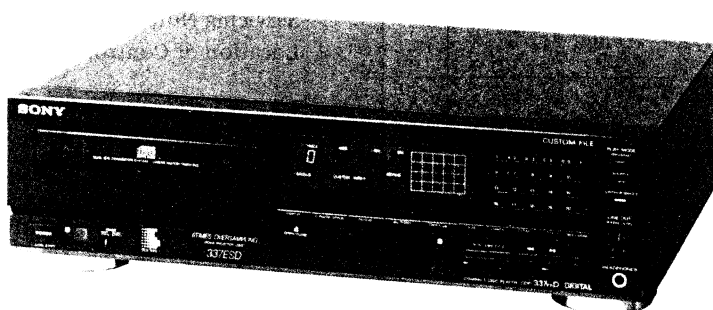


CDP-337ESD

SERVICE MANUAL

*AEP Model
UK Model*



SPECIFICATIONS

Compact disc player

System	Compact disc digital audio system
Laser	Semiconductor laser ($\lambda = 780 \text{ nm}$)
Emission duration	Continuous
Laser output	less than $44.6 \mu\text{W}$ * This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.
Frequency response	2 Hz – 20 kHz $\pm 0.5 \text{ dB}$
Signal to noise ratio	More than 110 dB
Dynamic range	More than 98 dB
Harmonic distortion	Less than 0.0025%
Wow and flutter	Below measurable limit
Channel separation	More than 100 dB

DIGITAL OUT (COAXIAL) (phono jacks)	Output level 0.5 Vp-p (at 75 ohms) Load impedance 75 ohms
DIGITAL OUT (OPTICAL) (optical output connector)	Wave length 660 nm Output level -18 dBm
HEADPHONES (stereo phone jack)	Output level max. 28 mW Load impedance 32 ohms

General

Power requirements	AEP model 220 V AC (or 240 V AC adjustable by Sony personnel), 50/60 Hz UK model 240 V AC (or 220 V AC adjustable by Sony personnel), 50 Hz
Power consumption	27 W
Dimensions (approx.)	430 × 125 × 375 mm (w/h/d) (17 $\frac{1}{8}$ × 5 × 14 $\frac{5}{8}$ inches) including projecting parts and controls

Outputs

LINE OUT (FIXED) (phono jacks)	Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms Output impedance 200 ohms
LINE OUT (VARIABLE) (phono jacks)	Output level max. 2 V (at 50 kilohms) Load impedance over 50 kilohms Output impedance 200 ohms – 2.7 kilohms

— Continued on page 2 —



COMPACT DISC PLAYER
SONY®

SERVICING NOTES

Weight (approx.)	11.5 kg (25 lbs 6 oz)
------------------	--------------------------

Supplied accessories

Audio signal connecting cord	1 (2 phono plugs—2 phono plugs)
Remote commander	1
Sony SUM-3 (NS) batteries	2
Screw driver	1

Remote commander

Remote control system	Infrared control
Power requirements	3V DC with two R6 (size AA) batteries
Dimensions	Approx. 62 × 20 × 168.5 mm (w/h/d) (2½ × 1¼ × 6¾ inches)
Weight	Approx. 130 g (5 oz) including batteries

Note

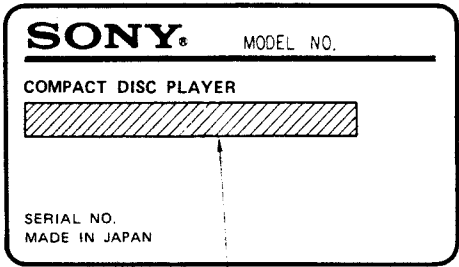
This appliance conforms with EEC Directives 76/889 and 82/499 regarding interference suppression.

TABLE OF CONTENTS

Section	Title	Page
	Specifications	1
	Servicing Notes	3
	Location of Controls	6
1.	ELECTRICAL ADJUSTMENTS	8
2.	DIAGRAMS	
2-1.	BU-10 (Base Unit) Section Mounting Diagram	11
2-2.	Main Section Mounting Diagram	14
2-3.	Main Section Schematic Diagram	19
2-4.	Display Section Mounting Diagram	24
2-5.	Display Section Schematic Diagram	27
3.	EXPLODED VIEWS AND PARTS LIST	29
4.	ELECTRICAL PARTS LIST	35

MODEL IDENTIFICATION

— Specification Labels —



AEP model: AC: 220 V ~ 50/60 Hz 27 W
UK model: AC: 240 V ~ 50/60 Hz 27 W

Caution

S-RAM (IC803) on the display board memories data of the custom files. Therefore, take care to pull out the connector between the display board and the main board when removing the front panel. If it is pulled out, all data will be erased.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS

WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

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

CAUTION

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

1. Laser Diode Properties

- Material: GaAlAs
- Wavelength: 780 nm
- Emission Duration: continuous
- Laser Output: max. 44.6 μ W*

* This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.

2. During service, do not take the Optical Pick-up Block apart, and do not adjust the APC circuit. If there is a breakdown in the APC circuit (including laser diode), replace the entire Optical Pick-up Block (including APC board).

BESKYTTELSE AF ØJNE MOD LASERSTRÅLING UNDER SERVICE

I dette apparat anvendes laserlys. Derfor skal nedenstående instruktioner nøje følges under service.

Følg iøvrigt instruktionerne i servicemanualen.

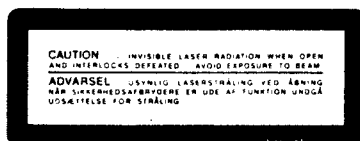
ADVARSEL!!

Under service må øjnene ikke komme nær objektiv-linsen på den optiske pick-up enhed. I tilfælde af at det er nødvendigt at kontrollere udsendelsen af laserlys, skal det ske i en afstand af mere end 25 cm fra den optiske pick-up.

LASER ADVARSEL MÆRKNING

Følgende mærkning findes indvendig i apparatet:

1. Advarsel Mærkning



VAROITUS: Laite sisältää, laserdiodin, joka lähettää (näkömättöntä) silmille vaarallista lasersäteilyä.

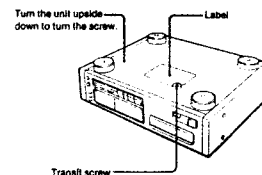
NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts. The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 25 cm away from the objective lens.

Note on the Transit Screw



Before operating the CD player, be sure to turn the transit screw as described on the label on the bottom of the unit.

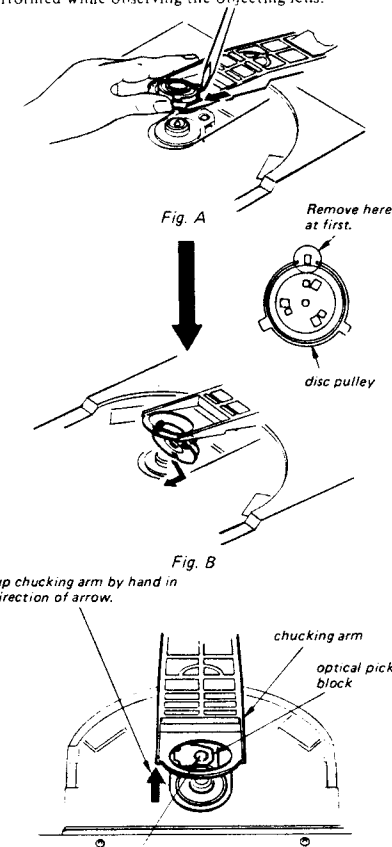
- 1 Remove the cap of the screw.
- 2 Turn the screw 180 degrees counterclockwise using the supplied screwdriver.

Do not turn the screw excessively, or the unit may be damaged.

When transporting the unit again, turn the transit screw in the reverse direction.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Remove disc pulley by lifting up chucking arm by hand. (Fig. A, B)
2. Make POWER switch on with no disc inserted and disc table closed.
3. Confirm that the operation indicated in Fig. C is performed while observing the objecting lens.

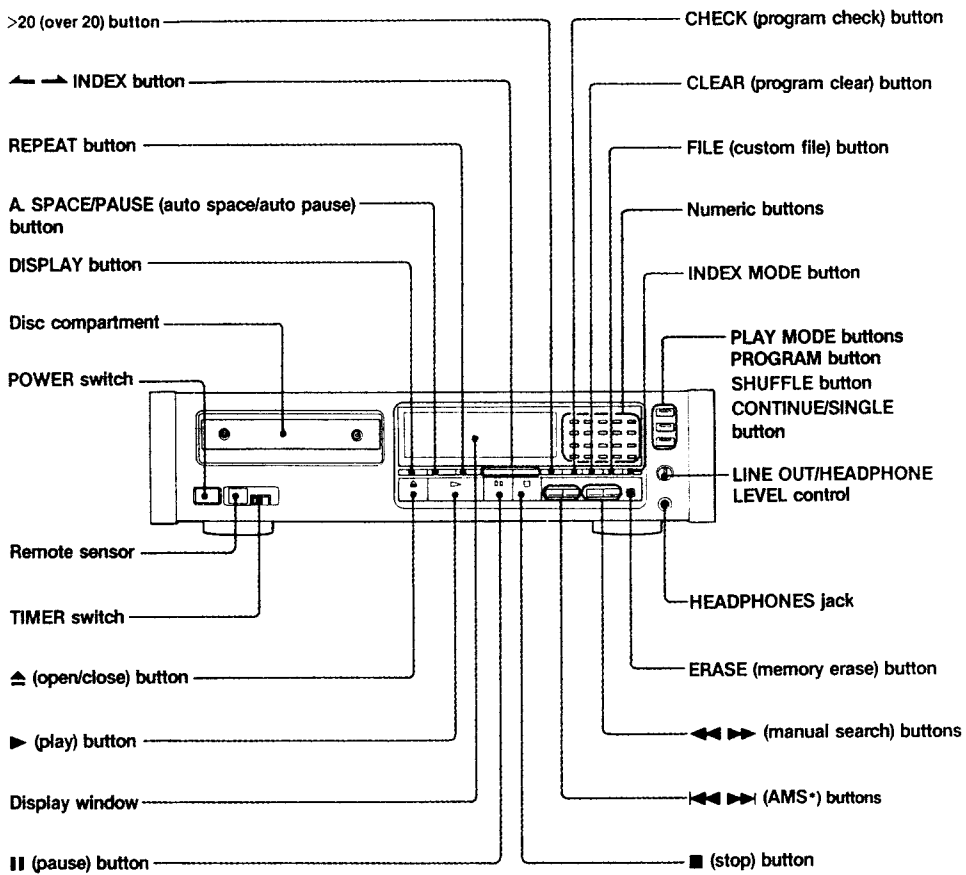


- 1 Confirm that laser beam is spread.
- 2 Up and down motion of the objective lens. (3 times)

Fig. C

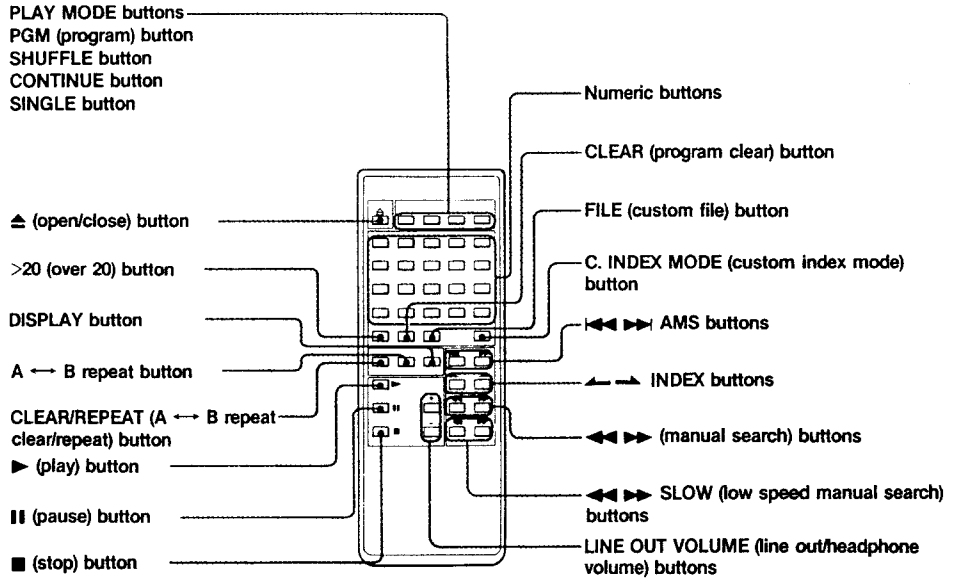
Location of Controls

Front Panel

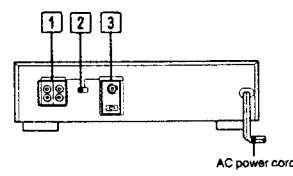


* AMS is an abbreviation of Automatic Music Sensor.

Remote Commander



Description on Rear Panel



- 1 LINE OUT (audio output) jacks**
FIXED: Output the signal at the fixed level.
VARIABLE: Output the signal at the level set by the LINE OUT/HEADPHONE LEVEL control (or LINE OUT VOLUME buttons on the remote commander).
- 2 DIGITAL OUT (digital audio output) jacks**
Output the digital audio signals.
COAXIAL: To be connected to a digital input jack of the amplifier or the D/A converter unit.
OPTICAL: To be connected to the amplifier having an optical input jack.
- 3 OUTPUT SELECTOR**
Selects the output connectors to be used.
DIGITAL OUT: Digital signal is output through the DIGITAL OUT jacks. No signal is output through the LINE OUT jacks or the HEADPHONES jack.
LINE OUT: Audio signal is output through the LINE OUT jacks or the HEADPHONES jack. No signal is output through the DIGITAL OUT jacks. (Be sure to set to this position when you listen to the music through the headphones or the LINE OUT jacks.)

Note: If the LINE OUT/HEADPHONE LEVEL control is turned while recording through the VARIABLE LINE OUT jacks, the level of the recorded sound will be different from that set by the recording level controls of the tape deck.

SECTION 1

ELECTRICAL ADJUSTMENTS

1. Perform adjustments in the order given.

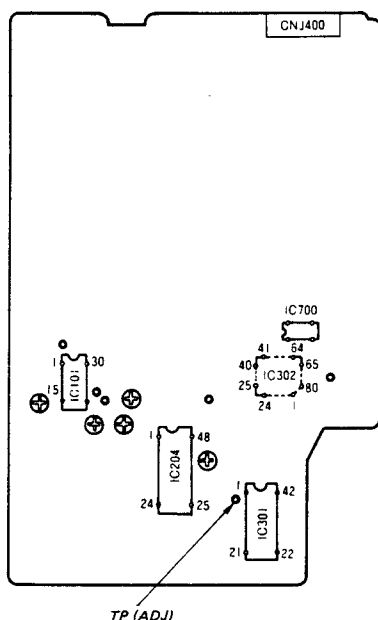
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10 M Ω impedance.

Adjustment Mode

1. Connect main board test point ADJ and ground.
(This is to prevent the disc table from opening even though pits are not read, by making micro-computer IC301 pin ⑧ low.)
2. Turn POWER switch on.
(To reset microcomputer.)

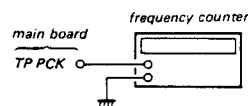
After adjustment, remove the lead wire connecting test point ADJ and ground.

Adjustment Location: main board



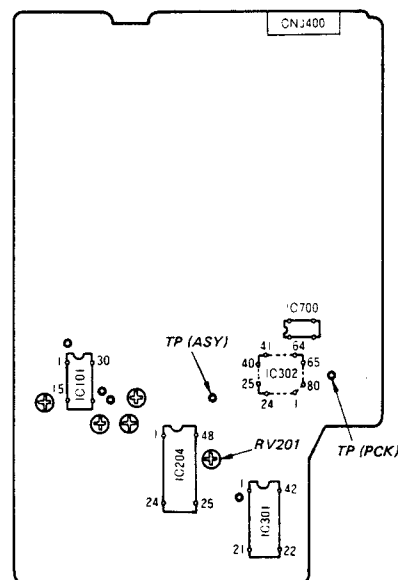
RF PLL Adjustment

Procedure:



1. Connect main board test point TP ASY and ground.
2. Connect the frequency counter to main board test point TP PCK.
3. Turn POWER switch ON (stop mode).
4. Adjust main board RV201 so that the reading on frequency counter is 4.3218 MHz $\pm$ 30 kHz.
5. Remove the lead wire connecting in step 1.
6. Put disc (YEDS-18) in and press $\triangleright$ PLAY button.
7. Confirm that reading on frequency counter is 4.3218 MHz.

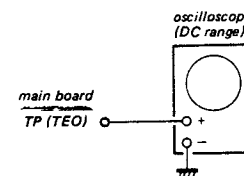
Adjustment Location: main board



E-F Balance Adjustment

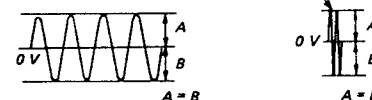
This adjustment should be made when replacing Optical Pick-up Block.

Procedure:

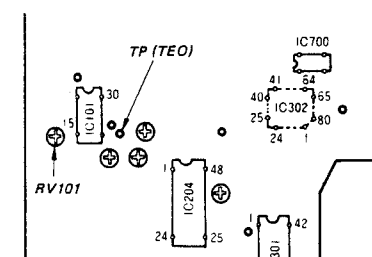


1. Connect oscilloscope to test point TP (TEO) and ground.
2. Put set into adjustment mode. (See page 8.)
3. Turn POWER switch on.
4. Put disc (YEDS-18) in and playback the 6th selection.
5. Adjust RV101 so that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0 V.
6. After adjustment, cancel the adjustment mode. (See page 8.)

Note: Take sweep time as long as possible to obtain best waveform.



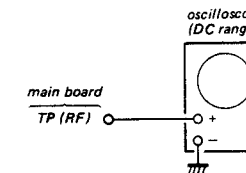
Adjustment Location: main board



Focus Bias Adjustment

This adjustment should be made when replacing Optical Pick-up Block.

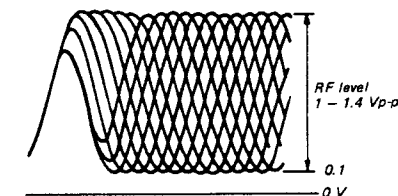
Procedure:



1. Connect oscilloscope to test point TP (RF) and ground.
2. Put set into adjustment mode. (See page 8.)
3. Turn POWER switch on.
4. Put disc (YEDS-18) in and playback the 6th selection.
5. Adjust RV102 for an optimum waveform eye pattern or so that the peak is maximum. Optimum eye pattern means that shape "◇" can be clearly distinguished at the center of the waveform.
6. After adjustment, cancel the adjustment mode. (See page 8.)

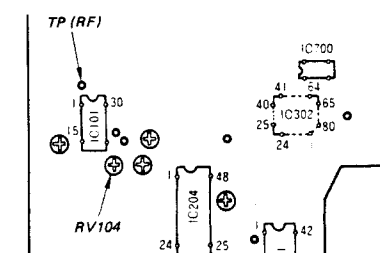
RF Signal Reference Waveform (eye pattern)

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

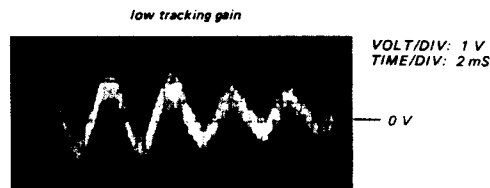
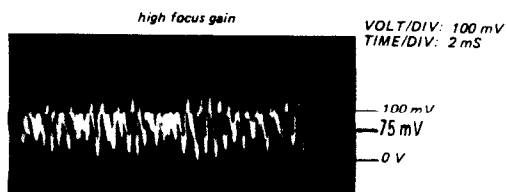
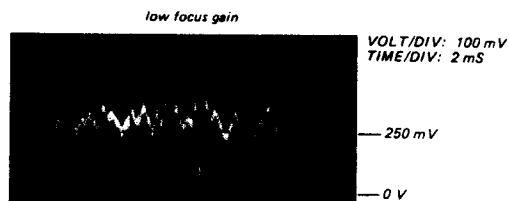
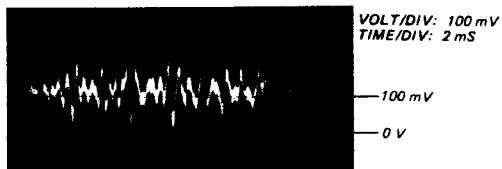
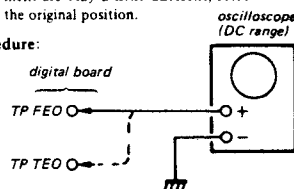


When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

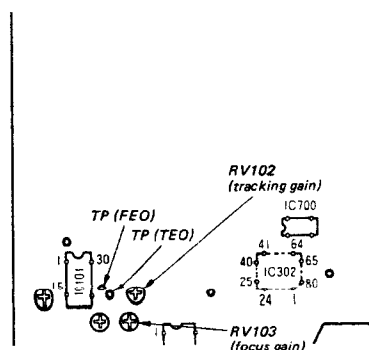
Adjustment Location: main board



Symptoms \ Gain	Focus	Tracking
• The time until music starts becomes longer for STOP → ▷PLAY or automatic selection (⏮ ⏭ buttons pressed.) (Normally takes about 1 seconds.)	low	low or high
• Music does not start and disc continues to rotate for STOP → ▷PLAY or automatic selection. (⏮ ⏭ buttons pressed.)	—	low
• Disc table opens shortly after STOP → ▷PLAY.	low or high	—
• Sound is interrupted during PLAY. Or time counter display stops progressing.	—	low
• More noise during 2-axis device operation.	high	high

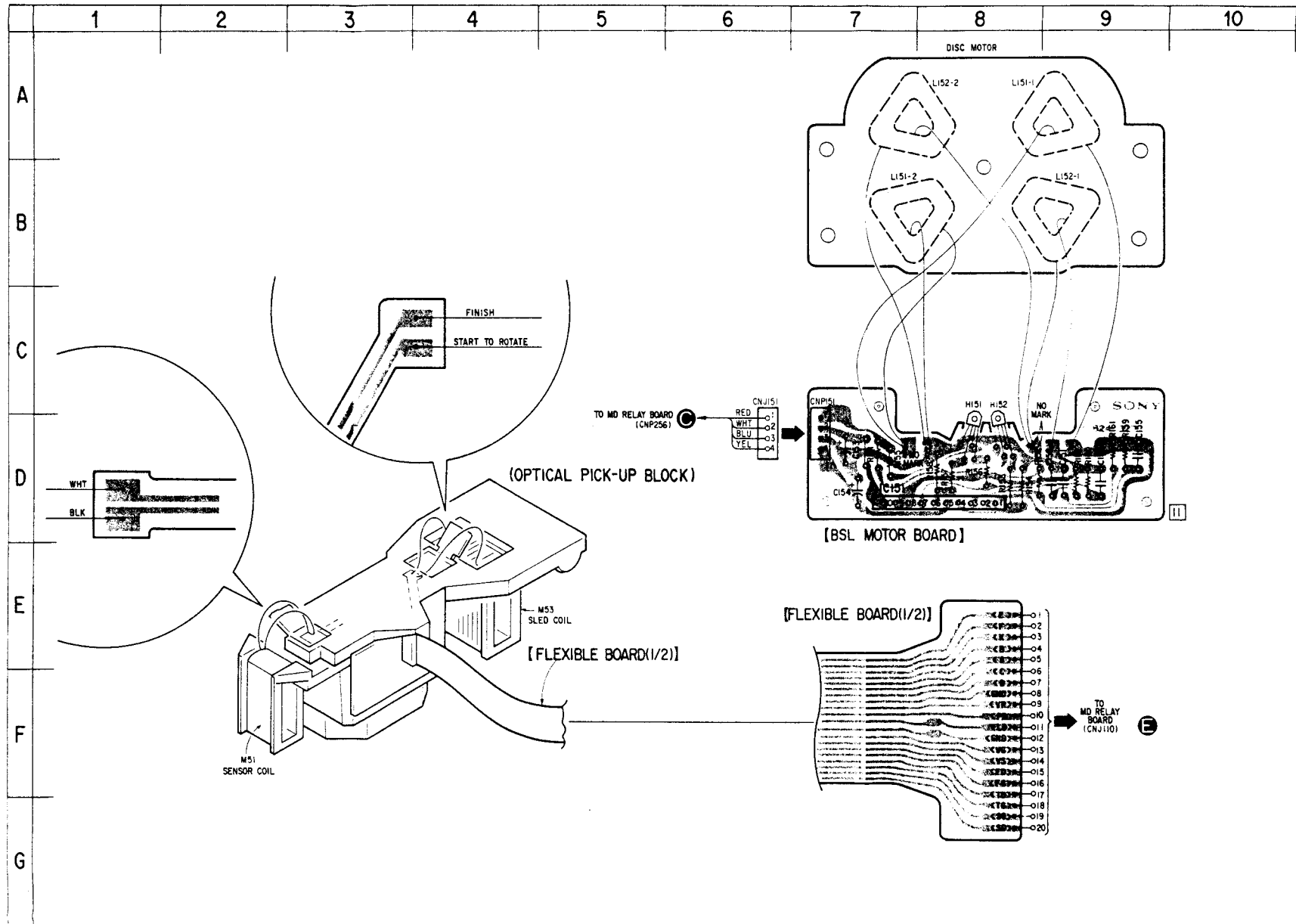


Adjustment Location: digital board



SECTION 2 DIAGRAMS

1. BU-10 (Base Unit) SECTION MOUNTING DIAGRAM

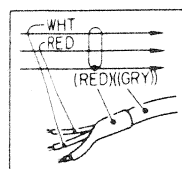


2-2. MAIN SECTION MOUNTING DIAGRAM

- See page 11 for BU-10 section.
- See page 24 for display section.
- See page 24 for semiconductor lead layouts.

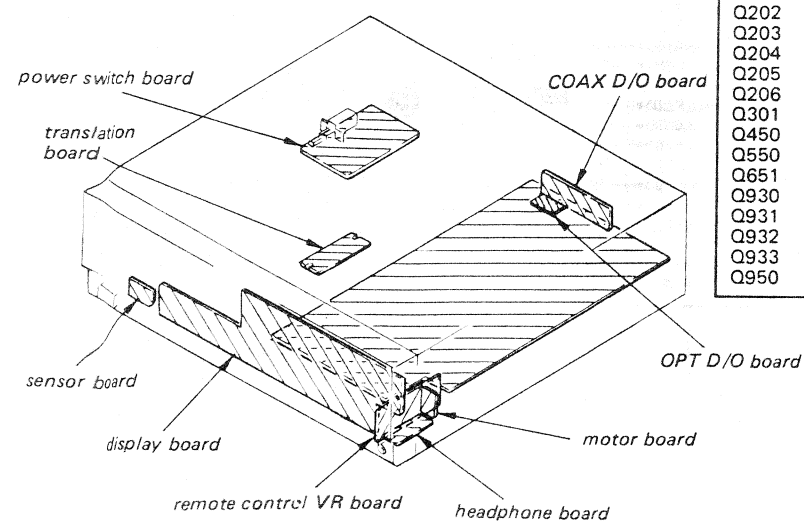
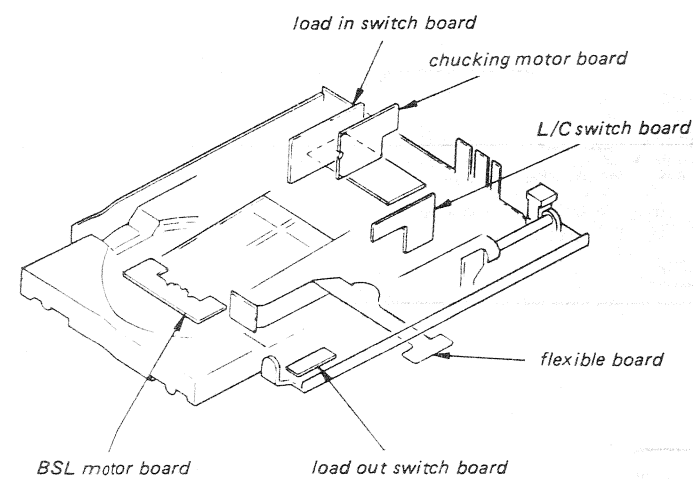
Note:

- Color code or sleeving over the end of the jacket.



- ○ — : parts extracted from the component side.
- ● — : parts extracted from the conductor side.

- **Circuit Boards Location**

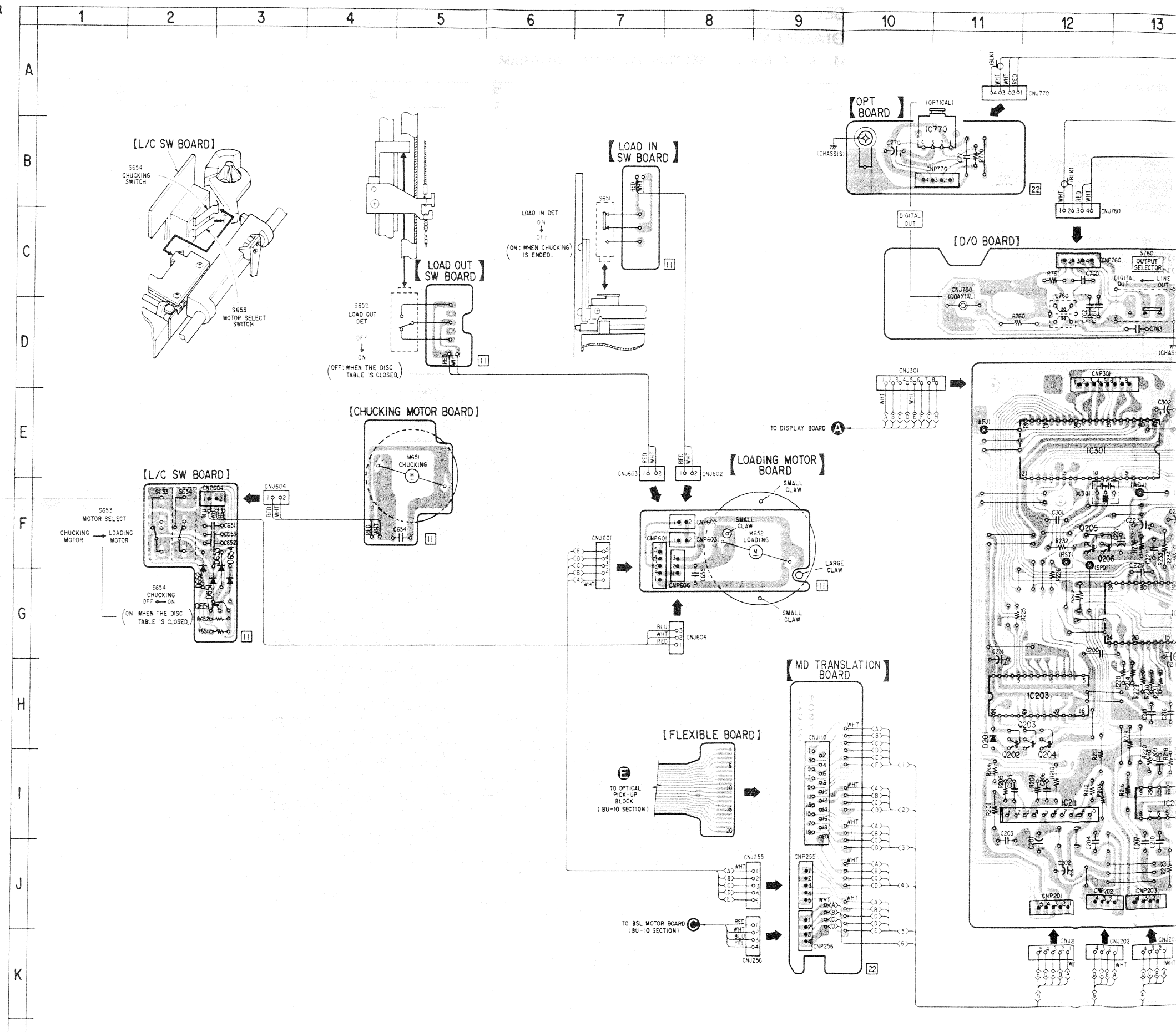


- SEMICONDUCTOR LOCATION

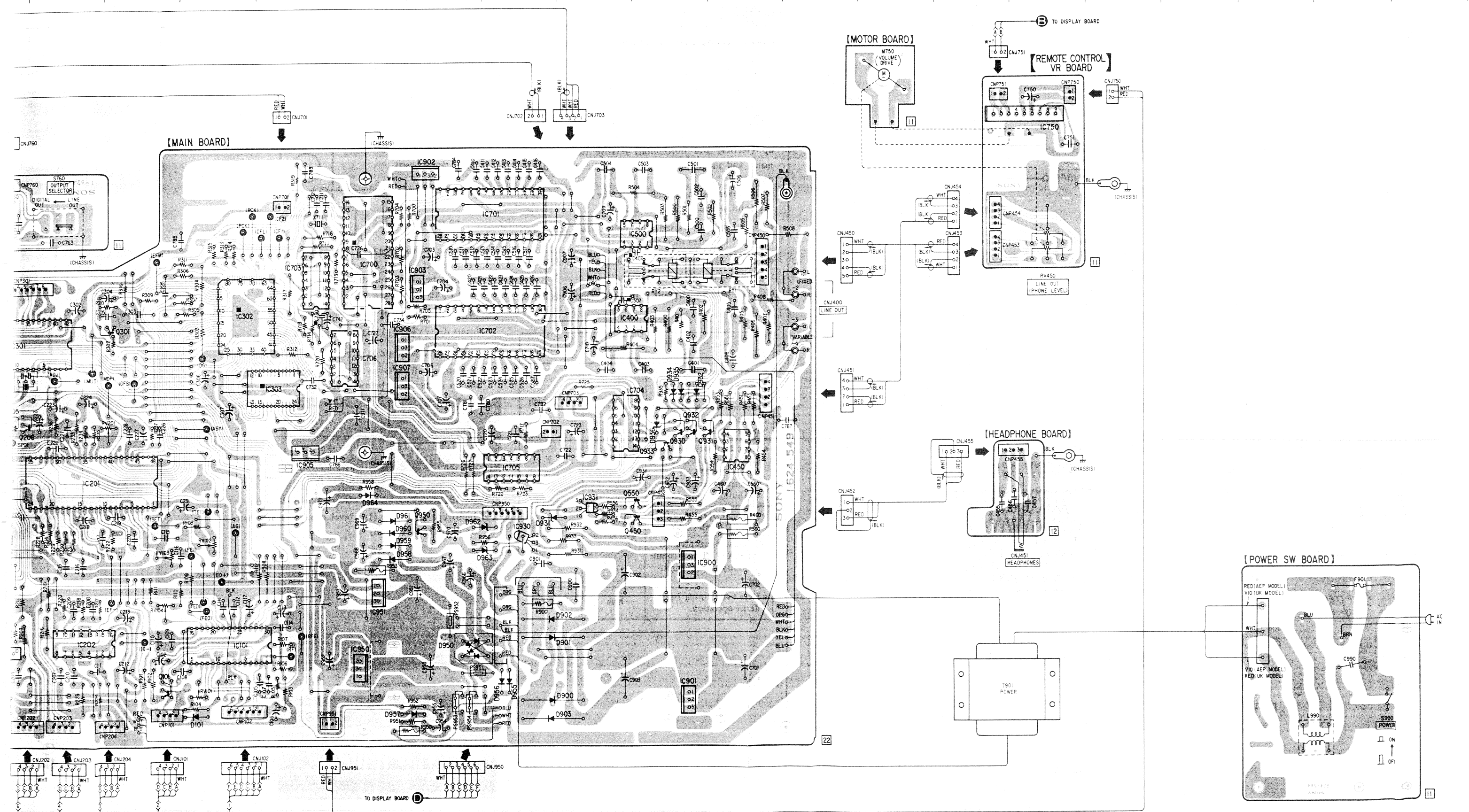
Ref. No.	Location
D101	J-15
D201	H-11
D651	G-2
D652	G-2
D653	F-3
D654	F-3
D900	J-20
D901	I-19
D902	I-19
D903	J-20
D931	H-19
D932	F-21
D934	F-21
D935	F-21
D936	F-21
D950	I-18
D955	J-19
D956	J-19
D957	J-18
D958	H-17
D959	H-17
D960	H-17
D961	H-17
D962	H-19
D963	H-19
D964	G-17

IC101	I-15
IC201	I-12
IC202	I-13
IC203	H-12
IC204	G-13
IC301	E-12
IC302	E-15
IC303	F-16
IC400	E-20
IC450	G-22
IC500	D-21
IC700	D-17
IC701	D-19
IC702	E-19
IC703	D-16
IC704	F-20
IC705	G-19
IC706	E-17
IC750	B-26
IC770	B-11
IC900	H-21
IC901	J-21
IC902	C-18
IC903	D-18
IC905	G-16
IC906	E-17
IC930	H-19
IC931	G-20
IC950	I-17
IC951	I-17

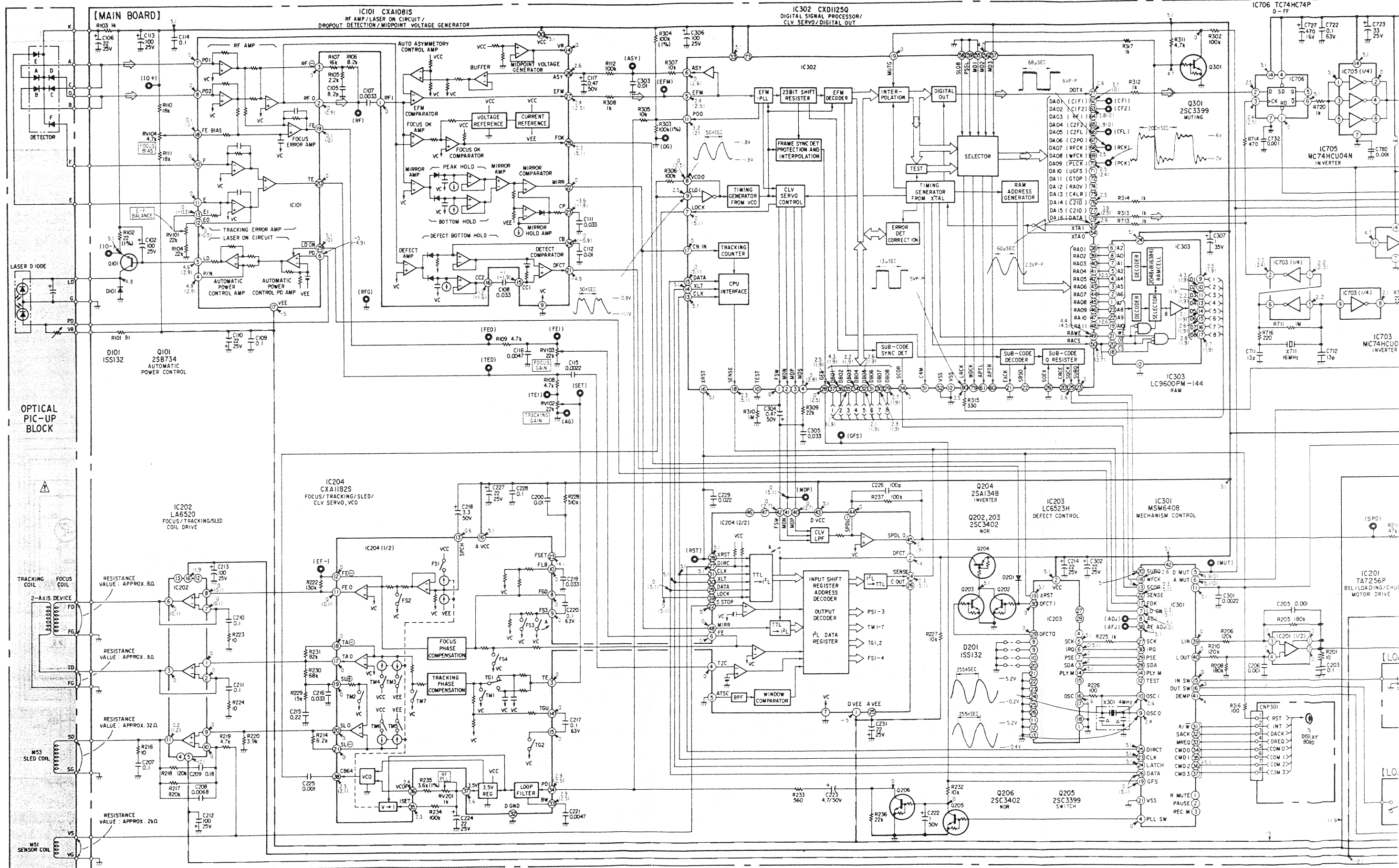
Q101	J-14
Q202	H-11
Q203	H-12
Q204	H-12
Q205	F-12
Q206	F-12
Q301	E-14
Q450	H-21
Q550	G-21
Q651	G-3
Q930	F-21
Q931	F-21
Q932	F-21
Q933	G-21
Q950	H-18

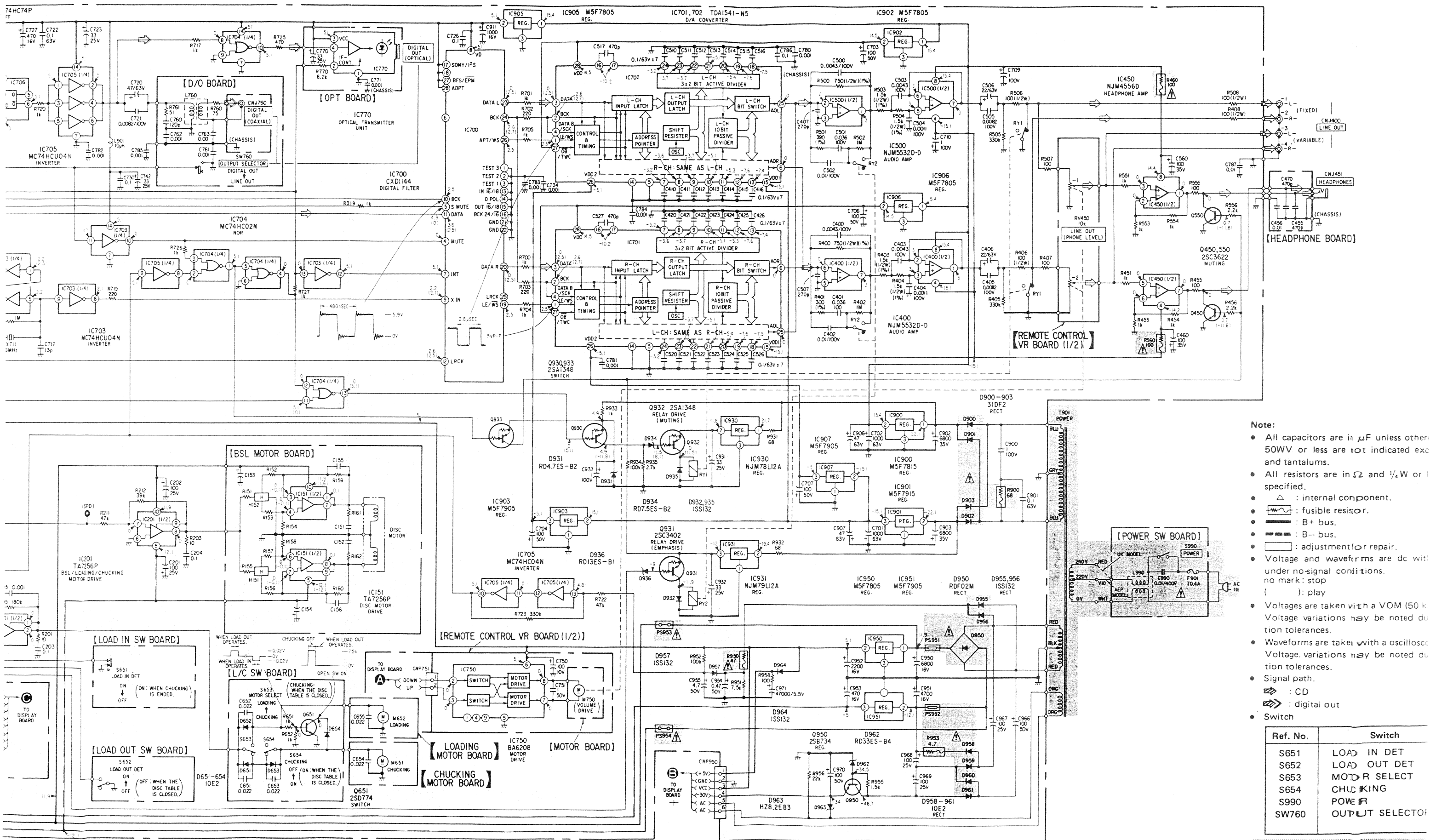


13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31



A
B
C
D
E
F
G
H
I
J







- D

E

F

2-4. DISPLAY SECTION MOUNTING DIAGRAM

- See page 14 for main section.

Note on Mounting Diagram:

- — : parts extracted from the conductor side.
- : parts mounted on the conductor side.

Note on Schematic Diagram:

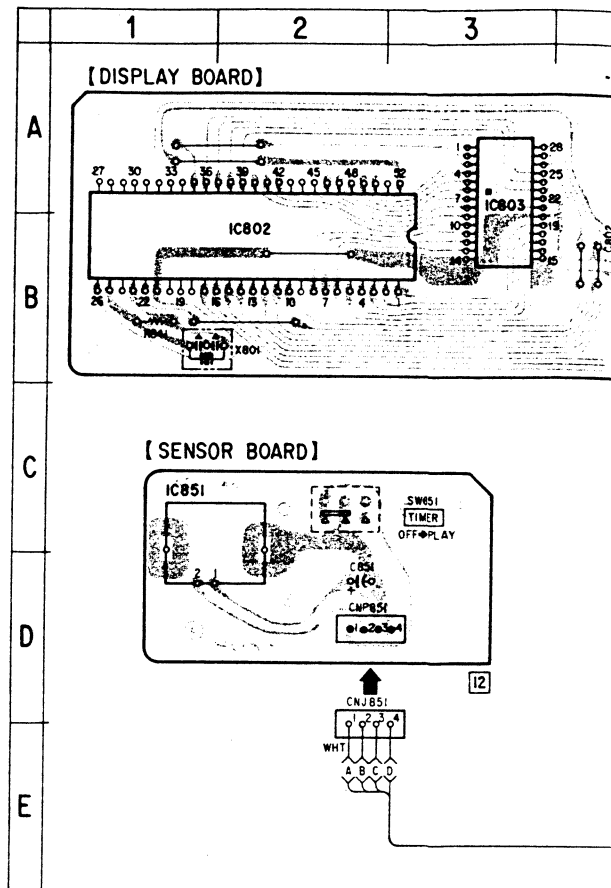
Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- : B+ bus.
- : B- bus.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (50 $\text{k}\Omega/\text{V}$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Switch

Ref. No.	Switch	Position
S801	1	OFF
S802	2	OFF
S803	3	OFF
S804	4	OFF
S805	5	OFF
S806	6	OFF
S807	7	OFF
S808	8	OFF
S809	9	OFF
S810	10	OFF
S811	11	OFF
S812	12	OFF
S813	13	OFF
S814	14	OFF
S815	15	OFF
S816	16	OFF
S817	17	OFF
S818	18	OFF
S819	19	OFF
S820	20	OFF
S821	◀	OFF
S822	>20	OFF
S823	▶	OFF
S824	ERASE	OFF
S825	■	OFF
S826	AMS ◀	OFF
S827	AMS ▶	OFF
S828	CLEAR	OFF
S829	CHECK	OFF
S830	▲ OPEN/CLOSE	OFF
S831		OFF
S832	→ INDEX	OFF
S833	INDEX MODE	OFF
S834	FILE	OFF
S835	REPEAT	OFF
S836	DISPLAY	OFF
S837	▶	OFF
S838	A. PAUSE/SPACE	OFF
S839	◀ INDEX	OFF
S851	PLAY MODE CONTINUE/SINGLE	OFF
S852	PLAY MODE SHUFFLE	OFF
S853	PLAY MODE PROGRAM	OFF
SW851	TIMER	OFF

SEMICONDUCTOR LOCATION

Ref. No.	Location
D801	C-14
D802	D-14
D803	D-14
D804	B-7
D805	B-8
IC801	C-6
IC802	B-2
IC803	A-3
IC851	C-1
Q801	B-6
Q802	D-8
Q803	C-9
Q804	C-9
Q805	D-9
Q806	D-9

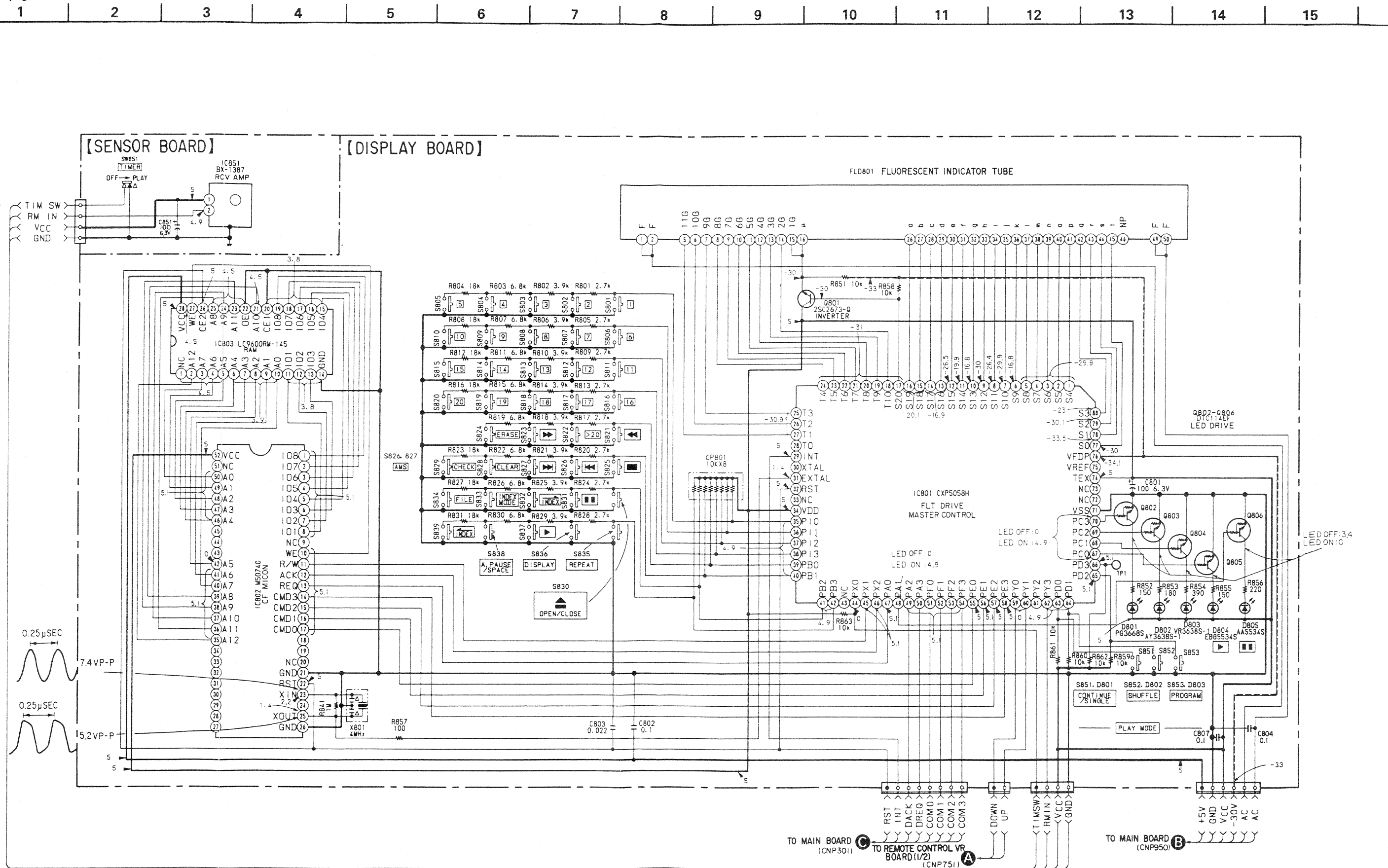


Semiconductor Lead Layouts

BA6208 	CXD1125Q CXP5058H-067Q 	LC9600P-144 	M5F7905 M5F7915
BX1387 	CXD1144P TDA1541-N5 	LC9600RM-183 	M5278L56
CXA1081S LC6523H-3446 	LA6520 	M5F7805 M5F7815 	M50740A-424SP
CXA1182S 			

2-5. DISPLAY SECTION SCHEMATIC DIAGRAM

• See page 24 for notes.



SECTION 3

EXPLODED VIEW AND PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

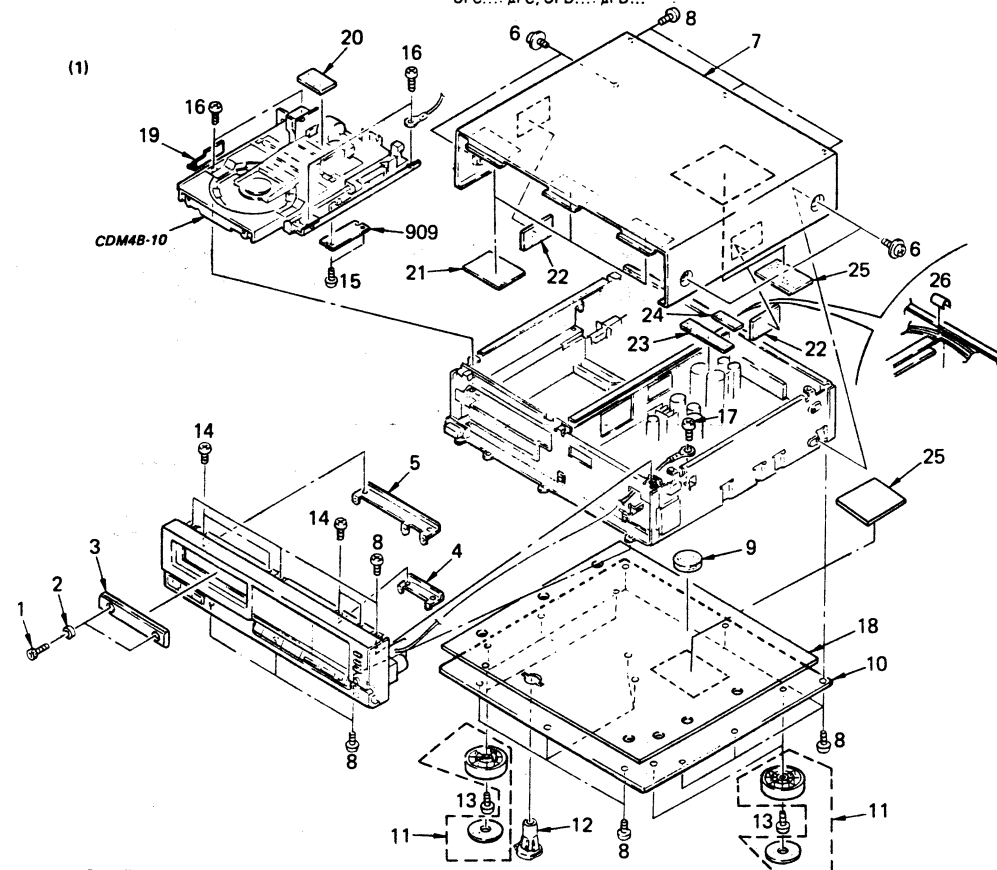
CAPACITORS:
MF: μ F, PF: μ F.

RESISTORS
• All resistors are in ohms.
• F: nonflammable

COILS
• MMH: mH, UH: μ H

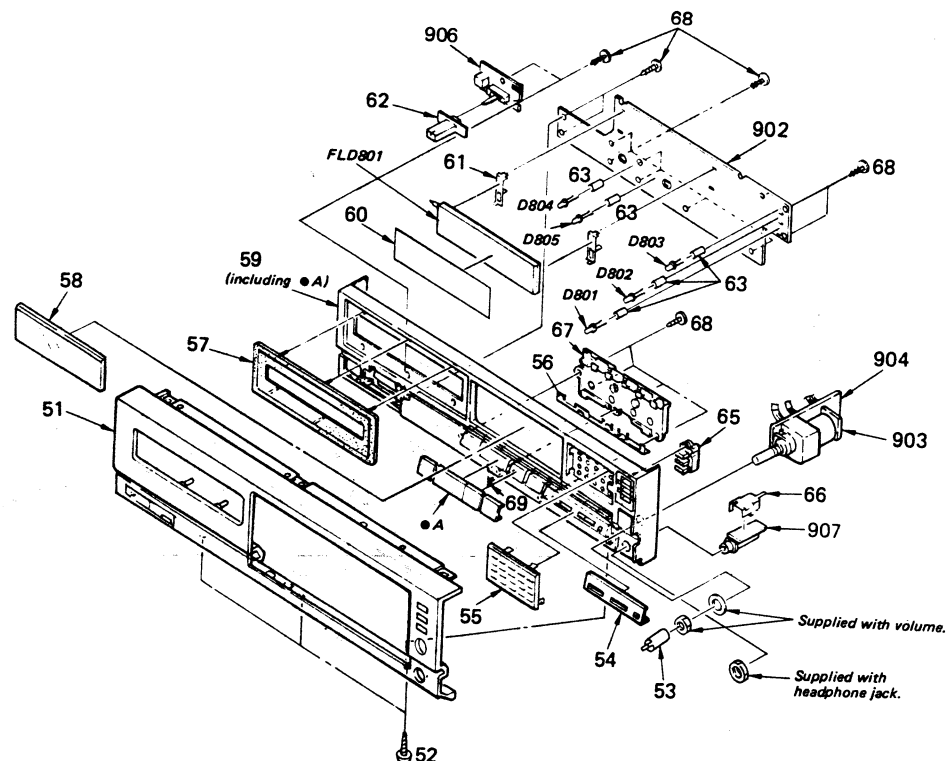
SEMICONDUCTORS
In each case, U: μ , for example:
UA...: μ A..., UPA...: μ PA...,
UPC...: μ PC, UPD...: μ PD...

The components identified by shading and mark  are critical for safety. Replace only with part number specified.



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	7-683-412-05	BOLT, HEXAGON SOCKET 2.6X6		14	7-685-870-01	SCREW +BVTT 3X5 (S)	
2	4-884-635-00	BASE, ORNAMENTAL		15	7-621-773-86	SCREW +BVTT 2.6X4 (S)	
3	4-922-564-21	PANEL, LOADING		16	7-685-647-79	SCREW +BVTP 3X10 TYPE2 SLIT	
4	*4-923-505-01	RETAINER (B), PANEL		17	7-682-548-09	SCREW (3X8)	
5	*4-923-519-01	RETAINER (A), PANEL		18	*4-923-545-02	PLATE, BOTTOM	
6	4-847-802-00	SCREW		19	*4-923-564-01	REINFORCEMENT	
7	4-923-527-01	CASE		20	*4-912-552-01	SHEET (B), DT PS	
8	3-703-685-21	SCREW (+BV 3X8)		21	*4-923-563-01	CUSHION	
9	*4-908-853-21	CUSHION		22	*4-923-562-01	CUSHION	
10	*4-923-545-12	PLATE, BOTTOM		23	*4-923-558-01	DUMPER	
11	X-4922-516-1	FOOT ASSY		24	*4-923-559-01	DUMPER	
12	*4-922-553-01	PLATE, LOCK, TRANSPORT		25	*4-913-189-11	FELT (B), ACOUSTIC ABSORBENT	
13	7-685-881-09	SCREW +BVTT 4X8 (S)		26	*4-923-561-01	CUSHION	
				909	*1-624-551-21	PC BOARD, MD TRANSLATION	

(2)



No.	Part No.	Description
51	X-4922-541-1	FRONT PANEL ASSY
52	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
53	4-923-522-01	KNOB (B.TYPE), LOV
54	4-923-509-01	ESCUTCHEON, SERCH BUTTON
55	A-4605-181-A	KEY ASSY, 20
56	4-923-515-01	PLATE, GROUND
57	4-923-517-01	PACKING, LOADING
58	4-923-516-01	PLATE, INDICATION
59	X-4922-527-1	BASE ASSY, PANEL
60	4-923-502-01	FILTER
61	*4-922-524-01	HOLDER (LEFT)
62	4-922-518-11	KNOB (TIMER)

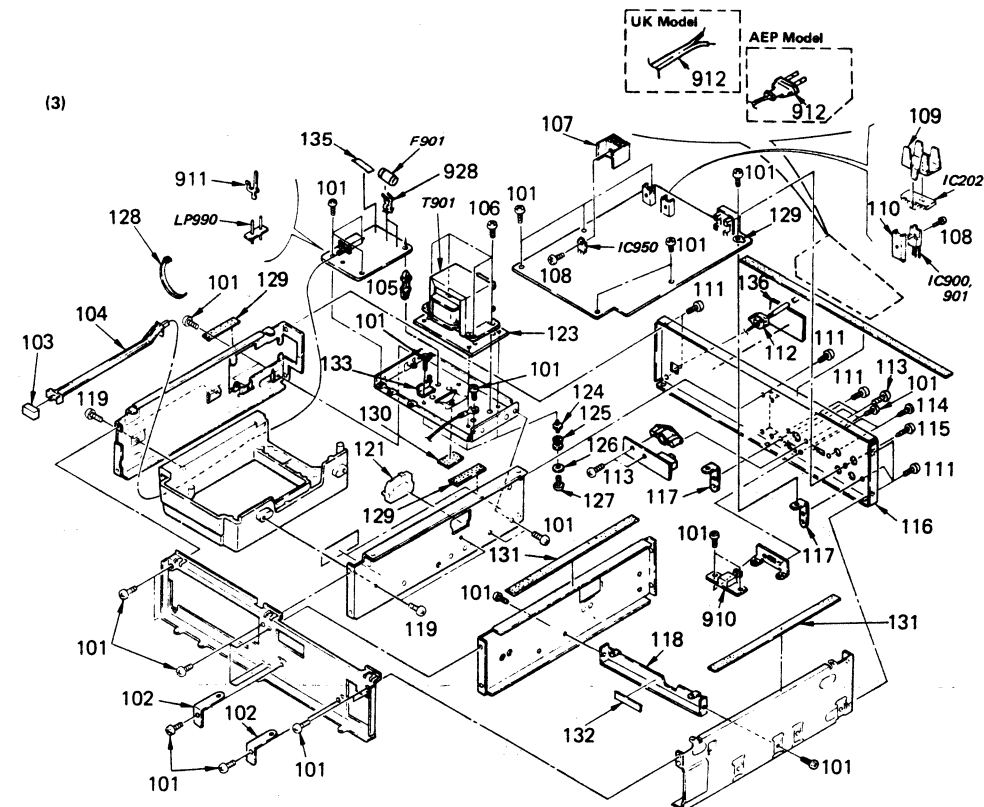
Remarks

No.	Part No.	Description
63	*4-923-532-01	SPACER, LED
64	*4-922-523-01	HOLDER (RIGHT)
65	X-4922-518-1	BUTTON (MODE) ASSY
66	4-923-537-01	SPRING (B) (HP)
67	4-923-523-01	BASE, SUB
68	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S
69	4-925-301-01	SHEET, POLYESTER
902	*A-4655-061-A	MOUNTED PCB, DISPLAY
903	*1-624-542-11	PC BOARD, MOTOR
904	*1-624-543-11	PC BOARD, REMOTE CONTROL VR
906	*1-624-546-11	PC BOARD, REMOCOM SENSOR (A)
907	*1-624-548-11	PC BOARD, HEADPHONE
FLD801	1-519-427-11	INDICATOR TUBE, FLUORESCENT

Remarks

Supplied with volume.
Supplied with headphone jack.

(3)

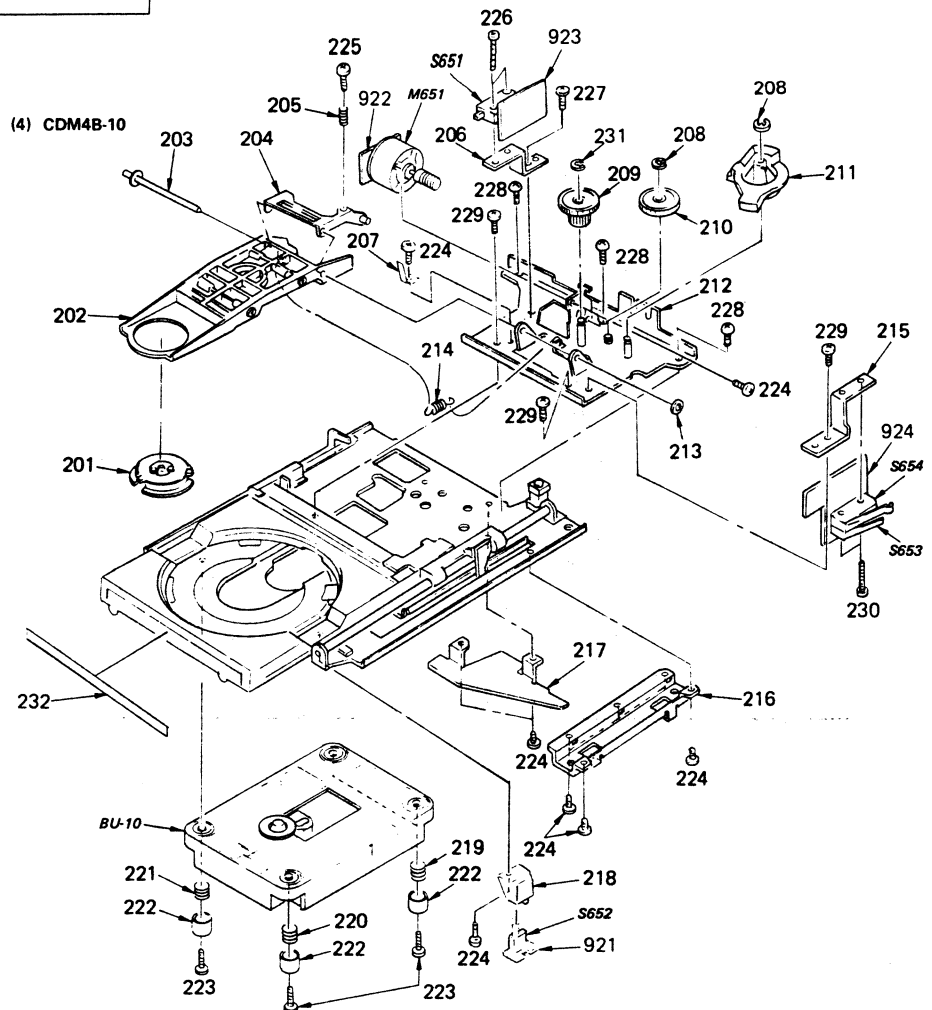


No.	Part No.	Description
101	7-682-548-09	SCREW (3X8)
102	*4-923-507-01	BRACKET (PC BOARD)
103	4-923-520-01	KNOB, POWER
104	*4-923-521-01	LEVER, POWER SWITCH
105	*4-309-357-00	SUPPORT, PC
106	7-682-560-04	SCREW +BVTT 4X6 (S)
107	*4-363-146-00	HEAT SINK, V.OUT
108	7-682-147-15	SCREW, TR
109	*4-922-525-01	HEAT SINK
110	*4-886-555-00	HEAT SINK
111	3-703-685-21	SCREW (+BV 3X8)
112	*3-703-244-00	BUSHING (2104), CORD
113	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
114	7-621-775-10	SCREW, +B 2.6X4, PAWL
115	4-909-982-11	SCREW, TAPPING
116	*4-922-504-31	(AEP)...PANEL, BACK
	*4-922-504-41	(UK)...PANEL, BACK
117	*4-923-506-01	BRACKET (PC BOARD)
118	*4-922-555-11	BRACKET (PC BOARD)
119	7-685-647-79	SCREW +BVTP 3X10 TYPE2 SLIT
120	4-870-539-00	PLATE, GROUND
121	*4-922-552-01	HOLDER (B), HARNESS
122	*4-913-152-01	ESCUTCHEON, D/O
123	*4-923-578-01	BASE, FLOATING
124	*4-923-542-01	COLLAR
125	*4-888-708-00	RUSHING, RUBBER
126	7-688-005-01	W 5, SMALL
127	7-682-151-01	SCREW +BVTT 3X14 (S)
128	3-655-653-21	BAND (TAITON), BINDING

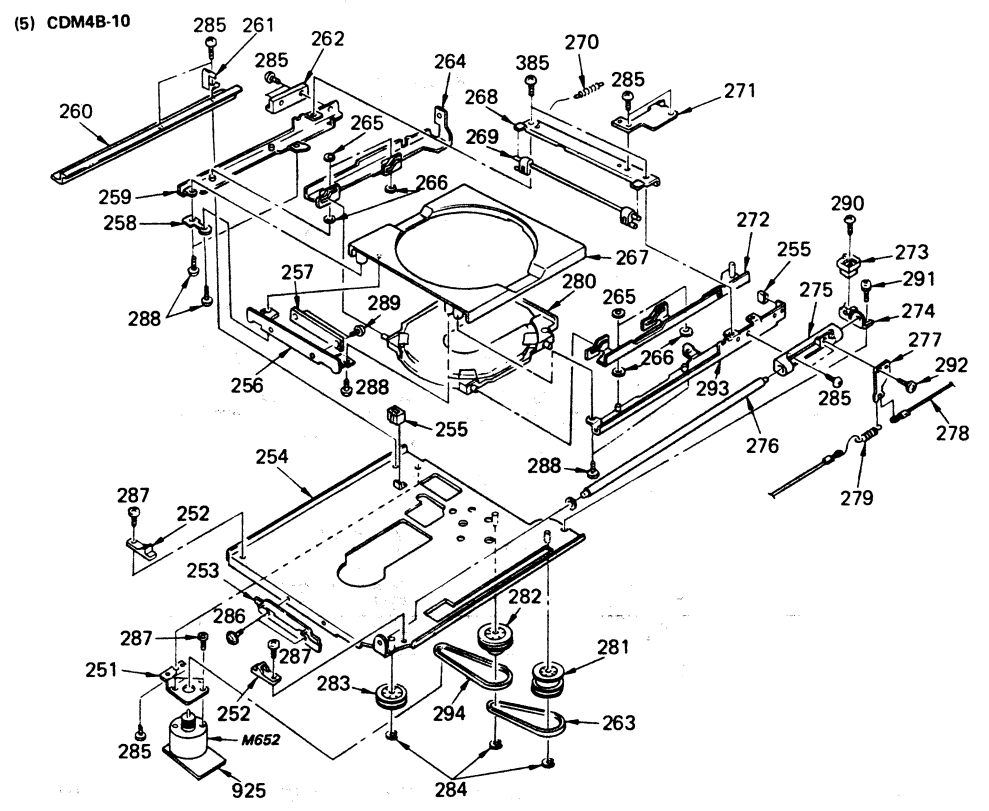
Remarks

No.	Part No.	Description
129	*4-923-566-01	CUSHION
130	*4-907-981-01	SHEET (S)
131	*4-923-560-01	CUSHION
132	*4-923-530-01	DUMPER (A)
133	4-923-598-01	STOPPER
135	*3-701-948-01	LABEL, FUSE
136	*4-885-838-00	LABEL, CLASS 1
901	*A-4651-164-A	MOUNTED PCB, MAIN
905	*1-624-544-11	PC BOARD, POWER SW
908	*1-624-550-21	PC BOARD, D/O
910	*1-624-568-21	PC BOARD, O.P.T
911	*1-535-688-11	TERMINAL
912	*1-555-795-00	[AEP]...CORD, POWER
	*1-556-035-00	[UK]...CORD, POWER
928	1-533-183-11	HOLDER, FUSE
F901	*1-532-066-11	FUSE, TIME-LAG (T400mA)
LP990	*1-535-140-00	BASE POST 19MM (10MM PITCH) 3P
T901	*1-449-075-11	TRANSFORMER, POWER

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
201	A-4675-235-A	PULLEY ASSY, PRESS		222	4-912-578-01	HOLDER, SP	
202	*X-4912-509-1	ARM ASSY, C		224	7-621-775-00	SCREW +B 2.6X3	
203	4-908-513-01	SHAFT, FULCRUM, C ARM		225	7-621-775-80	SCREW +B 2.6X16	
204	X-4908-513-1	PLATE ASSY, ADJUSTMENT, ARM		226	7-685-864-01	SCREW +BVTT 2.6X10 (S)	
205	4-908-559-01	SPRING, COMPRESSION		227	7-682-646-09	SCREW +PS 3X5	
206	*4-912-543-01	BRACKET (D), SWITCH		228	7-685-870-01	SCREW +BVTT 3X5 (S)	
207	*4-912-569-11	PLATE (B), GROUND		229	7-682-544-09	SCREW +B 3X3	
208	7-624-106-04	STOP RING 3.0, TYPE -E		230	7-621-257-85	SCREW +P 2.3X14	
209	4-912-514-01	GEAR (A)		231	7-624-109-04	STOP RING 5.0, TYPE -E	
210	4-912-525-01	GEAR (B)		232	*4-912-589-01	CUSHION	
211	*4-912-528-01	GEAR, CAM		233	7-682-528-01	SCREW, TOTSU PSW 3X10	
212	*4-912-528-01	CHASSIS ASSY, SUB		921	*1-624-378-11	PC BOARD, OUT SW	
213	*4-912-528-01	SPRING, TENSION (C ARM)		922	*1-624-379-11	PC BOARD, C.MOTOR	
214	*4-912-524-01	BRACKET (A), SWITCH		923	*1-624-377-11	PC BOARD, IN SW	
215	*4-912-580-01	COVER, ROPE		924	*1-624-375-11	PC BOARD, L/C SW	
216							
217	*4-908-597-01	COVER, BELT		M651	X-4902-019-1	MOTOR ASSY, CHUCKING	
218	*4-912-588-01	HOLDER (OUT SW)		S651	1-554-205-00	SWITCH, PUSH (LOAD IN DET)	
219	4-912-577-01	SPRING (H), COMPRESSION		S652	1-571-300-11	SWITCH, ROTARY (LOAD OUT DET)	
220	4-912-575-01	SPRING (F), COMPRESSION		S653	1-553-636-00	SWITCH, MICRO (MOTOR SELECT)	
221	4-912-576-01	SPRING (C), COMPRESSION		S654	1-570-447-11	SWITCH, MICRO (CHUCKING)	

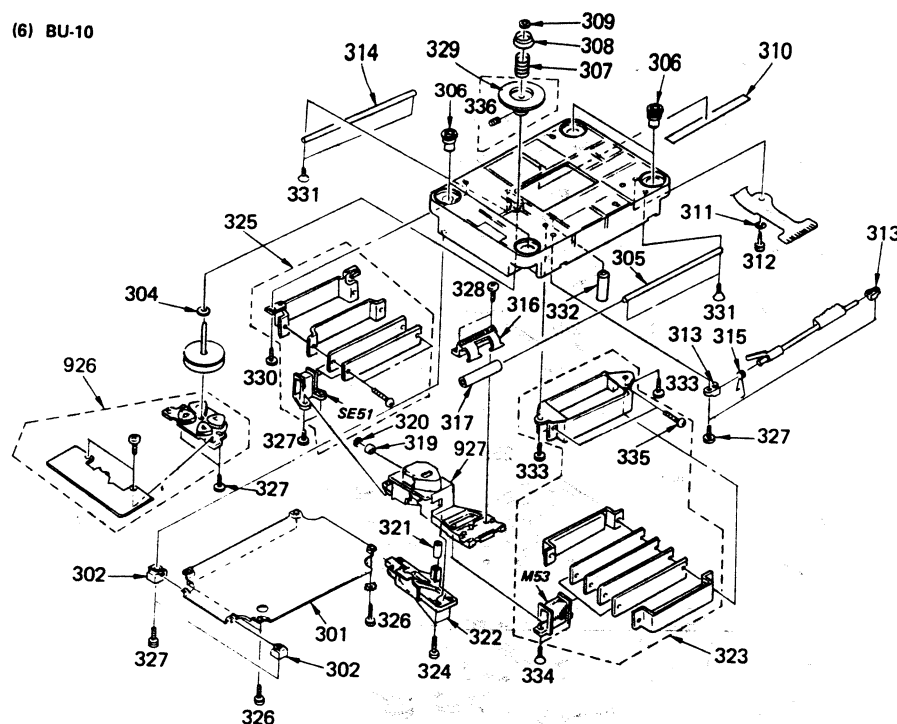


No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
251	*4-908-523-01	BRACKET, MOTOR		276	4-912-521-11	SHAFT (RIGHT), GUIDE	
252	4-908-540-01	GUIDE, ASSIST		277	*4-912-520-01	BRACKET, ROPE	
253	*X-4912-508-1	BRACKET ASSY, TABLE		278	4-912-517-01	ROPE	
254	*X-4912-516-1	CHASSIS ASSY, MECHANICAL		279	4-908-553-01	SPRING, COMPRESSION (ROPE)	
255	4-887-175-00	RUBBER, STOPPER		280	*X-4912-515-1	PLATE ASSY, DISK	
256	*4-912-579-02	BRACKET (LP)		281	4-908-525-01	PULLEY (C)	
257	*4-912-544-01	PLATE, FIXED		282	4-908-519-01	PULLEY (A)	
258	*4-912-568-01	PLATE (A), GROUND		283	4-908-524-01	PULLEY (B)	
259	*X-4912-504-1	BRACKET (LEFT) ASSY, TABLE		284	7-624-106-04	STOP RING 3.0, TYPE -E	
260	*4-912-529-01	GUIDE, LOADING		285	7-685-870-01	SCREW +BVTT 3X5 (S)	
261	*4-912-527-01	RETAINER, TABLE		286	7-621-759-60	+PSW, 2.6X8	
262	*4-912-534-01	GUIDE, SUB		287	7-621-775-00	SCREW +B 2.6X3	
263	3-671-077-00	BELT, FF		288	7-685-646-79	SCREW +BVTP 3X8 TYPE2 SLIT	
264	*4-912-583-01	SLIDER (CAM LEFT)		289	7-621-259-35	SCREW +BVTT 2.6X5 (S)	
265	3-558-708-21	WASHER, STOPPER		290	7-685-876-01	SCREW +BVTT 3X16 (S)	
266	3-701-430-11	WASHER		291	7-682-646-09	SCREW +PS 3X5	
267	*4-912-585-01	TABLE, DISK		292	7-685-132-19	SCREW +BTP 2.6X5 TYPE2 N-S	
268	*4-912-532-01	REINFORCEMENT, TABLE		293	*X-4912-505-1	BRACKET (RIGHT) ASSY, TABLE	
269	4-908-534-01	LEVER, FUNCTION		294	4-908-591-01	BELT, DRIVING	
270	4-912-516-01	SPRING (DISK CAM), TENSION		295	*4-912-587-01	CUSHION	
271	*4-912-522-01	PLATE, SW		296	7-686-529-01	SCREW, TOTSU PSW 3X10	
272	*X-4912-514-1	SLIDER (CAM RIGHT) ASSY		298	4-912-593-01	WASHER	
273	*4-912-513-01	STOPPER, TABLE		925	*1-624-376-11	PC BOARD, L.MOTOR	
274	*4-912-519-01	RETAINER (RIGHT), SHAFT		M652	A-4608-303-A	MOTOR ASSY, LOADING	
275	4-912-538-01	BEARING (RIGHT), GUIDE					

SECTION 4

ELECTRICAL PARTS LIST

(6) BU-10



No.	Part No.	Description
301	*4-921-829-01	COVER, MECHANICAL BASE
302	*4-921-823-01	HOLDER
303	7-623-421-07	LW 2.6, TYPE B
304	3-701-439-21	WASHER
305	4-921-821-01	SHAFT (B), SLIDE
306	4-921-816-01	INSULATOR
307	4-908-213-01	SPRING, COMPRESSION
308	4-915-217-01	CAP, CENTERING
309	3-558-708-21	WASHER, STOPPER
310	9-911-838-XX	CUSHION
311	7-688-001-01	W 2, SMALL
312	7-628-253-10	SCREW +PS 2X5
313	4-908-220-01	HOLDER, ROD
314	4-921-822-01	SHAFT (A), SLIDE
315	4-921-817-01	SPRING
316	4-921-826-01	HOLDER, BEARING
317	4-908-221-01	BEARING
319	4-908-208-01	BEARING (NO-FLANGE), BALL
320	7-624-105-04	STOP RING 2.3, TYPE -E
321	*4-921-819-01	TUBE, RUBBER

No.	Part No.	Description	Remarks
322	4-921-827-01	COVER, SLIDE BASE	
323	A-4608-347-A	MOTOR ASSY	
324	7-621-255-10	SCREW +P 2X3	
325	A-4675-229-A	SENSOR ASSY	
326	7-621-284-20	SCREW +P 2.6X6	
328	7-621-775-10	SCREW +B 2.6X4	
329	*X-4908-219-1	PULLEY ASSY, DISK	
330	7-682-545-09	SCREW +B 3X4	
331	7-682-248-09	SET-SC, HEX. 2.6X3	
332	X-4908-221-1	CAM ASSY, LOCK	
333	7-682-546-09	SCREW +B 3X5	
334	7-621-559-30	SCREW +K 2.6X5	
335	7-621-259-70	SCREW +P 2.6X12	
336	7-621-734-09	SET-SC, HEX. 2.6X3	
337	7-621-773-95	SCREW +B 2.6X6	
926	A-4675-231-A	STATOR ASSY	
927	A-8-848-083-11	PICKUP, OPTICAL KSS-190A	
M53	1-422-197-21	COIL (DRIVE)	
SE51	1-422-198-21	COIL (SENSOR)	

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "X" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:
(RED) ... KNOB, BALANCE (WHITE)

↑ Cabinet's Color ↑ Parts' Color

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
901	*A-4651-164-A	MOUNTED PCB, MAIN	C201	1-124-478-11	ELECT 100MF
902	*A-4655-061-A	MOUNTED PCB, DISPLAY	C202	1-124-478-11	ELECT 100MF
903	*1-624-542-11	PC BOARD, MOTOR	C203	1-162-851-11	CERAMIC 0.1MF
904	*1-624-543-11	PC BOARD, REMOTE CONTROL VR	C204	1-162-851-11	CERAMIC 0.1MF
905	*1-624-544-11	PC BOARD, POWER SW	C205	1-162-294-31	CERAMIC 0.001MF
906	*1-624-546-11	PC BOARD, REMCOM SENSOR (A)	C206	1-162-294-31	CERAMIC 0.001MF
907	*1-624-548-11	PC BOARD, HEADPHONE	C207	1-162-851-11	CERAMIC 0.1MF
908	*1-624-550-21	PC BOARD, D/O	C208	1-130-481-00	MYLAR 0.0068MF
909	*1-624-551-21	PC BOARD, MD TRANSLATION	C209	1-136-168-00	FILM 0.18MF
910	*1-624-568-21	PC BOARD, O.P.T	C210	1-162-851-11	CERAMIC 0.1MF
911	*1-535-688-11	TERMINAL	C211	1-162-851-11	CERAMIC 0.1MF
912	A-1-555-795-00	(AEP) ... COND, POWER	C212	1-124-478-11	ELECT 100MF
913	A-1-556-035-00	(UK) ... COND, POWER	C213	1-124-478-11	ELECT 100MF
921	*1-624-378-11	PC BOARD, OUT SW	C214	1-124-908-11	ELECT 22MF
922	*1-624-379-11	PC BOARD, C.MOTOR	C215	1-136-169-00	FILM 0.22MF
923	*1-624-377-11	PC BOARD, IN SW	C216	1-136-159-00	FILM 0.033MF
924	*1-624-375-11	PC BOARD, L/C SW	C217	1-130-768-00	FILM 0.1MF
925	*1-624-376-11	PC BOARD, L.MOTOR	C218	1-123-382-00	ELECT 3.3MF
926	A-4675-231-A	STATOR ASSY	C219	1-136-159-00	FILM 0.033MF
927	A-8-848-083-11	PICKUP, OPTICAL KSS-190A	C220	1-130-768-00	FILM 0.1MF
928	1-533-183-11	HOLDER, FUSE	C221	1-130-479-00	MYLAR 0.0047MF
C102	1-124-478-11	ELECT 100MF	C222	1-124-499-11	ELECT 1MF
C105	1-162-198-31	CERAMIC 8.2PF	C223	1-124-927-11	ELECT 4.7MF
C106	1-124-908-11	ELECT 22MF	C224	1-124-908-11	ELECT 22MF
C107	1-130-477-00	MYLAR 0.0033MF	C225	1-162-294-31	CERAMIC 0.001MF
C108	1-136-159-00	FILM 0.033MF	C226	1-162-282-31	CERAMIC 100PF
C109	1-162-851-11	CERAMIC 0.1MF	C227	1-124-908-11	ELECT 22MF
C110	1-124-908-11	ELECT 22MF	C228	1-162-851-11	CERAMIC 0.1MF
C111	1-136-159-00	FILM 0.033MF	C229	1-161-494-00	CERAMIC 0.022MF
C112	1-136-153-00	FILM 0.01MF	C231	1-124-908-11	ELECT 22MF
C113	1-124-478-11	ELECT 100MF	C301	1-161-375-00	CERAMIC 0.0022MF
C114	1-162-851-11	CERAMIC 0.1MF	C302	1-124-908-11	ELECT 22MF
C115	1-161-375-00	CERAMIC 0.0022MF	C303	1-161-379-00	CERAMIC 0.01MF
C116	1-161-377-00	CERAMIC 0.0047MF	C304	1-124-902-00	ELECT 0.47MF
C117	1-124-902-00	ELECT 0.47MF	C305	1-136-159-00	FILM 0.033MF
C151	1-161-494-00	CERAMIC 0.022MF	C306	1-124-478-11	ELECT 100MF
C152	1-161-494-00	CERAMIC 0.022MF	C307	1-131-347-00	TANTALUM 1MF
C153	1-124-477-11	ELECT 47MF	C400	1-136-232-11	FILM 0.0043MF
C154	1-124-477-11	ELECT 47MF	C401	1-130-977-11	FILM 0.036MF
C155	1-161-375-00	CERAMIC 0.0022MF	C402	1-130-955-00	FILM 0.01MF
C156	1-161-375-00	CERAMIC 0.0022MF	C403	1-136-232-11	FILM 0.0043MF
C200	1-161-379-00	CERAMIC 0.01MF	C404	1-136-227-11	FILM 0.0011MF
C405	1-130-848-00	FILM 0.0082MF	C406	1-124-929-11	ELECT 22MF
C406	1-124-929-11	ELECT 22MF	C407	1-104-288-11	POLYSTYRENE 270PF
C407	1-104-288-11	POLYSTYRENE 270PF	C410	1-130-768-00	FILM 0.1MF
C410	1-130-768-00	FILM 0.1MF			

Ref.No.	Part No.	Description				
C411	1-130-768-00	FILM	0.1MF	5%	63V	
C412	1-130-768-00	FILM	0.1MF	5%	63V	
C413	1-130-768-00	FILM	0.1MF	5%	63V	
C414	1-130-768-00	FILM	0.1MF	5%	63V	
C415	1-130-768-00	FILM	0.1MF	5%	63V	
C416	1-130-768-00	FILM	0.1MF	5%	63V	
C420	1-130-768-00	FILM	0.1MF	5%	63V	
C421	1-130-768-00	FILM	0.1MF	5%	63V	
C422	1-130-768-00	FILM	0.1MF	5%	63V	
C423	1-130-768-00	FILM	0.1MF	5%	63V	
C424	1-130-768-00	FILM	0.1MF	5%	63V	
C425	1-130-768-00	FILM	0.1MF	5%	63V	
C426	1-130-768-00	FILM	0.1MF	5%	63V	
C455	1-162-290-31	CERAMIC	470PF	10%	50V	
C456	1-161-379-00	CERAMIC	0.01MF	30%	16V	
C457	1-162-290-31	CERAMIC	470PF	10%	50V	
C460	1-123-345-00	ELECT	100MF	20%	35V	
C500	1-136-232-11	FILM	0.0043MF	3%	100V	
C501	1-130-977-11	FILM	0.036MF	3%	100V	
C502	1-130-955-00	FILM	0.01MF	3%	100V	
C503	1-136-232-11	FILM	0.0043MF	3%	100V	
C504	1-136-227-11	FILM	0.0011MF	3%	100V	
C505	1-130-848-00	FILM	0.0082MF	10%	100V	
C506	1-124-929-11	ELECT	22MF	20%	63V	
C507	1-104-288-11	POLYSTYRENE	270PF	5%	50V	
C510	1-130-768-00	FILM	0.1MF	5%	63V	
C511	1-130-768-00	FILM	0.1MF	5%	63V	
C512	1-130-768-00	FILM	0.1MF	5%	63V	
C513	1-130-768-00	FILM	0.1MF	5%	63V	
C514	1-130-768-00	FILM	0.1MF	5%	63V	
C515	1-130-768-00	FILM	0.1MF	5%	63V	
C516	1-130-768-00	FILM	0.1MF	5%	63V	
C517	1-102-114-00	CERAMIC	470PF	10%	50V	
C520	1-130-768-00	FILM	0.1MF	5%	63V	
C521	1-130-768-00	FILM	0.1MF	5%	63V	
C522	1-130-768-00	FILM	0.1MF	5%	63V	
C523	1-130-768-00	FILM	0.1MF	5%	63V	
C524	1-130-768-00	FILM	0.1MF	5%	63V	
C525	1-130-768-00	FILM	0.1MF	5%	63V	
C526	1-130-768-00	FILM	0.1MF	5%	63V	
C527	1-102-114-00	CERAMIC	470PF	10%	50V	
C560	1-123-345-00	ELECT	100MF	20%	35V	
C651	1-136-157-00	FILM	0.022MF	5%	50V	
C652	1-136-157-00	FILM	0.022MF	5%	50V	
C653	1-136-157-00	FILM	0.022MF	5%	50V	
C654	1-136-157-00	FILM	0.022MF	5%	50V	
C655	1-136-157-00	FILM	0.022MF	5%	50V	
C701	1-123-378-00	ELECT	1000MF	20%	63V	
C702	1-123-378-00	ELECT	1000MF	20%	63V	
C703	1-214-725-00	ELECT	100MF	20%	50V	
C704	1-214-725-00	ELECT	100MF	20%	50V	
C706	1-214-725-00	ELECT	100MF	20%	50V	
C707	1-214-725-00	ELECT	100MF	20%	50V	
C709	1-123-380-00	ELECT	1MF	20%	100V	
C710	1-123-380-00	ELECT	1MF	20%	100V	
C711	1-102-950-00	CERAMIC	13PF	5%	50V	
C712	1-102-950-00	CERAMIC	13PF	5%	50V	
C720	1-124-918-11	ELECT	47MF	20%	63V	

Ref.No.	Part No.	Description				
C721	1-130-848-00	FILM	0.0082MF	10%	100V	
C722	1-130-768-00	FILM	0.1MF	5%	63V	
C723	1-123-343-00	ELECT	33MF	20%	25V	
C726	1-162-179-11	CERAMIC	0.1MF		50V	
C727	1-126-103-11	ELECT	470MF	20%	16V	
C730	1-162-179-11	CERAMIC	0.1MF		50V	
C732	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C734	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C742	1-123-343-00	ELECT	33MF	20%	25V	
C750	1-124-443-00	ELECT	100MF	20%	10V	
C751	1-124-611-00	ELECT	1MF	20%	50V	
C760	1-162-283-31	CERAMIC	120PF	10%	50V	
C761	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C762	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C763	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C770	1-123-343-00	ELECT	33MF	20%	25V	
C771	1-123-343-00	ELECT	33MF	20%	25V	
C780	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C781	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C782	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C783	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C784	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C785	1-162-294-31	CERAMIC	0.001MF	10%	50V	
C786	1-130-768-00	FILM	0.1MF	5%	63V	
C787	1-161-379-00	CERAMIC	0.01MF	20%	16V	
C801	1-124-225-00	ELECT	100MF	20%	6.3V	
C802	1-162-179-11	CERAMIC	0.1MF		50V	
C803	1-161-494-00	CERAMIC	0.022MF		25V	
C804	1-162-179-11	CERAMIC	0.1MF		50V	
C807	1-162-179-11	CERAMIC	0.1MF		50V	
C851	1-124-225-00	ELECT	100MF	20%	6.3V	
C900	1-130-789-00	FILM	1MF	10%	100V	
C901	1-130-768-00	FILM	0.1MF	5%	63V	
C902	1-126-129-11	ELECT	6800MF	20%	35V	
C903	1-126-129-11	ELECT	6800MF	20%	35V	
C906	1-124-918-11	ELECT	47MF	20%	63V	
C907	1-124-918-11	ELECT	47MF	20%	63V	
C911	1-124-360-00	ELECT	1000MF	20%	16V	
C931	1-123-343-00	ELECT	33MF	20%	25V	
C932	1-123-343-00	ELECT	33MF	20%	25V	
C933	1-123-380-00	ELECT	1MF	20%	100V	
C950	1-126-017-11	ELECT	6800MF	20%	16V	
C951	1-124-898-11	ELECT	4700MF	20%	16V	
C952	1-124-556-11	ELECT	2200MF	20%	16V	
C953	1-126-103-11	ELECT	470MF	20%	16V	
C954	1-124-902-00	ELECT	0.47MF	20%	50V	
C955	1-124-927-11	ELECT	4.7MF	20%	50V	
C966	1-124-122-11	ELECT	100MF	20%	50V	
C967	1-124-478-11	ELECT	100MF	20%	25V	
C968	1-124-478-11	ELECT	100MF	20%	25V	
C969	1-124-478-11	ELECT	100MF	20%	25V	
C970	1-124-122-11	ELECT	100MF	20%	50V	
C971	1-126-244-51	ELECT	47000MF		5.5V	
C990	1-161-744-00	CERAMIC	0.01MF		400V	
CN1151	1-564-706-41	PIN, CONNECTOR (SMALL TYPE) 4P				
CN1400	1-563-966-11	JACK, PIN 4P (LINE OUT)				
CN1451	1-507-863-51	JACK, LARGE TYPE (HEADPHONES)				
CN1760	1-507-567-71	JACK, PIN 1P (DIGITAL OUT: COAXIAL)				
CNP101	1-564-338-71	PIN, CONNECTOR 4P				
CNP102	1-564-340-51	PIN, CONNECTOR 6P				
CNP110	1-562-883-11	SOCKET, CONNECTOR 20P				

Ref.No.	Part No.	Description				
CNP201	1-564-339-51	PIN, CONNECTOR 5P				
CNP202	1-564-338-61	PIN, CONNECTOR 4P				
CNP203	1-564-338-51	PIN, CONNECTOR 4P				
CNP204	1-564-338-81	PIN, CONNECTOR 4P				
CNP255	1-564-339-61	PIN, CONNECTOR 5P				
CNP256	1-564-706-41	PIN, CONNECTOR (SMALL TYPE) 4P				
CNP301	1-564-342-51	PIN, CONNECTOR 8P				
CNP450	1-564-508-11	PLUG, CONNECTOR 5P				
CNP451	1-564-507-31	PLUG, CONNECTOR 4P				
CNP452	1-564-506-11	PLUG, CONNECTOR 3P				
CNP453	1-564-720-21	PIN, CONNECTOR (SMALL TYPE) 4P				
CNP454	1-564-720-31	PIN, CONNECTOR (SMALL TYPE) 4P				
CNP455	1-564-506-11	PLUG, CONNECTOR 3P				
CNP652	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P				
CNP653	1-564-336-61	PIN, CONNECTOR 2P				
CNP654	1-564-336-71	PIN, CONNECTOR 2P				
CNP656	1-564-337-51	PIN, CONNECTOR 3P				
CNP701	1-564-704-31	PIN, CONNECTOR (SMALL TYPE) 2P				
CNP702	1-564-704-41	PIN, CONNECTOR (SMALL TYPE) 2P				
CNP703	1-564-706-31	PIN, CONNECTOR (SMALL TYPE) 4P				
CNP750	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P				
CNP751	1-564-336-00	PIN, CONNECTOR 2P				
CNP760	1-564-507-41	PLUG, CONNECTOR 4P				
CNP770	1-564-507-31	PLUG, CONNECTOR 4P				
CNP851	1-564-338-00	PIN, CONNECTOR 4P				
CNP950	1-564-340-00	PIN, CONNECTOR 6P				
CNP951	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P				
CP801	1-232-976-11	COMPOSITION CIRCUIT BLOCK				
D101	8-719-940-76	DIODE 1SS132				
D201	8-719-940-76	DIODE 1SS132				
D651	8-719-200-02	DIODE 10E-2				
D652	8-719-200-02	DIODE 10E-2				
D653	8-719-200-02	DIODE 10E-2				
D654	8-719-200-02	DIODE 10E-2				
D801	8-719-941-69	LED PG3668S				
D802	8-719-939-85	LED AY3638S				
D803	8-719-939-87	LED VR3638S				
D804	8-719-921-05	LED EBG5534S				
D805	8-719-907-75	LED AA5534S				
D900	8-719-230-02	DIODE 10E-2				
D901	8-719-230-02	DIODE 10E-2				
D902	8-719-230-02	DIODE 10E-2				
D903	8-719-230-02	DIODE 10E-2				
D931	8-719-109-81	DIODE RD4.7ES-82				
D932	8-719-940-76	DIODE 1SS132				
D934	8-719-110-03	DIODE RD7.5ES-82				
D935	8-719-940-76	DIODE 1SS132				
D936	8-719-110-35	DIODE RD13ES-81				
D950	8-719-937-88	DIODE 10E-2				
D955	8-719-940-76	DIODE 1SS132				
D956	8-719-940-76	DIODE 1SS132				
D957	8-719-940-76	DIODE 1SS132				
D959	8-719-200-02	DIODE 10E-2				
D960	8-719-200-02	DIODE 10E-2				
D961	8-719-200-02	DIODE 10E-2				
D962	8-719-110-80	DIODE RD33ES-84				
D963	8-719-915-91	DIODE HZB.2E-83				
D964	8-719-940-76	DIODE 1SS132				

Ref.No.	Part No.	Description
F901	1-532-066-11	FUSE, TIME-LAG (T400mA)
FLD801	1-519-427-11	INDICATOR TUBE, FLUORESCENT
H151	8-719-800-18	DIODE THS103A-1
H152	8-719-800-18	DIODE THS103A-1
IC101	8-752-031-80	IC CXA1081S
IC151	8-759-202-01	IC TA7256P
IC201	8-759-202-01	IC TA7256P
IC202	8-759-805-18	IC LA6520
IC203	8-759-820-04	IC LC6523H-3446
IC204	8-752-032-33	IC CXA1182S
IC301	8-759-972-50	IC MSW6408-3355
IC302	8-752-322-04	IC CXD11250
IC303	8-752-320-44	IC CXK5816H-10L
IC400	8-759-701-21	IC NJM5532D-D
IC450	8-759-745-56	IC NJM4556D
IC500	8-759-701-21	IC NJM5532D-D
IC700	8-759-947-22	IC CXD1144P
IC701	8-759-939-94	IC TDA1541-M5
IC702	8-759-939-94	IC TDA1541-M5
IC703	8-759-202-13	IC TC74HC04P
IC704	8-759-202-12	IC TC74HC02P
IC705	8-759-202-11	IC TC74HC00P
IC706	8-759-000-99	IC MCT4HC74N
IC750	8-759-962-08	IC BA6208
IC770	1-464-878-11	TRANSMITTER UNIT, RAY (DIGITAL OUT:OPTICAL)
IC801	8-752-803-68	IC EXP5058H-067Q
IC802	8-759-630-16	IC M50704M-424SP
IC803	8-759-820-65	IC LC9600RM-183
IC851	8-741-138-70	IC BX-1387
IC900	8-759-604-34	IC M5F7815
IC901	8-759-604-52	IC M5F7915
IC902	8-759-604-29	IC M5F7805
IC903	8-759-604-47	IC M5F7905
IC905	8-759-604-29	IC M5F7805
IC906	8-759-604-29	IC M5F7805
IC907	8-759-604-47	IC M5F7905
IC930	8-759-178-12	IC UPC78L12
IC931	8-759-700-69	IC NJM79L12A
IC950	8-759-604-29	IC M5F7805
IC951	8-759-604-47	IC M5F7905
L760	1-421-946-11	TRANSFORMER, PULSE
L990	1-421-340-00	LINE FILTER
LP900	*1-535-116-00	TERMINAL
LP950	*1-535-118-00	TERMINAL
LP990	*1-535-140-00	BASE POST 19MM (10MM PITCH) 3P
M53	1-422-197-21	COIL (DRIVE)
M651	X-4902-019-1	MOTOR ASSY, CHUCKING
M652	A-4608-303-A	MOTOR ASSY, LOADING
PS951A	1-532-066-11	THERMISTOR, POSITIVE
PS952A	1-532-066-11	THERMISTOR, POSITIVE
PS953A	1-532-679-00	LINK, IC
PS954A	1-532-679-00	LINK, IC

Ref.No.	Part No.	Description
Q101	8-729-103-43	TRANSISTOR 2S8734
Q202	8-729-806-28	TRANSISTOR 2SC3402
Q203	8-729-806-28	TRANSISTOR 2SC3402
Q204	8-729-159-01	TRANSISTOR 2SA1348
Q205	8-729-806-38	TRANSISTOR 2SC3399
Q206	8-729-806-28	TRANSISTOR 2SC3402
Q301	8-729-806-38	TRANSISTOR 2SC3399
Q450	8-729-107-99	TRANSISTOR 2SC3622-K
Q550	8-729-107-99	TRANSISTOR 2SC3622-K
Q651	8-729-177-43	TRANSISTOR 2SD774-3
Q801	8-729-967-32	TRANSISTOR 2SC2673
Q802	8-729-900-45	TRANSISTOR OTC114EF
Q803	8-729-900-45	TRANSISTOR OTC114EF
Q804	8-729-900-45	TRANSISTOR OTC114EF
Q805	8-729-900-45	TRANSISTOR OTC114EF
Q806	8-729-900-45	TRANSISTOR OTC114EF
Q930	8-729-159-01	TRANSISTOR 2SA1348
Q931	8-729-806-28	TRANSISTOR 2SC3402
Q930	8-729-159-01	TRANSISTOR 2SA1348
Q933	8-729-159-01	TRANSISTOR 2SA1348
Q950	8-729-103-43	TRANSISTOR 2S8734
R101	1-215-396-00	CARBON 91 5% 1/4W
R102	1-214-092-00	METAL 22 1% 1/4W
R103	1-249-417-11	CARBON 1K 5% 1/4W
R104	1-249-433-11	CARBON 22K 5% 1/4W
R105	1-249-421-11	CARBON 2.2K 5% 1/4W
R106	1-249-428-11	CARBON 8.2K 5% 1/4W
R107	1-215-450-00	CARBON 16K 5% 1/4W
R108	1-249-425-11	CARBON 4.7K 5% 1/4W
R109	1-249-425-11	CARBON 4.7K 5% 1/4W
R110	1-249-432-11	CARBON 18K 5% 1/4W
R111	1-249-432-11	CARBON 18K 5% 1/4W
R112	1-249-441-11	CARBON 100K 5% 1/4W
R151	1-249-417-11	CARBON 1K 5% 1/4W
R152	1-249-417-11	CARBON 1K 5% 1/4W
R153	1-249-417-11	CARBON 1K 5% 1/4W
R154	1-247-887-00	CARBON 220K 5% 1/4W
R155	1-249-417-11	CARBON 1K 5% 1/4W
R156	1-249-417-11	CARBON 1K 5% 1/4W
R157	1-249-417-11	CARBON 1K 5% 1/4W
R158	1-247-887-00	CARBON 220K 5% 1/4W
R159	1-247-887-00	CARBON 220K 5% 1/4W
R160	1-247-887-00	CARBON 220K 5% 1/4W
R161	1-249-405-11	CARBON 100 5% 1/4W
R162	1-249-405-11	CARBON 100 5% 1/4W
R201	1-249-393-11	CARBON 10 5% 1/4W
R203	1-249-393-11	CARBON 10 5% 1/4W
R205	1-247-885-00	CARBON 180K 5% 1/4W
R206	1-247-881-00	CARBON 120K 5% 1/4W
R208	1-247-885-00	CARBON 180K 5% 1/4W
R210	1-247-881-00	CARBON 120K 5% 1/4W
R211	1-249-437-11	CARBON 47K 5% 1/4W
R212	1-249-436-11	CARBON 39K 5% 1/4W
R214	1-215-440-00	CARBON 6.2K 5% 1/4W
R216	1-249-393-11	CARBON 10 5% 1/4W
R217	1-215-491-00	CARBON 820K 5% 1/4W
R218	1-247-881-00	CARBON 120K 5% 1/4W

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description
R219	1-249-425-11	CARBON 4.7K 5% 1/4W
R220	1-249-424-11	CARBON 3.9K 5% 1/4W
R222	1-215-472-00	CARBON 130K 5% 1/4W
R223	1-249-393-11	CARBON 10 5% 1/4W
R224	1-249-393-11	CARBON 10 5% 1/4W
R225	1-249-417-11	CARBON 1K 5% 1/4W
R226	1-249-405-11	CARBON 100 5% 1/4W
R227	1-249-429-11	CARBON 10K 5% 1/4W
R228	1-215-486-00	CARBON 510K 5% 1/4W
R229	1-249-431-11	CARBON 15K 5% 1/4W
R230	1-249-439-11	CARBON 68K 5% 1/4W
R231	1-249-440-11	CARBON 82K 5% 1/4W
R232	1-249-429-11	CARBON 10K 5% 1/4W
R233	1-249-414-11	CARBON 560 5% 1/4W
R234	1-249-441-11	CARBON 100K 5% 1/4W
R235	1-215-434-00	METAL 3.6K 1% 1/6W
R236	1-249-433-11	CARBON 22K 5% 1/4W
R237	1-249-441-11	CARBON 100K 5% 1/4W
R238	1-249-441-11	CARBON 100K 5% 1/4W
R303	1-215-469-00	METAL 100K 1% 1/6W
R304	1-215-469-00	METAL 100K 1% 1/6W
R305	1-249-429-11	CARBON 10K 5% 1/4W
R306	1-249-441-11	CARBON 100K 5% 1/4W
R307	1-249-429-11	CARBON 10K 5% 1/4W
R308	1-249-417-11	CARBON 1K 5% 1/4W
R309	1-249-433-11	CARBON 22K 5% 1/4W
R310	1-215-493-00	CARBON 1M 5% 1/4W
R311	1-249-425-11	CARBON 4.7K 5% 1/4W
R312	1-249-417-11	CARBON 1K 5% 1/4W
R313	1-249-417-11	CARBON 1K 5% 1/4W
R314	1-249-417-11	CARBON 1K 5% 1/4W
R315	1-249-411-11	CARBON 330 5% 1/4W
R316	1-249-405-11	CARBON 100 5% 1/4W
R317	1-249-417-11	CARBON 1K 5% 1/4W
R319	1-249-417-11	CARBON 1K 5% 1/4W
R400	1-249-799-11	CARBON 750 1% 1/2W
R401	1-249-913-11	CARBON 390 1% 1/4W
R402	1-246-545-00	CARBON 1M 5% 1/4W
R403	1-249-806-11	CARBON 1.5K 1% 1/2W
R404	1-249-806-11	CARBON 1.5K 1% 1/2W
R405	1-246-533-00	CARBON 330K 5% 1/4W
R406	1-247-739-11	CARBON 100 5% 1/2W
R407	1-247-700-11	CARBON 100 5% 1/4W
R408	1-247-739-11	CARBON 100 5% 1/2W
R451	1-247-713-11	CARBON 1K 5% 1/4W
R453	1-247-713-11	CARBON 1K 5% 1/4W
R454	1-247-713-11	CARBON 1K 5% 1/4W
R455	1-247-700-11	CARBON 100 5% 1/4W
R456	1-249-421-11	CARBON 2.2K 5% 1/4W
R460	1-212-881-11	FUSIBLE 100 5% 1/4W F
R500	1-249-799-11	CARBON 750 1% 1/2W
R501	1-249-913-11	CARBON 390 1% 1/4W
R502	1-246-545-00	CARBON 1M 5% 1/4W
R503	1-249-806-11	CARBON 1.5K 1% 1/2W
R504	1-249-806-11	CARBON 1.5K 1% 1/2W
R505	1-246-533-00	CARBON 330K 5% 1/4W
R506	1-247-739-11	CARBON 100 5% 1/2W
R507	1-247-700-11	CARBON 100 5% 1/4W
R508	1-247-739-11	CARBON 100 5% 1/2W

Ref.No.	Part No.	Description
R551	1-247-713-11	CARBON 1K 5% 1/4W
R553	1-247-713-11	CARBON 1K 5% 1/4W
R554	1-247-713-11	CARBON 1K 5% 1/4W
R555	1-247-700-11	CARBON 100 5% 1/4W
R556	1-249-421-11	CARBON 2.2K 5% 1/4W
R560	1-212-881-11	FUSIBLE 100 5% 1/4W F
R651	1-249-417-11	CARBON 1K 5% 1/4W
R652	1-249-417-11	CARBON 1K 5% 1/4W
R700	1-249-417-11	CARBON 1K 5% 1/4W
R701	1-249-417-11	CARBON 1K 5% 1/4W
R702	1-249-409-11	CARBON 220 5% 1/4W
R703	1-249-409-11	CARBON 220 5% 1/4W
R704	1-249-417-11	CARBON 1K 5% 1/4W
R705	1-249-417-11	CARBON 1K 5% 1/4W
R711	1-246-545-00	CARBON 1M 5% 1/4W
R713	1-249-417-11	CARBON 1K 5% 1/4W
R714	1-249-413-11	CARBON 470 5% 1/4W
R715	1-249-409-11	CARBON 220 5% 1/4W
R716	1-249-907-11	CARBON 220 1% 1/4W
R717	1-249-417-11	CARBON 1K 5% 1/4W
R720	1-249-417-11	CARBON 1K 5% 1/4W
R722	1-249-437-11	CARBON 47K 5% 1/4W
R723	1-247-891-00	CARBON 330K 5% 1/4W
R725	1-249-413-11	CARBON 470 5% 1/4W
R726	1-249-417-11	CARBON 1K 5% 1/4W
R727	1-249-417-11	CARBON 1K 5% 1/4W
R760	1-215-394-00	CARBON 75 5% 1/4W
R761	1-215-390-00	CARBON 51 5% 1/4W
R770	1-249-428-11	CARBON 8.2K 5% 1/4W
R801	1-249-422-11	CARBON 2.7K 5% 1/4W
R802	1-249-424-11	CARBON 3.9K 5% 1/4W
R803	1-249-427-11	CARBON 6.8K 5% 1/4W
R804	1-249-432-11	CARBON 18K 5% 1/4W
R805	1-249-422-11	CARBON 2.7K 5% 1/4W
R806	1-249-424-11	CARBON 3.9K 5% 1/4W
R807	1-249-427-11	CARBON 6.8K 5% 1/4W
R808	1-249-432-11	CARBON 18K 5% 1/4W
R809	1-249-422-11	CARBON 2.7K 5% 1/4W
R810	1-249-424-11	CARBON 3.9K 5% 1/4W
R811	1-249-427-11	CARBON 6.8K 5% 1/4W
R812	1-249-432-11	CARBON 18K 5% 1/4W
R813	1-249-422-11	CARBON 2.7K 5% 1/4W
R814	1-249-424-11	CARBON 3.9K 5% 1/4W
R815	1-249-427-11	CARBON 6.8K 5% 1/4W
R816	1-249-432-11	CARBON 18K 5% 1/4W
R817	1-249-422-11	CARBON 2.7K 5% 1/4W
R818	1-249-424-11	CARBON 3.9K 5% 1/4W
R819	1-249-427-11	CARBON 6.8K 5% 1/4W

Ref.No.	Part No.	Description
R820	1-249-422-11	CARBON 2.7K 5% 1/4W
R821	1-249-424-11	CARBON 3.9K 5% 1/4W
R822	1-249-427-11	CARBON 6.8K 5% 1/4W
R823	1-249-432-11	CARBON 18K 5% 1/4W
R824	1-249-422-11	CARBON 2.7K 5% 1/4W
R825	1-249-424-11	CARBON 3.9K 5% 1/4W
R826	1-249-427-11	CARBON 6.8K 5% 1/4W
R827	1-249-432-11	CARBON 18K 5% 1/4W
R828	1-249-422-11	CARBON 2.7K 5% 1/4W
R829	1-249-424-11	CARBON 3.9K 5% 1/4W
R830	1-249-427-11	CARBON 6.8K 5% 1/4W
R831	1-249-432-11	CARBON 18K 5% 1/4W
R841	1-215-493-00	CARBON 1M 5% 1/4W
R851	1-249-429-11	CARBON 10K 5% 1/4W
R852	1-249-407-11	CARBON 150 5% 1/4W
R853	1-249-408-11	CARBON 180 5% 1/4W
R854	1-249-412-11	CARBON 390 5% 1/4W
R855	1-249-406-11	CARBON 120 5% 1/4W
R856	1-249-409-11	CARBON 220 5% 1/4W
R857	1-249-405-11	CARBON 100 5% 1/4W
R858	1-249-429-11	CARBON 10K 5% 1/4W
R859	1-249-429-11	CARBON 10K 5% 1/4W
R860	1-249-429-11	CARBON 10K 5% 1/4W
R861	1-249-429-11	CARBON 10K 5% 1/4W
R862	1-249-429-11	CARBON 10K 5% 1/4W
R863	1-249-429-11	CARBON 10K 5% 1/4W
R900	1-212-877-11	FUSIBLE 68 5% 1/4W F
R931	1-249-524-11	CARBON 68 5% 1/4W
R932	1-249-524-11	CARBON 68 5% 1/4W
R933	1-247-713-11	CARBON 1K 5% 1/4W
R934	1-249-441-11	CARBON 100K 5% 1/4W
R935	1-249-422-11	CARBON 2.7K 5% 1/4W
R950	1-212-873-11	FUSIBLE 47 5% 1/4W F
R951	1-215-442-00	CARBON 7.5K 5% 1/4W
R952	1-249-441-11	CARBON 100K 5% 1/4W
R953	1-212-849-00	FUSIBLE 4.7 5% 1/4W F
R955	1-249-556-11	CARBON 1.5K 5% 1/4W
R956	1-249-433-11	CARBON 22K 5% 1/4W
R958	1-249-405-11	CARBON 100 5% 1/4W
RV101	1-228-995-00	RES, ADJ, CARBON 22K (E-F BALANCE)
RV102	1-228-995-00	RES, ADJ, CARBON 22K (TRACKING GAIN)
RV103	1-228-995-00	RES, ADJ, CARBON 22K (FOCUS GAIN)

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description
RY104	1-228-993-00	RES, ADJ, CARBON 4.7K (FOCUS BIAS)
RV201	1-228-990-00	RES, ADJ, METAL GLAZE 1K (RF PLL)
RV450	1-237-917-41	RES, VAR, CARBON 10K/10K (LINE OUT/PHONE LEVEL)
RY1	1-515-645-11	RELAY
RY2	1-515-645-11	RELAY
S651	1-554-205-00	SWITCH, PUSH (LOAD IN DET)
S652	1-571-300-11	SWITCH, ROTARY (LOAD OUT DET)
S653	1-553-636-00	SWITCH, MICRO (MOTOR SELECT)
S654	1-570-447-11	SWITCH, MICRO (CHUCKING)
S760	1-516-778-XX	SWITCH, SLIDE (OUTPUT SELECTOR)
S801	1-554-980-11	SWITCH, KEY BOARD (1)
S802	1-554-980-11	SWITCH, KEY BOARD (2)
S803	1-554-980-11	SWITCH, KEY BOARD (3)
S804	1-554-980-11	SWITCH, KEY BOARD (4)
S805	1-554-980-11	SWITCH, KEY BOARD (5)
S806	1-554-980-11	SWITCH, KEY BOARD (6)
S807	1-554-980-11	SWITCH, KEY BOARD (7)
S808	1-554-980-11	SWITCH, KEY BOARD (8)
S809	1-554-980-11	SWITCH, KEY BOARD (9)
S810	1-554-980-11	SWITCH, KEY BOARD (10)
S811	1-554-980-11	SWITCH, KEY BOARD (11)
S812	1-554-980-11	SWITCH, KEY BOARD (12)
S813	1-554-980-11	SWITCH, KEY BOARD (13)
S814	1-554-980-11	SWITCH, KEY BOARD (14)
S815	1-554-980-11	SWITCH, KEY BOARD (15)
S816	1-554-980-11	SWITCH, KEY BOARD (16)
S817	1-554-980-11	SWITCH, KEY BOARD (17)
S818	1-554-980-11	SWITCH, KEY BOARD (18)
S819	1-554-980-11	SWITCH, KEY BOARD (19)
S820	1-554-980-11	SWITCH, KEY BOARD (20)
S821	1-554-980-11	SWITCH, KEY BOARD (◀)
S822	1-554-980-11	SWITCH, KEY BOARD (> 20)
S823	1-554-980-11	SWITCH, KEY BOARD (▶)
S824	1-554-980-11	SWITCH, KEY BOARD (ERASE)
S825	1-554-980-11	SWITCH, KEY BOARD (■)
S826	1-554-980-11	SWITCH, KEY BOARD (AMS ◀)
S827	1-554-980-11	SWITCH, KEY BOARD (AMS ▶)
S828	1-554-980-11	SWITCH, KEY BOARD (CLEAR)
S829	1-554-980-11	SWITCH, KEY BOARD (CHECK)
S830	1-554-980-11	SWITCH, KEY BOARD (▲ OPEN/CLOSE)
S831	1-554-980-11	SWITCH, KEY BOARD ()
S832	1-554-980-11	SWITCH, KEY BOARD (→ INDEX)
S833	1-554-980-11	SWITCH, KEY BOARD (INDEX MODE)
S834	1-554-980-11	SWITCH, KEY BOARD (FILE)

Ref.No.	Part No.	Description
S835	1-554-980-11	SWITCH, KEY BOARD (REPEAT)
S836	1-554-980-11	SWITCH, KEY BOARD (DISPLAY)
S837	1-554-980-11	SWITCH, KEY BOARD (▶)
S838	1-554-980-11	SWITCH, KEY BOARD (A PAUSE/SPACE)
S839	1-554-980-11	SWITCH, KEY BOARD (← INDEX)
S851	1-554-481-00	SWITCH, SLIDE (TIMER)
S851	1-554-980-11	SWITCH, KEY BOARD (CONTINUE/SINGLE)
S852	1-554-980-11	SWITCH, KEY BOARD (SHUFFLE)
S853	1-554-980-11	SWITCH, KEY BOARD (PROGRAM)
S990	1-553-318-00	SWITCH, PUSH (AC POWER) (1 KEY)
SE51	1-422-198-21	COIL (SENSOR)
T901	1-449-075-11	TRANSFORMER, POWER
X301	1-567-686-11	OSCILLATOR, CERAMIC (4MHz)
X711	1-567-926-11	VIBRATOR, CRYSTAL (16MHz)
X801	1-567-686-11	OSCILLATOR, CERAMIC (4MHz)

ACCESSORY & PACKING MATERIAL

1-463-909-11	COMMANDER, REMOTE (RM-D650)
1-558-787-31	CORD, CONNECTION
3-694-204-01	SHEET, PROTECTION
3-701-630-00	BAG, POLYETHYLENE
3-769-639-11	MANUAL, INSTRUCTION
3-769-639-41	(AEP)...MANUAL, INSTRUCTION
3-795-629-11	(AEP)...INSTRUCTION
*4-912-947-01	KEY, LOCK
4-922-528-01	LID, BATTERY CASE, COMMANDER
4-923-547-21	INDIVIDUAL CARTON
4-923-550-01	CUSHION (LOWER)
4-923-551-01	CUSHION (UPPER)

The components identified by shading and mark  are critical for safety. Replace only with part number specified.