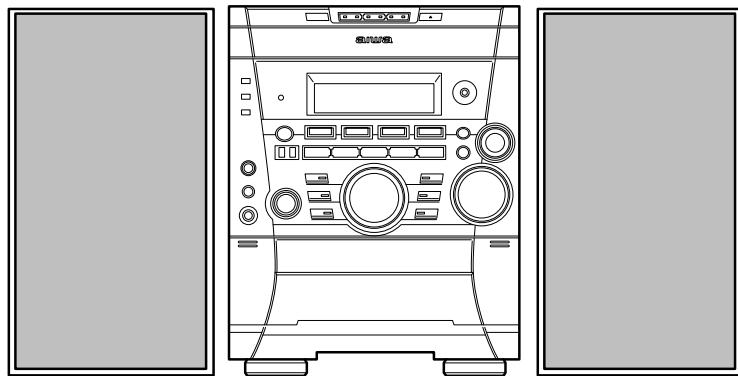




**NSX-TR99**

EZ(S)/K(S)



# SERVICE MANUAL

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CD STEREO SYSTEM

BASIC TAPE MECHANISM : 2ZM-3MK2 YPR9NC  
BASIC CD MECHANISM : BZG-5 ZD4GNDC2

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SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
NSX-TR99	CX-SNTR99	SX-SNTR99	RC-CAS02

**aiwa**

S/M Code No. 09-029-361-5N2

DATA

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## SPECIFICATIONS -1/2

### **MAIN UNIT CX-NTR99 (EZ)**

#### **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 µV/m
LW tuning range	144 kHz to 290 kHz
LW usable sensitivity	1400 µV/m
MW/LW antenna	Loop antenna

#### **AMPLIFIER**

##### Main frequency amplifier

Power output	Rated: 56 W + 56 W (8 ohms, T.H.D. 1 %, 1 kHz/DIN 45500) Reference: 70 W + 70 W (8 ohms, T.H.D. 10 %, 1 kHz/DIN 45324) DIN MUSIC POWER: 115 W + 115 W 0.08 % (40 W, 1 kHz, 8 ohms, DIN AUDIO)
Total harmonic distortion	

##### Low frequency amplifier

Power output	Rated: 88 W + 88 W (4 ohms, T.H.D. 1 %, 100 Hz) Reference: 110 W + 110 W (4 ohms, T.H.D. 10 %, 100 Hz) DIN MUSIC POWER: 165 W + 165 W 0.08 % (60 W, 100 Hz, 4 ohms) VIDEO/AUX: 450 mV MIC: 1.7 mV (10 kohms)
Total harmonic distortion	
Inputs	

##### Outputs

### **CASSETTE DECK**

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 15 kHz
Recording system	AC bias
Heads	DECK 1: playback x 1 DECK 2: 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	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)

### **GENERAL**

Power requirements	230 V AC, 50 Hz
Power consumption	168 W
Power consumption in standby mode	With ECO mode on: 0.6 W With ECO mode off: 23 W
Dimensions (W x H x D)	260 x 324 x 391 mm
Weight	10.2 kg

### **FRONT SPEAKERS SX-NTR99**

Speaker system	3 way, bass reflex
Speaker units	Woofer: 140 mm cone x 3 Tweeter: 80 mm cone Super tweeter: 20 mm ceramic
Impedance	Main: 8 ohms Low freq.: 4 ohms
Dimensions (W x H x D)	310 x 404 x 340 mm
Weight	8.3 kg

Specifications and external appearance are subject to change without notice.

## SPECIFICATIONS -2/2

### **MAIN UNIT CX-NTR99 (K)**

#### **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 µV/m
LW tuning range	144 kHz to 290 kHz
LW usable sensitivity	1400 µV/m
MW/LW antenna	Loop antenna

#### **AMPLIFIER**

Main frequency amplifier	
Power output	Rated: 56 W + 56 W (8 ohms, T.H.D. 1 %, 1 kHz/DIN 45500) Reference: 70 W + 70 W (8 ohms, T.H.D. 10 %, 1 kHz/DIN 45324)
Total harmonic distortion	0.08 % (40 W, 1 kHz, 8 ohms, DIN AUDIO)
Low frequency amplifier	Rated: 88 W + 88 W (4 ohms, T.H.D. 1 %, 100 Hz) Reference: 110 W + 110 W (4 ohms, T.H.D. 10 %, 100 Hz)
Total harmonic distortion	0.08 % (60 W, 100 Hz, 4 ohms)
Inputs	VIDEO/AUX: 450 mV MIC: 1.7 mV (10 kohms)
Outputs	SPEAKERS MAIN: 8 ohms or more SPEAKERS LOW FREQ: 4 ohms or more PHONES: 32 ohms or more

#### **CASSETTE DECK**

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 15 kHz
Recording system	AC bias
Heads	DECK 1: playback x 1 DECK 2: 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	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)

#### **GENERAL**

Power requirements	230 V AC, 50 Hz
Power consumption	168 W
Power consumption	With ECO mode on: 0.6 W in standby mode
Dimensions (W x H x D)	With ECO mode off: 23 W
Weight	260 x 324 x 391 mm
	10.2 kg

#### **FRONT SPEAKERS SX-NTR99**

Speaker system	3 way, bass reflex
Speaker units	Woofer: 140 mm cone x 3 Tweeter: 80 mm cone Super tweeter: 20 mm ceramic
Impedance	Main: 8 ohms Low freq.: 4 ohms
Dimensions (W x H x D)	310 x 404 x 340 mm
Weight	8.3 kg

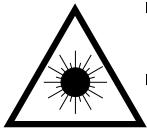
Specifications and external appearance are subject to change without notice.

# 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 utsættelse for stråling.

## VAROITUS!

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

## VARNING!

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

## CAUTION

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

## ATTENTION

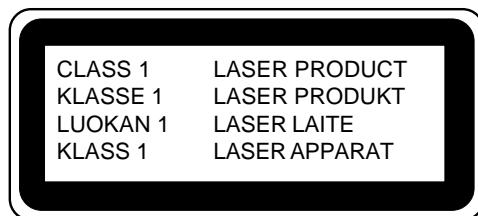
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

## ADVARSEL

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

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

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



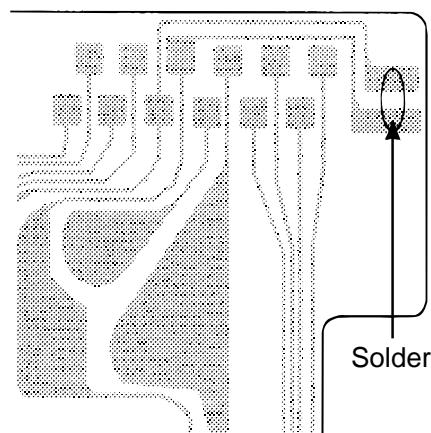
## Precaution to replace Optical block

### (KSS-213F)

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 PWB



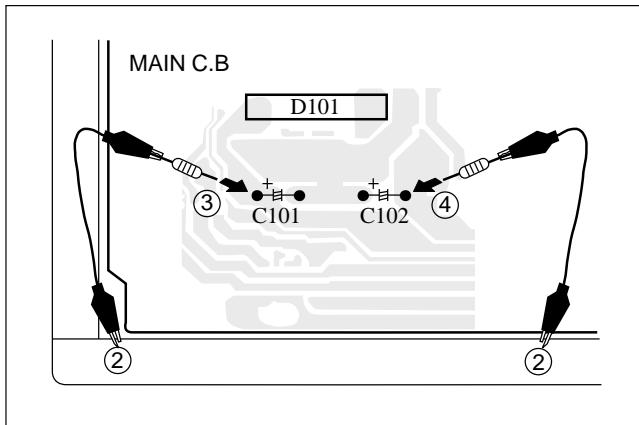
## NOTE ON BEFORE STARTING REPAIR -1/2

### 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, 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 to 1 V or less using a multimeter or an oscilloscope.



Select a discharging resistor referring to the following table.

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

Fig-1

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 triggers 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.

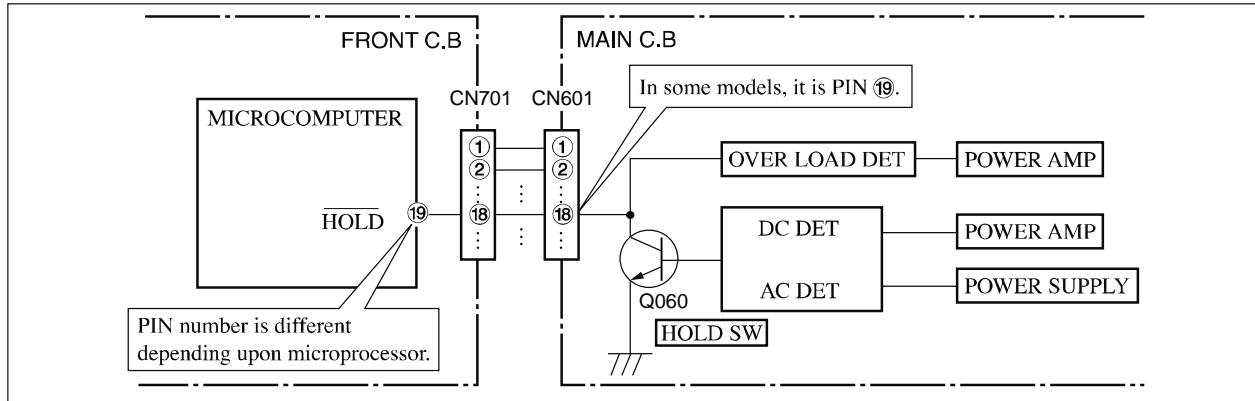


Fig-2-1

## NOTE ON BEFORE STARTING REPAIR -2/2

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.

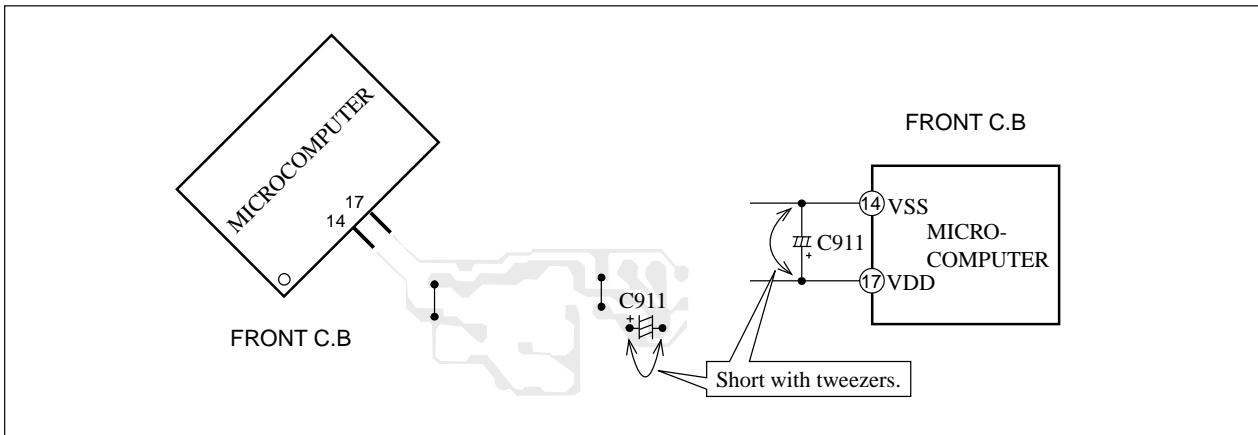


Fig-2-2

- ② Short both ends of the electrolytic capacitor C911 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 (Q060) and electrolytic capacitor (C911) 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.

# ACCESSORIES PARTS LIST -1/1

! =  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-SNTR99 EZSTC
O	AS1001	8C-NFR-906-010	IB, EZ (9L) BF	NSX-TR99	a
O	AS1001	8C-NFR-905-010	IB, K(E) BF	NSX-TR99	.
O	AS1002	8C-NF5-701-010	RC UNIT, RC-CAS02	ALPS	a
O	AS1003	87-006-225-110	ANT, LOOP ANT	NC2	a
O	AS1004	87-A92-346-110	ANT, WIRE FM(FASTEN)		a
X	AS1007	87-B50-079-010	LIST, FACILITY(B)-0007		a
X	AS1009	87-B40-085-010	BAG, PV 0.04-200-350	PL	b

# ELECTRICAL PARTS LIST - 1/21

! = SAFETY PARTS  
C = Components marked

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UNIT-NAME	! C REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
AMP	O C 0101	87-012-284-080	C-CAP,U 6800P-50 K B GRM	CX-SNTR99 EZSTC
AMP	O C 0102	87-012-284-080	C-CAP,U 6800P-50 K B GRM	a b
AMP	O C 0103	87-010-402-080	CAP,E 2.2-50 M 11L SME	a b
AMP	O C 0104	87-010-402-080	CAP,E 2.2-50 M 11L SME	a b
AMP	O C 0107	87-010-405-080	CAP,E 10-50 M 11L SME	a b
AMP	O C 0108	87-010-405-080	CAP,E 10-50 M 11L SME	a b
AMP	O C 0109	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
AMP	O C 0110	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
AMP	O C 0111	87-010-260-080	CAP,E 47-25 M 11L SME	a b
AMP	O C 0112	87-010-260-080	CAP,E 47-25 M 11L SME	a b
AMP	O C 0113	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
AMP	O C 0114	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
AMP	O C 0117	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
AMP	O C 0118	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
AMP	O C 0119	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
AMP	O C 0120	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
AMP	O C 0123	87-A12-470-080	C-CAP,U 820P-50 J SL	a b
AMP	O C 0124	87-A12-470-080	C-CAP,U 820P-50 J SL	a b
AMP	O C 0125	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
AMP	O C 0126	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
AMP	O C 0186	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	CX-SNTR99 EZSTC
AMP	O C 0187	87-010-406-080	CAP,E 22-50 M 11L SME	a b
AMP	O C 0188	87-010-406-080	CAP,E 22-50 M 11L SME	a b
AMP	O C 0193	87-012-273-080	C-CAP,U 820P-50 K B GRM	a b
AMP	O C 0194	87-012-273-080	C-CAP,U 820P-50 K B GRM	a b
AMP	O C 0233	87-012-282-080	C-CAP,U 4700P-50 K B GRM	a b
AMP	O C 0240	87-012-278-080	C-CAP,U 2200P-50 K B GRM	a b
AMP	O C 0291	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	a b
AMP	O C 0292	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	a b
AMP	O C 0293	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	a b
AMP	O C 0294	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	a b
AMP	O C 0301	87-012-274-080	C-CAP,U 1000P-50 K B GRM	a b
AMP	O C 0302	87-012-274-080	C-CAP,U 1000P-50 K B GRM	a b
AMP	O C 0303	87-010-546-080	CAP,E 0.33-50 M 11L SME	a b
AMP	O C 0304	87-010-546-080	CAP,E 0.33-50 M 11L SME	a b
AMP	O C 0307	87-010-404-080	CAP,E 4.7-50 M 11L SME	a b
AMP	O C 0308	87-010-404-080	CAP,E 4.7-50 M 11L SME	a b
AMP	O C 0309	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
AMP	O C 0310	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
AMP	O C 0311	87-010-406-080	CAP,E 22-50 M 11L SME	a b
AMP	O C 0312	87-010-406-080	CAP,E 22-50 M 11L SME	CX-SNTR99 EZSTC
AMP	O C 0313	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
AMP	O C 0314	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
AMP	O C 0317	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
AMP	O C 0318	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
AMP	O C 0319	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
AMP	O C 0320	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
AMP	O C 0323	87-A12-470-080	C-CAP,U 820P-50 J SL	a b
AMP	O C 0324	87-A12-470-080	C-CAP,U 820P-50 J SL	a b
AMP	O C 0325	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
AMP	O C 0326	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
AMP	O C 0393	87-012-273-080	C-CAP,U 820P-50 K B GRM	a b
AMP	O C 0394	87-012-273-080	C-CAP,U 820P-50 K B GRM	a b
AMP	O CN0102	87-A61-011-010	CONN, 13P H BLK TAC-L13P-A3	a b
AMP	O CN0103	87-A61-013-010	CONN, 15P H BLK TAC-L15P-A3	a b
AMP	S D 0101	87-A40-269-040	C-DIODE, MC2836	a b
AMP	S D 0103	87-020-465-080	DIODE, 1SS133	a b
AMP	S D 0104	87-020-465-080	DIODE, 1SS133	a b
AMP	S D 0105	87-A40-269-040	C-DIODE, MC2836	a b
AMP	S D 0106	87-A40-269-040	C-DIODE, MC2836	a b
AMP	S D 0107	87-A40-270-040	C-DIODE, MC2838	CX-SNTR99 EZSTC
AMP	S D 0108	87-A40-270-040	C-DIODE, MC2838	a b
AMP	S D 0109	87-A40-488-080	DIODE, 1SS244	a b
AMP	S D 0110	87-A40-488-080	DIODE, 1SS244	a b
AMP	S D 0150	87-A40-270-040	C-DIODE, MC2838	a b
AMP	S D 0183	87-070-178-090	DIODE, 1N5402-BD54	a b
AMP	S D 0184	87-070-178-090	DIODE, 1N5402-BD54	a b
AMP	S D 0185	87-070-178-090	DIODE, 1N5402-BD54	a b
AMP	S D 0186	87-070-178-090	DIODE, 1N5402-BD54	a b
AMP	S D 0187	87-A40-747-080	ZENER, UZ5.1BSB	a b
AMP	S D 0188	87-A40-749-080	ZENER, UZ5.6BSB	a b
AMP	S D 0189	87-A40-270-040	C-DIODE, MC2838	a b
AMP	S D 0190	87-A40-269-040	C-DIODE, MC2836	a b
AMP	S D 0191	87-A40-764-080	ZENER, UZ10BSC	a b
AMP	S D 0192	87-020-465-080	DIODE, 1SS133	a b
AMP	S D 0193	87-020-465-080	DIODE, 1SS133	a b
AMP	S D 0201	87-A40-270-040	C-DIODE, MC2838	a b
AMP	S D 0210	87-A40-269-040	C-DIODE, MC2836	a b
AMP	S D 0211	87-A40-270-040	C-DIODE, MC2838	a b
AMP	S D 0260	87-A40-270-040	C-DIODE, MC2838	a b

# ELECTRICAL PARTS LIST - 2/21

! = SAFETY PARTS  
C = Components marked

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UNIT-NAME	I C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
AMP	S D	0280	87-020-465-080	DIODE, 1SS133	CX-SNTR99 EZSTC
AMP	S D	0281	87-020-465-080	DIODE, 1SS133	CX-SNTR99 KSTC
AMP	S D	0301	87-A40-269-040	C-DIODE, MC2836	a
AMP	S D	0303	87-020-465-080	DIODE, 1SS133	b
AMP	S D	0304	87-020-465-080	DIODE, 1SS133	a
AMP	S D	0305	87-A40-269-040	C-DIODE, MC2836	b
AMP	S D	0306	87-A40-269-040	C-DIODE, MC2836	a
AMP	S D	0307	87-A40-270-040	C-DIODE, MC2838	b
AMP	S D	0308	87-A40-270-040	C-DIODE, MC2838	a
AMP	S D	0309	87-A40-488-080	DIODE, 1SS244	b
AMP	S D	0310	87-A40-488-080	DIODE, 1SS244	a
AMP	S D	0350	87-A40-270-040	C-DIODE, MC2838	b
AMP	S D	0389	87-A40-270-040	C-DIODE, MC2838	a
AMP	S D	0390	87-A40-269-040	C-DIODE, MC2836	b
AMP	S Q	0011	89-213-702-010	TR, 2SB1370E	a
AMP	S Q	0101	87-A30-675-040	C-TR, 2SD1306NE07TL	b
AMP	S Q	0102	87-A30-675-040	C-TR, 2SD1306NE07TL	a
AMP	S Q	0103	87-A30-669-040	C-TR, SBT5401	b
AMP	S Q	0104	87-A30-669-040	C-TR, SBT5401	a
AMP	S Q	0105	87-A30-669-040	C-TR, SBT5401	b
AMP	S Q	0106	87-A30-669-040	C-TR, SBT5401	a
AMP	S Q	0107	87-A30-076-040	C-TR, 2SC3052F	b
AMP	S Q	0108	87-A30-076-040	C-TR, 2SC3052F	a
AMP	S Q	0109	87-A30-076-040	C-TR, 2SC3052F	b
AMP	S Q	0110	87-A30-076-040	C-TR, 2SC3052F	a
AMP	S Q	0111	87-A30-672-080	TR, 2N5551C	b
AMP	S Q	0112	87-A30-672-080	TR, 2N5551C	a
AMP	S Q	0113	87-A30-076-040	C-TR, 2SC3052F	b
AMP	S Q	0114	87-A30-076-040	C-TR, 2SC3052F	a
AMP	S Q	0115	87-A30-670-040	C-TR, SBT5551	b
AMP	S Q	0116	87-A30-670-040	C-TR, SBT5551	a
AMP	S Q	0121	87-A30-672-080	TR, 2N5551C	b
AMP	S Q	0122	87-A30-672-080	TR, 2N5551C	a
AMP	S Q	0123	87-A30-669-040	C-TR, SBT5401	b
AMP	S Q	0124	87-A30-669-040	C-TR, SBT5401	a
AMP	S Q	0127	87-A30-076-040	C-TR, 2SC3052F	b
AMP	S Q	0128	87-A30-076-040	C-TR, 2SC3052F	a
AMP	S Q	0131	87-A30-098-010	TR, FP1016	b
AMP	S Q	0132	87-A30-098-010	TR, FP1016	a
AMP	S Q	0133	87-A30-097-010	TR, FN1016	b
AMP	S Q	0134	87-A30-097-010	TR, FN1016	a
AMP	S Q	0183	87-A30-186-010	FET, 2SK3053	b
AMP	S Q	0184	87-A30-186-010	FET, 2SK3053	a
AMP	S Q	0185	87-A30-076-040	C-TR, 2SC3052F	b
AMP	S Q	0186	87-A30-075-040	C-TR, 2SA1235F	a
AMP	S Q	0187	87-A30-075-040	C-TR, 2SA1235F	b
AMP	S Q	0211	87-A30-669-040	C-TR, SBT5401	a
AMP	S Q	0212	87-A30-538-040	C-TR, SRA2202S	b
AMP	S Q	0226	87-A30-669-040	C-TR, SBT5401	b
AMP	S Q	0230	87-A30-670-040	C-TR, SBT5551	a
AMP	S Q	0235	87-A30-075-040	C-TR, 2SA1235F	a
AMP	S Q	0280	87-A30-538-040	C-TR, SRA2202S	b
AMP	S Q	0281	87-A30-669-040	C-TR, SBT5401	a
AMP	S Q	0301	87-A30-076-040	C-TR, 2SC3052F	b
AMP	S Q	0302	87-A30-076-040	C-TR, 2SC3052F	a
AMP	S Q	0303	87-A30-669-040	C-TR, SBT5401	b
AMP	S Q	0304	87-A30-669-040	C-TR, SBT5401	a
AMP	S Q	0305	87-A30-669-040	C-TR, SBT5401	b
AMP	S Q	0306	87-A30-669-040	C-TR, SBT5401	a
AMP	S Q	0307	87-A30-076-040	C-TR, 2SC3052F	b
AMP	S Q	0308	87-A30-076-040	C-TR, 2SC3052F	a
AMP	S Q	0309	87-A30-076-040	C-TR, 2SC3052F	b
AMP	S Q	0310	87-A30-076-040	C-TR, 2SC3052F	a
AMP	S Q	0311	87-A30-672-080	TR, 2N5551C	b
AMP	S Q	0312	87-A30-672-080	TR, 2N5551C	a
AMP	S Q	0313	87-A30-076-040	C-TR, 2SC3052F	b
AMP	S Q	0314	87-A30-076-040	C-TR, 2SC3052F	a
AMP	S Q	0315	87-A30-670-040	C-TR, SBT5551	b
AMP	S Q	0316	87-A30-670-040	C-TR, SBT5551	a
AMP	S Q	0317	87-A30-528-010	TR, 2SB1686	b
AMP	S Q	0318	87-A30-528-010	TR, 2SB1686	a
AMP	S Q	0319	87-A30-529-010	TR, 2SD2642	b
AMP	S Q	0320	87-A30-529-010	TR, 2SD2642	a
AMP	S Q	0323	87-A30-669-040	C-TR, SBT5401	b
AMP	S Q	0324	87-A30-669-040	C-TR, SBT5401	a
AMP	S Q	0327	87-A30-076-040	C-TR, 2SC3052F	b
AMP	S Q	0328	87-A30-076-040	C-TR, 2SC3052F	a
AMP	X R	0028	88-108-221-080	C-RES, U 220-1/16W J	b
AMP	X R	0101	88-108-682-080	C-RES, U 6.8K-1/16W J	a
AMP	X R	0102	88-108-682-080	C-RES, U 6.8K-1/16W J	b

# ELECTRICAL PARTS LIST - 3/21

! = 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
AMP	X R 0103	88-108-273-080	C-RES,U 27K-1/16W J	CX-SNTR99 EZSTC
AMP	X R 0104	88-108-273-080	C-RES,U 27K-1/16W J	a b
AMP	O R 0105	88-108-223-080	C-RES,U 22K-1/16W J	a b
AMP	O R 0106	88-108-223-080	C-RES,U 22K-1/16W J	a b
AMP	O R 0107	88-108-101-080	C-RES,U 100-1/16W J	a b
AMP	O R 0108	88-108-101-080	C-RES,U 100-1/16W J	a b
AMP	X R 0111	88-118-102-080	C-RES,S 1K-1/10W J	a b
AMP	X R 0112	88-118-102-080	C-RES,S 1K-1/10W J	a b
AMP	O R 0113	88-118-223-080	C-RES,S 22K-1/10W J	a b
AMP	X R 0114	88-121-223-080	RES,22K-1/8W J	a b
MP	X R 0115	88-128-222-080	C-RES, 2.2K-1/8W J	a b
AMP	X R 0116	88-128-222-080	C-RES, 2.2K-1/8W J	a b
AMP	O R 0117	88-108-103-080	C-RES,U 10K-1/16W J	a b
AMP	O R 0118	88-108-103-080	C-RES,U 10K-1/16W J	a b
AMP	X R 0119	88-118-101-080	C-RES,S 100-1/10W J	a b
AMP	X R 0120	88-118-101-080	C-RES,S 100-1/10W J	a b
AMP	X R 0121	88-118-101-080	C-RES,S 100-1/10W J	a b
AMP	X R 0122	88-118-101-080	C-RES,S 100-1/10W J	a b
AMP	X R 0123	88-128-222-080	C-RES, 2.2K-1/8W J	a b
AMP	X R 0124	88-128-222-080	C-RES, 2.2K-1/8W J	a b
AMP	X R 0125	88-128-821-080	C-RES, 820-1/8W J	CX-SNTR99 EZSTC
AMP	X R 0126	88-128-821-080	C-RES, 820-1/8W J	a b
AMP	X R 0127	88-118-390-080	C-RES,S 39-1/10W J	a b
AMP	X R 0128	88-118-390-080	C-RES,S 39-1/10W J	a b
AMP	X R 0133	88-108-182-080	C-RES,U 1.8K-1/16W J	a b
AMP	X R 0134	88-108-182-080	C-RES,U 1.8K-1/16W J	a b
AMP	X R 0135	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
AMP	X R 0136	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
AMP	O R 0137	88-108-101-080	C-RES,U 100-1/16W J	a b
AMP	O R 0138	88-108-101-080	C-RES,U 100-1/16W J	a b
AMP	X R 0139	88-128-332-080	C-RES, 3.3K-1/8W J	a b
AMP	X R 0141	88-118-102-080	C-RES,S 1K-1/10W J	a b
AMP	X R 0142	88-118-102-080	C-RES,S 1K-1/10W J	a b
AMP	O R 0147	87-A00-262-080	RES,M/F 0.15-2W J	a b
AMP	O R 0148	87-A00-262-080	RES,M/F 0.15-2W J	a b
AMP	O R 0149	87-A00-262-080	RES,M/F 0.15-2W J	a b
AMP	O R 0150	87-A00-262-080	RES,M/F 0.15-2W J	a b
AMP	O R 0151	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	O R 0152	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	X R 0153	88-118-390-080	C-RES,S 39-1/10W J	a b
AMP	X R 0154	88-118-390-080	C-RES,S 39-1/10W J	CX-SNTR99 EZSTC
AMP	X R 0155	88-118-472-080	C-RES,S 4.7K-1/10W J	a b
AMP	X R 0156	88-118-472-080	C-RES,S 4.7K-1/10W J	a b
AMP	X R 0157	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	X R 0158	88-121-472-080	RES,4.7K-1/8W J	a b
AMP	X R 0159	88-108-471-080	C-RES,U 470-1/16W J	a b
AMP	X R 0160	88-108-471-080	C-RES,U 470-1/16W J	a b
AMP	X R 0161	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	X R 0162	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	X R 0163	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	X R 0164	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	X R 0165	88-108-152-080	C-RES,U 1.5K-1/16W J	a b
AMP	X R 0166	88-108-152-080	C-RES,U 1.5K-1/16W J	a b
AMP	X R 0171	88-118-222-080	C-RES,S 2.2K-1/10W J	a b
AMP	X R 0172	88-118-222-080	C-RES,S 2.2K-1/10W J	a b
AMP	X R 0173	88-118-182-080	C-RES,S 1.8K-1/10W J	a b
AMP	X R 0174	88-118-182-080	C-RES,S 1.8K-1/10W J	a b
AMP	X R 0175	88-118-331-080	C-RES,S 330-1/10W J	a b
AMP	X R 0176	88-118-331-080	C-RES,S 330-1/10W J	a b
AMP	X R 0177	88-128-332-080	C-RES, 3.3K-1/8W J	a b
AMP	O R 0179	88-108-102-080	C-RES,U 1K-1/16W J	CX-SNTR99 EZSTC
AMP	O R 0180	88-108-102-080	C-RES,U 1K-1/16W J	a b
AMP	X R 0181	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
AMP	X R 0182	88-121-222-080	RES,2.2K-1/8W J	a b
AMP	X R 0184	88-118-102-080	C-RES,S 1K-1/10W J	a b
AMP	O R 0185	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
AMP	X R 0186	88-118-102-080	C-RES,S 1K-1/10W J	a b
AMP	X R 0187	88-128-103-080	C-RES, 10K-1/8W J	a b
AMP	X R 0188	88-118-222-080	C-RES,S 2.2K-1/10W J	a b
AMP	X R 0189	88-128-222-080	C-RES, 2.2K-1/8W J	a b
AMP	X R 0190	88-128-222-080	C-RES, 2.2K-1/8W J	a b
AMP	X R 0191	88-128-222-080	C-RES, 2.2K-1/8W J	a b
AMP	X R 0192	88-128-332-080	C-RES, 3.3K-1/8W J	a b
AMP	O R 0193	88-108-103-080	C-RES,U 10K-1/16W J	a b
AMP	O R 0194	88-108-103-080	C-RES,U 10K-1/16W J	a b
AMP	O R 0195	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	O R 0196	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	O R 0197	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	O R 0198	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	X R 0199	88-108-225-080	C-RES,U 2.2M-1/16W J	a b

# ELECTRICAL PARTS LIST - 4/21

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UNIT-NAME	I C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
AMP	O R	0210	88-108-473-080	C-RES,U 47K-1/16W J	CX-SNTR99 EZSTC
AMP	X R	0211	88-108-182-080	C-RES,U 1.8K-1/16W J	a b
AMP	O R	0212	88-108-103-080	C-RES,U 10K-1/16W J	a b
AMP	O R	0213	88-108-224-080	C-RES,U 220K-1/16W J	a b
AMP	O R	0214	88-108-224-080	C-RES,U 220K-1/16W J	a b
AMP	X R	0215	88-108-333-080	C-RES,U 33K-1/16W J	a b
AMP	O R	0216	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	O R	0217	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	X R	0218	88-108-105-080	C-RES,U 1M-1/16W J	a b
AMP	X R	0219	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	X R	0220	88-118-473-080	C-RES,S 47K-1/10W J	a b
AMP	X R	0223	88-118-393-080	C-RES,S 39K-1/10W J	a b
AMP	X R	0227	88-108-000-080	C-JUMPER,U	a b
AMP	X R	0257	88-108-683-080	C-RES,U 68K-1/16W J	a b
AMP	O R	0259	88-108-103-080	C-RES,U 10K-1/16W J	a b
AMP	X R	0260	88-121-103-080	RES,10K-1/8W J	a b
AMP	X R	0261	88-118-473-080	C-RES,S 47K-1/10W J	a b
AMP	O R	0267	88-108-103-080	C-RES,U 10K-1/16W J	a b
AMP	X R	0278	88-118-103-080	C-RES,S 10K-1/10W J	a b
AMP	O R	0280	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	X R	0281	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
AMP	O R	0282	88-108-103-080	C-RES,U 10K-1/16W J	a b
AMP	O R	0286	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	O R	0287	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	O R	0301	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
AMP	O R	0302	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
AMP	X R	0305	88-108-273-080	C-RES,U 27K-1/16W J	a b
AMP	X R	0306	88-108-273-080	C-RES,U 27K-1/16W J	a b
AMP	O R	0307	88-108-101-080	C-RES,U 100-1/16W J	a b
AMP	O R	0308	88-108-101-080	C-RES,U 100-1/16W J	a b
AMP	O R	0309	88-108-103-080	C-RES,U 10K-1/16W J	a b
AMP	O R	0310	88-108-103-080	C-RES,U 10K-1/16W J	a b
AMP	X R	0311	88-118-102-080	C-RES,S 1K-1/10W J	a b
AMP	X R	0312	88-118-102-080	C-RES,S 1K-1/10W J	a b
AMP	X R	0313	88-108-273-080	C-RES,U 27K-1/16W J	a b
AMP	X R	0314	88-108-273-080	C-RES,U 27K-1/16W J	a b
AMP	O R	0317	88-108-103-080	C-RES,U 10K-1/16W J	a b
AMP	O R	0318	88-108-103-080	C-RES,U 10K-1/16W J	a b
AMP	X R	0319	88-118-101-080	C-RES,S 100-1/10W J	a b
AMP	X R	0320	88-118-101-080	C-RES,S 100-1/10W J	a b
AMP	X R	0321	88-118-101-080	C-RES,S 100-1/10W J	a b
AMP	X R	0322	88-118-101-080	C-RES,S 100-1/10W J	a b
AMP	X R	0323	88-128-222-080	C-RES, 2.2K-1/8W J	a b
AMP	X R	0324	88-128-222-080	C-RES, 2.2K-1/8W J	a b
AMP	X R	0325	88-128-222-080	C-RES, 2.2K-1/8W J	a b
AMP	X R	0326	88-128-222-080	C-RES, 2.2K-1/8W J	a b
AMP	X R	0327	88-118-390-080	C-RES,S 39-1/10W J	a b
AMP	X R	0328	88-118-390-080	C-RES,S 39-1/10W J	a b
AMP	O R	0333	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
AMP	O R	0334	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
AMP	X R	0335	88-108-152-080	C-RES,U 1.5K-1/16W J	a b
AMP	X R	0336	88-108-152-080	C-RES,U 1.5K-1/16W J	a b
AMP	O R	0337	88-108-101-080	C-RES,U 100-1/16W J	a b
AMP	O R	0338	88-108-101-080	C-RES,U 100-1/16W J	a b
AMP	X R	0341	88-118-102-080	C-RES,S 1K-1/10W J	a b
AMP	X R	0342	88-118-102-080	C-RES,S 1K-1/10W J	a b
AMP	O R	0347	87-A00-669-080	RES,M/F 0.22-2W J RA	a b
AMP	O R	0348	87-A00-669-080	RES,M/F 0.22-2W J RA	a b
AMP	O R	0349	87-A00-669-080	RES,M/F 0.22-2W J RA	a b
AMP	O R	0350	87-A00-669-080	RES,M/F 0.22-2W J RA	a b
AMP	O R	0351	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	O R	0352	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	X R	0355	88-118-472-080	C-RES,S 4.7K-1/10W J	a b
AMP	X R	0356	88-118-472-080	C-RES,S 4.7K-1/10W J	a b
AMP	X R	0357	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	X R	0358	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	X R	0359	88-108-471-080	C-RES,U 470-1/16W J	a b
AMP	X R	0360	88-108-471-080	C-RES,U 470-1/16W J	a b
AMP	X R	0361	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	X R	0362	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	X R	0363	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	X R	0364	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	X R	0365	88-108-152-080	C-RES,U 1.5K-1/16W J	a b
AMP	X R	0366	88-108-152-080	C-RES,U 1.5K-1/16W J	a b
AMP	X R	0371	88-118-222-080	C-RES,S 2.2K-1/10W J	a b
AMP	X R	0372	88-118-222-080	C-RES,S 2.2K-1/10W J	a b
AMP	X R	0373	88-118-182-080	C-RES,S 1.8K-1/10W J	a b
AMP	X R	0374	88-118-182-080	C-RES,S 1.8K-1/10W J	a b
AMP	X R	0375	88-118-331-080	C-RES,S 330-1/10W J	a b
AMP	X R	0376	88-118-331-080	C-RES,S 330-1/10W J	a b

# ELECTRICAL PARTS LIST - 5/21

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UNIT-NAME	! C REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
AMP	O R 0379	88-108-102-080	C-RES,U 1K-1/16W J	CX-SNTR99 EZSTC
AMP	O R 0380	88-108-102-080	C-RES,U 1K-1/16W J	a b
AMP	X R 0381	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	X R 0382	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
AMP	O R 0395	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	O R 0396	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	O R 0397	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	O R 0398	88-108-473-080	C-RES,U 47K-1/16W J	a b
AMP	O TH0101	87-A91-042-080	C-THMS,100K 55001	a b
AMP	O TH0102	87-A91-042-080	C-THMS,100K 55001	a b
AMP	O TH0301	87-A91-042-080	C-THMS,100K 55001	a b
AMP	O TH0302	87-A91-042-080	C-THMS,100K 55001	a b
FR-CD	O CN0202	87-099-194-010	CONN,6P V BLK 6216	a b
FR-CD	S IC0301	87-070-289-040	C-IC,BU2092F	a b
FR-CD	O LED0202	87-A40-317-080	LED,SLR-342VCT31 RED	a b
FR-CD	O LED0203	87-A40-317-080	LED,SLR-342VCT31 RED	a b
FR-CD	O LED0204	87-A40-317-080	LED,SLR-342VCT31 RED	a b
FR-CD	O LED0213	87-A40-317-080	LED,SLR-342VCT31 RED	a b
FR-CD	O LED0214	87-A40-317-080	LED,SLR-342VCT31 RED	a b
FR-CD	O LED0215	87-A40-317-080	LED,SLR-342VCT31 RED	a b
FR-CD	X R 0201	88-121-821-080	RES,820-1/8W J	a b
FR-CD	X R 0202	88-121-821-080	RES,820-1/8W J	a b
FR-CD	X R 0203	88-121-821-080	RES,820-1/8W J	a b
FR-CD	X R 0355	88-108-122-080	C-RES,U 1.2K-1/16W J	a b
FR-CD	X R 0356	88-108-122-080	C-RES,U 1.2K-1/16W J	a b
FR-CD	X R 0357	88-108-182-080	C-RES,U 1.8K-1/16W J	a b
FR-CD	X R 0358	88-108-182-080	C-RES,U 1.8K-1/16W J	a b
FR-CD	X R 0359	88-108-273-080	C-RES,U 27K-1/16W J	a b
FR-CD	O S 0355	87-A90-095-080	SW,TACT EVQ11G04M	a b
FR-CD	O S 0356	87-A90-095-080	SW,TACT EVQ11G04M	a b
FR-CD	O S 0357	87-A90-095-080	SW,TACT EVQ11G04M	a b
FR-CD	O S 0358	87-A90-095-080	SW,TACT EVQ11G04M	a b
FR-CD	O S 0359	87-A90-095-080	SW,TACT EVQ11G04M	a b
FRONT	O C 0108	87-010-785-080	C-CAP,U 0.015-25 K B GRM	a b
FRONT	O C 0153	87-010-192-080	C-CAP,S 0.022-50 Z F C2012	a b
FRONT	O C 0154	87-010-246-040	CAP,E 47-35 M 11L SME	a b
FRONT	O C 0155	87-010-404-040	CAP,E 4.7-50 M 11L SME	a b
FRONT	O C 0156	87-010-404-040	CAP,E 4.7-50 M 11L SME	a b
FRONT	O C 0201	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
FRONT	O C 0202	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
FRONT	O C 0203	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
FRONT	O C 0204	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
FRONT	O C 0301	87-012-278-080	C-CAP,U 2200P-50 K B GRM	a b
FRONT	O C 0351	87-A10-353-080	C-CAP,U 0.22-10 K B	a b
FRONT	O C 0383	87-A11-057-080	C-CAP,U 0.1-16 K B	a b
FRONT	O C 0384	87-A11-057-080	C-CAP,U 0.1-16 K B	a b
FRONT	O C 0385	87-A11-057-080	C-CAP,U 0.1-16 K B	a b
FRONT	O C 0386	87-A11-057-080	C-CAP,U 0.1-16 K B	a b
FRONT	O C 0387	87-A11-057-080	C-CAP,U 0.1-16 K B	a b
FRONT	O C 0601	87-010-260-040	CAP,E 47-25 M 11L SME	a b
FRONT	O C 0911	87-012-274-080	C-CAP,U 1000P-50 K B GRM	a b
FRONT	O C 0912	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
FRONT	O C 0913	87-010-248-040	CAP,E 220-10 M 11L SME	a b
FRONT	O C 0915	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
FRONT	O C 0916	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
FRONT	O C 0917	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
FRONT	O C 0919	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
FRONT	O C 0920	87-010-829-080	C-CAP,U 0.047-16 Z F CM/CB	a b
FRONT	O C 0921	87-012-282-080	C-CAP,U 4700P-50 K B GRM	a b
FRONT	O C 0951	87-012-176-080	C-CAP,U 15P-50 J CH GRM	a b
FRONT	O C 0952	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
FRONT	O C 0953	87-012-145-080	C-CAP,S 270P-50 J CH GRM	a b
FRONT	O C 0954	89-654-155-080	CAP,TC 15P-50 J CH UP125	a b
FRONT	O C 0961	87-010-406-040	CAP,E 22-50 M 11L SME	a b
FRONT	O C 0963	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
FRONT	O CN0105	87-099-750-010	CONN,15P V 9604SC	a b
FRONT	O CN0201	87-099-194-010	CONN,6P V BLK 6216	a b
FRONT	O CN0301	87-099-030-010	CONN,13P H BLK 6216	a b
FRONT	O CN0401	87-099-210-010	CONN,5P H BLK 6216	a b
FRONT	O CN0701	87-099-720-010	CONN,30P BLK TYK-B(P)	a b
FRONT	O CN0731	87-099-196-010	CONN,8P V BLK 6216	a b
FRONT	S D 0104	87-020-465-080	DIODE,1SS133	a b
FRONT	S D 0301	87-A40-748-080	ZENER,UZ5.6BSA	a b
FRONT	S D 0302	87-020-465-080	DIODE,1SS133	a b
FRONT	S D 0305	87-020-465-080	DIODE,1SS133	a b
FRONT	S D 0306	87-020-465-080	DIODE,1SS133	a b
FRONT	S D 0381	87-020-465-080	DIODE,1SS133	a b
FRONT	S D 0382	87-020-465-080	DIODE,1SS133	a b
FRONT	S D 0383	87-020-465-080	DIODE,1SS133	a b
FRONT	S D 0384	87-020-465-080	DIODE,1SS133	a b

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FRONT	S D 0385	87-A40-802-080	ZENER, UZ5.1BSC	CX-SNTR99 EZSTC
FRONT	S D 0601	87-A40-269-040	C-DIODE, MC2836	CX-SNTR99 KSTC
FRONT	S D 0980	87-020-465-080	DIODE, ISS133	a
FRONT	S D 0985	87-020-465-080	DIODE, ISS133	b
FRONT	S D 0992	87-020-465-080	DIODE, ISS133	a
FRONT	O FL0901	8C-NFR-605-010	FL, BP038GNK-CNFR	b
FRONT	S IC0381	87-A21-023-040	C-IC, BA3835F	a
FRONT	S IC0601	87-A21-021-040	C-IC, BU2099FV	b
FRONT	S IC0901	8C-NFR-602-030	C-IC, LC876670B-50H8	a
FRONT	S IC0961	87-A21-831-010	IC, SPS-442-1-F1	b
FRONT	O L 0951	87-A50-657-010	COIL, CLK 9.43MHZ (TOKO) 7KLY	a
FRONT	O LED0201	87-A40-317-080	LED, SLR-342VCT31 RED	b
FRONT	S Q 0102	87-A30-076-040	C-TR, 2SC3052F	a
FRONT	S Q 0103	87-A30-538-040	C-TR, SRA2202S	b
FRONT	S Q 0301	87-A30-494-080	TR, 2SA1980G	a
FRONT	S Q 0302	87-A30-076-040	C-TR, 2SC3052F	b
FRONT	S Q 0303	87-A30-076-040	C-TR, 2SC3052F	a
FRONT	S Q 0601	87-A30-495-080	TR, 2SA1981Y	b
FRONT	S Q 0602	87-A30-495-080	TR, 2SA1981Y	a
FRONT	S Q 0603	89-112-965-080	TR, 2SA1296GR	b
FRONT	S Q 0901	87-A30-538-040	C-TR, SRA2202S	CX-SNTR99 EZSTC
FRONT	O R 0109	88-108-224-080	C-RES, U 220K-1/16W J	CX-SNTR99 KSTC
FRONT	O R 0110	88-108-153-080	C-RES, U 15K-1/16W J	a
FRONT	X R 0111	88-108-333-080	C-RES, U 33K-1/16W J	b
FRONT	X R 0112	88-108-184-080	C-RES, U 180K-1/16W J	a
FRONT	O R 0114	88-108-103-080	C-RES, U 10K-1/16W J	b
FRONT	X R 0115	88-108-183-080	C-RES, U 18K-1/16W J	a
FRONT	X R 0116	88-108-104-080	C-RES, U 100K-1/16W J	b
FRONT	O R 0150	88-108-223-080	C-RES, U 22K-1/16W J	a
FRONT	X R 0151	88-100-000-010	JUMPER WIRE, PLATING	b
FRONT	X R 0152	88-100-000-010	JUMPER WIRE, PLATING	a
FRONT	X R 0153	88-118-561-080	C-RES, S 560-1/10W J	b
FRONT	X R 0154	88-118-561-080	C-RES, S 560-1/10W J	a
FRONT	O R 0155	88-108-223-080	C-RES, U 22K-1/16W J	b
FRONT	X R 0156	88-108-000-080	C-JUMPER, U	a
FRONT	X R 0157	88-108-000-080	C-JUMPER, U	b
FRONT	X R 0158	88-108-000-080	C-JUMPER, U	a
FRONT	X R 0159	88-108-000-080	C-JUMPER, U	b
FRONT	X R 0160	88-108-000-080	C-JUMPER, U	a
FRONT	X R 0161	88-108-000-080	C-JUMPER, U	b
FRONT	X R 0162	88-108-000-080	C-JUMPER, U	CX-SNTR99 EZSTC
FRONT	X R 0163	88-108-000-080	C-JUMPER, U	CX-SNTR99 KSTC
FRONT	X R 0164	88-108-000-080	C-JUMPER, U	a
FRONT	X R 0165	88-108-000-080	C-JUMPER, U	b
FRONT	X R 0166	88-108-000-080	C-JUMPER, U	a
FRONT	X R 0167	88-108-000-080	C-JUMPER, U	b
FRONT	X R 0168	88-108-000-080	C-JUMPER, U	a
FRONT	X R 0206	88-130-561-080	RES, 560-1/4W J	b
FRONT	X R 0207	88-130-561-080	RES, 560-1/4W J	a
FRONT	X R 0208	88-121-182-080	RES, 1.8K-1/8W J	b
FRONT	X R 0211	88-130-561-080	RES, 560-1/4W J	a
FRONT	X R 0212	88-130-561-080	RES, 560-1/4W J	b
FRONT	O R 0213	88-108-103-080	C-RES, U 10K-1/16W J	a
FRONT	O R 0215	88-108-103-080	C-RES, U 10K-1/16W J	b
FRONT	O R 0216	88-108-103-080	C-RES, U 10K-1/16W J	a
FRONT	O R 0218	88-108-101-080	C-RES, U 100-1/16W J	b
FRONT	X R 0301	88-108-104-080	C-RES, U 100K-1/16W J	a
FRONT	X R 0302	88-108-472-080	C-RES, U 4.7K-1/16W J	b
FRONT	O R 0303	88-108-153-080	C-RES, U 15K-1/16W J	a
FRONT	O R 0304	88-108-102-080	C-RES, U 1K-1/16W J	b
FRONT	X R 0306	88-108-471-080	C-RES, U 470-1/16W J	CX-SNTR99 EZSTC
FRONT	O R 0321	88-108-103-080	C-RES, U 10K-1/16W J	CX-SNTR99 KSTC
FRONT	O R 0341	88-108-103-080	C-RES, U 10K-1/16W J	a
FRONT	O R 0351	88-108-103-080	C-RES, U 10K-1/16W J	b
FRONT	O R 0352	88-108-102-080	C-RES, U 1K-1/16W J	a
FRONT	X R 0353	88-108-821-080	C-RES, U 820-1/16W J	b
FRONT	X R 0354	88-108-122-080	C-RES, U 1.2K-1/16W J	a
FRONT	X R 0360	88-108-104-080	C-RES, U 100K-1/16W J	b
FRONT	O R 0361	88-108-101-080	C-RES, U 100-1/16W J	a
FRONT	X R 0380	88-108-393-080	C-RES, U 39K-1/16W J	b
FRONT	X R 0384	88-108-104-080	C-RES, U 100K-1/16W J	a
FRONT	X R 0386	88-108-273-080	C-RES, U 27K-1/16W J	b
FRONT	X R 0387	88-108-273-080	C-RES, U 27K-1/16W J	a
FRONT	X R 0388	88-108-273-080	C-RES, U 27K-1/16W J	b
FRONT	X R 0390	88-121-391-080	RES, 390-1/8W J	a
FRONT	X R 0391	88-108-472-080	C-RES, U 4.7K-1/16W J	b
FRONT	X R 0392	88-108-472-080	C-RES, U 4.7K-1/16W J	a
FRONT	X R 0393	88-108-472-080	C-RES, U 4.7K-1/16W J	b
FRONT	X R 0394	88-108-472-080	C-RES, U 4.7K-1/16W J	a
FRONT	O R 0397	88-108-223-080	C-RES, U 22K-1/16W J	b

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FRONT	X R 0421	88-108-000-080	C-JUMPER,U	CX-SNTR99 EZSTC
FRONT	O R 0601	88-108-103-080	C-RES,U 10K-1/16W J	a b
FRONT	X R 0602	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
FRONT	O R 0603	88-108-103-080	C-RES,U 10K-1/16W J	a b
FRONT	X R 0604	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
FRONT	O R 0605	88-108-103-080	C-RES,U 10K-1/16W J	a b
FRONT	O R 0606	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	X R 0607	88-108-000-080	C-JUMPER,U	a b
FRONT	O R 0611	88-108-473-080	C-RES,U 47K-1/16W J	a b
FRONT	O R 0612	88-108-473-080	C-RES,U 47K-1/16W J	a b
FRONT	O R 0613	88-108-473-080	C-RES,U 47K-1/16W J	a b
FRONT	O R 0614	88-108-473-080	C-RES,U 47K-1/16W J	a b
FRONT	O R 0615	88-108-473-080	C-RES,U 47K-1/16W J	a b
FRONT	O R 0616	88-108-473-080	C-RES,U 47K-1/16W J	a b
FRONT	O R 0617	88-108-103-080	C-RES,U 10K-1/16W J	a b
FRONT	O R 0619	88-108-103-080	C-RES,U 10K-1/16W J	a b
FRONT	O R 0701	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	O R 0702	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	O R 0703	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	O R 0704	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	O R 0705	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	O R 0706	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	O R 0707	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	O R 0708	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	O R 0709	88-108-101-080	C-RES,U 100-1/16W J	a b
FRONT	O R 0710	88-108-101-080	C-RES,U 100-1/16W J	a b
FRONT	O R 0711	88-108-101-080	C-RES,U 100-1/16W J	a b
FRONT	O R 0712	88-108-101-080	C-RES,U 100-1/16W J	a b
FRONT	O R 0715	88-108-101-080	C-RES,U 100-1/16W J	a b
FRONT	X R 0716	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
FRONT	X R 0719	88-121-100-080	RES, 10-1/8W J	a b
FRONT	O R 0720	88-108-101-080	C-RES,U 100-1/16W J	a b
FRONT	O R 0721	88-108-101-080	C-RES,U 100-1/16W J	a b
FRONT	O R 0730	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	O R 0732	88-108-101-080	C-RES,U 100-1/16W J	a b
FRONT	O R 0733	88-108-101-080	C-RES,U 100-1/16W J	a b
FRONT	O R 0734	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	O R 0735	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	O R 0740	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	O R 0741	88-108-101-080	C-RES,U 100-1/16W J	a b
FRONT	O R 0742	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	X R 0743	88-108-474-080	C-RES,U 470K-1/16W J	a b
FRONT	X R 0749	88-108-474-080	C-RES,U 470K-1/16W J	a b
FRONT	X R 0901	88-108-685-080	C-RES,U 6.8M-1/16W J	a b
FRONT	O R 0906	88-108-103-080	C-RES,U 10K-1/16W J	a b
FRONT	O R 0907	88-108-103-080	C-RES,U 10K-1/16W J	a b
FRONT	X R 0908	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0909	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0910	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0911	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0912	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0913	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0914	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0915	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0916	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0921	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0922	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0923	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0924	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0925	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0926	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0927	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0928	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0929	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0930	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0931	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0932	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0933	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0934	88-108-683-080	C-RES,U 68K-1/16W J	a b
FRONT	X R 0935	88-108-683-080	C-RES,U 68K-1/16W J	a b
FRONT	X R 0940	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0946	88-108-000-080	C-JUMPER,U	a b
FRONT	X R 0947	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0948	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	O R 0949	88-108-102-080	C-RES,U 1K-1/16W J	a b
FRONT	O R 0951	88-108-101-080	C-RES,U 100-1/16W J	a b
FRONT	O R 0961	88-108-101-080	C-RES,U 100-1/16W J	a b
FRONT	O R 0963	88-108-563-080	C-RES,U 56K-1/16W J	a b
FRONT	X R 0964	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0965	88-108-104-080	C-RES,U 100K-1/16W J	a b

# ELECTRICAL PARTS LIST - 8/21

! = 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.

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UNIT-NAME	! C REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
FRONT	X R 0966	88-108-104-080	C-RES,U 100K-1/16W J	CX-SNTR99 EZSTC
FRONT	X R 0967	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0968	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	O R 0969	88-108-103-080	C-RES,U 10K-1/16W J	a b
FRONT	X R 0970	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0971	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0972	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0973	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0974	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0975	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0976	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0977	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0978	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0979	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0980	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0981	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0982	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0983	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0984	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0985	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0986	88-108-104-080	C-RES,U 100K-1/16W J	CX-SNTR99 EZSTC
FRONT	X R 0987	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0988	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0989	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	X R 0999	88-108-104-080	C-RES,U 100K-1/16W J	a b
FRONT	O S 0352	87-A90-095-080	SW,TACT EVQ11G04M	a b
FRONT	O S 0353	87-A90-095-080	SW,TACT EVQ11G04M	a b
FRONT	O S 0354	87-A90-095-080	SW,TACT EVQ11G04M	a b
HP	O C 0242	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	a b
HP	O CNA201	8B-NCK-609-010	CONN ASSY,7P TID-A(130)	a b
HP	O J 0202	87-A61-546-010	JACK, 3.5 BLAK ST W/SW HST3000	a b
HP	X R 0205	88-108-000-080	C-JUMPER,U	a b
HP	X R 0206	88-108-681-080	C-RES,U 680-1/16W J	a b
HP	X R 0239	88-130-681-080	RES,680-1/4W J	a b
HP	X R 0240	88-130-681-080	RES,680-1/4W J	a b
HP	X R 0241	88-130-561-080	RES,560-1/4W J	a b
HP	X R 0242	88-130-561-080	RES,560-1/4W J	a b
HP	X R 0243	88-130-681-080	RES,680-1/4W J	a b
HP	X R 0244	88-130-681-080	RES,680-1/4W J	a b
HP	X R 0245	88-130-561-080	RES,560-1/4W J	a b
HP	X R 0246	88-130-561-080	RES,560-1/4W J	CX-SNTR99 EZSTC
HP	X R 0265	88-128-222-080	C-RES, 2.2K-1/8W J	a b
HP	X R 0266	88-128-222-080	C-RES, 2.2K-1/8W J	a b
KEY	O C 0302	87-012-274-080	C-CAP,U 1000P-50 K B GRM	a b
KEY	O C 0303	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
KEY	O C 0304	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
KEY	O C 0305	87-012-274-080	C-CAP,U 1000P-50 K B GRM	a b
KEY	O C 0306	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
KEY	O C 0307	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
KEY	O C 0308	87-012-274-080	C-CAP,U 1000P-50 K B GRM	a b
KEY	O C 0309	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
KEY	O C 0310	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
KEY	O C 0311	87-012-274-080	C-CAP,U 1000P-50 K B GRM	a b
KEY	O C 0312	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
KEY	O C 0317	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
KEY	O C 0318	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
KEY	O C 0319	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
KEY	O C 0320	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
KEY	O C 0321	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
KEY	O CN0302	87-099-015-010	CONN,13P V BLK 6216	a b
KEY	O LED0205	87-A40-317-080	LED,SLR-342VCT31 RED	CX-SNTR99 EZSTC
KEY	O LED0206	87-A40-317-080	LED,SLR-342VCT31 RED	a b
KEY	O LED0207	87-A40-317-080	LED,SLR-342VCT31 RED	a b
KEY	O LED0208	87-A40-317-080	LED,SLR-342VCT31 RED	a b
KEY	O LED0209	87-A40-317-080	LED,SLR-342VCT31 RED	a b
KEY	O LED0210	87-A40-317-080	LED,SLR-342VCT31 RED	a b
KEY	O LED0211	87-A40-317-080	LED,SLR-342VCT31 RED	a b
KEY	O LED0212	87-A40-317-080	LED,SLR-342VCT31 RED	a b
KEY	O LED0216	87-A40-589-040	LED,SLR-56VCT31 RED	a b
KEY	O LED0217	87-A40-589-040	LED,SLR-56VCT31 RED	a b
KEY	O LED0218	87-A40-589-040	LED,SLR-56VCT31 RED	a b
KEY	O LED0219	87-A40-589-040	LED,SLR-56VCT31 RED	a b
KEY	O LED0220	87-A40-589-040	LED,SLR-56VCT31 RED	a b
KEY	O LED0221	87-A40-589-040	LED,SLR-56VCT31 RED	a b
KEY	X R 0307	88-108-683-080	C-RES,U 68K-1/16W J	a b
KEY	O R 0308	88-108-153-080	C-RES,U 15K-1/16W J	a b
KEY	X R 0309	88-108-683-080	C-RES,U 68K-1/16W J	a b
KEY	O R 0310	88-108-153-080	C-RES,U 15K-1/16W J	a b
KEY	X R 0311	88-108-683-080	C-RES,U 68K-1/16W J	a b
KEY	O R 0312	88-108-153-080	C-RES,U 15K-1/16W J	a b

# ELECTRICAL PARTS LIST - 9/21

! = 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
KEY	X R	0313	88-108-683-080	C-RES,U 68K-1/16W J	CX-SNTR99 EZSTC
KEY	O R	0314	88-108-153-080	C-RES,U 15K-1/16W J	a b
KEY	X R	0316	88-108-184-080	C-RES,U 180K-1/16W J	a b
KEY	O R	0317	88-108-103-080	C-RES,U 10K-1/16W J	a b
KEY	X R	0318	88-108-184-080	C-RES,U 180K-1/16W J	a b
KEY	O R	0319	88-108-103-080	C-RES,U 10K-1/16W J	a b
KEY	X R	0322	88-121-102-080	RES, 1K-1/8W J	a b
KEY	X R	0323	88-108-821-080	C-RES,U 820-1/16W J	a b
KEY	X R	0324	88-121-102-080	RES, 1K-1/8W J	a b
KEY	X R	0325	88-108-122-080	C-RES,U 1.2K-1/16W J	a b
KEY	X R	0326	88-108-122-080	C-RES,U 1.2K-1/16W J	a b
KEY	X R	0327	88-108-182-080	C-RES,U 1.8K-1/16W J	a b
KEY	X R	0328	88-108-182-080	C-RES,U 1.8K-1/16W J	a b
KEY	O R	0329	88-108-272-080	C-RES,U 2.7K-1/16W J	a b
KEY	O R	0330	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
KEY	X R	0331	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
KEY	X R	0332	88-108-682-080	C-RES,U 6.8K-1/16W J	a b
KEY	O R	0333	88-108-103-080	C-RES,U 10K-1/16W J	a b
KEY	X R	0334	88-108-184-080	C-RES,U 180K-1/16W J	a b
KEY	O R	0335	88-108-103-080	C-RES,U 10K-1/16W J	a b
KEY	X R	0336	88-108-184-080	C-RES,U 180K-1/16W J	a b
KEY	O R	0337	88-108-103-080	C-RES,U 10K-1/16W J	a b
KEY	O R	0342	88-108-102-080	C-RES,U 1K-1/16W J	a b
KEY	X R	0343	88-121-821-080	RES, 820-1/8W J	a b
KEY	O R	0344	88-108-102-080	C-RES,U 1K-1/16W J	a b
KEY	X R	0345	88-108-122-080	C-RES,U 1.2K-1/16W J	a b
KEY	X R	0346	88-108-122-080	C-RES,U 1.2K-1/16W J	a b
KEY	X R	0347	88-108-182-080	C-RES,U 1.8K-1/16W J	a b
KEY	O R	0348	88-108-103-080	C-RES,U 10K-1/16W J	a b
KEY	O R	0349	88-108-103-080	C-RES,U 10K-1/16W J	a b
KEY	O R	0350	88-108-103-080	C-RES,U 10K-1/16W J	a b
KEY	O R	0362	88-108-103-080	C-RES,U 10K-1/16W J	a b
KEY	O R	0363	88-108-103-080	C-RES,U 10K-1/16W J	a b
KEY	O R	0364	88-108-103-080	C-RES,U 10K-1/16W J	a b
KEY	O R	0365	88-108-103-080	C-RES,U 10K-1/16W J	a b
KEY	X R	0366	88-118-102-080	C-RES,S 1K-1/10W J	a b
KEY	X R	0367	88-118-102-080	C-RES,S 1K-1/10W J	a b
KEY	X R	0368	88-118-102-080	C-RES,S 1K-1/10W J	a b
KEY	X R	0369	88-118-102-080	C-RES,S 1K-1/10W J	a b
KEY	X R	0370	88-118-102-080	C-RES,S 1K-1/10W J	a b
KEY	X R	0371	88-118-102-080	C-RES,S 1K-1/10W J	a b
KEY	X R	0372	88-121-101-080	RES, 100-1/8W J	a b
KEY	O S	0321	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0322	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0323	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0324	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0325	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0326	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0327	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0328	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0329	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0330	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0331	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0332	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0333	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0341	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0342	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0343	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0344	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0345	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0346	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0347	87-A90-095-080	SW,TACT EVQ11G04M	a b
KEY	O S	0360	87-A92-249-010	SW,RTRY EC12E24704-30MM	a b
KEY	O S	0361	87-A92-359-010	SW,RTRY EC12E24604-30MM	a b
KEY	O S	0362	87-A92-359-010	SW,RTRY EC12E24604-30MM	a b
KEY	O S	0363	87-A92-273-110	SW,RTRY EC12E12204 30MM	a b
MAIN	O C	0003	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
MAIN	O C	0004	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
MAIN	O C	0005	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
MAIN	O C	0006	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
MAIN	O C	0009	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
MAIN	O C	0010	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
MAIN	O C	0011	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
MAIN	O C	0012	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
MAIN	O C	0013	87-012-282-080	C-CAP,U 4700P-50 K B GRM	a b
MAIN	O C	0014	87-010-263-080	CAP,E 100-10 M 11L SME	a b
MAIN	O C	0016	87-010-757-080	C-CAP,U 0.047-25 Z F CM/CB	a b
MAIN	O C	0019	87-A12-827-000	CAP,E 3300-50 M 85 GS	a b
MAIN	O C	0020	87-A12-827-000	CAP,E 3300-50 M 85 GS	a b
MAIN	O C	0021	87-A12-829-000	CAP,E 4700-25 M 85 GS	a b

# ELECTRICAL PARTS LIST - 10/21

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UNIT-NAME	! C REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
MAIN	O C 0022	87-A12-829-000	CAP,E 4700-25 M 85 GS	CX-SNTR99 EZSTC
MAIN	O C 0034	87-010-260-080	CAP,E 47-25 M 11L SME	a b
MAIN	O C 0035	87-010-404-080	CAP,E 4.7-50 M 11L SME	a b
MAIN	O C 0036	87-010-112-080	CAP,E 100-16 M 11L SME	a b
MAIN	O C 0039	87-A12-823-000	CAP,E 2200-50 M 85 GS	a b
MAIN	O C 0040	87-A12-823-000	CAP,E 2200-50 M 85 GS	a b
MAIN	O C 0060	87-010-403-080	CAP,E 3.3-50 M 11L SME	a b
MAIN	O C 0061	87-010-260-080	CAP,E 47-25 M 11L SME	a b
MAIN	O C 0083	87-010-235-080	CAP,E 470-16 M SME	a b
MAIN	O C 0201	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
MAIN	O C 0202	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
MAIN	O C 0203	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
MAIN	O C 0204	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
MAIN	O C 0205	87-010-191-080	C-CAP,S 0.015-50 Z F GRM	a b
MAIN	O C 0206	87-010-191-080	C-CAP,S 0.015-50 Z F GRM	a b
MAIN	O C 0207	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0208	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0223	87-012-272-080	C-CAP,U 680P-50 K B GRM	a b
MAIN	O C 0224	87-012-272-080	C-CAP,U 680P-50 K B GRM	a b
MAIN	O C 0225	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
MAIN	O C 0226	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
MAIN	O C 0227	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
MAIN	O C 0228	87-A12-317-080	C-CAP,U 0.1-50 Z F	a b
MAIN	O C 0229	87-010-191-080	C-CAP,S 0.015-50 Z F GRM	a b
MAIN	O C 0230	87-010-191-080	C-CAP,S 0.015-50 Z F GRM	a b
MAIN	O C 0231	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0232	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0298	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
MAIN	O C 0401	87-012-275-080	C-CAP,U 1200P-50 K B GRM	a b
MAIN	O C 0402	87-012-275-080	C-CAP,U 1200P-50 K B GRM	a b
MAIN	O C 0403	87-012-275-080	C-CAP,U 1200P-50 K B GRM	a b
MAIN	O C 0404	87-012-275-080	C-CAP,U 1200P-50 K B GRM	a b
MAIN	O C 0405	87-012-270-080	C-CAP,U 470P-50 K B GRM	a b
MAIN	O C 0406	87-012-274-080	C-CAP,U 1000P-50 K B GRM	a b
MAIN	O C 0450	87-012-274-080	C-CAP,U 1000P-50 K B GRM	a b
MAIN	O C 0451	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	a b
MAIN	O C 0452	87-010-406-080	CAP,E 22-50 M 11L SME	a b
MAIN	O C 0453	87-012-279-080	C-CAP,U 2700P-50 K B GRM	a b
MAIN	O C 0454	87-012-279-080	C-CAP,U 2700P-50 K B GRM	a b
MAIN	O C 0455	87-012-279-080	C-CAP,U 2700P-50 K B GRM	a b
MAIN	O C 0456	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0457	87-A12-361-080	CAP,M 5600P-100 J CP	a b
MAIN	O C 0458	87-012-278-080	C-CAP,U 2200P-50 K B GRM	a b
MAIN	O C 0459	87-012-271-080	C-CAP,U 560P-50 K B GRM	a b
MAIN	O C 0460	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	a b
MAIN	O C 0461	87-012-158-080	C-CAP,S 390P-50 J CH GRM	a b
MAIN	O C 0462	87-012-158-080	C-CAP,S 390P-50 J CH GRM	a b
MAIN	O C 0463	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	a b
MAIN	O C 0464	87-012-278-080	C-CAP,U 2200P-50 K B GRM	a b
MAIN	O C 0465	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0466	87-010-196-080	C-CAP,S 0.1-25 Z F C2012	a b
MAIN	O C 0501	87-010-401-080	CAP,E 1-50 M 11L SME	a b
MAIN	O C 0502	87-010-260-080	CAP,E 47-25 M 11L SME	a b
MAIN	O C 0503	87-010-260-080	CAP,E 47-25 M 11L SME	a b
MAIN	O C 0551	87-010-545-080	CAP,E 0.22-50 M 11L SME	a b
MAIN	O C 0552	87-010-545-080	CAP,E 0.22-50 M 11L SME	a b
MAIN	O C 0553	87-A12-368-080	CAP,M 0.022-100 J CP	a b
MAIN	O C 0554	87-A12-368-080	CAP,M 0.022-100 J CP	a b
MAIN	O C 0555	87-010-545-080	CAP,E 0.22-50 M 11L SME	a b
MAIN	O C 0556	87-010-545-080	CAP,E 0.22-50 M 11L SME	a b
MAIN	O C 0557	87-010-545-080	CAP,E 0.22-50 M 11L SME	a b
MAIN	O C 0558	87-010-545-080	CAP,E 0.22-50 M 11L SME	a b
MAIN	O C 0563	87-010-260-080	CAP,E 47-25 M 11L SME	a b
MAIN	O C 0564	87-010-260-080	CAP,E 47-25 M 11L SME	a b
MAIN	O C 0565	87-010-401-080	CAP,E 1-50 M 11L SME	a b
MAIN	O C 0566	87-010-401-080	CAP,E 1-50 M 11L SME	a b
MAIN	O C 0595	87-010-544-080	CAP,E 0.1-50 M 11L SME	a b
MAIN	O C 0596	87-010-544-080	CAP,E 0.1-50 M 11L SME	a b
MAIN	O C 0597	87-010-544-080	CAP,E 0.1-50 M 11L SME	a b
MAIN	O C 0598	87-010-544-080	CAP,E 0.1-50 M 11L SME	a b
MAIN	O C 0601	87-012-188-080	C-CAP,U 47P-50 J CH GRM	a b
MAIN	O C 0602	87-012-188-080	C-CAP,U 47P-50 J CH GRM	a b
MAIN	O C 0603	87-010-263-080	CAP,E 100-10 M 11L SME	a b
MAIN	O C 0604	87-010-263-080	CAP,E 100-10 M 11L SME	a b
MAIN	X C 0605	88-700-740-810	CAP,M 6800P-50 J	a b
MAIN	X C 0606	88-700-740-810	CAP,M 6800P-50 J	a b
MAIN	O C 0607	87-012-270-080	C-CAP,U 470P-50 K B GRM	a b
MAIN	O C 0608	87-012-270-080	C-CAP,U 470P-50 K B GRM	a b
MAIN	O C 0609	87-010-400-080	CAP,E 0.47-50 M 11L SME	a b
MAIN	O C 0610	87-010-400-080	CAP,E 0.47-50 M 11L SME	a b

# ELECTRICAL PARTS LIST - 11/21

! = 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
MAIN	O C 0611	87-012-273-080	C-CAP,U 820P-50 K B GRM	CX-SNTR99 EZSTC
MAIN	O C 0612	87-012-273-080	C-CAP,U 820P-50 K B GRM	a b
MAIN	X C 0613	88-700-610-810	CAP,M 1000P-50 J	a b
MAIN	X C 0614	88-700-610-810	CAP,M 1000P-50 J	a b
MAIN	X C 0615	88-700-610-810	CAP,M 1000P-50 J	a b
MAIN	X C 0616	88-700-610-810	CAP,M 1000P-50 J	a b
MAIN	O C 0617	87-A10-295-080	CAP,M 0.01-50 J	a b
MAIN	O C 0618	87-A10-295-080	CAP,M 0.01-50 J	a b
MAIN	O C 0619	87-A10-295-080	CAP,M 0.01-50 J	a b
MAIN	O C 0620	87-A10-295-080	CAP,M 0.01-50 J	a b
MAIN	O C 0621	87-010-545-080	CAP,E 0.22-50 M 11L SME	a b
MAIN	O C 0622	87-010-545-080	CAP,E 0.22-50 M 11L SME	a b
MAIN	O C 0623	87-010-545-080	CAP,E 0.22-50 M 11L SME	a b
MAIN	O C 0624	87-010-545-080	CAP,E 0.22-50 M 11L SME	a b
MAIN	O C 0631	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
MAIN	O C 0632	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
MAIN	O C 0633	87-012-284-080	C-CAP,U 6800P-50 K B GRM	a b
MAIN	O C 0634	87-012-284-080	C-CAP,U 6800P-50 K B GRM	a b
MAIN	O C 0635	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0636	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0637	87-012-278-080	C-CAP,U 2200P-50 K B GRM	CX-SNTR99 EZSTC
MAIN	O C 0638	87-012-278-080	C-CAP,U 2200P-50 K B GRM	a b
MAIN	O C 0641	87-010-401-080	CAP,E 1-50 M 11L SME	a b
MAIN	O C 0642	87-010-401-080	CAP,E 1-50 M 11L SME	a b
MAIN	O C 0651	87-A12-063-080	CAP,E 220-10 SMG	a b
MAIN	O C 0652	87-010-260-080	CAP,E 47-25 M 11L SME	a b
MAIN	O C 0655	87-010-402-080	CAP,E 2.2-50 M 11L SME	a b
MAIN	O C 0656	87-010-784-080	C-CAP,U 0.012-25 K B GRM	a b
MAIN	O C 0657	87-010-260-080	CAP,E 47-25 M 11L SME	a b
MAIN	O C 0658	87-010-260-080	CAP,E 47-25 M 11L SME	a b
MAIN	O C 0663	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	a b
MAIN	O C 0664	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	a b
MAIN	O C 0665	87-A10-504-080	C-CAP,U 0.047-16 K B	a b
MAIN	O C 0666	87-A10-504-080	C-CAP,U 0.047-16 K B	a b
MAIN	O C 0669	87-012-271-080	C-CAP,U 560P-50 K B GRM	a b
MAIN	O C 0670	87-012-271-080	C-CAP,U 560P-50 K B GRM	a b
MAIN	O C 0677	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0681	87-A10-504-080	C-CAP,U 0.047-16 K B	a b
MAIN	O C 0682	87-010-787-080	C-CAP,U 0.022-25 K B GRM	a b
MAIN	O C 0683	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	a b
MAIN	O C 0685	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	CX-SNTR99 EZSTC
MAIN	O C 0687	87-A11-058-080	C-CAP,U 0.22-10 K B	a b
MAIN	O C 0688	87-A11-058-080	C-CAP,U 0.22-10 K B	a b
MAIN	O C 0689	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	a b
MAIN	O C 0690	87-010-831-080	C-CAP,U 0.1-16 Z F GRM	a b
MAIN	O C 0771	87-010-263-080	CAP,E 100-10 M 11L SME	a b
MAIN	O C 0772	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	X C 0781	88-108-000-080	C-JUMPER,U	a b
MAIN	O C 0782	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0783	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0784	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0785	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0786	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0788	87-012-167-080	C-CAP,U 5P-50 C CH GRM	a b
MAIN	O C 0789	87-016-118-080	C-CAP,U 0.022-25 J B GRM	a b
MAIN	O C 0790	87-016-118-080	C-CAP,U 0.022-25 J B GRM	a b
MAIN	O C 0791	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
MAIN	O C 0792	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0793	87-010-404-080	CAP,E 4.7-50 M 11L SME	a b
MAIN	O C 0795	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0796	87-012-286-080	C-CAP,U 0.01-25 K B GRM	CX-SNTR99 EZSTC
MAIN	O C 0797	87-010-405-080	CAP,E 10-50 M 11L SME	a b
MAIN	O C 0798	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0799	87-010-265-080	CAP,E 33-16 M 11L SME	a b
MAIN	O C 0800	87-010-829-080	C-CAP,U 0.047-16 Z F CM/CB	a b
MAIN	O C 0801	87-010-403-080	CAP,E 3.3-50 M 11L SME	a b
MAIN	O C 0802	87-010-829-080	C-CAP,U 0.047-16 Z F CM/CB	a b
MAIN	O C 0803	87-010-787-080	C-CAP,U 0.022-25 K B GRM	a b
MAIN	O C 0804	87-010-263-080	CAP,E 100-10 M 11L SME	a b
MAIN	O C 0807	87-010-400-080	CAP,E 0.47-50 M 11L SME	a b
MAIN	O C 0808	87-010-401-080	CAP,E 1-50 M 11L SME	a b
MAIN	O C 0809	87-010-401-080	CAP,E 1-50 M 11L SME	a b
MAIN	O C 0810	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a b
MAIN	O C 0814	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O C 0815	87-010-400-080	CAP,E 0.47-50 M 11L SME	a b
MAIN	O C 0816	87-010-400-080	CAP,E 0.47-50 M 11L SME	a b
MAIN	O C 0818	87-012-276-080	C-CAP,U 1500P-50 K B GRM	a b
MAIN	O C 0821	87-010-405-080	CAP,E 10-50 M 11L SME	a b
MAIN	X C 0822	88-108-000-080	C-JUMPER,U	a b
MAIN	O C 0823	87-012-349-080	C-CAP,S 1000P-50 J CH GRM	a b

# ELECTRICAL PARTS LIST - 12/21

! = 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.  
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UNIT-NAME	! C REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
MAIN	O C 0824	87-010-404-080	CAP,E 4.7-50 M 11L SME	CX-SNTR99 EZSTC
MAIN	O C 0825	87-010-596-080	C-CAP,S 0.047-16 K R C2012	a a b
MAIN	O C 0831	87-010-406-080	CAP,E 22-50 M 11L SME	a a b
MAIN	O C 0842	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0843	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0844	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0845	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0846	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	X C 0847	88-108-000-080	C-JUMPER,U	a a b
MAIN	X C 0848	88-108-000-080	C-JUMPER,U	a a b
MAIN	O C 0849	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0850	87-010-260-080	CAP,E 47-25 M 11L SME	a a b
MAIN	O C 0851	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0852	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0853	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0859	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a a b
MAIN	O C 0860	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0869	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0870	87-012-274-080	C-CAP,U 1000P-50 K B GRM	a a b
MAIN	O C 0871	87-012-199-080	C-CAP,U 220P-50 J CH GRM	a a b
MAIN	O C 0872	87-012-199-080	C-CAP,U 220P-50 J CH GRM	CX-SNTR99 EZSTC
MAIN	O C 0873	87-A10-039-080	C-CAP,U 470P-50 J CH	a a b
MAIN	O C 0874	87-010-405-080	CAP,E 10-50 M 11L SME	a a b
MAIN	O C 0875	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a a b
MAIN	O C 0876	87-010-405-080	CAP,E 10-50 M 11L SME	a a b
MAIN	O C 0877	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0878	87-012-184-080	C-CAP,U 33P-50 J CH GRM	a a b
MAIN	O C 0879	87-012-180-080	C-CAP,U 22P-50 J CH GRM	a a b
MAIN	O C 0901	87-012-162-080	C-CAP,U 1P-50 C CH GRM	a a b
MAIN	O C 0902	87-012-165-080	C-CAP,U 3P-50 C CH GRM	a a b
MAIN	O C 0903	87-012-164-080	C-CAP,U 2P-50 C CH GRM	a a b
MAIN	O C 0904	86-ZA1-615-080	C-CAP,U 680P-25 J CH	a a b
MAIN	O C 0905	87-012-162-080	C-CAP,U 1P-50 C CH GRM	a a b
MAIN	O C 0906	87-012-172-080	C-CAP,U 10P-50 D CH GRM	a a b
MAIN	O C 0907	87-012-166-080	C-CAP,U 4P-50 C CH GRM	a a b
MAIN	O C 0908	87-012-165-080	C-CAP,U 3P-50 C CH GRM	a a b
MAIN	O C 0909	86-ZA1-615-080	C-CAP,U 680P-25 J CH	a a b
MAIN	O C 0910	87-012-164-080	C-CAP,U 2P-50 C CH GRM	a a b
MAIN	O C 0911	87-012-166-080	C-CAP,U 4P-50 C CH GRM	a a b
MAIN	O C 0912	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a a b
MAIN	O C 0913	86-ZA1-616-080	C-CAP,U 0.01-50 K B (MUR)	CX-SNTR99 EZSTC
MAIN	O C 0914	86-ZA1-616-080	C-CAP,U 0.01-50 K B (MUR)	a a b
MAIN	O C 0915	86-ZA1-616-080	C-CAP,U 0.01-50 K B (MUR)	a a b
MAIN	O C 0916	86-ZA1-616-080	C-CAP,U 0.01-50 K B (MUR)	a a b
MAIN	O C 0917	87-012-178-080	C-CAP,U 18P-50 J CH GRM	a a b
MAIN	O C 0918	87-012-172-080	C-CAP,U 10P-50 D CH GRM	a a b
MAIN	O C 0919	87-012-184-080	C-CAP,U 33P-50 J CH GRM	a a b
MAIN	O C 0920	87-012-184-080	C-CAP,U 33P-50 J CH GRM	a a b
MAIN	O C 0921	87-012-180-080	C-CAP,U 22P-50 J CH GRM	a a b
MAIN	O C 0922	87-012-174-080	C-CAP,U 12P-50 J CH GRM	a a b
MAIN	O C 0923	86-ZA1-616-080	C-CAP,U 0.01-50 K B (MUR)	a a b
MAIN	O C 0924	87-012-164-080	C-CAP,U 2P-50 C CH GRM	a a b
MAIN	O C 0925	87-012-164-080	C-CAP,U 2P-50 C CH GRM	a a b
MAIN	O C 0926	86-ZA1-616-080	C-CAP,U 0.01-50 K B (MUR)	a a b
MAIN	O C 0931	87-A12-319-080	C-CAP,U 0.1-25 K B	a a b
MAIN	O C 0940	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0942	87-012-167-080	C-CAP,U 5P-50 C CH GRM	a a b
MAIN	O C 0947	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0948	87-A10-039-080	C-CAP,U 470P-50 J CH	a a b
MAIN	O C 0952	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0958	87-012-286-080	C-CAP,U 0.01-25 K B GRM	CX-SNTR99 EZSTC
MAIN	O C 0959	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a a b
MAIN	O C 0960	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a a b
MAIN	O C 0962	87-010-401-080	CAP,E 1-50 M 11L SME	a a b
MAIN	O C 0963	87-A12-319-080	C-CAP,U 0.1-25 K B	a a b
MAIN	O C 0971	87-010-381-080	CAP,E 330-16 M SME	a a b
MAIN	O C 0972	87-010-404-080	CAP,E 4.7-50 M 11L SME	a a b
MAIN	O C 0973	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0974	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0979	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a a b
MAIN	O C 0981	87-010-260-080	CAP,E 47-25 M 11L SME	a a b
MAIN	O C 0982	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a a b
MAIN	O C 0983	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0984	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0985	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a a b
MAIN	O C 0987	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0989	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a a b
MAIN	O C 0991	87-012-176-080	C-CAP,U 15P-50 J CH GRM	a a b
MAIN	O C 0992	87-012-176-080	C-CAP,U 15P-50 J CH GRM	a a b
MAIN	O C 0993	87-012-274-080	C-CAP,U 1000P-50 K B GRM	a a b

# ELECTRICAL PARTS LIST - 13/21

! = SAFETY PARTS  
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UNIT-NAME	! C REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
MAIN	O C 0995	87-012-274-080	C-CAP,U 1000P-50 K B GRM	CX-SNTR99 EZSTC
MAIN	O C 0997	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	CX-SNTR99 KSTC
MAIN	O C 0998	87-010-260-080	CAP,E 47-25 M 11L SME	a b
MAIN	O C 0999	87-A11-155-080	CAP,TC U 0.01-16 Z F	a b
MAIN	O CF0831	87-008-423-010	FLTR,CF SFE10.7MS3G-A	a b
MAIN	O CF0832	82-785-747-010	CF,MS2GH-A	a b
MAIN	X CLP0301	87-A60-884-010	PIN,DIA1 COATING-SHS	a b
MAIN	X CLP0601	87-A60-884-010	PIN,DIA1 COATING-SHS	a b
MAIN	O CN0002	87-A60-996-010	CONN,13P V BLK TAC-L13X-A3	a b
MAIN	O CN0003	87-A60-998-010	CONN,15P V BLK TAC-L15X-A3	a b
MAIN	O CN0201	87-A61-109-010	CONN,7P V TID-A	a b
MAIN	O CN0401	87-A60-620-010	CONN,3P V 2MM JMT	a b
MAIN	O CN0402	87-A60-625-010	CONN,8P V 2MM JMT	a b
MAIN	O CN0504	87-A60-619-010	CONN,2P V 2MM JMT	a b
MAIN	O CN0601	87-099-719-010	CONN,30P H BLK TYK-B(X)	a b
MAIN	O CN0602	87-A60-131-010	CONN,6P V FE	a b
MAIN	O CNA0001	8A-NF8-654-010	CONN ASSY,11P TID-A(480)	a b
MAIN	S D 0009	87-A40-839-090	DIODE,G5SBA60L-6088	a b
MAIN	S D 0010	87-A40-673-090	DIODE,D10XB20	a b
MAIN	S D 0011	87-A40-270-040	C-DIODE,MC2838	a b
MAIN	S D 0012	87-020-465-080	DIODE,1SS133	a b
MAIN	S D 0013	87-A40-764-080	ZENER,UZ10BSC	a b
MAIN	S D 0029	87-A40-780-080	ZENER,UZ33BSD	a b
MAIN	S D 0043	87-A40-270-040	C-DIODE,MC2838	a b
MAIN	S D 0044	87-A40-269-040	C-DIODE,MC2836	a b
MAIN	S D 0063	87-A40-270-040	C-DIODE,MC2838	a b
MAIN	S D 0064	87-A40-269-040	C-DIODE,MC2836	a b
MAIN	S D 0076	87-A40-269-040	C-DIODE,MC2836	a b
MAIN	S D 0077	87-A40-270-040	C-DIODE,MC2838	a b
MAIN	S D 0401	87-A40-269-040	C-DIODE,MC2836	a b
MAIN	S D 0501	87-020-465-080	DIODE,1SS133	a b
MAIN	S D 0502	87-020-465-080	DIODE,1SS133	a b
MAIN	S D 0550	87-A40-766-080	ZENER,UZ11BSC	a b
MAIN	S D 0661	87-A40-745-080	ZENER,UZ4.7BSA	a b
MAIN	S D 0662	87-A40-745-080	ZENER,UZ4.7BSA	a b
MAIN	S D 0801	87-020-465-080	DIODE,1SS133	a b
MAIN	S D 0803	87-020-465-080	DIODE,1SS133	a b
MAIN	O D 0901	87-A41-048-040	C-VARI-CAP,HVM16-03 TL	a b
MAIN	O D 0902	87-A41-048-040	C-VARI-CAP,HVM16-03 TL	a b
MAIN	O D 0903	87-A41-048-040	C-VARI-CAP,HVM16-03 TL	a b
MAIN	S D 0942	87-A40-270-040	C-DIODE,MC2838	a b
MAIN	S D 0944	87-A40-291-080	DIODE,1N4148M (CPT)	a b
MAIN	O D 0951	87-A40-799-040	C-VARI-CAP,KV1610S	a b
MAIN	S D 0991	87-017-149-080	ZENER,HZS6A2L	a b
MAIN	S D 0992	87-020-465-080	DIODE,1SS133	a b
MAIN	S D 0994	87-020-465-080	DIODE,1SS133	a b
MAIN	X FB0601	88-108-000-080	C-JUMPER,U	a b
MAIN	X FB0602	88-108-000-080	C-JUMPER,U	a b
MAIN	X FB0603	88-100-000-010	JUMPER WIRE,PLATING	a b
MAIN	S IC0001	87-A21-364-010	IC,NJM7806FA(A)	a b
MAIN	S IC0551	87-017-888-080	C-IC,NJM4558MD	a b
MAIN	S IC0601	87-A22-264-040	C-IC,BD3882FV	a b
MAIN	S IC0681	87-A21-419-040	C-IC,NJM14558MD-TE2	a b
MAIN	S IC0682	87-017-726-040	C-IC,BU4052BCF	a b
MAIN	S IC0801	87-A22-060-010	IC,LA1845N-A	a b
MAIN	S IC0861	87-A20-440-040	C-IC,BU1920FS	a b
MAIN	S IC0991	87-A21-928-010	IC,LCT2131D-N	a b
MAIN	O J 0601	87-A60-881-010	JACK,PIN 2P MSP 242V05 PBSN	a b
MAIN	X J 0832	87-A60-403-110	TERMINAL,ANT PAL 2P HSP-312V05	a b
MAIN	O JR0201	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
MAIN	X JR0508	88-108-183-080	C-RES,U 18K-1/16W J	a b
MAIN	X JR0511	88-108-183-080	C-RES,U 18K-1/16W J	a b
MAIN	X JR0808	88-108-474-080	C-RES,U 470K-1/16W J	a b
MAIN	O JR0901	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O JR0903	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O L 0201	87-A50-610-010	COIL,1UH K(MDEC)	a b
MAIN	O L 0202	87-A50-610-010	COIL,1UH K(MDEC)	a b
MAIN	O L 0203	87-A50-610-010	COIL,1UH K(MDEC)	a b
MAIN	O L 0204	87-A50-610-010	COIL,1UH K(MDEC)	a b
MAIN	O L 0451	87-007-342-010	COIL,OSC 85KHZ BIAS	a b
MAIN	O L 0801	87-A50-608-010	COIL,FM DET-N(TOK)	a b
MAIN	O L 0802	87-A91-551-010	FLTR,PCFJZH-450 L(TOK)	a b
MAIN	O L 0811	87-005-847-080	COIL,2.2UH K CECS	a b
MAIN	O L 0832	87-005-847-080	COIL,2.2UH K CECS	a b
MAIN	O L 0861	87-005-847-080	COIL,2.2UH K CECS	a b
MAIN	O L 0901	86-ZA1-612-010	COIL,FM ANT/RF-1-Z	a b
MAIN	O L 0902	86-ZA1-613-010	COIL,FM ANT/RF-2-Z	a b
MAIN	O L 0903	87-005-847-080	COIL,2.2UH K CECS	a b
MAIN	O L 0904	86-ZA1-612-010	COIL,FM ANT/RF-1-Z	a b
MAIN	O L 0905	86-ZA1-613-010	COIL,FM ANT/RF-2-Z	a b

# ELECTRICAL PARTS LIST - 14/21

! = 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.  
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UNIT-NAME	! C REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
MAIN	O L 0906	87-005-847-080	COIL, 2.2UH K CECS	CX-SNTR99 EZSTC
MAIN	O L 0907	86-ZA1-614-010	COIL, FM OSC-Z	a b
MAIN	O L 0908	88-ZA1-624-010	COIL, FM IFT 7-6.2 (COILS)	a b
MAIN	O L 0941	87-A50-020-010	COIL, ANT LW (COI) 252KHZ	a b
MAIN	O L 0942	87-A50-019-010	COIL, OSC LW (COI) 856KHZ	a b
MAIN	O L 0952	87-A50-754-010	COIL, MW ANT (3BLW)	a b
MAIN	O L 0953	87-A50-755-010	COIL, MW OSC (3BLW)	a b
MAIN	S Q 0001	87-A30-494-080	TR, 2SA1980G	a b
MAIN	S Q 0002	87-A30-494-080	TR, 2SA1980G	a b
MAIN	S Q 0003	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0009	87-A30-494-080	TR, 2SA1980G	a b
MAIN	S Q 0010	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0012	87-A30-630-080	TR, 2SC5343GL	a b
MAIN	S Q 0013	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0014	87-A30-075-040	C-TR, 2SA1235F	a b
MAIN	S Q 0060	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0061	87-A30-075-040	C-TR, 2SA1235F	a b
MAIN	S Q 0062	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0063	87-A30-075-040	C-TR, 2SA1235F	a b
MAIN	S Q 0064	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0065	87-A30-075-040	C-TR, 2SA1235F	CX-SNTR99 EZSTC
MAIN	S Q 0236	87-A30-538-040	C-TR, SRA2202S	a b
MAIN	S Q 0237	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0238	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0401	87-A30-269-040	C-FET, 2SJ461-T1	a b
MAIN	S Q 0402	87-A30-269-040	C-FET, 2SJ461-T1	a b
MAIN	S Q 0403	87-A30-087-080	C-FET, 2SK2158	a b
MAIN	S Q 0404	87-A30-087-080	C-FET, 2SK2158	a b
MAIN	S Q 0405	87-A30-269-040	C-FET, 2SJ461-T1	a b
MAIN	S Q 0406	87-A30-269-040	C-FET, 2SJ461-T1	a b
MAIN	S Q 0407	87-A30-087-080	C-FET, 2SK2158	a b
MAIN	S Q 0408	87-A30-087-080	C-FET, 2SK2158	a b
MAIN	S Q 0409	87-A30-087-080	C-FET, 2SK2158	a b
MAIN	S Q 0451	87-A30-630-080	TR, 2SC5343GL	a b
MAIN	S Q 0452	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0453	89-333-317-880	TR, 2SC3331 (T/U)	a b
MAIN	S Q 0454	89-333-317-880	TR, 2SC3331 (T/U)	a b
MAIN	S Q 0455	87-A30-119-040	C-TR, 2SC3906K R	a b
MAIN	S Q 0456	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0501	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0502	87-A30-075-040	C-TR, 2SA1235F	CX-SNTR99 EZSTC
MAIN	S Q 0503	87-A30-494-080	TR, 2SA1980G	a b
MAIN	S Q 0601	87-A30-538-040	C-TR, SRA2202S	a b
MAIN	S Q 0651	87-A30-087-080	C-FET, 2SK2158	a b
MAIN	S Q 0652	87-A30-087-080	C-FET, 2SK2158	a b
MAIN	S Q 0653	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0835	87-A30-521-080	C-TR, 2SC5345SF/S (O)	a b
MAIN	S Q 0836	87-A30-677-040	C-TR, SRA2207S	a b
MAIN	S Q 0861	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0863	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	S Q 0901	89-503-602-080	C-FET, 2SK360E	a b
MAIN	S Q 0902	87-A30-664-080	C-TR, 2SC2620B	a b
MAIN	S Q 0903	87-A30-664-080	C-TR, 2SC2620B	a b
MAIN	S Q 0904	87-A30-699-040	C-TR, 2SC5477-T22	a b
MAIN	S Q 0905	87-A30-664-080	C-TR, 2SC2620B	a b
MAIN	S Q 0948	87-A30-675-040	C-TR, 2SD1306NE07TL	a b
MAIN	S Q 0951	87-A30-484-040	C-TR, KRA102S	a b
MAIN	S Q 0952	87-A30-675-040	C-TR, 2SD1306NE07TL	a b
MAIN	S Q 0953	89-503-602-080	C-FET, 2SK360E	a b
MAIN	S Q 0981	87-A30-494-080	TR, 2SA1980G	a b
MAIN	S Q 0982	87-A30-076-040	C-TR, 2SC3052F	CX-SNTR99 EZSTC
MAIN	S Q 0983	87-A30-076-040	C-TR, 2SC3052F	a b
MAIN	X R 0001	88-100-000-010	JUMPER WIRE, PLATING	a b
MAIN	X R 0005	88-100-000-010	JUMPER WIRE, PLATING	a b
MAIN	X R 0007	88-118-473-080	C-RES, S 47K-1/10W J	a b
MAIN	X R 0008	88-118-473-080	C-RES, S 47K-1/10W J	a b
MAIN	O R 0009	88-108-223-080	C-RES, U 22K-1/16W J	a b
MAIN	O R 0010	88-108-223-080	C-RES, U 22K-1/16W J	a b
MAIN	X R 0011	88-118-472-080	C-RES, S 4.7K-1/10W J	a b
MAIN	X R 0012	88-118-472-080	C-RES, S 4.7K-1/10W J	a b
MAIN	X R 0013	88-108-472-080	C-RES, U 4.7K-1/16W J	a b
MAIN	X R 0014	88-118-689-080	C-RES, S 6.8-1/10W J	a b
MAIN	O R 0024	88-108-103-080	C-RES, U 10K-1/16W J	a b
MAIN	X R 0026	88-118-472-080	C-RES, S 4.7K-1/10W J	a b
MAIN	O R 0027	88-108-823-080	C-RES, U 82K-1/16W J	a b
MAIN	O R 0029	88-108-473-080	C-RES, U 47K-1/16W J	a b
MAIN	X R 0031	88-121-154-080	RES, 150K-1/8W J	a b
MAIN	X R 0032	88-108-392-080	C-RES, U 3.9K-1/16W J	a b
MAIN	X R 0033	88-108-392-080	C-RES, U 3.9K-1/16W J	a b
MAIN	X R 0035	88-108-472-080	C-RES, U 4.7K-1/16W J	a b

# ELECTRICAL PARTS LIST - 15/21

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UNIT-NAME	! C REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
MAIN	X R 0043	88-100-000-010	JUMPER WIRE, PLATING	CX-SNTR99 EZSTC
MAIN	X R 0044	88-130-181-080	RES, 180-1/4W J	a b
MAIN	X R 0045	88-130-221-080	RES, 220-1/4W J	a b
MAIN	X R 0046	88-130-221-080	RES, 220-1/4W J	a b
MAIN	X R 0047	88-130-221-080	RES, 220-1/4W J	a b
MAIN	X R 0048	88-130-221-080	RES, 220-1/4W J	a b
MAIN	X R 0049	88-130-221-080	RES, 220-1/4W J	a b
MAIN	X R 0050	88-121-183-080	RES, 18K-1/8W J	a b
MAIN	O R 0051	88-108-102-080	C-RES, U 1K-1/16W J	a b
MAIN	O R 0052	88-108-102-080	C-RES, U 1K-1/16W J	a b
MAIN	O R 0053	88-108-563-080	C-RES, U 56K-1/16W J	a b
MAIN	X R 0054	88-118-562-080	C-RES, S 5.6K-1/10W J	a b
MAIN	X R 0056	88-118-680-080	C-RES, S 68-1/10W J	a b
MAIN	X R 0057	88-108-472-080	C-RES, U 4.7K-1/16W J	a b
MAIN	O R 0058	88-108-103-080	C-RES, U 10K-1/16W J	a b
MAIN	X R 0059	88-108-221-080	C-RES, U 220-1/16W J	a b
MAIN	X R 0060	88-108-471-080	C-RES, U 470-1/16W J	a b
MAIN	O R 0061	88-108-123-080	C-RES, U 12K-1/16W J	a b
MAIN	O R 0062	88-108-223-080	C-RES, U 22K-1/16W J	a b
MAIN	O R 0063	88-108-223-080	C-RES, U 22K-1/16W J	a b
MAIN	X R 0064	88-108-682-080	C-RES, U 6.8K-1/16W J	a b
MAIN	O R 0065	88-108-123-080	C-RES, U 12K-1/16W J	a b
MAIN	X R 0066	88-108-104-080	C-RES, U 100K-1/16W J	a b
MAIN	O R 0067	88-108-103-080	C-RES, U 10K-1/16W J	a b
MAIN	O R 0068	88-108-103-080	C-RES, U 10K-1/16W J	a b
MAIN	O R 0069	88-108-101-080	C-RES, U 100-1/16W J	a b
MAIN	X R 0070	88-108-000-080	C-JUMPER, U	a b
MAIN	X R 0071	88-130-123-080	RES, 12K-1/4W J	a b
MAIN	X R 0074	88-130-123-080	RES, 12K-1/4W J	a b
MAIN	X R 0075	88-130-123-080	RES, 12K-1/4W J	a b
MAIN	O R 0076	88-108-102-080	C-RES, U 1K-1/16W J	a b
MAIN	O R 0077	88-108-102-080	C-RES, U 1K-1/16W J	a b
MAIN	X R 0082	88-130-392-080	RES, 3.9K-1/4W J	a b
MAIN	X R 0083	88-130-392-080	RES, 3.9K-1/4W J	a b
MAIN	X R 0084	88-121-823-080	RES, 82K-1/8W J	a b
MAIN	X R 0085	88-118-393-080	C-RES, S 39K-1/10W J	a b
MAIN	O R 0086	88-108-153-080	C-RES, U 15K-1/16W J	a b
MAIN	X R 0087	88-121-823-080	RES, 82K-1/8W J	a b
MAIN	X R 0088	88-118-393-080	C-RES, S 39K-1/10W J	a b
MAIN	O R 0089	88-108-153-080	C-RES, U 15K-1/16W J	a b
MAIN	X R 0201	88-130-100-080	RES, 10-1/4W J	a b
MAIN	X R 0202	88-130-100-080	RES, 10-1/4W J	a b
MAIN	X R 0203	88-128-100-080	C-RES, 10-1/8W J	a b
MAIN	X R 0204	88-128-100-080	C-RES, 10-1/8W J	a b
MAIN	X R 0224	88-121-153-080	RES, 15K-1/8W J	a b
MAIN	X R 0225	88-121-472-080	RES, 4.7K-1/8W J	a b
MAIN	X R 0227	88-100-000-010	PLATING-JW, 0.58 SN95	a b
MAIN	X R 0228	88-108-000-080	C-JUMPER, U	a b
MAIN	X R 0231	88-118-682-080	C-RES, S 6.8K-1/10W J	a b
MAIN	X R 0232	88-118-682-080	C-RES, S 6.8K-1/10W J	a b
MAIN	X R 0247	88-130-100-080	RES, 10-1/4W J	a b
MAIN	X R 0248	88-130-100-080	RES, 10-1/4W J	a b
MAIN	X R 0249	88-128-100-080	C-RES, 10-1/8W J	a b
MAIN	X R 0250	88-128-100-080	C-RES, 10-1/8W J	a b
MAIN	X R 0401	88-108-393-080	C-RES, U 39K-1/16W J	a b
MAIN	X R 0402	88-108-393-080	C-RES, U 39K-1/16W J	a b
MAIN	O R 0403	88-108-823-080	C-RES, U 82K-1/16W J	a b
MAIN	O R 0404	88-108-823-080	C-RES, U 82K-1/16W J	a b
MAIN	O R 0405	88-108-224-080	C-RES, U 220K-1/16W J	a b
MAIN	X R 0451	88-121-222-080	RES, 2.2K-1/8W J	a b
MAIN	X R 0453	88-118-472-080	C-RES, S 4.7K-1/10W J	a b
MAIN	X R 0454	88-130-829-080	RES, 8.2-1/4W J	a b
MAIN	X R 0455	88-108-183-080	C-RES, U 18K-1/16W J	a b
MAIN	X R 0456	88-108-183-080	C-RES, U 18K-1/16W J	a b
MAIN	X R 0457	88-108-104-080	C-RES, U 100K-1/16W J	a b
MAIN	O R 0458	88-108-563-080	C-RES, U 56K-1/16W J	a b
MAIN	X R 0459	88-118-472-080	C-RES, S 4.7K-1/10W J	a b
MAIN	X R 0461	88-108-472-080	C-RES, U 4.7K-1/16W J	a b
MAIN	X R 0462	88-108-471-080	C-RES, U 470-1/16W J	a b
MAIN	O R 0463	88-108-102-080	C-RES, U 1K-1/16W J	a b
MAIN	O R 0464	88-108-102-080	C-RES, U 1K-1/16W J	a b
MAIN	X R 0467	88-121-472-080	RES, 4.7K-1/8W J	a b
MAIN	O R 0468	88-108-272-080	C-RES, U 2.7K-1/16W J	a b
MAIN	X R 0501	88-121-473-080	RES, 47K-1/8W J	a b
MAIN	X R 0502	88-108-474-080	C-RES, U 470K-1/16W J	a b
MAIN	O R 0503	88-108-332-080	C-RES, U 3.3K-1/16W J	a b
MAIN	X R 0504	88-108-221-080	C-RES, U 220-1/16W J	a b
MAIN	O R 0505	88-108-103-080	C-RES, U 10K-1/16W J	a b
MAIN	O R 0506	88-108-103-080	C-RES, U 10K-1/16W J	a b
MAIN	X R 0507	88-118-399-080	C-RES, S 3.9-1/10W J	a b

# ELECTRICAL PARTS LIST - 16/21

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UNIT-NAME	! C REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
MAIN	X R 0511	88-108-472-080	C-RES,U 4.7K-1/16W J	CX-SNTR99 EZSTC
MAIN	X R 0512	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
MAIN	O R 0551	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	X R 0552	88-121-103-080	RES,10K-1/8W J	a b
MAIN	O R 0553	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	O R 0554	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	O R 0555	88-108-153-080	C-RES,U 15K-1/16W J	a b
MAIN	O R 0556	88-108-153-080	C-RES,U 15K-1/16W J	a b
MAIN	X R 0557	88-121-823-080	RES,82K-1/8W J	a b
MAIN	X R 0558	88-121-823-080	RES,82K-1/8W J	a b
MAIN	X R 0569	88-121-223-080	RES,22K-1/8W J	a b
MAIN	X R 0570	88-121-223-080	RES,22K-1/8W J	a b
MAIN	X R 0571	88-108-394-080	C-RES,U 390K-1/16W J	a b
MAIN	X R 0572	88-108-394-080	C-RES,U 390K-1/16W J	a b
MAIN	X R 0573	88-108-331-080	C-RES,U 330-1/16W J	a b
MAIN	X R 0574	88-108-331-080	C-RES,U 330-1/16W J	a b
MAIN	O R 0575	88-108-223-080	C-RES,U 22K-1/16W J	a b
MAIN	O R 0576	88-108-223-080	C-RES,U 22K-1/16W J	a b
MAIN	X R 0579	88-121-154-080	RES,150K-1/8W J	a b
MAIN	X R 0580	88-121-154-080	RES,150K-1/8W J	a b
MAIN	X R 0594	88-130-181-080	RES,180-1/4W J	CX-SNTR99 EZSTC
MAIN	X R 0595	88-121-101-080	RES,100-1/8W J	a b
MAIN	X R 0601	88-108-680-080	C-RES,U 68-1/16W J	a b
MAIN	X R 0602	88-108-680-080	C-RES,U 68-1/16W J	a b
MAIN	X R 0603	88-108-394-080	C-RES,U 390K-1/16W J	a b
MAIN	X R 0604	88-108-394-080	C-RES,U 390K-1/16W J	a b
MAIN	X R 0605	88-108-122-080	C-RES,U 1.2K-1/16W J	a b
MAIN	X R 0606	88-108-122-080	C-RES,U 1.2K-1/16W J	a b
MAIN	X R 0607	88-108-183-080	C-RES,U 18K-1/16W J	a b
MAIN	X R 0608	88-108-183-080	C-RES,U 18K-1/16W J	a b
MAIN	X R 0611	88-108-682-080	C-RES,U 6.8K-1/16W J	a b
MAIN	X R 0612	88-108-682-080	C-RES,U 6.8K-1/16W J	a b
MAIN	X R 0613	88-108-682-080	C-RES,U 6.8K-1/16W J	a b
MAIN	X R 0614	88-108-682-080	C-RES,U 6.8K-1/16W J	a b
MAIN	X R 0615	88-108-273-080	C-RES,U 27K-1/16W J	a b
MAIN	X R 0616	88-108-273-080	C-RES,U 27K-1/16W J	a b
MAIN	X R 0617	88-121-822-080	RES,8.2K-1/8W J	a b
MAIN	X R 0618	88-121-822-080	RES,8.2K-1/8W J	a b
MAIN	O R 0619	88-108-153-080	C-RES,U 15K-1/16W J	a b
MAIN	O R 0620	88-108-153-080	C-RES,U 15K-1/16W J	a b
MAIN	O R 0621	88-108-332-080	C-RES,U 3.3K-1/16W J	CX-SNTR99 EZSTC
MAIN	O R 0622	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
MAIN	X R 0623	88-108-682-080	C-RES,U 6.8K-1/16W J	a b
MAIN	X R 0624	88-108-682-080	C-RES,U 6.8K-1/16W J	a b
MAIN	O R 0625	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
MAIN	O R 0626	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
MAIN	X R 0627	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
MAIN	X R 0628	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
MAIN	O R 0629	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	O R 0630	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	X R 0631	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
MAIN	X R 0632	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
MAIN	O R 0633	88-108-272-080	C-RES,U 2.7K-1/16W J	a b
MAIN	O R 0634	88-108-272-080	C-RES,U 2.7K-1/16W J	a b
MAIN	O R 0635	88-108-102-080	C-RES,U 1K-1/16W J	a b
MAIN	O R 0636	88-108-102-080	C-RES,U 1K-1/16W J	a b
MAIN	X R 0637	88-108-331-080	C-RES,U 330-1/16W J	a b
MAIN	X R 0638	88-108-331-080	C-RES,U 330-1/16W J	a b
MAIN	X R 0639	88-108-183-080	C-RES,U 18K-1/16W J	a b
MAIN	X R 0640	88-108-183-080	C-RES,U 18K-1/16W J	a b
MAIN	X R 0641	88-121-223-080	RES,22K-1/8W J	CX-SNTR99 EZSTC
MAIN	X R 0642	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
MAIN	X R 0643	88-108-104-080	C-RES,U 100K-1/16W J	a b
MAIN	X R 0644	88-108-104-080	C-RES,U 100K-1/16W J	a b
MAIN	X R 0647	88-108-124-080	C-RES,U 120K-1/16W J	a b
MAIN	X R 0648	88-108-124-080	C-RES,U 120K-1/16W J	a b
MAIN	O R 0649	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
MAIN	O R 0650	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
MAIN	O R 0651	88-108-101-080	C-RES,U 100-1/16W J	a b
MAIN	O R 0652	88-108-101-080	C-RES,U 100-1/16W J	a b
MAIN	X R 0656	88-108-474-080	C-RES,U 470K-1/16W J	a b
MAIN	X R 0657	88-108-684-080	C-RES,U 680K-1/16W J	a b
MAIN	X R 0658	88-108-684-080	C-RES,U 680K-1/16W J	a b
MAIN	X R 0659	88-108-394-080	C-RES,U 390K-1/16W J	a b
MAIN	X R 0660	88-108-274-080	C-RES,U 270K-1/16W J	a b
MAIN	O R 0661	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
MAIN	O R 0662	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
MAIN	X R 0663	88-108-392-080	C-RES,U 3.9K-1/16W J	a b
MAIN	X R 0664	88-108-392-080	C-RES,U 3.9K-1/16W J	a b
MAIN	X R 0669	88-108-273-080	C-RES,U 27K-1/16W J	a b

# ELECTRICAL PARTS LIST - 17/21

! = 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
MAIN	X R 0670	88-108-273-080	C-RES,U 27K-1/16W J	CX-SNTR99 EZSTC
MAIN	O R 0672	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	X R 0673	88-108-182-080	C-RES,U 1.8K-1/16W J	a b
MAIN	X R 0676	88-108-124-080	C-RES,U 120K-1/16W J	a b
MAIN	O R 0677	88-108-223-080	C-RES,U 22K-1/16W J	a b
MAIN	O R 0678	88-108-223-080	C-RES,U 22K-1/16W J	a b
MAIN	O R 0681	88-108-473-080	C-RES,U 47K-1/16W J	a b
MAIN	O R 0682	88-108-473-080	C-RES,U 47K-1/16W J	a b
MAIN	O R 0683	88-108-223-080	C-RES,U 22K-1/16W J	a b
MAIN	O R 0684	88-108-223-080	C-RES,U 22K-1/16W J	a b
MAIN	X R 0685	88-108-683-080	C-RES,U 68K-1/16W J	a b
MAIN	O R 0686	88-108-223-080	C-RES,U 22K-1/16W J	a b
MAIN	X R 0687	88-121-223-080	RES,22K-1/8W J	a b
MAIN	O R 0688	88-108-223-080	C-RES,U 22K-1/16W J	a b
MAIN	O R 0689	88-108-223-080	C-RES,U 22K-1/16W J	a b
MAIN	X R 0691	88-108-105-080	C-RES,U 1M-1/16W J	a b
MAIN	X R 0692	88-108-105-080	C-RES,U 1M-1/16W J	a b
MAIN	X R 0693	88-121-472-080	RES,4.7K-1/8W J	a b
MAIN	X R 0694	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
MAIN	X R 0696	88-108-000-080	C-JUMPER,U	a b
MAIN	X R 0789	88-108-333-080	C-RES,U 33K-1/16W J	CX-SNTR99 EZSTC
MAIN	O R 0790	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a b
MAIN	O R 0791	88-108-102-080	C-RES,U 1K-1/16W J	a b
MAIN	X R 0793	88-108-221-080	C-RES,U 220-1/16W J	a b
MAIN	X R 0795	88-108-000-080	C-JUMPER,U	a b
MAIN	O R 0801	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	O R 0802	88-108-223-080	C-RES,U 22K-1/16W J	a b
MAIN	X R 0803	88-128-183-080	C-RES, 18K-1/8W J	a b
MAIN	X R 0804	88-108-000-080	C-JUMPER,U	a b
MAIN	O R 0805	88-108-332-080	C-RES,U 3.3K-1/16W J	a b
MAIN	X R 0806	88-108-682-080	C-RES,U 6.8K-1/16W J	a b
MAIN	O R 0809	88-108-102-080	C-RES,U 1K-1/16W J	a b
MAIN	O R 0810	88-108-102-080	C-RES,U 1K-1/16W J	a b
MAIN	X R 0811	88-108-000-080	C-JUMPER,U	a b
MAIN	X R 0812	88-108-000-080	C-JUMPER,U	a b
MAIN	O R 0813	88-108-224-080	C-RES,U 220K-1/16W J	a b
MAIN	X R 0814	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
MAIN	X R 0815	88-121-682-080	RES,6.8K-1/8W J	a b
MAIN	O R 0818	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	X R 0821	88-108-000-080	C-JUMPER,U	a b
MAIN	O R 0823	88-108-473-080	C-RES,U 47K-1/16W J	CX-SNTR99 EZSTC
MAIN	O R 0826	88-108-223-080	C-RES,U 22K-1/16W J	a b
MAIN	X R 0832	88-108-391-080	C-RES,U 390-1/16W J	a b
MAIN	X R 0840	88-108-331-080	C-RES,U 330-1/16W J	a b
MAIN	O R 0850	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	X R 0851	88-118-470-080	C-RES,S 47-1/10W J	a b
MAIN	O R 0853	88-108-102-080	C-RES,U 1K-1/16W J	a b
MAIN	X R 0854	88-108-391-080	C-RES,U 390-1/16W J	a b
MAIN	X R 0855	88-108-183-080	C-RES,U 18K-1/16W J	a b
MAIN	O R 0856	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	X R 0857	88-108-181-080	C-RES,U 180-1/16W J	a b
MAIN	X R 0858	88-108-271-080	C-RES,U 270-1/16W J	a b
MAIN	O R 0860	88-108-101-080	C-RES,U 100-1/16W J	a b
MAIN	X R 0861	88-108-471-080	C-RES,U 470-1/16W J	a b
MAIN	O R 0862	88-108-272-080	C-RES,U 2.7K-1/16W J	a b
MAIN	X R 0863	88-108-104-080	C-RES,U 100K-1/16W J	a b
MAIN	O R 0864	88-108-123-080	C-RES,U 12K-1/16W J	a b
MAIN	X R 0865	88-108-471-080	C-RES,U 470-1/16W J	a b
MAIN	X R 0867	88-108-104-080	C-RES,U 100K-1/16W J	a b
MAIN	X R 0870	88-121-102-080	RES,1K-1/8W J	a b
MAIN	X R 0871	88-121-102-080	RES,1K-1/8W J	CX-SNTR99 EZSTC
MAIN	X R 0901	88-108-104-080	C-RES,U 100K-1/16W J	a b
MAIN	X R 0902	88-108-104-080	C-RES,U 100K-1/16W J	a b
MAIN	X R 0903	88-108-330-080	C-RES,U 33-1/16W J	a b
MAIN	O R 0904	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	O R 0905	88-108-102-080	C-RES,U 1K-1/16W J	a b
MAIN	X R 0906	88-108-564-080	C-RES,U 560K-1/16W J	a b
MAIN	X R 0908	88-108-271-080	C-RES,U 270-1/16W J	a b
MAIN	X R 0909	88-108-181-080	C-RES,U 180-1/16W J	a b
MAIN	X R 0910	88-108-334-080	C-RES,U 330K-1/16W J	a b
MAIN	X R 0911	88-108-181-080	C-RES,U 180-1/16W J	a b
MAIN	X R 0912	88-108-104-080	C-RES,U 100K-1/16W J	a b
MAIN	X R 0913	88-108-152-080	C-RES,U 1.5K-1/16W J	a b
MAIN	X R 0914	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
MAIN	X R 0915	88-108-104-080	C-RES,U 100K-1/16W J	a b
MAIN	X R 0916	88-108-470-080	C-RES,U 47-1/16W J	a b
MAIN	O R 0926	88-108-101-080	C-RES,U 100-1/16W J	a b
MAIN	O R 0944	88-108-101-080	C-RES,U 100-1/16W J	a b
MAIN	X R 0945	88-108-104-080	C-RES,U 100K-1/16W J	a b
MAIN	X R 0947	88-108-183-080	C-RES,U 18K-1/16W J	a b

# ELECTRICAL PARTS LIST - 18/21

! = 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
MAIN	X R 0948	88-108-472-080	C-RES,U 4.7K-1/16W J	CX-SNTR99 EZSTC
MAIN	O R 0952	88-108-562-080	C-RES,U 5.6K-1/16W J	a b
MAIN	X R 0954	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
MAIN	X R 0956	88-108-471-080	C-RES,U 470-1/16W J	a b
MAIN	X R 0958	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
MAIN	O R 0959	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	X R 0962	88-121-102-080	RES, 1K-1/8W J	a b
MAIN	X R 0964	88-108-330-080	C-RES,U 33-1/16W J	a b
MAIN	O R 0968	88-108-822-080	C-RES,U 8.2K-1/16W J	a b
MAIN	O R 0969	88-108-102-080	C-RES,U 1K-1/16W J	a b
MAIN	O R 0973	88-108-102-080	C-RES,U 1K-1/16W J	a b
MAIN	O R 0975	88-108-562-080	C-RES,U 5.6K-1/16W J	a b
MAIN	O R 0976	88-108-102-080	C-RES,U 1K-1/16W J	a b
MAIN	O R 0977	88-108-102-080	C-RES,U 1K-1/16W J	a b
MAIN	X R 0978	88-108-681-080	C-RES,U 680-1/16W J	a b
MAIN	O R 0979	88-108-123-080	C-RES,U 12K-1/16W J	a b
MAIN	X R 0980	88-108-684-080	C-RES,U 680K-1/16W J	a b
MAIN	X R 0981	88-121-471-080	RES, 470-1/8W J	a b
MAIN	X R 0982	88-108-682-080	C-RES,U 6.8K-1/16W J	a b
MAIN	X R 0983	88-108-392-080	C-RES,U 3.9K-1/16W J	a b
MAIN	O R 0984	88-108-102-080	C-RES,U 1K-1/16W J	CX-SNTR99 EZSTC
MAIN	X R 0985	88-121-471-080	RES, 470-1/8W J	a b
MAIN	X R 0986	88-121-221-080	RES, 220-1/8W J	a b
MAIN	X R 0987	88-121-472-080	RES, 4.7K-1/8W J	a b
MAIN	O R 0988	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	X R 0989	88-121-102-080	RES, 1K-1/8W J	a b
MAIN	O R 0990	88-108-563-080	C-RES,U 56K-1/16W J	a b
MAIN	O R 0991	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
MAIN	O R 0992	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	O R 0993	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
MAIN	O R 0994	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	O R 0995	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
MAIN	O R 0996	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	X R 0997	88-108-154-080	C-RES,U 150K-1/16W J	a b
MAIN	O R 0998	88-108-102-080	C-RES,U 1K-1/16W J	a b
MAIN	O R 0999	88-108-103-080	C-RES,U 10K-1/16W J	a b
MAIN	O SFRO451	87-A90-432-080	SFR, 30K H NVZ6TLTA	a b
MAIN	O SFRO452	87-A90-432-080	SFR, 30K H NVZ6TLTA	a b
MAIN	X SH0301	8C-NF5-221-010	PLATE, SHLD DECK M	a b
MAIN	X SH0831	87-A90-023-010	SHLD-PLATE, ANT	a b
MAIN	X SH0901	8C-NF9-619-010	SHLD-CASE, CNF-9 EZ P	CX-SNTR99 EZSTC
MAIN	O TB0201	87-A61-899-010	TERMINAL, SPMSP-328V 8P V0	a b
MAIN	O TCO942	87-A91-774-080	TRIMMER, PLY 30P 6.8X5.4 CDYL	a b
MAIN	O VR0521	86-NFA-607-010	VR, RTRY 10K15AX1 1V XV0121PVN	a b
MAIN	X W 0521	8B-CLX-625-010	WIRE, FASTON ASSY KEY-2	a b
MAIN	O WH0001	87-A91-179-010	HLDR, WIRE 2.5-11P	a b
MAIN	O WH0201	87-A90-460-010	HLDR, WIRE 2.5-7P	a b
MAIN	O X 0862	87-A70-307-010	VIB, XTAL 4.332MHZ CSA-309ST	a b
MAIN	O X 0992	87-A70-306-010	VIB, XTAL 4.500MHZ CSA-309ST	a b
MIC	O C 0521	87-012-282-080	C-CAP,U 4700P-50 K B GRM	a b
MIC	O C 0522	87-010-112-080	CAP,E 100-16 M 11L SME	a b
MIC	O C 0523	87-010-545-080	CAP,E 0.22-50 M 11L SME	a b
MIC	O C 0524	87-012-191-080	C-CAP,U 68P-50 J CH GRM	a b
MIC	O C 0525	87-010-545-080	CAP,E 0.22-50 M 11L SME	a b
MIC	O C 0526	87-015-692-080	CAP,E 0.22-50 M 7L SRA	a b
MIC	O C 0527	87-010-405-080	CAP,E 10-50 M 11L SME	a b
MIC	O C 0528	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a b
MIC	O C 0529	87-010-392-080	CAP,E 33-35 M 11L SME	a b
MIC	O C 0533	87-010-177-080	C-CAP,S 820P-50 J SL C2012	a b
MIC	O C 0536	87-010-829-080	C-CAP,U 0.047-16 Z F CM/CB	a b
MIC	O CN0522	87-099-212-010	CONN, 5P V BLK 6216	CX-SNTR99 EZSTC
MIC	O FB0521	87-008-372-080	FLTR, EMI BL01 RN1	a b
MIC	O J 0521	87-A61-243-010	JACK, 6.3 BLK MONO W/SW V MSC	a b
MIC	S Q 0521	87-A30-076-040	C-TR, 2SC3052F	a b
MIC	S Q 0522	87-A30-075-040	C-TR, 2SA1235F	a b
MIC	S Q 0523	87-A30-076-040	C-TR, 2SC3052F	a b
MIC	S Q 0524	87-A30-075-040	C-TR, 2SA1235F	a b
MIC	S Q 0525	87-A30-087-080	C-FET, 2SK2158	a b
MIC	S Q 0526	87-A30-076-040	C-TR, 2SC3052F	a b
MIC	X R 0521	88-108-472-080	C-RES,U 4.7K-1/16W J	a b
MIC	X R 0522	88-108-104-080	C-RES,U 100K-1/16W J	a b
MIC	X R 0523	88-118-101-080	C-RES,S 100-1/10W J	a b
MIC	X R 0524	88-108-222-080	C-RES,U 2.2K-1/16W J	a b
MIC	O R 0525	88-108-102-080	C-RES,U 1K-1/16W J	a b
MIC	X R 0526	88-108-334-080	C-RES,U 330K-1/16W J	a b
MIC	O R 0527	88-108-473-080	C-RES,U 47K-1/16W J	a b
MIC	O R 0528	88-108-562-080	C-RES,U 5.6K-1/16W J	a b
MIC	O R 0529	88-108-101-080	C-RES,U 100-1/16W J	a b
MIC	O R 0530	88-108-223-080	C-RES,U 22K-1/16W J	a b
MIC	X R 0531	88-108-561-080	C-RES,U 560-1/16W J	a b

# ELECTRICAL PARTS LIST - 19/21

! =  SAFETY PARTS  
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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
MIC	X R	0532	88-108-274-080	C-RES,U 270K-1/16W J	CX-SNTR99 EZSTC
MIC	X R	0533	88-108-333-080	C-RES,U 33K-1/16W J	a b
MIC	O R	0534	88-108-102-080	C-RES,U 1K-1/16W J	a b
MIC	X R	0535	88-108-000-080	C-JUMPER,U	a b
MIC	O R	0536	88-108-224-080	C-RES,U 220K-1/16W J	a b
MIC	X R	0537	88-108-274-080	C-RES,U 270K-1/16W J	a b
MIC	X R	0538	88-108-184-080	C-RES,U 180K-1/16W J	a b
POWER	O C	0002	87-A11-132-080	CAP,TC U 0.01-50 K B	a b
POWER	O CN0001		87-A61-122-010	CONN,11P V TID-A	a b
POWER	S D	0082	87-020-465-080	DIODE,1SS133	a b
POWER	S D	0083	87-020-465-080	DIODE,1SS133	a b
POWER	S D	0084	87-020-465-080	DIODE,1SS133	a b
POWER	S D	0085	87-020-465-080	DIODE,1SS133	a b
POWER	X FB0001		88-100-000-010	JUMPER WIRE,PLATING	a b
POWER	X FB0002		88-100-000-010	JUMPER WIRE,PLATING	a b
POWER	! O PT0001		8C-NFR-642-010	PT,EZ CNF-R	a b
POWER	! O PT0003		8B-MA6-675-010	PT,SUB BMA E (VRK)	a b
POWER	! O RY0001		87-A91-418-010	RELAY,AC 12V G5PA-1-M	a b
POWER	O T	0001	87-A60-317-010	TERMINAL, 1P MSC	a b
POWER	O T	0002	87-A60-317-010	TERMINAL, 1P MSC	a b
POWER	! O W	0001	87-A80-157-210	AC CORD ASSY,E BLK CC	CX-SNTR99 EZSTC
					a b

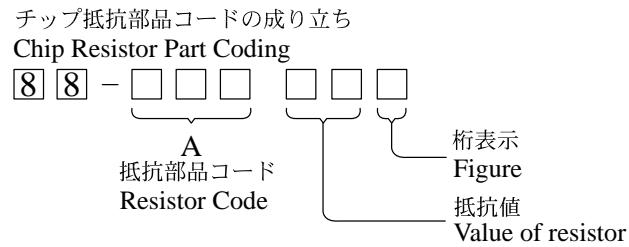
# ELECTRICAL PARTS LIST <2ZM-3MK2> 20/21

! = SAFETY PARTS  
C = Components marked

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UNIT-NAME	I	C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
						2ZM-3MK2 YPR9NC
DECK	O	CON1	87-099-756-010	CONN,15P 9604S F		a
DECK	S	IC 1	87-020-454-010	IC, DN6851		a
DECK	S	IC 2	87-A21-269-010	IC, EW732		a
DECK	O	M 1	87-045-347-010	MOT, SHU2L 70		a
DECK	S	Q 1	87-026-463-080	TR, 2SA933S (0.3W)		a
DECK	X	R 1	88-121-104-080	RESISTOR, 100K 1/8W		a
DECK	X	R 2	88-121-392-080	RES, 3.9K-1/8W J		a
DECK	X	R 3	88-121-822-080	RES, 8.2K-1/8W J		a
DECK	O	SFR1	87-024-581-010	SFR, 3.3K DIA6V K0A		a
DECK	O	SOL1	82-ZM3-627-010	SOL ASSY 27 SO		a
DECK	O	SOL2	82-ZM3-627-010	SOL ASSY 27 SO		a
DECK	O	SW 1	87-A90-248-010	SW, MICRO ESE11SH2CXQ		a
DECK	O	SW 2	87-A90-248-010	SW, MICRO ESE11SH2CXQ		a
DECK	O	SW 4	87-036-110-010	PUSH SWITCH		a
DECK	O	SW 6	87-036-110-010	PUSH SWITCH		a
DECK	O	SW 8	87-A90-248-010	SW, MICRO ESE11SH2CXQ		a
DECK	O	SW 9	87-A90-248-010	SW, MICRO ESE11SH2CXQ		a

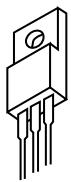
- Regarding connectors, they are not stocked as they are not the initial order items.
  - The connectors are available after they are supplied from connector manufacturers upon the order is received.
- チップ抵抗部品コード／CHIP RESISTOR PART CODE



チップ抵抗  
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 Resistor Code : A
				外形／Form	L	W	
1/16W	1005	± 5%	CJ		1.0	0.5	0.35
1/16W	1608	± 5%	CJ		1.6	0.8	0.45
1/10W	2125	± 5%	CJ		2	1.25	0.45
1/8W	3216	± 5%	CJ		3.2	1.6	0.55

## TRANSISTOR ILLUSTRATION -1/1



B C E

2SB1686  
2SD2642  
FN1016  
FP1016



E C B

2SA1296GR  
2SA933S



E C B

2SA1980G  
2SA1981Y  
2SC3331(T/U)



E C B

2SC5343GL



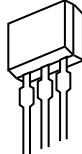
E C B

2N5551C



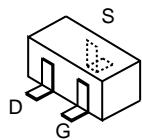
G D S

2SK3053  
2SB1370E

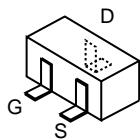


S D G

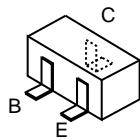
2SJ461-T1



2SK360E

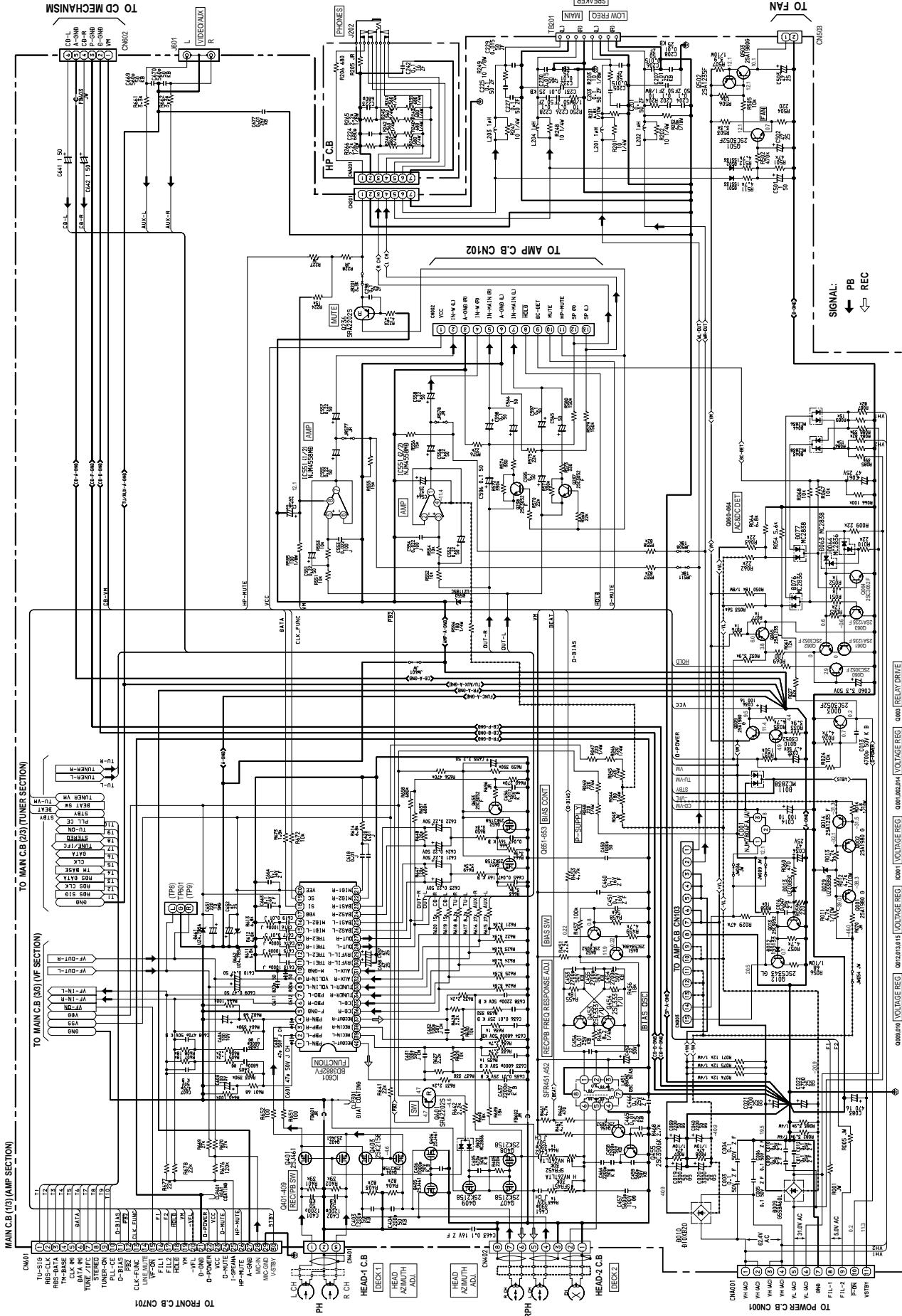


2SK2158

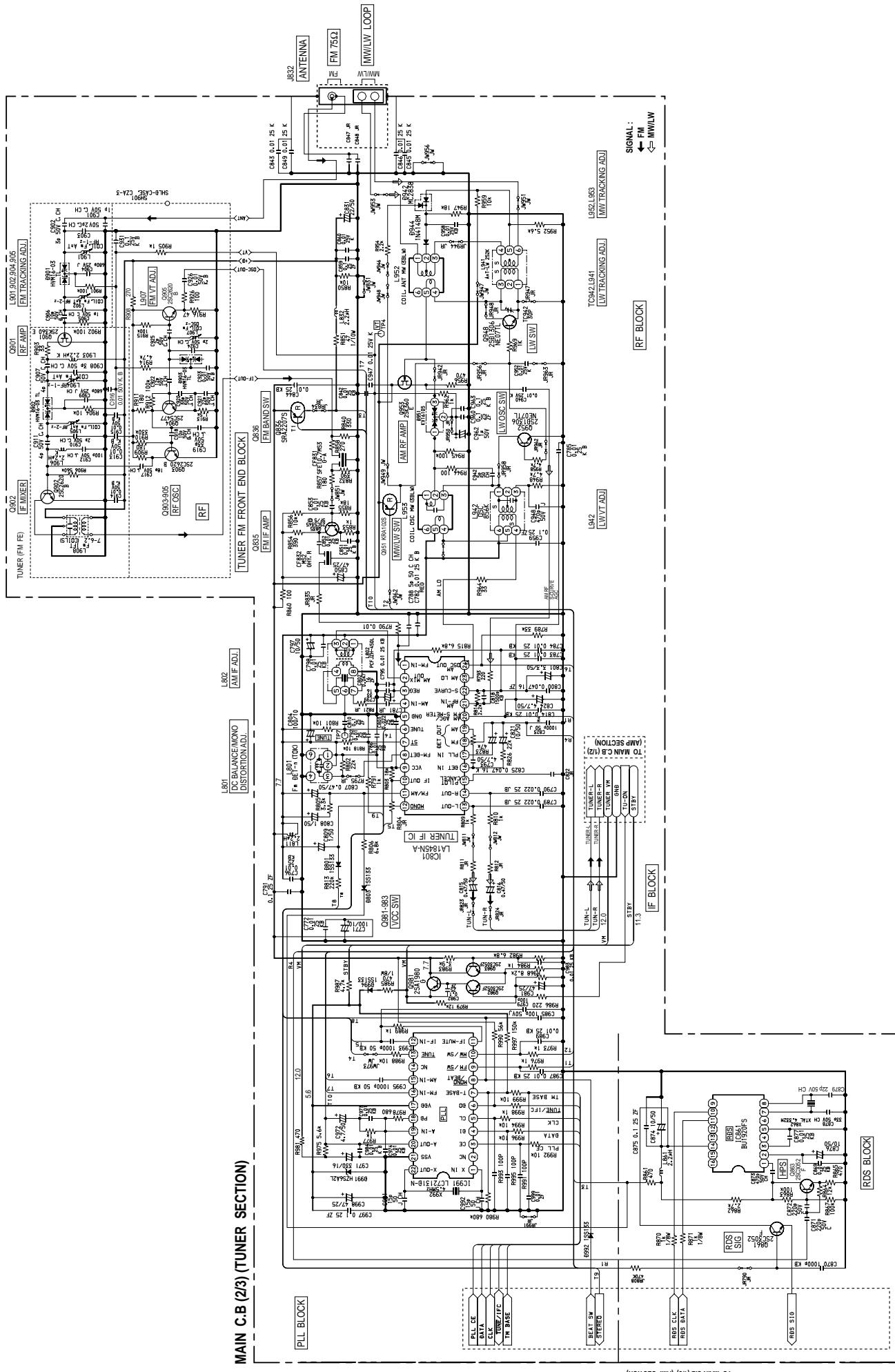


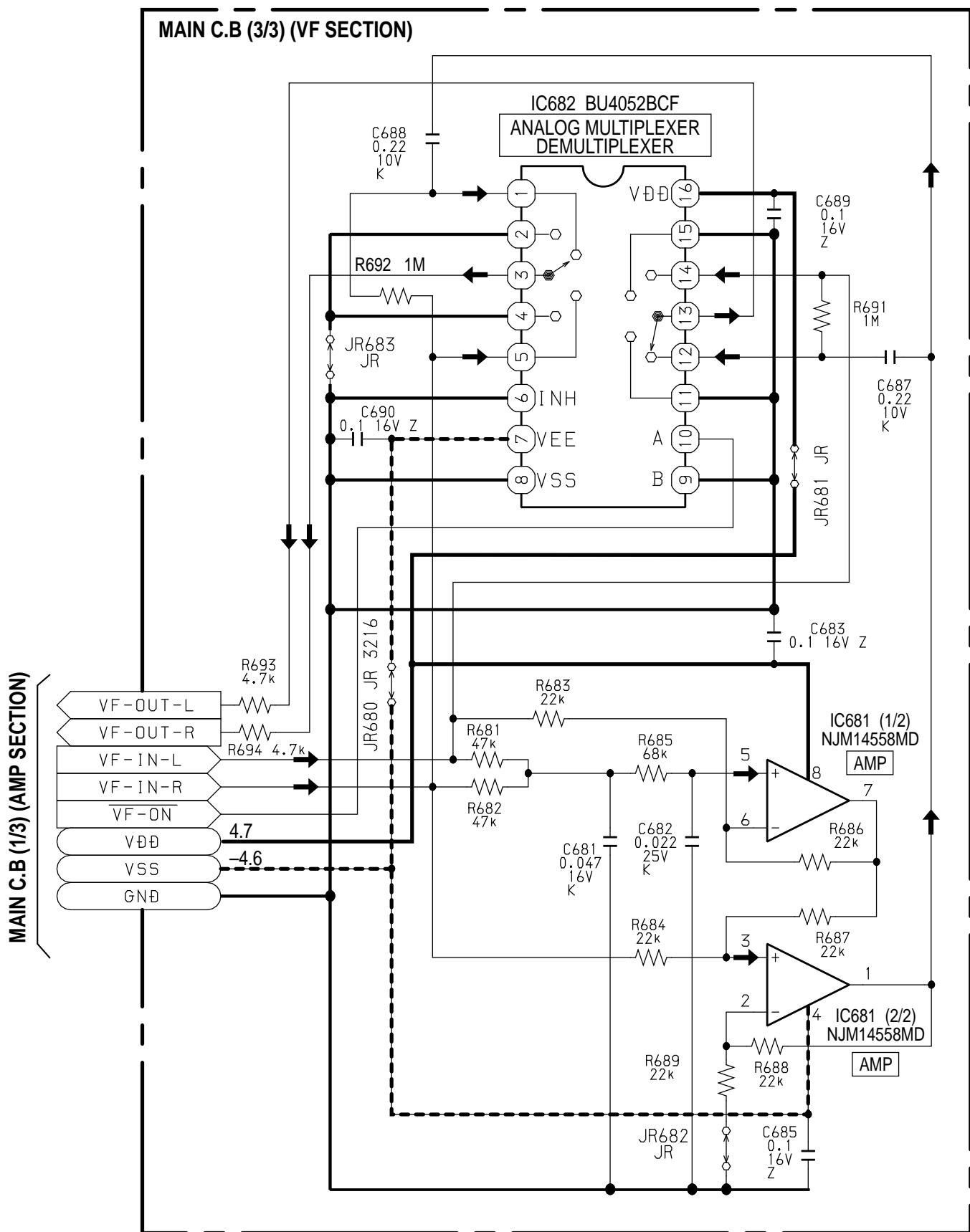
2SA1235F  
2SC2620B  
2SC3052F  
2SC3906KR  
2SC5477-T22  
2SC5345SF/S(O)  
2SD1306NE07TL  
KRA102S  
SBT5401  
SBT5551  
SRA2202S  
SRA2207S

SCHEMATIC DIAGRAM - 1/7 (MAIN C.B -1/3, AMP SECTION) /HP C.B

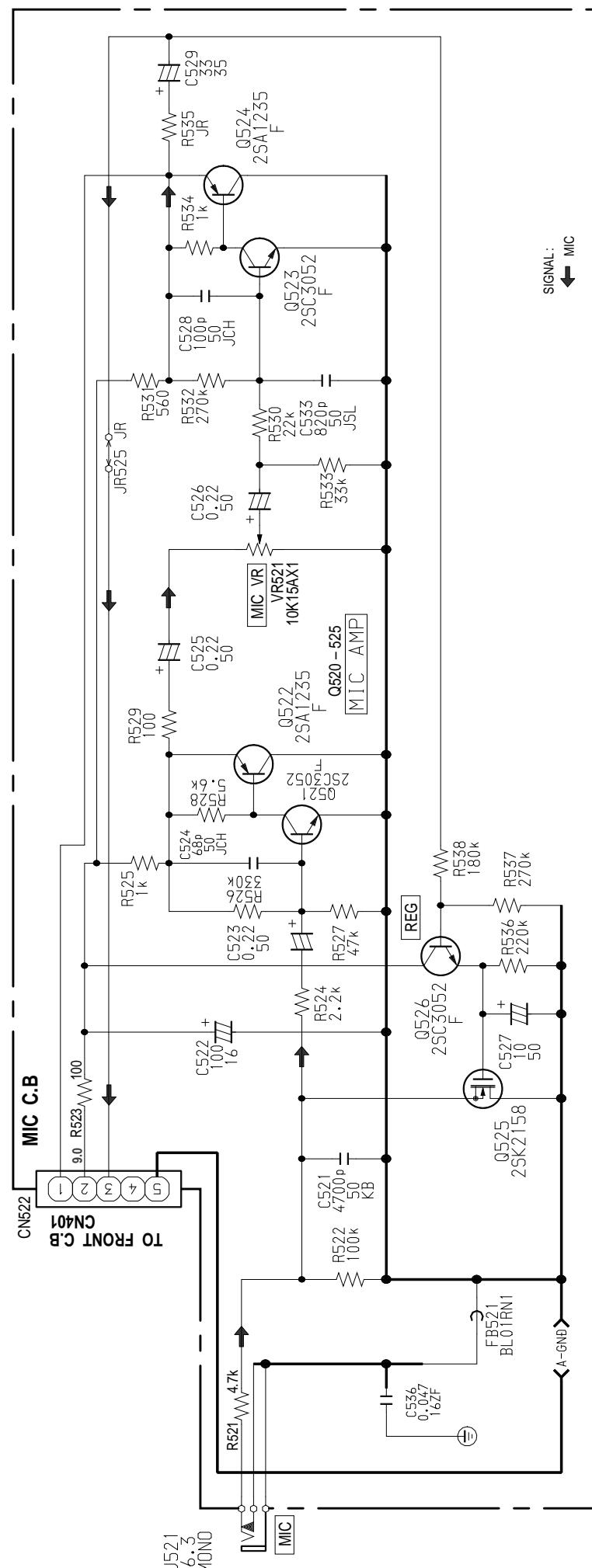


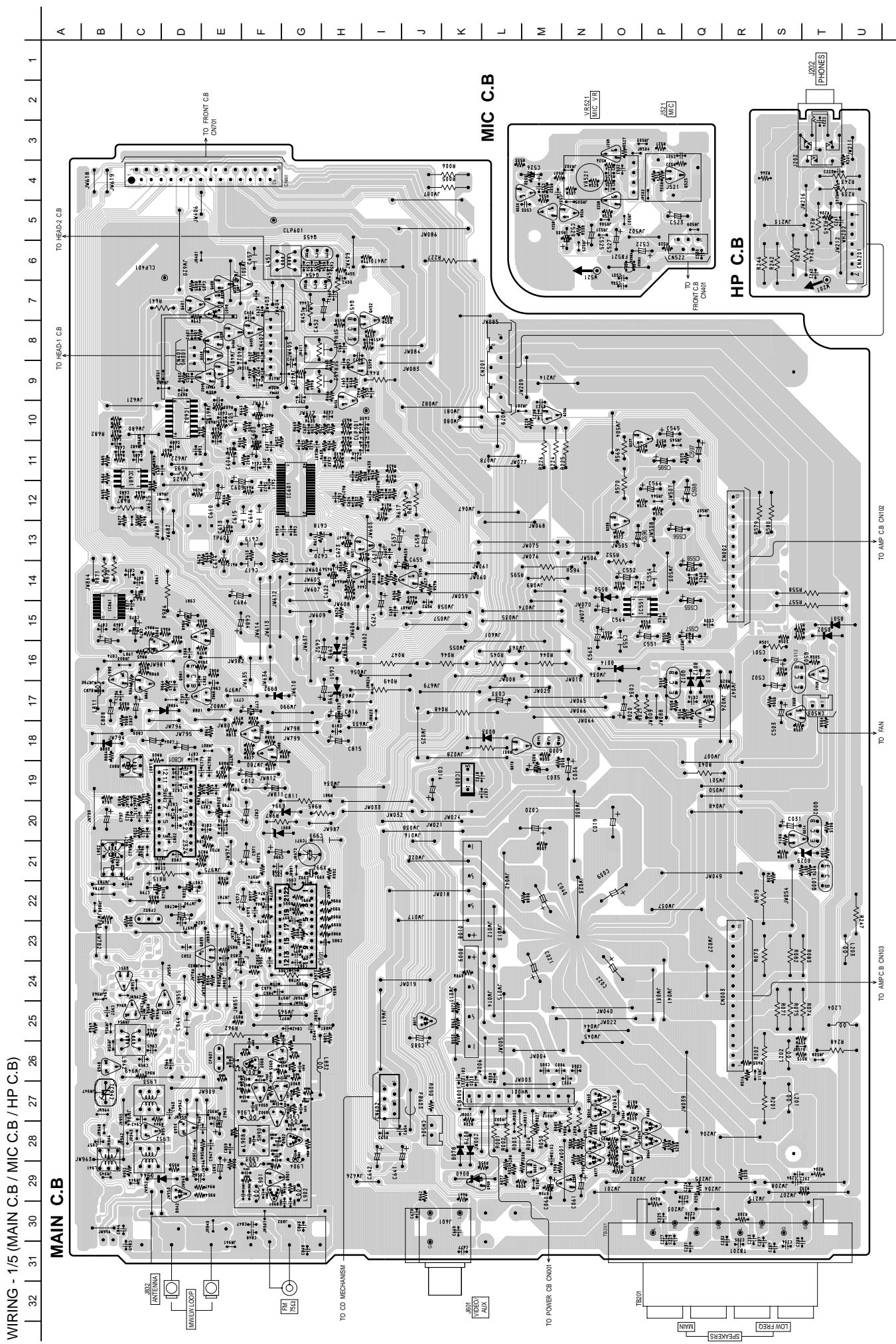
SCHEMATIC DIAGRAM - 277 (MAIN C.B - 2/3, TUNER SECTION)



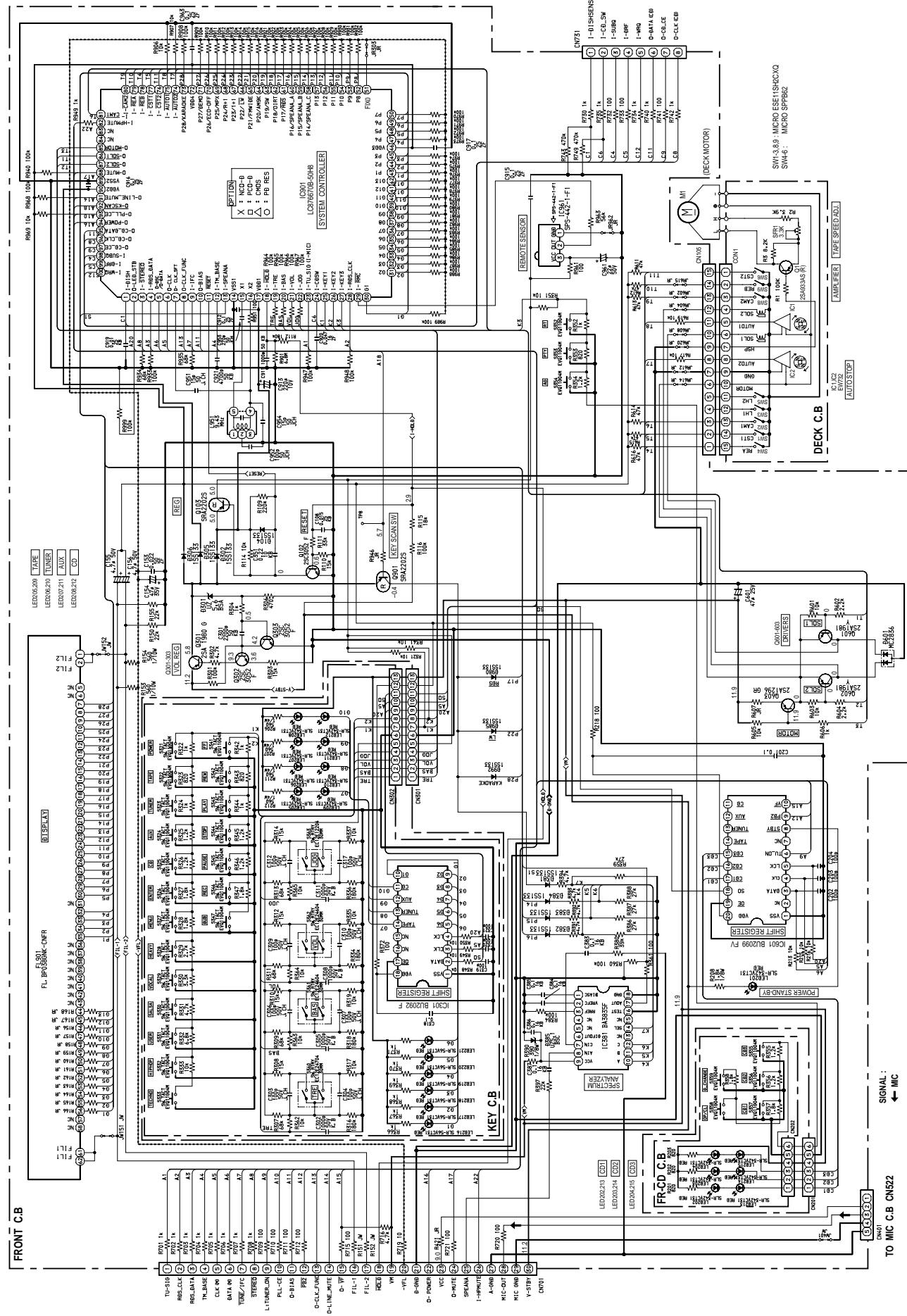


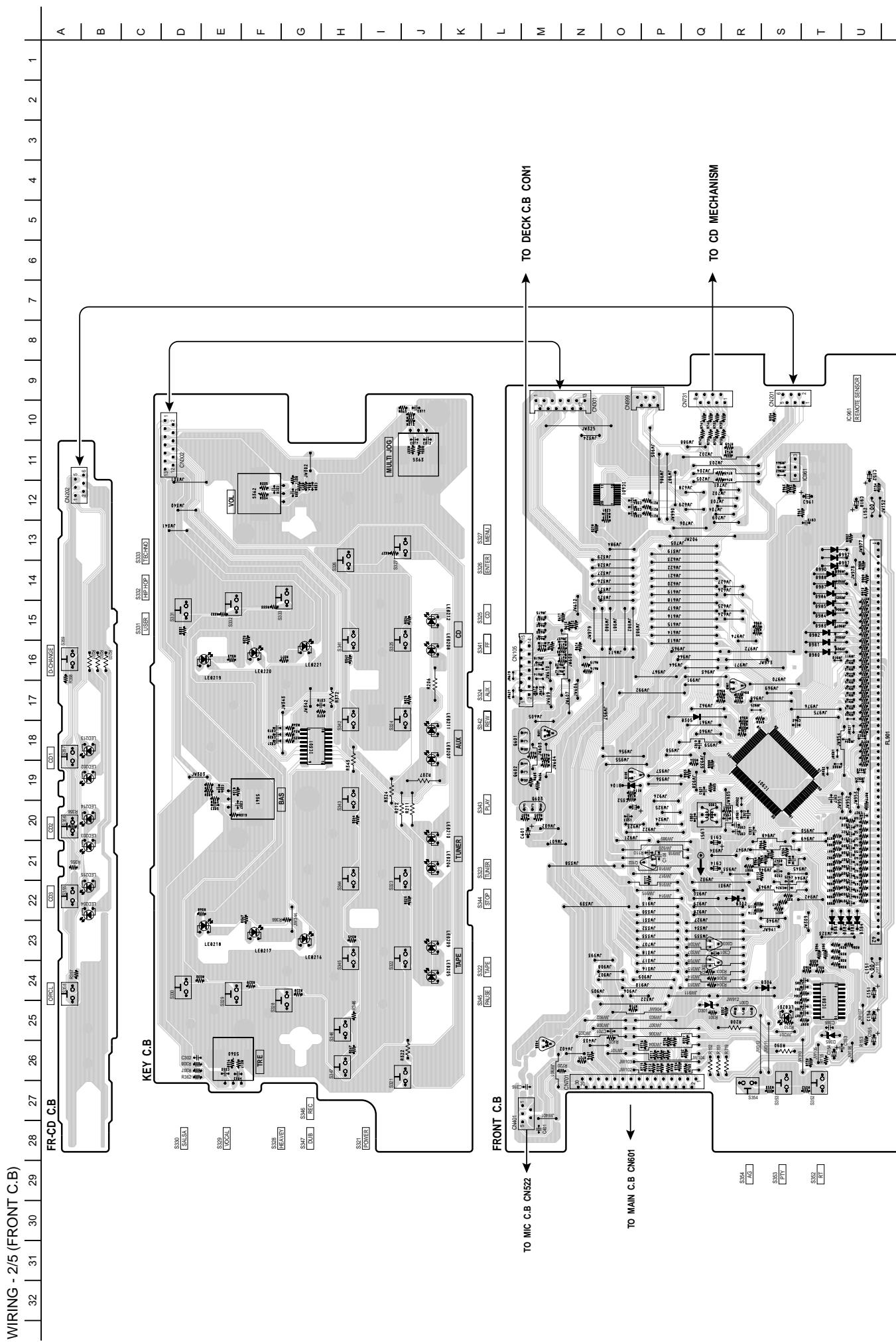
SCHEMATIC DIAGRAM - 4/7 (MIC C.B)

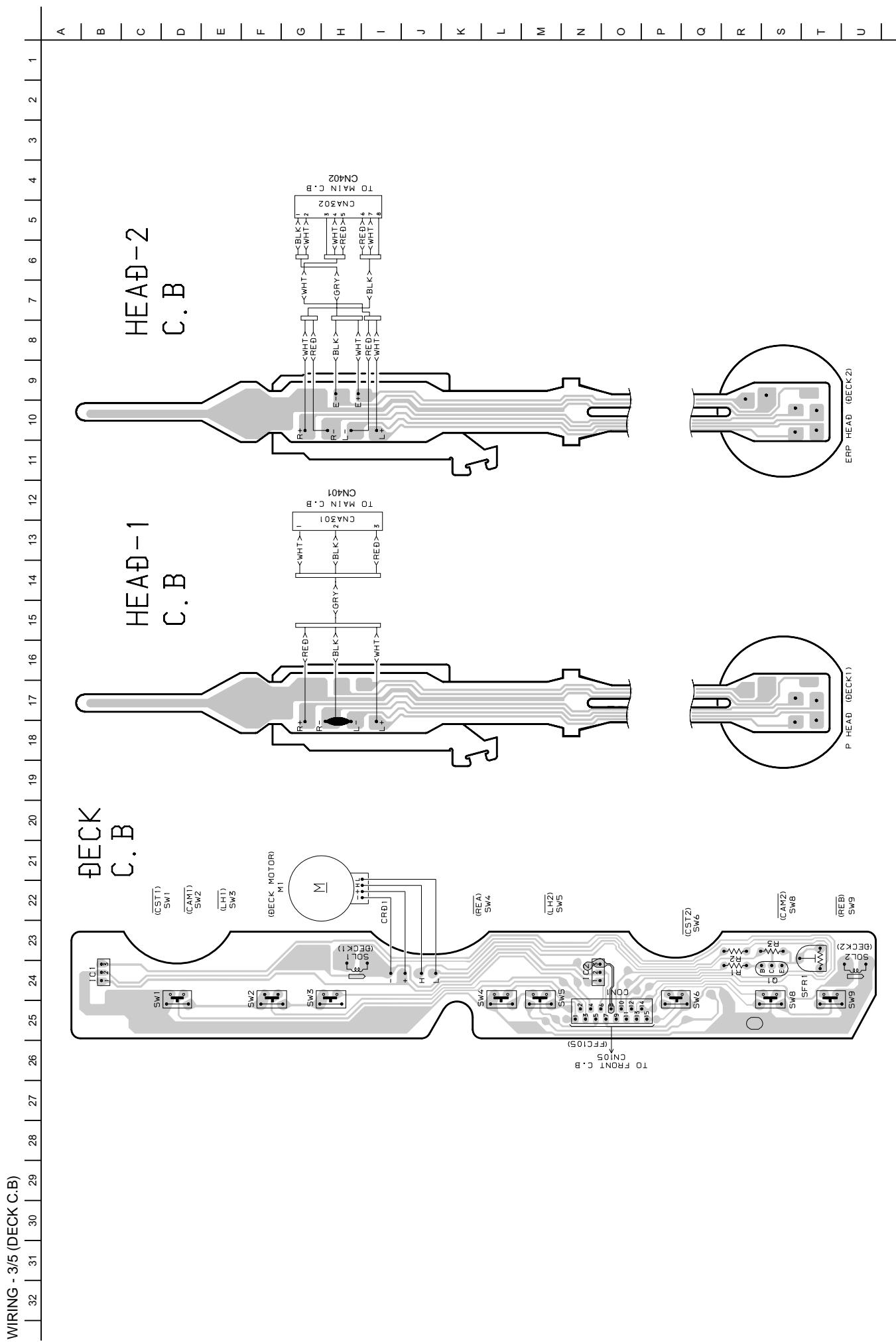




## SCHEMATIC DIAGRAM - 5/7 (FRONT C.B / DECK C.B)

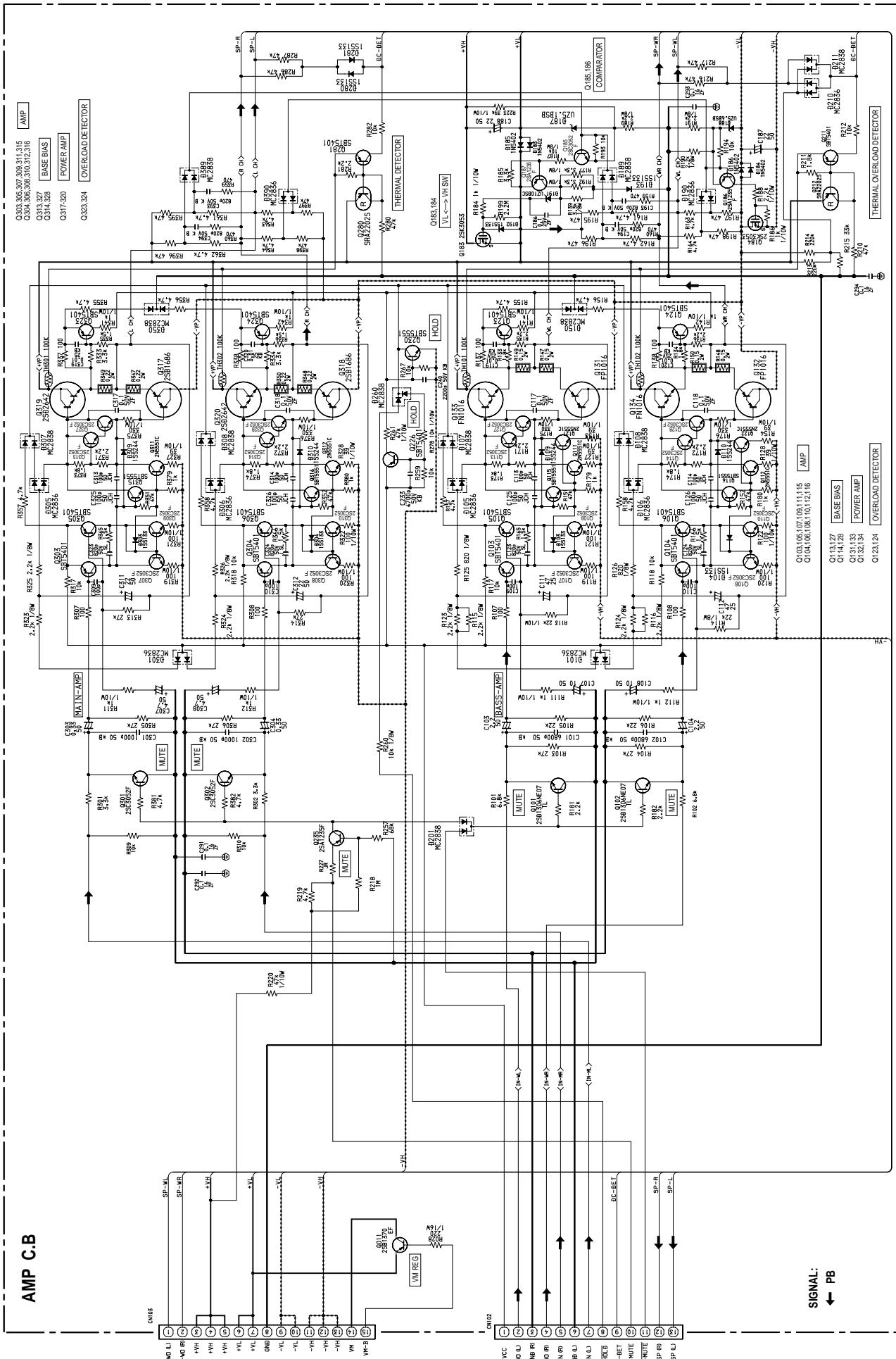






SCHEMATIC DIAGRAM - 6/7 (AMP C.B)

AMP C.B



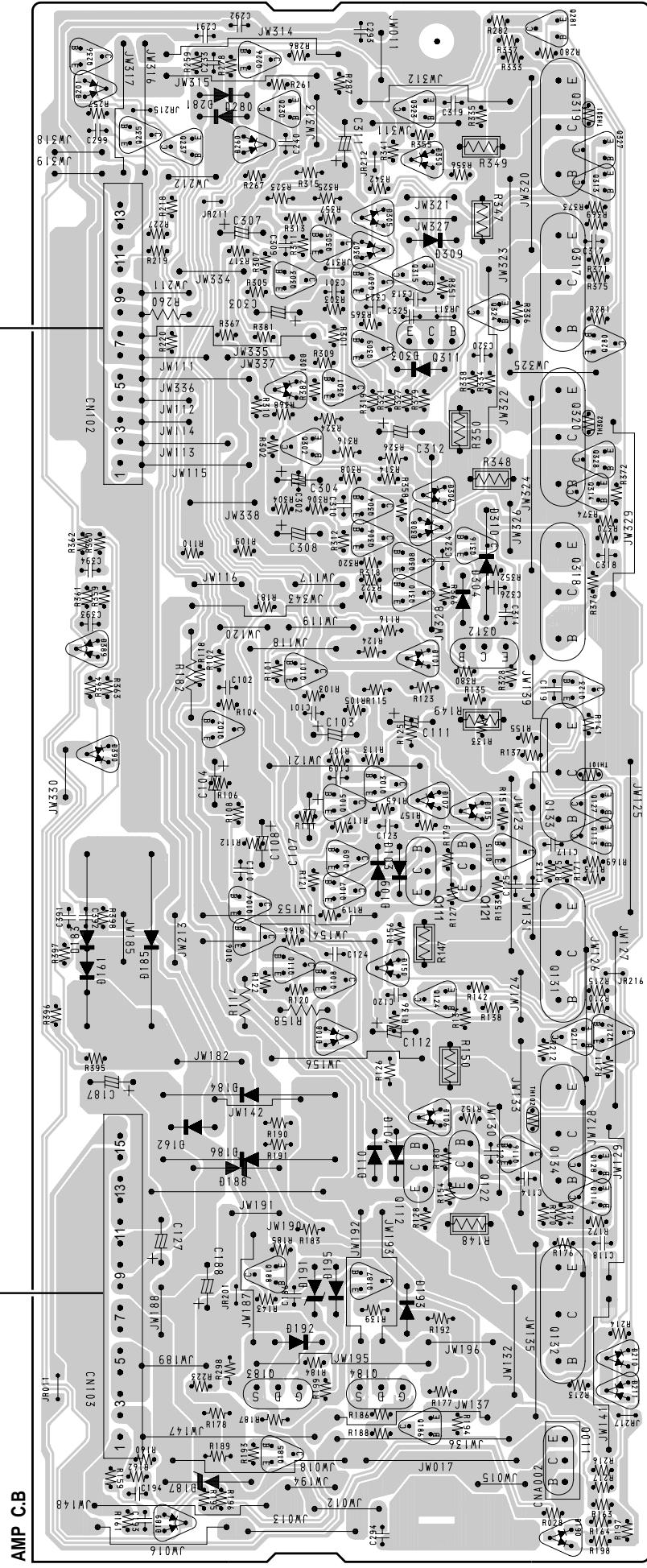
WIRING - 4/5 (AMP C.B)

WIRING - 4/5 (AMP C.B)

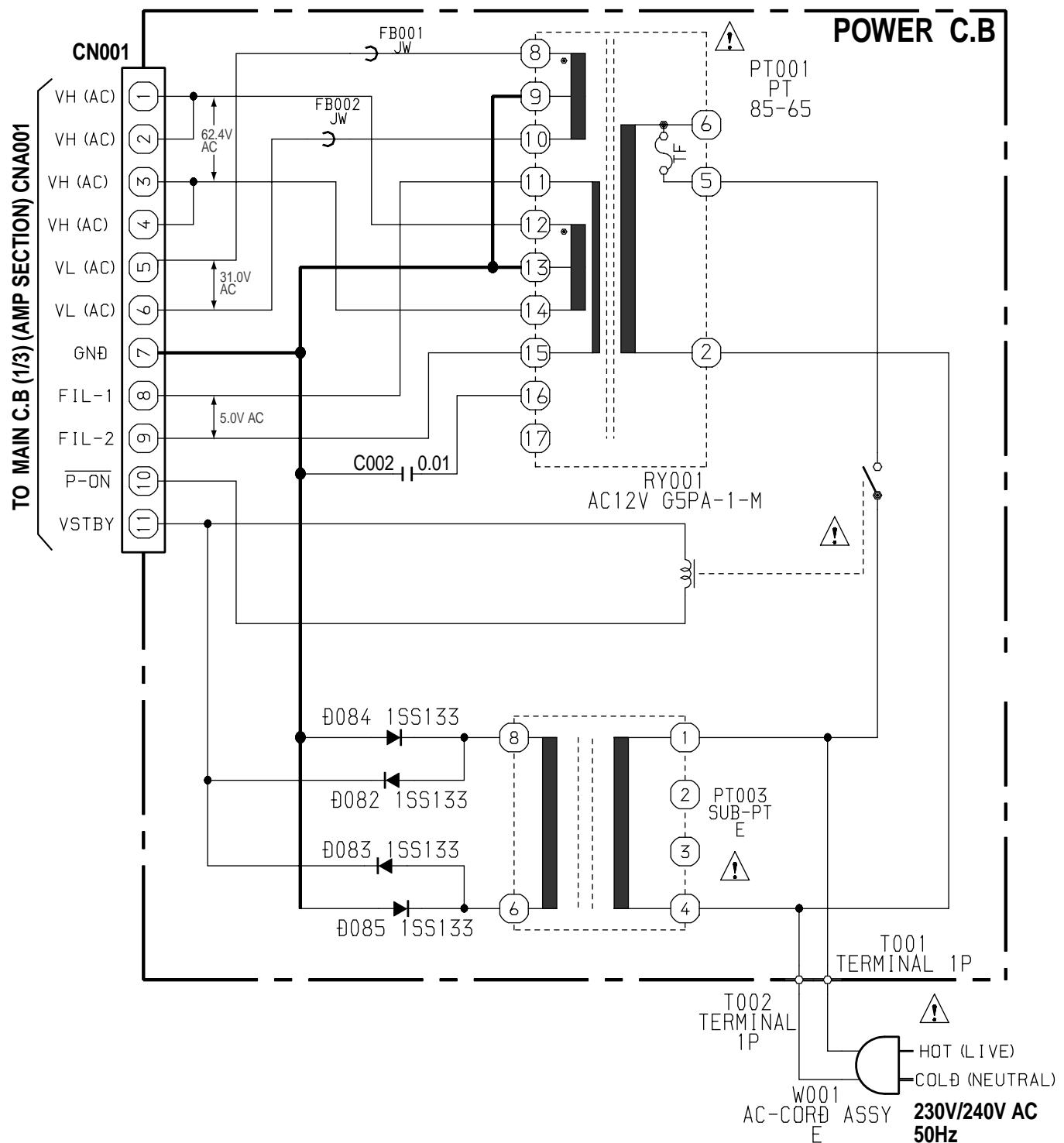
THE JOURNAL OF CLIMATE

TO MAIN CB CN003

TO MAIN C B CN002

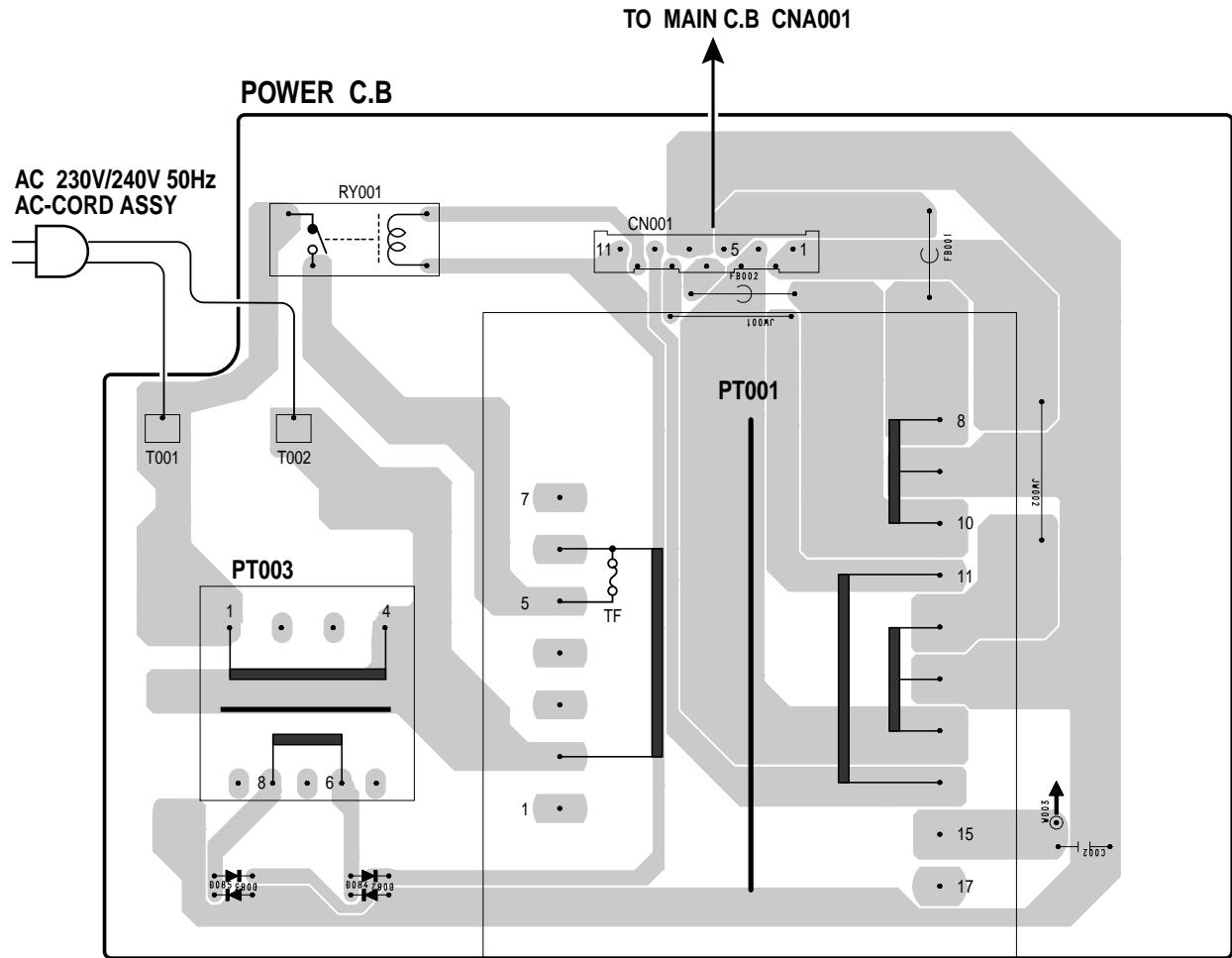


SCHEMATIC DIAGRAM - 7/7 (POWER C.B)



WIRING - 5/5 (POWER C.B.)

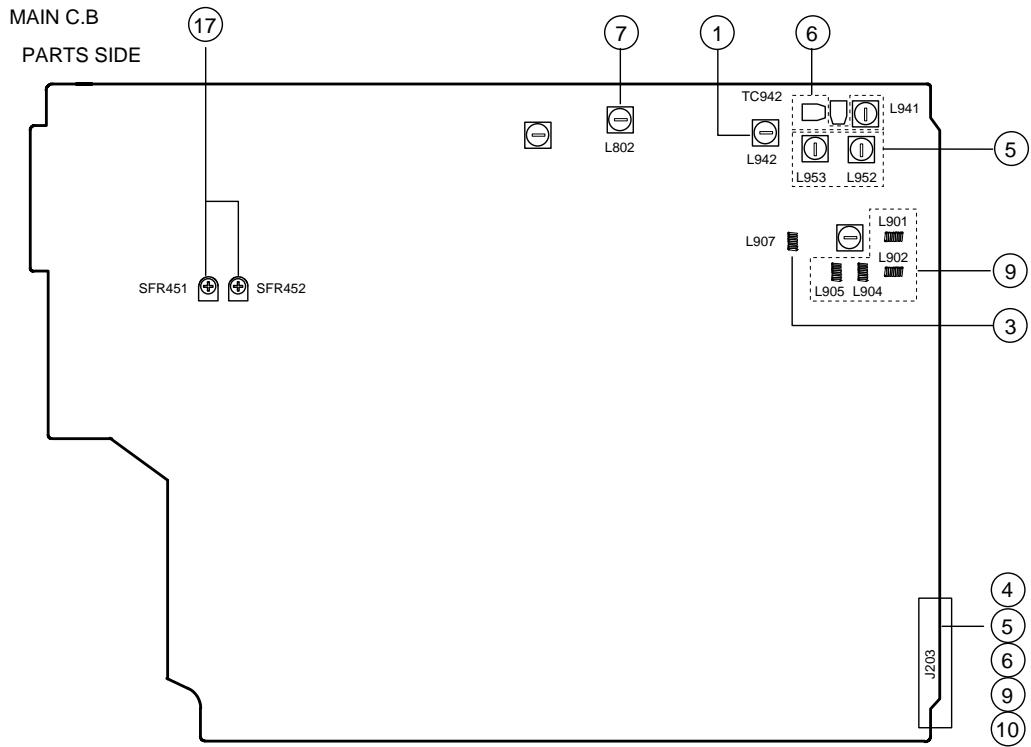
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	----	----	----	---	---	---	---	---	---	---	---	---



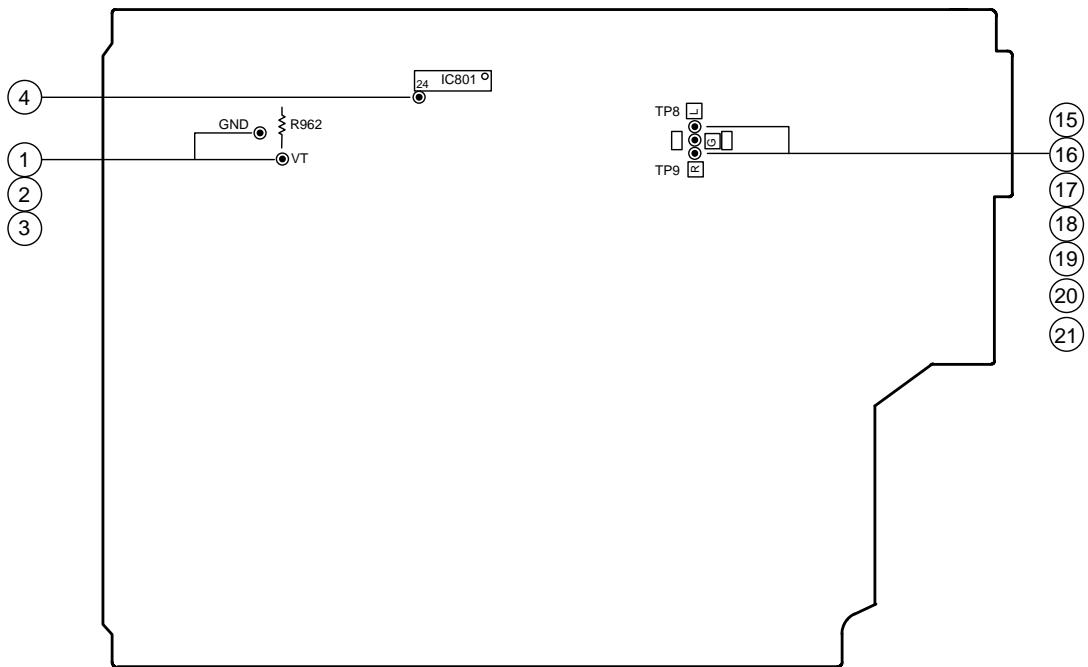
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# ELECTRICAL ADJUSTMENT -1/8

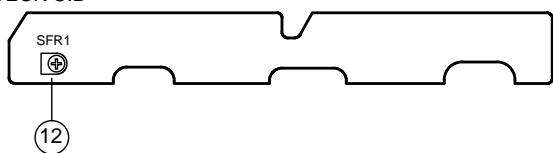
## ADJUSTMENT (TUNER/DECK)



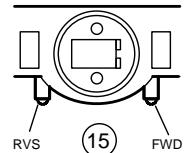
MAIN C.B PATTERN SIDE



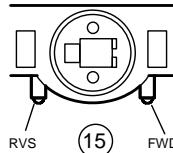
DECK C.B



DECK1 PH



DECK2 RPH



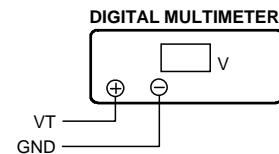
## ELECTRICAL ADJUSTMENT -2/8

<TUNER Adjustment>

### 1. VT Adjustment (LW)

Requirements

- Measuring instrument: Digital multimeter
  - Test points: VT, GND
  - Adjustment point: L942
- 1) Connect the digital multimeter between VT and GND.
  - 2) Set the function to LW, and tune the receiving frequency of the unit at 144 kHz.
  - 3) Adjust L942 so that the digital multimeter ranges at  $1.3 \pm 0.05$  V.



### 2. VT Check (MW)

Requirements: Same as above.

- 1) Connect the digital multimeter between VT and GND.
- 2) Set the function to MW, and tune the receiving frequency of the unit at 1,602 kHz.
- 3) Check that the digital multimeter ranges under 8.0 V.
- 4) Tune the receiving frequency of the unit at 531 kHz.
- 5) Check that the digital multimeter ranges above 0.5 V.

### 3. VT Adjustment and Check (FM)

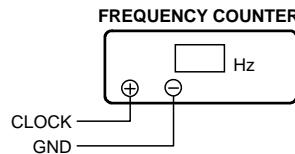
Requirements: Same as the above.

- Adjustment point: L907
- 1) Connect the digital multimeter between VT and GND.
  - 2) Set the function to FM, and tune the receiving frequency of the unit at 108.0 MHz.
  - 3) Adjust L907 so that the digital multimeter ranges at  $7.0 \pm 0.3$  V.
  - 4) Tune the receiving frequency of the unit at 87.5 MHz.
  - 5) Check that the digital multimeter ranges under 0.5 V.

### 4. CLOCK Check

Requirements

- Measuring instrument: Frequency counter
  - Test point: CLOCK (IC801 24PIN), GND
- 1) Connect the frequency counter between CLOCK and GND.
  - 2) Set the function to MW, and tune the receiving frequency of the unit at 1,602 kHz.
  - 3) Check that the frequency counter ranges at  $2,160 \text{ kHz} \pm 45 \text{ Hz}$ .



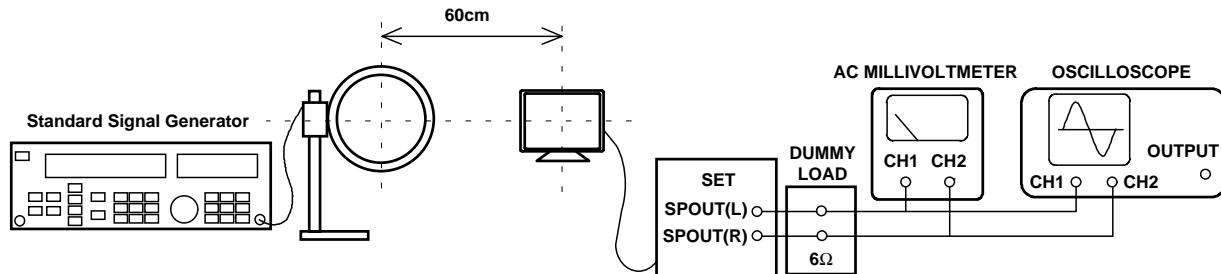
## ELECTRICAL ADJUSTMENT -3/8

<MW/LW Adjustment>

Make the following preparations for MW/LW adjustment.

Preparations

- Standard Signal Generator (S.S.G.) / Loop antenna / Oscilloscope / Millivoltmeter / Dummy resistance ( $6\Omega$ )
  - 1) Connect the unit and measuring instruments as shown in the diagram below
  - 2) Position the loop antenna connected to S.S.G. and the one connected to the unit 60 cm apart.



### 5. Tracking Adjustment (MW)

Requirements: As instructed in preparations.

- Adjustment point: L952 / L953
  - 1) Set S.S.G. to AM; carrier of 999 kHz with 30% modulation, and source at 1 kHz, position output at maximum.
  - 2) Tune the receiving frequency of the unit at MW 999 kHz.
  - 3) While monitoring the waveform at 1kHz through the oscilloscope, lower the output level of S.S.G. maximum (till a certain degree of noise is monitored).
  - 4) Adjust L952 so that the millivoltmeter points maximum.
  - 5) Set S.S.G. to AM; carrier of 603 kHz with 30% modulation, and source at 1 kHz.
  - 6) Tune the receiving frequency of the unit at MW 603 kHz.
  - 7) Adjust L953 so that the millivoltmeter points maximum.
  - 8) Repeat above steps 1) to 7) 2 to 3 times.

### 6. Tracking Adjustment (LW)

Requirements: As instructed in preparations.

- Adjustment point: TC942/L941
  - 1) Set TC942 its mechanical centre position.
  - 2) Set S.S.G. to AM; carrier of 144 kHz with 30% modulation, and source at 1 kHz, position output at maximum.
  - 3) Tune the receiving frequency of the unit at LW144 kHz.
  - 4) While monitoring the waveform at 1kHz through the oscilloscope, lower the output level of S.S.G. maximum (till a certain degree of noise is monitored).
  - 5) Adjust L941 so that the millivoltmeter points maximum.
  - 6) Set S.S.G. to LW; carrier of 290 kHz with 30% modulation, and source at 1 kHz.
  - 7) Tune the receiving frequency of the unit at LW 290 kHz.
  - 8) Adjust TC942 so that the millivoltmeter points maximum.
  - 9) Repeat above steps 2) to 8) 2 to 3 times.

### 7. IF Adjustment (MW)

Requirements: As instructed in preparations.

- Test point: SP OUT (Lch, Rch)
  - Adjustment point: L802
    - 1) Set S.S.G. to AM; carrier of 999 kHz with 30% modulation, and source at 1 kHz, position output at maximum.
    - 2) Tune the receiving frequency of the unit at MW 999 kHz.
    - 3) While monitoring the waveform at 1 kHz through the oscilloscope, lower the output level of S.S.G. maximum (till a certain degree of noise is monitored).
    - 4) Adjust L802 so that the millivoltmeter points maximum.

## ELECTRICAL ADJUSTMENT -4/8

### 8. Auto-Stop Check (MW)

Requirements: As instructed in preparations.

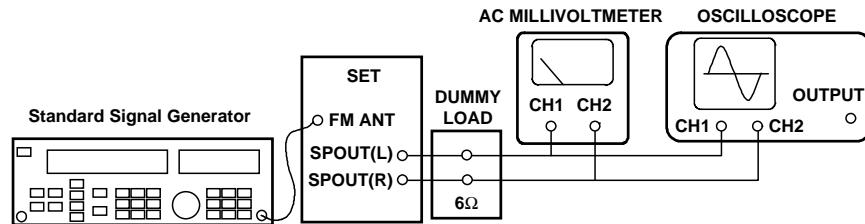
- 1) Set S.S.G. to AM; carrier of 999 kHz with 30% modulation, source at 1 kHz, and output of 40 to 65 dBuV.
- 2) Apply the tuning search function, and check that the unit automatically stops at MW 999 kHz.

### <FM Adjustment>

Make the following preparations for FM adjustment.

Preparations

- Standard Signal Generator (S.S.G.) / Loop antenna / Oscilloscope / Millivoltmeter / Dummy resistance ( $6\Omega$ )
  - 1) Connect the unit and measuring instruments as shown in the diagram below.
  - 2) Connect the output of S.S.G. to the antenna input of the unit.



### 9. Tracking Adjustment

Requirements: As instructed in preparations.

- Adjustment point: L901/L902/L904/L905
  - 1) Set S.S.G. to FM; carrier of 98 MHz with 75 kHz modulation, source at 1 kHz, position output at maximum.
  - 2) Tune the receiving frequency of the unit at FM 98 MHz.
  - 3) While monitoring the waveform at 1kHz through the oscilloscope, lower the output level of S.S.G. maximum (till a certain degree of noise is monitored).
  - 4) Adjust L905 -> L904 -> L902 -> L901 -> L902 -> L904 -> L905 sequentially and repeat adjustment 2 to 3 times, so that the millivoltmeter points maximum.

### 10. Separation Check

Requirements: As instructed in preparations.

- 1) Set S.S.G. to FM; carrier of 98 MHz with 67.5 kHz modulation, source at 1 kHz, and output at 74 dBuV.
- 2) Switch S.S.G. to PILOT ON, and set PILOT at 7.5 kHz.
- 3) Tune the receiving frequency of the unit at FM 98 MHz.
- 4) Allow the output of S.S.G. only from Lch, and check that the difference between Lch and Rch is 12 dB or above.
- 5) Apply the above check to Rch.

### 11. Auto-Stop Check

Requirements: As instructed in preparations.

- 1) Set S.S.G. to FM; carrier of 98 MHz with 75 kHz modulation, source at 1kHz, and output at 10 to 35 dBuV.
- 2) Apply the tuning search function, and check that the unit automatically stops at FM 98 MHz.

## ELECTRICAL ADJUSTMENT -5/8

### <DECK Section>

Make the following preparations for DECK section adjustment.

#### Preparations

Measuring Equipment: Audio Signal Generator / Attenuator / Wow and Flutter Meter (Frequency Counter) / Oscilloscope / Millivoltmeter / Dummy resistance ( $6\Omega$ )  
Test Tape: TTA-100 / TTA-300 (or TTA-310, 320) / TTA-200 / TTA-602 / TTA-665 (or equivalent recording and Playback Test Tapes)

### 12. Tape Speed Adjustment (DECK 2)

#### Requirements

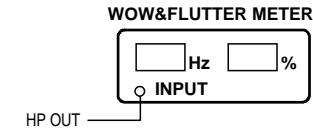
- Measuring instrument: Wow and flutter meter (frequency counter)

Test tape: TTA-100 (3 kHz)

Test point: HP OUT

Adjustment point: SFR1

- 1) Connect the wow and flutter meter to HP OUT of the unit.
- 2) Insert the test tape (TTA-100) to DECK 2. Forward and play back the middle part of the tape, and adjust SFR1 so that the level 3,000 Hz  $\pm$  5 Hz is monitored.
- 3) Reverse and play back the middle part of the tape, and check that the level is ranged within  $\pm$  45 Hz as compared to the forward tape speed.



### 13. Tape Speed Check (DECK 1)

Requirements: Same as the above, 12.

- 1) Insert the test tape (TTA-100) to DECK 1. Play back the middle part of the tape, and check that the level is ranged within  $\pm$  55 Hz as compared to the speed monitored for DECK 2.

### 14. Wow and Flutter Check (DECK 1 and DECK 2)

Requirements: Same as the above, 12.

- 1) Connect the wow and flutter meter to HP OUT of the unit.
- 2) Set the wow and flutter to JIS for INDICATOR and to W RMS (WTD) for mode.
- 3) Play back the middle part of the test tape (TTA-100), and check that the level ranges under 0.21%.

### 15. Head Azimuth Adjustment (DECK 1 and DECK 2)

#### Requirements

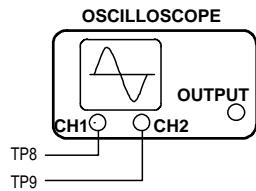
- Measuring instrument: Oscilloscope

Test tape: TTA-300 (10 kHz)

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

Adjustment point: Head azimuth adjustment screws (FWD and RVS)

- 1) Connect the probe CH1 of the oscilloscope to TP8 (Lch) and CH2 to TP9 (Rch).
- 2) Set V mode of the oscilloscope to ADD.
- 3) Insert the test tape (TTA-300) to DECK 1. Forward and play back the middle part of the tape, and adjust the head azimuth adjustment screw (FWD) so that the waveform achieves its maximum level when 10 kHz is played.
- 4) Reverse and play back the middle part of the tape, and adjust the head azimuth adjustment screw (RVS) so that the waveform achieves its maximum level when 10 kHz is played.
- 5) After adjustment, secure the screw with glue (1600 B).
- 6) Apply the above steps 3) and 5) to DECK 2.



### 16. Playback Frequency Check (DECK 1 and DECK 2)

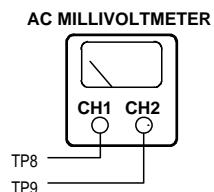
#### Requirements

- Measuring instrument: Millivoltmeter

Test tape: TTA-300 (315 Hz / 10 kHz)

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

- 1) Connect CH1 of the millivoltmeter to TP8 (Lch) and CH2 to TP9 (Rch).
- 2) Insert the test tape (TTA-300) to DECK 1, and play back 315 Hz and 10 kHz.
- 3) Check that the level of 10 kHz is ranged within  $0 \pm 3$  dB compared to the output level of 315 Hz as a reference.
- 4) Apply the above steps 2) and 3) to DECK 2.



## ELECTRICAL ADJUSTMENT -6/8

### 17. Playback Sensitivity Check (DECK 1 and DECK 2)

#### Requirements

- Measuring instrument: Millivoltmeter

Test tape: TTA-200 (400 kHz)

Test points: TP8 (Lch), TP9 (Rch)

1) Connect CH1 of the millivoltmeter to TP8 (Lch) and CH2 to TP9 (Rch).

2) Insert the test tape (TTA-200) to DECK 1 and play back.

3) Check that the output level is ranged within  $140 \text{ mV} \pm 3 \text{ dB}$ .

4) Apply the above steps, 2) and 3) to DECK 2.

### 18. Record/Playback Frequency Response Adjustment (DECK 2 for Normal Tape)

#### Requirements

- Measuring instrument: Millivoltmeter, Audio signal oscillator (low frequency oscillator), Attenuator

Test tape: TTA-602 (NORMAL)

Test points: TP8 (Lch), TP9 (Rch)

Input point: AUX (1 kHz / 8 kHz)

Adjustment points: SFR451 (Lch), SFR452 (Rch)

1) Connect CH1 of the millivoltmeter to TP8 (Lch) and CH2 to TP9 (Rch).

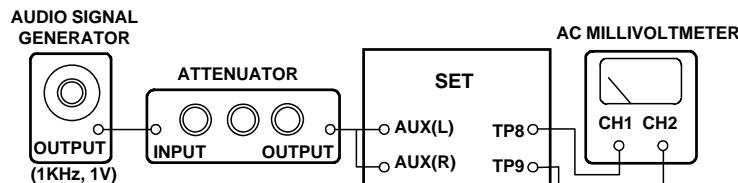
2) Connect the output of the oscillator to the attenuator, and then the attenuator to AUX of the unit.

3) Insert the test tape (TTA-602) to DECK 2, and record 1 kHz signal from AUX.

4) Adjust the attenuator so that the output levels at TP8 and TP9 are ranged at 10 mV.

5) Record 1 kHz and 8 kHz alternatively.

6) Play back the tape. Adjust SFR451 (Lch) / SFR452 (Rch) so that the playback output level of 8 kHz is ranged within  $0 \pm 1 \text{ dB}$  compared to the playback output level of 1 kHz as reference.



### 19. Record/Playback Frequency Response Adjustment (DECK 2 for CrO<sub>2</sub> Tape)

#### Requirements

- Measuring instrument: Same as the above, 18

Test tape: TTA-665 (CrO<sub>2</sub>)

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

Input point: AUX (1 kHz / 8 kHz)

1) Connect CH1 of the millivoltmeter to TP8 (Lch) and CH2 to TP9 (Rch).

2) Connect the output of the oscillator to the attenuator, and then the attenuator to AUX of the unit.

3) Insert the test tape (TTA-665) to DECK 2, and record 1 kHz signal from AUX.

4) Adjust the attenuator so that the output levels at TP8 and TP9 are ranged at 10 mV.

5) Record 1 kHz and 8 kHz alternatively.

6) Play back the tape. Confirm that the playback output level of 8 kHz is ranged within  $0 \pm 2.5 \text{ dB}$  compared to the playback output level of 1 kHz as reference.

## ELECTRICAL ADJUSTMENT -7/8

### 20. Record/Playback Sensitivity Check (DECK 2 for Normal Tape)

#### Requirements

- Measuring instrument: Same as the above, 18

Test tape: TTA-602 (NORMAL)

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

Input point: AUX (1 kHz)

1) Insert the test tape (TTA-602) to DECK 2, and record 1 kHz signal from AUX.

2) Adjust the attenuator so that the output levels at TP8 and TP9 are 100 mV.

3) Play back 1kHz, and check that the output level is ranged within  $0 \text{ dB} \pm 2.5 \text{ dB}$  compared to the recording output level.

### 21. Record/Playback Sensitivity Check (DECK 2 for CrO<sub>2</sub> Tape)

#### Requirements

- Measuring instrument: Same as the above, 18

Test tape: TTA-665 (CrO<sub>2</sub>)

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

Input point: AUX (1 kHz)

1) Insert the test tape (TTA-665) to DECK 2, and record 1 kHz signal from AUX.

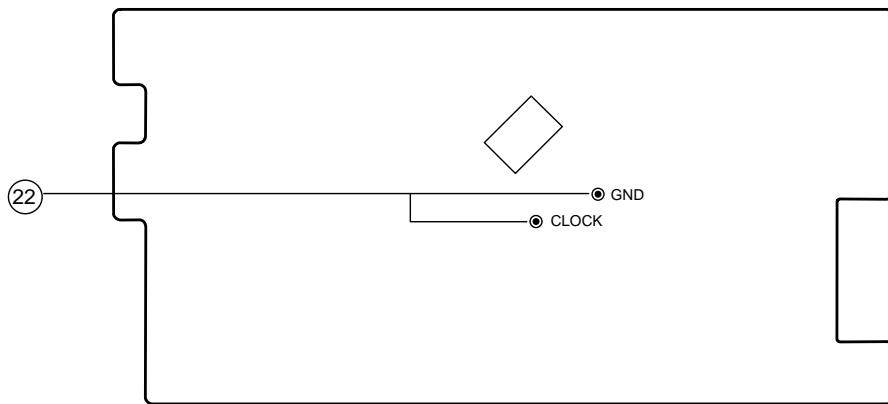
2) Adjust the attenuator so that the output levels at TP8 and TP9 are 100 mV.

3) Play back 1kHz, and check that the output level is ranged within  $0 \text{ dB} \pm 3 \text{ dB}$  compared to the recording output level.

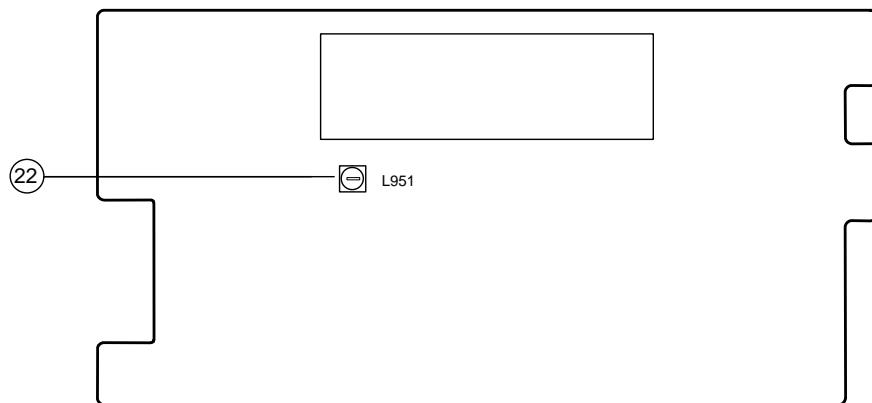
## ELECTRICAL ADJUSTMENT -8/8

<FRONT Section>

FRONT C.B PATTERN SIDE



FRONT C.B PARTS SIDE



### 22. Clock Adjustment

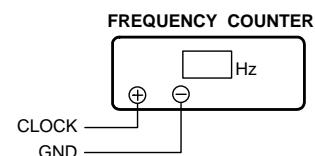
#### Requirements

- Measuring instrument: Frequency counter

Test point: CLOCK, GND

Adjustment point: L951

- While pressing the FF and POWER button, insert the AC plug to the outlet.
- Adjust L951 so that the frequency counter indicates the frequency level within  $250.471 \pm 0.25$  Hz.



## CD TEST MODE -1/1

### CD TEST MODE

#### 1. Starting CD Test Mode

While pressing and holding down the CD FUNCTION button, insert the AC plug to outlet.  
When test mode starts, the message, CD TEST appears on the display.

#### 2. Exiting CD Test Mode

Press the POWER button or other FUNCTION button, remove the AC plug from outlet.

#### 3. Function of CD Test Mode

No	Mode	Function Key	Display	Movement	Check
1	Start Mode		All lit.	FL all lit.	FL check Microcomputer check
2	Search Mode	STOP button	READING	LD constantly lit. Focus search continuous movement *1, 2 Spindle motor continuous kick	APC circuit check Laser current electricity measurement Focus search waveform check Focus error waveform check (DRF is ignored during search mode.)
3	Play Mode	PLAY button	Normal	Normal playback If TOC READ is unavailable, focus search is continued.	Each servo circuit check DRF check DRF waveform check (approx. 1.5Vp-p)
4	Traverse Mode	PAUSE button	Normal	Tracking servo OFF/ON OFF and ON is repeated by every press of the PAUSE button.	Tracking balance check
5	Sled Mode	FF button	CD TEST	PU moves to the innermost position. *3 At the same time, lens is kicked toward inner position.	Sled circuit check Tracking circuit check Mechanism movement check PU check
		RWD button	CD TEST	PU moves to the outermost position. *3 At the same time, lens is kicked toward outer position.	
6	Spindle Mode	●REC/ REC MUTE button	All lit.	When the button is pressed at the first time, spindle motor rotates forward (at rough speed). At the second press, rotation is reversed. At the third press, rotation stops.	Spindle circuit check Spindle motor check

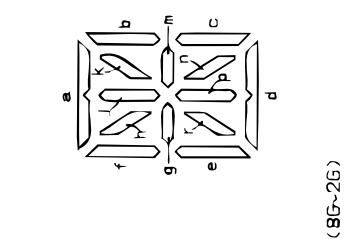
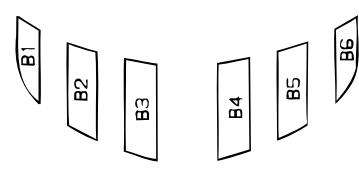
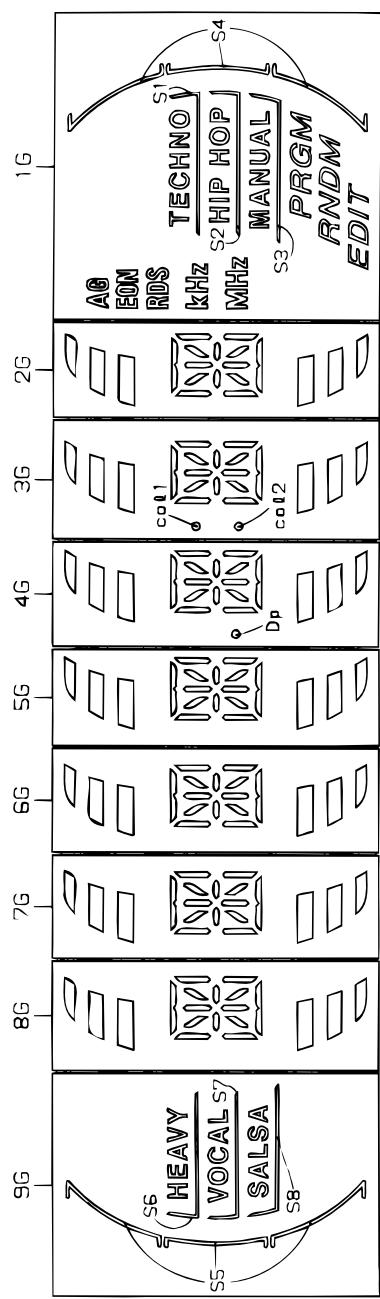
\* 1 When Focus Search operates continuously more than 10 minutes, the protection circuit is activated due to heat generation of the driver IC.

In this case, turn off the power, wait for approximately 10 minutes so that heat is released, and then restart.

\* 2 When the Focus Search fails three times, the gain is switched for CD-RW at the fourth time.

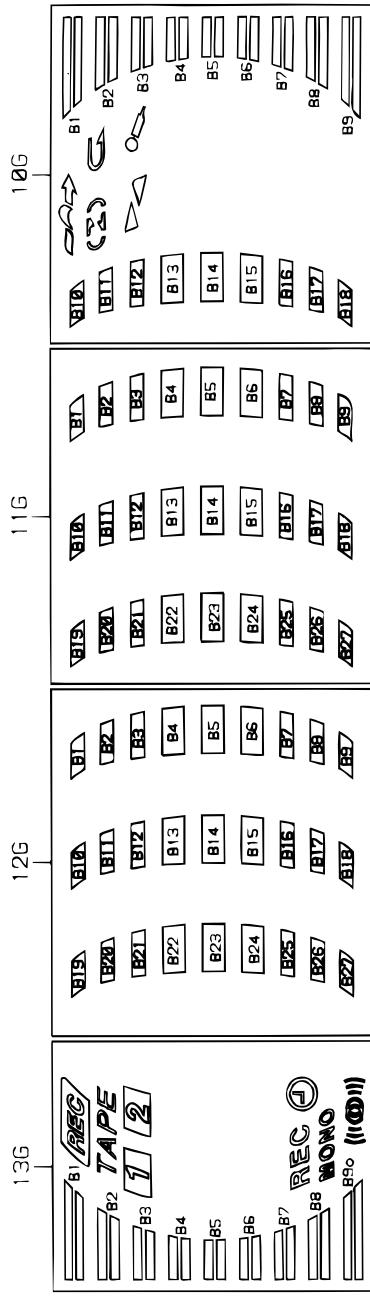
\* 3 Be careful not to damage the gear because the sled motor rotates while the FF or RWD button is being pressed even if the pickup is located in the innermost track or the outermost track.

## GRID ASSIGNMENT (FRONT)



(B6~26)

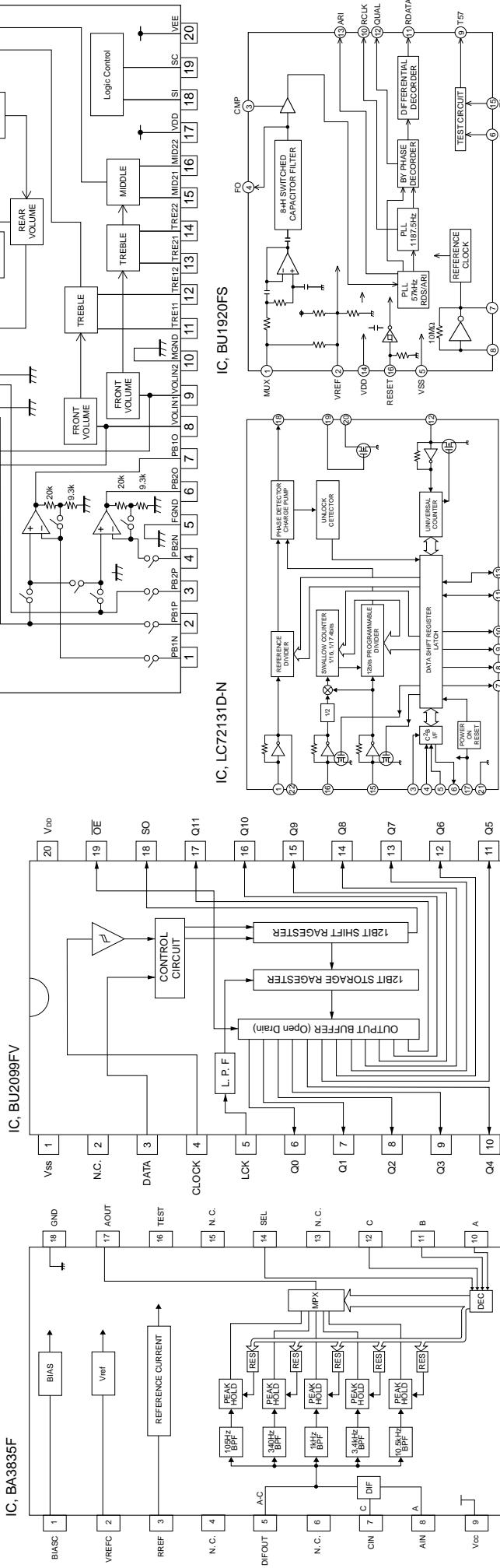
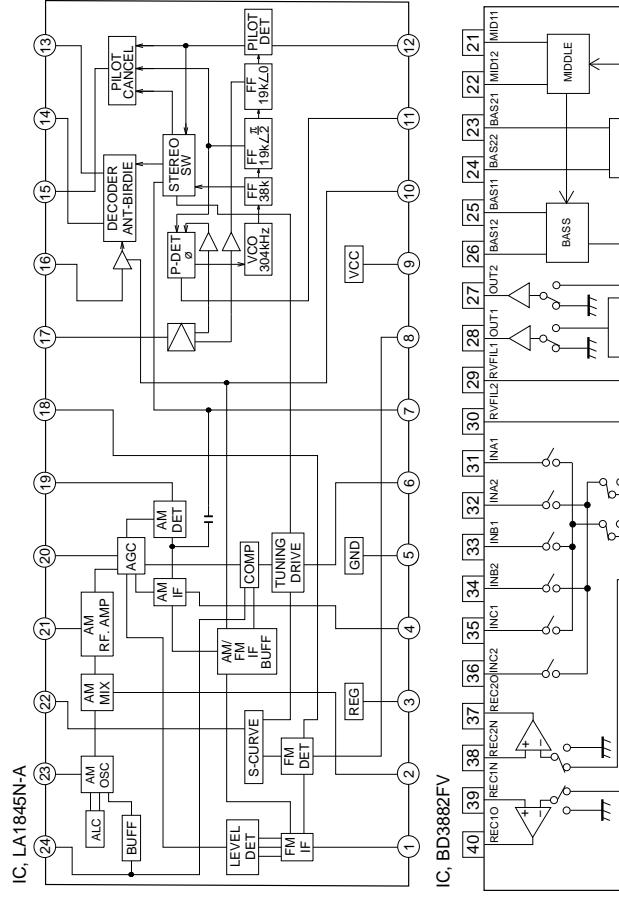
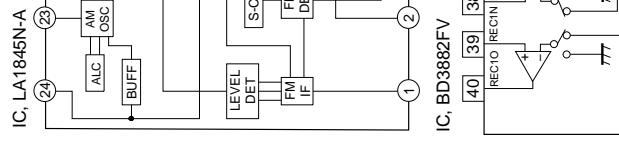
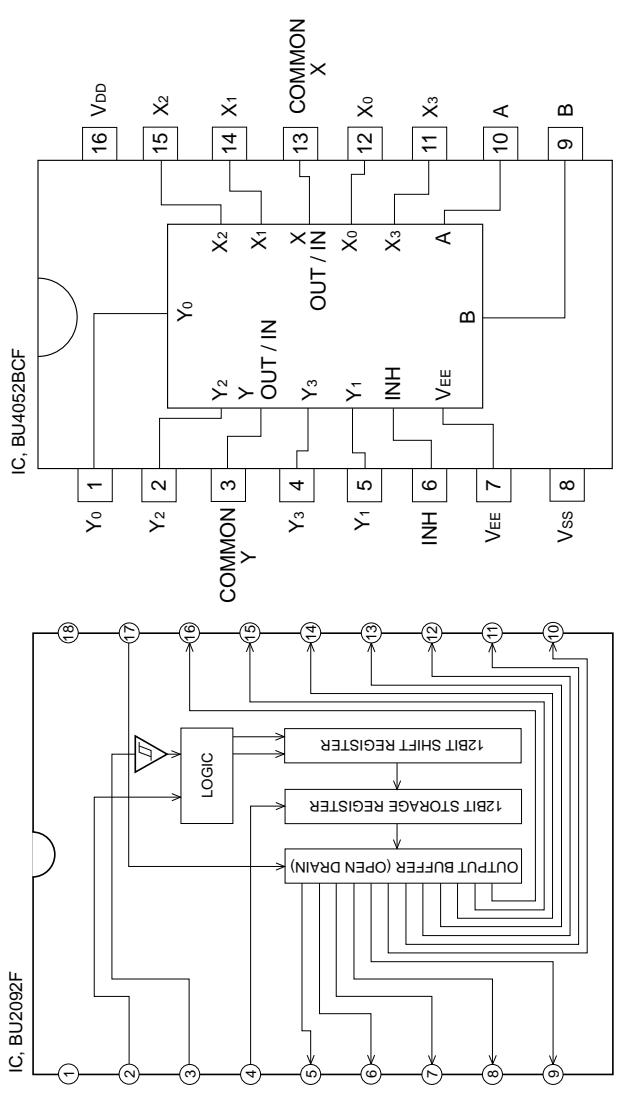
## GRID ASSIGNMENT (REAR)



PIN NO.	616557521
	216557521
CONNECTION	F N N C
	2 F N P C
	N C

-54-

### IC BLOCK DIAGRAM -1/1



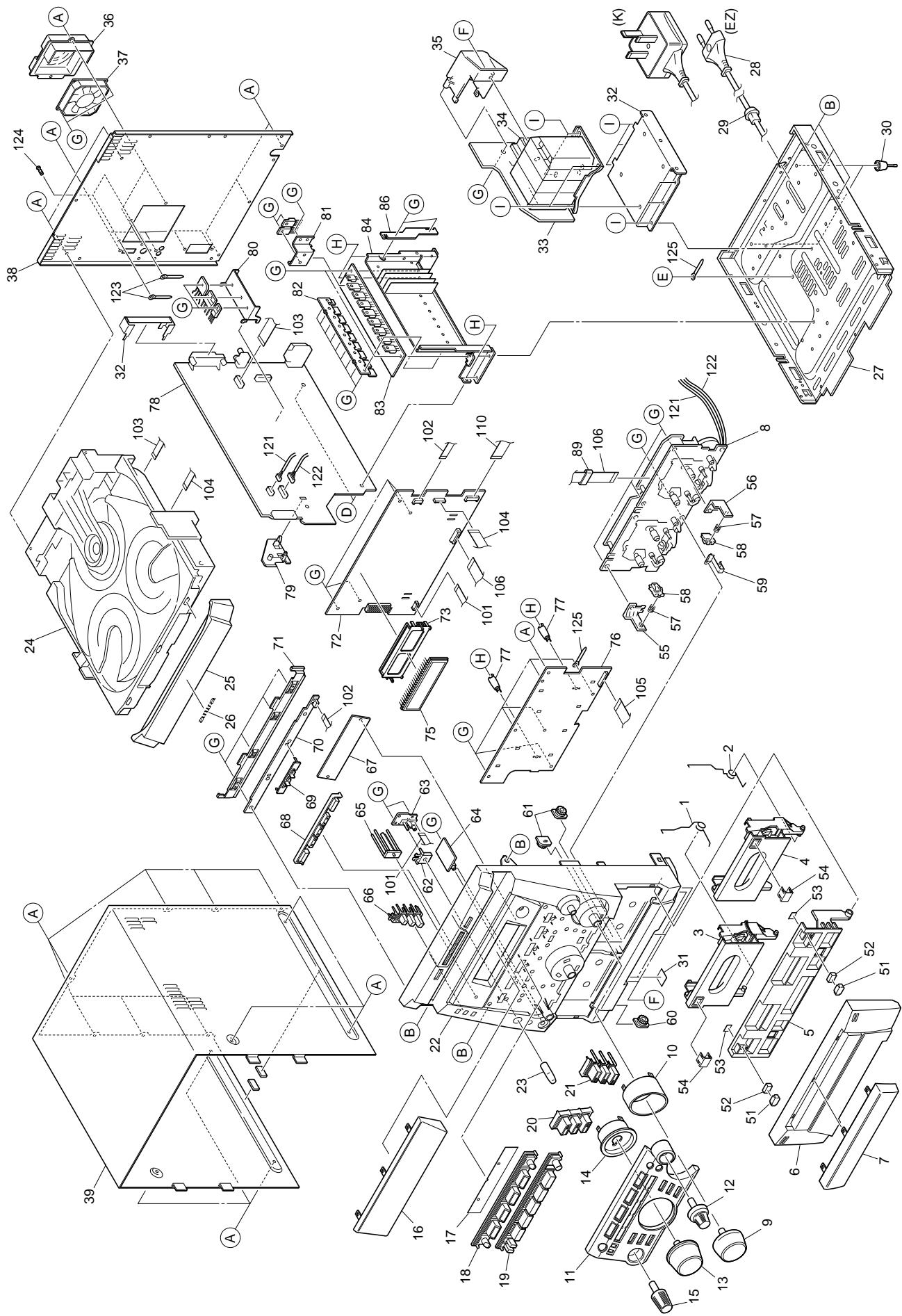
# IC DESCRIPTION -1/1 (LC876670B-50H8) -1/2

Pin No.	Pin Name	I/O	Description
1	I-DISH	I	CD turntable photo sensor input.
2	O-LED_STB	O	STB output for shift register.
3	I-STEREO	I	TUNER stereo input.
4	I-RDS_DATA	I	TUNER RDS data input (RDS only).
5	O-DSC/O-DATA	O	FRONT • MAIN IC data output.
6	O-CLK	O	FRONT • MAIN IC clock output.
7	O-CLK_SFT	O	MICON clock shift output.
8	O-CLK_FUNC	O	FUNCTION IC clock output.
9	I-IFC	I	TUNER IF count serial data input.
10	O-BIAS	O	DECK BIAS output.
11	RESET	-	System reset input.
12	I-TM_BASE	I	Reference clock input for timer watch.
13	I-SPEANA	I	Input spectrum analyzer data input.
14	VSS1	-	GND
15	X1	I	9.43MHz oscillator circuit .
16	X2	O	9.43MHz oscillator circuit.
17	VDD1	-	VDD
18	I-HOLD	I	Power failure detected input.
19	I-TRE	I	Rotary encoder TREBLE input.
20	I-BAS	I	Rotary encoder BASS input.
21	I-VOL	I	Rotary encoder VOLUME input.
22	I-JOG	I	Rotary encoder JOG input.
23	I-TU_SIG (I-MIC)	I	TUNER RDS signal input (RDS only) MIC input for the vocal fader (MIC only).
24	I-CDSW	I	CD mechanical switch A/D converter input.
25	I-KEY1	I	KEY1 input.
26	I-KEY2	I	KEY2 input.
27	I-KEY3	I	KEY3 input.
28	I-RDS_CLK	I	TUNER RDS clock input (RDS only).
29	I-RMC	I	System remote control signal input.
30 ~ 42	G1 ~ G13	O	FL grid output G1 ~ G13.
43 ~ 45	P1 ~ P3	O	FL segment output G1 ~ G3.
46	VDD3	-	VDD
47 ~ 50	P4 ~ P7	O	FL segment output G4 ~ G7.
51	FIX0	-	GND
52 ~ 57	P8 ~ P13	O	FL segment output G8 ~ G13.
58	P14/SPEANA_C	O	FL segment output G14/SPEANA IC C output.
59	P15/SPEANA_B	O	FL segment output G15/SPEANA IC B output.
60	P16/SPEANA_A	O	FL segment output G16/SPEANA IC A output.
61	P17/RDS	O	FL segment output G17.
62	P18/OIRT	O	FL segment output G18.
63	P19/SW	O	FL segment output G19.
64	P20/AM9K	I/O	FL segment output G20/AM9K diode input.

# IC DESCRIPTION -1/1 (LC876670B-50H8) -2/2

Pin No.	Pin Name	I/O	Description
65	P21/FMWIDE	O	FL segment output G21.
66	P22/LW	O	FL segment output G22.
67	P23/1+1	I/O	FL segment output G23/1+1 diode input.
68	P24/R+1	I/O	FL segment output G24/R+1 diode input.
69	P25/MPX	I/O	FL segment output G25/MPX diode input.
70	P26/ECO-OFF	I/O	FL segment output G26/ECO OFF diode input.
71	P27/DEMO	I/O	FL segment output G27/DEMO diode input.
72	VDD4	-	VDD
73	P28/KARAOKE	I/O	FL segment output G28/KARAOKE diode input.
74	I-AUTO2	I	DECK2 auto stop signal input.
75	I-AUTO1	I	DECK1 auto stop signal input.
76	I-CST2	I	DECK2 cassette detect switch data input.
77	I-CST1	I	DECK1 cassette detect switch data input.
78	I-REB	I	DECK2 B side REC enable switch data input.
79	I-REA	I	DECK2 A side REC enable switch data input.
80	I-CAM2	I	DECK2 CAM switch data input.
81	I-CAM1	I	DECK1 CAM switch data input.
82	I-HPMUTE	O	Headphone MUTE output.
83	NC	-	Not connected.
84	NC	-	Not connected.
85	O-MOTOR	O	DECK motor ON/OFF output.
86	O-SOL1	O	DECK1 solenoid output.
87	O-SOL2	O	DECK2 solenoid output.
88	O-MUTE	O	System mute ON/OFF output.
89	VSS2	-	GND
90	VDD2	-	VDD
91	O-LINE_MUTE	O	Line mute output.
92	O-KSCAN	O	Segment input scan timing output.
93	O-PLL_CE	O	PLL IC chip enable output.
94	O-POWER	O	System power supply ON/OFF output.
95	O-CD_DATA	O	CD data output.
96	O-CD_CLK	O	CD clock output.
97	O-CD_CE	O	CD chip enable output.
98	I-SUBQ	I	CD SUBQ data input.
99	I-DRF	I	CD focus on detect data input.
100	I-WRQ	I	CD interruption signal input.

MECHANICAL EXPLODED VIEW -1/1



# MECHANICAL MAIN PARTS LIST -1/2

! = 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	I	C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
						CX-SNTR99 EZSTC
			O MC1001	8A-NF8-281-010	SPR-T,EJECT 1	a
			O MC1002	8A-NF8-282-010	SPR-T,EJECT 2	a
			O MC1003	8C-NFR-002-010	BOX,CASS 1	a
			O MC1004	8C-NFR-003-010	BOX,CASS 2	a
			O MC1005	8C-NFR-004-010	BOX,DOOR	a
			O MC1006	8C-NFR-005-010	PANEL,DOOR	a
			O MC1007	8C-NFR-006-010	WINDOW,CASS	a
		X	MC1008	M8-2ZM-38E-170	2ZM-3MK2 YPR9NC	a
		O	MC1009	8C-NFR-014-010	KNOB,RTRY VOL	a
		O	MC1010	8C-NFR-007-010	RING,VOL	b
			O MC1011	8C-NFR-010-010	PANEL,FR	a
			O MC1012	8C-NFR-015-010	KNOB,RTRY JOG	a
			O MC1013	8C-NFR-016-010	KNOB,RTRY BASS	a
			O MC1014	8C-NFR-021-010	PANEL,BASS	a
			O MC1015	8C-NFR-017-010	KNOB,RTRY TRE	a
			O MC1016	8C-NFR-037-010	WINDOW,DISPLAY RDS	a
		X	MC1017	8C-NFR-038-010	SH,FUN	a
		O	MC1018	8C-NFR-032-010	KEY,ASSY POWER	a
		X	MC1018a	8C-NFR-011-010	KEY,POWER	a
		X	MC1018b	8C-NFR-019-010	REFLECTOR,FUN	b
						CX-SNTR99 EZSTC
			O MC1019	8C-NFR-013-010	KEY,OPERATION	a
			O MC1020	8C-NFR-046-110	KEY ASSY,GEQ L	a
		X	MC1020a	8C-NFR-022-110	KEY,GEO L	a
		X	MC1020b	8C-NFR-033-110	REFLECTOR,GEQ L	a
		O	MC1021	8C-NFR-047-110	KEY ASSY,GEQ R	a
		X	MC1021a	8C-NFR-023-110	KEY,GEO R	a
		X	MC1021b	8C-NFR-034-110	REFLECTOR,GEQ R	a
		O	MC1022	8C-NFR-001-010	CABI,FR EZ	a
		O	MC1023	8C-NFR-028-010	KNOB,RTRY MIC	a
		X	MC1024	M8-BZG-587-070	BZG-5 ZD4GNDC2	a
			O MC1025	8C-NFR-009-010	PANEL,TRAY	a
			O MC1026	87-B00-002-010	BADGE,AIWA 30 ABS SIL	a
		X	MC1027	8C-NFR-216-010	CHAS,MAIN CC FAN	a
	!	O	MC1028	87-A80-157-210	AC CORD ASSY,E BLK CC	a
	!	O	MC1028a	87-099-811-110	PLUG,ADPTR CONV(K)	.
		O	MC1029	87-085-185-010	BUSHING,AC CORD(E) CM-22B	a
		O	MC1030	8C-NFR-214-010	FOOT,20 FF-852-PP	a
		X	MC1031	86-NFZ-205-010	CUSH, 12.5-15.5-2 (NP)	a
		X	MC1032	8C-NFR-217-010	PLATE,PT	a
		X	MC1033	8C-NFR-655-010	PWB,PT U/EZ 4M	a
						CX-SNTR99 EZSTC
			O MC1034	8C-NFR-642-010	PT,EZ CNF-R	a
			O MC1035	8B-NF1-203-010	HLDR,PWB PT	a
			O MC1036	8B-NF8-227-010	HLDR,FAN	a
			O MC1037	87-A91-751-010	FAN,DSB0812M-S382 -400MM	a
			O MC1038	8C-NFR-042-010	PANEL,REAR EZSC	a
			O MC1038	8C-NFR-044-010	PANEL,REAR KSC	.
			O MC1039	8C-NFR-024-010	CABI,STEEL	a
			O MC1051	8C-NFR-224-010	COVER,MAGNET	a
			O MC1052	8C-NFR-222-010	MAGNET,BOX 11-6-4	a
			X MC1053	8C-NFR-225-010	SH, 12.5-17.5-0.07 W/ADH	b
			O MC1054	8C-NFR-223-010	PLATE,BOX	a
			O MC1055	87-NF4-216-010	HLDR,LOCK 1	a
			O MC1056	87-NF4-217-110	HLDR,LOCK 2	a
			O MC1057	86-NF9-224-010	SPR-C,LOCK	a
			O MC1058	82-NF5-229-010	PLATE,LOCK(*)	a
			X MC1059	8C-NFR-210-010	PLATE,EARTH MECHA	a
			O MC1060	8Z-NF6-210-010	DMPR,150 N	a
			O MC1061	8A-NF8-209-010	OIL-DMPR,120	a
			O MC1062	8C-NFR-027-010	PLATE,KNOB MIC	a
			X MC1063	8C-NFR-624-010	PWB,MIC NFR	b
						CX-SNTR99 EZSTC
			X MC1064	8C-NFR-633-010	PWB,HP EZ/K	a
			O MC1065	8C-NFR-020-010	REFLECTOR,ECO	a
			O MC1066	8C-NFR-025-010	KEY,RDS	a
			X MC1067	8C-NFR-039-010	SH,FL	a
			O MC1068	8C-NFR-026-010	KEY,ASSY CD	a
			X MC1068a	8C-NFR-012-010	KEY,CD	a
			X MC1068b	8C-NFR-018-010	REFLECTOR,CD	b
			O MC1069	8C-NFR-201-010	GUIDE,CD	a
			X MC1070	8C-NFR-614-010	PWB,FR CD-LED NFR	.
			O MC1071	8C-NFR-204-010	HLDR,CD	a
						CX-SNTR99 EZSTC
			X MC1072	8C-NFR-613-010	PWB,FR KEY NFR	a
			X MC1073	8C-NFR-213-010	GUIDE,FL	a
			X MC1074	8C-ZA3-618-010	SHLD-CASE,CZA-3 EZ S	a
			O MC1075	8C-NFR-605-010	FL,BP038GNK-CNFR	a
			X MC1076	8C-NFR-612-010	PWB,FR MICON NFR	a
			X MC1077	8C-NFR-203-010	HLDR,PWB FR	a
			X MC1078	8C-NFR-632-010	PWB,MAIN EZ/K	a
			O MC1079	8A-NF8-206-010	HLDR,PWB M	a
			X MC1080	8C-NFR-209-110	HT-SINK,DIODE	a
			X MC1081	8C-NFR-226-010	HT-SINK,FET	b

# MECHANICAL MAIN PARTS LIST -2/2

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

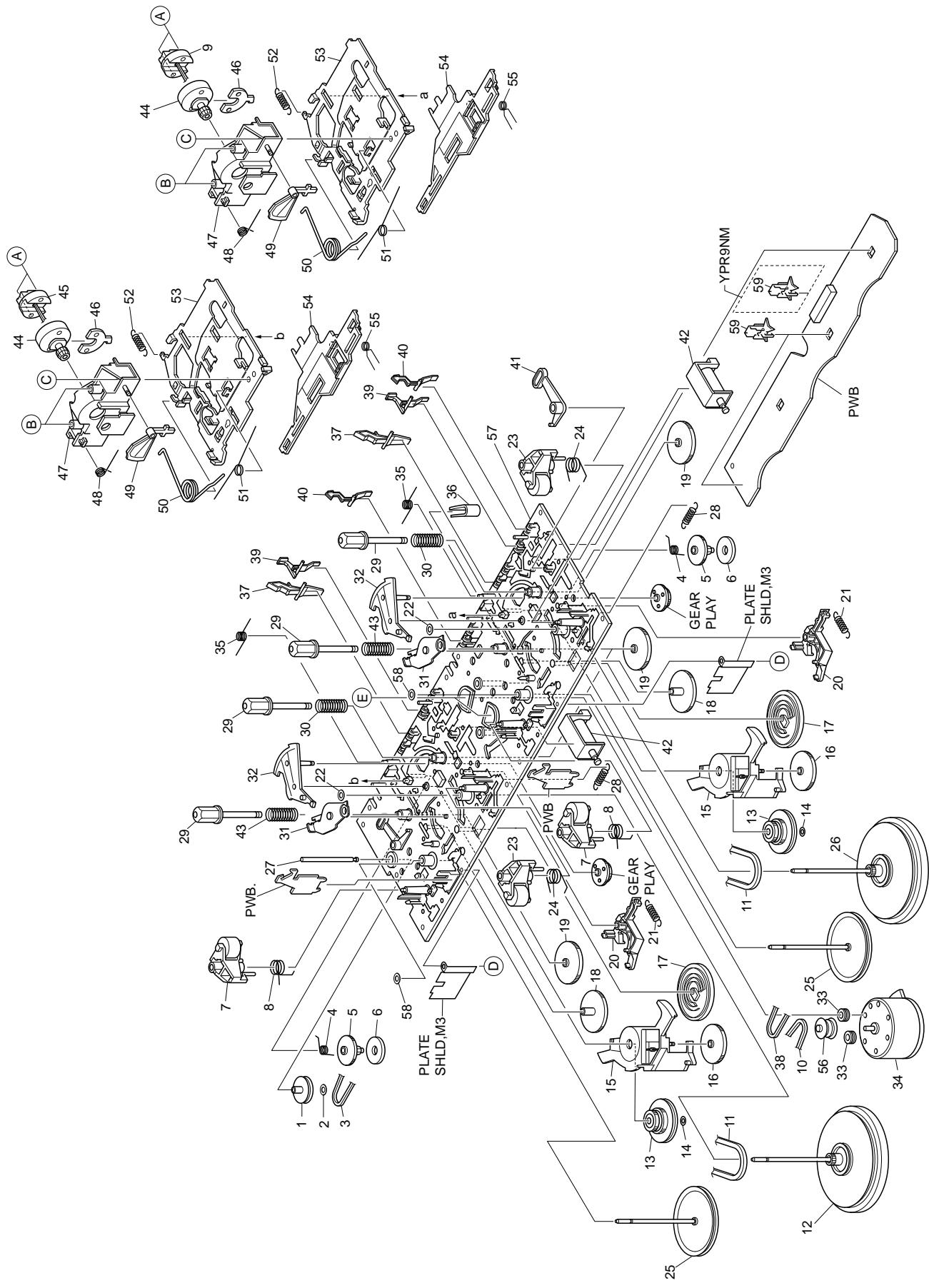
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UNIT-NAME	I	C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
X			MC1082	8C-NFR-215-010	HLDR,TR AMP 2	CX-SNTR99 EZSTC
X			MC1083	8C-NFR-651-010	PWB,AMP NFR 2M	a
X			MC1084	8C-NFR-220-010	HT-SINK,ASSY 180W	a
X			MC1084a	8C-NFR-205-010	HT-SINK,MAIN T3	a
X			MC1084b	8C-NFR-218-010	HT-SINK,FIN138-34-T1	a
X			MC1086	8C-NFR-635-010	PWB,HOLDR EZ/K	a
O			MC1089	87-A92-438-010	F-BEAD, SSC-33.5-8ED	a
O			MC1101	88-905-151-110	FF-CABLE,5P 1.25 150MM	a
O			MC1102	88-906-201-110	FF-CABLE, 6P 1.25	a
O			MC1103	88-906-251-110	FF-CABLE, 6P 1.25	b
O			MC1104	88-908-301-110	FF-CABLE,8P 1.25 300MM	a
O			MC1105	88-913-101-110	FF-CABLE,13P 1.25 100MM	a
O			MC1106	88-915-151-110	FF-CABLE,15P 1.25 150MM	a
O			MC1121	87-NF6-615-010	CONN ASSY,3P PB	a
O			MC1122	87-NF6-616-010	CONN ASSY,8P RPB	a
O			MC1123	87-064-185-010	HLDR,WIRE PVC 0.5	a
O			MC1124	87-084-077-010	RIVET, NYL3.5-4.5	a
X			MC1125	87-064-080-010	BINDER,WIRE	a
O			MC1B	87-721-096-410	QT2+3-10 W/O SLOT	a
O			MC1D	87-NF4-224-010	S-SCREW, IT3B+3-8 CU	b
O			MC1E	87-B10-315-010	BVT13B+3-8 R W/O	a
O			MC1F	87-743-095-410	UT2+3-8 W/O SLOT BLK	a
O			MC1G	87-067-703-010	BVT2+3-10 W/O SLOT	a
O			MC1G	87-067-703-010	BVT2+3-10 W/O SLOT	a
O			MC1G	87-067-703-010	BVT2+3-10 W/O SLOT	a
O			MC1H	87-067-581-010	BVT2+3-15 W/O SLOT	a
O			MC1I	87-078-200-010	S-SCREW, ITC+4-8 R	a
O			MC1K	88-AR1-217-010	S-SCREW,BFT2+3-8	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 PARTS LIST -1/1 <ZM-3MK2>

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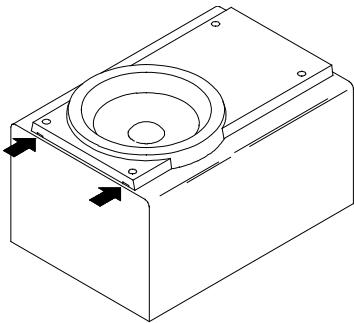
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UNIT-NAME	I	C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
						2ZM-3MK2 YPR9NC
O	ST1001		82-ZM3-335-310	PULLEY, COUPLER M3	a	
O	ST1002		87-B10-043-010	W-P, 0.99-4-0.25 SLT	a	
O	ST1003		86-ZM1-206-010	BELT, MAIN L	a	
O	ST1004		82-ZM1-322-010	SPR-T, FR 60	a	
O	ST1005		82-ZM1-220-210	GEAR, IDLER	a	
O	ST1006		82-ZM3-616-010	RING MAGNET 4	a	
O	ST1007		82-ZM1-341-210	LVR ASSY, PINCH L2	a	
O	ST1008		82-ZM1-258-210	SPR-T, PINCH L	a	
O	ST1009		87-A90-821-110	HEAD, RPH HADKH56 FPC	a	
O	ST1010		82-ZM3-342-010	BELT, SBU MOT 3	a	
O	ST1011		82-ZM1-338-110	BELT, FR 4	a	
O	ST1012		09-001-420-010	FLY-WHL, R ASSY	a	
O	ST1013		82-ZM3-333-310	SLIP DISK ASSY 2	a	
O	ST1014		82-ZM3-334-010	PW 2.16-6-0.4	a	
O	ST1015		82-ZM3-306-110	LVR, FR M2	a	
O	ST1016		82-ZM1-225-210	GEAR, FR	a	
O	ST1017		82-ZM3-305-310	GEAR, CAM M2 (*)	a	
O	ST1018		82-ZM1-226-010	GEAR, REW	a	
O	ST1019		82-ZM1-216-510	GEAR, REEL	a	
O	ST1020		82-ZM1-227-310	LVR, TRIG	a	
						2ZM-3MK2 YPR9NC
O	ST1021		82-ZM1-265-310	SPR-E, TRIG	a	
O	ST1022		80-ZM6-243-010	SH 1.75-3.6-0.5 SLT	a	
O	ST1023		82-ZM1-344-210	LVR ASSY, PINCH R2	a	
O	ST1024		82-ZM1-259-210	SPR-T, PINCH R	a	
O	ST1025		82-ZM1-234-310	FLY-WHL, L ASSY	a	
O	ST1026		82-ZM1-237-610	FLY-WHL, R ASSY	a	
O	ST1027		82-ZM3-339-110	SHAFT, COUPLER N3	a	
O	ST1028		82-ZM1-255-310	SPR-E, LVR DIR	a	
O	ST1029		82-ZM1-217-410	REEL TABLE	a	
O	ST1030		82-ZM1-285-410	SPR-C, BT L	a	
O	ST1031		82-ZM1-333-210	PLATE, LINK2	a	
O	ST1032		82-ZM1-222-310	LVR, PLAY (*)	a	
O	ST1033		82-ZM3-307-010	CUSH-G, DIA3.7-8-3.2	a	
O	ST1034		87-045-347-010	MOT, SHU2L 70	a	
O	ST1035		82-ZM1-257-010	SPR-T, CAS	a	
O	ST1036		82-ZM3-340-010	SH, BELT D2	a	
O	ST1037		82-ZM1-242-010	LVR, CAS	a	
O	ST1038		82-ZM3-329-410	BELT, SBU R2	a	
O	ST1039		82-ZM1-243-010	LVR, STOP	a	
O	ST1040		82-ZM1-240-110	LVR, REC (*)	a	
						2ZM-3MK2 YPR9NC
O	ST1041		82-ZM1-264-010	LVR, EJECT R	a	
O	ST1042		82-ZM3-627-010	SOL ASSY 27 SO	a	
O	ST1043		82-ZM1-244-510	SPR-C, BT	a	
O	ST1044		82-ZM1-208-310	HLDR, HEAD	a	
O	ST1045		87-A90-820-110	HEAD, PH HADKH25 FPC	a	
O	ST1046		82-ZM1-314-110	PLATE, HEAD	a	
O	ST1047		82-ZM1-207-910	GUIDE, TAPE	a	
O	ST1048		82-ZM3-353-010	SPR-T, HEAD 2	a	
O	ST1049		82-ZM1-210-110	GEAR, H T	a	
O	ST1050		82-ZM1-219-110	SPR-T, LINK	a	
O	ST1051		82-ZM1-269-210	SPR-T, BRG	a	
O	ST1052		82-ZM1-218-010	SPR-E, HB	a	
O	ST1053		82-ZM1-206-910	CHAS, HEAD	a	
O	ST1054		82-ZM1-266-310	LVR, DIR	a	
O	ST1055		82-ZM1-214-010	SPR-T, DIR	a	
O	ST1056		82-ZM3-221-210	PULLEY, MOT 2M	a	
O	ST1057		82-ZM3-301-610	CHAS ASSY, M2	a	
O	ST1058		82-ZM1-288-010	SH, 1.63-3.2-0.5 SLT	a	
O	ST1059		82-ZM1-245-210	HLDR, IC <YPR9NF><YPR9NC>	a	
O	ST1A		80-ZM6-207-010	V+1.6-7	a	
						2ZM-3MK2 YPR9NC
O	ST1B		86-ZM4-206-110	S-SCREW, AZIMUTH L	a	
O	ST1C		85-ZM3-202-010	S-SCREW, TG	a	
O	ST1D		82-ZM3-222-010	S-SCREW, SHILD PLATE	a	
O	ST1E		82-ZM3-318-110	S-SCREW W, MOTOR M2	a	

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

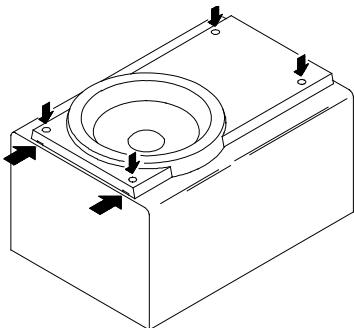
### Type.1

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.



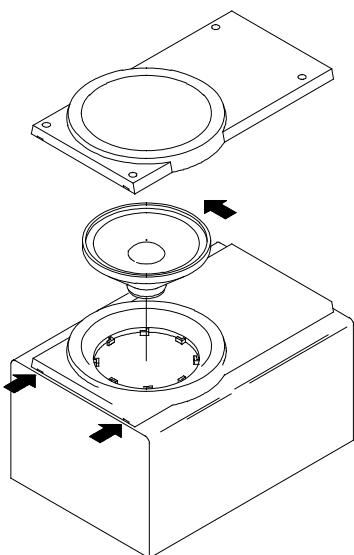
### Type.2

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.

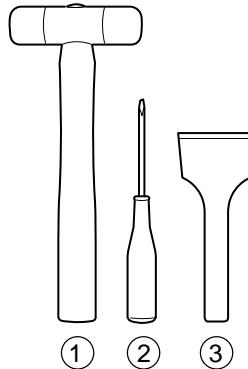


### Type.3

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.

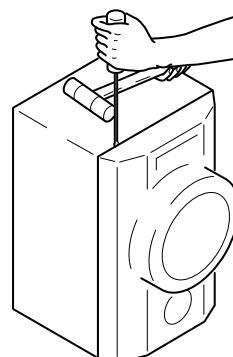


Fig-1

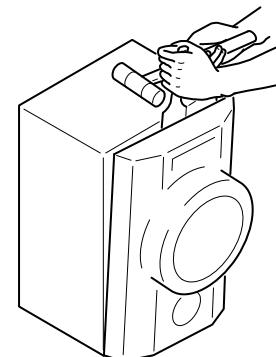


Fig-2

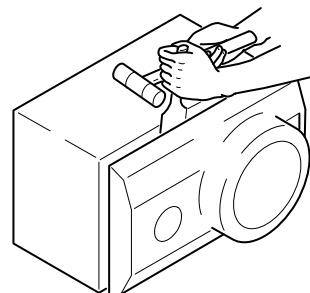


Fig-3

### 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-SNTR99>

! = 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	I	C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
						SX-SNTR99 YSTN
O	SP1001		88-NSK-610-010	SPKR, CERAMIC ASSY		a
O	SP1002		8A-NSJ-006-110	BADGE, AIWA S35		a
O	SP1003		8C-NSR-612-010	CORD, SPKR R/B		a
O	SP1004		8C-NSR-614-010	CORD, SPKR L/B		a
O	SP1005		8C-NSR-610-010	SPKR, T 80		a
O	SP1006		8C-NSR-604-010	SPKR, W 140 30/4		a
O	SP1007		8C-NSR-606-010	SPKR, W 140 25/4 HIGH S		a
O	SP1008		8C-NSR-608-010	SPKR, W 140 25/4 B		a
O	SP1009		8C-NSR-018-010	PANEL, FR R		a
O	SP1010		8C-NSR-005-010	PANEL, FR L		a
O	SP1011		8C-NSR-006-010	PANEL, TOP		a
X	SP1012		8C-NSR-003-010	PANEL, BA		a
O	SP1013		8C-NSR-007-010	PLATE, NAME		a
O	SP1014		8C-NSR-012-010	PROTECTOR, W		a
X	SP1015		8Z-NS3-026-010	CORD, BUSH L		a
O	SP1016		8C-NSR-001-010	CAB1, ASSY		a
O	SP1017		8C-NSR-011-010	HLDL, TW		a
O	SP1018		8C-NSR-008-010	RING, W		a
O	SP1019		8C-NSR-009-010	RING, TW		a
O	SP1020		8C-NSR-010-010	RING, PIEZO		a

## OTHER PARTS LIST -1/2

! =  SAFETY PARTS  
C = Components marked

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UNIT-NAME	I	C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
						CX-SNTR99 EZSTC
			X	8C-NFR-233-010	CUSH, 10-20-2.8 W/ADH	a
			X	87-B40-426-010	SH, 20-5-0.65 W/ADH	a
			X	87-B40-447-010	SH, 28-10-0.35 W/ADH	a
			X	87-B40-098-010	BAG, PV 0.025-650-750 PL	a
			X	93-704-337-010	SH, FOAMED-MAT 0.31-800-500	a
			X	80-MQ1-209-010	CLOTH, 20-7	a
			X	8C-NFR-851-010	CUSHION, FRONT C	a
			X	8C-NFR-852-010	CUSHION, REAR C	a
			X	87-B40-281-010	LBL,BAR-CODE A 35X8	a
			X	8C-NFR-232-010	SH,SHLD HP CU W/ADH	a
						b
			X	87-056-168-010	SH,CAUTION INF-WARR (EC)	a
			X	8C-NFR-973-010	LBL,POP EZ	a
			X	87-B40-057-010	BAG, PP 0.03-150-200	a
						.

## OTHER PARTS LIST -2/2 <TAPE MECHANISM 2ZM-3MK2>

! =△SAFTY PARTS  
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UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
	X		82-ZM3-987-010	BAG, PV 0.04-300-210	2ZM-3MK2 YPR9NC a

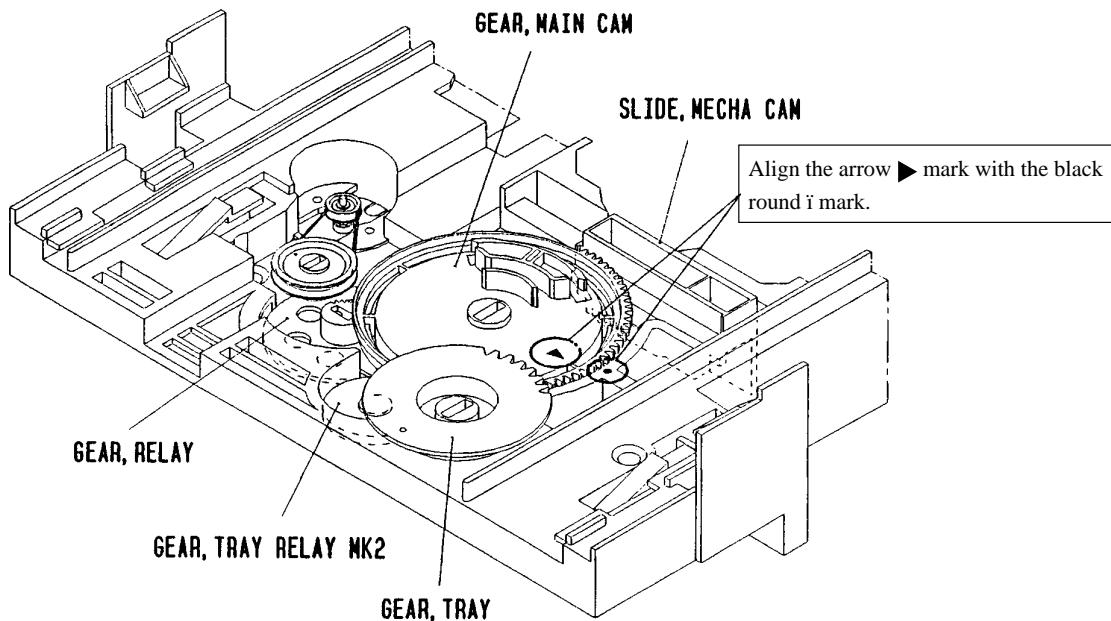
## CD MECHANISM SECTION

### CD MECHANISM SECTION

#### How to Adjust the Rotating Phase of the Gear, Main Cam

- 1) Push down the hooking catch of the CHAS. MECH, and remove the TRAY.
- 2) Align the arrow mark of the Gear, Main Cam with the black round mark of the CHAS. MECHA as shown below.
- 3) Confirm that the Slide, Mech Cam is located in the right position, then insert the TRAY gently.

**Caution:** If the rotating phase of the Gear, Main Cam is incorrectly adjusted, the chucking operation and tray movement will have malfunction.



# ELECTRICAL PARTS LIST -1/3

! = SAFETY PARTS  
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UNIT-NAME	I	C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
					CZA-1	ZD4ND2
3CD	O	C	1	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	101	87-A10-504-080	C-CAP,U 0.047-16 K B	a
3CD	O	C	102	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	103	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a
3CD	O	C	104	87-012-282-080	C-CAP,U 4700P-50 K B GRM	a
3CD	O	C	105	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	106	87-010-263-080	CAP,E 100-10 M 11L SME	a
3CD	O	C	107	87-010-263-080	CAP,E 100-10 M 11L SME	a
3CD	O	C	108	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	109	87-010-263-080	CAP,E 100-10 M 11L SME	a
					CZA-1	ZD4ND2
3CD	O	C	110	87-010-405-080	CAP,E 10-50 M 11L SME	a
3CD	O	C	111	87-010-401-080	CAP,E 1-50 M 11L SME	a
3CD	O	C	114	87-012-188-080	C-CAP,U 47P-50 J CH GRM	a
3CD	O	C	115	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	116	87-010-263-080	CAP,E 100-10 M 11L SME	a
3CD	O	C	117	87-010-263-080	CAP,E 100-10 M 11L SME	a
3CD	O	C	118	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	121	87-010-263-080	CAP,E 100-10 M 11L SME	a
3CD	O	C	122	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	123	87-012-169-080	C-CAP,U 7P-50 D CH	a
					CZA-1	ZD4ND2
3CD	O	C	124	87-012-172-080	C-CAP,U 10P-50 D CH	a
3CD	O	C	125	87-016-083-080	C-CAP,S 0.15-16 K R	a
3CD	O	C	126	87-010-263-080	CAP,E 100-10 M 11L SME	a
3CD	O	C	127	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	128	87-A10-504-080	C-CAP,U 0.047-16 K B	a
3CD	O	C	129	87-010-403-080	CAP,E 3.3-50 M 11L SME	a
3CD	O	C	130	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	131	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	132	87-010-263-080	CAP,E 100-10 M 11L SME	a
3CD	O	C	133	87-010-405-080	CAP,E 10-50 M 11L SME	a
					CZA-1	ZD4ND2
3CD	O	C	134	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	135	87-010-260-080	CAP,E 47-25 M 11L SME	a
3CD	O	C	136	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	137	87-A10-915-080	C-CAP,U 1000P-25 J CH	a
3CD	O	C	138	87-012-349-080	C-CAP,S 1000P-50 J CH GRM	a
3CD	O	C	2	87-010-263-080	CAP,E 100-10 M 11L SME	a
3CD	O	C	203	87-010-112-080	CAP,E 100-16 M 11L SME	a
3CD	O	C	204	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	205	87-010-263-080	CAP,E 100-10 M 11L SME	a
3CD	O	C	208	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
					CZA-1	ZD4ND2
3CD	O	C	212	87-010-405-080	CAP,E 10-50 M 11L SME	a
3CD	O	C	213	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	3	87-A10-915-080	C-CAP,U 1000P-25 J CH	a
3CD	O	C	301	87-010-382-080	CAP,E 22-25 M 11L SME	a
3CD	O	C	302	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	303	87-010-260-080	CAP,E 47-25 M 11L SME	a
3CD	O	C	304	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
3CD	O	C	305	87-012-274-080	C-CAP,U 1000P-50 K B GRM	X a
3CD	O	C	306	87-A11-567-080	C-CAP,S 0.01-50 K B	a
3CD	O	C	4	87-010-759-080	C-CAP,U 0.1-25 Z F CM/CB	a
					CZA-1	ZD4ND2
3CD	O	C	401	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a
3CD	O	C	402	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a
3CD	O	C	403	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a
3CD	O	C	404	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a
3CD	O	C	405	87-012-195-080	C-CAP,U 100P-50 J CH GRM	a
3CD	O	C	5	87-010-263-080	CAP,E 100-10 M 11L SME	a
3CD	O	C	6	87-010-405-080	CAP,E 10-50 M 11L SME	a
3CD	O	CN	1	87-A60-429-010	CONN,16P H TOC-A	a
3CD	O	CN	201	84-ZG1-648-010	CONN ASSY,6P	a
3CD	O	CN	202	87-A60-130-010	CONN,5P V FE	a
					CZA-1	ZD4ND2
3CD	O	CN	301	87-A60-154-010	CONN,6P H FE	a
3CD	O	CN	401	87-099-201-010	CONN,8P H BLK 6216	a
3CD	S	D	101	87-A40-743-080	ZENER,UZ4..3BSA	a
3CD	S	D	102	87-020-465-080	DIODE,1SS133	a
3CD	S	D	301	87-A40-753-080	ZENER,UZ6..8BSB	a
3CD	S	D	302	87-A40-313-080	C-DIODE,MC2840	a
3CD	S	IC	101	87-A21-821-130	C-IC,LC78645NE	a
3CD	S	IC	201	87-A21-822-010	IC,LA6568	a
3CD	O	L	101	87-005-469-080	COIL,4.7UH J FLR50	a
3CD	S	Q	1	87-026-609-080	TR,KTA1266GR	a
					CZA-1	ZD4ND2
3CD	S	Q	101	87-026-610-080	TR,KTC3198GR	a
3CD	S	Q	301	87-A30-076-080	C-TR,2SC3052F	a
3CD	S	Q	302	87-A30-515-080	TR,2SA19790/Y	a
3CD	S	Q	303	87-A30-515-080	TR,2SA19790/Y	a
3CD	S	Q	304	87-A30-515-080	TR,2SA19790/Y	a
3CD	S	Q	305	87-A30-515-080	TR,2SA19790/Y	a
3CD	S	Q	306	87-A30-515-080	TR,2SA19790/Y	a
3CD	S	Q	307	87-A30-075-080	C-TR,2SA1235F	a
3CD	O	R	104	87-012-286-080	C-CAP,U 0.01-25 K B GRM	a
3CD	O	R	106	87-012-274-080	C-CAP,U 1000P-50 K B GRM	a

## ELECTRICAL PARTS LIST -2/3

! = SAFETY PARTS  
C = Components marked

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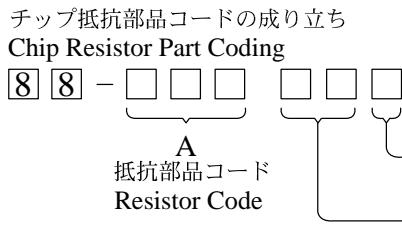
UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
					CZA-1 ZD4ND2
3CD	O	SW 401	87-036-109-010	SW,MICRO SPPB61	a
3CD	O	SW 402	87-036-109-010	SW,MICRO SPPB61	a
3CD	O X	101	87-A70-318-010	VIB,XTAL 33.8688MHZ CSA-309	a
T.T	O C	401	87-A11-148-080	CAP,TC U 0.1-50 Z F	a
T.T	O	CON401	86-NFZ-675-010	CONN,5P H 6216-11H	a
T.T	O M	401	87-045-364-010	MOT,BCH3B	a
T.T	O PS	401	87-A90-156-010	SNSR,SG-240	a
T.T	X R	408	88-121-561-080	RES,560-1/8W J	a
T.T	X R	409	88-121-273-080	RES,27K-1/8W J	a
MOTOR	O M	2	9X-262-513-210	2M SLED MOTOR	a
MOTOR	O PIN3		91-564-722-110	1C CONNECTOR 6P	a
MOTOR	O SW	1	91-572-085-110	1B LEAF SW	a

## ELECTRICAL PARTS LIST-3/3

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.

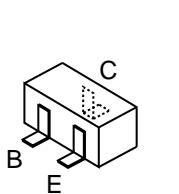
### ○チップ抵抗部品コード／CHIP RESISTOR PART CODE



### チップ抵抗 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 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

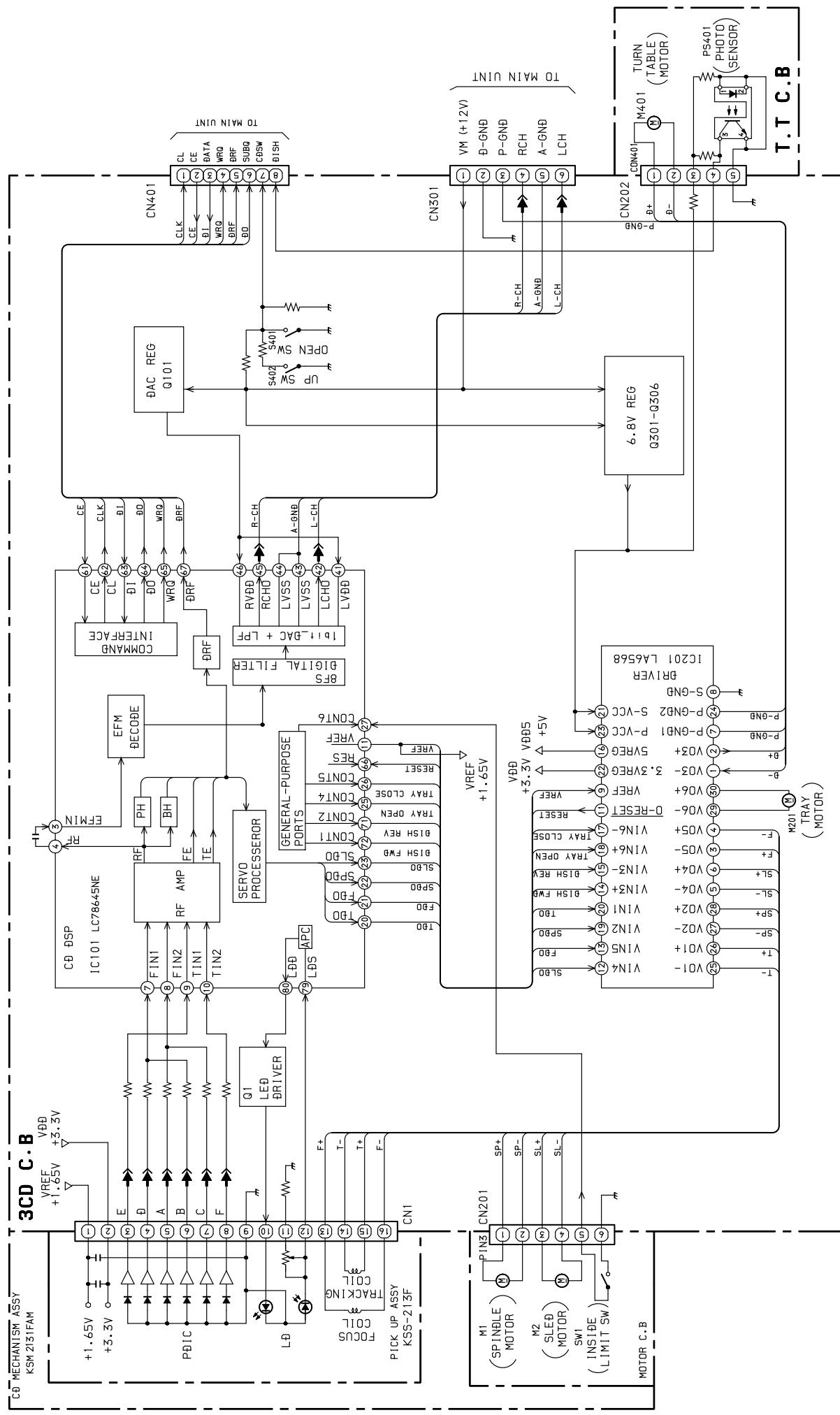


2SC3052  
2SA1235



KTA1266  
KTC3198  
2SA19790

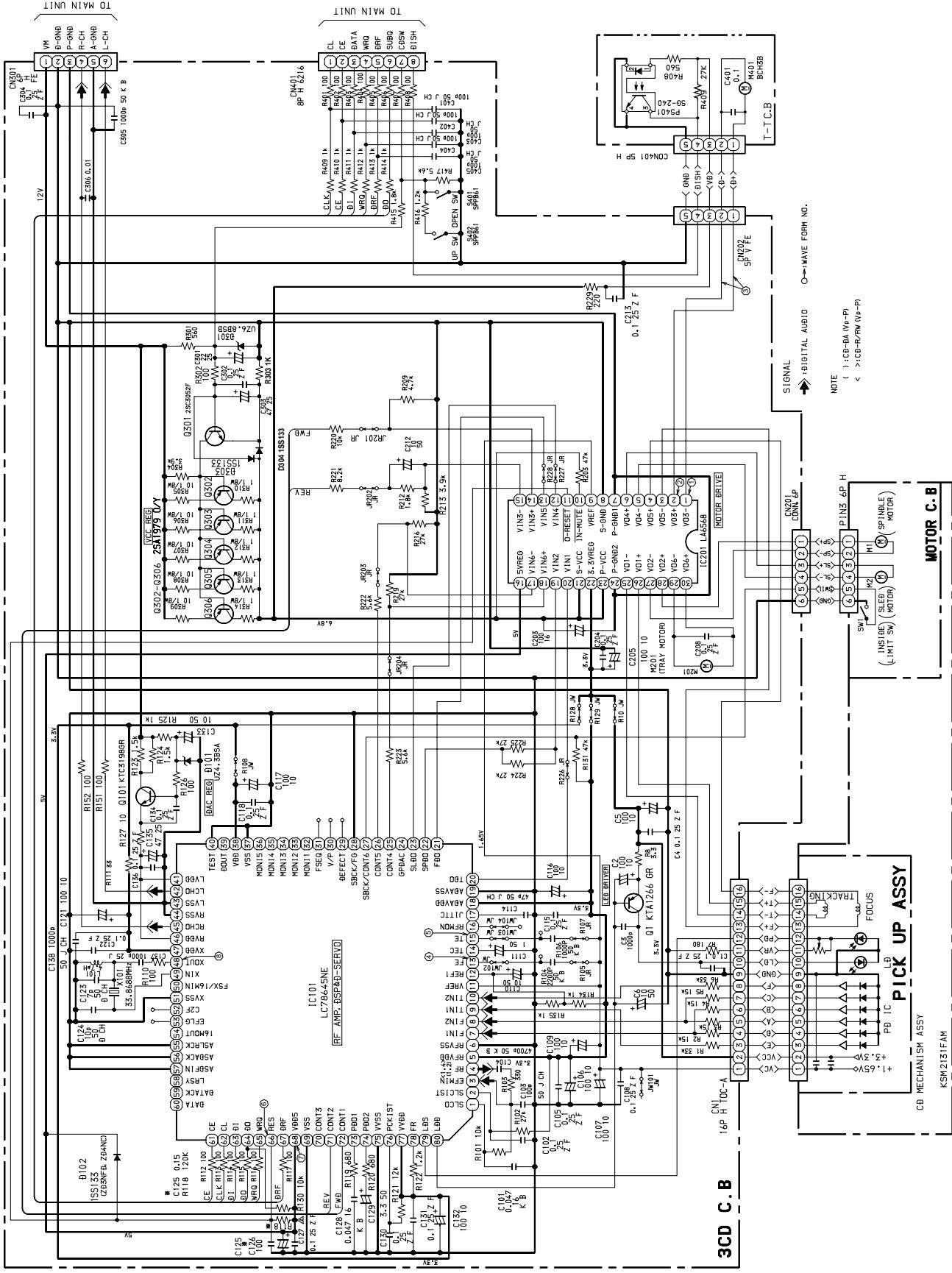
BLOCK DIAGRAM-1/1



SIGNAL → : DIGIT | AUDIO



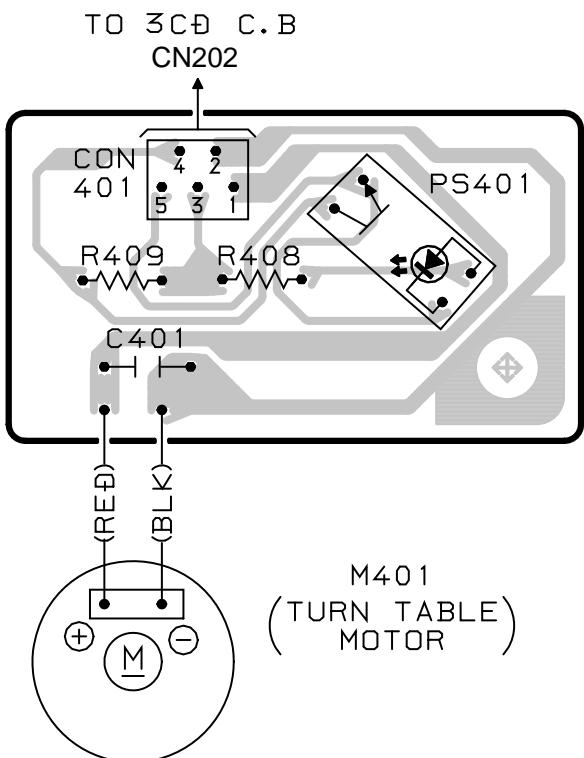
SCHEMATIC DIAGRAM-1/1



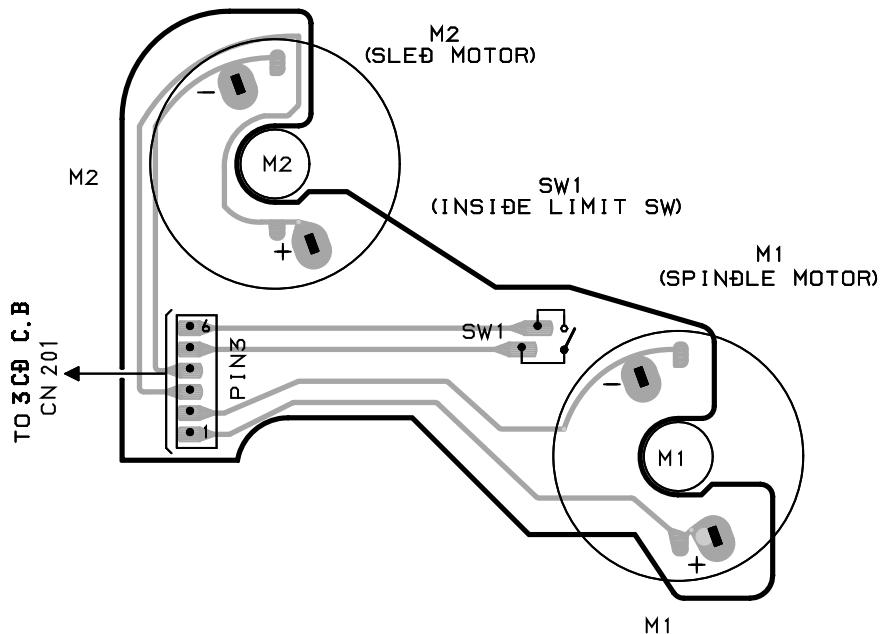
WIRING-2/2 (T.T/MOTOR)

15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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T - T C. B



MOTOR C. B



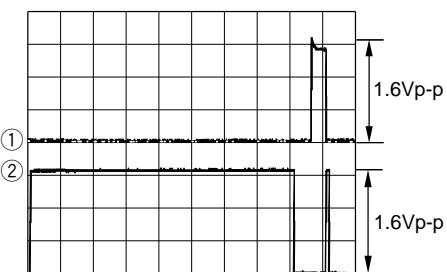
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U

## WAVE FORM

① IC201 ① (Vo3-)

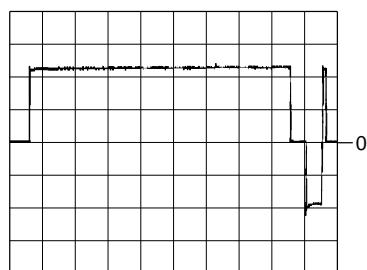
VOLT/DIV: 500mV  
TIME/DIV: 200mS

② IC201 ② (Vo3+)



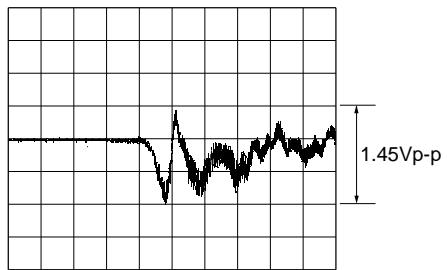
③ Between CN202 ① and ②  
(② Pin: 0 Level)

VOLT/DIV: 1V  
TIME/DIV: 200mS



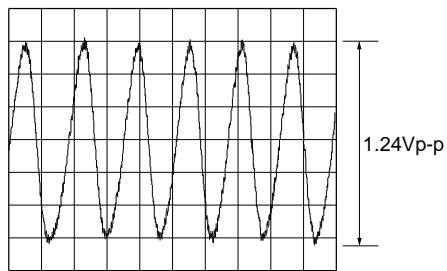
④ IC101 ⑬ (FE)

VOLT/DIV: 500mV  
TIME/DIV: 5mS



⑤ IC101 ⑯ (TE)

VOLT/DIV: 200mV  
TIME/DIV: 200μS

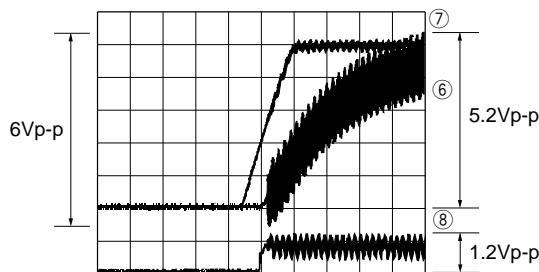


⑥ IC101 ⑯ (RES)

VOLT/DIV: 1V  
TIME/DIV: 10mS

⑦ IC101 ⑯ (VDD5)

⑧ IC101 ⑯ (XOUT)



⑥ IC101 ⑯ (RES)

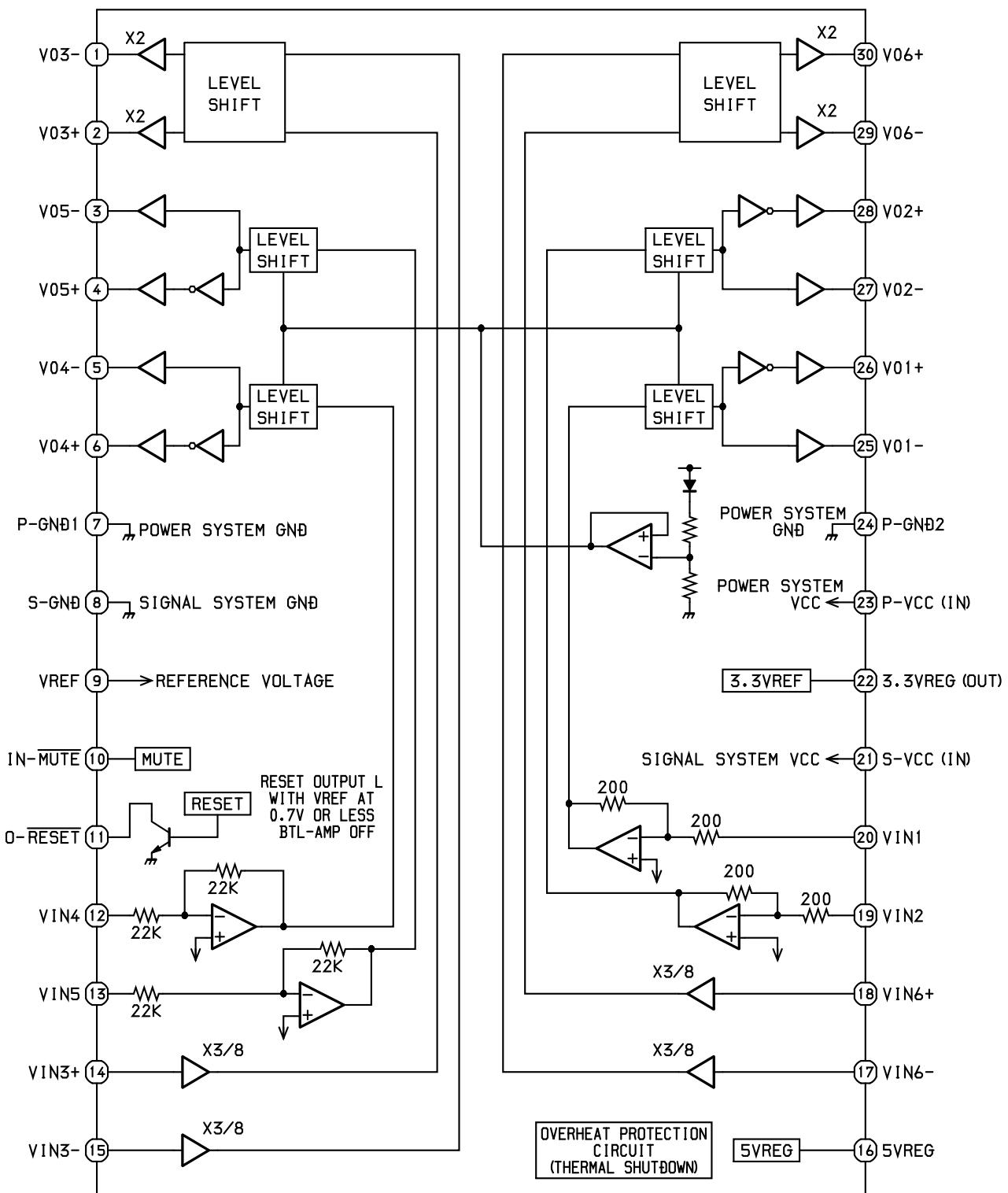
VOLT/DIV: 1V  
TIME/DIV: 10mS

⑦ IC101 ⑯ (VDD5)

⑧ IC101 ⑯ (XOUT)



IC BLOCK DIAGRAM  
IC, LA6568



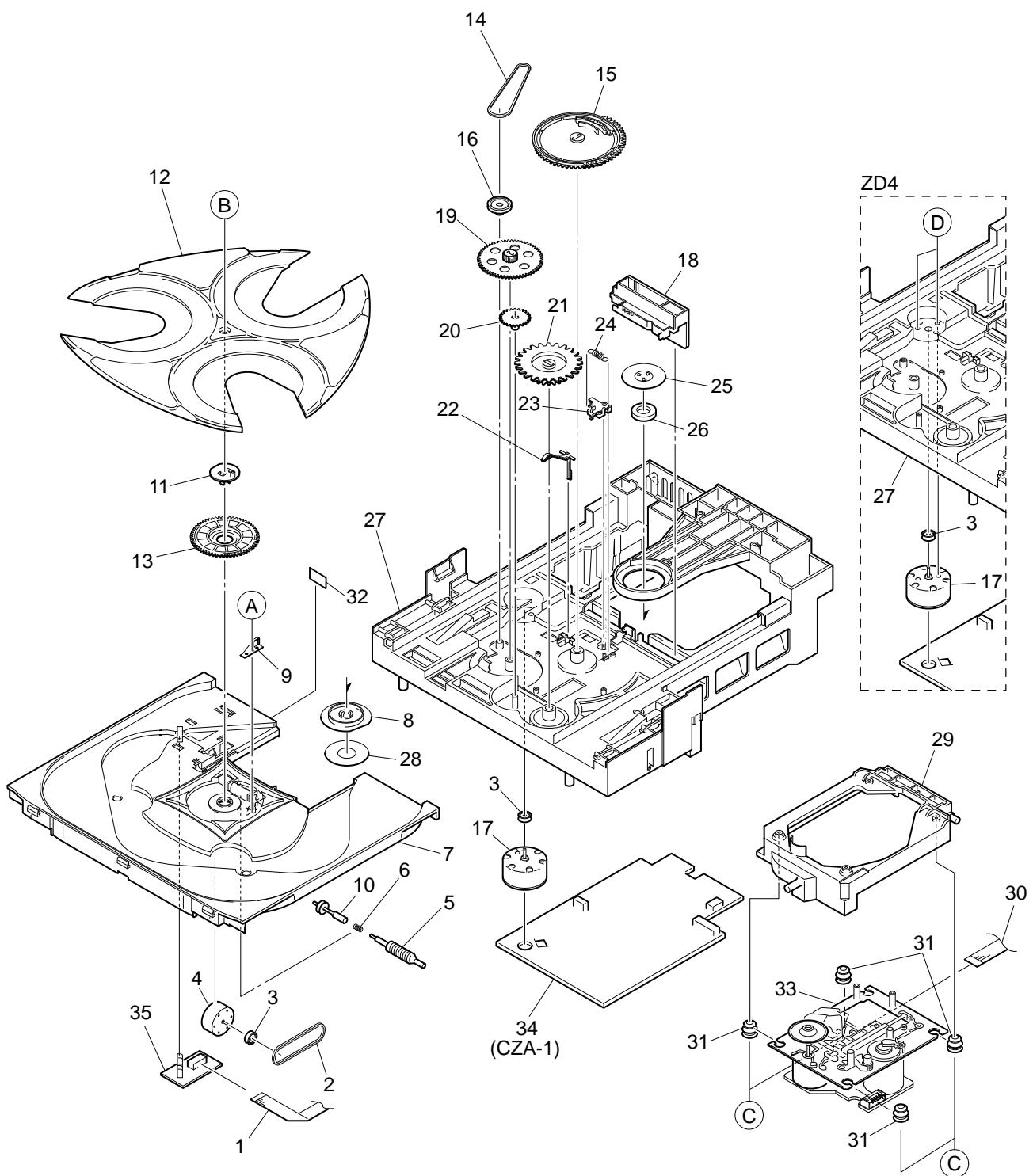
## IC DESCRIPTION (LC78645)-1/2

Pin No.	Pin Name	I/O	Description	
1	SLCO	O	Slice level control	Control output.
2	SLCIST	I		SLCO output current adjustment resistor connection pin.
3	EFMIN	I		RF signal input pin.
4	RF	O	RF monitor pin.	
5	RFVDD	—	RF power supply pin.	
6	RFVSS	—	RF ground pin.	
7	FIN1	I	A+C signal input pin.	
8	FIN2	I	B+D signal input pin.	
9	TIN1	I	E signal input pin.	
10	TIN2	I	F signal input pin.	
11	VREF	O	VREF voltage output pin.	
12	REFI	I	Reference voltage output setting pin.	
13	EF	O	FE signal monitor pin.	
14	TEC	O	TE signal LPF capacitor connection pin.	
15	TE	O	TE signal monitor pin.	
16	RFMON	O	RF internal signal monitor pin.	
17	JITTC	O	Jitter detection capacitor connection pin.	
18	ADAVDD	—	Servo A/D, D/A supply pin.	
19	ADAVSS	—	Servo A/D, D/A ground pin.	
20	TDO	O	Tracking control output pin. D/A output.	
21	FDO	O	Focus control output pin. D/A output.	
22	SPDO	O	Spindle control output pin. D/A output.	
23	SLDO	O	Thread control output pin. D/A output.	
24	GPDAC	O	Servo D/A general-purpose output pin. (Not connected)	
25, 26	CONT4, 5	I/O	General-purpose input/output pin 4, 5.	
27	SBCK/CONT6	I/O	General-purpose input/output pin 6, or subcode read clock input pin.	
28	SBCK/FG	I	Subcode read clock input pin/FG signal input pin/external emphasis setting pin. Set to command -pin function.	
29	DEFECT	O	Defect pin.	
30	V/P	O	Rouge servo/phase control automatic switching monitor output pin. “H” for rough servo and “L” for phase servo.	
31	FSEQ	O	Synchronization signal detection output pin. Outputs a high level when the synchronization signal detected from the EFM signal and the internally generated synchronization signal agree.	
32, 36	MONI1, 5	O	Internal signal monitor pin 1, 5. (Not connected)	
37	VSS	—	Digital ground pin.	
38	VDD	—	Digital power supply pin.	
39	DOUT	O	Digital OUT output pin.	
40	TEST	I	Test input pin.	
41	LVDD	—	L channel D/A converter	Lchannel power supply pin.
42	LCHO	O		L channel output pin.

## IC DESCRIPTION (LC78645)-2/2

Pin No.	Pin Name	I/O	Description	
43	LVSS	—	L channel D/A converter	
44	RVSS	—	R channel D/A converter	R channel ground pin.
45	RCHO	O		R channel output pin.
46	RVDD	—		R channel power supply pin.
47	XVDD	—		Crystal oscillator power supply pin.
48	XOUT	O	Crystal oscillator	Connection for a 33.8688MHz crystal oscillator pin.
49	XIN	I		
50	FSX/16MIN	I/O	7.35kHz synchronization signal output pin. DF, DAC external clock input pin. (Not connected)	
51	XVSS	—	Crystal oscillator	Crystal oscillator ground pin.
				Must be connected to 0V.
52	C2F	O	C2 flag output pin.	
53	EFLG	O	C1, C2 error correction monitor pin.	
54	16MOUT	O	16.9344MHz output pin. (Not connected)	
55	ASLRCK	I	Antishock mode	L/R clock input pin.
56	ASDACK	I		Bit clock input pin.
57	ASDFIN	I		L/R channel data input pin.
58	LRSY	O	Digital data output	L/R clock output pin. (Not connected)
59	DATAACK	O		Bit clock output pin. (Not connected)
60	DATA	O		L/R channel data output pin. (Not connected)
61	CE	I	Microprocessor interface	Chip enable signal input pin.
62	CL	I		Data transfer clock input pin.
63	DI	I		Data input pin.
64	DO	O		Data output pin. (Nch open drain output)
65	WRQ	O		Interrupt signal output pin.
66	RES	I	Reset input pin. This pin must be set low briefly after power is first applied.	
67	DRF	O	Focus ON detect pin.	
68	VDD5	—	Microprocessor interface power supply pin.	
69	VSS	—	Digital ground pin.	
70	CONT3	I/O	General-purpose output pin 3. (Not connected)	
71, 72	CONT2, 1	I/O	General-purpose output pin 2, 1.	
73, 74	PD01, 2	O	PLL	Phase comparison output pin 1, 2 to control built-in VCO.
75	VVSS	—		Built-in VCO GND pin.
76	PCKIST	I		Resistor connection pin to set current for PD01 and 02 outputs.
77	VVDD	—		Built-in VCO power supply pin.
78	FR	I		Resistor connection pin to set the frequency range of built-in VCO.
79	LDS	I	Laser power detection signal input pin.	
80	LDL	O	Laser power control signal output pin.	

CD MECHANISM EXPLODED VIEW <BZG-5>



# CD MECHANISM PARTS LIST -1/2

! =  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.

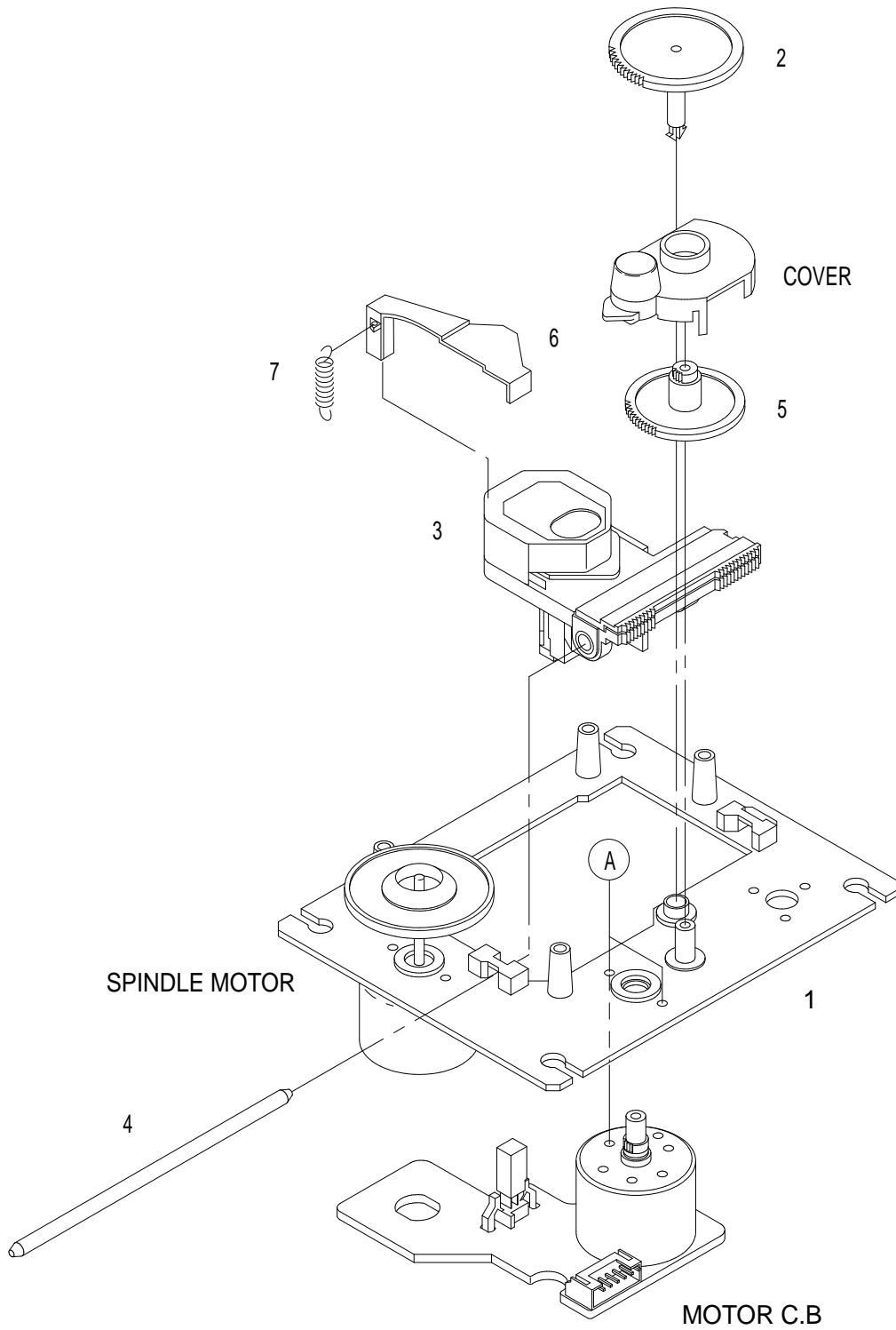
UNIT-NAME	! C	REF-NO	PARTS-NO	PARTS-NAME	SUFFIX&MODEL
					BZG-5 ZD4GNDC2
O	SC1001	84-ZG1-672-010	F-CABLE,5P 1.25	210MM WHITE N	a
O	SC1002	84-ZG1-225-010	BELT, SQ1.0-63.3		a
O	SC1003	84-ZG1-267-010	PULLEY, LOAD MO	8	a
O	SC1004	87-045-364-010	MOT, BCH3B		a
O	SC1005	84-ZG1-238-010	GEAR, WORM N		a
O	SC1006	84-ZG1-248-010	SFR-C, WORM		a
O	SC1007	8B-ZG9-001-010	TRAY, GRA		a
O	SC1008	84-ZG1-291-210	HLDR, MAGNET 4 NAT		a
O	SC1009	84-ZG1-259-010	SFR-P, WORM		a
O	SC1010	84-ZG1-273-010	PULLEY, WORM 4		a
O	SC1011	84-ZG1-288-010	LEVER, TT NUT		a
O	SC1012	8B-ZG5-001-010	TURN TABLE, GRA		a
O	SC1013	84-ZG1-269-010	GEAR, MAIN TT	4	a
O	SC1014	84-ZG1-209-010	BELT, SQ1.8-117.7		a
O	SC1015	84-ZG1-203-410	GEAR, MAIN CAM		a
O	SC1016	84-ZG1-271-010	PULLEY, RELAY 8		a
O	SC1017	87-045-383-010	MOT, M91 T2		a
O	SC1018	84-ZG1-204-310	SLIDE, MECHA CAM		a
O	SC1019	84-ZG1-206-110	GEAR RELAY		a
O	SC1020	81-ZG1-250-110	GEAR, TRAY RELAY MK2*		
					BZG-5 ZD4GNDC2
O	SC1021	84-ZG1-205-210	GEAR, TRAY (*)		a
O	SC1022	83-ZG3-213-010	LVR, SW		a
O	SC1023	84-ZG1-208-210	LEVER, CAM		a
O	SC1024	84-ZG1-211-010	SFR-E, CAM S		a
O	SC1025	84-ZG1-255-110	PLATE, MAGNET MK2		a
O	SC1026	83-ZG3-604-010	RING, MAG 2		a
O	SC1027	84-ZG1-292-010	CHAS, MECHA N NAT		a
O	SC1028	8A-ZG1-214-110	SH, 25-40-0.5 PC		a
O	SC1029	84-ZG1-287-010	HLDR, MECHA NAT		a
O	SC1030	85-NFT-611-110	FF-CABLE 16P-1.0		a
O	SC1031	80-CD3-214-010	CUSH CD A		a
X	SC1032	84-ZG1-242-010	CUSH-G 8-6-1		a
X	SC1033	M8-1ZK-19A-170	KSM-2131FAM		a
X	SC1034	A8-CZA-197-070	CZA-1 ZD4GNDC2		a
X	SC1035	84-ZG1-665-010	PWB, T-T		a
O	SC1A	87-067-981-010	BVT2+3-6 BLK		a
O	SC1B	87-B10-331-010	VE+3-6 BLK		a
O	SC1C	81-ZG1-271-010	S-SCREW, MECH REAR		a
O	SC1D	87-251-070-410	U+2.6-3		

## COLOR NAME TABLE

COLOR NAME TABLE

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

CD MECHANISM EXPLODED VIEW <KSM-2131FAM>



## CD MECHANISM PARTS LIST <KSM-2131FAM>

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	9X-264-629-220		MOTOR CHASSIS ASSY(MB) (FR)
2	92-626-907-010		GEAR(A) (S)
3	87-A90-836-010		OPTICAL PICK UP KSS-213F
4	92-626-908-020		SHAFT SLED
5	92-627-003-010		GEAR(B)
6	92-646-697-020		LENS SHUTTER(F)
7	92-646-702-010		SPRIG EXTENSION
A	97-621-255-150		SCREW+P2-3



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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