


ONKYO® SERVICE MANUAL

COMPACT DISC PLAYER MODEL DX-3700

Black model

BUDN, BUD	120V AC, 60 Hz
BUG	220V AC, 50Hz
BUU	110/120/220/240V AC, 50/60Hz
BUQA, BUQB	240V AC, 50 Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

SPECIFICATIONS

Signal readout system:	Optical non-contact
Reading rotation:	About 500~200 r.p.m. (constant linear velocity)
Linear velocity:	1.2~1.4m/s
Error correction system:	Cross interleave readsolomon code
Decoded bits:	18 bits linear
Sampling frequency:	352.8kHz (8 times oversampling)
Number of channels:	2 (Stereo)
Frequency response:	2Hz~20kHz
Total harmonic distortion:	0.003% (at 1kHz)
Dynamic range:	98dB
Signal to noise ratio:	106dB
Channel separation:	100dB (at 1kHz)
Wow and Flutter:	Below threshold of measurability
Power consumption:	16 watts
Output level:	2 volts r.m.s.
Dimensions (W×H×D):	435×118×312 mm 17-1/8"×4-5/8"×12-1/4"
Weight:	5.0kg, 11.0 lbs.

Specifications are subject to change without notice.



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SERVICE PROCEDURES

1. Safety-check out

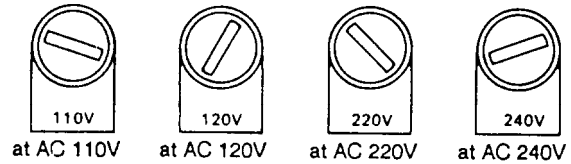
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Connect the insulating-resistance tester between the plug of power supply cable and chassis.

Specifications: more than 10Mohm at 500V.

2. Voltage selector (back panel)

Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this selector to match the voltage of the power supply in your area before turning the power switch on. Voltage is changed by turning the voltage selector with a screwdriver or similar instrument to the 110V, 120V, 220V or 240V position. Confirm that the selector has been set to the correct position before turning the power switch on. If there is no voltage selector switch on the unit you have purchased, it can only be used in areas where the power supply voltage is the same as that of the unit.



NOTE ON COMPACT DISC

● Holding Compact Discs

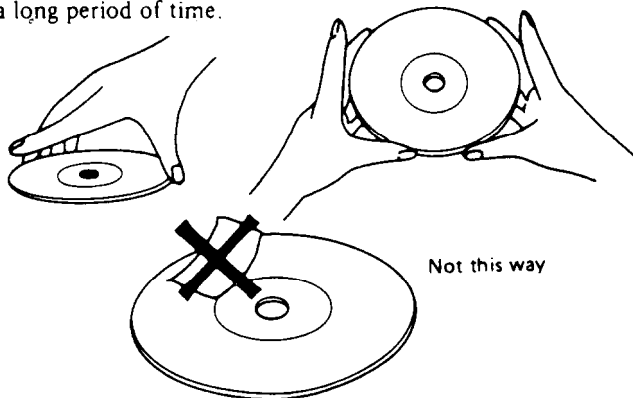
Hold Compact Discs by the edges so that you do not touch the surface of disc. Remember that the side of the disc with the "rainbow" reflection is the side containing the audio information.

Do not attach tape or paper to the label side of the disc and always be careful not to leave fingerprints on the side that is played.

● Storing Compact Discs

Store Compact Discs in a location protected from direct sunlight, high heat and humidity and extremely high and low temperatures. Discs should never be left in the trunk or interior of an automobile in the sun since the temperature can become very high in such a closed environment.

Always store Compact Discs in the holders in which they were sold. Never leave a disc in the player's disc holder for a long period of time.



● Cleaning Compact Discs

Before playing a disc wipe off the playing surface with a soft cloth to remove dust and other soil. Wipe the surface in straight lines from the center of the disc outward, not in a circular motion as you would with a phonograph record.

Do not use benzene, chemical cleansers or phonograph record cleaning solutions to clean Compact Discs. Also avoid static electricity prevention solutions since they can damage the surface of Compact Discs.



Problems Caused by Dew

Dew can form inside a Compact player when it is brought from a cold environment into a warm room, when a room is rapidly heated and if a player is left in a humid environment.

This dew can prevent the laser pickup from reading the data contained in the pits in the disc surface. If the player does not operate properly because of dew, remove the disc and leave the player's power switch on for about one hour to remove all moisture.

CAUTION ON REPLACEMENT OF OPTICAL PICKUP

The laser diode in the optical pickup block is so sensitive to static electricity, surge current and etc. that the components are liable to be broken down or its reliability remarkably deteriorated.

During repair, carefully take the following precautions. (The following precautions are included in the service parts).

PRECAUTIONS

1. Ground for the work-desk.

Place a conductive sheet such as a sheet of copper (with impedance lower than $10^6 \Omega$) on the work-desk and place the set on the conductive sheet so that the chassis.

2. Grounding for the test equipment and tools.

Test equipments and toolings should be grounded in order that their ground level is the same the ground of the power source.

3. Grounding for the human body.

Be sure to put on a wrist-strap for grounding whose other end is grounded.

Be particularly careful when the workers wear synthetic fiber clothes, or air is dry.

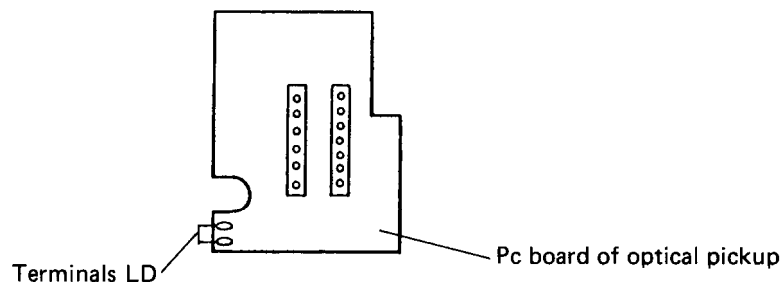
4. Select a soldering iron that permits no leakage and have the tip of the iron well-grounded.

5. Do not check the laser diode terminals with the probe of a circuit tester or oscilloscope.

Care should be taken with the optical pickup.

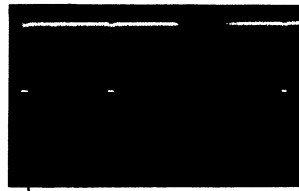
The optical pickup is sensitive to static electricity, surge currents, and other high electrical noise, and because there is the possibility of damage to performance, in the handling of the pickup, the utmost care must be taken, particularly with regard to static electricity.

1. When checking the laser terminal, avoid making connections using the probes of a tester or oscilloscope, or an ordinary power supply.
2. When replacing the optical pickup, first short the LD terminals and remove the connector. Also, when attaching the new optical pickup, after attaching the connector, unsolder the LD terminals.

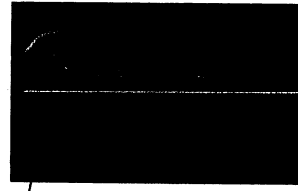


SCHEMATIC DIAGRAM

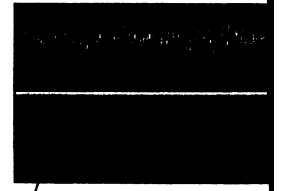
- Use the high impedance probe. (10:1)
- Play the track 2 of test disc. (YEDS-18)



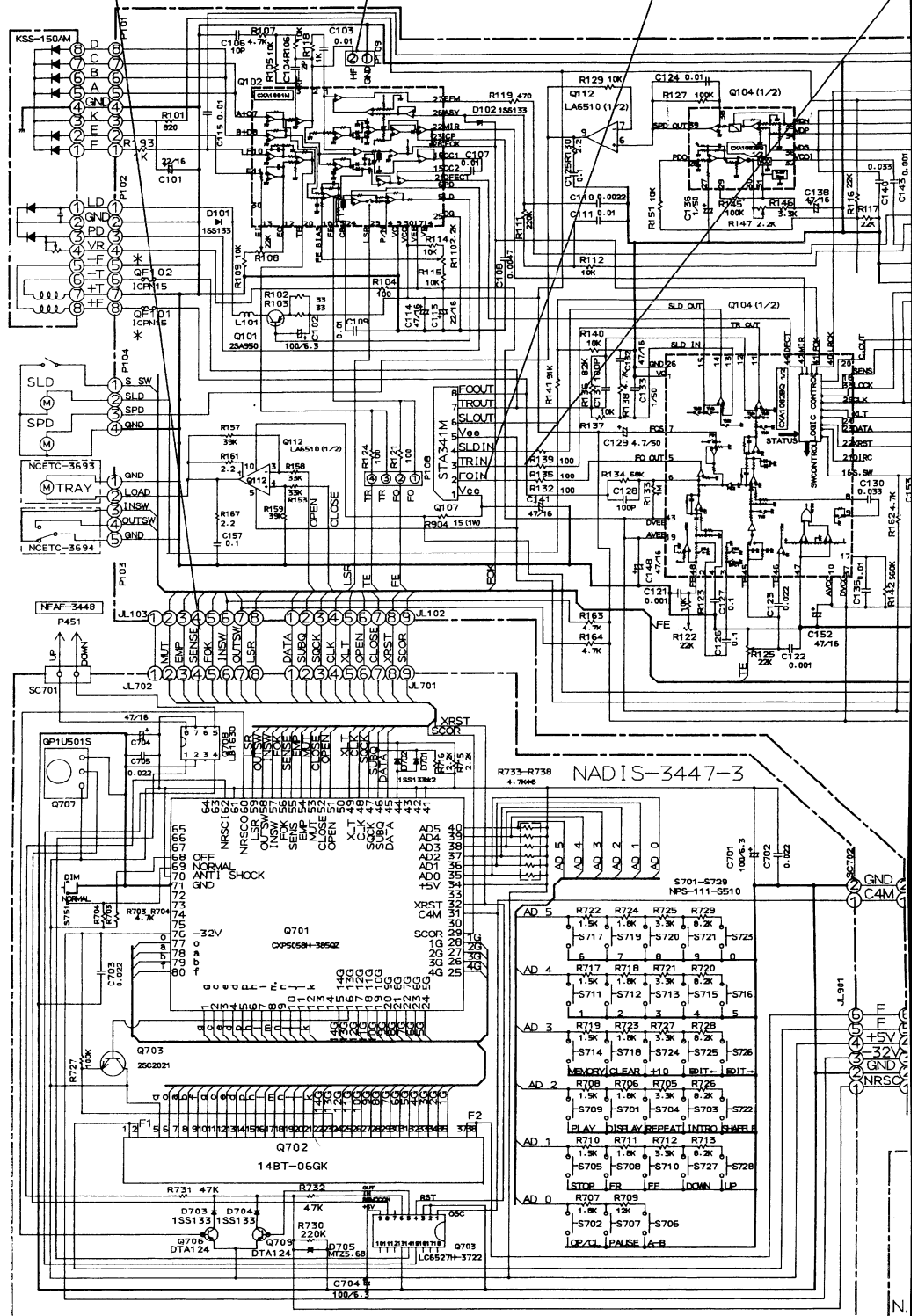
V : 0.2V/div JL-103 #4
H : 5mS/div SENS

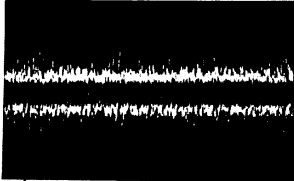


V : 50mV/div
H : 0.5μS/div

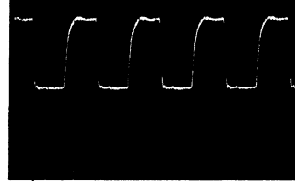


V : 50mV/div
H : 0.5mS/div

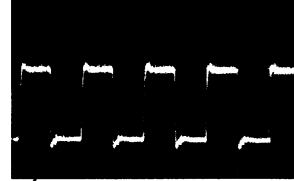




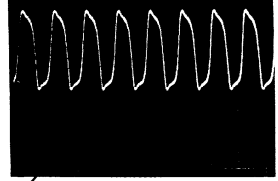
V : 0.1V/diV
H : 0.5mV/diV



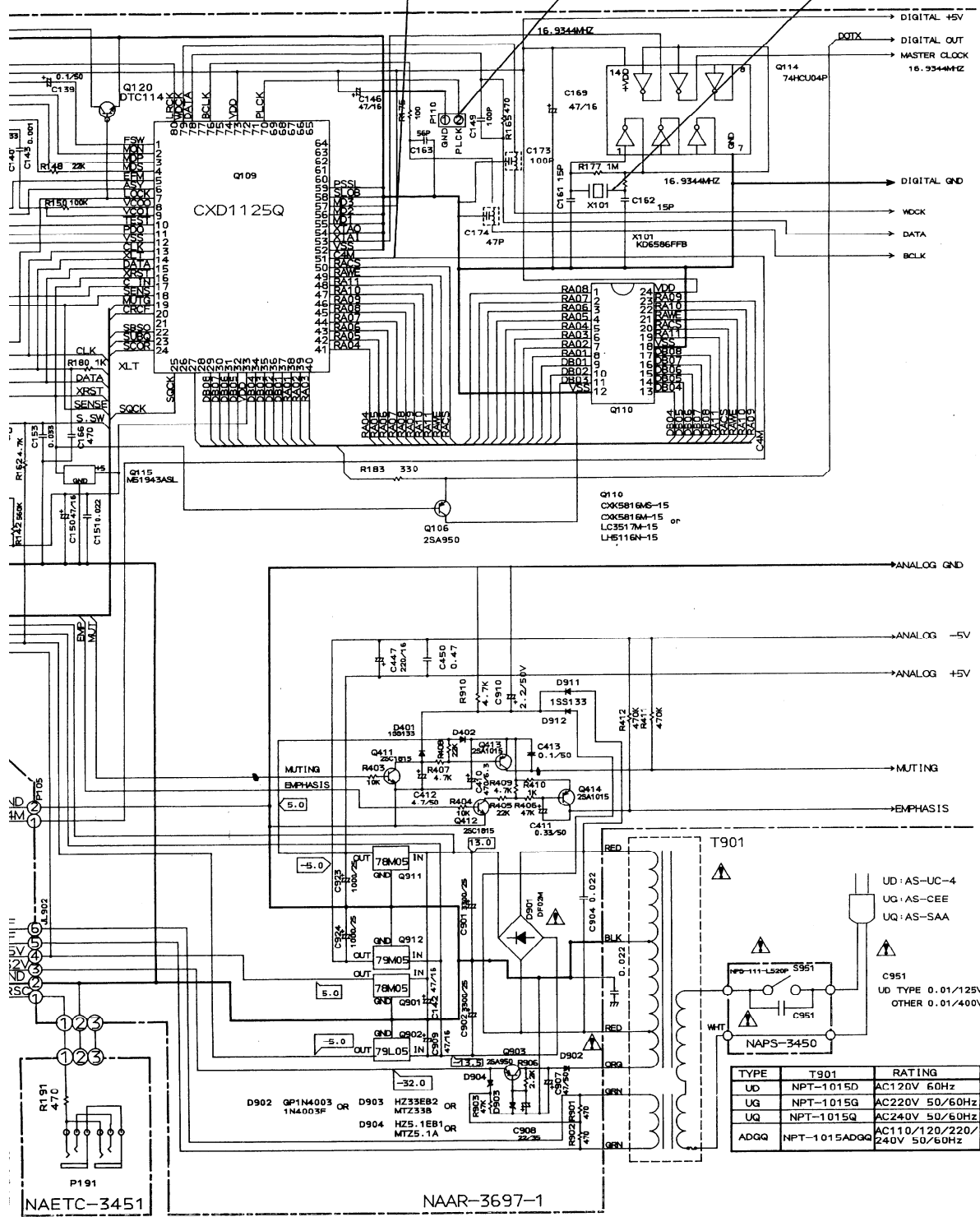
V : 0.2V/diV,
H : 0.1μS/diV



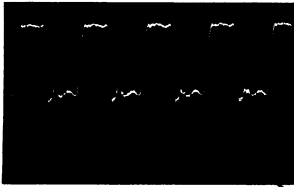
V : 0.2V/diV
H : 0.1μS/diV



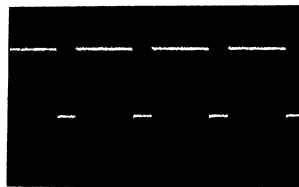
V : 0.2V/diV
H : 0.05μS/diV



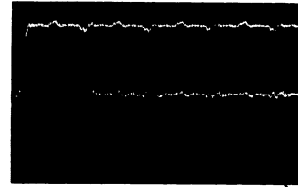
SCHEMATIC DIAGRAM



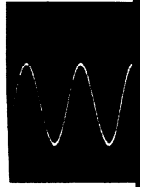
V : 0.2V/div
H : 0.05μS/div



V : 0.2V/div
H : 1μS/div

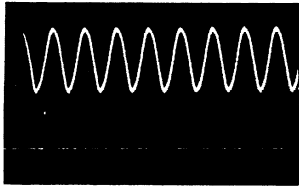


V : 0.2V/div
H : 0.05μS/div



V : 0.2V/div
H : 0.05μS/div

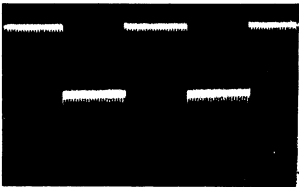
• Use the high impedance probe. (10:1)



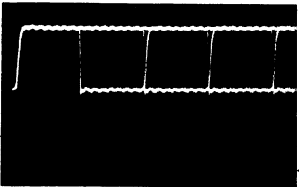
V : 0.2V/div
H : 0.05μS/div



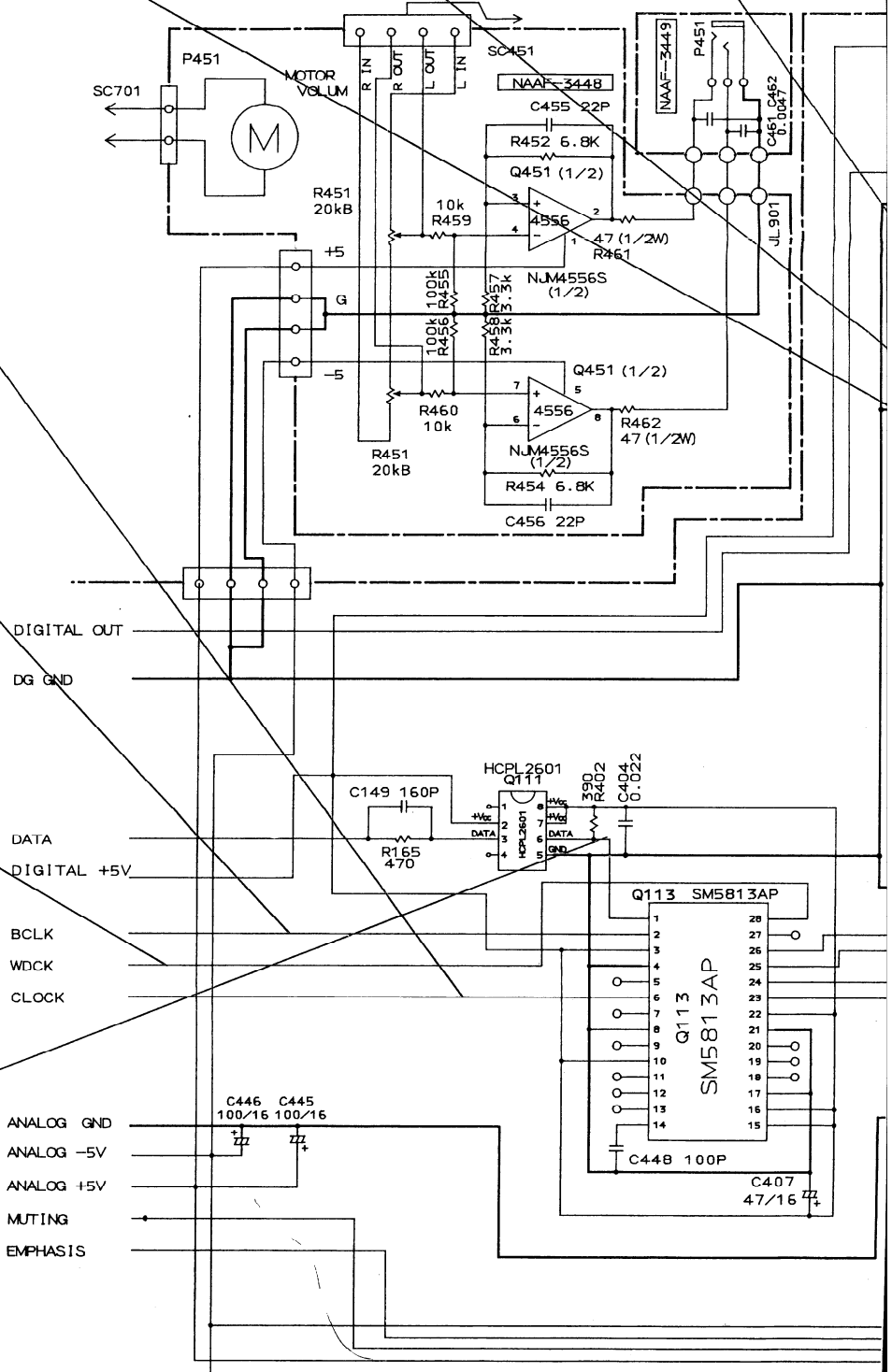
V : 0.2V/div
H : 0.05μS/div



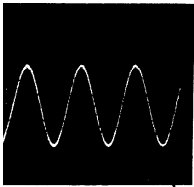
V : 0.2V/div
H : 5μS/div



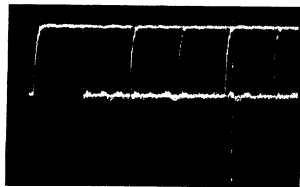
V : 0.2V/div
H : 0.2μS/div



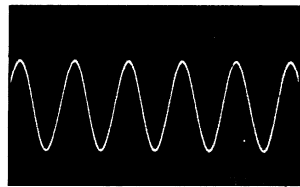
A
B
C
D
E
F



: 0.2V/diV
: 0.5mS/diV



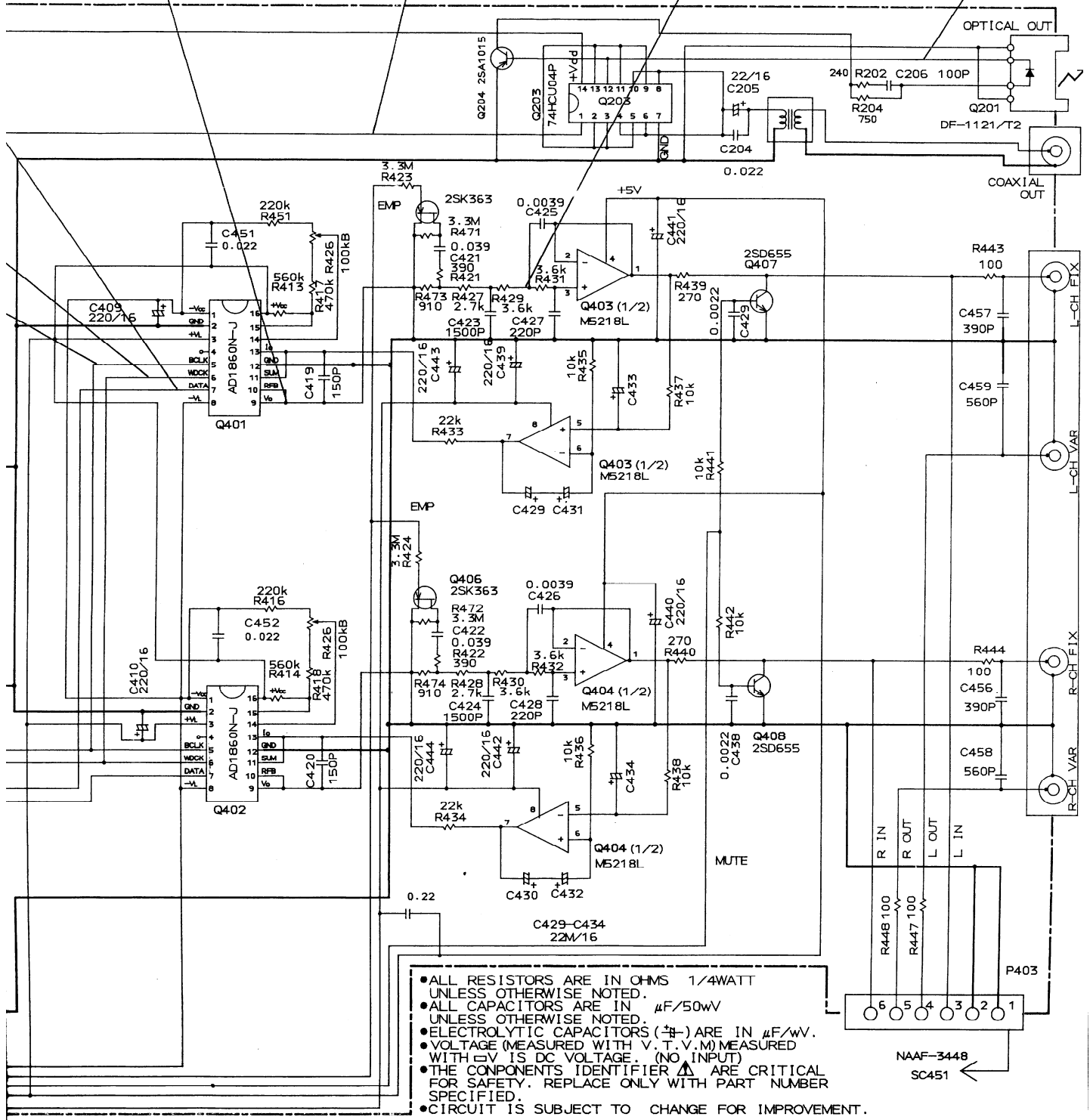
V : 0.2V/diV
H : 0.1μS/diV



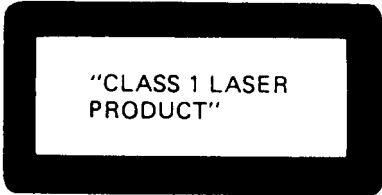
V : 50mV/diV
H : 0.5mS/diV



V : 0.2V/diV
H : 0.1μS/diV



ADVARSEL

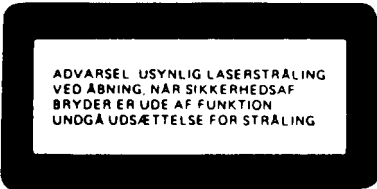


"CLASS 1 LASER
PRODUCT"

Denne mærkning er anbragt på apparatets højre side og indikerer, at apparatet arbejder med laserstråler af klasse 1, hvilket betyder, at der anvendes laserstråler af svageste klasse, og at man ikke på apparatets yderside kan blive udsat for utilladelig kraftig stråling.

APPARATET BØR KUN ÅBNES AF FAGFOLK MED SÆRLIGT KENDSKAB TIL APPARATER MED LASERSTRÅLER!

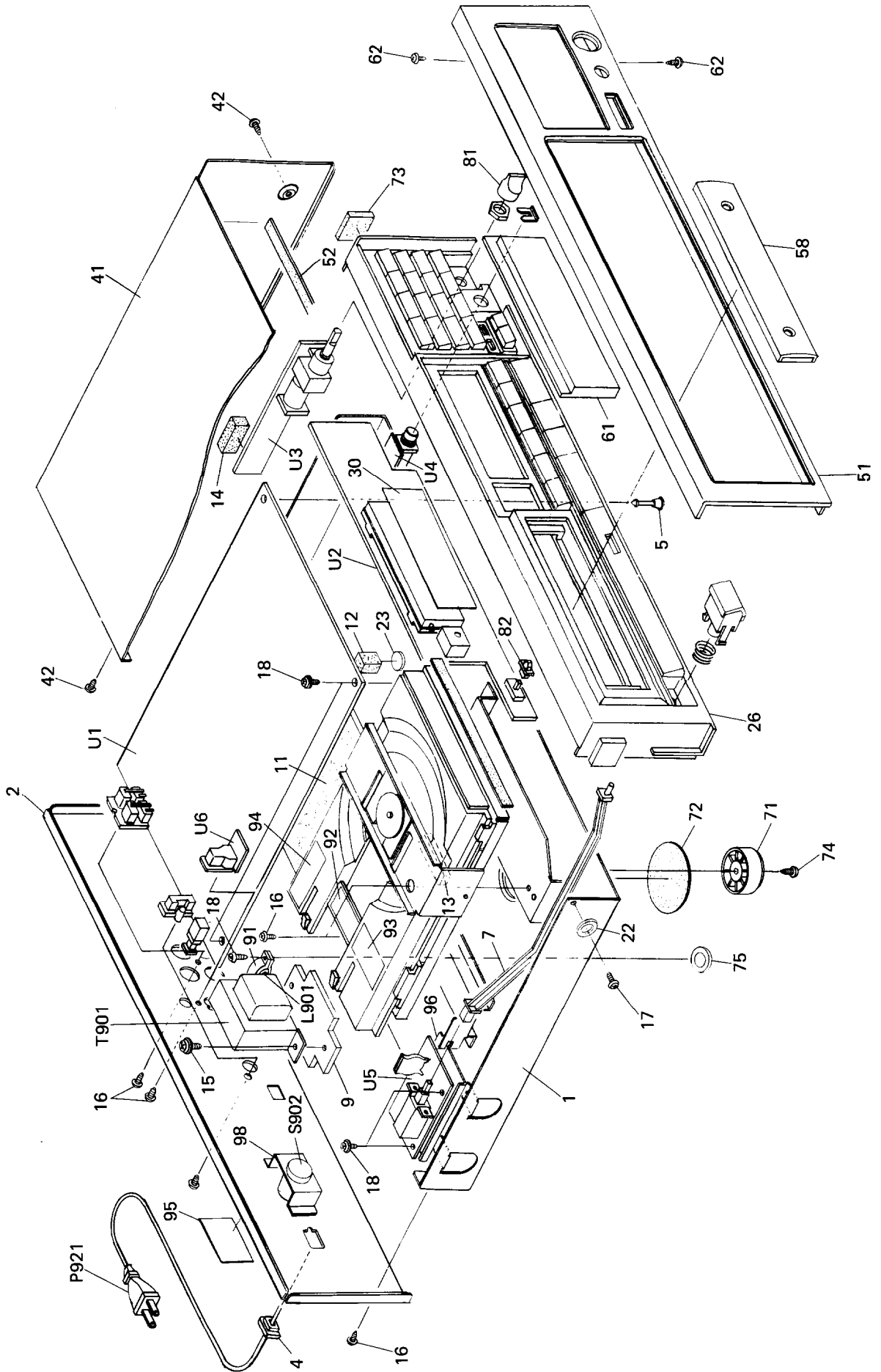
Indvendigt i apparatet er anbragt den her gengivne advarselmærkning, som advarer imod at foretage sådanne indgreb i apparatet, at man kan komme til at udsætte sig for laserstråling.



ADVARSEL USYNLIG LASERSTRÅLING
VED ÅBNING, NÅR SIKKERHEDSAF
BRYDER ER UDE AF FUNKTION
UNDGÅ UDSÆTTELSE FOR STRÅLING

VAROITUS! Laite sisältää laserdiodin, joka lähettää (näkymätöntä) silmille vaarallista lasersäteilyä.

CHASSIS-EXPLODED VIEW



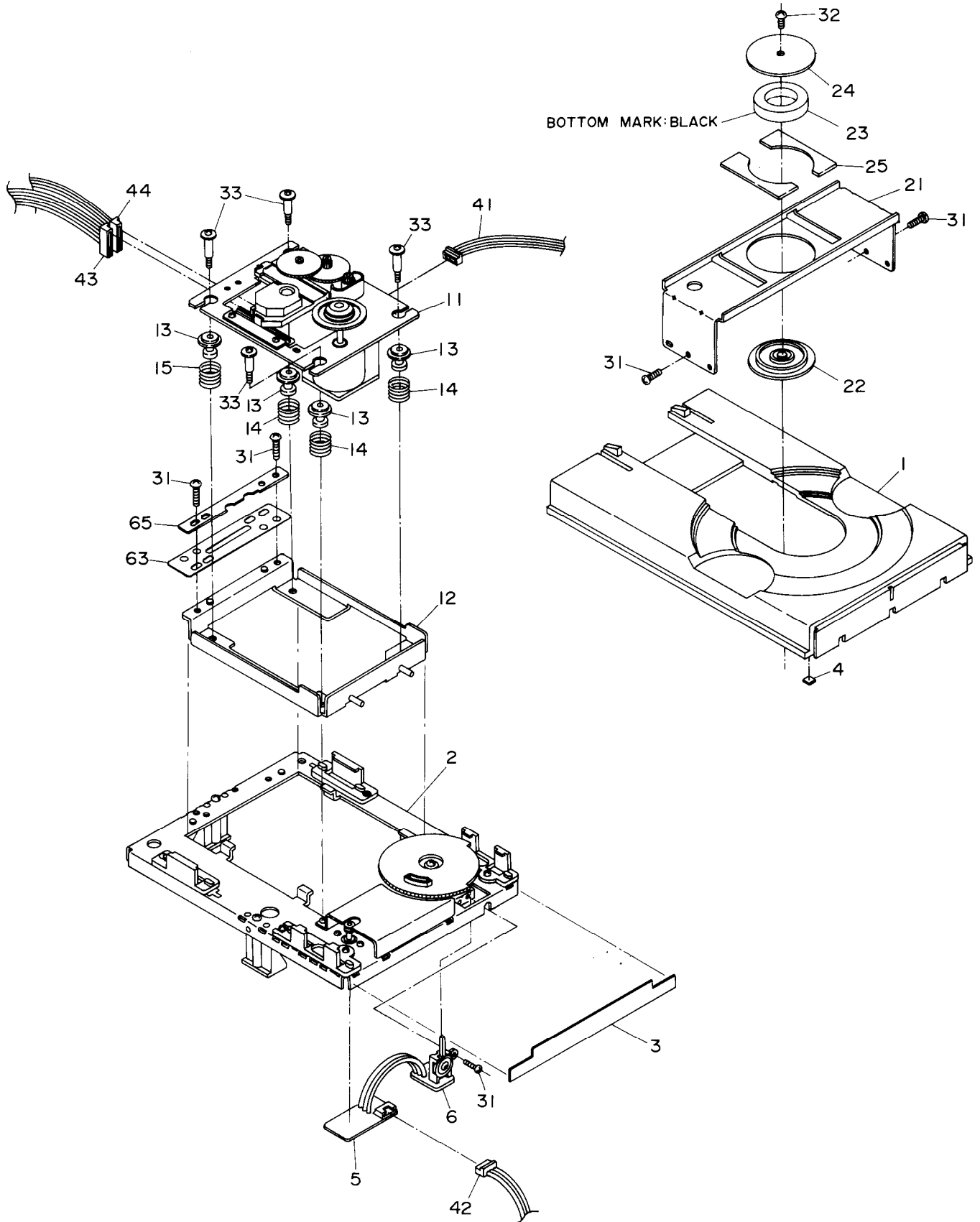
PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
1	27100200A	Chassis	P921	253112A	△AS-UC-4# 18, Power supply cord<D>
2	27121302	Back panel<D>		253148 or	△AS-CEE 250V 2.5A, Power supply cord<G/W>
	27121303	Back panel<G>		253150	
	27121304	Back panel<W>		253118	△AS-SSA, Power supply cord<A>
	27121308	Back panel<Q>		728328	△ Power supply cord
4	27300750	△Bushing (Strainrelief)	S902	25065168	△HXW0131-01-060, Voltage selector switch<W>
5	27190511	KGLS-16R, Holder	T901	2300384B	△NPT-1015D, Power transformer<D>
7	27273112	Joint, power		2300385B	△NPT-1015G, Power transformer<G>
9	27270214A	Spacer		2300387A	△NPT-1015Q, Power transformer<Q>
11	28141009	t1.5×195×125, Cushion	U1	2300386B	NAAR-3697-1, Main circuit pc board ass'y<D/W>
12	28140946	Cushion		1H093597-1	NAAR-3697-1A, Main circuit pc board ass'y<G/Q>
13	28141008	t1.5×60×15, Cushion	U2	1H093547-3	NADIS-3447-3, Display circuit pc board ass'y
14	28141007	t8×20×40, Cushion	U3	1H093548-3	NAAF-3448-3, Headphone amplifier pc board ass'y
15	830440109	4TTC+10C (BC) , Self-tapping screw	U4	1H093549-3	NAAF-3449-3, Headphone terminal pc board ass'y
16	834430088	3TTS+8B (BC) , Self-tapping screw	U5	1H093550-3	NAPS-3450-3, Power switch pc board ass'y
17	834300080	3TTP+8P (BC) , Self-tapping screw	U6	1H093551-3	NAETC-3451-3, Terminal pc board ass'y
18	831130088	3TTW+8B, Self-tapping screw		260208	Binder
22	27270212	Spacer			
23	27270305	Spacer			
26	27110530B	Front bracket			
30	28133216	Back plate			
41	28184429	Top cover			
42	834430088	3TTS+8B (BC) , Self-tapping screw			
51	1H093121	Front panel ass'y			
52	28140836	t0.5×10×350, Cushion			
58	27211142	Tray panel			
61	28191534	Clear plate			
62	833430080	3TTP+8P (BC) , Self-tapping screw			
71	27175153-1	Leg			
72	27270255	Spacer			
73	28140928	t4×25×25, Cushion			
74	834430088	3TTS+8B (BC) , Self-tapping screw			
75	27175011C	Leg			
81	28323571	Knob, level			
82	28323152-1	Knob, mode			
91	260223	NK-16N, Clamp<D>			
	260221	NK-10N, Clamp<G/Q/W>			
92	29360807	Label, danger			
93	29361218	Label, laser<G/W/Q>			
94	29360811A	Label<G>			
95	29360687	Label, class 1<G/W/Q>			
96	28175158A	Insulated plate<G/W/Q>			
98	27141090A	Bracket, voltage selector switch<W>			
L901	230908	△TR-23-11-14, Core<D>			
	230907	△TR-16-8-16, Core<G/W/Q>			

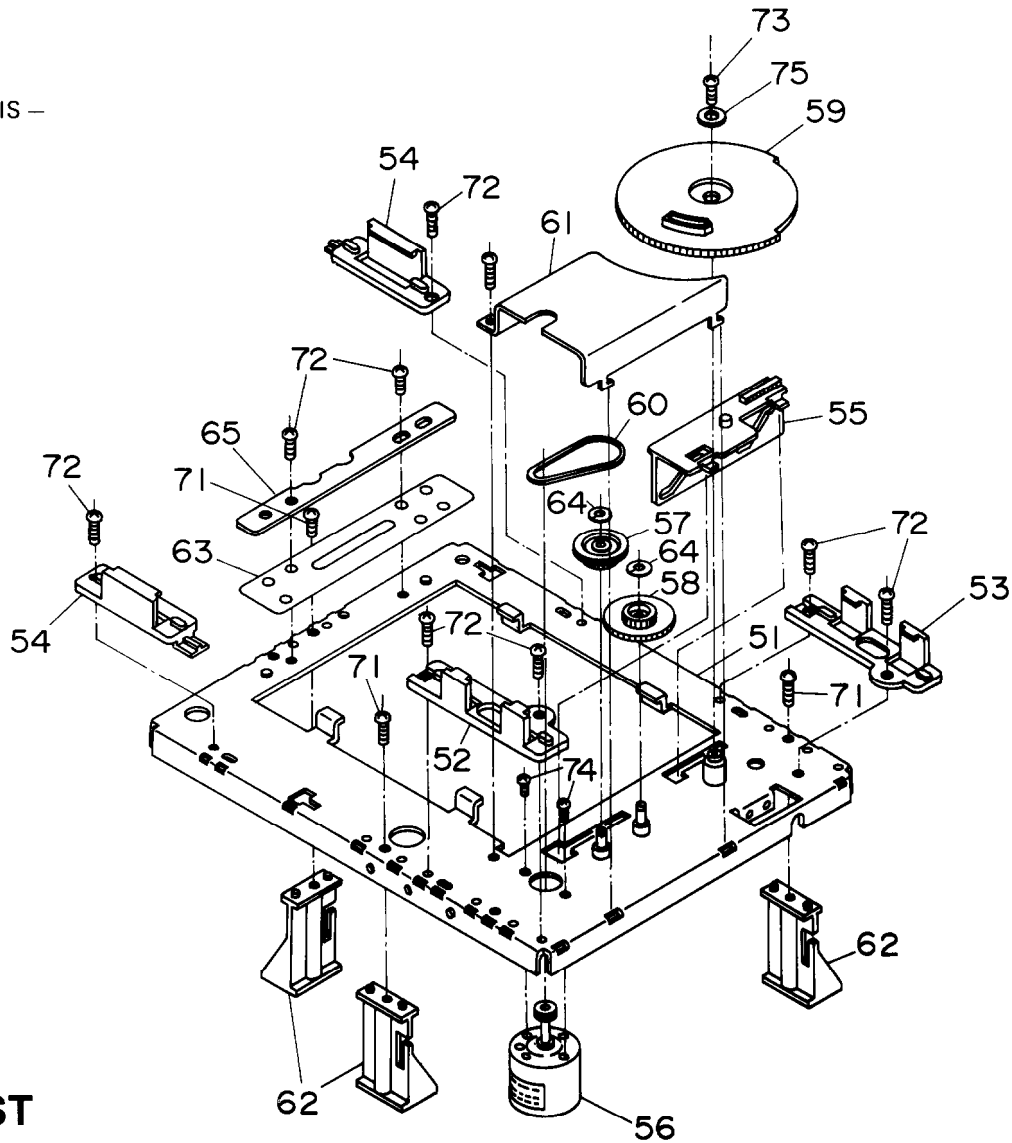
NOTE:<D>:Only 120V model
 <G>:Only 220V model
 <Q>:Only 240V model
 <W>:Only Worldwide model
 <A>:Only Australian model
 :Only U.K. model

NOTE: THE COMPONENTS IDENTIFIED BY MARK **△**
 ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC
 SHOCK. REPLACE ONLY WITH PART NUMBER
 SPECIFIED.

MECHANISM EXPLODED VIEW



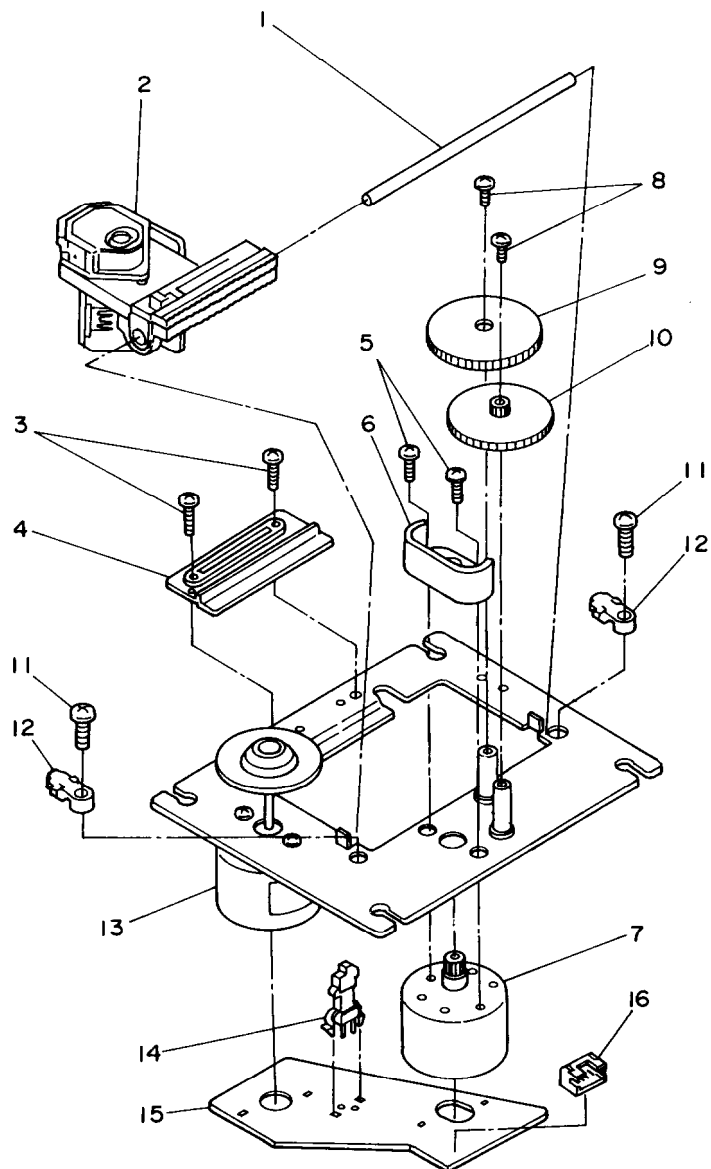
- MAIN CHASSIS -



PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
1	27301236A	Disc tray	51	27100198	Chassis, main
2	27100201A	Chassis ass'y, main	52	27301237A	Tray guide FL
3	27301289	Plate, decoration	53	27301238A	Tray guide FR
4	28141020	Cushion	54	27301242A	Tray guide R
5	1H093593-1	NAETC-3693-1, Tray motor pc board ass'y	55	27301239	Cam plate
	25055369	NPLG-5P352, Plug	56	24502255	Tray motor ass'y
6	1H093594-1	NAETC-3694-1, Tray switch pc board ass'y	57	27301233	Pulley gear
	25065375	NMS-1219, Microswitch	58	27301234	Gear
11	242369	Pickup drive unit	59	27301235A	Cam gear
12	27100197	Chassis, sub	60	27301079	Rubber belt
13	27301232	Cushion rubber	61	27301243	Cover
14	27180437A	Spring, front	62	27301244	Leg
15	27180438A	Spring, rear	63	27180436	Plate spring
21	27301240	Arm	64	27270292	Spacer
22	27301241	Cap CH	65	27141375	Bracket
23	28181019A	Magnet CH	71	838430088	3TTB+8B (BC) , Self-tapping screw
24	27301214-1	York CH	72	833425089	2.5TTP+8C (BC) , Self-tapping screw
25	28140993	Cushion CH	73	82143006	3P+6FN (BC) , Pan head screw
31	833425089	2.5TTP+8C (BC) , Self-tapping screw	74	801430	2P+2.5F, Special screw
32	833426050	2.6TTP+5P (BC) , Self-tapping screw	75	87643010	W3×10F (BC) , Flat washer
33	801428	Special screw			
41	2002320825	NSAS-8P0030, Socket			
42	2002391025	NSAS-10P0082, Socket			
43	2000951	NSAS-8P903, Socket			
44	2000952	NSAS-8P904, Socket			
63	27180436	Plate spring			
65	27141375	Bracket			

- PICKUP DRIVE UNIT -



PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
1	24506900	Shaft
2	<u>24110005</u>	KSS-150A, Optical pickup <i>CF028</i>
3	801425	S2×5, Special screw
4	24506901	Holder
5	82112004	+P2×4, Pan head screw
6	24506902	Cover, gear
7	24502251	Motor ass'y, slide
8	801426	M1.7×3, Special screw
9	24506903	Wheel A
10	24506904	Wheel B
11	801427	+STP2.6×8, Special screw
12	24506905	Clamp, shaft
13	24502253	Spindle motor ass'y (Including the chassis)
14	25065377	NLF-12018, Microswitch
15	24505270	Pc board
16	25050396	NSCT-4P223, Socket

DISASSEMBLING/ATTACHMENT PROCEDURES

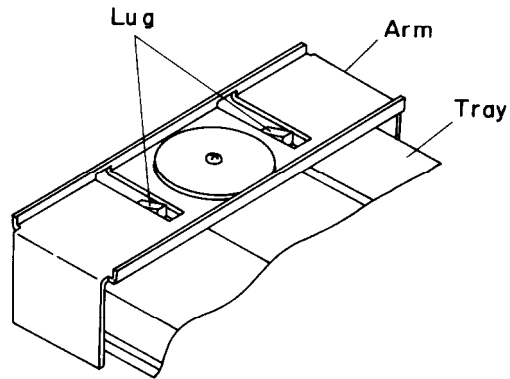
1. Removal of the disc tray

Procedures 1

- 1) Press the POWER switch to turn on the power.
- 2) Press the OPEN/CLOSE button to open the disc tray.
- 3) Press the POWER switch to turn off.
- 4) Push the disc tray slowly with the hand to close the disc tray.
(The disc tray is free.)
- 5) Pull out the disc tray to the front side with the hand.
- 6) Press the lug of disc tray to remove the disc tray.

Procedures 2

- 1) Push the cam plate slowly with the screw driver (—) from the hole of left side of chassis.
- 2) Pull out the disc tray to the front side with the hand.
- 3) Press the lug of disc tray to remove the disc tray.

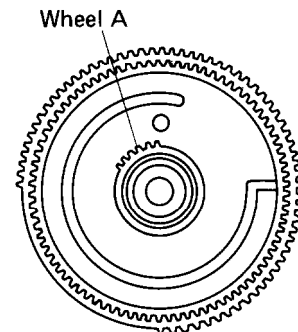
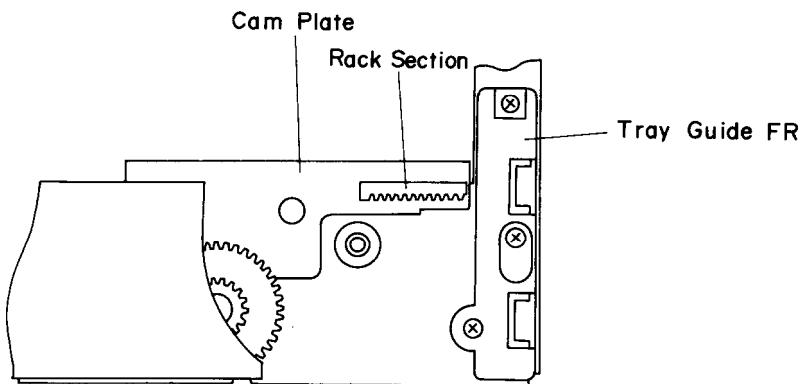


2. Attachment of the disc tray

- 1) Turn the cam gear to fully clockwise direction.
- 2) Insert the disc tray.
- 3) Turn the power on to lock the disc tray.

3. Attachment of the cam gear

- 1) Set the cam plate to the right side as shown below.
- 2) Attach the cam gear so that the rack of cam plate and the wheel A of cam gear are not engaged.



Bottom view of cam gear

ADJUSTMENT PROCEDURES

Instruments required

Dual trace oscilloscope, Frequency counter, AF oscillator, Test disc (SONY YEDS-18), AC voltmeter, Jitter meter, and Socket P4(Part no. 25050138)

1. VCO frequency adjustment

Connect the frequency counter to terminal P110.

Turn the power switch to ON.(No load the disc.)

Adjust R147 until the frequency counter reading becomes $4322 \pm 5\text{kHz}$.

After adjustment, disconnect the frequency counter.

2. Focus offset adjustment

Load the test disc YEDS-18 on the tray and play the track 2.

Connect the oscilloscope or jitter meter to terminal P109.

(Oscilloscope)

Adjust R110 until a clear trace of waveform pattern as shown photo 1 appear on the oscilloscope.

When the amount of jitter is broad, set R110 to mechanical center.

(Jitter meter)

Adjust R110 until the jitter meter reading becomes minimum.(Less than 10ns.)

After adjustment, disconnect the oscilloscope or jitter meter.

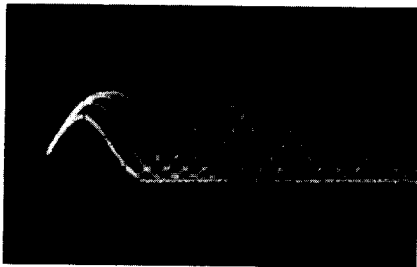
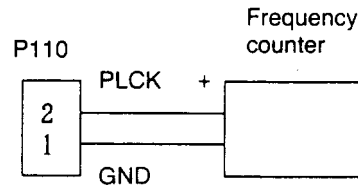
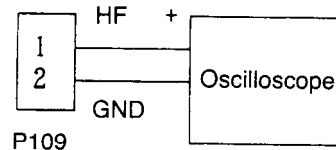
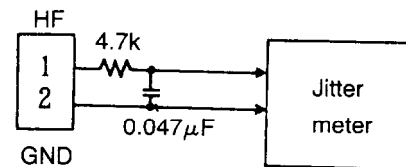


Photo 1



Oscilloscope range
Vertical : 0.5V/div.
Horizontal : 0.2 μs /div.
AC



3. Tracking offset adjustment

Load the test disc YEDS-18 on the tray and play the track 2.

Turn R125 to minimum position.(Counter clockwise)

Connect the oscilloscope between pin 3 (TR) of P108 and pin 2 (GND) of P109.

Adjust R108 until the center of tracking error signal on the oscilloscope becomes GND level.

Turn R125 to the mechanical center.

After adjustment, disconnect the oscilloscope.

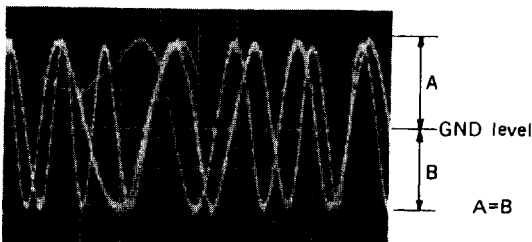
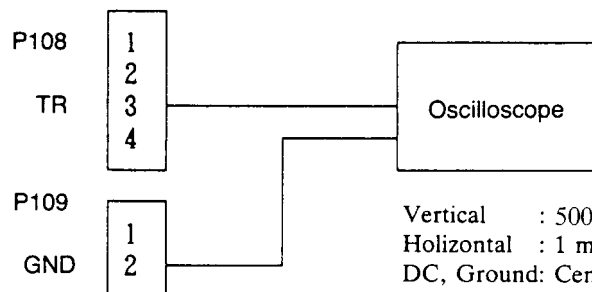


Photo 2



Vertical : 500 mV/div.
Horizontal : 1 ms/div.
DC, Ground: Center

4. Focus gain adjustment

Set the output of AF oscillator to 800Hz, 1~1.5Vp-p.

Play the track 2 of test disc.

Connect the oscilloscope and the AF oscillator as shown below.

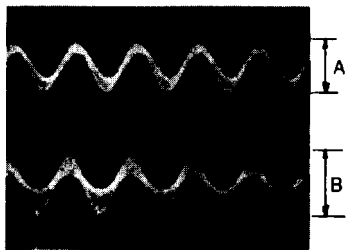
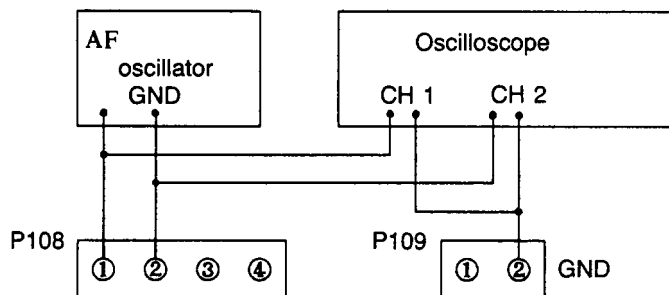


Photo 3



Vertical : 0.2V/div.
Horizontal: 0.5 ms/div.

Adjust R122 until 800Hz components of channels 1 and 2 on oscilloscope become same level.

After adjustment, disconnect the AF oscillator and the oscilloscope.

5. Tracking gain adjustment

Set the output of AF oscillator to 1.2kHz, 1~1.5Vp-p.

Play the track 2 of test disc.

Connect the oscilloscope and the AF oscillator as shown below.

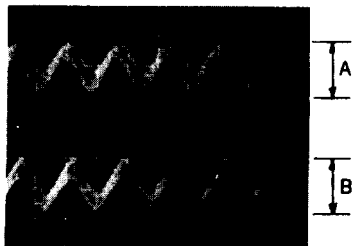
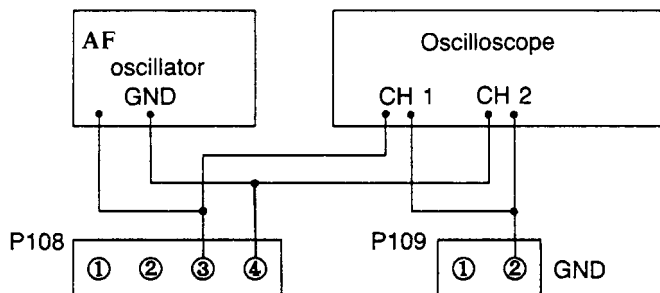


Photo 4



Vertical : 0.2V/div.
Horizontal: 0.5 ms/div.

Adjust R125 until 1.2kHz components of channels 1 and 2 on oscilloscope become same level.

After adjustment, disconnect the AF oscillator and the oscilloscope.

After adjustment, confirm that the center of tracking error signal becomes GND level.

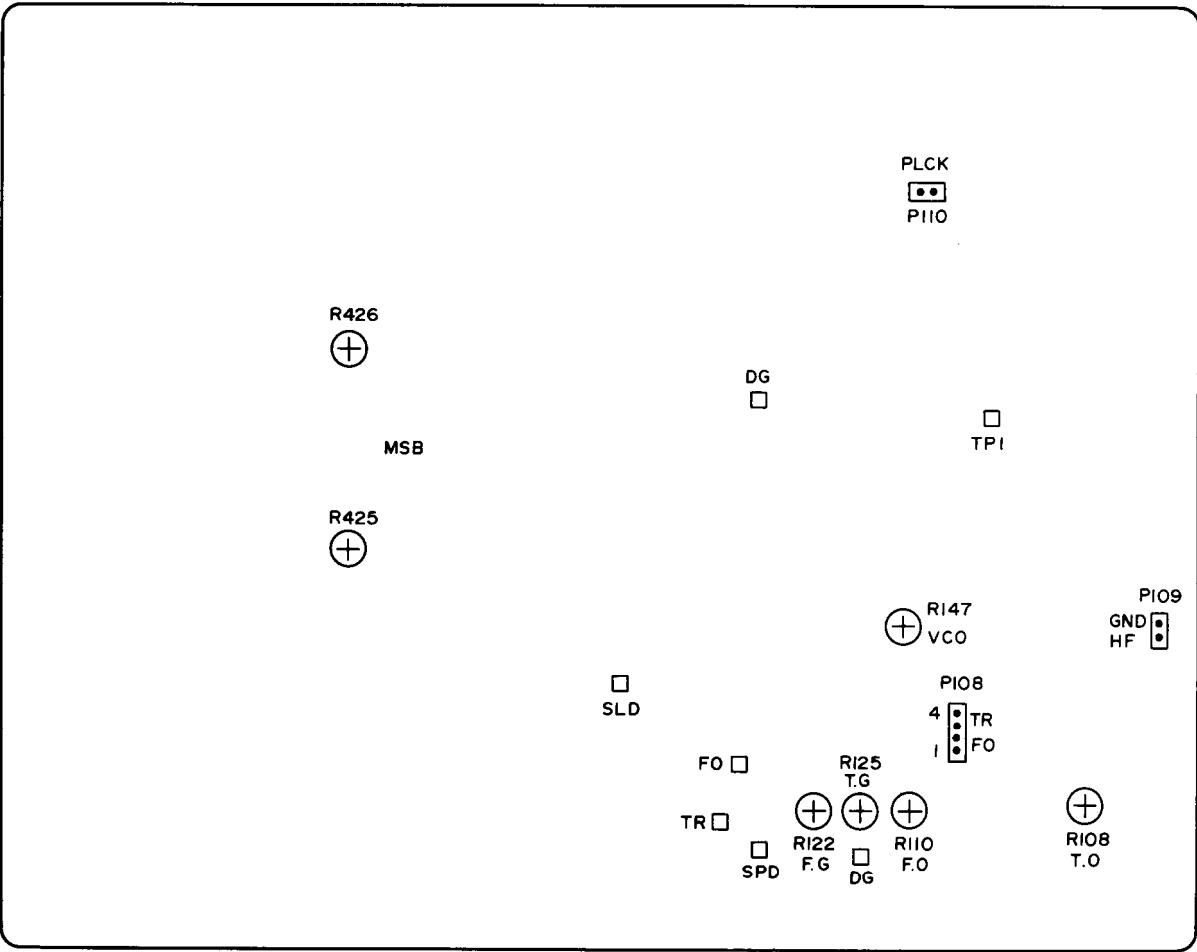
6. Audio circuit adjustment

Connect the AC voltmeter to output terminal of left channel (right channel).

Load the test disc and play the track 2.

Next, play the track 17.

Adjust R425 (R426) so that the output discrepancy between track 2 and track 17 is 60 ± 0.25 dB.



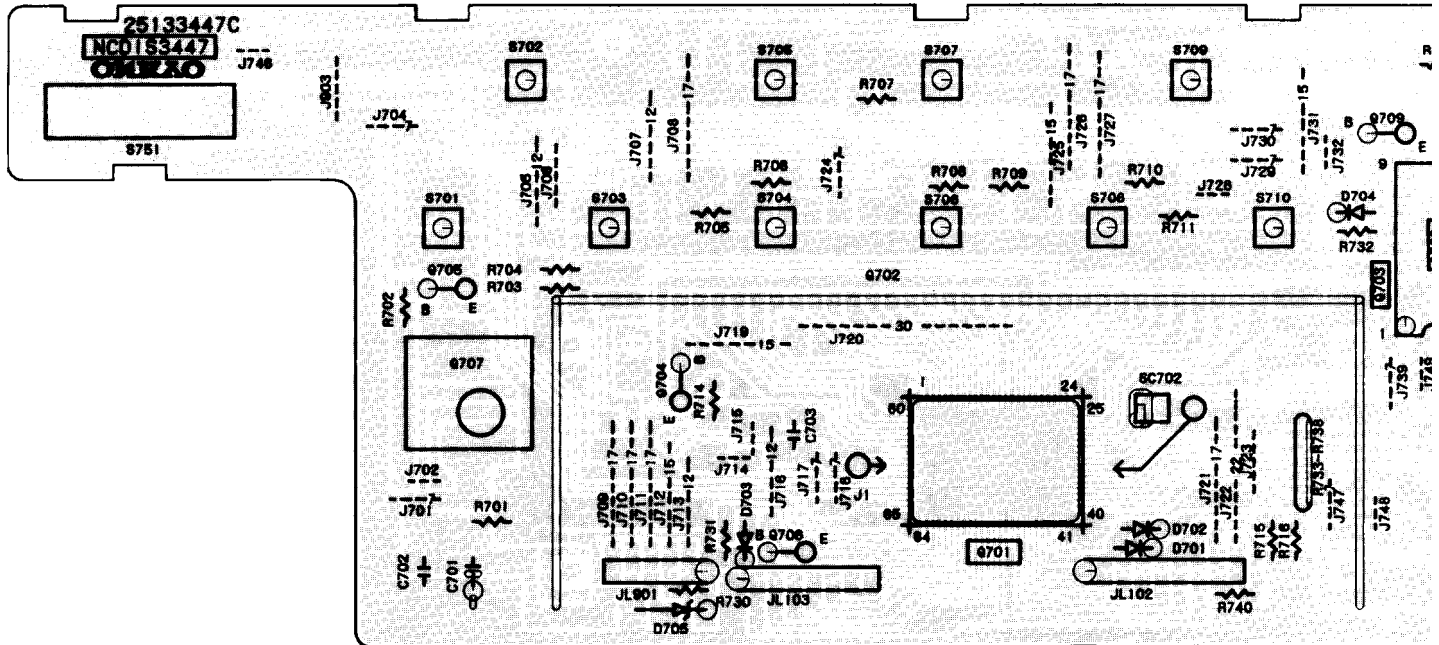
Adjustment point

PRINTED CIRCUIT BOARD – PARTS LIST

MAIN CIRCUIT PC BOARD (NAAR-3697-1/1A)

CIRCUIT NO.	PART NO.	DESCRIPTION
		ICs
Q102	22240029	CXA1081M
Q104	22240223	CXA1082BQ
Q107	22240168	STA341M-L
Q109	22240130	CXD1125Q
Q110	222990, 22240142, 22240032, 22240203, 22240233 or 222882	CXK5816M-15, CXK5816MS-15, LC3517AM-15, LC5116N-15, LC3517BM-15 or HM6116FP-4
Q111	226027	HCPL-2601
Q112	22240034	LA6510
Q113	22240288	SM5813AP
Q114, Q203	222755	74HCU04P
Q115	22240018	M51943ASL
Q401, Q402	22240289	AD1860N-J
Q403, Q404	222652	M5218L
Q901	222780052NEC	78M05
Q902	222790053	79L05
Q911	222780055MIT	M5F78M05L
Q912	222790055MIT	M5F79M05L
		Transistors
Q101, Q903	2211503 or 2211504	2SA950-0 or 2SA950-Y
Q106, Q204	2211454 or 2211455	2SA1015-Y or 2SA1015-GR
Q120	221281	DTC114YS
Q405, Q406	2212524 or 2212525	2SK363GL or 2SK363BL
Q407, Q408	2211705 or 2211706	2SD655-E or 2SD655-F
Q411, Q412	2211183, 2211254 or 2211255	2SC1740-R, 2SC1815-Y or 2SC1815-GR
Q413, Q414	2213074, 2211454 or 2211455	2SA933-R, 2SA1015-Y or 2SA1015-GR
		Photo coupler
Q201	24120028	DF-1121/T2
		Diodes
D101, D102	223163	1SS133
D401, D402	223163	1SS133
D901	223892	DF02M
D902	223880 or 223896	GP101N4003 or 1N4003F
D903	224653302 or 224453302	HZ33EB2 or MTZ33B
D904	224650511 or 224450511	HZ5.1EB1 or MTZ5.1A
D911, D912	223163	1SS133
		Crystal
X102	3010112	KD6586FFB
		Coils
L101	231023	NCH-1062
L201	232143	NSRF-2047
		Filters
C173	3030002	DSS306-55B101M
C174	3030001	DSS306-55B470M
		Capacitors
C101, C113	354742209	22 μ F, 16V, Elect.
C102	354721019	100 μ F, 6.3V, Elect.
C103, C107	371121034	0.01 μ F \pm 5%, 50V, Mylar
C108	371124724	4700pF \pm 5%, 50V, Mylar
C109, C111	371121034	0.01 μ F \pm 5%, 50V, Mylar

PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE



CIRCUIT NO. PART NO.

C110, C121	371122224
C114	354722219
C115	371121034
C122	371121024
C123	371122234
C125-C127	371121044
C129	354780479
C130	371123334
C132, C138	354744709
C133, C136	354780109
C135	371121034
C139	354781099
C140	371123334
C141, C142	354744709
C146, C148	354744709
C152	354782219
C153	371123334
C157	371121044
C158, C159	354744709
C202	354744709
C205	352942206
C403, C407	354744709
C408, C409	354744719
C410	354724719
C411	354783399
C412	354780479
C413	354782299
C419, C420	372121014
C421, C422	371123934
C423, C424	372121524
C425, C426	379123924
C427, C428	372122214
C429-C432	391242207
C435, C436	391242207
C437, C438	371122224
C439-C444	354782219
C445, C446	354744709
C447	391242217
C450	374724744
C451, C452	374722234
C453	374722244

DESCRIPTION

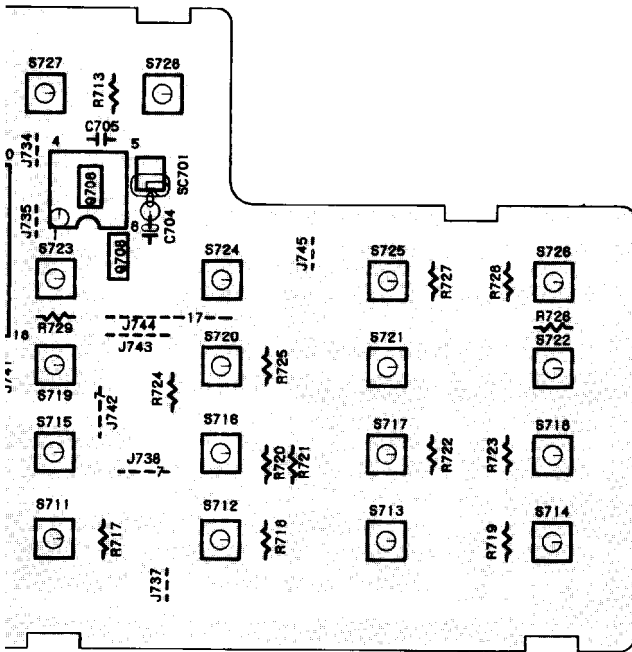
2200pF ± 5%, 50V, Mylar
220 μF, 6.3V, Elect.
0.01 μF ± 5%, 50V, Mylar
1000pF ± 5%, 50V, Mylar
0.022 μF ± 5%, 50V, Mylar
0.1 μF ± 5%, 50V, Mylar
4.7 μF, 50V, Elect.
0.033 μF ± 5%, 50V, Mylar
47 μF, 16V, Elect.
1 μF, 50V, Elect.
0.01 μF ± 5%, 50V, Mylar
0.1 μF, 50V, Elect.
0.033 μF ± 5%, 50V, Mylar
47 μF, 16V, Elect.
47 μF, 16V, Elect.
22 μF, 16V, Non-polar elect.
47 μF, 16V, Elect.
470 μF, 16V, Elect.
470 μF, 6.3V, Elect.
0.33 μF, 50V, Elect.
4.7 μF, 50V, Elect.
0.22 μF, 50V, Elect.
100pF ± 5%, 50V, Styrol
0.039 μF ± 5%, 50V, Mylar
1500pF ± 5%, 50V, Styrol
3900pF ± 5%, 50V, Plastic (DEW)
220pF ± 5%, 50V, Styrol
22 μF, 16V, Elect. (MUSE)
22 μF, 16V, Elect. (MUSE)
2200pF ± 5%, 50V, Mylar
220 μF, 50V, Elect.
47 μF, 16V, Elect.
220 μF, 16V, Elect. (MUSE)
0.47 μF ± 5%, 50V, IF
0.022 μF ± 5%, 50V, IF
0.22 μF ± 5%, 50V, IF

CIRCUIT NO. PART NO.

C456, C457	373305614
C458, C459	372123914
C901, C902	354753329
C904	374722234
C907	354784709
C908	354762209
C909	354744709
C910	354780229
C923, C924	354751029
Resistors	
R108	5210066
R110	5210060
R122, R125	5210066
R147	5210058
R425, R426	5210070
R904	441621504
Plugs	
P101	25055373
P102	25055152
P103	25055149
P104	25055148
P105	25055146
P108	25055045
P109, P110	25055038
P403	25055150
Jacks	
P114	25045220
P401	25045267
Sockets	
JL102	25050273
JL103	25050272
JL901	25050270
JL902	25050268
J8	2000957
J14	2009990067
Fuses	
QF101, QF102	252112
Radiator	
27160211-1	
Screw	
82143006	

DESCRIPTION

560pF ± 5%, 125V, PP	
390pF ± 5%, 50V, Styrol	
3300 μF, 25V, Elect.	
0.022 μF ± 5%, 50V, Plastic (TF)	
47 μF, 50V, Elect.	
22 μF, 35V, Elect.	
47 μF, 16V, Elect.	
2.2 μF, 50V, Elect.	
1000 μF, 25V, Elect.	
N06HR22KBD, Semi-fixed	
N06HR2.2KBD, Semi-fixed	
N06HR22KBD, Semi-fixed	
N06HR1KBD, Semi-fixed	
N06HR100KBD, Semi-fixed	
15ohm, 1W, Metal oxide film	
NPLG-9P356	
NPLG-8P136	
NPLG-5P133	
NPLG-4P132	
NPLG-2P130	
NPLG-4P33	
NPLG-2P29	
NPLG-6P134	
NPJ-1PDOR-97	
NPJ-4PDBL-134	
NSCT-9P101	
NSCT-8P100	
NSCT-6P98	
NSCT-4P96	
NSAS-2P909	
NSAS-2P0103	
△ICPN15<G>	
3P+6FN (BC), Radiator	



DISPLAY CIRCUIT PC BOARD

DISPLAY CIRCUIT PC BOARD (NADIS-3447-3)

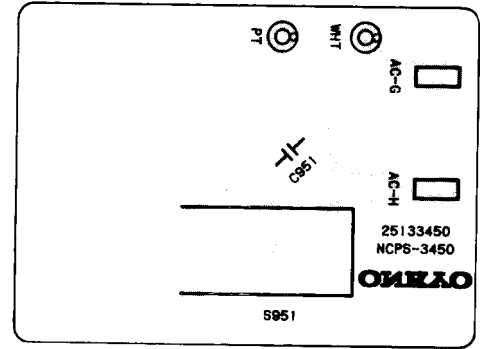
CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		
Q701	22240292	CXP5058H-538QZ
Q703	22240173	LC6527H-3722
Q708	222963	LB1630
Remocon sensor		
Q707	24130003	GP1U50XS
FLtube		
Q702	212046	14BT06GK
Transistors		
Q704	2212132 or 2212133	2SC2021-R or 2SC2021-S
Q706, Q709	2212600	DTA124ES
Diodes		
D701-D704	223163	1SS133
D705	224650562 or 2243152	HZ5.6EB2 or MTZ5.6B
Capacitors		
C701	354721019	100 μF, 6.3V, Elect.
C704	355744709	47 μF, 16V, Elect.
Resistors		
R733-R738	49163472406	4.7k × 6, 1/10W, Network
Switches		
S701-S728	25035548	NPS-111-S510, Push
S751	25065384	NSS-23146, Slide
Sockets		
SC701	2000893	NSAS4P-849
SC702	2000732	NSAS4P-688
Holder		
	27190567B	Display

HEADPHONE AMPLIFIER PC BOARD (NAAF-3448-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
Q451	222887	NJM4556S, IC
C451, C452	354744709	47 μF, 16V, Elect. capacitors
R451	5104247	N16RGM20KB25F, Variable resistor
R461, R462	442524704	47ohm, 1/2W, Metal oxide film resistors
P451	25055146	NPLG-2P130, Plug
SC451	2000956	NSAS-10P-908, Socket

HEADPHONE TERMINAL PC BOARD (NAAF-3449-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
P451	25045139	HLJ-0540-01-010, Headphone jack



POWER SWITCH PC BOARD

POWER SWITCH PC BOARD (NAPS-3450-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
C951	3500065A	△ DE7150FZ103PCSA, Capacitor IS
P951	25035558	△ NPS-111-L520P, Power switch
	25060092	NTM-1S33, Terminal
	27300601	△ Cover for C951

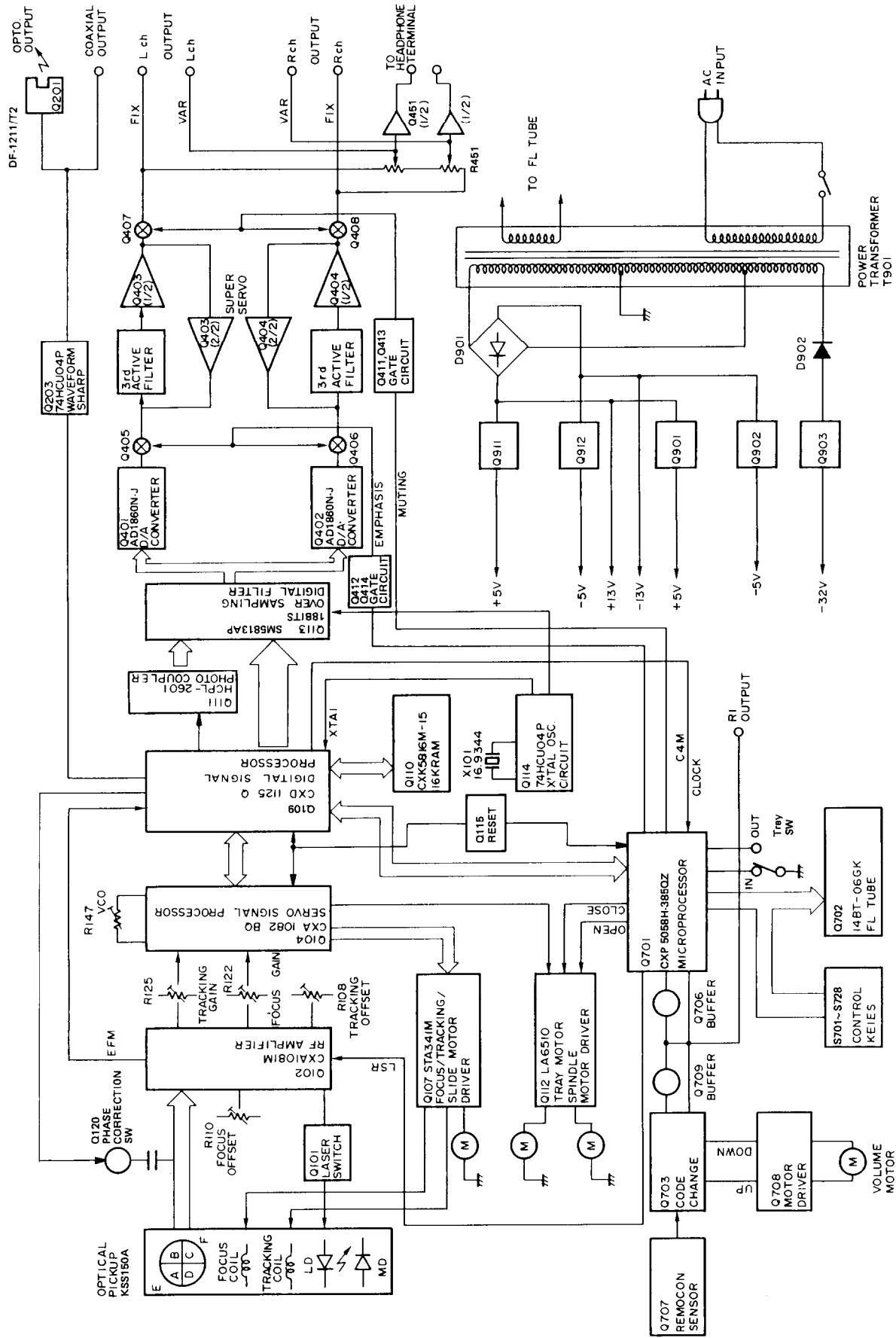
TERMINAL PC BOARD (NAETC-3451-3)

CIRCUIT NO.	PART NO.	DESCRIPTION
P191	25045172	HSJ1003-01-020, Terminal RI
JL101	25050267	NSCT-3P95, Socket

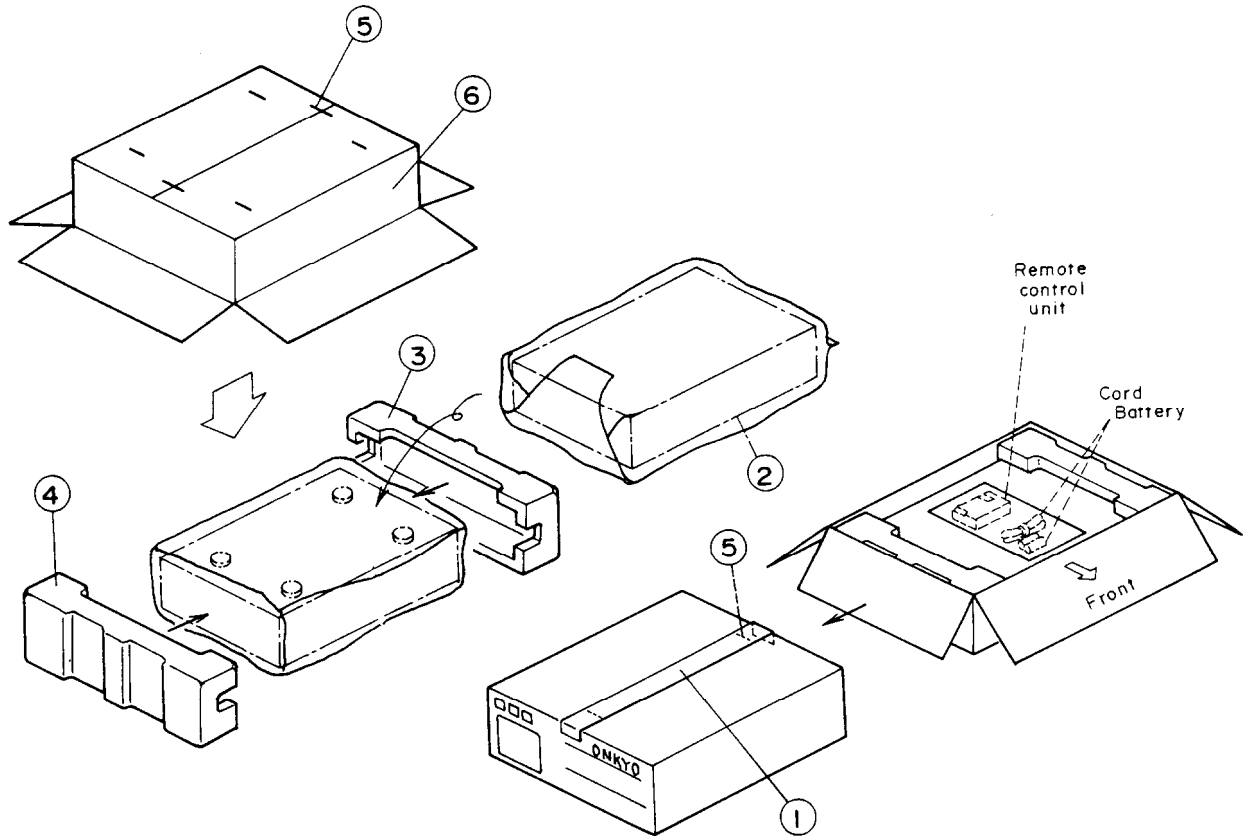
NOTE: <G>:Only 220/240V models

NOTE: THE COMPONENTS IDENTIFIED BY MARK △ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

BLOCK DIAGRAM



PACKING VIEW



REF.NO.	PART NO.	DESCRIPTION	
1	29110071-1	50×500mm, Dampion tape	
2	29100037A	500×650mm, Poly-vinyl bag	
3	29091304	Pad R	
4	29091303	Pad L	
5	282301	Sealing hook	
6	29051996	Master carton box	
	29110089	Adhesive tape, Tray panel	
	Accessory bag ass'y		
	-120V models-		
	2010097	Connection cord	
	24140121	RC-121C, Remote control unit	
	3010054	UM-3, Two batteries	
	29341466	Instruction manual	
	29100097	350×250mm, Poly-vinyl bag	
	2010169	Connection cord for remote control	
	29365019	Warranty card (Only U.S.A. model)	
	29358002G	Service station list (Only U.S.A. model)	
	-220/240V models-		
	2010097	Connection cord	
	24140121	RC-121C, Remote control unit	
	3010054	UM-3, Two batteries	
	29341466	Instruction manual	
	29100097	350×250mm, Poly-vinyl bag	
	2010169	Connection cord for remote control	
	25055040	CV-K-2, Conversion plug	
	-Worldwide models-		
	2010097	Connection cord	
	24140121	RC-121C, Remote control unit	
	3010054	UM-3, Two batteries	
	29341466	Instruction manual	
	29100097	350×250mm, Poly-vinyl bag	
	2010169	Connection cord for remote control	
	25055040	CV-K-2, Conversion plug	

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