

ROTEL *hifi*

STEREO COMPACT DISC PLAYER

RCD-955AX

TECHNICAL MANUAL

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DEC 12 1991

Safety Caution

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

THIS SET EMPLOYS A LASER. THEREFORE, BE SURE TO FOLLOW CAREFULLY THE INSTRUCTIONS BELOW WHEN SERVICING.

WARNING !!

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

LASER WARNING LABEL

THE LABEL SHOWN BELOW ARE AFFIXED.

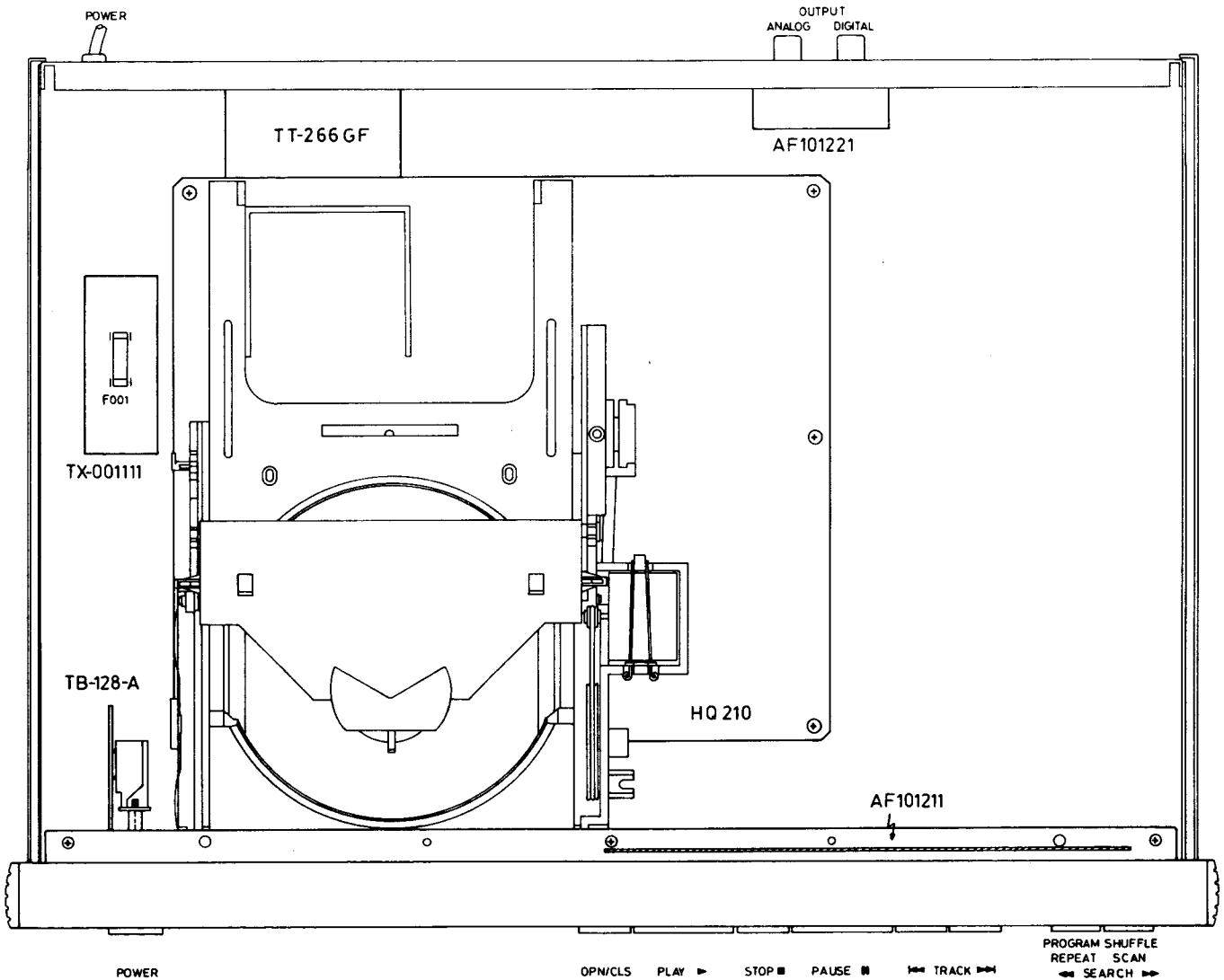
CAUTION

INVISIBLE LASER RADIATION WHEN OPEN, DO NOT STARE INTO BEAM.

DANGER

INVISIBLE LASER RADIATION WHEN OPEN, AVOID DIRECT EXPOSURE TO BEAM.

Chassis Layout



Specifications RCD-955AX

AUDIO

Number of Channels.....2
Frequency Range.....20 to 20,000 Hz
Amplitude Linearity..... +/- 0.05 dB
Channel Unbalance..... +/- 0.5 dB
Phase Linearity..... +/- 0.5 degrees
Signal-to-Noise Ratio.....100 dB
Dynamic Range.....96 dB
Channel Separation.....100 dB (1 kHz)
THD + Noise.....0.0025 % (1 kHz)
Intermodulation Distortion...0.0025 % (1 kHz)
Out-Band Rejection..... > 60 dB, above 24.1 kHz
Wow and Flutter.....Quartz crystal precision
Max Output Level.....2 V rms
Output Impedance.....200 ohms
Min Load Impedance.....10 kohms

DIGITAL OUTPUT

Output Level.....0.5 V P.P.
Load Impedance.....75 ohms

MISCELLANEOUS

Power Requirement.....120 V/ 60 Hz, 220 V/ 50 Hz,
240 V/ 50 Hz (depending on
destinations)
Power Consumption.....30 watts
Dimension (overall).....440 (W) x 92 (H) x 316 (D) mm
17-3/8" x 3-5/8" x 12-7/16"
Weight (net).....5.8 Kg / 12.76 lbs

- Specifications and design subject to possible modification without notice.

Alignment

ALIGNMENT PROCEDURE FOR THE LASER CURRENT AND THE FOCUS OFFSET (RCD-955AX)

NOTE 1. This alignment must be done only if or the monoboard or the CDM is replaced for service purpose.

NOTE 2. The given measurement date are only for alignment after service. When checking monokits for these date, different values can be found. This is normal and gives no reason for malfunction.

NOTE 3. The used test disc must be a SONY type 4 (YEDS 18).

A. Turn used laser variable resistor R108 in a position that the total resistance of R108 plus R109 is 1 kohm.

Turn the focus variable resistor R129 in the middle position.

B. Switch the power ON and verify that the display light up.

C. Place the test disc in the tray. The test disc must be clean (no finger prints) and may not be damaged.

D. Connect a DC voltmeter over resistor R101, switch the power on, press the PLAY button and check the reading of the DC voltmeter.

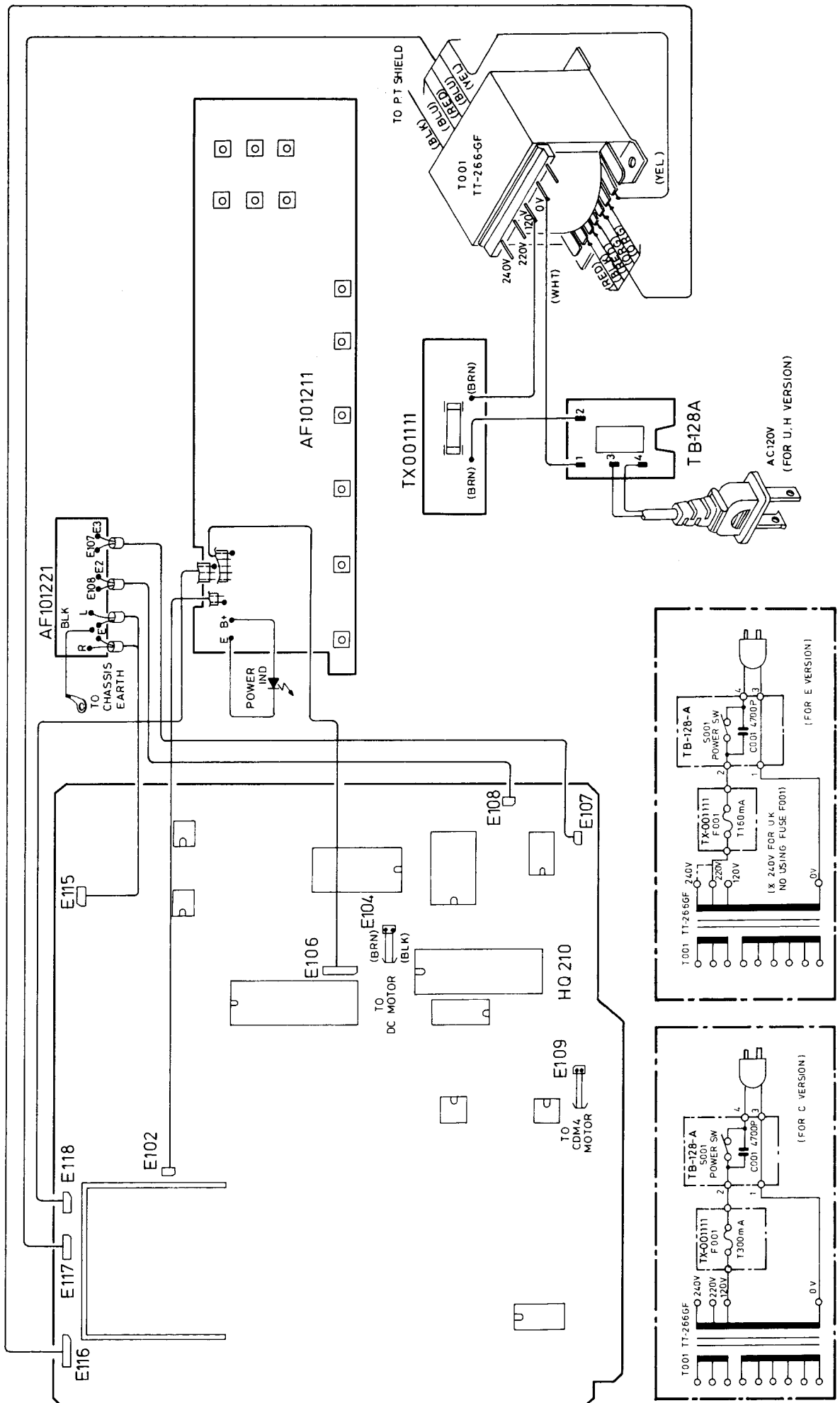
E. While the monokit is playing, adjust the laser current with variable resistor R108 at a value of 50 mV +/- 2 mV.

F. Switch the power off and connect a DC voltmeter over capacitor C133, switch the power on, press the PLAY button and check the reading of the DC voltmeter.

G. While the monokit is playing, adjust the focus offset with variable resistor R129 at a value of 400 mV +/- 20 mV.

REMARK: It is normal that the focus readout is not stable, but is varying within certain range.

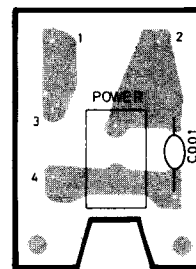
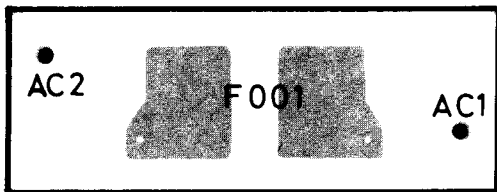
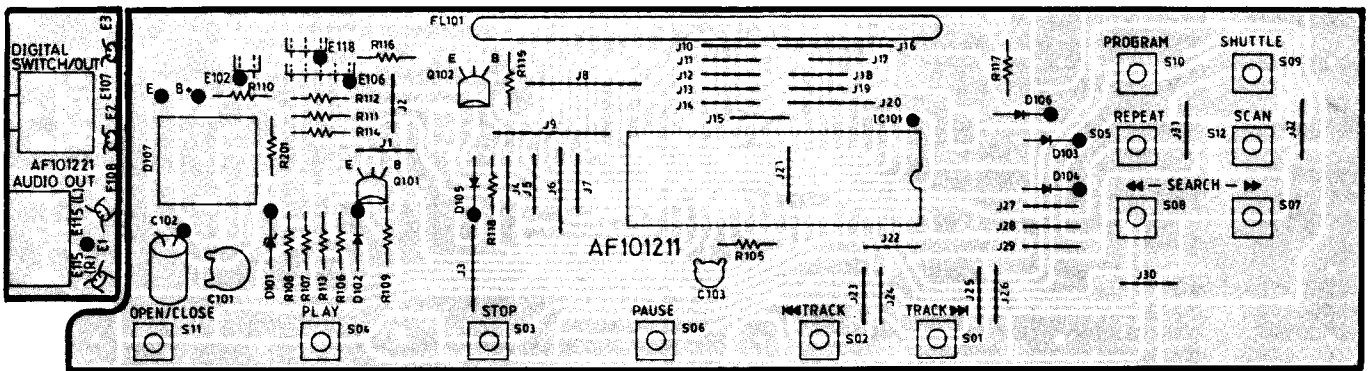
Wiring Diagram



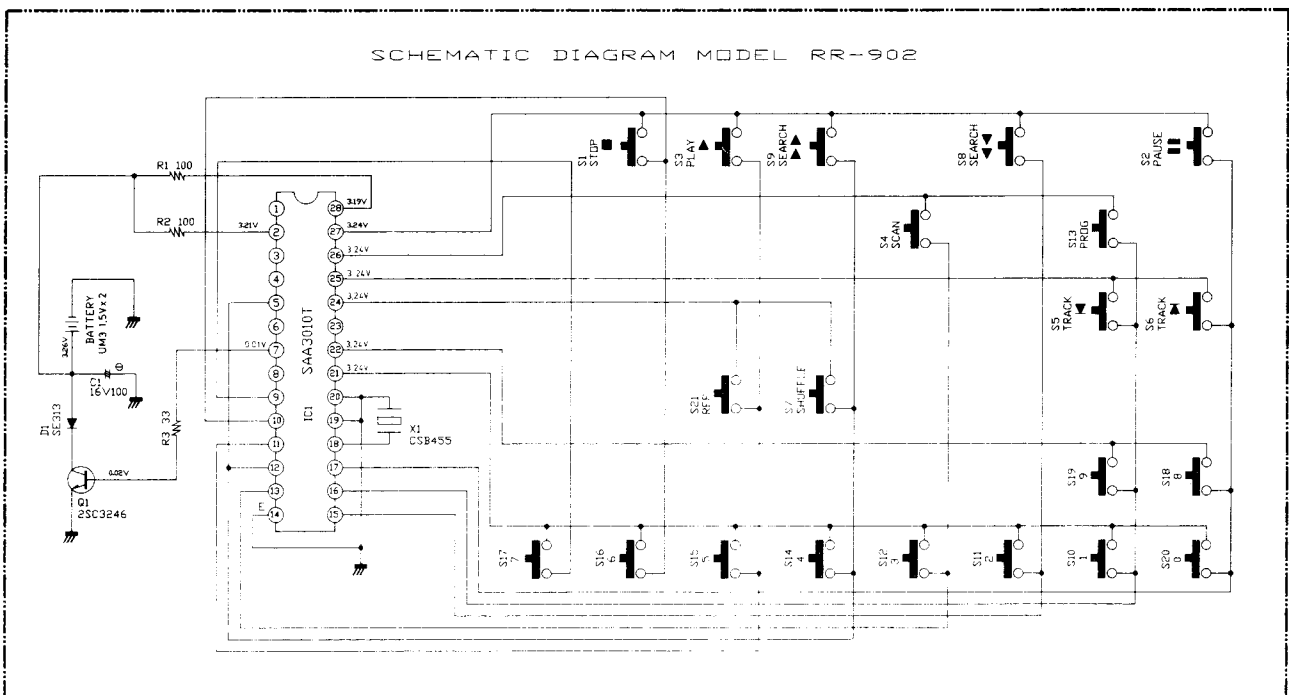
Parts List

SYMBOL	PARTS NO.	DESCRIPTION
NP00001974	NAME STICKER AC 120V-C 4TR-2828#4 TNP-385	
NP00001950	NAME STICKER AC 220V 4TR-2828#2 TNP-383	
NP00001998	NAME STICKER AC 230V 4TR-2828#5 TNP-389	
AA50000065	FRONT PANEL 2TQO-1 TFP-644	
AW00000587	PANEL WINDOW 4TQO-7	
BU00001145	POWER RING W/LED 4TQF-13 14x14	
KB20002711	TACT BUTTON 6 KEY 3TQK-8	
KB20002784	TACT BUTTON 2 KEY 3TQO-4	
OM10001272	ORNAMENTAL SIDE 4TR-2797#2	
OM10001387	CD ALUM. DOOR 4TQO-6	
OM10001399	CD PLASTIC DOOR 3TQO-5	
KB20002681	POWER BUTTON 4TQF-15 14x14	
OM70000065	PUSH BUTTON CONNECTOR 4TTL-15	
OM70000168	FILTER BOARD 4TSJ-9#2 83x32x2T	
OM70000193	FILTER BOARD 4TSJ-9#3 22x14x2T	
AU00001262	TOP COVER 3TTF-5#8	
OM10001405	FL ORNAMENTAL PLATE 4TQO-8#1 TFP-645	
DD40000095	L.E.D SEL1124R	
SR00000882	UPPER COVER SPACER 4TR-2418	
MN10002859	OWNER'S MANUAL	
PLO0001099	STYROL SIDE MOULDING 2TTF-9A#2 TZ-165-1	
TN10003835	INSIDE CARTON 4TR-2854#1	

Printed Circuit Boards

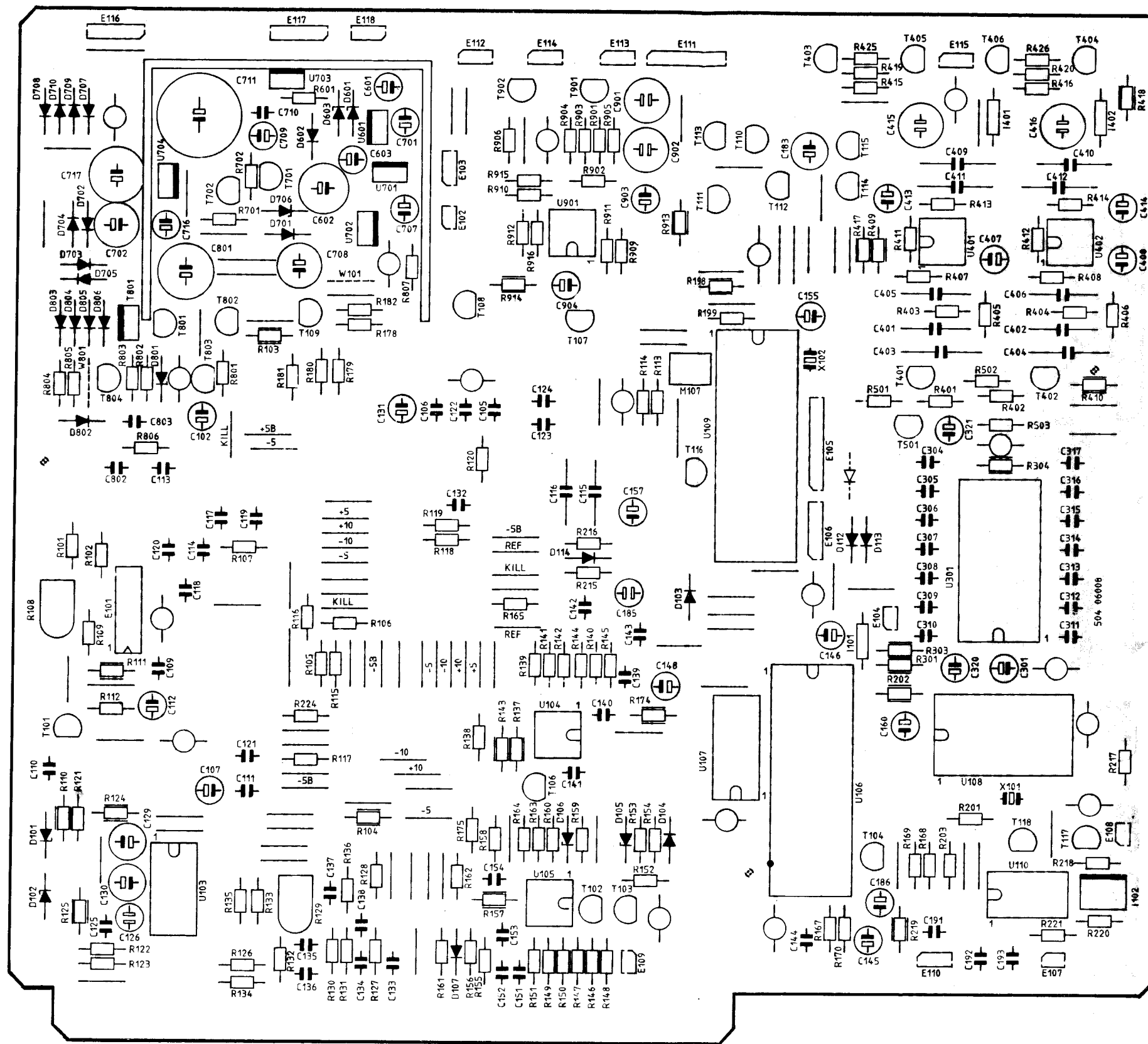


REMOTE CONTROL HANDSET



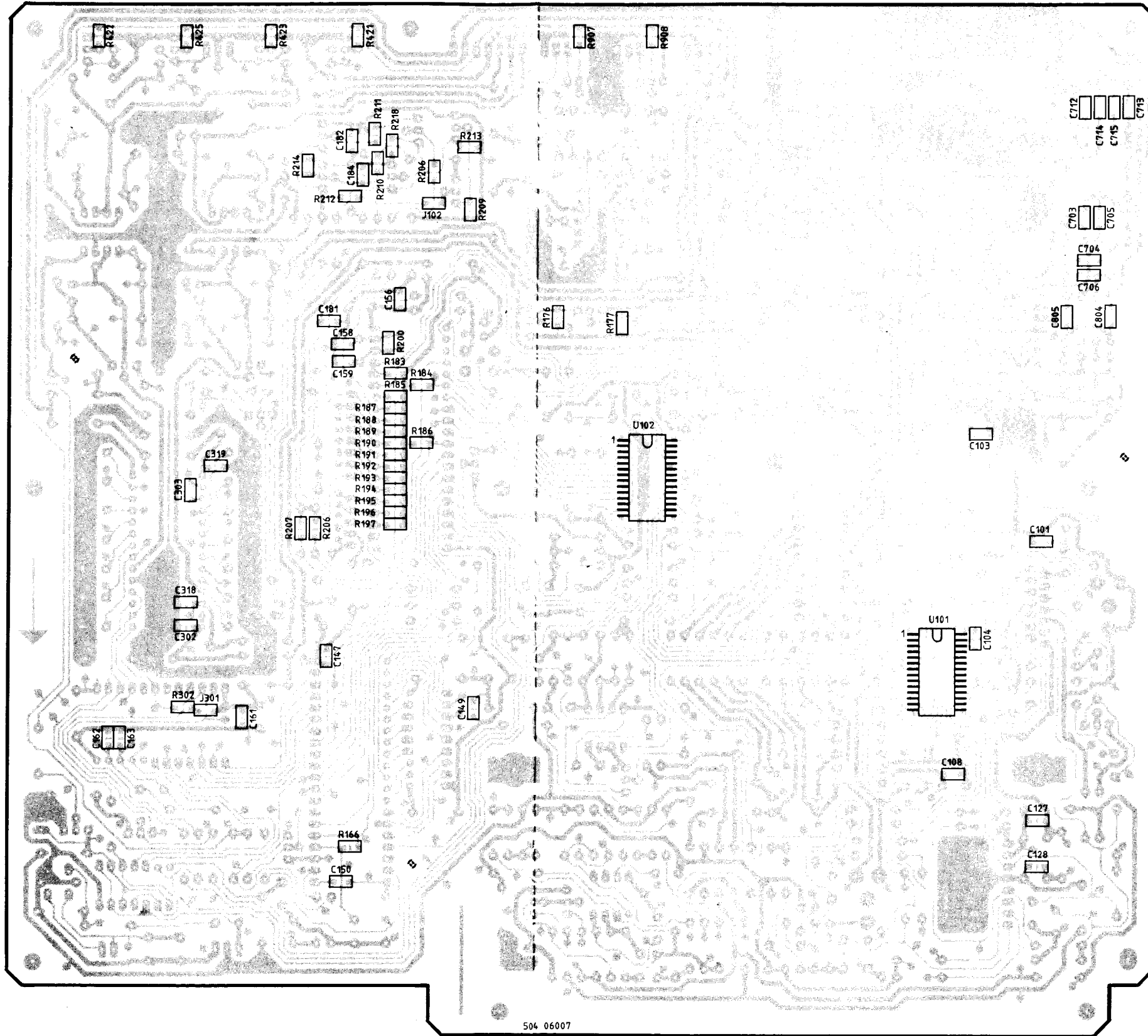
Printed Circuit Boards

(HQ 210 TOP SIDE)



Printed Circuit Boards

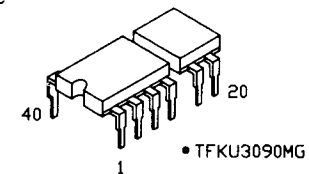
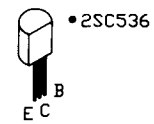
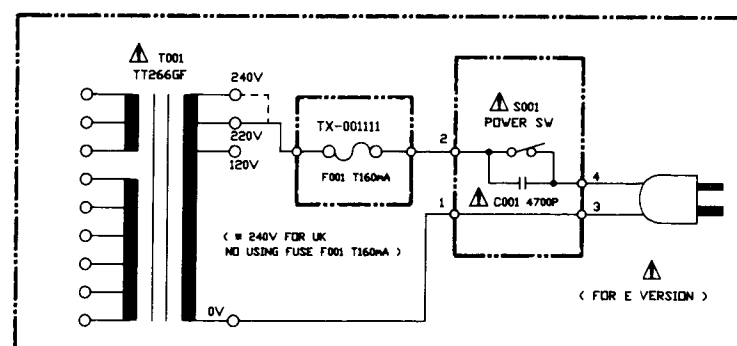
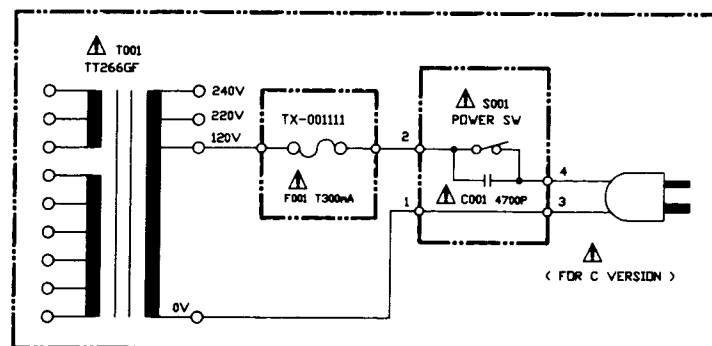
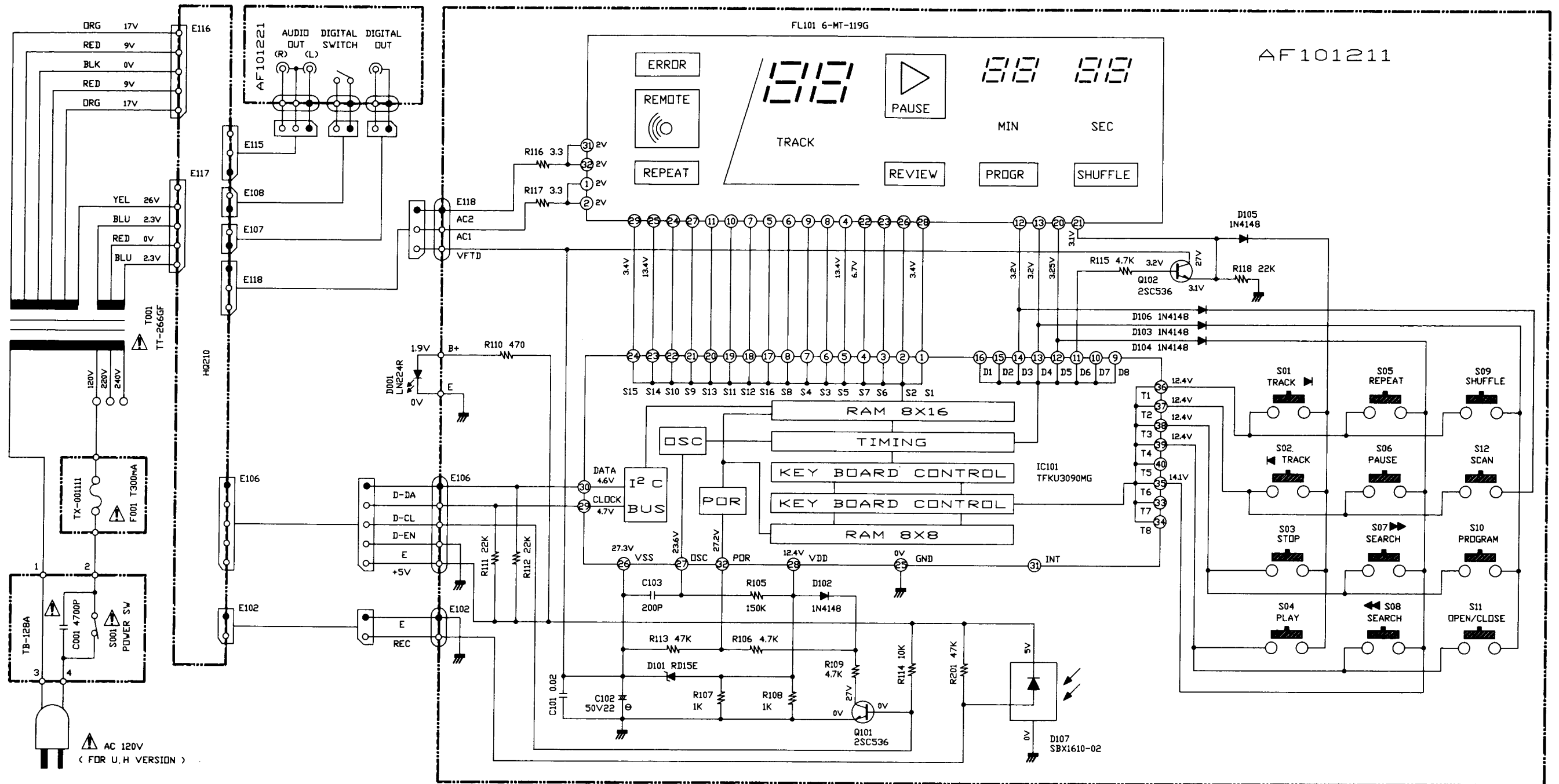
(HQ210 SOLDER SIDE)



Schematic Diagram

SCHEMATIC DIAGRAM MODEL RCD-955AX

NOTE: PARTS AND CIRCUIT SUBJECT TO CHANGES FOR IMPROVEMENTS WITHOUT PRIOR NOTICE

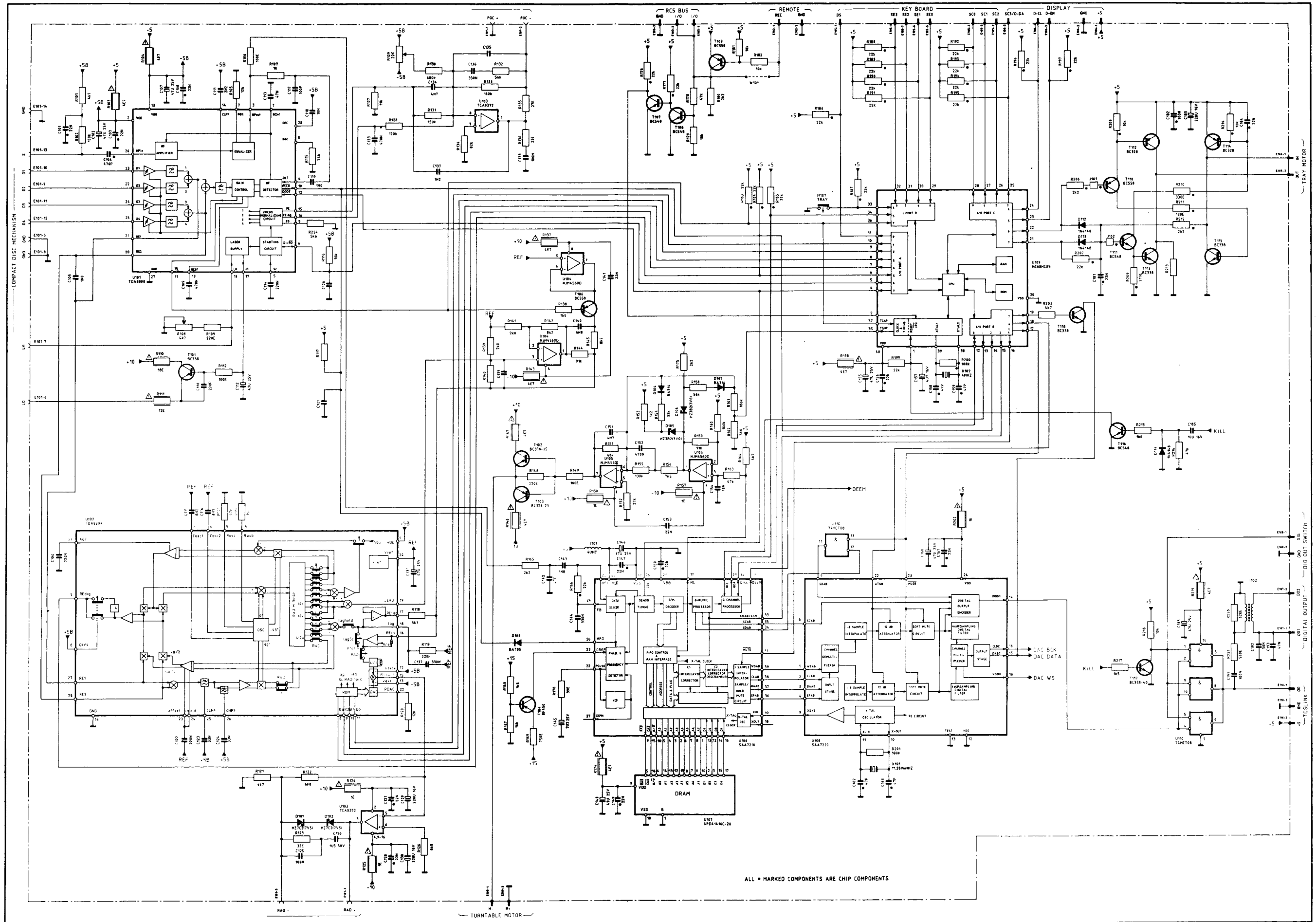


INSTRUCTION FOR SERVICING PERSONNEL:

1. USE ONLY REPLACEMENT PARTS THAT HAVE THE CRITICAL CHARACTERISTICS RECOMMENDED BY MANUFACTURER.
2. MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE AC SUPPLY CIRCUIT BEFORE RETURNING THE UNIT TO THE CUSTOMER.

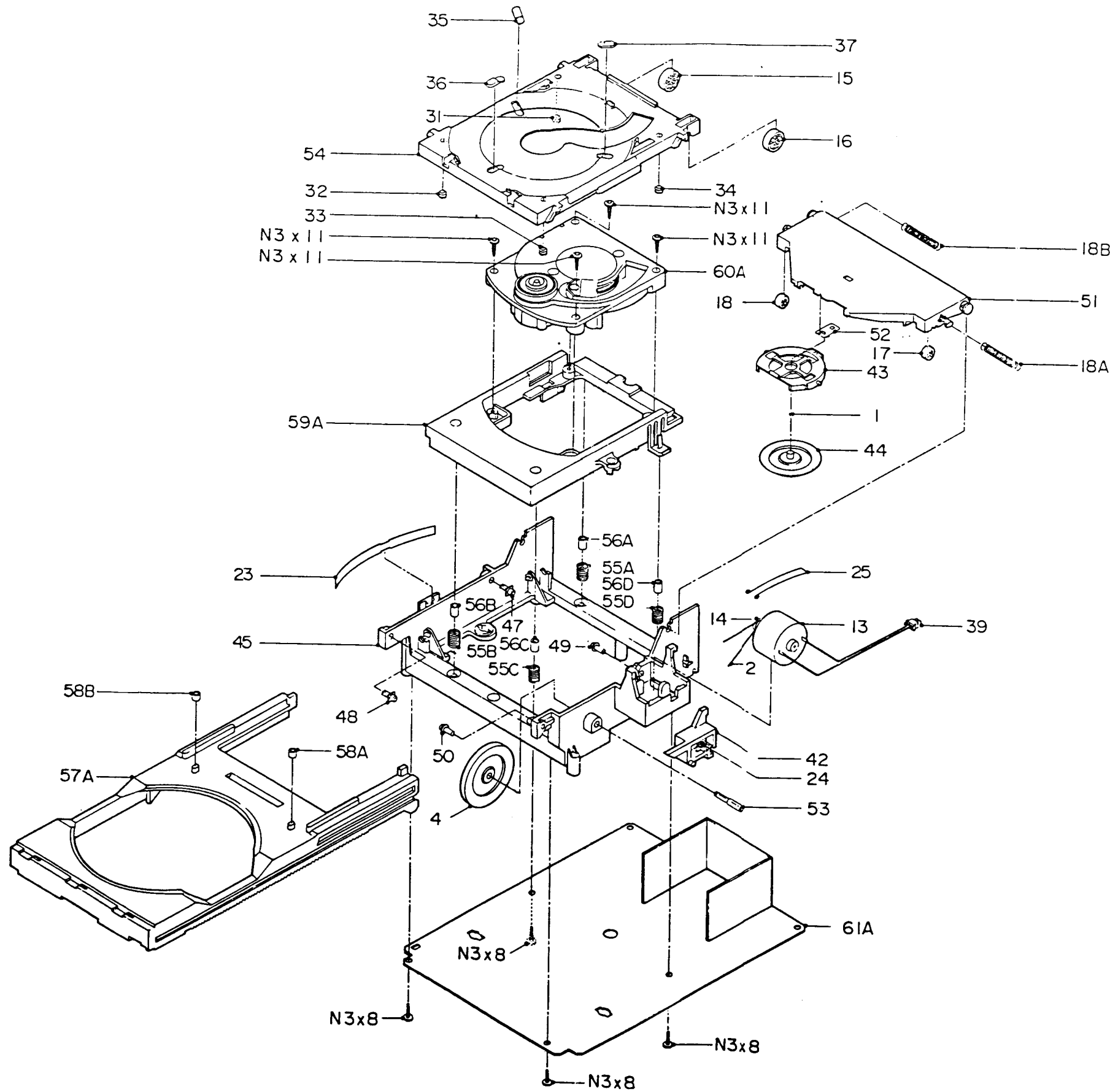
Schematic Diagram

MONOBOARD SCHEMATIC HQ210 (1)



ALL * MARKED COMPONENTS ARE CHIP COMPONENTS

Disassembly Diagram



ITEM	PART NO.	DESCRIPTION
1	013 40001	BALL 3F
2	017 40002	BELT
4	077 30005	GEAR WHEEL
13	118 40001	DC MOTOR
14	139 40003	PULLEY (MOTOR)
15, 16	151 40001	ROLLER
17, 18	151 40002	ROLLER
23	172 30015	FLAT SPRING
24	172 40013	COMPRESSION SPRING
25	172 40014	SPRING
31, 32	208 40014	TULE
33, 34	208 40001	TULE
35-37	208 40002	ORNAMENTAL TULE
39	241 40003	LEAD ASS'Y
42	255 30003	SWITCH BRACKET
43	258 20004	CENTRING RING
44	258 30003A	CARRIER
45	259 10002	CHASSIS
47, 48	271 30003	GUIDE
49, 50	271 30004	GUIDE
51	300 10004A	LID
52	300 40005	PIVOT PLATE
53	316 40005	SHAFT
54	317 10003A	LIFT PLATE
18A, 18B	172 40018	TENSION SPRING
55A, 55B		
55C, 55D	172 40016	COMPRESSION SPRING
56A, 56B		
56C, 56D	078 40002	SUSPENSION GROMMET
58A, 58B	078 40003	DAMPING GROMMET
57A	317 10004	TRAY ASS'Y
59A	259 10003A	SUPPORT PIECE
60A	480 32403	CDM4 MINI (DC) ACCESSORY
N3x11	160 40002	PLAST SCR M3x8