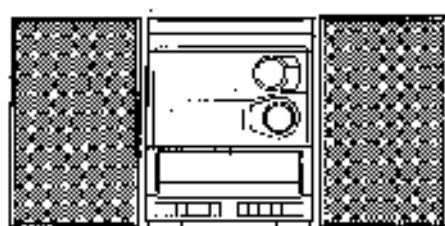


aiwa



NSX-S201 NSX-S202 NSX-S203



CD STEREO SYSTEM

- BASIC TAPE MECHANISM: TN-21ZFW-1788
- BASIC CD MECHANISM: 4ZG-1 Z3DLSHNM/Z4DLSHNC
- TYPE: LH,EZ,K,V

REVISION PUBLISHING

System	CD Mechanism		Tape Mechanism
	Z3DLSHNM	Z4DLSHNC	
NSX-S201<LH> NSX-S202<EZ,K,V> NSX-S203<EZ>	201<LH> 202<EZ> STNM 203<EZ> STNM	202<EZ,K> STNE 202<EZ,K,V> STNC 203<EZ> STNC, STNE	TN-21ZFW-1788

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
NSX-S201	CX-NS201	SX-SNS202	RC UNIT,6AS14
NSX-S202	CX-NS202	SX-NS202	
NSX-S203	CX-NS203	SX-NS202	

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual", S/M Code No. 09-986-285-20A and 09-986-285-2FE.
- If requiring information about the CD mechanism, see Service Manual of 4ZG-1, (S/M Code No.09-983-249-30T)

MANUAL
SERVICE

SPECIFICATIONS

<FM Tuner section> (LH,EZ,K)

Tuning range	87.5 MHz to 108 MHz
Useable sensitivity(IHF)	18.8 dBf
Antenna terminals	75 ohms (unbalanced)

<FM Tuner section> (V)

Tuning range	FM1 (QIRT) 65 MHz to 74 MHz (10 kHz step) FM2 (CCIP) 97.5 MHz to 108 MHz (10 kHz step)
Useable sensitivity(IHF)	FM1 : 15.3 dBf FM2 : 12.8 dBf
Antenna terminals	75 ohms (unbalanced)

<AM (MW) Tuner section>

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

<LW Tuner section> (EZ,K)

Tuning range	144 kHz to 280 kHz
Useable sensitivity	1400 uV/m
Antenna	Loop antenna

<Amplifier section>

Power output	Rated : 12 W + 12 W (8 ohms, THD 1%, 1 kHz/DIN 45500) Reference : 15 W + 15 W (8 ohms, THD 10%, 1 kHz/DIN 45524) DIN MUSIC POWER: 35 W + 35 W
Total harmonic distortion	0.1% (8 W, 1 kHz, 8 ohms, DIN AUDIO)
Inputs	VIDEO/AUX : 600 mV
Outputs	SPEAKERS: 6 ohms or more PHONES (stereo jack) : accepts headphones of 32 ohms or more

<Cassette deck section>

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

<Compact disc player section>

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

<Speaker system SX-NS202

Cabinet type	2 way, bass reflex (magneto shielded type)
Speakers	Woofer : 120 mm cone type Tweeter : 20 mm ceramic type
Impedance	8 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	230 x 324 x 250 mm
Weight	3.2 kg

<General>

Power requirements	230-V AC, 50 Hz
Power consumption	55 W
Dimensions of main unit	260 x 324 x 337 mm
Weight of main unit	4.6 kg

* Design and specifications are subject to change without notice.

ACCESSORIES / PACKAGE LIST

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

REF. NO.	PART NO.	KANA NO.	DESCRIPTION
1	88-KF9-905-010	IB,K(E)EOP	
1	88-KF9-906-010	IB,E(E9L)R<203EE>	
1	88-KF9-907-010	IB,V(E9L)B<V>	
1	88-KF9-916-010	IB,E(9L)203H<203E2>	
1	88-KF9-923-010	IB,LE(P)OCB 201<E>	
2	87-006-225-010	AM LOOP ANT PCB	
3	87-043-115-010	ANT FEEDER FM<LR,V>	
4	87-290-118-010	ANT WIRE FM(E)<ES,K>	
5	88-KF9-660-010	BC UNIT, 6AS14	

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

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

WARNING!!

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



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

VAROITUS!

Laitteen Käyttäminen muulla kuin tässä käyttöohjeessa mainituilla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylitävässä näkymättömällä lasersäteilylle.

WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för oönskt laserstrålning, som överstiger 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.

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

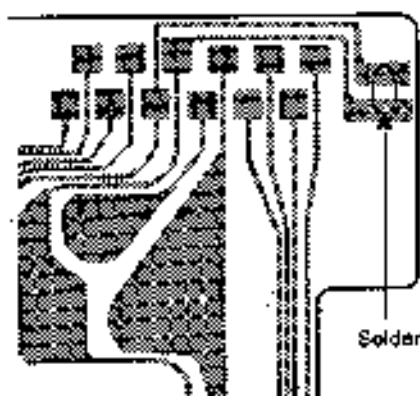
Precaution to replace Optical block

(KSS - 213C)

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.

PICK-UP Assy P.C.B



NOTE ON BEFORE STARTING REPAIR

1. Forced discharge of electrolytic capacitor of power supply block

When repair is going to be attempted in the set that uses relay circuit in the power supply block, electric potential is kept charged across the electrolytic capacitors (C101, 102) even though AC power cord is removed. If repair is attempted in this condition, the secondary defect can occur.

In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

- ① Remove the AC power cord.
- ② Connect a discharging resistor at an end of lead wire that has clips at both ends. Connect the other end of the lead wire to metal chassis.
- ③ Contact the other end of the discharging resistor to the positive (+) side (+VH) of C101. (For two seconds)
- ④ Contact the same end of the discharging resistor as step ③ to the negative (-) side (-VH) of C102 in the same way. (For two seconds)
- ⑤ Check that voltage across C101 and C102 has decreased 1 V or less using a multimeter or an oscilloscope.

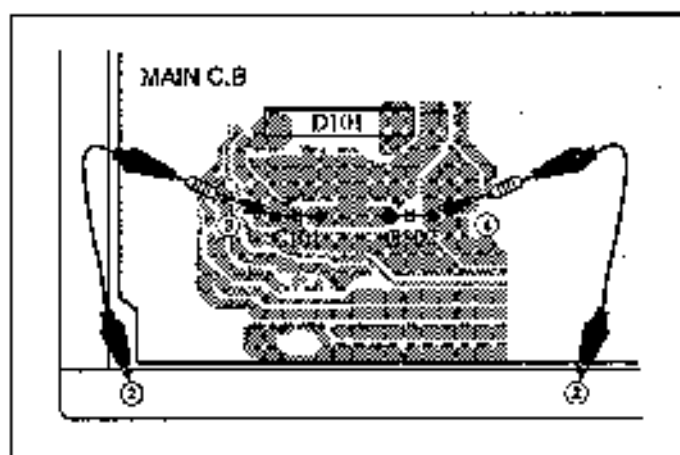


Fig-1

Select a discharging resistor referring to the following table.

Charging voltage (V) (C101, 102)	Discharging resistor (Ω)	Rated power (W)	Parts number
25-48	100	3	87-A00-247-090
49-140	220	5	87-A00-232-090

Note: The reference numbers (C101, C102) of the electrolytic capacitors can change depending on the models. Be sure to check the reference numbers of the charging capacitors on schematic diagram before starting the discharging work.

2. Check items before exchanging the MICROCOMPUTER

Be sure to check the following items before exchanging the MICROCOMPUTER. Exchange the MICROCOMPUTER after confirming that the MICROCOMPUTER is surely defective.

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is "H", the MICROCOMPUTER is judged to be operating correctly. When this terminal is "L", the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.

When the MICROCOMPUTER is not defective, the HOLD terminal can also go "L" when the POWER AMPLIFIER has any abnormalities that trigger the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to "L".

• Good or no good judgement of the MICROCOMPUTER

- ① Turn on the AC main power.
- ② Confirm that the main power is turned on and the HOLD terminal of the MICROCOMPUTER keeps the "H" level or not.
- ③ When the HOLD terminal is "L" level, the abnormality detection circuit is judged to be working correctly and the MICROCOMPUTER is judged to be good.

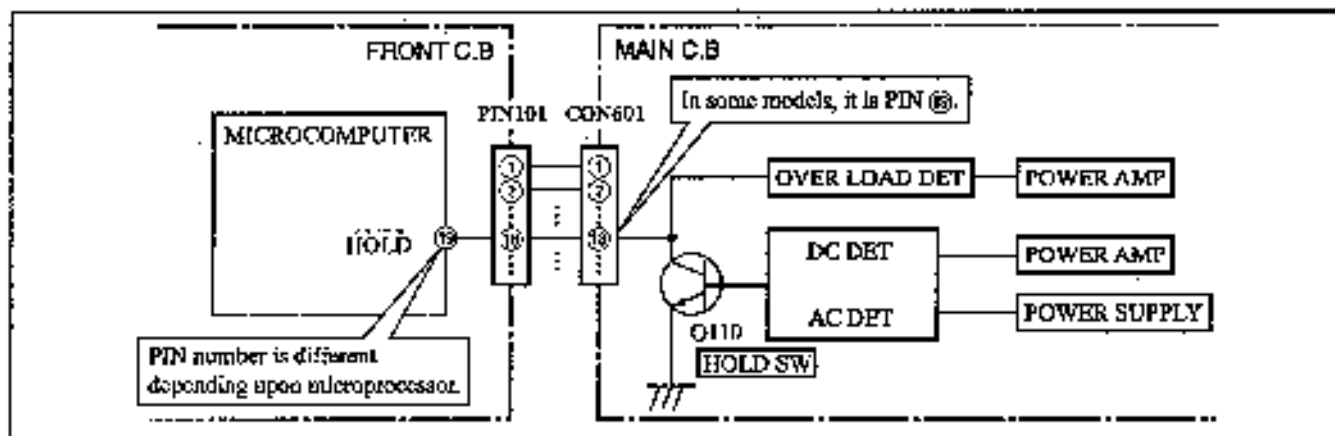


Fig-2-1

In such a case, check also if the POWER AMPLIFIER circuit or power supply circuit has any abnormalities or not.

2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.

When the above described phenomenon occurs, it can lead to wrong judgement as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

- ① Remove the AC power cord.

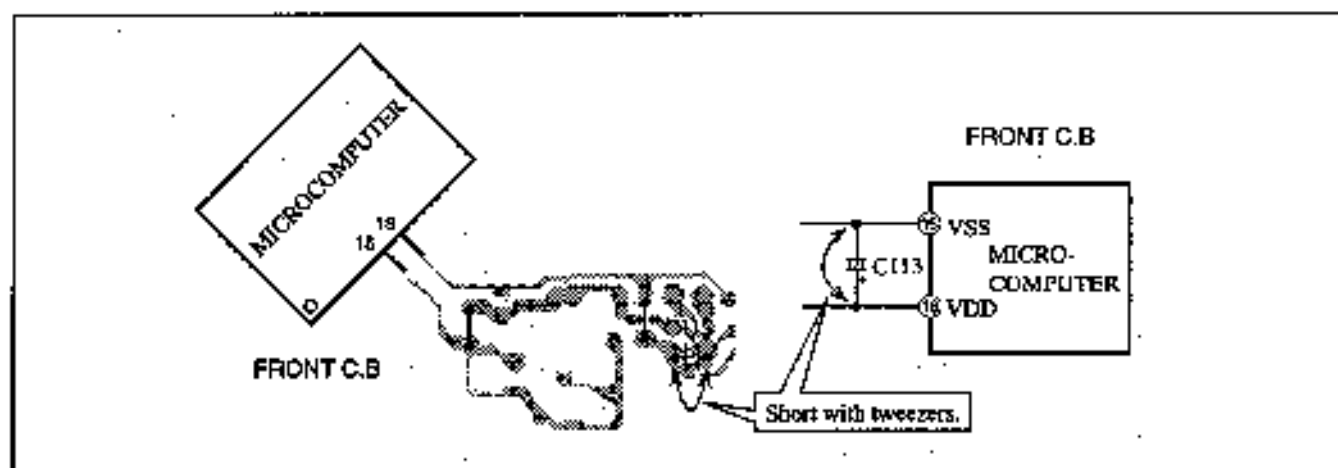


Fig-2-2

- ② Short both ends of the electrolytic capacitor C113 that is connected to VDD of the MICROCOMPUTER with tweezers.
- ③ Connect the AC power cord again. If the MICROCOMPUTER returns to the normal operation, the MICROCOMPUTER is good.

Note: The reference number or MICROCOMPUTER pin number of transistor (Q110) and electrolytic capacitor (C113) can change depending on the models. Be sure to check the reference numbers on schematic diagram before starting the discharging work.

2-3. Confirmation of soldering state of MICROCOMPUTER

Check the soldering state of the MICROCOMPUTER in addition to the above described procedures. Be sure to exchange the MICROCOMPUTER after surely confirming that the trouble is not caused by poor soldering but the MICROCOMPUTER itself.

ELECTRICAL MAIN PARTS LIST

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

REF. NO.	PART NO.	KAKFI NO.	DESCRIPTION	REF. NO.	PART NO.	KAKFI NO.	DESCRIPTION
IC				C219	87-010-544-080		CAP, ELECT 0.1-50V
	87-A20-502-010	IC, BU1920		C220	87-010-544-080		CAP, ELECT 0.1-50V
	88-W79-653-010	IC, LA133782		C221	87-010-211-080		CAP, CER 0.01-50<E2,X>
	88-W79-656-010	IC, LC7213104		C222	87-010-211-080		CAP, CER 0.01-50<E2,X>
	88-W79-659-010	IC, M3885788-P202FF		C223	87-010-134-080		CAPACITOR, TC-U 0.01-16<E2,X>
	88-W79-632-010	IC, M624398P		C224	87-010-134-080		CAPACITOR, TC-U 0.01-16<E2,X>
	87-017-889-010	IC, M704558LO		C229	87-010-123-080		CAP, CER 220P-50V
	87-A20-951-010	IC, T80P1838RF1		C230	87-010-123-080		CAP, CER 220P-50V
				C237	87-010-134-080		CAPACITOR, TC-U 0.01-16
				C239	87-010-402-080		CAP, ELECT 2.2-50V
TRANSISTOR				C240	87-010-402-080		CAP, ELECT 2.2-50V
	89-213-702-010	TR, 2SB1370B		C253	87-010-131-080		CAP, CER 1000P-50V<E2,X>
	88-W79-622-010	TR, 2SB1616		C254	87-010-131-080		CAP, CER 1000P-50V<E2,X>
	87-A30-194-030	TR, 2SC411588S		C255	87-010-115-080		CAP, CER 47P-50V<E2,X>
	89-305-352-380	TR, 2SC335[B/C]<E2,X,V>		C256	87-010-115-080		CAP, CER 47P-50V<E2,X>
	88-W79-621-010	TR, 2SD2478		C257	87-010-119-080		CAP, CER 100P-50V<E2,X>
	87-A30-091-030	FET, 2SJ460		C258	87-010-119-080		CAP, CER 100P-50V<E2,X>
	87-A30-090-030	FET, 2SK2541		C301	87-010-197-080		CAP, CER 1000P-16V
	87-A30-092-030	FET, 2SK139E/F<E2,X>		C302	87-010-197-080		CAP, CER 1000P-16V
	87-A30-164-030	TR, C9C2001K<E2,X>		C303	87-010-196-080		CAP, CER 1000P-16V
	87-026-269-030	TR, DTA114XB<E2,X>		C304	87-010-196-080		CAP, CER 1000P-16V
	87-026-214-030	TR, DTA114XB (0.3W)		C307	87-010-263-080		CAP, ELECT 100-10V
	87-026-213-030	TR, DTA1442S (0.3W)		C308	87-010-263-080		CAP, ELECT 100-10V
	87-026-218-030	TR, DTC1443S (0.2W)		C309	87-010-115-080		CAP, CER 47P-50V<E2,X>
	87-026-609-030	TR, KTA12660R		C310	87-010-115-080		CAP, CER 47P-50V<E2,X>
	87-A30-197-030	TR, KTA1267GR		C315	87-010-375-080		CAP, E 330-10 88E<E2,X>
	87-026-610-030	TR, KXC3198GR		C317	87-010-546-080		CAP, ELECT 0.33-50V
	87-A30-198-030	TR, KXC3199GR		C318	87-010-546-080		CAP, ELECT 0.33-50V
	87-026-372-030	TR, KM1210		C322	87-010-209-080		CAP, CER 0.1-50V<E2,X>
				C323	87-010-209-080		CAP, CER 0.1-50V<E2,X>
DIODE				C326	87-010-209-080		CAP, CER 0.1-50V<E2,X>
	87-A40-354-030	DIODE, 1N5393 GW		C328	87-010-205-080		CAP, CER A-SOL 0.02P<E2,X>
	87-A40-393-030	DIODE, 1N5402GM P20		C329	87-010-209-080		CAP, CER 0.1-50V<E2,X>
	87-A40-336-030	SENER, MTJ270 T-72		C329	87-010-134-080		CAPACITOR, TC-U 0.01-16<V>
	87-A40-470-030	DIODE, 1N5254		C360	87-010-401-080		CAP, ELECT 1-50V
	87-A40-306-030	SENER, DS10M		C361	87-010-374-080		CAP, ELECT 47-10V
	87-A40-345-030	SENER, MTJ270C		C401	87-010-401-080		CAP, ELECT 1-50V<E2,X>
	87-070-274-030	DIODE, 1N4003 SEM		C401	87-010-400-080		CAP, ELECT 0.47-50V<E2,X>
	87-A40-304-030	SENER, DS4.2M		C402	87-010-401-080		CAP, ELECT 1-50V<E2,X>
	87-017-932-030	SENER, MTJ270.7A		C402	87-010-400-080		CAP, ELECT 0.47-50V<E2,X>
	87-A40-292-030	SENER, DS2.7L		C403	87-010-110-080		CAP, TC-U 82P-50 B
	87-A40-464-030	SENER, MTJ270.7A		C404	87-010-110-080		CAP, TC-U 82P-50 B
	87-A40-302-030	SENER, DS3.6M		C411	87-010-405-080		CAP, ELECT 10-50V
	87-017-931-030	SENER, MTJ270.6B		C412	87-010-405-080		CAP, ELECT 10-50V
				C452	87-010-382-080		CAP, ELECT 22-25V
MAIN C.B.				C459	87-010-120-080		CAP, CER A-SOL SS 560V
C101	87-014-493-030	CAP, E 3300-25 88G		C461	87-010-126-080		CAP, TC-U 390P-50 B
C104	87-A10-011-030	CAP, E 2200-25 88G		C462	87-010-126-080		CAP, TC-U 390P-50 B
C105	87-010-127-030	CAP, CER 470P-50V		C461	87-010-195-080		CAP, CER 1200P-16V
C106	87-010-260-030	CAP, ELECT 47-25V		C462	87-010-195-080		CAP, CER 1200P-16V
C107	87-010-344-030	CAP, ELECT 100-25		C461	87-010-545-080		CAP, ELECT 0.22-50V
C108	87-010-381-030	CAP, ELECT 330-16V		C462	87-010-545-080		CAP, ELECT 0.22-50V
C111	87-010-247-030	CAP, ELECT 100-50V		C463	87-010-545-080		CAP, ELECT 0.22-50V
C112	87-010-243-030	CAP, ELECT 100-10V		C464	87-010-545-080		CAP, ELECT 0.22-50V
C113	87-010-403-030	CAP, ELECT 3.3-50V		C465	87-010-104-080		CAP, TC-U 10P-50 BL
C114	87-010-374-030	CAP, ELECT 47-10V		C466	87-010-260-080		CAP, ELECT 47-25V
C122	87-010-384-030	CAP, ELECT 100-25V		C467	87-010-260-080		CAP, ELECT 47-25V
C123	87-010-384-030	CAP, ELECT 100-25V		C701	87-010-404-080		CAP, ELECT 4.7-50V
C127	87-010-134-030	CAPACITOR, TC-U 0.01-16<V>		C702	87-010-134-080		CAPACITOR, TC-U 0.01-16
C130	87-010-131-030	CAPACITOR, CER 1000P-50V<V>		C703	87-010-134-080		CAPACITOR, TC-U 0.01-16
C207	87-010-544-030	CAP, ELECT 0.1-50V		C704	87-010-131-080		CAP, CER 1000P-50V
C208	87-010-544-030	CAP, ELECT 0.1-50V		C705	87-010-131-080		CAP, CER 1000P-50V
C209	87-010-133-030	CAPACITOR, CER 4700P-16V		C706	87-010-131-080		CAP, CER 1000P-50V
C210	87-010-133-030	CAPACITOR, CER 4700P-16V		C707	87-010-112-080		CAP, ELECT 100-16V
C211	87-010-402-030	CAP, ELECT 2.2-50V		C709	87-010-248-080		CAP, ELECT 220-10V
C212	87-010-402-030	CAP, ELECT 2.2-50V		C710	87-010-112-080		CAP, ELECT 100-16V
C213	87-010-260-030	CAP, ELECT 47-25V		C712	87-010-149-080		CAP, TC-U 15P-50 CB
C214	87-010-260-030	CAP, ELECT 47-25V		C713	87-010-149-080		CAP, TC-U 15P-50 CB
				C714	87-010-112-080		CAP, ELECT 100-16V
				C715	87-010-119-080		CAP, CER 100P-30V

REF. NO.	PART NO.	NAME NO.	DESCRIPTION	REF. NO.	PART NO.	NAME NO.	DESCRIPTION
C746	87-018-134-080		CAPACITOR, TC-U 0.01-16	FB103	87-008-372-080		FILTER, EMI BL CIRCUIT<ES, X>
C752	87-018-134-080		CAP, TC-U 4.7P-50CH<ES, X, V>	FB401	87-008-372-080		FILTER, EMI BL CIRCUIT<ES, X>
C753	87-018-134-080		CAP, ELECT 47-50V	PC802	88-906-251-110		FF-CABLE, 6P 1.25
C756	87-018-134-080		CAPACITOR, TC-U 0.01-16	FF800	88-858-191-030		62A-1 YFEURW<LR>
C757	87-018-134-080		CAPACITOR, TC-U 0.01-16	FF801	88-858-191-030		62A-1 YFEURW<ES, R>
C758	87-018-112-080		CAP, ELECT 100-16V	FF801	88-858-191-030		62A-1 YFEURW<ES>
C759	87-018-134-080		CAPACITOR, TC-U 0.01-16	J201	88-858-191-030		JACK, DIA. 3 BLK ST W/SN X115AT
C761	87-018-104-080		CAP, ELECT 0.7-50V	J202	87-A60-238-010		TERMINAL, 6P 4P (MSC)
C762	87-018-104-080		CAP, ELECT 0.47-50V	J601	87-A60-425-010		JACK, PIN 2P TNC21-3838
C763	87-018-101-080		CAP, ELECT 1-50V	J801	87-A60-202-010		TERMINAL, AMI 4P MSF-154V-02<LR, V>
C764	87-018-401-080		CAP, ELECT 1-50V	J801	87-A60-427-010		TERMINAL, AMT BAL 2P<ES, R>
C765	87-018-115-080		CAP, CER 47P-50V	L201	87-003-383-010		COIL, IJH-S
C766	87-018-407-080		CAP, ELECT 33-50V	L202	87-003-383-010		COIL, IJH-S
C768	87-018-208-080		CAP 0.47-50V	L451	87-007-342-010		COIL, OSC 85R BIAS
C769	87-018-403-080		CAP, ELECT 3.3-50V	L701	87-005-847-080		COIL, 2.20H (CSCS)
C770	87-018-134-080		CAPACITOR, TC-U 0.01-16	L771	87-A50-266-010		COIL, FM DET-2H (TOK)
C771	87-018-106-080		CAP, ELECT 22-50	L772	87-A50-733-010		FLTR, PCFASH-450 (TOK)
C773	87-018-131-080		CAP, CER 1000P-50V<LR, V>	L801	87-005-847-080		COIL, 2.20H (CSCS)
C773	87-018-196-080		CAP, CER 1500P-16V<V>	L851	87-005-847-080		COIL, 2.20H (CSCS)<203ES>
C773	87-018-195-080		CAP, CER 1200P-16V<ES>	L941	87-A50-020-010		COIL, ANT LW (COI) 252HEZ<ES, R>
C774	87-018-405-080		CAP, ELECT 10-50V	L942	87-A50-019-010		COIL, OSC LW (COI) 856HEZ<ES, R>
C775	88-266-850-010		CAP, SC 0.047-25 X R	L981	88-879-651-010		COI, AM PACK 4E (TOK)<LR, V>
C783	87-018-131-080		CAP, CER 3300P<LR, V>	L981	87-WF4-651-010		COI, AM PACK 2H (TOK)<ES, X>
C783	87-018-202-080		CAP, CER 5000P<ES, X>	R249	87-A50-258-080		RES, M/P 0.22-1W J
C784	87-018-199-080		CAP, CER 3300P<LR, V>	R250	87-A50-258-080		RES, M/P 0.22-1W J
C784	87-018-202-080		CAP, CER 5000P<ES, X>	TC942	87-013-221-080		CAP, TRIMMER 30P<ES, R>
C785	87-018-405-080		CAP, ELECT 30-50V	W101	83-HE2-618-110		F-CABLE, 5P-2.5
C786	87-018-405-080		CAP, ELECT 10-50V	W102	87-A90-460-010		BLDR, WIRE 2.5-7P
C787	87-018-196-080		CAP, CER 1500P-16V<ES, X, V>	W101	88-879-654-010		VIB, XTAL 4.500 MHZ CSA-309
C787	87-018-132-080		CAP, CER 2200P-16V<LR>	X851	87-WT1-608-010		X, TAL, 4.332MHZ<203ES>
C788	87-018-196-080		CAP, CER 1500P-16V<ES, X, V>				
C788	87-018-132-080		CAP, CER 2200P-16V<LR>				
C789	87-018-403-080		CAP, ELECT 3.3-50V				
C790	87-018-403-080		CAP, ELECT 3.3-50V				
C801	87-018-134-080		CAPACITOR, TC-U 0.01-16<ES, R>				
C802	87-018-134-080		CAPACITOR, TC-U 0.01-16<ES, R>				
C803	87-018-134-080		CAPACITOR, TC-U 0.01-16				
C804	87-018-134-080		CAPACITOR, TC-U 0.01-16				
C806	87-018-134-080		CAPACITOR, TC-U 0.01-16				
C809	87-018-134-080		CAPACITOR, TC-U 0.01-16<ES, X, V>				
C810	87-018-134-080		CAPACITOR, TC-U 0.01-16<ES, X, V>				
C811	87-018-13						

REF. NO.	PART NO.	KANFI NO.	DESCRIPTION
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8304	87-A90-164-080	SN, TACT	8XQAB(N)
8305	87-A90-164-080	SN, TACT	8XQAB(N)
8306	87-A90-164-080	SN, TACT	8XQAB(N)
8307	87-A90-164-080	SN, TACT	8XQAB(N)
8308	87-A90-164-080	SN, TACT	8XQAB(N)
8309	87-A90-164-080	SN, TACT	8XQAB(N)
8310	87-A90-164-080	SN, TACT	8XQAB(N)
8311	87-A90-164-080	SN, TACT	8XQAB(N)
8312	87-A90-164-080	SN, TACT	8XQAB(N)
8313	87-A90-164-080	SN, TACT	8XQAB(N)
8314	87-A90-164-080	SN, TACT	8XQAB(N)
8315	87-A90-164-080	SN, TACT	8XQAB(N)
8316	87-A90-164-080	SN, TACT	8XQAB(N)
8317	87-A90-164-080	SN, TACT	8XQAB(N)
8318	87-A90-164-080	SN, TACT	8XQAB(N)
8319	87-A90-164-080	SN, TACT	8XQAB(N) <20387>
8320	87-A90-164-080	SN, TACT	8XQAB(N)
8321	87-A90-164-080	SN, TACT	8XQAB(N) <20382>
8322	87-A90-164-080	SN, TACT	8XQAB(N) <20382>
8323	87-A90-556-080	8ER, 2.2K H	8000
8324	87-A90-075-080	VIB, CBR	4.19MBX CBRF
8325	87-A90-060-010	HLOC, WIRE	2.5-7P
8326	87-035-219-010	FUSE, 500MA	'T' <LE>
8327	87-035-217-010	FUSE, 315MA	'T' <LE, X, V>
8328	87-033-147-010	FUSE CLAMP	
8329	87-033-147-010	FUSE CLAMP	
8330	87-079-608-010	PI, SWP-9	EX2 <LE, E, V>
8331	87-079-609-010	PI, SWP-9	IN <LE>
8332	87-A90-165-010	SN, SL	1-2-3 SWB2Y01 <LE>
8333	87-A60-317-010	TERMINAL, 1P	NSC
8334	87-A60-317-010	TERMINAL, 1P	NSC

TRANSISTOR ILLUSTRATION



B C B

2SC4115S



B C B

2SC535
CSC2001
KTA1266
KTC3198



B C B

2SB1370



B C B

DTA114ES
DTA114YS
DTA144BS
DTC144LS
RN1210



S D O

2SJ460



B C B

2SB1616
2SD2478



B C B

KTA1267
KTC3199



S D G

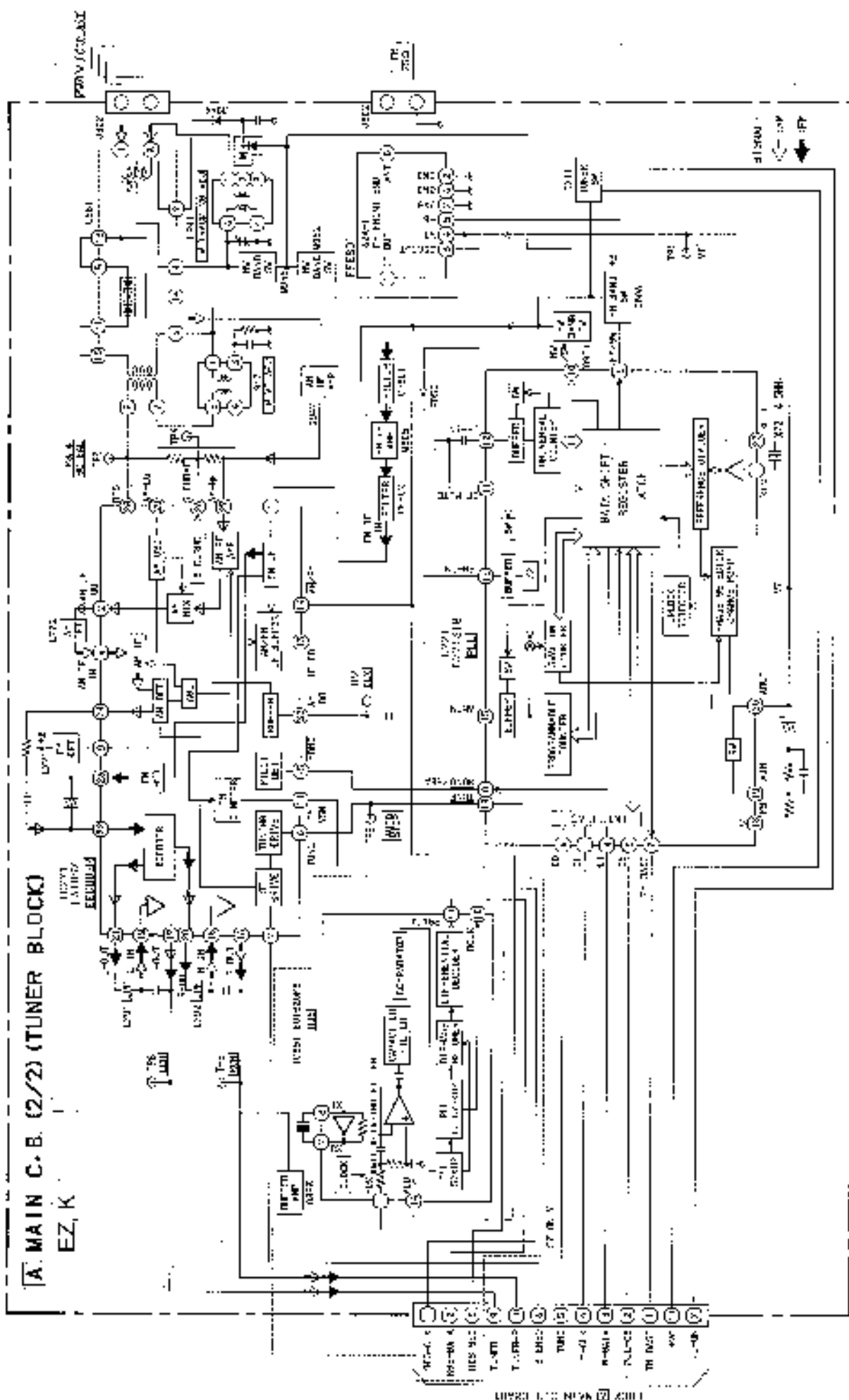
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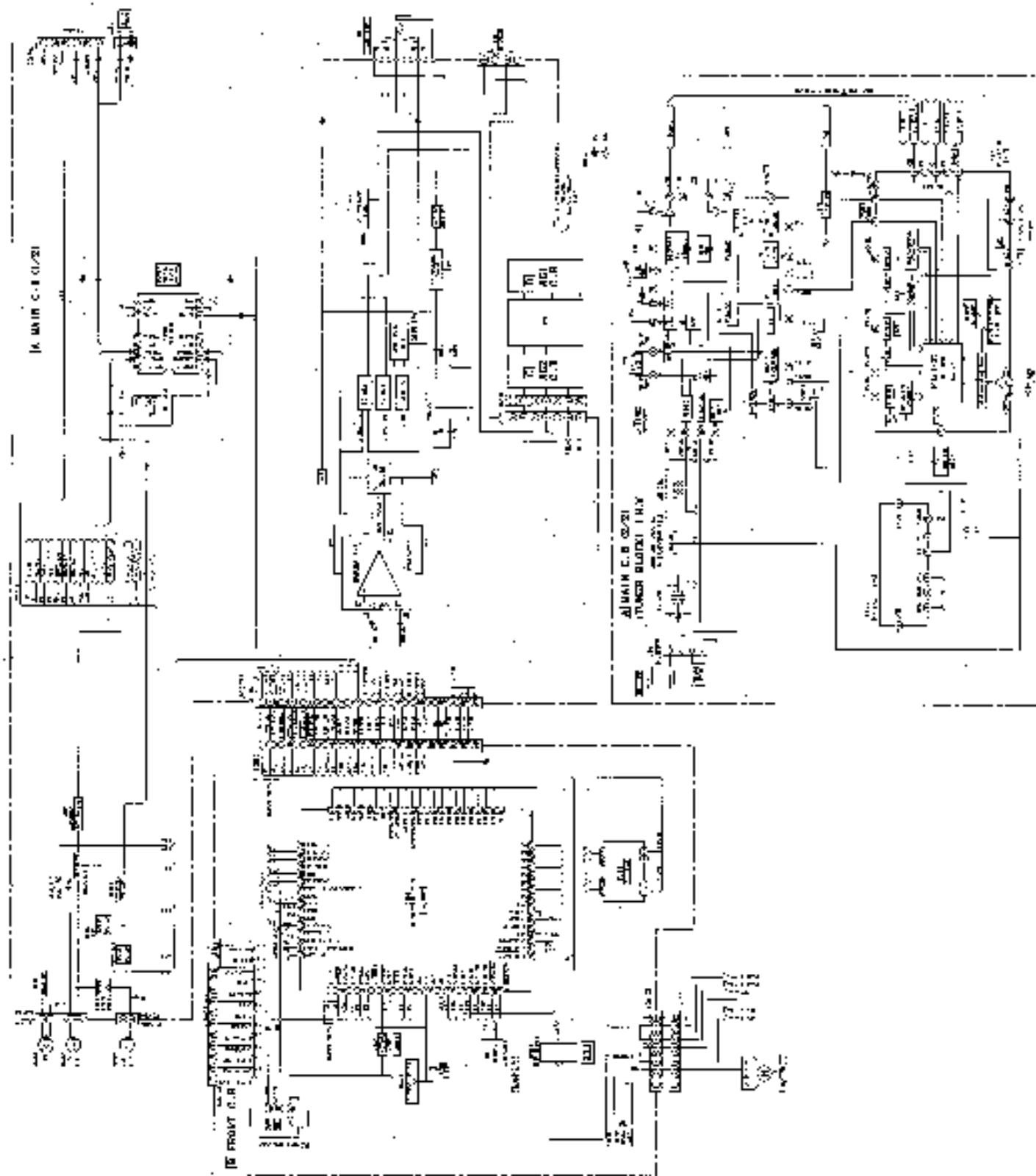
O S D

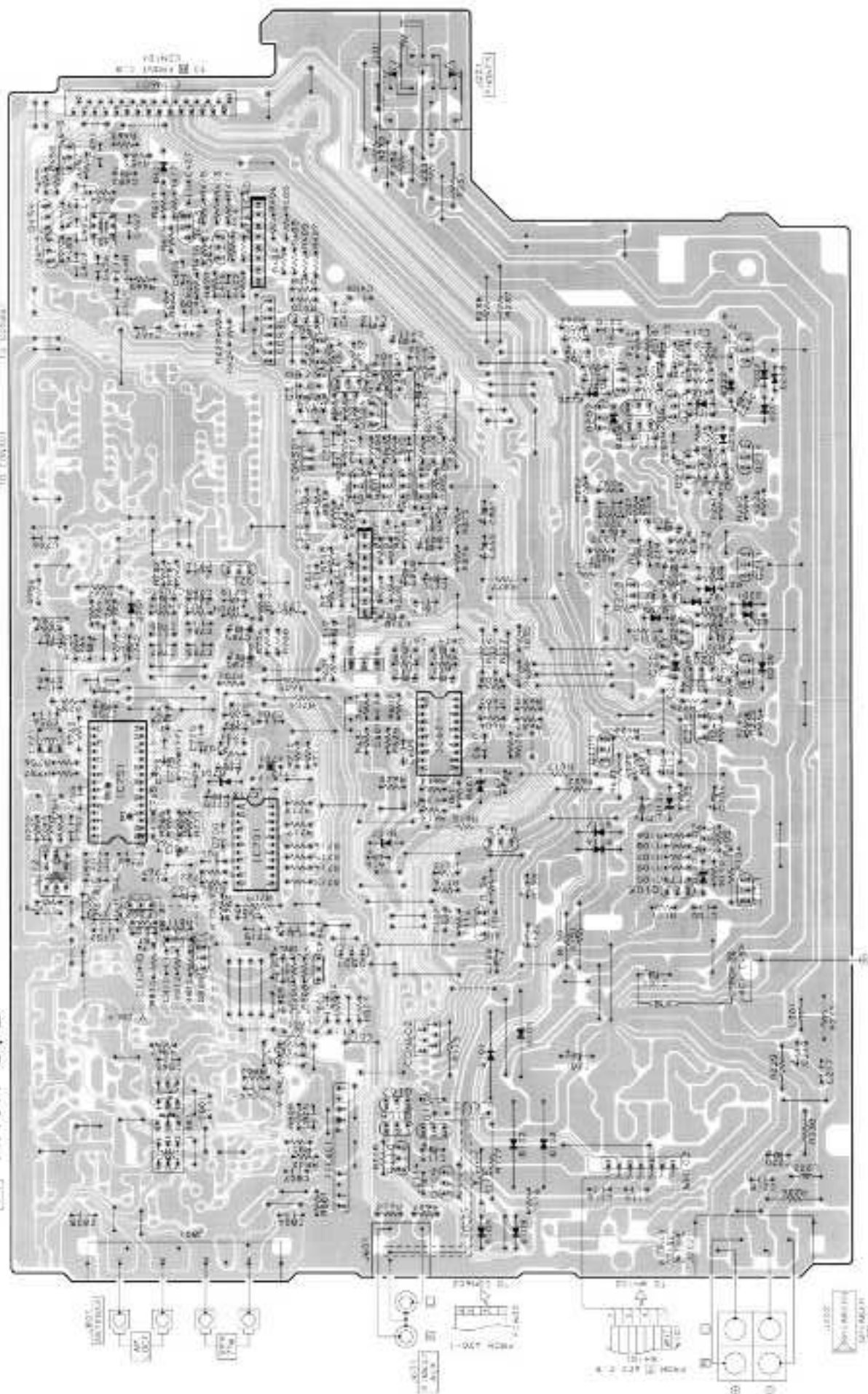
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BLOCK DIAGRAM - 1 (EZ, K: MAIN C.B 2/2)

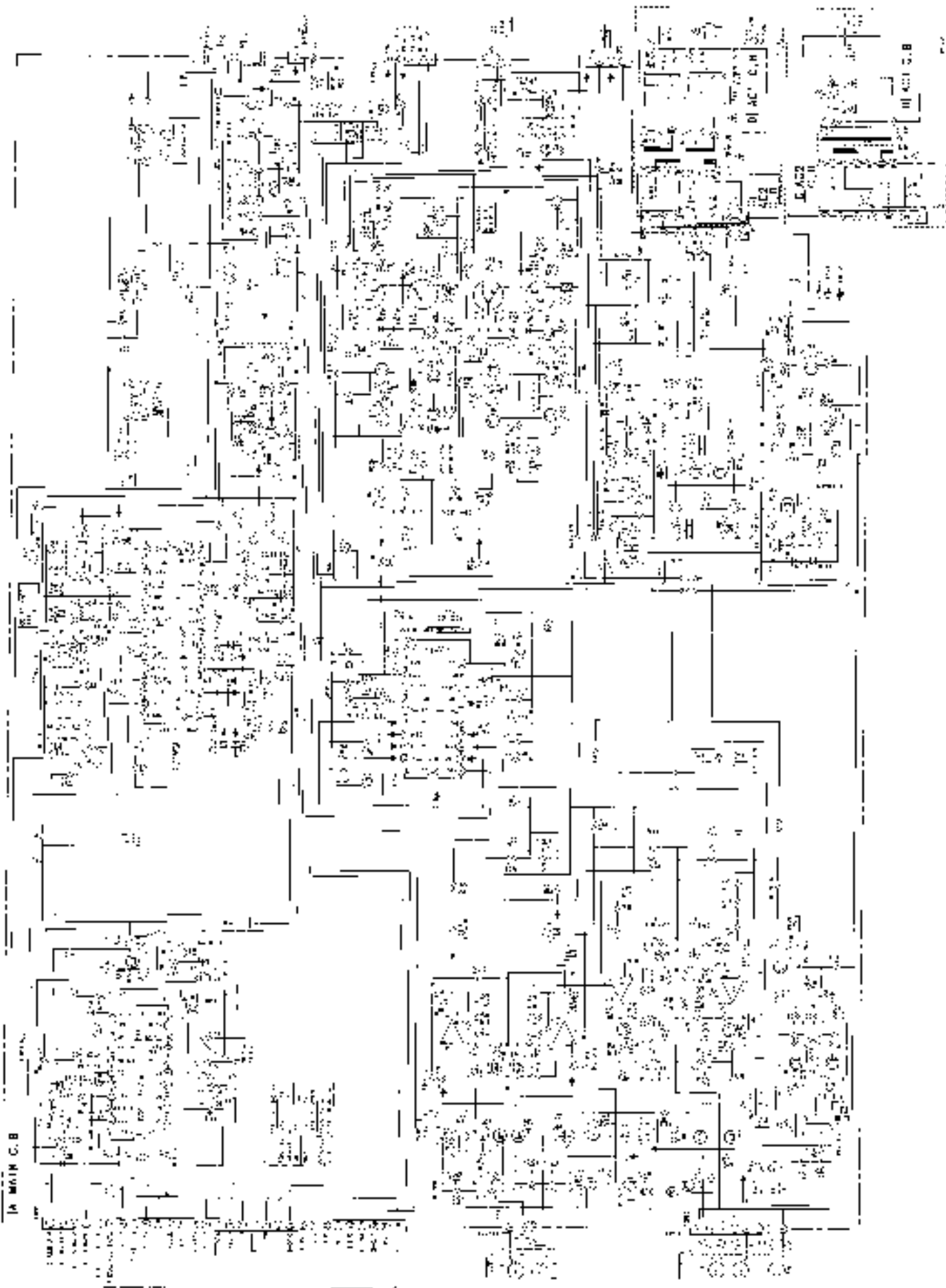


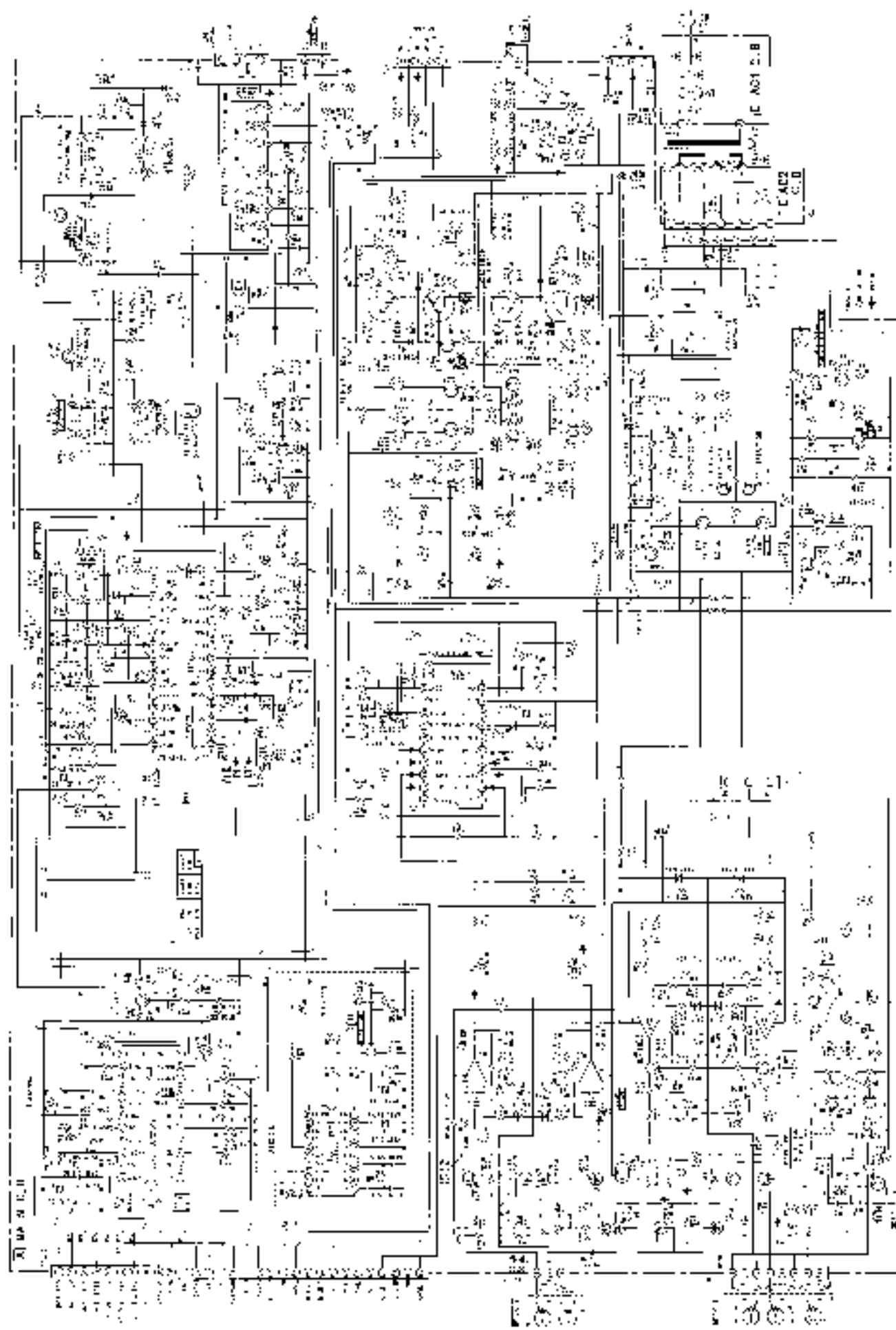
BLOCK DIAGRAM - 2 (MAIN / FRONT)



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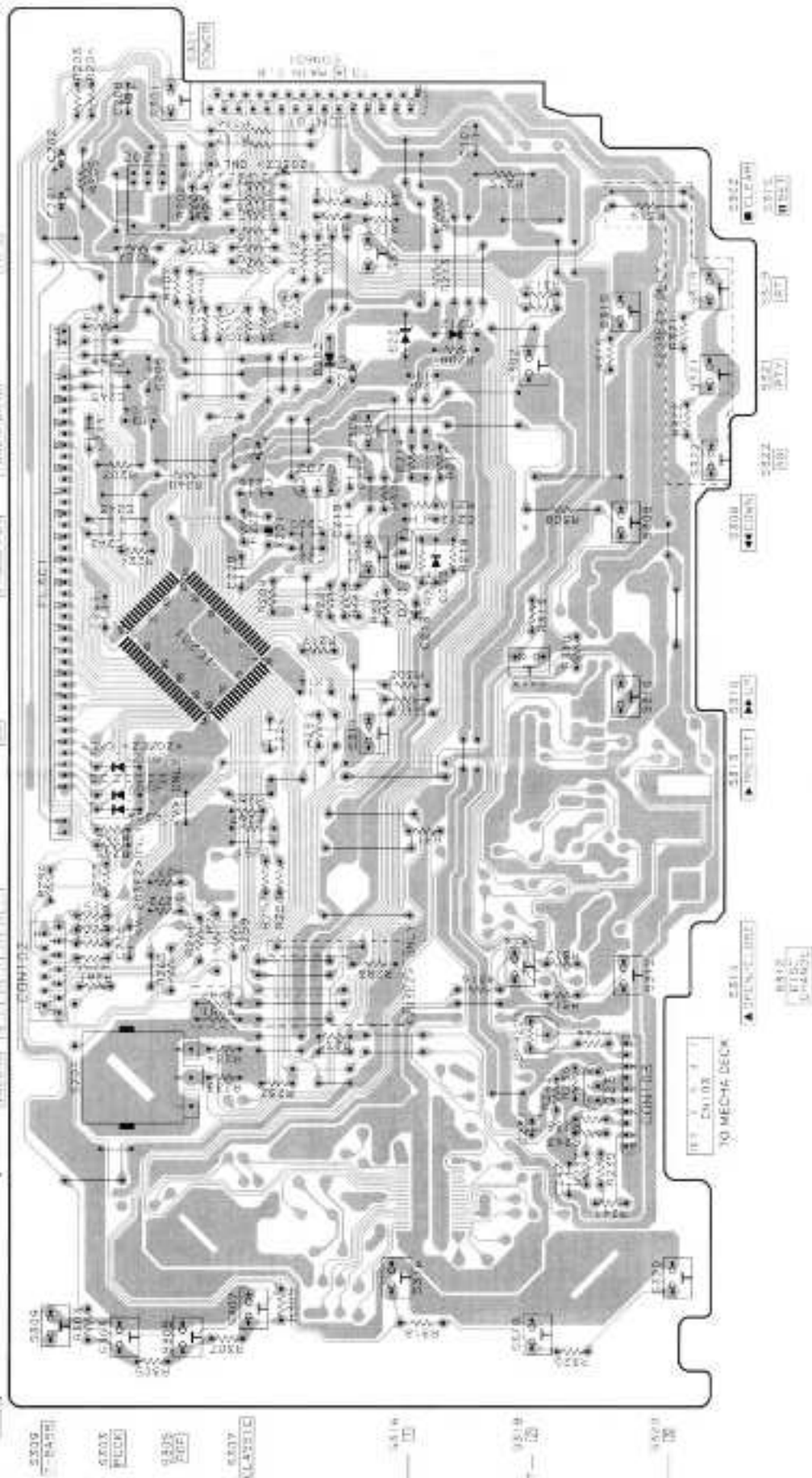
8-7 HIGH P1

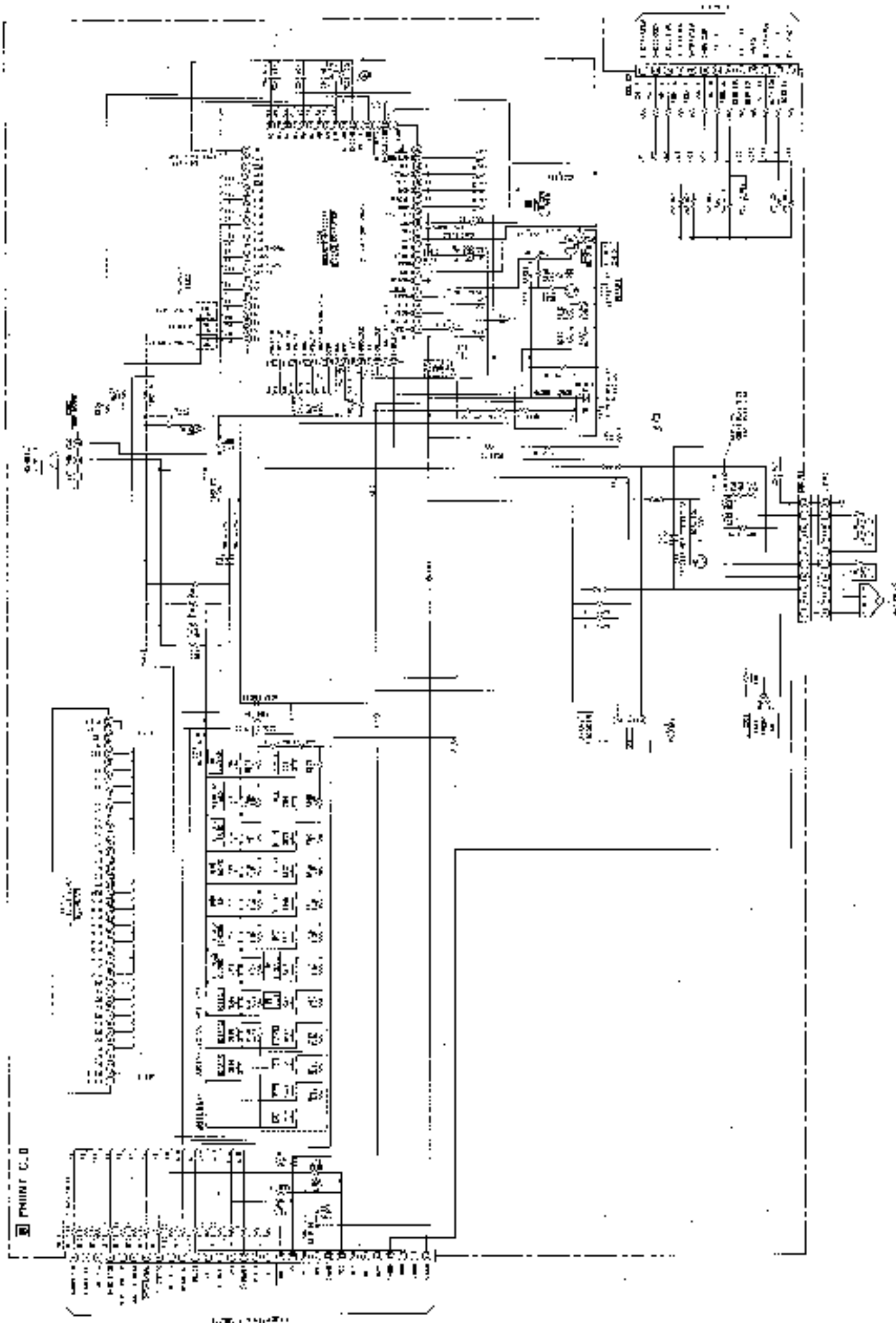




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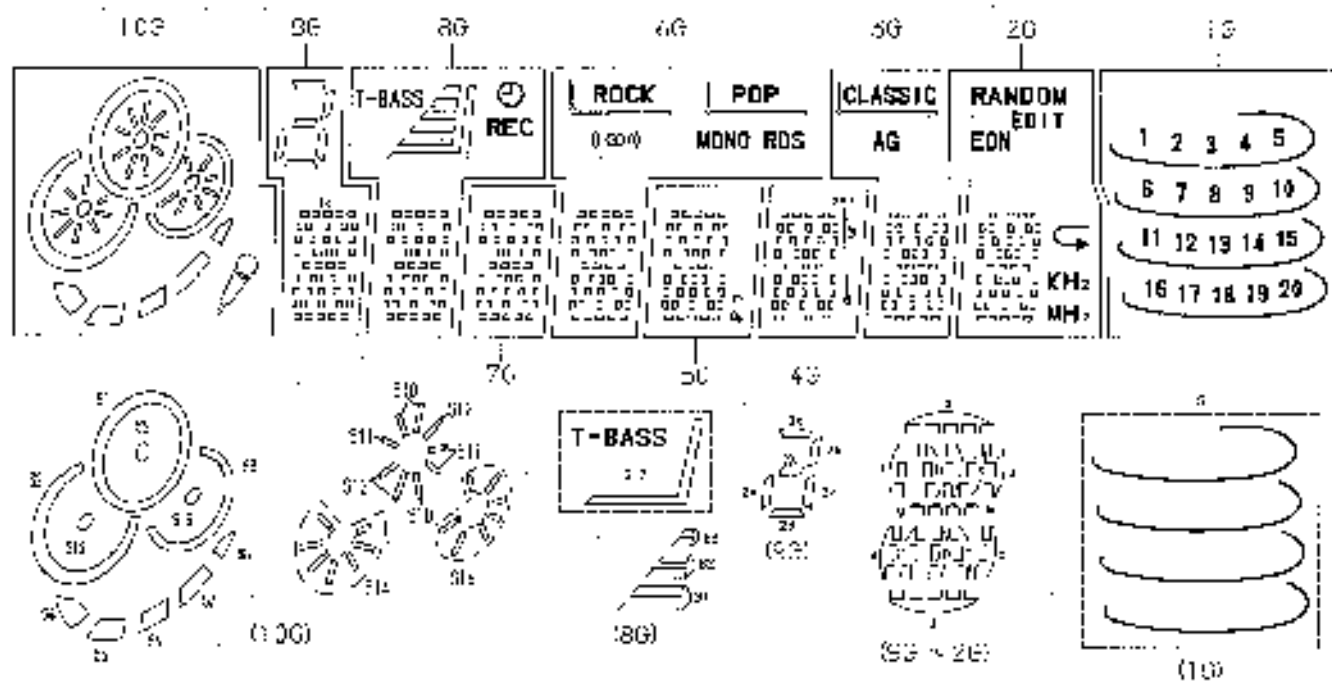
B FRONT C.B





FL GRID ASSIGNMENT AND ANODE CONNECTION

GRID ASSIGNMENT



ANODE CONNECTION

	10G	9G	9C	7G	6G	5G	4G	3G	2G	1G
P1	S6	1d	c	d	d	d	d	d	c	20
P2	S7	1n	n	n	n	n	n	n	n	19
P3	S8	1p	p	p	p	p	p	p	p	18
P4	S14	1r	r	r	r	r	r	r	r	17
P5	S13	1e	e	e	e	e	e	e	e	16
P6	S2	1c	c	c	c	c	c	c	c	15
P7	S16	1g	g	g	g	g	g	g	g	14
P8	S15	1m	m	m	m	m	m	m	m	13
P9	S3	1f	f	f	f	f	f	f	f	12
P10	S12	1b	b	b	b	b	b	b	b	11
P11	S11	1k	k	k	k	k	k	k	k	10
P12	S10	1j	j	j	j	j	j	j	j	9
P13	S9	1h	h	h	h	h	h	h	h	8
P14	S1	1a	a	a	a	a	a	a	a	7
P15	S5		REC	(1000)	100 (E040)			MHz	6	
P16	S4			MONO	100 (U7)			KHz	5	
P17		2c, 2g 2c	S17		RDS			AG 	4	
P18		2e	31		(ROCK)			CLASSIC EON	3	
P19		2c	R2		(POP)			EDIT	2	
P20		2c	B3		ROCK POP			CLASSIC RANDOM	1	
P21									S1	

1 2 3 4 5 6 7

A

B

C

D

E

F

G

H

I

J

C AC2 C.B

TO MAIN C.B

W101 1 3 5 7
WH102

<E, K, V ONLY>

TO MAIN C.B

<LH ONLY>

PT101

D AC1 C.B

AC120V/
220-230V/
240V
50/60Hz

SW101

AC VOLTAGE

AC 120V → 220-230V → 240V

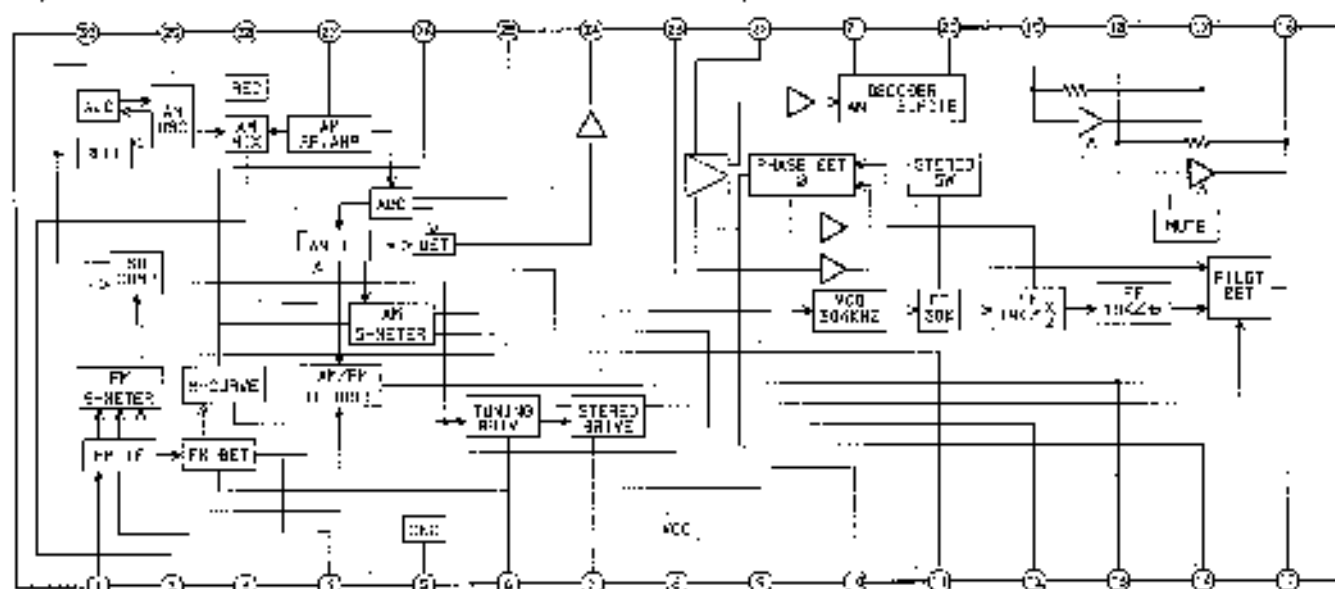
<E, K, V ONLY>

D AC1 C.B

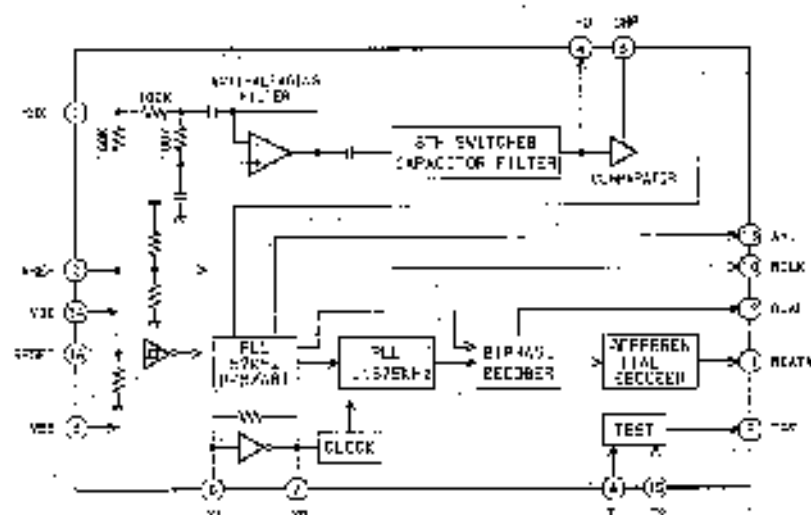
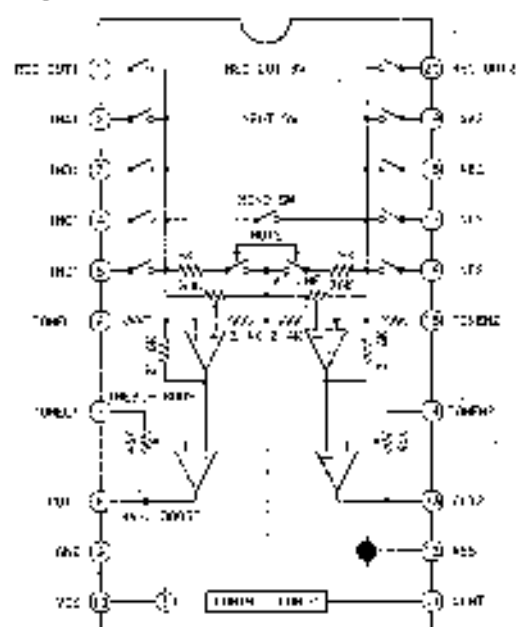
AC 250V
50Hz

F101

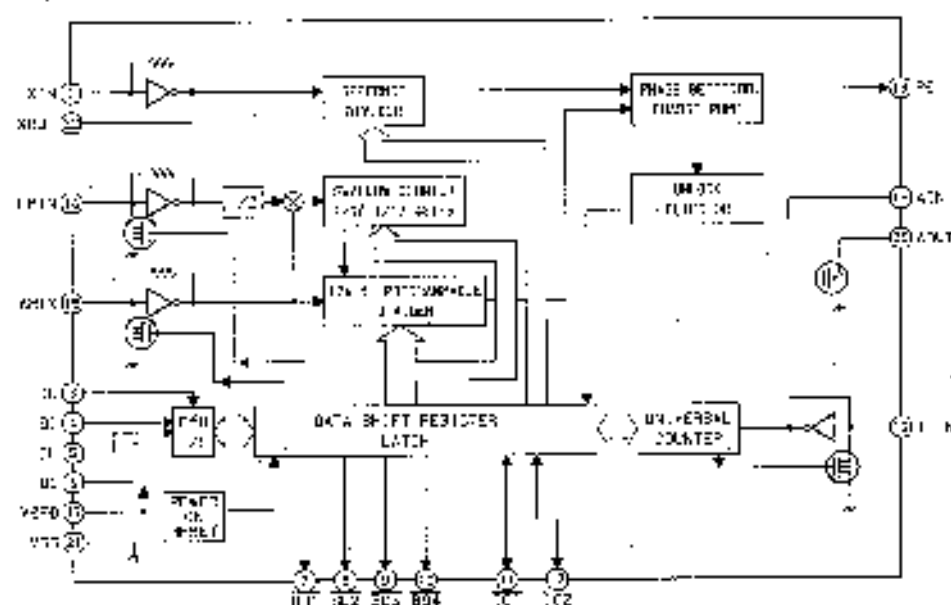
IC, LA1637



IC, BU1920FS



IC, LC72131



IC DESCRIPTION

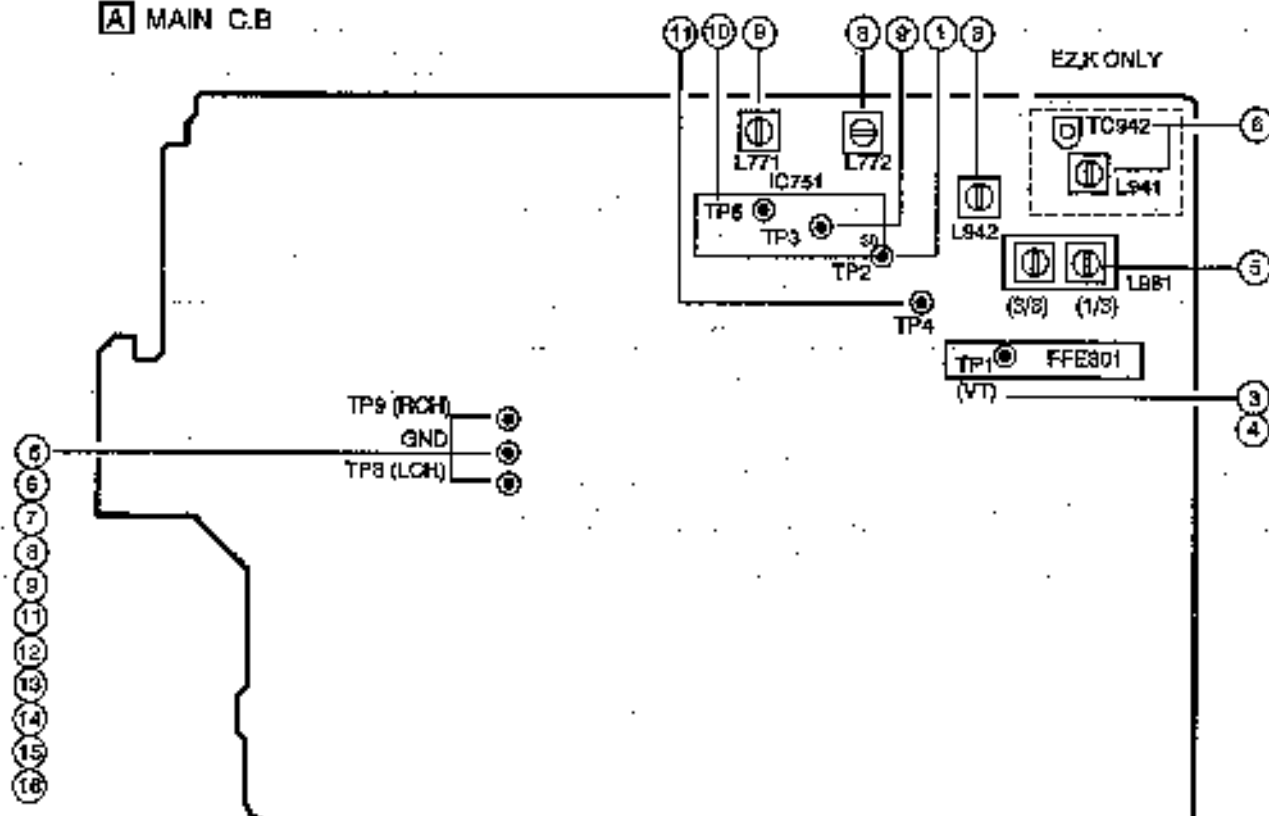
IC: M38E57MCH-P702FP

Pin No.	Pin Name	I/O	Description
1	I-SIG	I	Signal level for RDS A/D input.
2	I-HOLD	I	Hold input.
3	I-CD_SW	I	CD mechanical switch input.
4	I-DISH	I	CD turntable photo sensor input.
5	I-KEY2	I	KEY input 1.
6	I-KEY1	I	KEY input 2.
7	O-SHIFT	O	Clock shift output for microcomputer when tuner receiving broadcast.
8	O-MOTOR	O	Cassette deck motor control output.
9	I-RMC	I	System remote control signal input.
10	RESET	I	RESET input.
11	I-RE_A	I	Rotary encoder A input.
12	I-RE_B	I	Rotary encoder B input.
13	VSS	-	Connected to GND.
14	XIN	-	4.19 MHz oscillator circuit.
15	XOUT	-	
16	VCC	-	Power supply.
17	O-PBI	O	Cassette deck output switching.
18	O-POWER	O	Power control output.
19	O-RMT	O	RFC MUTE output.
20	O-BIAS	O	Bias output.
21	O-TU_ON	O	Tuner power supply ON/OFF output.
22	O-CD_ON	O	CD power supply ON/OFF output.
23	I-STEREO	I	Tuner stereo detected input.
24	I-TUNE/IPC	I	Tuner signal input (Active Low) / Tune IP count serial data input.
25	I-TM_BASE	I	Reference clock input for timer watch.
26	O-CD_CLOSE	O	CD tray close data output.
27	O-CD_OPEN	O	CD tray open data output.
28	VBE	-	Power supply input for FL display.
29	O-DSP_CE	O	DSP chip enable output.
30	K-SCAN	O	Initial scan output.
31	K-SCAN	O	Initial scan output.
32-41	G10-G1	O	FL grid output G1-G10.
42-43	P23-P24	O	FL segment output (Not connected).
44-62	P21-P3	O	FL segment output.
63	P2	I/O	FL segment output/TU2 input to diode.
64	P1	O	FL segment output.
65	O-DISH_R	O	CD turntable reverse rotation output.
66	O-DISH_F	O	CD turntable forward rotation output.
67	O-CD_LED	O	CD flash window output.
68	O-CD_CE	O	CD IC control output.
69	I-WRO	I	CD IC control output.
70	O-CD_CLK	O	CD clock output.

Pin No.	Pin Name	I/O	Description
71	O-DATA(CD)/ RDS_DATA	O	CD data output.
72	SQSQ	O	CD SUBQ data output.
73	AVSS	—	Connected to GND.
74	VREF	—	Power supply.
75	I-DRF	I	CD RF level detection input.
76	I-RDS-CLK	I	RDS clock input.
77	O-PLL_CE	O	PLL IC chip enable output.
78	O-PLL_CLK	O	PLL IC clock output.
79	O-DSC/O-PLL DATA	O	Function IC control output / PLL data output.
80	I-TF-SW	I	Cassette deck.

ADJUSTMENT <TUNER / DECK>

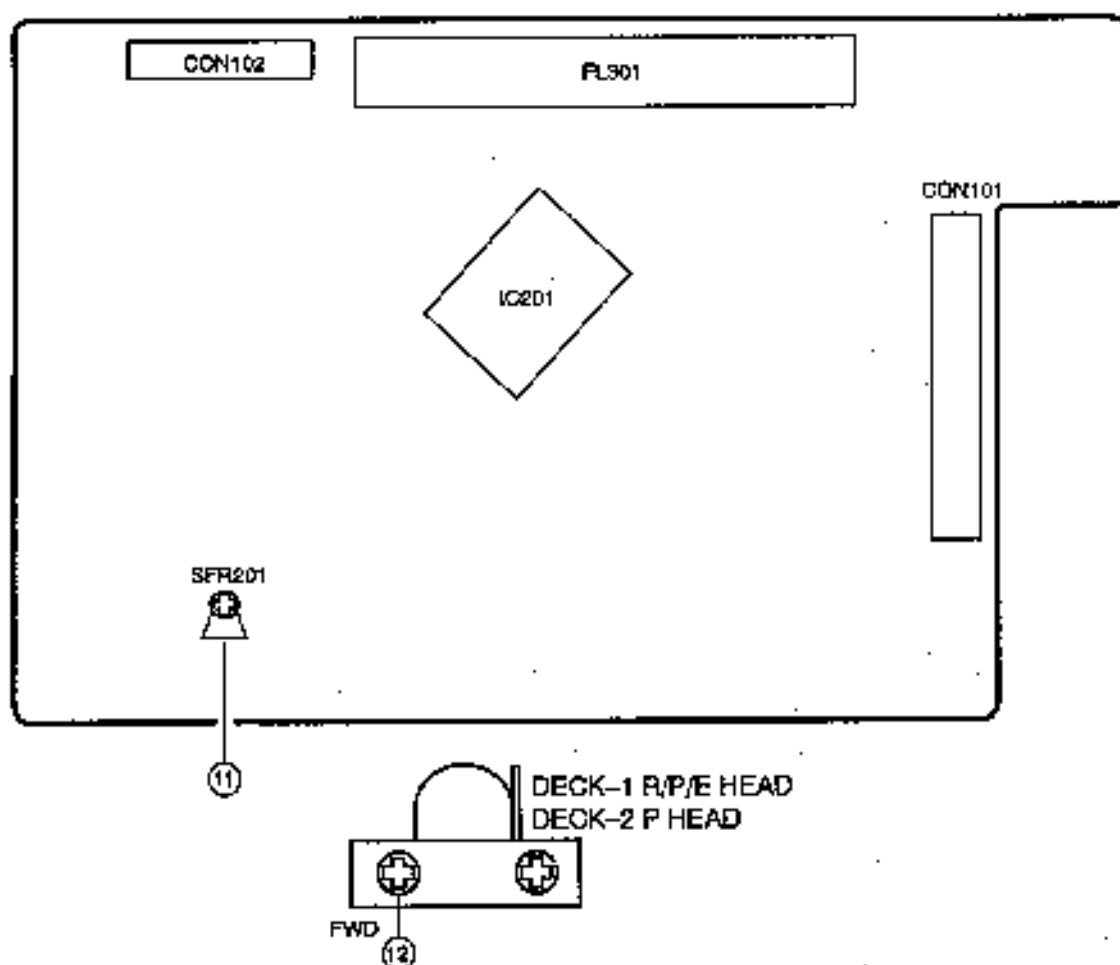
A MAIN C.B



< TUNER SECTION >

1. Clock Frequency Check
 Settings : • Test point : TP2
 Method : Set to AM (MW) 1602kHz (EZ,K,V) / AM 1710kHz (LH) and check that the test point is $2052\text{kHz} \pm 45\text{Hz}$ (EZ,K,V) / $2160\text{kHz} \pm 45\text{Hz}$ (LH).
- 2a. MW VT Check <LH>
 Settings : • Test point : TP1 (VT)
 Method : Set to AM 1710kHz and AM 530 kHz and check that the test point is less than 8.5V (1710kHz) and more than 0.6V (530kHz).
- 2b. MW VT Check <EZ,K,V>
 Settings : • Test point : TP1 (VT)
 Method : Set to AM 1602kHz and AM 531 kHz and check that the test point is less than 8.0V (1602kHz) and more than 0.6V (531kHz).
3. LW VT Adjustment <EZ,K>
 Settings : • Test point : TP1 (VT)
 • Adjustment location : L942
 Method : Set to LW 144kHz and adjust L942 so that the test point becomes $1.3\text{V} \pm 0.05\text{V}$. Then check that the test point is less than 8.0V (290kHz).
- 4a. FM VT Check <LH,EZ,K>
 Settings : • Test point : TP1 (VT)
 Method : Set to FM 87.5MHz, 108.0MHz and check that the test point is more than 0.5V (87.5MHz) and less than 8.0V (108.0MHz).
- 4b. FM VT Check <V>
 Settings : • Test point : TP1 (VT)
 Method : Set to FM 65.0MHz, 108.0MHz and check that the test point is more than 1.0V (65.0 MHz) and less than 9.5V (108.0MHz).
5. MW Tracking Adjustment
 Settings : • Test point : TP8(Lch), TP9(Rch)
 • Adjustment location :
 L981(1/3) 999kHz
 Method : Set to AM 999kHz and adjust L981(1/3) to MAX.
6. LW Tracking Adjustment <EZ,K>
 Settings : • Test point : TP8(Lch), TP9(Rch)
 • Adjustment location :
 L941 5.9MHz
 TC942 17.9MHz
 Method : Set up TC942 in center before adjustment. The level at 144kHz is adjust to maximum by L941. Then the level at 290kHz is adjust to maximum by TC942.
7. FM Tracking Check
 Settings : • Test point : TP8(Lch), TP9(Rch)
 Method : Set to FM 98.0MHz and check that the test point is less than 9dB <LH> / 10dB <EZ,K> / 6dB <V>.
8. AM(MW) IF Adjustment
 Settings : • Test point : TP8(Lch), TP9(Rch)
 • Adjustment location :
 L772 450kHz
9. DC Balance / Mono Distortion Adjustment
 Settings : • Test point : TP3, TP4 (DC Balance)
 : TP8(Lch), TP9(Rch) (Distortion)
 • Adjustment location : L771
 • Input level : 54dB
 Method : Set to FM 98.0MHz and adjust L771 so that the voltage between TP3 and TP4 becomes $0\text{V} \pm 0.04\text{V}$. Next, check that the distortion is less than 1.3%.

[B] FRONT C.B



10. Auto Stop Level Check

MW : • Input level : 52dB
• Test point : TP5

Method : Check auto stop at MW 999kHz and the level is 52dB +10dB -15dB.

FM : • Input level : 25dB
• Test point : TP5

Method : Check auto stop at FM 98.0MHz and the level is 25 dB ± 10 dB.

< DECK SECTION >

11. Tape Speed Adjustment (DECK 1, DECK 2)

Settings : • Test tape : TTA-100
• Test point : TP8(Lch), TP9(Rch)
• Adjustment location : SFR201

Method : Play back the test tape and adjust SFR201 so that the frequency counter reads 3000Hz ± 5Hz.

12. Head Azimuth Adjustment (DECK 1, DECK 2)

Settings : • Test tape : TTA-330
• Test point : TP8(Lch), TP9(Rch)
• Adjustment location : Head azimuth adjustment screw
Method : Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum.

13. PB Frequency Response Check (DECK 1, DECK 2)

Settings : • Test tape : TTA-330
• Test point : TP8(Lch), TP9(Rch)

Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is within 5dB.

14. PB Sensitivity Check (DECK 1, DECK 2)

Settings : • Test tape : TTA-200
• Test point : TP8(Lch), TP9(Rch)

Method : Play back the test tape and check that the output level of the test point is 110mV ± 3.0dB.

15. REC/PB Frequency Response Check (DECK 1)

Settings : • Test tape : TTA-602
• Test point : TP8(Lch), TP9(Rch)
• Input signal : 1kHz / 8kHz (LINE IN)

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes (-20VU) -26dBV. Record and Play back the 1kHz and 8kHz signals so that the output of the 8kHz signal is 0dB +4dB/-6dB.

16. REC/PB Sensitivity Check (DECK 1)

Settings : • Test tape : TTA-602
• Test point : TP8(Lch), TP9(Rch)
• Input signal : 1kHz (LINE IN)

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP8, TP9 becomes (0VU) -6dBV. Record and play back the 1kHz and 8kHz signal and check that the output is -2 ± 3.5dB.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

IHF Sensitivity : Less than 10 / 9 / 9dB (LH)
(at 87.5 / 98.0 / 108.0MHz)
(THD 3%) Less than 11 / 10 / 10dB (EZ,K)
(at 87.5 / 98.0 / 108.0MHz)
Less than 9dB (V)
(at 70.0MHz)

S/N 50dB Quieting sensitivity :

Less than 38dB (EZ,K)
Less than 35dB (LH,V)
(at 98.0MHz)

Signal to noise ratio : Mono : More than 68dB (98.0MHz)
Stereo : More than 66dB (98.0MHz)

Distortion : Mono : Less than 1.2% (98.0MHz)
Stereo : Less than 2.0% (98.0MHz)

Auto stop level : 25dB $\pm$ 10dB

Stereo separation : More than 25dB (LH,V)
More than 12dB (EZ,K)
(at 98.0MHz)

Intermediate frequency : 10.7MHz

<LW SECTION> (EZ,K)

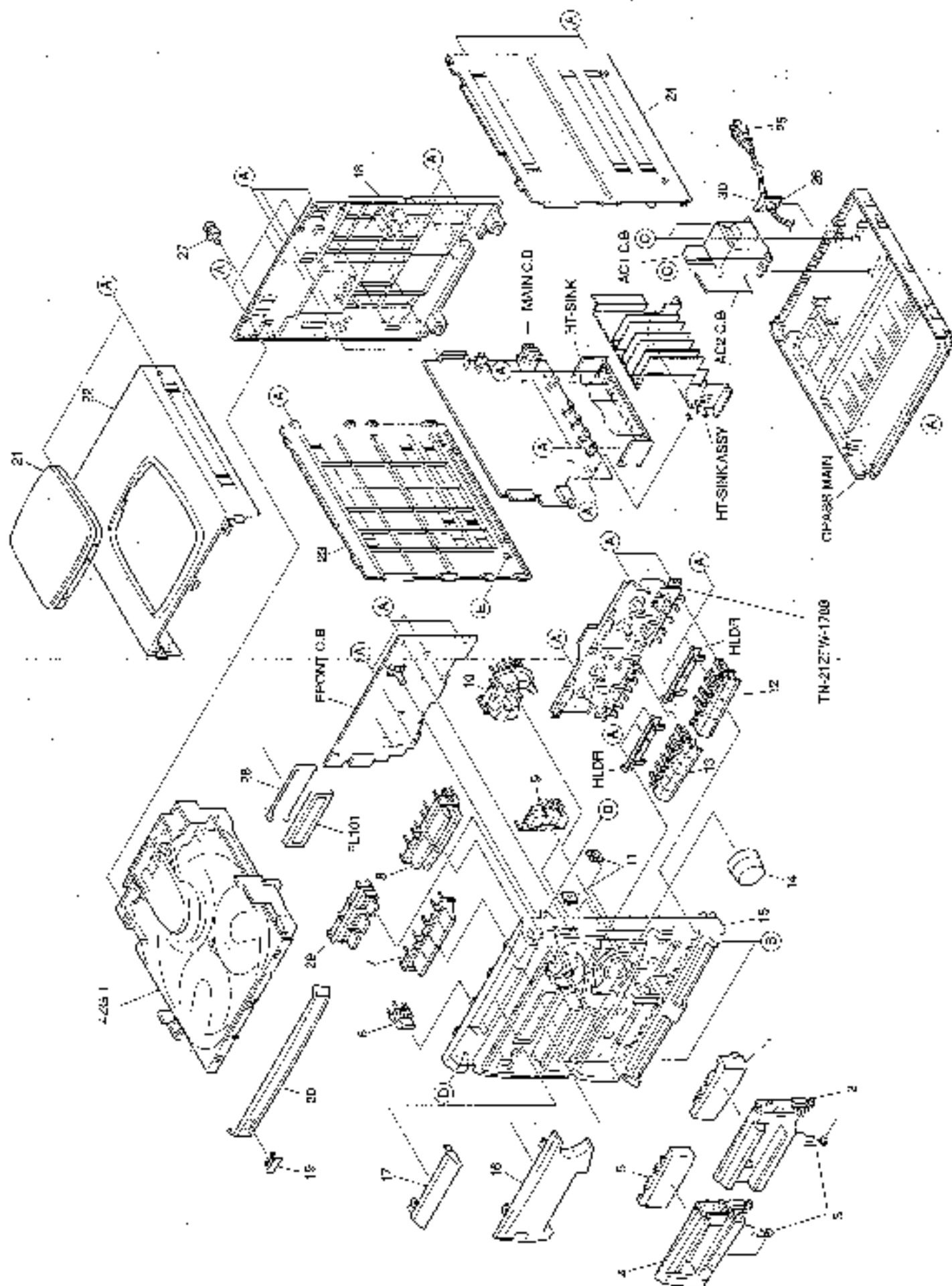
Sensitivity : Less than 70dB (at 144kHz)
Less than 66dB (at 198kHz)
Less than 66dB (at 290kHz)

<MW SECTION>

Sensitivity : Less than 60dB (at 603kHz)
Less than 58dB (at 1000kHz)
Less than 58dB (at 1404kHz)
Signal to noise ratio : More than 36dB (at 1000kHz)
Distortion : Less than 1.5% (at 1000kHz)
Auto stop level : 52dB +10dB / -15dB (at 1000kHz)
Intermediate frequency : 450kHz

<DECK SECTION>

Tape speed : 3000Hz $\pm$ 45Hz
Wow & flutter : Less than 0.35% (W.R.M.S)
Take-up torque : 30 ~ 60g-cm (FWD)
Back tension : 2 ~ 5g-cm
PB output level : 2.8V $\pm$ 3dB
REC/PB output level : 1.6V $\pm$ 3dB
Distortion (REC/PB) : Less than 2.0% (NORM)
Noise level (PB) : Less than 30mV (NORM)
Noise level (REC/PB) : Less than 30mV (NORM)
Erasing ratio : More than 60dB (at 125Hz, +10VU)
Test tape : TTA-602 (NORMAL)

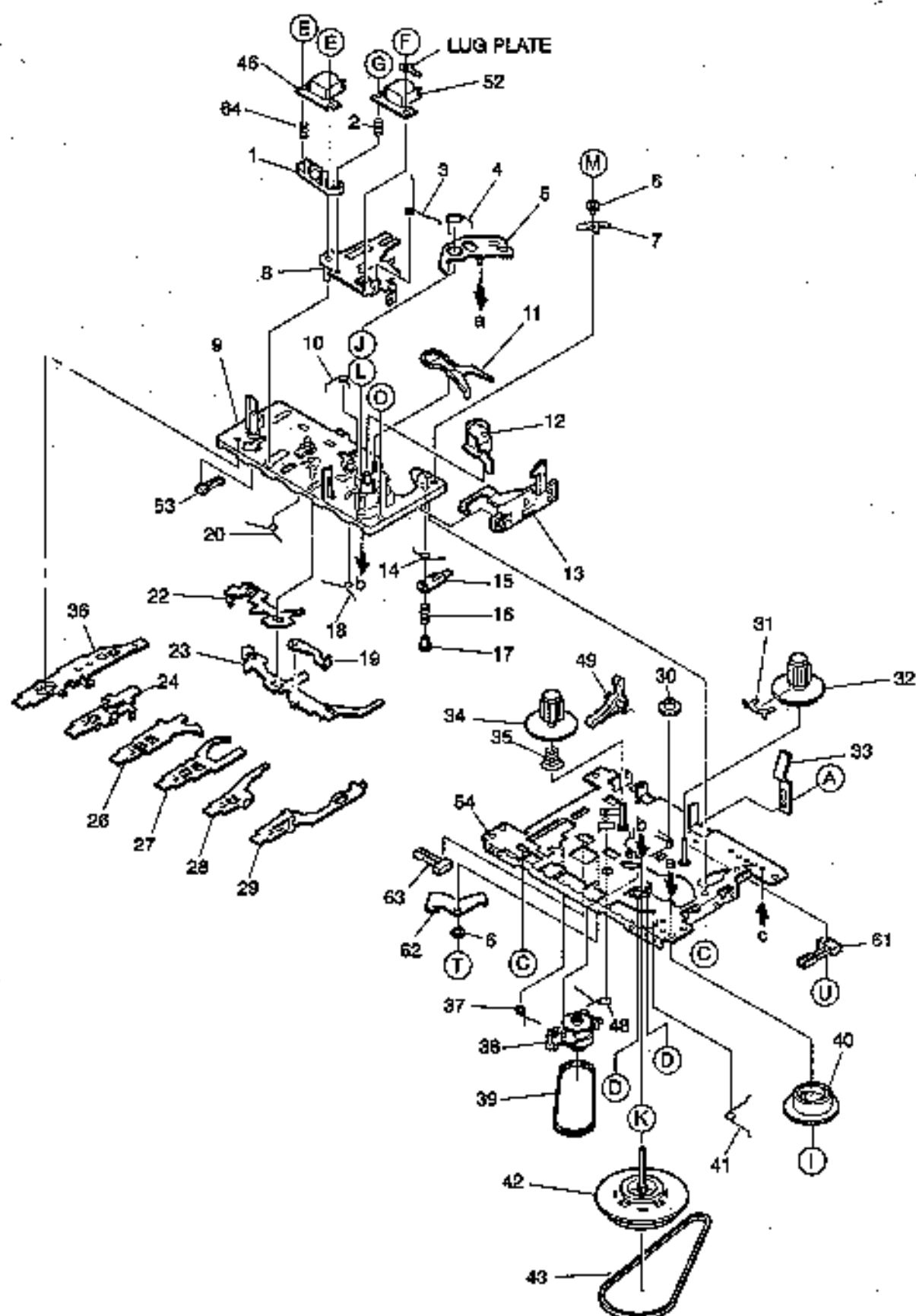


MECHANICAL PARTS LIST 1/1

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

REF.NO.	PART NO.	KANFI NO.	DESCRIPTION	REF.NO.	PART NO.	KANFI NO.	DESCRIPTION
1	88-WF9-014-010		WINDOW, CASE 1	18	88-WF9-046-010		CABI, REAR VSTRNG<V>
2	88-WF9-004-110		BOX, CASE 02	19	82-WF6-067-010		BADGE, AIRMA 30W
3	82-WF7-218-010		SPR-T, CASE	20	88-WF9-018-010		PANEL, TART
4	88-WF9-003-110		BOX, CASE 01	21	86-WF5-001-010		WINDOW, TOP
5	88-WF9-015-010		WINDOW, CASE 2	22	87-WF8-045-010		PANEL, TOP ST
6	88-WF9-005-010		KEY, POWER	23	88-WF9-030-010		PANEL, LEFT
7	88-WF9-008-010		KEY, FOK	24	88-WF9-031-010		PANEL, RIGHT<V, LB>
8	88-WF9-011-010		KEY, OPS	24	88-WF9-082-010		PANEL, RIGHT HI<X, EX>
9	88-WF9-007-010		KEY, GET	25	87-WF8-007-110		AC CORD ASST, K BLK<X>
10	88-WF9-006-010		KEY, CD	25	87-050-079-010		AC-CORD ASST, E<EXCEPT X>
11	86-WF5-231-010		BUFR, 70	26	87-085-185-010		BUSHING, AC CORD (E)
12	88-WF9-009-110		KEY, CASE 1	27	84-261-245-210		CAP, OPTICAL
13	88-WF9-010-110		KEY, CASE 2	28	82-WF7-210-110		GUIDE, FL
14	88-WF9-012-010		WOMB, STAY VOL	29	88-WF9-017-010		KEY, RDS<203ES>
15	88-WF9-022-010		CABI, FR LS<K, V, 203ES>	30	86-WF2-204-010		BLDR, BUSHING<V, LH>
15	88-WF9-022-110		CABI, FR LS<LE>	A	87-067-703-010		TAPPING SCREW, BVT2+3-10
15	88-WF9-024-010		CABI, FR RDS<203ES>	B	87-067-756-010		BVT2+3-12 W/O SLOT<V, LH>
16	88-WF9-038-110		WINDOW, DISP R<X, V, 203ES>	B	87-067-688-010		BVT2+3-6<X, EX>
16	88-WF9-081-110		WINDOW, DISP LHC1<LE>	C	87-078-019-010		S-SCREW, IT+3-6<X, EX>
16	88-WF9-037-110		WINDOW, DISP RDS<203ES>	C	87-741-172-410		UT2+4-12 W/O SLOT<V, LE>
17	88-WF9-016-010		WINDOW, CD	D	87-721-097-410		UT2+3-12 GLD
18	88-WF9-076-010		CABI, REAR EXSTNM<203ES>	E	87-067-641-010		UT2+3-8(W/O SLOT)BL
18	88-WF9-077-010		CABI, REAR EXSTNM RDS<203ES>				
18	88-WF9-045-010		CABI, REAR KSTW<E>				
18	88-WF9-057-010		CABI, REAR LHTSC18<LH>				

TAPE MECHANISM EXPLODED VIEW 1 / 2

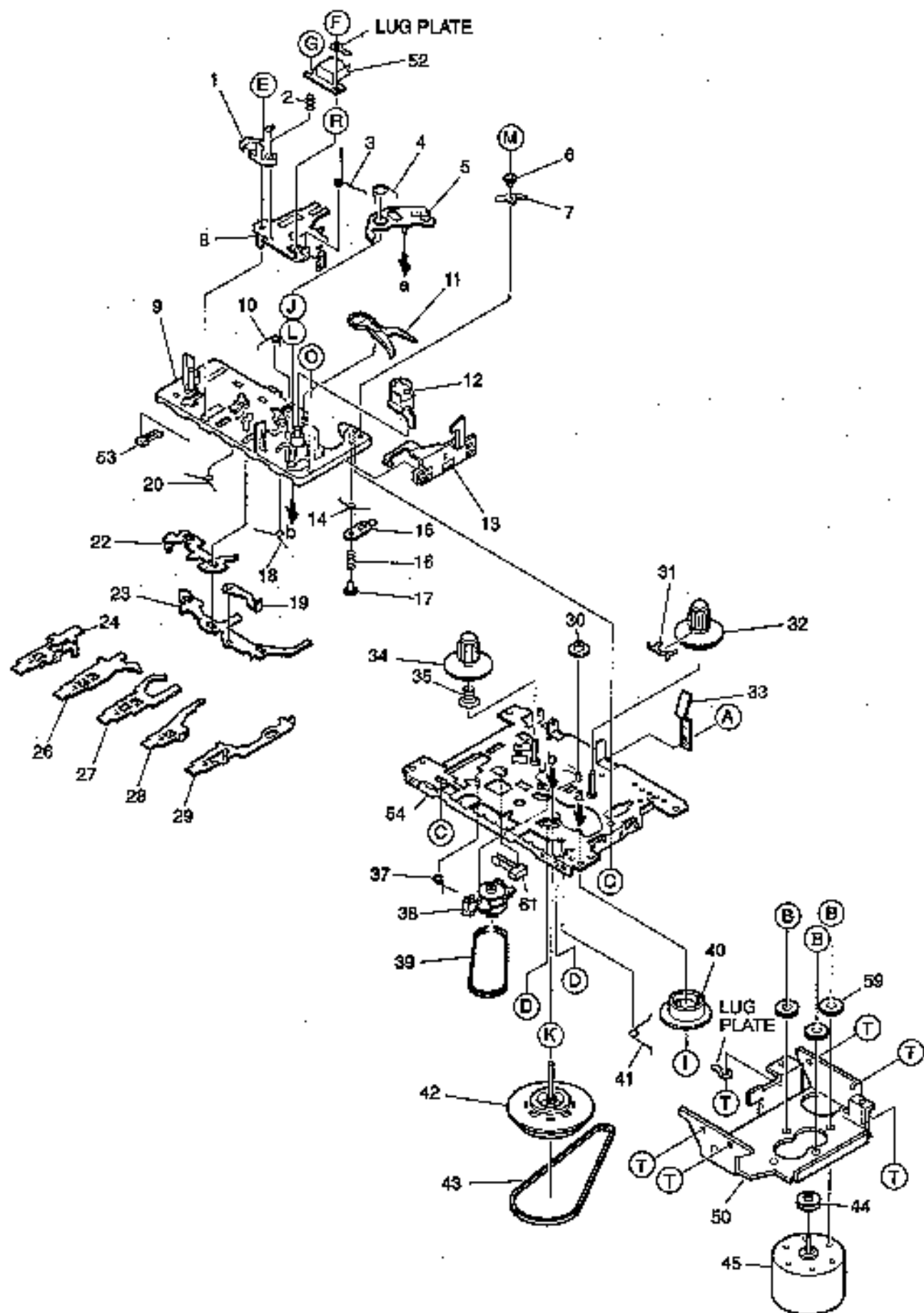


TAPE MECHANISM PARTS LIST 1/2

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

REF. NO.	PART NO.	KANFI NO.	DESCRIPTION	REF. NO.	PART NO.	KANFI NO.	DESCRIPTION
1	S1-921-030-060		HEAD BASE	38	S1-921-073-080		RF CLUTCH ASSY
2	S1-921-030-070		AXIS/TH SPRING	39	S1-921-070-110		RF BELT
3	S1-921-030-090		PANEL P SPRING	40	S1-921-260-020		CAK GEAR
4	S1-921-260-050		GEAR PLATE SPRING	41	S1-921-140-160		E ACTUATOR SPRING
5	S1-921-260-020		GEAR PLATE ASSY	42	S1-921-093-210		FLYWHEEL ASSY
6	S1-921-140-370		F ARM COLLAR	43	S1-921-090-240		MAIN BELT
7	S1-921-240-340		F ARM	44	S6-202-140-190		E, REAR
8	S1-921-030-140		HEAD PANEL	45	S1-921-140-210		REC BUTTON LEVER SPRING
9	S1-921-143-170		BASE ASSY	46	S1-921-100-690		RECORD SAFETY LEVER
10	S1-921-141-880		M CONTROL SPRING	52	S6-202-070-920		R.F. HEAD MOTOR-AX001
11	S1-921-260-440		SENSING LEVER	53	S6-401-011-490		LEAF SW M2-1541T
12	S1-921-043-100		PERCH ROLLER ARM ASSY	54	S1-921-015-010		CHASSIS ASSY
13	S1-921-130-020		EJECT SLIDE LEVER	61	S6-401-010-380		LEAF SWITCH M2-1275
14	S1-921-141-380		P CONTROL SPRING	62	S1-921-020-010		REC ARM
15	S1-921-140-550		PAUSE LEVER(B)	63	S6-401-011-610		LEAF SW M2-17820MVE1
16	S1-921-140-120		PAUSE LEVER SPRING	64	S1-921-030-080		CH SPRING
17	S1-921-140-110		PAUSE STOPPER	A	S9-P04-200-310		TAPPING SCREW 2-3
18	S1-921-140-150		BUTTON LEVER SPRING(B)	C	S9-H10-200-310		F TAPPING BIRD SCREW M2-5
19	S1-921-140-640		E KICK LEVER	D	S9-C07-204-510		SCREW, TAPPING M2-4.5
20	S1-921-140-140		BUTTON LEVER SPRING(A)	E	S9-P17-205-710		+CAP SCREW M2-7.5
22	S1-921-140-090		SWITCH ACTUATOR	F	S9-B01-200-310		+ BIRD SCREW M2-3
23	S1-921-140-080		POWER BUTTON ACTUATOR	G	S9-P08-200-710		AXIS/TH SCREW M2-7
24	S1-921-140-230		PLAY BUTTON LEVER	I	S9-M02-300-100		F WASHER CUT 1.2-3.8-0.3
25	S1-921-140-240		REW BUTTON LEVER	J	S9-M02-500-100		F WASHER CUT 1.45-3.8-0.5
27	S1-921-140-250		FF BUTTON LEVER	K	S9-M01-400-100		F WASHER 2-3.5-0.4
28	S1-921-140-660		STOP BUTTON LEVER	L	S9-M01-130-200		F WASHER 2.1-4-0.13
29	S1-921-140-610		PAUSE BUTTON LEVER	M	S9-P08-203-010		PS TAPPING SCREW M2-5
30	S1-921-140-700		FF GEAR	O	S9-P05-200-510		S TAPPING SCREW M2-6
31	S1-921-050-040		SENSOR	P	S9-P04-200-410		C TAPPING SCREW M2-4
32	S1-921-053-100		TAKE UP REEL ASSY	Q	S9-P04-200-510		C TAPPING SCREW M2-5
33	S1-929-100-010		BACK SPRING				
34	S1-921-050-150		S REEL HUB				
35	S1-921-050-220		BACK TENSION SPRING				
36	S1-921-140-220		REC BUTTON LEVER				
37	S1-921-140-170		P.B. LEVER SPRING				

TAPE MECHANISM EXPLODED VIEW 2/2



TAPE MECHANISM PARTS LIST 2/2

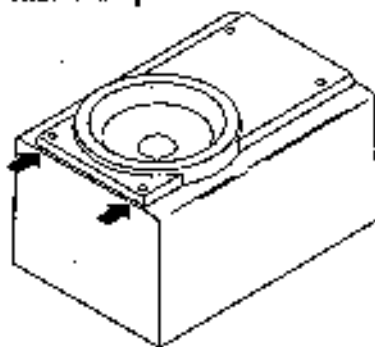
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	81-921-030-480		HEAD BASE	39	81-921-070-310		RF BELT
2	81-921-030-670		ARMATURE SPRING	40	81-921-260-620		CAM GEAR
3	81-921-030-690		PAUSE P SPRING	41	81-921-140-160		E ACTUATOR SPRING
4	81-921-240-030		GEAR PLATE SPRING	42	81-921-099-240		FLYWHEEL ASSY
5	81-921-245-020		GEAR PLATE ASSY	43	81-921-090-240		KATH BELT
6	81-921-140-370		P ARM COLLAR	44	81-921-120-130		MOTOR PULLEY
7	81-921-140-340		P ARM	45	86-002-030-290		MOTOR EQUISYND-288
8	81-921-030-110		HEAD PANEL	50	81-921-120-310		MOTOR BRACKET
9	81-921-141-010		BASE ASSY	52	86-202-010-920		R.P. HEAD MS15R-ASOH1
10	81-921-141-880		M CONTROL SPRING	53	86-401-011-490		LEAF SW MSX-1541T
11	81-921-260-440		BEMING LEVER	54	81-921-015-010		CRASOTS ASSY
12	81-921-043-100		PINCH ROLLER ARM ASSY	59	81-820-130-060		MOTOR RUBBER
13	81-921-130-070		EJECT SLIDE LEVER	61	86-401-011-610		LEAF SW MSX-17820MVE1
14	81-921-141-340		P CONTROL SPRING	A	89-P04-200-310		TAPPING SCREW 2-3
15	81-921-140-550		PAUSE LEVER(E)	B	81-921-120-020		MOTOR COLLAR SCREEN
16	81-921-140-120		PAUSE LEVER SPRING	C	89-310-200-510		F TAPPING BIND SCREW M2-5
17	81-921-140-110		PAUSE STOPPER	D	89-C07-204-010		SCREEN TAPPING M2-4.5
18	81-921-140-150		BUTTON LEVER SPRING(B)	E	89-P01-200-610		SCREEN M2-6
19	81-921-011-590		E KICK LEVER	F	89-B01-200-310		+ BIND SCREW M2-3
20	81-921-140-140		BUTTON LEVER SPRING(A)	G	89-P08-200-710		ARINDIS SCREEN M2-7
22	81-921-140-090		SWITCH ACTUATOR	I	89-W02-300-100		P WASHER COI 1.2-3.8-0.3
23	81-921-140-080		FUSE BUTTON ACTUATOR	J	89-W02-500-100		P WASHER COI 1.45-3.8-0.3
24	81-921-140-210		PLAY BUTTON LEVER	K	89-W01-400-100		P WASHER 2-3.5-0.4
26	81-921-140-240		REW BUTTON LEVER	L	89-W01-130-200		P WASHER 2.1-4-0.13
27	81-921-140-250		FF BUTTON LEVER	M	89-P08-203-010		PH TAPPING SCREW M2-5
28	81-921-140-260		STOP BUTTON LEVER	Q	89-P05-200-610		S TAPPING SCREW M2-6
29	81-921-110-610		PAUSE BUTTON LEVER	T	89-P04-200-410		C TAPPING SCREW M2-4
30	81-921-100-700		FF GEAR				
31	81-921-050-060		SENSOR				
32	81-921-053-100		TAPE UP FEEL ASSY				
33	81-929-100-010		BACK SPRING				
34	81-921-050-150		S BEEL HUB				
35	81-921-050-220		BACK TENSION SPRING				
37	81-921-140-170		P.B. LEVER SPRING				
38	81-921-071-080		RF CLUTCH ASSY				

SPEAKER DISASSEMBLY INSTRUCTIONS

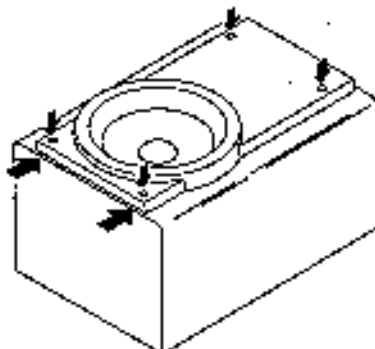
Type.1

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.



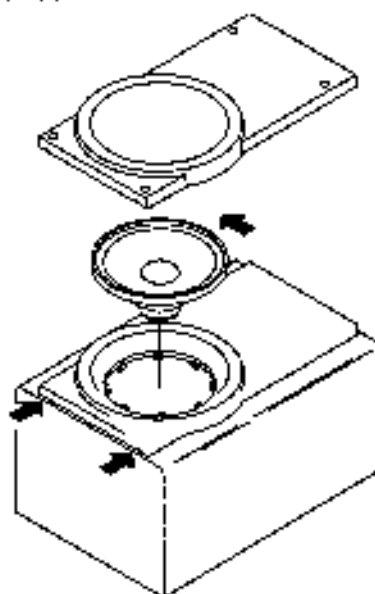
Type.2

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.

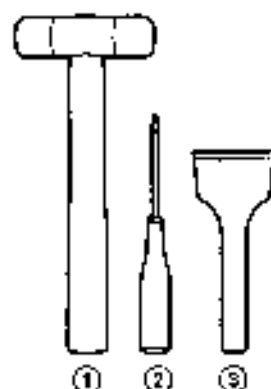


Type.3

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 in 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.

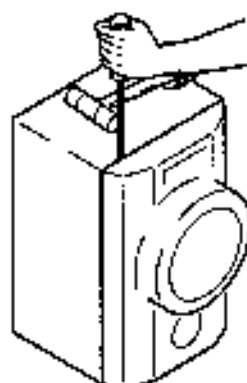


Fig-1

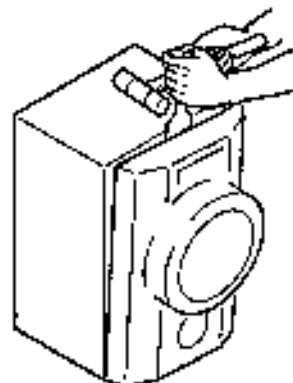


Fig-2

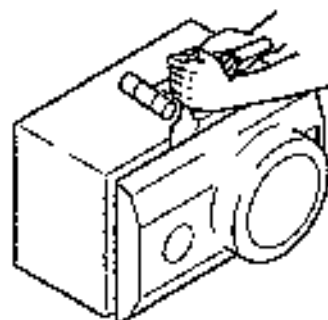


Fig-3

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

(SX-NS202 <YSTNL,YSTNC,YJSTNC,YSTNY1,YSTNY2>)

(SX-SNS202 <YLJSCM>)

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	87-857-511-010		CORD, SPKR
2	88-88E-001-010		PANEL, P2
3	88-88E-002-010		PANEL, BA
4	88-88K-510-010		SPKR, CERAMIC ASSY
5	88-88E-601-110		SPKR, W 120<YSTNC, YSTNL>
5	88-88K-603-110		SPKR, ■ 120<YJSTNC, YLJSCM>
5	88-88K-604-010		SPKR, ■ 120<YSTNY1, YSTNY2>

REFERENCE NAME LIST

ELECTRICAL SECTION

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

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
TXJBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FJN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MD	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース	
番号	連絡内容
G-1	-
G-2	-
G-3	-

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