



SERVICE MANUAL

CD STEREO SYSTEM

BASIC TAPE MECHANISM : CMAL5Z213A
BASIC CD MECHANISM : KSM-213RDM

SYSTEM	CD-CASSEIVER	SPEAKER
XR-EM20	CX-LEM20	SX-LEM20

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual" (S/M Code No. 09-023-454-3T2).

aiwa

S/M Code No. 09-028-454-3R2

REVISION
DATA

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SPECIFICATIONS - 1/1

MAIN UNIT CX-LEM20

TUNER

FM tuning range	87.5 MHz to 108 MHz
FM usable sensitivity (IHF)	16.8 dBf
FM antenna terminal	75 ohms (unbalanced)
MW tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
MW usable sensitivity	350 μ V/m
LW tuning range	144 kHz to 290 kHz
LW usable sensitivity	1400 μ V/m
MW/LW antenna	Loop antenna

AMPLIFIER

Power output	Rated: 4 W + 4 W (6 ohms, T.H.D. 1%, 1kHz/DIN 45500) Reference: 5 W + 5 W (6 ohms, T.H.D. 10 %, 1 kHz/DIN 45324) DIN MUSIC POWER 10 W + 10 W (EZ)
Total harmonic distortion	0.1 % (3 W, 1 kHz, 6 ohms, DIN AUDIO)
Input	AUX IN: 500 mV
Outputs	SPEAKERS: 6 ohms or more PHONES: 32 ohms or more

CASSETTE DECK

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz - 10000 Hz
Recording system	AC bias
Heads	Recording/playback x 1, erase x 1

CD PLAYER

Laser	Semiconductor laser ($\lambda = 780$ nm)
D/A converter	1 bit dual
Signal-to-noise ratio	80 dB (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

GENERAL

Power requirements	230 V AC, 50 Hz
Power consumption	35 W
Dimensions (W x H x D)	163 x 230 x 215.7 mm
Weight	2.6 kg

SPEAKER SYSTEM SX-LEM20

Speaker system	1 way, bass reflex (magnetic shielded)
Speaker unit	Full range: 100 mm cone
Impedance	6 ohms
Dimensions (W x H x D)	140 x 230 x 195 mm
Weight	1.8 kg

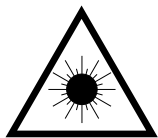
- Design and specifications are subject to change without notice.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING - 1/1

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

WARNING!!

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



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

VAROITUS!

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

WARNING!

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

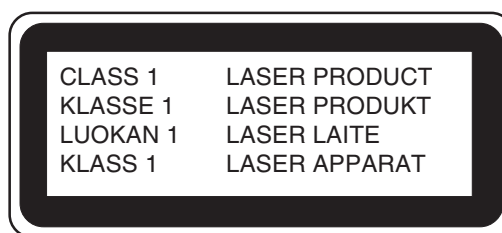
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

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.



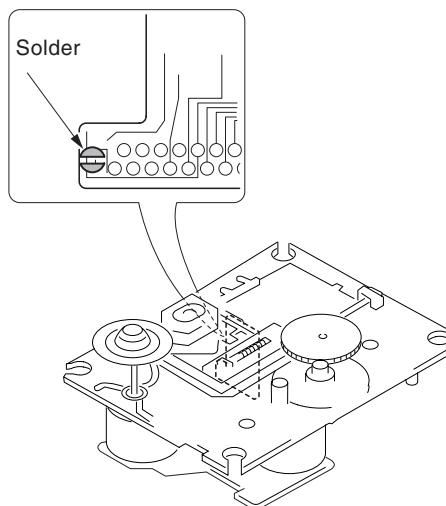
Precaution to replace Optical block

(KSM-213RDM)

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.

CD PICK-UP Assy PWB



ACCESSORIES PARTS LIST -1/1

! = Δ SAFTY PARTS

C = Components marked

All components used on this model at the production line are shown in this service manual.

However, please note that not all components will be available as spare parts for after-sales service.

Components marked S and O are designated as spare parts for service and will be stocked at the spare parts centers.

Components marked X and R are not designated as spare parts for after sales service, and will not be stocked at the spare parts centers.

UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20	CX-LEM20
					EZSC	KSC
	0	AS1001	8C-CL7-906-010	IB,EZ (9L)BF SIZE:(210x148)mm	a	.
	0	AS1001	8C-CL7-905-010	IB,K(E)BF SIZE:(210x148)mm, M	.	b
	0	AS1002	8C-CL6-701-010	REMOTE CONTROL UNIT RC-CAS07	a	b
	0	AS1003	87-A90-054-010	Ant. Loop AM-CON C [TOMEI] TO	a	b
	X	AS1004	87-A92-346-010	ANT,WIRE FM EZ/K L=1500	a	b
	! 0	AS1005	S7-099-726-010	CONVERSION PLUG (VDE TO BSI)	.	b

ELECTRICAL PARTS LIST -1/13

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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL		
					CX-LEM20 EZSC	CX-LEM20 KSC	
CD	0	C	0501	87-010-263-040	Elect. Cap. 100UF +/-20% 10V	a	b
CD	0	C	0502	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0503	87-010-263-040	Elect. Cap. 100UF +/-20% 10V	a	b
CD	0	C	0504	87-010-263-040	Elect. Cap. 100UF +/-20% 10V	a	b
CD	0	C	0505	87-010-263-040	Elect. Cap. 100UF +/-20% 10V	a	b
CD	0	C	0506	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0507	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0508	87-A10-353-080	C-CAP 0.22uF 10V K B SIZE:160	a	b
CD	0	C	0509	87-A11-070-080	C-CAP, U 0.033UF-16V K X7R SI	a	b
CD	0	C	0510	87-012-268-080	C-CAP, U 330P-50V J C0G SIZE:	a	b
CD	0	C	0511	87-A10-201-080	C-CAP S. 0.33UF K Cer. (87-A1	a	b
CD	0	C	0512	87-010-785-080	C-CAP, U 0.015UF-25V K X7R SI	a	b
CD	0	C	0513	87-A11-177-080	C-CAP,S 0.15UF-16V K CER. X7R	a	b
CD	0	C	0514	87-012-278-080	C-CAP, U 2200P-50V K X7R SIZE	a	b
CD	0	C	0515	87-010-787-080	C-CAP, U 0.022UF-25V K X7R SI	a	b
CD	0	C	0516	87-016-397-080	C-CAP,U 0.047uF 16V J B SIZE:	a	b
CD	0	C	0517	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0518	87-012-197-080	C-CAP, U 150P-50V J C0G Size:	a	b
CD	0	C	0519	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
CD	0	C	0520	87-012-282-080	C-CAP, U 4700P-50V K X7R SIZE	a	b
CD	0	C	0521	87-012-199-080	C-CAP, U 220P-50V J C0G SIZE:	a	b
CD	0	C	0522	87-A10-353-080	C-CAP 0.22uF 10V K B SIZE:160	a	b
CD	0	C	0523	87-012-280-080	C-CAP, U 3300P-50V K X7R Size	a	b
CD	0	C	0524	87-012-360-080	C-CAP.S 1UR 10V K CER	a	b
CD	0	C	0525	87-010-380-080	E-CAP 47uF, +/-20% 16V D5x11.	a	b
CD	0	C	0527	87-012-170-080	C-CAP, U 8 P-50V D C0G SIZE:1	a	b
CD	0	C	0529	87-012-280-080	C-CAP, U 3300P-50V K X7R Size	a	b
CD	0	C	0530	87-012-195-080	C-CAP, U 100P-50V J C0G SIZE:	a	b
CD	0	C	0531	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0532	87-012-274-080	C-CAP, U 1000P-50V K X7R SIZE	a	b
CD	0	C	0533	87-010-404-040	Cap.4.7UF M Elec.50V P=2.5mm	a	b
CD	0	C	0534	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0535	87-010-380-080	E-CAP 47uF, +/-20% 16V D5x11.	a	b
CD	0	C	0536	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0537	87-010-405-040	Elect. Cap. 10UF +/-20% 50V P	a	b
CD	0	C	0538	87-A11-070-080	C-CAP, U 0.033UF-16V K X7R SI	a	b
CD	0	C	0539	87-012-360-080	C-CAP.S 1UR 10V K CER	a	b
CD	0	C	0540	87-A11-177-080	C-CAP,S 0.15UF-16V K CER. X7R	a	b
CD	0	C	0541	87-010-263-040	Elect. Cap. 100UF +/-20% 10V	a	b
CD	0	C	0542	87-012-274-080	C-CAP, U 1000P-50V K X7R SIZE	a	b
CD	0	C	0551	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0552	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0581	87-010-221-040	CAP.E.470-10 M SMG P=2.5mm	a	b
CD	0	C	0582	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0583	87-010-380-080	E-CAP 47uF, +/-20% 16V D5x11.	a	b
CD	0	C	0584	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	X	C	0590	88-708-640-010	Cap.0.0018UF J Mylar 100V AI	a	b
CD	0	C	0801	87-012-195-080	C-CAP, U 100P-50V J C0G SIZE:	a	b
CD	0	C	0802	87-012-195-080	C-CAP, U 100P-50V J C0G SIZE:	a	b
CD	0	C	0803	87-012-195-080	C-CAP, U 100P-50V J C0G SIZE:	a	b
CD	0	C	0804	87-012-195-080	C-CAP, U 100P-50V J C0G SIZE:	a	b
CD	0	C	0805	87-012-195-080	C-CAP, U 100P-50V J C0G SIZE:	a	b
CD	0	C	0806	87-012-195-080	C-CAP, U 100P-50V J C0G SIZE:	a	b
CD	0	C	0811	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0814	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0851	87-010-248-040	Cap. 220UF-10V M ELECT.P	a	b
CD	0	C	0852	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0853	87-010-221-040	CAP.E.470-10 M SMG P=2.5mm	a	b
CD	0	C	0854	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0855	87-010-038-080	Elect. Cap. 22 UF/25V M P=2.5	a	b
CD	0	C	0856	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0858	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0859	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0860	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0861	87-012-199-080	C-CAP, U 220P-50V J C0G SIZE:	a	b
CD	0	C	0862	87-012-197-080	C-CAP, U 150P-50V J C0G Size:	a	b
CD	0	C	0864	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0866	87-012-172-080	C-CAP, U 10P-50V D C0G SIZE:1	a	b
CD	0	C	0867	87-012-170-080	C-CPA, U 8 P-50V D C0G SIZE:1	a	b
CD	0	C	0868	87-010-404-040	Cap.4.7UF M Elec.50V P=2.5mm	a	b
CD	0	C	0869	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
CD	0	C	0871	87-012-195-080	C-CAP, U 100P-50V J C0G SIZE:	a	b
CD	0	C	0872	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
CD	0	C	0873	87-012-274-080	C-CAP, U 1000P-50V K X7R SIZE	a	b
CD	0	C	0881	87-A10-039-080	C-CAP 470P 50V J C0G CER. SIZ	a	b
CD	0	C	0882	87-A10-039-080	C-CAP 470P 50V J C0G CER. SIZ	a	b
CD	0	C	0883	87-010-072-080	Elect. Cap. 2.2UF +/-20% 50V	a	b
CD	0	C	0884	87-010-072-080	Elect. Cap. 2.2UF +/-20% 50V	a	b
CD	0	C	0885	87-012-274-080	C-CAP, U 1000P-50V K X7R SIZE	a	b
CD	0	C	0886	87-012-274-080	C-CAP, U 1000P-50V K X7R SIZE	a	b

ELECTRICAL PARTS LIST -2/13

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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20 EZSC	CX-LEM20 KSC
CD		0 C	0887 87-010-787-080	C-CAP, U 0.022UF-25V K X7R SI	a	b
CD		0 C	0898 87-018-123-080	"Axial Ceramic Cap. 220pF +/-	a	b
CD		0 CN	0501 87-A60-424-010	CONN, 16P V TOC-B PITCH=1.0mm	a	b
CD		0 CN	0502 8Z-CH4-667-010	6P Conn.Assy PITCH=2.0mm L=16	a	b
CD		0 CN	0802 87-A90-178-010	2Pins Socket (150V) (DC:50V /	a	b
CD		0 CN	0803 87-A90-178-010	2Pins Socket (150V) (DC:50V /	a	b
CD		S D	0581 87-A40-553-080	DIODE,1N4003 LES	a	b
CD		S D	0851 87-A40-270-080	C-DIODE MC2838	a	b
CD		S D	0852 87-A40-270-080	C-DIODE MC2838	a	b
CD		S IC	0501 87-A20-446-010	C-IC LA9241ML	a	b
CD		S IC	0551 87-017-917-080	C-IC,BU4066BCF(SOP14)	a	b
CD		S IC	0581 87-A22-256-040	C-IC CD-DRIVER BA5949FP	a	b
CD		S IC	0851 87-A21-319-010	C-IC LC78622NE DSP	a	b
CD		X L	0801 88-130-479-080	C-RES 4.7OHM 1/4W J 26mm TAPE	a	b
CD		S Q	0501 89-111-625-080	C-TR 2SA1162GR (0.15W)	a	b
CD		S Q	0581 87-A30-495-080	Transistor 2SA1981Y (TO-92)	a	b
CD		X R	0501 88-108-479-080	C-RES, U 4.7 1/16W J SIZE:160	a	b
CD		X R	0502 88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
CD		0 R	0503 88-108-153-080	C-RES, U 15K 1/16W J Size: 16	a	b
CD		X R	0504 88-108-222-080	C-RES, U 2.2K 1/16W J SIZE:16	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
CD		0 R	0505 88-118-683-080	C-RES,S 68 K-1/10W J SIZE:201	a	b
CD		0 R	0506 88-108-123-080	C-Res U 12K 1/16W J Size: 160	a	b
CD		0 R	0507 88-118-683-080	C-RES,S 68 K-1/10W J SIZE:201	a	b
CD		X R	0508 88-108-393-080	C-RES U 39K 1/16W Size: 1608(	a	b
CD		0 R	0509 88-118-683-080	C-RES,S 68 K-1/10W J SIZE:201	a	b
CD		0 R	0510 88-108-821-080	C-RES, U 820 1/16W J SIZE:160	a	b
CD		0 R	0511 88-108-332-080	C-RES U 3.3K 1/16WJ SIZE:1608	a	b
CD		0 R	0512 88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a	b
CD		0 R	0513 88-108-123-080	C-Res U 12K 1/16W J Size: 160	a	b
CD		0 R	0514 88-108-272-080	C-RES, U 2.7K 1/16W J SIZE:16	a	b
CD		X R	0515 88-108-682-080	C-Res U 6.8K 1/16W J Size: 16	a	b
CD		0 R	0516 88-118-683-080	C-RES,S 68 K-1/10W J SIZE:201	a	b
CD		0 R	0517 88-108-333-080	C-RES.U 33K-1/16W J SIZE:1608	a	b
CD		X R	0518 88-108-152-080	C-RES, U 1.5K 1/16W J SIZE:16	a	b
CD		X R	0519 88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
CD		X R	0520 88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
CD		X R	0521 88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
CD		X R	0523 88-108-154-080	C-RES, U 150K 1/16W J SIZE:16	a	b
CD		X R	0524 88-108-184-080	C-RES, U 180K 1/16W J SIZE:16	a	b
CD		X R	0526 88-108-154-080	C-RES, U 150K 1/16W J SIZE:16	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
CD		0 R	0527 88-108-563-080	C-RES. U 56K J 1/16W Size: 16	a	b
CD		0 R	0528 88-108-122-080	C-RES, U 1.2K 1/16W J SIZE:16	a	b
CD		X R	0529 88-108-564-080	C-Res U 560K 1/16W J Size: 16	a	b
CD		X R	0530 88-108-564-080	C-Res U 560K 1/16W J Size: 16	a	b
CD		X R	0531 88-108-682-080	C-Res U 6.8K 1/16W J Size: 16	a	b
CD		0 R	0532 88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
CD		X R	0533 88-108-152-080	C-RES, U 1.5K 1/16W J SIZE:16	a	b
CD		0 R	0534 88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
CD		X R	0535 88-108-393-080	C-RES U 39K 1/16W Size: 1608(	a	b
CD		0 R	0536 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
CD		X R	0537 88-108-331-080	C-RES, U 330 1/16W J SIZE:160	a	b
CD		0 R	0538 88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a	b
CD		0 R	0539 88-108-473-080	C-Res U 47K 1/16W J Size: 160	a	b
CD		X R	0540 88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a	b
CD		X R	0541 88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
CD		X R	0542 88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
CD		X R	0543 88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
CD		X R	0545 88-108-479-080	C-RES, U 4.7 1/16W J SIZE:160	a	b
CD		X R	0546 88-118-100-080	C-RES,S 10-1/10W J SIZE:2012(	a	b
CD		0 R	0547 88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
CD		0 R	0551 87-022-225-080	C-RES U 2.7k ohm 1/16W F SIZE	a	b
CD		0 R	0552 87-022-225-080	C-RES U 2.7k ohm 1/16W F SIZE	a	b
CD		0 R	0553 87-022-225-080	C-RES U 2.7k ohm 1/16W F SIZE	a	b
CD		0 R	0554 87-022-225-080	C-RES U 2.7k ohm 1/16W F SIZE	a	b
CD		0 R	0555 87-022-284-080	C-RES U 68k ohm 1/16W F SIZE:	a	b
CD		0 R	0556 87-022-284-080	C-RES U 68k ohm 1/16W F SIZE:	a	b
CD		0 R	0557 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
CD		0 R	0558 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
CD		0 R	0559 87-022-255-080	C-RES U 47k ohm 1/16W F SIZE:	a	b
CD		0 R	0560 87-022-255-080	C-RES U 47k ohm 1/16W F SIZE:	a	b
CD		X R	0561 88-108-183-080	C-RES U 18K J 1/16W SIZE: 160	a	b
CD		X R	0562 88-108-183-080	C-RES U 18K J 1/16W SIZE: 160	a	b
CD		0 R	0563 87-022-288-080	C-RES U 150k ohm 1/16W F SIZE	a	b
CD		0 R	0564 87-022-288-080	C-RES U 150k ohm 1/16W F SIZE	a	b
CD		X R	0565 88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
CD		X R	0566 88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
CD		X R	0567 88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
CD		X R	0568 88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
CD		0 R	0569 88-108-332-080	C-RES U 3.3K 1/16WJ SIZE:1608	a	b
CD		0 R	0581 88-140-229-080	RES 2.2 J C 1/2W 26mm TAPE	a	b

ELECTRICAL PARTS LIST -3/13

! = SAFETY PARTS
 C = Components marked

All components used on this model at the production line are shown in this service manual.

However, please note that not all components will be available as spare parts for after-sales service.

Components marked S and O are designated as spare parts for service and will be stocked at the spare parts centers.

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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20 EZSC	CX-LEM20 KSC
CD	0 R	0582	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
CD	0 R	0583	88-108-333-080	C-RES.U 33K-1/16W J SIZE:1608	a	b
CD	0 R	0584	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
CD	X R	0591	88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a	b
CD	X R	0592	88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a	b
CD	X R	0593	88-108-682-080	C-Res U 6.8K 1/16W J Size: 16	a	b
CD	X R	0594	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
CD	X R	0595	88-108-273-080	C-RES U 27K J 1/16W SIZE: 160	a	b
CD	X R	0596	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
CD	0 R	0801	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
CD	0 R	0802	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
CD	0 R	0803	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
CD	0 R	0804	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
CD	0 R	0805	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
CD	0 R	0806	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
CD	X R	0852	88-108-220-080	C-RES, U 22 1/16W J SIZE:1608	a	b
CD	0 R	0853	88-121-101-080	RES 100 OHM 1/8W J 26mm TAPE	a	b
CD	X R	0854	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
CD	X R	0855	88-108-681-080	C-RES, U 680 1/16W J SIZE:160	a	b
CD	X R	0856	88-108-273-080	C-RES U 27K J 1/16W SIZE: 160	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
CD	0 R	0857	88-108-272-080	C-RES, U 2.7K 1/16W J SIZE:16	a	b
CD	0 R	0858	88-108-333-080	C-RES.U 33K-1/16W J SIZE:1608	a	b
CD	X R	0859	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
CD	X R	0860	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
CD	X R	0864	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
CD	0 R	0865	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
CD	0 R	0866	88-108-333-080	C-RES.U 33K-1/16W J SIZE:1608	a	b
CD	0 R	0867	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
CD	0 R	0868	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
CD	0 R	0870	83-XM1-617-080	C-COIL BK2125HM601	a	b
CD	X R	0881	88-108-152-080	C-RES, U 1.5K 1/16W J SIZE:16	a	b
CD	X R	0882	88-108-152-080	C-RES, U 1.5K 1/16W J SIZE:16	a	b
CD	0 R	0883	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
CD	0 R	0884	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
CD	0 R	0885	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
CD	0 R	0886	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
CD	X R	0887	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
CD	0 R	0888	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
CD	0 R	0889	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
CD	0 R	0891	88-121-101-080	RES 100 OHM 1/8W J 26mm TAPE	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
CD	0 R	0892	88-121-101-080	RES 100 OHM 1/8W J 26mm TAPE	a	b
CD	0 R	0893	88-121-101-080	RES 100 OHM 1/8W J 26mm TAPE	a	b
CD	0 R	0894	88-121-101-080	RES 100 OHM 1/8W J 26mm TAPE	a	b
CD	0 R	0895	88-121-101-080	RES 100 OHM 1/8W J 26mm TAPE	a	b
CD	0 SFR	0501	87-024-437-080	SFR, 100K H RH063MC	a	b
CD	X TP	0001	8B-CK5-661-010	WIRE,FASTEN LUG MD L=145mm AW	a	b
CD	0 X	0851	87-A70-046-010	X' Tal 16.9344MHz CSA-309	a	b
FRONT	0 C	0301	87-A12-319-080	C-CAP. U 0.1uF -25V K CER. X7	a	b
FRONT	0 C	0302	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
FRONT	0 C	0303	87-012-278-080	C-CAP, U 2200P-50V K X7R SIZE	a	b
FRONT	0 C	0304	87-010-405-080	CAP,E 10-50 M SSL F=5MM, TAPI	a	b
FRONT	0 C	0305	87-010-263-080	Elect. Cap. 100UF +/-20% 10V	a	b
FRONT	0 C	0307	87-010-404-080	CAP,E 4.7-50M SSL F=5MM, TAPI	a	b
FRONT	0 C	0308	87-010-404-080	CAP,E 4.7-50M SSL F=5MM, TAPI	a	b
FRONT	0 C	0309	87-010-787-080	C-CAP, U 0.022UF-25V K X7R SI	a	b
FRONT	0 C	0314	87-010-370-080	CAP,330-6.3 M ELECT.SME (87-0	a	b
FRONT	0 C	0315	87-A10-025-080	C-CAP. U 0.22UF-16V Z Y5V SIZ	a	b
FRONT	0 C	0329	87-010-787-080	C-CAP, U 0.022UF-25V K X7R SI	a	b
FRONT	0 C	0330	87-012-178-080	C-CAP, U 18P-50V J COG SIZE:1	a	b
FRONT	0 C	0331	87-012-184-080	C-CAP, U 33P-50V J COG SIZE:	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
FRONT	0 C	0333	87-010-400-080	ELECT CAP 0.47UF +/-20% 50V S	a	b
FRONT	0 C	0334	87-A10-839-080	E-CAP.220UF-10V 5LSS GAS M	a	b
FRONT	0 C	0338	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
FRONT	0 C	0339	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
FRONT	0 C	0345	87-A11-155-080	Cap.0.01UF N CER. 16V Y TYPE	a	b
FRONT	0 C	0349	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
FRONT	0 C	0350	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
FRONT	0 C	0388	87-012-275-080	C-CAP, U 1200P-50V K X7R SIZE	a	b
FRONT	0 C	0389	87-010-380-080	Cap. 47UF M Elec. 16V P=5mm R	a	b
FRONT	0 C	0399	87-010-263-080	Elect. Cap. 100UF +/-20% 10V	a	b
FRONT	S D	0302	87-020-465-080	Diode 1SS133 26mm TAPE	a	b
FRONT	S D	0303	87-A40-748-080	ZENER UZ5.6BSA 26mm TAPE	a	b
FRONT	S D	0304	87-020-465-080	Diode 1SS133 26mm TAPE	a	b
FRONT	S D	0305	87-020-465-080	Diode 1SS133 26mm TAPE	a	b
FRONT	S D	0308	87-020-465-080	Diode 1SS133 26mm TAPE	a	b
FRONT	S D	0318	87-020-465-080	Diode 1SS133 26mm TAPE	a	b
FRONT	0 FB	0301	87-A90-896-080	F-BCAD 035600 STYT Taping 52m	a	b
FRONT	0 FL	0301	8C-CL6-608-010	VACUUM FLUORESCENT DISPLAY HN	a	b
FRONT	S IC	0301	8C-CL6-601-010	C-IC,LC876748A-5Z32	a	b
FRONT	S IC	0303	87-A21-245-010	IC RPM6938-V4 REMOTE CONTROL	a	b

ELECTRICAL PARTS LIST -4/13

! = SAFETY PARTS
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All components used on this model at the production line are shown in this service manual.

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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20	CX-LEM20
					EZSC	KSC
FRONT		O L	0301	87-A50-333-010	COIL CLK 9.43 MHz KHSC-864048	a
FRONT		O L	0302	S2-610-000-0KM	Fixed Inductor 10 uH +/-10%,2	a
FRONT		S Q	0301	87-026-210-040	C-TR, DTC114EK (0.2W)	a
FRONT		S Q	0302	89-112-965-080	Transistor 2SA1296GR AI Radia	a
FRONT		S Q	0303	89-112-965-080	Transistor 2SA1296GR AI Radia	a
FRONT		S Q	0306	87-026-227-080	C-TR, DTA114EK	a
FRONT		S Q	0310	89-327-125-080	C-TR 2SC2712GR (100mW)	a
FRONT		S Q	0314	87-A30-494-080	TR, 2SA1980G 'T0-92' AI RADIA	a
FRONT		S Q	0316	89-327-125-080	C-TR 2SC2712GR (100mW)	a
FRONT		S Q	0328	89-327-125-080	C-TR 2SC2712GR (100mW)	a
FRONT	X R	0149	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
FRONT	X R	0203	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0204	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0205	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0206	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0207	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0208	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0209	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0210	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0211	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
					CX-LEM20	CX-LEM20
					EZSC	KSC
FRONT	X R	0212	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0213	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0214	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0215	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0216	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0217	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0218	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0219	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0220	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0230	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0231	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0232	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0233	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0234	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0235	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0236	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0237	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0238	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0239	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0300	88-108-222-080	C-RES, U 2.2K 1/16W J SIZE:16	a	b
					CX-LEM20	CX-LEM20
					EZSC	KSC
FRONT	O R	0303	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
FRONT	O R	0304	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
FRONT	O R	0305	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
FRONT	O R	0306	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
FRONT	O R	0307	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
FRONT	O R	0308	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
FRONT	O R	0309	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
FRONT	O R	0311	88-121-222-080	RES 2.2K J C 1/8W 26mm TAPE	a	b
FRONT	O R	0312	88-121-392-080	Res 3.9K 1/8W J C 26mm TAPE	a	b
FRONT	O R	0313	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
FRONT	X R	0314	88-121-129-080	RES 1.2 OHM 1/8W J	a	b
FRONT	O R	0315	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
FRONT	O R	0316	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
FRONT	O R	0317	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
FRONT	O R	0318	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
FRONT	O R	0319	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
FRONT	O R	0320	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
FRONT	O R	0321	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
FRONT	O R	0322	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
FRONT	O R	0323	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
					CX-LEM20	CX-LEM20
					EZSC	KSC
FRONT	O R	0324	88-121-102-080	RES 1 K 1/8W J 52mm TAPE	a	b
FRONT	X R	0329	88-108-392-080	C-RES U 3.9K 1/16W J SIZE: 16	a	b
FRONT	X R	0330	88-108-392-080	C-RES U 3.9K 1/16W J SIZE: 16	a	b
FRONT	O R	0331	88-108-272-080	C-RES, U 2.7K 1/16W J SIZE:16	a	b
FRONT	O R	0332	88-108-272-080	C-RES, U 2.7K 1/16W J SIZE:16	a	b
FRONT	X R	0333	88-108-182-080	C-RES, U 1.8K 1/16W J SIZE:16	a	b
FRONT	X R	0334	88-108-182-080	C-RES, U 1.8K 1/16W J SIZE:16	a	b
FRONT	X R	0335	88-108-152-080	C-RES, U 1.5K 1/16W J SIZE:16	a	b
FRONT	X R	0336	88-108-152-080	C-RES, U 1.5K 1/16W J SIZE:16	a	b
FRONT	O R	0337	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
FRONT	O R	0338	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
FRONT	O R	0339	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
FRONT	O R	0340	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
FRONT	X R	0341	88-108-222-080	C-RES, U 2.2K 1/16W J SIZE:16	a	b
FRONT	X R	0342	88-108-222-080	C-RES, U 2.2K 1/16W J SIZE:16	a	b
FRONT	O R	0344	88-108-563-080	C-RES. U 56K J 1/16W Size: 16	a	b
FRONT	O R	0345	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
FRONT	O R	0346	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
FRONT	O R	0347	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
FRONT	O R	0349	88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a	b

ELECTRICAL PARTS LIST -5/13

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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20 EZSC	CX-LEM20 KSC
FRONT	0 R	0350	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
FRONT	0 R	0354	88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a	b
FRONT	0 R	0355	88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a	b
FRONT	0 R	0356	88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a	b
FRONT	0 R	0357	88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a	b
FRONT	0 R	0359	88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a	b
FRONT	0 R	0360	88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a	b
FRONT	0 R	0361	88-121-104-080	100 K 1/8W J RES. 26mm TAPE	a	b
FRONT	0 R	0362	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
FRONT	X R	0369	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	X R	0370	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
FRONT	0 R	0371	88-108-224-080	C-RES, U 220K 1/16W J SIZE:16	a	b
FRONT	0 R	0372	88-108-333-080	C-RES,U 33K-1/16W J SIZE:1608	a	b
FRONT	0 R	0373	88-108-153-080	C-RES, U 15K 1/16W J Size: 16	a	b
FRONT	X R	0374	88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a	b
FRONT	0 R	0375	88-108-224-080	C-RES, U 220K 1/16W J SIZE:16	a	b
FRONT	0 R	0377	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
FRONT	0 R	0380	88-108-471-080	C-RES, U 470 1/16W J SIZE:160	a	b
FRONT	X R	0384	88-108-100-080	C-RES, U 10 1/16W J SIZE:1608	a	b
FRONT	0 R	0388	88-108-123-080	C-Res U 12K 1/16W J Size: 160	a	b
FRONT	X R	0392	88-108-222-080	C-RES, U 2.2K 1/16W J SIZE:16	a	b
FRONT	0 R	0393	88-121-103-080	RES 10 K 1/8W J 26mm TAPE	a	b
FRONT	0 R	0395	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
FRONT	0 S	0301	87-A91-704-080	light Touch Switch (150V) EVQ	a	b
FRONT	0 S	0302	87-A91-704-080	light Touch Switch (150V) EVQ	a	b
FRONT	0 S	0303	87-A91-704-080	light Touch Switch (150V) EVQ	a	b
FRONT	0 S	0304	87-A91-704-080	light Touch Switch (150V) EVQ	a	b
FRONT	0 S	0305	87-A91-704-080	light Touch Switch (150V) EVQ	a	b
FRONT	0 S	0306	87-A91-704-080	light Touch Switch (150V) EVQ	a	b
FRONT	0 S	0307	87-A91-704-080	light Touch Switch (150V) EVQ	a	b
FRONT	0 S	0308	87-A91-704-080	light Touch Switch (150V) EVQ	a	b
FRONT	0 S	0309	87-A91-704-080	light Touch Switch (150V) EVQ	a	b
FRONT	0 S	0310	87-A91-704-080	light Touch Switch (150V) EVQ	a	b
FRONT	0 S	0312	87-A91-704-080	light Touch Switch (150V) EVQ	a	b
FRONT	0 S	0351	87-A92-291-010	SW,RTRY RE012104PVB25FINBI-2-	a	b
MAIN	0 C	0100	87-010-787-080	C-CAP, U 0.022UF-25V K X7R SI	a	b
MAIN	0 C	0101	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
MAIN	0 C	0102	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
MAIN	0 C	0103	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
MAIN	0 C	0105	87-010-403-080	CAP,E 3.3-50 M SSL F=5.5MM, T	a	b
MAIN	0 C	0106	87-010-787-080	C-CAP, U 0.022UF-25V K X7R SI	a	b
MAIN	0 C	0107	87-010-787-080	C-CAP, U 0.022UF-25V K X7R SI	a	b
MAIN	0 C	0108	87-010-787-080	C-CAP, U 0.022UF-25V K X7R SI	a	b
MAIN	0 C	0109	87-010-787-080	C-CAP, U 0.022UF-25V K X7R SI	a	b
MAIN	0 C	0110	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
MAIN	0 C	0111	87-016-658-000	Elect cap 4700 uF +/- 20% 35V	a	b
MAIN	0 C	0112	87-A10-039-080	C-CAP 470P 50V J COG CER. SIZ	a	b
MAIN	0 C	0113	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
MAIN	0 C	0114	87-010-260-080	Cap. 47UF M ELEC. 25V P=5mm	a	b
MAIN	0 C	0120	87-012-274-080	C-CAP, U 1000P-50V K X7R SIZE	a	b
MAIN	0 C	0122	87-010-396-080	E-CAP. 470uF 35V P=5.0mm AI R	a	b
MAIN	0 C	0123	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
MAIN	0 C	0124	87-010-402-080	CAP,E 2.2-50M SSL F=5MM, TAPI	a	b
MAIN	0 C	0126	87-010-383-080	CAP, E 33-25 M 11L SME	a	b
MAIN	0 C	0127	87-010-248-080	Cap.220UF-10V M ELECT. PiTCH=	a	b
MAIN	X C	0130	88-700-750-810	CAP MYLER 8200PF 50V J AM2V A	a	b
MAIN	0 C	0132	87-010-237-080	Elect. Cap.1000UF +/-20% 16V	a	b
MAIN	0 C	0134	87-A10-307-080	Polyester Film Cap. 0.1uF +/-	a	b
MAIN	0 C	0138	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
MAIN	0 C	0139	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
MAIN	0 C	0140	87-012-274-080	C-CAP, U 1000P-50V K X7R SIZE	a	b
MAIN	0 C	0147	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
MAIN	0 C	0168	87-010-260-080	Cap. 47UF M ELEC. 25V P=5mm	a	b
MAIN	0 C	0169	87-012-274-080	C-CAP, U 1000P-50V K X7R SIZE	a	b
MAIN	0 C	0170	87-012-274-080	C-CAP, U 1000P-50V K X7R SIZE	a	b
MAIN	0 C	0171	87-A11-583-080	C-CAP,S 0.027uF K CER. 50V X7	a	b
MAIN	0 C	0172	87-010-258-080	Elect cap 22uF M 35V P=5mm A1	a	b
MAIN	0 C	0173	87-010-383-080	CAP, E 33-25 M 11L SME	a	b
MAIN	0 C	0174	87-A10-307-080	Polyester Film Cap. 0.1uF +/-	a	b
MAIN	0 C	0175	87-010-237-080	Elect. Cap.1000UF +/-20% 16V	a	b
MAIN	0 C	0176	87-010-402-080	CAP,E 2.2-50M SSL F=5MM, TAPI	a	b
MAIN	X C	0177	88-700-750-810	CAP MYLER 8200PF 50V J AM2V A	a	b
MAIN	0 C	0178	87-A11-583-080	C-CAP,S 0.027uF K CER. 50V X7	a	b
MAIN	0 C	0180	87-010-396-080	E-CAP. 470uF 35V P=5.0mm AI R	a	b
MAIN	0 C	0188	87-010-378-010	Cap. 10uF M ELECT. 16V SM Ser	a	b
MAIN	0 C	0189	87-010-378-010	Cap. 10uF M ELECT. 16V SM Ser	a	b
MAIN	0 C	0340	87-012-199-080	C-CAP, U 220P-50V J COG SIZE:	a	b
MAIN	0 C	0441	87-010-260-080	Cap. 47UF M ELEC. 25V P=5mm	a	b
MAIN	0 C	0442	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
MAIN	0 C	0446	87-010-260-080	Cap. 47UF M ELEC. 25V P=5mm	a	b

ELECTRICAL PARTS LIST -6/13

! = SAFETY PARTS
C = Components marked

All components used on this model at the production line are shown in this service manual.

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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20 EZSC	CX-LEM20 KSC
MAIN	0 C	0447	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
MAIN	0 C	0450	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
MAIN	0 C	0451	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
MAIN	0 C	0452	87-A10-189-080	E-CAP.220UF-10V 5LSS GAS M	a	b
MAIN	0 C	0453	87-A11-125-080	CAP,2700PF K 50V B TYPE (UP05	a	b
MAIN	0 C	0454	87-A11-125-080	CAP,2700PF K 50V B TYPE (UP05	a	b
MAIN	0 C	0455	87-A11-125-080	CAP,2700PF K 50V B TYPE (UP05	a	b
MAIN	0 C	0456	87-A11-155-080	Cap.0.01UF N CER. 16V Y TYPE	a	b
MAIN	0 C	0457	87-A12-361-080	CAP.M.5600P-100 J CP	a	b
MAIN	0 C	0458	87-A11-121-080	Cap. 1200PF K 50V B TYPE (UP0	a	b
MAIN	0 C	0459	87-012-271-080	"Axial Ceramic Cap. 560pF +/-	a	b
MAIN	0 C	0461	87-A11-102-080	CAP.390PF J 50V CH TYPE (UP05	a	b
MAIN	0 C	0462	87-A11-102-080	CAP.390PF J 50V CH TYPE (UP05	a	b
MAIN	0 C	0470	87-010-260-080	Cap. 47UF M ELEC. 25V P=5mm	a	b
MAIN	0 C	0471	87-010-260-080	Cap. 47UF M ELEC. 25V P=5mm	a	b
MAIN	0 C	0488	87-010-248-080	Cap.220UF-10V M ELECT. PiTCH=	a	b
MAIN	0 C	0601	87-012-275-080	C-CAP, U 1200P-50V K X7R SIZE	a	b
MAIN	0 C	0602	87-012-275-080	C-CAP, U 1200P-50V K X7R SIZE	a	b
MAIN	0 C	0611	87-010-400-080	ELECT CAP 0.47UF +/-20% 50V S	a	b
MAIN	0 C	0612	87-010-400-080	ELECT CAP 0.47UF +/-20% 50V S	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
MAIN	0 C	0613	87-010-400-080	ELECT CAP 0.47UF +/-20% 50V S	a	b
MAIN	0 C	0614	87-010-400-080	ELECT CAP 0.47UF +/-20% 50V S	a	b
MAIN	0 C	0619	87-010-402-080	CAP,E 2.2-50M SSL F=5MM, TAPI	a	b
MAIN	0 C	0620	87-010-402-080	CAP,E 2.2-50M SSL F=5MM, TAPI	a	b
MAIN	X C	0637	87-012-261-080	C-CAP, U 68P-50V J COG SIZE:1	a	b
MAIN	X C	0638	87-012-261-080	C-CAP, U 68P-50V J COG SIZE:1	a	b
MAIN	0 C	0639	87-A10-039-080	C-CAP 470P 50V J COG CER. SIZ	a	b
MAIN	0 C	0640	87-A10-039-080	C-CAP 470P 50V J COG CER. SIZ	a	b
MAIN	0 C	0641	87-012-284-080	C-CAP, U 6800P-50V X7R SIZE:1	a	b
MAIN	0 C	0642	87-012-284-080	C-CAP, U 6800P-50V X7R SIZE:1	a	b
MAIN	0 C	0643	87-010-379-010	Elect. Cap. 22UF +/-20% 16V P	a	b
MAIN	0 C	0644	87-010-379-010	Elect. Cap. 22UF +/-20% 16V P	a	b
MAIN	0 C	0645	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
MAIN	0 C	0646	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
MAIN	0 C	0647	87-012-284-080	C-CAP, U 6800P-50V X7R SIZE:1	a	b
MAIN	0 C	0648	87-012-284-080	C-CAP, U 6800P-50V X7R SIZE:1	a	b
MAIN	0 C	0649	87-012-198-080	C-CAP, U 180P-50V J COG SIZE:	a	b
MAIN	0 C	0650	87-012-198-080	C-CAP, U 180P-50V J COG SIZE:	a	b
MAIN	0 C	0651	87-010-402-080	CAP,E 2.2-50M SSL F=5MM, TAPI	a	b
MAIN	0 C	0652	87-010-402-080	CAP,E 2.2-50M SSL F=5MM, TAPI	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
MAIN	0 C	0660	87-012-195-080	C-CAP, U 100P-50V J COG SIZE:	a	b
MAIN	0 C	0663	87-010-759-080	C-CAP, U 0.1UF-25V Z Y5V SIZE	a	b
MAIN	0 C	0665	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
MAIN	0 C	0666	87-010-263-080	Elect. Cap. 100UF +/-20% 10V	a	b
MAIN	0 C	0667	87-010-263-080	Elect. Cap. 100UF +/-20% 10V	a	b
MAIN	0 C	0668	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
MAIN	0 C	0670	87-012-280-080	C-CAP, U 3300P-50V K X7R Size	a	b
MAIN	0 C	0671	87-012-280-080	C-CAP, U 3300P-50V K X7R Size	a	b
MAIN	0 C	0681	87-018-132-080	"AXIAL CERAMIC CAP. 0.0022UF	a	b
MAIN	0 C	0682	87-018-132-080	"AXIAL CERAMIC CAP. 0.0022UF	a	b
MAIN	0 C	0700	87-010-260-080	Cap. 47UF M ELEC. 25V P=5mm	a	b
MAIN	0 C	0703	87-012-275-080	C-CAP, U 1200P-50V K X7R SIZE	a	b
MAIN	0 C	0704	87-012-275-080	C-CAP, U 1200P-50V K X7R SIZE	a	b
MAIN	0 C	0706	87-012-286-080	C-CAP, U 0.01UF-25V K X7R SIZ	a	b
MAIN	0 C	0707	87-018-131-080	Cap.0.001UF K CER. 50V B TYPE	a	b
MAIN	0 C	0708	87-018-131-080	Cap.0.001UF K CER. 50V B TYPE	a	b
MAIN	0 C	0709	87-018-131-080	Cap.0.001UF K CER. 50V B TYPE	a	b
MAIN	0 C	0710	87-A11-088-080	CAP.100PF J 50V CH TYPE "UP05	a	b
MAIN	0 CN	0202	87-099-719-010	Connector 30P H (DC:125V/0.5A	a	b
MAIN	0 CN	0351	87-A60-624-010	CONN 7P V H TYPE 2MM JMT (JM2	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
MAIN	0 CN	0702	87-A60-189-010	Connector 16P V(TUC-P16P-B1)	a	b
MAIN	S D	0100	87-020-465-080	Diode 1SS133 26mm TAPE	a	b
MAIN	S D	0101	87-020-465-080	Diode 1SS133 26mm TAPE	a	b
MAIN	S D	0103	87-A40-535-080	DIODE, 1N5393 GW 52mm Taping	a	b
MAIN	S D	0104	87-A40-535-080	DIODE, 1N5393 GW 52mm Taping	a	b
MAIN	S D	0105	87-A40-535-080	DIODE, 1N5393 GW 52mm Taping	a	b
MAIN	S D	0106	87-A40-535-080	DIODE, 1N5393 GW 52mm Taping	a	b
MAIN	S D	0109	87-020-465-080	Diode 1SS133 26mm TAPE	a	b
MAIN	S D	0110	87-070-334-080	ZENER DIODE MTZJ10B 10V 1/2W,	a	b
MAIN	S D	0130	87-A40-553-080	DIODE,1N4003 LES	a	b
MAIN	S D	0188	87-020-465-080	Diode 1SS133 52mm TAPE	a	b
MAIN	S D	0301	87-020-465-080	Diode 1SS133 26mm TAPE	a	b
MAIN	S D	0602	87-070-136-080	Zener Diode MTZJ5.1B 1/2W AI	a	b
MAIN	S D	0603	87-070-136-080	Zener Diode MTZJ5.1B 1/2W AI	a	b
MAIN	0 FB	0110	87-A90-896-080	F-BCAD 035600 STYT Taping 52m	a	b
MAIN	0 FB	0111	87-A90-896-080	F-BCAD 035600 STYT Taping 52m	a	b
MAIN	0 FB	0710	83-XM1-617-080	C-COIL BK2125HM601	a	b
MAIN	0 FB	0711	83-XM1-617-080	C-COIL BK2125HM601	a	b
MAIN	! 0 FC	0101	87-A90-160-080	Fuse Holder (87-A90-160-086)	a	b
MAIN	! 0 FC	0102	87-A90-160-080	Fuse Holder (87-A90-160-086)	a	b

ELECTRICAL PARTS LIST -7/13

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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20	CX-LEM20
					EZSC	KSC
MAIN	!	S FR	0100 S4-200-112-5N0	Little Fuse 2A 125V 251	a	b
MAIN	!	S FR	0101 S4-006-310-000	FUSE GLASS 3.15A T 218 250V (	a	b
MAIN	!	S FR	0102 87-035-515-080	FUSE,250MA 125V F251 (87-035-	a	b
MAIN	S	IC	0101 87-A20-734-010	TDA2007A 2 x 6W Stereo amplif	a	b
MAIN	S	IC	0102 87-A21-364-010	IC , NJM7806FA 6V REGULATOR	a	b
MAIN	S	IC	0601 87-A22-236-040	C-IC,BD3881FV	a	b
MAIN	O	J	0101 S2-3A0-321-000	3 Pin Jack Board (MSP-243V1-0	a	b
MAIN	X	J	0103 87-A60-217-010	Speaker Terminal 4 pins Push	a	b
MAIN	O	J	0104 87-099-816-010	HEADPHONE JACK Dia:3.5mm HTJ-	a	b
MAIN	O	JW	0006 87-A90-896-080	F-BCAD 035600 STYT Taping 52m	a	b
MAIN	O	JW	0022 87-A90-896-080	F-BCAD 035600 STYT Taping 52m	a	b
MAIN	O	JW	0056 87-A90-896-080	F-BCAD 035600 STYT Taping 52m	a	b
MAIN	O	JW	0072 87-A90-896-080	F-BCAD 035600 STYT Taping 52m	a	b
MAIN	O	JW	0073 87-A90-896-080	F-BCAD 035600 STYT Taping 52m	a	b
MAIN	O	L	0101 S2-600-702-000	Chock Coil 1.0uH PIN L=4.2 +/	a	b
MAIN	O	L	0102 S2-600-702-000	Chock Coil 1.0uH PIN L=4.2 +/	a	b
MAIN	O	L	0103 87-A90-896-080	F-BCAD 035600 STYT Taping 52m	a	b
MAIN	O	L	0104 S2-610-000-0KM	Fixed Inductor 10 uH +/-10%,2	a	b
MAIN	O	L	0451 87-007-342-010	COIL OSC 85K BIAS (87-007-342	a	b
MAIN	S	Q	0101 87-A30-630-080	TR, 2SC5343GL TO-92 TAPING &	a	b
					CX-LEM20	CX-LEM20
					EZSC	KSC
MAIN	S	Q	0103 87-A30-630-080	TR, 2SC5343GL TO-92 TAPING &	a	b
MAIN	S	Q	0104 89-213-702-080	PNP Transistor 2SB1370E (30W)	a	b
MAIN	S	Q	0105 87-A30-630-080	TR, 2SC5343GL TO-92 TAPING &	a	b
MAIN	S	Q	0106 89-213-702-080	PNP Transistor 2SB1370E (30W)	a	b
MAIN	S	Q	0109 87-A30-076-080	C-TR, AMPLIFY 2SC3052 (150MW)	a	b
MAIN	S	Q	0110 87-A30-076-080	C-TR, AMPLIFY 2SC3052 (150MW)	a	b
MAIN	S	Q	0113 87-A30-494-080	TR, 2SA1980G 'TO-92' AI RADIA	a	b
MAIN	S	Q	0114 87-A30-435-040	C-TR, DTC144EKA (200mW) SMT3	a	b
MAIN	S	Q	0116 87-A30-630-080	TR, 2SC5343GL TO-92 TAPING &	a	b
MAIN	S	Q	0163 89-111-625-080	C-TR 2SA1162GR (O.15W)	a	b
MAIN	S	Q	0304 87-026-228-080	C-TR DTA124EK (200mW)	a	b
MAIN	S	Q	0305 87-A30-087-080	C-FET,2SK2158	a	b
MAIN	S	Q	0306 87-026-228-080	C-TR DTA124EK (200mW)	a	b
MAIN	S	Q	0307 87-A30-087-080	C-FET,2SK2158	a	b
MAIN	S	Q	0308 87-A30-087-080	C-FET,2SK2158	a	b
MAIN	S	Q	0309 89-111-625-080	C-TR 2SA1162GR (O.15W)	a	b
MAIN	S	Q	0310 89-111-625-080	C-TR 2SA1162GR (O.15W)	a	b
MAIN	S	Q	0450 87-A30-076-080	C-TR, AMPLIFY 2SC3052 (150MW)	a	b
MAIN	S	Q	0451 87-A30-630-080	TR, 2SC5343GL TO-92 TAPING &	a	b
MAIN	S	Q	0452 87-A30-087-080	C-FET,2SK2158	a	b
					CX-LEM20	CX-LEM20
					EZSC	KSC
MAIN	S	Q	0453 87-A30-630-080	TR, 2SC5343GL TO-92 TAPING &	a	b
MAIN	S	Q	0454 87-A30-630-080	TR, 2SC5343GL TO-92 TAPING &	a	b
MAIN	S	Q	0456 87-026-210-040	C-TR, DTC114EK (0.2W)	a	b
MAIN	S	Q	0457 89-112-965-080	Transistor 2SA1296GR AI Radia	a	b
MAIN	O	R	0104 88-108-473-080	C-Res U 47K 1/16W J Size: 160	a	b
MAIN	O	R	0105 88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a	b
MAIN	O	R	0106 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN	O	R	0107 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN	X	R	0110 88-108-680-080	C-RES, U 68 1/16W J SIZE:1608	a	b
MAIN	X	R	0111 88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a	b
MAIN	O	R	0112 88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
MAIN	O	R	0113 88-108-561-080	C-RES, U 560 1/16W J SIZE:168	a	b
MAIN	X	R	0114 88-108-221-080	C-RES, U 220 1/16W J SIZE:160	a	b
MAIN	O	R	0118 88-121-471-080	Res 470 OHM 1/8W J C 26mm TAP	a	b
MAIN	O	R	0120 88-121-333-080	Res 33 K 1/8W J C 52mm TAPE	a	b
MAIN	O	R	0124 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN	X	R	0126 88-130-229-080	RES 2.2 J C 1/4W 26mm TAPE	a	b
MAIN	X	R	0127 88-121-680-080	68 OHM 1/8W J, 26mm TAPE	a	b
MAIN	X	R	0129 88-121-391-080	Res 390oHM 1/8W J C 26mm TAPE	a	b
MAIN	X	R	0130 88-121-391-080	Res 390oHM 1/8W J C 26mm TAPE	a	b
					CX-LEM20	CX-LEM20
					EZSC	KSC
MAIN	O	R	0131 88-130-100-080	RES 10 OHM 1/4W J 26mm TAPE	a	b
MAIN	O	R	0132 88-130-100-080	RES 10 OHM 1/4W J 26mm TAPE	a	b
MAIN	X	R	0133 88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a	b
MAIN	X	R	0134 88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a	b
MAIN	O	R	0135 88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a	b
MAIN	O	R	0136 88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a	b
MAIN	O	R	0137 88-108-122-080	C-RES, U 1.2K 1/16W J SIZE:16	a	b
MAIN	O	R	0138 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN	O	R	0139 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN	O	R	0147 88-121-122-080	RES 1.2 K 1/8W J 26mm TAPE	a	b
MAIN	O	R	0150 88-108-332-080	C-RES U 3.3K 1/16WJ SIZE:1608	a	b
MAIN	O	R	0151 88-108-332-080	C-RES U 3.3K 1/16WJ SIZE:1608	a	b
MAIN	X	R	0153 88-108-222-080	C-RES, U 2.2K 1/16W J SIZE:16	a	b
MAIN	X	R	0154 88-108-222-080	C-RES, U 2.2K 1/16W J SIZE:16	a	b
MAIN	O	R	0157 88-121-682-080	RES 6.8 K 1/8W J, 26mm TAPE	a	b
MAIN	X	R	0158 88-130-569-080	C-RES 5.6 OHM 1/4W J 26mm TAP	a	b
MAIN	X	R	0159 88-130-569-080	C-RES 5.6 OHM 1/4W J 26mm TAP	a	b
MAIN	X	R	0160 88-130-330-080	RES 33 OHM J C 1/4W 26mm TAPE	a	b
MAIN	O	R	0161 88-121-222-080	RES 2.2K J C 1/8W 26mm TAPE	a	b
MAIN	O	R	0162 88-121-222-080	RES 2.2K J C 1/8W 26mm TAPE	a	b

ELECTRICAL PARTS LIST -8/13

! = Δ SAFTY PARTS
 C = Components marked

All components used on this model at the production line are shown in this service manual.

However, please note that not all components will be available as spare parts for after-sales service.

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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20 EZSC	CX-LEM20 KSC
MAIN		0 R	0163 88-108-473-080	C-Res U 47K 1/16W J Size: 160	a	b
MAIN		X R	0164 88-108-105-080	C-RES, U 1M 1/16W J SIZE:1608	a	b
MAIN		0 R	0165 88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
MAIN		0 R	0166 88-121-102-080	RES 1 K 1/8W J 26mm TAPE	a	b
MAIN		X R	0168 88-121-223-080	RES 22K J C 1/8W 26mm TAPE	a	b
MAIN		X R	0169 88-130-271-080	RES 270 OHM J C 1/4W 26mm TAP	a	b
MAIN		X R	0170 88-121-680-080	68 OHM 1/8W J, 26mm TAPE	a	b
MAIN		0 R	0171 88-121-122-080	RES 1.2 K 1/8W J 26mm TAPE	a	b
MAIN		X R	0172 88-130-229-080	RES 2.2 J C 1/4W 26mm TAPE	a	b
MAIN		0 R	0173 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN		0 R	0179 88-108-823-080	C-RES, U 82K 1/16W J SIZE:160	a	b
MAIN		0 R	0188 88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
MAIN		0 R	0189 88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b
MAIN		X R	0325 88-108-105-080	C-RES, U 1M 1/16W J SIZE:1608	a	b
MAIN		0 R	0327 88-121-472-080	Res 4.7K 1/8W J C 26mm TAPE	a	b
MAIN		0 R	0328 88-121-202-080	RES 2K J C 1/8W 26mm TAPE	a	b
MAIN		0 R	0399 88-121-202-080	RES 2K J C 1/8W 52mm TAPE	a	b
MAIN		0 R	0440 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN		0 R	0441 88-108-471-080	C-RES, U 470 1/16W J SIZE:160	a	b
MAIN		0 R	0442 88-121-472-080	Res 4.7K 1/8W J C 26mm TAPE	a	b
MAIN		0 R	0451 88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
MAIN		0 R	0452 88-121-123-080	RES 12 K 1/8W J 26mm TAPE	a	b
MAIN		X R	0453 88-108-222-080	C-RES, U 2.2K 1/16W J SIZE:16	a	b
MAIN		0 R	0454 88-130-829-080	RES,8.2 ohm 1/4W 5% 26mm TAPE	a	b
MAIN		X R	0455 88-108-183-080	C-RES U 18K J 1/16W SIZE: 160	a	b
MAIN		X R	0456 88-108-183-080	C-RES U 18K J 1/16W SIZE: 160	a	b
MAIN		X R	0458 88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a	b
MAIN		0 R	0459 88-108-563-080	C-RES. U 56K J 1/16W Size: 16	a	b
MAIN		X R	0460 88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a	b
MAIN		0 R	0465 88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
MAIN		0 R	0466 88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
MAIN		X R	0470 88-130-270-080	RES 27 OHM J C 1/4W 26mm TAPE	a	b
MAIN		0 R	0472 88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
MAIN		X R	0603 88-108-393-080	C-RES U 39K 1/16W Size: 1608(	a	b
MAIN		X R	0604 88-108-393-080	C-RES U 39K 1/16W Size: 1608(	a	b
MAIN		0 R	0609 88-108-332-080	C-RES U 3.3K 1/16WJ SIZE:1608	a	b
MAIN		0 R	0610 88-108-332-080	C-RES U 3.3K 1/16WJ SIZE:1608	a	b
MAIN		0 R	0617 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN		0 R	0618 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN		0 R	0619 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN		0 R	0620 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN		X R	0624 88-130-681-080	RES 680 OHM 1/4W J, 26mm TAPE	a	b
MAIN		X R	0633 88-108-682-080	C-Res U 6.8K 1/16W J Size: 16	a	b
MAIN		X R	0634 88-108-682-080	C-Res U 6.8K 1/16W J Size: 16	a	b
MAIN		X R	0635 88-108-680-080	C-RES, U 68 1/16W J SIZE:1608	a	b
MAIN		X R	0636 88-108-680-080	C-RES, U 68 1/16W J SIZE:1608	a	b
MAIN		0 R	0637 88-108-471-080	C-RES, U 470 1/16W J SIZE:160	a	b
MAIN		0 R	0638 88-108-471-080	C-RES, U 470 1/16W J SIZE:160	a	b
MAIN		0 R	0639 88-108-272-080	C-RES, U 2.7K 1/16W J SIZE:16	a	b
MAIN		0 R	0640 88-108-272-080	C-RES, U 2.7K 1/16W J SIZE:16	a	b
MAIN		0 R	0641 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN		0 R	0642 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN		0 R	0643 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN		0 R	0644 88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
MAIN		0 R	0645 88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
MAIN		0 R	0646 88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
MAIN		X R	0647 88-108-222-080	C-RES, U 2.2K 1/16W J SIZE:16	a	b
MAIN		X R	0648 88-108-222-080	C-RES, U 2.2K 1/16W J SIZE:16	a	b
MAIN		X R	0649 88-121-183-080	RES 18K J C 1/8W 26mm TAPE	a	b
MAIN		X R	0650 88-121-183-080	RES 18K J C 1/8W 26mm TAPE	a	b
MAIN		0 R	0651 88-108-122-080	C-RES, U 1.2K 1/16W J SIZE:16	a	b
MAIN		0 R	0652 88-108-122-080	C-RES, U 1.2K 1/16W J SIZE:16	a	b
MAIN		X R	0655 88-108-183-080	C-RES U 18K J 1/16W SIZE: 160	a	b
MAIN		X R	0656 88-108-183-080	C-RES U 18K J 1/16W SIZE: 160	a	b
MAIN		X R	0657 88-108-394-080	C-RES. 390K 1/10W OR 1/16W 50	a	b
MAIN		X R	0658 88-108-394-080	C-RES. 390K 1/10W OR 1/16W 50	a	b
MAIN		0 R	0660 88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
MAIN		X R	0661 88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a	b
MAIN		X R	0662 88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a	b
MAIN		0 R	0665 88-118-471-080	C-RES, S 470 1/10W J SIZE:201	a	b
MAIN		X R	0672 88-121-272-080	RES 2.7K J C 1/8W 26mm TAPE	a	b
MAIN		X R	0673 88-121-272-080	RES 2.7K J C 1/8W 26mm TAPE	a	b
MAIN		0 R	0674 88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
MAIN		0 R	0675 88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
MAIN		0 R	0681 88-121-222-080	RES 2.2K J C 1/8W 26mm TAPE	a	b
MAIN		0 R	0682 88-121-222-080	RES 2.2K J C 1/8W 26mm TAPE	a	b
MAIN		0 R	0688 88-108-683-080	C-Res 68K 1/16W J SIZE:1608(0	a	b
MAIN		0 R	0689 88-108-683-080	C-Res 68K 1/16W J SIZE:1608(0	a	b
MAIN		X R	0694 88-130-681-080	RES 680 OHM 1/4W J, 26mm TAPE	a	b
MAIN		X R	0701 88-108-273-080	C-RES U 27K J 1/16W SIZE: 160	a	b

ELECTRICAL PARTS LIST -9/13

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All components used on this model at the production line are shown in this service manual.

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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20 EZSC	CX-LEM20 KSC
MAIN	X R	0702	88-108-273-080	C-RES U 27K J 1/16W SIZE: 160	a	b
MAIN	X R	0705	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
MAIN	X R	0706	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
MAIN	X R	0707	88-108-393-080	C-RES U 39K 1/16W Size: 1608(	a	b
MAIN	X R	0709	88-108-225-080	C-RES, U 2.2M 1/16W J SIZE:16	a	b
POWER	0 CN	0101	87-A60-670-010	6 Pins Scocket Connector Pitc	a	b
POWER	! 0 P	0101	87-A60-317-010	Terminal 1P MSC (TERMINAL 1P	a	b
POWER	! 0 P	0102	87-A60-317-010	Terminal 1P MSC (TERMINAL 1P	a	b
POWER	! 0 PT	0101	8C-CL7-603-010	Power Transformer, 230V 50Hz	a	b
POWER	0 WH	0101	84-ZG1-675-010	CONN ASSY 6P P=2.5mm L=190mm,	a	b
TUNER	0 C	0772	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0781	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0782	86-ZA1-616-080	Ceramic Capacitor U 0.01UF-50	a	b
TUNER	0 C	0783	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0785	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0786	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0788	87-010-149-080	C-CAP 5.0P 50V SIZE:1608 +/-0	a	b
TUNER	0 C	0789	87-010-787-080	C-CAP, U 0.022UF-25V K X7R SI	a	b
TUNER	0 C	0790	87-010-787-080	C-CAP, U 0.022UF-25V K X7R SI	a	b
TUNER	0 C	0792	87-010-197-080	Ceramic chip Cap 0.01	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
TUNER	0 C	0793	87-A10-262-080	C-CAP U 1uF 10V Z Y5V SIZE: 1	a	b
TUNER	0 C	0795	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0796	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0797	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0799	87-A12-070-040	Elect CAP 33uF 25V M Pitch=2.	a	b
TUNER	0 C	0800	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0801	87-A10-262-080	C-CAP U 1uF 10V Z Y5V SIZE: 1	a	b
TUNER	0 C	0802	87-010-829-080	C-Cap U 0.047uF 16V Z Y5V SIZ	a	b
TUNER	0 C	0804	87-010-263-040	Elect. Cap. 100UF +/-20% 10V	a	b
TUNER	0 C	0807	87-A10-463-080	C-CAP,U 0.47uF 10V Z Y5V SIZE	a	b
TUNER	0 C	0808	87-A10-262-080	C-CAP U 1uF 10V Z Y5V SIZE: 1	a	b
TUNER	0 C	0809	87-A10-262-080	C-CAP U 1uF 10V Z Y5V SIZE: 1	a	b
TUNER	0 C	0814	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0815	87-A10-463-080	C-CAP,U 0.47uF 10V Z Y5V SIZE	a	b
TUNER	0 C	0816	87-A10-463-080	C-CAP,U 0.47uF 10V Z Y5V SIZE	a	b
TUNER	0 C	0818	87-A11-553-080	C-CAP 1500P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0821	87-A11-796-080	C-CAP,S 4.7uF 10V Z Y5V size:	a	b
TUNER	0 C	0823	87-012-349-080	C-CAP 1000P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0824	87-A11-796-080	C-CAP,S 4.7uF 10V Z Y5V size:	a	b
TUNER	0 C	0825	87-010-598-080	C-CAP 0.068U 16V SIZE:1608 +/	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
TUNER	0 C	0831	87-010-038-080	Elect. Cap. 22 UF/25V M P=2.5	a	b
TUNER	0 C	0837	87-010-196-080	C-CAP 0.1U 25V SIZE:1608 +80%	a	b
TUNER	0 C	0842	87-010-831-080	C-CAP,U 0.1uF 16V Z Y5V SIZE:	a	b
TUNER	X C	0847	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
TUNER	X C	0848	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
TUNER	0 C	0850	87-A10-262-080	C-CAP U 1uF 10V Z Y5V SIZE: 1	a	b
TUNER	0 C	0851	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0852	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0853	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0854	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0855	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0856	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0859	87-010-831-080	C-CAP,U 0.1uF 16V Z Y5V SIZE:	a	b
TUNER	0 C	0860	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0901	87-010-145-080	Ceramic chip Cap 1pF	a	b
TUNER	0 C	0902	87-010-147-080	C-CAP 3.0P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0903	87-010-146-080	C-CAP 2.0P 50V SIZE:1608 +/-0	a	b
TUNER	0 C	0904	86-ZA1-615-080	Ceramic chip Cap 680pF	a	b
TUNER	0 C	0905	87-010-145-080	Ceramic chip Cap 1pF	a	b
TUNER	0 C	0906	87-A11-184-080	C-CAP 10P 50V SIZE:1608 +/- 0	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
TUNER	0 C	0907	87-010-148-080	C-CAP 4.0P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0908	87-010-147-080	C-CAP 3.0P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0909	86-ZA1-615-080	Ceramic chip Cap 680pF	a	b
TUNER	0 C	0910	87-010-146-080	C-CAP 2.0P 50V SIZE:1608 +/-0	a	b
TUNER	0 C	0911	87-010-148-080	C-CAP 4.0P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0912	87-010-322-080	C-CAP 100P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0913	86-ZA1-616-080	Ceramic Capacitor U 0.01UF-50	a	b
TUNER	0 C	0914	86-ZA1-616-080	Ceramic Capacitor U 0.01UF-50	a	b
TUNER	0 C	0915	86-ZA1-616-080	Ceramic Capacitor U 0.01UF-50	a	b
TUNER	0 C	0916	86-ZA1-616-080	Ceramic Capacitor U 0.01UF-50	a	b
TUNER	0 C	0917	87-010-157-080	C-CAP. 18P 50V SIZE:1608 +/-5	a	b
TUNER	0 C	0918	87-A11-184-080	C-CAP 10P 50V SIZE:1608 +/- 0	a	b
TUNER	0 C	0919	87-010-316-080	C-CAP 33P 50V SIZE:1608 +/-5	a	b
TUNER	0 C	0920	87-010-316-080	C-CAP 33P 50V SIZE:1608 +/-5	a	b
TUNER	0 C	0921	87-010-314-080	C-CAP, 22P 50V SIZE:1608 +/-5	a	b
TUNER	0 C	0922	87-010-334-080	Ceramic chip Cap 12pF	a	b
TUNER	0 C	0923	86-ZA1-616-080	Ceramic Capacitor U 0.01UF-50	a	b
TUNER	0 C	0924	87-010-146-080	C-CAP 2.0P 50V SIZE:1608 +/-0	a	b
TUNER	0 C	0925	87-010-146-080	C-CAP 2.0P 50V SIZE:1608 +/-0	a	b
TUNER	0 C	0926	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a	b

ELECTRICAL PARTS LIST -10/13

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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20 EZSC	CX-LEM20 KSC
TUNER	0 C	0927	87-010-322-080	C-CAP 100P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0931	87-A12-319-080	C-CAP,U 0.1uF K 25V B SIZE: 1	a	b
TUNER	0 C	0932	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0933	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0934	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0935	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0936	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0937	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0938	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0939	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0942	87-012-168-080	C-CAP 6.0P 50V SIZE:1608 itor	a	b
TUNER	0 C	0946	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0947	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0948	87-010-574-080	C-CAP 470P 50V SIZE:1608 +/-1	a	b
TUNER	0 C	0950	86-ZA1-616-080	Ceramic Capacitor U 0.01UF-50	a	b
TUNER	0 C	0952	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0957	87-010-334-080	Ceramic chip Cap 12pF	a	b
TUNER	0 C	0958	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0962	87-A10-262-080	C-CAP U 1uF 10V Z Y5V SIZE: 1	a	b
TUNER	0 C	0963	87-010-831-080	C-CAP,U 0.1uF 16V Z Y5V SIZE:	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
TUNER	0 C	0971	87-010-381-080	Cap.330uF-16V M ELECT.PITCH=2	a	b
TUNER	0 C	0972	87-A11-796-080	C-CAP,S 4.7uF 10V Z Y5V size:	a	b
TUNER	0 C	0973	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0974	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0976	87-010-831-080	C-CAP,U 0.1uF 16V Z Y5V SIZE:	a	b
TUNER	0 C	0979	87-010-322-080	C-CAP 100P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0981	87-010-380-080	E-CAP 47uF, +/-20% 16V D5x11.	a	b
TUNER	0 C	0982	87-010-831-080	C-CAP,U 0.1uF 16V Z Y5V SIZE:	a	b
TUNER	0 C	0983	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0984	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0985	87-010-322-080	C-CAP 100P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0987	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0988	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0989	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 C	0990	87-010-322-080	C-CAP 100P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0991	87-012-251-080	C-CAP 27P 50V SIZE:1608 +/-5	a	b
TUNER	0 C	0992	87-A11-184-080	C-CAP 10P 50V SIZE:1608 +/- 0	a	b
TUNER	0 C	0993	87-012-349-080	C-CAP 1000P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0994	87-010-322-080	C-CAP 100P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0995	87-012-349-080	C-CAP 1000P 50V SIZE:1608 +/-	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
TUNER	0 C	0996	87-010-322-080	C-CAP 100P 50V SIZE:1608 +/-	a	b
TUNER	0 C	0997	87-010-831-080	C-CAP,U 0.1uF 16V Z Y5V SIZE:	a	b
TUNER	0 C	0998	87-010-380-080	E-CAP 47uF, +/-20% 16V D5x11.	a	b
TUNER	0 C	0999	87-010-197-080	Ceramic chip Cap 0.01	a	b
TUNER	0 CF	0831	S2-900-081-000	Ceramic Filter SFE10.7 MS 3G-	a	b
TUNER	0 CF	0832	82-785-747-010	Ceramic Filter MS2 GHY,R (82-	a	b
TUNER	0 CN	0301	87-099-720-010	Connector 30P (DC:125V/0,5A)	a	b
TUNER	0 CN	0302	87-A60-624-010	7PINS FFC SOCKET ANGLE TYPE (	a	b
TUNER	0 CN	0991	87-A60-650-010	TUC-P connector 16pin TUC-P16	a	b
TUNER	S D	0801	87-020-465-080	Diode 1SS133 26mm TAPE	a	b
TUNER	S D	0803	87-020-465-080	Diode 1SS133 26mm TAPE	a	b
TUNER	X D	0896	88-100-000-010	"R-3" (Kin Fung) Tin Coated C	a	b
TUNER	O D	0901	87-A41-048-040	C-VARI-CAP,HVM16-03 TL	a	b
TUNER	O D	0902	87-A41-048-040	C-VARI-CAP,HVM16-03 TL	a	b
TUNER	O D	0903	87-A41-048-040	C-VARI-CAP,HVM16-03 TL	a	b
TUNER	S D	0942	87-A40-270-080	C-DIODE MC2838	a	b
TUNER	X D	0944	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
TUNER	O D	0951	87-A40-799-040	C-VARI,CAP KV1610S SOT23-3	a	b
TUNER	S D	0991	87-017-149-080	ZENER, HZS6A2L	a	b
TUNER	S D	0992	87-020-465-080	Diode 1SS133 26mm TAPE	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
TUNER	S IC	0801	87-A22-060-010	IC, LA1845N-A DIP-24	a	b
TUNER	S IC	0991	87-A21-928-010	IC, LC72131D-N	a	b
TUNER	O J	0832	87-A61-823-010	TERMINAL,ANT PAL AJ-2073	a	b
TUNER	O J	0940	87-A60-633-010	CONN 2P H 2.5mm BLK ANGLE TYP	a	b
TUNER	O JR	0783	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
TUNER	S JW	0942	87-020-465-080	Diode 1SS133 26mm TAPE	a	b
TUNER	O JW	0959	87-A11-132-080	Axial Cer Cap. 0.01uF +/-10%	a	b
TUNER	O L	0801	87-A50-694-010	RF COIL,FM-DET 2 R1686-EKHC-8	a	b
TUNER	O L	0802	87-A91-551-010	FLTR,PCFJZH-450 L (TOK) (PCFJ	a	b
TUNER	O L	0811	87-005-847-080	"Fixed Inductor 2.2uH CECS +	a	b
TUNER	O L	0832	87-005-847-080	FIXED INDUCTOR 2.2uH CECS-2R2	a	b
TUNER	O L	0901	86-ZA1-612-010	COIL,FM ANT/RF RF-1-Z 2UEW 0.	a	b
TUNER	O L	0902	86-ZA1-613-010	COIL,FM ANT/RT-2-Z	a	b
TUNER	O L	0903	87-003-098-080	FIXED INDUCTOR 2.2UH LAL02 10	a	b
TUNER	O L	0904	86-ZA1-612-010	COIL,FM ANT/RF RF-1-Z 2UEW 0.	a	b
TUNER	O L	0905	86-ZA1-613-010	COIL,FM ANT/RT-2-Z	a	b
TUNER	O L	0906	87-005-847-080	"Fixed Inductor 2.2uH CECS +	a	b
TUNER	O L	0907	86-ZA1-614-010	COIL,FM OSC-Z 2UEW 0.3x8Tx1.6	a	b
TUNER	O L	0908	88-ZA1-624-010	COIL FM 1FT 7-6.2	a	b
TUNER	O L	0941	87-A50-020-010	COIL ANT LW	a	b

ELECTRICAL PARTS LIST -11/13

! = SAFETY PARTS
 C = Components marked

All components used on this model at the production line are shown in this service manual.

However, please note that not all components will be available as spare parts for after-sales service.

Components marked S and O are designated as spare parts for service and will be stocked at the spare parts centers.

Components marked X and R are not designated as spare parts for after sales service, and will not be stocked at the spare parts centers.

UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20 EZSC	CX-LEM20 KSC
TUNER		0 L	0942	87-A50-019-010	COIL OSC LW	a
TUNER		0 L	0952	87-A50-754-010	COIL,MW ANT (3BLW) M70031NS-	a
TUNER		0 L	0953	87-A50-755-010	COIL,MW OSC (3BLW) 7003GES-A	a
TUNER		S Q	0835	89-327-143-080	C-TR,2SC27140 (100mw)	a
TUNER		S Q	0836	87-A30-677-040	C-TR,SRA2207S (RA7) SOT-23	a
TUNER		S Q	0901	89-503-602-080	C-FET, 2SK360E "HITACHI"	a
TUNER		S Q	0902	87-A30-664-080	Transistor 2SC2620QB SMT	a
TUNER		S Q	0903	87-A30-664-080	Transistor 2SC2620QB SMT	a
TUNER		S Q	0904	87-A30-664-080	Transistor 2SC2620QB SMT	a
TUNER		S Q	0905	87-A30-664-080	Transistor 2SC2620QB SMT	a
TUNER		S Q	0948	87-A30-675-040	C-TR,2SD1306NE07TL	a
TUNER		S Q	0951	87-A30-074-080	C-TR, RT1P 141C (150mw)	a
TUNER		S Q	0952	87-A30-675-040	C-TR,2SD1306NE07TL	a
TUNER		S Q	0953	89-503-602-080	C-FET, 2SK360E "HITACHI"	a
TUNER		S Q	0981	87-A30-494-080	TR, 2SA1980G 'T0-92' AI RADIA	a
TUNER		S Q	0982	87-A30-540-040	C-TR,2SC5343SF/S (G) NPN	a
TUNER		S Q	0983	87-A30-540-040	C-TR,2SC5343SF/S (G) NPN	a
TUNER		O R	0789	88-108-333-080	C-RES.U 33K 1/16W J SIZE:1608	a
TUNER		O R	0790	87-010-197-080	Ceramic chip Cap 0.01	a
TUNER		O R	0791	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a
					CX-LEM20 EZSC	CX-LEM20 KSC
TUNER		X R	0793	88-108-221-080	C-RES, U 220 1/16W J SIZE:160	a
TUNER		X R	0795	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a
TUNER		O R	0801	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a
TUNER		O R	0802	88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a
TUNER		X R	0803	88-108-183-080	C-RES U 18K J 1/16W SIZE: 160	a
TUNER		X R	0804	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a
TUNER		O R	0805	88-108-332-080	C-RES U 3.3K 1/16WJ SIZE:1608	a
TUNER		X R	0806	88-108-682-080	C-Res U 6.8K 1/16W J Size: 16	a
TUNER		X R	0809	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a
TUNER		X R	0810	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a
TUNER		O R	0813	88-108-224-080	C-RES, U 220K 1/16W J SIZE:16	a
TUNER		X R	0814	88-108-222-080	C-RES, U 2.2K 1/16W J SIZE:16	a
TUNER		O R	0815	88-121-682-080	RES 6.8 K 1/8W J, 26mm TAPE	a
TUNER		X R	0816	88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a
TUNER		O R	0818	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a
TUNER		X R	0823	88-108-393-080	C-RES U 39K 1/16W Size: 1608(	a
TUNER		O R	0826	88-108-223-080	C-RES U 22K J 1/16W SIZE: 160	a
TUNER		X R	0832	88-108-391-080	C-RES, U 390 1/16W J SIZE:160	a
TUNER		X R	0840	88-108-221-080	C-RES, U 220 1/16W J SIZE:160	a
TUNER		O R	0850	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a
					CX-LEM20 EZSC	CX-LEM20 KSC
TUNER		O R	0853	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a
TUNER		X R	0854	88-108-331-080	C-RES, U 330 1/16W J SIZE:160	a
TUNER		X R	0855	88-108-183-080	C-RES U 18K J 1/16W SIZE: 160	a
TUNER		O R	0856	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a
TUNER		X R	0857	88-108-181-080	C-RES, U 180 1/16W J SIZE:160	a
TUNER		X R	0858	88-108-271-080	C-RES, U 270 1/16W J SIZE:160	a
TUNER		O R	0860	88-121-101-080	RES 100 OHM 1/8W J 26mm TAPE	a
TUNER		O R	0890	88-108-474-080	C-Res U 470K 1/16W J Size: 16	a
TUNER		X R	0901	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a
TUNER		X R	0902	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a
TUNER		X R	0903	88-108-221-080	C-RES, U 220 1/16W J SIZE:160	a
TUNER		O R	0904	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a
TUNER		X R	0905	88-108-221-080	C-RES, U 220 1/16W J SIZE:160	a
TUNER		X R	0906	88-108-564-080	C-Res U 560K 1/16W J Size: 16	a
TUNER		X R	0908	88-108-271-080	C-RES, U 270 1/16W J SIZE:160	a
TUNER		X R	0909	88-108-181-080	C-RES, U 180 1/16W J SIZE:160	a
TUNER		X R	0910	88-108-334-080	C-RES U 330K 1/16W J SIZE:160	a
TUNER		X R	0911	88-108-181-080	C-RES, U 180 1/16W J SIZE:160	a
TUNER		X R	0912	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a
TUNER		X R	0913	88-108-152-080	C-RES, U 1.5K 1/16W J SIZE:16	a
					CX-LEM20 EZSC	CX-LEM20 KSC
TUNER		X R	0914	88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a
TUNER		X R	0915	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a
TUNER		X R	0916	88-108-470-080	C-RES, U 47 1/16W J SIZE:1608	a
TUNER		O R	0944	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a
TUNER		X R	0945	88-108-104-080	C-RES, U 100K 1/16W J SIZE:16	a
TUNER		X R	0947	88-108-183-080	C-RES U 18K J 1/16W SIZE: 160	a
TUNER		X R	0948	88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a
TUNER		O R	0952	88-108-562-080	C-RES U 5.6K 1/16W J SIZE: 16	a
TUNER		X R	0954	88-108-222-080	C-RES, U 2.2K 1/16W J SIZE:16	a
TUNER		O R	0956	88-108-471-080	C-RES, U 470 1/16W J SIZE:160	a
TUNER		X R	0958	88-108-472-080	C-RES U 4.7K 1/16W J SIZE: 16	a
TUNER		O R	0959	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a
TUNER		O R	0962	88-121-221-080	RES 220 J C 1/8W 52mm TAPE	a
TUNER		X R	0964	88-108-330-080	C-RES, U 33 1/16W J SIZE:1608	a
TUNER		O R	0972	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a
TUNER		O R	0973	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a
TUNER		O R	0974	88-108-101-080	C-RES, U 100 1/16W J SIZE:160	a
TUNER		O R	0975	88-108-562-080	C-RES U 5.6K 1/16W J SIZE: 16	a
TUNER		O R	0976	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a
TUNER		O R	0977	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a

ELECTRICAL PARTS LIST -12/13

! = Δ SAFTY PARTS
 C = Components marked

All components used on this model at the production line are shown in this service manual.

However, please note that not all components will be available as spare parts for after-sales service.

Components marked S and O are designated as spare parts for service and will be stocked at the spare parts centers.

Components marked X and R are not designated as spare parts for after sales service, and will not be stocked at the spare parts centers.

UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20	CX-LEM20
					EZSC	KSC
TUNER	X R	0978	88-108-681-080	C-RES, U 680 1/16W J SIZE:160	a	b
TUNER	X R	0980	88-108-684-080	C-Res U 680K 1/16W J Size: 16	a	b
TUNER	0 R	0981	88-121-471-080	Res 470 OHM 1/8W J C 26mm TAP	a	b
TUNER	0 R	0982	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
TUNER	0 R	0983	88-108-562-080	C-RES U 5.6K 1/16W J SIZE: 16	a	b
TUNER	0 R	0984	88-108-562-080	C-RES U 5.6K 1/16W J SIZE: 16	a	b
TUNER	0 R	0985	88-121-471-080	Res 470 OHM 1/8W J C 26mm TAP	a	b
TUNER	X R	0986	88-108-222-080	C-RES, U 2.2K 1/16W J SIZE:16	a	b
TUNER	X R	0988	88-108-000-080	C-JUMPER, JR 1/16W J SIZE:160	a	b
TUNER	0 R	0989	88-121-102-080	RES 1 K 1/8W J 26mm TAPE	a	b
TUNER	0 R	0990	88-108-563-080	C-RES. U 56K J 1/16W Size: 16	a	b
TUNER	0 R	0992	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
TUNER	0 R	0994	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
TUNER	0 R	0996	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
TUNER	X R	0997	88-108-154-080	C-RES, U 150K 1/16W J SIZE:16	a	b
TUNER	0 R	0998	88-108-102-080	C-RES, U 1K 1/16W J SIZE:1608	a	b
TUNER	0 R	0999	88-108-103-080	C-RES U 10K 1/16W J SIZE: 160	a	b
TUNER	0 TC	0942	87-A91-774-080	CAP TRIMMER 30PF 12V PLY30P 6	a	b
TUNER	0 X	0992	87-A70-306-010	VIB. XTAL 4.500MHZ CSA-309ST	a	b

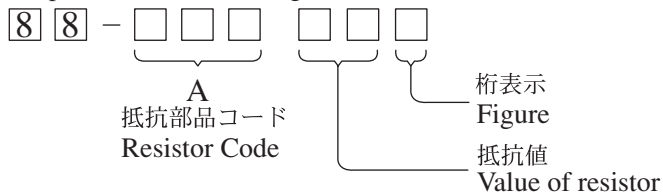
ELECTRICAL PARTS LIST -13/13

- 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

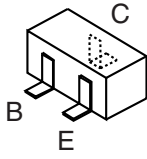
Chip Resistor Part Coding



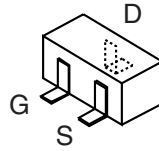
チップ抵抗 Chip resistor

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

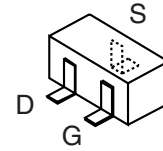
TRANSISTOR ILLUSTRATION - 1/1



2SA1162GR
2SC2620QB
2SC2712GR
2SC2714O
2SC3052
2SD1306
DTA114EK
DTA124EK
DTC144EKA
DTC114EK
RT1P141
SRA2207S



2SK2158



2SK360E



B C E

2SA1296GR
2SA1980G



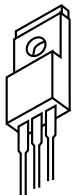
B C E

2SA1981Y



B C E

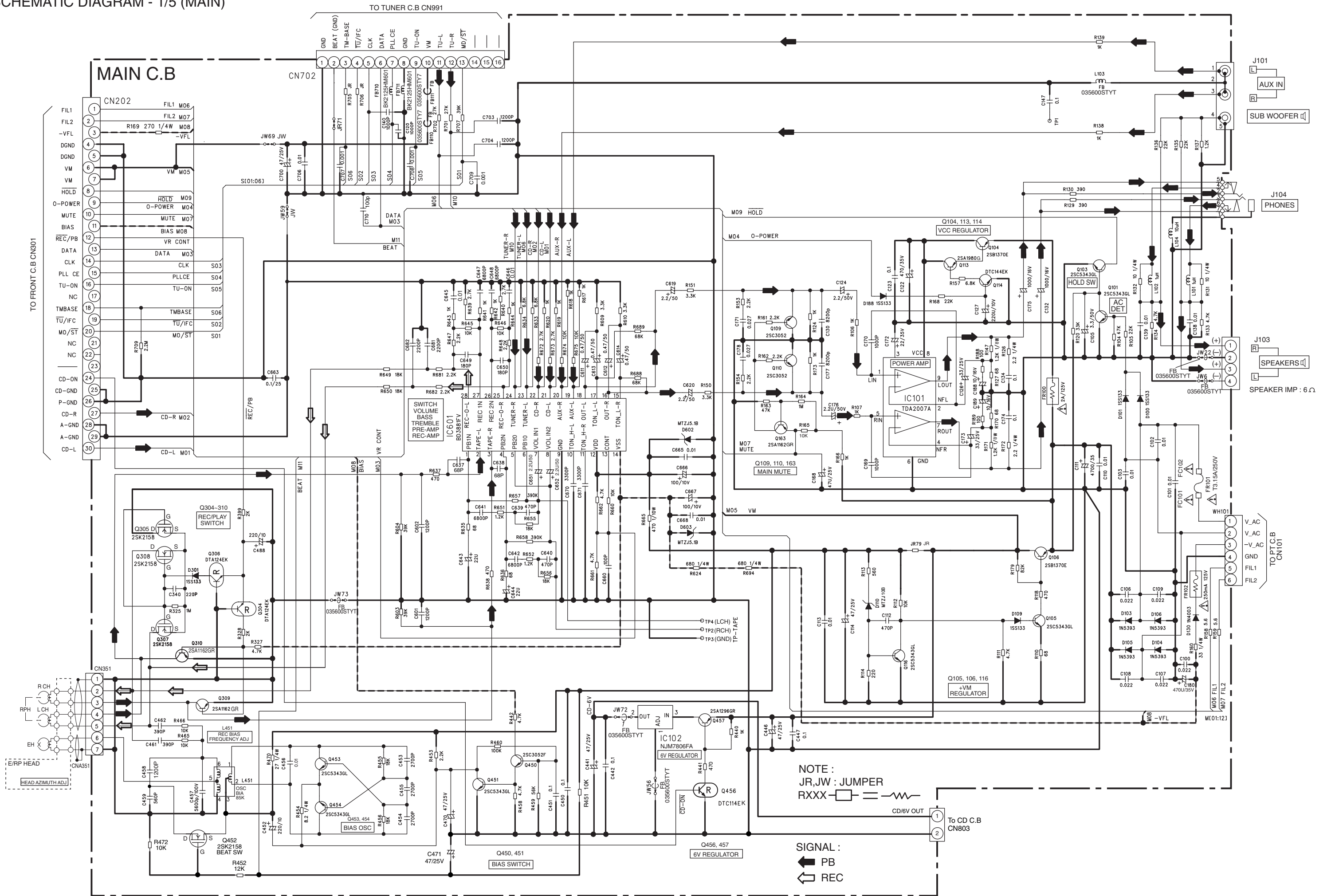
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2SC5343SF/S

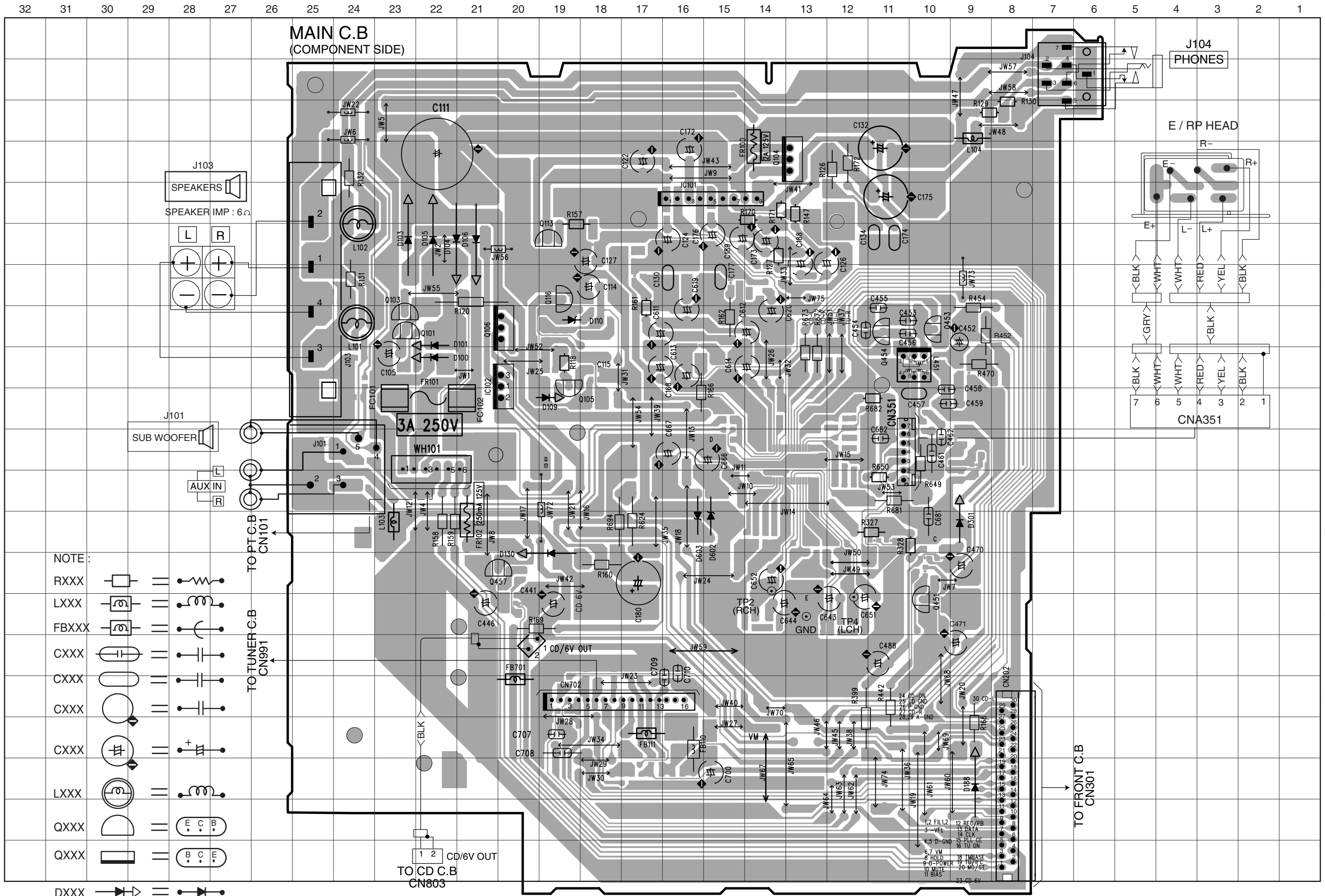


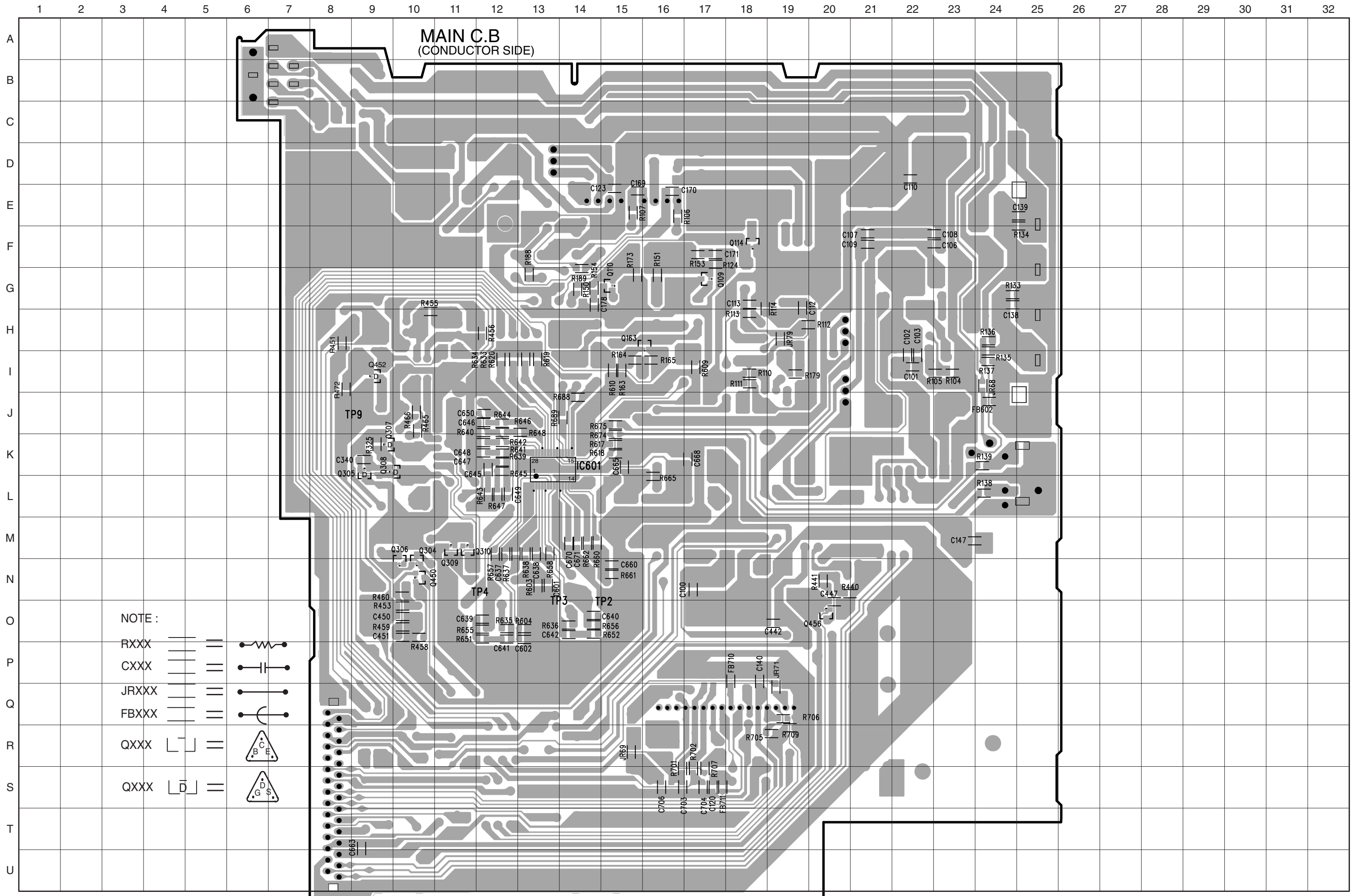
B C E

2SB1370E

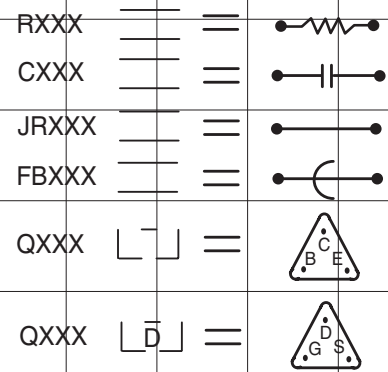
SCHEMATIC DIAGRAM - 1/5 (MAIN)

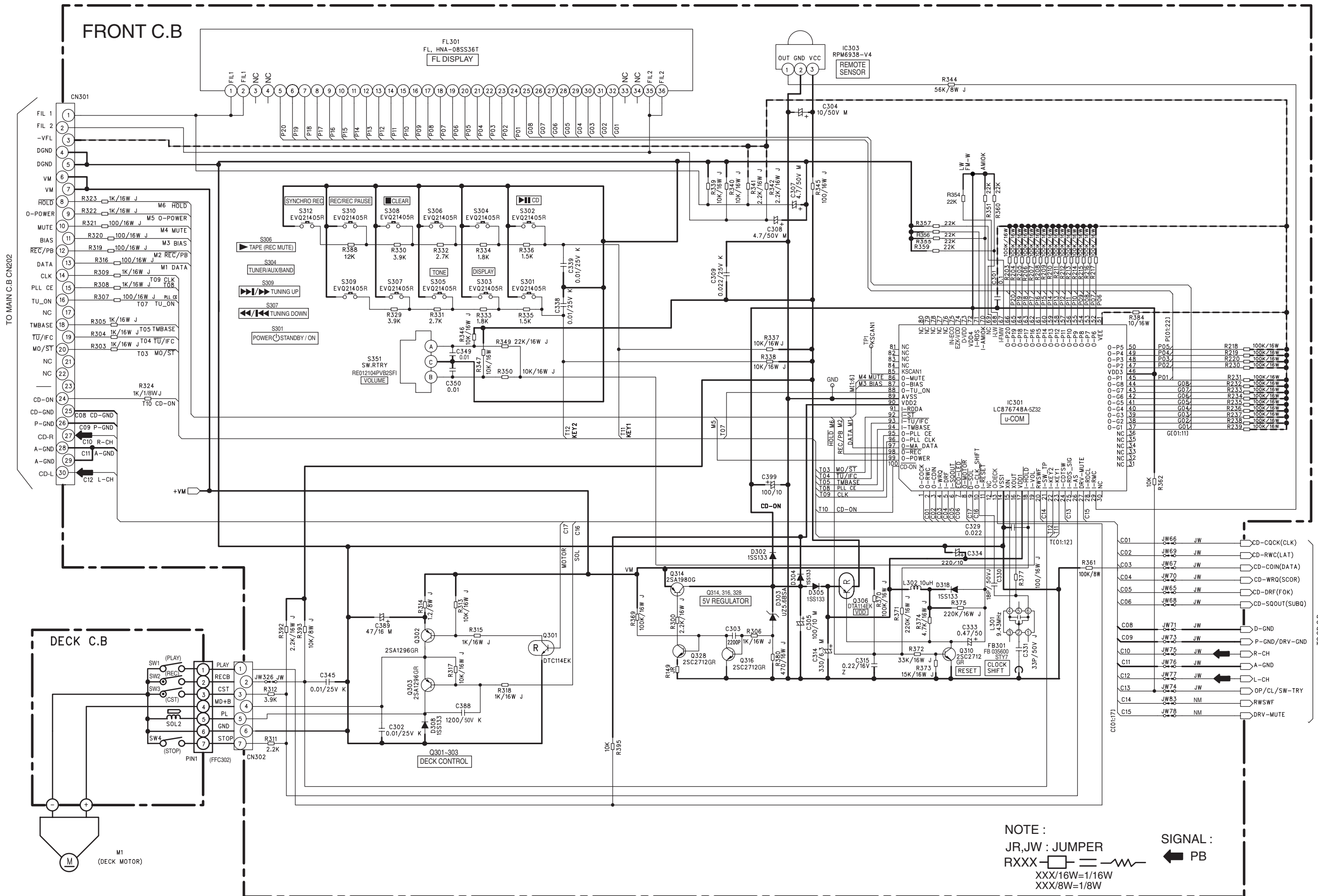


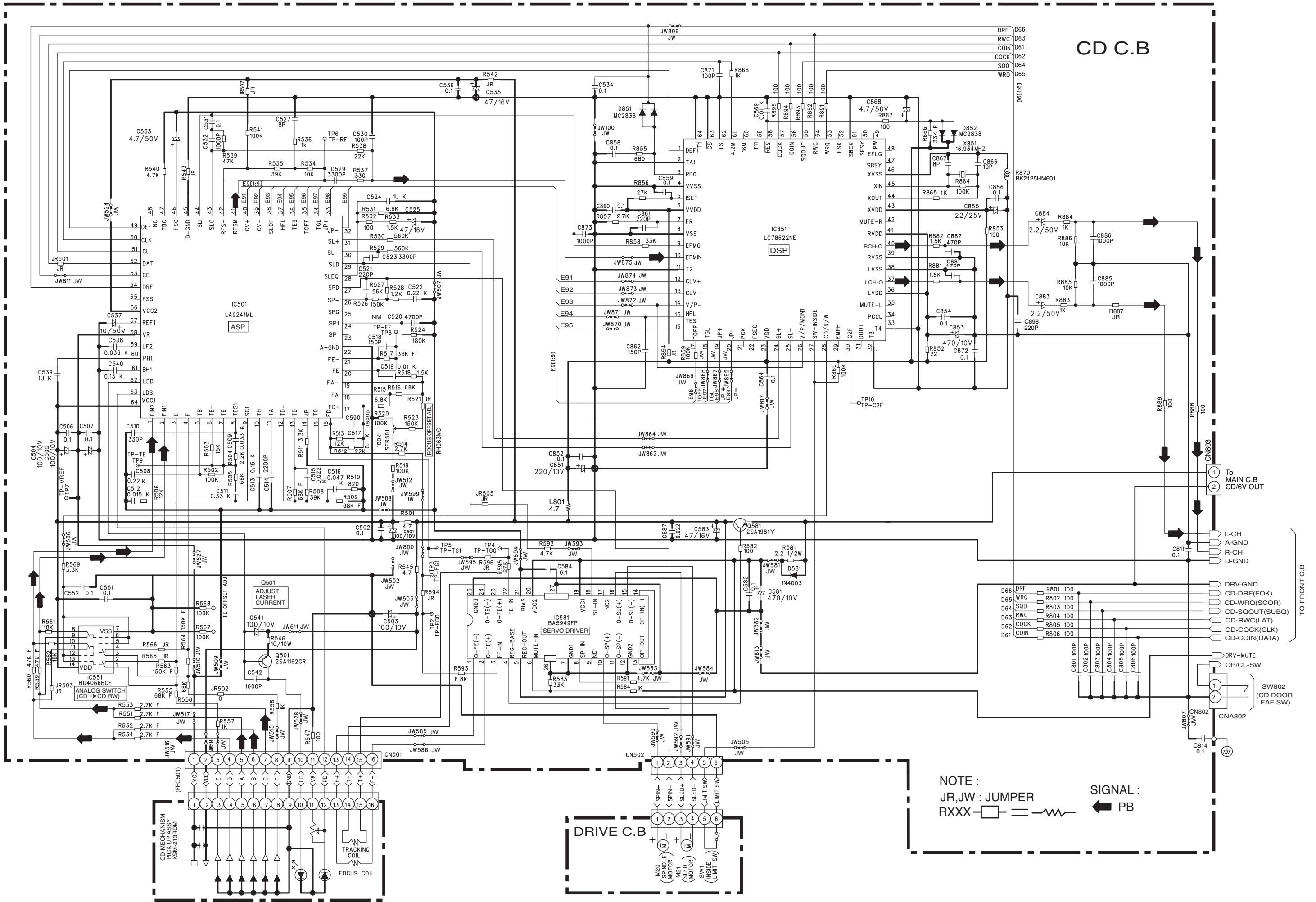




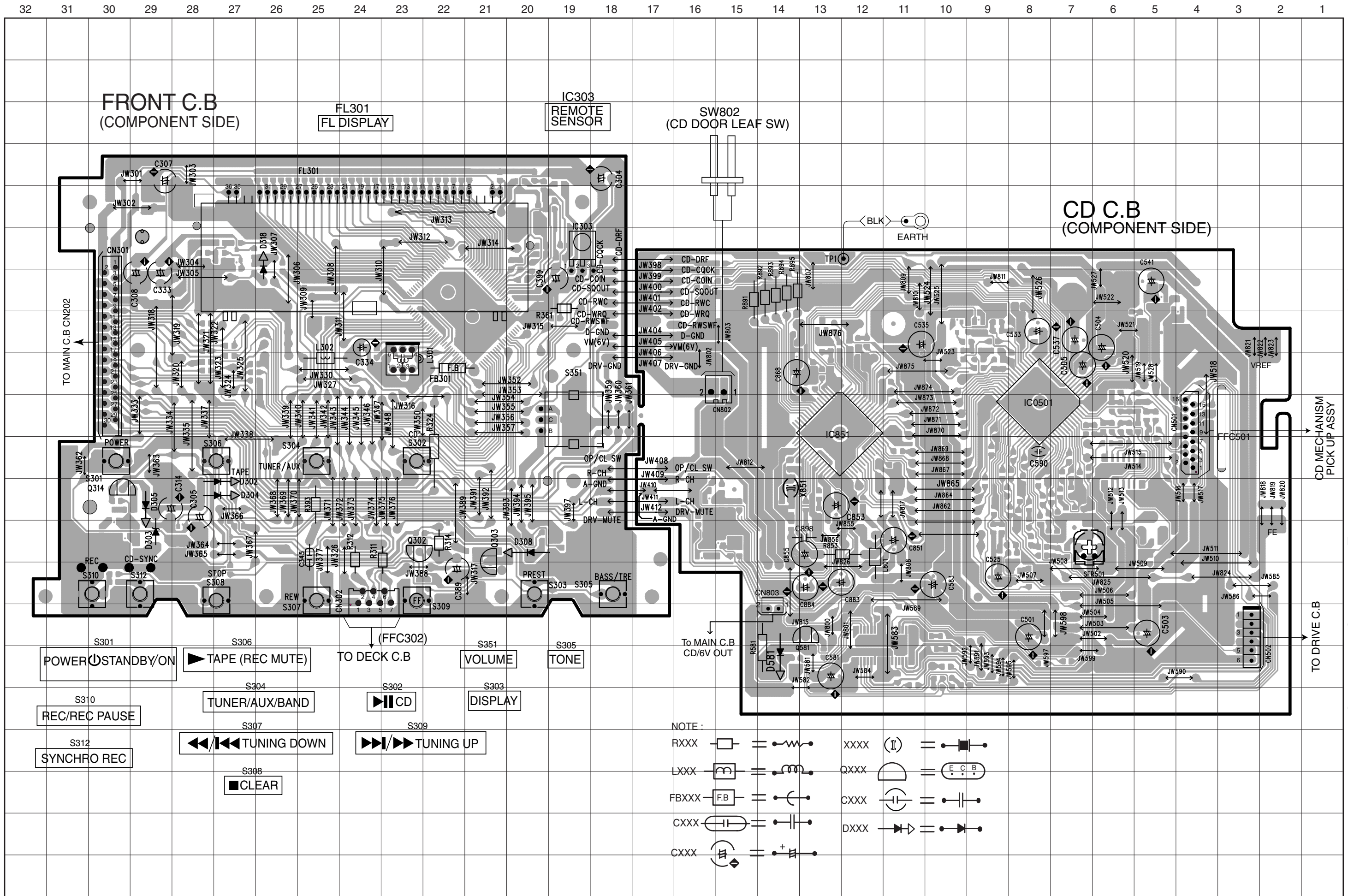
NOTE :

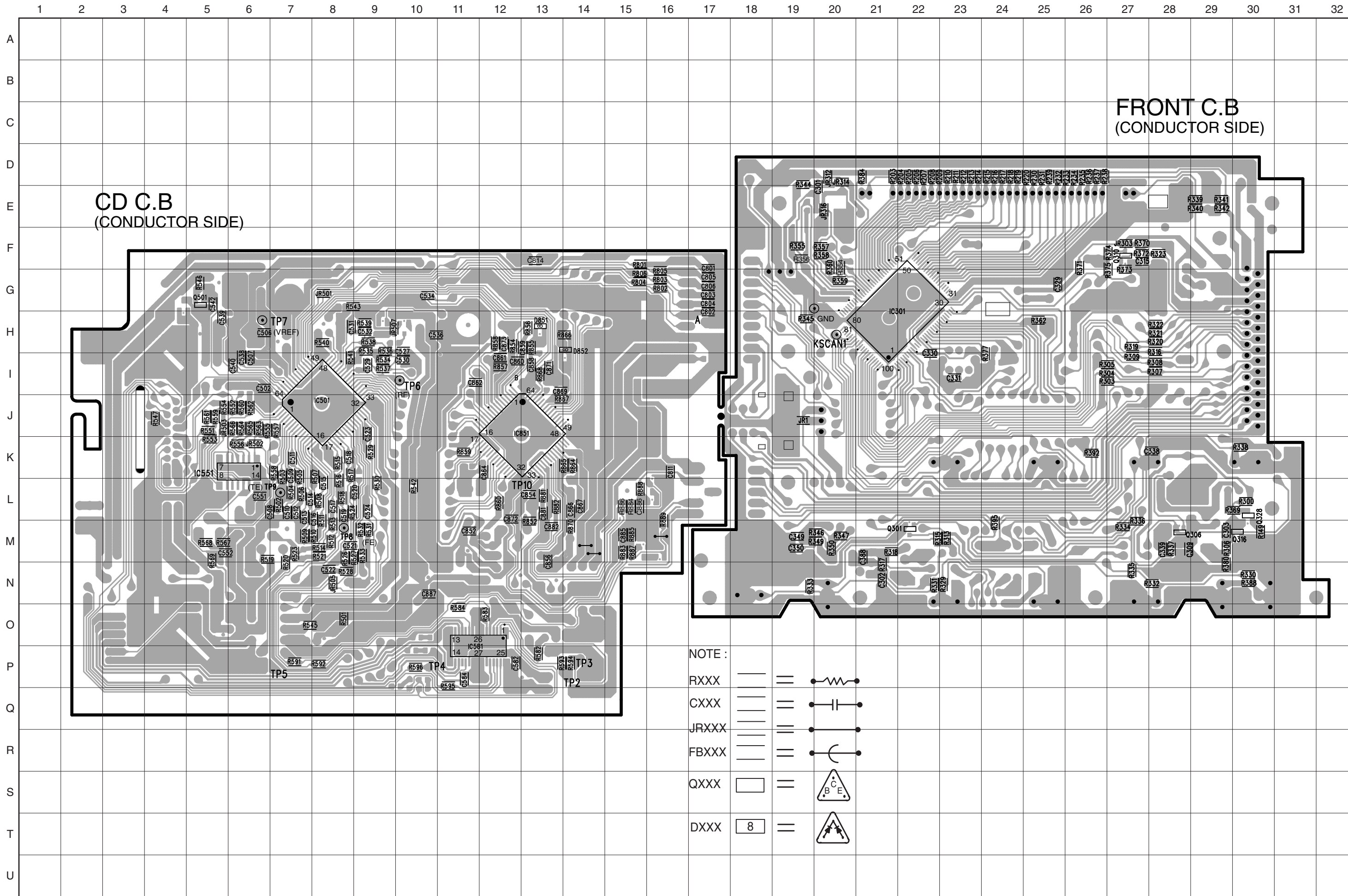






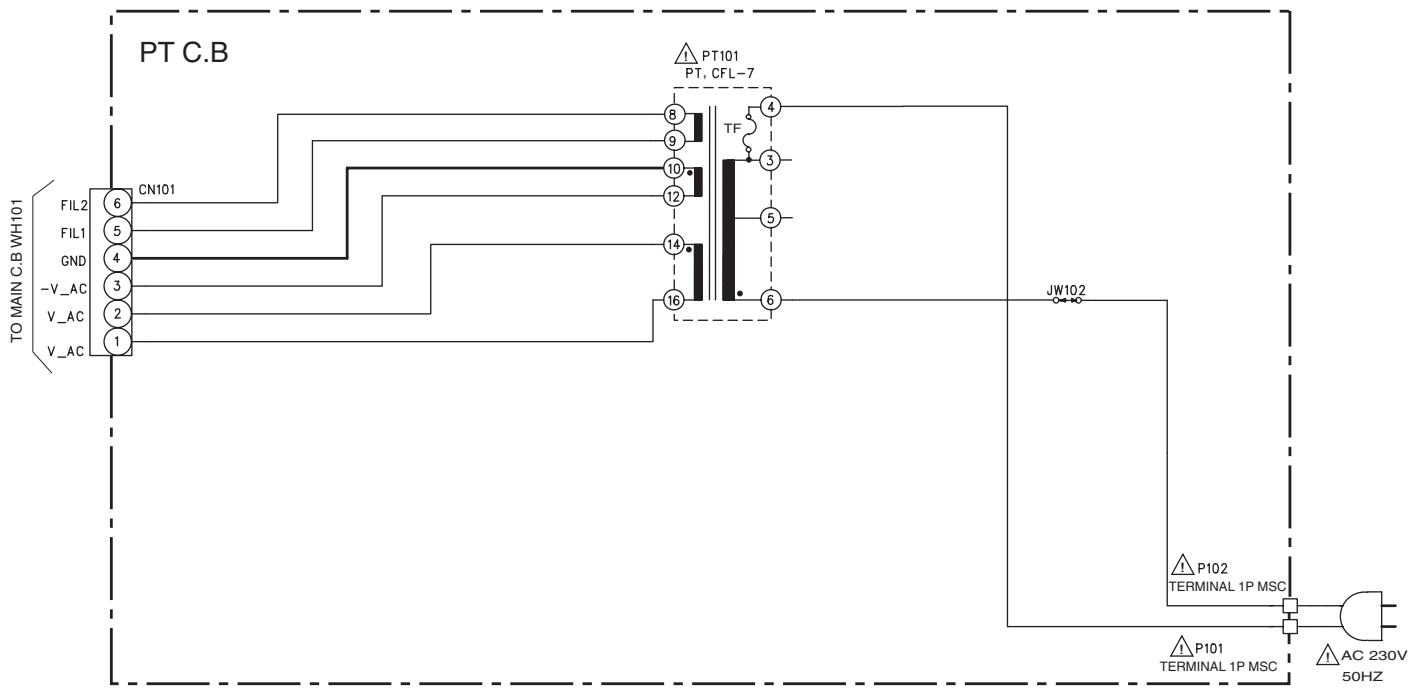
NOTE :
 JR, JW : JUMPER
 RXXX = =
 SIGNAL : PB

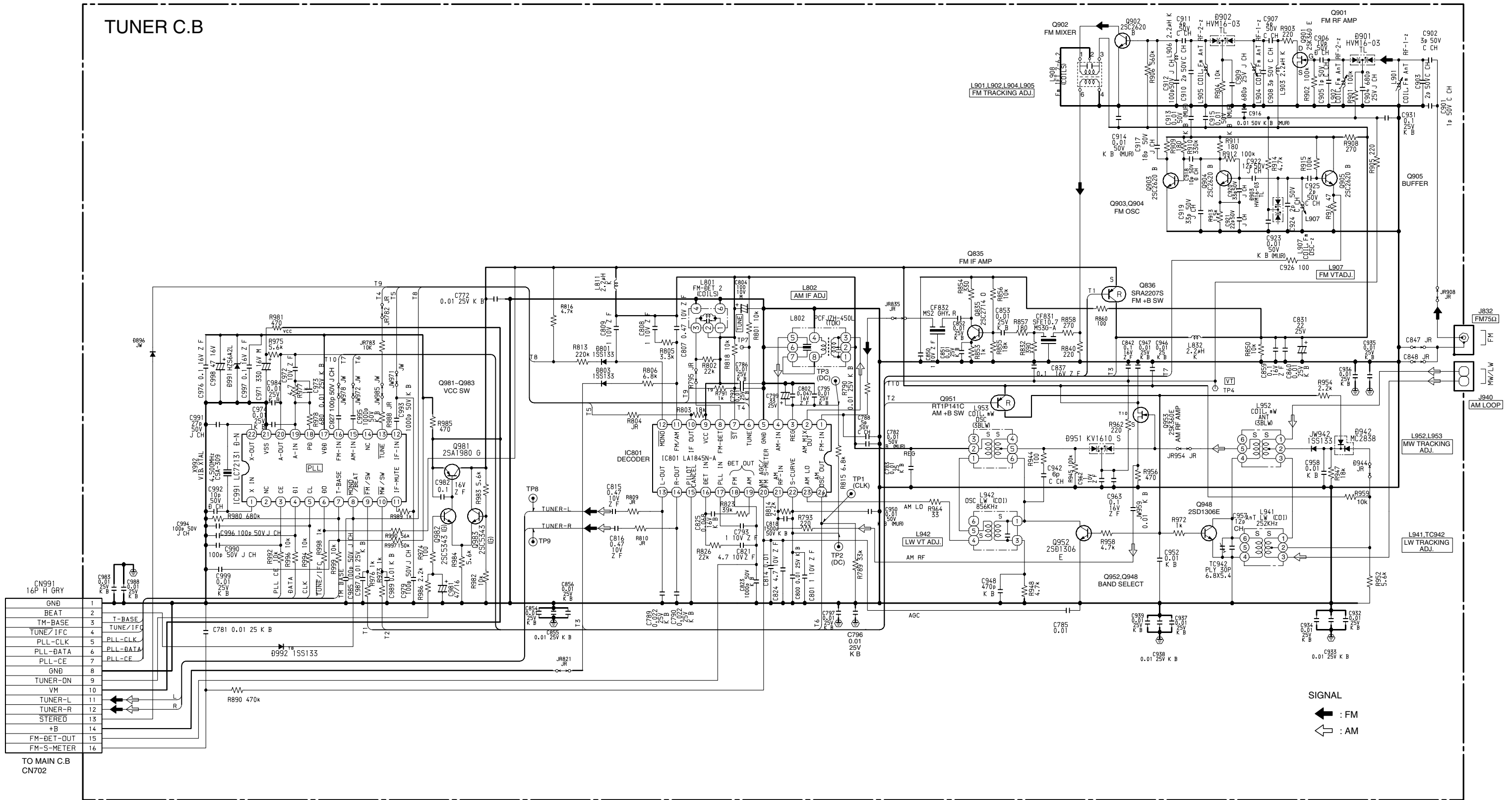




- NOTE :
- RXXX =
 - CXXX =
 - JRXXX =
 - FBXXX =
 - QXXX =
 - DXXX =

SCHEMATIC DIAGRAM - 4/5 (PT)



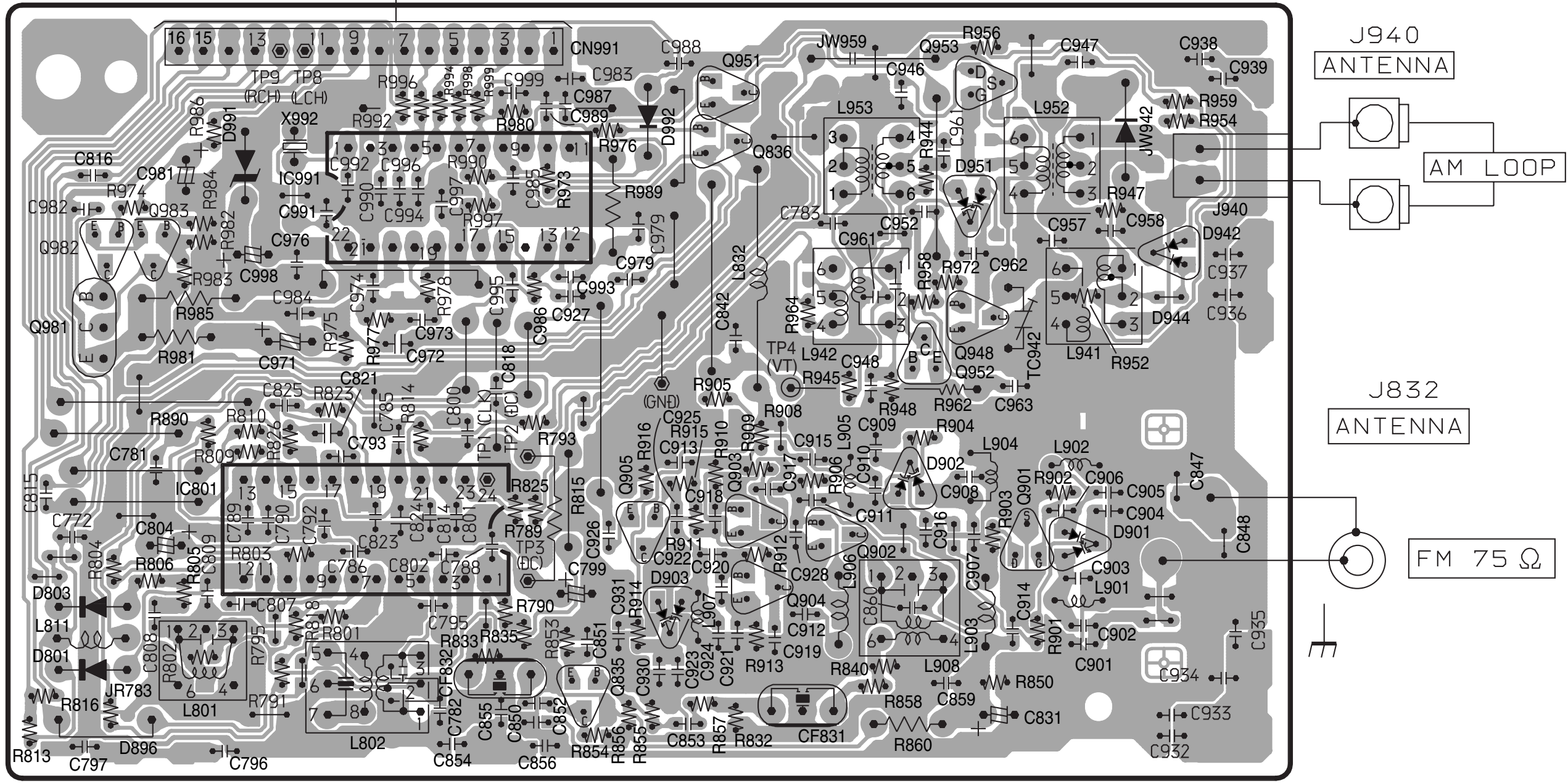


32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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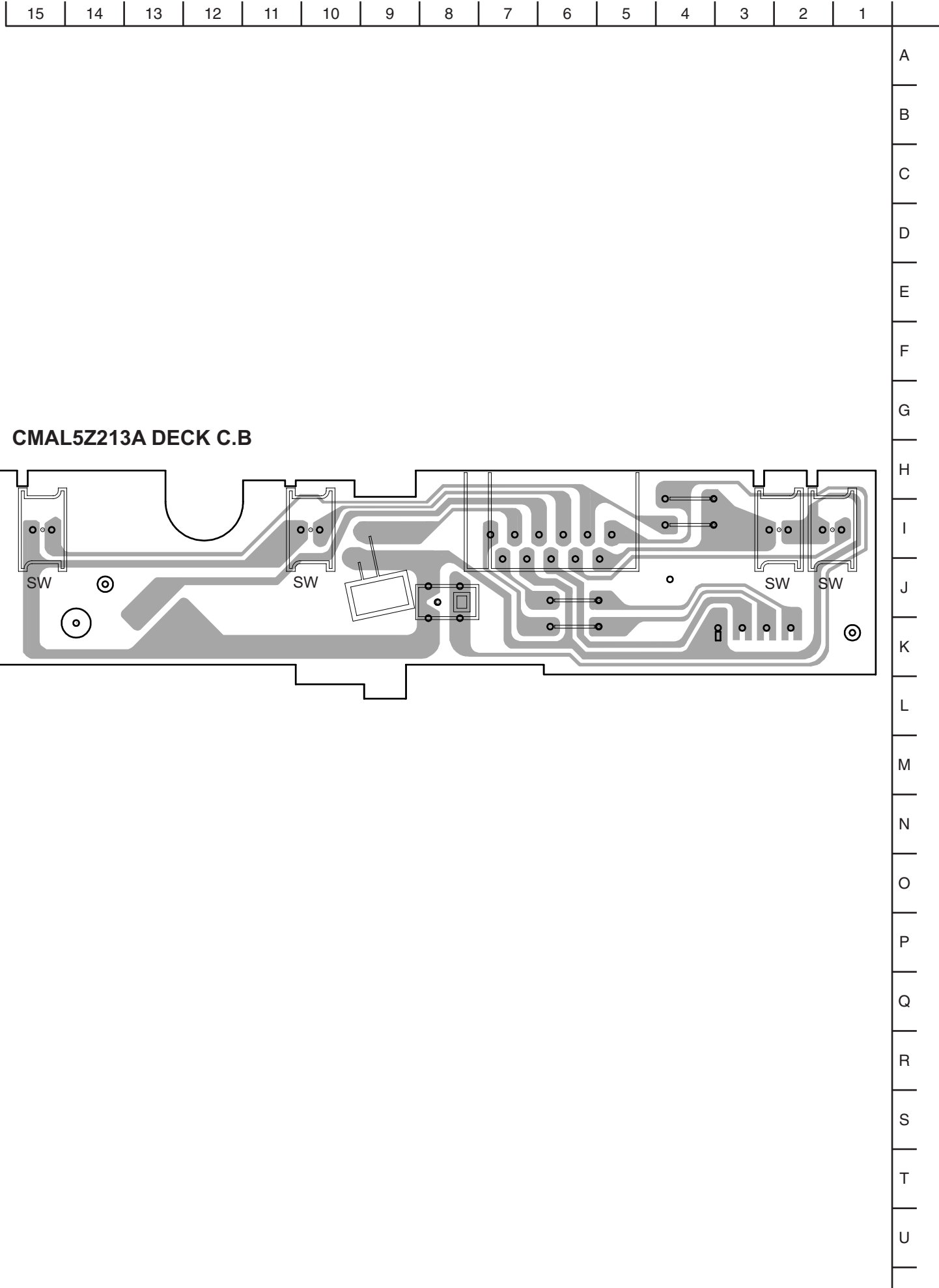
A
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TUNER C.B

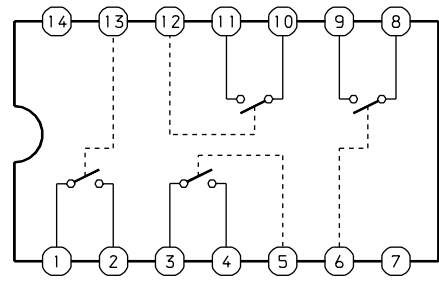
TO MAIN C.B
CN702



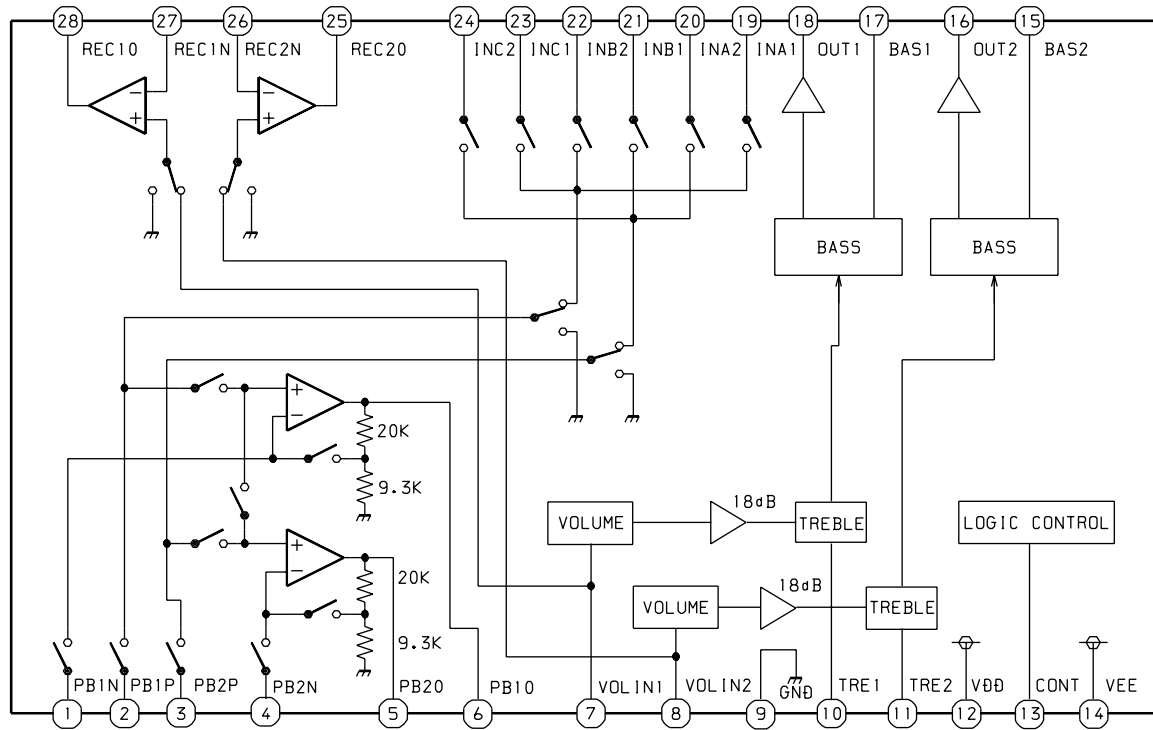
WIRING - 7/7 (DECK)



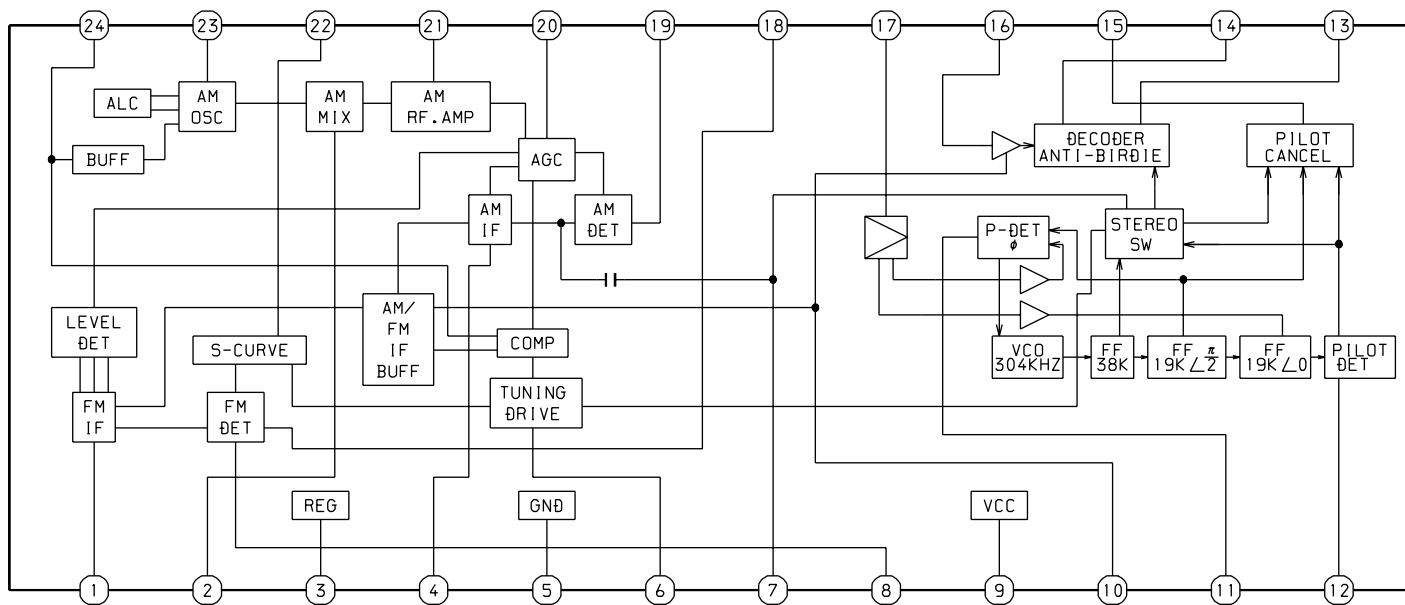
IC, BU4066BCF



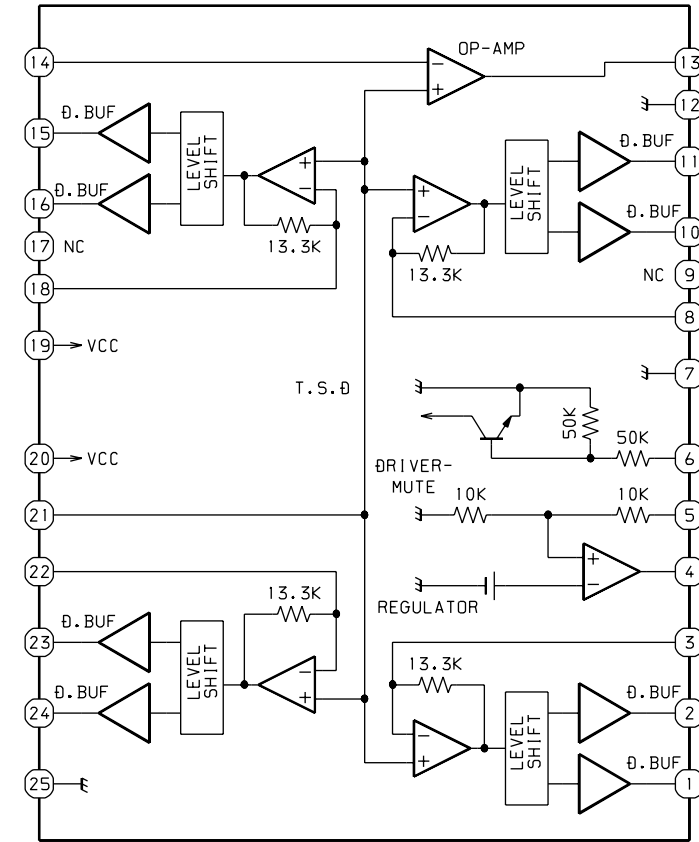
IC, BD3881FV



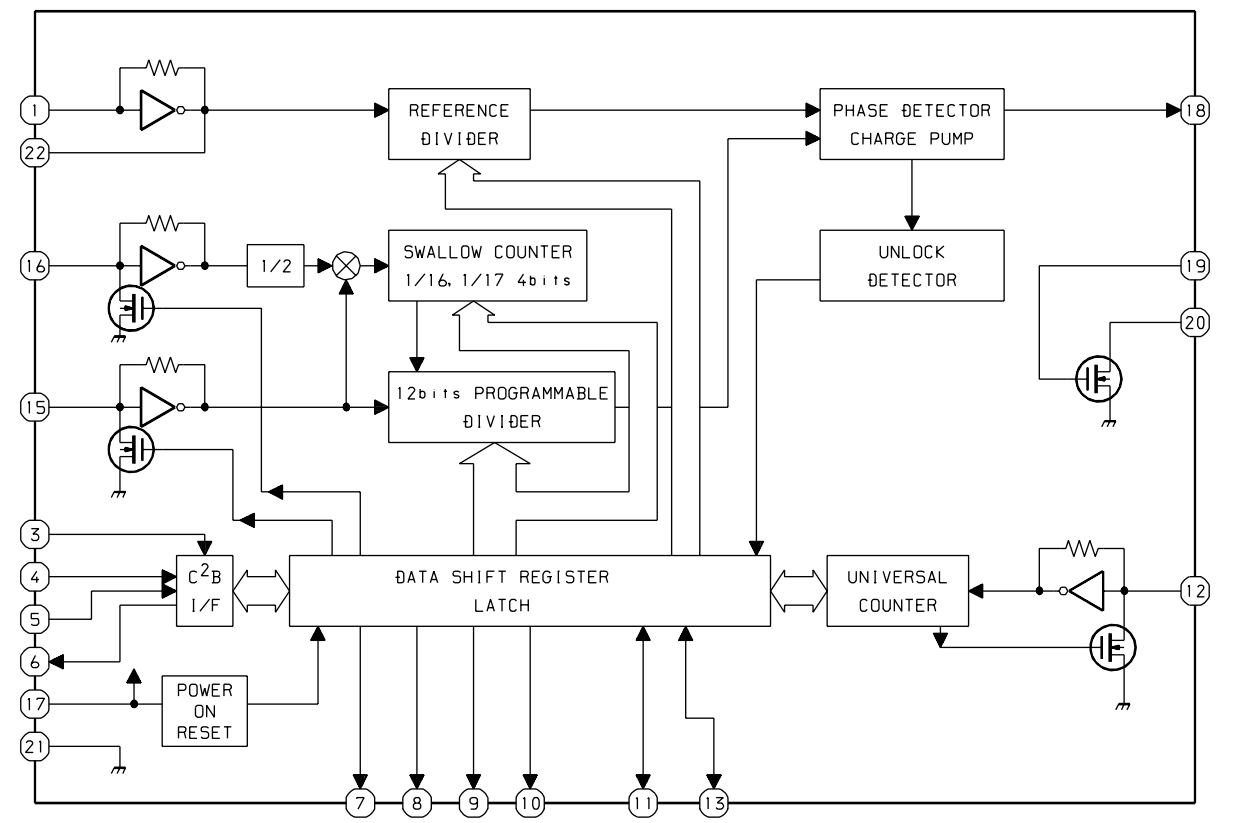
IC, LA1845N-A



IC, BA5949FP



IC, LC72131D-N



IC DESCRIPTION - 1/6 (LC78622NE) - 1/2

Pin No.	Pin Name	I/O	Description
1	DEFI	I	Defect detection signal (DEF) input. ("L" is applied when not used.)
2	TAI	I	For PLL/Test input. (Connected to 0V)
3	PDO	O	Phase comparison output to control the external VCO.
4	VVSS	–	Ground of the built-in VCO. Normally 0V.
5	ISET	I	For the connection of a resistor which adjusts the PDO output current.
6	VVDD	–	Power supply of the built-in VCO.
7	FR	I	Adjusts the VCO frequency range.
8	VSS	–	Ground of digital circuits. Normally 0V.
9	EFMO	O	For slice level control/EFM signal output.
10	EFMIN	I	EFM signal input.
11	T2	I	Test input. A pull-down resistor is incorporated. (Connected to 0V)
12	CLV+	O	Disc motor control tri-state output.
13	CLV–		
14	V/P–	O	Output to monitor the automatic switching between the rough servo control and phase servo control. "H" : Rough servo, "L": Phase servo.
15	HFL	I	Track detection signal input. Schmitt trigger input.
16	TES	I	Track error signal input. Schmitt trigger input.
17	TOFF	O	Tracking off output.
18	TGL	O	Tracking gain switching output. "L" raises the gain.
19	JP+	O	Track jump control tri-state output.
20	JP–		
21	PCK	O	Monitors the clock signal for EFM data playback. 4.3218MHz when the phase is locked. (Not used)
22	FSEQ	O	Sync signal detection output. Goes "H" when the sync signal detected from the EFM signal matches the sync signal generated internally. (Not used)
23	VDD	–	Power supply of digital circuits.
24	SL+	O	Controlled by serial data command issued by the microprocessor.
25	SL–	O	Controlled by serial data command issued by the microprocessor.
26	V/P MONI	I	Prevent high speed rotation of no recording CD-R/RW disc by watch V/P.
27	SW-INSIDE	I	CD pickup inside limit switch.
28	CD/R/W	O	CD-RW disc select control.
29	EMPH	O	Deemphasis monitor. "H": when playing a deemphasis disc. (Not used)
30	C2F	O	C2 flag output. (Not used)
31	DOUT	O	Output a digital OUT signal. (EIAJ format)
32	T3	I	Test input. (Connected to 0V)
33	T4		
34	PCCL	–	Not used.
35	MUTE-L	O	Lch 1-bit DAC/Lch muting output. (Not used)
36	LVDD	–	Lch power supply.
37	O-LCH	O	Lch output.
38	LVSS	–	Lch ground. Normally 0V.
39	RVSS	–	Rch 1-bit DAC/Rch ground. Normally 0V.

IC DESCRIPTION - 2/6 (LC78622NE) - 2/2

Pin No.	Pin Name	I/O	Description
40	RCHO	O	Rch output.
41	RVDD	–	Rch power supply.
42	MUTE-R	O	Rch muting output. (Not used)
43	XVDD	–	Power supply of crystal oscillator.
44	XOUT	O	For the connection of a 16.934MHz crystal oscillator.
45	XIN	I	
46	XVSS	–	Ground of crystal oscillator. Normally 0V.
47	SBSY	O	Subcode block sync signal output. (Not used)
48	EFLG	O	C1, C2, single, duplex correction monitor. (Not used)
49	PW	O	Output of subcodes P, Q, R, S, T, U and W. (Not used)
50	SFSY	O	Subcode frame sync signal output. Falls when the subcode is set to the standby state. (No used)
51	SBCK	I	Subcode read-out clock input. Schmitt trigger input. ("L" is applied when not used.) (Connected to 0V)
52	FSX	O	7.35kHz sync signal output obtained by dividing the oscillator frequency. (Not used)
53	WRQ	O	Subcode Q standby output.
54	RWC	I	Read/write control input. Schmitt trigger input.
55	SQOUT	O	Subcode Q output.
56	COIN	I	Command input from the microprocessor.
57	$\overline{\text{CQCK}}$	I	Command input retrieval clock or subcode retrieval clock input from SQOUT. Schmitt trigger input.
58	RES	I	LC78622NE reset input.
59	T11	O	Test output. Set to open (normally "L" output.) (Not used)
60	16M	O	16.9344MHz output. (Not used)
61	4.2M	O	4.236MHz output.
62	T5	I	Test input. A pull-down resistor is incorporated. (Connected to 0V)
63	$\overline{\text{CS}}$	I	Chip select input. (Connected to 0V)
64	T1	I	Test input with no pull-down resistor. (Connected to 0V)

IC DESCRIPTION - 3/6 (LA9241ML) - 1/2

Pin No.	Pin Name	I/O	Description
1	FIN2	I	For the connection of the pickup photodiode. Addition to the FIN1 pin creates an RF signal and subtraction from it create an EF signal.
2	FIN1	I	For the connection of the pickup photodiode.
3	E	I	For the connection of the pickup photodiode. Subtraction from the F pin creates a TE signal.
4	F	I	For the connection of the pickup photodiode.
5	TB	I	Inputs the DC components in the TE signal.
6	TE-	I	For the connection of a resistor which sets the gain of the TE signal between this pin and the TE pin.
7	TE	O	TE signal output.
8	TESI	I	TES (track error sense) comparator input. The TE signal is passed through a BPF.
9	SCI	I	Shock detection input.
10	TH	I	Sets the time constant for the tracking gain.
11	TA	O	TA amp output.
12	TD-	I	Composes the tracking phase compensation constant between the TD and VR pins.
13	TD	O	Sets the tracking phase compensation.
14	JP	I	Sets the amplitude of the tracking jump signal (kick pulses).
15	TO	O	Tracking control signal output.
16	FD	O	Focusing control signal output.
17	FD-	I	Composes the focusing phase compensation constant between the FD and FA pins.
18	FA	O	Composes the focusing phase compensation constant between the FD- and FA- pins.
19	FA-	I	Composes the focusing phase compensation constant between the FA and FE pins.
20	FE	O	FE signal output.
21	FE-	I	For the connection of a resistor which sets the gain of the FE signal between this pin and the TE pin.
22	A-GND	-	Ground of analog signals.
23	SP	O	Single-ended output of the signals input to the CV+and CV-pins. (Not used)
24	SPI	I	Spindle AMP input.
25	SPG	I	For the connection of a resistor which sets the gain in the spindle 12cm mode. (Not used)
26	SP-	I	For the connection of the spindle phase compensation constant with the SPD pin.
27	SPD	O	Spindle control signal output.
28	SLEQ	I	For the connection of sled phase compensation constant.
29	SLD	O	Sled control signal output.
30	SL-	I	Sled feed signal input from the microprocessor.
31	SL+		
32	JP-	I	Tracking signal input from the DSP.
33	JP+		
34	TGL	I	Tracking gain control signal input from the DSP. Low gain when TGL is "H".
35	TOFF	I	Tracking off control signal input from the DSP. Off when TOFF is "H".
36	TES	O	Outputs the TES signal to the DSP.
37	HFL	O	The HFL (high frequency level) signal is used to judge whether the main beam is positioned on the pit or on the mirror.

IC DESCRIPTION - 4/6 (LA9241ML) - 2/2

Pin No.	Pin Name	I/O	Description
38	SLOF	I	Sled servo off control input.
39	CV-	I	CLV error signal input from the DSP.
40	CV+		
41	RFSM	O	RF output.
42	RFS-	O	Sets the RF gain and the EFM signal's 3T compensation constant together with the RFSM pin.
43	SLC	O	The SLC (slice level control) signal is output to control the DSP's data slice level of the RF waveform.
44	SLI	I	Input to control the DSP's data slice level.
45	D-GND	-	Ground of digital signals.
46	FSC	O	Output for the focus search smoothing capacitor.
47	TBC	I	The TBC (tracking balance control) signal sets the EF balance variation range.
48	NC	-	Not connected.
49	DEF	O	Disc defect detection output.
50	CLK	I	Reference clock input. 4.23MHz is input from the DSP.
51	CL	I	Microprocessor command clock input.
52	DAT	I	Microprocessor command data input.
53	CE	I	Microprocessor chip enable input.
54	DRF	O	DRF (detect RF) is an output to detect the RF level.
55	FSS	I	The FSS (focus search select) signal switches the focus search modes (+/-search / +search with respect to the reference voltage). (Not used)
56	VCC2	-	VCC of servo and digital circuits.
57	REFI	-	For the connection of bypass capacitor for the reference voltage.
58	VR	O	Reference voltage output.
59	LF2	-	Sets the time constant for disc defect detection.
60	PH1	-	For the connection of a capacitor to hold the RF signal peak.
61	BH1	-	For the connection of a capacitor to hold the RF signal bottom.
62	LDD	O	APC circuit output.
63	LDS	I	APC circuit input.
64	VCC1	-	VCC of RF signal circuits.

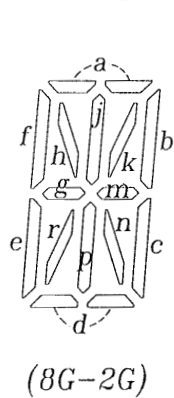
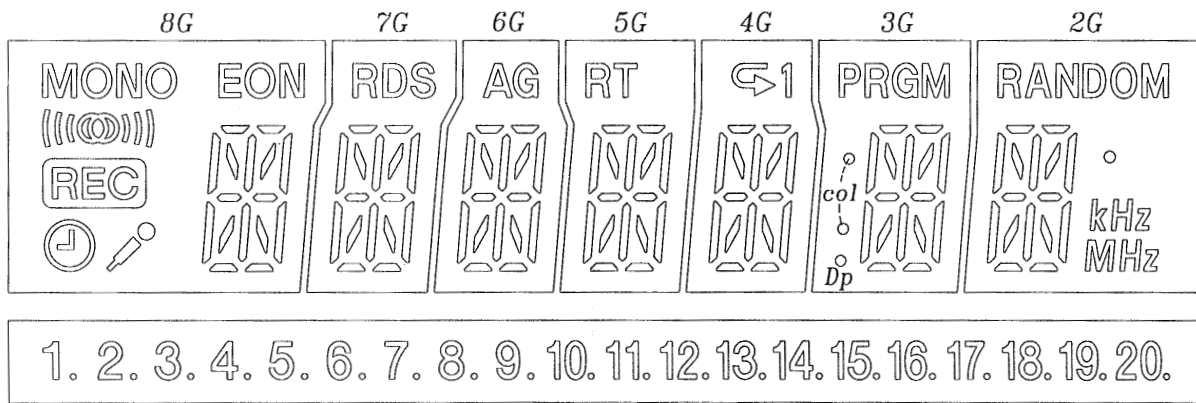
IC DESCRIPTION - 5/6 (LC876748A-5Z32) - 1/2

Pin No.	Pin Name	I/O	Description
1	O-COCK	O	CD control Q code clock signal output.
2	O-RWC	O	CD control command LAT signal output.
3	O-CDIN	O	CD control command data signal output.
4	I-WRQ	I	CD control SCOR signal input.
5	I-DRF	I	CD control focus OK input.
6	I-SQOUT	I	CD control Q code input.
7	$\overline{\text{ECO-LED}}$	O	Not used.
8	$\overline{\text{O-MOTOR}}$	O	Motor control output.
9	$\overline{\text{O-SOL}}$	O	Cassette play control signal output.
10	O-CLOCK_SHIFT	O	Clock shift output for micro-computer when using tuner.
11	$\overline{\text{I-RESET}}$	I	Reset input for micro-computer.
12	NC	–	Not connected.
13	O-DECK	O	Deck control output.
14	VSS1	–	Connect to GND.
15	XIN	–	Main clock input 9.43MHz.
16	XOUT	–	Main clock output 9.43MHz.
17	VDD1	–	Digital power supply pin.
18	$\overline{\text{I-HOLD}}$	I	Hold input.
19	I-VOL	I	Volume control input.
20	RWSWF	–	Not used.
21	I-SW-TP	I	Deck mechanism SW AD input.
22, 23	I-KEY2, I-KEY1	I	Key AD input 2, 1.
24	I-CDTSW	I	CD mecha switch input.
25	I-RDS_SIG	I	Not used.
26	I-AS	I	Cassette deck auto stop switch signal input.
27	DRV-MUTE	–	Not used.
28	I-RDCL	I	Not used.
29	I-RMC	I	System remote control signal input.
30	NC	–	Not used.
31	NC	–	Not used.
32 ~ 36	NC	–	Not used.
37 ~ 44	O-G1 ~ O-G8	O	VFD driver control data signal output.
45	O-P1	O	VFD driver control data signal output.
46	VDD3	–	Digital power supply pin.
47 ~ 50	O-P2 ~ O-P5	O	VFD driver control data signal output.
51	VEE	–	Connect to –VFL through a resistor.
52 ~ 66	O-P6 ~ O-P20	O	VFD driver control data signal output.
67	I-FMW	I	FM selection initialisation resistor connect.
68	I-LW	I	LM selection initialisation resistor connect.
69	NC	–	Not used.
70	I-AM10K	–	AM(10k) selection initialisation resistor connect.
71	I-RDS	I	Not used.

IC DESCRIPTION - 6/6 (LC876748A-5Z32) - 2/2

Pin No.	Pin Name	I/O	Description
72	VDD4	–	Digital power supply pin.
73	D-VDD	–	Not used.
74	EZK-VDD	–	Not used.
75	IN-ECO	I	Not used.
76 ~ 84	NC	–	Not connected.
85	KSCAN1	I/O	Initial scan I/P.
86	O-MUTE	O	Mute signal output.
87	O-BIAS	O	Bias ON/OFF output.
88	O-TU-ON	O	Tuner power supply ON/OFF output.
89	AVSS	–	Connect to GND.
90	VDD2	–	Digital power supply pin.
91	I-RDDA	I	Not used.
92	$\overline{\text{I-ST}}$	I	$\overline{\text{Stereo/Mono}}$ control signal input.
93	$\overline{\text{I-TU/IFC}}$	I	Tuner SD detection input/Tuner IF count input.
94	I-TMBASE	I	Reference clock input for timer switch.
95	O-PLL CE	O	Tuner PLL IC chip enable output.
96	O-PLL CLK	O	PLL IC clock output.
97	O-MA DATA	O	IC BD3881FV (VOL & FUNC) control data output.
98	$\overline{\text{O-REC}}$	O	Cassette deck $\overline{\text{Rec/Play}}$ control output.
99	O-POWER	O	Power control ON/ $\overline{\text{OFF}}$ output.
100	$\overline{\text{CD-ON}}$	O	CD power supply ON/ $\overline{\text{OFF}}$ output.

FL (HNA-08SS36T) GRID ASSIGNMENT / PIN CONNECTION / ANODE CONNECTION - 1/1
 GRID ASSIGNMENT



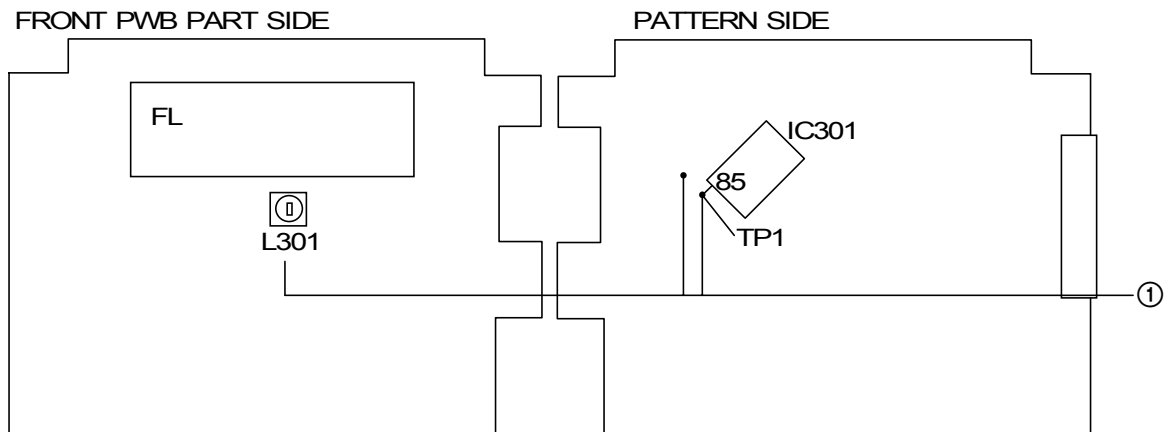
PIN CONNECTION

PIN NO.	36	35	34	33	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
CONNECTION	F ₂	F ₂	N _P	N _P	1 _G	2 _G	3 _G	4 _G	5 _G	6 _G	7 _G	8 _G	P ₁	P ₂	P ₃	P ₄	P ₅	P ₆	P ₇	P ₈	P ₉	P ₁₀	P ₁₁	P ₁₂	P ₁₃	P ₁₄	P ₁₅	P ₁₆	P ₁₇	P ₁₈	P ₁₉	P ₂₀	N _P	N _P	F ₁	F ₁

ANODE CONNECTION

	8G	7G	6G	5G	4G	3G	2G	1G
P1	a	a	a	a	a	a	a	1.
P2	b	b	b	b	b	b	b	2.
P3	f	f	f	f	f	f	f	3.
P4	h	h	h	h	h	h	h	4.
P5	j	j	j	j	j	j	j	5.
P6	k	k	k	k	k	k	k	6.
P7	m	m	m	m	m	m	m	7.
P8	g	g	g	g	g	g	g	8.
P9	c	c	c	c	c	c	c	9.
P10	e	e	e	e	e	e	e	10.
P11	r	r	r	r	r	r	r	11.
P12	p	p	p	p	p	p	p	12.
P13	n	n	n	n	n	n	n	13.
P14	d	d	d	d	d	d	d	14.
P15	EON	RDS	AG	RT	1	PRGM	RANDOM	15.
P16	MONO	-	-	-	↶	col	○	16.
P17	((⊙))	-	-	-	-	Dp	kHz	17.
P18	REC	-	-	-	-	-	MHz	18.
P19	⌚	-	-	-	-	-	-	19.
P20	🔧	-	-	-	-	-	-	20.

<FRONT SECTION>



1. CLOCK ADJUSTMENT

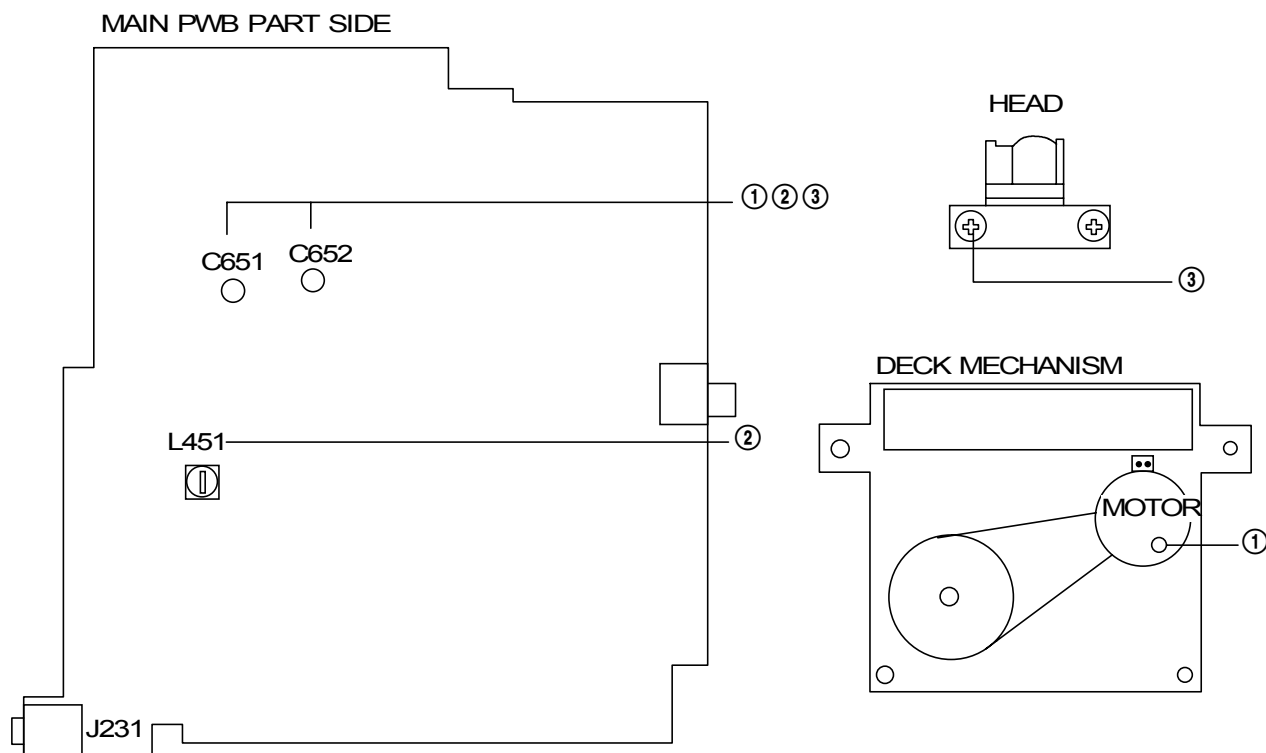
Requirements

Test point: TP1(IC301 85pin), GND

Adjustment point: L301

- 1) While pressing and holding down the POWER button and the TUNER / BAND button, insert the AC plug to outlet.
- 2) Adjust L301 so that the oscilloscope indicates the frequency within $320.5 \pm 1\text{Hz}$.

<DECK SECTION>



1. TAPE SPEED ADJUSTMENT

Requirements

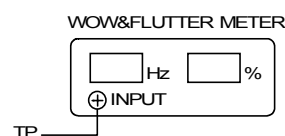
Measuring equipments : wow-flutter meter (frequency counter)

Test Tape: TTA-100 (3KHz)

Test point: C651(Lch),C652(Rch),GND

Adjustment point : Tape speed adjustment point (motor)

- 1) Connect Test point to the Wow - flutter meter.
- 2) Insert the test tape (TTA-100), play back center of the tape and adjust the motor until it becomes 3,000Hz +3 / -2%.



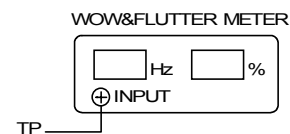
2. WOW – FLUTTER CHECK

Requirements

Test tape: TTA-100 (3KHz)

Test point: C651(Lch),C652(Rch),GND

- 1) Connect the Test point to the Wow – flutter meter.
- 2) Set the indicator to JIS and the mode to W RMS (WTD) of the Wow - flutter meter.
- 3) Play back the center of the test tape (TTA-100) and check that it is below 0.25%.



3. HEAD AZIMUTH ADJUSTMENT

Requirements

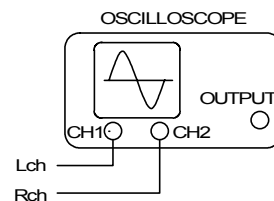
Measuring equipment: Oscilloscope

Test Tape: TTA-330 (8KHz)

Test point: C651(Lch),C652(Rch),GND

Adjustment point: Head azimuth screw

- 1) Connect the Test point to the oscilloscope of CH1 and CH2.
- 2) Set the V mode of the oscilloscope to ADD.
- 3) Insert the test tape (TTA-330) , play back the center of the tape and adjustment the head azimuth screw until the waveform of the oscilloscope has reached the maximum when playing back at 10KHz.
- 4) After the adjustment, bond lock (1600B) the screw.



4. REC. BIAS FREQUENCY ADJUSTMENT

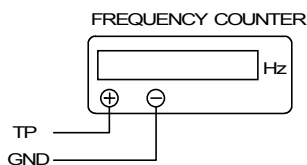
Requirement

Measuring equipment: frequency counter

Test point: JW38, GND

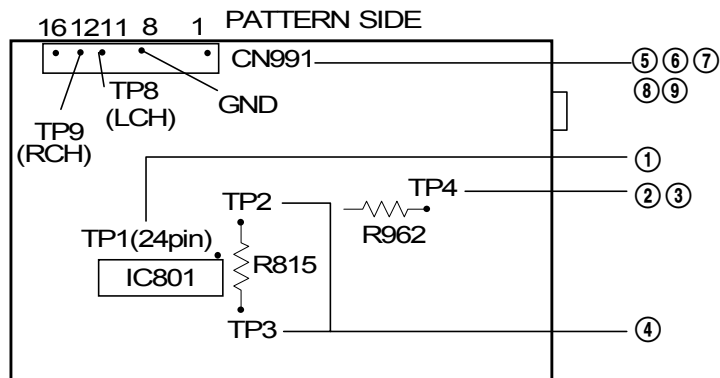
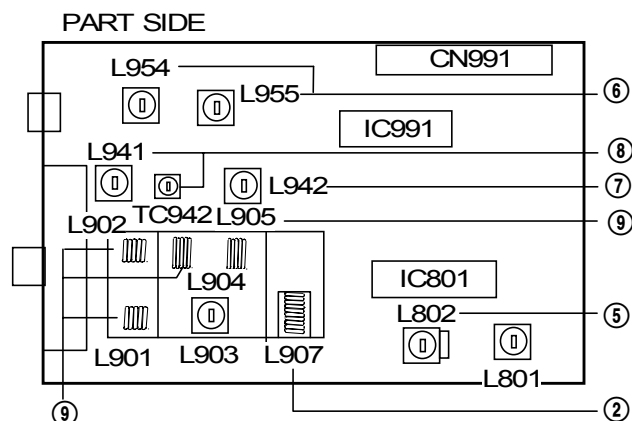
Adjustment point: L451

- 1) Connect the JW38 to the frequency counter.
- 2) Set the recording condition to the main unit.
- 3) Adjust the L451 until it becomes 85KHz \pm 0.5KHz.



<TUNER SECTION>

PATTERN SIDE



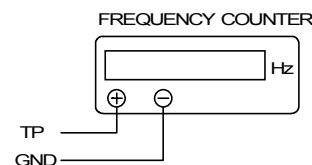
1. CLOCK CHECK

Requirements

Measuring equipment: Frequency counter

Test point: TP1 (CLOCK), GND

- (1) Adjust the reception frequency of the main unit to 1710KHz.
- (2) Check that the test point frequency is 2160 ± 0.045 KHz.



2. VT ADJUSTMENT (FM)

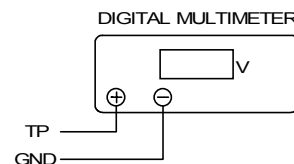
Requirement

Measuring equipment: Digital multi-meter

Test point: TP4 (R962), GND

Adjustment point: L907

- (1) Adjust the reception frequency of the main unit to 108.0MHz.
- (2) Adjust L907 until the test point voltage (VT) is $7.0V \pm 0.1V$.
- (3) Adjust the reception frequency of the main unit to 87.5MHz.
- (4) Check that the test point (VT) voltage is more than 0.5V..



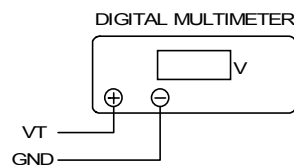
3. VT CHECK (MW)

Requirement

Measuring equipment: Digital multi-meter

Test point: TP4 (R962), GND

- (1) Adjust the reception frequency of the main unit to 531KHz.
- (2) Check that the test point (VT) voltage is more than 0.5V.
- (3) Adjust the reception frequency of the main unit to 1602KHz.
- (4) Check that the test point (VT) voltage is below 8.0V.



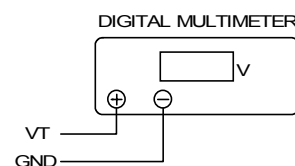
4. DC BALANCE CHECK

Requirement

Measuring equipment: Digital multi-meter

Test point: TP2, 3

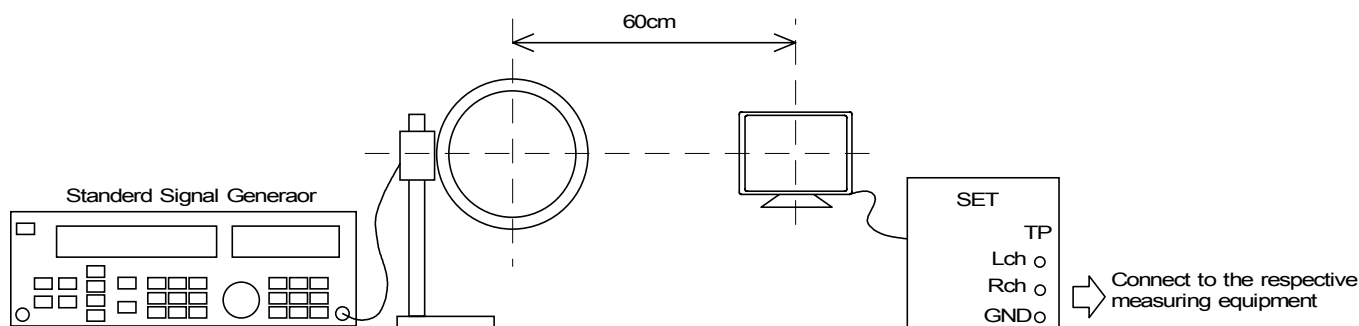
- (1) Adjust the reception frequency of the main unit to 98.0MHz.
- (2) Check that the test point voltage difference between TP2 and TP3 is $0mV \pm 500mV$.



ADJUSTMENT (FRONT/DECK/TUNER/CD) - 5/8

< AM ADJUSTMENT >

For AM adjustment, do wiring and connection as in the following.



5.IF ADJUSTMENT

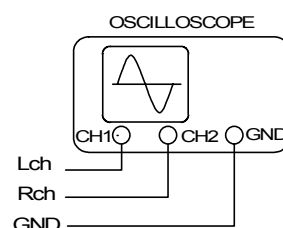
Requirement

Measuring equipment: Oscilloscope or Millivoltmeter

Test point: TP8(Lch), TP9(Rch), GND

Adjustment point: L802

- (1) Adjust the setting of Standard Signal Generator (hereinafter S.S.G.) to 999KHz of 30% variation.
- (2) Adjust the receiving frequency of the main unit at 999KHz.
- (3) While looking at the waveform on the oscilloscope, reduce the output level all the way (till a certain degree of is monitored through the oscilloscope).
- (4) Adjust L802 until the waveform of the oscilloscope reaches the maximum.



6.TRACKING ADJUSTMENT (MW)

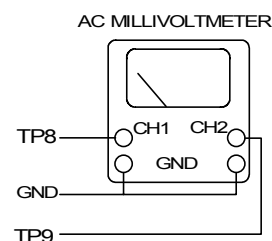
Requirement

Measuring equipment: Millivoltmeter

Test point: TP8(Lch), TP9(Rch), GND

Adjustment point: L952, L953

- (1) Adjust the S.S.G. setting to 999KHz of 30% variation and reduce the output level all the way (till a certain degree of is monitored through the oscilloscope).
- (2) Adjust the reception frequency of the main unit to 999KHz.
- (3) Adjust L952 until the value of the millivoltmeter reaches the maximum.
- (4) Adjust the S.S.G. setting to 603KHz of 30% variation and reduce the output level all the way (till a certain degree of is monitored through the oscilloscope).
- (5) Adjust the reception frequency of the main unit to 603KHz.
- (6) Adjust L953 until the value of the milivoltmeter reaches the maximum.
- (7) Repeat the adjustment 2 or 3 times from step 1 to 6 above.



7.VT ADJUSTMENT (LW)

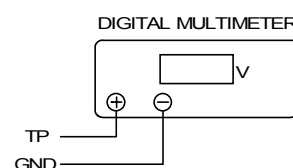
Requirement

Measuring equipment: Digital multi-meter

Test point: TP4 (R962), GND

Adjustment point: L942

- (5) Adjust the reception frequency of the main unit to 144KHz.
- (6) Adjust L942 until the test point voltage (VT) is $1.3V \pm 0.05V$.



6. TRACKING ADJUSTMENT (LW)

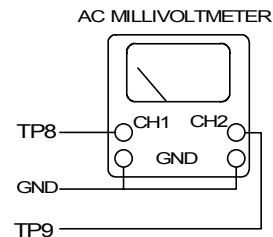
Requirement

Measuring equipment: Millivoltmeter

Test point: TP8(Lch), TP9(Rch), GND

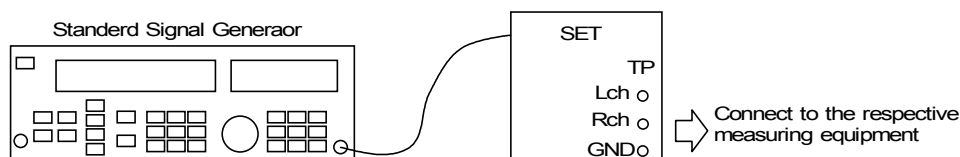
Adjustment point: L941, TC942

- (8) Adjust the S.S.G. setting to 144KHz of 30% variation and reduce the output level all the way (till a certain degree of is monitored through the oscilloscope).
 - (9) Adjust the reception frequency of the main unit to 144KHz.
 - (10) Adjust L941 until the value of the millivoltmeter reaches the maximum.
 - (11) Adjust the S.S.G. setting to 290KHz of 30% variation and reduce the output level all the way (till a certain degree of is monitored through the oscilloscope).
 - (12) Adjust the reception frequency of the main unit to 290KHz.
 - (13) Adjust TC942 until the value of the milivoltmeter reaches the maximum.
- Repeat the adjustment 2 or 3 times from step 1 to 6 above.



<FM ADJUSTMENT>

For adjusting FM, do wiring function and connection as in the following.



7. TRACKING ADJUSTMENT

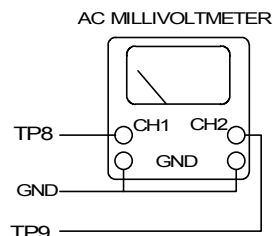
Requirement

Measuring equipment: millivoltmeter

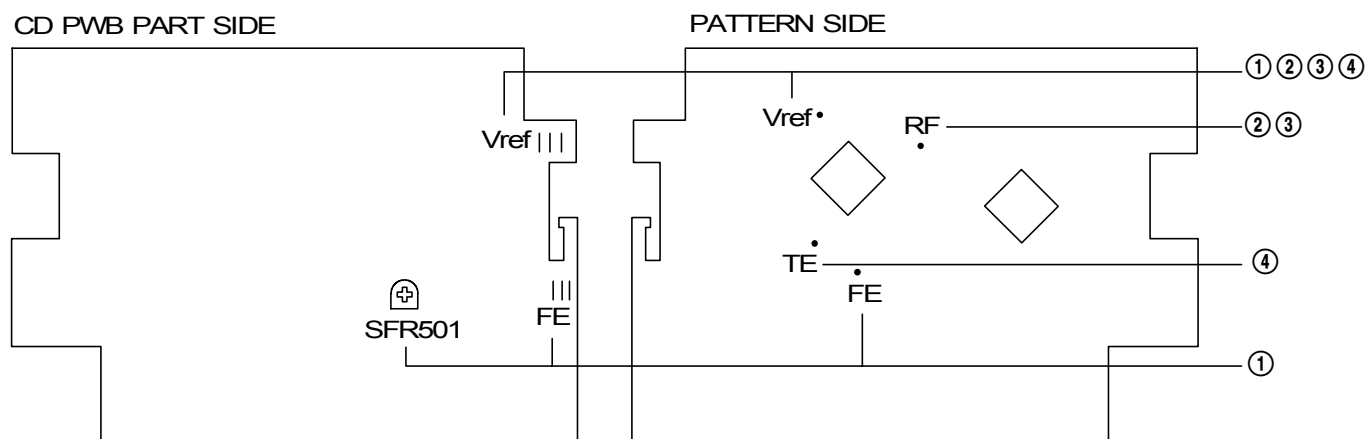
Test point: TP8(Lch), TP9(Rch), GND

Adjustment point: L901, L902, L904, L905

- (1) Adjust the S.S.G. setting to 87.5KHz of 30% variation and reduce the output level all the way (till a certain degree of is monitored through the oscilloscope).
- (2) Adjust L901, L902, L904, L905 until the value of the milivoltmeter reaches the maximum.



<CD SECTION>



Perform the adjustments after the main unit enters the test mode.
Place the CD mechanism on level ground.

Equipment and tools required

Measuring equipment

Digital multi-meter

Jitter meter (KIKUSUI 6235)

Test disc: TCD-782

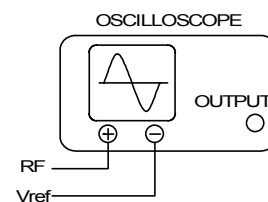
ATD-001

1.FOCUS OFFSET ADJUSTMENT

- 1) Connect a digital multimeter to the FE and Vref.
- 2) Playback the second track of the TCD-782.
- 3) Adjust SFR501 until the digital multimeter indicates $20 \pm 5\text{mV}$.

2.RF WAVEFORM CHECK

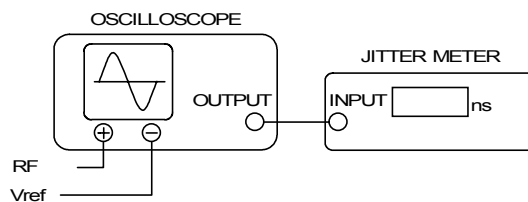
- 1) Connect oscilloscope to the test point RF and Vref.
- 2) Play back the 2nd track of TCD-782.
- 3) Check that the RF waveform has the maximum amplitude and the center of the wedge waveform has the clear blank.



ADJUSTMENT (FRONT/DECK/TUNER/CD) - 8/8

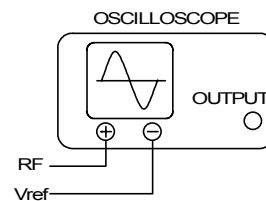
3. JITTER CHECK

- 1) While oscilloscope is kept connected in the same test point as in step2. RF WAVEFORM CHECK, connect the output terminal of an oscilloscope to the input terminal of the jitter meter.
- 2) Set the VOLT range selector of oscilloscope to 500mV range or below.
- 3) Play back 2nd track of TCD-782.
- 4) Check that jitter meter indicates 28.0ns or less.



4. TRACKING BALANCE CHECK

- 1) Connect the TE and Vref to the oscilloscope.
- 2) Playback the second track of TCD-782 and press the PAUSE button.
- 3) Check that the traverse waveforms of oscilloscope are up and down symmetrical.



5. PLAY ABILITY CHECK

- 1) Play back the 3rd, 8th and 13th track of ATD-001. Check that the noise does not occur sound skipping does not occur.

VOLTAGE CHART - 1/5

1. COMMON

Unit:V

MAIN C.B	B	C	E		G	D	S
Q106 2SB1370E	20.5	11.8	21	Q305 2SK2158	2.1	0	0
Q105 2SC5343GL	0.6	20.5	0	Q308 2SK2158	2.1	0	0
Q116 2SC5343GL	0.6	0.9	0	Q307 2SK2158	2.1	0	0
Q457 2SA1296GR	11.8	0	11.8	FRONT C.B	B	C	E
Q101 2SC5343GL	0.7	0	0	Q301 DTC114EK	0	0	11.8
Q103 2SC5343GL	0	3.4	0	Q302 2SA1296GR	11.8	1.3	11.8
Q113 2SA1980G	20	20	20	Q303 2SA1296GR	1.3	0	1.3
Q114 DTC114EK	3.4	0	0	Q314 2SA1980G	11.8	6.0	11.0
Q109 2SC3052	0	0	0	Q328 2SC2712GR	0.56	1.0	0
Q110 2SC3052	0	0	0	Q316 2SC2712GR	0.67	0.56	0
Q163 2SA1162	0.8	0	0.25	Q306 DTA124EK	0	5.2	5.2
Q451 2SC5343GL	0.2	11.5	0	Q310 2SC2712GR	0.65	0	0
Q453 2SC5343GL	11.8	11.8	11.6				
Q454 2SC5343GL	11.8	11.8	11.6				
Q456 DTC114EK	0	11.8	0				
Q304 DTA124EK	0	2.4	2.46				
Q310 2SA1162GR	0	0	0				
Q309 2SA1162GR	0	0	0				
Q450 2SC3052F	0.8	0.2	0.2				
Q306 DTA124EK	0	0	2.4				

	IN	OUT	ADJ
IC 102(NJM7806FA)	11.8V	6.0V	0V

	1PIN	2PIN	3PIN
IC303 RPM6938-V4	5.0V	0V	5.0V

IC601(BD3881FV)	1PIN	2PIN	3PIN	4PIN	5PIN	6PIN	7PIN	8PIN	9PIN	10PIN
	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V
	11PIN	12PIN	13PIN	14PIN	15PIN	16PIN	17PIN	18PIN	19PIN	20PIN
	0V	5.1V	0.1V	-5.1V	0V	0V	0V	0V	0V	0V
	21PIN	22PIN	23PIN	24PIN	25PIN	26PIN	27PIN	28PIN		
	0V	0V	0V	0V	0V	0V	0V	0V		

IC101 (TDA2007A)	1PIN	2PIN	3PIN	4PIN	5PIN	6PIN	7PIN	8PIN	9PIN
	1.36V	0.74V	11.9V	0.75V	1.33V	0V	10.0V	21.0V	11.0V

VOLTAGE CHART - 2/5

IC301 LC876748A-5Z32	1PIN	2PIN	3PIN	4PIN	5PIN	6PIN	7PIN	8PIN	9PIN	10PIN
(STANDBY)	5.2V	0V	5.2V	0V	0V	0V	0V	0V	0V	0V
	11PIN	12PIN	13PIN	14PIN	15PIN	16PIN	17PIN	18PIN	19PIN	20PIN
	5V	2.5V	5.3V	0V	2.5V	2.5V	5.3V	3.3V	1.25V	0V
	21PIN	22PIN	23PIN	24PIN	25PIN	26PIN	27PIN	28PIN	29PIN	30PIN
	5.2V	5.2V	5.2V	5.4V	0V	5.2V	0V	0V	5.0V	0V
	31PIN	32PIN	33PIN	34PIN	35PIN	36PIN	37PIN	38PIN	39PIN	40PIN
	0V	0V	0V	0V	0V	0V	-21.7V	-21.7V	-21.7V	-21.7V
	41PIN	42PIN	43PIN	44PIN	45PIN	46PIN	47PIN	48PIN	49PIN	50PIN
	-21.7V	-21.7V	-21.7V	-21.7V	-16.9V	0.5V	-21.0V	-21.0V	-25.0V	-21.0V
	51PIN	52PIN	53PIN	54PIN	55PIN	56PIN	57PIN	58PIN	59PIN	60PIN
	25.0V	-23.8V	-24.8V	-24.8V	-19.7V	-19.5V	-24.0V	-19.5V	-24.1V	-15.2V
	61PIN	62PIN	63PIN	64PIN	65PIN	66PIN	67PIN	68PIN	69PIN	70PIN
	-24.1V	-24.8V	-24.8V	-24.8V	-24.8V	-24.8V	0V	0V	0.25V	2.5V
	71PIN	72PIN	73PIN	74PIN	75PIN	76PIN	77PIN	78PIN	79PIN	80PIN
	-2.3V	5.2V	-4.8V	-4.8V	-2.8V	-2.8V	-2.8V	-1.8V	-1.8V	-1.8V
	81PIN	82PIN	83PIN	84PIN	85PIN	86PIN	87PIN	88PIN	89PIN	90PIN
	0V	0V	0V	0V	0V	5.0V	0V	0V	0V	5.3V
	91PIN	92PIN	93PIN	94PIN	95PIN	96PIN	97PIN	98PIN	99PIN	100PIN
	0V	0V	0V	1.6V	0V	0V	0V	5.1V	0V	0V

2. TAPE

IC301 LC876748A-5Z32	1PIN	2PIN	3PIN	4PIN	5PIN	6PIN	7PIN	8PIN	9PIN	10PIN
(98PIN 0V/REC.)	0V	0V	0V	0V	0V	0V	0V	5.2V	11.6V	0V
	11PIN	12PIN	13PIN	14PIN	15PIN	16PIN	17PIN	18PIN	19PIN	20PIN
	5.1V	0V	0V	0V	2.5V	2.5V	5.2V	3.3V	5.2V	0V
	21PIN	22PIN	23PIN	24PIN	25PIN	26PIN	27PIN	28PIN	29PIN	30PIN
	0V	5.2V	5.2V	5.3V	0V	2.0V	0V	0V	5.0V	0V
	31PIN	32PIN	33PIN	34PIN	35PIN	36PIN	37PIN	38PIN	39PIN	40PIN
	0V	0V	0V	0V	0V	0V	-21.0V	-21.0V	-21.0V	-21.0V
	41PIN	42PIN	43PIN	44PIN	45PIN	46PIN	47PIN	48PIN	49PIN	50PIN
	-21.0V	-21.0V	-21.0V	-21.0V	-1.8V	5.2V	-5.0V	-16.0V	-24.5V	-20.4V
	51PIN	52PIN	53PIN	54PIN	55PIN	56PIN	57PIN	58PIN	59PIN	60PIN
	-24.5V	20.6V	-11.3V	-16.0V	-8.0V	-8.0V	-20.6V	-20.6V	-24.5V	-8.0V
	61PIN	62PIN	63PIN	64PIN	65PIN	66PIN	67PIN	68PIN	69PIN	70PIN
	-24.5V	-24.5V	-24.5V	-24.5V	-24.5V	-24.5V	0V	0V	2.5V	2.5V
	71PIN	72PIN	73PIN	74PIN	75PIN	76PIN	77PIN	78PIN	79PIN	80PIN
	0V	5.2V	0V	0V	0V	0V	0V	0V	0V	0V
	81PIN	82PIN	83PIN	84PIN	85PIN	86PIN	87PIN	88PIN	89PIN	90PIN
	0V	0V	0V	0V	0V	0V	0V	0V	0V	5.3V
	91PIN	92PIN	93PIN	94PIN	95PIN	96PIN	97PIN	98PIN	99PIN	100PIN
	0V	0V	0V	1.6V	0.1V	0V	0V	5.1V	5.3V	0V

	G	D	S		B	C	E
Q305 2SK2158	2.1V	0V	0V	Q306 DTA124EK	0V	2.4V	2.4V
Q308 2SK2158	2.1V	0V	0V	Q309 2SA1162GR	0.1V	0V	0V
Q307 2SK2158	2.1	0V	0V	Q450 2SC3052F	0.8V	0.2V	0.2V
	B	C	E	Q451 2SC5343GL	0.2V	11.5V	0
Q304 DTA124EK	0V	2.38V	2.45V	Q310 2SA1162GR	0.1V	0V	0V

VOLTAGE CHART - 3/5

3. REC

	G	D	S		B	C	E
Q305 2SK2158	-7.0V	0V	-18.2V	Q454 2SC5343GL	3.8V	10.3V	4.2V
Q307 2SK2158	-7.0V	0V	-18.2V	Q309 2SA1162GR	-0.7V	0V	0V
Q308 2SK2158	-7.0V	0V	-18.2V	Q310 2SA1162GR	-0.7V	0V	0V
	B	C	E	Q450 2SC3052F	1.3V	3.6V	0.7V
Q453 2SC5343GL	3.8V	10.3V	4.2V	Q451 2SC5343GL	0.7V	3.8V	0.7V

4. CD

IC301 LC876748A-5Z32	1PIN	2PIN	3PIN	4PIN	5PIN	6PIN	7PIN	8PIN	9PIN	10PIN
	4.2V	0V	5.3V	1.7V	4.8V	0.3V	0V	0V	0V	0V
	11PIN	12PIN	13PIN	14PIN	15PIN	16PIN	17PIN	18PIN	19PIN	20PIN
	5.1V	0V	5.3V	0V	2.5V	2.5V	5.2V	3.3V	5.2V	0V
	21PIN	22PIN	23PIN	24PIN	25PIN	26PIN	27PIN	28PIN	29PIN	30PIN
	5.2V	5.2V	5.2V	0V	0.5V	5.2V	0V	0V	5.0V	0V
	31PIN	32PIN	33PIN	34PIN	35PIN	36PIN	37PIN	38PIN	39PIN	40PIN
	0V	0V	-5.0V	-5.0V	-5.0V	-5.0V	-21.0V	-21.0V	-21.0V	-21.0V
	41PIN	42PIN	43PIN	44PIN	45PIN	46PIN	47PIN	48PIN	49PIN	50PIN
	-21.0V	-21.0V	-21.0V	-21.0V	-15.7V	5.2V	-7.6V	-19.6V	-18.9V	-18.9V
	51PIN	52PIN	53PIN	54PIN	55PIN	56PIN	57PIN	58PIN	59PIN	60PIN
	-24.5V	-20.8V	-7.7V	-11.3V	-7.5V	-16.7V	-16.8V	-20.8V	-20.8V	-16.8V
	61PIN	62PIN	63PIN	64PIN	65PIN	66PIN	67PIN	68PIN	69PIN	70PIN
	-19.9V	-14.5V	-23.6V	-23.5V	-23.5V	-23.5V	0V	0V	2.5V	2.5V
	71PIN	72PIN	73PIN	74PIN	75PIN	76PIN	77PIN	78PIN	79PIN	80PIN
	1.3V	5.2V	1.4V	1.3V	1.3V	1.4V	1.4V	0V	0V	0V
	81PIN	82PIN	83PIN	84PIN	85PIN	86PIN	87PIN	88PIN	89PIN	90PIN
	0V	0V	0V	0V	0V	0V	0V	0V	0V	5.3V
	91PIN	92PIN	93PIN	94PIN	95PIN	96PIN	97PIN	98PIN	99PIN	100PIN
	0V	0V	0V	1.8V	0V	0V	0V	5.1V	5.3V	5.3V

IC551 BU4066BCF	1PIN	2PIN	3PIN	4PIN	5PIN	6PIN	7PIN	8PIN	9PIN	10PIN
	2.5V	2.5V	2.5V	2.5V	4.9V	4.9V	0V	2.6V	2.6V	2.6V
	11PIN	12PIN	13PIN	14PIN						
	2.6V	4.9V	4.9V	4.95V						

IC581 BA5949FP	1PIN	2PIN	3PIN	4PIN	5PIN	6PIN	7PIN	8PIN	9PIN	10PIN
	2.7V	2.4V	2.5V	5.2V	5V	5.4V	0V	2.5V	0V	3.0V
	11PIN	12PIN	13PIN	14PIN	15PIN	16PIN	17PIN	18PIN	19PIN	20PIN
	2.1V	0V	2.5V	2.5V	0V	2.5V	2.4V	2.5V	5.6V	5.7V
	21PIN	22PIN	23PIN	24PIN	25PIN	26PIN	27PIN			
	2.5V	2.5V	2.5V	0V	0V	0V	0V			

VOLTAGE CHART - 4/5

IC851 LC78622NE	1PIN	2PIN	3PIN	4PIN	5PIN	6PIN	7PIN	8PIN	9PIN	10PIN
	0V	0V	1.6V	0V	1.9V	4.9V	0.4V	0V	2.5V	2.4V
	11PIN	12PIN	13PIN	14PIN	15PIN	16PIN	17PIN	18PIN	19PIN	20PIN
	0V	0.4V	0V	0.6V	0V	1.9V	0V	4.9V	0V	0V
	21PIN	22PIN	23PIN	24PIN	25PIN	26PIN	27PIN	28PIN	29PIN	30PIN
	2.4V	4.9V	4.9V	0V	0V	0.6V	4.9V	4.9V	0V	0V
	31PIN	32PIN	33PIN	34PIN	35PIN	36PIN	37PIN	38PIN	39PIN	40PIN
	2.4V	0V	0V	0V	0V	4.8V	1.9V	0V	0V	1.97V
	41PIN	42PIN	43PIN	44PIN	45PIN	46PIN	47PIN	48PIN	49PIN	50PIN
	4.8V	0V	4.7V	1.7V	2.2V	0V	0.16V	0V	0.16V	2.5V
	51PIN	52PIN	53PIN	54PIN	55PIN	56PIN	57PIN	58PIN	59PIN	60PIN
	0V	2.5V	1.8V	0V	0.4V	5.3V	4.2V	4.9V	0V	1.7V
	61PIN	62PIN	63PIN	64PIN						
	2.2V	0V	0V	0V						

IC501 LA9241ML	1PIN	2PIN	3PIN	4PIN	5PIN	6PIN	7PIN	8PIN	9PIN	10PIN
	2.5V	2.5V	2.6V	0V	2.5V	2.5V	2.5V	2.5V	2.5V	2.5V
	11PIN	12PIN	13PIN	14PIN	15PIN	16PIN	17PIN	18PIN	19PIN	20PIN
	2.5V	2.5V	2.5V	2.5V	2.5V	2.5V	2.5V	2.5V	2.5V	2.5V
	21PIN	22PIN	23PIN	24PIN	25PIN	26PIN	27PIN	28PIN	29PIN	30PIN
	2.5V	0V	0V	2.5V	2.5V	2.5V	2.7V	2.5V	2.5V	2.4V
	31PIN	32PIN	33PIN	34PIN	35PIN	36PIN	37PIN	38PIN	39PIN	40PIN
	2.4V	0V	0V	4.9V	0V	1.7V	0V	0.6V	0V	0.4V
	41PIN	42PIN	43PIN	44PIN	45PIN	46PIN	47PIN	48PIN	49PIN	50PIN
	2.9V	2.4V	2.4V	2.5V	0V	2.5V	2.5V	0V	0V	2.4V
	51PIN	52PIN	53PIN	54PIN	55PIN	56PIN	57PIN	58PIN	59PIN	60PIN
	4.3V	5.3V	0V	4.9V	0V	4.9V	2.5V	2.5V	3.3V	3.4V
	61PIN	62PIN	63PIN	64PIN						
	2.2V	3.6V	0.2V	4.9V						

	B	C	E
Q501 2SA1162GR	3.6V	1.9V	4.7V
Q581 2SA1981Y	5.2V	4.9V	5.9V

VOLTAGE CHART - 5/5

5.TUNER (FM)

IC301 LC876748A-5Z32	1PIN	2PIN	3PIN	4PIN	5PIN	6PIN	7PIN	8PIN	9PIN	10PIN
	0V	0V	0V	0V	0V	0V	0V	0V	0V	0.3V
	11PIN	12PIN	13PIN	14PIN	15PIN	16PIN	17PIN	18PIN	19PIN	20PIN
	5.1V	0V	5.3V	0V	2.5V	2.5V	5.2V	3.3V	1.5V	0V
	21PIN	22PIN	23PIN	24PIN	25PIN	26PIN	27PIN	28PIN	29PIN	30PIN
	5.2V	5.2V	5.2V	0V	0V	5.2V	0V	0V	5.0V	0V
	31PIN	32PIN	33PIN	34PIN	35PIN	36PIN	37PIN	38PIN	39PIN	40PIN
	0V	0V	0V	0V	0V	0V	-20.8V	-20.8V	-20.8V	-20.8V
	41PIN	42PIN	43PIN	44PIN	45PIN	46PIN	47PIN	48PIN	49PIN	50PIN
	-20.8V	-20.8V	-20.8V	-20.8V	-4.5V	5.2V	-7.6V	-4.3V	-20.3V	-23.8V
	51PIN	52PIN	53PIN	54PIN	55PIN	56PIN	57PIN	58PIN	59PIN	60PIN
	-24.2V	-13.7V	-8.5V	-8.5V	-3.5V	-5.5V	-19.0V	-23.7V	-23.7V	-9.5V
	61PIN	62PIN	63PIN	64PIN	65PIN	66PIN	67PIN	68PIN	69PIN	70PIN
	-24.0V	-24.0V	-20.0V	-20.0V	-24.0V	-24.0V	0V	0V	2.5V	2.5V
	71PIN	72PIN	73PIN	74PIN	75PIN	76PIN	77PIN	78PIN	79PIN	80PIN
	0V	5.2V	0V	0V	0V	0V	0V	0V	0V	0V
	81PIN	82PIN	83PIN	84PIN	85PIN	86PIN	87PIN	88PIN	89PIN	90PIN
	0V	0V	0V	0V	0V	0V	0V	5.3V	0V	5.3V
	91PIN	92PIN	93PIN	94PIN	95PIN	96PIN	97PIN	98PIN	99PIN	100PIN
	0V	5.8V	5.8V	1.9V	0V	0V	0V	5.1V	5.3V	0V

	B	C	E		B	C	E
Q981 2SA1980	11.1V	8.3V	11.8V	Q836 SRA2207	0.95V	8.2V	8.3V
Q982 2SC3052	5.3V	11.1V	4.8V	Q904 2SC2620B	7.3V	8.0V	6.7V
Q983 2SC3052	5.3V	8.3V	4.8V	Q902 2SC2620	0.7V	0V	0V
Q835 2SA2714	4.9V	6.3V	4.2V	Q901 2SK360	0V	6.3V	0V
Q951 2SC2714	0.7V	8.2V	8.2V	Q903 2SC2620	0.7V	0V	5.9V
Q952 2SD1306	0.7V	0V	0V	Q905 2SC2620	0.1V	6.1V	0.1V
Q948 2SD1307	0.7V	0V	0V				

IC 991(LC72131D-N)	1PIN	2PIN	3PIN	4PIN	5PIN	6PIN	7PIN	8PIN	9PIN	10PIN
	2.7V	0V	0V	0.14V	0V	5.9V	1.7V	7.14V	0V	0V
	11PIN	12PIN	13PIN	14PIN	15PIN	16PIN	17PIN	18PIN	19PIN	20PIN
	0V	0V	8.3V	0V	0V	2.7V	5.5V	1.0V	1.0V	2.3V
	21PIN	22PIN								
	0V	2.7V								

IC801(LA1845N-A)	1PIN	2PIN	3PIN	4PIN	5PIN	6PIN	7PIN	8PIN	9PIN	10PIN
	2.3V	8.3V	2.3V	2.3V	0V	8.3V	7.8V	8.3V	8.3V	0.45V
	11PIN	12PIN	13PIN	14PIN	15PIN	16PIN	17PIN	18PIN	19PIN	20PIN
	7.2V	7.3V	3.4V	3.4V	0V	2.3V	2.0V	2.8V	0V	0.3V
	21PIN	22PIN	23PIN	24PIN						
	2.6V	2.6V	8.3V	6.8V						

CD TEST MODE - 1/1

1. How to Start the CD Test Mode

While pressing the CD FUNCTION button, insert the AC plug to the power outlet.
When the test mode started, the message [CD TEST] is displayed.

2. How to Exit the CD Test Mode

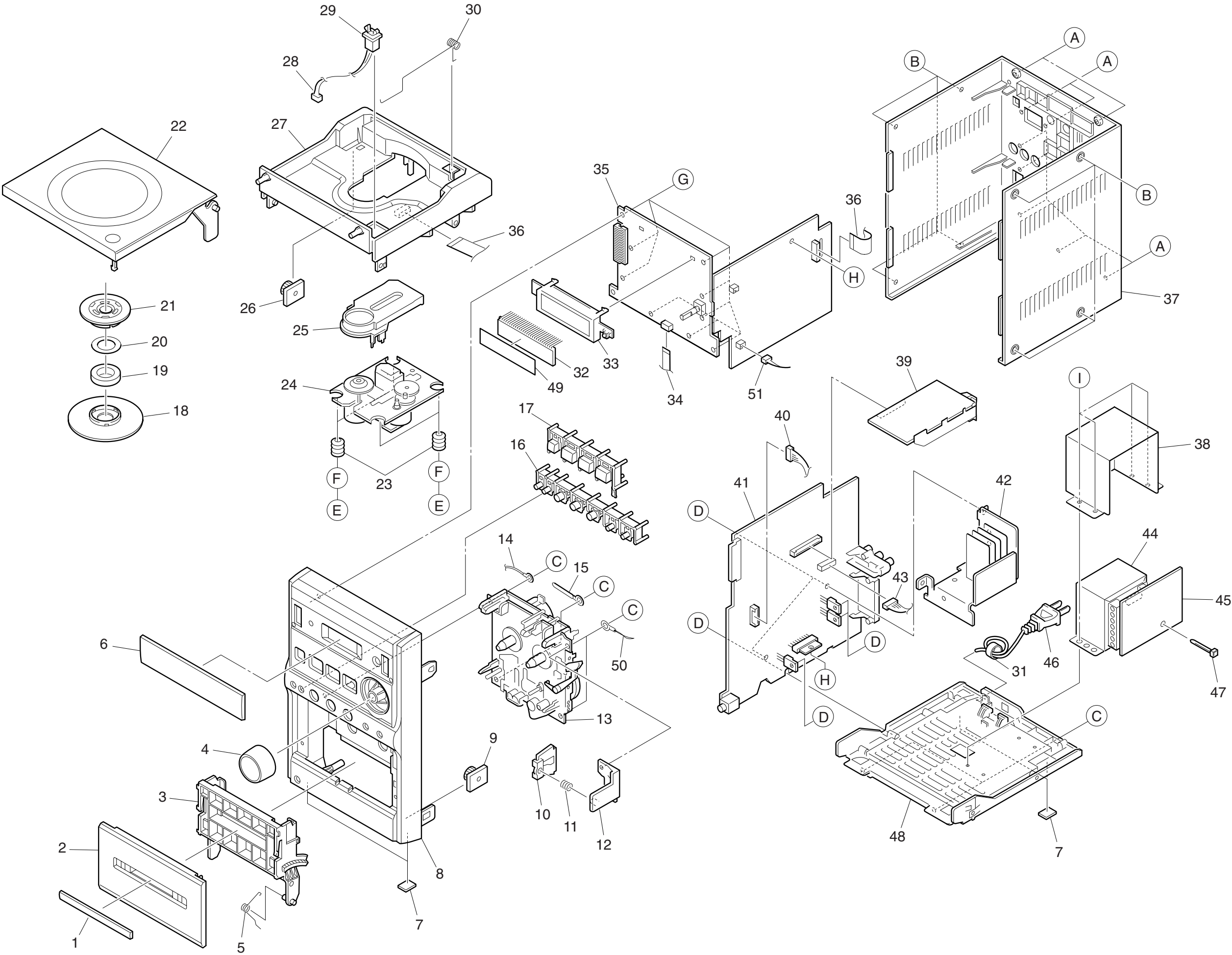
Press the POWER button or disconnect the AC plug.

3. Function and Usage of the CD Test Mode

No	Mode	Button for Activation	Display	Operation	Contents
1	Start Mode		All lights are lit.		<ul style="list-style-type: none"> • Microcomputer check
2	Search Mode	STOP button	READING	<ul style="list-style-type: none"> • LD illuminates all the time • Focus search continues operations *1 • Spindle motor continuous kick 	<ul style="list-style-type: none"> • APC circuit check • Laser current measurement • Focus search waveform check
3	Play Mode	PLAY button	Normal	<ul style="list-style-type: none"> • Normal playback • If TOC cannot be read, focus search is continued 	<ul style="list-style-type: none"> • Each servo circuit is checked • DRF check
4	Traverse Mode	PAUSE button	Normal	<ul style="list-style-type: none"> • Tracking servo OFF/ON STOP button to cancel 	<ul style="list-style-type: none"> • Tracking balance check
5	Sled Mode	FF button	CD TEST	<ul style="list-style-type: none"> • Pickup moves to the inner circumference *2 	<ul style="list-style-type: none"> • Sled circuit check • Mechanism operation check • Pickup Check
		RWD button	CD TEST	<ul style="list-style-type: none"> • Pickup is moves to the outer circumference *2 	

* 1. The driver IC heats up and the protection circuit starts working when the focus search is continued for 10 minutes or longer. There can be a case that operations cannot be performed correctly. In such a case, turn off the main power. After cooling down the machine, restart the machine.

* 2. Be careful not to damage the gear because the sled motor rotates while the FF or RWD button is being pressed even if the pickup is located in the innermost track or the outermost track.



MECHANICAL PARTS LIST -1/1

! = Δ SAFETY PARTS
 C = Components marked

All components used on this model at the production line are shown in this service manual.

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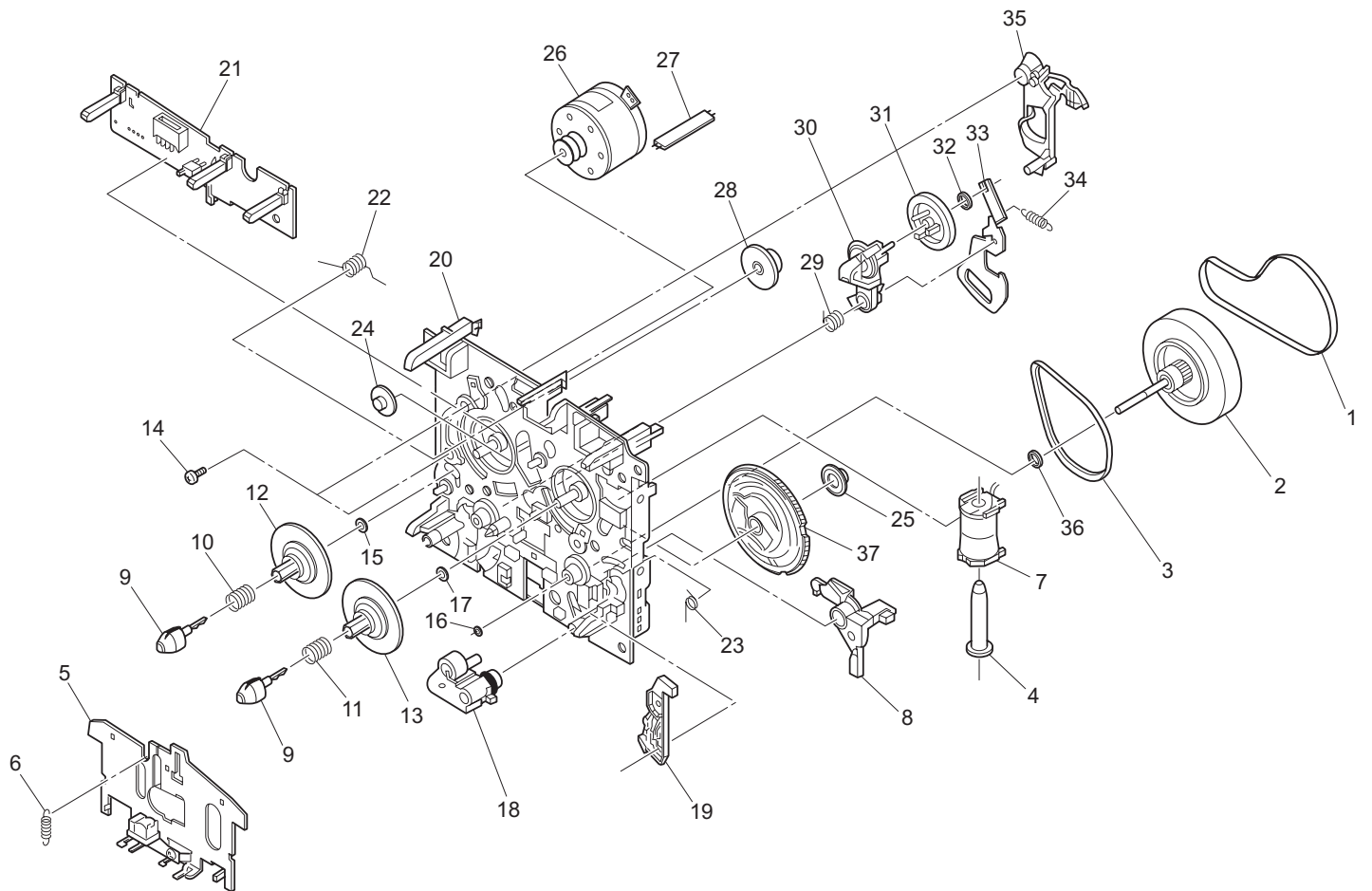
Components marked X and R are not designated as spare parts for after sales service, and will not be stocked at the spare parts centers.

UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20 EZSC	CX-LEM20 KSC
	0	MC1001	8C-CL7-004-010	WINDOW,CASS J-SK805 AS CHIMEI	a	b
	0	MC1002	8C-CL7-002-010	LID CASS HIPS J-NL008 THAI PE	a	b
	0	MC1003	8C-CL6-005-010	BOX,CASS HIPS J-NL008 THAI PE	a	b
	0	MC1004	8C-CL7-005-010	KNOB,RTRY VOL ABS J-NL008 BAS	a	b
	0	MC1005	8C-CL6-205-010	SPRT-CASS SUS304 DIA:0.9	a	b
	0	MC1006	8C-CL7-003-010	WINDOW,FL AS J-SG805 PN-117 9	a	b
	0	MC1007	8Z-CL8-204-010	RUBBER FOOT (PORON HH48C)T=2m	a	b
	0	MC1008	8C-CL7-001-010	CABI FR HIPS J-NL008 T-MS704	a	b
	0	MC1009	86-NFZ-231-010	Damper 70 [DAMPER 70 86-NFZ-2	a	b
	0	MC1010	82-NF5-229-010	LEVER, CASS LOCKER	a	b
	0	MC1011	82-NF5-228-010	Cassette Locker Spring Dia:0.	a	b
	0	MC1012	88-CL5-202-010	HLDR, LOCK (POM) 88-CC5-202-0	a	b
	X	MC1013	M8-CZK-290-070	CMAL5Z213A	a	b
	X	MC1014	88-CL4-707-010	WIRE,ASSY 1P (DECK) L=35mm+5m	a	b
	0	MC1015	87-064-185-010	Mounting Lug (PG CW-2) (CX-NV	a	b
	0	MC1016	8C-CL7-007-010	KEY,OPE ABS J-NL008 BASF: TER	a	b
	0	MC1017	8C-CL7-006-010	KEY,POWER ABS J-NL008 BASF: T	a	b
	0	MC1018	8B-CH4-223-010	BASE,CHUCK (N) ABS BLACK	a	b
	0	MC1019	87-036-368-010	CD Door Magnet (87-036-368-01	a	b
	0	MC1020	84-CD5-217-010	Plate Magnet OD=30.4mm, ID=17	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
	0	MC1021	85-CD7-217-210	HLDR,CHUCK A (BASF) BLACK	a	b
	0	MC1022	8C-CL6-004-010	LID CD ABS, CHI ME1758,94HB,	a	b
	0	MC1023	88-CH6-220-110	Cushion,CDA Rubber(88-CH6-220	a	b
	0	MC1024	M8-CZK-490-070	KSM-213RDM	a	b
	0	MC1025	88-CH6-019-110	PANEL CD (ABS) BLACK 19-11)	a	b
	0	MC1026	8Z-NF6-210-010	DMPR,150 N	a	b
	0	MC1027	8C-CL6-003-010	CHAS,CD (T1) PS, HI650 94HB E	a	b
	0	MC1028	8A-CLD-622-010	CONN ASSY, 2P CD DOOR P=2.0mm	a	b
	0	MC1029	87-036-389-010	SW. PUSH 1-1-1 (50V DC /0.5A)	a	b
	0	MC1030	8C-CL6-207-010	SPRT-CD SUS304 DIA:1.4	a	b
	0	MC1031	87-A90-562-010	F-BEAD , 9.5-17.5-28.5 BRH	a	b
	0	MC1032	8C-CL6-608-010	VACUUM FLUORESCENT DISPLAY HN	a	b
	X	MC1033	8C-CL6-202-010	HLDR,FL ABS,J-BLACK CHIMEI PA	a	b
	0	MC1034	S1-204-182-000	FF-CABLE PITCH=1.25mm L=98mm	a	b
	X	MC1035	8C-CL7-605-010	PWB,FRONT & CD BOARD SIZE: 33	a	b
	0	MC1036	8B-CK6-612-010	FF-CABLE,16P 1.0 CD L=(4+140+	a	b
	0	MC1037	8C-CL6-002-010	CABI,REAR EZ HIPS J-NL089 HI	a	b
	X	MC1038	8C-CL7-202-010	SHIELD,PLATE PT	a	b
	X	MC1039	8C-ZA3-601-010	PWB 3Band TUNER THK=1.6mm 94V	a	b
	0	MC1040	88-CL4-701-010	CONN,ASSY 7PINS RPEH, PITCH=2	a	b
					CX-LEM20 EZSC	CX-LEM20 KSC
	X	MC1041	8C-CL7-606-010	PWB MAIN BOARD SIZE:196x196mm	a	b
	X	MC1042	8A-CLA-629-010	HT-SINK	a	b
	0	MC1043	84-ZG1-675-010	CONN ASSY 6P P=2.5mm L=190mm,	a	b
	!	MC1044	8C-CL7-603-010	Power Transformer, 230V 50Hz	a	b
	X	MC1045	8C-CL7-607-010	PWB,PT BOAD SIZE:196x122mm +/	a	b
	!	MC1046	87-A80-157-110	AC Power Cord ASSY,E.BLACK (2	a	b
	X	MC1047	87-A90-230-010	"Nylon Tie 4"""	a	b
	X	MC1048	8C-CL6-212-010	CHAS, MAIN No.1 ABS J-NL089	a	b
	X	MC1049	8C-CL6-029-010	SH,FL PC T=0.3/0.5mm	a	b
	X	MC1050	8B-CK5-661-010	WIRE,FASTEN LUG MD L=145mm AW	a	b
	0	MC1051	SA-CLD-622-010	2PINS CONNECTOR ASSY L=260mm	a	b
	0	MC1A	87-B10-230-010	RH/TS 3xL10mm,PLATING:NICKEL	a	b
	0	MC1B	87-B10-239-010	KH/TS 3 x L8mm (A133008003)	a	b
	0	MC1C	87-641-096-410	BH/TS 3 x L10mm (TOYO NO. A22	a	b
	0	MC1D	87-741-095-410	BH/TS 3 x L8mm	a	b
	0	MC1E	87-342-074-010	BH/TS 2.6 x L8mm (A122608000)	a	b
	0	MC1F	87-WA5-253-010	Belt Clip Washer (Dia:10 x Di	a	b
	0	MC1G	87-078-156-010	PH/TS 3 x L10mm Nickel (A2130	a	b
	0	MC1H	87-741-094-410	BH/TS 3 x L6mm	a	b
	0	MC1I	87-067-639-010	RH/TS 3 x L10mm (B-TYPE)	a	b

COLOR NAME TABLE -1/1

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	HT	Transparent Gray
HM	Metallic Gray	NH	Champagne Gold	M	Wood Pattern

TAPE MECHANISM EXPLODED VIEW - 1/1 (CMAL5Z213A)



TAPE MECHANISM PARTS LIST - 1/1 (CMAL5Z213A)

! = Δ SAFTY PARTS
 C = Components marked

All components used on this model at the production line are shown in this service manual.

However, please note that not all components will be available as spare parts for after-sales service.

Components marked S and O are designated as spare parts for service and will be stocked at the spare parts centers.

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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
					CMAL5Z213A
	O	ST1001	SF-F19-U31-000	MAIN BELT	a
	O	ST1002	SF-R26-D11-000	ASSY F/W	a
	O	ST1003	SF-F19-S31-000	F/R BELT	a
	O	ST1004	SF-L41-S22-000	PLANGER	a
	O	ST1005	SF-513-888-000	PLATE HD BLK	a
	O	ST1006	SF-K32-T32-000	SPRING HB	a
	O	ST1007	SF-765-295-000	SOLENOID BLK	a
	O	ST1008	SF-D58-P15-000	ARM PLAY	a
	O	ST1009	SF-D53-M51-000	REEL FEATHER	a
	O	ST1010	SF-K32-U12-000	SP REEL (L)	a
	O	ST1011	SF-K32-V12-000	SP REEL (R)	a
	O	ST1012	SF-D52-W61-000	REEL BASE	a
	O	ST1013	SF-D52-W51-000	REEL BASE	a
	O	ST1014	SF-G11-414-000	SCREW, PAN 2.6X5 ZN	a
	O	ST1015	SF-J11-131-000	PW, 4.1X0.13	a
	O	ST1016	SU-J16-F11-000	PW, 1.75X0.4	a
	O	ST1017	SF-J11-135-000	PW, 4.1X0.25	a
	O	ST1018	SF-514-135-000	ROLLER PINCH R BLK	a
	O	ST1019	SF-D58-K13-000	ARM INTERLOCK R	a
	O	ST1020	SF-612-239-000	CHASSIS BASE BLK	a
					CMAL5Z213A
	O	ST1021	SF-567-703-000	PWB CONTROL BLK	a
	O	ST1022	SF-K34-Y11-000	B/C SP	a
	O	ST1023	SF-K32-R21-000	SP ARM PLAY	a
	O	ST1024	SF-D53-K52-000	PLAY GEAR (A)	a
	O	ST1025	SF-D59-F12-000	BUSH	a
	O	ST1026	SF-525-348-000	MTR MAIN BLK	a
	X	ST1027	SW-G58-H02-000	2 CORE JUMPER LEAD	a
	O	ST1028	SF-D60-L12-000	FF GEAR (E)	a
	O	ST1029	SF-K35-K14-000	CAM SP	a
	O	ST1030	SF-522-063-000	CLUTCH ASSY BLK	a
	O	ST1031	SF-D60-B15-000	PULLEY F/R	a
	O	ST1032	SF-J11-117-000	WASHER 1.7X0.25	a
	O	ST1033	SF-C65-W21-000	LEVER F/R	a
	O	ST1034	SF-K35-E14-000	SP ARM F/R	a
	O	ST1035	SF-D58-T12-000	LEVER BRAKE	a
	O	ST1036	SF-J11-130-000	PW, 2.6X0.25	a
	O	ST1037	SF-D61-C14-000	CAM GEAR	a

OTHER PARTS LIST -1/1

- ! = Δ SAFTY PARTS
- C = Components marked

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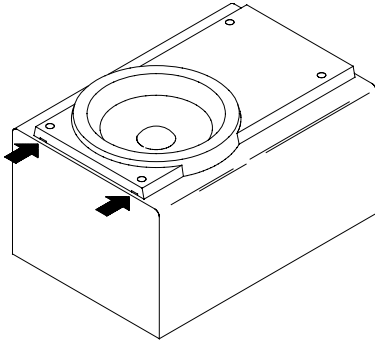
Components marked X and R are not designated as spare parts for after sales service, and will not be stocked at the spare parts centers.

UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL	
					CX-LEM20	CX-LEM20
					EZSC	KSC
	X		8C-CL6-214-010	CUSHION-R, PORON, 15x15x3mm W	a	b
	X		8C-CL6-215-010	FELT CLOTH, 52x12x0.5mm W/DOU	a	b
	X		8C-CL7-851-010	CUSHION,FR	a	b
	X		8C-CL7-851-010	CUSHION,REAR	a	b
	X		87-B40-281-010	Label Bar Code A {Using ART R	a	b
	X		8C-CL7-971-010	LBL,POP,SIZE:36x36mm MATERIAL	a	b
	X		87-B50-079-010	LIST,FACILITY (B)-0007 M:70W/	a	b
	X		S1-1T6-0S0-000	60mm Wire (3+3) UL1007 AWG#28	a	b
	X		87-057-995-010	CLASS 1 LABEL SIZE:(52x27)mm	a	b
	X		8Z-CH4-221-010	Felt (Size:40 x 6 x 0.5)mm W/	a	b
	X		S4-608-833-000	ICT LABEL SIZE:(26 x 10)mm M:	a	b
	X		87-057-961-010	LBL,CAUTION TRIANGLE 2 SIZE:(	a	b
	X		S4-609-461-000	LBL,FUSE (T3.15AL 250V) M: Co	a	b
	X		87-033-220-010	Pin Dia 1 Coating (87-033-220	a	b
	X		8C-CL6-218-010	PLATE SHIELD TAPE	a	b
	X		93-324-066-010	SH,FOAMED MAT 0.5-500-300 SIZ	a	b
	X		8C-ZA3-618-010	SHLD-CASE,CZA-3 EZ S SPTE T 0	a	b
	X		8C-ZA3-604-010	SHLD-CASE,CZA-3 SPTE, T 0.3	a	b
	X		8C-CL7-041-010	LBL,SPEC EZ SIZE:82x54.5mm C=	a	.
	X		87-056-600-010	diff. label k Size:30x20mm M:	.	b
					CX-LEM20	CX-LEM20
					EZSC	KSC
	X		8C-CL7-042-010	LBL,SPEC K SIZE:82x54.5mm C=4	.	b
	X		89-920-030-110	30mm Black (5+5) (DC:300V/0.5A	a	b
	X		S3-018-000-101	COVER PLATE PC THK=0.3mm W/DO	a	b
	X		8C-FL7-854-010	CTN,PRINTED EZSC SIZE:(576x27	a	b
	X		87-056-168-010	Europe Warranty Information C	a	b
	X		87-B40-085-010	Polybag 8 1/2" x 13 1/2" x 0.	a	b
	X		87-B40-093-010	Polybag Size: (450 x 650 x 0.	a	b
	X		87-B40-057-010	Polybag 7" x 7" x 0.05 (RECYC	a	.
	X		S4-005-355-000	BAG PV 0.05-101.6-254PL SIZE:	.	b

GENERAL SPEAKER DISASSEMBLY INSTRUCTIONS (FOR REFERENCE) - 1/1

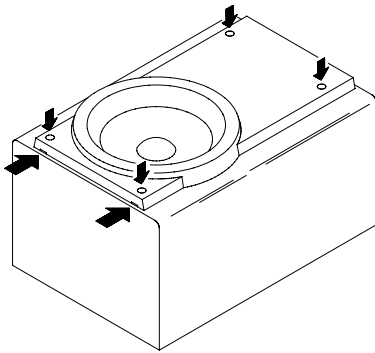
Type.1

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



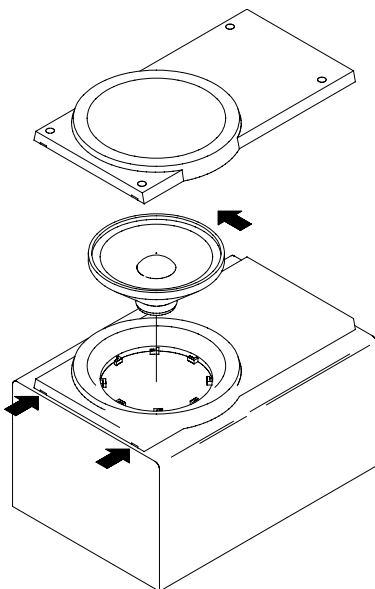
Type.2

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

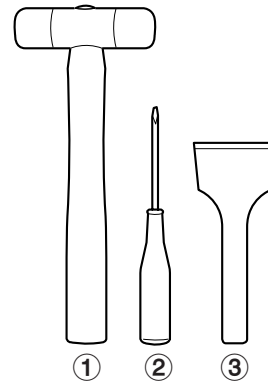


Type.3

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



Type.4



TOOLS

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

How to Remove the PANEL, FR

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

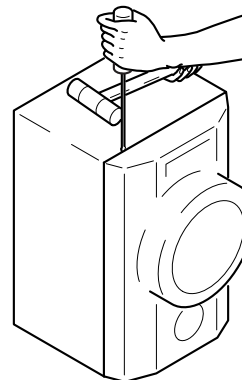


Fig-1

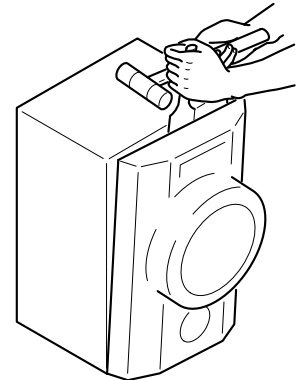


Fig-2

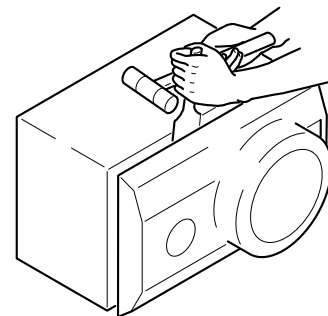


Fig-3

How to Attach the PANEL, FR

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

SPEAKER PARTS LIST -1/1 (SX-LEM20)

! = Δ SAFTY PARTS

C = Components marked

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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
					SX-SLEM20
					YJMN
	X	001	8B-CPX-016-010	BADGE, AIWA 27.5	a
	X	002	8C-CP5-005-010	TUBE,	a
	O	003	8C-CP5-007-010	CORD, SPKR O	a
	O	004	8C-CP5-008-010	CORD, BUSH O	a
	O	005	8C-CP6-602-010	SPKR, 100 16/2	a
	O	006	8C-CP7-001-010	CABI, M	a
	O	007	8C-CP7-002-010	GRILLE, FRAME ASSY	a
	X	008	8C-CP7-003-010	GRILLE, FRAME	a
	X	009	8C-CP7-004-010	NET,	a
	X	010	8C-CP7-006-010	LBL, SPEC YJ	a
	X	011	8C-CP7-851-010	CUSHION, ASSY TTC	a

アイワ株式会社 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 (代表)
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