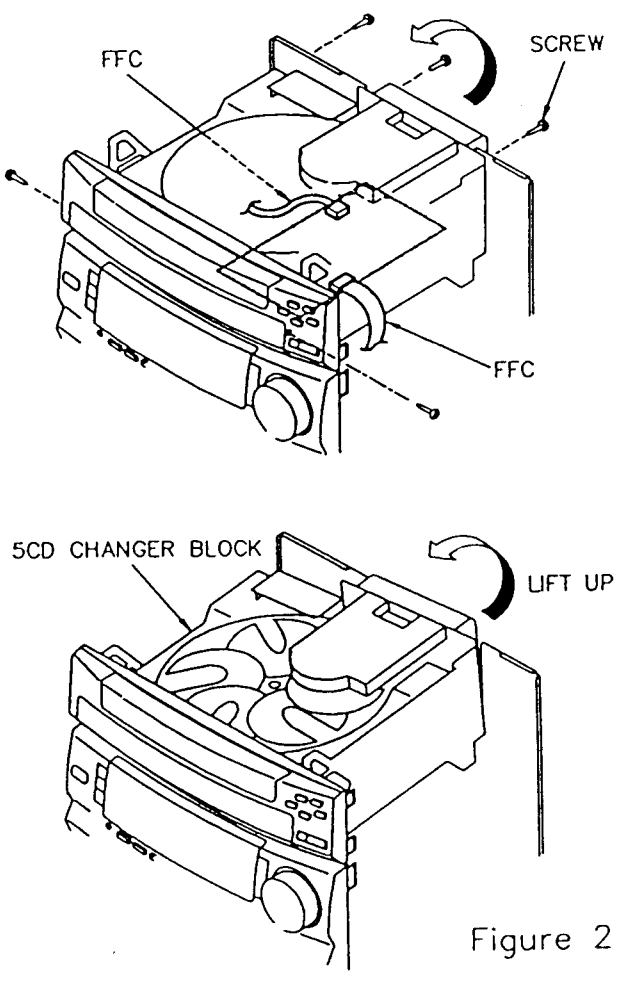


Figure 2

3 TRAY の分解・組立て方法

（1）分解方法

1） CHAS MECHA 下部のPLATE GEARのﾎﾞｽを外側（矢印 "b" 方向）に強く押す。
(figure 3)
（TRAY が少しせり出すのを確認する）

2） TRAY をｵｰﾌﾟﾝ位置まで引き出す。

3） FFC を抜き、両ｻｲﾄﾞのCHAS MECH ﾂﾒ（2ケ所）を押してTRAYを外す。
(figure 4)

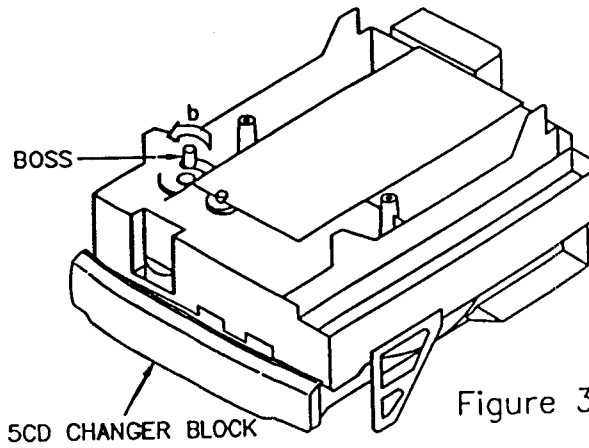


Figure 3

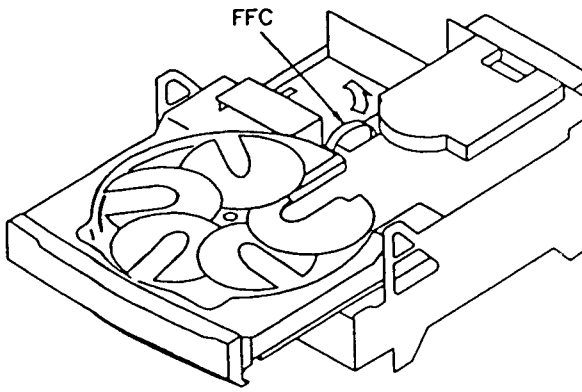
3. The disassemble and reassemble the TRAY

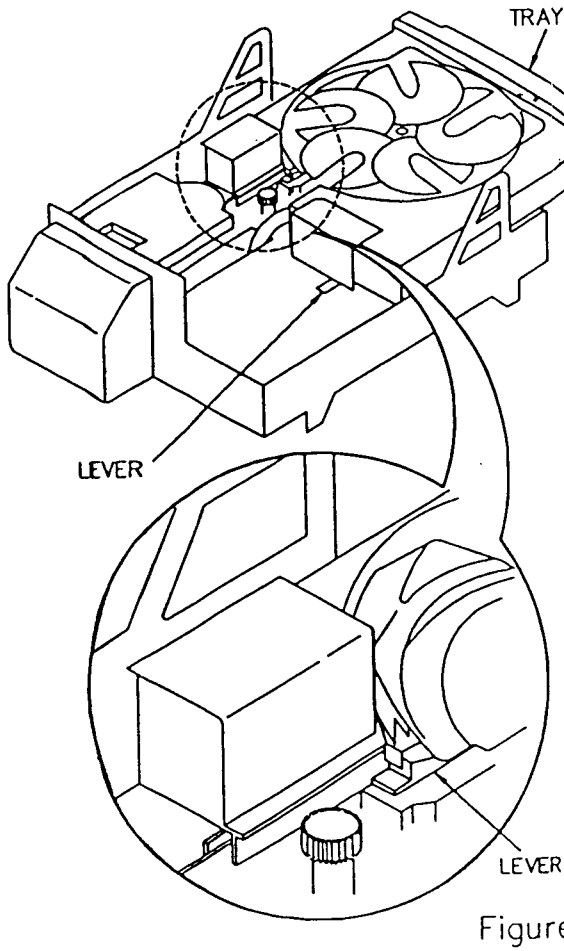
(1) Disassembling procedure.

1) Push the PLATE GEAR'S Bossat the bottom part of CHAS MECHA strongly to the outside (arrow "b" direction). (figure 3)
(Confirm that TRAY appears a little in the front.)

2) Draw TRAY to the open position.

3) Remove FFC, and push the two LEVERS at both side of the CHAS MECH to remove TRAY. (figure 4)





Figure

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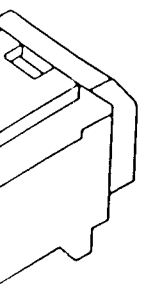
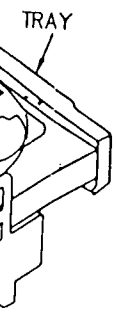


TRAY



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ire 4

（2）組立て方法

1） LEVER TRAY が figure 5 の位置で、CD メカが下がっていることを確認する.

2） TRAY をCHAS MECHAのレールに沿って組み込む。

3） 半分までTRAY を組み込んだらFFCを差し、TRAYを最後まで押し入れる。(figure 6)

(2) Reassembling procedure.

1) Confirm that LEVER TRAY is at the most right position in order for the CD Mechanism to be in the down position. (figure 5)

2) Push in the TRAY along the rail of the CHAS MECHA.

3) After TRAY is half closed and FFC is put in, it can enter by force until the end of TRAY closed. (figure 6)

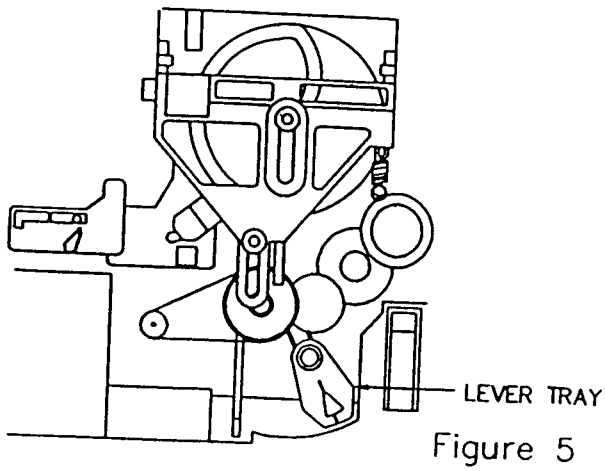


Figure 5

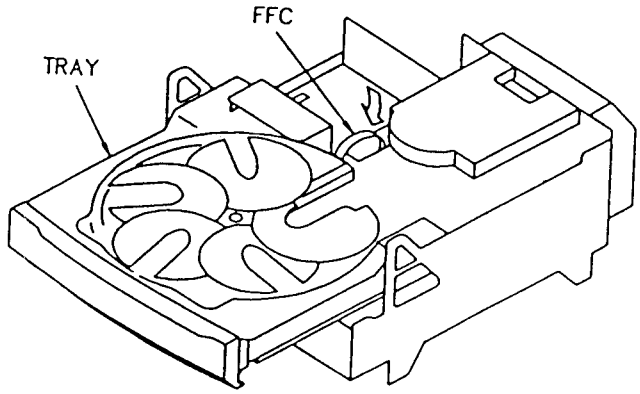


Figure 6

4. ターンテーブルの組立方法 (figure 7)

1） LEVER TT を “C” の方向に押しながら、TURN TABLE 5CD を組み込む。(figure 7)
この時、TRAY 5CD とTURN TABLE 5CD の切り欠きが同じ方向になるようにする。(figure 8)

＊ 組み込む際のTURN TABLE 5CDのCD番号（1～5）は任意で構いません。(figure 7)

4. How to reassemble the TURN TABLE. (figure 7)

1) Push LEVER TT in the direction of "C", and put in the TURN TABLE 5CD. (figure 7)
After reassembly, one of the TURN TABLE DISC TRAY (can be either one of the five disc trays) must be aligned with TURN TABLE 5CD. (figure 8)
That is, having no gap difference between the TURN TABLE 5CD and the TRAY 5CD.

＊ When reassembling the TURN TABLE 5CD, it is acceptable facing any CD numbe r (1～5).

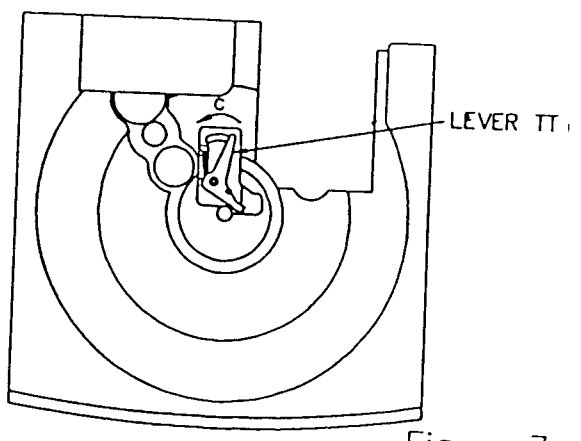


Figure 7

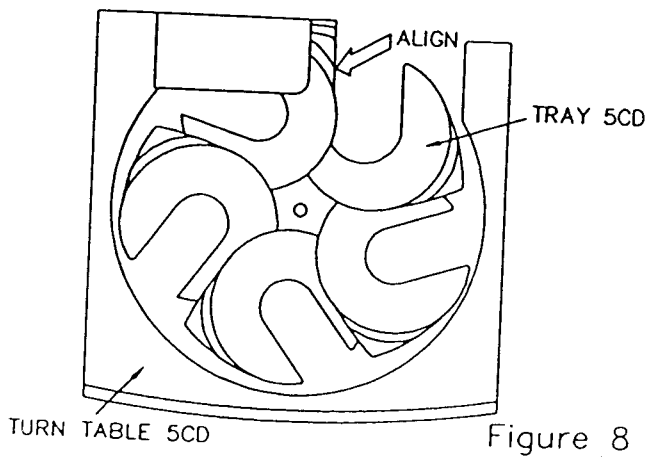
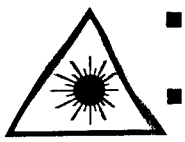


Figure 8

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

VAROITUS!
Laiteen käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

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

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

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

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

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

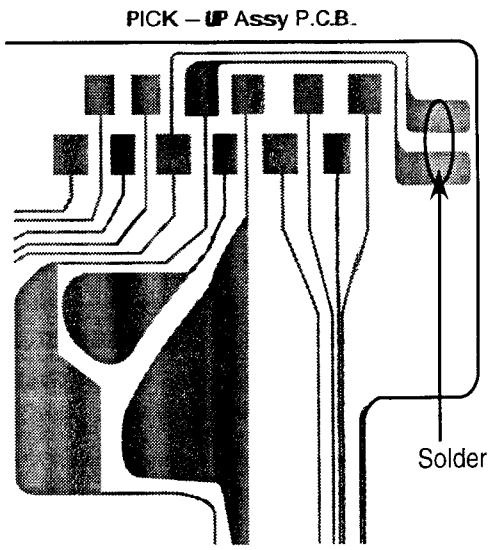
CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

Precaution to replace Optical block

(KSS-213B)

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

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



ELECTRICAL MAIN PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-017-745-019		IC,CXA1782BQ
	87-070-294-019		C-IC,CXD2508AQ
	87-070-305-019		IC,BA6897S
	87-001-982-019		IC,TA7291S
	87-017-888-089		IC,NJM4558MD
	86-NF9-620-010		IC,UPD780206GF-014-3BA
	87-A20-154-010		IC,SPS-444-1
	87-A20-264-010		IC,STK-419-150
	87-070-121-010		IC,HA12185
	87-070-232-010		IC,BA3834S
	87-017-375-080		C-IC,TC4094BF
	87-A20-355-010		IC,CXA1553P
	87-A20-107-010		IC,BA3836
	87-027-666-010		IC,TC4052BP
	87-A20-056-010		IC,BA3880S
	87-017-374-010		IC,TC4094BP
	87-017-888-080		C-IC,NJM4558MD
	87-A20-067-040		C-IC,M65849FP
	87-A20-437-010		C-IC,M62431FP
	87-070-127-110		IC,LC72131D
	87-017-022-080		C-IC,NJM2068M-D(T1)
	87-017-714-110		IC,LA1836L
	87-A20-312-010		IC,M62420SP
	87-020-454-010		IC,DN6851
TRANSISTOR			
	89-213-702-010		TR,2SB1370E
	87-026-609-080		TR,KTA1266GR
	87-A30-065-080		TR,2SC2785FE
	89-332-665-080		TR,2SC3266GR
	89-337-221-380		C-TR,2SC3722K(R/S/E)
	89-324-122-080		C-TR,2SC2412KR
	89-110-372-080		C-TR,2SA1037K(R)
	87-026-635-080		C-TR,UN2213
	89-327-125-080		C-TR,2SC2712GR
	87-026-239-080		C-TR,DTC114TK
	87-026-233-080		C-TR,DTA114TK
	87-026-211-080		C-TR,DTA114EK
	89-111-625-080		C-TR,2SA1162 GR
	87-026-213-080		C-TR,DTC114YK
	87-026-463-080		TR,2SA933S(RS)
	87-110-155-080		TR,2SA1015GR
	87-A30-047-080		TR,CSD655E
	89-421-722-389		TR,2SD2172V/W
	87-026-223-080		C-TR,DTC143TK
	89-320-011-080		TR,2SC2001K
	87-026-608-080		C-TR,DTC123JK
	89-333-266-080		C-TR,2SC3326B
	87-A30-066-080		TR,2SA1175FE
	89-109-705-080		TR,2SA970GR
	87-026-297-080		C-TR,DTA144TK
	87-026-226-080		C-TR,DTA143EK
	89-502-466-080		FET,2SK246BL
	89-112-965-080		TR,2SA1296GR
	87-026-228-080		C-TR,DTA124EK
	87-026-610-080		TR,KTC3198GR
	89-109-521-080		TR,2SA952K
	87-026-238-080		C-TR,DTC144WK
	87-026-214-080		TR,DTA114YS
	89-503-685-080		C-FET,2SK368GR
	89-327-143-080		C-TR,2SC2714O
	87-026-269-080		TR,DTA114ES<HE>
	89-110-373-080		C-TR,2SA1037K(S)<HE>
	89-421-141-280		C-TR,2SD2114KU<HE>
	89-505-434-540		C-FET,2SK543-TB(4/5)
DIODE			
	87-017-437-080		DIODE,1N4148M
	87-A40-224-010		DIODE,GBU8DL
	87-A40-115-060		DIODE,RS603M
	87-017-978-080		DIODE,1N4003
	87-020-027-080		C-DIODE,1SS184
	87-020-125-080		C-DIODE,1SS181
	87-A40-200-080		ZENER,UZL11L3
	87-A40-211-080		ZENER,UZ36BSA
	87-A40-207-080		ZENER,UZ11BSC
	87-A40-274-010		DIODE,FMB-G16L
	87-A40-199-080		ZENER,UZL6H2
	87-A40-202-080		ZENER,UZ5.1BSB
	87-020-331-080		C-DIODE,DAN202K
	87-020-465-080		DIODE,1SS133
	87-020-330-080		C-DIODE,DAP202K
	87-A40-198-080		ZENER,UZL6M1
	87-A40-197-080		ZENER,UZL6L1
	87-020-339-080		C-DIODE,1SS226
MAIN C.B			
C101	87-A10-231-090		CAP,E 3300-80
C102	87-A10-231-090		CAP,E 3300-80
C104	87-010-235-080		CAP,E 470-16 SME
C105	87-010-235-080		CAP,E 470-16 SME
C107	87-010-247-080		CAP,E 100-50 M SME
C108	87-010-247-080		CAP,E 100-50 M SME
C109	87-010-263-080		CAP,E 100-10 SME
C112	87-010-382-080		CAP,E 22-25 M SME
C113	87-010-403-080		CAP,E 3.3-50 M SME
C116	87-012-140-080		C-CAP,S 470P-50 J CH
C121	87-012-368-080		C-CAP,S 0.1-50 Z F
C122	87-012-368-080		C-CAP,S 0.1-50 Z F
C123	87-018-209-080		CAP,TC U 0.1-50 Z F UP050
C124	87-012-368-080		C-CAP,S 0.1-50 Z F
C125	87-010-263-080		CAP,E 100-10 SME<LH>
C145	87-010-186-080		C-CAP,S 4700P-50 K B
C146	87-010-186-080		C-CAP,S 4700P-50 K B
C152	87-010-260-080		CAP,E 47-25 SME
C171	87-A10-056-090		CAP,E 4700-35 M
C172	87-A10-056-090		CAP,E 4700-35 M
C173	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C174	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C175	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C176	87-015-785-080		C-CAP, 0.1-25 Z F
C220	87-010-194-080		C-CAP,S 0.047-25 Z F
C221	87-010-400-080		CAP,E 0.47-50 M SME
C222	87-010-400-080		CAP,E 0.47-50 M SME
C223	87-010-187-080		C-CAP,S 5600P-50 K B
C224	87-010-187-080		C-CAP,S 5600P-50 K B
C225	87-010-179-080		C-CAP,S 1200P-50 K B
C226	87-010-179-080		C-CAP,S 1200P-50 K B
C227	87-010-402-080		CAP,E 2.2-50 M SME
C228	87-010-402-080		CAP,E 2.2-50 M SME
C229	87-010-402-080		CAP,E 2.2-50 M SME
C230	87-010-402-080		CAP,E 2.2-50 M SME
C231	87-010-147-080		C-CAP,S 3P-50 C CH GRM
C232	87-018-098-080		CAP,TC U 3.3P-50 K SL UP050
C233	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C234	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C235	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C236	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C243	87-010-322-080		C-CAP,S 100P-50 J CH
C244	87-010-322-080		C-CAP,S 100P-50 J CH
C249	87-018-209-080		CAP,TC U 0.1-50 Z F UP050
C250	87-A10-200-080		CAP,E 10-100 M BP SME
C260	87-015-785-080		C-CAP, 0.1-25 Z F
C301	87-010-318-080		C-CAP,S 47P-50 J CH
C302	87-010-318-080		C-CAP,S 47P-50 J CH
C303	87-012-157-080		C-CAP,S 330P-50 J CH GRM

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C304	87-012-157-080		C-CAP,S 330P-50 J CH GRM
C305	87-012-145-080		C-CAP,S 270P-50 J CH
C306	87-012-145-080		C-CAP,S 270P-50 J CH
C307	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C311	87-010-198-080		C-CAP,S 0.022-25 K B
C312	87-010-198-080		C-CAP,S 0.022-25 K B
C313	87-010-181-080		C-CAP,S 1800P-50 K B
C314	87-010-181-080		C-CAP,S 1800P-50 K B
C315	87-010-179-080		C-CAP,S 1200P-50 K B
C316	87-010-179-080		C-CAP,S 1200P-50 K B
C317	87-016-492-080		C-CAP,S 0.33-16 Z F
C318	87-016-492-080		C-CAP,S 0.33-16 Z F
C319	87-016-491-080		C-CAP,S 0.22-16 Z F C2021
C320	87-016-491-080		C-CAP,S 0.22-16 Z F C2021
C321	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C322	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C324	87-010-260-080		CAP,E 47-25 SME
C325	87-010-370-080		CAP,E 330-6.3 M SME
C326	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C330	87-010-405-080		CAP,E 10-50 M SME
C332	87-015-785-080		C-CAP, 0.1-25 Z F
C335	87-016-462-080		C-CAP,S 1-16 Z F
C336	87-016-462-080		C-CAP,S 1-16 Z F
C337	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C338	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C339	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C340	87-015-785-080		C-CAP, 0.1-25 Z F
C351	87-012-154-080		C-CAP,S 150P-50 J CH GRM
C352	87-012-154-080		C-CAP,S 150P-50 J CH GRM
C451	87-012-140-080		C-CAP,S 470P-50 J CH
C452	87-012-140-080		C-CAP,S 470P-50 J CH
C453	87-010-178-080		C-CAP,S 1000P-50 K B
C456	87-010-260-080		CAP,E 47-25 SME
C457	87-010-197-080		C-CAP,S 0.01-25 K B
C458	87-010-183-080		C-CAP,S 2700P-50 K B
C459	87-010-183-080		C-CAP,S 2700P-50 K B
C460	87-010-183-080		C-CAP,S 2700P-50 K B
C470	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C501	87-010-179-080		C-CAP,S 1200P-50 K B
C502	87-010-179-080		C-CAP,S 1200P-50 K B
C503	87-012-155-080		C-CAP,S 180P-50 J CH GRM
C504	87-012-155-080		C-CAP,S 180P-50 J CH GRM
C515	87-010-545-080		CAP,E 0.22-50 M SME
C516	87-010-545-080		CAP,E 0.22-50 M SME
C519	87-015-785-080		C-CAP, 0.1-25 Z F
C521	87-010-197-080		C-CAP,S 0.01-25 K B
C522	87-010-318-080		C-CAP,S 47P-50 J CH
C523	87-010-197-080		C-CAP,S 0.01-25 K B
C525	87-010-184-080		C-CAP,S 3300P-50 K B
C526	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C527	87-010-401-080		CAP,E 1-50 M SME
C528	87-010-401-080		CAP,E 1-50 M SME
C529	87-010-384-080		CAP,E 100-25 M SME
C530	87-010-197-080		C-CAP,S 0.01-25 K B
C531	87-010-183-080		C-CAP,S 2700P-50 K B
C532	87-010-194-080		C-CAP,S 0.047-25 Z F
C533	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C534	87-010-263-080		CAP,E 100-10 SME
C535	87-010-401-080		CAP,E 1-50 M SME
C536	87-010-401-080		CAP,E 1-50 M SME
C537	87-010-545-080		CAP,E 0.22-50 M SME
C538	87-012-142-080		C-CAP,S 0.33-16 Z F
C540	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C541	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C542	87-010-405-080		CAP,E 10-50 M SME
C543	87-010-546-080		CAP,E 0.33-50 SME
C544	87-010-546-080		CAP,E 0.33-50 SME
C545	87-010-400-080		CAP,E 0.47-50 M SME
C546	87-010-400-080		CAP,E 0.47-50 M SME
C547	87-015-883-080		C-CAP, 0.022-50 K B<LH>
C547	87-015-632-080		C-CAP,0.015-50 K B<HE>
C548	87-015-883-080		C-CAP, 0.022-50 K B<LH>
C548	87-015-632-080		C-CAP,0.015-50 K B<HE>
C553	87-015-627-080		C-CAP,1000P-50 K B
C554	87-015-627-080		C-CAP,1000P-50 K B
C557	87-010-178-080		C-CAP,S 1000P-50 K B
C558	87-010-178-080		C-CAP,S 1000P-50 K B
C597	87-010-404-080		CAP,E 4.7-50 M SME
C598	87-010-404-080		CAP,E 4.7-50 M SME
C601	87-010-178-080		C-CAP,S 1000P-50 K B
C602	87-010-178-080		C-CAP,S 1000P-50 K B
C603	87-010-405-080		CAP,E 10-50 M SME
C604	87-010-405-080		CAP,E 10-50 M SME
C605	87-010-260-080		CAP,E 47-25 SME
C606	87-010-101-080		CAP,E 220-16 SME
C607	87-010-188-080		C-CAP,S 6800P-50 K B
C608	87-010-188-080		C-CAP,S 6800P-50 K B
C609	87-018-127-080		CAP,TC U 470P-50 K B UP050
C610	87-018-127-080		CAP,TC U 470P-50 K B UP050
C611	87-010-197-080		C-CAP,S 0.01-25 K B
C612	87-010-197-080		C-CAP,S 0.01-25 K B
C613	87-010-195-080		C-CAP,S 0.068-25 Z F C2012
C614	87-010-195-080		C-CAP,S 0.068-25 Z F C2012
C615	87-010-404-080		CAP,E 4.7-50 M SME
C616	87-010-404-080		CAP,E 4.7-50 M SME
C617	87-010-404-080		CAP,E 4.7-50 M SME
C618	87-010-404-080		CAP,E 4.7-50 M SME
C641	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C642	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C701	87-010-381-080		CAP,E 330-16 SME
C702	87-010-404-080		CAP,E 4.7-50 M SME
C703	87-010-197-080		C-CAP,S 0.01-25 K B
C704	87-010-197-080		C-CAP,S 0.01-25 K B
C711	87-010-263-080		CAP,E 100-10 SME
C712	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C722	87-010-312-080		C-CAP,S 15P-50 J CH
C723	87-010-178-080		C-CAP,S 1000P-50 K B
C725	87-010-178-080		C-CAP,S 1000P-50 K B
C727	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C728	87-010-248-080		CAP,E 220-10 SME
C735	87-018-134-080		CAP,TC U 0.01-16 N Y UP050
C770	87-010-405-080		CAP,E 10-50 M SME
C771	87-010-405-080		CAP,E 10-50 M SME
C772	87-010-194-080		C-CAP,S 0.047-25 Z F
C773	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C774	87-010-263-080		CAP,E 100-10 SME
C775	87-010-405-080		CAP,E 10-50 M SME
C776	87-010-197-080		C-CAP,S 0.01-25 K B<LH>
C777	87-010-400-080		CAP,E 0.47-50 M SME
C778	87-010-401-080		CAP,E 1-50 M SME
C779	87-010-401-080		CAP,E 1-50 M SME
C780	87-010-197-080		C-CAP,S 0.01-25 K B
C781	87-010-405-080		CAP,E 10-50 M SME
C782	87-010-405-080		CAP,E 10-50 M SME
C785	87-010-197-080		C-CAP,S 0.01-25 K B
C786	87-010-197-080		C-CAP,S 0.01-25 K B
C787	87-010-184-080		C-CAP,S 3300P-50 K B
C788	87-010-184-080		C-CAP,S 3300P-50 K B
C789	87-010-179-080		C-CAP,S 1200P-50 K B
C790	87-010-179-080		C-CAP,S 1200P-50 K B
C791	87-010-401-080		CAP,E 1-50 M SME
C792	87-010-180-080		C-CAP,S 1500P-50 K B
C793	87-010-189-080		C-CAP,S 8200P-50 K B
C794	87-010-408-080		CAP,E 47-50 SME
C795	87-010-194-080		C-CAP,S 0.047-25 Z F
C796	87-010-403-080		CAP,E 3.3-50 M SME
C799	87-010-178-080		C-CAP,S 1000P-50 K B
C802	87-010-197-080		C-CAP,S 0.01-25 K B
C814	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C819	87-010-197-080		C-CAP,S 0.01-25 K B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C820	87-010-408-080		CAP,E 47-50 SME
C821	87-010-197-080		C-CAP,S 0.01-25 K B
C823	87-010-197-080		C-CAP,S 0.01-25 K B
C828	87-010-197-080		C-CAP,S 0.01-25 K B
C829	87-010-197-080		C-CAP,S 0.01-25 K B
C830	87-015-819-080		C-CAP,0.01-50 K B
C835	87-010-197-080		C-CAP,S 0.01-25 K B
C901	87-010-197-080		C-CAP,S 0.01-25 K B
C902	87-015-785-080		C-CAP, 0.1-25 Z F
C903	87-018-119-080		CAP,TC U 100P-50 K B UP050
C941	87-010-314-080		C-CAP,S 22P-50 J CH<HE>
C943	87-010-197-080		C-CAP,S 0.01-25 K B<HE>
C944	87-014-051-080		CAP,PP 560P-100 J<HE>
C945	87-010-197-080		C-CAP,S 0.01-25 K B<HE>
C946	87-010-401-080		CAP,E 1-50 M SME
C950	87-014-073-080		CAP,PP 4700P-100 J<HE>
C952	87-010-197-080		C-CAP,S 0.01-25 K B<HE>
C953	87-010-197-080		C-CAP,S 0.01-25 K B<HE>
C954	87-010-400-080		CAP,E 0.47-50 M SME<HE>
C956	87-010-263-080		CAP,E 100-10 SME<HE>
C960	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C961	87-010-152-080		C-CAP,S 8P-50 D CH<LH>
C987	87-018-134-080		CAP,TC U 0.01-16 N Y UP050
C990	87-010-197-080		C-CAP,S 0.01-25 K B
C993	87-018-134-080		CAP,TC U 0.01-16 N Y UP050
C995	87-010-197-080		C-CAP,S 0.01-25 K B
C999	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
CF801	87-008-261-010		FLTR,CFSFE10.7MA5
CF802	87-008-261-010		FLTR,CFSFE10.7MA5
FFE801	A8-6ZA-190-030		6ZA-1 YFEUNM
FR121	87-029-060-010		RES,FUSE 33-1/4W J
FR122	87-029-060-010		RES,FUSE 33-1/4W J
J252	87-099-678-010		JACK,6.3 BLK ST W/SW
J253	87-099-474-010		JACK,PIN 3P BLK W/SW
J254	87-A60-238-010		TERMINAL,SP 4P (MSC)
J652	87-099-625-010		JACK,PIN 4P BLK W/O SW
J801	87-A60-202-010		TERMINAL,ANT 4P MSP-154V-02
L101	87-003-383-010		COIL,1UH K
L102	87-003-383-010		COIL,1UH K
L403	87-A50-049-010		COIL,TRAP 85K(COI)
L404	87-A50-049-010		COIL,TRAP 85K(COI)
L451	87-007-342-010		COIL,OSC 85KHZ BIAS
L701	87-A50-027-010		COIL,1 POLE MPX(TOK)
L702	87-A50-027-010		COIL,1 POLE MPX(TOK)
L741	87-A50-015-010		COIL,FM DET (TOK)
L742	87-A90-051-010		FLTR, CFAZ-450 (TOK)<LH>
L742	87-A90-052-010		FLTR, CFMT-450A(TOK)<HE>
L743	87-005-564-080		C-COIL,2125 2.2UH K MLF2012
L770	87-003-102-080		COIL,10UH K LAL02
L832	87-005-847-080		COIL,2.2UH K CECS
L941	87-A50-022-010		COIL,ANT SW (COI) 7.96MHZ<HE>
L942	87-A50-021-010		COIL,OSC SW (COI) 15MHZ<HE>
L943	87-005-372-080		COIL,1MH K LAL03<HE>
L944	87-003-131-080		COIL,10MH J EL0607<HE>
L981	86-NF4-665-010		COIL,AM PACK 1(TOK)<LH>
L981	86-NF4-666-010		COIL,AM PACK 3(TOK)<HE>
PR113	87-026-681-080		PROTECTOR,5A 491SERIES 60V
PR114	87-026-681-080		PROTECTOR,5A 491SERIES 60V
RY101	87-045-389-010		RELAY,12V OSA-SS-212DM5
RY102	87-045-382-010		RELAY,12V OUAZ-SH-112L
SFR301	87-024-355-080		SFR,33K H EVN DJAA03
SFR302	87-024-355-080		SFR,33K H EVN DJAA03
SFR303	87-024-355-080		SFR,33K H EVN DJAA03
SFR304	87-024-355-080		SFR,33K H EVN DJAA03
SFR305	87-024-356-080		SFR,47K H EVN DJAA03
SFR306	87-024-356-080		SFR,47K H EVN DJAA03
SFR451	87-024-356-080		SFR,47K H EVN DJAA03
SFR452	87-024-356-080		SFR,47K H EVN DJAA03
SFR722	87-024-352-080		SFR,4.7K H EVN DJAA03
TC701	87-011-253-080		TRIMMER,CER 30P 4.0X4.5 ECRLA
TC941	87-011-220-080		TRIMMER,CER 20P 6.15X5.9 VCT51<HE>
TC942	87-011-221-080		TRIMMER,CER 30P 6.15X5.9 VCT51<HE>
TH241	87-A90-157-080		C-THMS,4.7K<HE>
VR651	87-A90-153-010		VR,RTRY 50KBX2 V
W101	86-NF9-651-010		F-CABLE,7P 2.5 (NF9)
X703	84-508-618-010		VIB,CER CSB 456 F15
X721	86-NFZ-651-010		VIB,XTAL 4.500MHZ CSA-309
X722	87-030-354-010		VIB,CER 450.0KHZ BFU C<HE>

FRONT C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C201	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C202	87-012-156-080		C-CAP,S 220P-50 J CH GRM
C203	87-010-263-040		CAP,E 100-10 M SME
C204	87-010-494-040		CAP,E 1-50 5L SRE
C205	87-010-494-040		CAP,E 1-50 5L SRE
C206	87-010-550-040		CAP,E 100-6.3 5L SRE
C207	87-010-550-040		CAP,E 100-6.3 5L SRE
C208	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C209	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C210	87-010-314-080		C-CAP,S 22P-50 J CH
C211	87-010-154-080		C-CAP,S 10P-50 D CH
C212	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C213	87-010-178-080		C-CAP,S 1000P-50 K B
C214	87-010-112-040		CAP,E 100-16 SME
C215	87-010-322-080		C-CAP,S 100P-50 J CH
C216	87-010-560-040		CAP,E 10-50 M 5L MA
C351	87-010-497-040		CAP,E 4.7-35 5L SRE
C352	87-010-497-040		CAP,E 4.7-35 5L SRE
C353	87-010-981-040		CAP,E 22-35 M 5L SRE
C381	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C382	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C383	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C384	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C385	87-010-322-080		C-CAP,S 100P-50 J CH
C386	87-010-400-040		CAP,E 0.47-50 SME
C387	87-010-400-040		CAP,E 0.47-50 SME
C389	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C401	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C402	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C601	87-010-405-040		CAP,E 10-50 M SME
C602	87-010-176-080		C-CAP,S 680P-50 J SL
C603	87-010-186-080		C-CAP,S 4700P-50 K B
C604	87-010-322-080		C-CAP,S 100P-50 J CH
C605	87-010-321-080		C-CAP,S 82P-50 J CH
C606	87-010-401-040		CAP,E 1-50 M SME
C607	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C608	87-010-322-080		C-CAP,S 100P-50 J CH
C609	87-010-491-040		CAP,E 0.22-50 5L SRE
C610	87-010-177-080		C-CAP,S 820P-50 J SL
C611	87-010-406-040		CAP,E 22-50 M SME
C612	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C614	87-A10-189-040		CAP,E 220-10 M
C615	87-010-498-040		CAP,E 10-16 M 5L SRE
C619	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C620	87-010-197-080		C-CAP,S 0.01-25 K B
C622	87-010-194-080		C-CAP,S 0.047-25 Z F
C650	87-010-319-080		C-CAP,S 56P-50 J CH
C651	87-010-319-080		C-CAP,S 56P-50 J CH
C652	87-010-404-040		CAP,E 4.7-50 SME
C654	87-010-178-080		C-CAP,S 1000P-50 K B
C655	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C656	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C657	87-010-263-040		CAP,E 100-10 M SME
C658	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C659	87-010-184-080		C-CAP,S 3300P-50 K B
C660	87-010-426-080		C-CAP,S 0.012-25 K B
C663	87-010-263-040		CAP,E 100-10 M SME
C664	87-012-141-080		C-CAP,S 0.22-16 Z F
C667	87-018-130-080		CAP,TC U 820P-50 K B UP050

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C668	87-010-180-080		C-CAP,S 1500P-50 K B
C669	87-010-404-040		CAP,E 4.7-50 SME
C670	87-010-404-040		CAP,E 4.7-50 SME
C671	87-010-188-080		C-CAP,S 6800P-50 K B
C672	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C701	87-010-421-040		CAP,E 4.7-50 M 5L SRE
C702	87-010-112-040		CAP,E 100-16 SME
C705	87-010-493-040		CAP,E 0.47-50 M 5L SRE
C706	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C707	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C708	87-010-400-040		CAP,E 0.47-50 SME
C709	87-010-192-080		C-CAP,S 0.022-50 Z F C2012
C710	87-010-400-040		CAP,E 0.47-50 SME
C711	87-010-190-080		C-CAP,S 0.01-50 Z F C2012
C712	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C713	87-010-185-080		C-CAP,S 3900P-50 K B
C714	87-010-194-080		C-CAP,S 0.047-25 Z F
C715	87-010-181-080		C-CAP,S 1800P-50 K B
C716	87-010-192-080		C-CAP,S 0.022-50 Z F C2012
C717	87-010-176-080		C-CAP,S 680P-50 J SL
C718	87-010-188-080		C-CAP,S 6800P-50 K B
C719	87-012-145-080		C-CAP,S 270P-50 J CH
C720	87-010-183-080		C-CAP,S 2700P-50 K B
C721	87-010-402-040		CAP,E 2.2-50 SME
C722	87-010-495-040		CAP,E 2.2-50 5L SRE
C723	87-010-378-040		CAP,E 10-16 M SME
C724	87-010-192-080		C-CAP,S 0.022-50 Z F C2012
C725	87-010-493-040		CAP,E 0.47-50 M 5L SRE
C726	87-010-190-080		C-CAP,S 0.01-50 Z F C2012
C727	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C728	87-010-185-080		C-CAP,S 3900P-50 K B
C729	87-010-194-080		C-CAP,S 0.047-25 Z F
C730	87-010-181-080		C-CAP,S 1800P-50 K B
C731	87-010-192-080		C-CAP,S 0.022-50 Z F C2012
C732	87-010-176-080		C-CAP,S 680P-50 J SL
C733	87-010-188-080		C-CAP,S 6800P-50 K B
C734	87-012-145-080		C-CAP,S 270P-50 J CH
C735	87-010-183-080		C-CAP,S 2700P-50 K B
C751	87-010-322-080		C-CAP,S 100P-50 J CH
C752	87-010-322-080		C-CAP,S 100P-50 J CH
C753	87-010-493-049		CAP,E 0.47-50 M 5L SRE
C754	87-010-493-049		CAP,E 0.47-50 M 5L SRE
C801	87-010-197-080		C-CAP,S 0.01-25 K B
C802	87-010-178-080		C-CAP,S 1000P-50 K B
C803	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C804	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C805	87-010-805-080		C-CAP,S 1-16 Z F
C806	87-010-805-080		C-CAP,S 1-16 Z F
C807	87-010-561-040		CAP,E 100-16 M 5L SRE
C808	87-A10-189-040		CAP,E 220-10 M
C809	87-010-491-040		CAP,E 0.22-50 5L SRE
C810	87-010-491-040		CAP,E 0.22-50 5L SRE
C811	87-010-495-040		CAP,E 2.2-50 5L SRE
C813	87-010-560-040		CAP,E 10-50 M 5L MA
C814	87-010-405-040		CAP,E 10-50 M SME
C815	87-010-322-080		C-CAP,S 100P-50 J CH
C816	87-010-322-080		C-CAP,S 100P-50 J CH
C817	87-012-142-080		C-CAP,S 0.33-16 Z F
FB601	87-008-372-080		FLTR,EMIBL01 RNI
FFC102	87-A80-054-010		FF-CABLE,4P 1.25 70MM
FFC104	87-A80-052-010		FF-CABLE,14P 1.25 280MM
FFC106	86-921-081-110		FF-CABLE,21P 1.25
FFC301	87-A80-053-010		FF-CABLE,8P 1.25 300MM
FFC501	86-915-161-110		FF-CABLE,15P 1.25
FL301	86-NF9-653-010		FL,BJ539GK
FL302	86-NF9-616-010		FL,BJ504GK
J601	87-A60-284-010		JACK,3.5MO (MSC)
J621	87-A60-284-010		JACK,3.5MO (MSC)
L201	87-A50-158-010		COIL,CLOCK 4.19MHZ (NF9)
L650	87-005-738-080		COIL,47UH J SP02

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
LED401	87-070-281-080		LED,SLZ-736A-25H-S-T1 P-GRN
LED402	87-070-281-080		LED,SLZ-736A-25H-S-T1 P-GRN
LED403	87-070-281-080		LED,SLZ-736A-25H-S-T1 P-GRN
LED404	87-070-281-080		LED,SLZ-736A-25H-S-T1 P-GRN
LED405	87-070-281-080		LED,SLZ-736A-25H-S-T1 P-GRN
LED406	87-070-281-080		LED,SLZ-736A-25H-S-T1 P-GRN
LED407	87-017-979-010		LED,SEL2413E GRN
LED408	87-017-979-010		LED,SEL2413E GRN
LED409	87-017-979-010		LED,SEL2413E GRN
LED410	87-017-979-010		LED,SEL2413E GRN
LED411	87-017-979-010		LED,SEL2413E GRN
LED412	87-017-979-010		LED,SEL2413E GRN
LED413	87-017-979-010		LED,SEL2413E GRN
LED414	87-017-979-010		LED,SEL2413E GRN
LED420	87-A40-259-080		LED,SLR-342VCT31 RED
LED421	87-A40-259-080		LED,SLR-342VCT31 RED
LED422	87-A40-259-080		LED,SLR-342VCT31 RED
LED423	87-A40-259-080		LED,SLR-342VCT31 RED
LED425	87-070-278-010		LED,SLZ-738A-24S PGRN
LED426	87-070-278-010		LED,SLZ-738A-24S PGRN
LED427	87-070-290-010		LED,SLZ-936C-30-S RED
LED428	87-070-290-010		LED,SLZ-936C-30-S RED
LED429	87-070-278-010		LED,SLZ-738A-24S PGRN
LED430	87-070-278-010		LED,SLZ-738A-24S PGRN
S301	87-A90-095-080		SW,TACT EVQ11G04M
S302	87-A90-095-080		SW,TACT EVQ11G04M
S303	87-A90-095-080		SW,TACT EVQ11G04M
S304	87-A90-095-080		SW,TACT EVQ11G04M
S305	87-A90-095-080		SW,TACT EVQ11G04M
S306	87-A90-095-080		SW,TACT EVQ11G04M
S307	87-A90-095-080		SW,TACT EVQ11G04M
S308	87-A90-095-080		SW,TACT EVQ11G04M
S309	87-A90-095-080		SW,TACT EVQ11G04M
S310	87-A90-095-080		SW,TACT EVQ11G04M
S311	87-A90-095-080		SW,TACT EVQ11G04M
S312	87-A90-095-080		SW,TACT EVQ11G04M
S313	87-A90-095-080		SW,TACT EVQ11G04M
S314	87-A90-095-080		SW,TACT EVQ11G04M
S315	87-A90-095-080		SW,TACT EVQ11G04M
S316	87-A90-095-080		SW,TACT EVQ11G04M
S317	87-A90-095-080		SW,TACT EVQ11G04M
S318	87-A90-095-080		SW,TACT EVQ11G04M
S319	87-A90-095-080		SW,TACT EVQ11G04M
S320	87-A90-095-080		SW,TACT EVQ11G04M
S321	87-A90-095-080		SW,TACT EVQ11G04M
S326	87-A90-095-080		SW,TACT EVQ11G04M
S327	87-A90-095-080		SW,TACT EVQ11G04M
S328	87-A90-095-080		SW,TACT EVQ11G04M
S329	87-A90-095-080		SW,TACT EVQ11G04M
S330	87-A90-095-080		SW,TACT EVQ11G04M
S331	87-A90-095-080		SW,TACT EVQ11G04M
S332	87-A90-095-080		SW,TACT EVQ11G04M
S333	87-A90-095-080		SW,TACT EVQ11G04M
S334	87-A90-095-080		SW,TACT EVQ11G04M
S335	87-A90-095-080		SW,TACT EVQ11G04M
S336	87-A90-095-080		SW,TACT EVQ11G04M
S338	87-A90-095-080		SW,TACT EVQ11G04M
S339	87-A90-095-080		SW,TACT EVQ11G04M
SW251	87-A90-392-010		SW,RTRY EC16B24304-20 NON
VR601	86-NFA-607-010		VR,RTRY 10K15AX1 1 V XV0121PVN

CD SW C.B

LED451	87-017-979-010		LED,SEL2413E GRN
LED452	87-017-979-010		LED,SEL2413E GRN
LED453	87-017-979-010		LED,SEL2413E GRN
LED454	87-017-979-010		LED,SEL2413E GRN
LED455	87-017-979-010		LED,SEL2413E GRN
LED456	87-017-979-010		LED,SEL2413E GRN
LED457	87-017-979-010		LED,SEL2413E GRN

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
LED458	87-017-979-010		LED,SEL2413E GRN
LED459	87-017-979-010		LED,SEL2413E GRN
LED460	87-017-979-010		LED,SEL2413E GRN
S451	87-A90-095-080		SW,TACT EVQ11G04M
S452	87-A90-095-080		SW,TACT EVQ11G04M
S453	87-A90-095-080		SW,TACT EVQ11G04M
S454	87-A90-095-080		SW,TACT EVQ11G04M
S455	87-A90-095-080		SW,TACT EVQ11G04M
S456	87-A90-095-080		SW,TACT EVQ11G04M
S457	87-A90-095-080		SW,TACT EVQ11G04M
VR C.B			
SW252	87-A90-340-010		SW,RTRY EC16B24204-15
AC2 C.B			
PR101	87-026-682-080		PROTECTOR,10A 491SERIES 60V
PR102	87-026-682-080		PROTECTOR,10A 491SERIES 60V
PT C.B			
	82-304-743-010		TERMINAL,1P
F109	87-035-368-010		FUSE,4A,250V T
F110	87-035-368-010		FUSE,4A,250V T
FC101	87-033-213-080		FUSE CLAMP,PF15000
FC102	87-033-213-080		FUSE CLAMP,PF15000
FC103	87-033-213-080		FUSE CLAMP,PF15000
FC104	87-033-213-080		FUSE CLAMP,PF15000
PT001	86-NF9-630-010		PT,6NF-9H<HE>
PT001	86-NF9-631-010		PT,6NF-9LH<LH>
SW101	87-A90-165-010		SW,SL 1-2-3 SWS2301
CD MAIN C.B			
	86-ZG1-605-019		CABLE,FFC 16P
	86-ZG1-608-019		CABLE,FFC 8P
C11	87-010-182-089		C-CAP,S 2200P-50 B
C12	87-016-081-089		C-CAP,S 0.1-16 RK
C13	87-016-081-089		C-CAP,S 0.1-16 RK
C14	87-016-081-089		C-CAP,S 0.1-16 RK
C15	87-010-404-049		CAP,E 4.7-50 SME
C16	87-016-081-089		C-CAP,S 0.1-16 RK
C17	87-010-197-089		C-CAP,S 0.01-25 B
C18	87-010-402-049		CAP,E 2.2-50 SME
C19	87-010-382-049		CAP,E 22-25 SME
C20	87-010-213-089		C-CAP,S 0.015-25 B
C21	87-010-197-089		C-CAP,S 0.01-25 B
C22	87-010-263-049		CAP,E 100-10 SME
C23	87-010-197-089		C-CAP,S 0.01-25 B
C24	87-016-369-089		C-CAP,S 0.033-25 B K
C25	87-010-197-089		C-CAP,S 0.01-25 B
C26	87-016-369-089		C-CAP,S 0.033-25 B K
C27	87-010-197-089		C-CAP,S 0.01-25 B
C28	87-010-146-029		C-CAP,S 2P-50 C CH GRM
C29	87-010-154-089		C-CAP,S 10P-50 D CH
C30	87-010-263-049		CAP,E 100-10 SME
C31	87-010-178-089		C-CAP,S 1000P-50 B
C32	87-010-198-089		C-CAP,S 0.022-25 B
C33	87-016-081-089		C-CAP,S 0.1-16 RK
C34	87-010-197-089		C-CAP,S 0.01-25 B
C35	87-010-263-049		CAP,E 100-10 SME
C36	87-015-677-049		CAP,E 100-6.3 7L
C37	87-010-197-089		C-CAP,S 0.01-25 B
C38	87-010-260-089		CAP,E 47-25 SME
C39	87-010-196-089		C-CAP,S 0.1-25 F
C91	87-010-263-049		CAP,E 100-10 SME
C101	87-010-596-089		C-CAP,S 0.047-16 RK
C102	87-010-188-089		C-CAP,S 6800P-50 B
C103	87-018-133-089		CAP,TC-U 4700P-16 NX

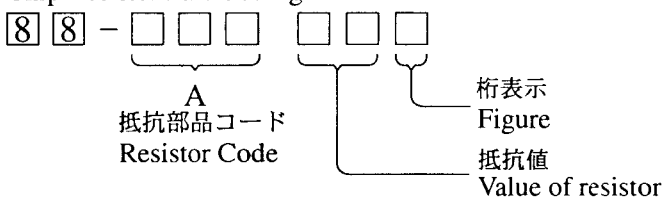
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C104	87-012-156-089		C-CAP,S 220P-50 CH
C105	87-010-404-049		CAP,E 4.7-50 SME
C106	87-010-263-049		CAP,E 100-10 SME
C107	87-010-197-089		C-CAP,S 0.01-25 B
C108	87-016-526-089		C-CAP,S 0.47-16 BK
C109	87-010-197-089		C-CAP,S 0.01-25 B
C112	87-010-318-089		C-CAP,S 47P-50 CH
C113	87-010-263-089		CAP,E 100-10 SME 5X11
C114	87-010-197-089		C-CAP,S 0.01-25 B
C115	87-010-318-089		C-CAP,S 47P-50 CH
C116	87-010-318-089		C-CAP,S 47P-50 CH
C117	87-010-197-089		C-CAP,S 0.01-25 B
C122	87-010-186-089		C-CAP,S 4700P-50 B
C123	87-010-382-049		CAP,E 22-25 SME
C201	87-010-318-089		C-CAP,S 47P-50 CH
C202	87-010-318-089		C-CAP,S 47P-50 CH
C203	87-010-321-089		C-CAP,S 82P-50 CH
C204	87-010-321-089		C-CAP,S 82P-50 CH
C205	87-010-321-089		C-CAP,S 82P-50 CH
C206	87-010-321-089		C-CAP,S 82P-50 CH
C207	87-012-153-089		C-CAP,S 120P-50 CH
C208	87-012-153-089		C-CAP,S 120P-50 CH
C209	87-012-153-089		C-CAP,S 120P-50 CH
C210	87-012-153-089		C-CAP,S 120P-50 CH
C211	87-010-403-049		CAP,E 3.3-50 SME
C212	87-010-403-089		CAP,E 3.3-50 SME
C213	87-010-186-089		C-CAP,S 4700P-50 B
C214	87-010-186-089		C-CAP,S 4700P-50 B
C231	87-016-251-049		CAP,E 220-16 SMG
C232	87-010-263-089		CAP,E 100-10 SME 5X11
C301	87-010-196-089		C-CAP,S 0.1-25 F
C302	87-010-260-089		CAP,E 47-25 SME
C401	87-010-403-089		CAP,E 3.3-50 SME
C402	87-010-403-049		CAP,E 3.3-50 SME
C501	87-016-459-049		CAP,E 470-10 SMG
C502	87-010-197-089		C-CAP,S 0.01-25 B
C503	87-010-263-049		CAP,E 100-10 SME
C504	87-010-196-089		C-CAP,S 0.1-25 F
C505	87-010-196-089		C-CAP,S 0.1-25 F
C506	87-010-196-089		C-CAP,S 0.1-25 F
C507	87-010-196-089		C-CAP,S 0.1-25 F
C508	87-016-459-049		CAP,E 470-10 SMG
C509	87-010-196-089		C-CAP,S 0.1-25 F
C510	87-010-196-089		C-CAP,S 0.1-25 F
C601	87-010-196-089		C-CAP,S 0.1-25 F
C602	87-016-251-049		CAP,E 220-16 SMG
C603	87-010-196-089		C-CAP,S 0.1-25 F
C701	87-010-322-089		C-CAP,S 100P-50 CH
C702	87-010-318-089		C-CAP,S 47P-50 CH
C703	87-010-318-089		C-CAP,S 47P-50 CH
C705	87-010-178-089		C-CAP,S 1000P-50 B
C706	87-010-178-089		C-CAP,S 1000P-50 B
C901	87-010-260-049		CAP,E 47-25 SME
C902	87-010-196-089		C-CAP,S 0.1-25 F
L11	87-003-102-089		COIL,10UH K LAL02
LED901	87-A40-123-019		LED,SLZ-8128A-01-B
M601	87-045-305-019		MOTOR,RF-500TB
R36	87-022-365-089		C-RES,S 100K-1/10W F
R37	87-022-363-089		C-RES,S 68K-1/10W F
R38	87-022-363-089		C-RES,S 68K-1/10W F
R39	87-022-363-089		C-RES,S 68K-1/10W F
R40	87-022-363-089		C-RES,S 68K-1/10W F
R41	87-022-365-089		C-RES,S 100K-1/10W F
SFR11	87-024-175-089		SFR,47K DIA6V
SFR12	87-024-173-089		SFR,22K HRH0638C
SFR13	87-024-176-089		SFR,100K DIA6V
SW601	87-036-109-019		SW,PUSH SPPB 61
SW602	87-036-109-019		SW,PUSH SPPB 61
SW603	87-036-109-019		SW,PUSH SPPB 61
W604	88-906-261-110		FF-CABLE 6P 1.25 260MM

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
X101	87-030-402-089		VIB,XTAL 16.9344MHZ
LED C.B			
LED701	87-017-733-080		LED,SEL1250SM
LED702	87-017-350-080		LED,SEL1550CM
LED703	87-017-733-080		LED,SEL1250SM
T-T C.B			
C411	87-018-214-089		CAP,TC U 0.1-50
LED411	87-070-288-019		LED,GL380
M401	87-A90-036-019		MOT ASSY,RF-300CA-11
PS401	87-A90-156-019		SNSR,SG-240
Q411	87-A30-031-019		P-TR,PT380F
SW401	87-036-109-019		SW,PUSH SPPB61
CD MOTOR C.B			
SW1	87-036-340-019		SW,LEAF LSA-1121
M20	87-045-358-019		MOT,RF-310TA 43
M21	87-045-356-019		MOT,RF-310TA 30

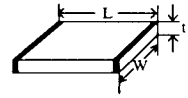
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
DECK C.B			
CON502	82-ZM1-625-019		RBN,CORD,4P-55
SFR1	87-024-581-089		SFR,3.3K DIA 6H
SOL1	82-ZM1-618-010		SOL ASSY, 27
SOL2	82-ZM1-618-010		SOL ASSY, 27
SW1	87-036-378-010		SW, PUSH 1-1-1 SH2
SW2	87-036-378-010		SW, PUSH 1-1-1 SH2
SW3	87-036-378-010		SW, PUSH 1-1-1 SH2
SW4	87-036-378-010		SW, PUSH 1-1-1 SH2
SW5	87-036-378-010		SW, PUSH 1-1-1 SH2
SW6	87-036-378-019		SW, PUSH 1-1-1 SH2
SW8	87-036-378-019		SW, PUSH 1-1-1 SH2
W502	87-099-756-019		CONN, 15P 9604 S F
HEAD-1 C.B			
HEAD-2 C.B			
CON351	86-NF5-618-110		CONN ASSY,8P RPB

Oチップ抵抗部品コード／CHIP RESISTOR PART CODE

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

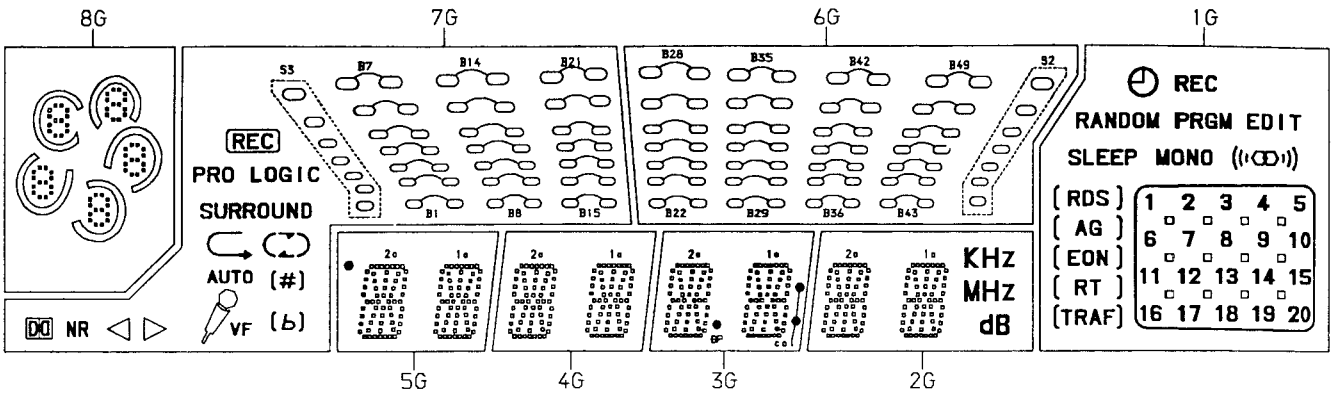


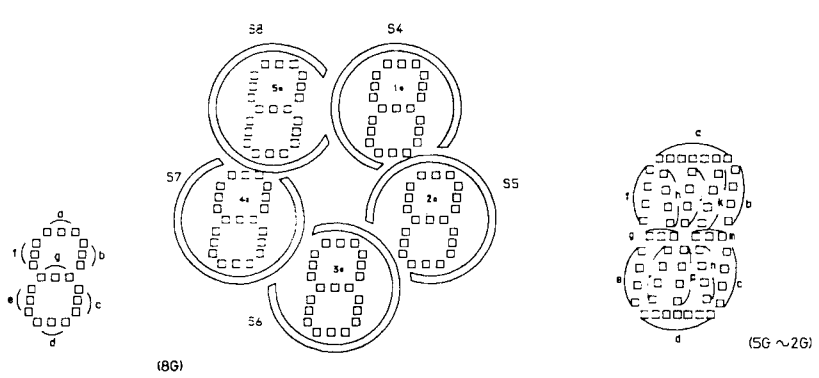
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	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

FL GRID ASSIGNMENT & ANODE CONNECTION

FL, BJ539GK
GRID ASSIGNMENT



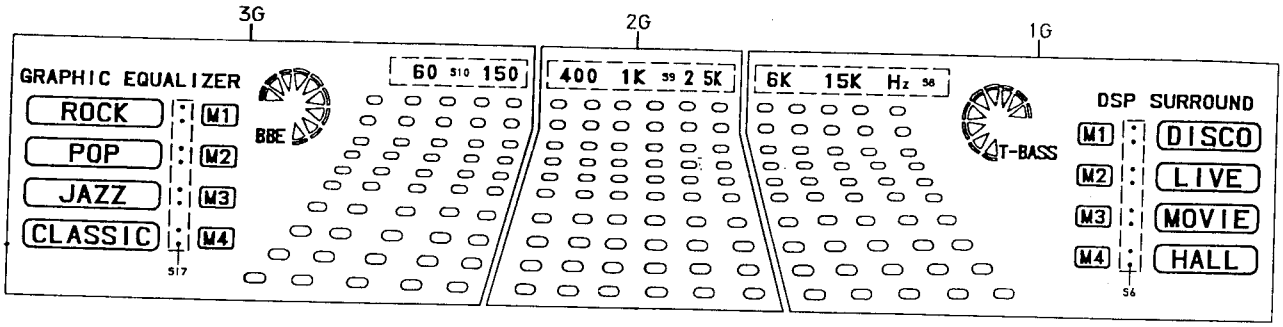


ANODE CONNECTION

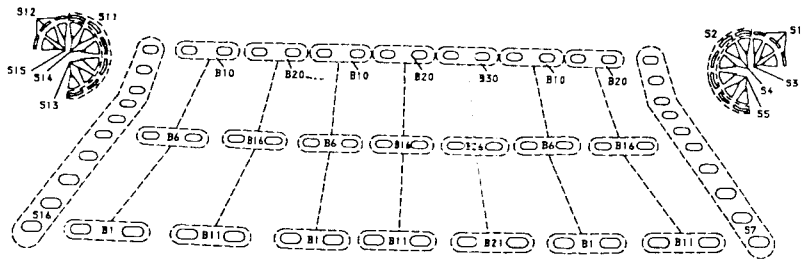
	8G	7G	6G	5G	4G	3G	2G	1G
P1	5a	—	—	—	—	—	—	REC
P2	5b	DD	—	—	—	—	—	◷
P3	5f	NR	—	—	—	—	—	EDIT
P4	5g	◁	—	—	—	—	—	AI
P5	5c	▷	—	—	—	—	—	PRGM
P6	5e	VF	—	—	—	—	—	MONO
P7	5d	REC	—	—	—	—	—	RANDOM
P8	S8	S3	S2	—	—	—	—	SLEEP
P9	S6	☽	—	○	—	—	—	((◎))
P10	3d	◢	—	2c	2a	2a	2a	RDS
P11	3e	☾	—	2h	2h	2h	2h	( ) (RDS)
P12	3c	↪	—	2j	2j	2j	2j	AG
P13	3g	(#)	B22	2k	2k	2k	2k	( ) (AG)
P14	3f	B1	B29	2f	2f	2f	2f	EON
P15	3b	B8	B36	2c	2b	2b	2b	( ) (EON)
P16	3a	B15	B43	2m	2m	2m	2m	RT
P17	S5	#	B23	2g	2g	2g	2g	( ) (RT)
P18	2d	B2	B30	2c	2c	2c	2c	TRAF
P19	2e	B9	B37	2e	2e	2e	2e	( ) (TRAF)
P20	2c	B16	B44	2r	2r	2r	2r	1

	8G	7G	6G	5G	4G	3G	2G	1G
P21	2g	AUTO	B24	2p	2p	2p	2p	2
P22	2f	B3	B31	2n	2n	2n	2n	3
P23	2b	B10	B38	2d	2d	2d	2d	4
P24	2a	B17	B45	—	—	c c (UP)	KHz	5
P25	S7	SURROUND	B25	—	—	c c (DOWN)	MHz	6
P26	4d	B4	B32	—	—	DP	dB	7
P27	4e	B11	B39	1a	1a	1a	1a	8
P28	4c	B18	B46	1h	1h	1h	1h	9
P29	4g	PRO LOGIC	B26	1j	1j	1j	1j	10
P30	4f	B5	B33	1k	1k	1k	1k	11
P31	4b	B12	B40	1f	1f	1f	1f	12
P32	4a	B19	B47	1b	1b	1b	1b	13
P33	S4	(♭)	B27	1m	1m	1m	1m	14
P34	1d	B6	B34	1g	1g	1g	1g	15
P35	1e	B13	B41	1c	1c	1c	1c	16
P36	1c	B20	B48	1e	1e	1e	1e	17
P37	1g	♭	B28	1r	1r	1r	1r	18
P38	1f	B7	B35	1p	1p	1p	1p	19
P39	1b	B14	B42	1n	1n	1n	1n	20
P40	1a	B21	B49	1d	1d	1d	1d	S1

FL, BJ504GK
GRID ASSIGNMENT



SEGMENT DESIGNATION



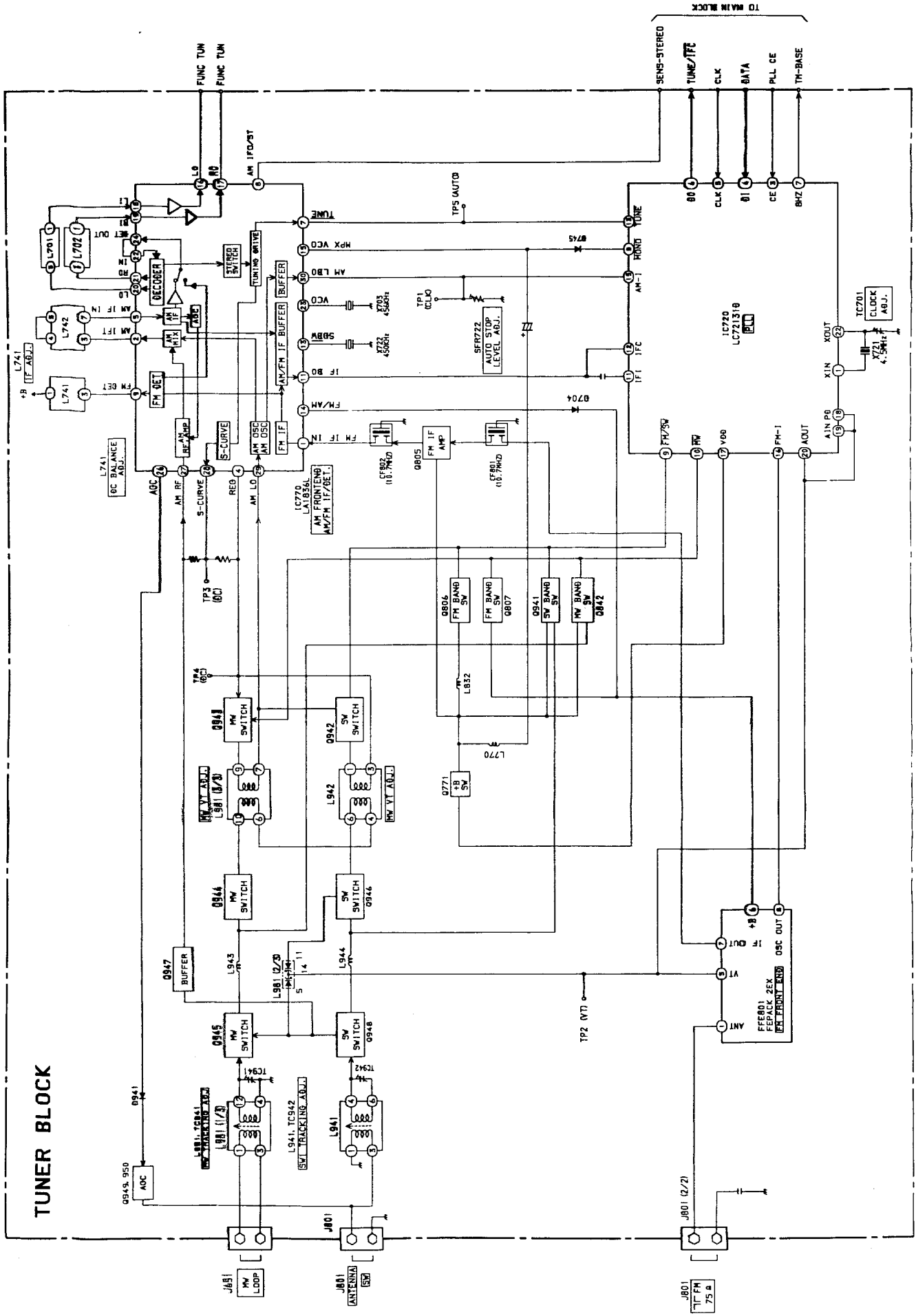
(3G) (2G) (1G)

ANODE CONNECTION

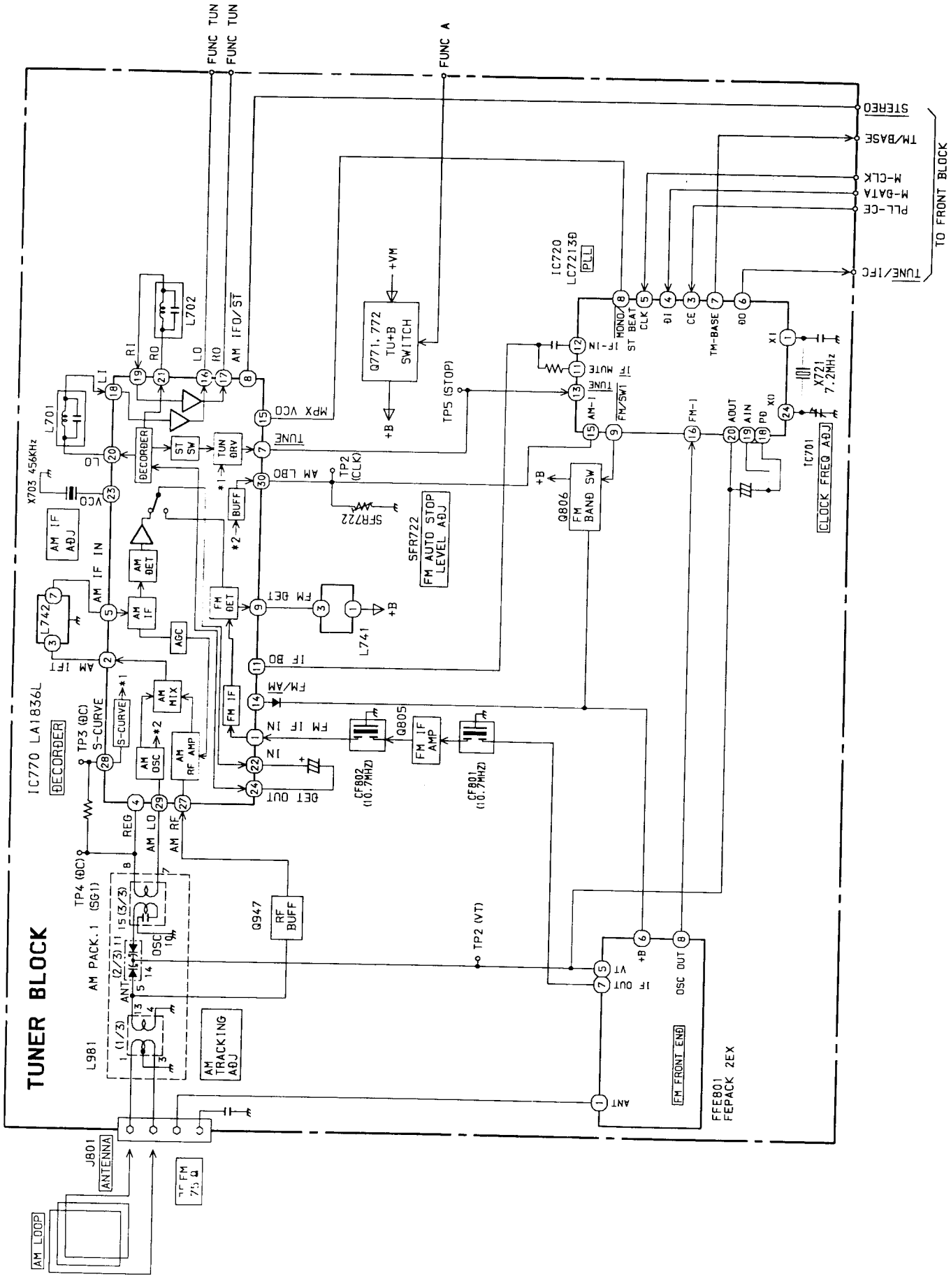
	3G	2G	1G
Pi	GRAPHIC EQUALIZER	—	DSP SURROUND
P2	ROCK POP JAZZ CLASSIC	—	DISCO LIVE MOVIE HALL
P3	(ROCK)	—	(DISCO)
P4	(POP)	—	(LIVE)
P5	(JAZZ)	—	(MOVIE)
P6	(CLASSIC)	—	(HALL)
P7	S10	S9	S8
P8	M1 M3 M2 M4	—	M1 M3 M2 M4
P9	(M1)	—	(M1)
P10	(M2)	—	(M2)
P11	(M3)	B30	(M3)
P12	(M4)	B29	(M4)
P13	S11	B28	S1
P14	S12	B27	S2
P15	S13	B26	S3
P16	S14	B25	S4
P17	S15	B24	S5
P18	BBE	B23	T-BASS
P19	S16	B22	S7
P20	S17	B21	S8

	3G	2G	1G
P21	B20	B20	B20
P22	B19	B19	B19
P23	B18	B18	B18
P24	B17	B17	B17
P25	B16	B16	B16
P26	B15	B15	B15
P27	B14	B14	B14
P28	B13	B13	B13
P29	B12	B12	B12
P30	B11	B11	B11
P31	B10	B10	B10
P32	B9	B9	B9
P33	B8	B8	B8
P34	B7	B7	B7
P35	B6	B6	B6
P36	B5	B5	B5
P37	B4	B4	B4
P38	B3	B3	B3
P39	B2	B2	B2
P40	B1	B1	B1

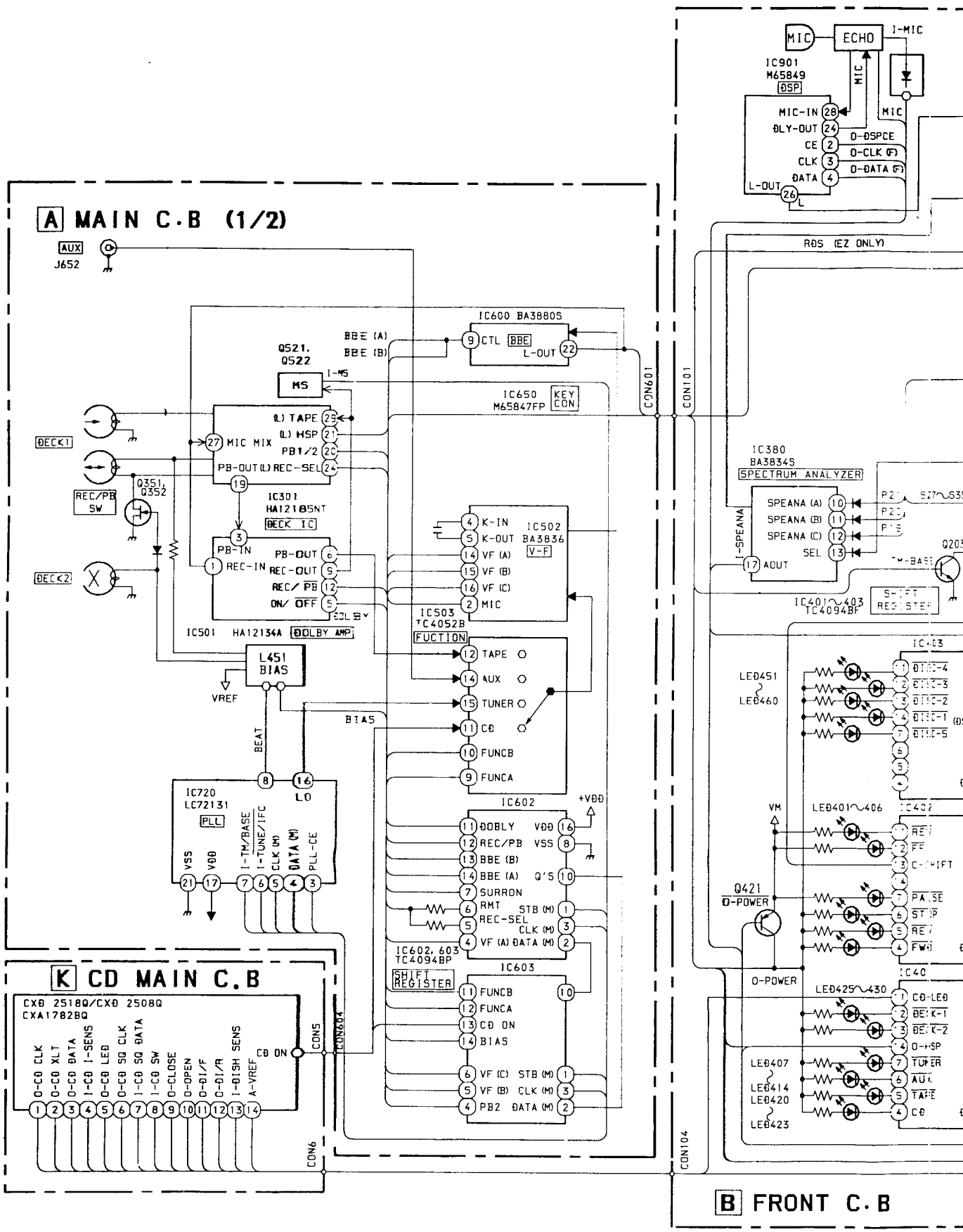
BLOCK DIAGRAM – 1 (TUNER : HE)

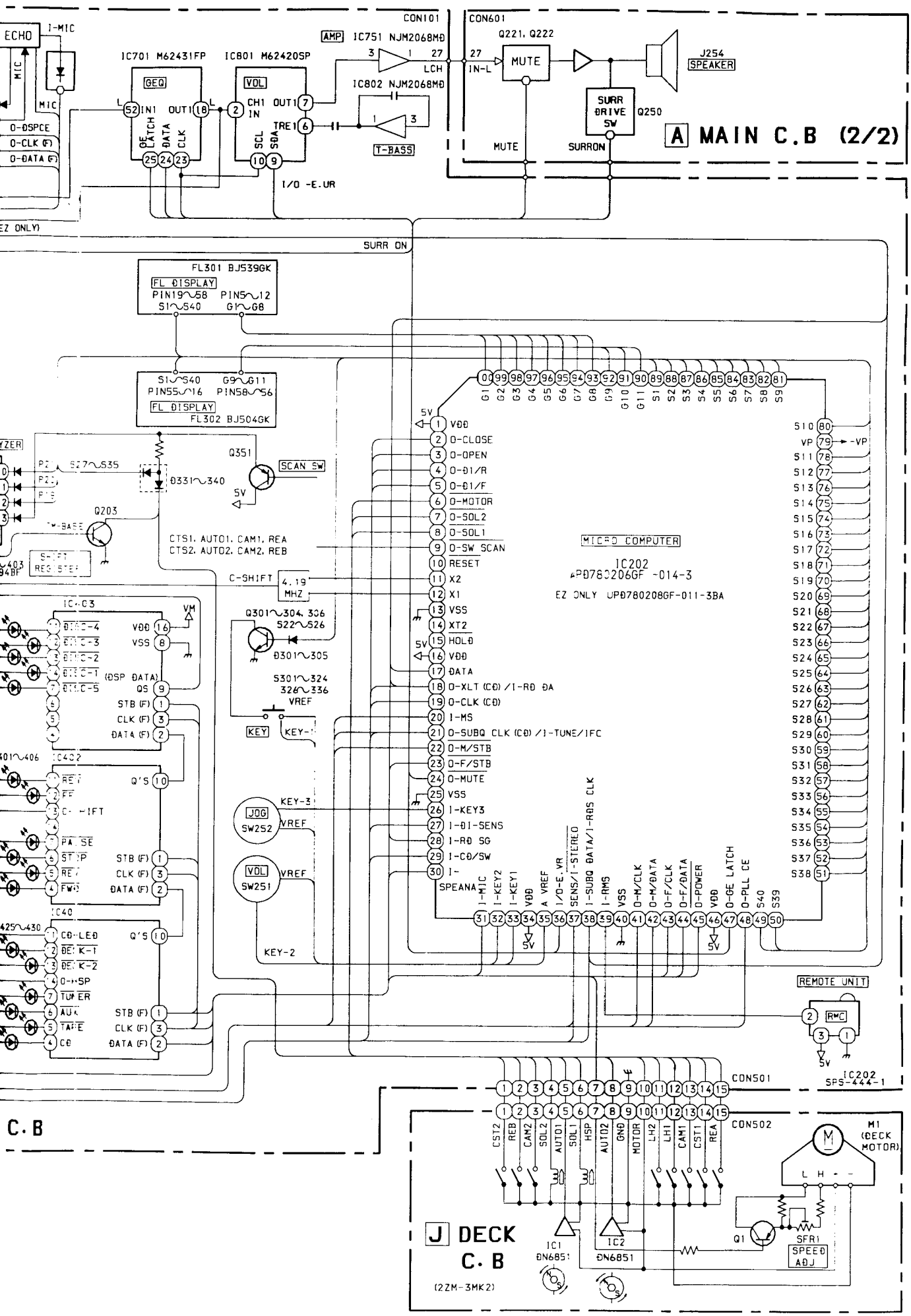


BLOCK DIAGRAM – 2 (TUNER : LH)

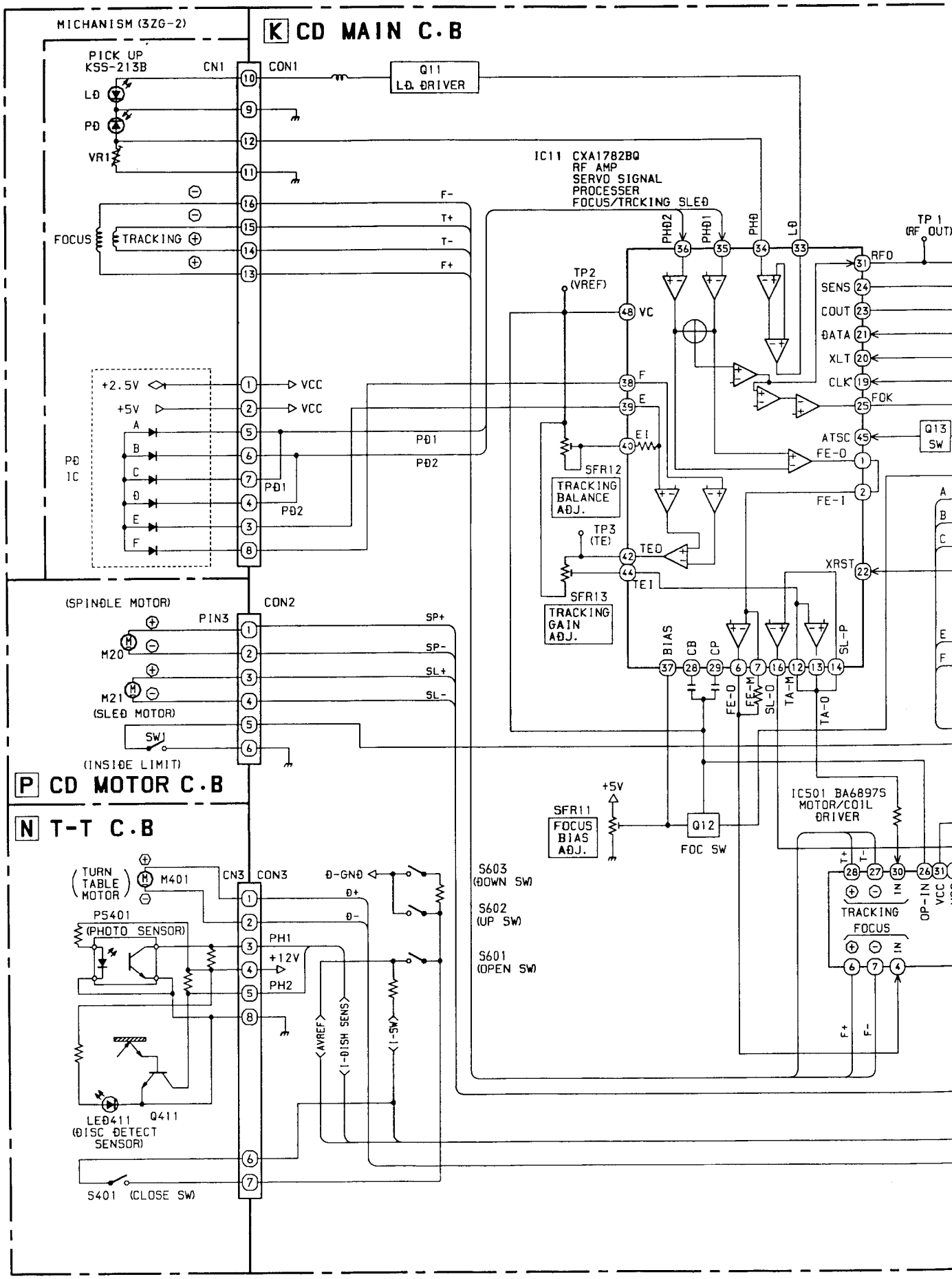


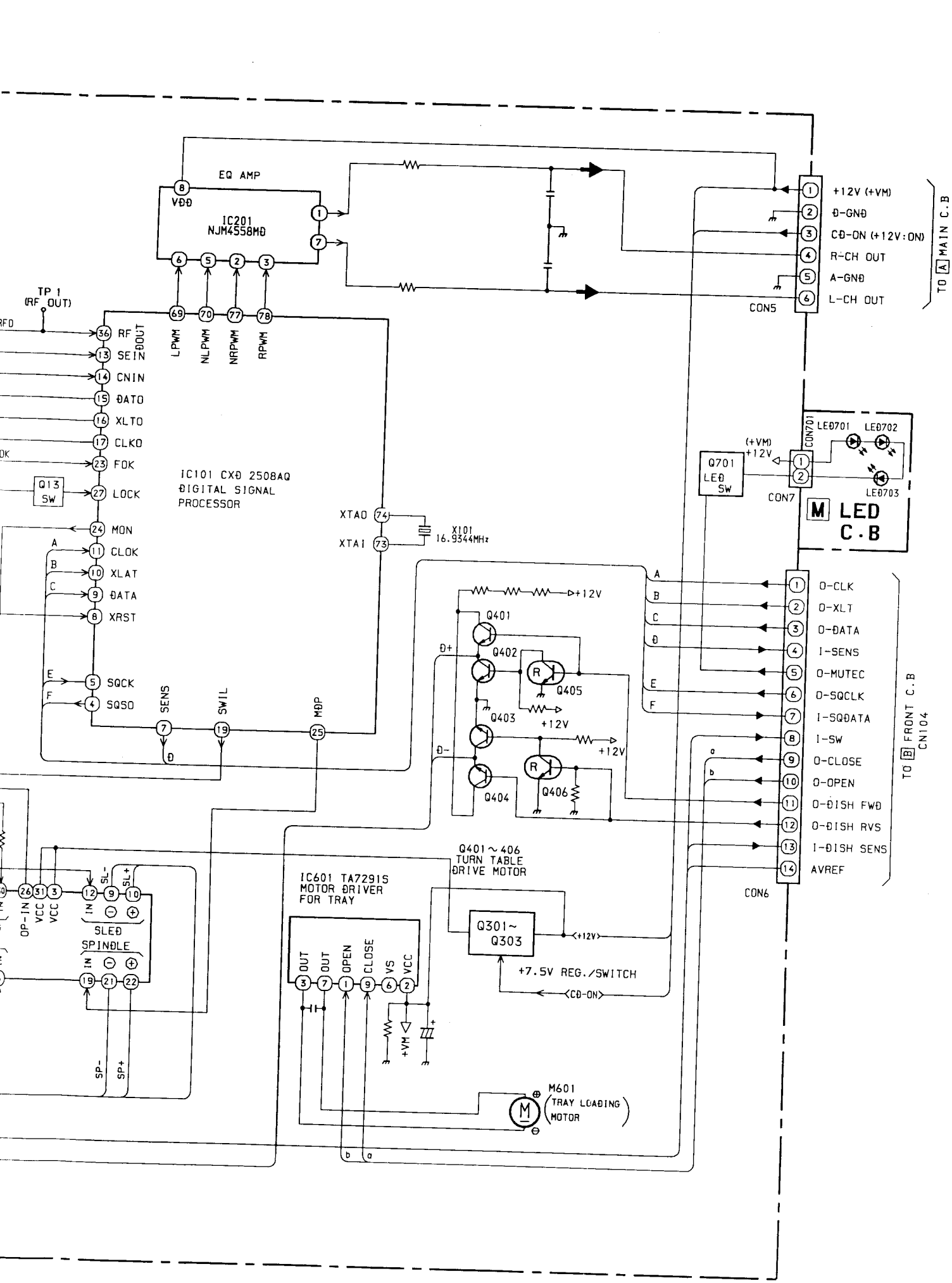
BLOCK DIAGRAM – 3 (MAIN / FRONT)



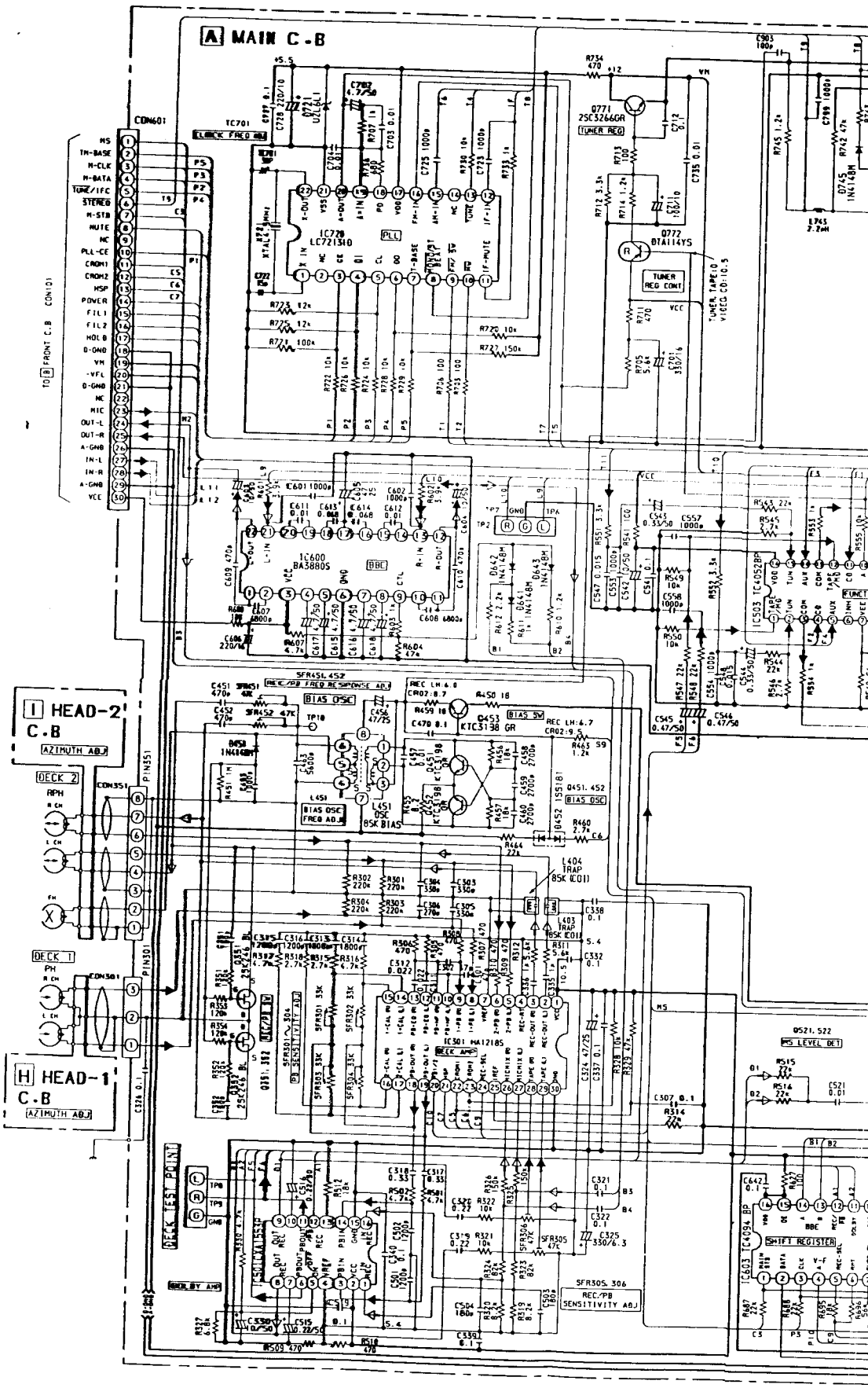

A MAIN C.B (2/2)
CON101
CON601
AMP
IC751 NJM2068MD
IC701 M62431FP
IC801 M62420SP
IC802 NJM2068MD
GEQ
VOL
MUTE
Q221, Q222
J254
SPEAKER
SURR DRIVE SW
Q250
SURRON
T-BASS
I/O -E.UR
SURR ON
FL301 BJ539GK
FL DISPLAY
FL302 BJ504GK
SCAN SW
Q351
Q203
CTS1, AUTO1, CAM1, REA
CTS2, AUTO2, CAM2, REB
C-SHIFT
4.19 MHZ
MICRO COMPUTER
IC202
μPD780206GF -014-3
EZ ONLY UPD780208GF-011-3BA
Q301~304, 306
522~526
D301~305
S301~324
326~336
VREF
KEY
JOG SW252
VOL SW251
REMOTE UNIT
RMC
CON501
CON502
IC202 SPS-444-1
J DECK C.B
(2ZM-3MK2)
M1 (DECK MOTOR)
IC1 BN6851
IC2 BN6851
Q1
SFR1
SPEED ADJ

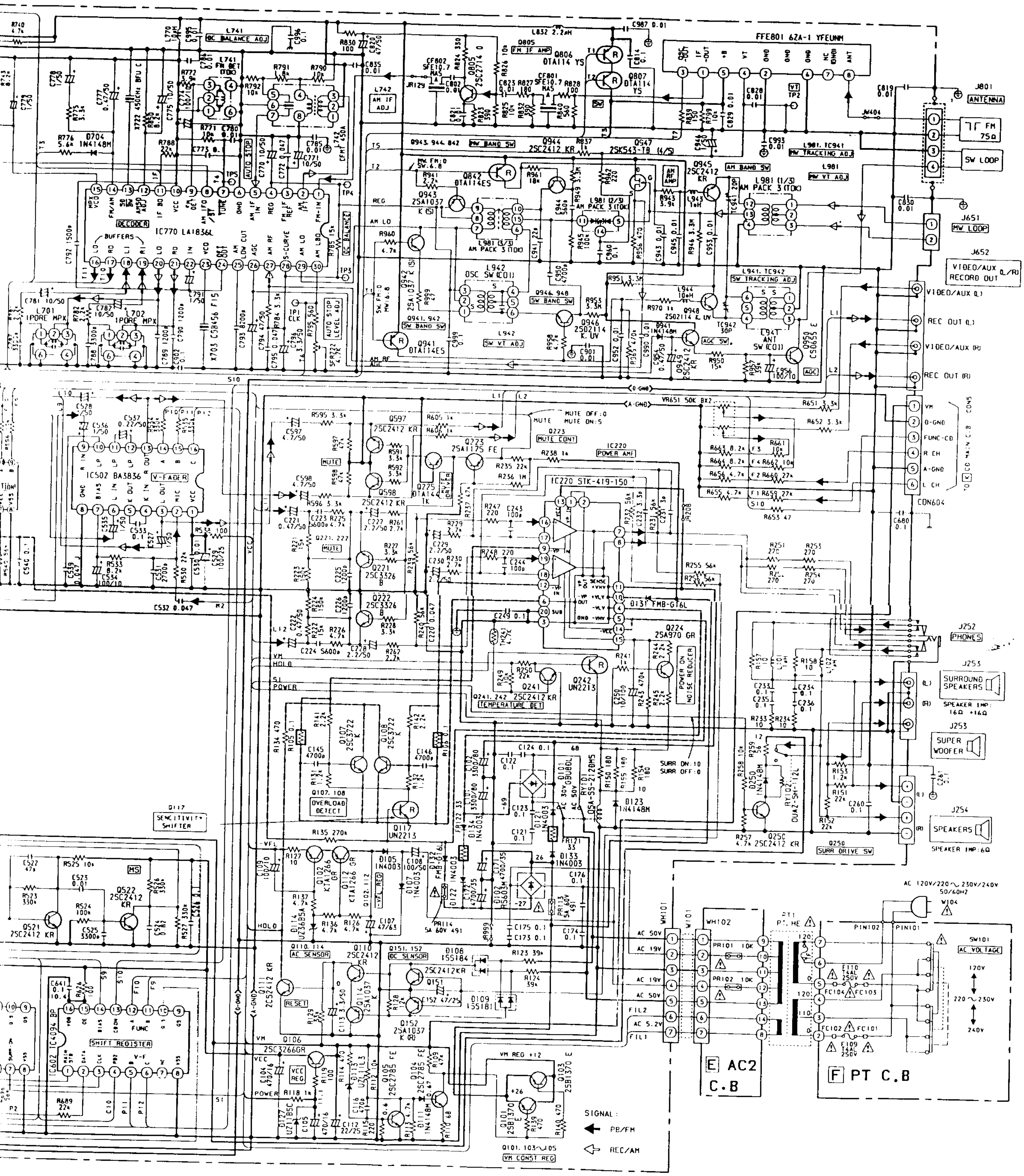
BLOCK DIAGRAM – 4 (CD)

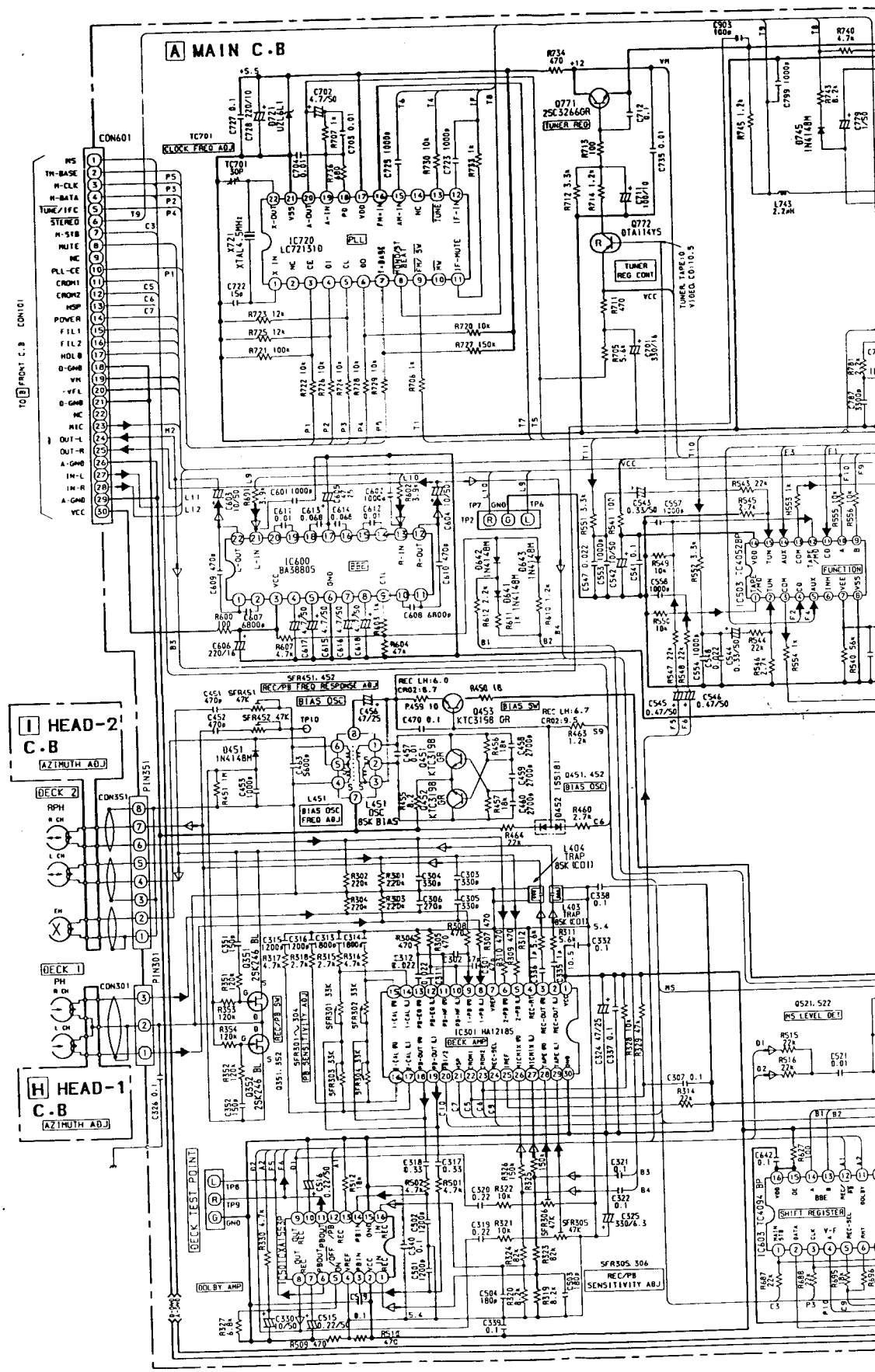


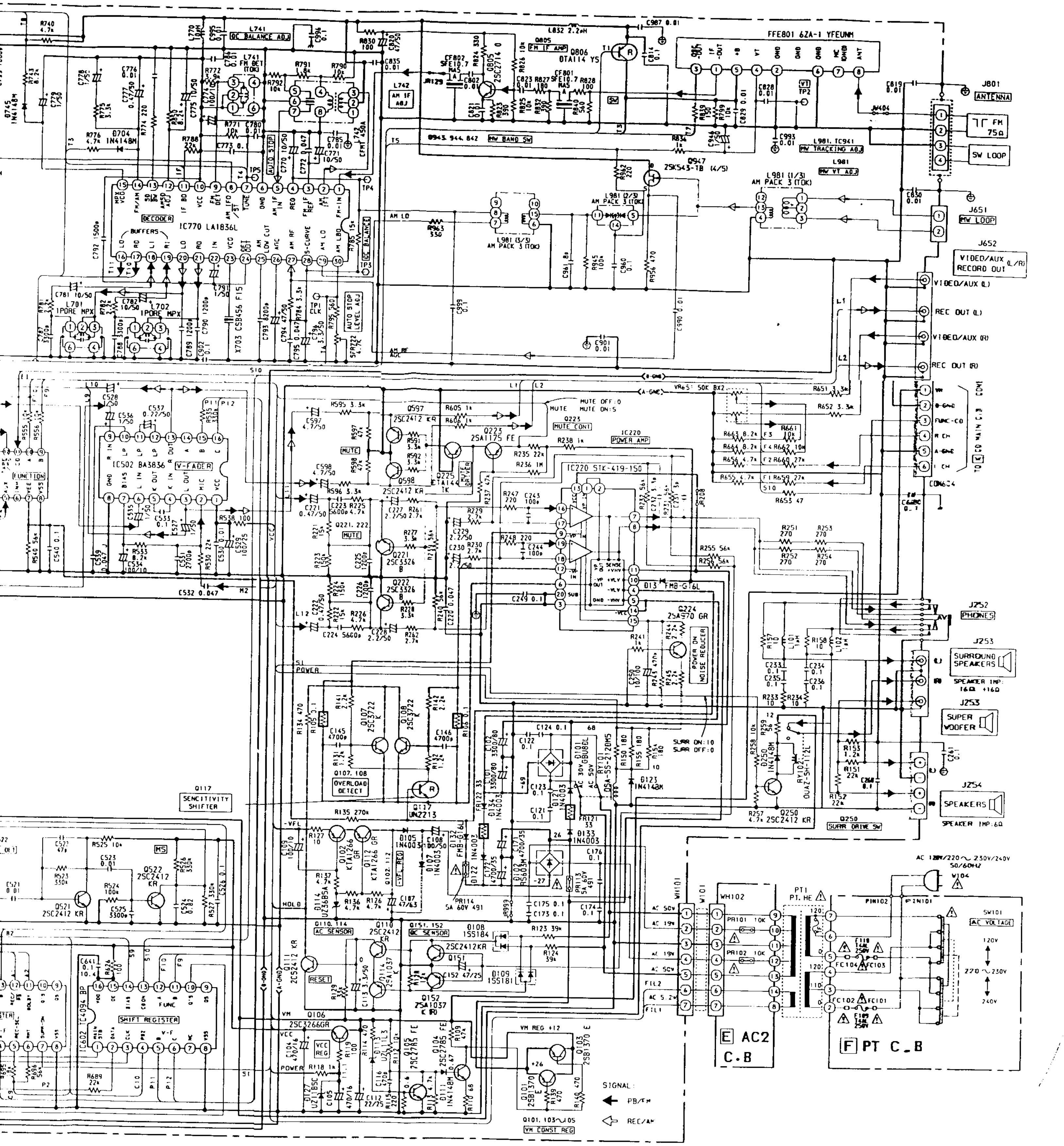

EQ AMP
VDD
IC201
NJM4558MD
TP 1
(RF OUT)
IC101 CXD 2508AQ
DIGITAL SIGNAL
PROCESSOR
RF
SEIN
CNIN
DATO
XLTO
CLKO
FOK
LOCK
MON
CLOK
XLAT
DATA
XRST
SQCK
SQSO
SENS
SWIL
MDP
LPWM
NLPWM
NRPWM
RPWM
XTAO
XTAI
X101
16.9344MHz
Q13
SW
CON5
+12V (+VM)
D-GND
CD-ON (+12V:ON)
R-CH OUT
A-GND
L-CH OUT
TO A MAIN C.B
CON604
Q701
LED
SW
CON7
CON701
LED701
LED702
LED703
M LED
C.B
O-CLK
O-XLT
O-DATA
I-SENS
O-MUTEC
O-SQCLK
I-SQDATA
I-SW
O-CLOSE
O-OPEN
O-DISH FWD
O-DISH RVS
I-DISH SENS
AVREF
CON6
TO B FRONT C.B
CN104
Q401
Q402
Q403
Q404
Q405
Q406
+12V
D+
D-
Q401~406
TURN TABLE
DRIVE MOTOR
IC601 TA7291S
MOTOR DRIVER
FOR TRAY
Q301~
Q303
+7.5V REG./SWITCH
<CD-ON>
OUT
OUT
OPEN
CLOSE
VS
VCC
+VM
M601
TRAY LOADING
MOTOR
OP-IN
VCC
VCC
IN
SL-
SL+
SLED
SPINDLE
SP-
SP+

SCHEMATIC DIAGRAM – 1 (MAIN : HE)

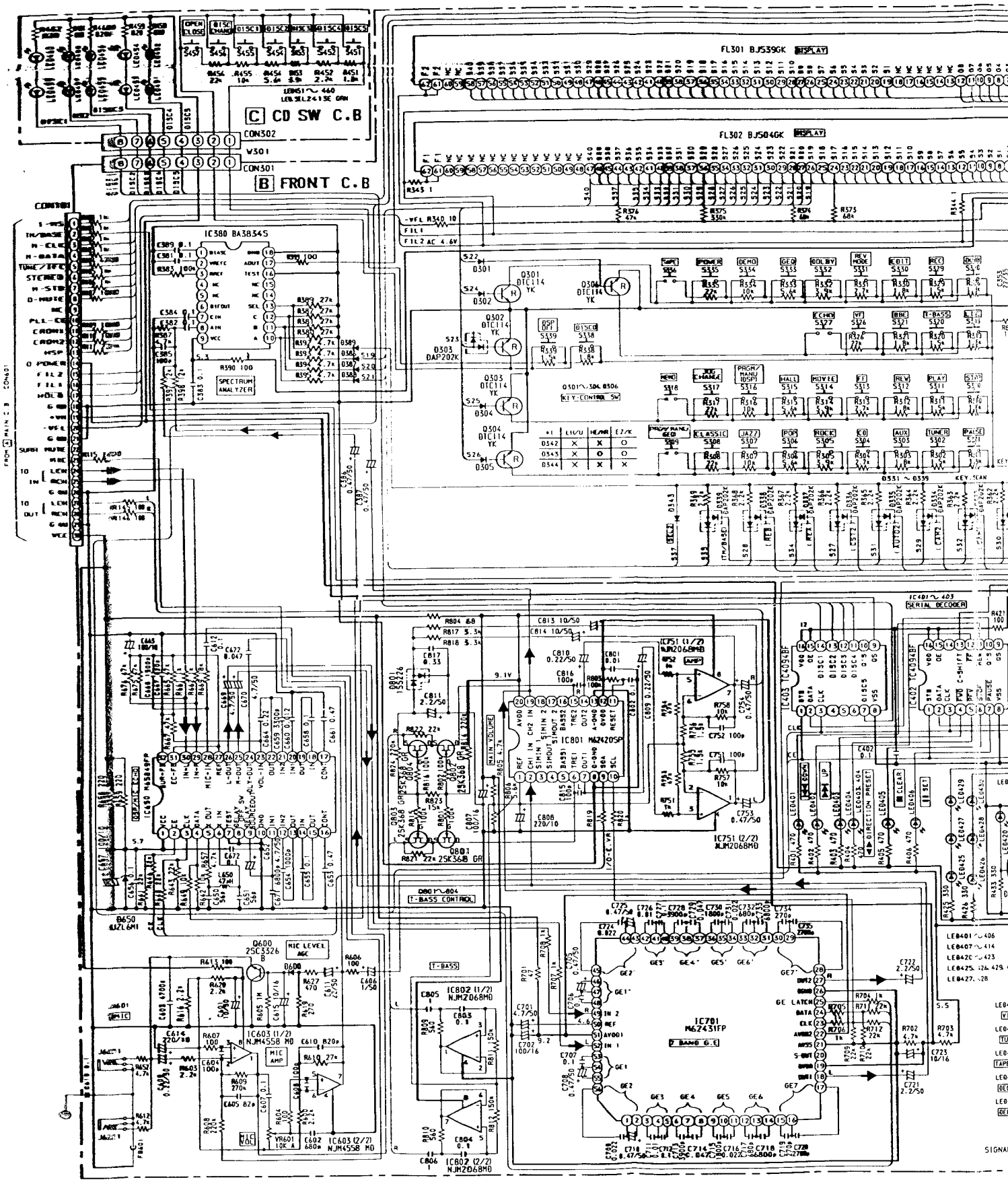


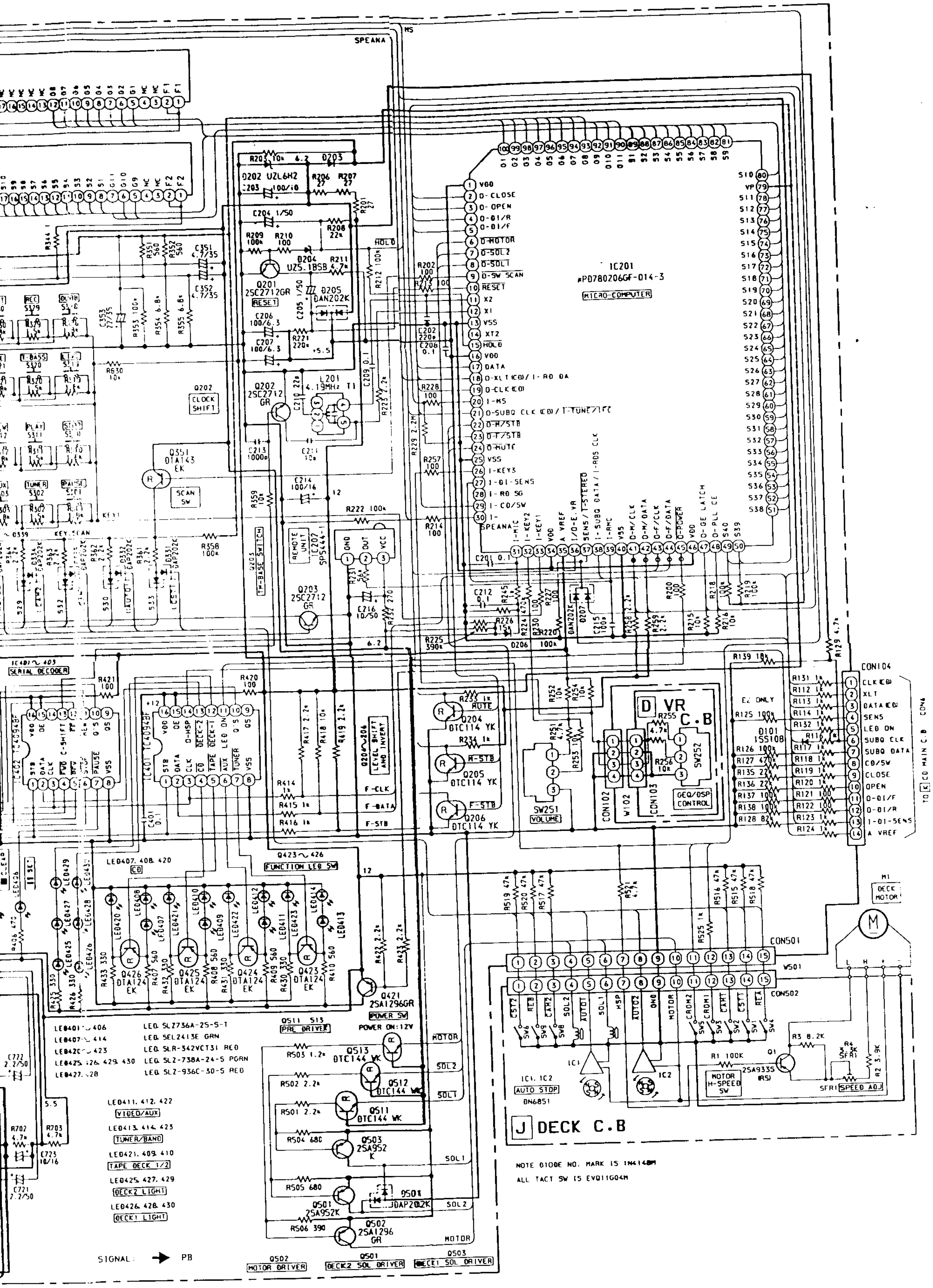

FFE801 6ZA-1 YFEUNM
J801 ANTENNA
FM 75Ω
SW LOOP
J651 MW LOOP
J652 VIDEO/AUX RECORD OUT
VIDEO/AUX
REC OUT
IC770 LA1836L
DECODER
BUFFERS
IC502 BA3836
V-FADER
IC220 STK-419-150
POWER AMP
MUTE CONT
TEMPERATURE DET
OVERLOAD DETECT
SENCITIVITY SHIFTER
SHIFT REGISTER
IC602 LC4094 BP
AC SENSOR
DC SENSOR
RESET
VM CONST REG
SURR DRIVE SW
J252 PHONES
J253 SURROUND SPEAKERS
SPEAKER IMP: 16Ω +16Ω
SUPER WOOFER
J254 SPEAKERS
SPEAKER IMP: 6Ω
AC 120V/220~230V/240V 50/60HZ
SW101 AC VOLTAGE
120V
220~230V
240V
E AC2 C.B
F PT C.B
SIGNAL:
PB/FM
REC/AM


A MAIN C.B
I HEAD-2 C.B
AZIMUTH ADJ
H HEAD-1 C.B
AZIMUTH ADJ
DECK 2
DECK 1
CON601
CON351
CON301
PIN351
PIN301
IC720 LC721310
IC600 BA3880S
IC501 HA12185
IC503 TC4052BP
IC403 TC4094 BP
Q771 2SC3266GR
Q772 DTA114YS
Q453 KTC3198 GR
Q451 KTC3198 GR
Q351 2SK246 BL
Q352 2SK246 BL
TUNER REG CONT
BIAS OSC
BIAS SW
REC/PB FREQ RESPONSE ADJ
BIAS OSC FREQ ADJ
85K BIAS
L404 TRAP 85K (CO1)
L403 TRAP 85K (CO1)
DECK AMP
DECK TEST POINT
DOLBY AMP
REC/PB SENSITIVITY ADJ
M5 LEVEL DET
SHIFT REGISTER
FUNCTION
CLOCK FREQ ADJ

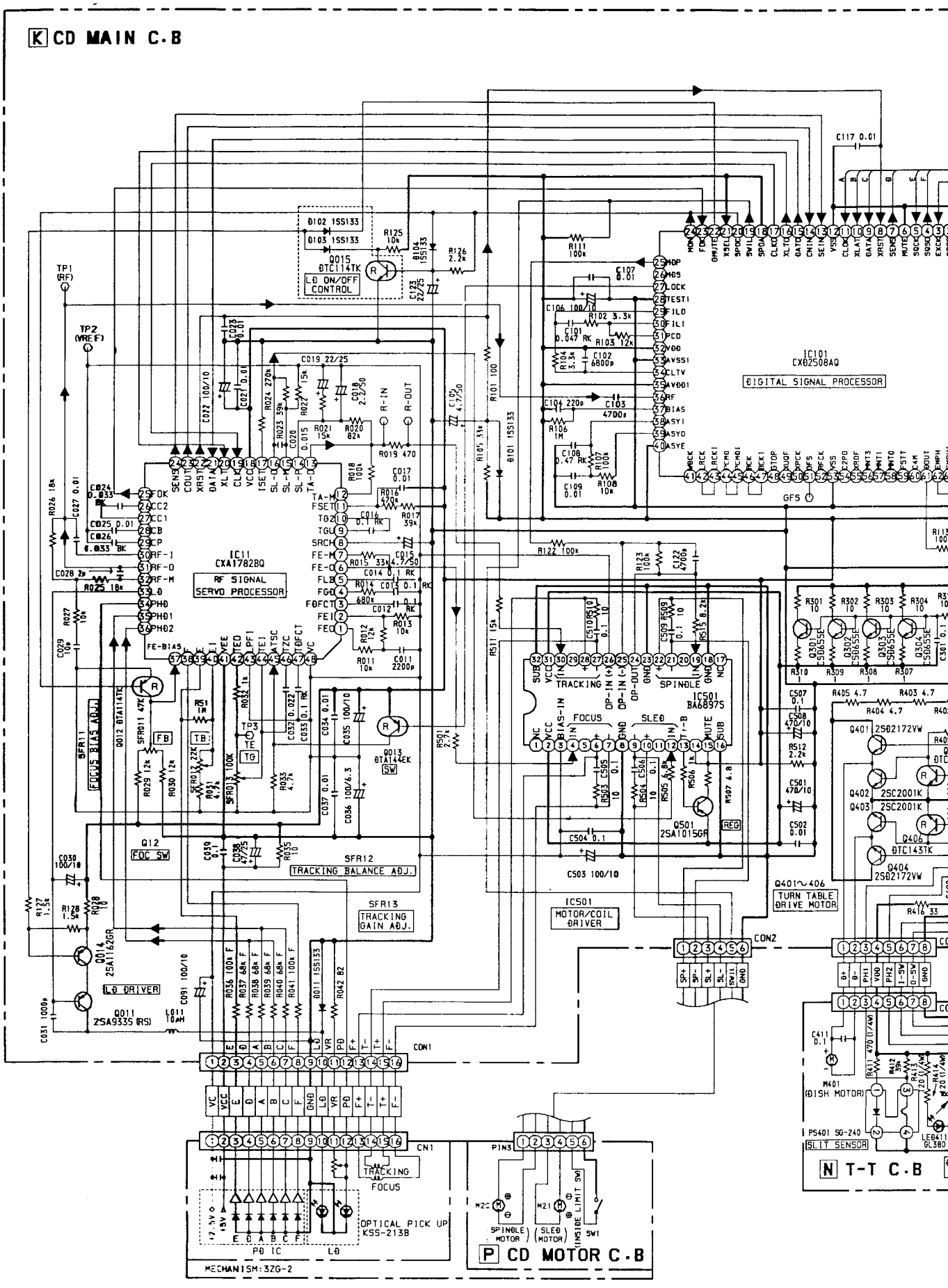

FFE801 6ZA-1 YFEUNM
J801
ANTENNA
FM 75Ω
SW LOOP
J651
MW LOOP
J652
VIDEO/AUX (L/R) RECORD OUT
VIDEO/AUX (L)
REC OUT (L)
VIDEO/AUX (R)
REC OUT (R)
IC770 LA1836L
DECODER
BUFFERS
L742 AM IF ADJ
L741 FM DET (TOK)
L741 OC BALANCE ADJ
FM IF AMP
MW BAND SW
MW TRACKING ADJ
MW VT ADJ
AUTO STOP LEVEL ADJ
OC BALANCE
IC502 BA3836
V-FADER
FUNCTION
IC220 STK-419-150
POWER AMP
MUTE CONT
MUTE
MUTE OFF:0
MUTE ON:5
VR651 50K BX2
CON624
TO CD MAIN C.B
J252
PHONES
J253
SURROUND SPEAKERS
SPEAKER IMP: 16Ω + 16Ω
SUPER WOOFER
J254
SPEAKERS
SPEAKER IMP: 6Ω
SURR ON: 10
SURR OFF: 0
SURR DRIVE SW
POWER ON NOISE REDUCER
OVERLOAD DETECT
SENSITIVITY SHIFTER
AC SENSOR
OC SENSOR
RESET
SHIFT REGISTER
IC602 TC4094 BP
VCC REG
VM REG +12
VM CONST REG
SIGNAL:
PB/FM
REC/AM
E AC2 C.B
F PT C.B
AC 120V/220~230V/240V 50/60Hz
SW101
AC VOLTAGE
120V
220~230V
240V

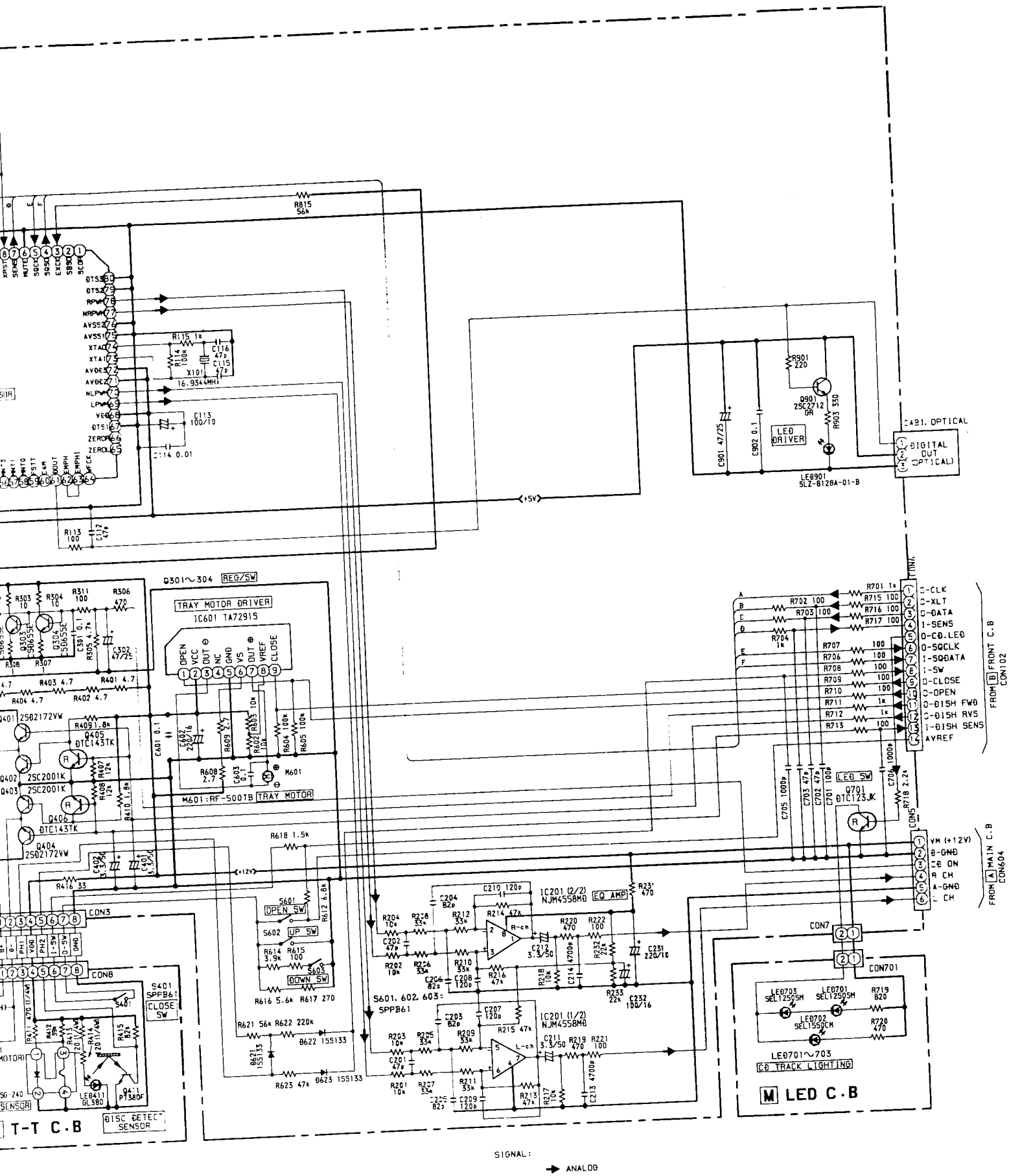
SCHEMATIC DIAGRAM – 3 (FRONT)




SPEANA
IC201
P0780206GF-014-3
MICRO-COMPUTER
RESET
CLOCK SHIFT
SCAN SW
REMOTE UNIT
TM-BASE SWITCH
SERIAL DECODER
FUNCTION LED SW
LEVEL SHIFT AND INVERT
F-CLK
F-DATA
F-STB
D VR C.B
SW251
VOLUME
SW252
GEQ/DSP CONTROL
CON102
CON103
CON104
TO K CD MAIN C.B CON4
CLK (CD)
XLT
DATA (CD)
SENS
LED ON
SUBQ CLK
SUBQ DATA
CO/SW
CLOSE
OPEN
0-01/F
0-01/R
1-01-SENS
A VREF
CON501
CON502
DECK MOTOR
AUTO STOP
MOTOR H-SPEED SW
SPEED ADJ
J DECK C.B
NOTE DIODE NO. MARK IS 1N4148M
ALL TACT SW IS EVQ11G04M
POWER SW
POWER ON: 12V
PRE DRIVER
LED SLZ736A-25-S-T
LED SEL2413E GRN
LED SLR-342VCT31 RED
LED SLZ-738A-24-S PGRN
LED SLZ-936C-30-S RED
VIDEO/AUX
TUNER/BAND
TAPE DECK 1/2
DECK2 LIGHT
DECK1 LIGHT
SIGNAL: PB
MOTOR DRIVER
DECK2 SOL DRIVER
DECK1 SOL DRIVER

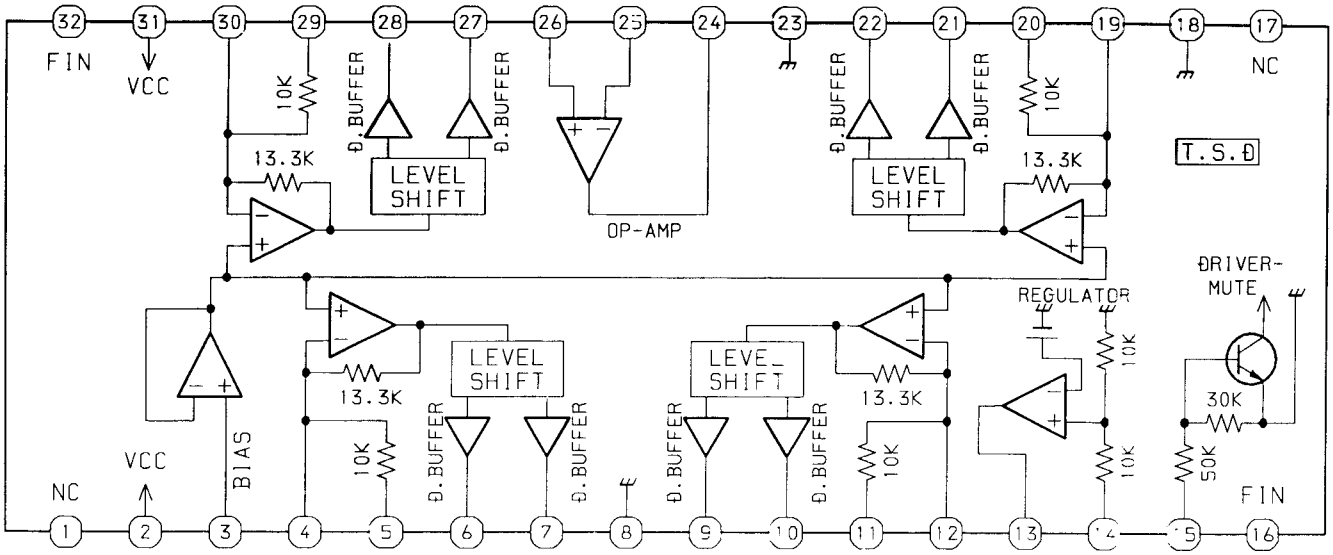
SCHEMATIC DIAGRAM – 4 (CD)




R815 56k
R115 1k
R114 100k
C116 47p
C115 47p
X101
16.9344MHz
C113 100/10
C114 0.01
R113 100
C112 47u
R901 220
Q901 2SC2712 GR
R903 330
C901 47/25
C902 0.1
LED DRIVER
CABL OPTICAL
DIGITAL OUT (OPTICAL)
LED901 SLZ-8128A-01-B
+5V
Q301~304 REG/SW
TRAY MOTOR DRIVER
IC601 TA7291S
OPEN VCC OUT⊖ NC GND VS OUT⊕ VREF CLOSE
M601:RF-500TB TRAY MOTOR
R618 1.5k
+12V
S601 OPEN SW
S602 UP SW
S603 DOWN SW
R616 5.6k R617 270
R621 56k R622 220k
D622 1SS133
R623 47k D623 1SS133
S601. 602. 603: SPPB61
IC201 (2/2) NJM4558MD EQ AMP
IC201 (1/2) NJM4558MD
R-ch L-ch
S401 SPPB61 CLOSE SW
LED411 GL380
Q411 PT380F
DISC DETECT SENSOR
T-T C.B
CON3
CON8
CON7
CON701
LED703 SEL1250M
LED701 SEL1250M
LED702 SEL1550M
LED701~703 CD TRACK LIGHTING
M LED C.B
CON5
FROM [A] MAIN C.B CON604
VM (+12V)
B-GND
CE ON
R CH
A-GND
L CH
FROM [B] FRONT C.B CON102
O-CLK
O-XLT
O-DATA
I-SENS
O-CD.LED
O-SQCLK
I-SQDATA
I-SW
O-CLOSE
O-OPEN
O-DISH FWD
O-DISH RVS
I-DISH SENS
AVREF
LED SW
Q701 DTC123JK
SIGNAL:
ANALOG
CONTROL

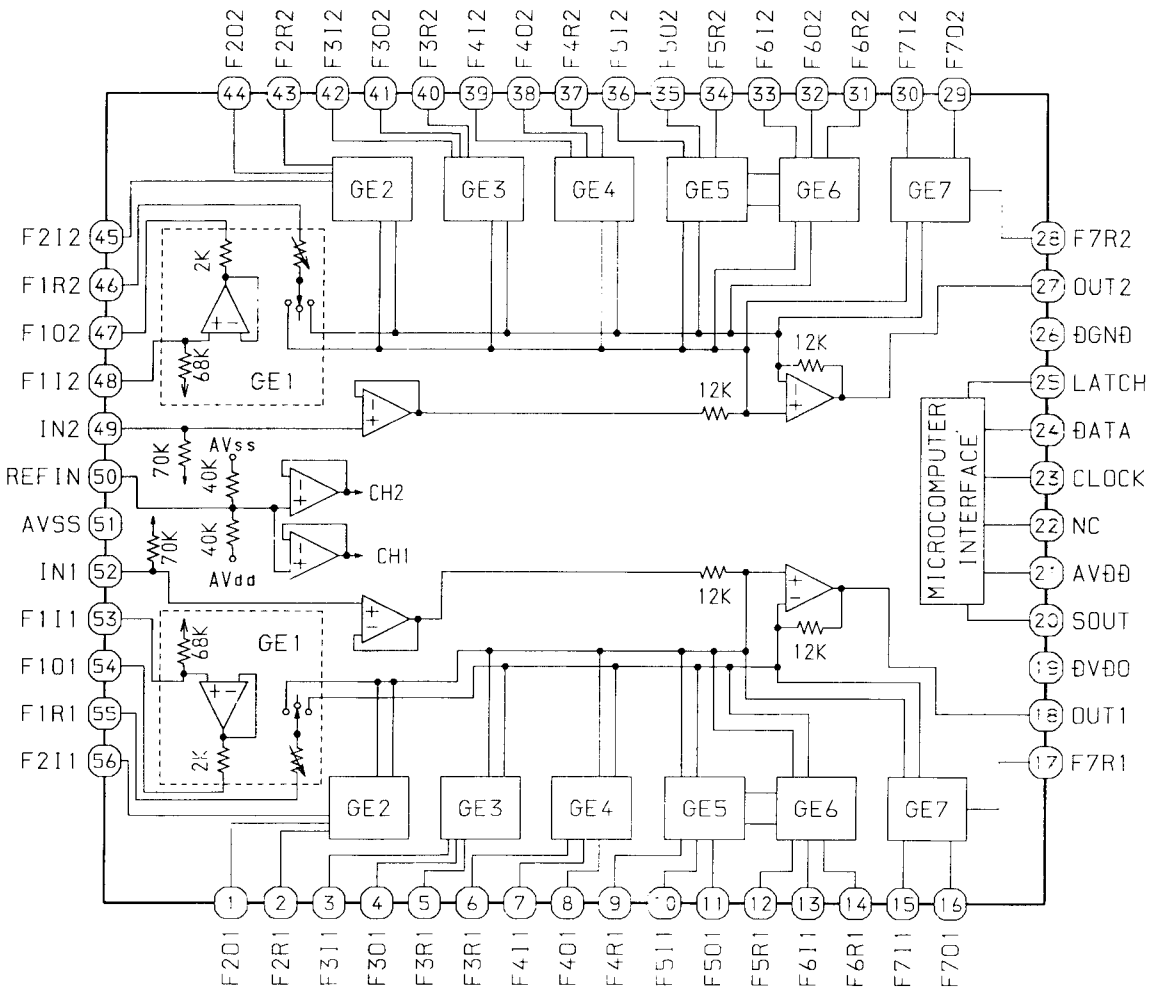
IC BLOCK DIAGRAM – 2

IC, BA6897S

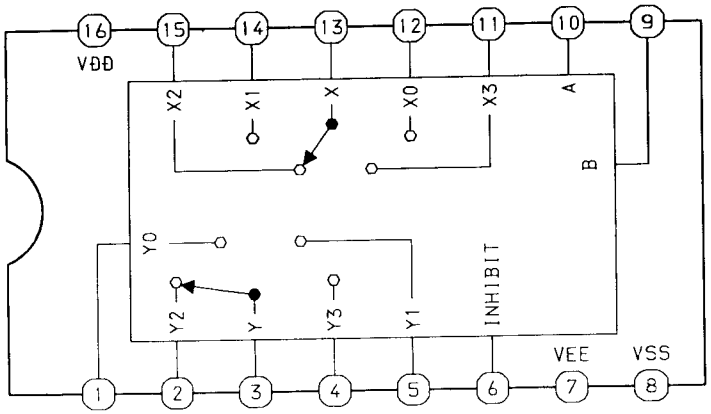


T.S.Ð: THERMAL SHUT DOWN CIRCUIT
Ð.BUFFER: ÐRIVE BUFFER

IC, M62431FP



IC, M65849FP

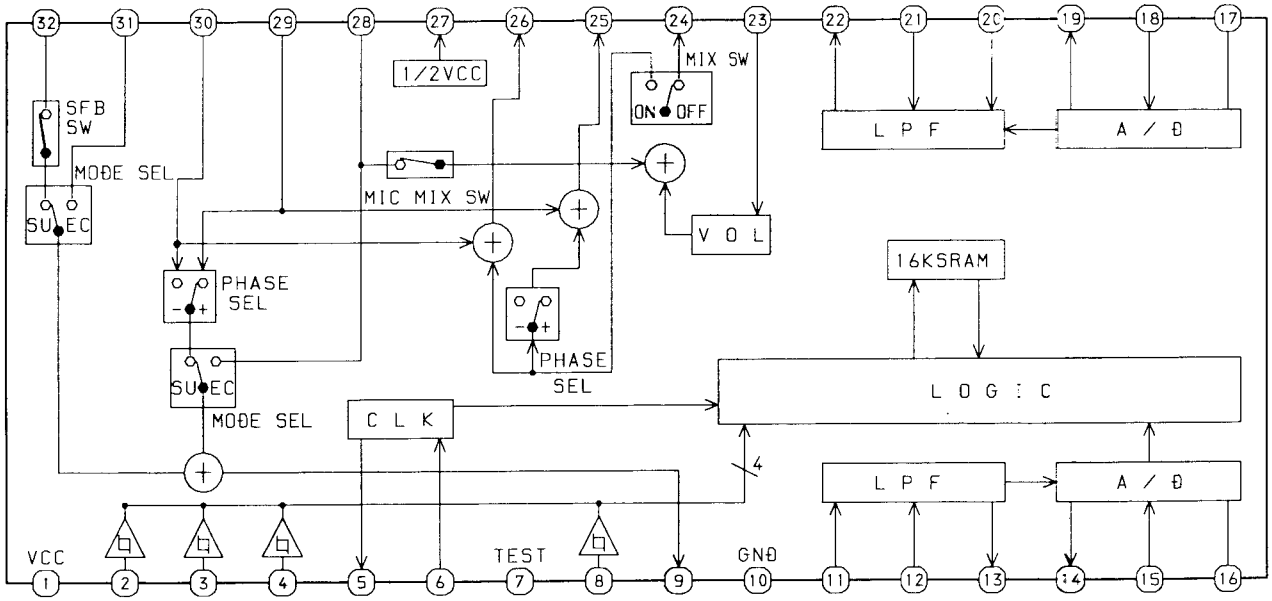


TRUTH TABLE

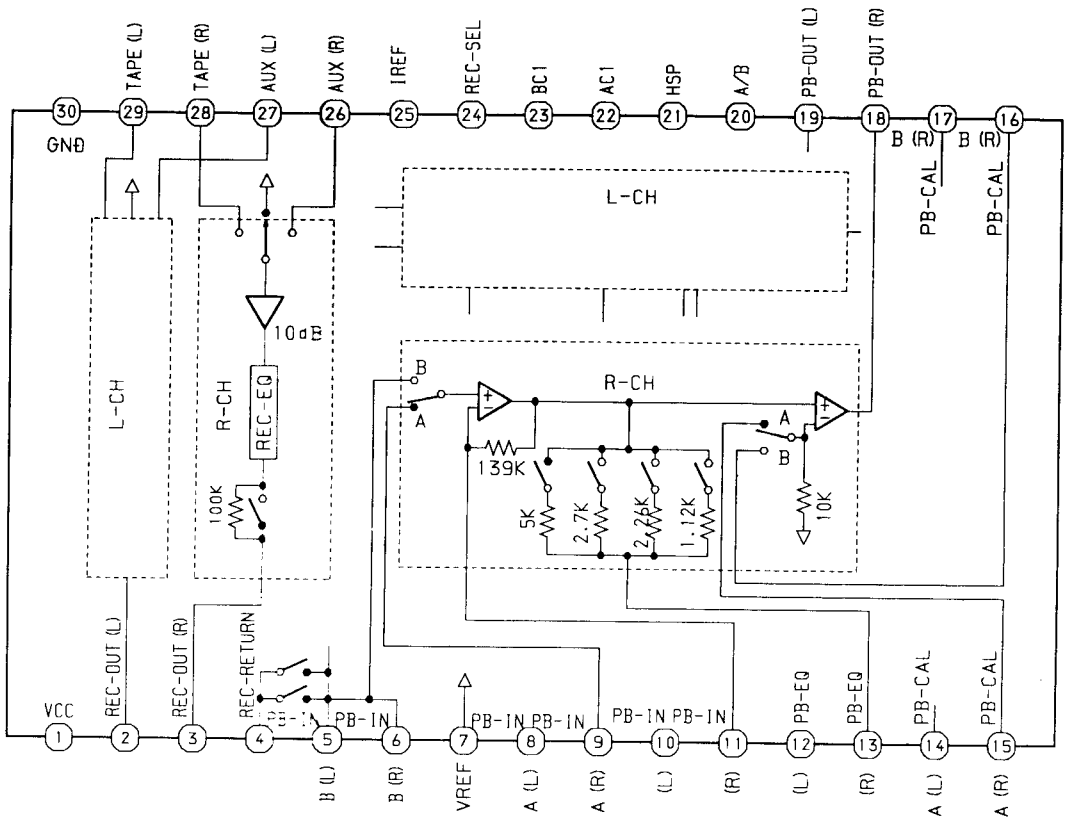
CONTROL INPUTS			ON SWITCH	
INHIBIT	B	A		
L	L	L	Y0	X0
L	L	H	Y1	X1
L	H	L	Y2	X2
L	H	H	Y3	X3
H	X	X	—	—

L:LOW LEVEL
H:HIGH LEVEL
H:IRRELEVANT

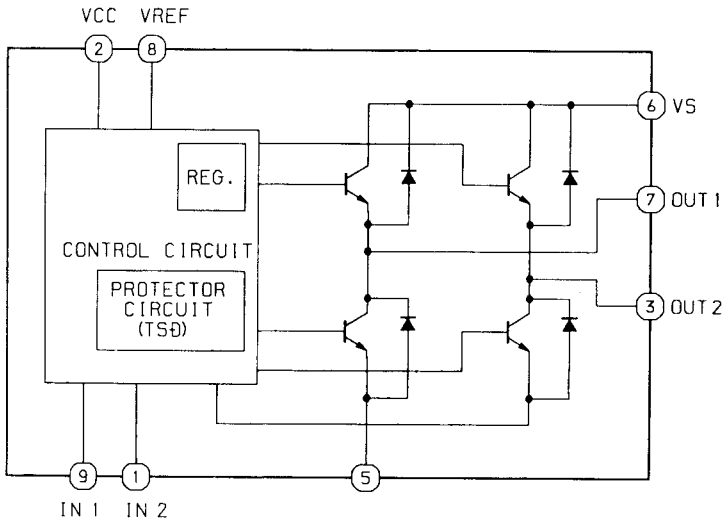
IC, TC4052BP



IC, HA12185NT



IC, TA7291

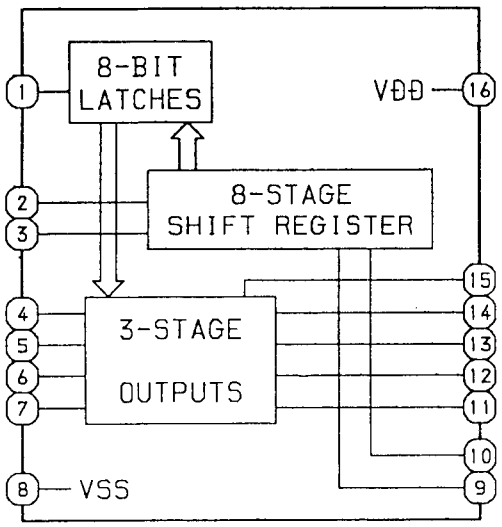


TRUTH TABLE

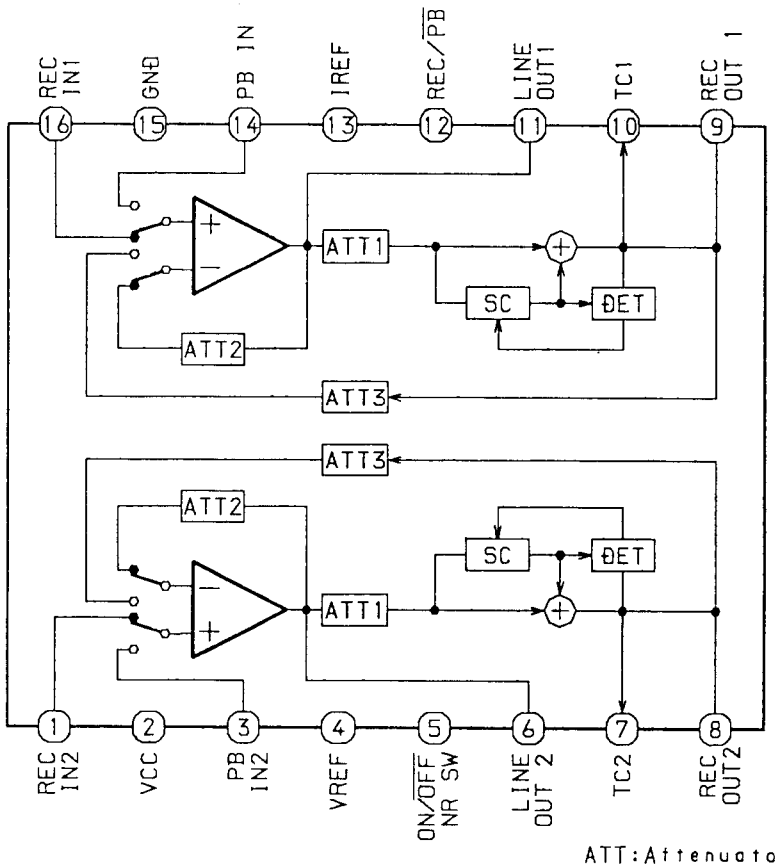
INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	∞	∞	STOP
1	0	H	L	CW
0	1	L	H	CCW
1	1	L	L	BRAKE

∞ : HI IMPEDANCE
NOTE : INPUT "H" ACTIVE

IC, TC4094BP

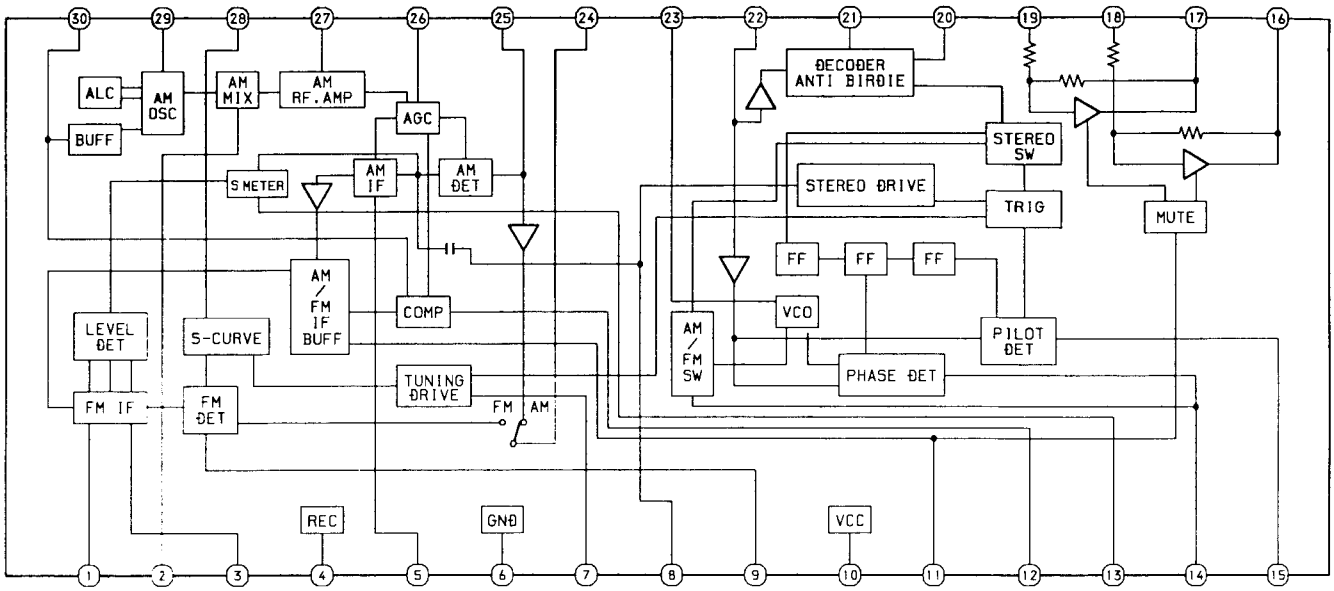


IC, CXA1553P

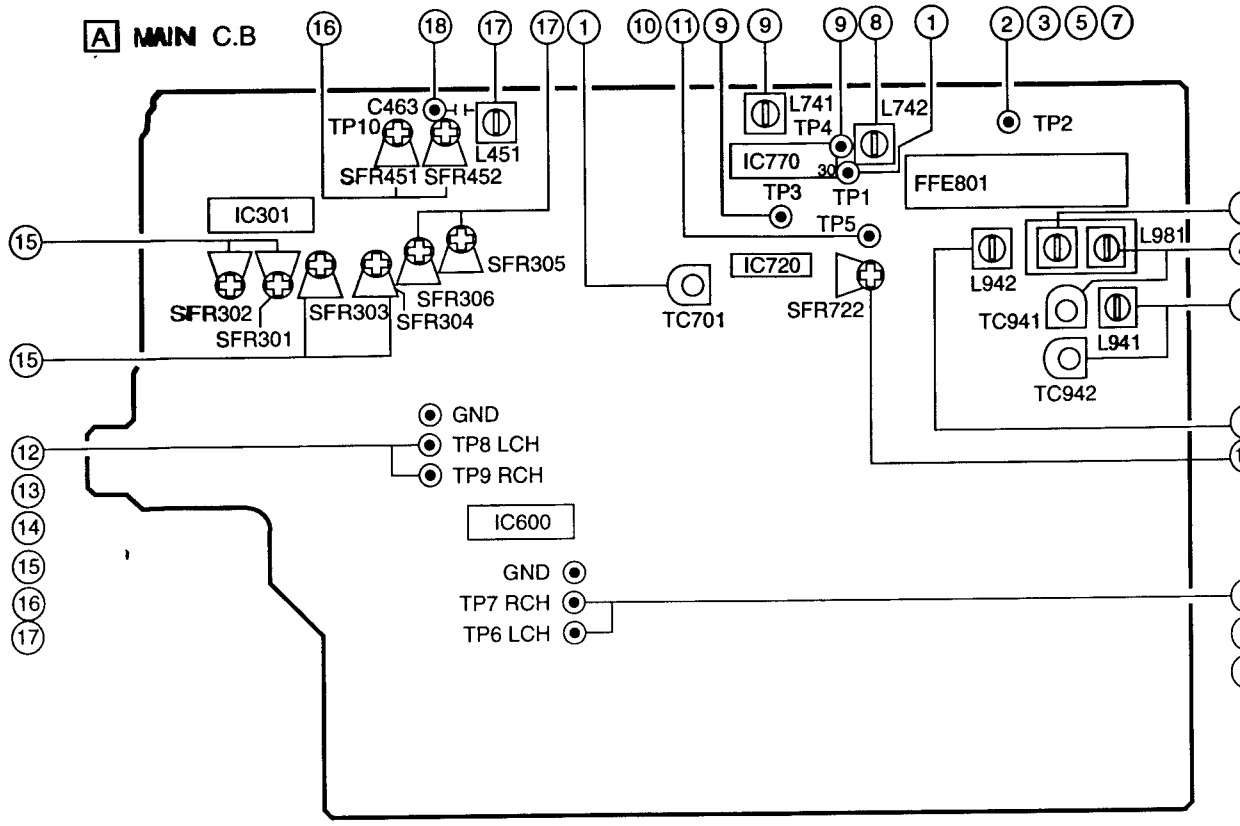


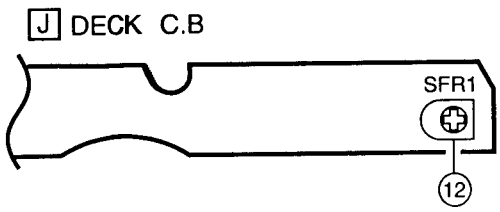
ATT:Attenuator
SC:Side Chain
DET:Detector

IC, LA1836

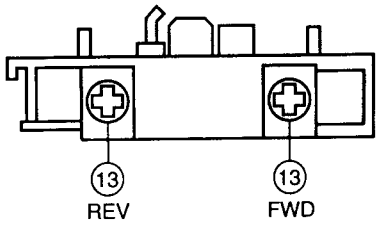

30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
ALC
AM OSC
BUFF
AM MIX
AM RF. AMP
AGC
S METER
AM IF
AM DET
DECODER ANTI BIRDIE
STEREO SW
STEREO DRIVE
TRIG
MUTE
FF
FF
FF
VCO
PILOT DET
PHASE DET
AM / FM SW
AM / FM IF BUFF
COMP
LEVEL DET
S-CURVE
TUNING DRIVE
FM IF
FM DET
FM
AM
REC
GND
VCC
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

ADJUSTMENT – 1 <TUNER / DECK>





DECK–1 P, DECK–2 R / P / E HEAD



< TUNER SECTION >

1. Clock Frequency Adjustment
   Settings : • Test point : TP1 (CLK IC770 pin30)
   • Adjustment location : TC701
   Method : Set to MW 1710kHz and adjust TC701 so that the test point becomes 2160kHz ± 0.01kHz.

2. MW VT Check <LH>
   Settings : • Test point : TP2 (VT)
   Method : Set to MW 1710kHz and check that the test point is less than 8.0V.

3. MW VT Adjustment <HE>
   Settings : • Test point : TP2 (VT)
   • Adjustment location : L981
   Method : Set to MW 1710kHz and adjust L981 so that the test point becomes 8.5V ± 0.05V.

4. MW Tracking Adjustment <HE>
   Settings : • Test point : TP6, TP7
   • Adjustment location :
   L981 ..... 600kHz
   TC941 ..... 1400kHz
   Method : Set up TC941 to center before adjustment. The level at 600kHz is adjusted to MAX by L981. Then the level at 1400kHz is adjusted to MAX by TC941.

5. SW VT Adjustment <HE>
   Settings : • Test point : TP2 (VT)
   • Adjustment location : L942
   Method : Set to SW 17.9MHz and adjust L942 so that the test point becomes 7.0V ± 0.05V.

6. SW Tracking Adjustment <HE>
Settings : • Test point : TP6, TP7
• Adjustment location :
L941 ..... 5.9MHz
TC942 ..... 17.9MHz
Method : Set up TC942 to center before adjustment. The level at 5.9MHz is adjusted to MAX by L941. Then the level at 17.9MHz is adjusted to MAX by TC942.

7. FM VT Check
Settings : • Test point : TP2 (VT)
Method : Set to FM 87.5MHz, 108.0MHz and check that the test point is more than 1.0V (87.5MHz) and less than 8.0V (108.MHz).

8. AM IF Adjustment <LH>
Settings : • Test point : TP6, TP7
• Adjustment location :
L742 ..... 450kHz

9. DC Balance / Mono Distortion Adjustment
Settings : • Test point : TP3, TP4 (DC balance)
: TP6, TP7 (Distortion)
• Adjustment location : L741
• Input level : 54dB
Method : Set to FM 98.0MHz and adjust L741 so that the voltage between TP3 and TP4 becomes 0V ± 0.04V.
Next, check that the distortion is less than 1.3%.

10. Auto Stop Level Adjustment
Settings : • Test point : TP5
• Adjustment location : SFR722
• Input level : 18dB
Method : Set to FM 98.0 MHz and adjust voltage low (about 0.01V) by SFR722. After that voltage high (about 7.0V) by 2dB down.

11. Auto Stop Level Check
MW
Settings : • Test point : TP5
• Input level : 50dB
Method : Set to MW 1000kHz (LH), MW 999kHz (HE) and check that the test point is 40 ~ 65dB.

SW<HE>
Settings : • Test point : TP5
• Input level : 65dB
Method : Set to SW 12.0MHz and check that the test point is less than 65 dB.

FM
Settings : • Test point : TP5
• Input level : 18dB
Method : Set to FM 98.0MHz and check that the test point is 20 dB ± 5 dB.

< DECK SECTION >

12. Tape Speed Adjustment
Settings : • Test tape : TTA–100
• Test point : TP8, TP9
• Adjustment location : SFR1
Method : Play back the test tape and adjust SFR1 so that the frequency counter reads 3000Hz ± 5Hz.

13. Head Azimuth Adjustment
Settings : • Test tape : TTA–300
• Test point : TP8, TP9
• Adjustment location : Head azimuth adjustment screw
Method : Play back the 10kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on each FWD and REV PLAYmode.

14. PB Frequency Response Check (DECK 1, DECK 2)
Settings : • Test tape : TTA–300
• Test point : TP8, TP9
Method : Play back the 315Hz and 10kHz signals of the test tape and check that the output ratio of the 10kHz signal with respect to that of the 315Hz signal is ±2dB.

15. PB Sensitivity Adjustment (DECK 1, DECK 2)
Settings : • Test tape : TTA–200
• Test point : TP8, TP9
• Adjustment location :
SFR301 (DECK 1, Lch)
SFR302 (DECK 1, Rch)
SFR303 (DECK 2, Lch)
SFR304 (DECK 2, Rch)
Method : Play back the test tape and adjust SFRs so that the output level of the test point becomes 300mV ± 10mV.

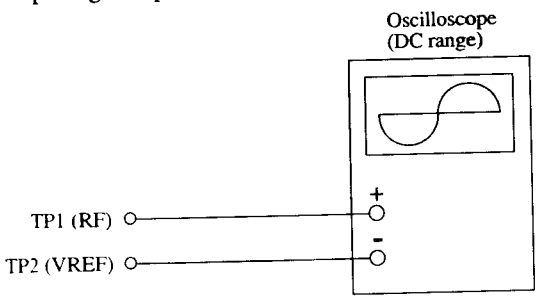
16. REC/PB Frequency Response Adjustment
Settings : • Test tape : TTA–602
• Test point : TP8, TP9
• Input signal : 1kHz / 10kHz (LINE IN)
• Adjustment location : SFR451 (Lch)
SFR452 (Rch)
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that theoutput level at the TP8, TP9 becomes 171mV. Record and play back the 1kHz and 10kHz signals and adjust SFRs so that the output of the 10kHz signals becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

17. REC/PB Sensitivity Adjustment
Settings : • Test tape : TTA–602
• Test point : TP8, TP9
• Input signal : 1kHz (LINE IN)
• Adjustment location : SFR305 (Lch)
SFR306 (Rch)
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes 17mV. Record and play back the 1kHz signals and adjust SFRs so that the output is 17mV ± 0.5dB.

18. Bias OSC Frequency Adjustment
Settings : • Test tape : TTA–615
• Test point : TP10 (C463)
• Adjustment location : L451
Method : Set to the REC mode. Adjust L451 so that the frequency counter of the test point becomes minimum.

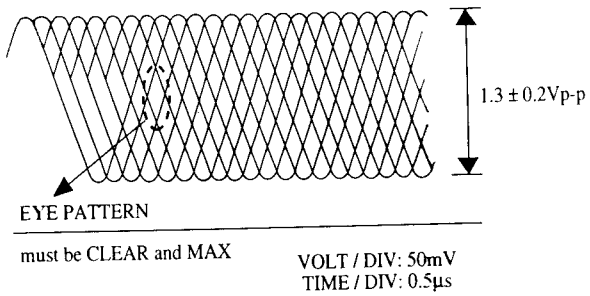
Note :
Connect a probe (10:1) of the oscilloscope or the frequency counter to a test point TP2(VREF).

1. Focus Bias Adjustment
Make the focus bias adjustment when replacing and repairing the optical block.

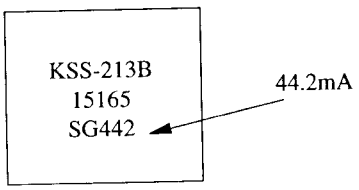


1) Connect an oscilloscope to the test points TP1 (RF) and TP2 (VREF).
2) Turn on the power switch.
3) Insert test disc TCD-782 (YEDS-18) and play back the second composition.
4) Adjust SFR11 so that RF signal of the test point TP1 (RF) is MAX and CLEARREST.

RF signal waveform

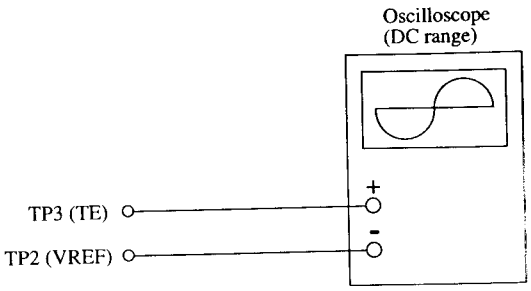


Note:
The current of the laser signal can be checked with the voltages on both sides of R28 (10Ω). The difference for the specified value shown on the level must be within ± 6.0mA.

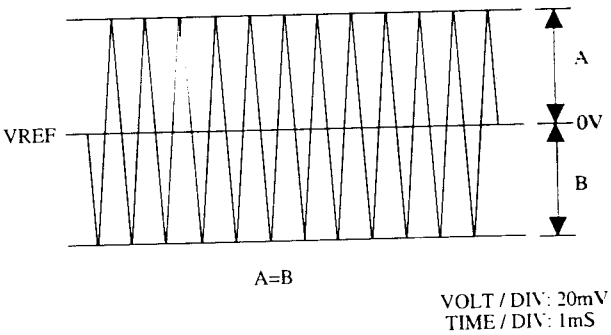


$$\text{Laser current Iop} = \frac{\text{Voltage across R28}}{10\Omega}$$

2. Tracking Balance Adjustment



1) Connect an oscilloscope to the test points TP3 (TE) and TP2 (VREF).
2) Active the CD test mode.
3) Insert test disc TCD-782 (YEDS-18) and set the traverse mode (No.4) of CD test mode.
4) Adjust SFR12 so that the waveform on the oscilloscope is vertically symmetrical as shown in the figure below.
5) After the adjustment is completed, remove the connected lead wires from the terminals.



3. Tracking Gain Adjustment
A servo analyzer is necessary in order to perform this adjustment exactly. However, this gain has a margin, so even if it is slightly off, there is no problem. Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when 2-axis device operates. However, as these gains are reciprocate, the adjustment is performed at the point where both gains are satisfied.

- When gain is raised, the noise increases when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.

When the gain adjustment is not satisfied, the symptoms below appear.

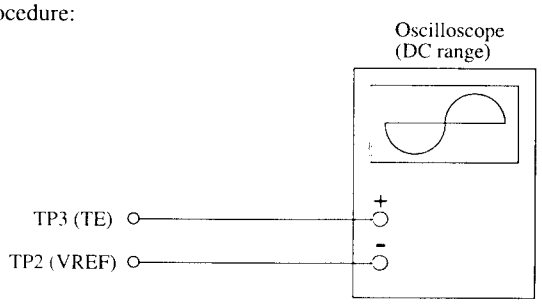
Symptoms \ Gain	(Focus)	Tracking
• The time until music starts becomes longer for STOP → ▶PLAY or automatic selection (⏮, ⏭ buttons pressed.) (Normally takes about 2 seconds.)	low	low or high
• Music does not start and disc continues to rotate for STOP → ▶PLAY or automatic selection (⏮, ⏭ buttons pressed.)	–	low
• Disc stops to rotate shortly after STOP → ▶PLAY.	low or high	–
• Sound is interrupted during PLAY. Or time counter display stops.	–	low
• More noises during the 2-axis device operation.	high	high

The following is simple adjustment method.

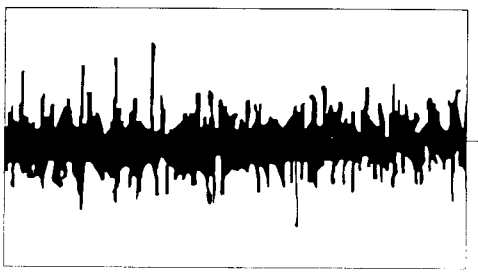
– Simple adjustment –

Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment.
If the positions after the simple adjustment are only a little different, return the controls to the original position.

Procedure:



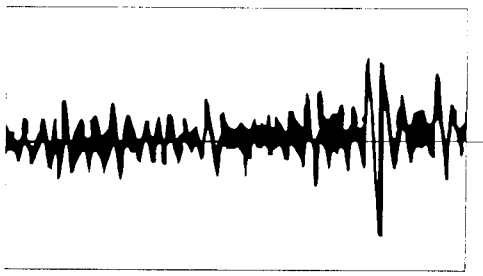
1) Keep the set horizontal. (If the set is not kept horizontally,
this adjustment cannot be performed due to the gravity against the 2-axis device.)
2) Insert test disc TCD-782 (YEDS-18) and play back the second composition.
3) Connect an oscilloscope to TP2 (VREF) and TP3(TE).
4) Adjust SFR13 so that the waveform appears as shown in the figure below.
(tracking gain adjustment)



VOLT/DIV: 50 mV
TIME/DIV: 1 mS

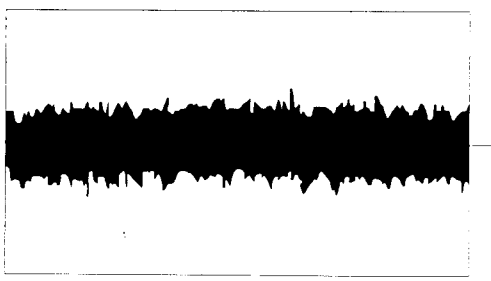
- Incorrect example

Low tracking gain
(The fundamental wave appears as compare with the waveform adjusted)



VOLT/DIV: 50 mV
TIME/DIV: 1 mS

High tracking gain
(The frequency of the fundamental wave is higher than in low gain)



VOLT/DIV: 50 mV
TIME/DIV: 1 mS

TEST MODE

1. How to Activate CD Test Mode
1) Insert the AC plug while pressing the function CD button. All FL display tubes will light up, and the test mode will be activated.

2. How to cancel CD Test Mode
Either one of the following operations will cancel the CD test mode.
- Press the function button (except CD button).
- Press the power switch button. • Disconnect the AC plug.

3. CD Test Mode Functions
When test mode is activated, the following mode functions from No. 1 to No. 5 can be used by pressing the operation keys.

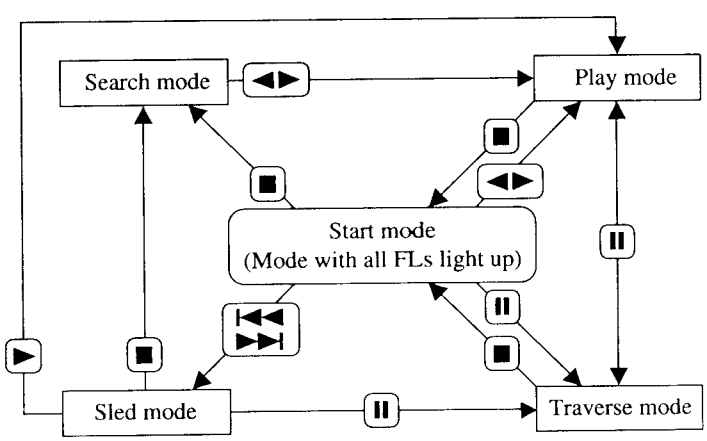
Mode / No.	Operation	FL display	Operation	Contents
Start mode No. 1	Test mode activation	All FL light up	• Active the test mode. (CD block power supply ON)	All FL displays light up
Search mode No. 2	■ key	[0--	• Laser diode illuminated under normal circumstances • Continual focus search * NOTE 1 (The pickup lens repeats the full-swing up-down motion.) * Avoid continual searches that last for more than 10 minutes.	• Laser current measurement (Across R28 resistor) FOCUS SERVO • Check focus search waveform • Check focus error waveform * FOK / FZC are not monitored in the search mode.
Play mode No. 3	◄ ► key	[01	• Normal playback • Focus search is continued if TOC cannot be read * NOTE 1	FOCUS SERVO / TRACKING SERVO CLV SERVO / SLED SERVO Check FOK / FZC
Traverse mode No. 4	▮▮ key	[01	• During normal disc playback Press once; tracking servo OFF Press twice; tracking servo ON * NOTE 2	TRACKING SERVO ON / OFF Tracking balance (traverse) adjustment TP2 (VREF), TP3 (TE)
Sled mode No. 5	⏮ key ⏭	All FL light up	• Pickup moves to the outermost track • Pickup moves to the innermost track * NOTE 3 (During playback, machine operates normally.)	SLED SERVO Check SLED mechanism operation

* NOTE 1: There are cases when the tracking servo cannot be locked owing to the protection circuit being operated when heat builds up in the driver IC if the focus search is operated continually for more than 10 minutes. In these cases, the power supply should be switched off for 10 minutes until heat has been reduced and then re-started.

* NOTE 2: Do not press the ⏮ or ⏭ keys when the machine is in the ▮▮ status is active. If they are pressed, playback will not be possible after the ▮▮ status has been canceled. If the ⏮ or ⏭ keys are pressed in the ▮▮ status, press the ■ key and return to start mode (No. 1).

* NOTE 3: When pressing the ⏮ or ⏭ keys, take care to avoid damage to the gears. Because the sled motor is activated when the ⏮ or ⏭ keys are pressed, even when the pick-up is at the outermost or innermost track.

4. Operation Outline
- The operation of each mode is carried out in the direction of the arrows from the start mode as indicated in the following illustration.
- When DISC DIRECT key is pressed, test mode is operated same as pressing the PLAY key.
- When CD tray is opened by OPEN / CLOSE key while play and traverse modes, test mode goes back start mode.

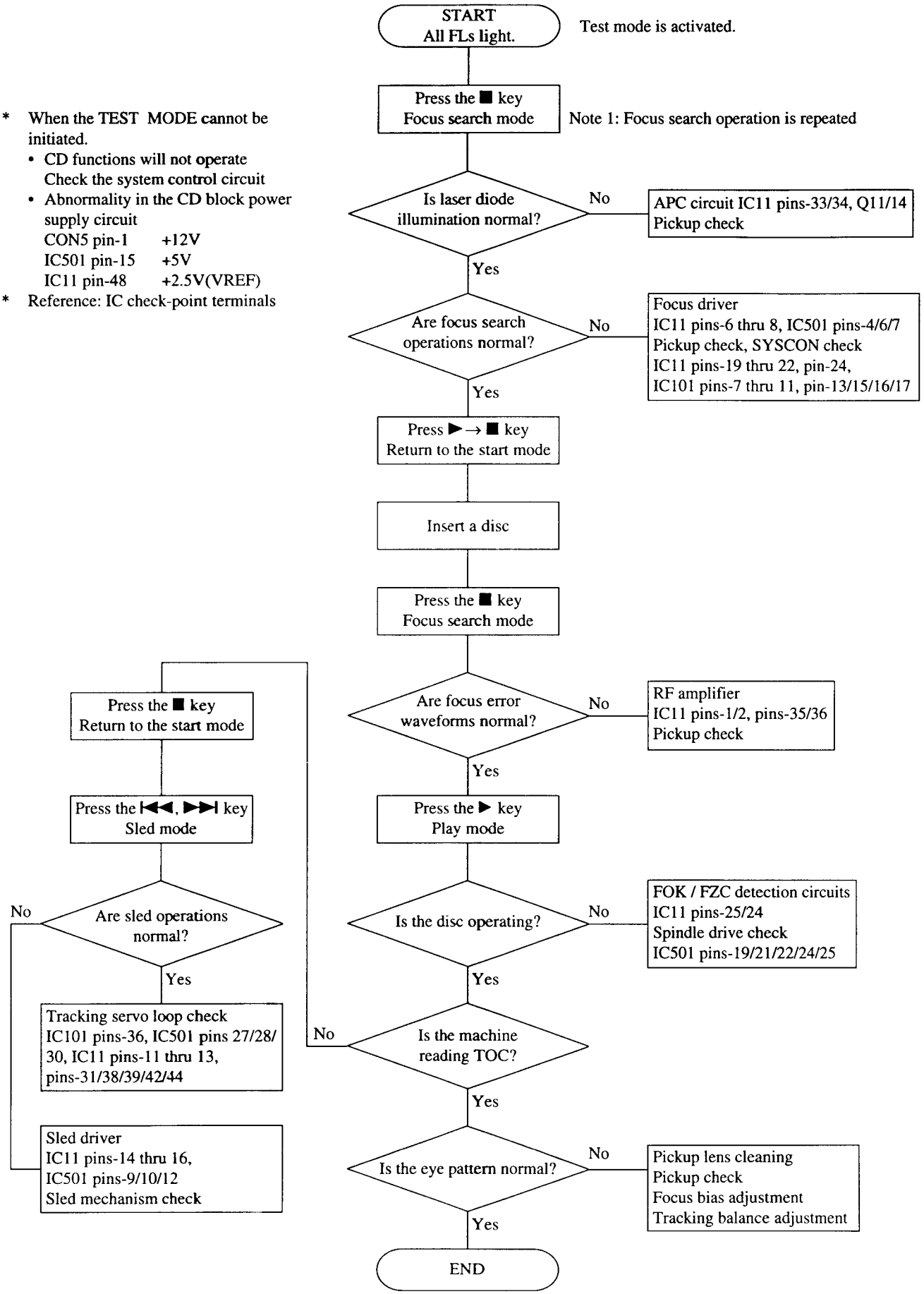


CD TROUBLE-SHOOTING

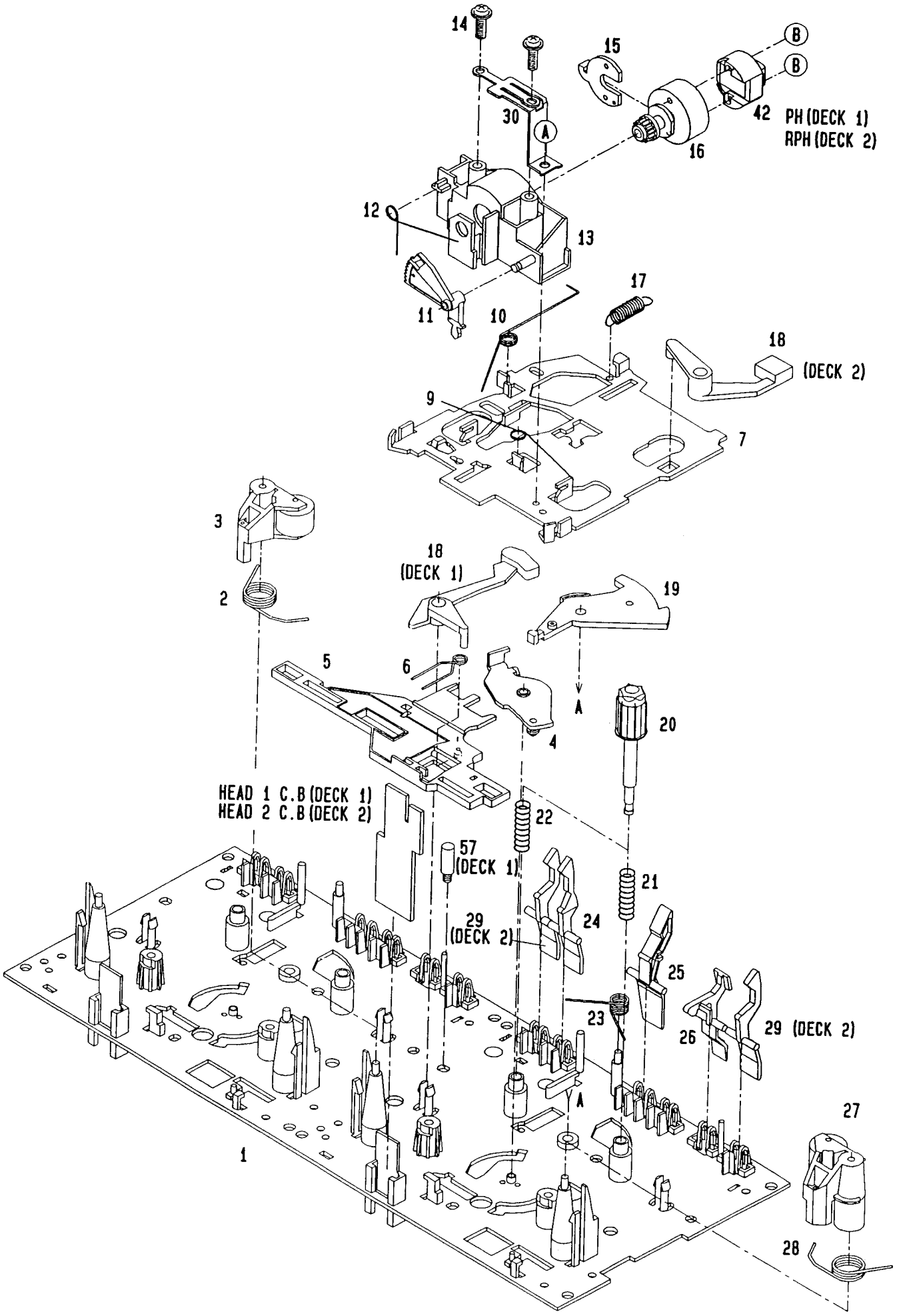
Flow Chart

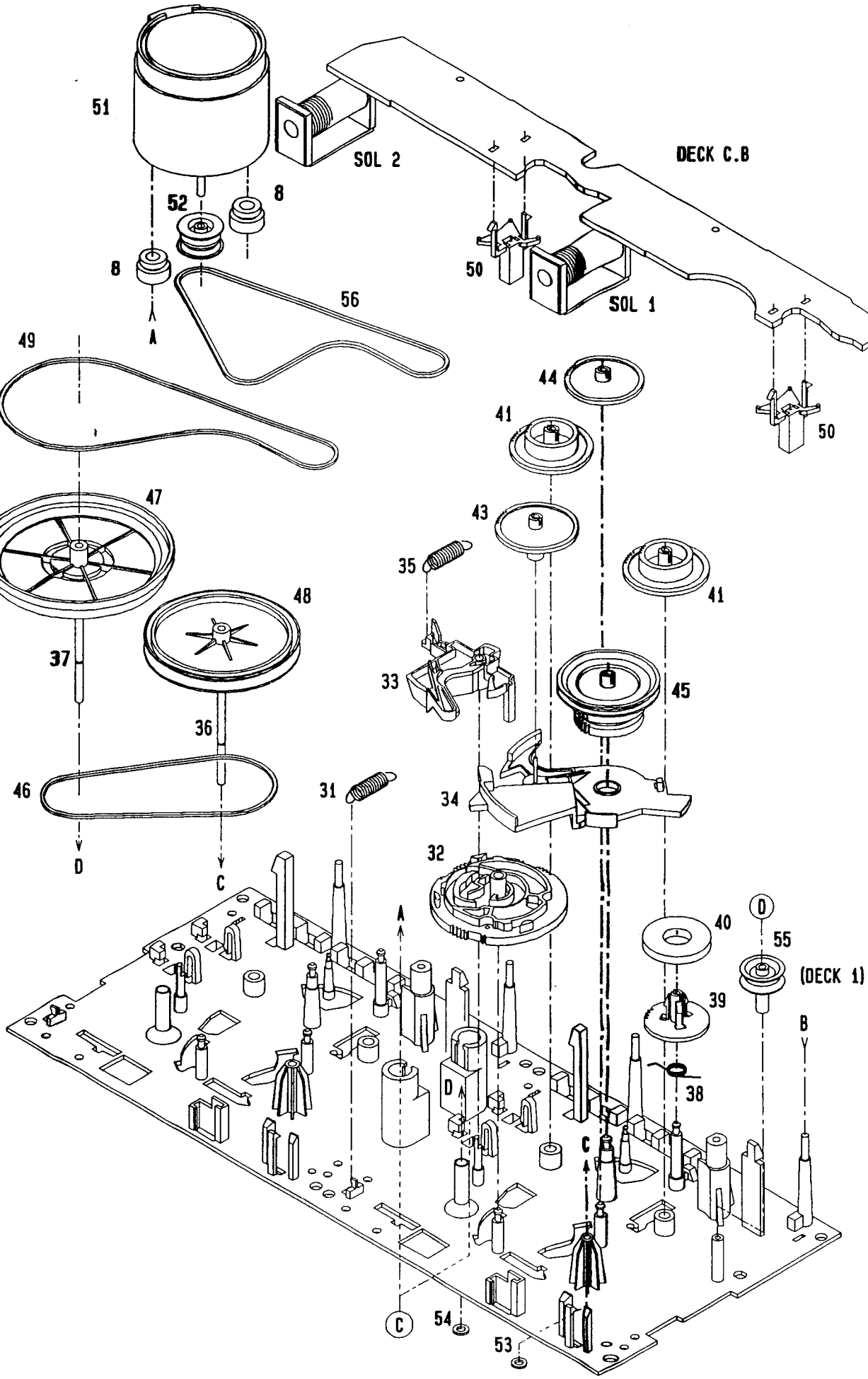
* When the TEST MODE cannot be initiated.
- CD functions will not operate
  Check the system control circuit
- Abnormality in the CD block power supply circuit
  CON5 pin-1 +12V
  IC501 pin-15 +5V
  IC11 pin-48 +2.5V(VREF)

* Reference: IC check-point terminals



TAPE MECHANISM EXPLODED VIEW 1 / 1

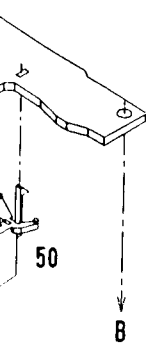



51
SOL 2
DECK C.B
52
8
8
50
SOL 1
56
A
49
44
41
50
47
43
35
41
48
37
33
45
36
46
31
34
D
C
32
A
40
D
55
(DECK 1)
39
B
38
D
C
C
54
53

TAPE MECHANISM PART LIST 1 / 1

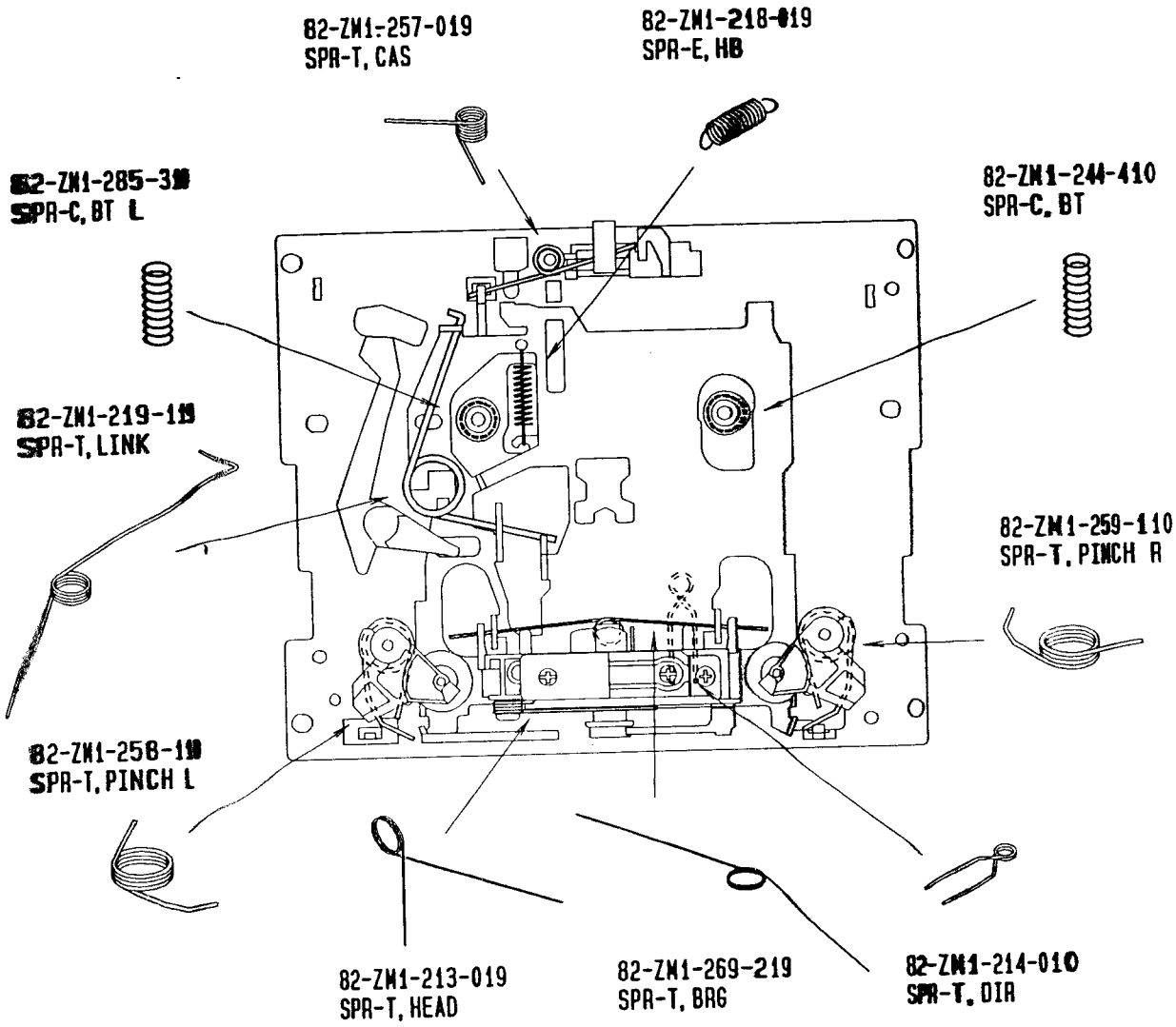
If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

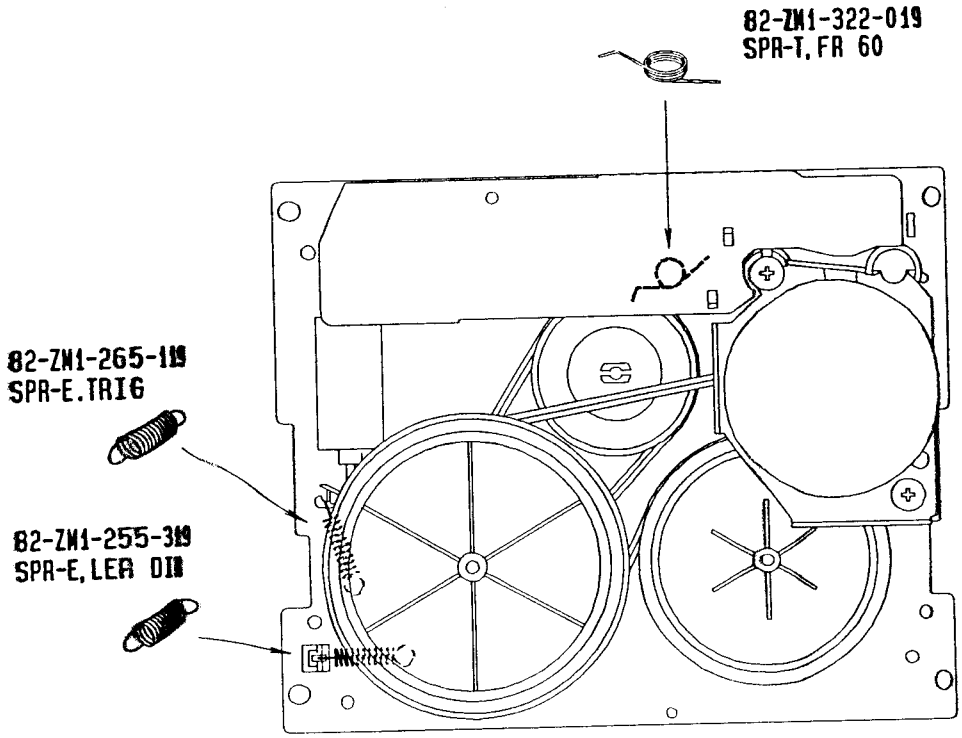
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM3-301-519		CHAS ASSY,M2
2	82-ZM1-258-110		SPR-T,PINCH L
3	82-ZM1-345-019		LVR ASSY,PINCH L W
4	82-ZM1-333-010		PLATE,LINK 2
5	82-ZM1-266-11K		LVR,DIR
6	82-ZM1-214-010		SPR-T,DIR
7	82-ZM1-206-81K		CHAS,HEAD
8	82-ZM3-307-019		CUSH-G,DIA3.7-8-3.2
9	82-ZM1-269-219		SPR-T,BRG
10	82-ZM1-219-119		SPR-T,LINK
11	82-ZM1-210-119		GEAR,H T
12	82-ZM1-213-019		SPR-T,HEAD
13	82-ZM1-207-619		GUIDE,TAPE
14	82-ZM1-283-310		S-SCREW,AZIMUTH
15	82-ZM1-314-119		PLATE,HEAD
16	82-ZM1-208-119		HLDR,HEAD
17	82-ZM1-218-019		SPR-E,HB
18	82-ZM1-263-110		LVR,EJECT L (DECK 1)
18	82-ZM1-264-010		LVR,EJECT R (DECK 2)
19	82-ZM1-222-21K		LVR,PLAY
20	82-ZM1-217-319		REEL TABLE
21	82-ZM1-244-510		SPR-C,BT
22	82-ZM1-285-310		SPR-C,BT L
23	82-ZM1-257-019		SPR-T,CAS
24	82-ZM1-241-319		LVR,MC
25	82-ZM1-242-019		LVR,CAS
26	82-ZM1-243-019		LVR,STOP
27	82-ZM1-346-019		LVR ASSY,PINCH R W
28	82-ZM1-259-110		SPR-T,PINCH R
29	82-ZM1-240-11K		LVR,REC (DECK 2)
30	82-ZM1-298-010		SPR-P,EARTH
31	82-ZM1-255-319		SPR-E,LVR DIR
32	82-ZM3-305-01K		GEAR,CAM M2
33	82-ZM1-227-21K		LVR,TRIG
34	82-ZM3-306-11K		LVR,FR M2
35	82-ZM1-265-119		SPR-E,TRIG
36	82-ZM1-236-019		CAPSTAN N 2-41.5
37	82-ZM1-239-019		CAPSTAN N 2.2-41.7
38	82-ZM1-322-019		SPR-T,FR60
39	82-ZM1-220-219		GEAR,IDLER
40	82-ZM3-616-019		RING MAGNET 4
41	82-ZM1-216-31K		GEAR,REEL
42	87-046-355-019		HEAD,PH HADKH2529B(PH)
42	87-046-356-019		HEAD,RPH HADKH5581B(RPH)
43	82-ZM1-225-21K		GEAR,FR
44	82-ZM1-226-019		GEAR,REW
45	82-ZM1-228-810		SLIP DISK ASSY
46	82-ZM1-338-010		BELT FR4
47	82-ZM1-238-81K		FLY-WHL ASSY,R (DECK 2)
47	82-ZM3-210-71K		FLY-WHL ASSY,R2 (DECK 1)
48	82-ZM1-235-51K		FLY-WHL ASSY,L (DECK 2)
48	82-ZM3-208-61K		FLY-WHL ASSY,L2 (DECK 1)
49	82-ZM3-329-210		BELT,SBU R2
50	82-ZM1-245-210		HLDR,IC
51	87-045-347-019		MOT,SHU2L 70(M1)
52	82-ZM3-221-010		PULLEY,MOT 2M
53	82-ZM1-288-019		SH,1.63-3.2-0.5 SLT
54	80-ZM6-243-019		SH,1.75-3.6-0.5 SLT
55	82-ZM3-304-110		PULLEY,COUPLER (DECK 1)
56	82-ZM3-328-110		BELT,SBU P2
57	82-ZM3-216-019		SHAFT,COUPLER N(DECK 1)
A	82-ZM1-315-010		S-SCREW,GVIDE TAPE
B	80-ZM6-207-019		V+1.6-7
C	82-ZM3-318-019		S-SCRW MOTOR M2
D	87-067-972-019		PW,1.05-3-0.25 SLT



(DECK 1)

SPRING APPLICATION POSITION





CD MECHANISM EXPLODED VIEW 1 / 2