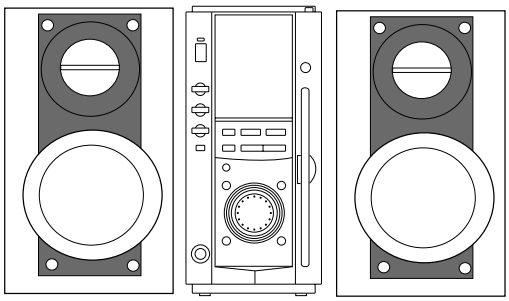
aiwa SERVICE

XR-MSK3

HRJ(S)

HRJ7(S)



SERVICE MANUAL

CONPACT DISC STEREO SYSTEM

BASIC CD MECHANISM : TN-CCD1001-149M

SYSTEM	SPEAKER	REMOTE CONTROL
XR-MSK3	SX-MS7	RC-AAT20

aiwa

S/M Code No. 09-00A-351-3N1

DATA

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SPECIFICATIONS

Main unit

FM tuner section

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

AM tuner section

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

Amplifier section

Power output	Rated: 12 W + 12 W (50 Hz to 20 kHz, THD less than 1%, 6 ohms) Reference: 15 W + 15 W (1 kHz, THD 10%, 6 ohms)
Total harmonic distortion	0.15% (5 W, 1 kHz, 6 ohms, DIN AUDIO)
Input	VIDEO/AUX: 600 mV
Outputs	SPEAKERS: accept speakers of 6 ohms or more PHONES (stereo mini jack): accepts headphones of 16 ohms or more VIDEO OUT: 1 Vp-p (75 ohms) LINE OUT: 500 mV

Compact disc player section

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

General

Power requirements	120 V/220-240 V AC switchable, 50/60 Hz
Power consumption	50 W
Standby power consumption	1.9 W (power-economizing mode set to ON)
Dimensions of main unit (W × H × D)	100 × 206.2 × 271.5 mm
Weight of main unit	3.8 kg

Speaker system

Cabinet type	2 way, bass reflex (magnetic shielded type)
Speakers	Woofer: 85 mm Tweeter: 22 mm dome type
Impedance	6 ohms
Output sound pressure level	86 dB/W/m
Dimensions (W × H × D)	100 × 206 × 188 mm
Weight	1.5 kg

- Design and specifications are subject to change without notice.
- The word "BBE" and the "BBE symbol" are trademarks of BBE Sound, Inc.
- Under license from BBE Sound, Inc.

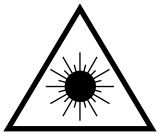
ACCESSORIES LIST

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CG5-901-010		IB,H(EC)M
2	8A-CG5-951-010		RC UNIT,RC-AAT20
3	87-006-225-010		AM LOOP ANT NC2
4	87-043-115-010		ANT,FEEDER FM
5	87-050-103-010		CORD,PIN 1PY1.5M
⚠ 6	87-A91-017-010		PLUG,CONVERSION JT-0476

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 THEOBJECTIVE 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 saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

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

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

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

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

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

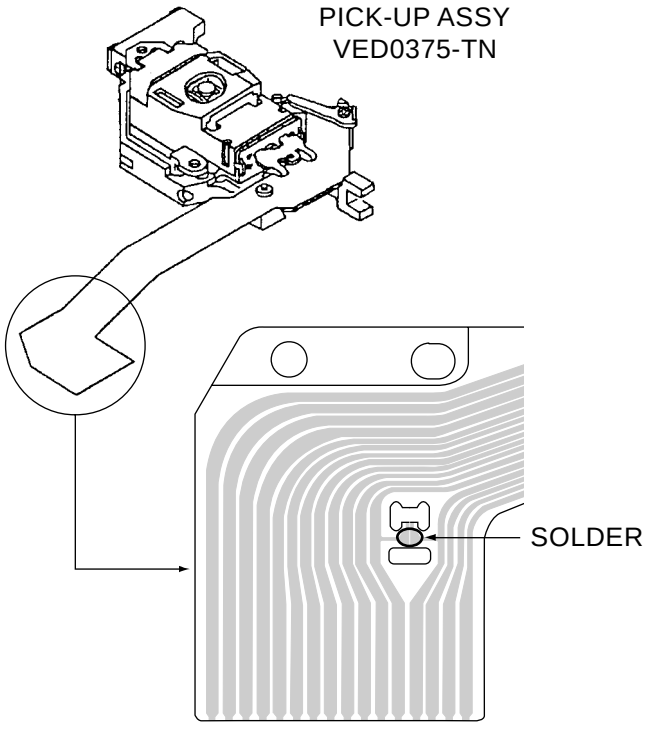
CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

Precaution to replace Optical block

(VED0375-TN)

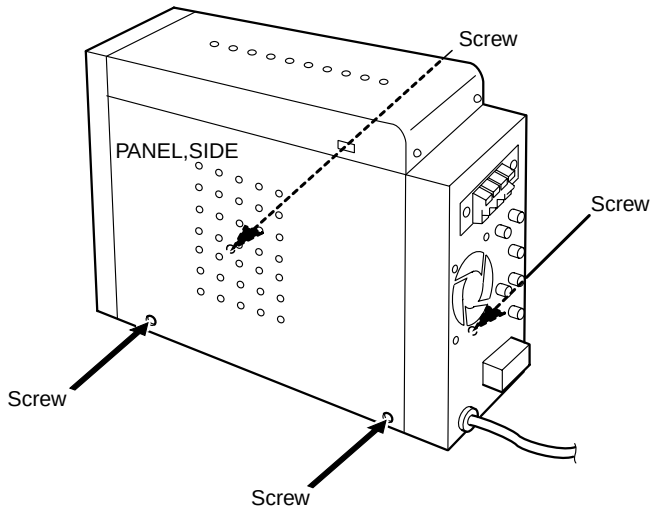
Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

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

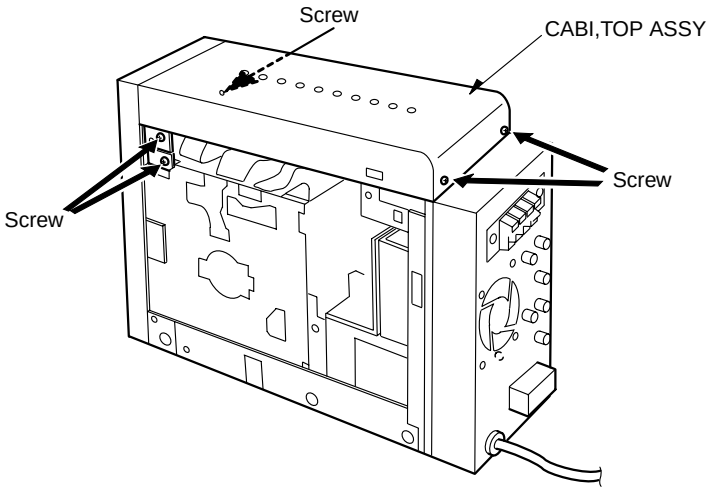


DISASSEMBLY INSTRAUCTIONS

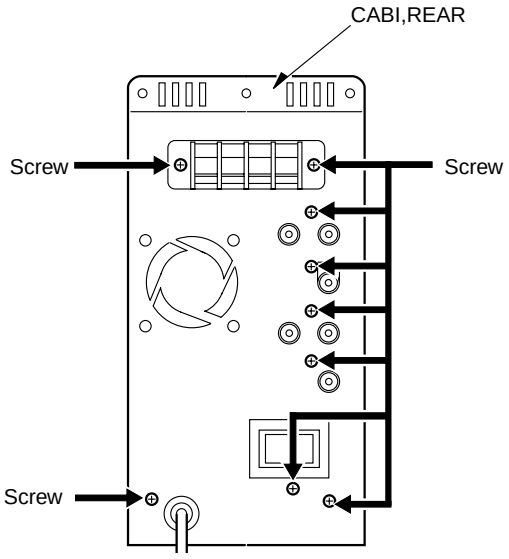
1. CD BLOCK
   1) Remove the PANEL, SIDE.
      Remove the four screws indicated by the arrows and remove the PANEL, SIDE (right and left).



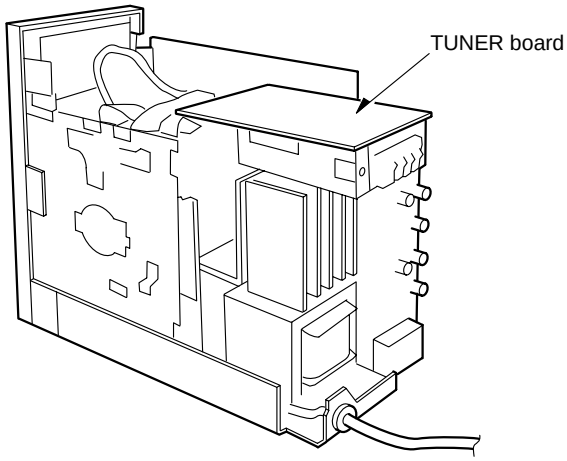
   2) Remove the CABI, TOP ASSY.
      Remove the five screws indicated by the arrows and remove the CABI, TOPASSY.



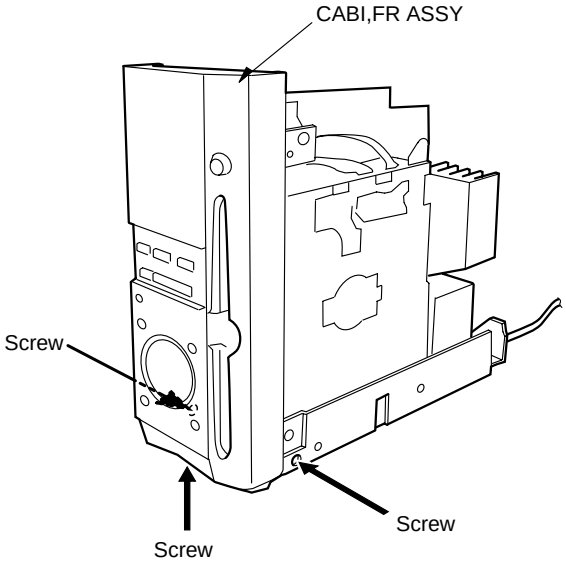
   3) Remove the CABI, REAR.
      Remove the nine screws indicated by the arrows and remove the CABI, REAR.

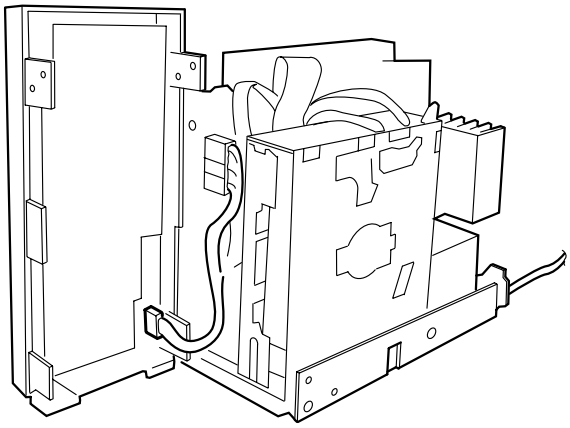


4) Remove the TUNER board.
Remove the TUNER board connected to the connector.

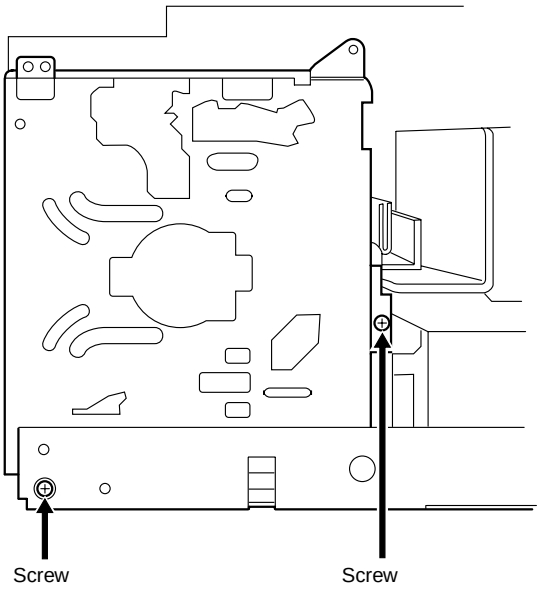


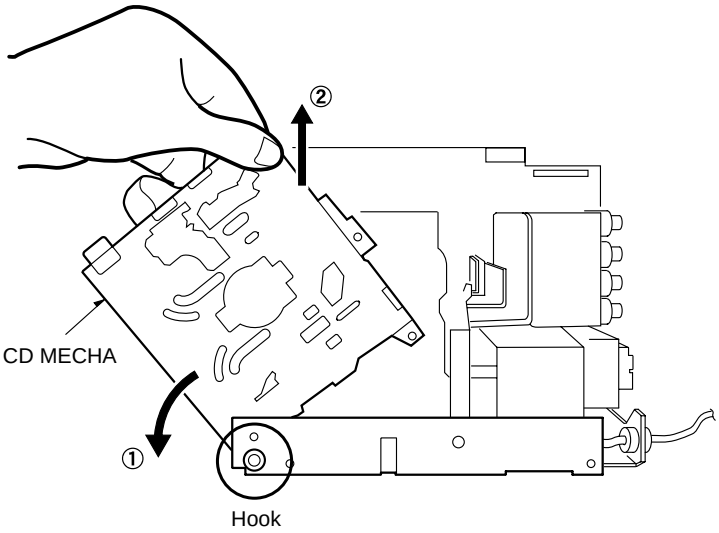
5) Remove the CABI, FR ASSY.
Remove the three screws indicated by the arrows and remove the CABI, FR ASSY.





6) Remove the CD MECHA.
(1) Remove the two screws indicated by the arrows.
(2) Lift up the CD MECHA in the direction of arrow ① and hook in the position indicated in circle.
(3) Remove the CD MECHA in the direction of arrow ②.





ELECTRICAL MAIN PARTS LIST

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-070-246-010		IC,GP1U271X
	87-A20-909-010		IC,LA4663
	87-017-915-080		IC,BU4094BCF
	87-017-585-080		IC,NJM4580E
	87-A21-022-040		C-IC,BA3880FS
	87-A21-103-040		C-IC,MM1454XFBE
	87-A21-111-040		C-IC,M62495FP
	8A-CG5-602-010		C-IC,CXP84332-169Q
	87-A21-777-040		C-IC,BA6289F
	87-017-760-080		IC,M51943BML
	87-017-853-040		IC,NJM2100V
	87-A21-894-040		C-IC,UPC4742G2
	87-A20-547-010		C-IC,CXA1992AR
	8A-CG5-601-030		C-IC,LC876564V-5S40
	87-A20-919-040		C-IC,BA5915FP
	87-017-917-080		IC,BU4066BCF
	87-A20-917-010		C-IC,CXD2540Q-1/2
	8A-CG6-640-030		C-IC,UPD78016FGC-583
	87-A20-602-040		C-IC,M5291FP
	87-A20-925-040		C-IC,BA05FP
	87-A20-905-040		C-IC,BA033FP
	87-A20-920-010		C-IC,CL680-D1
	87-A20-921-040		C-IC,SN74LVU04APW
	87-A20-962-040		C-IC,MSM54V16258B/BSL
	84-ZG1-695-040		C-IC,LH5V2RN1
	87-A20-975-040		C-IC,SN74LV74APW
	87-A20-974-040		C-IC,LC74781M-9017
	87-A20-918-040		C-IC,SM5878AM
	87-A21-419-040		C-IC,NJM14558MD-TE2
	87-070-127-110		IC,LC72131 D
	87-A20-913-010		IC,LA1837NL
TRANSISTOR			
	89-213-702-010		TR,2SB1370E(1.8W)
	87-A30-076-080		C-TR,2SC3052F
	87-026-610-080		TR,KTC3198GR
	87-A30-075-080		C-TR,2SA1235F
	87-A30-234-080		TR,CSC4115BC
	89-418-580-080		TR,2SD1858 TV2
	87-026-245-080		TR,DTC114ES
	87-A30-198-080		TR,KTC3199GR
	87-026-609-080		TR,KTA1266GR
	87-A30-087-080		C-FET,2SK2158
	87-A30-073-080		C-TR,RT1N 141C
	87-A30-273-040		C-TR,DTC124EKA
	87-A30-086-070		C-TR,CSD1306E
	87-A30-072-080		C-TR,RT1P 144C
	89-111-624-080		C-TR,2SA1162Y
	87-026-237-080		CHIP-TR,DTC124XK
	89-327-125-080		CHIP TR,2SC2712GR
	87-026-350-040		CHIP-TR,DTC114TUA
	87-026-231-080		CHIP-TRANSISTER,DTA124XK
	87-026-211-080		C-TR,DTA144EK
	87-026-210-080		CHIP-TR,DTC144EK
	87-A30-117-010		TR,2SA1357
	89-111-625-080		C-TR,2SA1162GR(0.15W)
	87-026-297-080		C-TR,DTA144TK
	87-026-580-080		C-TR,DTA123JK
	87-026-470-080		C-TR,HN1C03FB(0.3W)
	89-327-143-080		C-TR,2SC2714O
DIODE			
	87-020-465-080		DIODE,1SS133 (110MA)
	87-A40-313-080		C-DIODE,MC 2840
	87-A40-346-080		ZENER,MTZJ 8.2C
	87-A40-345-080		ZENER,MTZJ10C
	87-070-274-080		DIODE,1N4003 SEM
	87-A40-336-080		ZENER,MTZJ27D T-72
	87-A40-270-080		C-DIODE,MC2838
	87-A40-004-080		ZENER,MTZJ16A
	87-070-136-080		ZENER,MTZJ5.1B
	87-A40-509-080		ZENER,MTZJ6.8C
	87-A40-269-080		C-DIODE,MC2836
	87-A40-293-080		ZENER,DZ2.7M
	87-017-654-060		DIODE,GBU6J
	87-A40-874-040		C-ZENER,UDZS 5.6B
	87-A40-335-080		ZENER,MTZJ11C
	87-A40-341-080		ZENER,MTZJ 36 A
	87-020-027-080		CHIP-DIODE 1SS184
	87-017-024-040		C-DIODE,DA204K
	87-A40-180-040		C-DIODE,SB07-015C
	87-001-731-080		ZENER,HZS6C2L
	87-017-149-080		ZENER,HZS6A2L
MAIN C.B			
C1	87-012-369-080		C-CAP,S 0.047-50F
C3	87-012-368-080		C-CAP,S 0.1-50 F
C4	87-012-368-080		C-CAP,S 0.1-50 F
C5	87-012-368-080		C-CAP,S 0.1-50 F
C6	87-012-368-080		C-CAP,S 0.1-50 F
C7	87-012-369-080		C-CAP,S 0.047-50F
C8	87-012-368-080		C-CAP,S 0.1-50 F
C9	87-A12-033-090		CAP,E 6800-25 SMG30L
C10	87-010-409-080		CAP,E 220-50 SME
C11	87-010-553-080		CAP,E 47-16
C13	87-010-247-080		CAP, ELECT 100-50V
C14	87-010-235-080		CAP,E 470-16 SME
C15	87-010-387-080		CAP,E 470-25 SME
C24	87-016-251-080		CAP,E 220-16 M SMG
C27	87-012-140-080		CAP 470P
C29	87-010-247-080		CAP, ELECT 100-50V
C30	87-016-044-080		CAP,E 100-16 5L GAS
C31	87-010-235-080		CAP,E 470-16 SME
C61	87-010-260-080		CAP, ELECT 47-25V
C62	87-010-496-080		CAP,E 3.3-50 5L
C91	87-010-401-080		CAP, ELECT 1-50V
C92	87-010-260-080		CAP, ELECT 47-25V
C101	87-A11-242-040		CAP,E 220-10 M 5L SRM
C102	87-A11-242-040		CAP,E 220-10 M 5L SRM
C103	87-010-196-080		CHIP CAPACITOR,0.1-25
C104	87-010-993-080		CAP, CHIP 0.056
C105	87-010-196-080		CHIP CAPACITOR,0.1-25
C106	87-010-493-040		CAP,E 0.47-50 GAS
C108	87-010-157-080		C-CAP,S 18P-50 SL
C109	87-012-156-080		C-CAP,S 220P-50 CH
C110	87-010-196-080		CHIP CAPACITOR,0.1-25
C111	87-010-079-040		CAP,E 100-6.3 5L
C112	87-010-194-080		CAP, CHIP 0.047
C114	87-010-194-080		CAP, CHIP 0.047
C115	87-010-498-040		CAP,E 10-16 GAS
C116	87-010-196-080		CHIP CAPACITOR,0.1-25
C117	87-010-196-080		CHIP CAPACITOR,0.1-25
C118	87-010-196-080		CHIP CAPACITOR,0.1-25
C129	87-010-316-080		C-CAP,S 33P-50 CH
C201	87-010-491-040		CAP,E 0.22-50 GAS
C202	87-010-491-040		CAP,E 0.22-50 GAS
C203	87-010-178-080		CHIP CAP 1000P
C204	87-010-178-080		CHIP CAP 1000P
C205	87-010-492-040		CAP,E 0.33-50 GAS
C206	87-010-492-040		CAP,E 0.33-50 GAS
C211	87-010-560-040		CAP,E 10-50 GAS
C212	87-010-260-080		CAP, ELECT 47-25V
C215	87-010-405-080		CAP, ELECT 10-50V
C216	87-010-405-080		CAP, ELECT 10-50V
C217	87-012-368-080		C-CAP,S 0.1-50 F

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C218	87-012-368-080		C-CAP,S 0.1-50 F
C219	87-012-368-080		C-CAP,S 0.1-50 F
C220	87-012-368-080		C-CAP,S 0.1-50 F
C221	87-010-405-080		CAP, ELECT 10-50V
C223	87-012-368-080		C-CAP,S 0.1-50 F
C303	87-016-044-040		CAP,E 100-16 GAS
C304	87-016-044-040		CAP,E 100-16 GAS
C305	87-010-494-040		CAP,E 1-50 GAS
C306	87-010-494-040		CAP,E 1-50 GAS
C307	87-010-553-040		CAP,E 47-16 GAS
C308	87-016-044-040		CAP,E 100-16 GAS
C401	87-010-196-080		CHIP CAPACITOR,0.1-25
C402	87-010-260-080		CAP, ELECT 47-25V
C403	87-010-404-080		CAP, ELECT 4.7-50V
C404	87-010-404-080		CAP, ELECT 4.7-50V
C405	87-010-404-080		CAP, ELECT 4.7-50V
C406	87-010-404-080		CAP, ELECT 4.7-50V
C407	87-010-188-080		CAP,CHIP 6800P
C408	87-010-188-080		CAP,CHIP 6800P
C409	87-012-140-080		CAP 470P
C410	87-012-140-080		CAP 470P
C411	87-010-404-080		CAP, ELECT 4.7-50V
C412	87-010-404-080		CAP, ELECT 4.7-50V
C413	87-010-404-080		CAP, ELECT 4.7-50V
C414	87-010-404-080		CAP, ELECT 4.7-50V
C415	87-010-197-080		CAP, CHIP 0.01 DM
C416	87-010-197-080		CAP, CHIP 0.01 DM
C417	87-010-956-080		CHIP-CAP,S 0.068-25B
C418	87-010-956-080		CHIP-CAP,S 0.068-25B
C419	87-010-260-080		CAP, ELECT 47-25V
C421	87-012-140-080		CAP 470P
C422	87-012-140-080		CAP 470P
C552	87-010-112-080		CAP, ELECT 100-16V
C553	87-010-260-080		CAP, ELECT 47-25V
C554	87-010-197-080		CAP, CHIP 0.01 DM
C555	87-010-197-080		CAP, CHIP 0.01 DM
C557	87-010-405-080		CAP, ELECT 10-50V
C573	87-010-405-080		CAP, ELECT 10-50V
C574	87-010-405-080		CAP, ELECT 10-50V
C575	87-010-322-080		C-CAP,S 100P-50 CH
C605	87-010-182-080		C-CAP,S 2200P-50 B
C606	87-010-182-080		C-CAP,S 2200P-50 B
C607	87-010-213-080		C-CAP,S 0.015-50 B
C608	87-010-213-080		C-CAP,S 0.015-50 B
C609	87-010-491-080		CAP,E 0.22-50 GAS
C610	87-010-491-080		CAP,E 0.22-50 GAS
C611	87-010-491-080		CAP,E 0.22-50 GAS
C612	87-010-491-080		CAP,E 0.22-50 GAS
C613	87-010-553-080		CAP,E 47-16
C614	87-010-553-080		CAP,E 47-16
C615	87-010-154-080		CAP CHIP 10P
C631	87-010-401-080		CAP, ELECT 1-50V
C632	87-010-401-080		CAP, ELECT 1-50V
C633	87-010-197-080		CAP, CHIP 0.01 DM
C634	87-010-197-080		CAP, CHIP 0.01 DM
C635	87-012-154-080		C-CAP,S 150P-50 CH
C636	87-012-154-080		C-CAP,S 150P-50 CH
C637	87-012-154-080		C-CAP,S 150P-50 CH
C638	87-012-154-080		C-CAP,S 150P-50 CH
C639	87-010-404-080		CAP, ELECT 4.7-50V
C640	87-010-404-080		CAP, ELECT 4.7-50V
C641	87-010-196-080		CHIP CAPACITOR,0.1-25
C642	87-010-381-080		CAP, ELECT 330-16V
C643	87-010-805-080		CAP, S 1-16
C644	87-010-196-080		CHIP CAPACITOR,0.1-25
C902	87-012-156-080		C-CAP,S 220P-50 CH
C903	87-010-322-080		C-CAP,S 100P-50 CH
C905	87-010-196-080		CHIP CAPACITOR,0.1-25
C914	87-010-196-080		CHIP CAPACITOR,0.1-25
CN1	87-A61-142-010		CONN,7P V THL-P07-A1

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
CN91	87-A60-619-010		CONN,2P V 2MM JMT
CN901	87-A60-770-010		CONN,18P B TMC-D(X)
CN902	87-009-799-010		CONN,14P TKC-M X
CN903	87-099-570-010		CONN,13P TUC-P13P-B1
CN905	87-A60-901-010		CONN,12P V BLK FMN-BTRK
CNA2	88-805-030-820		CONN ASSY,3P 80
CNA201	88-805-043-020		CONN ASSY,4P 300
J101	87-099-208-010		JACK,PIN 1P YEL
J201	87-A60-238-010		TERMINAL,SP 4P (MSC)
J202	87-099-801-010		JACK,PIN 1P BLK
J601	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
L101	87-A50-333-010		COIL,OSC 9.43MHZ
⚠PR1	87-A90-393-080		PROTECTOR,0.5A 491SERISE 60V
⚠PR2	87-026-689-080		PROTECTOR,1A 60V 491
⚠PR3	87-A90-195-080		PROTECTOR 7A 60V 491
⚠PR4	87-A90-195-080		PROTECTOR 7A 60V 491
⚠PR5	87-026-689-080		PROTECTOR,1A 60V 491
FRONT C.B			
C102	87-010-415-040		CAP,E 10-50 5L
C103	87-012-157-080		C-CAP,S 330P-50 CH
C104	87-010-421-040		CAP,E 4.7-50 5L
C105	87-010-421-040		CAP,E 4.7-50 5L
C106	87-010-408-040		CAP,E 47-50 SME
C107	87-012-369-080		C-CAP,S 0.047-50F
C108	87-010-197-080		CAP, CHIP 0.01 DM
C109	87-010-197-080		CAP, CHIP 0.01 DM
C110	87-010-196-080		CHIP CAPACITOR,0.1-25
C111	87-012-368-080		C-CAP,S 0.1-50 F
C301	87-010-196-080		CHIP CAPACITOR,0.1-25
CN101	87-A60-778-010		CONN,18P B TMC-D(P)
FL101	8A-CL5-608-010		FL,9-ST-19GONK
LED101	87-A40-317-080		LED,SLR-342VCT31 RED
LED301	87-A40-786-080		LED,SMLS1BE16WTP4 BLU/UMB
LED302	87-A40-786-080		LED,SMLS1BE16WTP4 BLU/UMB
LED303	87-A40-786-080		LED,SMLS1BE16WTP4 BLU/UMB
R102	87-022-355-080		C-RES,S10K-1/10W F
R103	87-022-355-080		C-RES,S10K-1/10W F
S102	87-A91-743-010		SW,JOG 3-2-1RE01311 PCE2
S201	87-A90-095-080		SW,TACT EVQ11G04M
S202	87-A90-095-080		SW,TACT EVQ11G04M
S203	87-A90-095-080		SW,TACT EVQ11G04M
S204	87-A90-095-080		SW,TACT EVQ11G04M
S205	87-A90-095-080		SW,TACT EVQ11G04M
S206	87-A90-095-080		SW,TACT EVQ11G04M
S207	87-A90-095-080		SW,TACT EVQ11G04M
S208	87-A90-095-080		SW,TACT EVQ11G04M
S209	87-A90-095-080		SW,TACT EVQ11G04M
S210	87-A90-095-080		SW,TACT EVQ11G04M
S211	87-A90-095-080		SW,TACT EVQ11G04M
S212	87-A90-095-080		SW,TACT EVQ11G04M
S213	87-A90-095-080		SW,TACT EVQ11G04M
S214	87-A90-095-080		SW,TACT EVQ11G04M
S215	87-A90-095-080		SW,TACT EVQ11G04M
S216	87-A90-095-080		SW,TACT EVQ11G04M
HP-JACK C.B			
CN102	87-A60-668-010		CONN,4P H 2MM JMT
J101	87-A60-420-010		JACK,3.5 ST (MSC)
VCD C.B			
C101	87-012-278-080		C-CAP,U 2200P-50 B
C102	87-A12-319-080		C-CAP,U 0.1-25 K B
C103	87-A12-319-080		C-CAP,U 0.1-25 K B
C104	87-A12-319-080		C-CAP,U 0.1-25 K B
C105	87-010-404-040		CAP,E 4.7-50 SME

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C106	87-010-788-080		C-CAP,U 0.033-25 Z F
C107	87-012-286-080		CAP, U 0.01-25
C108	87-010-401-040		CAP,E 1-50 SME
C109	87-010-382-040		CAP,E 22-25 SME
C110	87-010-785-080		C-CAP,U0.015-25BK
C111	87-010-263-040		CAP,E 100-10
C112	87-012-286-080		CAP, U 0.01-25
C113	87-010-788-080		C-CAP,U 0.033-25 Z F
C114	87-010-788-080		C-CAP,U 0.033-25 Z F
C115	87-010-788-080		C-CAP,U 0.033-25 Z F
C116	87-012-269-080		C-CAP,U 390P-50 B
C117	87-012-197-080		C-CAP,U 150P-50 CH
C118	87-010-401-040		CAP,E 1-50
C119	87-012-174-080		C-CAP,U 12P-50 CH
C120	87-010-194-080		C.CAP,S 0.047-25F
C121	87-010-194-080		C.CAP,S 0.047-25F
C122	87-010-805-080		C-CAP,S 1-16 Z F
C123	87-A12-319-080		C-CAP,U 0.1-25 K B
C125	87-010-198-080		CAP, S 0.022-25
C126	87-A12-319-080		C-CAP,U 0.1-25 K B
C127	87-010-263-040		CAP,E 100-10
C128	87-012-166-080		C-CAP,U 4P-50 C CH
C130	87-010-263-040		CAP,E 100-10
C131	87-010-263-040		CAP,E 100-10
C132	87-010-178-080		CHIP CAP,S 1000P-50B
C133	87-010-263-040		CAP,E 100-10
C134	87-010-196-080		CHIP CAPACITOR,0.1-25
C135	87-010-196-080		CHIP CAPACITOR,0.1-25
C136	87-010-196-080		CHIP CAPACITOR,0.1-25
C137	87-010-759-080		C-CAP,U, 0.1-25F
C138	87-012-280-080		CAP, U 3300P-50
C139	87-010-197-080		CAP, CHIP 0.01 DM
C140	87-010-112-040		CAP,E 100-16
C141	87-010-759-080		C-CAP,U, 0.1-25F
C142	87-010-322-080		C-CAP,S 100P-50 CH
C143	87-A12-319-080		C-CAP,U 0.1-25 K B
C151	87-010-263-040		CAP,E 100-10
C152	87-012-286-080		CAP, U 0.01-25
C153	87-A10-893-040		CAP,E 220-10 M PW
C154	87-012-286-080		CAP, U 0.01-25
C155	87-010-184-080		CAP, S 3300P-50
C156	87-010-194-080		C.CAP,S 0.047-25F
C157	87-010-194-080		C.CAP,S 0.047-25F
C158	87-012-199-080		CAP 220P
C159	87-012-358-080		C-CAP,S 0.47-10
C161	87-012-278-080		C-CAP,U 2200P-50 B
C162	87-012-274-080		CHIP CAP,U 1000P-50B
C201	87-A12-319-080		C-CAP,U 0.1-25 K B
C206	87-012-195-080		C-CAP,U 100P-50CH
C207	87-012-195-080		C-CAP,U 100P-50CH
C208	87-012-195-080		C-CAP,U 100P-50CH
C209	87-012-195-080		C-CAP,U 100P-50CH
C210	87-016-669-080		C-CAP,S 0.1-25 K B
C211	87-010-263-040		CAP,E 100-10
C213	87-012-286-080		CAP, U 0.01-25
C214	87-010-759-080		C-CAP,U, 0.1-25F
C301	87-016-251-040		CAP,E 220-16 SMG
C302	87-A11-547-080		C-CAP,S 470P-50
C303	87-010-178-080		C-CAP,S 1000P-50B
C304	87-010-384-040		CAP,E 100-25 SME
C305	87-010-383-080		CAP,E 33-25
C306	87-010-112-040		CAP,E 100-16
C307	87-010-196-080		CHIP CAPACITOR,0.1-25
C308	87-010-263-040		CAP,E 100-10
C309	87-010-196-080		CHIP CAPACITOR,0.1-25
C310	87-010-263-040		CAP,E 100-10
C311	87-010-196-080		CHIP CAPACITOR,0.1-25
C312	87-010-178-080		C-CAP,S 1000P-50B
C320	87-010-196-080		CHIP CAPACITOR,0.1-25
C501	87-010-197-080		CAP, CHIP 0.01 DM
C502	87-010-197-080		CAP, CHIP 0.01 DM
C503	87-012-286-080		CAP, U 0.01-25
C504	87-012-172-080		CAPACITOR CHIP U 10P CH
C505	87-012-172-080		CAPACITOR CHIP U 10P CH
C506	87-012-286-080		CAP, U 0.01-25
C508	87-010-263-040		CAP,E 100-10
C509	87-016-669-080		C-CAP,S 0.1-25 K B
C510	87-010-263-040		CAP,E 100-10
C511	87-010-196-080		CHIP CAPACITOR,0.1-25
C512	87-012-286-080		CAP, U 0.01-25
C513	87-012-286-080		CAP, U 0.01-25
C514	87-012-286-080		CAP, U 0.01-25
C518	87-010-322-080		C-CAP,S 100P-50 CH
C519	87-010-171-080		C-CAP,S 270P-50 SL
C520	87-010-172-080		C-CAP,S 330P-50 SL
C521	87-012-197-080		C-CAP,U 150P-50 CH
C522	87-010-371-080		CAP, ELECT 470-6.3V
C523	87-012-286-080		CAP, U 0.01-25
C524	87-012-286-080		CAP, U 0.01-25
C525	87-012-286-080		CAP, U 0.01-25
C526	87-012-286-080		CAP, U 0.01-25
C527	87-012-286-080		CAP, U 0.01-25
C528	87-012-286-080		CAP, U 0.01-25
C529	87-012-286-080		CAP, U 0.01-25
C530	87-012-286-080		CAP, U 0.01-25
C531	87-012-286-080		CAP, U 0.01-25
C532	87-010-374-040		CAP,E 47-10
C533	87-010-197-080		CAP, CHIP 0.01 DM
C534	87-010-263-040		CAP,E 100-10
C535	87-010-197-080		CAP, CHIP 0.01 DM
C536	87-015-676-040		CAP,E 47-6.3
C537	87-010-197-080		CAP, CHIP 0.01 DM
C538	87-010-759-080		C-CAP,U, 0.1-25F
C539	87-010-759-080		C-CAP,U, 0.1-25F
C540	87-015-676-040		CAP,E 47-6.3
C541	87-010-197-080		CAP, CHIP 0.01 DM
C542	87-012-188-080		C-CAP,U 47P-50 CH
C544	87-010-197-080		CAP, CHIP 0.01 DM
C546	87-012-286-080		CAP, U 0.01-25
C549	87-010-401-080		CAP,E 1-50
C550	87-010-759-080		C-CAP,U, 0.1-25F
C551	87-012-153-080		C-CAP,S 120P-50 CH
C552	87-012-358-080		C-CAP,S 0.47-10
C554	87-012-286-080		CAP, U 0.01-25
C556	87-010-197-080		CAP, CHIP 0.01 DM
C557	87-012-182-080		C-CAP,U 27P-50 J CH
C558	87-012-182-080		C-CAP,U 27P-50 J CH
C560	87-012-286-080		CAP, U 0.01-25
C601	87-012-286-080		CAP, U 0.01-25
C602	87-012-286-080		CAP, U 0.01-25
C603	87-010-112-040		CAP,E 100-16
C604	87-010-759-080		C-CAP,U 0.1-25F
C605	87-012-286-080		CAP, U 0.01-25
C606	87-010-197-080		CAP, CHIP 0.01 DM
C607	87-010-313-080		C-CAP,S 18P-50 CH
C608	87-010-313-080		C-CAP,S 18P-50 CH
C609	87-010-178-080		C-CAP,S 1000P-50B
C610	87-010-178-080		C-CAP,S 1000P-50B
C611	87-010-178-080		C-CAP,S 1000P-50B
C612	87-010-178-080		C-CAP,S 1000P-50B
C613	87-010-403-040		CAP,E 3.3-50 SME
C614	87-010-403-040		CAP,E 3.3-50 SME
C615	87-010-318-080		C-CAP,S 47P-50 CH
C616	87-010-318-080		C-CAP,S 47P-50 CH
CN101	87-A60-424-010		CONN,16P V TOC-B
CN102	87-A60-899-010		CONN,6P V BLK FMN-BTRK
CN201	87-099-545-010		CONN,14P TKC-M14P-B1
L101	87-005-196-080		COIL,10UH
L301	87-A50-095-010		COIL,68UH RCR875D
L302	87-005-426-080		COIL,3.3UH K FLR50

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
L502	87-005-204-080		COIL,47UH
L503	87-005-189-080		COIL 2.7UH
L504	87-005-187-080		COIL,1.8UH
L505	87-005-204-080		COIL,47UH
L506	87-005-204-080		COIL,47UH
L507	87-005-204-080		COIL,47UH
L508	87-005-817-080		C-COIL, 33UH J FLC32
R131	87-022-353-080		C-RES,6.8K 1/10WF
R132	87-022-353-080		C-RES,6.8K 1/10WF
R134	87-022-360-080		C-RES,S 39K-1/10W F
R135	87-022-360-080		C-RES,S 39K-1/10W F
R172	87-022-359-080		C-RES,S 22K-1/10W F
R173	87-022-359-080		C-RES,S 22K-1/10W F
R174	87-022-365-080		C-RES,100K-1/10WF
R175	87-022-365-080		C-RES,100K-1/10WF
R507	87-022-222-080		C-RES,U 2K-1/16W F
S201	87-A90-162-010		SW,SL 1-1-3 SSSU
X201	87-A70-124-080		VIB,CER 8.0MHZ
X501	87-A70-125-080		VIB,XTAL 27MHZ 50PPM
X601	87-030-270-080		VIB,XTAL 16.9344MHZ
CD C.B			
C2	87-A11-156-080		C-CAP,E 22-25 SEH
C3	87-010-831-080		C-CAP,U,0.1-16F
C4	87-010-831-080		C-CAP,U,0.1-16F
C5	87-010-831-080		C-CAP,U,0.1-16F
C6	87-010-831-080		C-CAP,U,0.1-16F
C7	87-010-831-080		C-CAP,U,0.1-16F
C8	87-A11-156-080		C-CAP,E 22-25 SEH
C9	87-012-188-080		C-CAP,U 47P-50 CH
C10	87-012-188-080		C-CAP,U 47P-50 CH
C11	87-010-831-080		C-CAP,U,0.1-16F
C12	87-010-831-080		C-CAP,U,0.1-16F
C13	87-012-164-080		C-CAP,U 2P-50 C CH
C14	87-010-831-080		C-CAP,U,0.1-16F
C15	87-012-164-080		C-CAP,U 2P-50 C CH
C16	87-010-831-080		C-CAP,U,0.1-16F
C27	87-012-286-080		CAP, U 0.01-25
CN1	87-099-073-080		C-CONN,12P H 52207
CN2	87-A61-512-080		C-CONN,6P V FMN-BMTTR-TB
CN3	87-A61-478-080		C-CONN,6P H WHT ZR-SM3A-TF
CN4	87-009-214-080		CONN,16P 52207-1690
CN5	87-009-214-080		CONN,16P 52207-1690
CN6	87-A61-477-080		C-CONN,5P H WHT ZR-SM3A-TF
CN7	87-099-440-080		C-CONN,2P ZR-SM3 WHT
FFC1	8A-CG5-630-010		CABLE,FFC 12P-1.0-21
FFC2	8A-CG5-632-010		CABLE,FFC 6P-1.0-15
FFC4	8A-CG5-631-010		CABLE,FFC 16P-1.0-13
L3	87-A50-623-080		C-COIL,BK2125HS102
X1	87-A70-251-080		C-VIB,CER 10.00MHZ CSTCC
SW C.B			
SW1	S6-418-040-030		DET SW ESE22 MH3
SW2	S6-418-040-020		DET SW ESE22 MH1
SW3	S6-418-040-020		DET SW ESE22 MH1
SW4	S6-418-040-030		DET SW ESE22 MH3
PT C.B			
⚠C1	87-A10-479-080		CAP,CER 2200P-250 M E KH
C14	87-010-388-080		CAP ELECT 1000-25V SME
C106	87-010-496-080		CAP,E 3.3-50 5L
CN1	87-A60-851-010		CONN,9P V VH
CN2	87-A60-620-010		CONN,3P V 2MM JMT
⚠PT1	8Z-NF8-663-010		PT,SUB ZNF-8(H)
⚠RY1	87-A91-281-010		RELAY,AC DC12V OSA-SS-212DM5
⚠S1	87-A90-234-010		SW,SL 1-2-2 SW2201
⚠T1	87-A60-317-010		TERMINAL, 1P MSC
⚠T2	87-A60-317-010		TERMINAL, 1P MSC

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
TUNER C.B			
	00000000000000		TUNER C.B
C0701	87-010-381-080		CAP,E 330-16 M SME
C0702	87-010-404-080		CAP,E 4.7-50 M 11L SME
C0703	87-012-286-080		C-CAP,U 0.01-25 K B
C0704	87-012-286-080		C-CAP,U 0.01-25 K B
C0705	87-A10-592-080		C-CAP,S 0.015-50 J B
C0706	87-A10-592-080		C-CAP,S 0.015-50 J B
C0709	87-012-195-080		C-CAP,U 100P-50 J CH
C0711	87-010-260-080		CAP,E 47-25 M 11L SME
C0712	87-010-831-080		C-CAP,U 0.1-16 Z F
C0714	87-012-286-080		C-CAP,U 0.01-25 K B
C0717	87-012-286-080		C-CAP,U 0.01-25 K B
C0719	87-012-286-080		C-CAP,U 0.01-25 K B
C0720	87-012-195-080		C-CAP,U 100P-50 J CH
C0721	87-012-176-080		C-CAP,U 15P-50 J CH
C0722	87-012-176-080		C-CAP,U 15P-50 J CH
C0723	87-012-274-080		C-CAP,U 1000P-50 K B
C0725	87-012-274-080		C-CAP,U 1000P-50 K B
C0727	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C0728	87-010-248-080		CAP,E 220-10 M 11L SME
C0729	87-012-274-080		C-CAP,U 1000P-50 K B
C0731	87-012-286-080		C-CAP,U 0.01-25 K B
C0733	87-010-987-080		C-CAP,S 1500P-50 J CH
C0734	87-010-987-080		C-CAP,S 1500P-50 J CH
C0735	87-010-987-080		C-CAP,S 1500P-50 J CH
C0736	87-010-987-080		C-CAP,S 1500P-50 J CH
C0737	87-A10-592-080		C-CAP,S 0.015-50 J B
C0738	87-A10-592-080		C-CAP,S 0.015-50 J B
C0751	87-010-220-080		C-CAP,S 0.018-25 K B
C0752	87-010-220-080		C-CAP,S 0.018-25 K B
C0756	87-012-286-080		C-CAP,U 0.01-25 K B
C0757	87-012-188-080		C-CAP,U 47P-50 J CH
C0758	87-012-167-080		C-CAP,U 5P-50 C CH
C0763	87-010-829-080		C-CAP,U 0.047-16 Z F
C0764	87-012-337-080		C-CAP,U 56P-50 J CH GRM
C0765	87-012-286-080		C-CAP,U 0.01-25 K B
C0768	87-012-286-080		C-CAP,U 0.01-25 K B
C0769	87-010-260-080		CAP,E 47-25 M 11L SME
C0770	87-010-829-080		C-CAP,U 0.047-16 Z F
C0771	87-010-383-080		CAP,E 33-25 M 11L SME
C0772	87-010-829-080		C-CAP,U 0.047-16 Z F
C0773	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C0774	87-010-263-080		CAP,E 100-10 M 11L SME
C0775	87-010-404-080		CAP,E 4.7-50 M 11L SME
C0776	87-012-286-080		C-CAP,U 0.01-25 K B
C0777	87-010-400-080		CAP,E 0.47-50 M 11L SME
C0778	87-010-401-080		CAP,E 1-50 M 11L SME
C0779	87-010-401-080		CAP,E 1-50 M 11L SME
C0780	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C0781	87-010-405-080		CAP,E 10-50 M 11L SME
C0782	87-010-405-080		CAP,E 10-50 M 11L SME
C0783	87-012-286-080		C-CAP,U 0.01-25 K B
C0784	87-012-286-080		C-CAP,U 0.01-25 K B
C0785	87-010-401-080		CAP,E 1-50 M 11L SME
C0786	87-010-401-080		CAP,E 1-50 M 11L SME
C0789	87-012-275-080		C-CAP,U 1200P-50 K B GRM
C0790	87-012-275-080		C-CAP,U 1200P-50 K B GRM
C0791	87-010-405-080		CAP,E 10-50 M 11L SME
C0793	87-012-273-080		C-CAP,U 820P-50 K B
C0794	87-010-406-080		CAP,E 22-50 M 11L SME
C0795	87-010-596-080		C-CAP,S 0.047-16 K R C2012
C0796	87-010-403-080		CAP,E 3.3-50 M 11L SME
C0799	87-010-829-080		C-CAP,U 0.047-16 Z F
C0812	87-012-286-080		C-CAP,U 0.01-25 K B
C0820	87-010-260-080		CAP,E 47-25 M 11L SME
C0821	87-012-286-080		C-CAP,U 0.01-25 K B
C0822	87-012-286-080		C-CAP,U 0.01-25 K B
C0823	87-012-286-080		C-CAP,U 0.01-25 K B

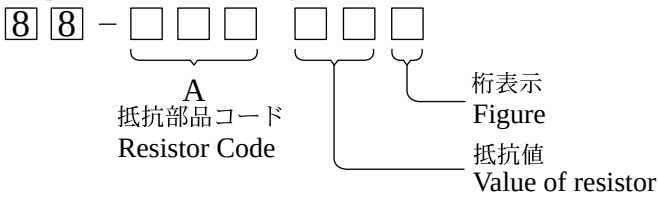
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C0828	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C0829	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C0959	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C0960	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C0961	87-012-170-080		C-CAP,U 8P-50 D CH
C0963	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
CF0801	87-008-261-010		FLTR,CF SFE10.7MA5
CF0802	87-008-261-010		FLTR,CF SFE10.7MA5
CN0701	87-A60-700-010		CONN,13P H GRY TUC-P13X-C1
FFE0801	A8-8ZA-194-030		8ZA-1 FEMUNM

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
J0801	87-A60-702-010		TERMINAL,ANT 4P CJ-9036
L0771	87-A50-266-010		COIL,FM DET-2N(TOK)
L0772	87-A91-110-010		FLTR,PCFJZH-450 (TOK)
L0981	8Z-ZA1-667-010		COIL,AM PACK 4F(TOK)
X0721	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309

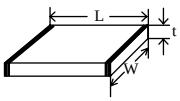
- Regarding connectors, they are not stocked as they are not the initial order items.
  The connectors are available after they are supplied from connector manufacturers upon the order is received.

Oチップ抵抗部品コード／CHIP RESISTOR PART CODE

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

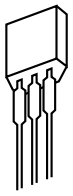


チップ抵抗
Chip resistor

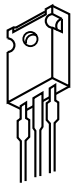
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION

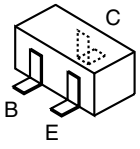
CSC4115
KTA1266
KTC3198



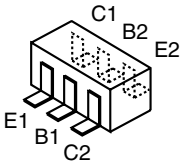
DTC114ES
KTC3199



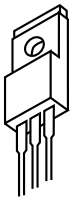
2SA1357



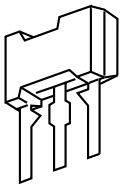
2SA1162
2SA1235
2SC2712
2SC2714
2SC3052
CSD1306
DTA123JK
DTA124XK
DTA144EK
DTA144TK
DTC114TUA
DTC124EKA
DTC124XK
DTC144EK
RT1N141C
RT1P144C



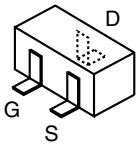
HN1C03



2SB1370

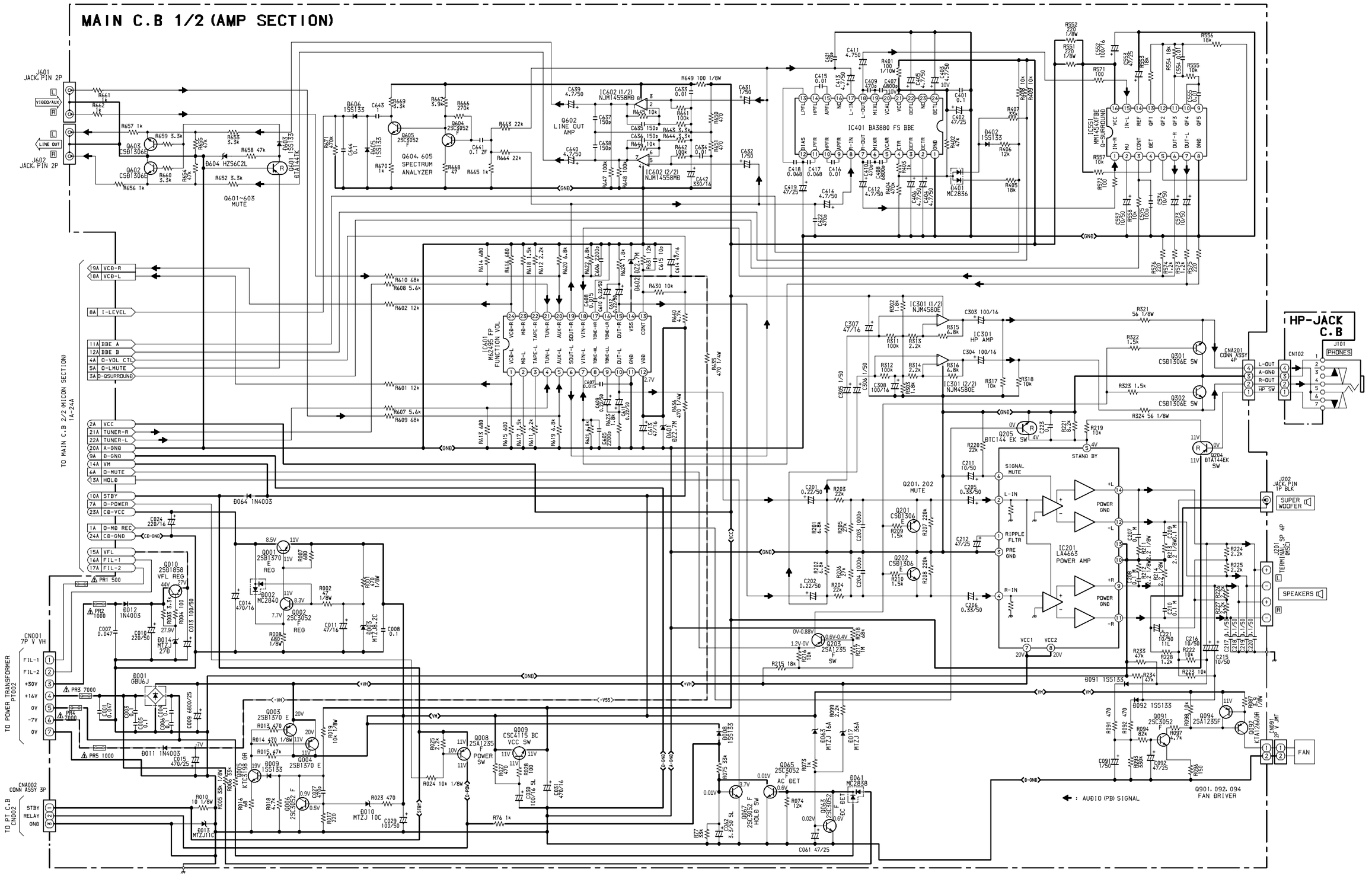


2SD1858

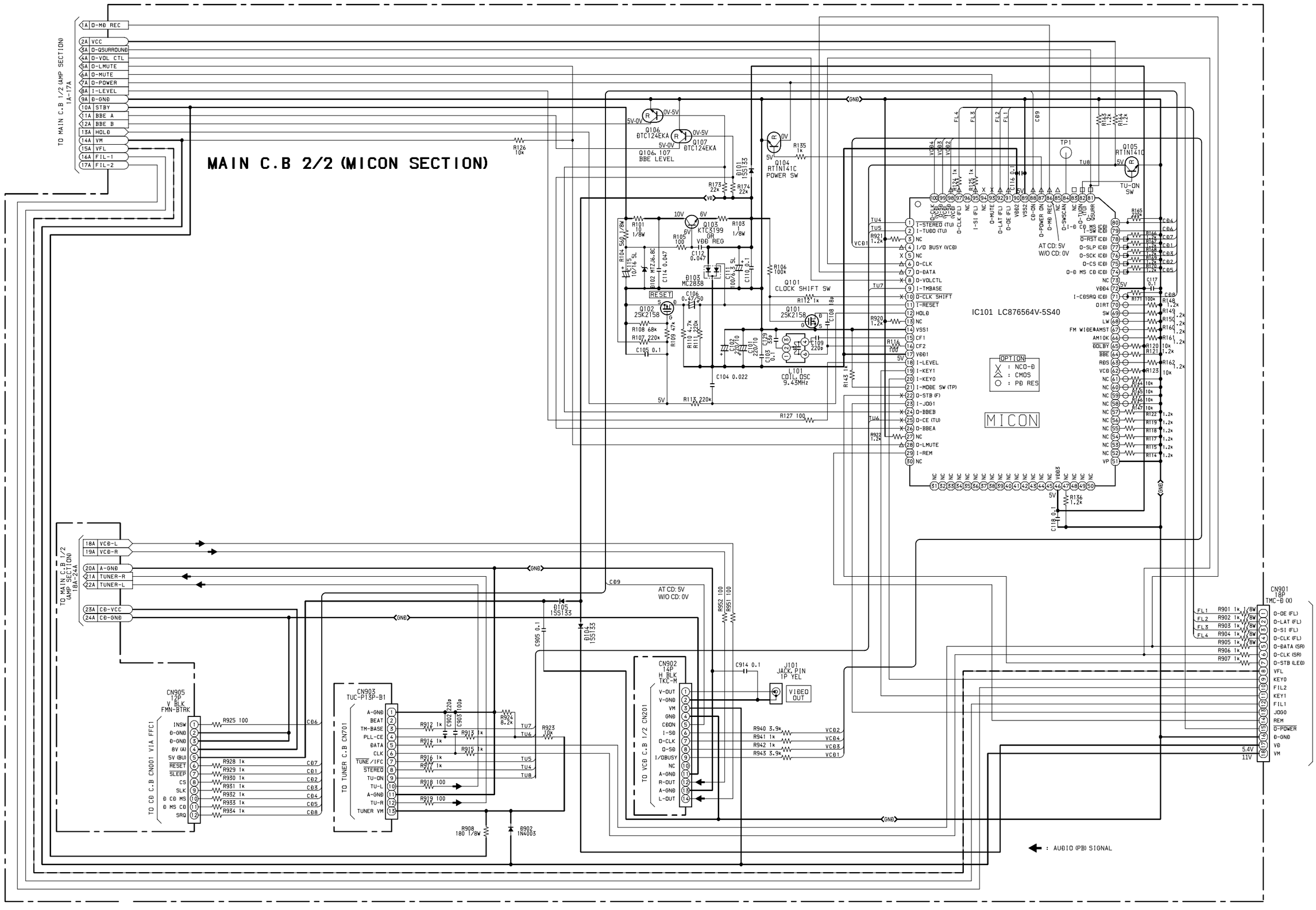


2SK2158

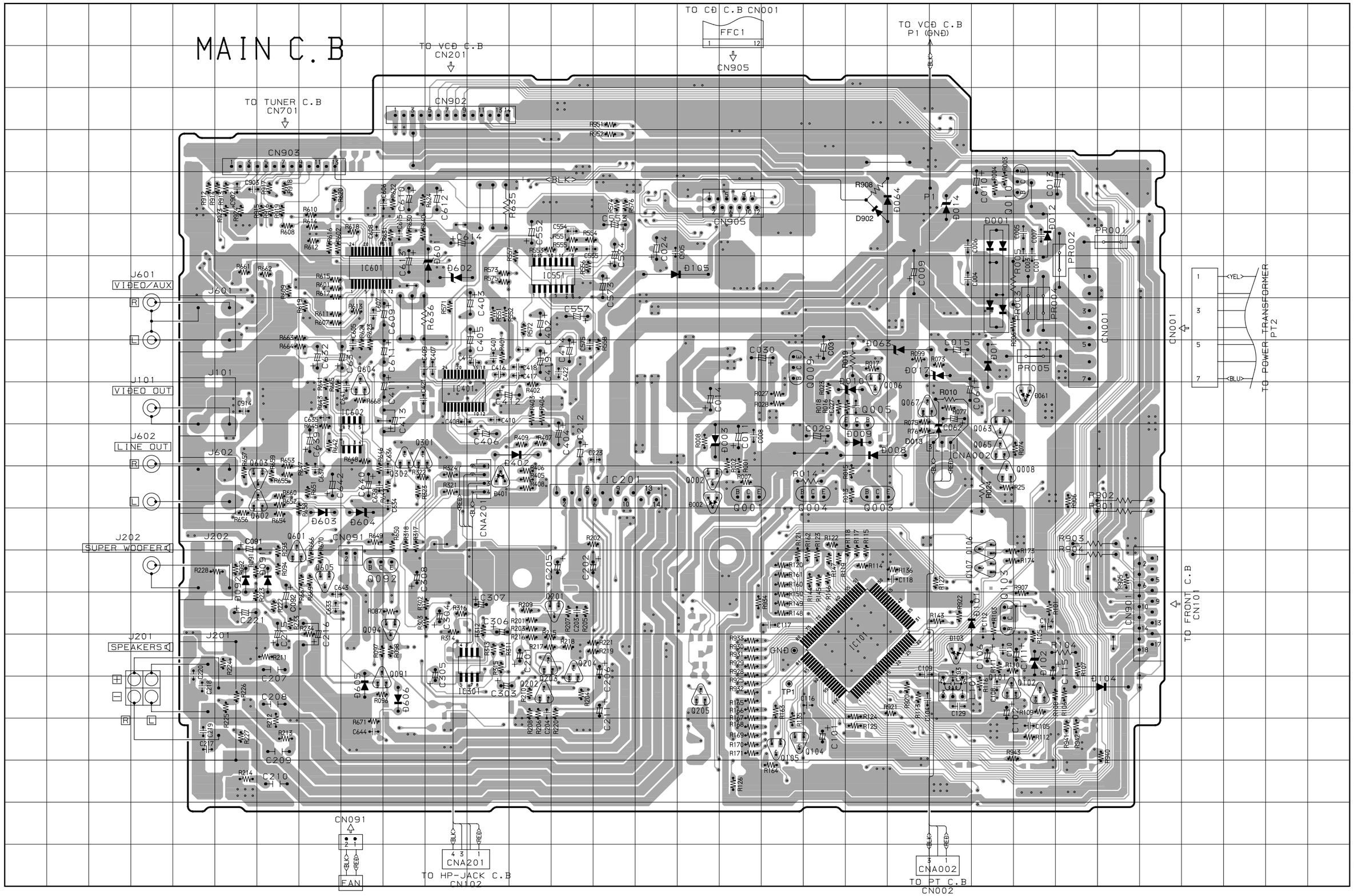
SCHEMATIC DIAGRAM - 1 (MAIN -1/2 SECTION)



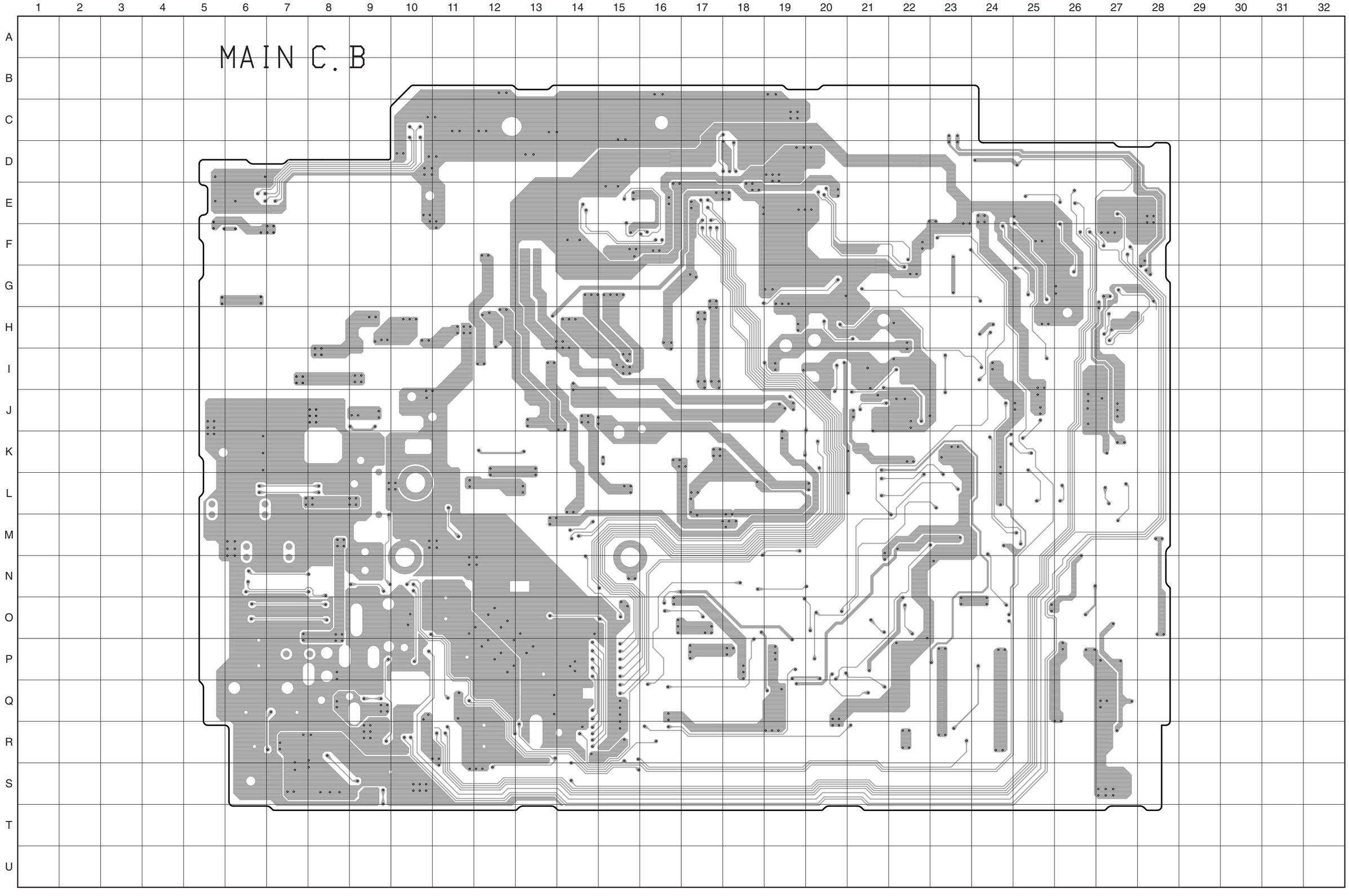
SCHEMATIC DIAGRAM - 2 (MAIN -2/2 SECTION)



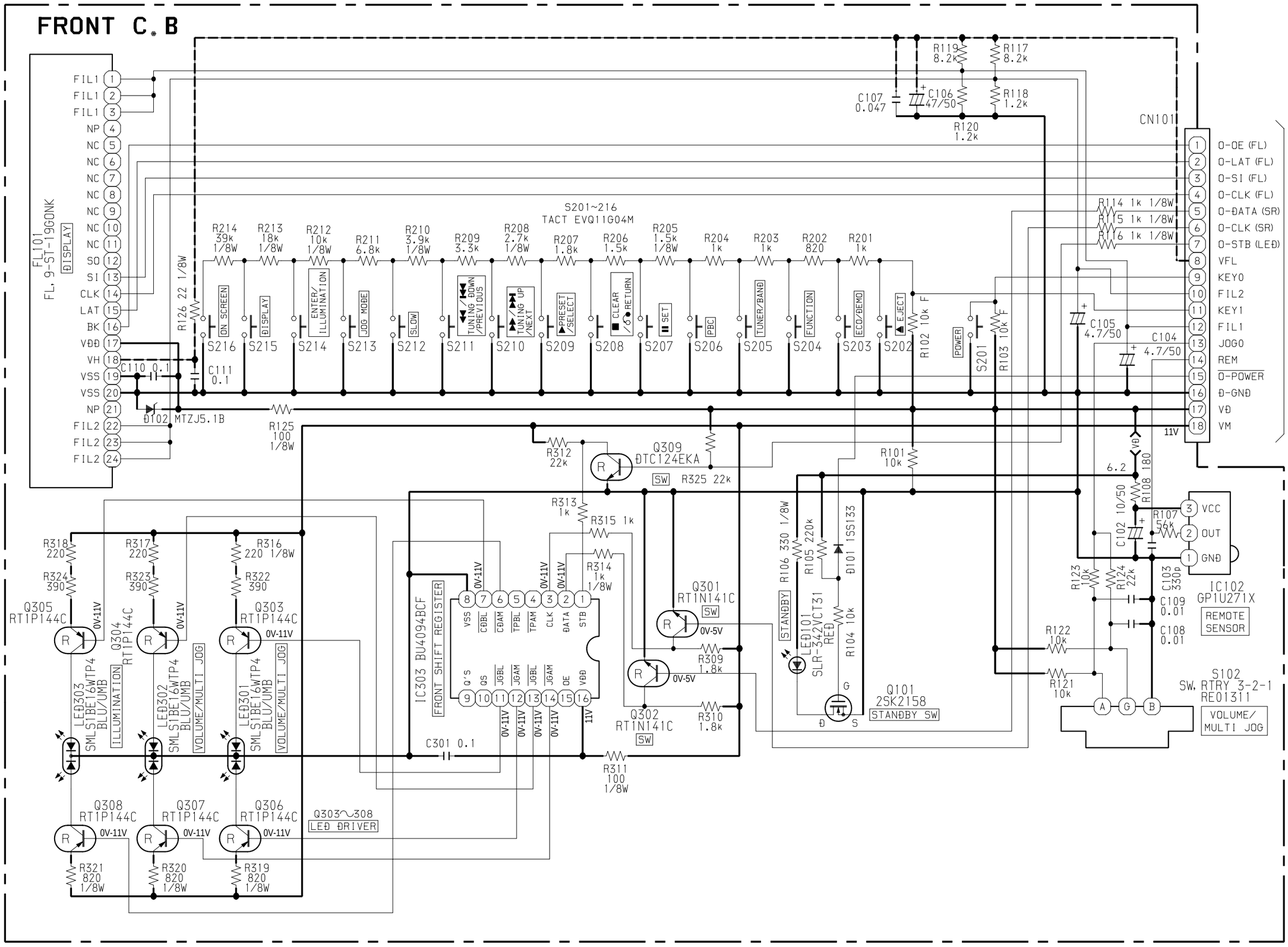
WIRING - 1 (MAIN C.B 1/2)



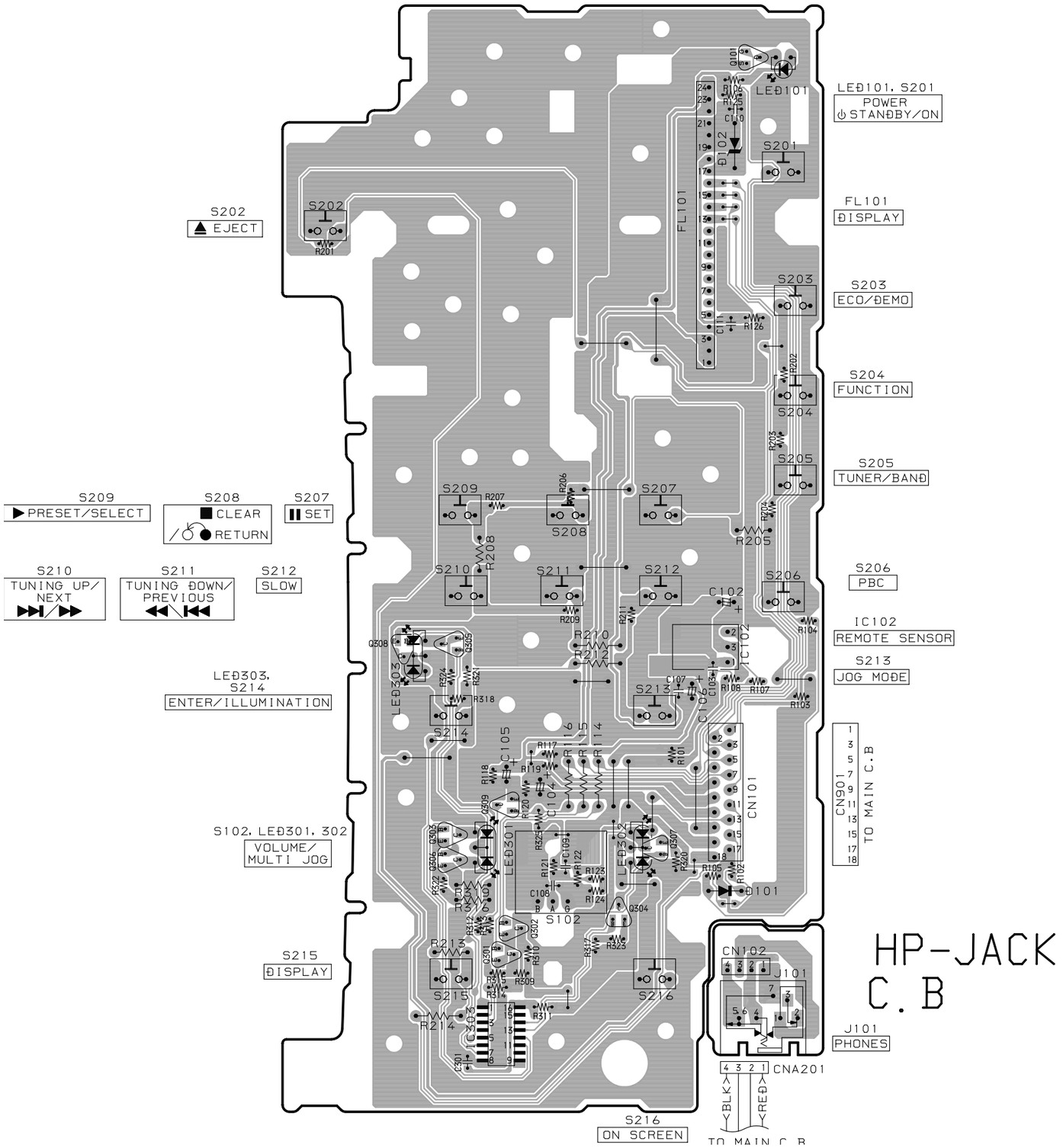
WIRING - 2 (MAIN C.B)



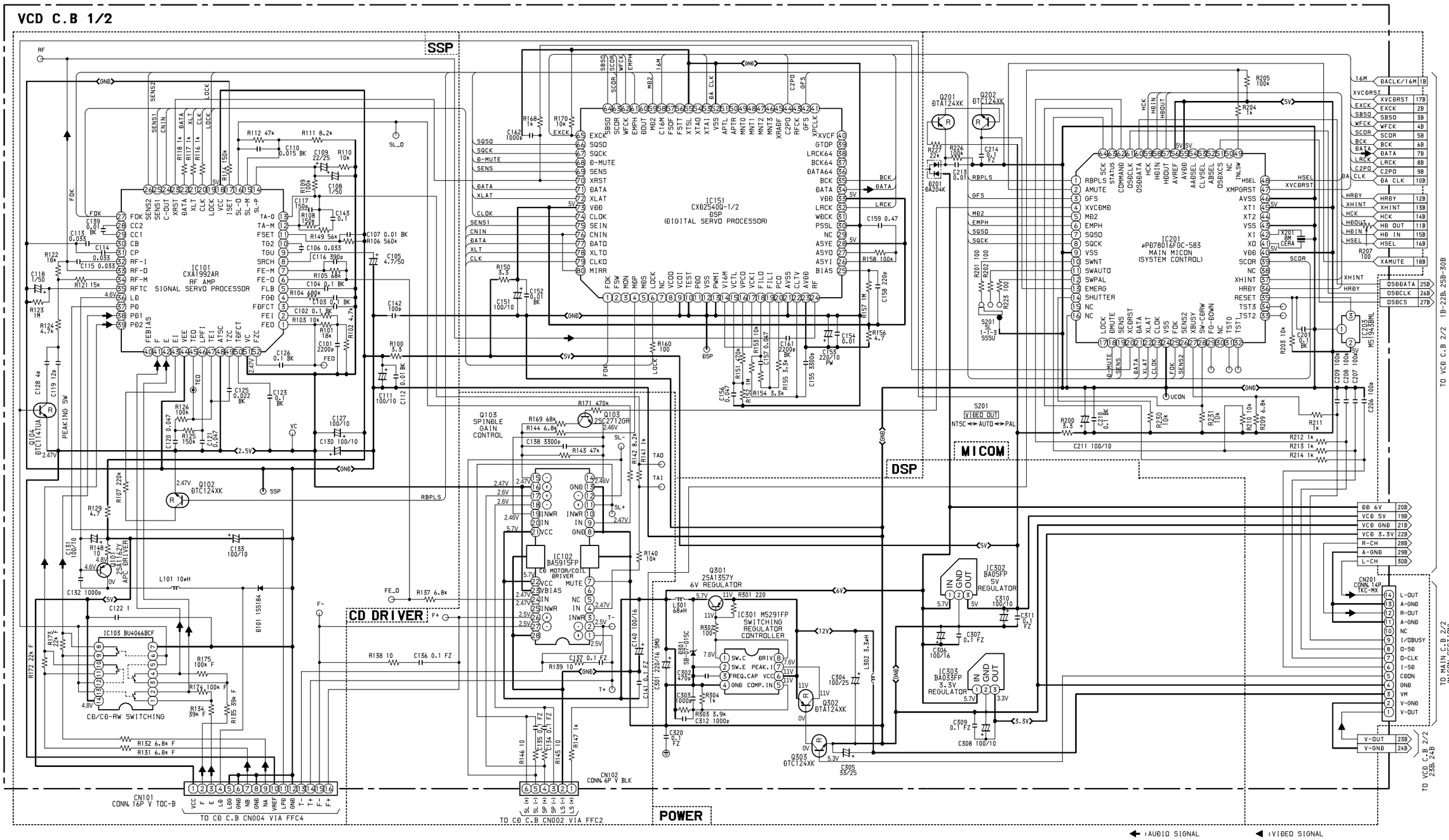
SCHEMATIC DIAGRAM - 3 (FRONT SECTION)



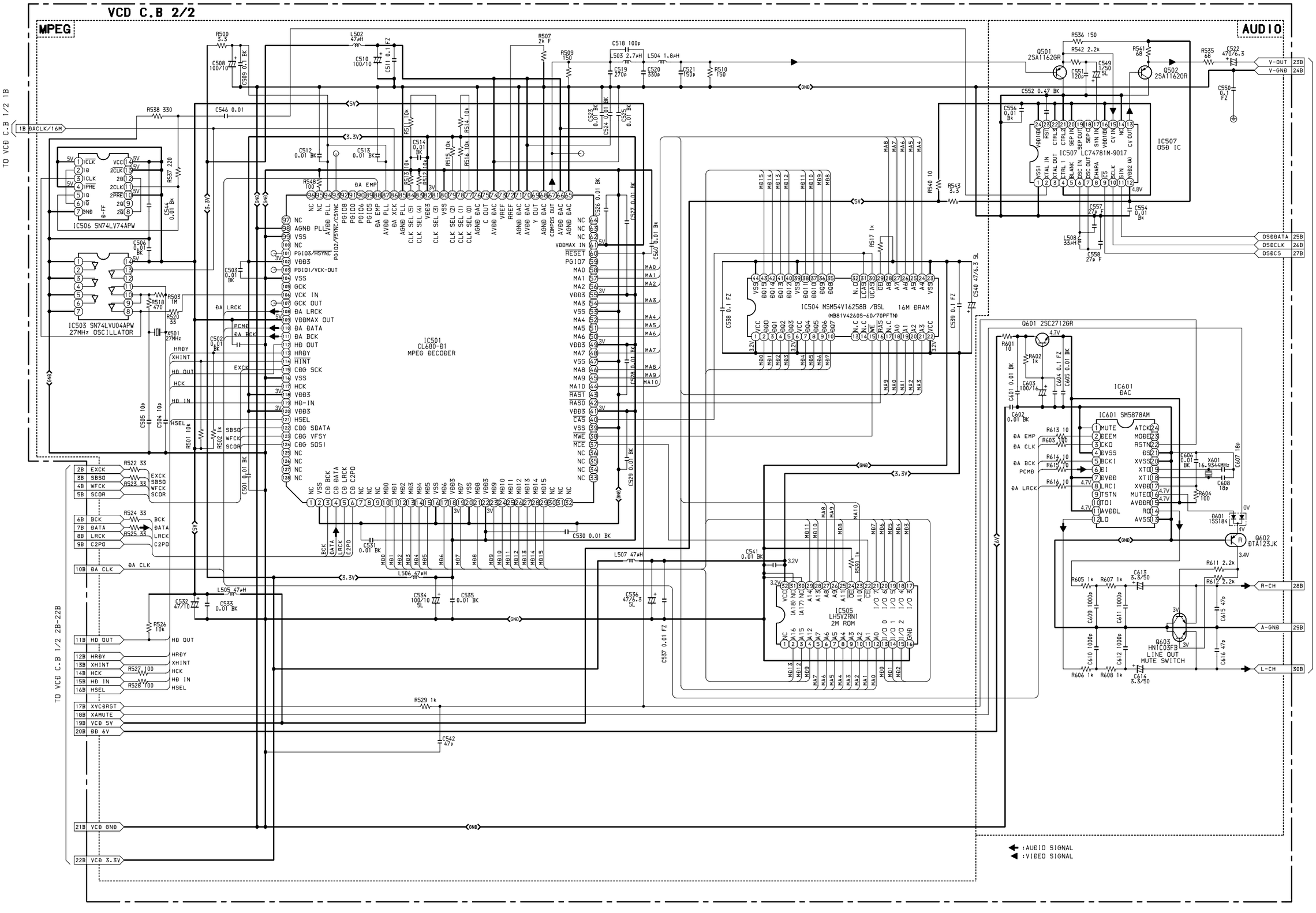
FRONT C.B


LEĐ101, S201
POWER
⏻ STANĐBY/ON
FL101
ĐISPLAY
S203
ECO/ĐEMO
S204
FUNCTION
S205
TUNER/BANĐ
S206
PBC
IC102
REMOTE SENSOR
S213
JOG MOĐE
CN901
TO MAIN C.B
J101
PHONES
CNA201
BLK
REĐ
TO MAIN C.B
S202
▲ EJECT
S209
▶ PRESET/SELECT
S208
■ CLEAR
RETURN
S207
❚❚ SET
S210
TUNING UP/
NEXT
S211
TUNING ĐOWN/
PREVIOUS
S212
SLOW
LEĐ303,
S214
ENTER/ILLUMINATION
S102, LEĐ301, 302
VOLUME/
MULTI JOG
S215
ĐISPLAY
S216
ON SCREEN
HP-JACK
C.B

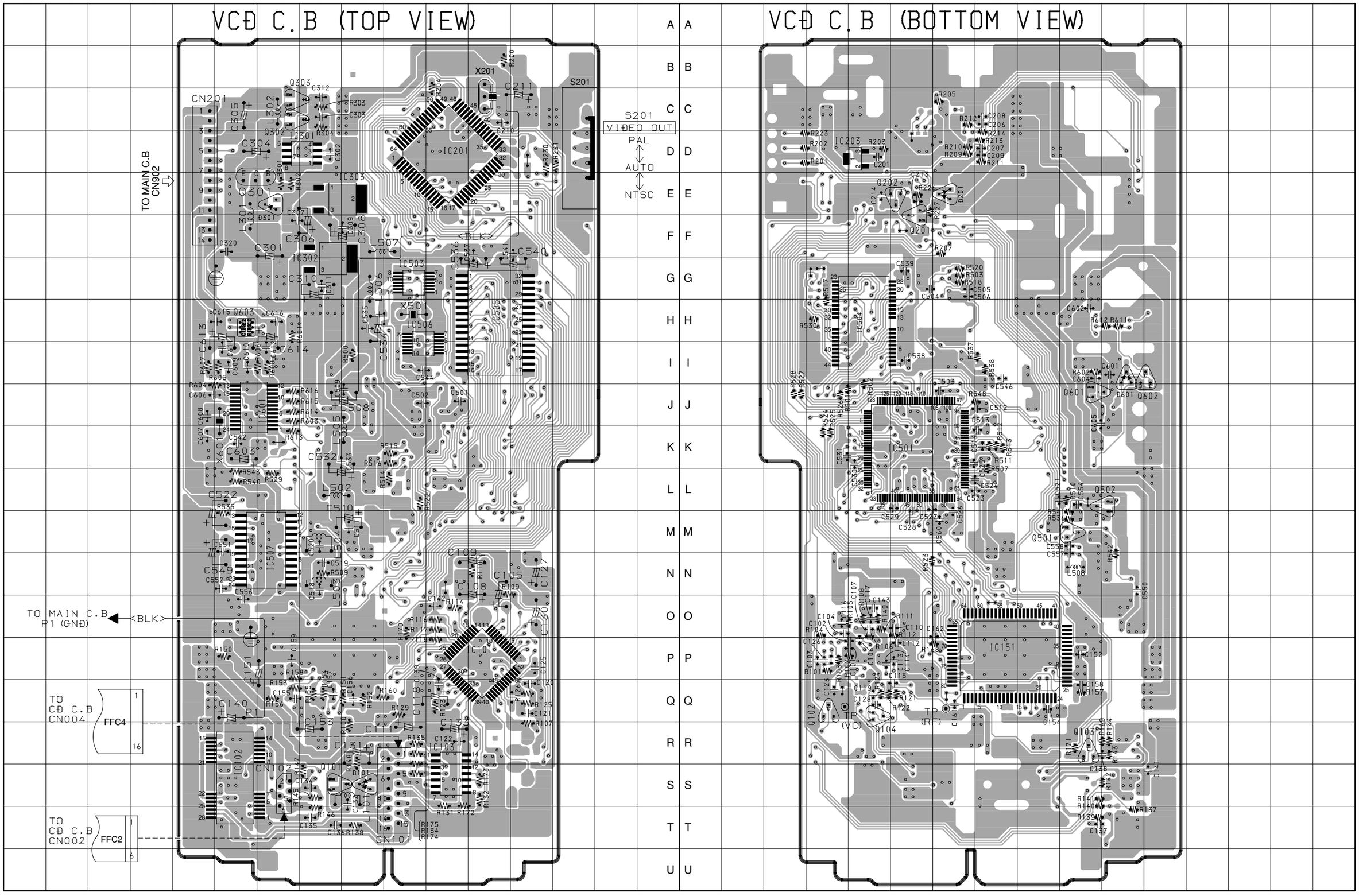
SCHEMATIC DIAGRAM - 4 (VCD-1/2 SECTION)

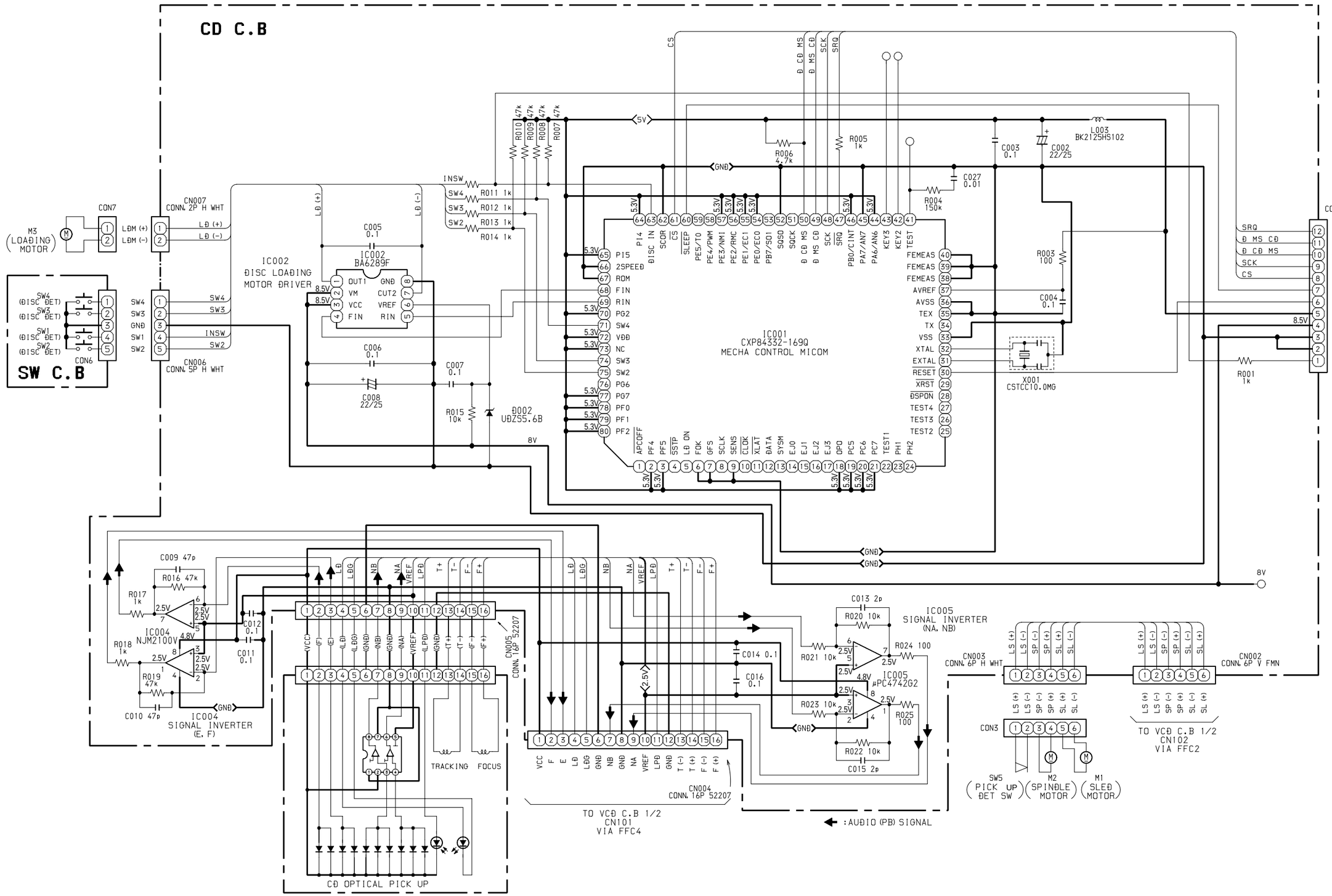


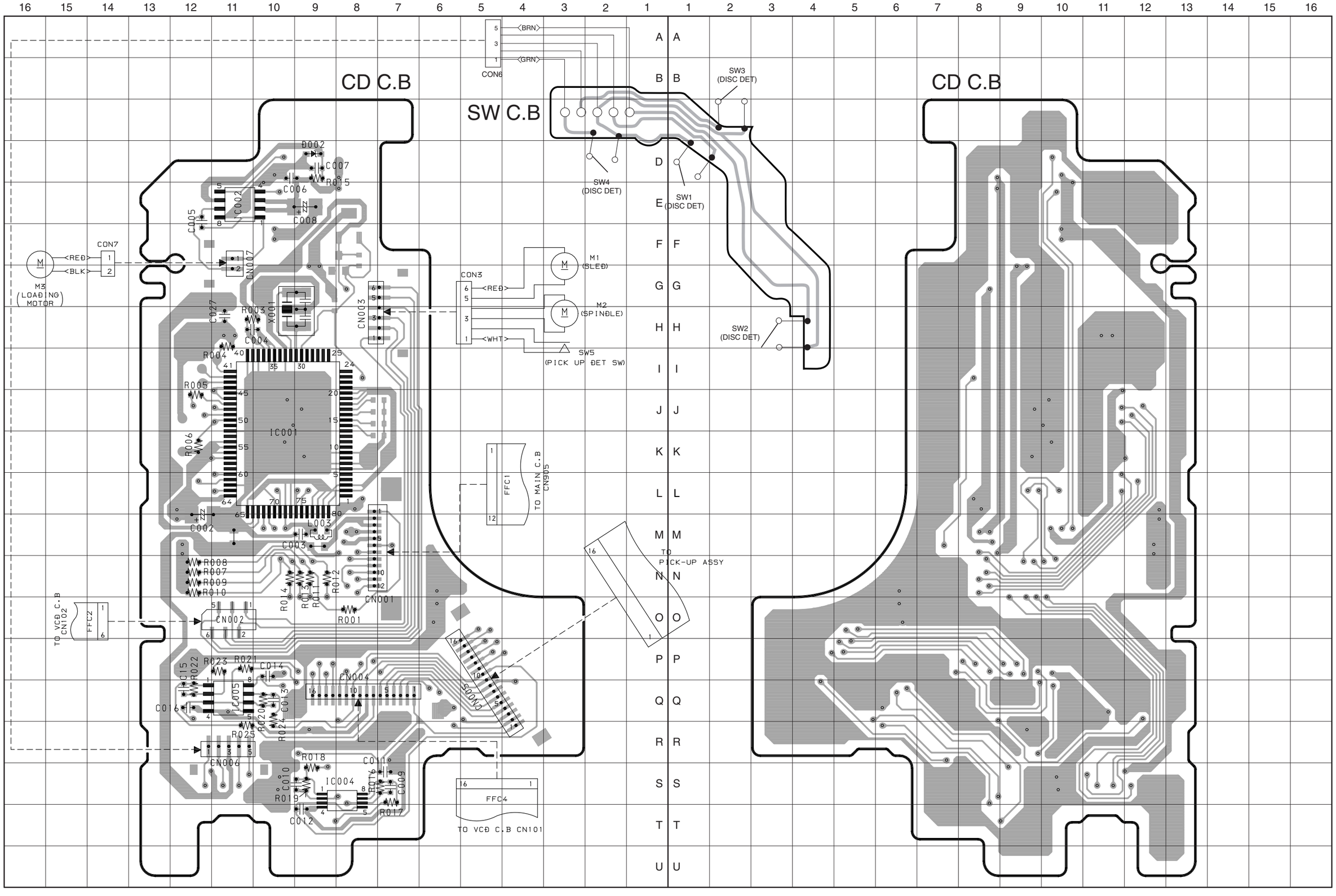
SCHEMATIC DIAGRAM - 5 (VCD-2/2 SECTION)



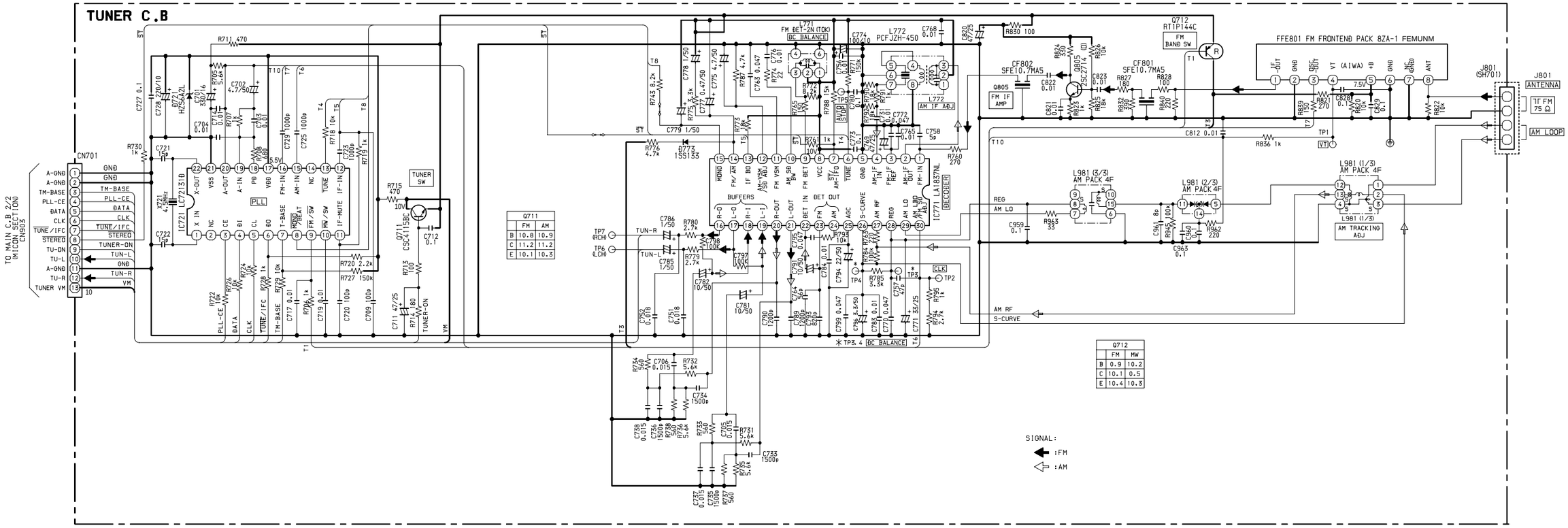
WIRING - 4 (VCD C.B)




CD C.B
SW C.B
IC001
CXP84332-169Q
MECHA CONTROL MICOM
IC002
DISC LOADING
MOTOR DRIVER
IC002
BA6289F
IC004
NJM2100V
IC004
SIGNAL INVERTER
(E, F)
IC005
SIGNAL INVERTER
(NA, NB)
IC005
μPC4742G2
CN001
CONN. 12P H
TO MAIN C.B 2/2
(MICON SECTION)
CN905
VIA FFC1
CN002
CONN. 6P V FMN
CN003
CONN. 6P H WHT
CN004
CONN. 16P 52207
CN005
CONN. 16P 52207
CN006
CONN. 5P H WHT
CN007
CONN. 2P H WHT
CON3
CON6
CON7
TO VCD C.B 1/2
CN101
VIA FFC4
TO VCD C.B 1/2
CN102
VIA FFC2
CD OPTICAL PICK UP
TRACKING
FOCUS
X001
CSTCC10.0MG
D002
UDZS5.6B
SW5
(PICK UP DET SW)
M2
(SPINDLE MOTOR)
M1
(SLED MOTOR)
M3
(LOADING MOTOR)
: AUDIO (PB) SIGNAL
5V
8V
GND
2.5V
4.8V
8.5V
5.3V

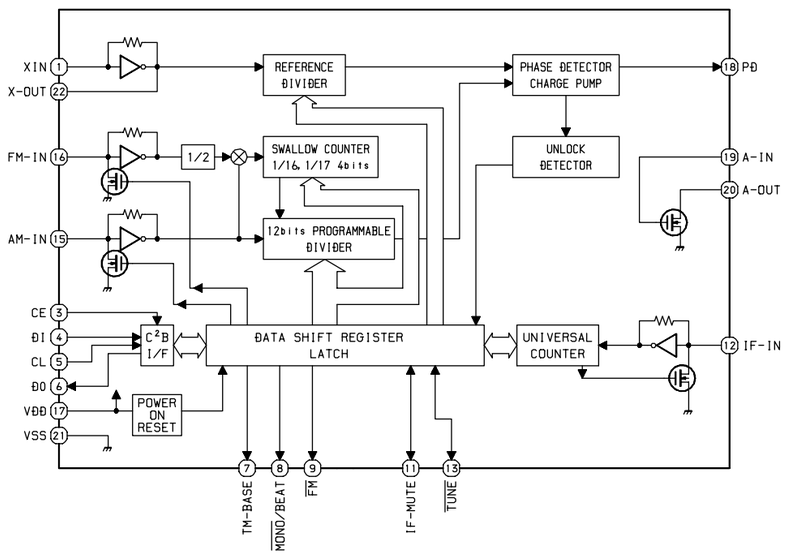

CD C.B
SW C.B
CD C.B
CON6
BRN
GRN
SW3
(DISC DET)
SW4
(DISC DET)
SW1
(DISC DET)
SW2
(DISC DET)
CON7
RED
BLK
M3
(LOADING
MOTOR)
CON3
M1
(SLED)
M2
(SPINDLE)
SW5
(PICK UP DET SW)
WHT
D002
C007
R015
C006
C005
IC002
C008
CN007
C027
R003
X001
C004
R004
R005
R006
IC001
C002
L003
C003
R008
R007
R009
R010
R014
R013
R011
R012
CN001
R001
CN002
TO VCD C.B
CN102
FFC2
C015
R022
R023
R021
C014
CN004
C016
IC005
R024
C013
R020
R025
CN006
R018
C011
C010
R019
IC004
R016
C009
R017
C012
FFC4
TO VCD C.B CN101
CN003
FFC1
TO MAIN C.B
CN905
CN005
TO
PICK-UP ASSY

SCHEMATIC DIAGRAM - 7 (TUNER SECTION)

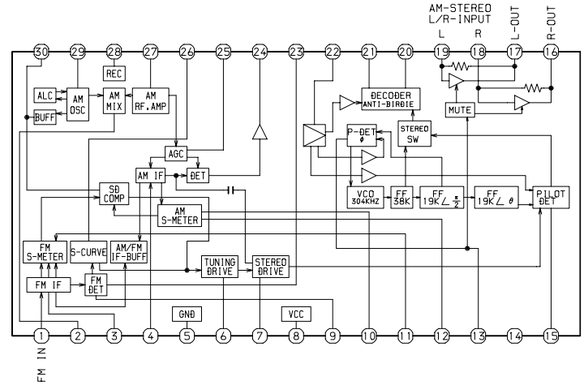


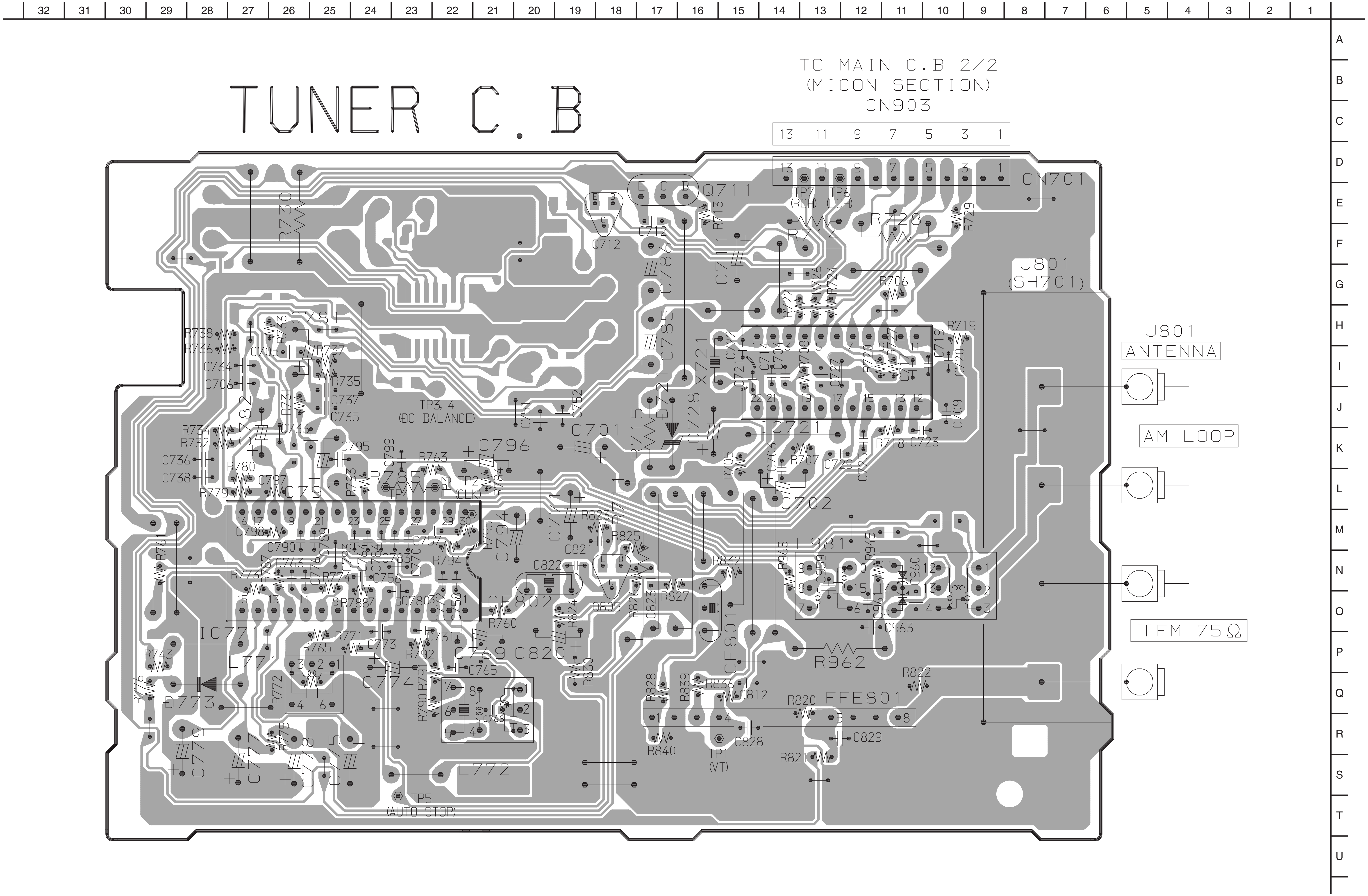
IC BLOCK DIAGRAM - 1

IC, LC72131D

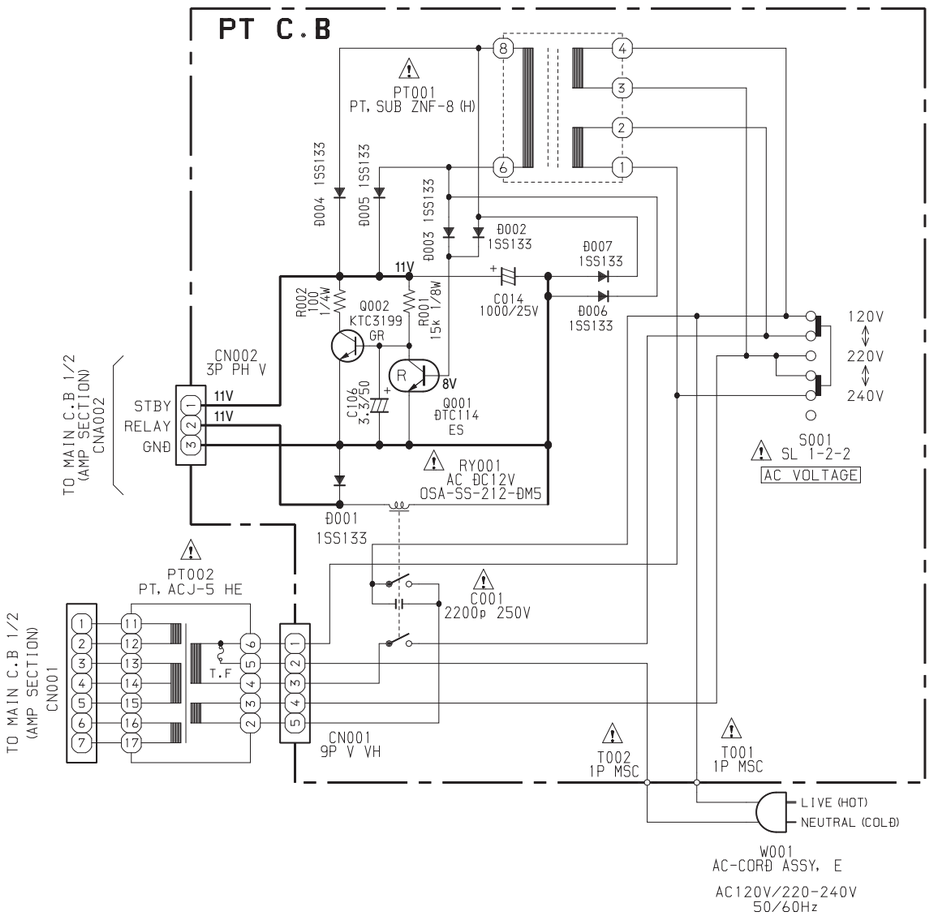


IC, LA1837NL

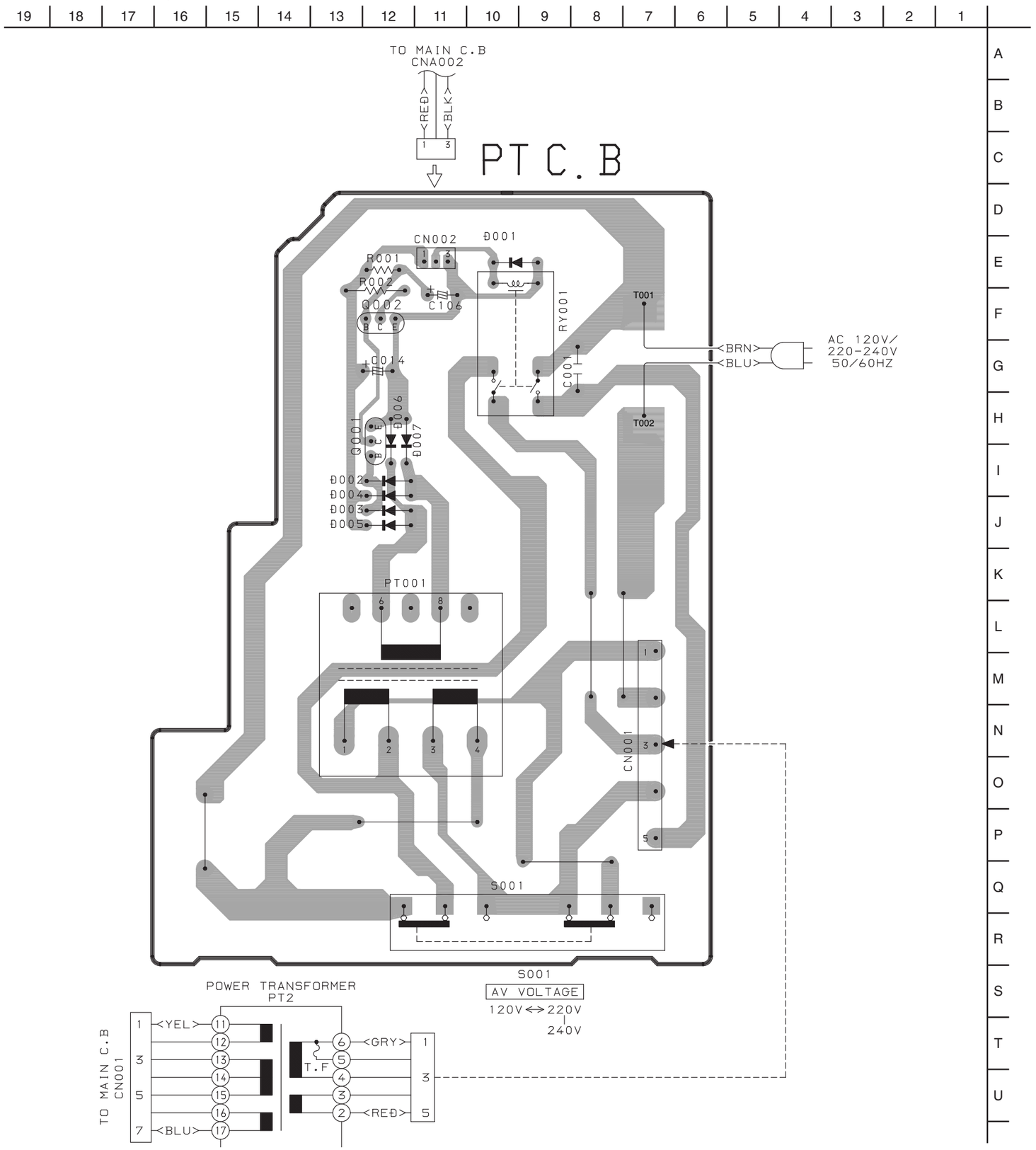



32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
A B C D E F G H I J K L M N O P Q R S T U
TUNER C.B
TO MAIN C.B 2/2
(MICON SECTION)
CN903
13 11 9 7 5 3 1
CN701
Q711
Q712
TP7 (RCH)
TP6 (LCH)
J801 (SH701)
J801
ANTENNA
AM LOOP
FM 75Ω
IC721
IC771
TP3, 4 (DC BALANCE)
TP2 (CLK)
TP4
TP5 (AUTO STOP)
TP1 (VT)
CF802
CF801
FFE801
L981
L771
L772
D773
Q805
R962

SCHEMATIC DIAGRAM - 8 (PT SECTION)

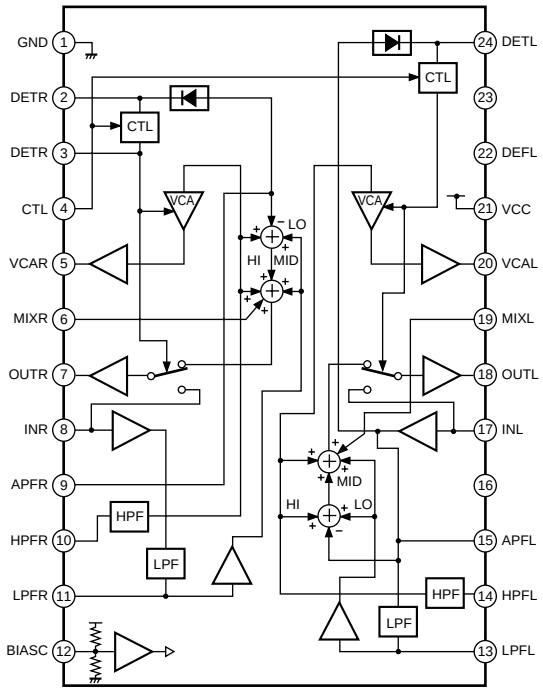


WIRING - 7 (PT C.B)

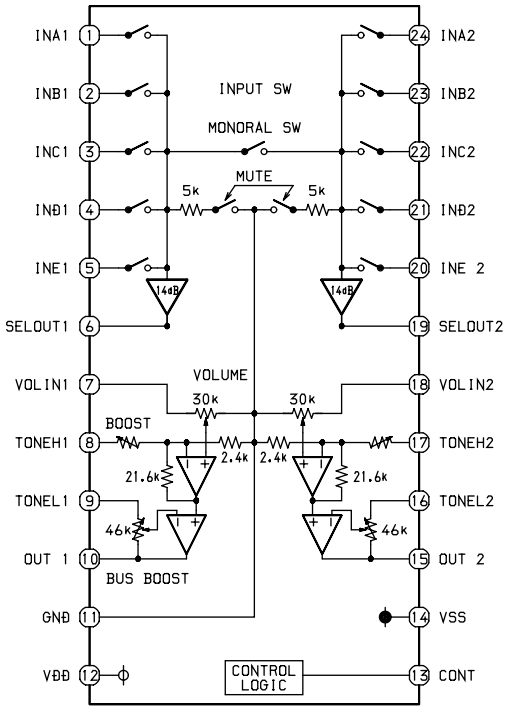


IC BLOCK DIAGRAM - 2

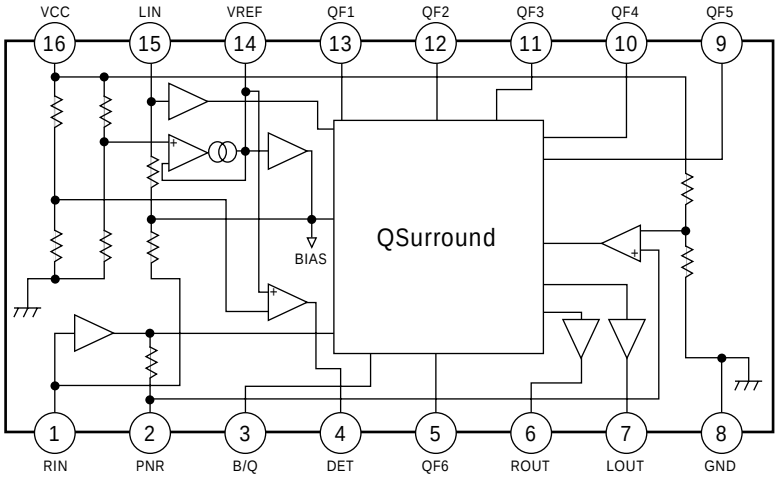
IC, BA3880FS



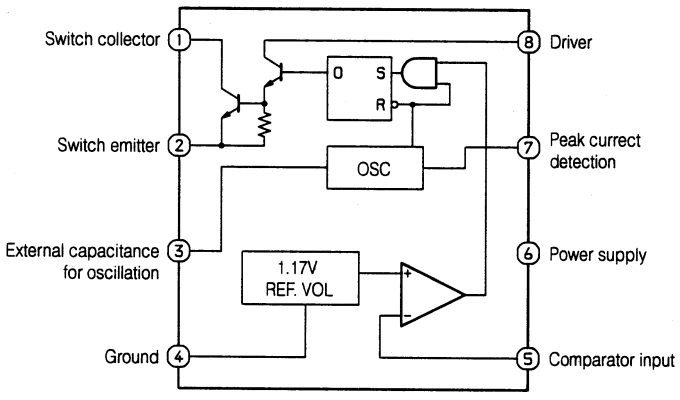
IC, M62495FP



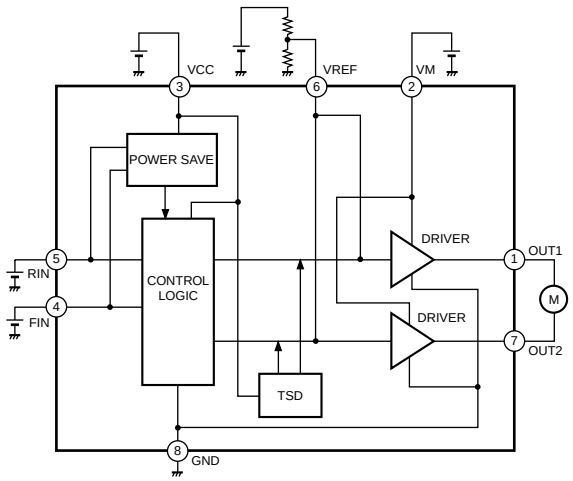
IC, MM1454XFBE



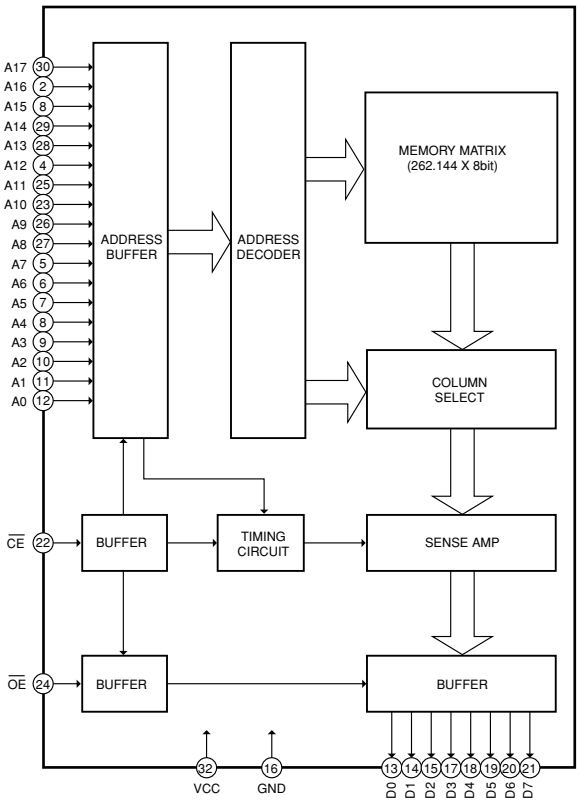
IC, M5291FP



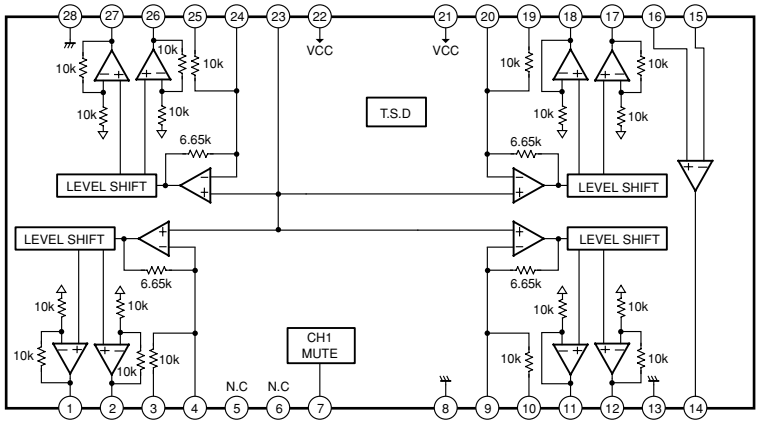
IC, BA6289F



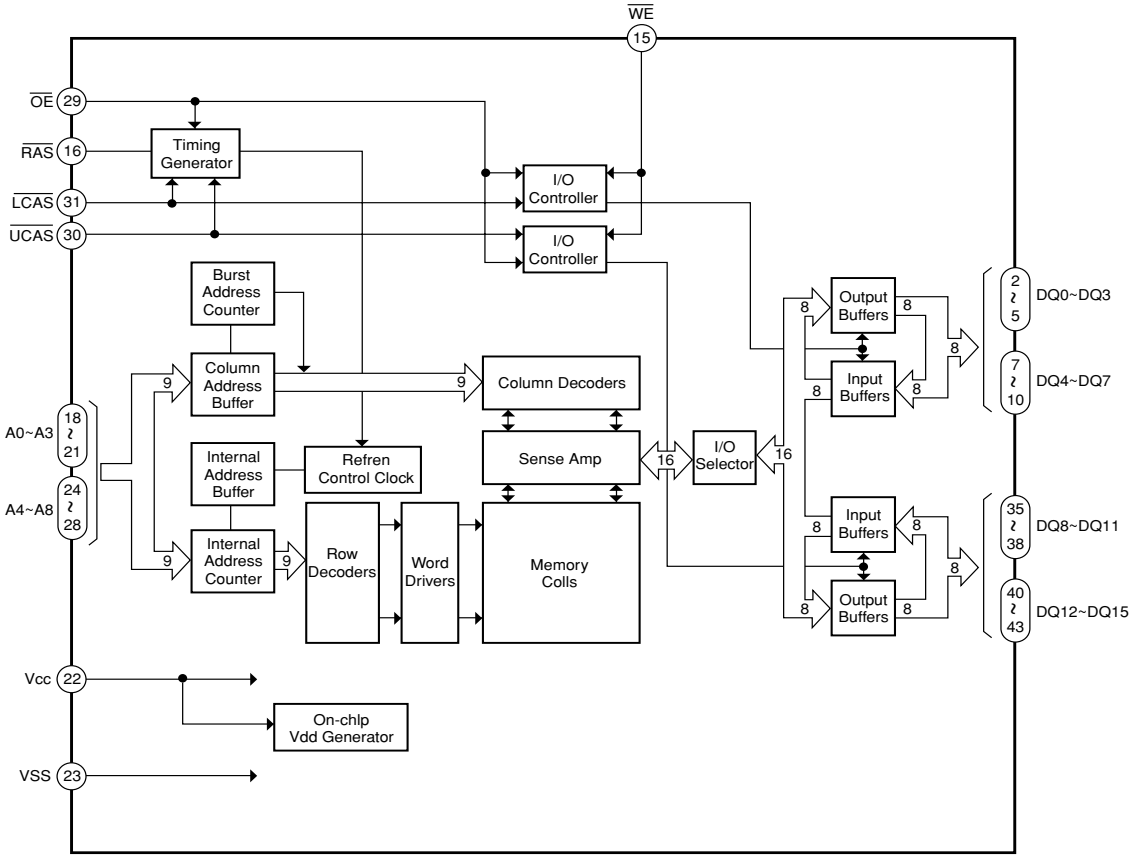
IC, LH5V2RN1



IC, BA5915FP



IC, MSM54V16258B/BSL



IC DESCRIPTION

IC, LC876580-5S40

Pin No.	Pin Name	I/O	Description
1	$\overline{\text{I-STEREO}}$ (TU)	I	Tuner stereo detection input.
2	I-TUDO (TU)	I	Connect to tuner PLL IC, LC72131D Pin 6 (DO).
3	NC	-	Not connected.
4	I/OBUSY(VCD)	I/O	BUSY port to VCD microprocessor
5	NC	-	Not connected.
6	O-CLK	O	Front shift registor BU4094BCF (reversal) and tuner PLL IC, LC72131D combination clock output.
7	O-DATA	O	Front shift registor BU4094BCF (reversal) and tuner PLL IC, LC72131D combination data output.
8	O-VOLCTL	O	Connect to Function VOL IC, M62495FP pin 13 (CONT).
9	I-TMBASE	I	Reference clock input. Connect to LC72131D Pin 7 (T-BASE).
10	$\overline{\text{O-CLK SHIFT}}$	O	Clock shift control output.
11	$\overline{\text{I-RESET}}$	I	MICON reset input.
12	HOLD	I	Hold status detection input.
13	NC	-	Not connected.
14	VSS 1	-	GND.
15	CF 1	I	Connect to 9.43MHz crystal oscillation.
16	CF 2	O	Connect to 9.43MHz crystal oscillation.
17	VDD 1	-	MICON power supply (+5V).
18	I-LEVEL	I	Level meter input (AD).
19	I-KEY1	I	Key 1: AD input.
20	I-KEY0	I	Key 0: AD input.
21	I-MODE SW(TP)	I	Deck mechanical status detection input (AD).
22	O-STB (F)	O	Front shift registor BU4094BCF latch reversal output.
23	I-JOG1	I	AD input from multi jog rotary encoder output A/B.
24	O-BBEB	O	BBE control reversal output (B).
25	O-CE (TU)	O	Tuner PLL IC, LC72131D chip enable output.
26	O-BBEA	O	BBE control reversal output (A).
27	NC	-	Not connected.
28	O-LMUTE	O	Line mute output. (Not used)
29	I-REM	I	Remote controller input.
30 ~ 45	NC	-	Not connected.
46	VDD3	-	MICON power supply (+5V).
47	$\overline{\text{I-CLS}}$ (MD)	I	MD unit close detection SW input / Close at L. (Connected to GND through a resistor)
48 ~ 57	NC	-	Not connected.
58	$\overline{\text{I-SWCLS}}$ (TP)	I	Deck mechanical status detection input (SWCLS).
59	$\overline{\text{I-SWOPN}}$ (TP)	I	Deck mechanical status detection input (SWOPN).
60	I-AUTO (TP)	I	Deck mechanical status detection input (AUTO).
61	I-CAM (TP)	I	Deck mechanical status detection input (CAM).

Pin No.	Pin Name	I/O	Description
62	VCD	O	VCD detection (L: VCD present)
63	RDS	I	Initial matrix input (H: RDS) (EZ only) / Connect to GND through a resistor. (U only).
64	$\overline{\text{BBE}}$	I	Initial matrix input (L: BBE).
65	$\overline{\text{DOLBY}}$	I	Initial matrix input (L: DOLBY).
66	AM10K	I	Initial matrix input (H: 10K STEP / L: 9K STEP).
67	FM WIDE&AMST	I	Initial matrix input (H: FM WIDE & AM STEREO).
68	LW	I	Initial matrix input (H: LW) (EZ only) / Connect to GND through a resistor. (U only)
69	SW	I	Initial matrix input (H: SW). Connect to GND through a resistor.
70	OIRT	I	Initial matrix input (H: OIRT). Connect to GND through a resistor.
71	I-CDSRQ (CD)	I	CD data transmission request signal input.
72	VDD4	-	MICON power supply (+5V).
73	O-CDON (CD)	O	CD power supply control output. (Not used)
74	O-D MS CD (CD)	O	Transmission output to CD MICON.
75	O-CS (CD)	O	Data transmission request output to CD MICON.
76	O-SCK (CD)	O	Data reception and transmission clock output to CD MICON.
77	O-SLP (CD)	O	Sleep output to CD MICON.
78	$\overline{\text{O-RST}}$ (CD)	O	Reset output to CD MICON.
79	I-SWCD	I	CD disc detection switch (H: active).
80	I-D CD MS (CD)	I	Transmission data from CD MICON.
81	O-QSURR	O	Q-Surround IC control output. to GND through a resistor.
82	O-TUON (TU)	O	Tuner power supply switch output.
83	O-MOTOR (TP)	O	Deck mechanical motor control output. (Not used)
84	O-SWSCAN	O	Tuner test mode TP (used for coil adjustment point).
85	O-SREQ (MD)	O	Serial data for MD unit control transmission request. (Not used)
86	O-MD REC	O	Output H at MD REC.
87	O-POWER ON	O	Power on output.
88	CD ON	-	CD ON/OFF output (CD ON: H)
89	VSS2	-	GND.
90	VDD2	-	MICON power supply (+5V).
91	O-OE (FL)	O	Output function output to FL driver.
92	O-LAT (FL)	O	Latch output to FL driver.
93	O-MUTE	O	Main mute output.
94	$\overline{\text{O-PL}}$ (TP)	O	Deck mechanical plunger control output. (Not used)
95	I-SI (FL)	I	Serial data input to FL driver.
96	O-MREQ (MD)	O	Serial data for MD unit control transmission request output. (Not used)
97	O-CLK (FL)	O	Clock output to FL driver.
98	I-SD(VCD)	I	Data input from VCD microprocessor
99	O-SD(VCD)	O	Data output to VCD microprocessor
100	O-CLK(VCD)	O	Clock for communications with VCD microprocessor

IC, CXA1992AR

Pin No.	Pin Name	I/O	Description
1	FEO	O	Output terminal for focus error amplifier. Internally connected to window comparator input for bias condition.
2	FEI	I	Input terminal for focus error.
3	FDFCT	I	Capacitor connection terminal for time constant used when there is defect.
4	FGD	I	This pin is connected to GND via capacitor when high frequency gain of the focus servo is attenuated.
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.
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.
13	TAO	O	Tracking drive output.
14	SLP	I	Sled amplifier non-inverted input.
15	SLM	I	Sled amplifier inverted input.
16	SLO	O	Sled drive output.
17	ISET	I	The current which determines height of the focus search, track jump and sled kick is input with external resistance connected.
18	VCC	I	Power supply.
19	LOCK	I	“L” setting starts sled disorder-prevention circuit. (No pull-up resistance) (Connected to VC)
20	CLK	I	Clock input for serial data transfer from CPU. (No pull-up resistance)
21	XLT	I	Latch input from CPU. (No pull-up resistance)
22	DATA	I	Serial data input from CPU. (No pull-up resistance)
23	XRST	I	Reset system at “L” setting. (No pull-up resistance)
24	COUT	O	Signal output for track number counting.
25	SENS1	O	FZC, DFCT1, TZC, BALH, TGH, FOH, or ATSC is output depending on the command from CPU.
26	SENS2	O	DFCT2, MIRR, BALL, TGL or FOL is output depending on the command from CPU.
27	FOK	O	Output terminal for focus OK comparator.
28	CC2	I	Input pin where the DEFECT bottom hold output is capacitance coupled.
29	CC1	O	DEFECT bottom-hold output terminal. Internally connected to interruption comparator input.
30	CB	I	Connection terminal for DEFECT bottom-hold capacitor.
31	CP	I	Connection terminal for MIRR hold-capacitor. Anti-reverse input terminal for MIRR comparator.
32	RFI	I	Input terminal by capacity combination of RF summing amplifier.
33	RFO	O	Output terminal of RF summing amplifier. Checkpoint of Eye pattern.

Pin No.	Pin Name	I/O	Description
34	RFM	I	Anti-reverse input terminal for RF summing amplifier. The gain of RF amplifier is decided by the connection resistance between RF-M and RF-O terminals.
35	RFTC	I	This is a pin where the selection time constant is externally connected to control the RF level.
36	LD	O	APC amplifier output terminal.
37	PD	I	APC amplifier input terminal.
38 ~ 39	PD1 ~ PD2	I	RFI-V amplifier inverted input pin. These pins are connected to the A+C and B+C pins of the optical pickup, receiving by currents input.
40	FEBIAS	I/O	Bias adjustment pin of the focus error amplifier. (Not used)
41 ~ 42	F ~ E	I	F and EIV amplifier inverted input pins. These pins are connected to the F and E of the optical pickup, receiving by current input.
43	EI	–	Gain adjustment pin of the I-V amplifier E. (When not in use of BAL automatic adjustment) (Not used)
44	VEE	–	GND connection pin.
45	TEO	O	Output terminal for tacking-error amplifier. Output E-F signal.
46	LPFI	I	BAL adjustment comparator input pin. (Input through LPF from TEO)
47	TEI	I	Input terminal for tracking error.
48	ATSC	I	Window-comparator input terminal for detecting ATSC.
49	TZC	I	Input terminal for tracking-zero cross comparator.
50	TDFCT	I	Capacitor connection pin for the time constant used when there is defect.
51	VC	O	Output terminal for DC voltage reduced to half of VCC+VEE.
52	FZC	I	Input terminal for focus-zero cross comparator.

IC, CL680-D1

Pin No.	Pin Name	I/O	Description
1	NC	—	No connection.
2	VSS	—	GND.
3	CD BCK	I	Bit clock input from CD DSP.
4	CD DATA	I	Data input from CD DSP.
5	CD LRCK	I	LRCK input from CD DSP.
6	CD C2PO	I	C2 pointer input from CD DSP.
7-9	NC	—	No connection.
10-15	MD0-MD5	I/O	DRAM/ROM interface. (DATA)
16	VSS	—	Ground.
17	MD6	I/O	DRAM/ROM interface. (DATA)
18	VDD3	—	Power supply 3.3V.
19	MD7	I/O	DRAM/ROM interface. (DATA)
20	VSS	—	Ground.
21	MD8	I/O	DRAM/ROM interface. (DATA)
22	VDD3	—	Power supply 3.3V.
23-29	MD9-MD15	I/O	DRAM/ROM interface. (DATA)
30-36	NC	—	No connection.
37	$\overline{\text{MCE}}$	—	ROM chip enable.
38	$\overline{\text{MWE}}$	O	DRAM write enable.
39	VSS	—	Ground.
40	$\overline{\text{CAS}}$	O	DRAM/ROM interface.
41	VDD3	—	Power supply 3.3V.
42	$\overline{\text{RASO}}$	O	DRAM/ROM interface.
43	$\overline{\text{RASI}}$	O	
44-46	MA10-MA8	O	DRAM/ROM interface. (Address)
47	VSS	—	Ground.
48	MA7	O	DRAM/ROM interface. (Address)
49	VDD3	—	Power supply 3.3V.
50-52	MA6-MA4	O	DRAM/ROM interface. (Address)
53	VSS	—	Ground.
54	MA3	O	DRAM/ROM interface. (Address)
55	VDD3	—	Power supply 3.3V.
56-58	MA2-MA0	O	DRAM/ROM interface. (Address)
59	PGIO7	I/O	Programmable I/O.
60	$\overline{\text{RESET}}$	I	Reset input.
61	VDD MAX IN	—	Power supply - VDDMAX. (5.0V)
62-64	NC	—	No connection.
65	AGND DAC	—	Analog ground.
66	A VDD DAC	—	Analog power supply (DAC) : 3.3V.
67	COMP OUT	O	Composite out.
68	AGND DAC	—	Analog ground.

Pin No.	Pin Name	I/O	Description
69	Y OUT	O	Video signal “Y” OUT.
70	AVDD DAC	—	Analog power supply (DAC) 3.3V.
71	AGND DAC	—	Analog ground.
72	R REF	I	Reference resistor input.
73	V REF	I	Voltage reference input.
74	AVDD DAC	—	Analog power supply (DAC) 3.3V.
75	C OUT	O	Video signal “C”out.
76	AGND DAC	—	Analog ground.
77-79	CLK SEL0-2	I	Clock selection input.
80	VSS	—	Ground.
81	CLK SEL3	I	Clock selection input.
82	VDD3	—	Power supply 3.3V.
83, 84	CLK SEL4, 5	I	Clock selection input.
85	AGND PLL	—	Analog ground.
86	DA XCK	I	DA XCK (16.933MHz) input.
87	AVDD PLL	—	Analog power supply 3.3V.
88	DA EMP	O	DAC-emphasis output.
89, 90	PGIO5, O6	I/O	Programmable I/O.
91	PGIO0	I/O	
92	PGIO8	I/O	
93	$\overline{\text{VSYNC}}$/CSYNC	O	$\overline{\text{VSYNC}}$/CSYNC output.
94	AVDD PLL	—	Analog power supply (PLL) 3.3V.
95	NC	—	Not connected.
96	NC	—	Not connected.
97	NC	—	Not connected.
98	AGND PLL	—	Analog ground.
99	VSS	—	Ground.
100	NC	—	Not connected.
101	$\overline{\text{HSYNC}}$	O	$\overline{\text{HSYNC}}$ output.
102	VDD3	—	Power supply 3.3V.
103	VCK OUT	O	VCK out.
104	VSS	—	Ground.
105	GCK	I	Global clock signal input. (42.3MHz)
106	VCK IN	I	Video clock signal input. (27.0MHz)
107	GCK OUT	O	Global clock signal output. (27.0MHz)
108	DA LRCK	O	DAC-LRCK output.
109	VDD MAX OUT	—	Power supply (VDD MAX) : 5.0V.
110	DA DATA	O	DAC-PCM data output.
111	DA BCK	O	DAC-BIT clock output.
112	HD OUT	O	Micon interface. (Data out)
113	HRDY	O	Micon interface. (Host ready)

Pin No.	Pin Name	I/O	Description
114	$\overline{\text{HINT}}$	O	Micon interface. (Host interrupt)
115	CDG SCK	I	CD-G serial clock input.
116	VSS	—	Ground.
117	HCK	I	Micon interface. (Host clock)
118	VDD3	—	Power supply 3.3V.
119	HD IN	I	Micon interface. (Host data in)
120	VDD3	—	Power supply 3.3V.
121	HSEL	I	Micon interface. (Host select in)
122	CDG SDATA	I	CD-G data input.
123	CDG VFSY	I	CD-G VFSY input.
124	CDG SOSI	I	CD-G SOSI input.
125-128	NC	—	Not connected.

IC, CXD2540Q-1/2

Pin No.	Pin Name	I/O	Description
1	FOK	I	Focus OK input. Used for SENS output and the servo auto sequencer.
2	FSW	O	Spindle motor output filter switching output.
3	MON	O	Spindle motor on/off control output.
4	MDP	O	Spindle motor servo control.
5	MDS	O	
6	LOCK	O	High, when sampled value of GFS at 460Hz is high. Low, when sampled value of GFS at 460Hz is low by 8 times successively.
7	NC	—	Not used.
8	VCOO	O	Analog EFM PLL oscillation circuit output.
9	VCOI	I	Analog EFM PLL oscillation circuit input. fLOCK=8.6436MHz.
10	TEST	I	TEST pin.
11	PDO	O	Analog EFM PLL charge pump output.
12	VSS	—	GND.
13	PWMI	I	Spindle motor external control input.
14	V16M	O	VCO2 oscillation output for the wide-band EFM PLL.
15	VCTL	I	VCO2 control voltage input for the wide-band EFM PLL.
16	VPCO	O	Wide-band EFM PLL charge pump output.
17	VCKI	I	VCO2 oscillation input for the wide-band EFM PLL.
18	FILO	O	Multiplier PLL (slave=digital PLL) filter output.
19	FILI	I	Multiplier PLL filter input.
20	PCO	O	Multiplier PLL charge pump output.
21	AVSS	—	Analog GND.
22	CLTV	I	Multiplier VCO1 control voltage input.
23	AVDD	—	Analog power supply (5V).
24	RF	I	EFM signal input.
25	BIAS	I	Constant current input of the asymmetry circuit.
26	ASYI	I	Asymmetry comparator voltage input.
27	ASYO	O	EFM full-swing output.
28	ASYE	I	Low: asymmetry circuit off; high: asymmetry circuit on.
29	NC	—	Not used.
30	PSSL	I	Audio data output mode switching input. Low: serial output; high: parallel output.
31	WDCK	O	D/A interface for 48-bit slot. Word clock f=2Fs.
32	LRCK	O	D/A interface for 48-bit slot. LR clock f=Fs.
33	VDD	—	Power supply (5V).
34	DATA	O	DA16 (MSB) output when PSSL=1. 48-bit slot serial data (two's complement, MSB first) when PSSL=0.
35	BCK	O	DA15 output when PSSL=1. 48-bit slot bit clock when PSSL=0.
36	DATA64	O	DA14 output when PSSL=1. 64-bit slot serial data (two's complement, LSB first) when PSSL=0.
37	BCK64	O	DA13 output when PSSL=1. 64-bit slot bit clock when PSSL=0.
38	LRCK64	O	DA12 output when PSSL=1. 64-bit slot LR clock when PSSL=0.

Pin No.	Pin Name	I/O	Description
39	GTOP	O	DA11 output when PSSL=1. GTOP output when PSSL=0.
40	XVCF	O	DA10 output when PSSL=1. XVCF output when PSSL=0.
41	XPCLK	O	DA09 output when PSSL=1. XPLCK output when PSSL=0.
42	GFS	O	DA08 output when PSSL=1. GFS output when PSSL=0.
43	RFCK	O	DA07 output when PSSL=1. RFCK output when PSSL=0.
44	C2PO	O	DA06 output when PSSL=1. C2PO output when PSSL=0.
45	XROF	O	DA05 output when PSSL=1. XRAOF output when PSSL=0.
46	MNT3	O	DA04 output when PSSL=1. MNT3 output when PSSL=0.
47	MNT2	O	DA03 output when PSSL=1. MNT2 output when PSSL=0.
48	MNT1	O	DA02 output when PSSL=1. MNT1 output when PSSL=0.
49	MNT0	O	DA01 output when PSSL=1. MNT0 output when PSSL=0.
50	APTR	O	Aperture compensation control output. This pin outputs a high signal when the right channel is used.
51	APTL	O	Aperture compensation control output. This pin outputs a high signal when the left channel is used.
52	VSS	—	GND.
53	XTAI	I	Crystal oscillation circuit input.
54	XTAO	O	Crystal oscillation circuit output.
55	XTSL	I	Crystal selector input.
56	FSTT	O	2/3 frequency divider output for Pins 53 and 54.
57	FSOF	O	1/4 frequency divider output for Pins 53 and 54.
58	C16M	O	16.9344MHz output. (V16M output in CLV-W and CAV-W modes)
59	MD2	I	Digital-out on/off control. High: on; low: off
60	DOUT	O	Digital-out output.
61	EMPH	O	Outputs a high signal when the playback disc has emphasis, and a low signal when there is no emphasis.
62	WFCK	I	WFCK (write frame clock) output.
63	SCOR	O	Outputs a high signal when either subcode sync S0 or S1 is detected.
64	SBSO	O	Sub P to W serial output.
65	EXCK	I	SBSO readout clock input.
66	SQSO	O	Sub Q 80-bit and PCM peak, level metter and internal status outputs.
67	SQCK	I	SQSO readout clock input.
68	D MUTE	I	High: mute; low: release
69	SENS	—	SENS output to CPU.
70	XRST	I	System reset. Reset when low.
71	DATA	O	Serial data input from CPU.
72	XLAT	O	Latch input from CPU. Serial data is latched at the falling edge.
73	VDD	—	Power supply (5V).
74	CLOK	O	Serial data transfer clock input from CPU.
75	SEIN	I	SENS input from SSP.
76	CNIN	I	Track jump count signal input.

Pin No.	Pin Name	I/O	Description
77	DATO	O	Serial data output to SSP.
78	XLTO	O	Serial data latch output to SSP. Latched at the falling edge.
79	CLKO	O	Serial data transfer clock output to SSP.
80	MIRR	I	Mirror signal input. Used when the number of tracks is 128 or more for the 2N-track jump and M track move of the auto sequencer.

Notes)

- The 64-bit slot is an LSB first, two's complement output, and the 48-bit slot is an MSB first, two's complement output.
- GTOP is used to monitor the frame sync protection status. (High: sync protection window open.)
- XUGF is the negative pulse for the frame sync obtained from the EFM signal. It is the signal before sync protection.
- XPLCK is the inverse of the EFM PLL clock. The PLL is designed so that the falling edge and the EFM signal transition point coincide.
- GFS goes high when the frame sync and the insertion protection timing match.
- RFCK is derived from the crystal accuracy, and has a cycle of 136μ.
- C2PO represents the data error status.
- XRAOF is generated when the 32K RAM exceeds the ±28F jitter margin.

Pin No.	Pin Name	I/O	Description
1	VSS1	—	GND connection terminal. (Digital ground terminal).
2	Xtal IN	I	External X'tal and capacitor for internal sync generator, or the external clock are connected to this terminal. (2fsc or 4fsc).
3	Xtal OUT	O	
4	CTRL1	I	Either the external clock input mode or the X'tal generator mode is selected by this selector terminal. L: X'tal generator mode, H: External clock input.
5	BLANK	O	Blank signal (character and the green ORed signal) is output from this terminal. (MODE 0: composite sync signal is output at H.) When reset ($\overline{RST}$ terminal = L), the X'tal clock signal is output. (It is not output when reset by the reset command).
6	OSC IN	I	External coil and capacitor for the character output dot clock generator are connected to this terminal.
7	OSC OUT	O	
8	CHARA	O	The character signal is output from this terminal. (MOD 0: when H, the external sync signal identification signal is output from this terminal. This output signal tells whether the external sync signal is present or not. When external sync signal is present, H is output.) When reset ($\overline{RST}$ terminal = L), the dot clock signal (LC oscillator) is output. (It is not output when reset by the reset command).
9	$\overline{CS}$	I	Enable signal for the serial data input is input to this terminal. The serial data input is enabled at L. Pull-up resistor is built-in. (Hysteresis input).
10	SCLK	I	Clock of the serial data input is input to this terminal. Pull-up resistor is built-in. (Hysteresis input).
11	SIN	I	Serial data input terminal. Pull-up resistor is built-in. (Hysteresis input).
12	VDD2	—	Power supply for the composite video signal level adjustment. (Analog power supply).
13	CV OUT	O	Composite video signal output terminal.
14	NC	—	Connected to GND or not connected.
15	CV IN	I	Composite video signal input terminal.
16	VDD1	—	Power supply (+5V digital power supply).
17	SYN IN	I	Video signal for the internal sync separator circuit is input to this terminal. (When the internal sync separator circuit is not used, the horizontal sync signal or composite sync signal is input to this terminal).
18	SEP C	—	Internal sync separator circuit bias voltage monitoring terminal.
19	SEP OUT	O	The composite sync output signal of the internal sync separator circuit is output from this terminal. (H: MOD 1. H: during internal sync mode. L: during external sync mode.) (When internal sync separator circuit is not used, the SYN IN input signal is output from this terminal).
20	SEP IN	I	The output signal of the SEP OUT terminal is integrated so that the vertical sync signal is input to this terminal. An integrator circuit must be connected between the SEP OUT terminal and this terminal. When this terminal is not used, it must be connectedto VDD1.
21	CTRL2	I	When selecting any of the NTSC or PAL or PAL-M or PAL-N system, the pin setting has priority. When L, the NTSC system is selected after resetting. Selection of either NTSC or PAL or PAL-M or PAL-N system by the command becomes effective. H: PAL-M system.
22	CTRL3	I	Controls whether or not to input the $\overline{VSYNC}$ signal to the SEPIN input. L: to input the $\overline{VSYNC}$ signal. H: not to input the $\overline{VSYNC}$ signal.

Pin No.	Pin Name	I/O	Description
23	$\overline{\text{RST}}$	I	System reset input terminal. Pull-up resistor is built-in. (Hysteresis input).
24	VDD1	—	Power supply. (+5V digital power supply).

IC, SM5878AM

Pin No.	Pin Name	I/O	Description
1	MUTE	I	MODE = H: Soft mute ON/OFF terminal. (Mute at H). MODE = L: Attenuator level DOWN/UP terminal. (DOWN at H).
2	DEEM	I	De-emphasis ON/OFF terminal. (De-emphasis ON at H).
3	MCKO	O	Oscillator clock output. (16.9344 MHz).
4	DVSS	—	Digital VSS terminal.
5	BCKI	I	Bit clock input terminal.
6	DI	I	Serial data input terminal.
7	DVDD	—	Digital VDD terminal.
8	LRCI	I	Sample rate clock (fs) input terminal. (H = L ch/L = R ch).
9	TSTN	I	Test input. (“H” or open during normal operation)
10	TO1	O	Test output 1. (Normally low level output).
11	AVDDL	—	Analog VDD terminal. (For L ch).
12	LO	O	Left channel analog output terminal.
13	AVSS	—	Analog VSS terminal.
14	RO	O	Right channel analog output terminal.
15	AVDDR	—	Analog VDD terminal. (For R ch).
16	MUTEO	O	Infinity zero detection output.
17	XVDD	—	X’tal system VDD terminal.
18	XTI	I	X’tal oscillator terminal. (Or external clock input terminal of 16.9344 MHz).
19	XTO	O	X’tal oscillator terminal.
20	XVSS	—	X’tal system VSS terminal.
21	DS	I	Double-speed/normal playback selection. (Double-speed at H).
22	RSTN	I	Reset terminal. (Reset at L).
23	MODE	I	Soft mute/Attenuator mode selection. (Soft mute at H).
24	ATCK	I	Attenuator level setup clock (Ignored when MODE = H).

IC, μPD78016FGC-583

Pin No.	Pin Name	I/O	Description
1	RBPLS	O	RADIAL BALANCE PLUS.
2	AMUTE	O	AUDIO ANALOG MUTE (H=MUTE ON).
3	GFS	I	GFS.
4	XVCDMD	O	AUDIO/VIDEO CD MODE (L=VCD=SPINDLE GAIN UP).
5	MD2	O	DOUT MUTE CONT.
6	EMPH	I	EMPHASIS.
7	SQSO	I	SQDATA FROM CD.
8	SQCK	O	SQCLK TO CD.
9	VSS	—	GND.
10	SWNT	I	SW TV OUT MODE (L=NTSC).
11	SWAUTO	I	SW TV OUT MODE (L=NTSC/PAL AUTO).
12	SWPAL	I	SW TV OUT MODE (L=PAL).
13	EMERG	I	POWER EMERGENCY STOP (L≠3sec=STOP).
14	SHUTTER	—	CDRW:H
15	NC	—	Not used.
16	NC	—	Not used.
17	LOCK	O	GFS (FRAME SYNC) LOCK (NO USE=H).
18	DMUTE	O	DIGITAL DATA OUT MUTE.
19	SENS	I	DSP SENS1 FROM CD.
20	XCDRST	O	CD RESET.
21	DATA	O	DATA TO CD.
22	XLAT	O	XLT TO CD.
23	CLOK	O	CLK TO CD.
24	VSS	—	GND.
25	FOK	I	FOCUS OK.
26	SENS2	I	SSP SENS2 FROM CD.
27	XBUSY	I/O	READY/BUSY I/O TO HOST OD.
28	SW CDRW	—	Not used.
29	FG DOWN	—	Not used.
30	NC	—	Not connected
31	TST0	I/O	CHECK LAND.
32	TST1	I/O	
33	TST2	I/O	
34	TST3	I/O	
35	RESET	I	RESET.
36	HRDY	I	HRDY FROM CL680.
37	XHINT	I	XHINT FROM CL680.
38	NC	—	Not connected
39	SCOR	I/O	SCOR FROM CD.
40	VDD	—	5.0VDD.
41	XO	O	8.0MHz CERALOCK.

Pin No.	Pin Name	I/O	Description
42	XI	I	8.0MHz CERALOCK.
43	VSS	—	GND.
44	XT2	—	Not used.
45	XT1	I	5.0VDD.
46	AVSS	—	GND.
47	XMPGRST	O	MPEG BLOCK IC RESET.
48	HSEL	O	ADDRESS/DATA SEL TO CL680.
49	INLSW	I	INSIDE LIMIT SW .
50	NC	—	Not used.
51	OSDXCS	O	OSD CHIP SELECT.
52	ABSEL	I	CXA1992A/B SELECT (L=CXA1992A).
53	CLVSEL	I	CLV MODE SELECT (H=CLV-N).
54	AADSEL	I	AUTO ADJUST SELECT (H=AUTO ON).
55	AVDD	—	5.0VDD.
56	AVREF	—	
57	HDOUT	I	HD-OUT FROM CL680.
58	HDIN	O	HD-IN FROM CL680.
59	HCK	O	HCK TO CL680.
60	OSDDATA	O	OSD DATA.
61	OSDCLK	O	OSD CLOCK.
62	COMMAND	I	COMMAND FROM HOST .
63	STATUS	O	STATUS TO HOST.
64	SCK	I	SCK FROM HOST.

IC, CXP84332-169Q

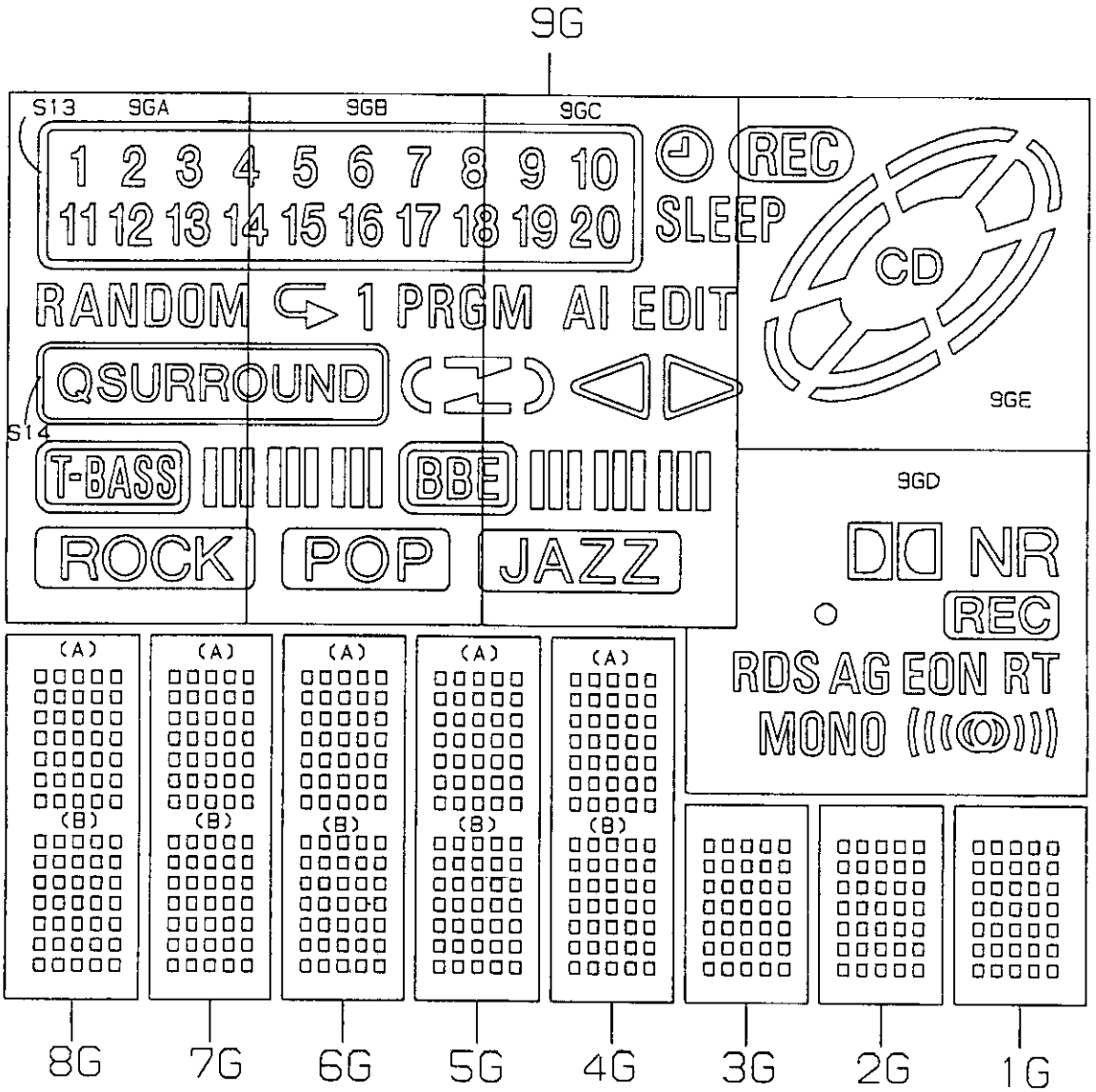
Pin No.	Pin Name	I/O	Description
1	$\overline{\text{APCOFF}}$	O	Laser output control terminal (L: ON, H: OFF)
2	PF4	–	Not used
3	PF5	–	Not used
4	$\overline{\text{SSTP}}$	I	RESET switch detection input L: RESET SW closed; H: RESET SW open. The reference position is determined when 'L' changes to 'H'. (Not used)
5	$\overline{\text{LD ON}}$	O	RF amp mode control output L: CD-ROM laser ON; H: CD-RW laser ON; Hiz: Laser OFF
6	FOK	I	FOK signal input from CXD2587Q
7	GFS	I	GFS signal input from CXD2587Q
8	SCLK	O	Serial clock output to CXD2587Q for reading SENS serial data (Not used)
9	SENS	I	SENS serial data input to CXD2587Q
10	$\overline{\text{CLOK}}$	O	Clock output for transferring serial data to CXD2587Q (Not used)
11	$\overline{\text{XLAT}}$	O	Latch signal output to CXD2587Q. Latches serial data at the trailing edge. (Not used)
12	DATA	O	Serial data output to CXD2587Q (Not used)
13	SYSM	O	Muting output to CXD2587Q. L: Muting OFF; H: Muting ON (Not used)
14	EJ0	I	For setting the amount of 12-cm disc to come out when it is ejected (Not used)
15	EJ1		
16	EJ2	I	For setting the amount of 8-cm disc to come out when it is ejected (Not used)
17	EJ3		
18	OPO	I	Detects 8-cm compatible mechanism L: 8-cm compatible mechanism; H: 12-cm exclusive mechanism
19	PC5	–	Not used
20	PC6	–	Not used
21	PC7	–	Not used
22	TEST1	O	Used for debugging (Not used)
23	PH1	–	Not used
24	PH2	–	Not used
25	TEST2	O	Used for debugging (Not used)
26	TEST3		
27	TEST4		
28	$\overline{\text{DPSON}}$	O	Output to control power ON/OFF of RF amp and signal processing LSI (CXD2587Q) L: Power ON; H: Power OFF (Not used)
29	$\overline{\text{XRST}}$	O	Reset output to CXD2587Q (reset with 'L'). After the power supply of signal processing LSI (CXD2587Q) turns on, this pin is set to 'H' to release reset. (Not used)
30	$\overline{\text{RESET}}$	I	System reset input terminal
31	EXTAL	I	Crystal oscillator circuit input
32	XTAL	O	Crystal oscillator circuit output
33	VSS	–	Ground
34	TX	O	Not used
35	TEX	I	Not used
36	AVSS	–	Ground (A/D converter)
37	AVREF	–	Reference voltage input (A/D converter)
38	FEMEAS	I	Not used

Pin No.	Pin Name	I/O	Description
39	FEMEAS	I	Not used
40	FEMEAS	I	FE level (S-curve) measurement A/D input for detecting CD-ROM or CD-RW
41	TEST	I	Test mode select port
42	KEY2	I	Test mode key input (A4)
43	KEY3	I	Test mode key input (A5)
44	PA6/AN6	I	Not used
45	PA7/AN7	I	Not used
46	PBO/CINT	I	Not used
47	$\overline{\text{SRQ}}$	O	Serial data request output to system microprocessor
48	SCK	I	Clock input from system microprocessor for serial communications
49	D MS CD	I	Serial data input from system microprocessor
50	D CD MS	O	Serial data output to system microprocessor
51	SQCK	O	Clock output to CXD2587Q for reading SQSO (Not used)
52	SQSO	I	Sub-Q serial data input from CXD2587Q
53	PB7/SO1	O	Not used
54	PE0/EC0	I	Not used
55	PE1/EC1	I	Not used
56	PE2/RMC	I	Not used
57	PE3/NM1	I	Not used
58	PE4/PWM	O	Not used
59	PE5/TO	O	Not used
60	$\overline{\text{SLEEP}}$	I	Interrupt input for controlling microprocessor sleep mode (CPU issues STOP command) L: CPU sleep status; H: CPU operational status (sleep mode is released by the leading edge)
61	$\overline{\text{CS}}$	I	Interrupt input for serial communication request from system microprocessor (leading edge is detected)
62	SCOR	I	Sub-code sync input from CXD2587Q
63	DISC IN	I	Disc insertion detection switch input. Detected during usual operation With 8-cm disc: No disc: L; When inserted: H, After chucking: L (Caution: The no-disc status is the same as the after-chucking status.)
64	P14	I	Not used
65	P15	I	Not used
66	2SPEED	I	Standard/double-speed playback mode switching input (set when reset is released) L: Standard play; H: Double speed play
67	ROM	I	CD-ROM mode setting input (set when reset is released) L: Audio mode; H: CD-ROM mode
68	FIN	O	Loading motor driver control output Stop: FIN=L, RIN=L, Loading: FIN=H, RIN=L, Eject: FIN=L, RIN=H
69	RIN	O	
70	PG2	I	Not used
71	SW4	I	End detection when 12-cm disc is ejected
72	VDD	I	Not used
73	NC	–	Not used
74	SW3	I	Disc, chucking, release detection

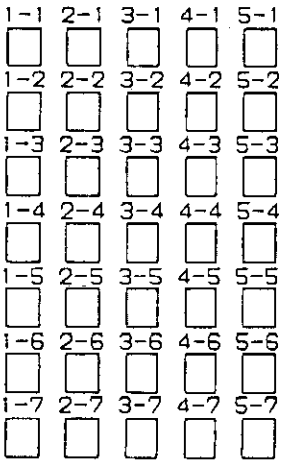
Pin No.	Pin Name	I/O	Description
75	SW2	I	12-cm disc detection. End detection when 12-cm disc is ejected.
76	PG6	O	Not used
77	PG7	I	Not used
78	PF0	I	Not used
79	PF1	I	Not used
80	PF2	I	Not used

LCD DISPLAY

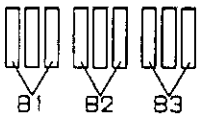
FL (9-ST-19GONK) GRID ASSIGNMENT AND ANODE CONNECTION



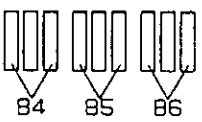
GRID ASSIGNMENT



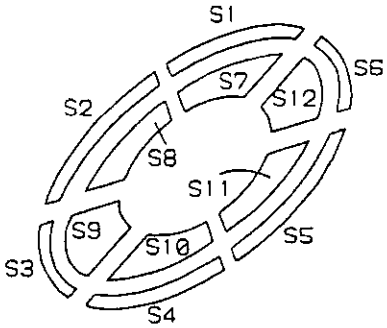
(8G~1G)



(T-BASS)



(BBE)



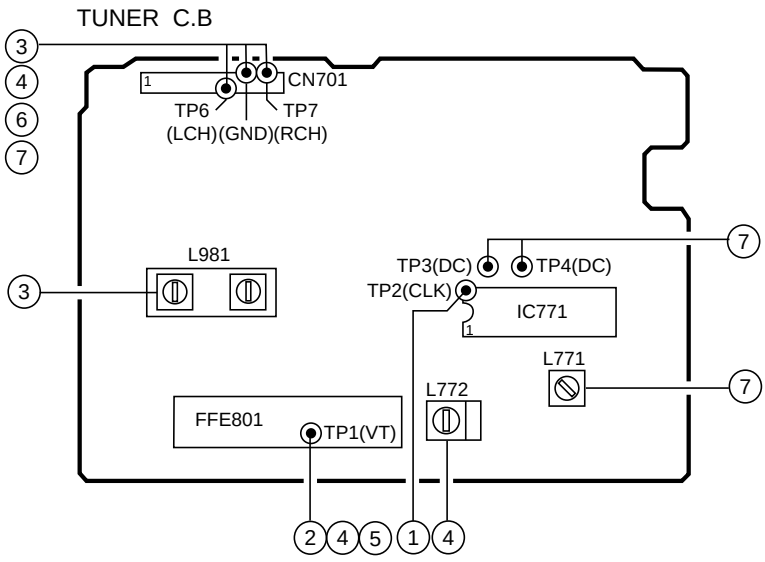
(9G)

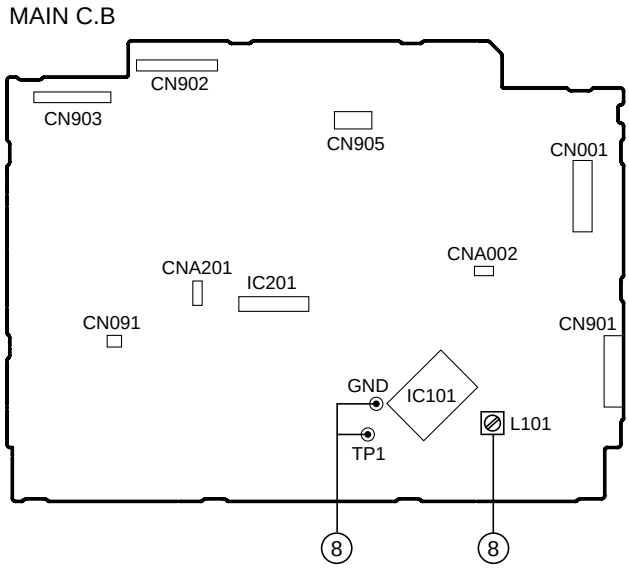
ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G(A~E)
P1	–	–	–	1-1A	1-1A	1-1A	1-1A	1-1A	ROCK
P2	–	–	–	2-1A	2-1A	2-1A	2-1A	2-1A	POP
P3	–	–	–	3-1A	3-1A	3-1A	3-1A	3-1A	JAZZ
P4	–	–	–	4-1A	4-1A	4-1A	4-1A	4-1A	1
P5	–	–	–	5-1A	5-1A	5-1A	5-1A	5-1A	11
P6	–	–	–	1-2A	1-2A	1-2A	1-2A	1-2A	2
P7	–	–	–	2-2A	2-2A	2-2A	2-2A	2-2A	12
P8	–	–	–	3-2A	3-2A	3-2A	3-2A	3-2A	3
P9	–	–	–	4-2A	4-2A	4-2A	4-2A	4-2A	13
P10	–	–	–	5-2A	5-2A	5-2A	5-2A	5-2A	4
P11	–	–	–	1-3A	1-3A	1-3A	1-3A	1-3A	14
P12	–	–	–	2-3A	2-3A	2-3A	2-3A	2-3A	5
P13	–	–	–	3-3A	3-3A	3-3A	3-3A	3-3A	15
P14	–	–	–	4-3A	4-3A	4-3A	4-3A	4-3A	S13
P15	–	–	–	5-3A	5-3A	5-3A	5-3A	5-3A	6
P16	–	–	–	1-4A	1-4A	1-4A	1-4A	1-4A	16
P17	–	–	–	2-4A	2-4A	2-4A	2-4A	2-4A	7
P18	–	–	–	3-4A	3-4A	3-4A	3-4A	3-4A	17
P19	–	–	–	4-4A	4-4A	4-4A	4-4A	4-4A	8
P20	–	–	–	5-4A	5-4A	5-4A	5-4A	5-4A	18
P21	–	–	–	1-5A	1-5A	1-5A	1-5A	1-5A	9
P22	–	–	–	2-5A	2-5A	2-5A	2-5A	2-5A	19
P23	–	–	–	3-5A	3-5A	3-5A	3-5A	3-5A	10
P24	–	–	–	4-5A	4-5A	4-5A	4-5A	4-5A	20
P25	–	–	–	5-5A	5-5A	5-5A	5-5A	5-5A	RANDOM
P26	–	–	–	1-6A	1-6A	1-6A	1-6A	1-6A	↩
P27	–	–	–	2-6A	2-6A	2-6A	2-6A	2-6A	1
P28	–	–	–	3-6A	3-6A	3-6A	3-6A	3-6A	PRGM
P29	–	–	–	4-6A	4-6A	4-6A	4-6A	4-6A	T-BASS
P30	–	–	–	5-6A	5-6A	5-6A	5-6A	5-6A	B1
P31	–	–	–	1-7A	1-7A	1-7A	1-7A	1-7A	B2
P32	–	–	–	2-7A	2-7A	2-7A	2-7A	2-7A	B3
P33	–	–	–	3-7A	3-7A	3-7A	3-7A	3-7A	BBE
P34	–	–	–	4-7A	4-7A	4-7A	4-7A	4-7A	B4
P35	–	–	–	5-7A	5-7A	5-7A	5-7A	5-7A	B5

	1G	2G	3G	4G	5G	6G	7G	8G	9G(A~E)
P36	1-1B	1-1B	1-1B	1-1B	1-1B	1-1B	1-1B	1-1B	B6
P37	2-1B	2-1B	2-1B	2-1B	2-1B	2-1B	2-1B	2-1B	S14
P38	3-1B	3-1B	3-1B	3-1B	3-1B	3-1B	3-1B	3-1B	QSURROUND
P39	4-1B	4-1B	4-1B	4-1B	4-1B	4-1B	4-1B	4-1B	AI
P40	5-1B	5-1B	5-1B	5-1B	5-1B	5-1B	5-1B	5-1B	EDIT
P41	1-2B	1-2B	1-2B	1-2B	1-2B	1-2B	1-2B	1-2B	☾
P42	2-2B	2-2B	2-2B	2-2B	2-2B	2-2B	2-2B	2-2B	☾
P43	3-2B	3-2B	3-2B	3-2B	3-2B	3-2B	3-2B	3-2B	☽
P44	4-2B	4-2B	4-2B	4-2B	4-2B	4-2B	4-2B	4-2B	◁
P45	5-2B	5-2B	5-2B	5-2B	5-2B	5-2B	5-2B	5-2B	▷
P46	1-3B	1-3B	1-3B	1-3B	1-3B	1-3B	1-3B	1-3B	MONO
P47	2-3B	2-3B	2-3B	2-3B	2-3B	2-3B	2-3B	2-3B	((◉))
P48	3-3B	3-3B	3-3B	3-3B	3-3B	3-3B	3-3B	3-3B	RDS
P49	4-3B	4-3B	4-3B	4-3B	4-3B	4-3B	4-3B	4-3B	AG
P50	5-3B	5-3B	5-3B	5-3B	5-3B	5-3B	5-3B	5-3B	EON
P51	1-4B	1-4B	1-4B	1-4B	1-4B	1-4B	1-4B	1-4B	RT
P52	2-4B	2-4B	2-4B	2-4B	2-4B	2-4B	2-4B	2-4B	◴
P53	3-4B	3-4B	3-4B	3-4B	3-4B	3-4B	3-4B	3-4B	SLEEP
P54	4-4B	4-4B	4-4B	4-4B	4-4B	4-4B	4-4B	4-4B	(REC)
P55	5-4B	5-4B	5-4B	5-4B	5-4B	5-4B	5-4B	5-4B	○
P56	1-5B	1-5B	1-5B	1-5B	1-5B	1-5B	1-5B	1-5B	DD
P57	2-5B	2-5B	2-5B	2-5B	2-5B	2-5B	2-5B	2-5B	REC
P58	3-5B	3-5B	3-5B	3-5B	3-5B	3-5B	3-5B	3-5B	NR
P59	4-5B	4-5B	4-5B	4-5B	4-5B	4-5B	4-5B	4-5B	S1
P60	5-5B	5-5B	5-5B	5-5B	5-5B	5-5B	5-5B	5-5B	S7
P61	1-6B	1-6B	1-6B	1-6B	1-6B	1-6B	1-6B	1-6B	S2
P62	2-6B	2-6B	2-6B	2-6B	2-6B	2-6B	2-6B	2-6B	S8
P63	3-6B	3-6B	3-6B	3-6B	3-6B	3-6B	3-6B	3-6B	S3
P64	4-6B	4-6B	4-6B	4-6B	4-6B	4-6B	4-6B	4-6B	S9
P65	5-6B	5-6B	5-6B	5-6B	5-6B	5-6B	5-6B	5-6B	S4
P66	1-7B	1-7B	1-7B	1-7B	1-7B	1-7B	1-7B	1-7B	S10
P67	2-7B	2-7B	2-7B	2-7B	2-7B	2-7B	2-7B	2-7B	S5
P68	3-7B	3-7B	3-7B	3-7B	3-7B	3-7B	3-7B	3-7B	S11
P69	4-7B	4-7B	4-7B	4-7B	4-7B	4-7B	4-7B	4-7B	S6
P70	5-7B	5-7B	5-7B	5-7B	5-7B	5-7B	5-7B	5-7B	S12
P71	-	-	-	-	-	-	-	-	CD

ADJUSTMENT <TUNER, MAIN SECTION>





1. Clock Frequency Check
   Settings : • Test point : TP2 (CLK)
   Method : Set to MW 1602kHz and check that the test point is 2052kHz ± 45Hz.

2. MW VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to MW 1602kHz and check that the test point is less than 8.0V. Then set to MW 531kHz and check that the test point is more than 0.6V.

3. MW Tracking Adjustment
   Settings : • Test point : TP6 (Lch), TP7 (Rch)
   • Adjustment location : L981 (1/3)
   Method : Set to MW 999kHz and adjust L981 (1/3) so that the test point becomes maximum.

4. AM IF Adjustment
   Settings : • Test point : TP6 (Lch), TP7 (Rch)
   • Adjustment location :
   L772 ..... 450kHz

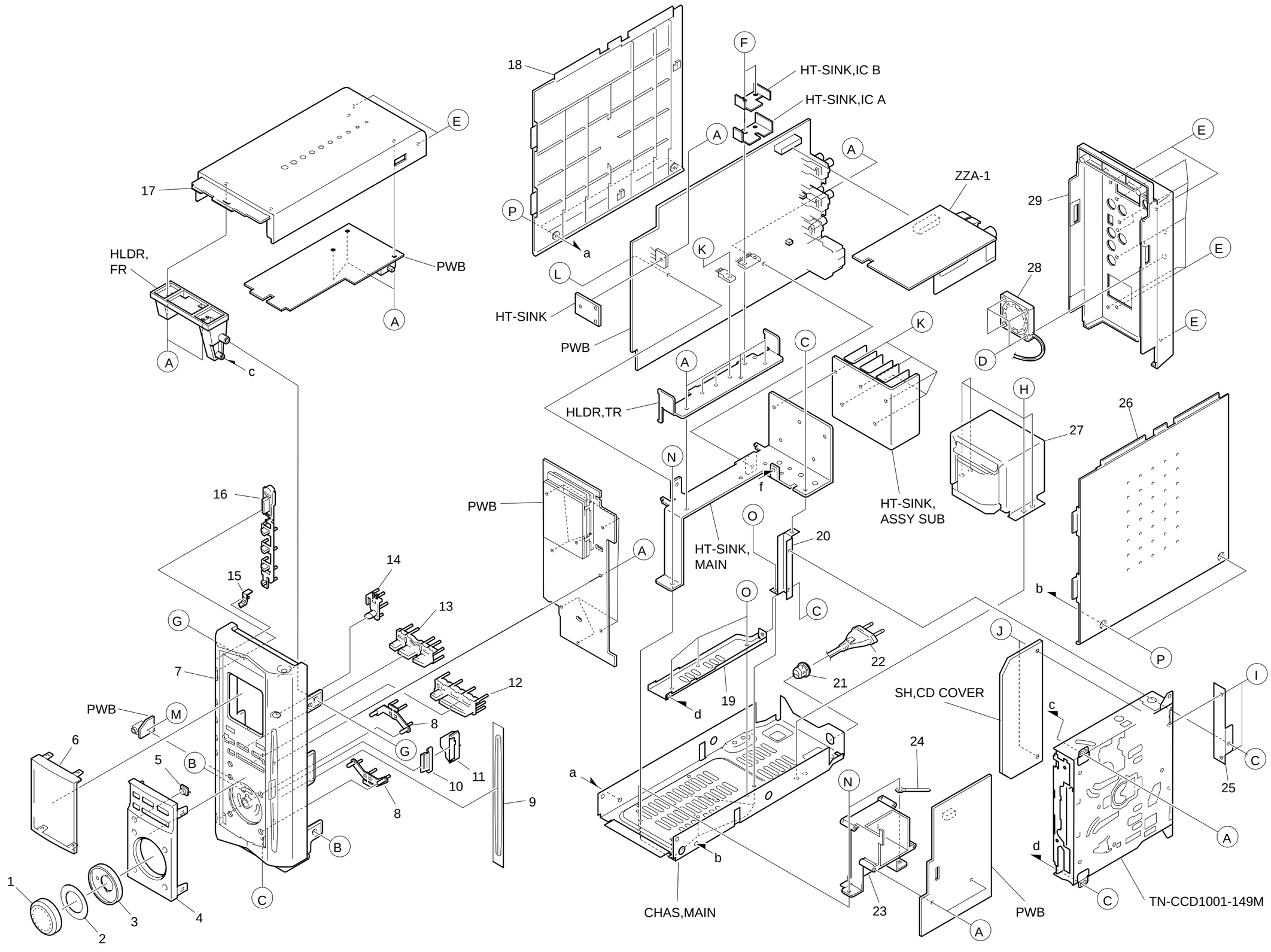
5. FM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to FM 108.0MHz and check that the test point is less than 8.0V. Then set to FM 87.5 MHz and check that the test point is more than 0.5V.

6. FM Tracking Check
   Settings : • Test point : TP6 (Lch), TP7 (Rch)
   Method : Set to FM 98.0MHz and check that the test point is less than 13dBµV.

7. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3,TP4 (DC balance)
   TP6 (Lch), TP7 (Rch) (Distortion)
   • Adjustment location : L771
   • Input level : 60dBµV
   Method : Set to FM 98.0MHz and adjust L771 so that the voltage between TP3 and TP4 becomes 0V ± 0.04V. Next, check that the distortion is less than 1.3%.

8. MICON OSC Adjustment
   Settings : • Test point : TP1
   • Adjustment location : L101
   Method : Insert AC plug with pressing TUNER function key. Adjust L101 so that frequency across the test point is 97.258 ± 0.098 Hz (10.292 ~ 10.272 ms)

MECHANICAL EXPLDED VIEW 1/1



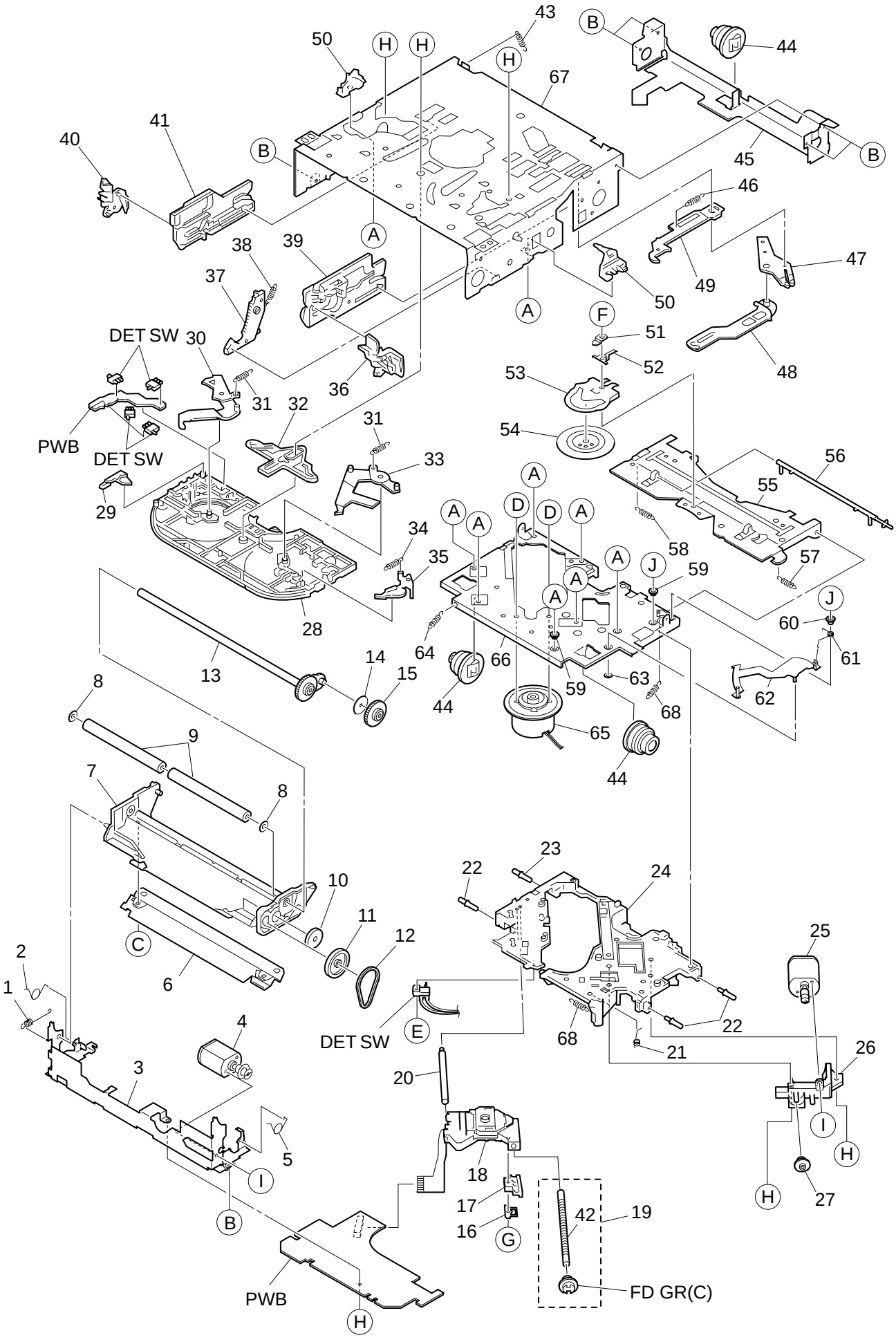
MECHANICAL MAIN PARTS LIST 1/1

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CJ5-016-010		KNOB,RTRY JOG
2	8A-CJ5-217-010		PLATE,JOG
3	8A-CJ5-017-010		REFLECTOR,JOG
4	8A-CG5-004-010		PANEL,FR
5	8A-CJ5-019-010		LENS,SENSOR
6	8A-CJ5-007-010		WINDOW,DISPLAY
7	8A-CG5-001-010		CABI,FR H
8	8A-CJ5-012-010		KEY,ENTER
9	8A-CJ5-023-010		DUST COVER, CD FELT
10	8A-CJ5-018-010		REFLECTOR,CD
11	8A-CJ5-215-010		GUIDE,LED CD
12	8A-CJ5-010-010		KEY,SKIP
13	8A-CJ5-011-010		KEY,PLAY
14	8A-CJ5-013-010		KEY,EJECT CD
15	8A-CJ5-015-010		REFLECTOR,POWER
16	8A-CJ5-009-010		KEY,POWER
17	8A-CG5-002-010		CABI,TOP
18	8A-CJ5-004-110		PANEL,SIDE L
19	8A-CJ5-205-010		HLDR,CD A
20	8A-CJ5-206-010		HLDR,CD B
⚠ 21	87-085-185-010		BUSHING, AC CORD (E)
⚠ 22	87-A80-092-010		AC CORD ASSY,E BLK SUN FAI
23	8A-CJ5-204-010		HLDR,ECO
24	87-064-185-010		HLDR,WIRE
25	8A-CJ5-213-110		HLDR,MECHA CD
26	8A-CJ5-005-110		PANEL,SIDE R
⚠ 27	8A-CJ5-624-010		PT,ACJ-5 HE
28	8Z-CL1-663-010		FAN,MF40D-12-200MM
29	8A-CG5-003-010		CABI,REAR H
A	87-067-579-010		TAPPING SCREW, BVT2+3-8
B	87-591-094-410		TAPPING SCREW, QIT+3-6
C	87-067-688-010		BVTT+3-6
D	87-751-098-410		SCREW 3X14
E	87-067-660-010		TAPPING SCREW, BVT2+3-8
F	87-067-581-010		TAPPING SCREW, BVT2+3-15
G	87-721-096-410		QT2+3-10 GLD
H	87-078-199-010		S-SCREW, ITC+4-10 R
I	87-067-421-010		VTT+2-4
J	87-067-767-010		BVTT+2.6-6
K	87-067-703-010		TAPPING SCREW, BVT2+3-10
L	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
M	88-AR1-217-010		S-SCREW,BFT2+3-8
N	87-B10-315-010		BVIT3B+3-8 R W/O
O	87-B10-314-010		BVIT3B+3-6 R W/O
P	87-067-641-010		UTT2+3-8 W/O SLOT BLK

COLOR NAME TABLE

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

CD MECHANISM EXPLODED VIEW 1/1 <TN-CCD1001-149M>



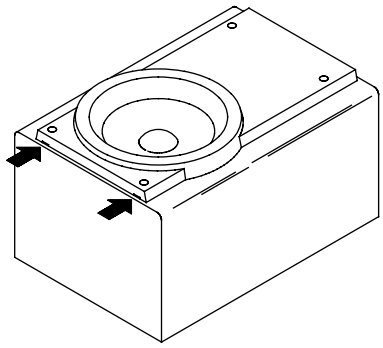
CD MECHANISM MAIN PARTS LIST 1/1 <TN-CCD1001-149M>

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	S3-031-110-030		EARTH SPR
2	S3-031-110-180		L.P SPRING(L)
3	S3-031-110-010		FRONT BRKT
4	S3-031-113-010		LDG MOTOR ASSY
5	S3-031-110-190		L.P SPRING(R)
6	S3-031-110-050		SUPPORT PL
7	S3-031-110-080		GR MT BLK
8	S9-W03-302-760		NW BLUE 2.9-5-0.3
9	S3-031-110-360		LDG ROLLER(P)
10	S3-031-110-100		LDG GR(3)
11	S3-031-110-090		LDG GR(2)
12	S3-031-110-290		LDG BELT
13	S3-031-113-020		LDG RLR SFT ASSY
14	S9-W07-101-770		LUMILAR W SHIRO 2.3-9.8-0.1
15	S3-031-110-120		LDG GR(5)
16	S3-031-050-300		NUT PUSH SPR PL(M)
17	S3-031-050-290		PU M NUI(M)
18	S6-904-160-010		PICK-UP VED0375-TN
19	S3-031-053-040		FEED SCREW(M)ASSY
20	S3-031-050-320		PU SHAFT(M)
21	S3-031-050-330		THRUST SPR(M)
22	S3-031-050-210		LOCK PIN
23	S3-031-050-220		LOCK PIN BL
24	S3-031-050-760		F.M. BASE(A)
25	S3-031-053-010		FEED MOTOR ASSY
26	S3-031-050-280		FD GR BLK(M)
27	S3-030-050-100		PU GEAR(B)
28	S3-031-010-570		UPPER PL(A)
29	S3-031-110-420		SW ACTR(A)
30	S3-031-010-640		SEL ARM(L8)L
31	S3-031-010-540		S ARM SPRING(L8)
32	S3-031-010-080		SEL STOP PL
33	S3-031-010-430		SEL ARM(R)L
34	S3-031-010-250		S.L ARM SPRING
35	S3-031-010-480		S.L ARM(N)
36	S3-031-010-580		FIX ARM(R)A
37	S3-031-010-380		LDG GR(6)B
38	S3-031-010-220		LDG GR(6)SPRING
39	S3-031-010-370		FIX PL(R)B
40	S3-031-010-340		FIX ARM(L)B
41	S3-031-010-500		FIX PL(L)Z
42	S3-031-050-310		FD SCREW(M)
43	S3-031-010-620		BARNCE SPRING(LR)
44	S3-031-050-240		DAMPER(J)
45	S3-031-010-020		REAR D BRKT
46	S3-031-010-150		TRIG PL SPRING
47	S3-031-010-160		TRIG ARM
48	S3-031-010-120		TRIG LVR
49	S3-031-010-550		TRIG PL(Z)
50	S3-031-010-030		DAMPER PIN
51	S3-031-050-360		STOPPER SPR
52	S3-031-050-190		8CM STOPPER SPR PL
53	S3-031-050-230		CLAMPER PLATE
54	S3-031-050-150		CLAMPER
55	S3-031-050-740		CLP ARM(A)
56	S3-031-050-410		8CM STOPPER(M)
57	S3-031-050-140		CLP ARM SPRING
58	S3-031-050-250		CLP ARM SPR(L)
59	S3-031-050-700		D.S ARM COLLAR
60	S3-031-050-720		SP COLLAR
61	S3-031-050-710		D.S ARM SPR
62	S3-031-055-010		DISC SUPPORT ARM ASSY
63	S9-W02-500-900		PW CUT 2.1-4-0.5
64	S3-031-010-530		HUNG DOWN SPRING(A)
65	S3-031-053-050		SPINDLE MOTOR(M)ASSY
66	S3-031-050-730		T.T.BASE(A)
67	S3-031-010-010		FRAME
68	S3-031-010-610		BARNCE SPRING(R)
A	87-253-034-410		CAMERA TAPPING SCREW B 3 M2-5
B	87-251-033-410		CAMERA SCREW TS G M2-4
C	87-252-033-410		CAMERA B TAPPING SCREW M2-4
D	87-267-525-310		CAMERA SCREW M1.7-2.2
E	87-263-036-010		CAMERA TAPPING SCREW B 3 M2-8
F	S9-C42-202-010		CAMERA TAPPING SCREW S 3 M2-2
G	S9-C45-175-030		CAMERA TAPPING SCREW P3 M1.7-5
H	87-351-549-310		CAMERA B TAPPING SCREW M2-5
I	S9-P02-200-310		TAMS SCREW M2-3
J	S9-C04-205-030		CAMERA S TAPPING SCREW M2-5

GENERAL SPEAKER DISASSEMBLY INSTRUCTIONS (FOR REFERENCE)

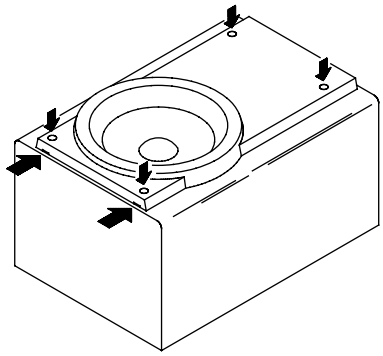
Type.1

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



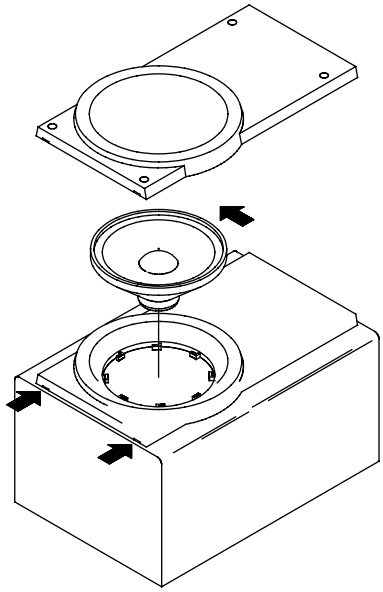
Type.2

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

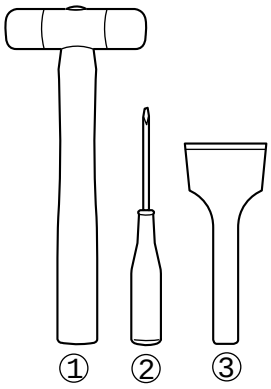


Type.3

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



Type.4



TOOLS

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

How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.

2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.

3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

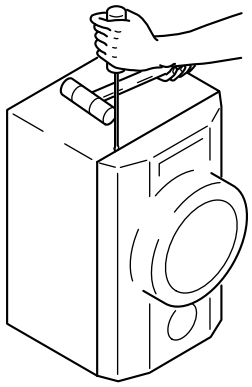


Fig-1

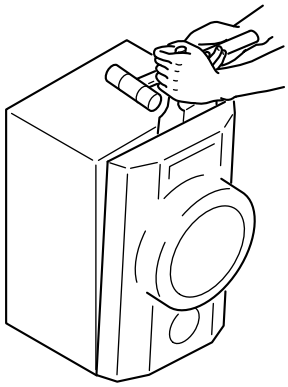


Fig-2

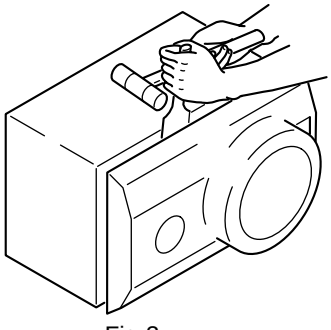


Fig-3

How to Attach the PANEL, FR

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

SPEAKER MAIN PARTS LIST 1/1

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-CJ5-422-010		GRILLE,FRAME ASSY Y
2	8A-CJ5-405-010		PANEL,SP
3	8A-CJ5-403-010		PANEL,FR
4	8A-CJ5-415-010		TERMINAL,
5	8A-CJ5-411-010		SPKR, W 87S
6	8A-CJ5-417-010		SPKR, TW 25
7	8Z-CL5-543-010		CORD,SP

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