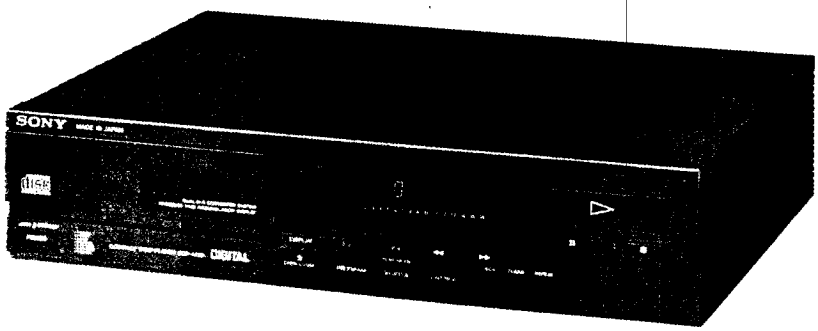
CDP-M29

SERVICE MANUAL

AEP Model
UK Model



SPECIFICATIONS

Frequency response 2 Hz to 20 kHz $^{+0.5}_{-4.0}$ dB
Signal to noise ratio More than 75 dB
Harmonic distortion Less than 0.7% (at 1 kHz)
Outputs

	Type	Output level	Load impedance
LINE OUT	4-pin	2 V (47 kohms)	More than 10 kohms

Weight Approx. 3 kg (6 lb 10 oz), net
Dimensions Approx. 355 × 80 × 275 mm (w/h/d)
(14 × 3¼ × 10⅞ inches)
incl. projecting parts and controls
Power consumption
10 watts

For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk

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.

MICROFILM

COMPACT DISC PLAYER

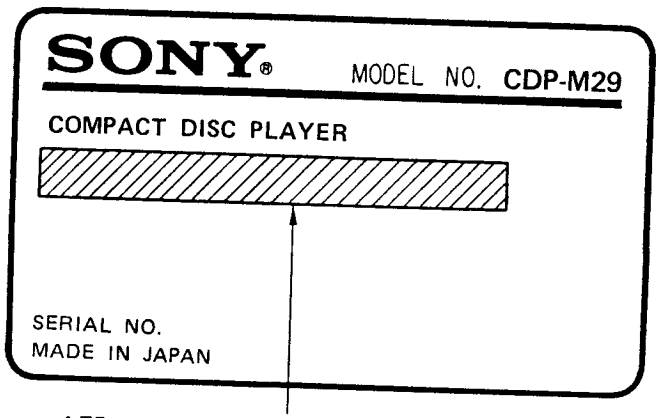
SONY®

TABLE OF CONTENTS

SERVICING NOTES

MODEL IDENTIFICATION

– Specifications Labels –



AEP model: AC: 220 V ~ 50/60 Hz 10 W
UK model: AC: 240 V ~ 50/60 Hz 10 W

NOTES ON CHECKING LASER DIODE LIGHT EMISSION

The laser beam on this set is converged by the objective lens in the optical block so that it focuses on the disc reflective surface. Therefore, when checking light emission of the laser diode, be sure to keep the eyes more than 30 cm away from the objective lens.

NOTES ON HANDLING THE OPTICAL UP BLOCK OR BASE UNIT

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

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 μW*

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

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.

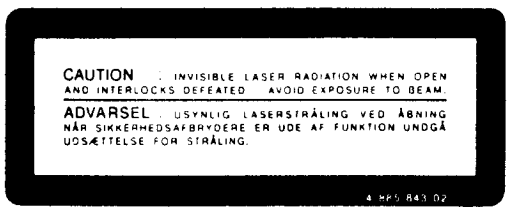
1. Laser-didoe data
   - Materiale: GaAlAs
   - Bølgelængde: 780 nm
   - Udstråling: Kontinuerlig
   - Laseroutput: Max. 0,4 mW*

     * Målt i 1,6 mm afstand fra overfladen af objektiv-linsen på den optiske pick-up enhed.
   - Klassifikation: Klasse IIIb.

LASER ADVARSEL MÆRKNING

Følgende mærkning findes indvendig i apparatet:

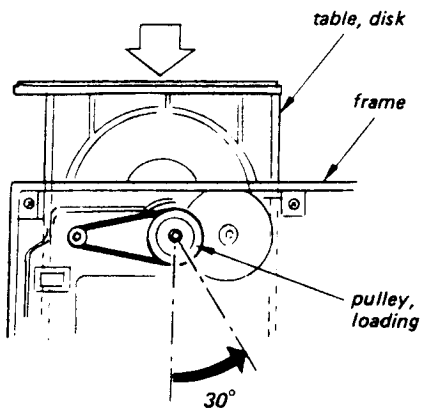
1. Advarsel Mærkning



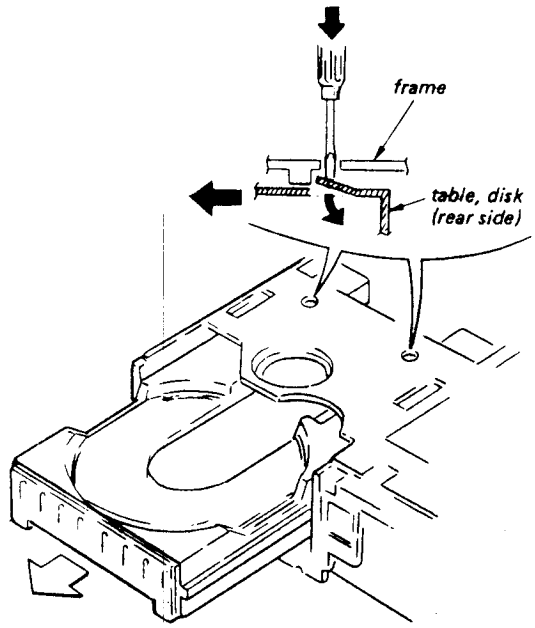
VAROITUS: Laite sisältää, laserdiodin, joka lähettää (näkymätöntä) silmille vaarallista lasersateilyä.

NOTES ON REPAIR

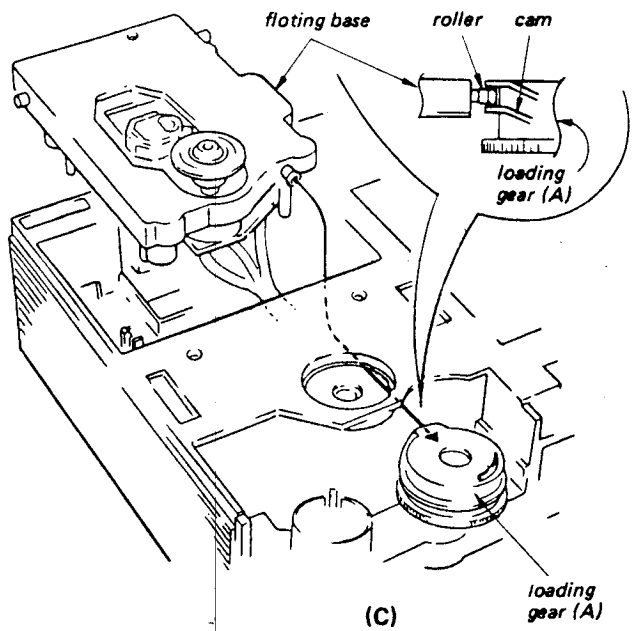
- When removing the disk-table, put the small screwdriver into the hole.
  Pull off the disk-table toward you while pushing the screwdriver. See figure (A).
- When re-assembling the disk-table, rotate the loading pulley by 30-degree in the direction of the arrow by finger, and put the table slowly. See figure (B).
- When re-assembling the floating base, set it so that the floating-base roller is engaged with the cam of the loading gear (A). See figure (C).



(B)

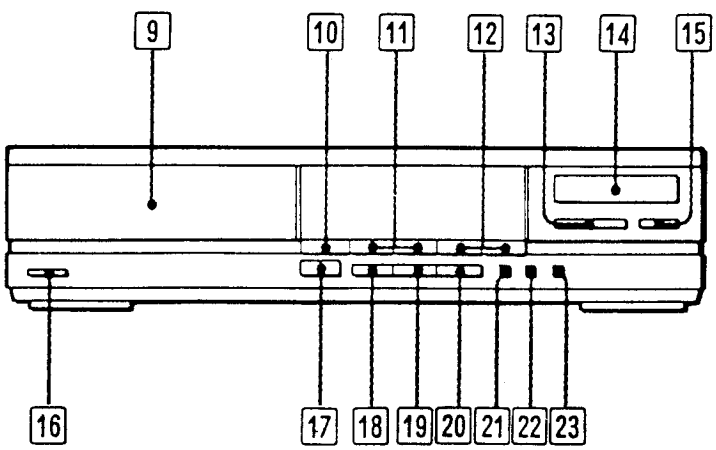


(A)



(C)

PARTS IDENTIFICATION



9 Disc compartment
10 DISPLAY button
11 ⏮ / ⏭ (AMS* /RMS* *) buttons
12 ◀◀/▶▶ (manual search) buttons
13 ❚❚ (pause) button
14 ▷ (play) button
15 ■ (stop) button
16 POWER switch
17 ⏏ OPEN/CLOSE button
18 PROGRAM button
19 SHUFFLE button
20 CONTINUE button
21 CHECK button
22 CLEAR button
23 REPEAT button

* Automatic Music Sensor
* * Random Music Sensor

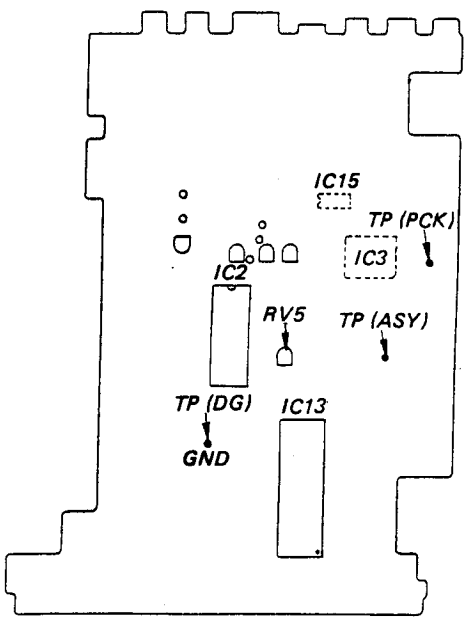
SECTION 1
ELECTRICAL ADJUSTMENTS

1. Perform adjustments in the order given.
2. Use YEDS-18 (Part No. 3-702-101-01) disc unless otherwise indicated.
3. Use the oscilloscope with more than 10 MΩ impedance.

RF PLL Free-run Frequency Check and Adjustment

1. Connect test points TP (ASY) to ground with jumper wire.
2. Press OPEN/CLOSE button and open the disk holder.
3. Check for 4.3218 MHz at test point TP (PCK) using a frequency counter. If not, adjust RV5.
4. Remove lead wire connecting TP (ASY) and ground.

Adjustment Location: main board

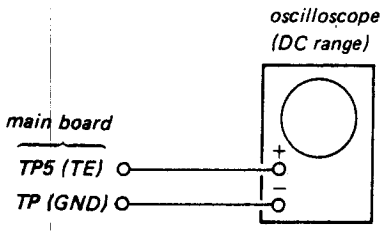


– Component Side –

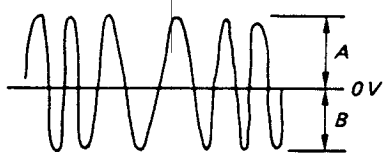
E·F Balance Adjustment

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

Procedure:

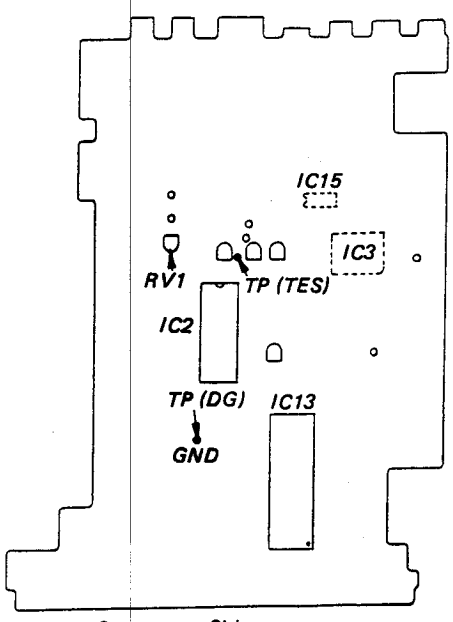


1. Connect oscilloscope to test point TP (TES) and ground.
2. Turn POWER switch on.
3. Put disc (YEDS-18) in and playback the 6th selection.
4. Press ◀◀ FF or ▶▶ REW botton.
5. Adjust RV1 for a vertically-symmetrical waveform as shown below. (A = B)



VOLT/DIV: 1 V
TIME/DIV: 1 ms

Adjustment Location: main board



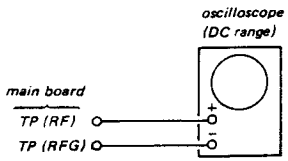
– Component Side –

REFERENCE

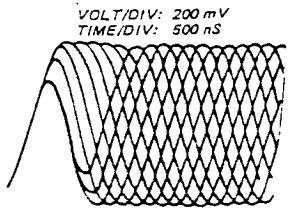
Focus Bias Adjustment

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

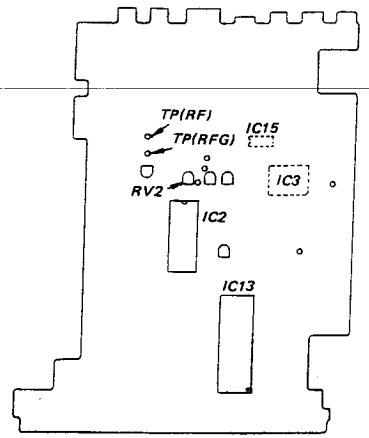
Procedure:



1. Connect oscilloscope to test points TP (RF) and TP (RFG).
2. Turn POWER switch on.
3. Put disc (YEDS-18) in and playback the 6th selection.
4. Adjust RV2 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.



Adjustment Location: main board



– Component Side –

Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

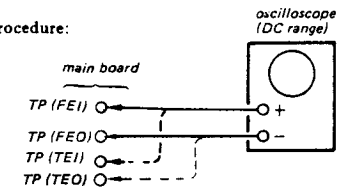
Symptoms \ Gain	Focus	Tracking
• The time until music starts becomes longer for STOP →▷PLAY or automatic selection (⏮ ⏭buttons pressed. (Normally takes about 2 seconds.)	low	low or high
• Music does not start and disc continues to rotate for STOP→▷PLAY or automatic selection (⏮ ⏭ buttons pressed.)	–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

The following is a simple adjustment method.

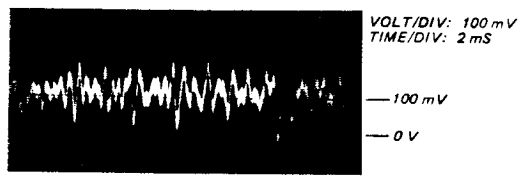
– Simple Adjustment –

Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

Procedure:

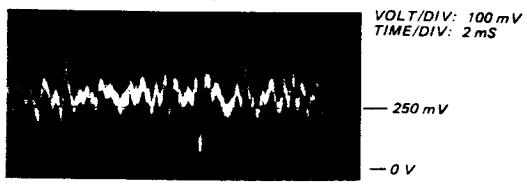


1. Keep the set horizontal.
   (If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2 axis device.)
2. Insert disc (YEDS-18) and press PLAY button.
3. Connect oscilloscope to main amp board TP (FEI), TP (FEO).
4. Adjustment RV3 to that the waveform is as shown in the figure below. (focus gain adjustment)

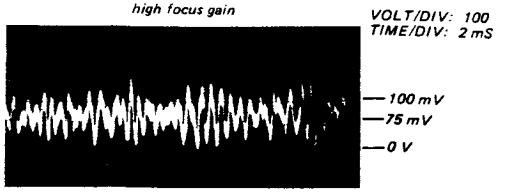


- Incorrent Examples (DC level changes more than on adjusted waveform)

low focus gain



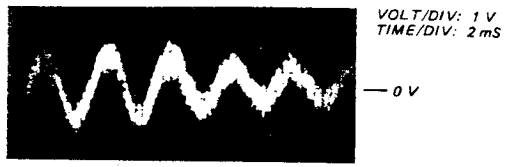
high focus gain



5. Connect oscilloscope to main board TP (TEI), TP (TEO).
6. Adjust RV4 so that the waveform is as shown in the figure below. (tracking gain adjustment)

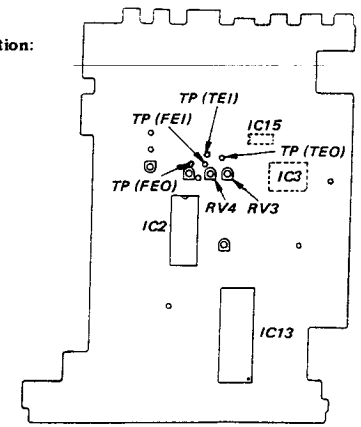
- Incorrect Examples (fundamental wave appears)

low tracking gain



high tracking gain
(higher fundamental wave than for low gain)

Adjustment Location:
main board

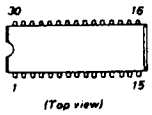


– Component Side –

SECTION 2
DIAGRAMS

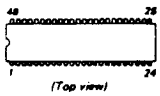
• Semiconductor Lead Layouts

CXA1081S

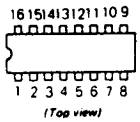


M5231TL

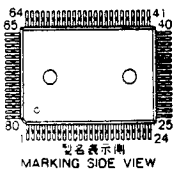
CXA1182S



M5290P-16
TA8406P

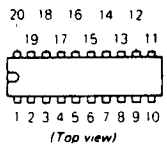


CXD1125Q



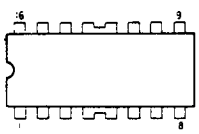
2SA1345
2SC3399
2SC3402

CXD1161P-1

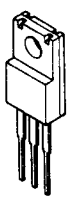


2SB1013
2SC3622

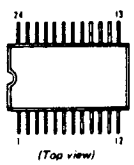
LA6520



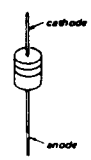
2SB1274SA-Q
2SD1913SA-Q



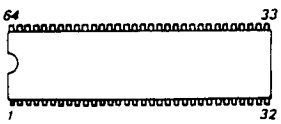
LC9600P-144



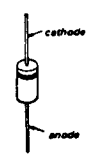
RD5.1ES-B



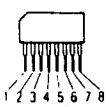
MSC6458-18SS



RD6.8ES-B
1SS132
10E2

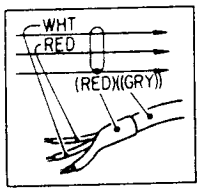


M5218L



Note on Printed Wiring Boards:

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



- ○—— : parts extracted from the component side.
- ○—●—○ : Jumper wire connected to the ground pattern on the component side.

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- ▬▬ : B+ bus.
- ▬ ▬ : B− bus.
- ▭ : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : STOP
  ( ) : PLAY
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- ⇨ : CD
- Switch

Ref. No.	Switch	Position
SW1	POWER	OFF
SW3	CLEAR	OFF
SW4	OPEN/CLOSE	OFF
SW5	REPEAT	OFF
SW6	PLAY	OFF
SW7	PROGRAM	OFF
SW8	SEARCH REVERSE	OFF
SW9	AMS REVERSE	OFF
SW11	PAUSE	OFF
SW12	SHUFFLE	OFF
SW13	CHECK	OFF
SW14	SEARCH FORWARD	OFF
SW15	AMS FORWARD	OFF
SW16	DISPLAY	OFF
SW17	STOP	OFF
SW18	CONTINUE	OFF
SW401	LIMIT	OFF
SW901	LOADING	OFF

• SEMICONDUCTOR LOCATION

Ref. No.	Location
D1	C-6
D2	C-6
D3	B-7
D4	B-7
D5	B-7
D6	B-5
D7	H-7
D8	J-8
D9	J-8
D10	J-8
D11	E-6
D12	G-2
IC1	D-5
IC2	F-5
IC3	E-2
IC5	C-2
IC6	C-4
IC7	C-3
IC9	C-5
IC10	B-5
IC11	F-6
IC12	H-6
IC13	I-3
IC14	I-8
IC15	D-3
Q1	C-6
Q2	C-5
Q3	E-6
Q5	C-5
Q6	B-5
Q7	F-3
Q8	F-3
Q9	G-1
Q10	I-2
Q11	H-4
Q14	B-2
Q15	C-2
Q16	B-4
Q17	B-3
Q18	B-3
Q19	B-3

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

the end of the jacket.

n the component side.
cted to the ground pattern on
.

less otherwise noted. pF: μμF
cated except for electrolytics

1/4W or less unless otherwise

dc with respect to ground

DM (50 kΩ/V).
noted due to normal produc-

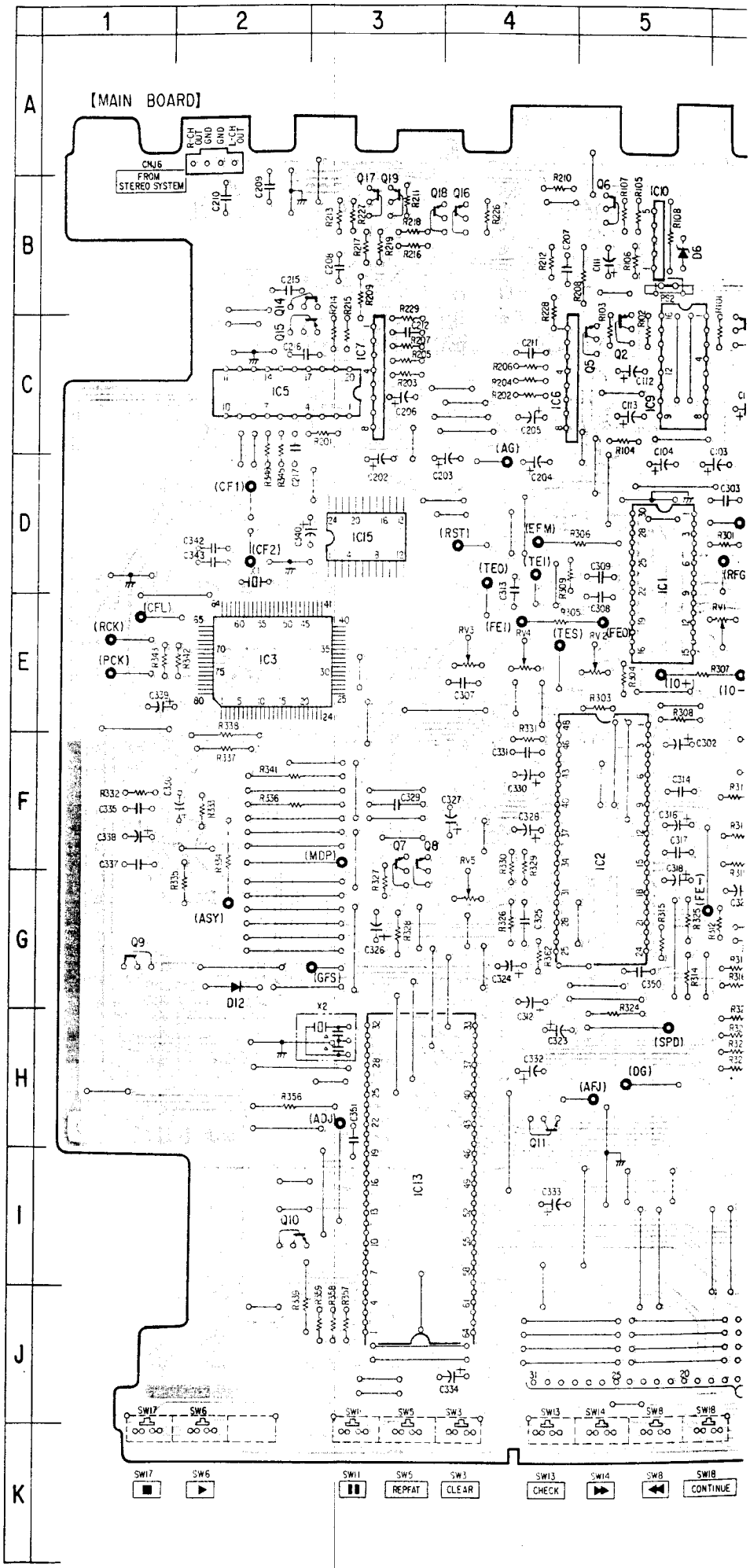
oscilloscope.
noted due to normal produc-

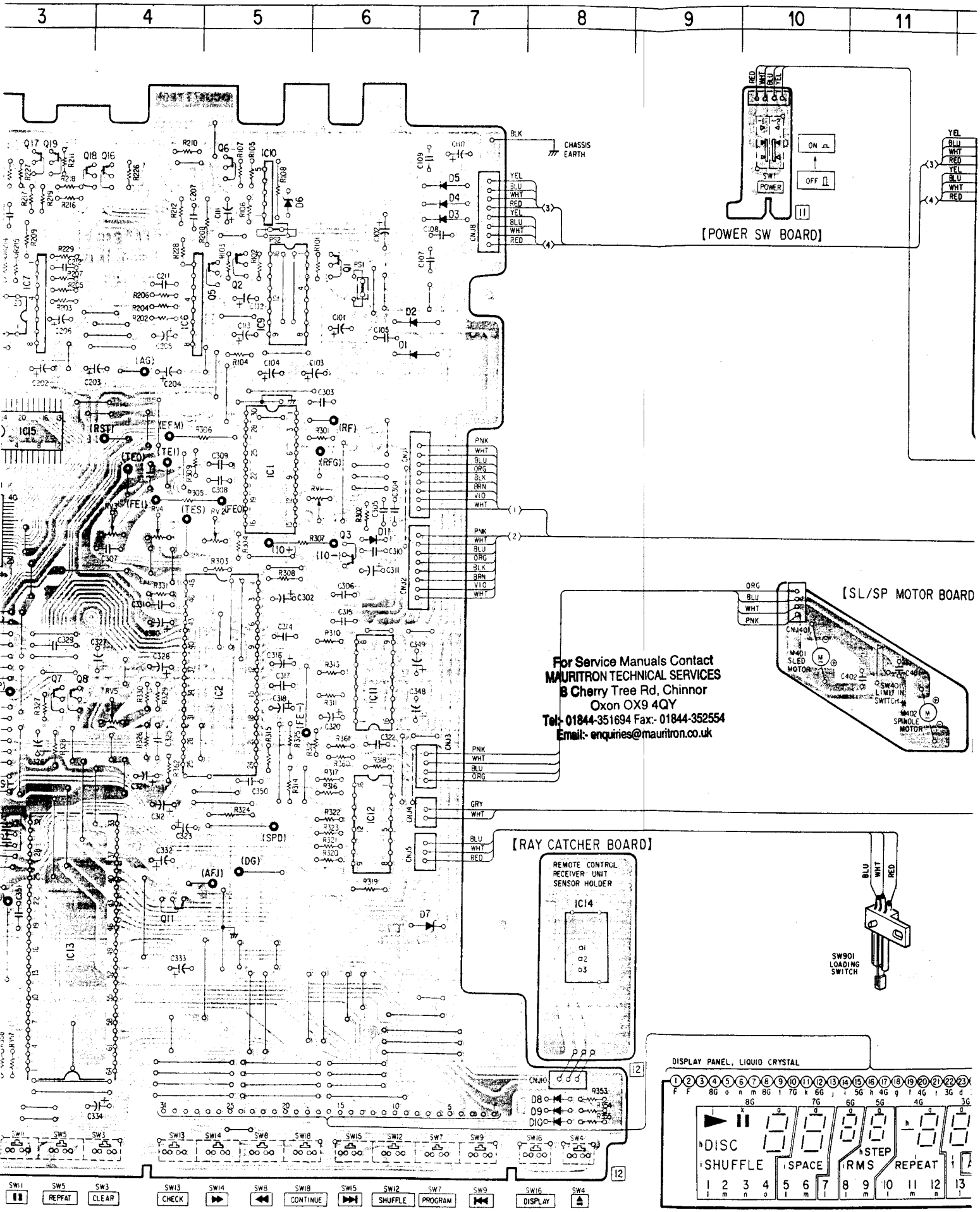
itch	Position
	OFF
	OFF
SE	OFF
	OFF
	OFF
	OFF
REVERSE	OFF
ERSE	OFF
	OFF
	OFF
	OFF
FORWARD	OFF
WARD	OFF
	OFF
	OFF
	OFF
	OFF
	OFF

identified by shading and mark
or safety. Replace only with
cified.

• SEMICONDUCTOR LOCATION

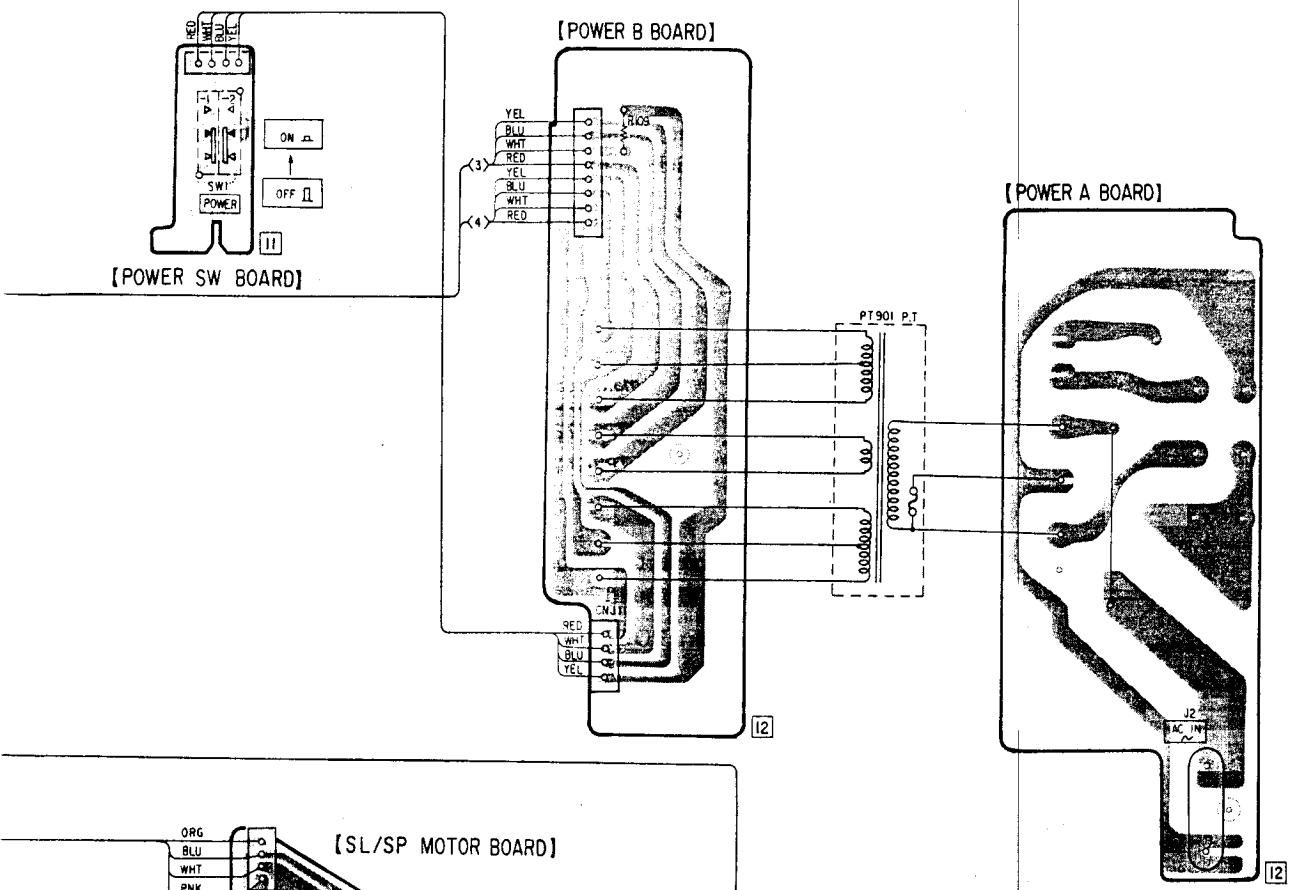
Ref. No.	Location
D1	C-6
D2	C-6
D3	B-7
D4	B-7
D5	B-7
D6	B-5
D7	H-7
D8	J-8
D9	J-8
D10	J-8
D11	E-6
D12	G-2
IC1	D-5
IC2	F-5
IC3	E-2
IC5	C-2
IC6	C-4
IC7	C-3
IC9	C-5
IC10	B-5
IC11	F-6
IC12	H-6
IC13	I-3
IC14	I-8
IC15	D-3
Q1	C-6
Q2	C-5
Q3	E-6
Q5	C-5
Q6	B-5
Q7	F-3
Q8	F-3
Q9	G-1
Q10	I-2
Q11	H-4
Q14	B-2
Q15	C-2
Q16	B-4
Q17	B-3
Q18	B-3
Q19	B-3



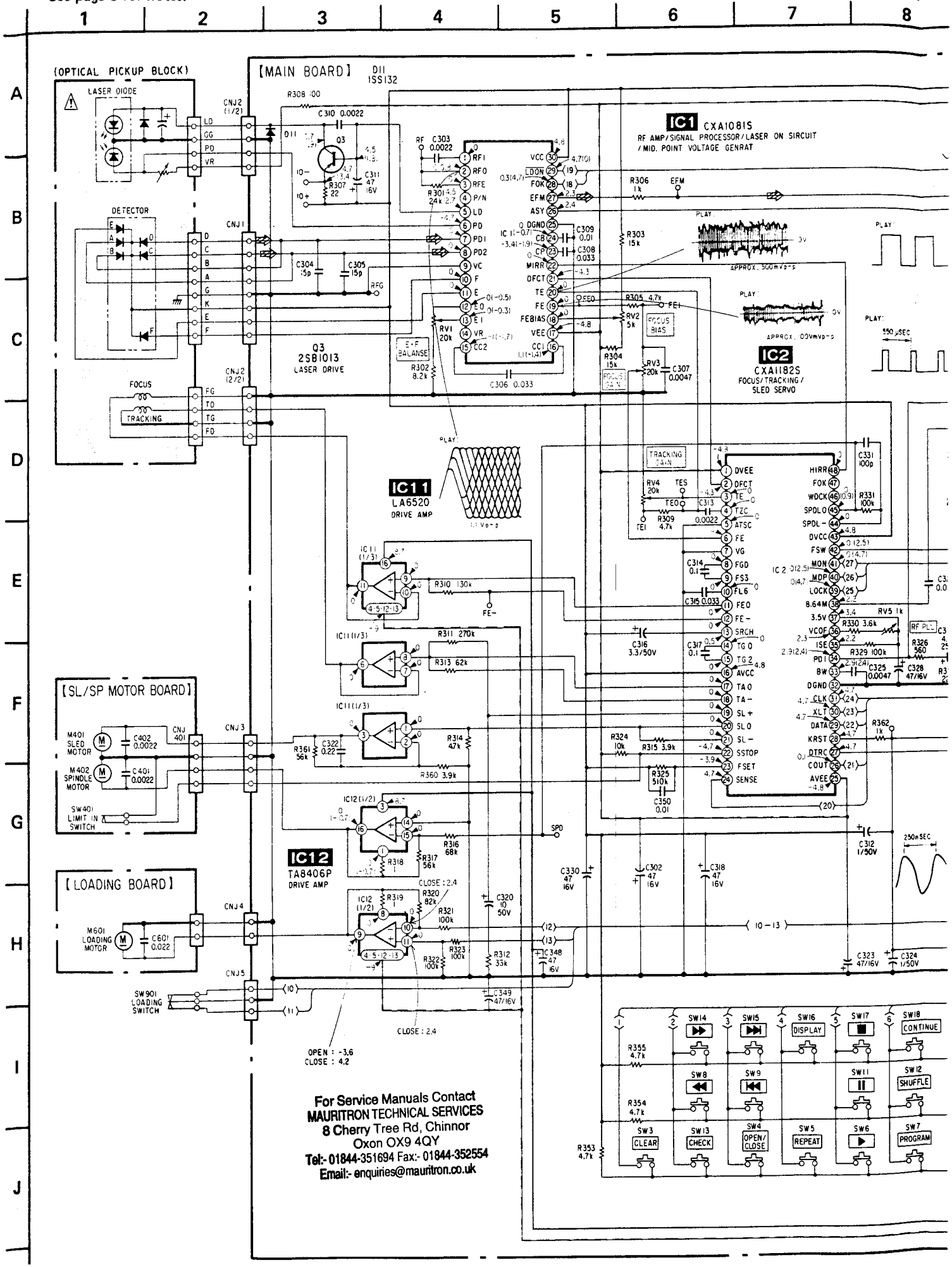


For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk

9	10	11	12	13	14	15	16



• See page 8 for notes.



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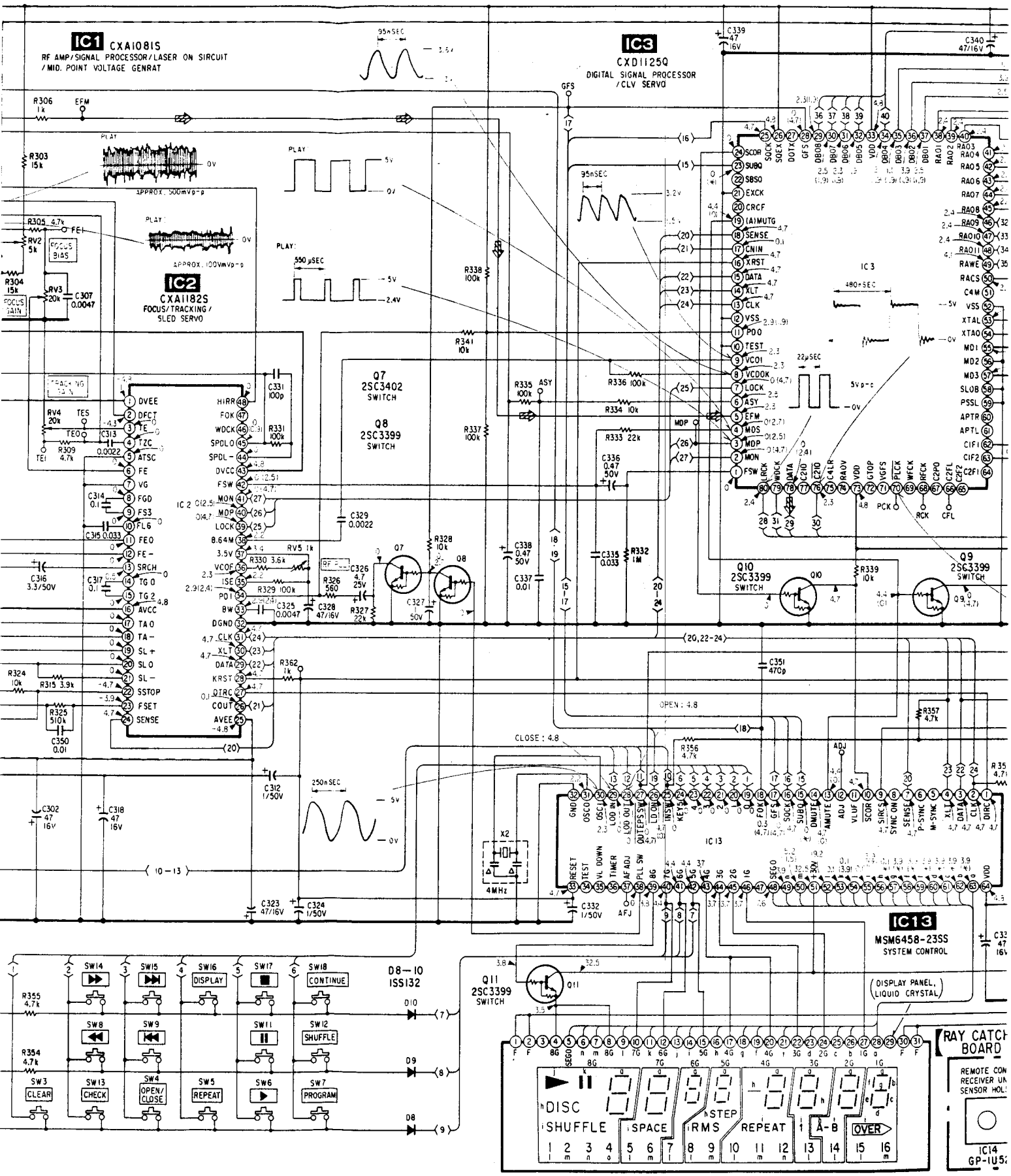
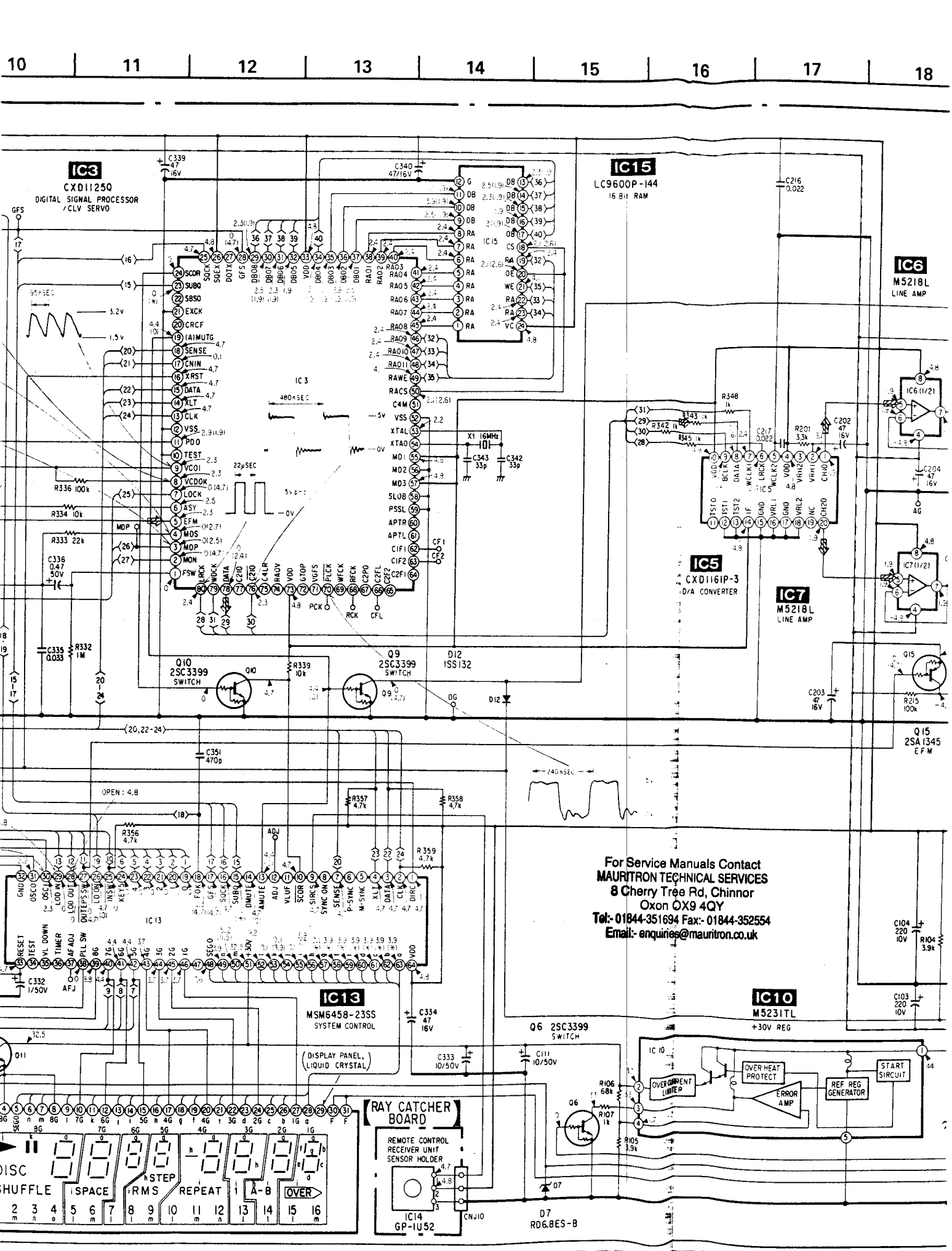

IC1 CXA1081S
RF AMP/SIGNAL PROCESSOR/LASER ON SIRCUIT
/MID. POINT VOLTAGE GENRAT
IC2 CXA1182S
FOCUS/TRACKING/
SLED SERVO
IC3 CXD1125Q
DIGITAL SIGNAL PROCESSOR
/CLV SERVO
IC13 MSM6458-23SS
SYSTEM CONTROL
Q7 2SC3402 SWITCH
Q8 2SC3399 SWITCH
Q9 2SC3399 SWITCH
Q10 2SC3399 SWITCH
Q11 2SC3399 SWITCH
D8-10 ISS132
SW3 CLEAR
SW4 OPEN/CLOSE
SW5 REPEAT
SW6
SW7 PROGRAM
SW8
SW9
SW11
SW12 SHUFFLE
SW13 CHECK
SW14
SW15
SW16 DISPLAY
SW17
SW18 CONTINUE
(DISPLAY PANEL, LIQUID CRYSTAL)
DISC
SHUFFLE
SPACE
RMS
STEP
REPEAT
A-B
OVER
RAY CATCH BOARD
REMOTE CON
RECEIVER UN
SENSOR HOL
IC14 GP-1U5


IC3
CXD1125Q
DIGITAL SIGNAL PROCESSOR /CLV SERVO
IC15
LC9600P-144
16 Bit RAM
IC6
M5218L
LINE AMP
IC5
CXD1161P-3
D/A CONVERTER
IC7
M5218L
LINE AMP
IC13
MSM6458-23SS
SYSTEM CONTROL
IC10
M5231TL
+30V REG
Q10
2SC3399
SWITCH
Q9
2SC3399
SWITCH
D12
1SS132
Q6
2SC3399
SWITCH
Q15
2SA1345
E F M
D7
RD6.8ES-B
IC14
GP-1U52
CNJ10
(DISPLAY PANEL, LIQUID CRYSTAL)
[RAY CATCHER BOARD]
REMOTE CONTROL RECEIVER UNIT SENSOR HOLDER
OVER CURRENT LIMITER
OVER HEAT PROTECT
ERROR AMP
REF REG GENERATOR
START SIRCUIT
For Service Manuals Contact
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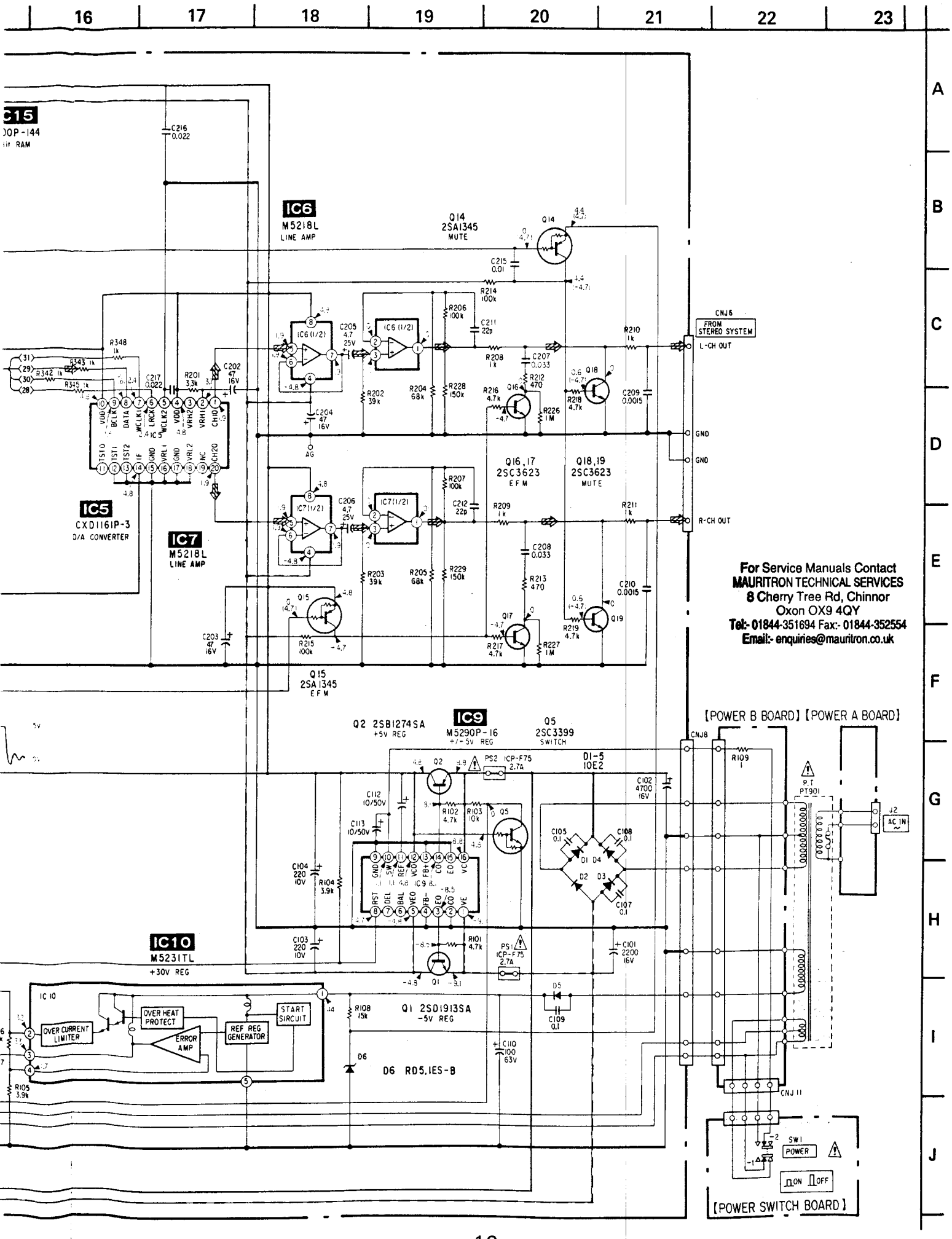
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk



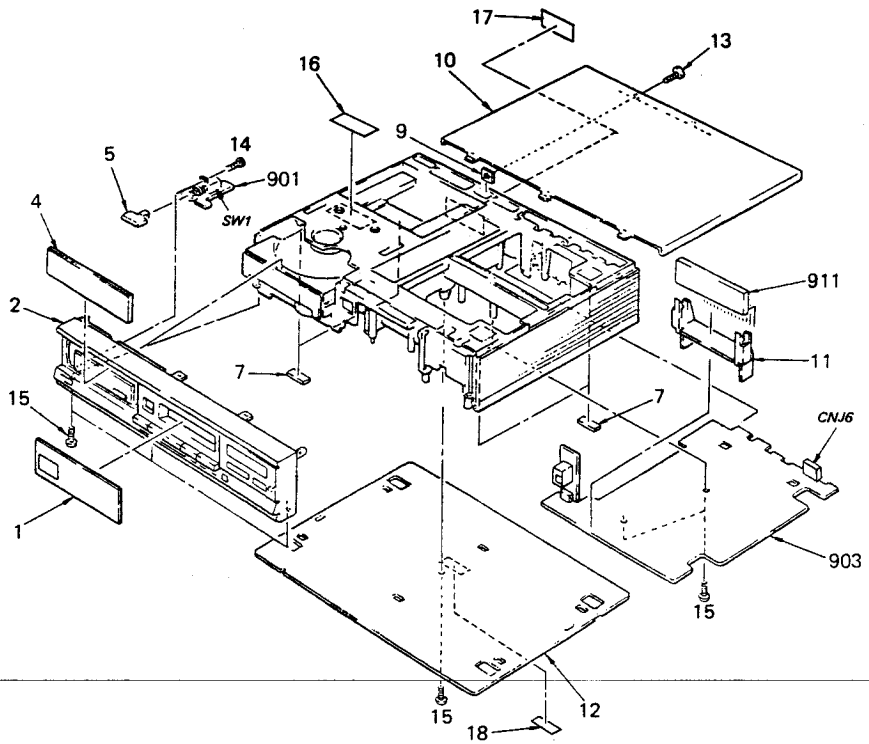
SECTION 3
EXPLODED VIEWS AND PARTS LIST

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 "*" 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 mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

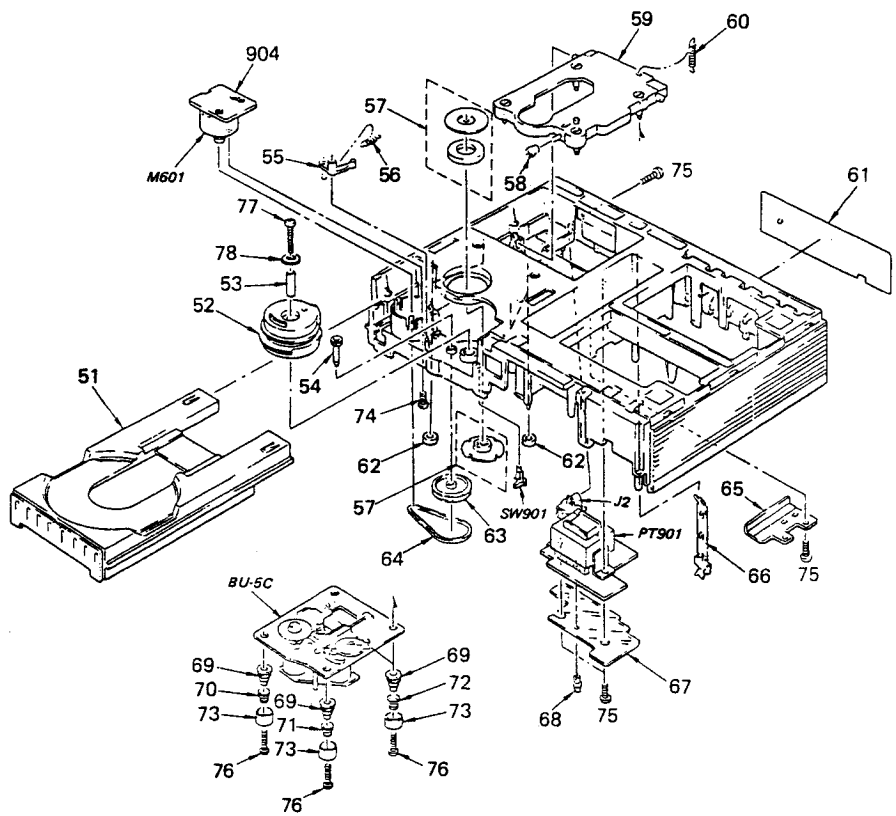
(1) CABINET ASSEMBLY



No.	Part No.	Description	Remarks
1	4-922-614-01	PLATE, INDICATION	
2	X-4917-539-1	PANEL ASSY, FRONT	
4	4-922-609-01	PANEL, LOADING	
5	4-917-525-41	KNOB, POWER	
7	4-917-524-01	FELT, FOOT	
9	*4-918-670-01	SUPPORT, GROUND	
10	4-917-536-31	CASE	
11	*4-922-613-01	HOLDER	
12	*4-917-535-01	PLATE, BOTTOM	
13	3-703-685-21	SCREW (+BV 3X8)	
14	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S	
15	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
16	*4-885-843-02	LABEL, CAUTION, LASER	
17	*4-885-838-00	LABEL, CLASS 1	
18	3-703-079-21	(UK)...LABEL, CAUTION (BACK)	
CNJ6	1-566-211-11	PIN, CONNECTOR 4P (LINE IN/OUT)	
901	*1-623-668-11	PC BOARD, POWER SW	
903	*A-4651-184-A	MOUNTED PCB, MAIN	
911	1-519-440-11	INDICATOR TUBE, FLUORESCENT	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

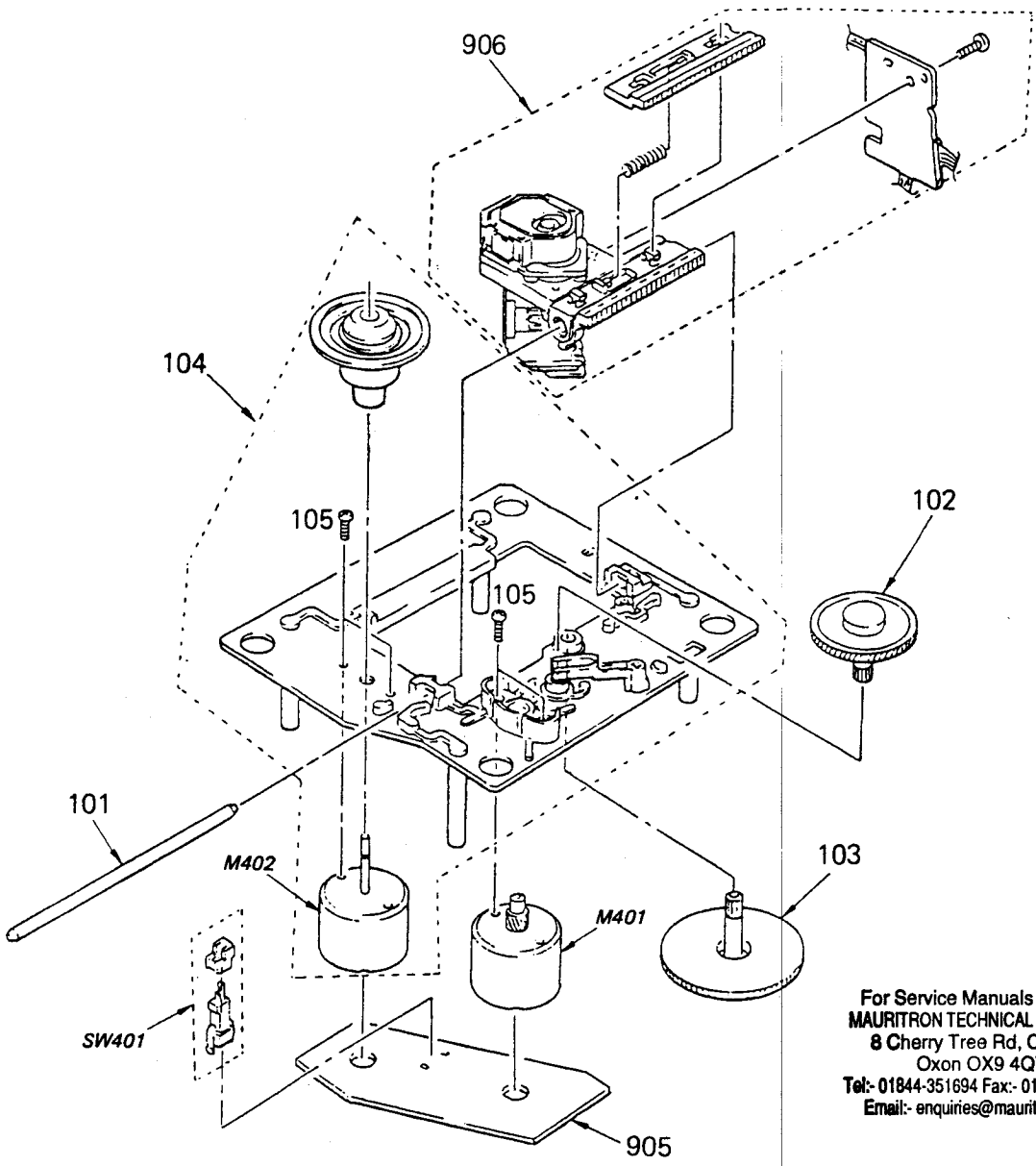
(2) FRAME ASSEMBLY



No.	Part No.	Description	Remarks
51	*4-922-604-01	TABLE, DISK	
52	4-917-534-01	GEAR (A), LOADING	
53	*4-917-523-01	COLLAR, CAM	
54	4-917-516-01	GEAR (B), LOADING	
55	4-917-519-01	LEVER, SET	
56	4-917-514-01	SPRING, TENSION	
57	A-4665-024-A	MAGNET ASSY	
58	4-917-515-01	ROLLER	
59	4-917-537-01	BASE, FLOATING	
60	4-917-526-01	SPRING, TENSION	
61	4-922-626-01	(AEP)...PLATE (O/P TERMINAL), INDICATION	
	4-922-627-01	(UK)....PLATE (O/P TERMINAL), INDICATION	
62	*3-576-990-01	CUSHION	
63	4-917-521-01	PULLEY, LOADING	
64	4-917-522-02	BELT	
65	*4-917-517-01	GUIDE, LEAD	
66	*4-917-511-01	PLATE, GROUND	
67	4-917-510-01	SHEET, INSULATING	
68	*3-531-576-11	RIVET	
69	4-917-562-01	INSULATOR	
70	4-917-541-01	SPRING (B)	
71	4-918-669-01	SPRING (W)	
72	4-917-507-01	SPRING (H)	
73	4-917-508-01	HOLDER, SP	
74	7-621-759-30	+PSW, 2.6X5	
75	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
76	7-685-535-19	SCREW +BTP 2.6X10 TYPE2 N-S	
77	7-685-552-19	SCREW +BTP 3X25 TYPE2 N-S	
78	0-056-028-00	WASHER, PLAIN, 14 DIA.	
904	*1-620-603-11	PC BOARD, LOADING MOTOR	
J2	⚠1-526-931-11	INLET, AC	
M601	A-4608-330-A	MOTOR ASSY	
PT901	⚠1-449-025-11	TRANSFORMER, POWER	
SW901	1-570-203-11	SWITCH, LEAF (LOADING)	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

(3) PICKUP ASSEMBLY (BU-5C)



No.	Part No.	Description	Remarks
101	4-917-565-01	SHAFT, SLED	
102	4-917-567-01	GEAR (M)	
103	4-917-564-01	GEAR (P), FLATNESS	
104	X-4917-523-1	BASE ASSY(including M402:SPINDLE MOTOR)105	
105	7-621-255-15	SCREW +P 2X3	

No.	Part No.	Description	Remarks
905	*1-626-304-11	PC BOARD, SL/SP MOTOR	
906 ⚠	.8-848-062-01	PICKUP, OPTICS KSS-150A	
M401	X-4917-504-1	MOTOR ASSY	
SW401	1-571-274-11	SWITCH, LEAF (LIMIT)	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

SECTION 4
ELECTRICAL 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: μF, PF: μμF.

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

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description			
901	*1-623-668-11	PC BOARD, POWER SW			
903	*A-4651-184-A	MOUNTED PCB, MAIN			
904	*1-620-603-11	PC BOARD, LOADING MOTOR			
905	*1-626-304-11	PC BOARD, SL/SP MOTOR			
906 ⚠	.8-848-062-01	PICKUP, OPTICS KSS-150A			
911	1-519-440-11	INDICATOR TUBE, FLUORESCENT			
C101	1-124-556-11	ELECT	2200MF	20%	16V
C102	1-124-898-11	ELECT	4700MF	20%	16V
C103	1-124-444-00	ELECT	220MF	20%	10V
C104	1-124-444-00	ELECT	220MF	20%	10V
C105	1-136-165-00	FILM	0.1MF	5%	50V
C106	1-136-165-00	FILM	0.1MF	5%	50V
C107	1-136-165-00	FILM	0.1MF	5%	50V
C108	1-136-165-00	FILM	0.1MF	5%	50V
C109	1-136-165-00	FILM	0.1MF	5%	50V
C110	1-124-572-11	ELECT	100MF	20%	63V
C111	1-123-875-11	ELECT	10MF	20%	50V
C112	1-123-875-11	ELECT	10MF	20%	50V
C113	1-123-875-11	ELECT	10MF	20%	50V
C202	1-124-477-11	ELECT	47MF	20%	16V
C203	1-124-477-11	ELECT	47MF	20%	16V
C204	1-124-477-11	ELECT	47MF	20%	16V
C205	1-123-369-00	ELECT	4.7MF	20%	25V
C206	1-123-369-00	ELECT	4.7MF	20%	25V
C207	1-136-159-00	FILM	0.033MF	5%	50V
C208	1-136-159-00	FILM	0.033MF	5%	50V
C209	1-161-374-11	CERAMIC	0.0015MF	20%	16V
C210	1-161-374-11	CERAMIC	0.0015MF	20%	16V
C211	1-162-207-31	CERAMIC	22PF	5%	50V
C212	1-162-207-31	CERAMIC	22PF	5%	50V
C215	1-161-379-00	CERAMIC	0.01MF	20%	16V
C216	1-161-494-00	CERAMIC	0.022MF		25V
C217	1-161-494-00	CERAMIC	0.022MF		25V
C302	1-124-477-11	ELECT	47MF	20%	16V
C303	1-161-375-00	CERAMIC	0.0022MF	20%	16V
C304	1-162-203-31	CERAMIC	15PF	5%	50V
C305	1-162-203-31	CERAMIC	15PF	5%	50V
C306	1-136-159-00	FILM	0.033MF	5%	50V
C307	1-161-377-00	CERAMIC	0.0047MF	30%	16V
C308	1-136-159-00	FILM	0.033MF	5%	50V
C309	1-136-153-00	FILM	0.01MF	5%	50V
C310	1-161-375-00	CERAMIC	0.0022MF	20%	16V
C311	1-124-477-11	ELECT	47MF	20%	16V
C312	1-124-499-11	ELECT	1MF	20%	50V
C313	1-161-375-00	CERAMIC	0.0022MF	20%	16V

Ref.No.	Part No.	Description			
C314	1-136-165-00	FILM	0.1MF	5%	50V
C315	1-136-159-00	FILM	0.033MF	5%	50V
C316	1-123-382-00	ELECT	3.3MF	20%	50V
C317	1-136-165-00	FILM	0.1MF	5%	50V
C318	1-124-477-11	ELECT	47MF	20%	16V
C320	1-123-875-11	ELECT	10MF	20%	50V
C322	1-136-169-00	FILM	0.22MF	5%	50V
C323	1-124-477-11	ELECT	47MF	20%	16V
C324	1-124-499-11	ELECT	1MF	20%	50V
C325	1-161-377-00	CERAMIC	0.0047MF	30%	16V
C326	1-123-369-00	ELECT	4.7MF	20%	25V
C327	1-124-499-11	ELECT	1MF	20%	50V
C328	1-124-477-11	ELECT	47MF	20%	16V
C329	1-161-375-00	CERAMIC	0.0022MF	20%	16V
C330	1-124-477-11	ELECT	47MF	20%	16V
C331	1-162-282-31	CERAMIC	100PF	10%	50V
C332	1-124-499-11	ELECT	1MF	20%	50V
C333	1-123-875-11	ELECT	10MF	20%	50V
C334	1-124-477-11	ELECT	47MF	20%	16V
C335	1-136-159-00	FILM	0.033MF	5%	50V
C336	1-124-902-00	ELECT	0.47MF	20%	50V
C337	1-161-379-00	CERAMIC	0.01MF	20%	16V
C338	1-124-902-00	ELECT	0.47MF	20%	50V
C339	1-124-477-11	ELECT	47MF	20%	16V
C340	1-124-236-00	ELECT	47MF	20%	16V
C342	1-162-211-31	CERAMIC	33PF	5%	50V
C343	1-162-211-31	CERAMIC	33PF	5%	50V
C348	1-124-236-00	ELECT	47MF	20%	16V
C349	1-124-236-00	ELECT	47MF	20%	16V
C350	1-161-379-00	CERAMIC	0.01MF	20%	16V
C351	1-162-290-31	CERAMIC	470PF	10%	50V
C401	1-106-351-00	MYLAR	0.0022MF	5%	50V
C402	1-106-351-00	MYLAR	0.0022MF	5%	50V
C601	1-136-157-00	FILM	0.022MF	5%	50V
CNJ1	*1-564-724-11	PIN, CONNECTOR (SMALL TYPE) 8P			
CNJ2	*1-564-724-31	PIN, CONNECTOR (SMALL TYPE) 8P			
CNJ3	*1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CNJ4	*1-564-336-00	PIN, CONNECTOR 2P			
CNJ5	*1-564-337-00	PIN, CONNECTOR 3P			
CNJ6	1-566-211-11	PIN, CONNECTOR 4P (LINE IN/OUT)			
CNJ8	*1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
CNJ10	*1-566-165-11	CONNECTOR, BOARD TO BOARD 3P			
CNJ11	*1-566-779-11	PIN, CONNECTOR (PC BOARD) 4P			
D1	8-719-200-77	DIODE 10E2N			
D2	8-719-200-77	DIODE 10E2N			
D3	8-719-200-77	DIODE 10E2N			

Ref.No.	Part No.	Description
D4	8-719-200-77	DIODE 1OE2N
D5	8-719-200-77	DIODE 1OE2N
D6	8-719-109-83	DIODE RD5.1ES-B
D7	8-719-109-95	DIODE RD6.8ES-B
D8	8-719-940-76	DIODE 1SS132
D9	8-719-940-76	DIODE 1SS132
D10	8-719-940-76	DIODE 1SS132
D11	8-719-940-76	DIODE 1SS132
D12	8-719-940-76	DIODE 1SS132
IC1	8-752-031-80	IC CXA1081S
IC2	8-752-032-33	IC CXA1182S
IC3	8-752-322-04	IC CXD1125Q
IC5	8-759-805-29	IC CXD1162P-3
IC6	8-759-600-02	IC M5218L
IC7	8-759-600-02	IC M5218L
IC9	8-759-630-21	IC M5290P-16
IC10	8-759-605-43	IC M5231TL
IC11	8-759-805-18	IC LA6520
IC12	8-759-208-96	IC TA8406P
IC13	8-759-945-86	IC MSM6458-18SS
IC14	8-749-920-03	IC GP1U52
IC15	1-808-060-11	IC LC9600P-144
J2 ⚠	1-526-931-11	INLET, AC
M401	X-4917-504-1	MOTOR ASSY
M601	A-4608-330-A	MOTOR ASSY
PS1 ⚠	1-532-686-00	LINK, IC
PS2 ⚠	1-532-686-00	LINK, IC
PT901⚠	1-449-025-11	TRANSFORMER, POWER
Q1	8-729-808-76	TRANSISTOR 2SD1913SA-Q
Q2	8-729-808-72	TRANSISTOR 2SB1274SA-Q
Q3	8-729-801-83	TRANSISTOR 2SB1013
Q5	8-729-806-38	TRANSISTOR 2SC3399
Q6	8-729-806-38	TRANSISTOR 2SC3399
Q7	8-729-806-28	TRANSISTOR 2SC3402
Q8	8-729-806-38	TRANSISTOR 2SC3399
Q9	8-729-806-38	TRANSISTOR 2SC3399
Q10	8-729-806-38	TRANSISTOR 2SC3399
Q11	8-729-806-38	TRANSISTOR 2SC3399
Q14	8-729-806-20	TRANSISTOR 2SA1345
Q15	8-729-806-20	TRANSISTOR 2SA1345
Q16	8-729-107-91	TRANSISTOR 2SC3622-L
Q17	8-729-107-91	TRANSISTOR 2SC3622-L
Q18	8-729-107-91	TRANSISTOR 2SC3622-L
Q19	8-729-107-91	TRANSISTOR 2SC3622-L

Ref.No.	Part No.	Description			
R101	1-249-425-11	CARBON	4.7K	5%	1/4W
R102	1-249-425-11	CARBON	4.7K	5%	1/4W
R103	1-249-429-11	CARBON	10K	5%	1/4W
R104	1-249-424-11	CARBON	3.9K	5%	1/4W
R105	1-249-424-11	CARBON	3.9K	5%	1/4W
R106	1-249-439-11	CARBON	68K	5%	1/4W
R107	1-249-417-11	CARBON	1K	5%	1/4W
R108	1-249-431-11	CARBON	15K	5%	1/4W
R109	1-249-381-11	CARBON	1	5%	1/4W
R201	1-249-423-11	CARBON	3.3K	5%	1/4W
R202	1-249-436-11	CARBON	39K	5%	1/4W
R203	1-249-436-11	CARBON	39K	5%	1/4W
R204	1-249-439-11	CARBON	68K	5%	1/4W
R205	1-249-439-11	CARBON	68K	5%	1/4W
R206	1-249-441-11	CARBON	100K	5%	1/4W
R207	1-249-441-11	CARBON	100K	5%	1/4W
R208	1-249-417-11	CARBON	1K	5%	1/4W
R209	1-249-417-11	CARBON	1K	5%	1/4W
R210	1-249-417-11	CARBON	1K	5%	1/4W
R211	1-249-417-11	CARBON	1K	5%	1/4W
R212	1-249-413-11	CARBON	470	5%	1/4W
R213	1-249-413-11	CARBON	470	5%	1/4W
R214	1-249-441-11	CARBON	100K	5%	1/4W
R215	1-249-441-11	CARBON	100K	5%	1/4W
R216	1-249-425-11	CARBON	4.7K	5%	1/4W
R217	1-249-425-11	CARBON	4.7K	5%	1/4W
R218	1-249-425-11	CARBON	4.7K	5%	1/4W
R219	1-249-425-11	CARBON	4.7K	5%	1/4W
R226	1-215-493-00	CARBON	1M	5%	1/4W
R227	1-215-493-00	CARBON	1M	5%	1/4W
R228	1-247-883-00	CARBON	150K	5%	1/4W
R229	1-247-883-00	CARBON	150K	5%	1/4W
R301	1-215-454-00	CARBON	24K	5%	1/4W
R302	1-249-428-11	CARBON	8.2K	5%	1/4W
R303	1-249-431-11	CARBON	15K	5%	1/4W
R304	1-249-431-11	CARBON	15K	5%	1/4W
R305	1-249-425-11	CARBON	4.7K	5%	1/4W
R306	1-249-417-11	CARBON	1K	5%	1/4W
R307	1-249-397-11	CARBON	22	5%	1/4W
R308	1-249-405-11	CARBON	100	5%	1/4W
R309	1-249-425-11	CARBON	4.7K	5%	1/4W
R310	1-215-472-00	CARBON	130K	5%	1/4W
R311	1-215-479-00	CARBON	270K	5%	1/4W
R312	1-249-435-11	CARBON	33K	5%	1/4W
R313	1-215-464-00	CARBON	62K	5%	1/4W

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description			
R314	1-249-425-11	CARBON	4.7K	5%	1/4W
R315	1-249-424-11	CARBON	3.9K	5%	1/4W
R316	1-249-439-11	CARBON	68K	5%	1/4W
R317	1-249-438-11	CARBON	56K	5%	1/4W
R318	1-249-381-11	CARBON	1	5%	1/4W
R319	1-249-381-11	CARBON	1	5%	1/4W
R320	1-249-440-11	CARBON	82K	5%	1/4W
R321	1-249-441-11	CARBON	100K	5%	1/4W
R322	1-249-441-11	CARBON	100K	5%	1/4W
R323	1-249-441-11	CARBON	100K	5%	1/4W
R324	1-249-429-11	CARBON	10K	5%	1/4W
R325	1-215-486-00	CARBON	510K	5%	1/4W
R326	1-249-414-11	CARBON	560	5%	1/4W
R327	1-249-433-11	CARBON	22K	5%	1/4W
R328	1-249-429-11	CARBON	10K	5%	1/4W
R329	1-249-441-11	CARBON	100K	5%	1/4W
R330	1-215-434-00	METAL	3.6K	1%	1/6W
R331	1-249-441-11	CARBON	100K	5%	1/4W
R332	1-215-493-00	CARBON	1M	5%	1/4W
R333	1-249-433-11	CARBON	22K	5%	1/4W
R334	1-249-429-11	CARBON	10K	5%	1/4W
R335	1-249-441-11	CARBON	100K	5%	1/4W
R336	1-249-441-11	CARBON	100K	5%	1/4W
R337	1-215-469-00	METAL	100K	1%	1/6W
R338	1-215-469-00	METAL	100K	1%	1/6W
R339	1-249-429-11	CARBON	10K	5%	1/4W
R341	1-249-429-11	CARBON	10K	5%	1/4W
R342	1-249-417-11	CARBON	1K	5%	1/4W
R343	1-249-417-11	CARBON	1K	5%	1/4W
R345	1-249-417-11	CARBON	1K	5%	1/4W
R348	1-249-417-11	CARBON	1K	5%	1/4W
R353	1-249-425-11	CARBON	4.7K	5%	1/4W
R354	1-249-425-11	CARBON	4.7K	5%	1/4W
R355	1-249-425-11	CARBON	4.7K	5%	1/4W
R356	1-249-425-11	CARBON	4.7K	5%	1/4W
R357	1-249-425-11	CARBON	4.7K	5%	1/4W
R358	1-249-425-11	CARBON	4.7K	5%	1/4W
R359	1-249-425-11	CARBON	4.7K	5%	1/4W
R360	1-249-424-11	CARBON	3.9K	5%	1/4W
R361	1-249-438-11	CARBON	56K	5%	1/4W
R362	1-249-417-11	CARBON	1K	5%	1/4W

Ref.No.	Part No.	Description
RV1	1-237-194-21	RES, ADJ, CARBON 20K
RV2	1-237-192-21	RES, ADJ, CARBON 5K
RV3	1-237-194-21	RES, ADJ, CARBON 20K
RV4	1-237-194-21	RES, ADJ, CARBON 20K
RV5	1-228-990-00	RES, ADJ, METAL GLAZE 1K
SW1 ⚠	.1-552-928-00	SWITCH, PUSH (POWER)
SW3	1-571-213-11	SWITCH, KEY BOARD (3 KEY)(CLEAR)
SW4	1-554-088-00	SWITCH, KEY BOARD (OPEN/CLOSE)
SW5	1-571-213-11	SWITCH, KEY BOARD (3 KEY)(REPEAT)
SW6	1-571-213-11	SWITCH, KEY BOARD (3 KEY)(PLAY)
SW7	1-571-214-11	SWITCH, KEY BOARD (4 KEY)(PROGRAM)
SW8	1-571-214-11	SWITCH, KEY BOARD (4 KEY)
SW9	1-571-214-11	SWITCH, KEY BOARD (4 KEY)(AMS REVERSE)
SW11	1-571-213-11	SWITCH, KEY BOARD (3 KEY)(PAUSE)
SW12	1-571-214-11	SWITCH, KEY BOARD (4 KEY)(SHUFFLE)
SW13	1-571-214-11	SWITCH, KEY BOARD (4 KEY)(CHECK)
SW14	1-571-214-11	SWITCH, KEY BOARD (4 KEY) (SEARCH FORWARD)
SW15	1-571-214-11	SWITCH, KEY BOARD (4 KEY)(CHECK)
SW16	1-554-088-00	SWITCH, KEY BOARD (DISPLAY)
SW17	1-571-213-11	SWITCH, KEY BOARD (3 KEY)(STOP)
SW18	1-571-214-11	SWITCH, KEY BOARD (4 KEY)(CONTINUE)
SW401	1-571-274-11	SWITCH, LEAF (LIMIT)
SW901	1-570-203-11	SWITCH, LEAF (LOADING)
X1	1-567-301-21	OSCILLATOR, CRYSTAL (16MHz)
X2	1-567-686-11	OSCILLATOR, CERAMIC (4MHz)

ACCESSORY & PACKING MATERIAL

⚠	.1-558-835-11	(AEP)...CORD, POWER
⚠	.1-558-032-11	(UK)....CORD, POWER
*	4-885-838-00	LABEL, CLASS 1
	4-918-640-01	FASTENER, SIDE PLATE
	4-918-644-01	PLATE, SIDE
	4-922-618-01	CUSHION
*	4-922-616-41	INDIVIDUAL CARTON
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

9-953-135-11

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Audio Group

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CDP-M29

SONY

SERVICE MANUAL

AEP Model
UK Model

SUPPLEMENT-1

File this supplement with the service manual.

Black type has been added for AEP model.

As only the unique parts of black type are discribed in this manual.
Please refer to the CDP-M29 service manual for the other informations.

SECTION 3 EXPLODED VIEWS

(1) CABINET ASSEMBLY

Page	No.	Part No.	Description
14	2	X-4917-571-1	PANEL ASSY, FRONT
	4	4-922-609-71	PANEL, LOADING

9-953-135-81

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