

# SERVICE MANUAL

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COMPACT DISC CARRY  
COMPONENT SYSTEM

BASIC TAPE MECHANISM : ZM-2 YPR3NF  
BASIC CD MECHANISM : DA11T3C

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This Service Manual is the "Revision Publishing" and replaces "Simple Manual"  
(S/M Code No. 09-005-345-3T1).

# SPECIFICATIONS

## Tuner section

Frequency range, antenna — FM: 87.5 - 108.0 MHz Rod antenna, AM:  
530 - 1,710 kHz Ferrite bar antenna

## Deck section

Track format — 4 tracks, 2 channels / Frequency range — Normal tape:  
50 - 12,000 Hz (EIAJ) / Recording system — AC bias / Erasing system  
— Magnet erase / Heads — Deck 1: Recording/playback head (1),  
Erasure head (1); Deck 2: Playback head (1)

## CD player section

Disc — Compact disc / Scanning method — Non-contact optical scanner  
(semiconductor laser) / Rotation speed — Approx. 500 - 200 rpm/CLV /  
Error correction — Cross interleave, Reed, Solomon code / Number of  
channels — 2 channels / D/A conversion — 1 bit DAC

## General

Power requirements — DC 12 V using eight size D (R20) batteries, AC  
110 - 120 V/220 - 240 V switchable, 50/60 Hz / Dimensions (W × H × D)  
— 260 × 247 × 260 mm / Weight — 3.3 kg (excluding batteries)  
Power output — 4.5 W + 4.5 W (3.2 ohms, EIAJ), 3.3 W + 3.3 W (DIN  
1% Rated Power) / Power consumption — 27 W

## Speaker

Type — 120 mm cone type / Dimensions (W × H × D) — 184 × 235 × 240  
mm / Weight — Approx. 1.3 kg × 2  
Impedance — 3.2 ohms / Allowable max. input — 7.0 W

- Design and specifications are subject to change without notice.

## 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".

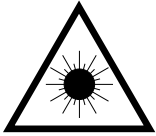
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
	1	8A-CT9-902-010	IB, LH(ESP)FM
△	2	87-A80-119-010	AC CORD SET ASSY, AZ<HA<S>>
△	2	87-A80-036-010	AC CORD SET ASSY, E W/FLTR VOL <LH<S>>
△	3	87-A90-312-010	PLUG, CONVERSION WTN-1157R1

# 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 mainituilla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylit-tävälle näkymättömälle lasersäteilylle.

## WARNING!

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

## CAUTION

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

## ATTENTION

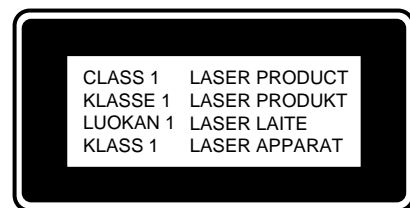
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

## ADVARSEL!

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

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

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

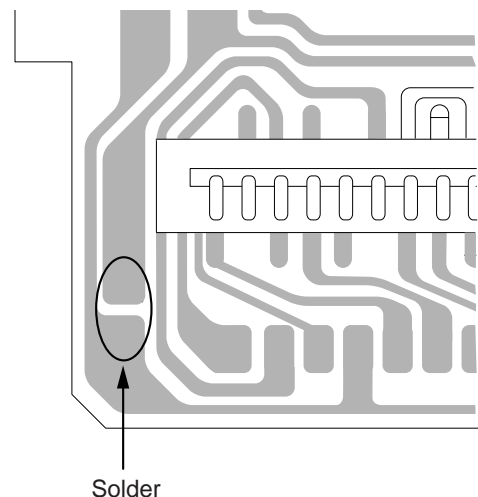


## Precaution to replace Optical block (SF-P101NR)

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

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

PICK-UP Assy P.C.B



# 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.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC				C26	87-A11-729-080		CHIP CA 0.47UF/25V(Z)F
				C27	87-A11-729-080		CHIP CA 0.47UF/25V(Z)F
	87-A20-955-010	IC,LA1828		C28	87-010-992-080		C-CAP,S 0.047-25 B
	87-A21-090-010	IC,LA4600		C29	87-010-992-080		C-CAP,S 0.047-25 B
	87-A21-520-040	C-IC,M61509FP		C30	87-010-248-080		CAP, ELECT 220-10V
	87-020-828-010	IC,BA3416BL					
	87-001-440-010	IC,BA15218N		C31	87-010-379-080		CAP, ELECT 22-16V
				C32	87-010-197-080		CAP, CHIP 0.01 DM
	87-A20-446-010	C-IC,LA9241ML		C33	87-010-197-080		CAP, CHIP 0.01 DM
	87-A20-459-010	C-IC,LC78622ED		C34	87-010-197-080		CAP, CHIP 0.01 DM
	87-A21-093-010	IC,LA6541D		C35	87-010-197-080		CAP, CHIP 0.01 DM
	8A-CH4-661-010	C-IC,LC867132V-5P07					
				C36	87-010-263-080		CAP, ELECT 100-10V
				C38	87-010-178-080		CHIP CAP 1000P
TRANSISTOR				C56	87-010-148-080		CHIP CAP S 4P/50V(C) CH
	89-327-143-080	TR,2SC2714 (0.1W)		C91	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-447-080	TR,2SC1740S R		C92	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-463-080	TR,2SA933S (0.3W)					
	87-026-213-080	CHIP-TR,DTC114YK		C215	87-016-460-080		C-CAP,S 0.22-16 B
	89-318-154-080	TR,2SC1815 (0.4W)		C216	87-010-425-080		C-CAP,0.22-25 F
				C216	87-016-460-080		C-CAP,S 0.22-16 B
				C231	87-015-632-080		C-CAP,0.015-50 B
				C232	87-015-632-080		C-CAP,0.015-50 B
	89-320-011-080	TR,2SC2001 (15W)					
	87-026-462-080	TR,2SC1740 S(RS 0.3W)		C233	87-A11-608-080		C-CAP,S 0.33-25 K B
	87-026-291-080	TR,DTC124XS		C234	87-A11-608-080		C-CAP,S 0.33-25 K B
	89-109-332-380	TR,2SA933RS		C235	87-012-368-080		C-CAP,S 0.1-50 Z F
	89-113-187-080	TR,2SA1318TU		C236	87-012-368-080		C-CAP,S 0.1-50 Z F
				C237	87-010-374-080		CAP,E 47-10 M 11L SME
	87-A30-287-040	CHIP TR DTC114TKA T146					
	87-A30-435-040	CHIP TR DTC144EKA T146		C238	87-010-248-080		CAP, ELECT 220-10V
	89-112-965-080	TR,2SA1296 (0.75W)		C239	87-010-197-080		CAP, CHIP 0.01 DM
	87-A30-226-010	TR,2SB1655E		C240	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-291-010	TR,DTC124XS		C247	87-010-401-080		CAP, ELECT 1-50V
				C248	87-010-401-080		CAP, ELECT 1-50V
	87-026-463-010	TR,2SA933S,RS					
	87-026-464-010	TR,DTC114TS		C251	87-010-404-080		CAP, ELECT 4.7-50V
	87-026-610-080	TR,KTC3198GR		C261	87-010-402-080		CAP, ELECT 2.2-50V
	89-322-405-080	TR,2SC2240GR		C262	87-010-402-080		CAP, ELECT 2.2-50V
				C263	87-010-178-080		CHIP CAP 1000P
DIODE				C264	87-010-178-080		CHIP CAP 1000P
	87-020-465-080	DIODE,1SS133 (110MA)		C266	87-010-545-080		CAP, ELECT 0.22-50V
	87-A40-128-080	C-VARI-CAP,HVU202A		C267	87-010-545-080		CAP, ELECT 0.22-50V
	87-027-703-080	ZENER,HZ7A1L		C271	87-010-237-080		CAP, ELECT 1000-16V
	87-A40-466-080	ZENER,MTZJ2.7A		C272	87-010-237-080		CAP, ELECT 1000-16V
	87-070-345-080	DIODE,IN4148		C277	87-010-404-080		CAP, ELECT 4.7-50V
	87-A40-648-080	ZENER,MTZJ8.2A		C278	87-010-263-080		CAP, ELECT 100-10V
	87-027-702-080	ZENER,HZ6C2L		C279	87-010-405-080		CAP,E 10-50 M 11L SME
	84-RM1-695-010	DIODE,IN4148		C280	87-010-178-080		CHIP CAP 1000P
	87-A40-465-010	DIODE,FR202		C281	87-010-178-080		CHIP CAP 1000P
				C285	87-010-178-080		CHIP CAP 1000P
MAIN C.B							
				C287	87-010-178-080		CHIP CAP 1000P
				C288	87-010-178-080		CHIP CAP 1000P
C1	87-010-314-080	C-CAP,S 22P-50V		C291	87-010-404-080		CAP, ELECT 4.7-50V
C2	87-010-316-080	C-CAP,S 33P-50 CH		C293	87-010-404-080		CAP, ELECT 4.7-50V
C3	87-010-314-080	C-CAP,S 22P-50V		C301	87-010-306-080		CHIP CAP 560P/50V (J) CH
C4	87-010-148-080	CHIP CAP S 4P/50V(C) CH					
C5	87-010-378-080	CAP, ELECT 10-16V		C302	87-010-306-080		CHIP CAP 560P/50V (J) CH
				C303	87-010-177-080		C-CAP,S 820P-50 SL
C7	87-012-156-080	C-CAP,S 220P-50 CH		C304	87-010-177-080		C-CAP,S 820P-50 SL
C8	87-010-197-080	CAP, CHIP 0.01 DM		C305	87-010-374-080		CAP, ELECT 47-10V
C9	87-010-311-080	CAP 12P		C306	87-010-374-080		CAP, ELECT 47-10V
C10	87-010-197-080	CAP, CHIP 0.01 DM					
C11	87-010-152-080	CHIP.CAP,S 8P/50V(D)CH		C307	87-010-382-080		CAP, ELECT 22-25V
				C308	87-010-405-080		CAP, ELECT 10-50V
C13	87-010-148-080	CHIP CAP S 4P/50V(C) CH		C309	87-010-545-080		CAP, ELECT 0.22-50V
C14	87-016-669-080	C-CAP,S 0.1-25 K B		C310	87-010-545-080		CAP, ELECT 0.22-50V
C16	87-010-178-080	CHIP CAP 1000P		C311	87-010-2408-080		CAP, ELECT 220-10V
C17	87-016-669-080	C-CAP,S 0.1-25 K B					
C18	87-010-198-080	CAP, CHIP 0.01 DM		C312	87-010-374-080		CAP, ELECT 47-10V
				C313	87-015-828-080		C-CAP,0.033 F
C19	87-016-669-080	C-CAP,S 0.1-25 K B		C314	87-015-828-080		C-CAP,0.033 F
C20	87-010-400-080	CAP, ELECT 0.47-50V		C315	87-010-401-080		CAP, ELECT 1-50V
C21	87-010-403-080	CAP, ELECT 3.3-50V		C316	87-010-401-080		CAP, ELECT 1-50V
C22	87-010-197-080	CAP, CHIP 0.01 DM					
C24	87-010-189-080	C-CAP,S 8200P-50 K B<HA<S>>		C319	87-010-405-080		CAP, ELECT 10-50V
				C320	87-010-405-080		CAP, ELECT 10-50V
C24	87-010-426-080	C-CAP,S 0.012-25 K B<LH<S>>		C321	87-012-157-080		C-CAP,S 330P-50 CH
C25	87-010-189-080	C-CAP,S 8200P-50 K B<HA<S>>		C322	87-012-157-080		C-CAP,S 330P-50 CH
C25	87-010-426-080	C-CAP,S 0.012-25 K B<LH<S>>		C323	87-010-197-080		CAP, CHIP 0.01 DM

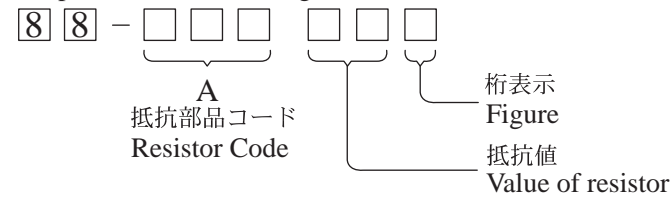
REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C324	87-010-197-080		CAP, CHIP 0.01 DM	C465	87-010-404-080		CAP, ELECT 4.7-50V
C325	87-010-180-080		C-CER 1500P	C466	87-012-368-080		C-CAP,S 0.1-50 F
C326	87-010-180-080		C-CER 1500P	C467	87-010-263-080		CAP, ELECT 100-10V
C327	87-010-404-080		CAP, ELECT 4.7-50V	C469	87-012-154-080		C-CAP,S 150P-50 CH
C328	87-010-178-080		CHIP CAP 1000P	C470	87-010-544-080		CAP, ELECT 0.1-50V
C329	87-010-182-080		C-CAP,S 2200P-50 B	C471	87-012-368-080		C-CAP,S 0.1-50 Z F
C330	87-010-213-080		C-CAP,S 0.015-50 B	C472	87-012-368-080		C-CAP,S 0.1-50 Z F
C331	87-010-374-080		CAP, ELECT 47-10V	C473	87-012-368-080		C-CAP,S 0.1-50 Z F
C332	87-A10-321-080		MALAY CAP 0.0012UF/50V(K)	C474	87-012-368-080		C-CAP,S 0.1-50 Z F
C334	87-012-155-080		C-CAP 180P-50CH	C475	87-015-819-080		CAPACITOR,0.01
C335	87-010-178-080		CHIP CAP 1000P	C476	87-010-236-080		CAP,E 1000-10 SME
C341	87-012-157-080		C-CAP,S 330P-50 CH	C477	87-010-197-080		CAP, CHIP 0.01 DM
C342	87-012-157-080		C-CAP,S 330P-50 CH	C478	87-010-263-080		CAP, ELECT 100-10V
C343	87-012-157-080		C-CAP,S 330P-50 CH	C479	87-010-197-080		CAP, CHIP 0.01 DM
C344	87-012-157-080		C-CAP,S 330P-50 CH	C480	87-010-221-080		CAP, ELECT 470-10V
C364	87-010-182-080		C-CAP,S 2200P-50 B	C481	87-010-405-080		CAP, ELECT 10-50V
C401	87-010-403-080		CAP, ELECT 3.3-50V	C482	87-010-405-080		CAP, ELECT 10-50V
C402	87-010-197-080		CAP, CHIP 0.01 DM	C483	87-012-156-080		C-CAP,S 220P-50 CH
C403	87-010-263-080		CAP, ELECT 100-10V	C484	87-012-156-080		C-CAP, S 220P-50 CH
C404	87-010-248-080		CAP, ELECT 220-10V	C489	87-012-368-080		C-CAP,S 0.1-50 F
C405	87-010-197-080		CAP, CHIP 0.01 DM	C490	87-012-368-080		C-CAP,S 0.1-50 F
C406	87-010-374-080		CAP, ELECT 47-10V	C491	87-010-197-080		CAP, CHIP 0.01 DM
C407	87-010-178-080		CHIP CAP 1000P	C491	87-015-819-080		CAPACITOR,0.01
C408	87-010-198-080		CAP, CHIP 0.022	C492	87-010-221-080		CAP, ELECT 470-10V
C409	87-010-248-080		CAP, ELECT 220-10V	C493	87-010-184-080		CHIP CAPACITOR 3300P(K)
C410	87-010-263-080		CAP, ELECT 100-10V	C494	87-010-197-080		CAP, CHIP 0.01 DM
C411	87-A11-177-080		C-CAP,S 0.15-16 K B	C501	87-016-495-000		EL CAP 3300UF/25V
C412	87-010-401-080		CAP, ELECT 1-50V	C506	87-010-404-080		CAP, ELECT 4.7-50V
C413	87-016-369-080		C-CAP,S 0.033-25 B K	C507	87-010-401-080		CAP, ELECT 1-50V
C414	87-010-405-080		CAP, ELECT 10-50V	C508	87-010-221-080		CAP, ELECT 470-10V
C416	87-010-545-080		CAP, ELECT 0.22-50V	C511	87-010-263-080		CAP, ELECT 100-10V
C417	87-012-157-080		C-CAP,S 330P-50 CH	C512	87-010-385-080		CAP, ELECT 220-25V
C418	87-010-213-080		C-CAP,S 0.015-50 B	C521	87-010-197-080		CAP, CHIP 0.01 DM
C419	87-A11-608-080		C-CAP,S 0.33-25 K B	C522	87-010-263-080		CAP, ELECT 100-10V
C420	87-016-369-080		C-CAP,S 0.033-25 B K	C544	87-010-405-080		CAP, ELECT 10-50V
C421	87-A11-177-080		C-CAP,S 0.15-16 K B	C762	87-010-198-080		CAP, CHIP 0.022
C422	87-010-184-080		CHIP CAPACITOR 3300P(K)	C765	87-016-669-080		C-CAP,S 0.1-25 K B
C423	87-A10-321-080		CHIP.CAP,S 0.047U/25V(Z)F	C766	87-010-260-080		CAP, ELECT 47-25V
C424	87-A10-712-080		CHIP.CAP,S 0.22U/50V	C4001	87-012-368-080		C-CAP,S 0.1-50 F
C425	87-010-176-080		C-CAP,S 680P-50 SL	C4002	87-010-322-080		C-CAP,S 100P-50 CH
C426	87-A11-608-080		C-CAP,S 0.33-25 K B	C4003	87-010-322-080		C-CAP,S 100P-50 CH
C428	87-010-197-080		CAP, CHIP 0.01 DM	C4004	87-010-322-080		C-CAP,S 100P-50 CH
C429	87-010-186-080		CAP,CHIP 4700P	C4005	87-010-322-080		C-CAP,S 100P-50 CH
C430	87-012-156-080		C-CAP,S 220P-50 CH	C4006	87-010-178-080		CHIP CAP 1000P
C431	87-010-545-080		CAP, ELECT 0.22-50V	C4007	87-010-197-080		CAP, CHIP 0.01 DM
C432	87-010-374-080		CAP, ELECT 47-10V	C4008	87-010-197-080		CAP, CHIP 0.01 DM
C433	87-010-401-080		CAP, ELECT 1-50V	C4009	87-010-197-080		CAP, CHIP 0.01 DM
C434	87-010-184-080		CHIP CAPACITOR 3300P(K)	C4010	87-016-669-080		C-CAP,S 0.1-25 K B
C435	87-010-197-080		CAP, CHIP 0.01 DM	C5001	87-A10-321-080		CHIP.CAP,S 0.047U/25V(Z)F
C436	87-010-374-080		CAP, ELECT 47-10V	CF2	82-785-747-010		CF MS2 GHY R
C437	87-010-404-080		CAP, ELECT 4.7-50V	CF3	82-785-747-010		CF MS2 GHY R
C438	87-012-368-080		C-CAP,S 0.1-50 F	CN401	87-A60-424-010		CONN,16P V TOC-B
C439	87-010-178-080		CHIP CAP 1000P	CN501	87-049-919-010		CONN,3P EH V WHT
C440	87-010-145-080		C-CAP,S 1P-50 CH	CNA402	87-099-854-010		CONN,6P S2M-6W
C441	87-010-197-080		CAP, CHIP 0.01 DM	CON201	87-033-239-010		TERMINAL,SP 4P
C442	87-010-314-080		C-CAP,S 22P-50V	L2	87-A50-347-010		COIL,FM BPF EX
C445	87-012-368-080		C-CAP,S 0.1-50 F	L3	87-A50-349-010		COIL,BAR ANT AMW (COI)
C446	87-012-368-080		C-CAP,S 0.1-50 F	L4	87-A50-345-010		COIL,FM RF EX
C447	87-012-368-080		C-CAP,S 0.1-50 F	L5	87-A50-449-010		COIL,FM OSC U
C448	87-010-315-080		C-CAP,S 27P-50 CH	L6	87-A50-337-010		COIL,AM OSC (TOKO)
C450	87-010-305-080		C-CAP 470P-50CH	L7	87-A50-336-010		COIL,AM IFT (TOKO)
C451	87-012-156-080		C-CAP,S 220P-50 CH	L8	87-A50-335-010		COIL,FM IFT (TOKO)
C455	87-010-247-080		CAP, ELECT 100-50V	L9	87-A50-334-010		COIL,FM DET (TOKO)
C457	87-010-312-080		C-CAP,S 15P-50 CH	L10	87-005-849-080		COIL,10UH(CECS)
C458	87-010-312-080		C-CAP,S 15P-50 CH	L330	88-CT6-620-010		COIL,BIAS OSC
C459	87-010-263-080		CAP, ELECT 100-10V	L401	87-003-102-080		COIL, 10UH
C460	87-015-819-080		CAPACITOR,0.01	L404	87-003-152-080		COIL, 100UH
C461	87-010-197-080		CAP, CHIP 0.01 DM	PN301	87-009-033-010		CONN,5P V WHT PH
C462	87-010-248-080		CAP, ELECT 220-10V	PN302	87-009-032-010		CONN,4P V WHT PH
C464	87-A11-566-080		C-CAP,S 0.01-25 K B	PN751	87-099-832-010		CONN,8P S2M-8W

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
PVC1	87-A91-316-010		TUN-CAP, 20P-160P U(TWD)	VR801	87-A90-768-010		VR, RTRY 10KAX1 1 H
R761	87-029-019-010		RES, FUSEIBLE 1/2W-2.2	X601	87-030-273-010		VIB, XTAL 32.768K5PPM
SFR430	87-024-437-080		SFR100K, RH063EC	X602	87-A70-070-010		VIB, CER 5.76MHZ CRHF
SFR761	87-024-272-010		SFR, 10K V RH04632C				
SW1	87-A91-548-010		SW, SL-2-3 SK23E01G06				
SW301	88-CT6-619-010		BACK SLIDE SW 6P2T SHORTIN				
X401	8Z-CD5-633-010		VIB, CER16.93MHZ FCR16.93M2				
FRONT C.B				PWR C.B			
C601	87-010-313-080		CAP, CHIP 18P	C901	87-A10-577-080		CAP, CER 0.022-50 Z YF
C602	87-010-315-080		C-CAP, S 27P-50 CH	C902	87-A10-577-080		CAP, CER 0.022-50 Z YF
C603	87-010-317-080		C-CAP, S 39P-50 CH	C903	87-A10-577-080		CAP, CER 0.022-50 Z YF
C604	87-010-314-080		C-CAP, S 22P-50V	C904	87-A10-577-080		CAP, CER 0.022-50 Z YF
C605	87-010-317-080		C-CAP, S 39P-50 CH	AF901	87-035-139-010		FUSE, 2.5A T 250V
C606	87-015-785-080		C-CAP, 0.1-25 Z F	FC901	87-A90-160-080		FUSE CLAMP, FC 51F
C608	87-016-669-080		C-CAP, S 0.1-25 K B	FC902	87-A90-160-080		FUSE CLAMP, FC 51F
C609	87-016-669-080		C-CAP, S 0.1-25 K B				
C610	87-010-263-080		CAP, ELECT 100-10V				
C611	87-016-669-080		C-CAP, S 0.1-25 K B				
C612	87-010-248-080		CAP, ELECT 220-10V				
C613	87-010-402-080		CAP, ELECT 2.2-50V				
C614	87-010-196-080		CHIP CAPACITOR, 0.1-25				
C615	87-010-400-080		CAP, ELECT 0.47-50V				
C616	87-010-401-080		CAP, ELECT 1-50V				
C618	87-010-263-080		CAP, ELECT 100-10V				
C619	87-010-263-080		CAP, ELECT 100-10V				
C830	87-010-197-080		CAP, CHIP 0.01 DM				
C831	87-010-197-080		CAP, CHIP 0.01 DM				
C832	87-015-628-080		C-CAP, 1800P-50 B				
C833	87-015-627-080		C-CAP, 1000P-50 B				
C834	87-010-404-080		CAP, ELECT 4.7-50V				
C835	87-010-544-080		CAP, ELECT 0.1-50V				
C836	87-015-627-080		C-CAP, 1000P-50 B				
C837	87-015-627-080		C-CAP, 1000P-50 B				
C838	87-010-401-080		CAP, ELECT 1-50V				
C839	87-010-404-080		CAP, E 4.7-50 M 11L				
C840	87-010-221-080		CAP, ELECT 470-10V				
C841	87-010-401-080		CAP, ELECT 1-50V				
C842	87-012-140-080		CAP 470P				
C844	87-010-401-080		CAP, ELECT 1-50V				
CN601	87-A60-109-010		CONN, 2P V S2M-2W				
J251	8A-CT9-630-010		JACK, MIC ST SW				
J801	8A-CT9-630-010		JACK, MIC ST SW				
L601	87-003-149-080		COIL, 47UH				
L602	87-005-849-080		COIL, 10UH (CECS)				
L801	87-003-098-080		COIL, 2.2UH K LAL02				
LCD601	8A-CT9-620-010		LCD, HLC7107ACT-9				
LED602	8Z-CT6-632-010		LED, L-934LID				
LED603	8Z-CT6-632-010		LED, L-934LID				
LED604	8Z-CT6-632-010		LED, L-934LID				
LED605	8Z-CT6-632-010		LED, L-934LID				
LED606	8Z-CT6-632-010		LED, L-934LID				
LED607	8Z-CT6-632-010		LED, L-934LID				
LED608	8Z-CT6-632-010		LED, L-934LID				
LED609	8Z-CT6-632-010		LED, L-934LID				
SW602	8Z-CT6-636-010		SW, TACT EVQJAC04M				
SW603	8Z-CT6-636-010		SW, TACT EVQJAC04M				
SW604	8Z-CT6-636-010		SW, TACT EVQJAC04M				
SW605	8Z-CT6-636-010		SW, TACT EVQJAC04M				
SW606	8Z-CT6-636-010		SW, TACT EVQJAC04M				
SW607	8Z-CT6-636-010		SW, TACT EVQJAC04M				
SW608	8Z-CT6-636-010		SW, TACT EVQJAC04M				
SW609	8Z-CT6-636-010		SW, TACT EVQJAC04M				
SW610	8Z-CT6-636-010		SW, TACT EVQJAC04M				
SW612	8Z-CT6-636-010		SW, TACT EVQJAC04M				
SW613	8Z-CT6-636-010		SW, TACT EVQJAC04M				
SW614	8Z-CT6-636-010		SW, TACT EVQJAC04M				
SW615	8Z-CT6-636-010		SW, TACT EVQJAC04M				
SW616	8Z-CT6-636-010		SW, TACT EVQJAC04M				

- Regarding connectors, they are not stocked as they are not the initial order items. The connectors are available after they are supplied from connector manufacturers upon the order is received.

○チップ抵抗部品コード/CHIP RESISTOR PART CODE

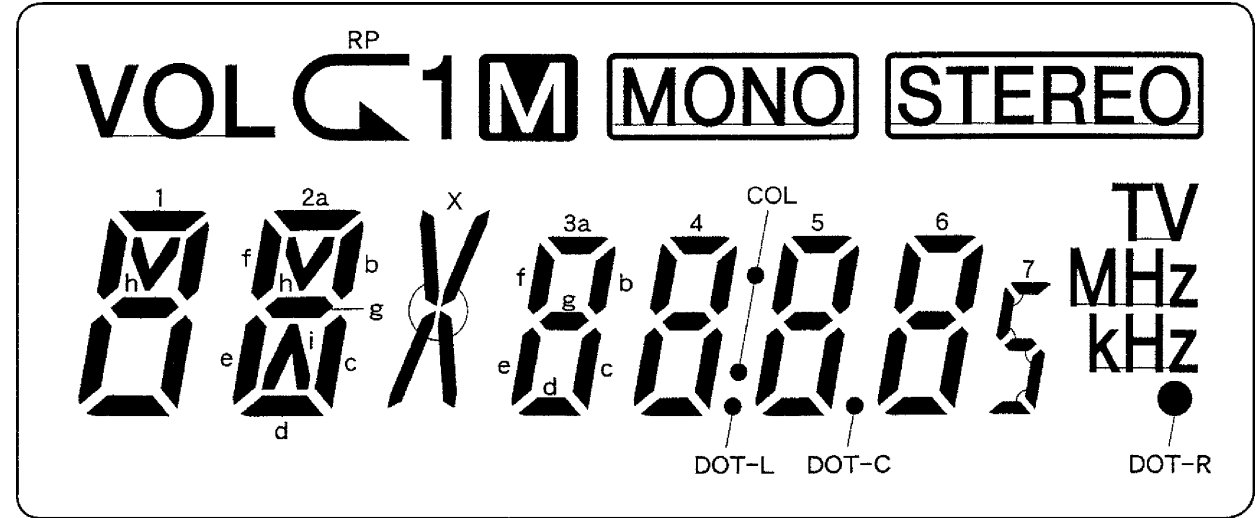
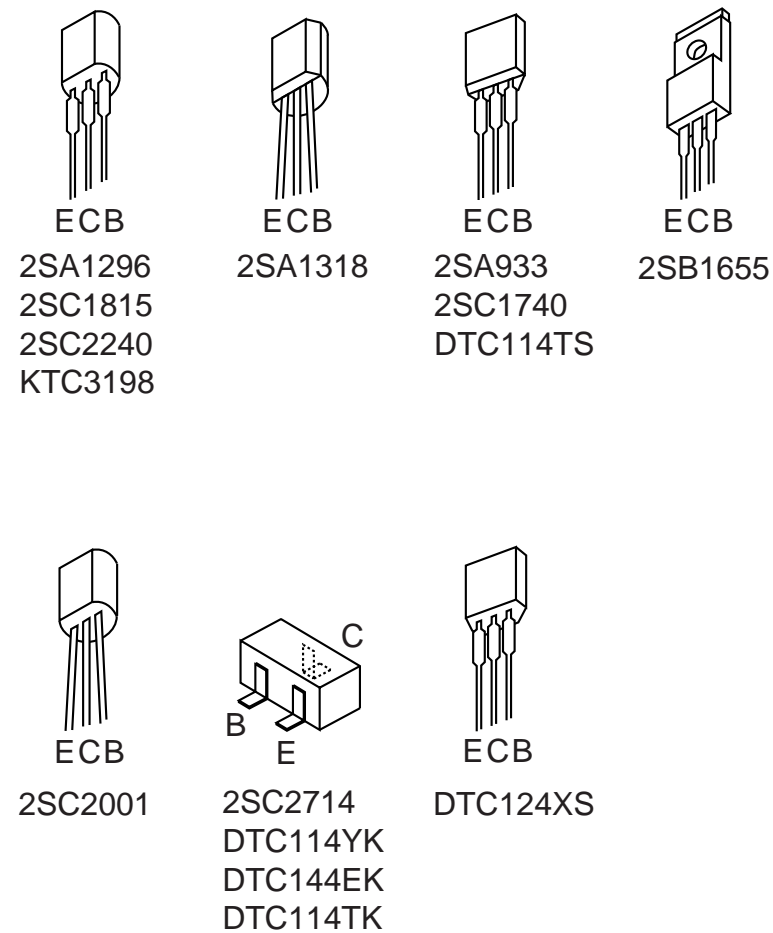
チップ抵抗部品コードの成り立ち  
Chip Resistor Part Coding



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)			抵抗コード : A Resistor Code : A	
				外形/Form	L	W		t
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION



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

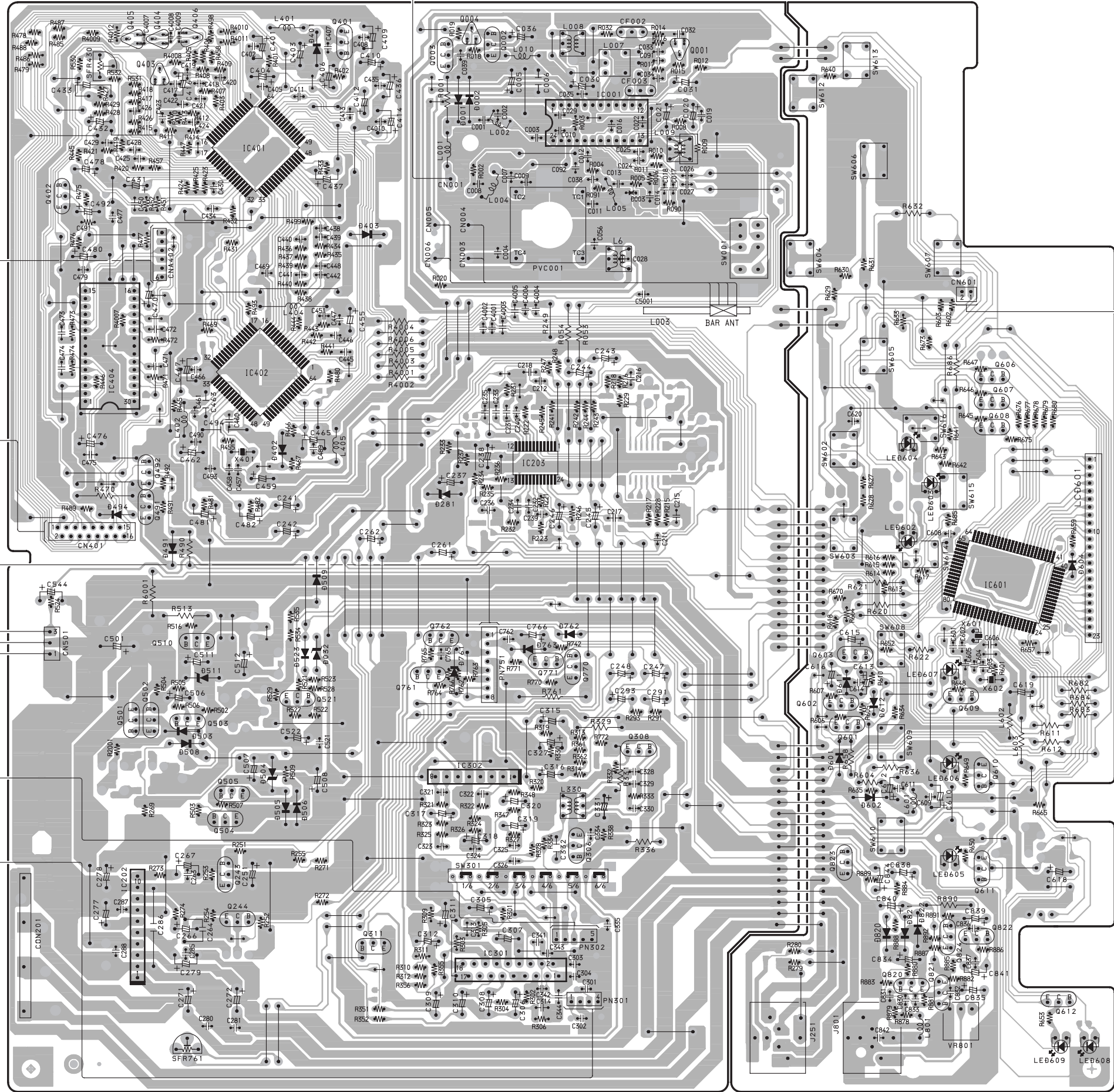
WIRING-1 (MAIN/FRONT)

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

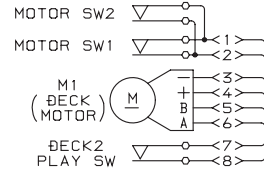
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K

MAIN C.B

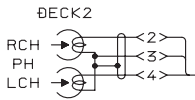
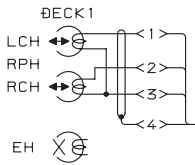
FRONT C.B



OPTICAL PICK UP SF-P101NR



TO PWR C.B  
RED  
BLK  
WHT



TO MOTOR C.B  
PIN3

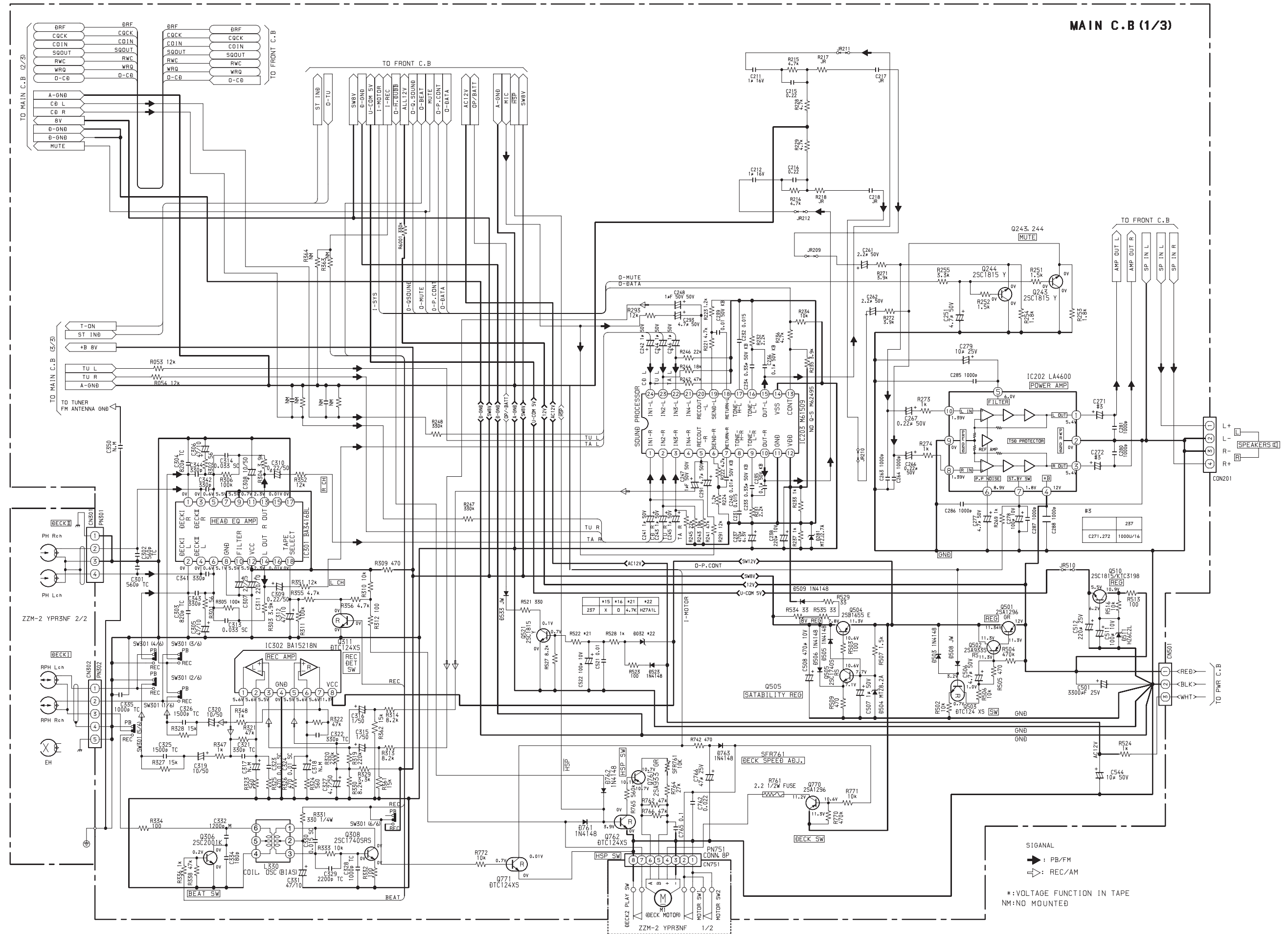
ANT1  
FM  
ROB ANT

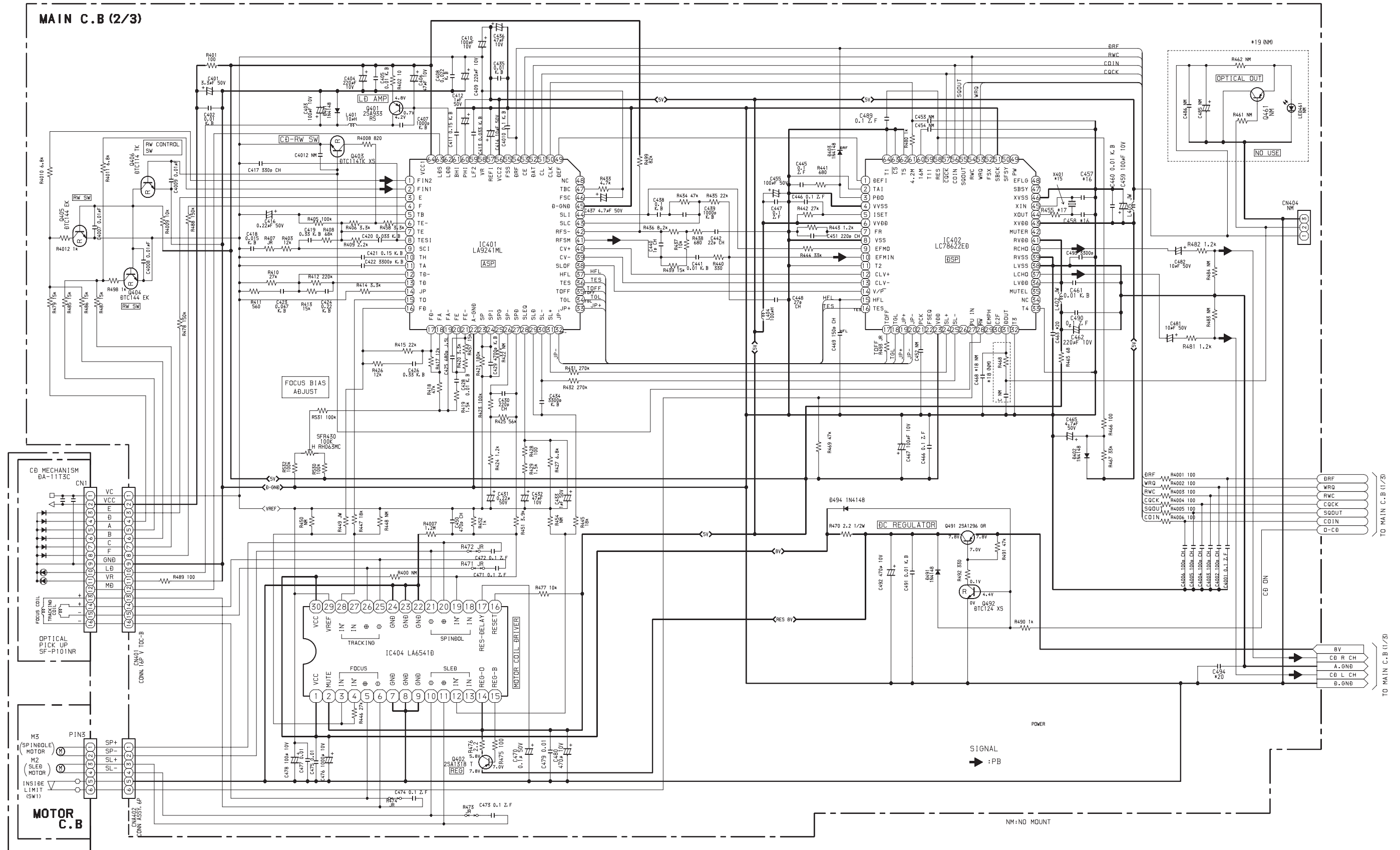
CD DOOR SWITCH



SCHEMATIC DIAGRAM-1 (MAIN)

MAIN C.B (1/3)





	*15 (K401)	*16 (C457, 458)	*17 (R455)	*18 (C468)	*19 (OPT1 OUT)	*20 (E468, 494)	*21 (C493)	*22 (C500)	*23 (SW401)
237	V1B, CER 16.954MHZ (TBO)	15p	100	N, M	NO MOUNT	0.01	N, M	NO MOUNT	NO MOUNT

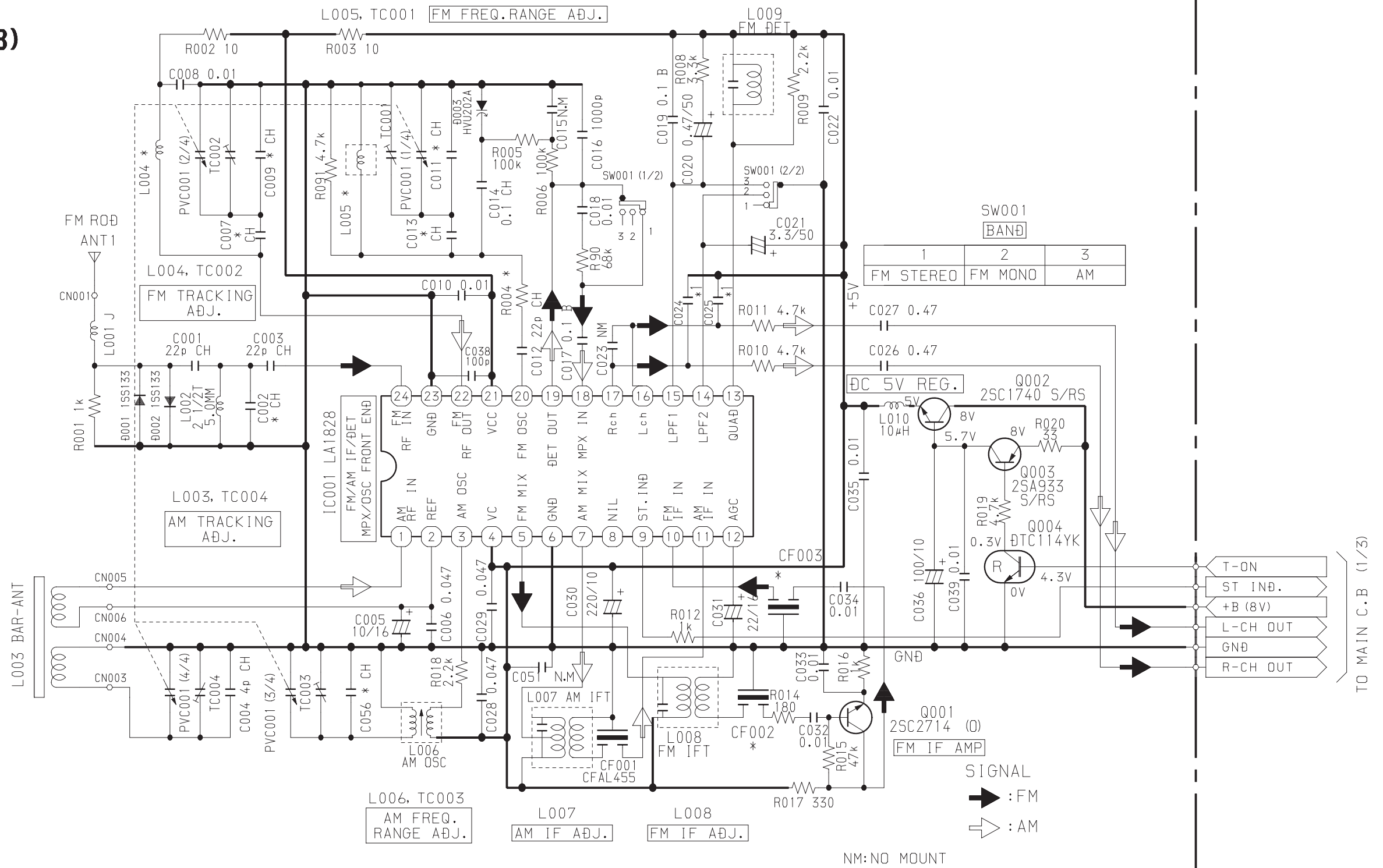
MAIN C.B (3/3)

※

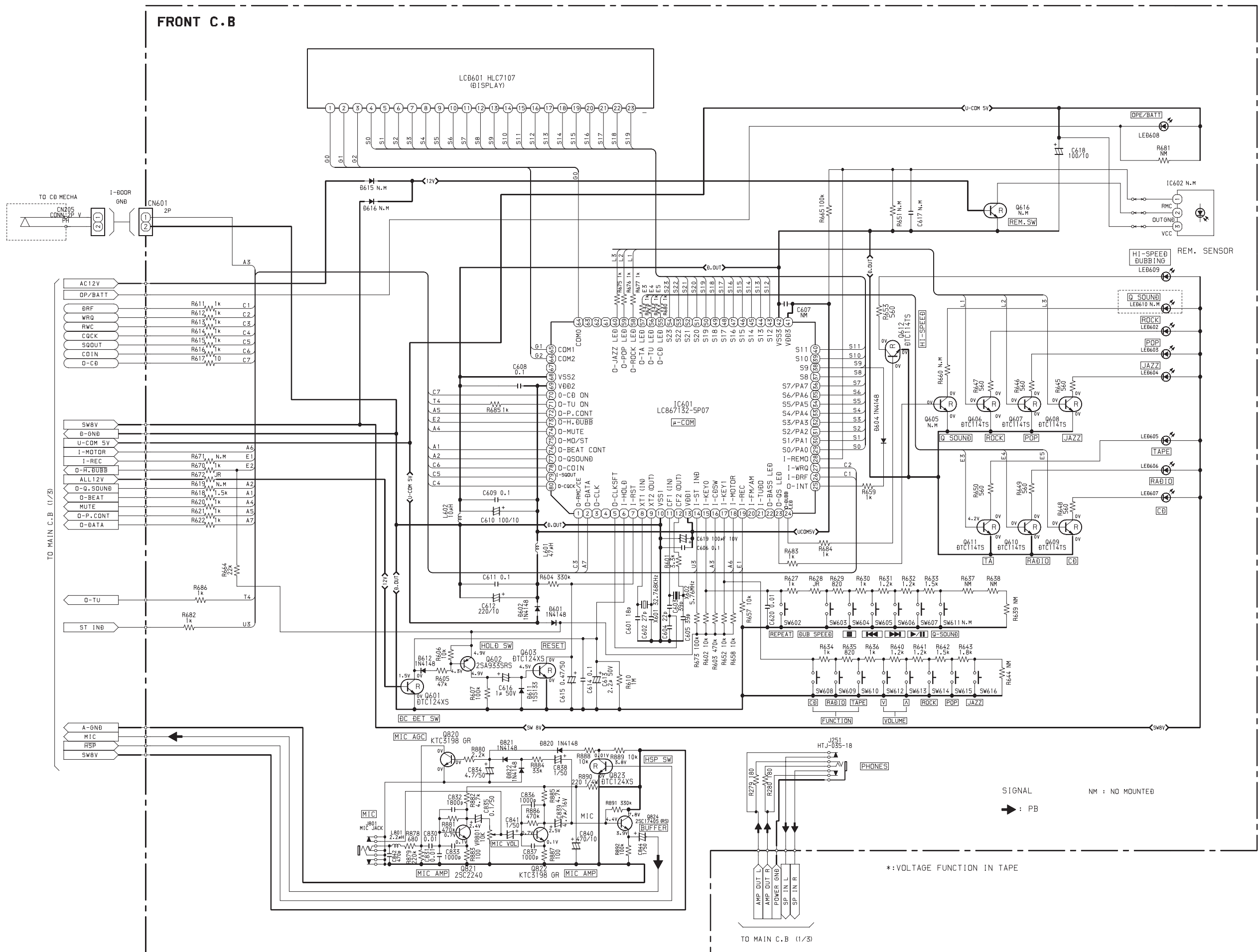
C002	33P
C007	220P
C009	12P
C011	8P
C013	4P
C056	4P
R004	22
L004	COIL.FM.RF.EX
L005	COIL.FM.OSC.EX
CF002, 003	SFE10.7MA5A

\*1

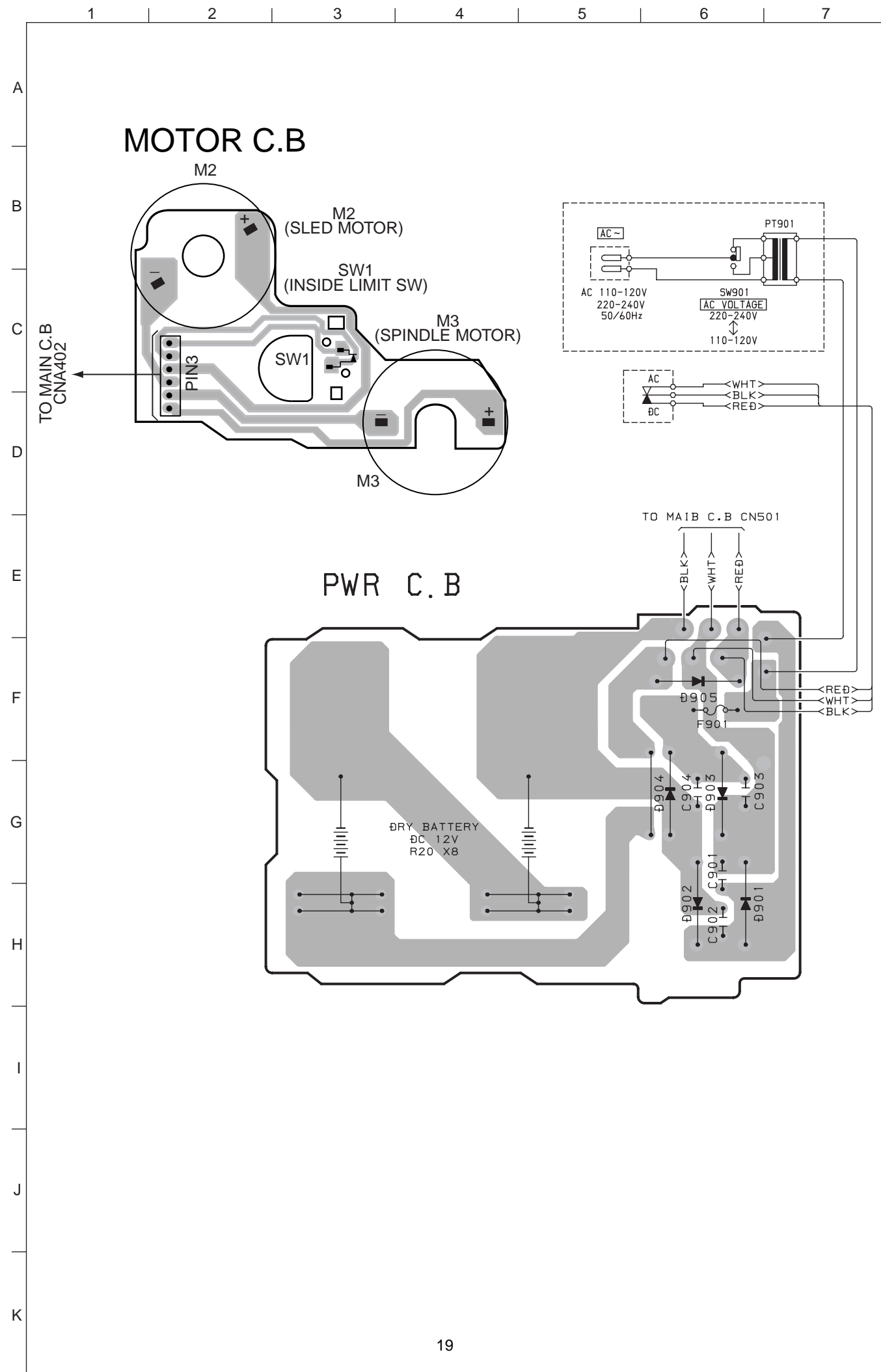
	LH<S>	HA<S>
C024	0.012	8200P
C025	0.012	8200P



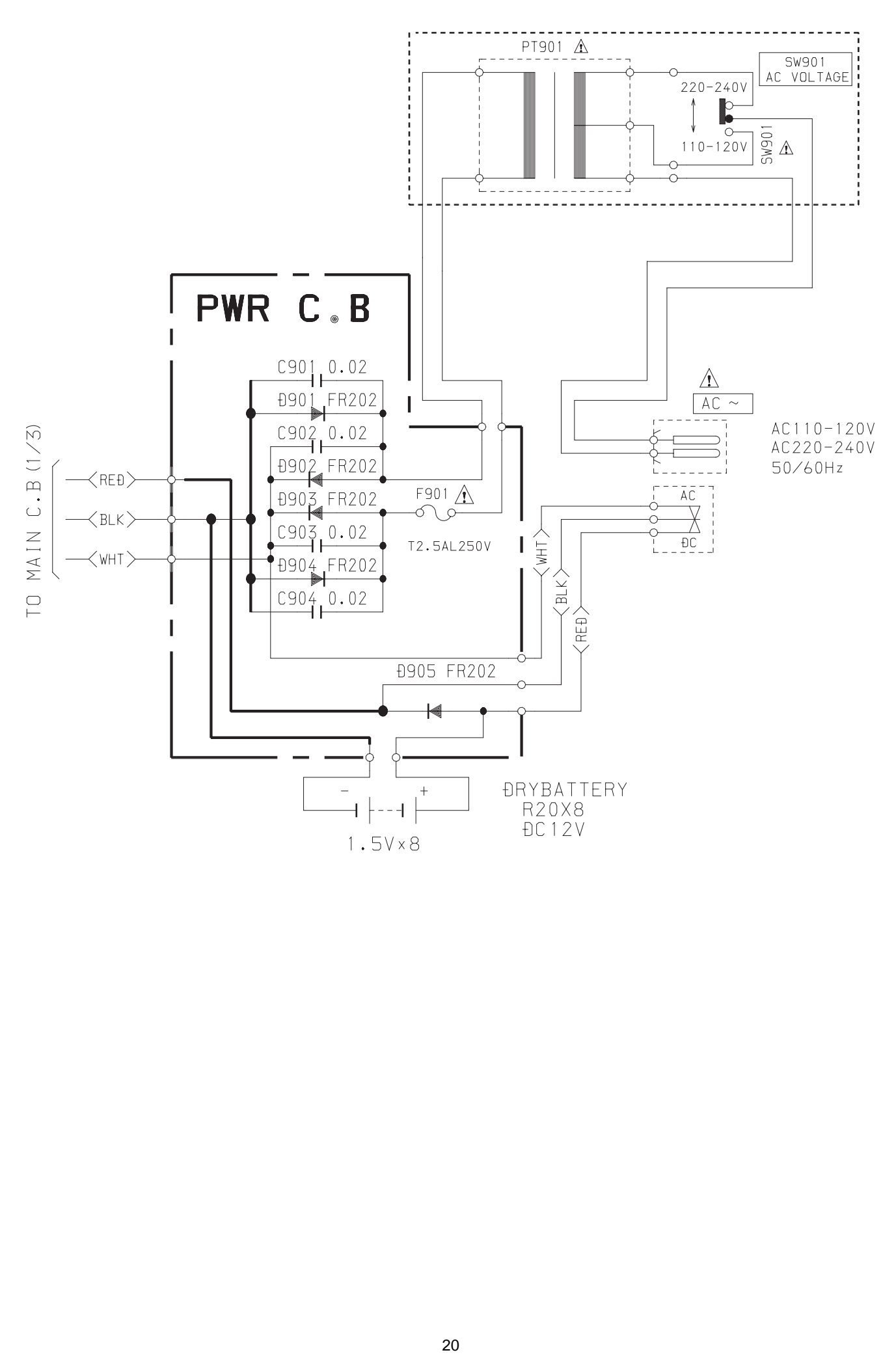
SCHEMATIC DIAGRAM-4 (FRONT)



WIRING-2 (PWR, MOTOR)

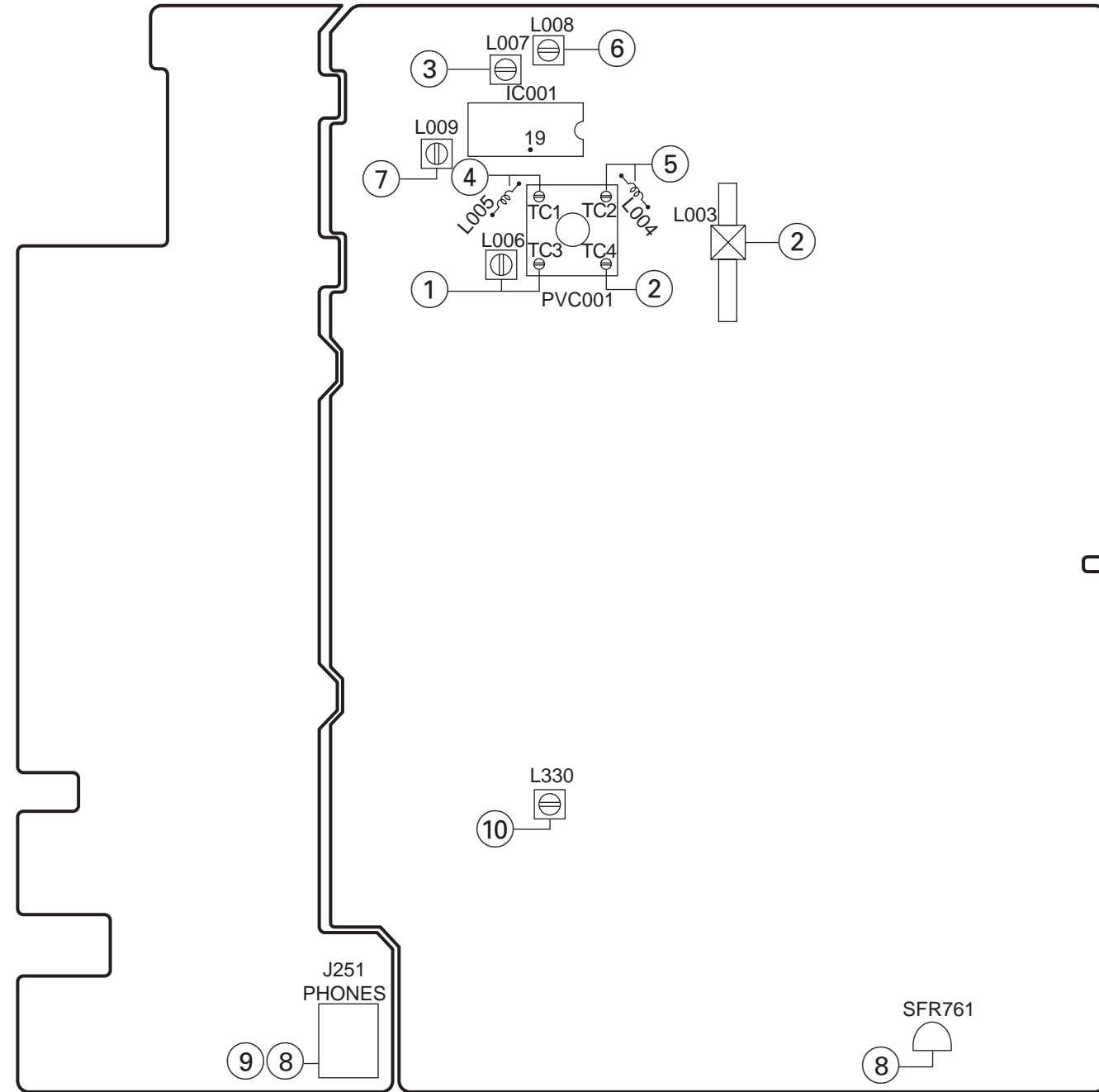


SCHEMATIC DIAGRAM-5 (POWER)

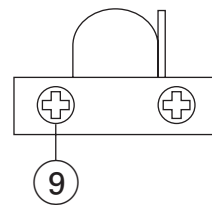


FRONTC.B

MAINC.B



RPH (DECK1)/PH (DECK2)



< TUNER SECTION >

- AM Freq. Range Adjustment  
 L006 ..... 517kHz  
 TC003 ..... 1750kHz

- AM Tracking Adjustment  
 L003 ..... 600kHz  
 TC004 ..... 1400kHz

- AM IF Adjustment  
 Settings: • Test point: IC001 (L81828) 19PIN  
 • Adjustment location: L007  
 Method: Adjust L007 so that the output level at 1000kHz becomes maximum.

- FM Freq. Range Adjustment  
 L005 ..... 87.0MHz  
 TC001 ..... 109.0MHz

- FM Tracking Adjustment  
 L004 ..... 90.0MHz  
 TC002 ..... 108.0MHz

- FM IF Adjustment  
 Settings: • Test point: IC001 (L81828) 19PIN  
 • Adjustment location: L008  
 Method: Adjust L008 so that the output level at 98.0MHz becomes balanced.

- FM Balance Adjustment  
 Settings: • Test point: IC001 (L81828) 19PIN  
 • Adjustment location: L009  
 Method: Adjust L009 so that the output level at 98.0MHz becomes balanced.

< TAPE SECTION >

- Tape speed Adjustment  
 Settings: • Test tape: TTA-100  
 • Test point: J251 (PHONES jack)  
 • Adjustment location: SFR761  
 Method: Play back the test tape and adjust SFR761 so that the frequency counter reads 3000Hz ±5Hz.

- Head Azimuth Adjustment  
 Settings: • Test tape: TTA-320  
 • Test point: J251 (PHONES jack)  
 • Adjustment location: Azimuth adjustment screw.  
 Method: Play back the 8kHz signal of the test tape and adjust screw so that the output becomes maximum.

- Bias frequency Adjustment  
 L330 ..... 56kHz ±2kHz

< TUNER SECTION >

< FM SECTION >

Sensitivity:	Less than 19dB (88.0MHz)
(THD 3%)	Less than 19dB (98.0MHz)
	Less than 19dB (108.0MHz)
Signal to Noise Ratio:	More than 50dB (at 98.0MHz)
(Input 54dB)	
Distortion:	Less than 2.3% (at 98.0MHz)
(Input 54dB)	
Intermediate frequency:	10.7MHz ±0.3MHz
Stereo separation:	More than 18dB

< AM SECTION >

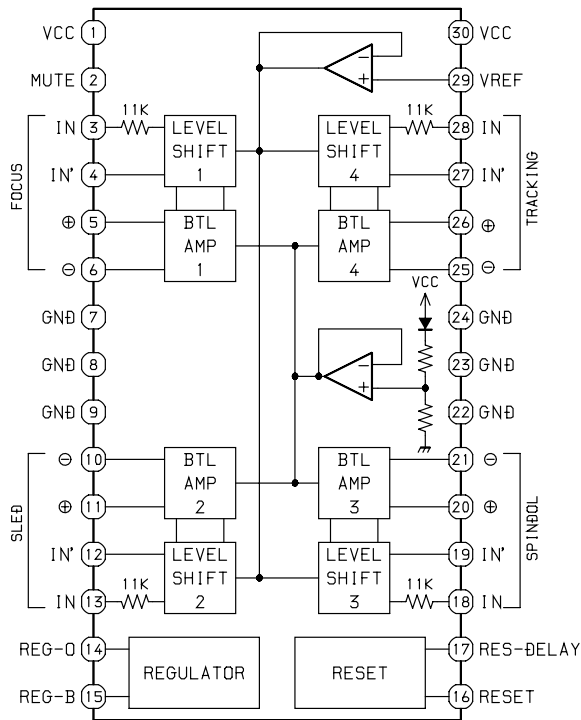
Sensitivity:	Less than 48dB (at 600kHz)
(S/N 10dB)	Less than 48dB (at 1000kHz)
	Less than 48dB (at 1400kHz)
Distortion:	Less than 1.5%
(Input 74dB)	
Intermediate frequency:	455kHz±5kHz

< CASSETTE SECTION >

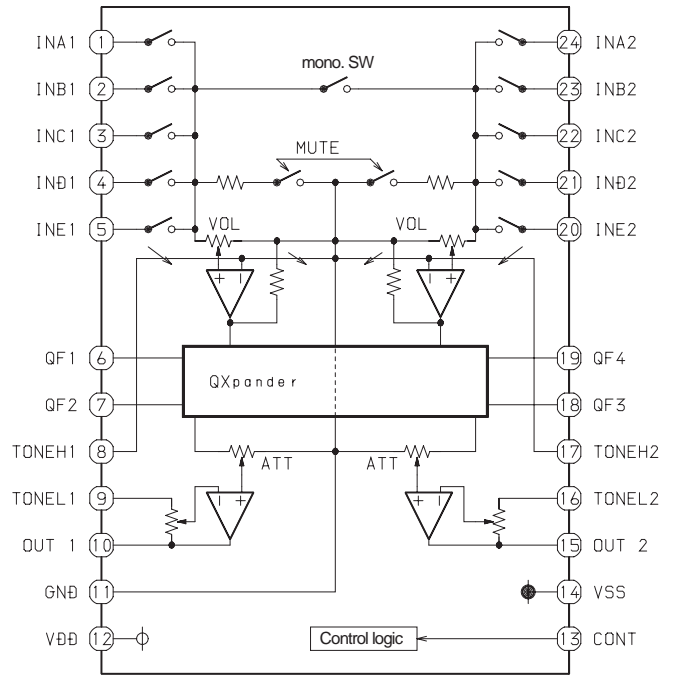
Tape speed:	3000Hz±90Hz
Wow & flutter:	Less than 0.35% (JIS RMS)
Take-up torque:	30-60g-cm (DECK 1/2)
FF torque:	55-140g-cm (DECK 1/2)
Reel torque:	55-140g-cm (DECK 1/2)
Back tension:	1-5g-cm
S/N ratio:	More than 37dB
Distortion:	Less than 3.0% (PB)
Noise (PB):	Less than 1mV
	(AC/DC, MIN)
Erasing Ratio:	More than 36dB
(AC W/O FILTER)	

# IC BLOCK DIAGRAM

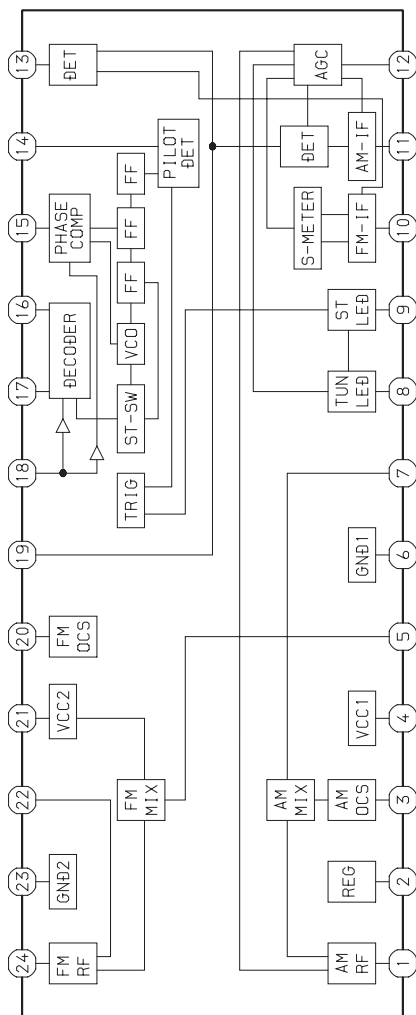
## IC, LA6541D



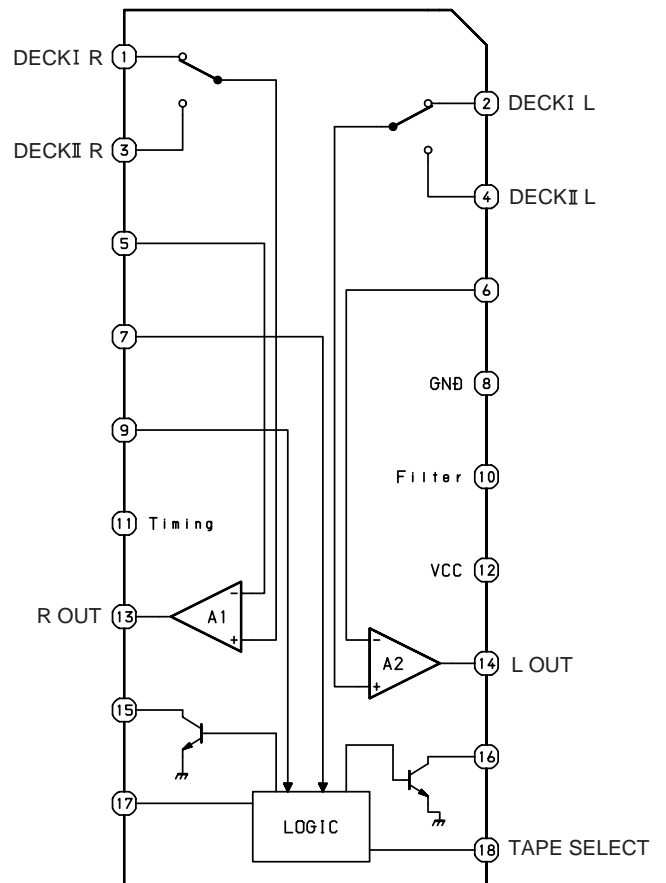
## IC, M61509



## IC, LA1828



## IC, BA3416BL



# VOLTAGE CHART

IC601(LC867132V-***)																																											
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
CD	0	0	0	0	0	0	3.5	1.4	2.5	0	2.0	2.5	4.5	0.5	5.0	0	5.0	5.0	0	0	0	4.5	0	0	4.5	0	4.5	5.0	1.0	5.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		
TUNER	0	0	0	0	0	0	4.5	1.4	2.5	0	4.0	5.0	5.0	4.5	5.0	0	5.0	5.0	0	0	0	5.0	0	0	0	0	0	4.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5.0
TAPE	0	0	0	0	0	0	4.5	1.4	2.5	0	2.0	2.5	4.5	0.5	5.0	0	5.0	1.5	0	0	0	5.0	0	0	4.5	0	4.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5.0
PIN NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80			
CD	0	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	4.5	0	0	0	0	0	0	0	0	2.5	2.5	2.5	0	4.5	4.5	0	4.5	4.5	0	0	0	0	0	0	4.5	0	4.5		
TUNER	5.0	0	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	0	0	0	0	0	0	2.5	2.5	2.5	0	4.5	0	5.0	4.5	5.0	0	0	0	0	0	0	0	0	0	0	
TAPE	5.0	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	4.5	0	0	0	0	0	2.5	2.5	2.5	0	5.0	0	5.0	0	4.5	4.5	0	0	0	0	0	0	0	0	0	0	

IC203(M61509)																								
PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
VOLT	1.5	1.5	2.0	0	2.0	2.5	2.5	2.5	2.5	2.5	2.0	4.5	3.0	0	0	0	0	0	0	0	0	0	0	0



**IC401(LA9241ML)**

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
STOP	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0
PLAY	2.5	1.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0
RW	2.5	1.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0	0	2.5	2.5	2.5	2.5	2.5	0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	0
PIN NO	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
STOP	0	5.0	0	1.0	0	0	0	0	1.5	2.5	2.5	2.5	0	2.5	2.5	0	0	2.5	4.5	4.5	0	5.0	5.0	2.5	2.5	2.5	1.0	3.0	2.0	4.5	0	5.0
PLAY	0	5.0	0	1.0	0	0	0	0	2.0	2.5	2.5	2.5	0	2.5	2.5	0	0	2.5	2.5	4.5	0	5.0	5.0	2.5	2.5	2.5	1.0	3.0	2.0	1.0	0	5.0
RW	0	5.0	0	1.0	0	0	0	0	2.0	2.5	2.5	2.5	0	2.5	2.5	0	0	2.5	2.5	4.5	0	5.0	5.0	2.5	2.5	2.5	1.0	3.0	2.0	1.0	0	5.0

**IC402(LC78622ED)**

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
STOP	0	0	0.5	0	1.5	4.0	0	0	0	0	0	0	0	0	0	1.0	0.5	5.0	0	0	2.5	0	5.0	0	0	0	4.5	0	0	0	0	0
PLAY	0	0	1.5	0	1.5	4.0	0	0	2.5	2.5	0	0	0	0	0	1.0	0	5.0	0	2.5	0	0	0	0	0	0	4.0	0	0	2.5	0	
RW	0	0	1.5	0	1.5	4.0	0	0	2.5	2.5	0	0	0	0	0	1.0	0	5.0	0	2.5	0	0	0	0	0	0	4.0	5.0	0	2.5	0	
PIN NO	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
STOP	0	0	0	5.0	2.0	0	0	2.0	5.0	0	5.0	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	0	0	0	0
PLAY	0	0	0	5.0	2.0	0	0	2.0	5.0	0	5.0	2.0	0	0	0	0	0	0	0	1.0	0	0	0	0	4.5	4.5	0	2.5	0	0	0	0
RW	0	0	0	5.0	2.0	0	0	2.0	5.0	0	5.0	2.0	0	0	0	0	0	0	0	1.0	0	0	0	0	4.5	4.5	0	2.5	0	0	0	0

**IC404(LA6541D)**

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
STOP	7.5	0	2.5	2.5	3.5	3.5	0	0	0	3.5	3.5	2.5	0	5.0	7.0	5.0	5.0	0	4.5	3.5	3.5	0	0	0	0	3.5	0	2.5	0	7.5
PLAY	7.5	0	2.5	2.5	3.0	3.5	0	0	0	3.0	3.5	2.5	0	5.0	7.0	5.0	5.0	0	2.5	3.5	3.0	0	0	0	3.0	3.5	0	2.5	2.5	7.5

# IC DESCRIPTION

## IC, LA9241ML

Pin No.	Pin Name	I/O	Description
1	FIN2	I	Pin to which external pickup photo diode is connected. RF signal is created by adding with the FIN1 pin signal. FE signal is created by subtracting from the FIN1 pin signal.
2	FIN1	I	Pin to which external pickup photo diode is connected.
3	E	I	Pin to which external pickup photo diode is connected. TE signal is created by subtracting from the F pin signal.
4	F	I	Pin to which external pickup photo diode is connected.
5	TB	I	DC component of the TE signal is input.
6	TE-	I	Pin to which external resistor setting the TE signal gain is connected between the TE pin.
7	TE	O	TE signal output pin.
8	TESI	I	TES “Track Error Sense” comparator input pin. TE signal is passed through a band-pass filter then input.
9	SCI	I	Shock detection signal input pin.
10	TH	I	Tracking gain time constant setting pin.
11	TA	O	TA amplifier output pin.
12	TD-	I	Pin to which external tracking phase compensation constants are connected between the TD and VR pins.
13	TD	I	Tracking phase compensation setting pin.
14	JP	I	Tracking jump signal (kick pulse) amplitude setting pin.
15	TO	O	Tracking control signal output pin.
16	FD	O	Focusing control signal output pin.
17	FD-	I	Pin to which external focusing phase compensation constants are connected between the FD and FA pins.
18	FA	I	Pin to which external focusing phase compensation constants are connected between the FD- and FA- pins.
19	FA-	I	Pin to which external focusing phase compensation constants are connected between the FA and FE pins.
20	FE	O	FE signal output pin.
21	FE-	I	Pin to which external FE signal gain setting resistor is connected between the FE pin.
22	AGND	—	Analog signal GND.
23	SP	O	Signal ended output of the CV+ and CV- pin input signal.
24	SPI	I	Spindle amp input.
25	SPG	I	Pin to which external spindle gain setting resistor in 12 cm mode is connected.
26	SP-	I	Pin to which external spindle phase compensation constants are connected together with SPD pin.
27	SPD	O	Spindle control signal output pin.
28	SLEQ	I	Pin to which external sled phase compensation constants are connected.
29	SLD	O	Sled control signal output pin.
30, 31	SL-, SL+	I	Sled advance signal input pin from microprocessor.
32, 33	JP-, JP+	I	Tracking jump signal input pin from DSP.
34	TGL	I	Tracking gain control signal input from DSP. Low gain when TGL = H.
35	TOFF	I	Tracking off control signal input pin from DSP. Off when TOFF = H.

Pin No.	Pin Name	I/O	Description
36	TES	O	Pin from which TES signal is output to DSP.
37	HFL	O	“High Frequency Level” is used to judge whether the main beam position is on top of bit or on top of mirror.
38	SLOF	I	Sled servo off control input pin.
39, 40	CV-, CV+	I	CLV error signal input pin from DSP.
41	RFSM	O	RF output pin.
42	RFS-	I	RF gain setting and EFM signal 3T compensation constant setting pin together with RFSM pin.
43	SLC	O	“Slice Level Control” is the output pin which controls the RF signal data slice level by DSP.
44	SLI	I	Input pin which control the data slice level by the DSP.
45	DGND	—	Digital system GND.
46	FSC	O	Output pin to which external focus search smoothing capacitor is connected.
47	TBC	I	“Tracking Balance Control” EF balance variable range setting pin.
48	NC	—	No connection.
49	DEF	O	Disc defect detector output pin.
50	CLK	I	Reference clock input pin. 4.23 MHz of the DSP is input.
51	CL	I	Microprocessor command clock input pin.
52	DAT	I	Microprocessor command data input pin.
53	CE	I	Microprocessor command chip enable input pin.
54	DRF	O	“Detect RF” RF level detector output.
55	FSS	I	“Focus Search Select” focus search mode ( $\pm$ search/+ search) select pin.
56	VCC2	—	Servo system and digital system Vcc pin.
57	REFI	—	Pin to which external bypass capacitor for reference voltage is connected.
58	VR	O	Reference voltage output pin.
59	LF2	I	Disc defect detector time constant setting pin.
60	PH1	I	Pin to which external capacitor for RF signal peak holding is connected.
61	BH1	I	Pin to which external capacitor for RF signal bottom holding is connected.
62	LDD	O	APC circuit output pin.
63	LDS	I	APC circuit input pin.
64	VCC1	—	RF system Vcc pin.

## IC, LC78622ED

Pin No.	Pin Name	I/O	Description	
1	DEFI	I	Defect sense signal (DEF) input pin. (Connect to 0V when not used).	
2	TAI	I	For PLL.	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
3	PDO	O		Phase comparator output pin to control external VCO.
4	VVSS	—		GND pin for built-in VCO. Be sure to connect to 0V.
5	ISET	I		Pin to which external resistor adjusting the PDO output current.
6	VVDD	—		Power supply pin for built-in VCO.
7	FR	I		Pin for VCO frequency range adjustment.
8	VSS	—		Digital system GND. Be sure to connect to 0V.
9	EFMO	O	For slice level control.	EFM signal output pin.
10	EFMIN	I		EFM signal input pin.
11	T2	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
12, 13	CLV+, CLK-	O	Disc motor control output. Three level output is possible using command.	
14	V/P	O	Rough servo or phase control automatic selection monitoring output pin. Rough servo at H. Phase servo at L.	
15	HFL	I	Track detect signal input pin. Schmidt input.	
16	TES	I	Tracking error signal input pin. Schmidt input.	
17	TOFF	O	Tracking OFF output pin.	
18	TGL	O	Tracking gain selection output pin. Gain boost at L.	
19, 20	JP+, JP-	O	Track jump control signal output pin. Three level output is possible using command.	
21	PCK	O	EFM data playback clock monitoring pin 4.3218 MHz when phase is locked in.	
22	FSEQ	O	Sync signal detection output pin. H when the sync signal which is detected from EFM signal and the sync signal which is internally generated agree.	
23	VDD	—	Digital system power supply pin.	
24	SL+	O	Moves the sled to outer circumference.	
25	SL-	O	Moves the sled to inner circumference.	
26	—	—	Not connected.	
27	PUIN	I	CD pickup inner switch detection.	
28	RW	O	Read, wright signal.	
29	EMPH	O	De-emphasis monitor output pin. De-emphasis disc is being played back at H.	
30	C2F	O	C2 flag output pin.	
31	DOUT	O	DIGITAL OUT output pin. (EIAJ format).	
32, 33	T3, T4	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.	
34	N.C.	—	Not used. Set the pin to open.	
35	MUTEL	O	L-channel 1-bit DAC.	L-channel mute output pin.
36	LVDD	—		L-channel power supply pin.
37	LCHO	O		L-channel output pin.
38	LVSS	—		L-channel GND. Be sure to connect to 0V.
39	RVSS	—	R-channel 1-bit DAC.	R-channel GND. Be sure to connect to 0V.
40	RCHO	O		R-channel output pin.
41	RVDD	—		R-channel power supply pin.
42	MUTER	O		R-channel mute output pin.

Pin No.	Pin Name	I/O	Description
43	XVDD	—	Crystal oscillator power supply pin.
44	XOUT	O	Pin to which external 16.9344 MHz crystal oscillator is connected.
45	XIN	I	
46	XVSS	—	Crystal oscillator GND pin. Be sure to connect to 0V.
47	SBSY	O	Subcode block sync signal output pin.
48	EFLG	O	C1, C2, single and dual correction monitoring pin.
49	PW	O	Subcode P, Q, R, S, T, U and W output pin.
50	SFSY	O	Subcode frame sync signal output pin. Falls down when subcode enters standby.
51	SBCK	I	Subcode read clock input pin. Schmidt input. (Be sure to connected to 0V when not in use.)
52	FSX	O	Pin outputting the 7.35 kHz sync signal which is generated by dividing frequency of crystal oscillator.
53	WRQ	O	Subcode Q output standby output pin.
54	RWC	I	Read/write control input pin. Schmidt input.
55	SQOUT	O	Subcode Q output pin.
56	COIN	I	Command input pin from microprocessor.
57	$\overline{\text{CQCK}}$	I	Command input read clock or subcode read input clock from SQOUT pin
58	RES	I	LC78622 reset input pin. Set this pin to L once when the main power is turned on.
59	T11	O	Test signal output pin. Use this pin as open (normally L output).
60	16M	O	16.9344 MHz output pin.
61	4.2M	O	4.2336 MHz output pin.
62	T5	I	Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V.
63	$\overline{\text{CS}}$	I	Chip select signal input pin with built-in pull-down resistor. Be sure to connect to 0V while it is not controlling.
64	T1	I	Test signal input pin without built-in pull-down resistor. Be sure to connect to 0V.

## IC, LC867132V-5P07

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

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

# MECHANICAL PARTS LIST 1/1

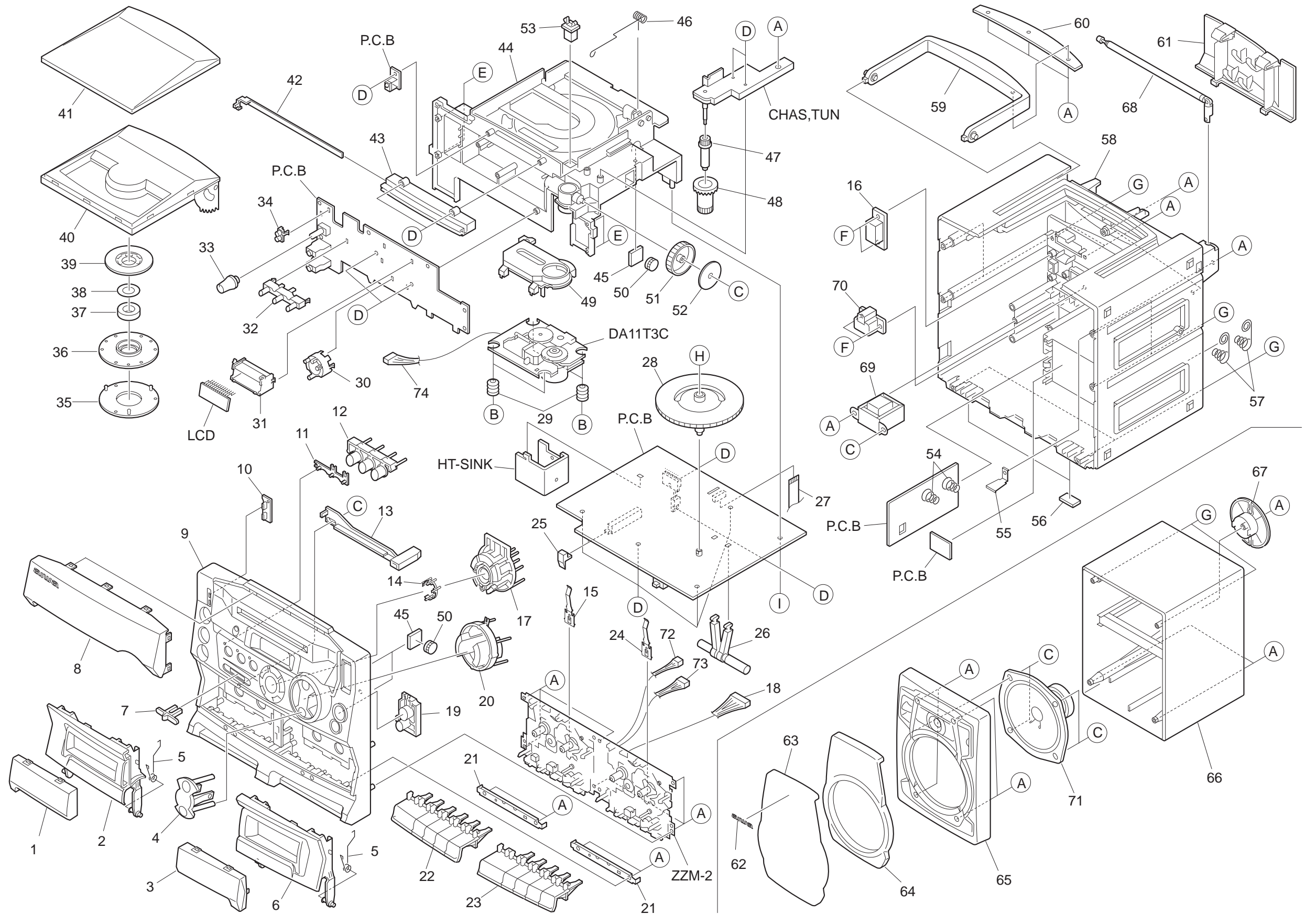
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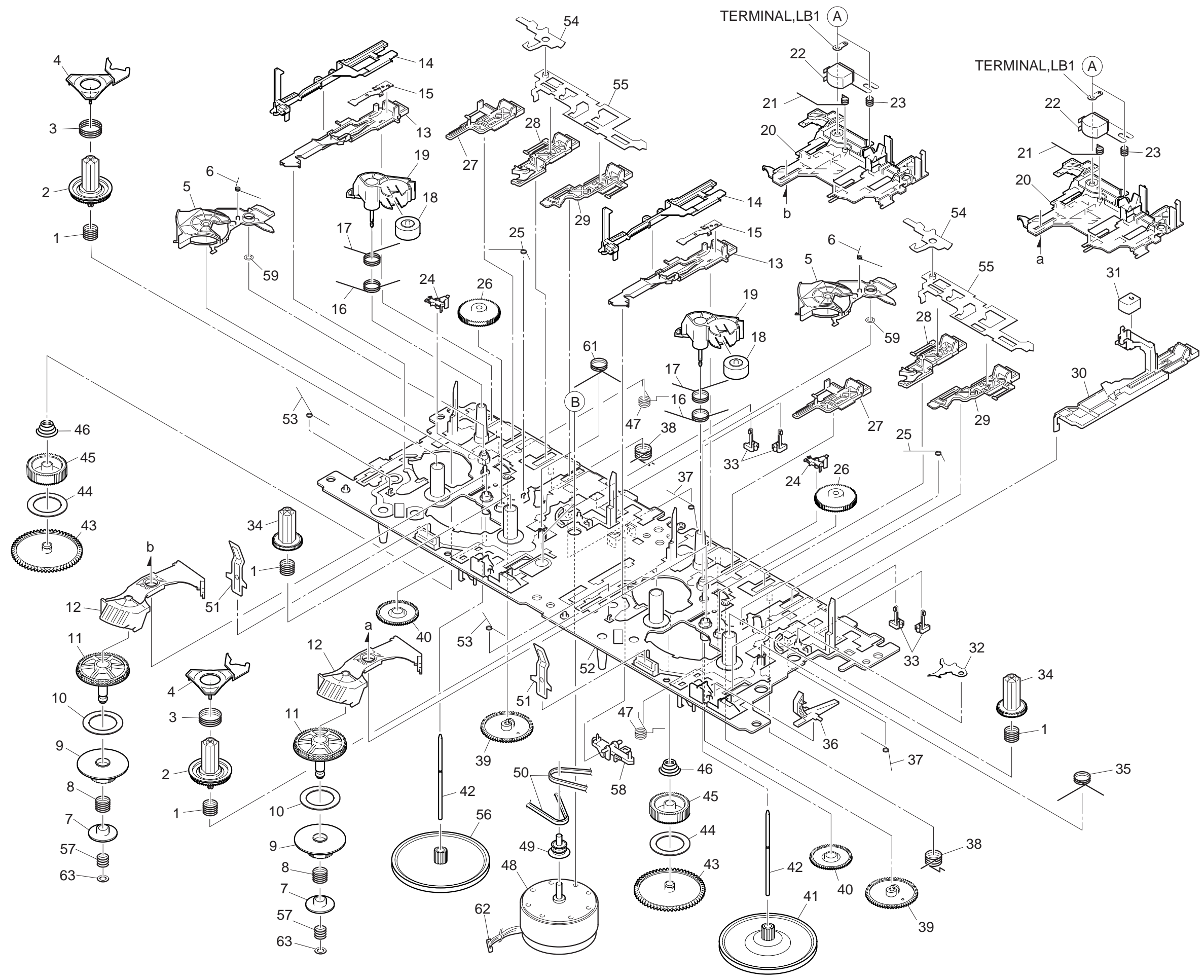
REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CT9-006-010		WINDOW,CASS L	46	8A-CT9-212-010		SPR-T,CD
2	8A-CT9-002-010		BOX,CASS L	47	8A-CT9-209-010		GEAR,POINTER
3	8A-CT9-007-010		WINDOW,CASS R	48	8A-CT9-210-010		GEAR,ADAP
4	8A-CT9-011-010		BTN,CD A	49	8Z-CT9-064-010		PANEL CD
5	86-CT9-210-010		SPR-T,CASS	50	86-CT9-219-110		OIL-DMPR,GEAR
6	8A-CT9-003-010		BOX,CASS R	51	8A-CT9-018-010		KNOB,RTRY TUN
7	8A-CT9-019-010		KNOB,SL BAND	52	8A-CT9-028-010		COVER, TUN
8	8A-CT9-008-010		WINDOW,DISP	53	8Z-CT9-641-010		CD DOOR SW
9	8A-CT9-050-010		CABI,FR LH	54	86-CT9-213-010		SPR-C,BATT(-)
10	8A-CT9-021-010		LENS,POWER	55	86-CT9-207-010		HLLDR,ANT
11	8A-CT9-020-010		LENS,FUNC	56	86-CT9-223-010		CUSH,FOOT
12	8A-CT9-010-010		KEY,FUNC	57	86-CT9-212-010		SPR-C,BATT LINK
13	8A-CT9-202-010		LEVER,BAND	58	8Z-CT9-044-010		CABI,REAR
14	8A-CT9-022-010		LENS,GEQ	59	86-CT6-036-010		HANDL,RF
15	8A-CT9-215-010		SPR-P,REC A	60	88-CT6-022-010		COVER, HNLD
△	16	87-A91-369-010	SW,AC SL 2 2 2 SDKGA41700	61	86-CT6-035-010		LID,BATT RF
17	8A-CT9-051-010		BTN,GEQ LH	62	86-CT9-040-010		BADGE,AIWA -
18	88-CT6-608-010		CONN ASSY,8P MO	63	8A-CT9-030-010		NET,SPKR
19	8A-CT9-015-010		BTN,VOL	64	8A-CT9-027-010		FRAME,SPKR NET
20	8A-CT9-012-010		BTN,CD B	65	8A-CT9-024-010		CABI,SPKR FR
21	86-CT9-208-010		HLLDR,KEY CASS	65	8A-CT9-025-010		CABI,SPKR FR R
22	8A-CT9-013-010		KEY,CASS L	66	86-CT9-117-010		CABI,SPKR-REAR L RF
23	8A-CT9-014-010		KEY,CASS R	66	86-CT9-118-010		CABI,SPKR-REAR R RF
24	8A-CT9-216-010		SPR-P,REC B	67	86-CT9-121-010		HLLDR,CORD RF
25	86-CT9-205-110		HLLDR,REC	68	88-CT6-633-010		ANT,ROD
26	88-CD6-661-010		HLLDR,BAR ANT.	△	69	88-CT6-631-010	POWER TRANS,EI-57/25
27	88-CT6-606-010		FFC WIRE 16P(1.0)	△	70	87-A60-178-010	JACK,AC E W/SW
28	8A-CT9-208-010		DRUM,GEAR	71	8Z-CT9-059-010		PLATE,SPKR (3.2 OHM)
29	88-CH6-220-010		CUSHION,CD A	72	88-CT6-604-010		CONN ASSY,4P PH
30	8A-CT9-211-010		HLLDR,GEQ	73	88-CT6-605-010		CONN ASSY,5P RPH
31	8A-CT9-205-010		HLLDR,LCD	74	8Z-CT6-631-010		CONN ASSY,6P CD MO
32	8A-CT9-203-010		HLLDR,FUNC	A	87-751-097-410		SCREW 3X12
33	8A-CT9-017-010		KNOB,RTRY MIC	B	81-CD5-204-010		SCREW CD
34	8A-CT9-204-010		HLLDR,POWER	C	87-751-095-410		VT2+3-8 W/O
35	8Z-CT6-214-010		RING,CHUCK	D	87-571-095-410		VIT+3-8
36	8Z-CT6-213-010		BASE,CHUCK	E	87-651-100-410		VT1+3-16
37	87-036-368-010		MAGNET	F	87-651-075-210		VT1+2.6-10
38	86-CT9-222-010		PLATE,MAGNET	G	87-651-104-410		VT1+3-30
39	86-CT9-217-010		HLLDR,CHUCK A(S)	H	87-261-072-410		V+2.6-5
40	8A-CT9-004-010		BOX,CD	I	87-721-095-410		QT2+3-8GLD W/O SLOT
41	8A-CT9-005-010		WINDOW,CD				
42	8A-CT9-009-010		POINTER,TUN				
43	8A-CT9-207-010		HLLDR,POINTER				
44	8A-CT9-201-010		CHAS,CD				
45	86-CT9-220-110		OIL-DMPR,BRACKET				

## COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange		





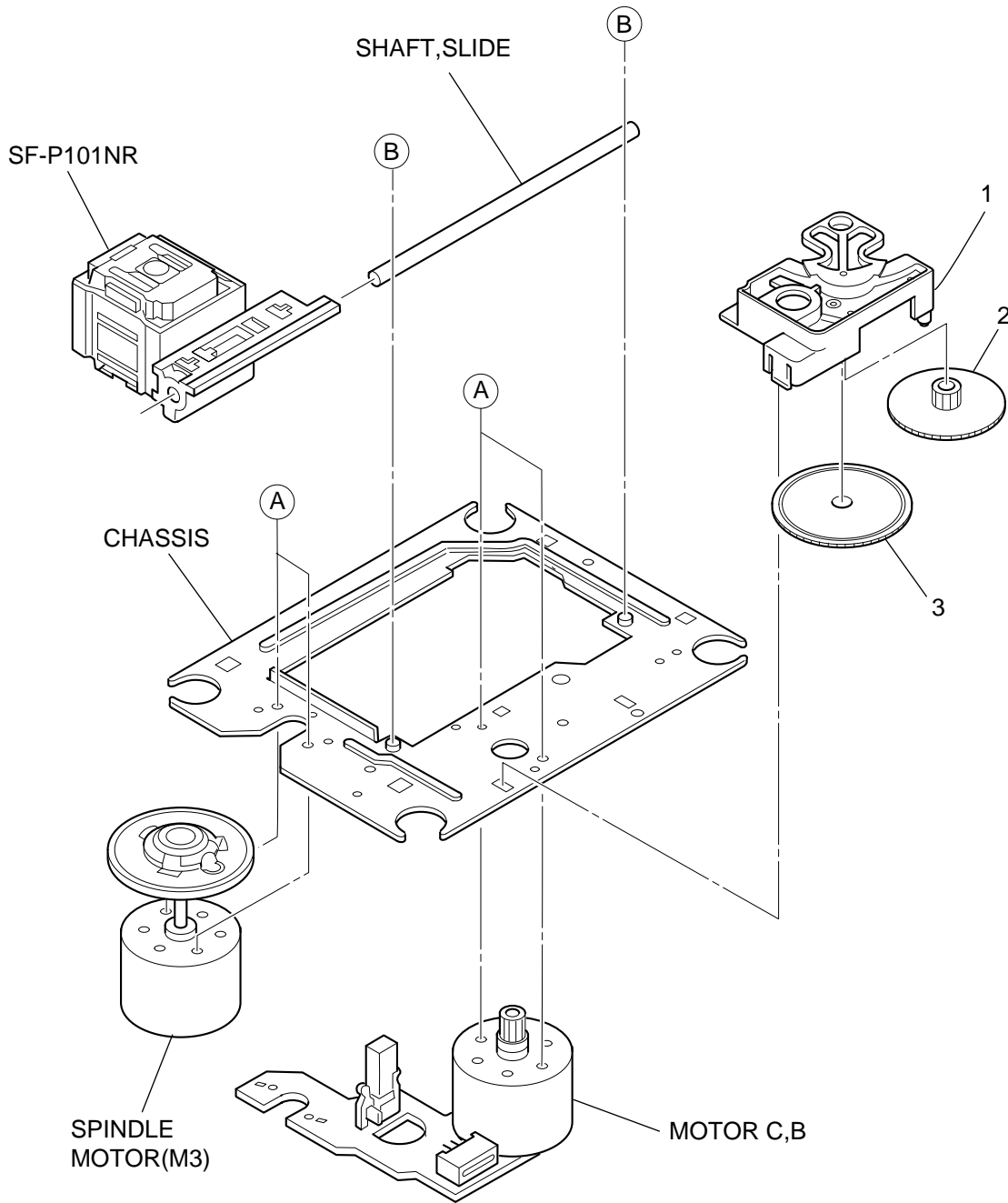


# TAPE MECHANISM PARTS LIST 1/1

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REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM1-254-210		SPR-C, REEL R	34	8Z-ZM1-226-010		GEAR, REEL L
2	8Z-ZM1-225-110		GEAR, REEL R	35	8Z-ZM1-241-010		SPR-T, PLAY
3	8Z-ZM1-253-110		SPR-C, AUTO SENSOR	36	8Z-ZM1-220-110		LEVER, REC SENSOR
4	8Z-ZM1-217-110		LEVER, AUTO SENSOR	37	8Z-ZM1-249-010		SPR-T, FR
5	8Z-ZM1-212-110		LEVER, T-UP	38	8Z-ZM1-242-110		SPR-T, FF/REW
6	8Z-ZM1-245-010		SPR-T, AUTO	39	8Z-ZM1-229-010		GEAR, CAM
7	8Z-ZM1-236-010		CLR, SLIP FF/REW	40	8Z-ZM1-232-010		GEAR, IDL FF/REW
8	8Z-ZM1-252-010		SPR-C, FF/REW	41	8Z-ZM1-234-010		FLY-WHL, ZZM-1
9	8Z-ZM1-230-010		GEAR, SLIP FF/REW A	42	8Z-ZM1-267-010		SHAFT, CAPSTAN 2
10	8Z-ZM1-269-010		FELT, FF/REW 2	43	8Z-ZM1-228-010		GEAR, SLIP T-UP B
11	8Z-ZM1-238-110		GEAR, SLIP FF/REW B 2	44	8Z-ZM1-265-010		FELT, T-UP
12	8Z-ZM1-237-010		LEVER, FF/REW 2	45	8Z-ZM1-227-010		GEAR, SLIP T-UP A
13	8Z-ZM1-209-210		LEVER, PAUSE	46	8Z-ZM1-251-110		SPR-C, T-UP SLIP
14	8Z-ZM1-218-110		LEVER, E-LOCK H	47	8Z-ZM1-243-210		SPR-T, STOP/PAUSE
15	8Z-ZM1-256-010		SPR-P, PAUSE	48	87-A91-532-010		MOT, MS15U2LW1A
16	8Z-ZM1-244-010		SPR-T, T-UP	49	8Z-ZM1-235-010		PULLEY, MOT
17	8Z-ZM1-247-210		SPR-T, PINCH	50	8Z-ZM2-216-010		BELT, MAIN M
18	8Z-ZM1-261-110		ROLLER ASSY, PINCH	51	8Z-ZM1-260-010		SPR-P, CASSETTE
19	8Z-ZM1-221-010		LEVER, PINCH	52	8Z-ZM2-201-010		CHAS ASSY, ZZM-2
20	8Z-ZM1-205-210		LEVER, PLAY	53	8Z-ZM1-255-110		SPR-T, E-LOCK
21	8Z-ZM1-248-110		SPR-T, BRG	54	8Z-ZM2-219-010		LEVER, E-OPEN ZZM-2
22	87-A90-403-110		HEAD, RPH MS15R	55	8Z-ZM1-214-110		LEVER, LOCK
23	84-ZM2-227-310		SPR-C, AZIMUTH	56	8Z-ZM2-211-010		FLY-WHL, ZZM-2
24	8Z-ZM1-216-010		LEVER, AUTO	57	8Z-ZM1-257-110		SPR-C, F/R
25	8Z-ZM1-246-010		SPR-T, AUTO 2	58	8Z-ZM2-210-010		LEVER, BRIDGE<YR2NF, YR3NF>
26	8Z-ZM2-214-010		GEAR, IDL REW ZZM-2	59	80-ZM6-243-010		SH 1.75-3.6-0.5 SLT
27	8Z-ZM2-212-010		LEVER, STOP ZZM-2	60	87-A91-494-010		SW, LEAF MSW17820<YR1NF, YR2NF>
28	8Z-ZM1-207-010		LEVER, FF	61	8Z-ZM1-241-010		SPR-T, PLAY<YR1NF>
29	8Z-ZM1-206-010		LEVER, REW	61	8Z-ZM2-217-010		SPR-T, PLAY 2<YR2NF, YR3NF>
30	8Z-ZM1-210-010		LEVER, REC<YR1NF>	62	8Z-ZM2-601-010		CONN ASSY, 9P ZZM-2<YR1NF>
30	8Z-ZM1-211-110		LEVER, REC 2<YR2NF, YR3NF>	63	8Z-ZM1-275-010		W-L, 1.47-4-0.25
31	87-A90-404-010		HEAD, EH LE15B<YR1NF>	A	84-ZM2-242-010		S-SCREW, AZ1-2-6.4
31	87-A91-533-010		HEAD, EH PH-K380<YR2NF, YR3NF>	B	8Z-ZM2-220-110		V+2.6 ZZM-2
32	8Z-ZM2-218-010		LEVER, REC LOCK ZZM-2				
33	87-A91-492-010		SW, LEAF MSW18560				

# CD MECHANISM EXPLODED VIEW 1/1



## CD MECHANISM PARTS LIST 1/1

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.	KANRI NO.	DESCRIPTION
1	S2-121-A28-400		COVER GEAR
2	S2-511-A21-000		GEAR MIDDLE
3	S2-511-A21-100		GEAR,DRIVE
A	S1-PN2-03R-OSE		SCR PAN PCS 2-3
B	87-261-073-410		SCR S-TPG FLT 2.6-6
ALL	M8-ZZK-E90-070		DA11T3C

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