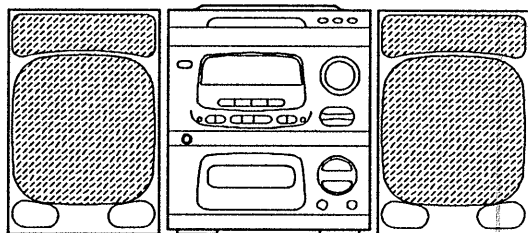


# aiwa



## CX-N400 SX-N400



COMPACT DISC STEREO SYSTEM

- BASIC TAPE MECHANISM: 2ZM-1 R2N
- BASIC CD MECHANISM: KSM-2101ABM
- TYPE: G

## REVISION PUBLISHING

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual":  
(CX-N400 : S/M Code No. 09-947-074-20T).

MANUAL  
SERVICE

## TABLE OF CONTENTS

SPECIFICATIONS .....	3
PROTECTION OF EYES FROM LASER BEAM DURING SERVICING .....	4
PRECAUTION TO REPLACE OPTICAL BLOCK (KSS - 210A) .....	4
ELECTRICAL MAIN PARTS LIST .....	5~9
FL GRID ASSIGNMENT/ANODE CONNECTION .....	10
BLOCK DIAGRAM - 1 (MAIN/FRONT) .....	11~12
BLOCK DIAGRAM - 2 (CD) .....	13
BLOCK DIAGRAM - 3 (TUNER) .....	14
WIRING - 1 (MAIN) .....	15~16
SCHEMATIC DIAGRAM - 1 (MAIN) .....	17~18
WIRING - 2 (FRONT) .....	19~20
SCHEMATIC DIAGRAM - 2 (FRONT) .....	21~22
WIRING - 3 (CD) .....	23~24
SCHEMATIC DIAGRAM - 3 (CD) .....	25~26
WIRING - 4 (TAPE) .....	27
IC DESCRIPTION .....	28~33
IC BLOCK DIAGRAM .....	34~37
TRANSISTOR ILLUSTRATION .....	38
ELECTRICAL ADJUSTMENT .....	39~44
PRACTICAL SERVICE FIGURE .....	41
MECHANICAL EXPLODED VIEW 1/2 .....	45
MECHANICAL PARTS LIST 1/2 .....	46
MECHANICAL EXPLODED VIEW 2/2 .....	47
MECHANICAL PARTS LIST 2/2 .....	48
TAPE MECHANISM EXPLODED VIEW 1/1 .....	49~50
TAPE MECHANISM PARTS LIST 1/1 .....	51
CD MECHANISM EXPLODED VIEW 1/1 .....	52
CD MECHANISM PARTS LIST 1/1 .....	52
SPRING APPLICATION POSITION .....	53
SPEAKER PARTS LIST .....	54
ACCESSORIES/PACKAGE LIST .....	55
REFERENCE NAME LIST .....	56

# SPECIFICATIONS

## <FM section>

Frequency range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	1.3 $\mu$ V (75 ohms) 13.2 dBf
Alternate channel selectivity	50 dB ( $\pm$ 400 kHz)
Signal-to-noise ratio	STEREO: 65 dB MONO: 75 dB
Harmonic distortion	0.3 % (MONO), 1 kHz 0.5 % (STEREO, L-R), 1 kHz
Frequency response	30 Hz to 15 kHz (+0.5 dB, -3 dB)
Stereo separation	30 dB at 1 kHz
Antenna	75 ohms (unbalanced)

## <MW section>

Frequency range	531 (530) kHz to 1602 (1710) kHz
Usable sensitivity	350 $\mu$ V/m
Selectivity	22 dB (9 kHz)
Signal-to-noise ratio	53 dB (100 dB input)
Antenna	Loop antenna

## <Timer section>

Program timer	On-timer, free setting
Sleep timer	Setting in 10-minute increments, 240 minutes maximum

## <Amplifier section>

Power output	30 W+30 W (6 ohms, T.H.D. 10 % 1 kHz)
Harmonic distortion	0.05 % (10 W, 1 kHz, 6 ohms)
Input terminal	VIDEO/AUX: 150 mV (adjustable) MIC: 2 mV/10 k $\Omega$
Output terminal	SUPER WOOFER: 1.5 V

## <Cassette deck section>

Track format	4 tracks, 2 channels
Frequency response	Normal tape: 50 - 17,000 Hz
Signal-to-noise ratio	58 dB (DOLBY NR ON, Normal tape peak level)
Tape speed	4.8 cm/sec. (1 $\frac{7}{8}$ ips)
Recording system	AC bias
Erasure system	AC erase
Motor	DC servo motor $\times$ 1
Heads	Recording/playback/erasure head $\times$ 1

## <CD player section>

Disc	Compact disc
Scanning method	Non-contact optical scanner (semi-conductor laser)
Laser	Semiconductor laser ( $\lambda = 780$ nm)
Rotation speed	Approx. 500 rpm - 200 rpm (CLV)
Error correction	Cross Interleave, Reed Solomon code
No. of channels	2 channels
D-A conversion	16-bit linear
Wow/flutter	Unmeasurable
Signal-to-noise ratio	90 dB (1 kHz, 0 dB)
Harmonic distortion	0.05% (1 kHz, 0 dB)


## SPEAKER SYSTEM

(These values are for one speaker.)

Cabinet type	3 way, bass reflex (magnetism sealed type)
Speaker	130 mm (5 $\frac{1}{8}$ in.) cone type woofer 50 mm (2 in.) cone type tweeter 20 mm (1 $\frac{3}{16}$ in.) ceramic type super tweeter
Impedance	6 ohms
Music power	40 W
Output sound pressure level	87 dB/W/m
Dimensions (W $\times$ H $\times$ D)	180 $\times$ 302 $\times$ 220 mm (7 $\frac{1}{8}$ $\times$ 12 $\times$ 8 $\frac{3}{4}$ in.)
Weight	2.6 kg (5 lbs. 12 oz)

## COMMON SECTION

Power requirements	AC 240 V, 50 Hz
Power consumption (System total)	95 W
Dimensions (W $\times$ H $\times$ D)	Main unit: 260 $\times$ 305 $\times$ 340 mm (10 $\frac{1}{4}$ $\times$ 12 $\frac{1}{8}$ $\times$ 13 $\frac{1}{2}$ in.) System: 620 $\times$ 305 $\times$ 340 mm (24 $\frac{1}{2}$ $\times$ 12 $\frac{1}{8}$ $\times$ 13 $\frac{1}{2}$ in.)
Weight	Main unit: 7.0 kg (15 lbs. 7 oz) System: 12.2 kg (26 lbs. 14 oz)

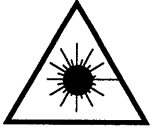
- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.
- The word "BBE" and the "BBE symbol" are trademarks of BBE Sound, Inc. Under license from BBE Sound, Inc.

# PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

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

## WARNING!

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



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

## VAROITUS!

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

## WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig 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

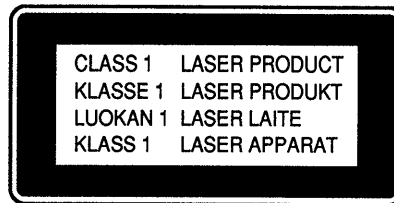
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

## 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.

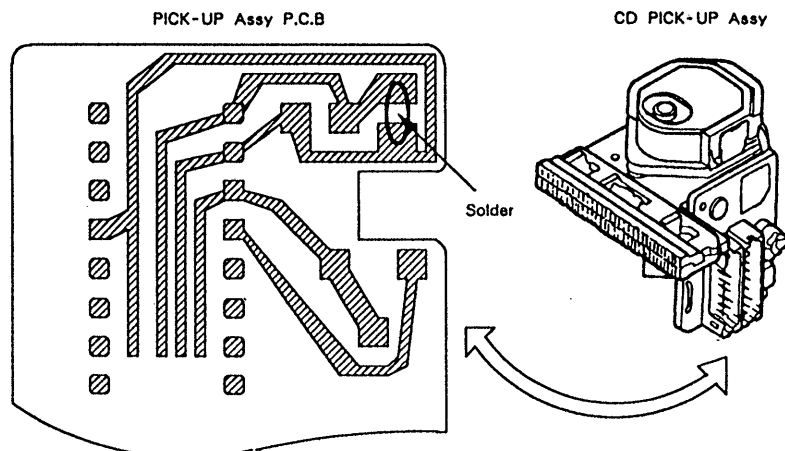
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



## Precaution to replace Optical block (KSS - 210A)

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

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



# ELECTRICAL MAIN PARTS LIST

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

REF. NO	PART NO.	カリ NO.	DESCRIPTION	REF. NO	PART NO.	カリ NO.	DESCRIPTION
IC					87-017-083-080		ZENER, HZS4C2
	87-017-745-010		IC, CXA1782BQ				
	87-001-334-010		IC, LB9051A	MAIN C. B			
	87-017-486-080		IC, BA6397FP				
	87-017-586-010		IC, CXD2518Q	C101	87-010-398-090		CAP, E 2200-35V
	83-NFJ-601-010		IC, LC866432V-5531	C102	87-010-398-090		CAP, E 2200-35V
	87-017-585-080		IC, NJM4580E	C104	87-010-235-080		CAP, E 470-16 SME
	82-NEG-617-010		IC, GPIU581X	C105	87-010-381-080		CAP, E 330-16 SME
	87-001-475-010		IC, STK4132-2	C106	87-010-764-080		CAP, E 47-63V
	87-001-982-010		IC, TA7291S				
	87-017-738-010		IC, NJM2068LD	C107	87-010-260-080		CAP, E 47-25 SME
				C108	87-010-260-080		CAP, E 47-25 SME
				C109	87-010-263-080		CAP, E 100-10
	87-017-887-010		IC, XR1090ACP	C112	87-010-237-080		CAP, E 1000-16
	87-002-727-010		IC, NJM4558L	C113	87-010-403-080		CAP, E 3.3-50 SME
	87-017-375-080		IC, TC4094BF				
	87-001-874-010		IC, HA12134A	C115	87-016-247-080		C-CAP, O. 1-50 F
	87-017-673-010		IC, BA3837	C116	87-012-140-080		C-CAP, S 470P-50 CH
				C118	87-016-247-080		C-CAP, O. 1-50 F
	87-017-449-010		IC, XR-1071CP	C122	87-018-134-080		CAP, TC-U 0.01-16 Y
	87-001-607-080		IC, NJM4558M	C123	87-010-197-080		C-CAP, S 0.01-25 B
	87-017-374-010		IC, TC4094BP				
	87-002-247-010		IC, BU4052B	C124	87-010-197-080		C-CAP, S 0.01-25 B
	87-002-272-080		IC, TC4052BF	C213	87-010-404-080		CAP, E 4.7-50 SME
				C214	87-010-404-080		CAP, E 4.7-50 SME
	87-001-376-010		IC, LC7218	C215	87-010-182-080		C-CAP, S 2200P-50 B
	87-017-714-010		IC, LA1836	C216	87-010-182-080		C-CAP, S 2200P-50 B
TRANSISTOR				C217	87-010-404-080		CAP, E 4.7-50 SME
	89-110-154-080		TR, 2SA1015Y	C218	87-010-404-080		CAP, E 4.7-50 SME
	89-113-187-880		TR, 2SA1318TU	C219	87-010-185-080		C-CAP, S 3900P-50 B
	87-026-233-080		C-TR, DTA114TK	C220	87-010-185-080		C-CAP, S 3900P-50 B
	87-026-211-080		C-TR, DTA144EK T147	C221	87-010-401-080		CAP, E 1-50 SME
	89-213-702-010		TR, 2SB1370E	C222	87-010-401-080		CAP, E 1-50 SME
				C223	87-016-130-080		CAP, E 47-25 KME
	87-026-609-080		TR, KTA1266GR	C224	87-016-130-080		CAP, E 47-25 KME
	87-026-610-080		TR, KTC3198GR	C225	87-016-130-080		CAP, E 47-25 KME
	89-327-125-080		C-TR, 2SC2712GR	C226	87-016-130-080		CAP, E 47-25 KME
	89-332-665-080		TR, 2SC3266GR				
	89-111-625-080		C-TR, 2SA1162GR	C227	87-012-368-080		C-CAP, S 0.1-50F
				C228	87-012-368-080		C-CAP, S 0.1-50F
	89-333-266-080		C-TR, 2SC3326B	C229	87-012-361-080		C-CAP, S 0.056-25 Y
	87-026-232-080		C-TR, DTA144WK	C230	87-012-361-080		C-CAP, S 0.056-25 Y
	89-318-154-080		TR, 2SC1815Y	C236	87-010-408-080		CAP, E 47-50 SME
	89-333-317-080		TR, 2SC3331T				
	87-026-213-080		C-TR, DTC114YK	C243	87-010-154-080		C-CAP, S 10P-50 CH
				C244	87-010-154-080		C-CAP, S 10P-50 CH
	87-026-226-080		C-TR, DTA143EK	C250	87-010-196-080		C-CAP, S 0.1-25 F
	89-503-655-680		FET, 2SK365GR, BL	C313	87-010-196-080		C-CAP, S 0.1-25 F
	87-026-210-080		C-TR, DTC144EK T147	C351	87-012-154-080		C-CAP, S 150P-50 CH
	87-026-235-080		C-TR, DTC114EK				
	87-026-224-080		C-TR, DTC143XK	C352	87-012-154-080		C-CAP, S 150P-50 CH
				C353	87-012-145-080		C-CAP, S 270P-50CH
	89-109-521-080		TR, 2SA952K	C354	87-012-145-080		C-CAP, S 270P-50CH
	89-112-965-080		TR, 2SA1296GR	C355	87-012-154-080		C-CAP, S 150P-50 CH
	89-406-555-080		TR, 2SD655E	C356	87-012-154-080		C-CAP, S 150P-50 CH
	89-502-464-080		FET, 2SK246Y				
	87-026-214-080		TR, DTA114YS	C357	87-010-189-080		C-CAP, S 8200P-50 B
				C358	87-010-189-080		C-CAP, S 8200P-50 B
	89-327-143-080		C-TR, 2SC2714 (O)	C361	87-010-197-080		C-CAP, S 0.01-25 B
	89-503-025-080		C-FET, 2SK302 GR	C362	87-010-197-080		C-CAP, S 0.01-25 B
				C363	87-010-197-080		C-CAP, S 0.01-25 B
DIODE				C364	87-010-197-080		C-CAP, S 0.01-25 B
	87-002-564-080		DIODE, 1SS133 RA	C401	87-010-402-080		CAP, E 2.2-50 SME
	87-002-225-010		DIODE, DBF40C-K10	C402	87-010-402-080		CAP, E 2.2-50 SME
	87-020-465-080		DIODE, 1SS133	C405	87-010-197-080		C-CAP, S 0.01-25 B
	87-001-574-080		DIODE, 1SR139-200 T31	C406	87-010-197-080		C-CAP, S 0.01-25 B
	87-020-027-080		C-DIODE, 1SS184				
				C409	87-010-189-080		C-CAP, S 8200P-50 B
	87-020-125-080		C-DIODE, 1SS181	C410	87-010-189-080		C-CAP, S 8200P-50 B
	87-017-174-080		ZENER, HZS11A3L	C415	87-012-154-080		C-CAP, S 150P-50 CH
	87-017-147-080		ZENER, HZS33-2	C416	87-012-154-080		C-CAP, S 150P-50 CH
	87-001-731-080		ZENER, HZS6C2L	C451	87-012-156-080		C-CAP, S 220P-50 CH
	87-017-091-080		ZENER, HZS5C1	C452	87-012-156-080		C-CAP, S 220P-50 CH
				C453	87-010-178-080		C-CAP, S 1000P-50 B
	87-020-331-080		C-DIODE, DAN202K	C456	87-010-260-080		CAP, E 47-25 SME
	87-001-290-080		ZENER, HZS6B1L	C457	87-010-197-080		C-CAP, S 0.01-25 B
	87-001-559-080		DIODE, 1SS131 (T-72)	C458	87-010-183-080		C-CAP, S 2700P-50 B

REF. NO	PART NO.	カンリ NO.	DESCRIPTION	REF. NO	PART NO.	カンリ NO.	DESCRIPTION
C459	87-010-183-080		C-CAP, S 2700P-50 B	C702	87-010-404-080		CAP, E 4. 7-50 SME
C460	87-010-183-080		C-CAP, S 2700P-50 B	C703	87-010-197-080		C-CAP, S 0. 01-25 B
C470	87-010-196-080		C-CAP, S 0. 1-25 F	C704	87-010-197-080		C-CAP, S 0. 01-25 B
C501	87-010-196-080		C-CAP, S 0. 1-25 F	C711	87-010-263-080		CAP, E 100-10
C502	87-010-196-080		C-CAP, S 0. 1-25 F	C712	87-010-196-080		C-CAP, S 0. 1-25 F
C503	87-012-155-080		C-CAP, S 180P-50 CH	C722	87-010-312-080		C-CAP, S 15P-50 CH
C504	87-012-155-080		C-CAP, S 180P-50 CH	C723	87-010-178-080		C-CAP, S 1000P-50 B
C507	87-010-178-080		C-CAP, S 1000P-50 B	C724	87-010-178-080		C-CAP, S 1000P-50 B
C508	87-010-178-080		C-CAP, S 1000P-50 B	C725	87-010-178-080		C-CAP, S 1000P-50 B
C509	87-010-371-080		CAP, E 470-6. 3	C727	87-010-194-080		C-CAP, S 0. 047-25 F
C515	87-010-545-080		CAP, E 0. 22-50 SME	C728	87-010-248-080		CAP, E 220-10 SME
C516	87-010-545-080		CAP, E 0. 22-50 SME	C732	87-010-197-080		C-CAP, S 0. 01-25 B
C517	87-012-142-080		C-CAP, S 0. 33-16 F	C771	87-010-405-080		CAP, E 10-50 SME
C518	87-012-142-080		C-CAP, S 0. 33-16 F	C772	87-010-194-080		C-CAP, S 0. 047-25 F
C519	87-010-196-080		C-CAP, S 0. 1-25 F	C773	87-010-196-080		C-CAP, S 0. 1-25 F
C521	87-010-197-080		C-CAP, S 0. 01-25 B	C774	87-010-263-080		CAP, E 100-10
C522	87-010-318-080		C-CAP, S 47P-50 CH	C775	87-010-405-080		CAP, E 10-50 SME
C523	87-010-197-080		C-CAP, S 0. 01-25 B	C776	87-010-197-080		C-CAP, S 0. 01-25 B
C524	87-010-402-080		CAP, E 2. 2-50 SME	C777	87-010-400-080		CAP, E 0. 47-50 SME
C530	87-010-194-080		C-CAP, S 0. 047-25 F	C778	87-010-401-080		CAP, E 1-50 SME
C531	87-010-545-080		CAP, E 0. 22-50 SME	C779	87-010-401-080		CAP, E 1-50 SME
C532	87-010-382-080		CAP, E 22-25 SME	C780	87-010-197-080		C-CAP, S 0. 01-25 B
C533	87-010-404-080		CAP, E 4. 7-50 SME	C781	87-010-405-080		CAP, E 10-50 SME
C534	87-010-404-080		CAP, E 4. 7-50 SME	C782	87-010-405-080		CAP, E 10-50 SME
C535	87-010-404-080		CAP, E 4. 7-50 SME	C787	87-010-184-080		C-CAP, S 3300P-50 B
C536	87-010-404-080		CAP, E 4. 7-50 SME	C788	87-010-184-080		C-CAP, S 3300P-50 B
C537	87-010-196-080		C-CAP, S 0. 1-25 F	C789	87-010-179-080		C-CAP, S 1200P-50 B
C538	87-010-196-080		C-CAP, S 0. 1-25 F	C790	87-010-179-080		C-CAP, S 1200P-50 B
C539	87-010-405-080		CAP, E 10-50 SME	C791	87-010-401-080		CAP, E 1-50 SME
C540	87-010-260-080		CAP, E 47-25 SME	C792	87-010-180-080		C-CAP, S 1500P-50 B
C541	87-010-196-080		C-CAP, S 0. 1-25 F	C793	87-010-189-080		C-CAP, S 8200P-50 B
C543	87-010-546-080		CAP, E 0. 33-50 SME	C794	87-010-408-080		CAP, E 47-50 SME
C544	87-010-546-080		CAP, E 0. 33-50 SME	C795	87-010-194-080		C-CAP, S 0. 047-25 F
C545	87-010-400-080		CAP, E 0. 47-50 SME	C796	87-010-403-080		CAP, E 3. 3-50 SME
C546	87-010-400-080		CAP, E 0. 47-50 SME	C797	87-010-405-080		CAP, E 10-50 SME
C547	87-010-220-080		C-CAP, S 0. 018-25 B	C798	87-010-196-080		C-CAP, S 0. 1-25 F
C548	87-010-220-080		C-CAP, S 0. 018-25 B	C802	87-010-154-080		C-CAP, S 10P-50 CH
C549	87-012-142-080		C-CAP, S 0. 33-16 F	C804	87-010-151-080		C-CAP, S 7P-50 CH
C550	87-016-081-080		C-CAP, S 0. 1-16 RK	C805	87-010-150-080		C-CAP, S 6P-50 CH
C551	87-016-081-080		C-CAP, S 0. 1-16 RK	C806	87-010-145-080		C-CAP, S 1P-50 CH
C601	87-010-401-080		CAP, E 1-50 SME	C807	87-010-154-080		C-CAP, S 10P-50 CH
C602	87-010-405-080		CAP, E 10-50 SME	C808	87-010-322-080		C-CAP, S 100P-50 CH
C603	87-010-101-080		CAP, E 220-16 SME	C809	87-010-197-080		C-CAP, S 0. 01-25 B
C605	87-010-178-080		C-CAP, S 1000P-50 B	C810	87-010-197-080		C-CAP, S 0. 01-25 B
C606	87-010-178-080		C-CAP, S 1000P-50 B	C811	87-010-149-080		C-CAP, S 5P-50 CH
C607	87-010-404-080		CAP, E 4. 7-50 SME	C812	87-010-313-080		C-CAP, S 18P-50 CH
C608	87-010-404-080		CAP, E 4. 7-50 SME	C814	87-010-197-080		C-CAP, S 0. 01-25 B
C609	87-010-404-080		CAP, E 4. 7-50 SME	C816	87-010-197-080		C-CAP, S 0. 01-25 B
C610	87-010-404-080		CAP, E 4. 7-50 SME	C817	87-010-197-080		C-CAP, S 0. 01-25 B
C611	87-010-177-080		C-CAP, S 820P-50 SL	C818	87-010-197-080		C-CAP, S 0. 01-25 B
C612	87-010-177-080		C-CAP, S 820P-50 SL	C819	87-010-197-080		C-CAP, S 0. 01-25 B
C613	87-010-404-080		CAP, E 4. 7-50 SME	C820	87-010-260-080		CAP, E 47-25 SME
C614	87-010-404-080		CAP, E 4. 7-50 SME	C821	87-010-197-080		C-CAP, S 0. 01-25 B
C615	87-010-400-080		CAP, E 0. 47-50 SME	C823	87-010-197-080		C-CAP, S 0. 01-25 B
C616	87-010-400-080		CAP, E 0. 47-50 SME	C830	87-010-197-080		C-CAP, S 0. 01-25 B
C617	87-010-197-080		C-CAP, S 0. 01-25 B	C831	87-010-154-080		C-CAP, S 10P-50 CH
C618	87-010-197-080		C-CAP, S 0. 01-25 B	C835	87-010-154-080		C-CAP, S 10P-50 CH
C619	87-010-184-080		C-CAP, S 3300P-50 B	C836	87-010-312-080		C-CAP, S 15P-50 CH
C620	87-010-184-080		C-CAP, S 3300P-50 B	C837	87-010-312-080		C-CAP, S 15P-50 CH
C621	87-012-155-080		C-CAP, S 180P-50 CH	C840	87-010-197-080		C-CAP, S 0. 01-25 B
C622	87-012-155-080		C-CAP, S 180P-50 CH	C843	87-010-146-080		C-CAP, S 2P-50 CH
C623	87-010-405-080		CAP, E 10-50 SME	C851	87-010-197-080		C-CAP, S 0. 01-25 B
C624	87-010-405-080		CAP, E 10-50 SME	C871	87-010-197-080		C-CAP, S 0. 01-25 B
C630	87-010-405-080		CAP, E 10-50 SME	C872	87-010-178-080		C-CAP, S 1000P-50 B
C631	87-010-401-080		CAP, E 1-50 SME	C944	87-010-311-080		C-CAP, S 12P-50 CH
C640	87-010-196-080		C-CAP, S 0. 1-25 F	C946	87-010-401-080		CAP, E 1-50 SME
C641	87-010-196-080		C-CAP, S 0. 1-25 F	C947	87-010-197-080		C-CAP, S 0. 01-25 B
C645	87-012-142-080		C-CAP, S 0. 33-16 F	C948	87-010-401-080		CAP, E 1-50 SME
C646	87-012-142-080		C-CAP, S 0. 33-16 F	C950	87-010-322-080		C-CAP, S 100P-50 CH
C701	87-010-381-080		CAP, E 330-16 SME	C981	87-018-134-080		CAP, TC-U 0. 01-16 Y

REF. NO	PART NO.	カンリ NO.	DESCRIPTION	REF. NO	PART NO.	カンリ NO.	DESCRIPTION
C983	87-010-544-080		CAP, E 0.1-50	C213	87-010-196-080		C-CAP, S 0.1-25 F
C984	87-010-196-080		C-CAP, S 0.1-25 F	C214	87-010-196-080		C-CAP, S 0.1-25 F
C985	87-010-196-080		C-CAP, S 0.1-25 F	C215	87-010-196-080		C-CAP, S 0.1-25 F
C987	87-010-197-080		C-CAP, S 0.01-25 B	C302	87-010-197-080		C-CAP, S 0.01-25 B
C988	87-015-785-080		C-CAP, 0.1-25 F	C381	87-010-196-080		C-CAP, S 0.1-25 F
C989	87-018-134-080		CAP, TC-U 0.01-16 Y	C382	87-010-196-080		C-CAP, S 0.1-25 F
C990	87-010-197-080		C-CAP, S 0.01-25 B	C383	87-010-196-080		C-CAP, S 0.1-25 F
CF801	87-008-261-010		FLTR, SFE10. 7MA5-A	C389	87-010-154-080		C-CAP, S 10P-50 CH
CF802	87-008-261-010		FLTR, SFE10. 7MA5-A	C401	87-015-785-080		C-CAP, 0.1-25 F
D801	87-002-730-080		VARI-CAP, SVC203SPA	C402	87-010-196-080		C-CAP, S 0.1-25 F
D802	87-002-730-080		VARI-CAP, SVC203SPA	C403	87-010-196-080		C-CAP, S 0.1-25 F
D803	87-002-730-080		VARI-CAP, SVC203SPA	C501	87-010-384-040		CAP, E 100-25 SME
J250	87-049-855-010		JACK, 6.3 W/S	C701	87-010-175-080		C-CAP, S 560P-50 SL
J253	87-099-474-010		JACK, PIN 3P BLK	C702	87-010-175-080		C-CAP, S 560P-50 SL
J254	87-033-226-010		TERMINAL, SP 4P (JT)	C703	87-010-154-080		C-CAP, S 10P-50 CH
J652	80-MT3-616-010		JACK, PIN 2P	C704	87-010-154-080		C-CAP, S 10P-50 CH
J801	82-NF5-621-010		ANT TERM JBT0222	C705	87-012-154-080		C-CAP, S 150P-50 CH
L401	87-005-580-080		COIL, 10MHJ	C706	87-012-154-080		C-CAP, S 150P-50 CH
L402	87-005-580-080		COIL, 10MHJ	C707	87-010-220-080		C-CAP, S 0.018-25 B
L403	82-231-622-080		COIL, 22MH-J	C708	87-010-220-080		C-CAP, S 0.018-25 B
L404	82-231-622-080		COIL, 22MH-J	C709	87-010-186-080		C-CAP, S 4700P-50 B
L451	87-007-300-010		COIL, OSC BIAS 85K	C710	87-010-186-080		C-CAP, S 4700P-50 B
L701	81-631-643-010		COIL, 1 POLE MPX	C711	87-012-140-080		C-CAP, S 470P-50 CH
L702	81-631-643-010		COIL, 1 POLE MPX	C712	87-012-140-080		C-CAP, S 470P-50 CH
L741	87-006-253-010		COIL, FM DET N	C713	87-010-213-080		C-CAP, S 0.015-25 B
L742	82-NT1-659-010		FLTR, CFAZ-450 2NT	C714	87-010-213-080		C-CAP, S 0.015-25 B
L770	87-003-102-080		COIL, 10UH	C715	87-010-318-080		C-CAP, S 47P-50 CH
L771	87-003-098-080		COIL, 2.2UH	C716	87-010-318-080		C-CAP, S 47P-50 CH
L801	87-006-249-010		COIL, ANT FM 3/4TS, L4	C717	87-010-178-080		C-CAP, S 1000P-50 B
L802	87-006-254-010		COIL, ANT FM2-3/4TS, S	C718	87-010-178-080		C-CAP, S 1000P-50 B
L803	87-006-244-010		COIL, RF FM 3-1/2T, L4	C719	87-010-176-080		C-CAP, S 680P-50 SL
L804	87-006-250-010		COIL, RF FM3-1/2TS, L4	C720	87-010-176-080		C-CAP, S 680P-50 SL
L805	87-003-098-080		COIL, 2.2UH	C729	87-010-264-040		CAP, E 100-10 5L
L806	87-008-427-010		COIL, FMIFT (4T)	C730	87-010-384-040		CAP, E 100-25 SME
L807	87-006-205-010		COIL, OSC FM (7K)	FL101	83-NFJ-602-010		FL, BJ289GK
L832	87-003-098-080		COIL, 2.2UH	FT102	82-NF5-651-010		CABLE FFC 14P-1.25
L981	81-MX4-620-010		AM PACK 3, S	LED401	87-017-784-080		LED, SEL1550CM TP8
R105	87-022-050-080		RES METAL 1W-0.22J	LED402	87-017-784-080		LED, SEL1550CM TP8
R106	87-022-050-080		RES METAL 1W-0.22J	LED403	87-017-784-080		LED, SEL1550CM TP8
R203	87-022-184-080		RES METAL 0.33-1W	LED404	87-017-784-080		LED, SEL1550CM TP8
R204	87-022-184-080		RES METAL 0.33-1W	LED405	87-017-784-080		LED, SEL1550CM TP8
SFR351	87-024-349-080		SFR, 1K DIA6 H	LED406	87-017-784-080		LED, SEL1550CM TP8
SFR352	87-024-349-080		SFR, 1K DIA6 H	LED420	87-017-733-080		LED, SEL1250SM
SFR401	87-024-349-080		SFR, 1K DIA6 H	LED421	87-017-733-080		LED, SEL1250SM
SFR402	87-024-349-080		SFR, 1K DIA6 H	LED422	87-017-733-080		LED, SEL1250SM
SFR451	87-024-356-080		SFR, 47K DIA6 H	LED423	87-017-733-080		LED, SEL1250SM
SFR452	87-024-356-080		SFR, 47K DIA6 H	LED424	87-017-350-080		LED, SEL1550CM
SFR722	87-024-352-080		SFR, 4.7K DIA6 H	LED425	87-017-350-080		LED, SEL1550CM
SFR771	87-024-354-080		SFR, 22K DIA6 H	LED426	87-017-350-080		LED, SEL1550CM
TC701	87-011-221-080		TRIMMER, 30P VCT51	LED427	87-017-350-080		LED, SEL1550CM
TC801	87-011-219-080		CAP, TRIMMER 10P VCT	S303	87-036-215-080		SW, TACT EVQ21404M
TC802	87-011-219-080		CAP, TRIMMER 10P VCT	S304	87-036-215-080		SW, TACT EVQ21404M
VR651	83-NF5-639-010		VR, 50KBX2 RK14K12A0	S305	87-036-215-080		SW, TACT EVQ21404M
W101	83-NE2-618-010		F-CABEL, 5P-2.5	S306	87-036-215-080		SW, TACT EVQ21404M
W301	83-NF5-647-010		CABLE FFC 6P-1.25(4ZG1)	S321	87-036-215-080		SW, TACT EVQ21404M
W301	83-NF5-631-010		F-CABLE, 6-2.0	S322	87-036-215-080		SW, TACT EVQ21404M
X703	84-508-618-010		VIB, CER CSB 456 F15	S323	87-036-215-080		SW, TACT EVQ21404M
X721	87-030-163-010		VIB, XTAL 7.2MHZ(NDK)	S324	87-036-215-080		SW, TACT EVQ21404M
				S325	87-036-215-080		SW, TACT EVQ21404M
				S326	87-036-215-080		SW, TACT EVQ21404M
				S327	87-036-215-080		SW, TACT EVQ21404M
				S328	87-036-215-080		SW, TACT EVQ21404M
				S329	87-036-215-080		SW, TACT EVQ21404M
				S341	87-036-215-080		SW, TACT EVQ21404M
				S342	87-036-215-080		SW, TACT EVQ21404M
				S343	87-036-215-080		SW, TACT EVQ21404M
				S344	87-036-215-080		SW, TACT EVQ21404M
				S345	87-036-215-080		SW, TACT EVQ21404M
				S347	87-036-215-080		SW, TACT EVQ21404M
				S348	87-036-215-080		SW, TACT EVQ21404M
FRONT C. B							
C201	87-010-404-040		CAP, E 4.7-50 SME				
C202	87-010-404-040		CAP, E 4.7-50 SME				
C203	87-010-408-040		CAP, E 47-50 SME				
C204	87-010-196-080		C-CAP, S 0.1-25 F				
C205	87-010-264-040		CAP, E 100-10 5L				
C206	87-016-088-040		CAP, E 220-6.3 SR				
C207	87-010-071-040		CAP, E 1-50 5L				
C208	87-015-785-080		C-CAP, 0.1-25 F				
C212	87-010-405-040		CAP, E 10-50 SME				

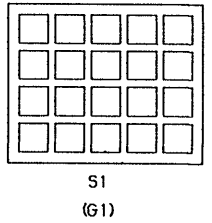
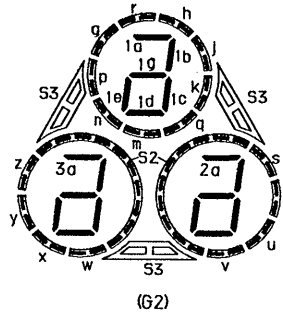
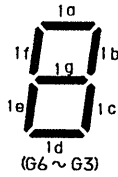
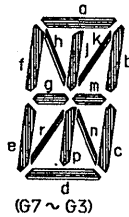
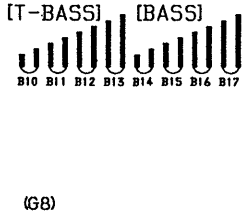
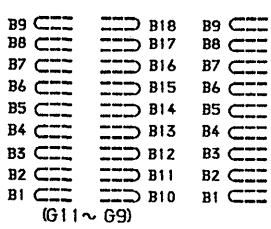
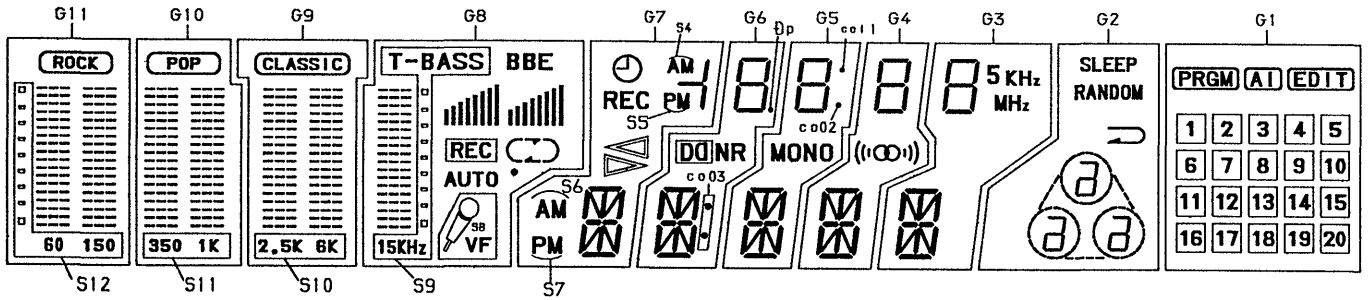
REF. NO	PART NO.	カンリ NO.	DESCRIPTION	REF. NO	PART NO.	カンリ NO.	DESCRIPTION
W302	83-NF8-613-010		F-CABLE 2P-2.0 KEY	C210	87-012-153-080		C-CAP, S 120P-50 CH
W303	83-NF8-612-010		F-CABLE 8P-2.0 MIC	C211	87-010-401-080		CAP, E 1-50 SME
X201	87-030-345-080		VIB, CER CST 5.76MGW	C212	87-010-401-080		CAP, E 1-50 SME
				C213	87-010-186-080		C-CAP, S 4700P-50 B
				C214	87-010-186-080		C-CAP, S 4700P-50 B
<b>3CD C. B</b>							
C1	87-010-188-080		C-CAP, S 6800P-50 B	C231	87-010-263-080		CAP, E 100-10
C2	87-010-196-080		C-CAP, S 0.1-25 F	C232	87-010-263-080		CAP, E 100-10
C3	87-010-196-080		C-CAP, S 0.1-25 F	C301	87-010-178-080		C-CAP, S 1000P-50 B
C4	87-010-196-080		C-CAP, S 0.1-25 F	C302	87-010-404-080		CAP, E 4.7-50 SME
C5	87-010-404-080		CAP, E 4.7-50 SME	C304	87-010-197-080		C-CAP, S 0.01-25 B
C6	87-010-594-080		C-CAP, S 0.033-16 RK	C305	87-010-381-080		CAP, E 330-16 SME
C7	87-010-197-080		C-CAP, S 0.01-25 B	C306	87-010-198-080		C-CAP, S 0.022-25 B
C8	87-010-403-080		CAP, E 3.3-50 SME	C307	87-010-178-080		C-CAP, S 1000P-50 B
C9	87-010-382-080		CAP, E 22-25 SME	C308	87-010-178-080		C-CAP, S 1000P-50 B
C10	87-010-260-080		CAP, E 47-25 SME	C310	87-018-184-080		CAP, TC-U 0.01-16 Y
C11	87-010-197-080		C-CAP, S 0.01-25 B	C312	87-010-196-080		C-CAP, S 0.1-25 F
C12	87-010-193-080		C-CAP, S 0.033-25 F	C313	87-010-196-080		C-CAP, S 0.1-25 F
C13	87-010-197-080		C-CAP, S 0.01-25 B	L1	87-003-295-080		COIL, 10UH
C14	87-010-193-080		C-CAP, S 0.033-25 F	M301	87-045-305-010		MOTOR, RF-500TB
C15	87-010-182-080		C-CAP, S 2200P-50 B	SFR1	87-024-176-080		SFR, 100K DIA6 V
C21	87-010-198-080		C-CAP, S 0.022-25 B	SFR2	87-024-173-080		SFR, 22K DIA6 V
C22	87-010-196-080		C-CAP, S 0.1-25 F	SFR3	87-024-176-080		SFR, 100K DIA6 V
C23	87-010-263-080		CAP, E 100-10	W501	83-NF5-644-010		F-CABLE 2-2.0-230
C24	87-010-178-080		C-CAP, S 1000P-50 B	X101	87-030-227-080		VIB, XTAL 33.8688MHZ
C25	87-010-197-080		C-CAP, S 0.01-25 B				
C26	87-010-260-080		CAP, E 47-25 SME	<b>MIC C. B</b>			
C27	87-010-196-080		C-CAP, S 0.1-25 F	C604	87-010-183-080		C-CAP, S 2700P-50 B
C28	87-010-263-080		CAP, E 100-10	C606	87-010-401-040		CAP, E 1-50 SME
C29	87-010-197-080		C-CAP, S 0.01-25 B	C607	87-010-178-080		C-CAP, S 1000P-50 B
C30	87-010-196-080		C-CAP, S 0.1-25 F	C608	87-010-075-040		CAP, E 10-16 5L
C31	87-010-193-080		C-CAP, S 0.033-25 F	C609	87-010-196-080		C-CAP, S 0.1-25 F
C33	87-010-196-080		C-CAP, S 0.1-25 F	C610	87-012-145-080		C-CAP S 270P-50CH
C34	87-010-197-080		C-CAP, S 0.01-25 B	C612	87-010-322-080		C-CAP, S 100P-50 CH
C35	87-010-381-080		CAP, E 330-16 SME	C613	87-010-196-080		C-CAP, S 0.1-25 F
C36	87-010-196-080		C-CAP, S 0.1-25 F	C624	87-010-183-080		C-CAP, S 2700P-50 B
C37	87-010-260-080		CAP, E 47-25 SME	C626	87-010-401-040		CAP, E 1-50 SME
C38	87-010-197-080		C-CAP, S 0.01-25 B	C627	87-010-178-080		C-CAP, S 1000P-50 B
C39	87-010-260-080		CAP, E 47-25 SME	C630	87-010-075-040		CAP, E 10-16 5L
C40	87-010-197-080		C-CAP, S 0.01-25 B	C640	87-010-075-040		CAP, E 10-16 5L
C41	87-010-146-080		C-CAP, S 2P-50 CH	C644	87-010-071-040		CAP, E 1-50 5L
C42	87-010-154-080		C-CAP, S 10P-50 CH	C645	87-010-263-040		CAP, E 100-10
C45	87-018-209-080		CAP, TC-U 0.1-50 F	C646	87-010-196-080		C-CAP, S 0.1-25 F
C101	87-010-194-080		C-CAP, S 0.047-25 F	C647	87-010-196-080		C-CAP, S 0.1-25 F
C102	87-010-180-080		C-CAP, S 1500P-50 B	C648	87-010-196-080		C-CAP, S 0.1-25 F
C103	87-010-263-080		CAP, E 100-10	J601	82-NF7-630-010		JACK, 3.5 MO
C104	87-010-197-080		C-CAP, S 0.01-25 B	J621	82-NF7-630-010		JACK, 3.5 MO
C105	87-010-186-080		CHIP CAP 4700P-50 B	O601	89-327-125-080		C-TR, 2SC2712GR
C106	87-012-156-080		C-CAP, S 220P-50 CH	O622	89-327-125-080		C-TR, 2SC2712GR
C107	87-010-197-080		C-CAP, S 0.01-25 B	S308	87-036-215-080		SW, TACT EVQ21404M
C108	87-010-400-080		CAP, E 0.47-50 SME	S312	87-036-215-080		SW, TACT EVQ21404M
C112	87-010-154-080		C-CAP, S 10P-50 CH	VR602	82-NK7-615-010		VR, 10KA RK11K1130
C113	87-010-154-080		C-CAP, S 10P-50 CH				
C114	87-010-314-080		C-CAP, S 22P-50 CH	<b>MVR C. B</b>			
C115	87-010-404-080		CAP, E 4.7-50 SME	C721	87-010-402-080		CAP, E 2.2-50 SME
C116	87-010-263-080		CAP, E 100-10	C722	87-010-402-080		CAP, E 2.2-50 SME
C117	87-010-194-080		C-CAP, S 0.047-25 F	C738	87-010-370-080		CAP, E 330-6.3 SME
C118	87-010-154-080		C-CAP, S 10P-50 CH	C741	87-010-198-080		C-CAP, S 0.022-25 B
C120	87-010-263-080		CAP, E 100-10	C747	87-010-401-080		CAP, E 1-50 SME
C121	87-010-197-080		C-CAP, S 0.01-25 B	C748	87-010-401-080		CAP, E 1-50 SME
C122	87-010-196-080		C-CAP, S 0.1-25 F	C750	87-010-381-080		CAP, E 330-16 SME
C201	87-012-153-080		C-CAP, S 120P-50 CH	MVR741	83-NF8-609-010		VR, 50KBX2 (M)
C202	87-012-153-080		C-CAP, S 120P-50 CH				
C203	87-012-153-080		C-CAP, S 120P-50 CH	<b>KEY C. B</b>			
C204	87-012-153-080		C-CAP, S 120P-50 CH	S349	87-036-215-080		SW, TACT EVQ21404M
C205	87-012-153-080		C-CAP, S 120P-50 CH	S350	87-036-215-080		SW, TACT EVQ21404M
C206	87-012-153-080		C-CAP, S 120P-50 CH	S351	87-036-215-080		SW, TACT EVQ21404M
C207	87-012-153-080		C-CAP, S 120P-50 CH	S352	87-036-215-080		SW, TACT EVQ21404M
C208	87-012-153-080		C-CAP, S 120P-50 CH	S353	87-036-215-080		SW, TACT EVQ21404M
C209	87-012-153-080		C-CAP, S 120P-50 CH				



REF. NO	PART NO.	カソリ NO.	DESCRIPTION	REF. NO	PART NO.	カソリ NO.	DESCRIPTION
SNSR C. B				AC2 C. B			
PH401	87-026-573-010		P-SNSR, GP1S53V	△ PT101	83-NF8-607-010		PT, HR
MOTOR-1 C. B				AC1 C. B			
C314	87-010-196-080		C-CAP, S 0.1-25 F	△	87-033-147-010		CLAMP, FUSE
M302	87-045-305-010		MOTOR, RF-500TB	△	82-304-743-010		TERMINAL, 1P
				△ F101	87-035-360-010		FUSE, 630MA 250V T E
U/D C. B				DECK C. B			
SW601	87-036-271-010		SW, LVR 1-2-2 (*)	SFR1	87-024-581-010		SFR, 3. 3K DIA 6H KOA
OPEN SW C. B				SOL1	82-ZM1-618-310		SOL ASSY, 27
SW602	87-036-271-010		SW, LVR 1-2-2 (*)	SW2	87-036-110-010		SW, PUSH SPPB 62
CLOSE SW C. B				SW3	87-036-110-010		SW, PUSH SPPB 62
SW701	87-036-109-010		SW, PUSH SPPB 61	SW4	87-036-110-010		SW, PUSH SPPB 62
LED C. B				SW5	87-036-110-010		SW, PUSH SPPB 62
LED902	87-017-806-010		LED, SEL1810DM	SW6	87-036-110-010		SW, PUSH SPPB 62
LED903	87-017-350-080		LED, SEL1550CM	RELAY C. B			
LED904	87-017-350-080		LED, SEL1550CM	TR-1 C. B			
LED905	87-017-806-010		LED, SEL1810DM	TR-2 C. B			
MOTOR-2 C. B							
M2	9X-262-513-210		SLED MOTOR				
S4	91-572-085-110		LEAF SW				

# FL (BJ289GK) GRID ASSIGNMENT/ANODE CONNECTION

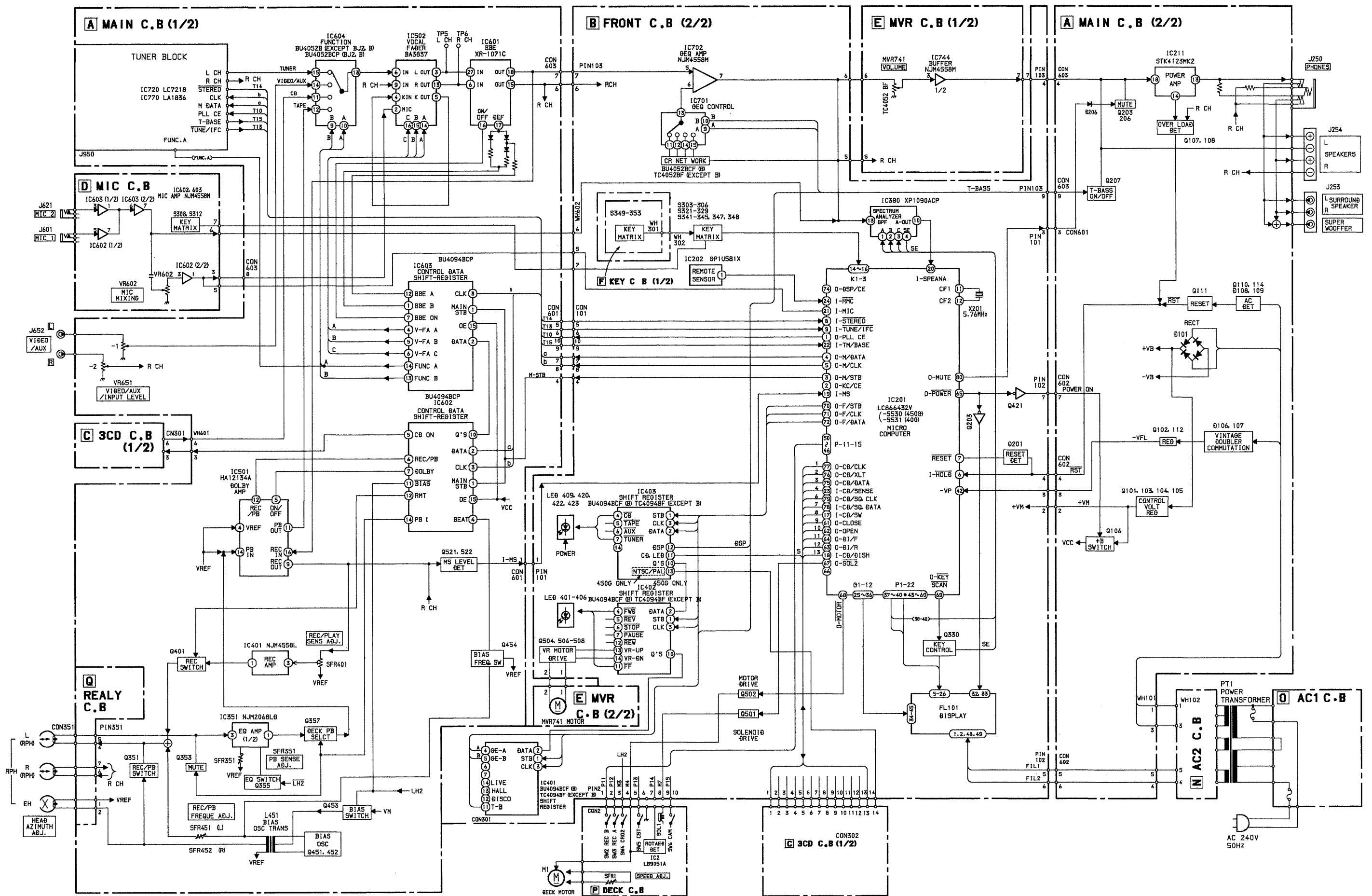
## GRID ASSIGNMENT



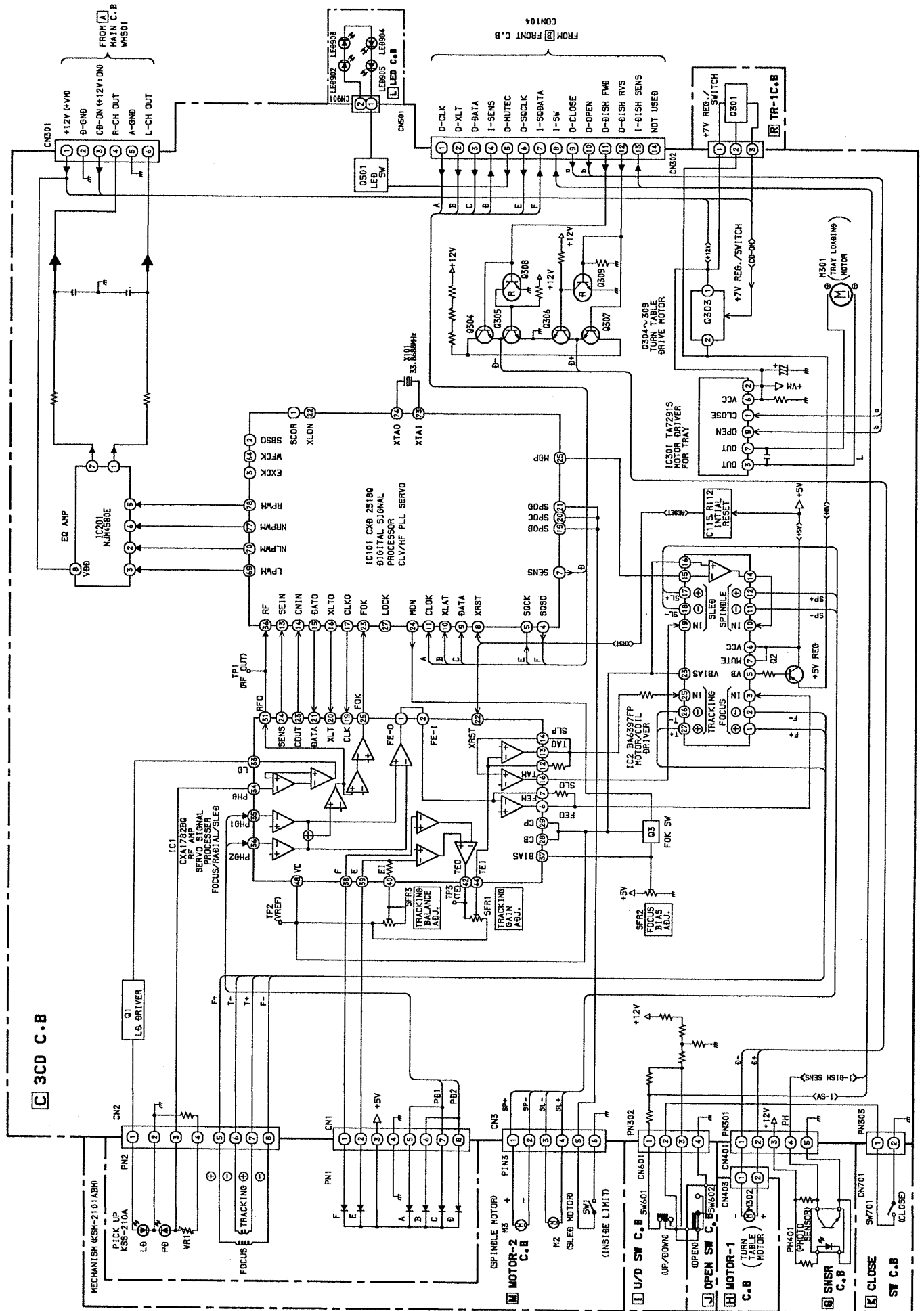
## ANODE CONNECTION

	G11	G10	G9	G8	G7	G6	G5	G4	G3	G2	G1
P1	B10	B10	B10	C	d	d	d	d	d	s, t, w, x	20
P2	B1	B1	B1	B1	j, p	j, p	j, p	j, p	j, p	u, v, y, z	19
P3	B11	B11	B11	S8	n	n	n	n	n	3e	18
P4	B2	B2	B2	B2	r	r	r	r	r	3c	17
P5	B12	B12	B12	O	c	c	c	c	c	3a, 3d, 3g	16
P6	B3	B3	B3	B3	e	e	e	e	e	3b	15
P7	B13	B13	B13	O	m	m	m	m	m	2e	14
P8	B4	B4	B4	B4	g	g	g	g	g	2c	13
P9	B5	B5	B5	B5	f	f	f	f	f	2a, 2d, 2g	11
P10	B15	B15	B15	AUTO	b	b	b	b	b	S3	10
P11	B6	B6	B6	B6	k	k	k	k	k	j, m, q	9
P12	B16	B16	B16	B10	h	h	h	h	h	h, l, p	8
P13	B7	B7	B7	B7	a	a	a	a	a	k, n, r	7
P14	B14	B14	B14	REC	S7	col 3	col 1	—	KHz	2b	12
P15	B17	B17	B17	B11	S6	DO NR	MONO	(((O)))	5	1e	6
P16	B8	B8	B8	B8	▷	▷p1	col 2	—	MHz	1a, 1d, 1g	5
P17	B18	B18	B18	B12	◁	1d	1d	1d	1d	1c	4
P18	B9	B9	B9	B9	REC	1e	1e	1e	1e	1b	3
P19	□	□	□	B13	S5	1c	1c	1c	1c	—	2
P20	—	—	—	B14	—	1g	1g	1g	1g	S2	1
P21	—	—	—	B15	/	1f	1f	1f	1f	↻	EDIT
P22	—	—	—	B16	⌚	1b	1b	1b	1b	SLEEP	AI
ST1	ROCK	POP	CLASSIC	B17	S4	1a	1a	1a	1a	RANDOM	PRGM
ST2	S12	S11	S10	S9	⌘	—	—	—	—	—	S1
ST3	—	—	—	BBE	—	—	—	—	—	—	—

BLOCK DIAGRAM - 1 (MAIN/FRONT)



# BLOCK DIAGRAM - 2 (CD)

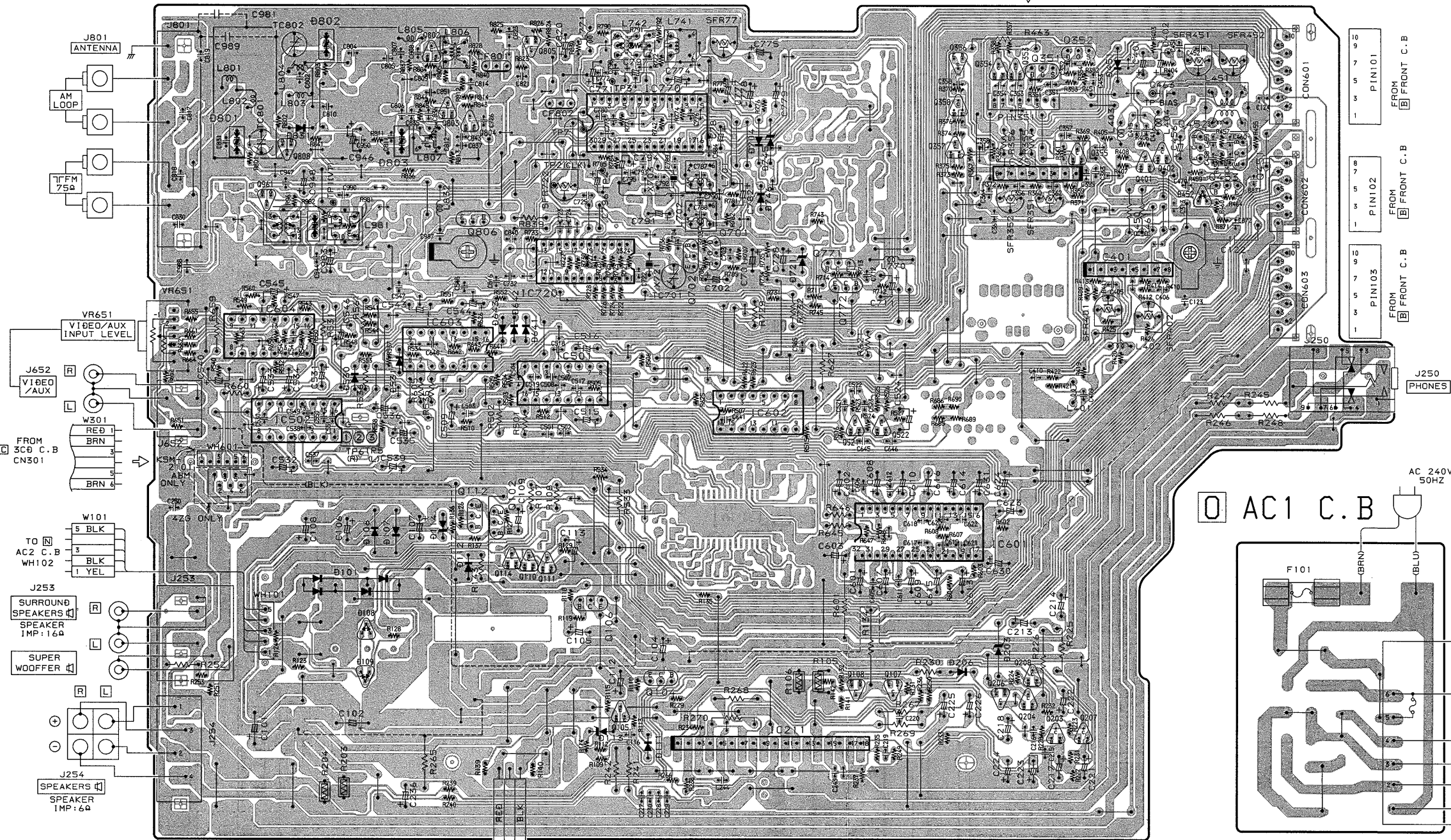




A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K

A MAIN C.B

FROM RELAY C.B  
CON551  
8 7 5 3 1  
↓ TO PIN351



10 9 7 5 3 1  
FROM FRONT C.B  
PIN101

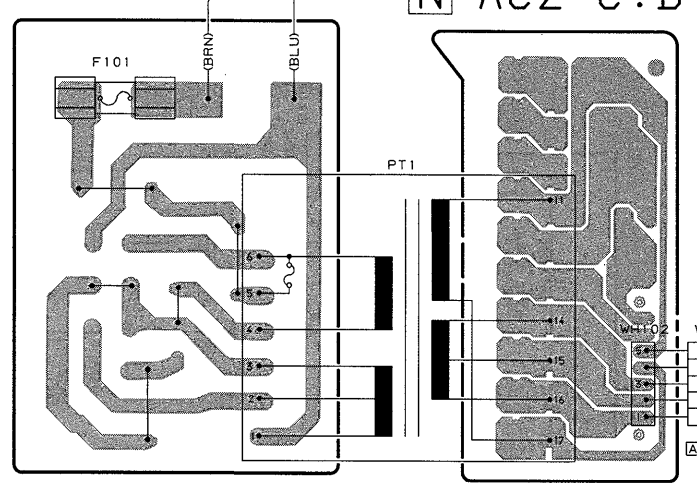
8 7 5 3 1  
FROM FRONT C.B  
PIN102

10 9 7 5 3 1  
FROM FRONT C.B  
PIN103

J250 PHONES

O AC1 C.B

N AC2 C.B

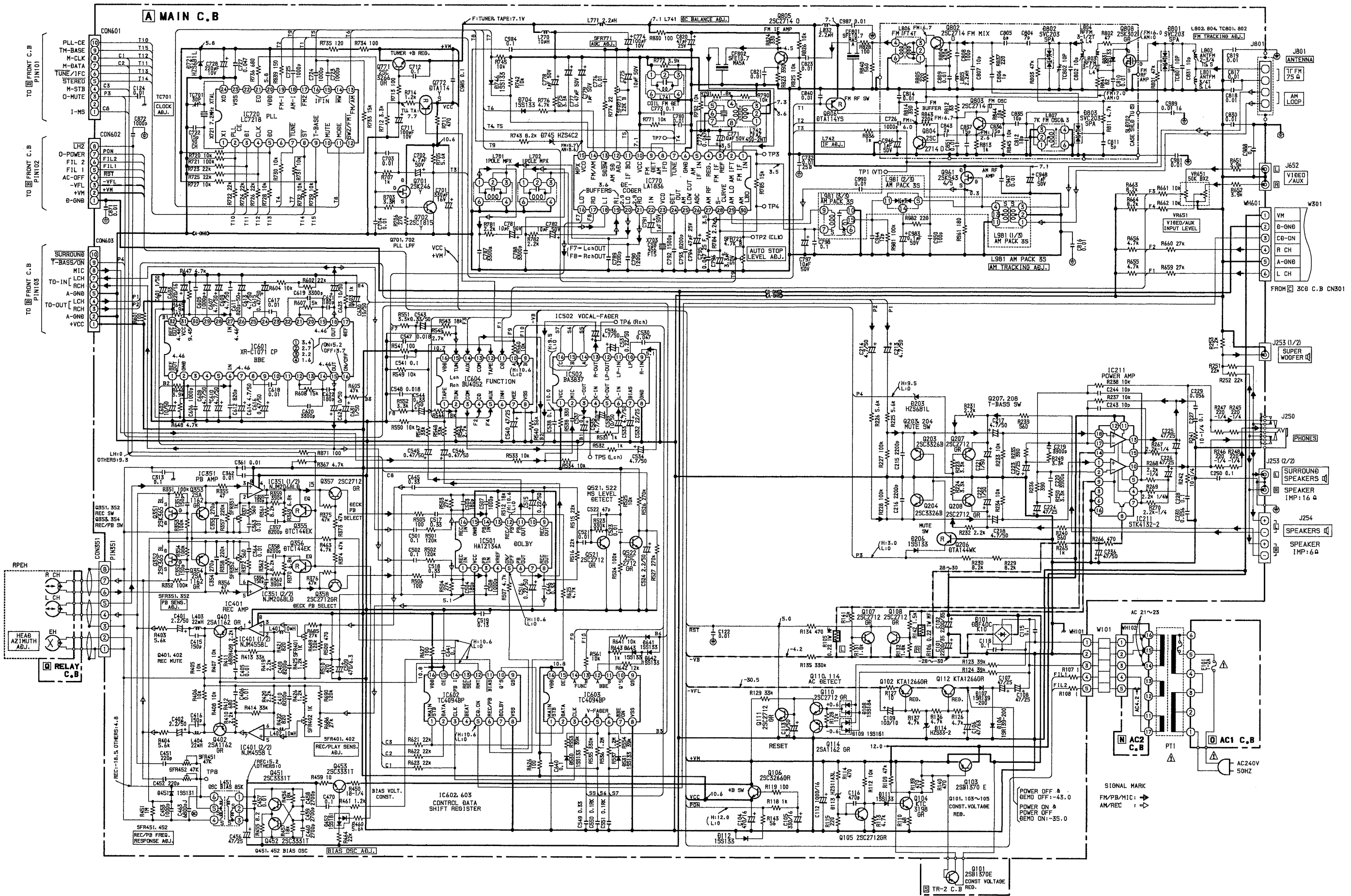


W101  
BLK  
YEL  
TO MAIN C.B  
WH101

S TR-2 C.B

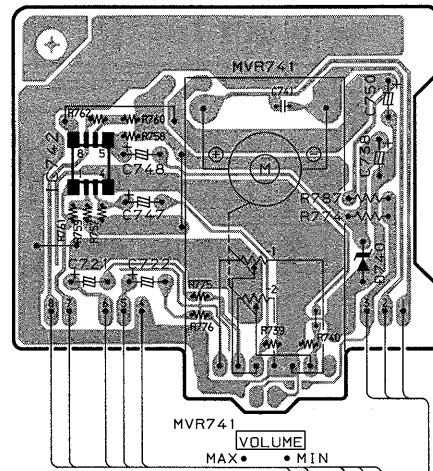


SCHEMATIC DIAGRAM - 1 (MAIN)

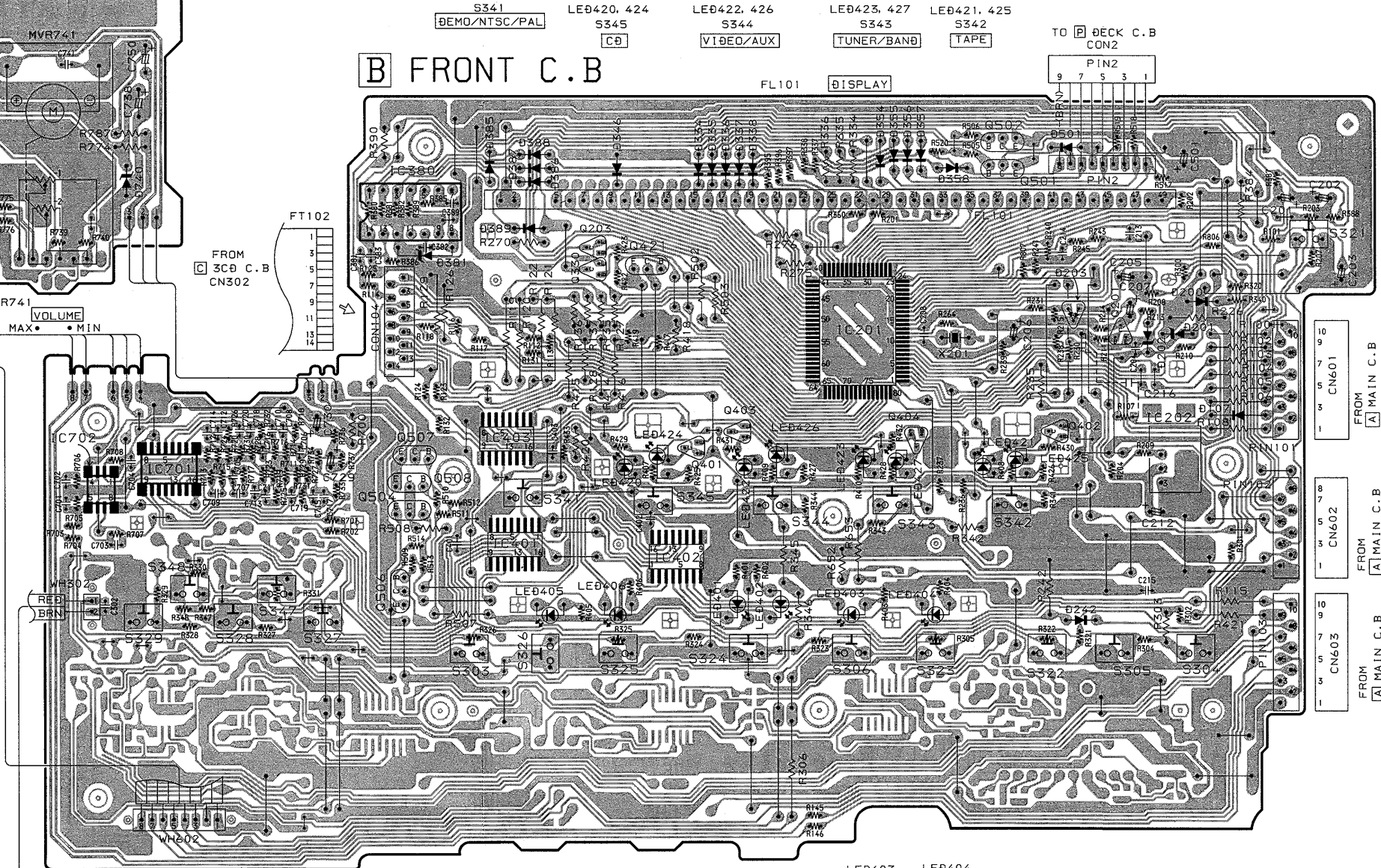


1 2 3 4 5 6 7 8 9 10 11 12 13 14

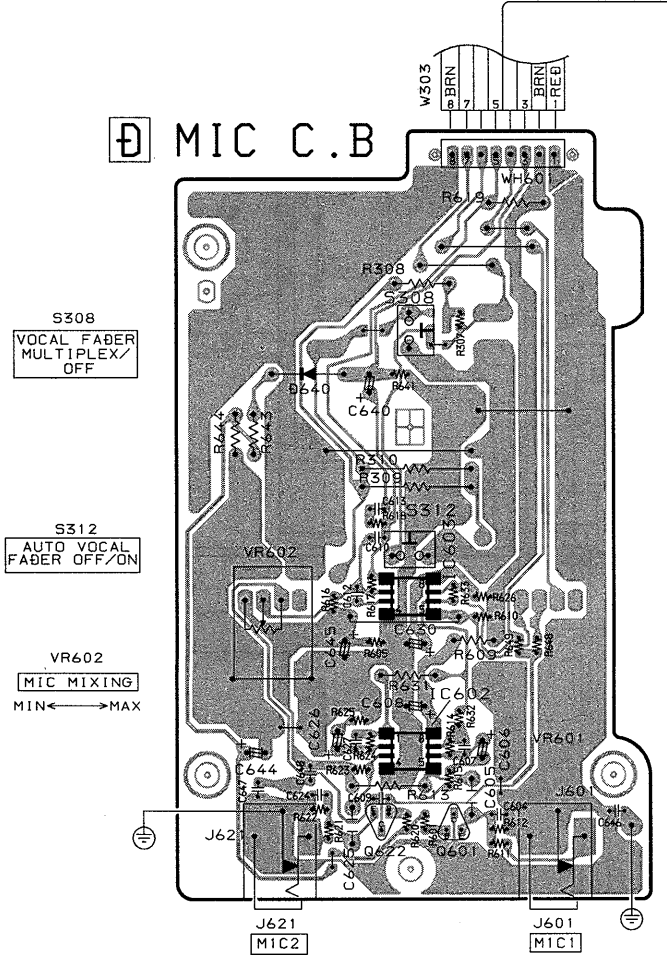
E MVR C.B



B FRONT C.B



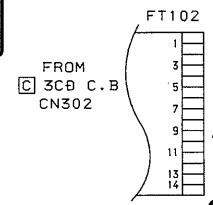
D MIC C.B



S308  
VOCAL FABER  
MULTIPLEX/  
OFF

S312  
AUTO VOCAL  
FABER OFF/ON

VR602  
MIC MIXING  
MIN ← → MAX

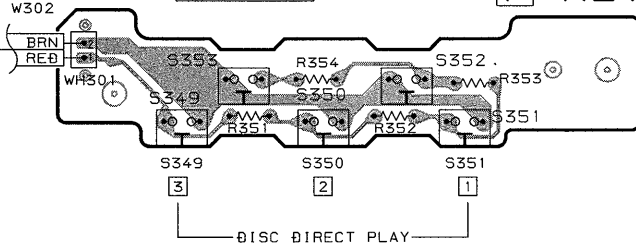


S329 CLASSIC  
S328 POP  
S327 ROCK

S347  
T-BASS

S303 DOLBY NR  
LE0405 UP  
LE0406 DOWN  
LE0401, 402 DIR/PRESET  
LE0403 CLEAR  
LE0404 SET  
S322 REC/REC MUTE  
S305 EDIT  
S304 REV MODE

F KEY C.B



S353 OPEN/CLOSE  
S352 DISC CHANGE

DISC DIRECT PLAY

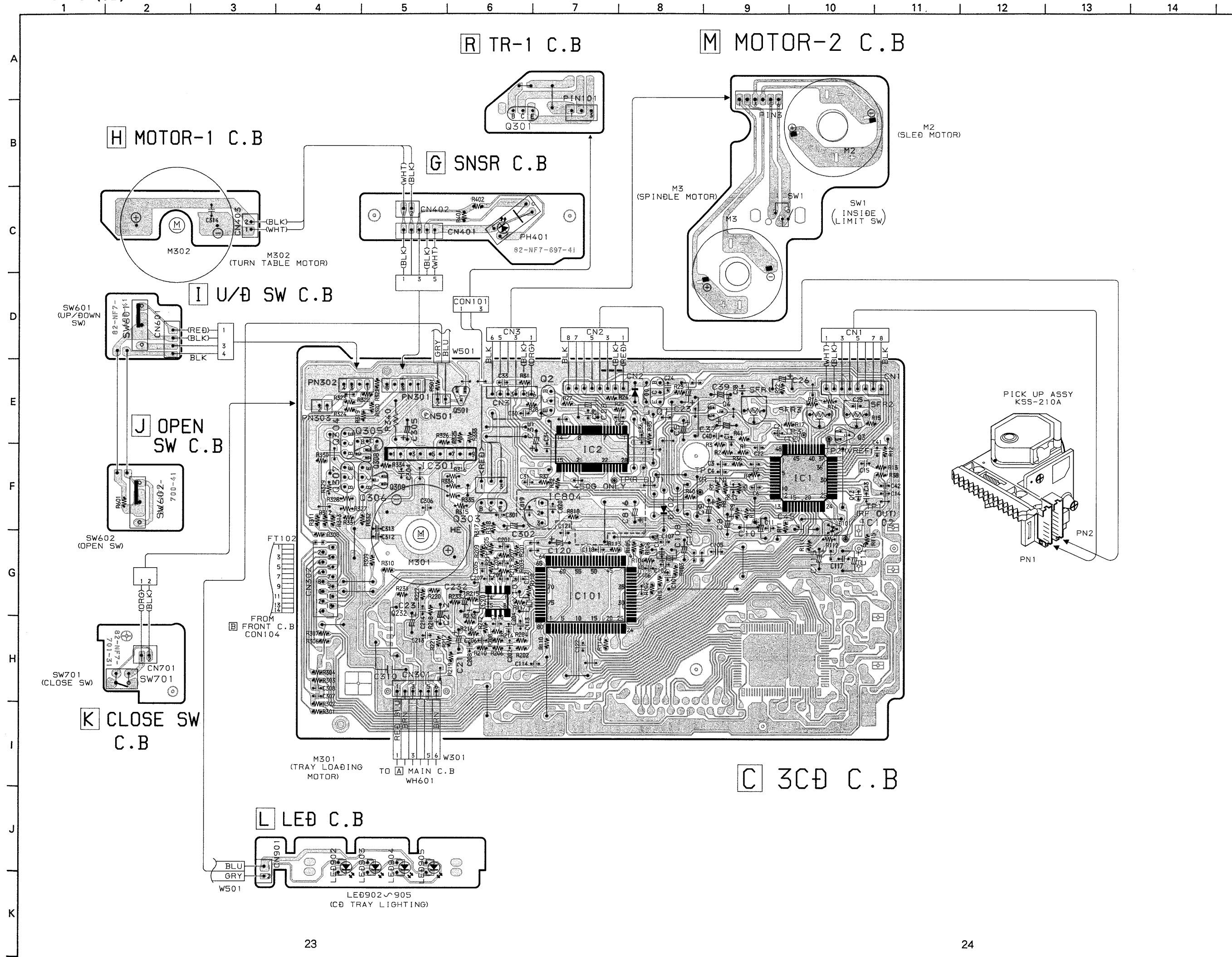
S321  
POWER  
STANDBY/ON

IC202  
REMOTE  
SENSOR

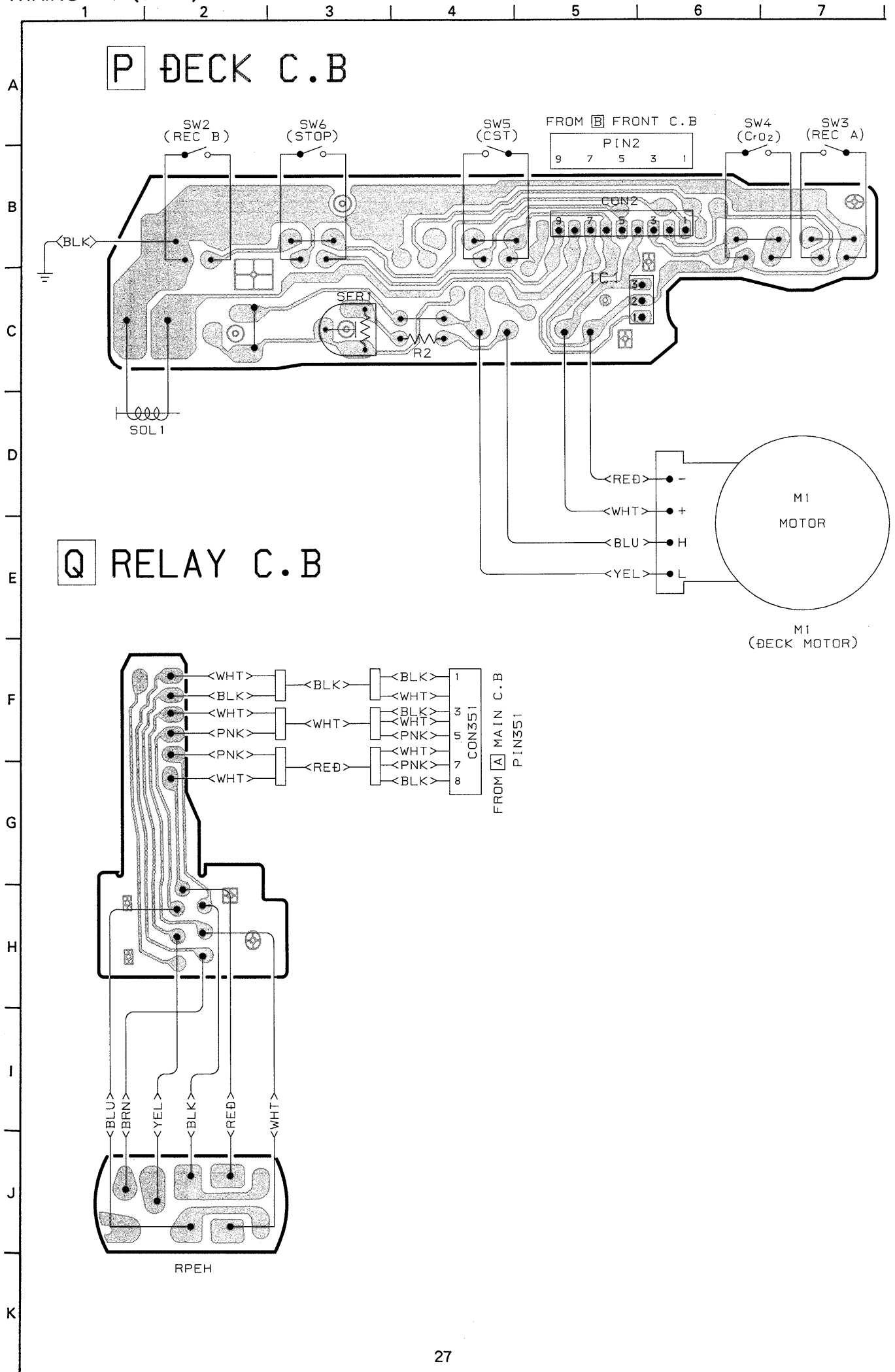
FROM MAIN C.B  
CN601  
FROM MAIN C.B  
CN602  
FROM MAIN C.B  
CN603











# IC DESCRIPTION

## IC,LC866432V – 5531

Pin No.	Pin Name	I/O	Description
1	O-PLL CE	O	PLL IC chip enable.
2	O-KC/CE	O	Key control IC M65840 data latched strobe output.
3	O-M/STB	O	Main shift register (IC602, 603) data latch strobe output.
4	O-M/DATA	O	Main shift register (IC602, 603), PLL/key control/DSP related data output.
5	O-M/CLK	O	Main shift register (IC602, 603), PLL/key control/DSP related clock output.
6	I-HOLD	I	Power failure detected input. L to stop clock and maintain memory.
7	RESET	I	Reset input.
8	I-STEREO	I	Tuner stereo detected input.
9	I-TUNE/IFC	I	Tuner SD detected input. IF count serial data input.
10	VSS1	—	GND.
11, 12	CF1, 2	—	5.76MHz oscillator circuit.
13	VDD1	—	Power supply input.
14~16	I-KEY1~3	I	Key input. (A/D)
17	I-CD/SW	I	CD mechanical switch A/D converter input.
18	I-CD/DISH	I	CD turntable photo sensor A/D converter input.
19	I-MS	I	Deck music sensor signal input.
20	I-SPEANA	I	A/D input for spectrum analyzer display.
21	I-MIC	I	Microphone input for auto VF display.
22	I-TM BASE	I	Reference clock input for timer watch.
23	I-CD/SENSE	I	CD IC control SENS input.
24	I-RMC	I	System remote control signal input.
25~36	G12~G1	O	FL grid output G12~G1.
37	P22	O	FL segment output P22.
38	P21/O-SPEANA A	O	FL segment output P21, spectrum analyzer band switch output (A).
39	P20/O-SPEANA B	O	FL segment output P20, spectrum analyzer band switch output (B).
40	P19/O-SPEANA C	O	FL segment output P19, spectrum analyzer band switch output (C).
41	VDD2	—	Power supply input.
42	-VP	—	Power supply input (-34.5V) for FL display.
43	P18	I/O	FL segment output P18.
44	P17	I/O	FL segment output P17.
45	P16	I/O	FL segment output P16.
46	P15/CSM2	I/O	FL segment output P15, DECK cam switch signal input.
47	P14/AUTO2	I/O	FL segment output P14, DECK auto stop data input.
48	P13/CST2	I/O	FL segment output P13, DECK cassette detect switch data input.
49	P12/REA	I/O	FL segment output P12, DECK side-A record OK switch data input.
50	P11/REB	I/O	FL segment output P11, DECK2 side-B record OK switch data input.
51	P10/FM-WIDE	I/O	FL segment output P10, FM wide mode data input to diode.
52	P1/AM-ST	I/O	FL segment output P1, AM stereo mode data input to diode.
53	P2	O	FL segment output P2.

Pin No.	Pin Name	I/O	Description
54	P3/LW	I/O	FL segment output P3, LW mode data input to diode.
55	P4/SW	I/O	FL segment output P4, SW mode data input to diode.
56	P5/BBE	I/O	FL segment output P5, BBE mode data input to diode.
57	P6	O	FL segment output P6.
58	P7	O	FL segment output P7.
59	P8	O	FL segment output P8.
60	P9	O	FL segment output P9.
61	O-CLOSE	O	CD tray close data output.
62	O-OPEN	O	CD tray open data output.
63	O-DI/R	O	CD turntable reverse rotation output.
64	O-DI/F	O	CD turntable forward rotation output.
65	O-POWER	O	System power supply $\overline{ON}$ /OFF output.
66	—	—	Not used.
67	O-SOLZ	O	DECK solenoid output.
68	O-MOTOR	O	DECK motor output.
69	O-KEY. SCAN	O	Switch scan timing output.
70	O-F/STB	O	Front shift register (IC401~403), data latch strobe output.
71	O-F/CLK	O	Front shift register (IC401~403), data transfer clock output.
72	O-F/DATA	O	Front shift register (IC401~403), data output.
73	VSS2	—	GND.
74	O-DSP/CE	O	Not used.
75	O-CD/DATA	O	CD IC control data output.
76	O-CD/XLT	O	CD IC control data latch output.
77	O-CD/CLK	O	CD IC control data transfer clock output.
78	I-CD/SQ. DATA	O	CD SUB-Q data input.
79	O-CD/SQ. CLK	O	Clock output for CD SUB-Q input data.
80	O-MUTE	O	System mute output.

IC,CXD2518Q

Pin No.	Pin Name	I/O	Description
1	SCOR	O	1H when the subcode sync S0 or S1 is detected.
2	SBSO	O	SUBP~W serial output.
3	EXCK	I	Clock input for SBSO read out.
4	SQSO	O	SUBQ 80-bit serial output.
5	SQCK	I	Clock input for SQSO read out.
6	MUTE	I	H to mute. L to cancel. (Connected to GND.)
7	SENS	O	SENS signal output to CPU (IC201).
8	XRST	I	System reset. L to reset.
9	DATA	I	Serial data input from CPU (IC201).
10	XLAT	I	Latch input from CPU (IC201). Latching serial data at fall down.
11	CLOK	I	Clock input from CPU (IC201) to transfer serial data.
12	VSS	—	GND.
13	SEIN	I	SENS input from SSP (CX1782BQ).
14	CNIN	I	Numbers of track jump are counted and input.
15	DATO	O	Serial data output to SSP (CX1782BQ).
16	XLTO	O	Serial data latched output to SSP (CX1782BQ). Latched at fall down edge.
17	CLKO	O	Clock input from SSP (CX1782BQ) to transfer serial data.
18	TEST2	I	TEST. (Connected to +5V)
19~21	SPOB~D	I	Input from INSIDE LIMIT switch (SW1).
22	XLON	O	LC7870E mute control output.
23	FOK	I	Focus OK input pin. Used for SENS output and servo auto sequencer.
24	MON	O	Spindle motor ON/OFF control output.
25	MDP	O	Spindle motor servo control output.
26	MDS	O	Spindle motor servo control output. (Not used)
27	LOCK	O	GFS is sampled by 460Hz. H output when GFS is H. L output when GFS is L for 8 consecutive times.
28	TEST1	I	TEST. (Connected to GND)
29	FIL0	O	Filter output to master PLL. (slave=digital PLL)
30	FIL1	I	Filter input to master PLL.
31	PCO	O	Charge-pump output to master PLL.
32	VDD	—	Power supply input. (+5V)
33	AVSS1	—	GND.
34	CLTV	I	VCO control voltage input to master PLL.
35	AVDD1	—	Power supply input. (+5V)
36	RF	I	EFM signal input.
37	BIAS	I	Constant current input to asymmetry correction circuit.
38	ASYI	I	Compare voltage input to asymmetry correction circuit.
39	ASYO	O	EFM full swing output. (L=VSS, H=VDD)
40	ASYE	I	L: asymmetry correction OFF. H: asymmetry correction ON (connected to +5V)
41	WDCK	O	D/A interface, word clock (2Fs) for 48-bit slot. (Not used)
42	LRCK	O	D/A interface, LR clock (Fs) for 48-bit slot.



Pin No.	Pin Name	I/O	Description
43	LRCKI	I	LR clock input to DAC. (48-bit slot)
44	PCMD	O	D/A interface, serial data. (2's complement, MSB first)
45	PCMDI	I	Audio data input to DAC. (48-bit slot)
46	BCK	O	D/A interface, bit clock.
47	BCKI	I	Bit clock input to DAC. (48-bit slot)
48	GTOP	O	GTOP output. (Not used)
49	XUGF	O	XUGF output. (Not used)
50	XPCK	O	XPLCK output. (Not used)
51	GFS	O	GFS output. (Not used)
52	RFCK	O	RFCK output. (Not used)
53	VSS	—	GND.
54	C2PO	O	C2PO output. (Not used)
55	XROF	O	XRAOF output. (Not used)
56	MNT3	O	MNT3 output. (Not used)
57	MNT1	O	MNT1 output. (Not used)
58	MNT0	O	MNT0 output. (Not used)
59	FSTT	O	Pins-73 and -74 divided-by 2/3 output. (Not used)
60	C4M	O	4.2336MHz output. (Not used)
61	DOUT	O	Digital Out connector output signal.
62	EMPH	O	H when the playback disc has emphasis. L when it does not.
63	EMPHI	I	DAC emphasis ON/OFF. H when ON. L when OFF
64	WFCK	O	WFCK (WRITE FRAME CLOCK) output.
65	ZEROL	O	No sound data detection output. H (L-ch) when no sound data is detected. (Not used)
66	ZEROR	O	No sound data detection output. H (R-ch) when no sound data is detected. (Not used)
67	DTSI	I	TEST for DAC. (Connected to GND)
68	VDD	—	Power supply input. (+5V)
69	LPWM	O	L-ch PWM output. (normal polarity)
70	NLPWM	O	L-ch PWM output. (reversed polarity)
71	AVDD2	—	Power supply input to L-ch PWM driver. (Connected to +5V)
72	AVDD3	—	Power supply input to X'tal. (Connected to +5V)
73	XTAI	I	X'tal input to 33.8688MHz oscillator circuit.
74	XTAO	O	33.8688MHz X'tal oscillator circuit output.
75	AVSS1	—	Power supply input to X'tal. (Connected GND)
76	AVSS2	—	Power supply input to PWM driver. (Connected to GND)
77	NRPWM	O	R-ch PWM output. (reversed phase)
78	RPWM	O	R-ch PWM output. (normal phase)
79	DTS2	I	TEST-2 for DAC. (Connected GND)
80	DTS3	I	TEST-3 for DAC. (Connected GND)



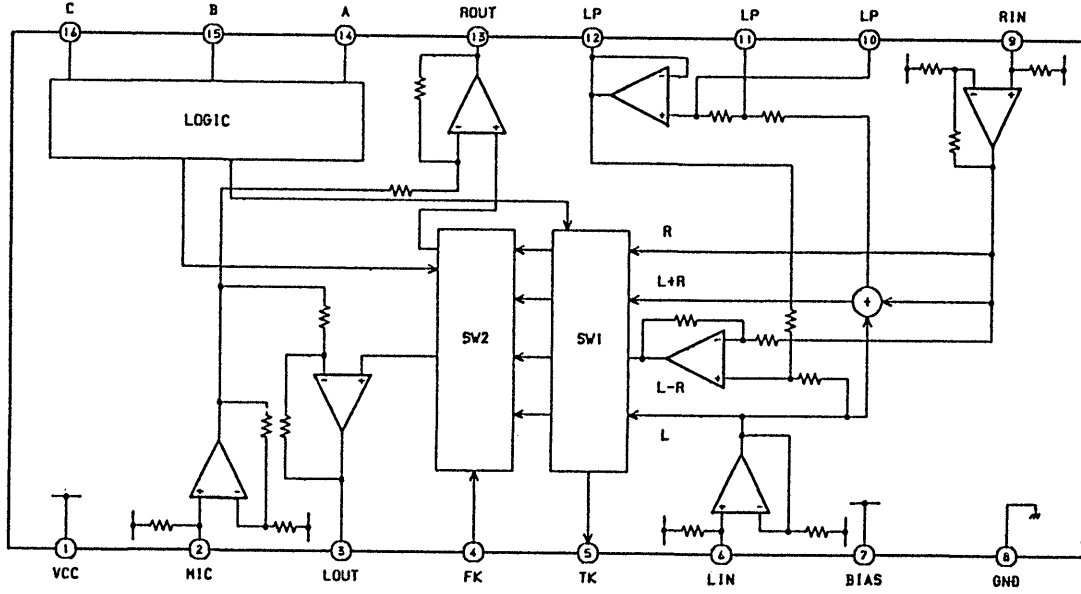
## IC,CXA1782BQ

Pin No.	Pin Name	I/O	Description
1	FEO	O	Focus error amplifier output pin. This pin is connected to the FZC comparator input internally.
2	FEI	I	Focus error input pin.
3	FDFCT	I	Capacitor connection pin for time constant used when there is defect.
4	FGD	I	Corrects the focus servo high frequency gain.
5	FLB	I	This is a pin where the time constant is externally connected to raise the low frequency gain of the focus servo.
6	FEO	O	Focus drive output.
7	FEM	I	Focus amplifier inverted input pin.
8	SRCH	I	This is a pin where the time constant is externally connected to generate the focus search waveform.
9	TGU	I	This is a pin where the selection time constant is externally connected to set the tracking servo the high frequency gain.
10	TG2	I	This is a pin where the selection time constant is externally connected to set the tracking high frequency gain.
11	FSET	I	Pin for setting peak of the phase compensator of the focus tracking.
12	TAM	I	Tracking amplifier inverted input pin.
13	TAO	O	Tracking drive output.
14	SLP	I	Sled amplifier non-inverted input pin.
15	SLM	I	Sled amplifier inverted input pin.
16	SLO	O	Sled drive output.

Pin No.	Pin Name	I/O	Description
17	ISET	I	The current which determines height of the focus search, track jump and sled kick is input.
18	VCC	—	+ 5 V power supply pin.
19	CLK	I	Serial data transfer clock input from CPU (CXD2518Q).
20	XLT	I	Latch input from CPU (CXD2518Q).
21	DATA	I	Serial data input from CPU (CXD2518Q).
22	XRST	I	Reset input pin. Reset at L.
23	COUT	O	Signal output to count the number of tracks.
24	SENS	O	FZC, DFCT, TZC, Gain or BAL is output depending on the command from CPU (CXD2518Q).
25	FOK	O	Output pin of the focus OK comparator.
26	CC2	O	Input pin where the DEFECT bottom hold output is capacitance coupled.
27	CC1	I	DEFECT bottom hold output pin.
28	CB	I	This is a pin where the DEFECT bottom hold capacitor is connected.
29	CP	I	This is a pin where the MIRR hold capacitor is connected and MIRR comparator non-inverted signal is input.
30	RFI	I	Input pin where the RF summing amplifier output is capacitance coupled.
31	RFO	O	RF summing amplifier output pin. (TP1)
32	RFM	I	RF summing amplifier inverted input pin. Gain of RF amplifier is determined by the resistor connected between RFO and this pin.
33	LD	O	APC amplifier output pin.
34	PHD	I	APC amplifier input pin.
35~36	PHD1~2	I	RF I-V amplifier inverted input pin. These pins are connected to the A+C and B+D pins of the optical pickup.
37	BIAS	I	Bias adjustment pin of the non-inverted side of the focus error amplifier.
38~39	F~E	I	F and E IV amplifier non-inverted input pins. These pins are connected to the F and E of the optical pickup.
40	EI	—	Gain adjustment pin of the I-V amplifier E.
41	VEE	—	GND connection pin
42	TEO	O	Tracking error amplifier output pin. E-F signal is output.
43	LPFI	I	BAL adjustment comparator input pin. (Not used.)
44	TEI	I	Tracking error input pin.
45	ATSC	I	Window comparator input pin for detecting ATSC.
46	TZC	I	Tracking zero-cross comparator input pin.
47	TDFCT	I	Capacitor connection pin for the time constant used when there is defect.
48	VC	O	DC voltage output pin of VREF. (VDD/2)

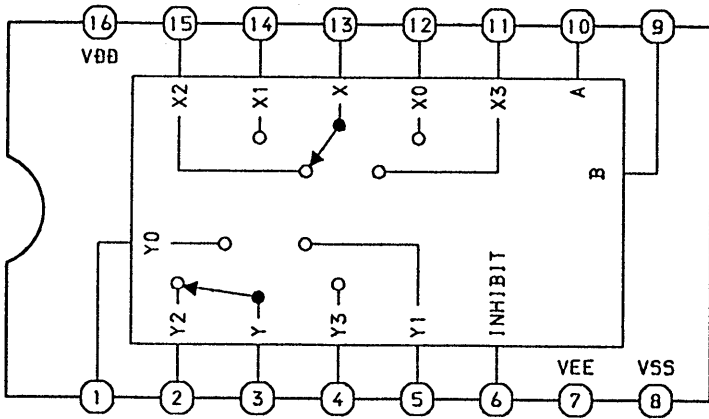
IC BLOCK DIAGRAM

IC,BA3837



IC,TC4052

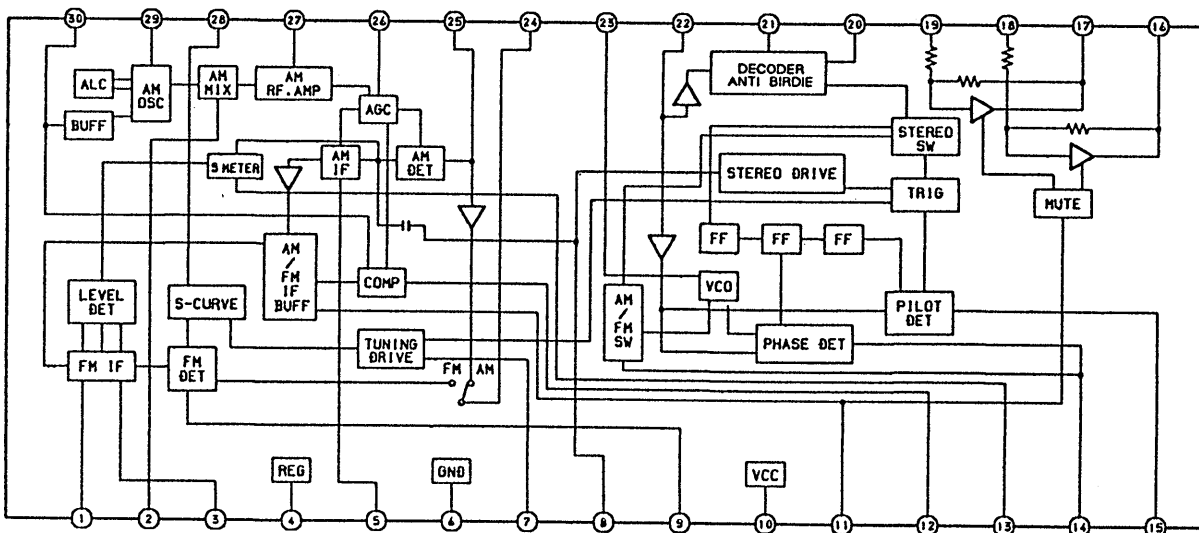
TRUTH TABLE



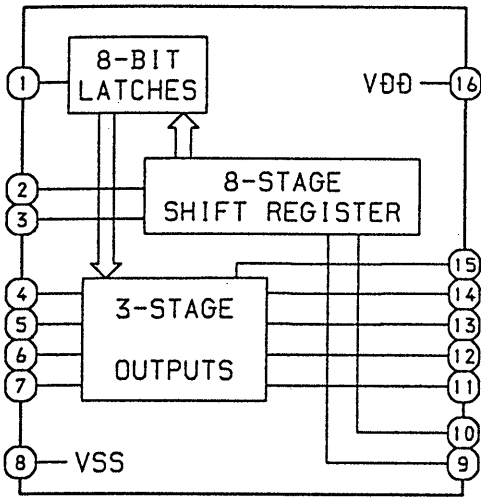
CONTROL INPUTS			ON SWITCH	
INHIBIT	B	A	Y0	X0
L	L	L	Y0	X0
L	L	H	Y1	X1
L	H	L	Y2	X2
L	H	H	Y3	X3
H	X	X	-	-

L: LOW LEVEL  
 H: HIGH LEVEL  
 X: IRRELEVANT

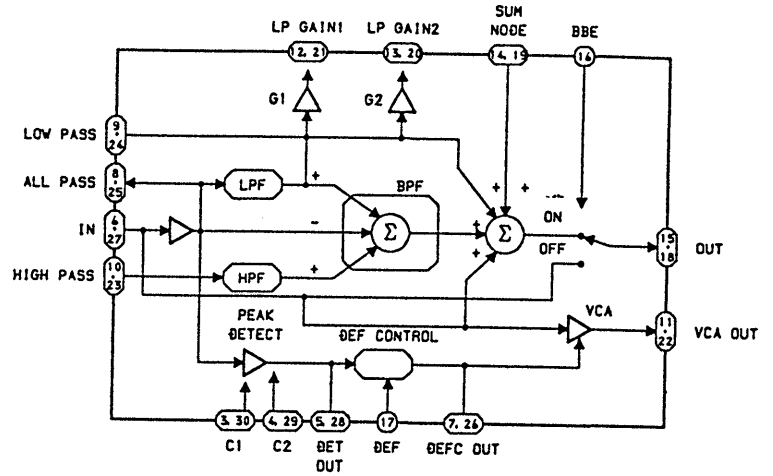
IC,LA1836



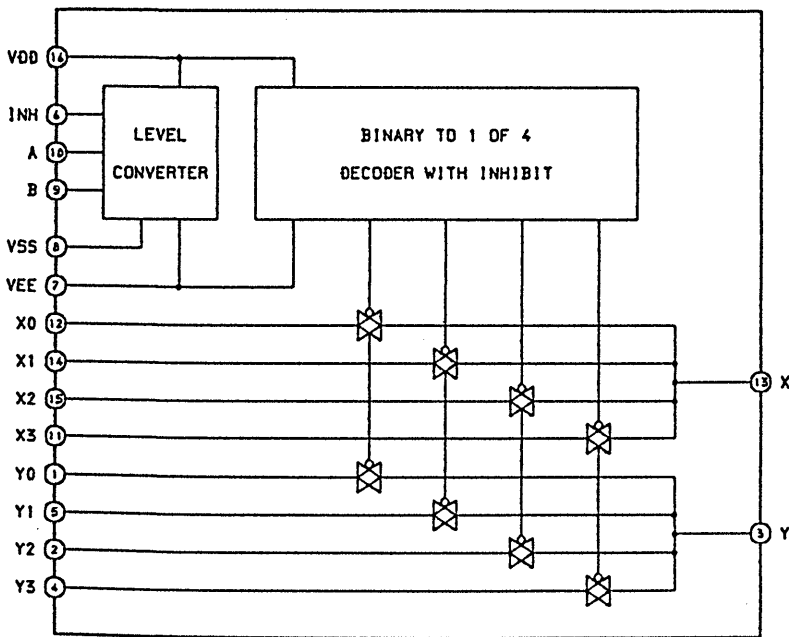
IC,TC4094B



IC,XR - 1071CP



IC, BU4052B

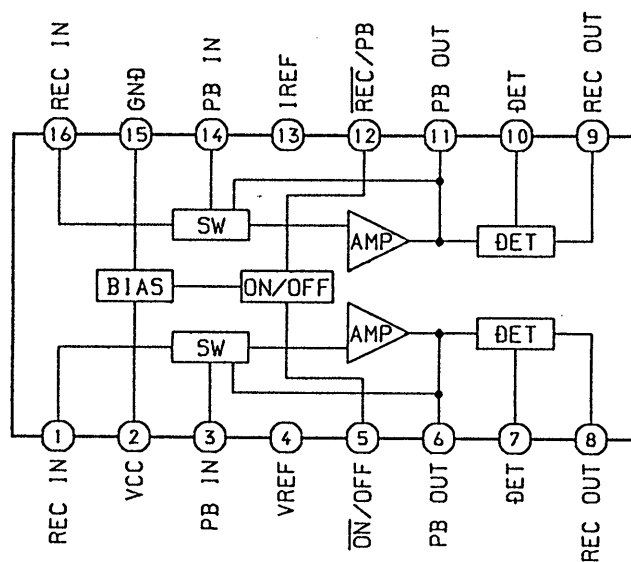


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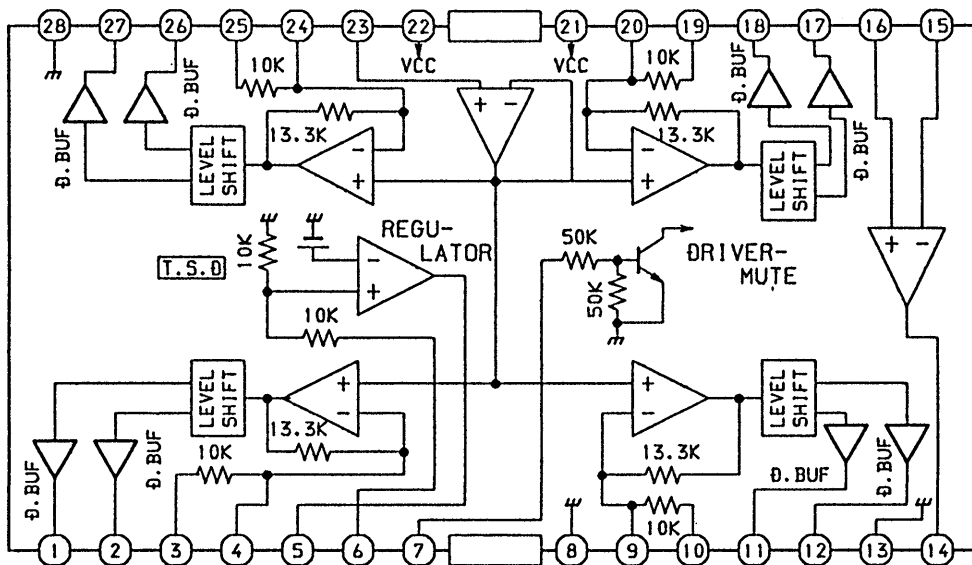
INHIBIT	A	B	DN SWITCH
L	L	L	X0 Y0
L	H	L	X1 Y1
L	L	H	X2 Y2
L	H	H	X3 Y3
H	X	X	NONE

X: DON'T CARE.

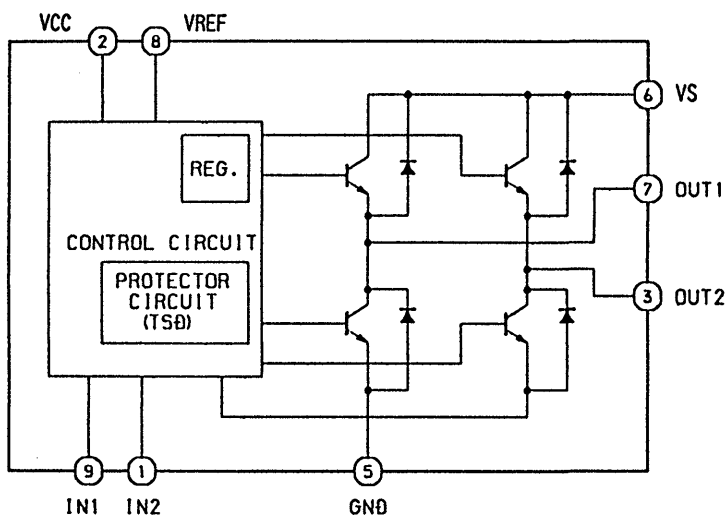
IC,HA12134A



IC,BA6397FP



IC,TA7291

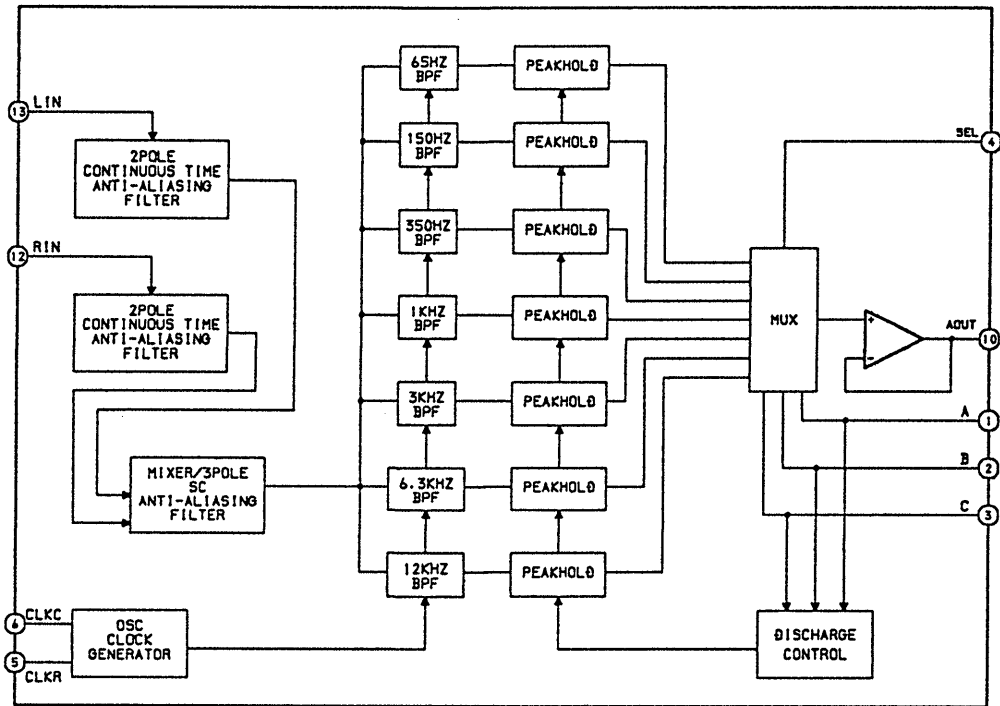


TRUTH TABLE

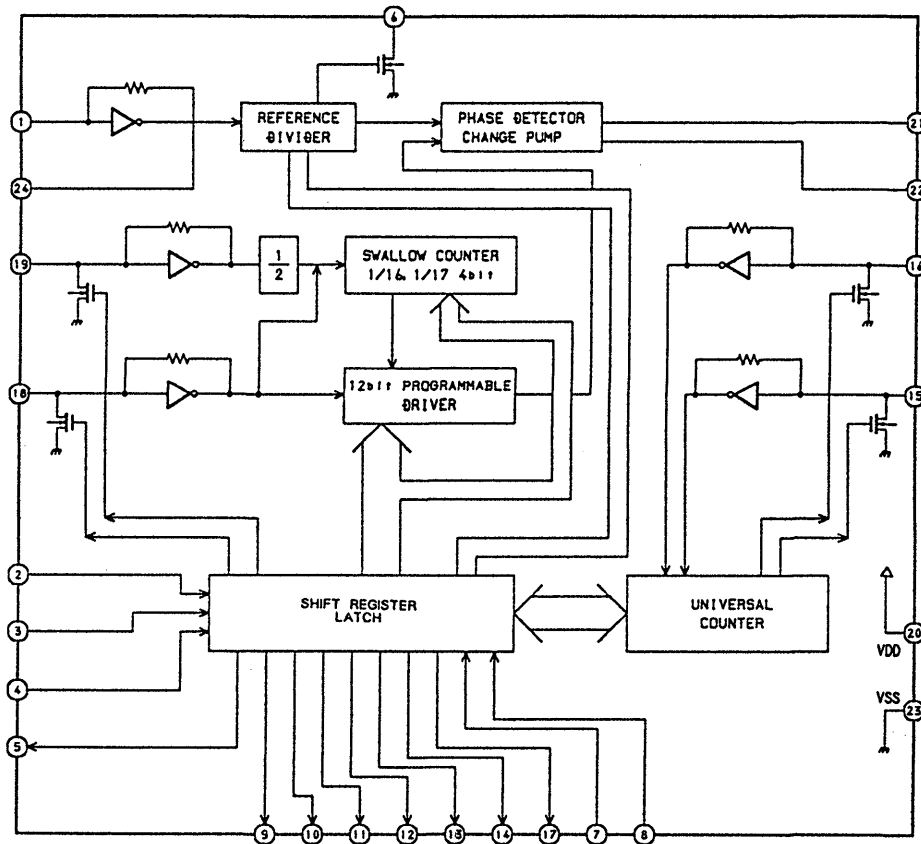
INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	∞	∞	STOP
1	0	H	L	CW
0	1	L	H	CCW
1	1	L	L	BRAKE

∞ : HI IMPEDANCE  
NOTE : INPUT "H" ACTIVE

IC,XR1090



IC,LC7218



# TRANSISTOR ILLUSTRATION



ECB



SGD



ECB



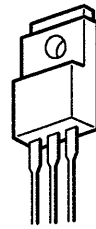
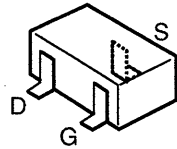
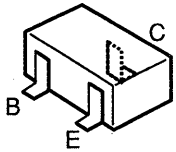
DGS

2SA952	2SC3266
2SA1015	2SC3331
2SA1296	2SD655
2SA1318	KTA1266
2SC1815	KTC3198

2SK246

DTA114YS

2SK365



BCE

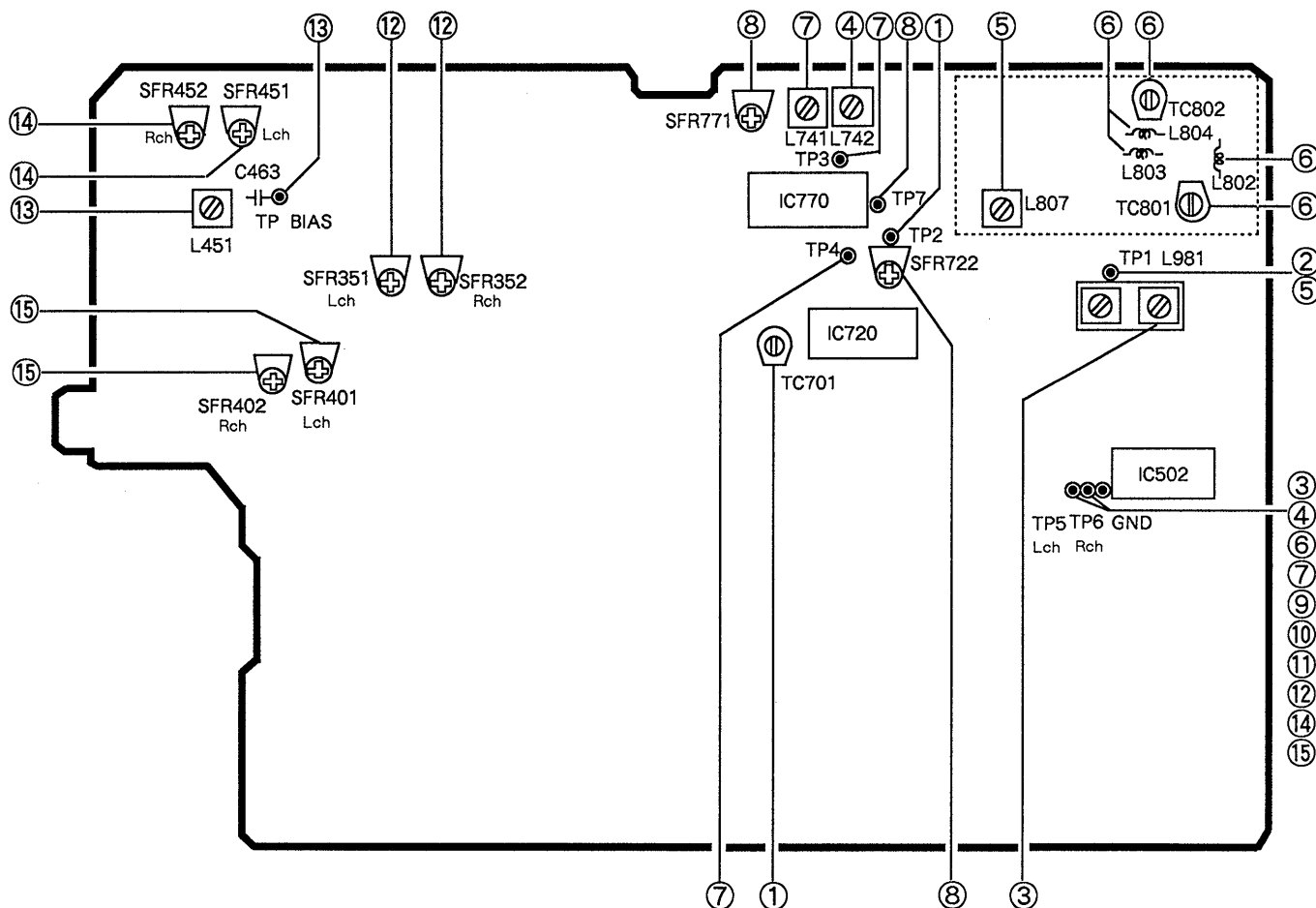
2SA1162	DTA144EK
2SC2712	DTA144WK
2SC2714	DTC114EK
2SC3326	DTC114YK
DTA114TK	DTC143XK
DTA143EK	DTC144EK

2SK302

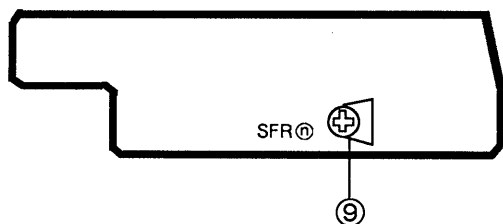
2SB1370

# ELECTRICAL ADJUSTMENT

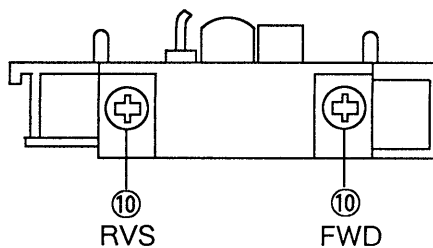
## A MAIN C.B



## P DECK C.B



## DECK R/P/E HEAD



## TUNER SECTION

### 1. Clock Frequency Adjustment

Settings : • Test point : TP2 (CLK IC770 pin30)  
 • Adjustment location : TC701

Method : Set to MW 1602kHz and adjust TC701 so that the test point becomes 2052kHz  $\pm$  0.01kHz.

### 2. AM VT Check

Settings : • Test point : TP1 (VT)

Method : Set to MW 1602kHz and check that the test point is 6.3  $\pm$  1.0V.

### 3. AM Tracking Adjustment

Settings : • Test point : TP5,TP6  
 • Adjustment location : L981

Method : Set to MW 999kHz and adjust L981 that the test point becomes maximum.

### 4. AM IF Adjustment

Settings : • Test point : TP5,TP6

L742 ..... 450kHz



#### 5. FM VT Adjustment

Settings : • Test point : TP1 (VT)

• Adjustment location : L807

Method : Set to FM 87.5MHz and adjust L807 so that the test point becomes  $1.7V \pm 0.05V$ .

#### 6. FM Tracking Adjustment

Settings : • Test point : TP5,TP6

TC801,TC802 ..... 108MHz

L802,L804,L803 ..... 87.5MHz

#### 7. DC Balance/MONO Distortion Adjustment

Settings : • Test point : TP3,TP4 (DC balance)

TP5,TP6 (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  $0V \pm 0.04V$ .

Next check that the distortion is less than 1.3%.

#### 8. Auto stop Level Adjustment

FM

Settings : • Test point : TP7

• Adjustment location : SFR722

• Input level : 18dB

Method : Set to FM 98.0MHz and adjust voltage low (about 0.01V) by SFR722. After that voltage high (about 7.0V) out by 2dB down.

AM

Settings : • Test point : TP7

• Adjustment location : SFR771

• Input level : 55dB

Method : Set to AM 999kHz and adjust voltage low (about 0.01V) by SFR771. After that voltage high (about 7.0V) out by 2dB down.

### TAPE SECTION

#### 9. Tape Speed Adjustment

Settings : • Test tape : TTA-100

• Test point : TP5,TP6

• Adjustment location : SFR@

Method : Play back the test tape by DECK and adjust SFR@ so that the frequency counter reads  $3000Hz \pm 5Hz$ .

#### 10. Head Azimuth Adjustment

Settings : • Test tape : TTA-310

• Test point : TP5,TP6

• 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 PLAY and REV PLAY mode.

#### 11. PB Frequency Response Check

Settings : • Test tape : TTA-310

• Test point : TP5,TP6

Method : Play back the 315Hz and 10kHz signals of the test tape and check that the output ratio of the 10kHz signal is with respect to that of the 315Hz signal is  $\pm 2dB$ .

#### 12. PB Sensitivity Adjustment

Settings : • Test tape : TTA-200

• Test point : TP5,TP6

• Adjustment location :

SFR351 (Lch)

SFR352 (Rch)

Method : Play back the test tape and adjust SFRs so that the output level of the test point becomes 300mV.

#### 13. BIAS OSC Adjustment

Settings : • Test tape : TTA-601

• Test point : TP BIAS

• Adjustment location : L451

Method : Set to the REC mode: Adjust L451, so that the frequency counter of the test point reads  $85kHz \pm 1kHz$ .

#### 14. REC/PB Frequency Response Adjustment

Settings : • Test tape : TTA-601

• Test point : TP5,TP6

• 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 the output level at the TP5,TP6 is 21mV. Record and play back the 1kHz and 10kHz signals and adjust SFRs so that the output of the 10kHz signal becomes  $0dB \pm 0.5dB$  with respect to that of the 1kHz signal.

## 15.REC/PB Sensitivity Adjustment

- Settings :
- Test tape : TTA-601  
(TTA - 600)
  - Test point : TP5,TP6
  - Input signal : 1kHz (LINE IN)
  - Adjustment location :SFR401 (Lch)  
SFR402 (Rch)

Method : Apply a 1kHz signal and REC mode.  
Then adjust OSC attenuator so that the output level at the TP5,TP6 is 21mV.  
Record and play back the 1kHz signal and adjust SFRs so that the output becomes  $21\text{mV} \pm 0.5\text{dB}$ .

## PRACTICAL SERVICE FIGURE

### TUNER SECTION

#### < FM SECTION >

IHF Sensitivity : 4dB  $\pm$  6dB (87.5MHz)  
(THD 3%) 2dB  $\pm$  6dB (98.0MHz)  
2dB  $\pm$  6dB (108.0MHz)  
S/N 50dB Quieting sensitivity :  
35dB  $\pm$  5dB  
(87.5/98.0/108.0MHz)  
Signal to noise ratio : More than 64dB (98.0MHz)  
Distortion : Less than 1.2% (98.0MHz)  
Intermediate frequency : 10.7MHz

#### < AM SECTION >

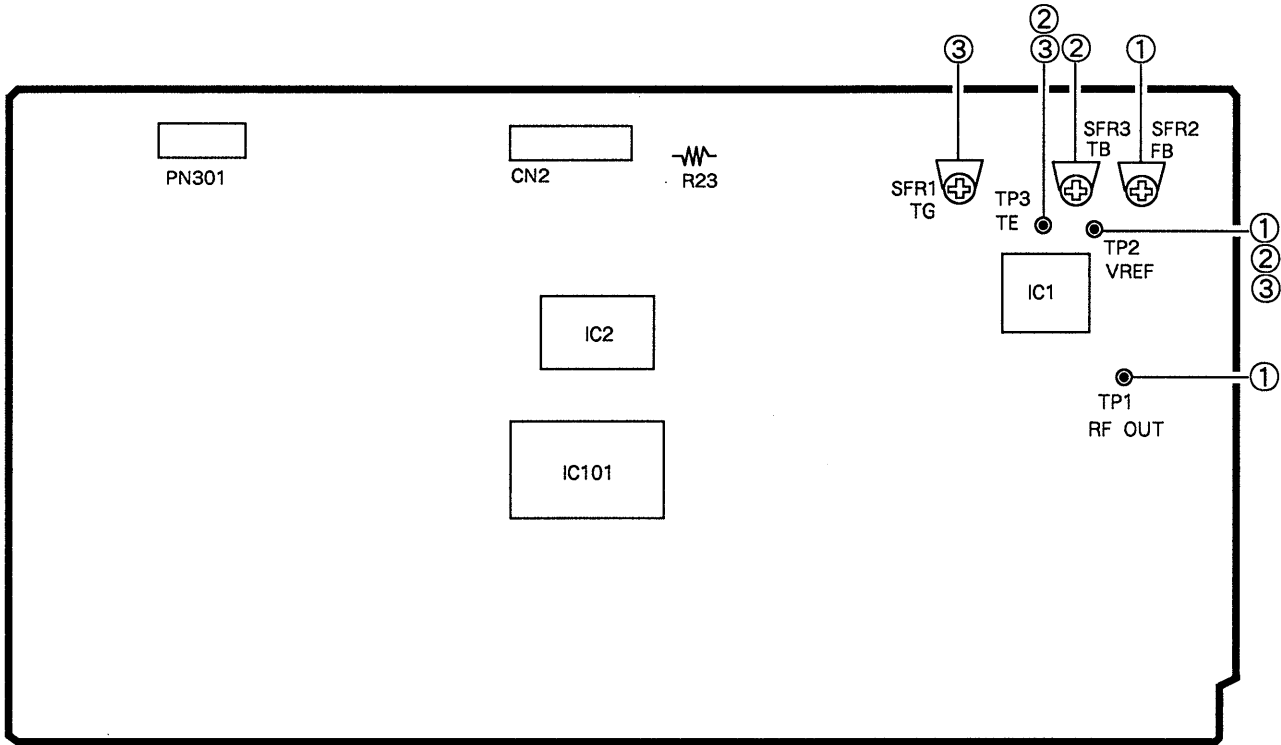
Sensitivity : 55dB  $\pm$  7dB (603kHz)  
(S/N 20dB) 53dB  $\pm$  6dB (999kHz)  
53dB  $\pm$  6dB (1404kHz)  
Distortion : Less than 1.5% (999kHz)  
Intermediate frequency : 450kHz

### TAPE SECTION

Tape speed : 3000Hz  $\pm$  1.5%  
Wow & flutter : Less than 0.35% (R.M.S)  
Take-up torque : 30~55g-cm (FWD, REV)  
F.F torque : 75~180g-cm  
Rew torque : 75~180g-cm  
Back tension : 2~7g-cm  
PB Output level : 2.8V  $\pm$  1.5dB (SP OUT)  
REC/PB Output level : 2.0V  $\pm$  2.0dB (SP OUT)  
Distortion (REC/PB) : Less than 2% (NORM)  
Noise level (PB) : Less than 200mV (DOLBY NR OFF NORM, Vol MAX.)  
Noise level (REC/PB) : Less than 35mV (DOLBY NR OFF NORM, SP OUT 2V)  
Crosstalk : More than 60dB (1kHz, 0VU)  
Erasing ratio : More than 60dB (125Hz)  
Channel separation : More than 40dB (1kHz, 0VU)  
REC bias frequency : 85kHz  
Test tape : NORMAL TTA - 601/600

# ADJUSTMENT

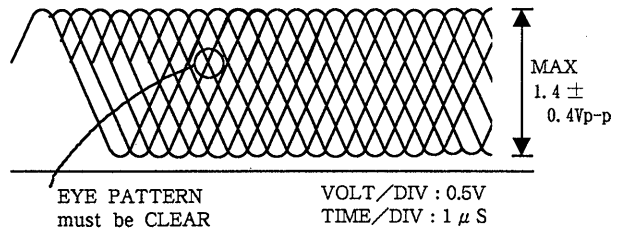
**C** 3CD C.B



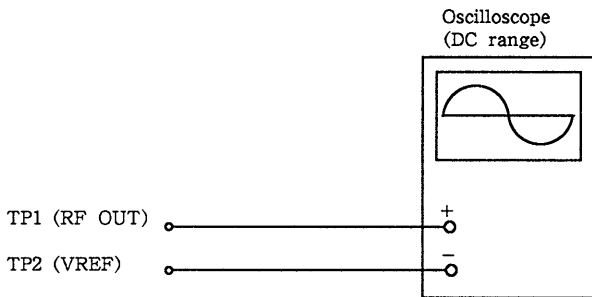
Note : Connect a probe (10 : 1) of the osilloscope or the frequency counter to a test point.

## 1. Focus Bias Adjustment

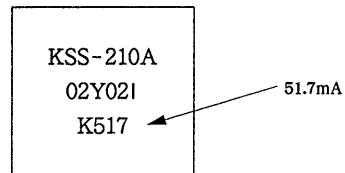
Make the focus bias adjustment when replacing and repairing the optical block.



Note : The current of the laser signal can be checked with the voltages on both sides of R23 (10 Ω). The difference for the specified value shown on the level must be within ± 6.0mA.

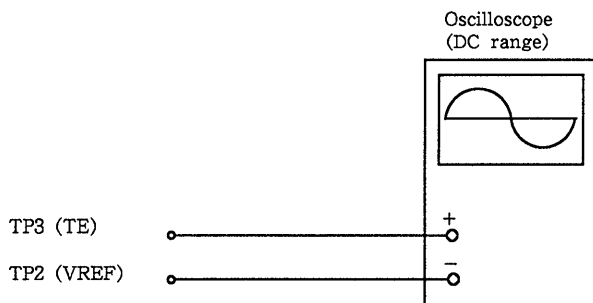


- 1) Connect an oscilloscope to the test points TP1 (RF OUT) and TP2 (VREF).
- 2) Turn on the power switch.
- 3) Insert test disc TCD-782 (YEDS-18) and play back the second composition.
- 4) Adjust SFR2 so that RF signal of the test point TP1 (RF OUT) is MAX and CLEARREST.

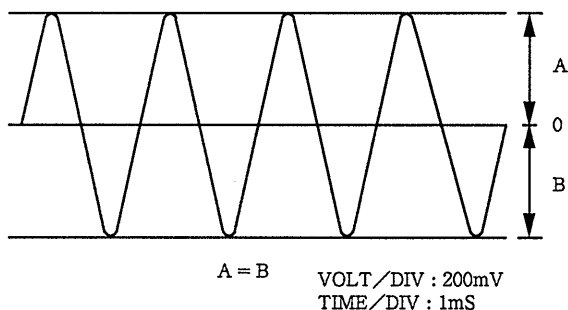


$$\text{Laser current } I_{op} = \frac{\text{Voltage across R23}}{10 \Omega}$$

## 2. TRACKING Balance Adjustment



- 1) Connect an oscilloscope to the test points TP3 (TE) and TP2 (VREF).
- 2) Turn on the power switch.
- 3) Insert the test disc TCD-782 (YEDS-18) and press the PLAY button.
- 4) Connect the intermediate point of SFR1 to TP2 (VREF).
- 5) Adjust SFR3 so that the waveform on the oscilloscope is vertically symmetrical as shown in the figure below.
- 6) 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 margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

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 reciprocate, the adjustment is at the point where both are satisfied.

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

When gain adjustment is off, the symptoms below appear.

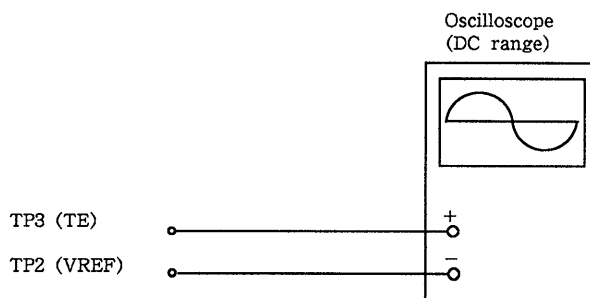
Symptoms	Gain (Focus)	Tracking
● The time until music starts becomes longer for STOP → ▶PLAY or automatic selection (◀▶ buttons pressed.) (Normally takes about 2 seconds.)	low	low or high
● Music does not start and disc continues to rotate for STOP → ▶PLAY or automatic selection (◀▶ buttons pressed.)	-	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 -

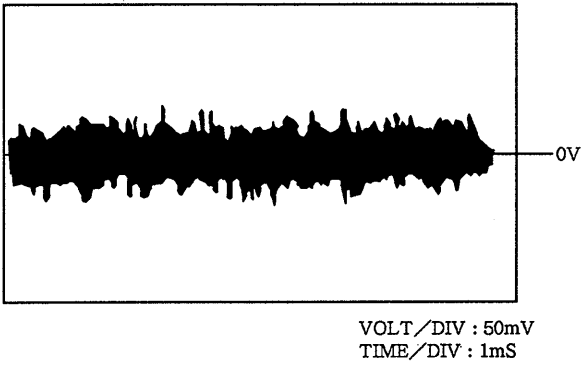
Note : Since exact adjustment cannot be performed, remember the positions of the controls before the performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

### 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 the test disc TCD-782 (YEDS-18) and play back the second composition.
- 3) Connect an oscilloscope to TP3 (TE) of the 3CD C.B

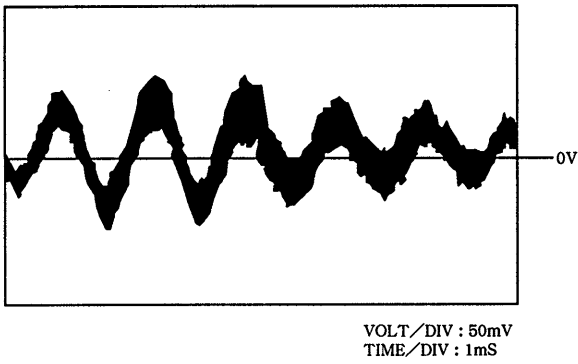
- 4) Adjust SFRI so that the waveform appears as shown in the figure below.(tracking gain adjustment)



● Incorrect example

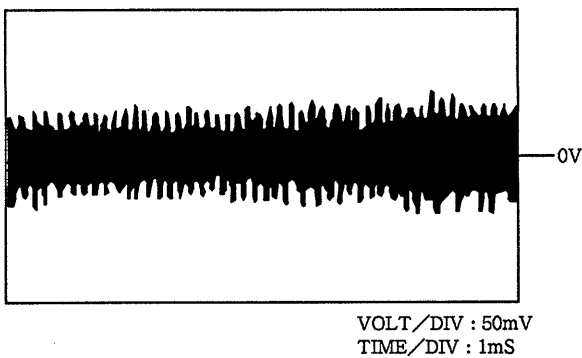
Low tracking gain

(The fundamental wave appears as compared with the waveform adjusted)

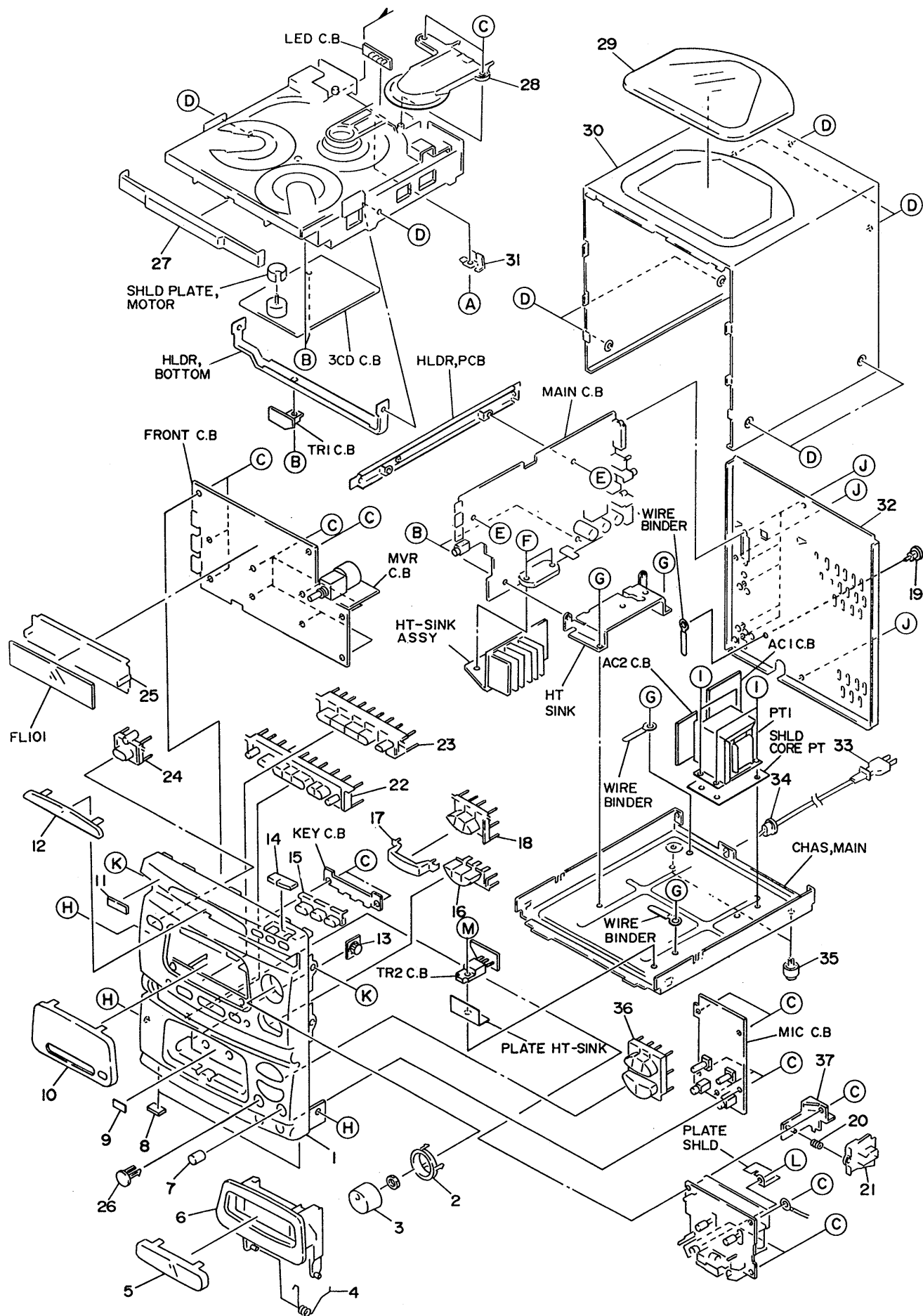


High tracking gain

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



MECHANICAL EXPLODED VIEW 1/2

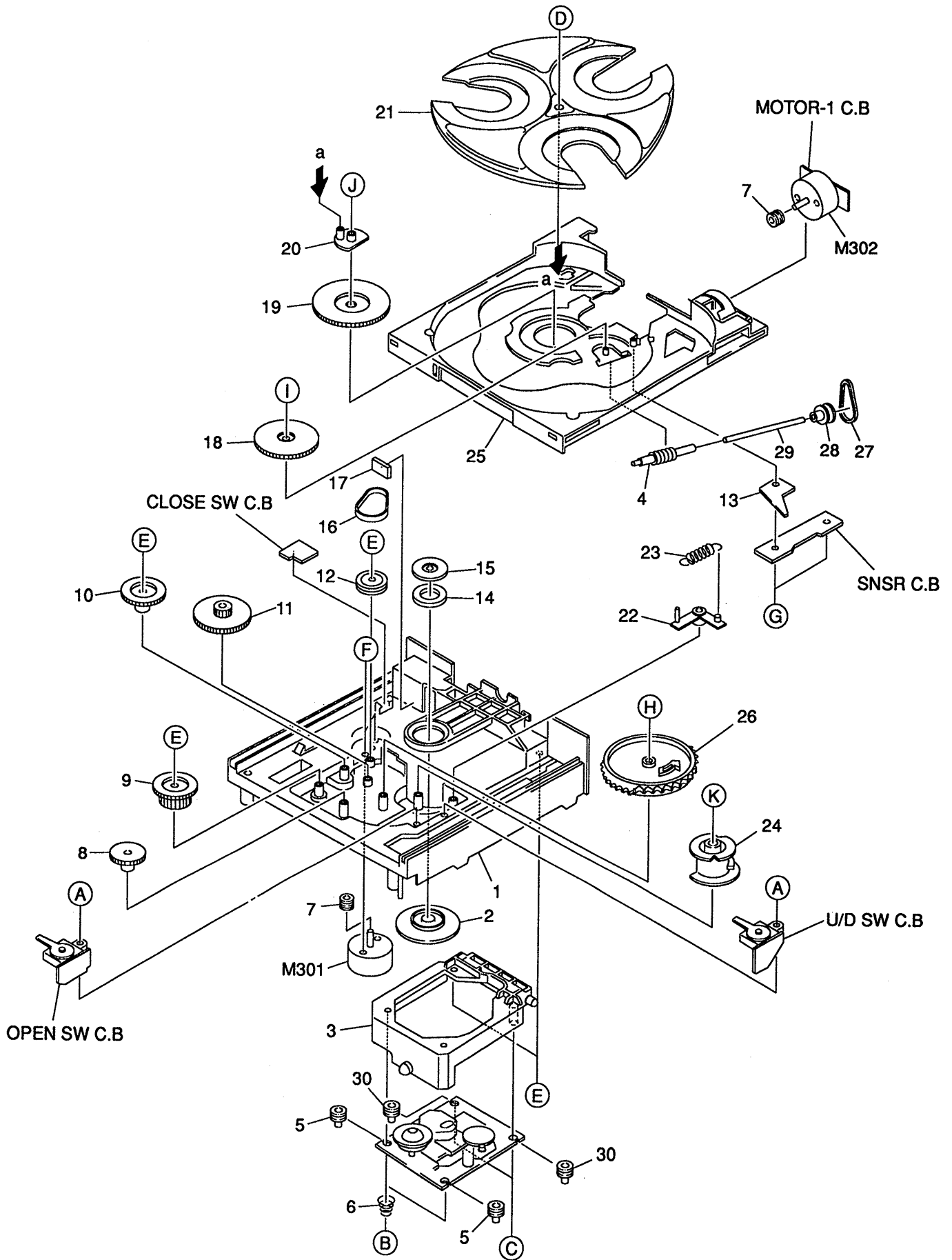


# MECHANICAL PARTS LIST 1/2

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

REF. NO	PART NO.	カフリ NO.	DESCRIPTION	REF. NO	PART NO.	カフリ NO.	DESCRIPTION
1	83-NFJ-002-010		CAB, FR E	26	83-NFJ-019-010		DUMMY, KNOB
2	83-NF8-014-010		RING, VOL	27	83-NFJ-103-010		PANEL, TRAY N K
3	82-NF7-010-010		KNOB, VOL	28	83-NF5-023-010		IND, CD
4	82-NF5-218-010		SRT-T, EJECT 1 SIN	29	83-NF5-021-010		WINDOW, TOP
5	83-NF8-005-010		WINDOW, CASS	30	83-NF8-054-010		CAB, STEEL S T
6	83-NF8-052-010		BOX, CASS K	31	83-NF5-034-010		IND, CD2
7	82-NK7-006-010		KNOB, VOL ECHO	32	83-NFJ-081-010		PANEL, REAR N-GBNM
8	80-VT1-202-010		FELT, 12.5-15.5-2	△ 33	87-050-081-010		AC CORD ASSY, G
9	81-532-080-010		LBL, CASS-COMPT	34	87-085-185-010		BUSHING, AC CORD E
10	83-NFJ-021-010		WINDOW, DISPLAY	35	87-085-221-010		FOOT, H 13.5
11	82-NE6-067-010		BADGE AIWA 30N	36	83-NFJ-006-010		KEY, KARAOKE B
12	83-NF8-004-010		WINDOW, CD	37	82-NF5-226-010		HLDR, LOCK 1N
13	87-063-165-010		OIL-DMPR 150	A	87-741-094-410		UT2+3-6
14	83-NF8-007-010		KEY, OPEN	B	87-067-579-010		BVT2+3-8 W/O SLOT
15	83-NF8-008-010		KEY, DISC	C	87-067-703-010		BVT2+3-10 W/O SLOT
16	83-NF8-012-010		KEY, GEO	D	87-067-641-010		UTT2+3-8 W/O SLOT BLK
17	83-NFJ-018-010		DUMMY, GEO	E	87-067-633-010		BVT2+3-8 W/CONVEX
18	83-NFJ-016-010		KEY, T-BASS A	F	87-067-698-010		BVT2+3-18 W/O SLOT
19	87-084-077-010		NYLON RIVET DIA3.5-4.5	G	87-067-688-010		BVTT+3-6
20	82-NF5-228-010		SPR-C, LOCK	H	87-591-094-410		Q1T+3-6 GOLD
21	82-NF5-229-010		PLATE, LOCK	I	87-078-019-010		S-SCREW, IT+4-6
22	83-NF8-011-110		KEY, PLAY	J	87-067-660-010		BVT2+3-8W/O SLOT BLK
23	83-NF8-010-010		KEY, FUN	K	87-721-097-410		QT2+3-12 GLD
24	83-NF8-009-010		KEY, POWER	L	87-571-032-410		VIT+2-3
25	82-NF5-212-010		GUIDE, FL	M	87-067-689-010		BVTT+3-8

MECHANICAL EXPLODED VIEW 2/2

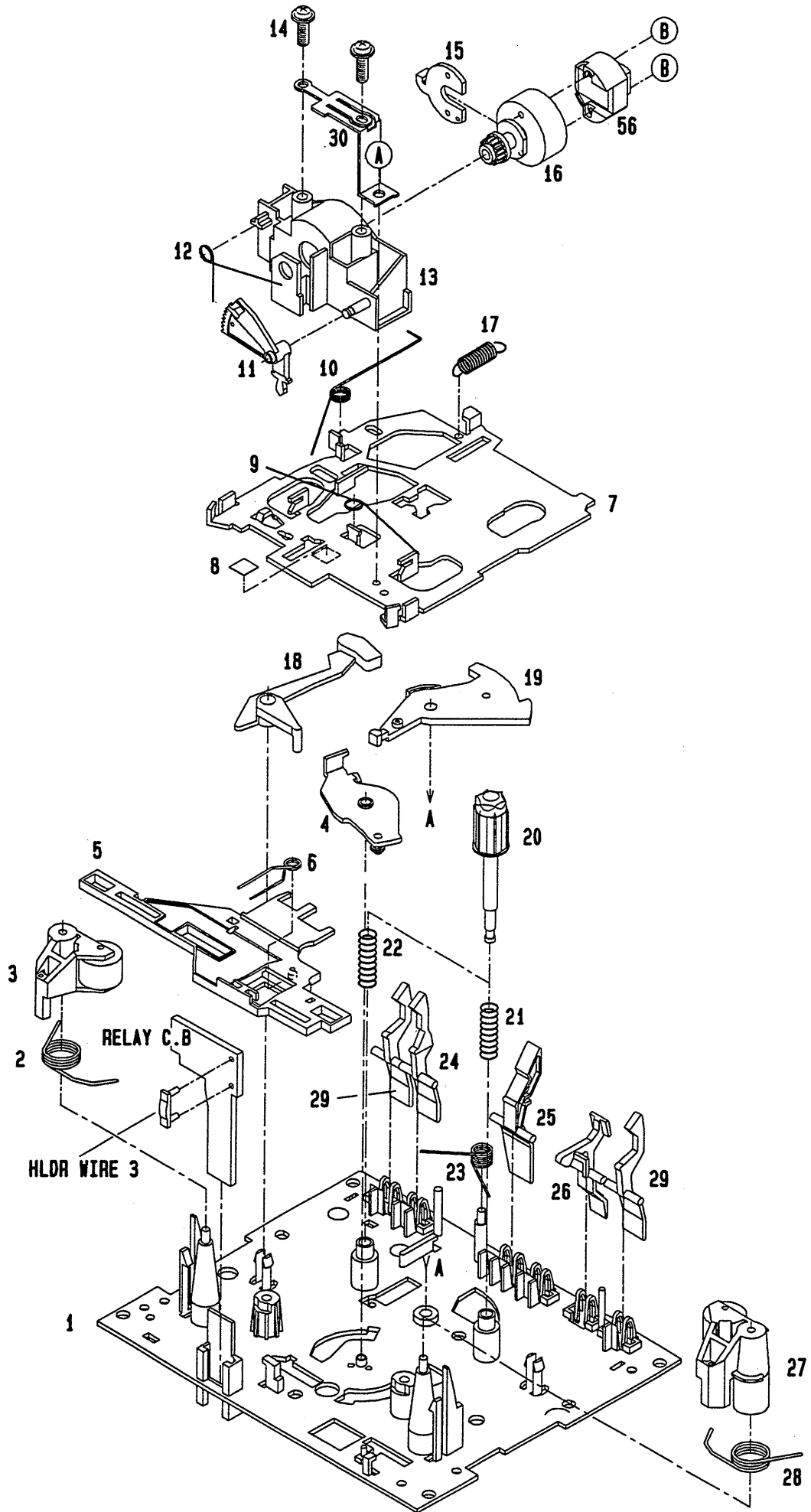


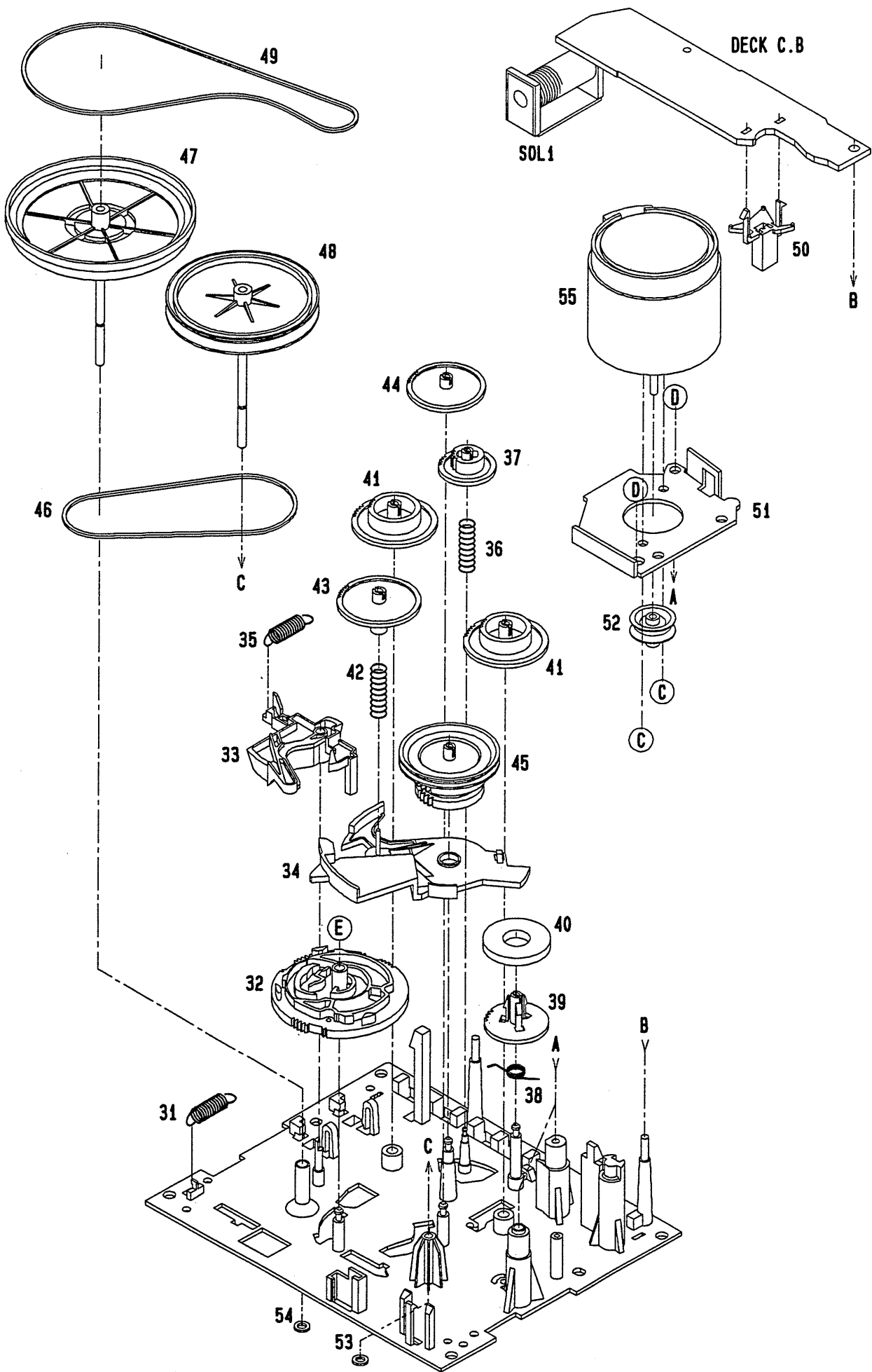


# MECHANICAL PARTS LIST 2/2

REF. NO	PART NO.	カソリ NO.	DESCRIPTION	REF. NO	PART NO.	カソリ NO.	DESCRIPTION
1	81-ZG1-268-110		CHAS, MECHA V NO3	26	81-ZG1-015-010		GEAR, TRAY BLU
2	81-ZG1-277-110		HLDR, MAGNET N	27	81-ZG1-233-110		BELT, TT
3	81-ZG1-253-510		HLDR, MECH MK2	28	81-ZG1-236-010		PULLY, TT MO
4	81-ZG1-276-110		WORM GEAR, TT NO2	29	81-ZG1-260-010		SHAFT, WORM S
5	81-ZG1-230-010		G-CUSH, MECH	30	80-CD3-214-010		CUSH CD A
6	81-ZG1-231-110		SPR-C, MECH	A	81-653-215-010		SPECIAL SCREW VT2
7	81-ZG1-212-010		PULLY, LOAD MO	B	81-ZG1-254-010		S-SCREW, MECH HLDR
8	81-ZG1-250-010		GEAR, TRAY RELAY MK2	C	81-ZG1-271-010		S-SCREW, MECH REAR
9	81-ZG1-019-010		GEAR TRAY B YEL	D	81-ZG1-239-010		S-SCREW, TT
10	81-ZG1-018-010		GEAR TRAY A YEL	E	87-067-945-110		VFT2+3-12 F10
11	81-ZG1-017-010		GEAR RELAY RED	F	87-251-071-410		U+2. 6-4
12	81-ZG1-014-010		PULLY, RELAY YEL	G	87-067-579-010		BVT 2+3-8 W/O SLOT
13	81-ZG1-240-010		SPR-P, WORM	H	81-ZG1-264-010		S-SCREW, CAM
14	87-036-326-010		MAGNET, CLAMPER 93	I	87-761-095-410		VFT2+3-8W/O SLOT GOLD
15	81-ZG1-285-010		PLATE, MAGNET N	J	87-078-029-010		VFT2+3-13(F8)
16	81-ZG1-232-010		BELT, TRAY	K	87-078-061-010		VFT2+3-20DIA10, GLD
17	81-ZG1-238-110		CUSH, TRAY IN				
18	81-ZG1-222-010		WORM WHEEL, TT				
19	81-ZG1-202-010		GEAR, MAIN				
20	81-ZG1-252-010		LEVER, TT MK2				
21	81-ZG1-008-210		TURNTALE, NO 2				
22	81-ZG1-020-010		PLATE, CAM BGE				
23	81-ZG1-262-010		SPR-E CAM S				
24	81-ZG1-016-010		GEAR, MECHA BGE				
25	81-ZG1-011-310		TRAY, MK2				

TAPE MECHANISM EXPLODED VIEW 1/1

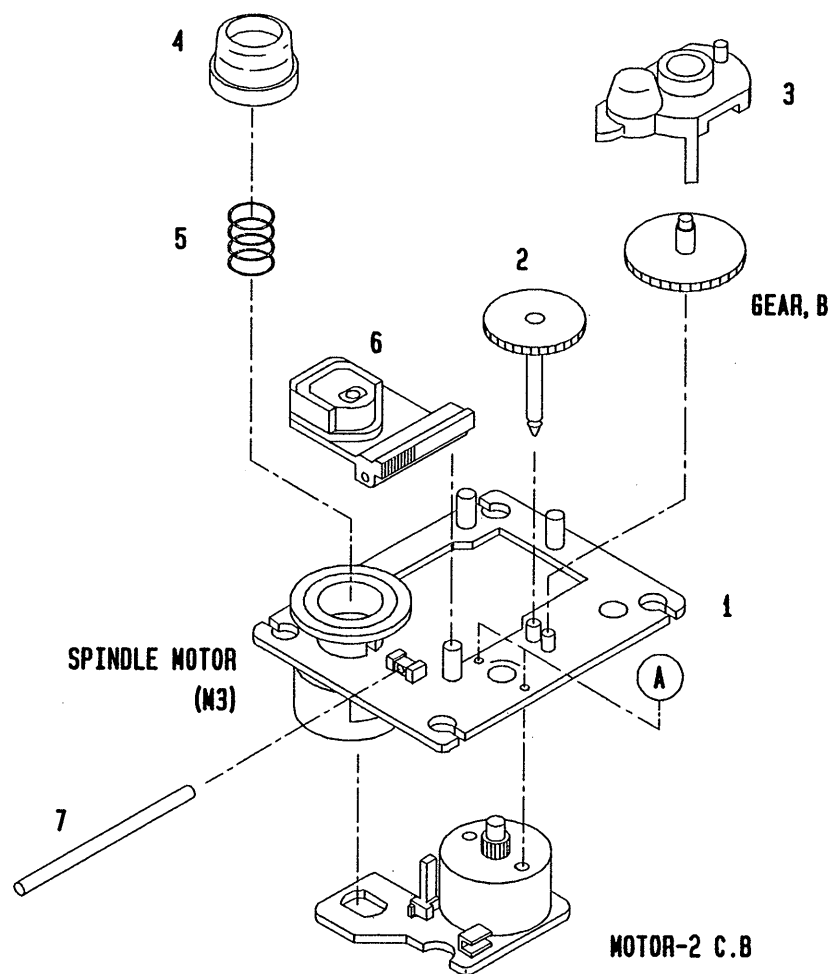




# TAPE MECHANISM PARTS LIST 1/1

REF. NO	PART NO.	カテゴリ NO.	DESCRIPTION	REF. NO	PART NO.	カテゴリ NO.	DESCRIPTION
1	82-ZM1-299-010		CHAS ASSY, R	36	82-ZM1-277-010		SPR-C, PLAY
2	82-ZM1-258-010		SPR-T, PINCH L	37	82-ZM1-223-010		GEAR, PLAY
3	82-ZM1-248-110		LVR ASSY, PINCH L	38	82-ZM1-256-110		SPR-T, FR
4	82-ZM1-295-210		PLATE ASSY, LINK	39	82-ZM1-220-110		GEAR, IDLER
5	82-ZM1-266-010		LVR, DIR	40	80-ZM6-217-010		RING MAGNET 2
6	82-ZM1-214-010		SPR-T, DIR	41	82-ZM1-216-210		GEAR, REEL
7	82-ZM1-206-210		CHAS, HEAD	42	82-ZM1-276-010		SPR-C, FR
8	87-078-014-010		SH, 5-5-0.05	43	82-ZM1-225-010		GEAR, FR
9	82-ZM1-269-010		SPR-T, BRG	44	82-ZM1-226-010		GEAR, REW
10	82-ZM1-219-010		SPR-T, LINK	45	82-ZM1-228-210		SLIP DISK ASSY
11	82-ZM1-210-010		GEAR, H T	46	82-ZM1-261-110		BELT, FR
12	82-ZM1-213-010		SPR-T, HEAD	47	82-ZM1-237-210		FLY-WHL ASSY, R
13	82-ZM1-207-010		GUIDE, TAPE	48	82-ZM1-234-110		FLY-WHL ASSY, L
14	82-ZM1-283-310		S-SCREW, AZIMUTH	49	82-ZM1-260-010		BELT, MAIN
15	82-ZM1-209-010		PLATE, HEAD	50	82-ZM1-245-210		HLD, IC
16	82-ZM1-208-010		HLD, HEAD	51	82-ZM1-246-010		HLD, MOTOR
17	82-ZM1-218-010		SPR-E, HB	52	82-ZM1-247-010		PULLEY, MOTOR
18	82-ZM1-263-110		LVR, EJECT	53	82-ZM1-288-010		SH, 1.63-3.2-0.5 SLT
19	82-ZM1-222-010		LVR, PLAY	54	80-ZM6-243-010		SH, 1.75-3.6-0.5 SLT
20	82-ZM1-217-110		REEL TABLE	55	87-045-348-010		MOT, SHW 2L 70(M1)
21	82-ZM1-244-110		SPR-C, BT	56	87-046-399-010		HEAD, RPH YK56R-BS409(RPH)
22	82-ZM1-285-110		SPR-C, BT L	A	87-585-036-410		UIT+2-8
23	82-ZM1-257-010		SPR-T, CAS	B	80-ZM6-207-010		V+1.6-7
24	82-ZM1-241-110		LVR, MC	C	87-251-070-410		U+2.6-3
25	82-ZM1-242-010		LVR, CAS	D	87-741-073-410		UT2+2.6-6 GLD
26	82-ZM1-243-010		LVR, STOP	E	87-067-932-010		PW, 2.15-6.8-0.5 SLT
27	82-ZM1-253-110		LVR ASSY, PINCH R				
28	82-ZM1-259-010		SPR-T, PINCH R				
29	82-ZM1-240-110		LVR, REC				
30	82-ZM1-298-010		SPR-P, EARTH				
31	82-ZM1-255-110		SPR-E, LVR DIR				
32	82-ZM1-221-110		GEAR, CAM				
33	82-ZM1-227-110		LVR, TRIG				
34	82-ZM1-224-110		LVR, FR				
35	82-ZM1-305-010		SPR-E, TRIG 2				

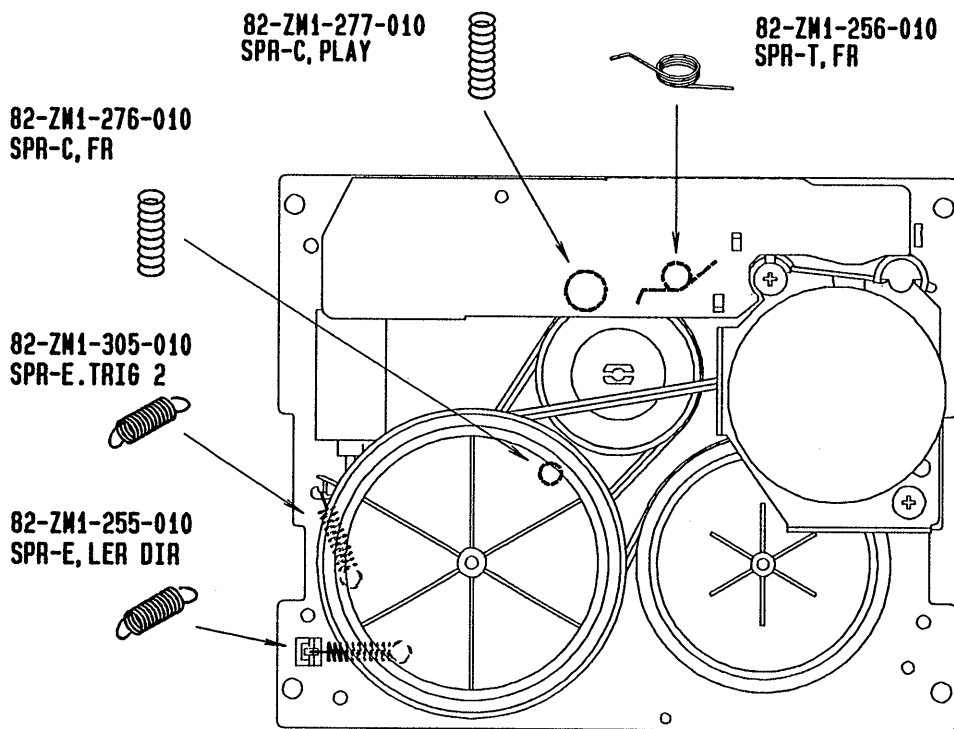
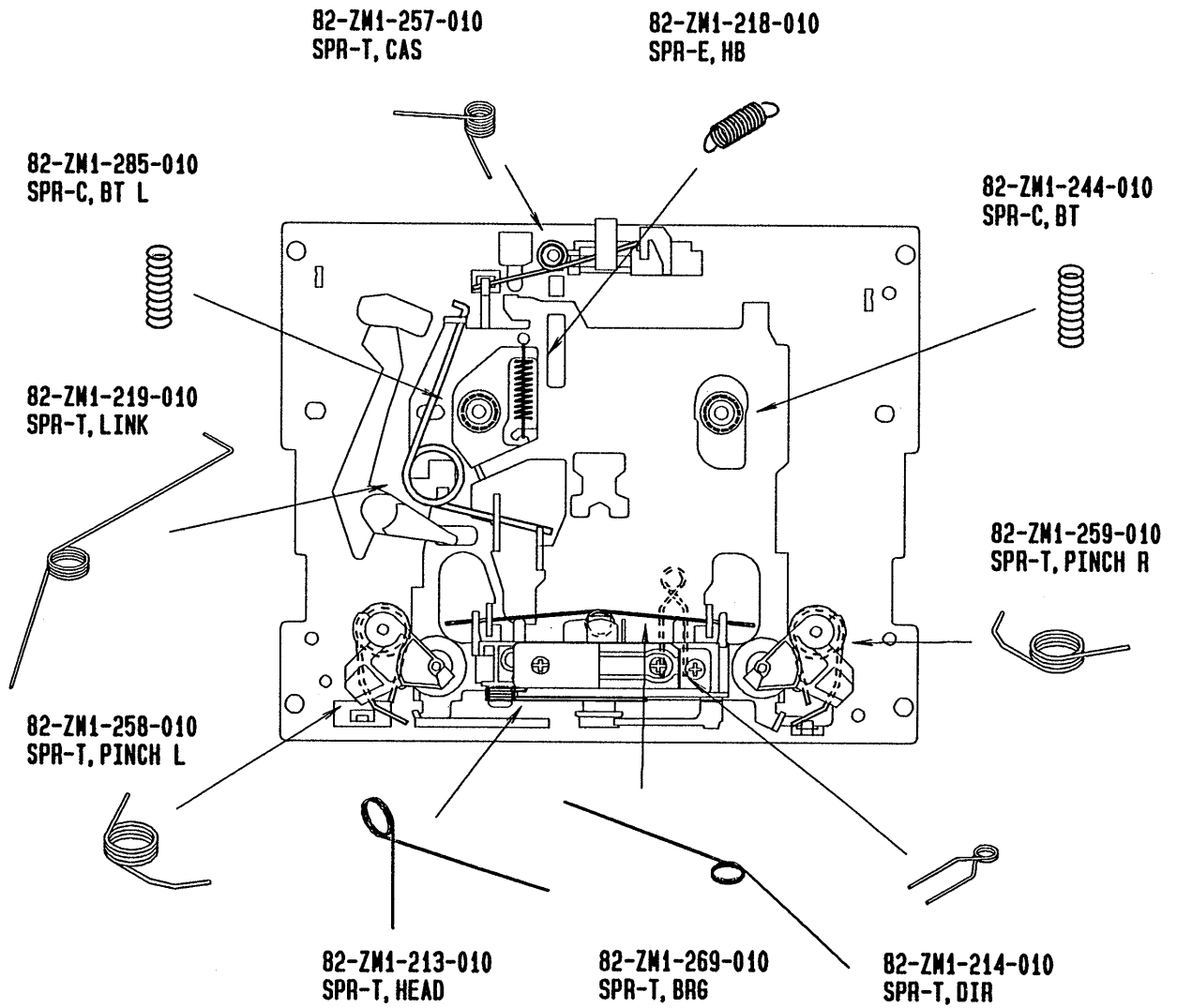
# CD MECHANISM EXPLODED VIEW 1/1



## CD MECHANISM PARTS LIST 1/1

REF. NO	PART NO.	カッリ NO.	DESCRIPTION	REF. NO	PART NO.	カッリ NO.	DESCRIPTION
1	9X-262-513-310		T. T CHASS ASSY W/MOTOR	6	98-848-127-110		OPTICAL PICK UP KSS-210A
2	92-625-188-020		GEAR(A)	7	94-917-565-010		SHAFT SLED
3	92-625-544-010		COVER	A	87-261-032-210		V+2-3
4	92-625-187-010		RING CENTER				
5	92-625-191-010		SPRING COMPRESSION				

# SPRING APPLICATION POSITION



## ■ SPEAKER LIST

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

REF. NO	PART NO.	カリ NO.	DESCRIPTION
1	82-MSE-610-010		CERAMIC
2	83-NS8-001-010		PANEL FR. R
3	83-NS8-002-010		PANEL FR. L
4	83-NS8-007-010		GRILL FRAME ASSY
5	83-NS8-009-010		DIAPHRAGM
6	83-NS8-604-010		SPEAKER TWEETER
7	83-096-614-010		SPEAKER CORD

## ■ ACCESSORIES/PACKAGE LIST

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

REF. NO	PART NO.	カソリ NO.	DESCRIPTION
1	87-006-225-010		AM LOOP ANT NC2
2	87-043-115-010		ANT, FEEDER FM
3	83-NFJ-908-010		IB, ESC-G(S)
4	83-NFJ-030-010		RC, RC-TN400 EX



# REFERENCE NAME LIST

## ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, SERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER
サージサプレッサ	SERGESUPPRESSOR
セラコン	CAP, CERA

## MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL
ジグアーム	ARM, SHAFT
ジグガイド	GUIDE, SHAFT
ストラップ	STRAP
トクナベ	S-SCRW
ヒンジ	HINGE
ヒンジビス	S-SCRW
ビスセレート	SCRW, SERRART

サービス技術ニュース	
番号	連絡内容
G - -	
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G - -	

**アイワ株式会社**  
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