

TEAC[®]



SERVICE MANUAL

PD-365

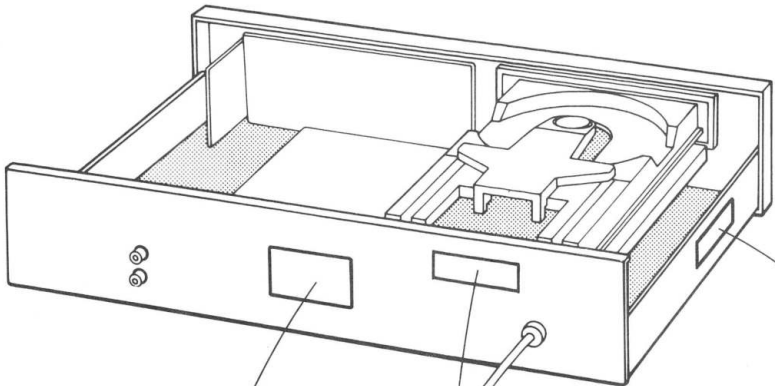
Compact Disc Player

COMPACT
disc
DIGITAL AUDIO

SAFETY CERTIFICATION

SICHERHEITSBESTIMMUNGEN / CERTIFICAT DE SÉCURITÉ / SAFETY CERTIFICATION
SÄKERHETSFÖRESKRIFTER / VEILIGHEDSCERTIFIKAAT

Laser Diode Properties
Material: Ga-Al-As
Wavelength: 755-815nm (25°C)
Laser Output: Continuous Wave max. 0.7mW



CERTIFIED ONLY TO CANADIAN
ELECTRICAL CODE

CERTIFIÉ EN VERTU DU CODE CANADIEN
DE L'ELECTRICITÉ SEULEMENT

FOR CND

Fig. 1

CLASS 1 LASER PRODUCT

CAUTION INVISIBLE LASER RADIATION WHEN OPEN AND
INTERLOCKS DEFEATED AVOID EXPOSURE TO BEAM
VORSICHT! UNSICHTBARE LASERSTRAHLUNG TRIT AUS
WENN DECKEL GEOFFNET UND WENN
SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST
NICHT DEM STRAHL AUSSETZEN!
WARNING OSYNLIG LASERSTRÄLNING NÄR DENNA DEL
ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD
STRÅLEN ÄR FARLIG
ADVARSEL USYNLIG LASERSTRÄLING VED ÅBNING NÄR
SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION
UNDGÅ UDSÆTTELSE FOR STRÅLING

FOR EUR

CAUTION— THIS PRODUCT CONTAINS A LOW POWER LASER DEVICE. TO ENSURE CONTINUED SAFETY DO NOT REMOVE ANY COVERS OR ATTEMPT TO GAIN ACCESS TO THE INSIDE OF THE PRODUCT. REFER ALL SERVICING TO QUALIFIED PERSONNEL.

ACHTUNG— WENN ANDERE ALS DIE HIER BESCHRIEBENEN BEDIENUNGS-ODER JUSTIEREINRICHTUNGEN BENUTZT ODER ANDERE ARBEITEN AUSGEFÜHRT WERDEN, KANN DIES ZU GEFÄHRLICHER STRAHLUNGSEINWIRKUNG FÜHREN.

ATTENTION— L'EMPLOI D'ORGANES DE COMMANDE OU DE RÉGLAGE, OU L'EXÉCUTION DE PROCÉDURES, AUTRES QUE CEUX SPÉCIFIÉS DANS LE MODE D'EMPLOI, PEUT PROVOQUER UNE EXPOSITION DANGEREUSE AU RAYONNEMENT

CAUTION— USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

VARNING— BRUK AV KONTROLLER, JUSTERINGAR ELLER MANÖVRERING AV APPARATEN ANNAT AN HÄRI ANGIVNA KAN INNEBÄRA STRÅLNINGSRISK.

OPGELET— HET GEBRUIK VAN REGELAARS OF HET MAKEN VAN AFSTELLINGEN E D DIE NIET IN DEZE GEBRUIKSAAN WIJZING ZIJN BESCHREVEN KAN LEIDEN TOT SCHADELIJKE STRALINGEN.

CAUTELA— L'USO DI COMANDI, AGGIUSTAMENTI O PROCEDIMENTI DIVERSO DA QUELLO QUI SPECIFICATO PUÒ DAR LUOGO AD ESPOSIZIONE A RADIAZIONI PERICOLOSE.

LASER SAFETY

This unit employs a laser. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

SPECIFICATIONS

AUDIO
Number of Channels 2
Frequency Response 2 – 20,000 Hz ± 1dB
Signal-to-Noise Ratio 105dB
Dynamic Range 92dB
Harmonic Distortion 0.005% (1kHz)
Wow and Flutter Unmeasurable (Quartz accuracy)
Channel Separation 85dB (1kHz)
Output Analog: 2 V rms

PICKUP
Type High-resolution 3-beam laser pickup
Object Lens Drive System 2-dimensional parallel drive
Laser Type AlGaAs type semiconductor laser
Wavelength 780 nm

FUNCTION
Display 4 digit LED
Memory 16-selection random programming
Repeat ON/OFF
Remote Control include

SIGNAL FORMAT
Quantization Bit 16 bit linear
Error Correction CIRC (Cross Interleave Reed Solomon Code)
Sampling Frequency 44.1 kHz
Channel Modulation Code EFM (Eight to Fourteen Modulation)
Channel Bit Rate 4.3218 Mb/sec.
Filter 4-times Oversampling digital filter + 2 order analog filter
D/A converter 16 bit 2D/A converter

DISC
Type Compact Disc (Single CD compatible)
Playing Time Approx. 60 min.
Diameter 120 mm
Thickness 1.2 mm
Scanning Velocity 1.2 – 1.4 m/sec.
Track Pitch 1.6 μm

GENERAL
Power Source 120V AC, 60 Hz (Canada)
220V AC, 50 Hz (Europe)
Power Consumption 9 W
Dimensions (W×H×D) 435×90×290 mm
(17-1/8"×3-9/16"×11-7/16")
Weight (net) 3.5 kg (7.72 lbs.)
Standard Accessories RCA pin-plug cord

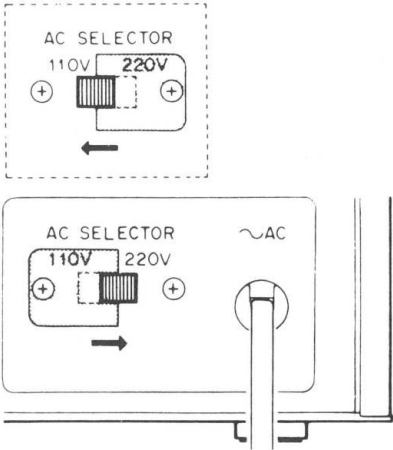
- Improvements may result in specification or feature changes without notice.
- Photos and illustrations may differ slightly from production models.

This product is manufactured to comply with the radio interference of EEC directive "82/499/EEC"

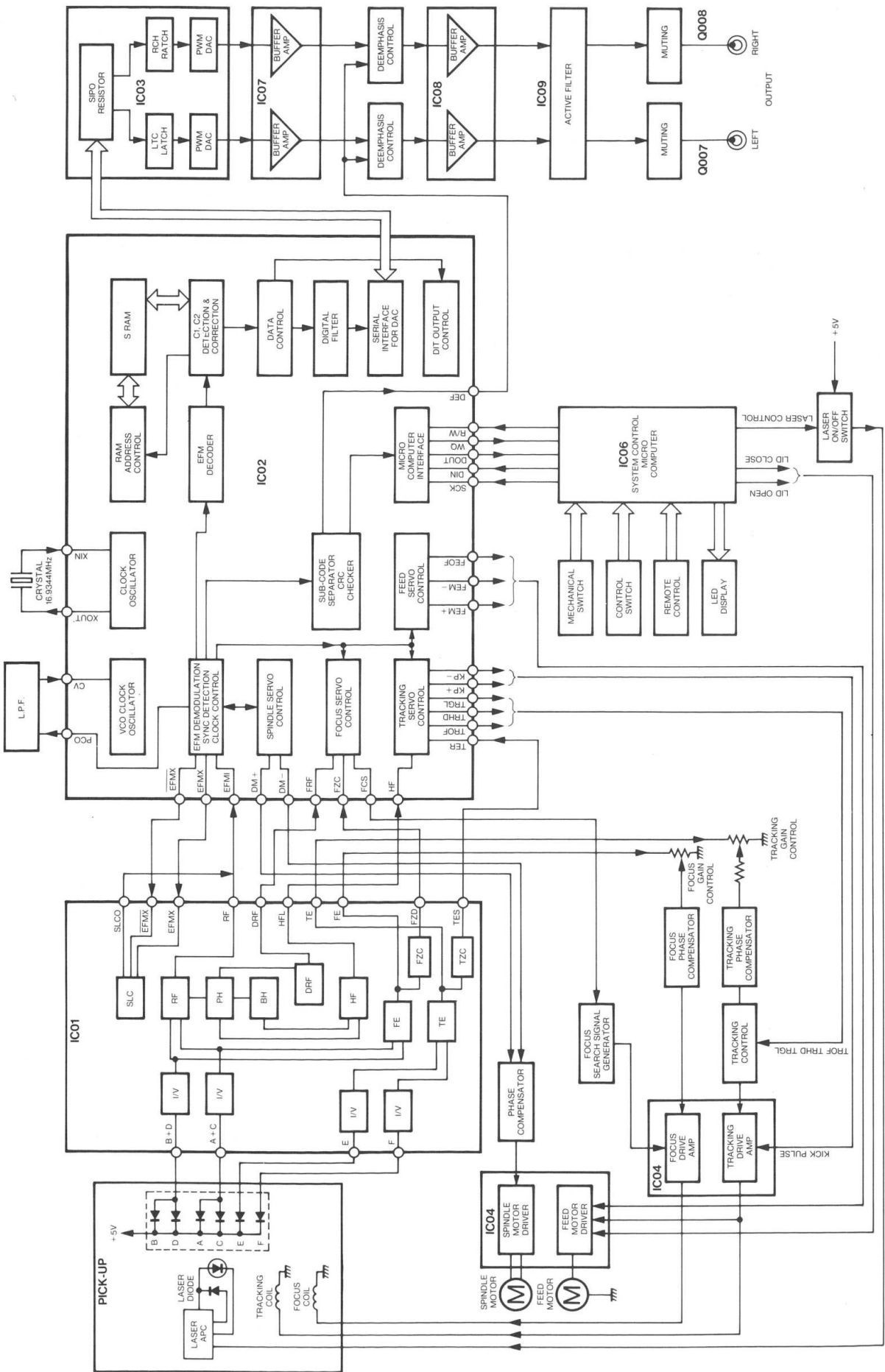
Voltage Conversion (General export models only)

This unit is adjusted to operate at the electric voltage specified on the unit or packing carton. It is necessary to change the voltage requirements of the model match your area, use the following procedures.

1. Disconnect the power cord from AC outlet.
2. Locate the voltage selector (AC SELECTOR) on the rear panel of the unit as shown in the illustration.
3. Remove the screw together with the plate then slide the switch to voltage requirement of your area.



FUNCTIONAL BLOCK DIAGRAM

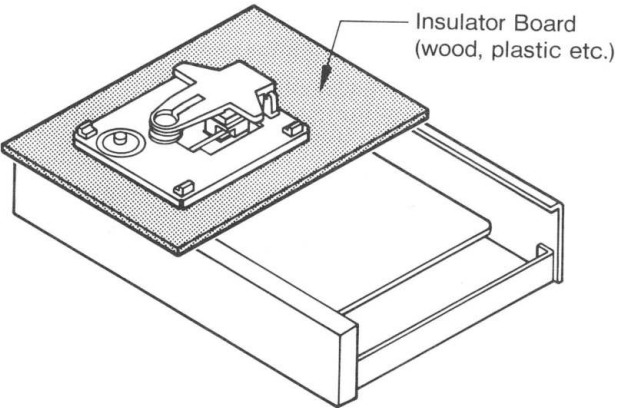
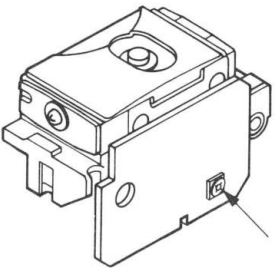


ADJUSTMENT PROCEDURES

CAUTION:
Avoid eye exposure to invisible laser beam which is emitted from laser pickup.

PRECAUTIONS REGARDING ADJUSTMENT

- Adjustment is performed in the indicated order.
- When adjustment is made for one item, check the other items which follow.
- The laser pick-up has already been precisely adjusted. Do not touch its mounting screws or controls.

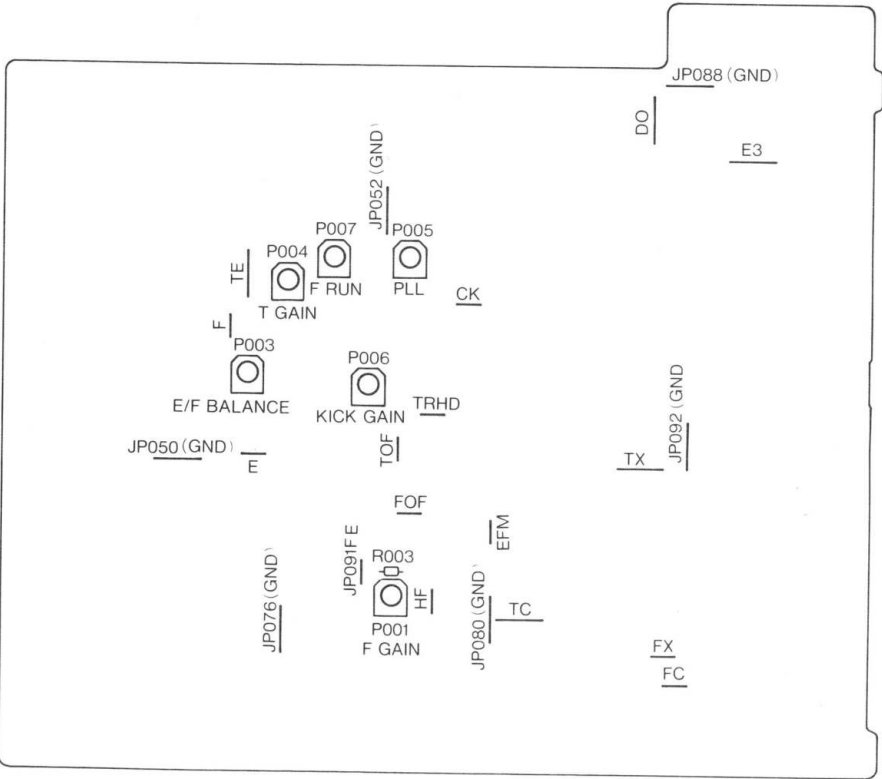


- When the diffraction grid is adjusted, remove the mechanism. It is convenient to place an insulating panel on top of the chassis, and then to place the mechanism on top of this. (The wires are connected.)

- Refer to the adjustment diagram for the test points and adjustment controls.
- The ground point for the measurement equipment is the test point indicated as **GND**.

ground point of P.C.BORD:
JP050, JP052, JP076, JP080, JP088, JP092

P.C.BOARD ALIGNMENT POINT



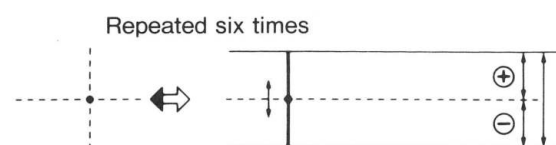
REQUIRED EQUIPMENTS

- DC Voltmeter
- Dualtrace Oscilloscope
- Frequency Counter
- Signal Generator
- Plastic Screwdriver
- Diffraction Grating Adjustment Jig
- Test Disc (SONY: YEDS4, SANYO: MODERN WAVE II)

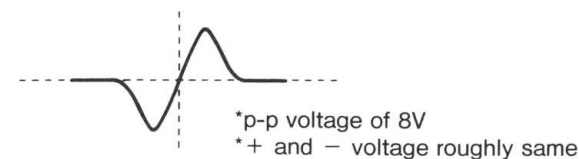
CHECKING FOCUS ERROR SIGNAL

Checking the focus error signal of the pick-up allows for an evaluation of the pick-up. Be sure this is carried out before repair.

1. Turn on the power and set the unit to the STOP mode.
2. Connect an oscilloscope between jumper **JP091 (FE)** and **GND**. (Set the time axis to 0.5 seconds/division.)
3. Connect R003 to **GND**.
4. Press the OPEN/CLOSE button and place the test disc YEDS4 on the table load. Press the OPEN/CLOSE button again.
5. The waveform shown below is displayed six times on the oscilloscope when the table load closes. Check that the p-p voltage is about 8V and that the top and bottom of the waveform are symmetrical.



(When recorded on a memory scope)



6. The waveform appears again if the OPEN/CLOSE button is pressed again. This allows for confirmation to be made. The pick-up is faulty if confirmation cannot be made.

SETTING OF INITIAL POSITION OF VOLUME

1. The variable resistors are set to the following initial positions.

P001 (FOCUS GAN).....	Mechanical center
P003 (E-F BALANCE).....	Mechanical center
P004 (TRACKING GAIN).....	Mechanical center
P005 (VPLL).....	Mechanical center
P006 (KICK GAIN).....	Mechanical center
P007 (PLL).....	Mechanical center

VOLTAGE PLL ADJUSTMENT

1. Turn on the power and set the unit to the STOP mode.
2. Connect a DC voltmeter between + and - lead of **C019**.
3. Adjust **P005** so that the DC voltmeter indicates 3.95V.

FREE RUN FREQUENCY ADJUSTMENT

1. Turn on the power and set the unit to the STOP mode.
2. Connect the frequency counter between jumper **CK** and **GND** (use probes 10 : 1).
3. Adjust **P007** so that the frequency counter indicates 4.3218MHz.

FOCUS OFFSET CONFIRMATION

1. Turn on the power and set the unit to the STOP mode.
2. Connect a DC voltmeter and oscilloscope between jumper **FC** and **GND**.
3. Short jumper **FOF** and **GND**.
4. Confirm that the indication on the DC voltmeter is -0.7 ~ -1.5V.

TRACKING OFFSET CONFIRMATION

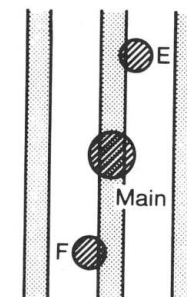
1. Turn on the power and set the unit to the STOP mode.
2. Connect a DC voltmeter and oscilloscope between jumper **TC** and **GND**.
3. Short jumper **TOF** and **GND**.
4. Confirm that the indication on the DC voltmeter is -50mV ~ -250mV.

NOTE:

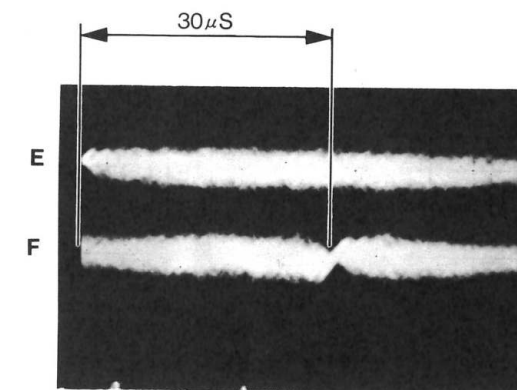
This adjustment should be made again after the adjustment of Tracking Gain and E-F balance.

OBSERVATION OF DIFFRACTION GRID

This unit uses a three beam method for the laser pick-up. The position of the E and F beams of provided pick-up is adjusted in relation to the main beam so that they are in the same line.



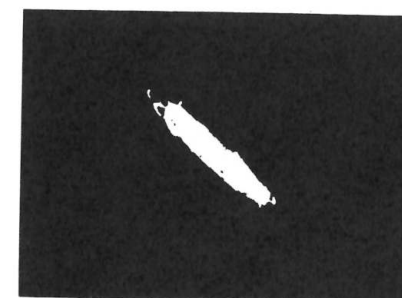
6. Observe the waveform of the signal between jumper **E** and jumper **F** using the dualtrace oscilloscope (Monitored in ALT mode). The beam **E** and **F** are in the same pit line if the trigger of waveform **F** is approximately 30μs behind the point (Positon where waveform hollows out) where the waveform **E** is triggered.



The two beams are on the same pit line.
(100mV/DIV: 5μSec/DIV)

The following is the observation procedure. Carefully check when pick-up is replaced.

1. Press the PLAY button. Short jumper **D0** and **E3**, and jumper **TX** and **GND** so that tracking servo is off.
2. Connect the dualtrace oscilloscope, jumper **E** to CH1 and jumper **F** to CH2.
3. Place test disc YEDS4 on the table load and press the PLAY button.
4. Observe the lissajous figure of the waveform indicated on the oscilloscope.

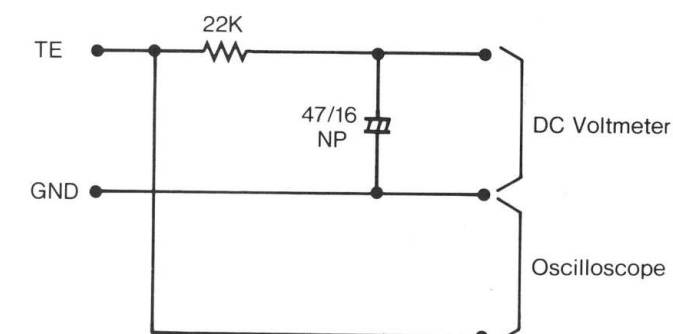


5. Press the STOP button. Remove the short between jumper **D0** and **E3**, and jumper **TX**.

When observation of the waveform is difficult, the trigger level can be varied.

E-F BALANCE ADJUSTMENT

1. Turn on the power. Short jumper **D0** and **E3**, and jumper **TX** and **GND** so that tracking servo is off.
2. Place test disc MODERN WAVE II on the table load.
3. Connect a DC voltmeter and oscilloscope to jumper **TE** and **GND** through the low-pass filter shown below.



4. Press the PLAY button.
5. Adjust **P003** so that the DC voltmeter and oscilloscope is minimum voltage (wave form on oscilloscope is symmetrical to 0V line).

CONFIRMING JITTER

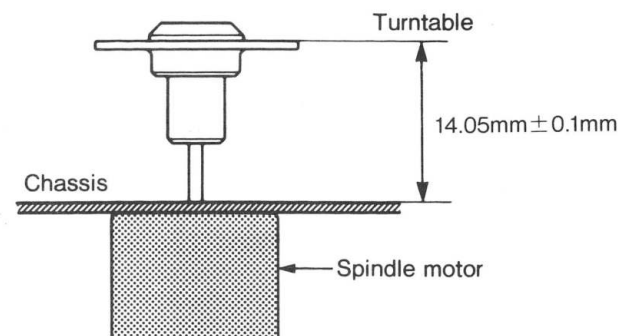
This procedure can be omitted in the case that no jitter counter is equipped.

1. Turn on the power and mount test disc MODERN WAVE II on the table load, and play the fourth program of the disc.
2. Connect an oscilloscope to jumper **HF** and **GND**, and observe the indication is 2.0 ~ 3.3Vp-p.
3. Connecting the jitter counter to jumper **EFM**, make sure that the value of 3T is less than 20nSec. (WINDOW WIDTH:600 ~ 850nSec, SET LEVEL: 2.5V)
4. Play tenth program of the disc and observe in the same procedure.

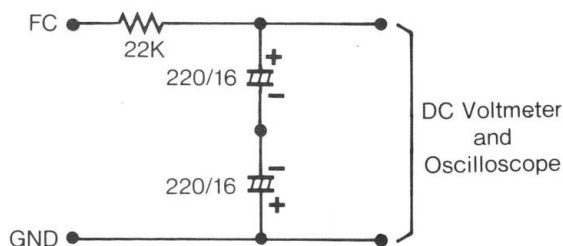
ADJUSTMENT OF TURNTABLE HEIGHT

This adjustment must be made when the motor is replaced.

1. Attach the turntable so that its top surface is 14.05mm \pm 0.1mm from the top of the chassis.



2. Connect test jumper **FC** to a DC voltmeter and oscilloscope through the low-pass filter.



3. Turn on the power and playback the first selection on test disc MODERN WAVE II.
4. Readjust the height of the turntable if the reading on the DC voltmeter is not in the range of below.

INSIDE (first selection): 0V \pm 0.2V
 OUTSIDE (tenth selection): 0V \pm 0.35V
 Adjusting turntable height by 0.55 ~ 0.65mm shift voltage by 1V.

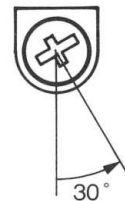
ADJUSTMENT OF FOCUS/TRACKING GAIN

The measurement circuit shown the next page is necessary for accurate adjustment of the focus and tracking gain. If this circuit cannot be made, make adjustments using the simplified procedure.

Simplified adjustment procedure

● Focus gain adjustment

P001 is set to a position 30° from its mechanical center as shown in the diagram below.



● Tracking gain adjustment

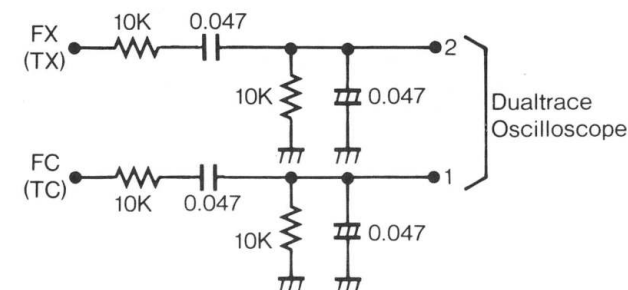
P004 is set to a position 30° from its mechanical center as shown in the diagram below.



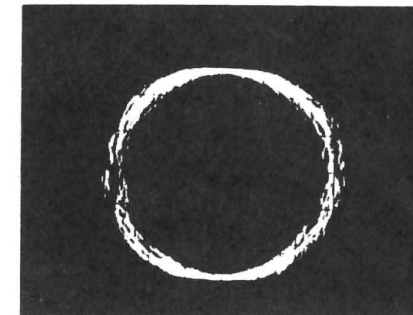
Precise adjustment procedure

● Focus gain adjustment

1. Set the variable resistor **P001** to mechanical center.
2. Turn on the power and playback the test disc MODERN WAVE II.
3. Connect jumper **FX** and **FC** to a dualtrace oscilloscope through the filter circuit as shown below.

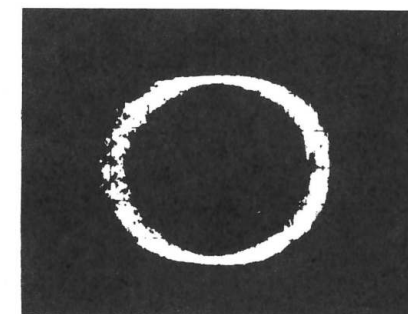


4. Apply a 550Hz 0.3Vp-p signal from the signal generator to jumper **FY**.
5. Observe the resurge waveforms on the oscilloscope, and adjust **P001** so that the phase difference of outputs X and Y from the measurement circuit is 90° as shown below.



● TRACKING GAIN adjustment

1. Set the variable resistor **P004** to mechanical center.
2. Playback the test disc MODERN WAVE II.
3. Connect jumper **TX** and **TC** to a dualtrace oscilloscope through the filter circuit as same as ADJUSTMENT OF FOCUS GAIN.
4. Apply a 1.6kHz 0.3Vp-p signal from the signal generator to jumper **TY**.
5. Observe the resurge waveforms on the oscilloscope, and adjust **P004** so that the phase difference of outputs X and Y from the measurement circuit is 90° as shown below.



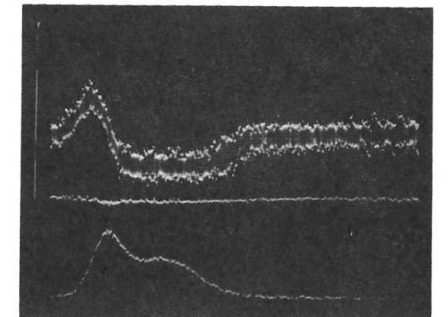
ADJUSTMENT OF KICK GAIN

1. Place the test disc MODERN WAVE II on the turntable.
2. Set the oscilloscope at the NORMAL TRIG. and connect jumper **TRHD** to the external trigger terminal. Then, connect the channels, 1 and 2, to the jumper, **HF** and **TE**, respectively.

3. Switch on the power. In the state of playing the first tune, make it pause and observe the waveforms of **HF** and **TE** triggered by **TRHD**.
4. Adjust the **P006** so that the waveform is observed, for making a track jump between 1 and 1.5 track.

TE
1V/DIV
(0.2mSec/DIV)

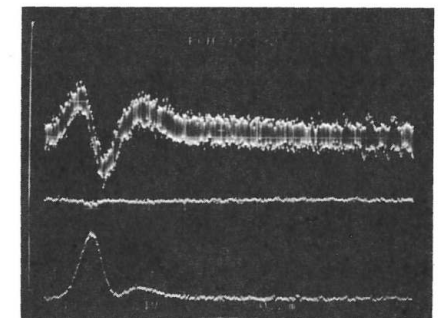
HF
1V/DIV
(0.2mSec/DIV)



Waveform showing Short Kick Gain

TE
1V/DIV
(0.2mSec/DIV)

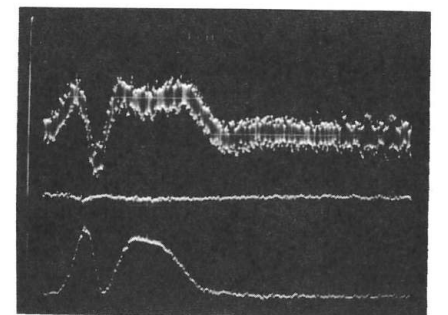
HF
1V/DIV
(0.2mSec/DIV)



Waveform showing Proper Kick Gain

TE
1V/DIV
(0.2mSec/DIV)

HF
1V/DIV
(0.2mSec/DIV)

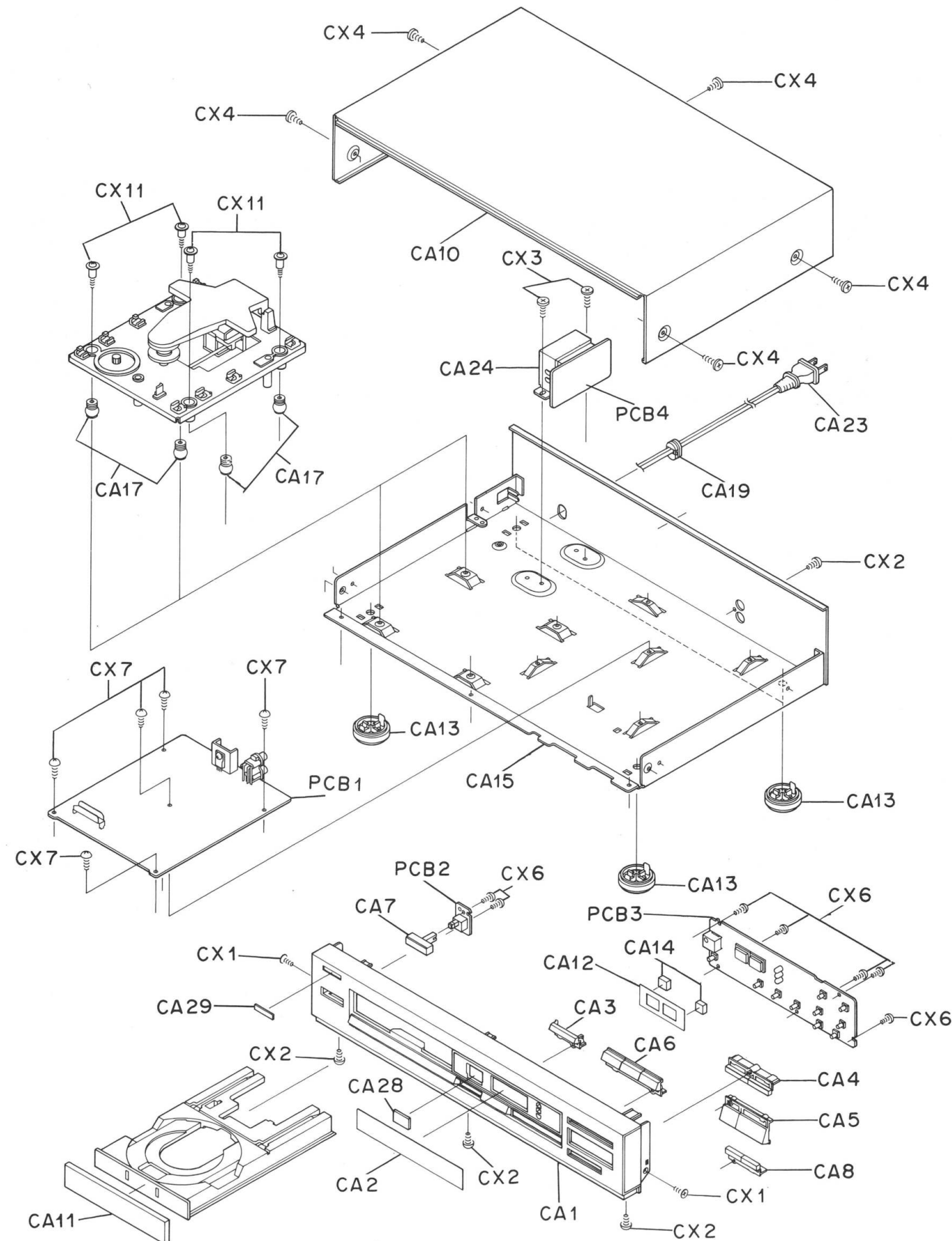


Waveform showing Excessive Kick Gain

CONFIRMATION OF ACCESS MOVEMENT

Shift the PLL FREQUENCY 4.3218MHz by \pm 50kHz (4.2700 ~ 4.3700MHz), and check search operation is adequate, while searching first selection through the last repeatedly. Readjust the PLL FREQUENCY 4.3218MHz.

CABINET EXPLODED VIEW



EXPLODED VIEW-1 (CABINET)

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
CA 1	*9A02262000	FRONT PANEL	Ser.No.014000 and before [US] Ser.No.000501 and before [C] Ser.No.002201 and before [E] Ser.No.014001 and after [US] Ser.No.000502 and after [C] Ser.No.002202 and after [E]
	*9A02539000	FRONT PANEL	
CA 2	*9A02262400	DECORATE PLATE DIAL	
CA 3	*9A02262200	KNOB OPEN/CLOSE	
CA 4	*9A01033600	KNOB SEARTH/INDEX	
CA 5	*9A01033400	KNOB STOP/PLAY/PAUSE	Ser.No.014000 and before [US] Ser.No.000501 and before [C] Ser.No.002201 and before [E] Ser.No.014001 and after [US] Ser.No.000502 and after [C] Ser.No.002202 and after [E]
CA 6	*9A01769700	KNOB DISPLAY/REPEAT/MEMORY	
CA 7	*9A02262100	KNOB POWER	
CA 8	*9A01033700	KNOB MUSIC SKIP	
CA10	*9A02118200	TOP COVER	
CA11	*9A02262300	COVER DECORATE SHEET	Ser.No.014000 and before [US] Ser.No.000501 and before [C] Ser.No.002201 and before [E] Ser.No.014001 and after [US] Ser.No.000502 and after [C] Ser.No.002202 and after [E]
CA12	*9A02007000	SHEET	
CA13	*9A02000001	LEG ASSY (FRONT)	
	*9A02000101	LEG ASSY (REAR)	
CA14	*9A02265300	PAD	
CA15	*9A02262500	CHASSIS	Ser.No.014000 and before [US] Ser.No.000501 and before [C] Ser.No.002201 and before [E] Ser.No.014001 and after [US] Ser.No.000502 and after [C] Ser.No.002202 and after [E]
CA17	*9A01584200	CUSHION RUBBER	
CA19	*9A01583900	BUSHING (4N-4)	
CA23	*5761270200	POWER CORD [US,C]	
	*9A00443300	POWER CORD [E]	
CA24	*9A02261100	POWER TRANS [US,C]	Ser.No.014000 and before [US] Ser.No.000501 and before [C] Ser.No.002201 and before [E] Ser.No.014001 and after [US] Ser.No.000502 and after [C] Ser.No.002202 and after [E]
	*9A02272800	POWER TRANS [E]	
CA28	*9A02007100	FILTER	
CA29	*5720175500	TEAC EMBLEM	
CX 1	*9A01583100	SCREW S-TPG FLT M3X6	
CX 2	*9A00767100	SCREW S-TPG BRZ M3X8	Ser.No.014000 and before [US] Ser.No.000501 and before [C] Ser.No.002201 and before [E] Ser.No.014001 and after [US] Ser.No.000502 and after [C] Ser.No.002202 and after [E]
CX 3	*9A01992500	SCREW S-TPG BIN M4X6	
CX 4	*9A01041200	SCREW S-TPG BIN M3X8	
CX 6	*9A00989300	SCREW S-TPG BRZ M2.6X6	
CX 7	*9A00991000	SCREW S-TPG BRZ M3X6	
CX11	*9A02262600	SCREW SPECIAL	Ser.No.014000 and before [US] Ser.No.000501 and before [C] Ser.No.002201 and before [E] Ser.No.014001 and after [US] Ser.No.000502 and after [C] Ser.No.002202 and after [E]
PCB1	*9A02261600	MAIN PCB ASSY	
PCB2	*9A02261700	STANDBY SW PCB ASSY	
	*9A02261700	STANDBY SW PCB ASSY	
PCB3	*9A02261900	CONTROL PCB ASSY	
PCB4	*9A02261800	TRANS PCB ASSY [US,C]	Ser.No.014000 and before [US] Ser.No.000501 and before [C] Ser.No.002201 and before [E] Ser.No.014001 and after [US] Ser.No.000502 and after [C] Ser.No.002202 and after [E]
	*9A02261810	TRANS PCB ASSY [E]	

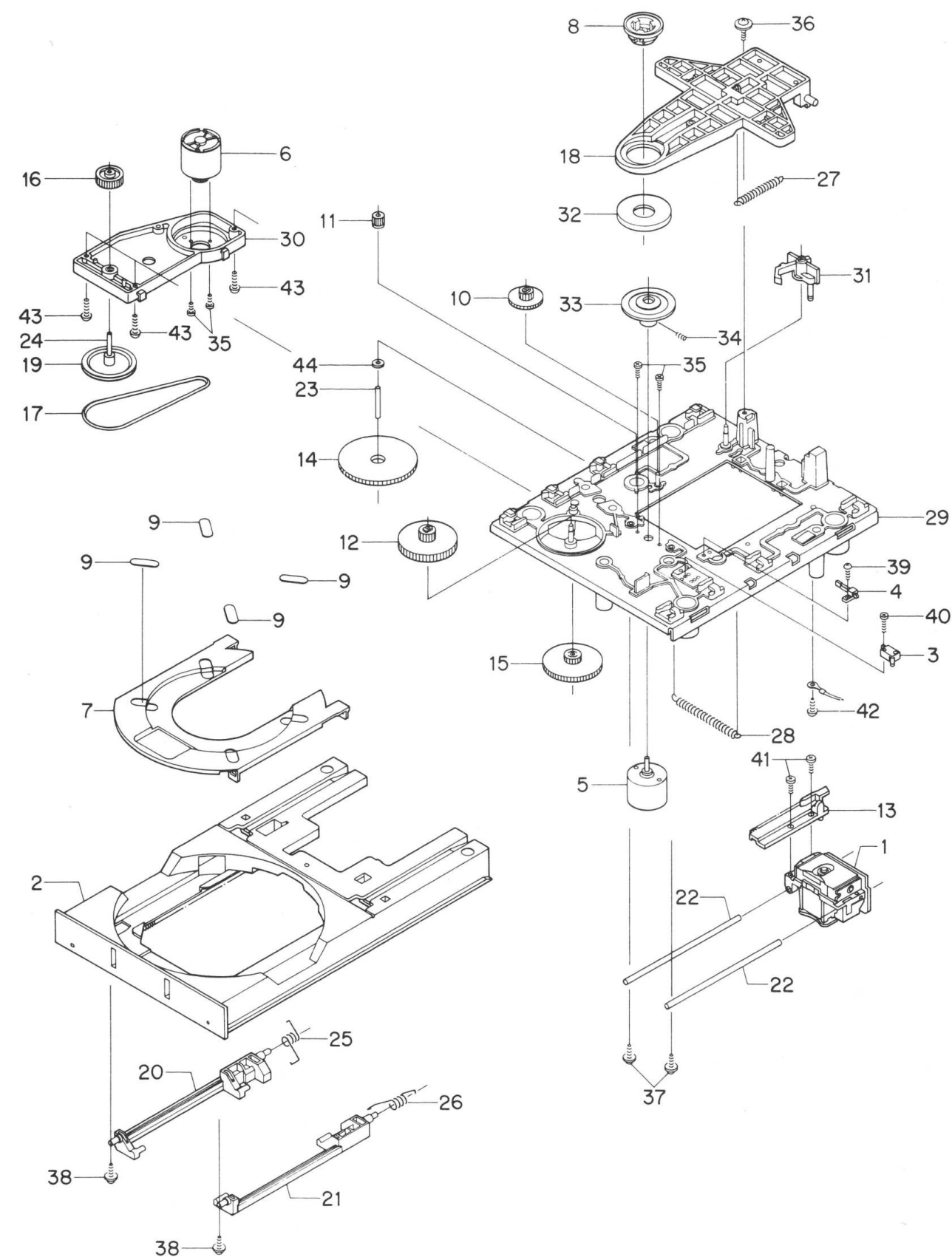
INCLUDED ACCESSORIES

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	*9A02257900	OWNER'S MANUAL [PD-365] [C]	Ser.No.014000 and before [US] Ser.No.000501 and before [C] Ser.No.002201 and before [E] Ser.No.014001 and after [US] Ser.No.000502 and after [C] Ser.No.002202 and after [E]
	*9A01995700	OWNER'S MANUAL [PD-365] [E]	
	*9A02262900	OWNER'S MANUAL [PD-365] [US]	
	*9A02262700	REMOTE CONTROL (RC-371)	
	*9A00768900	PLUG CORD RCA 0.7 BK	

[US]:U.S.A [C]:CANADA [E]:EUROPE

Parts marked with *require longer delivery time.

MECHANISM EXPLODED VIEW



EXPLODED VIEW-2 (MECHANISM)

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1	9A01035801	PICK-UP ASSY SF90	
2	9A01036100	TABLE LOAD	
3	9A01036200	LEVER SWITCH IPIT	
4	9A00171900	LEAF SWITCH	
5	9A01590600	SPINDLE MOTOR	
6	9A01036400	LOADING MOTOR	
7	*9A01036500	TABLE CD	
8	*9A01036600	HOLDER DISC	
9	*9A01036700	PAD DISC (FELT)	
10	9A01036800	GEAR PICK-UP	
11	9A01036900	GEAR MOTOR	
12	9A01037000	GEAR TABLE LOAD	
13	9A01037100	GEAR PICK-UP RACK	
14	9A01037200	GEAR LOAD PICK-UP	
15	9A01037300	GEAR LOAD T. L	
16	9A01037400	GEAR	
17	9A01037500	BELT	
18	*9A01037600	FLAP DISC CRAMP	
19	9A01037700	PULLEY	
20	*9A01037800	LEVER HOLD DISC (L)	
21	*9A01037900	LEVER HOLD DISC (R)	
22	*9A01038000	SHAFT PICK-UP	
23	*9A01038100	SHAFT GEAR (S)	
24	*9A01038200	SHAFT PULLEY	
25	*9A01038300	SPRING LEVER LEFT	
26	*9A01038400	SPRING LEVER RIGHT	
27	*9A01038500	SPRING FLAP DISC CR	
28	*9A01038600	SPRING ARM	
29	*9A01038700	CHASSIS ASSY	
30	*9A01039100	CHASSIS SUB ASSY	
31	*9A01039400	ARM ASSY	
32	*9A01590800	MAGNET ASSY	
33	9A01040300	TURN-TABLE	
34	*9A00173700	SET SCREW V-CONE M2X4	
35	*9A01040400	SCREW PAN PCS M1.7X3	
36	*5760707700	SCREW (B TITE SEMS) M3X10	
37	*9A00173800	SCREW WASHER	
38	*9A00172200	SCREW (B TITE SEMS)	
39	*9A01040500	SCREW S-TPG PAN M2X6	
40	*9A01040600	SCREW S-TPG PAN M1.7X10	
41	*9A01040700	SCREW FLT PCS M2X5	
42	*9A00991000	SCREW S-TPG BRZ M3X6	
43	*9A01040900	SCREW S-TPG BRZ M2.6X14	
44	*AA01040200	WASHER	

Parts marked with *require longer delivery time.

NOTE:
As regards the resisters and capacitors, refer to the circuit diagrams and the PCB assy drawings contained in this manual.

MAIN PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*9A02261600	MAIN PCB ASSY
	*9A02263100	MAIN PCB
IC 1	9A01169800	IC LA9200NM
IC 2	9A02263800	IC YM7121
IC 3	9A02263900	IC LC7881
IC 4	9A01596100	IC FA5205P
IC 6	9A02264000	IC LC6543H-4283
IC 7	9A01596500	IC LA6458SS
IC 8	9A01596700	IC NJM2068S
IC 9	9A01596500	IC LA6458SS
IC11	9A00776900	IC L78M05
Q 1, 10	9A00777800	TR. 2SA608-E-NP
Q 2, 3	9A00777500	TR. 2SC536-F-NP
Q 4	9A01597600	TR. 2SD1012-G-SPA
Q 5, 6	9A00777500	TR. 2SC536-F-NP
Q 7, 8	9A01597600	TR. 2SD1012-G-SPA
Q 9	9A00777500	TR. 2SC536-F-NP
Q 11, 14	9A00994600	TR. 2SC3400
Q 12, 13	9A00778000	TR. 2SA608-E-NP
Q 17	9A00994700	TR. 2SD734-E-K
Q 18	9A00778000	TR. 2SD6122-E
Q 19	9A00777500	TR. 2SB698E
Q 20, 21	9A00994600	TR. 2SC3400
Q 22, 23	9A01597600	TR. 2SD1012-G-SPA
D 1- 3	9A01043400	DIODE ISS254
D 5, 8	9A01043400	DIODE ISS254
D 11- 16	9A01043400	DIODE ISS254
D 18, 19	9A01043400	DIODE ISS254
D 20- 23	9A02263400	DIODE MPG06B
D 26, 30	9A02263600	ZENER DIODE MTZJ6.8A
D 27	9A02263700	ZENER DIODE MTZJ7.5A
D 28, 29	9A01043400	DIODE ISS254
D 34	9A01043400	DIODE ISS254
P 1	9A01597000	POTENTIOMETER 10KB
P 3	9A00437000	POTENTIOMETER 100KB
P 4	9A01597200	POTENTIOMETER 22KB
P 5, 7	9A01597000	POTENTIOMETER 10KB
P 6	9A01597400	POTENTIOMETER 100KB
RI33,135	9A01598700	R. FUSIBLE 10 I/4W JA
RI34	9A00193400	R. FUSIBLE 10 I/2W J
RI36,137	9A00193400	R. FUSIBLE 10 I/2W J
X 1	9A02264400	CRYSTAL (16.9344MHZ)
CN 1	*9A00188000	PLUG 6P
CN 2	*9A01043000	PLUG 6P
CN 3	*9A01043100	PLUG 9P
JK 1	*9A01591500	PIN JACK 2P
	*5760526600	PLATE HEAT-SINK
	*9A01591600	PLATE HEAT-SINK

[US]:U.S.A [C]:CANADA [E]:EUROPE

Parts marked with *require longer delivery time.

STANDBY SWITCH PCB ASSYNOTE:(1)

REF. NO.	PARTS NO.	DESCRIPTION
	*9A02261700	STANDBY SWITCH PCB ASSY
	*9A02264800	STANDBY SWITCH PCB
SW201	9A02264900	PUSH SWICTH
W 2	*9A02265000	JUMPER 2P

NOTE:(1)
9A02261700 Ser.No.014000 and before [US]
STANDBY SW Ser.No.000501 and before [C]
Ser.No.002201 and before [E]

STANDBY SWITCH PCB ASSYNOTE:(2)

REF. NO.	PARTS NO.	DESCRIPTION
	*9A02538900	STANDBY SWITCH PCB ASSY
	*9A02539400	STANDBY SWITCH PCB
SW201	9A02342300	PUSH SWICTH
W 2	*9A02265000	JUMPER 2P

NOTE:(2)
9A02538900 Ser.No.014001 and after [US]
STANDBY SW Ser.No.000502 and after [C]
Ser.No.002202 and after [E]

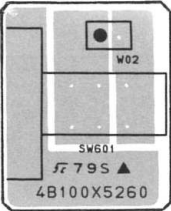
TRANS PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*9A02261800	TRANS PCB ASSY [US,C]
	*9A02261810	TRANS PCB ASSY [E]
	*9A02265100	TRANS PCB
	*9A01046500	FUSE HOLDER [E]
	9A00198300	FUSE 500mA [E]
	*5760663000	EC TERMINAL 1P
	*9A02265200	JUMPER 3P

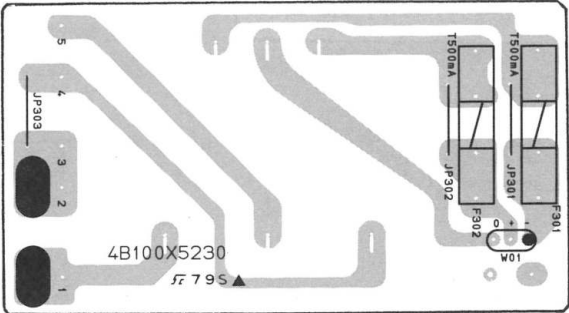
CONTROL PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*9A02261900	CONTROL PCB ASSY
	*9A02265400	CONTROL PCB
IC401	9A02265900	IC TC9149P
Q401-404	9A02266000	TRANSISTOR 2SA937-R
Q405-411	9A02266100	D.TRANSISTOR DTC144-EL
D401,402	9A02265800	LED LB402DB
D403,404	9A01045600	LED SLR-56DC3F
D405	9A01045500	LED SLR-56YC3F
D406-415	9A01043400	DIODE ISS254
L401	9A00432700	CHOKE COIL 100UH
S401-410	9A02266500	TACT SWITCH
RU401	*9A02266200	BX-1466
	*9A02265300	PAD

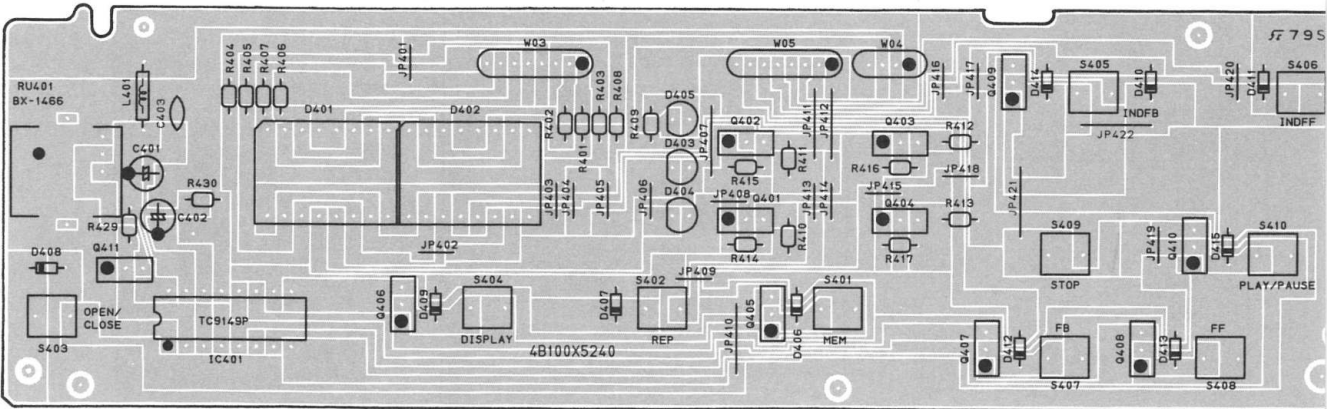
STANDBY SW P.C.BOARD
(TOP VIEW)



TRANS P.C.BOARD
(TOP VIEW)



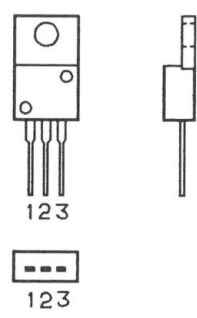
CONTROL P.C.BOARD
(TOP VIEW)



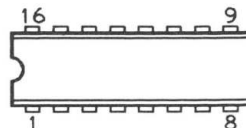
IC & TRANSISTOR LEAD IDENTIFICATION

TRANSISTOR	FRONT VIEW	BOTTOM VIEW
2SA608 2SB698 2SC536 2SD734		
2SC3400 2SD1012		
2SA937 DTC144		
2SD612		
TERMINAL NAME		
B → BASE C → COLLECTOR E → EMITTER		

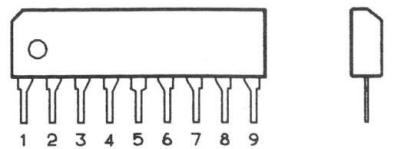
L78M05 TOP/SIDE VIEWS
78M05 TOP/SIDE VIEWS



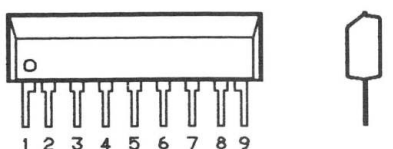
TC9149P TOP VIEW



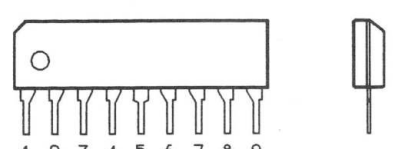
LA6458SS FRONT/SIDE VIEWS
LA6462S FRONT/SIDE VIEWS



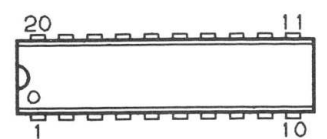
UPC4570HA FRONT/SIDE VIEWS



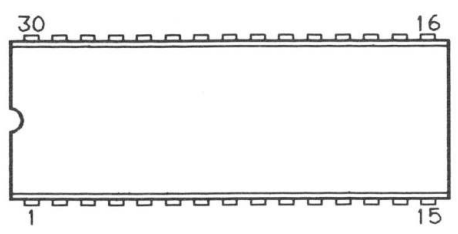
NJM2068S FRONT/SIDE VIEWS



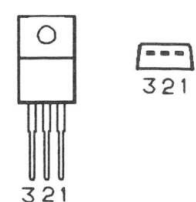
LC7881 TOP VIEW
FA5205P TOP VIEW



LC6543H-4323 TOP/SIDE VIEWS

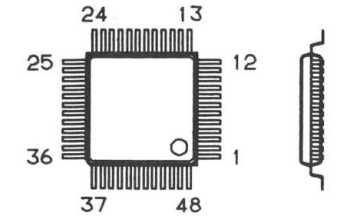


NJM78M05A FRONT/BOTTOM VIEWS
NJM78M05FA FRONT/BOTTOM VIEWS

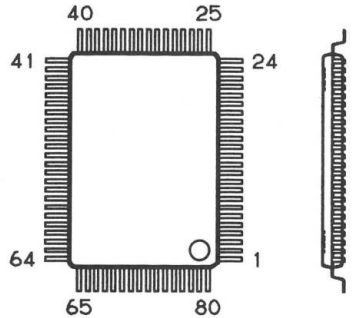


IC LEAD IDENTIFICATION & IC BLOCK DIAGRAM

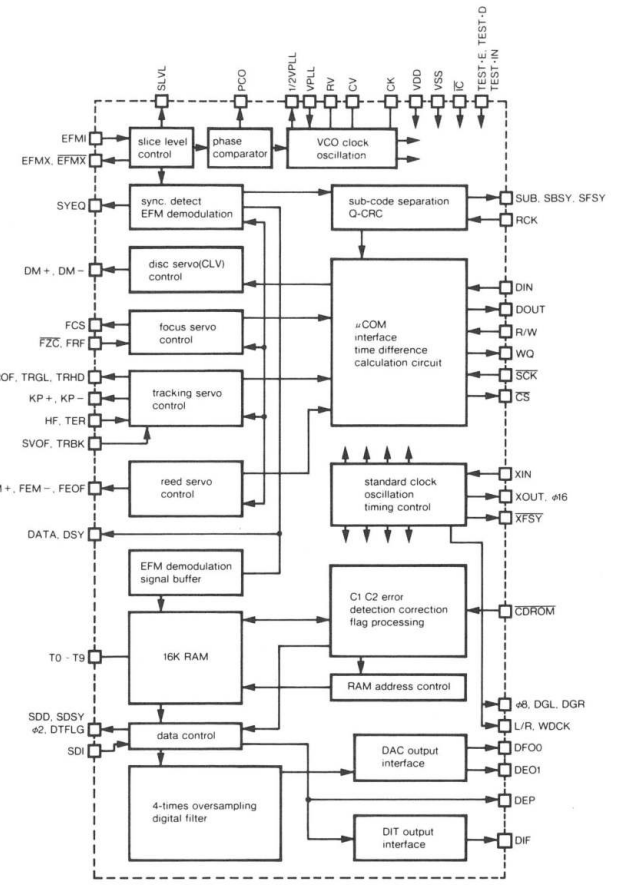
LA9200NM TOP/SIDE VIEWS



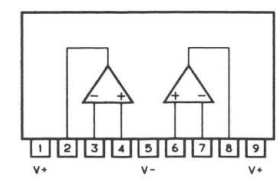
YM7121 TOP/SIDE VIEWS



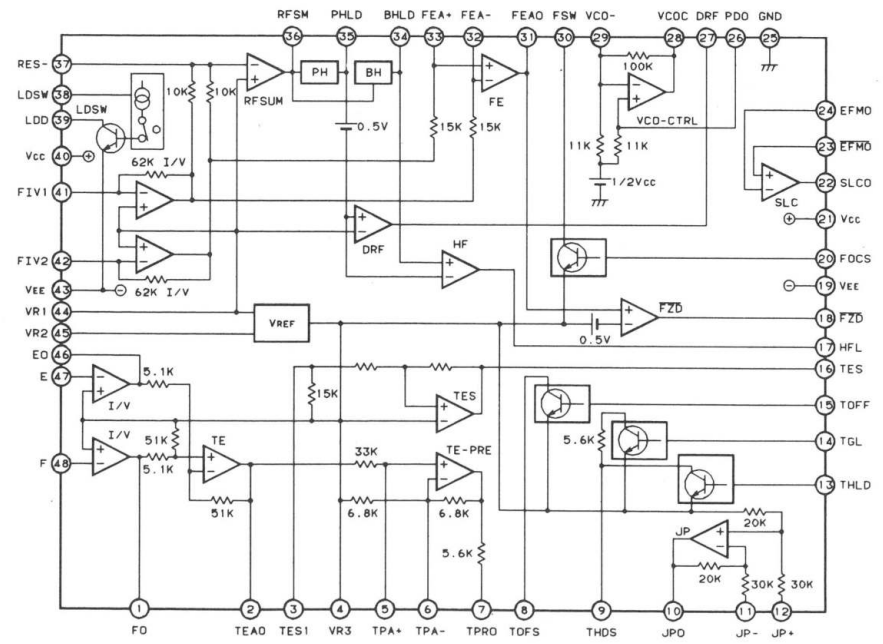
YM7121 BLOCK DIAGRAM



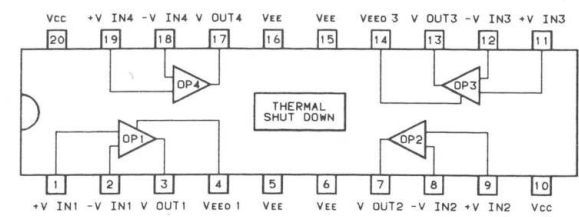
NJM2068S BLOCK DIAGRAM
UPC4570HA BLOCK DIAGRAM
LA6458SS BLOCK DIAGRAM



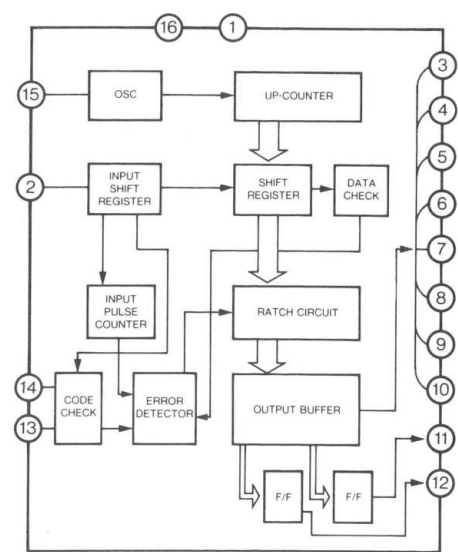
LA9200NM BLOCK DIAGRAM



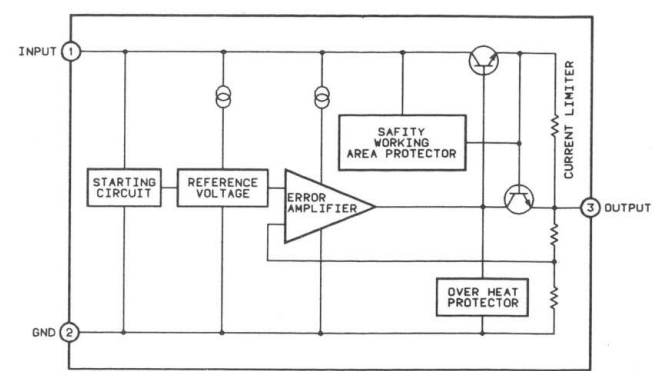
FA5205P BLOCK DIAGRAM



TC9149P BLOCK DIAGRAM

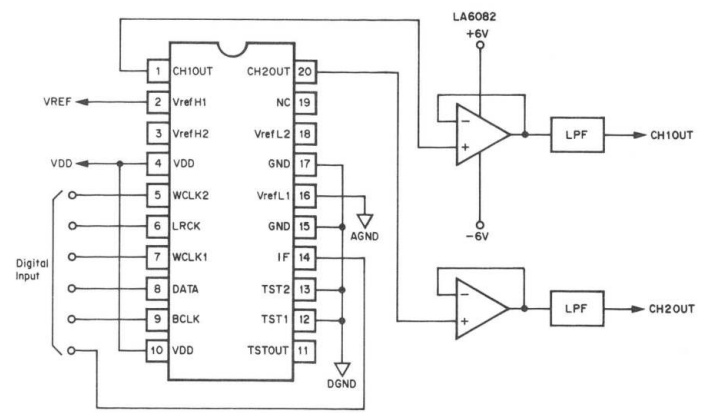


L78M05 BLOCK DIAGRAM

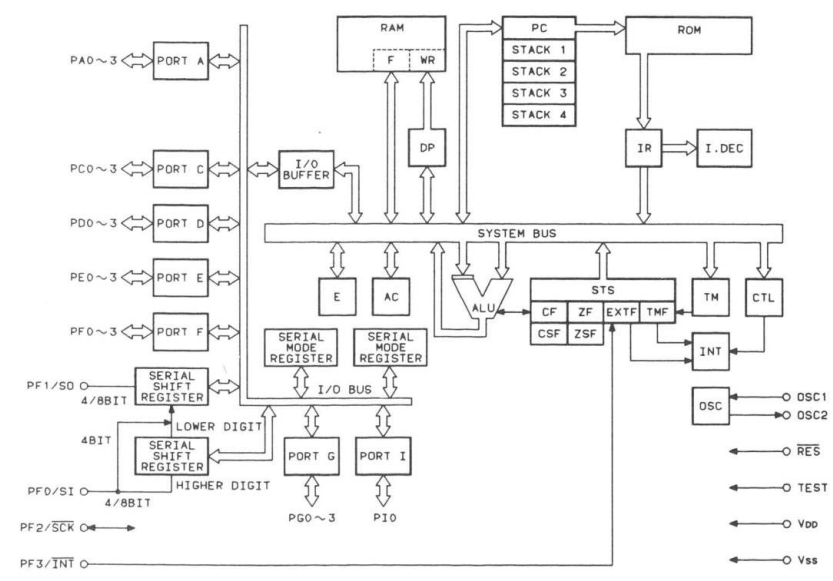


	INPUT	GND	OUTPUT
L78M05	1	2	3
NJM78M05FA	3	2	1

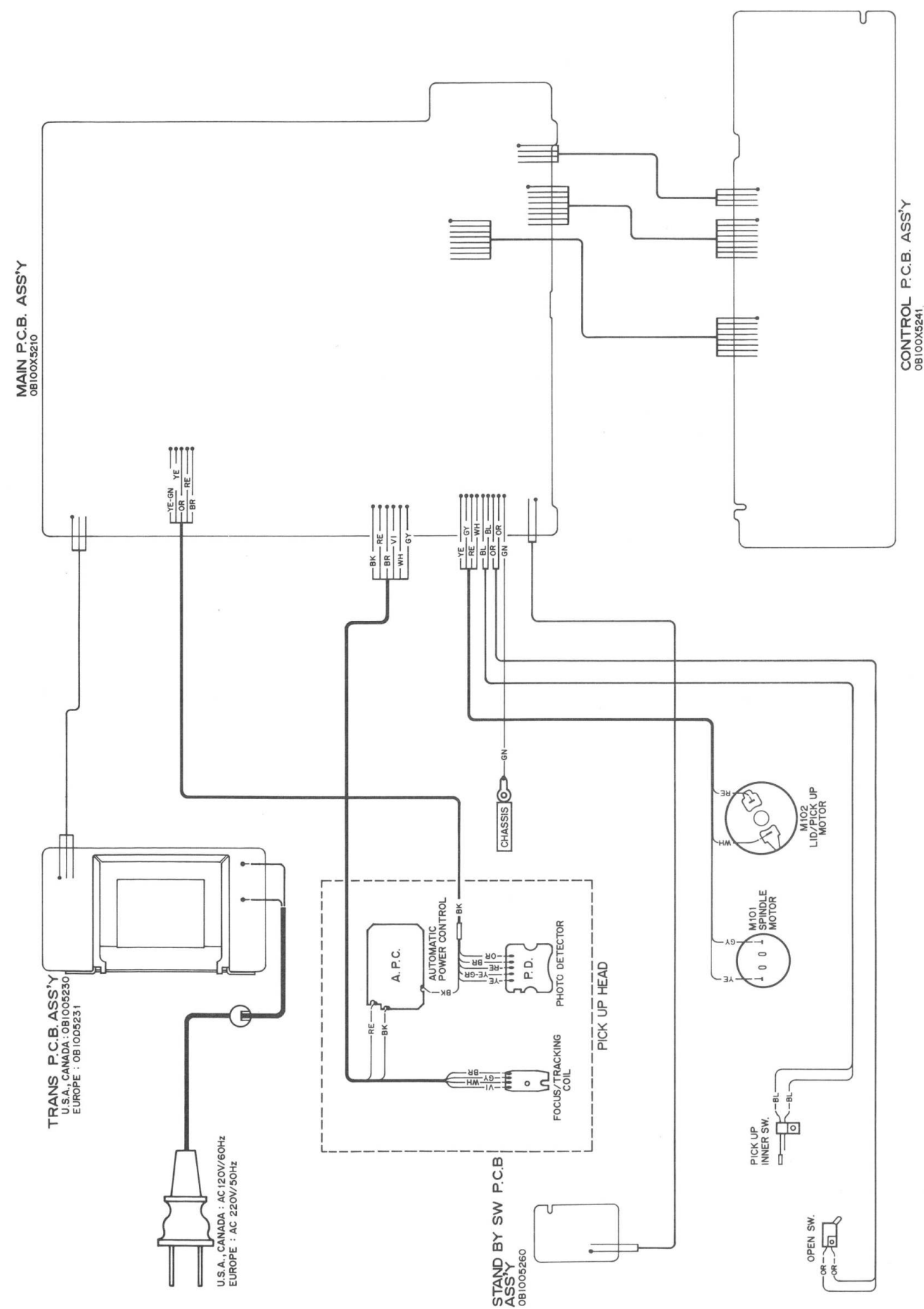
LC7881 BLOCK DIAGRAM



LC6543H-4323 BLOCK DIAGRAM



POINT TO POINT WIRING DIAGRAM



PD-365

TEAC®

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TEAC UK LIMITED	5 Marlin House, Marlins Meadow, The Croxley Centre, Watford, Herts, WD1 8YA, U.K. Phone: 0923-225235
TEAC DEUTSCHLAND GmbH	Bahnstrasse 12, 6200 Wiesbaden-Erbenheim, West Germany Phone: 06121-71580
TEAC FRANCE S.A.	17, Rue Alexis-de-Tocqueville CE 005 92182 Antony Cedex, France Phone: (1) 42.37.01.02
TEAC AUSTRALIA PTY., LTD.	106 Bay Street, Port Melbourne Victoria 3207, Australia Phone: (03) 646-1733

SAFETY INTERLOCK

The Digital Compact Disc Player reads the disc signal by detecting the laser beam. It must be avoided for the human body to directly receive the beam. Especially human eyes are badly affected by the beam. Therefore the unit is equipped with an interlock to prevent the unnecessary laser outputs.

The laser outputs are controlled by the injection or cutoff of the constant voltage source to the laser diode with Pin23 of IC06 (LC6543H-4323). When Pin23 is in "L"(Low)level, the laser emits the beam. When Pin23 is in "H"(High)level, the laser does not emits the beam.

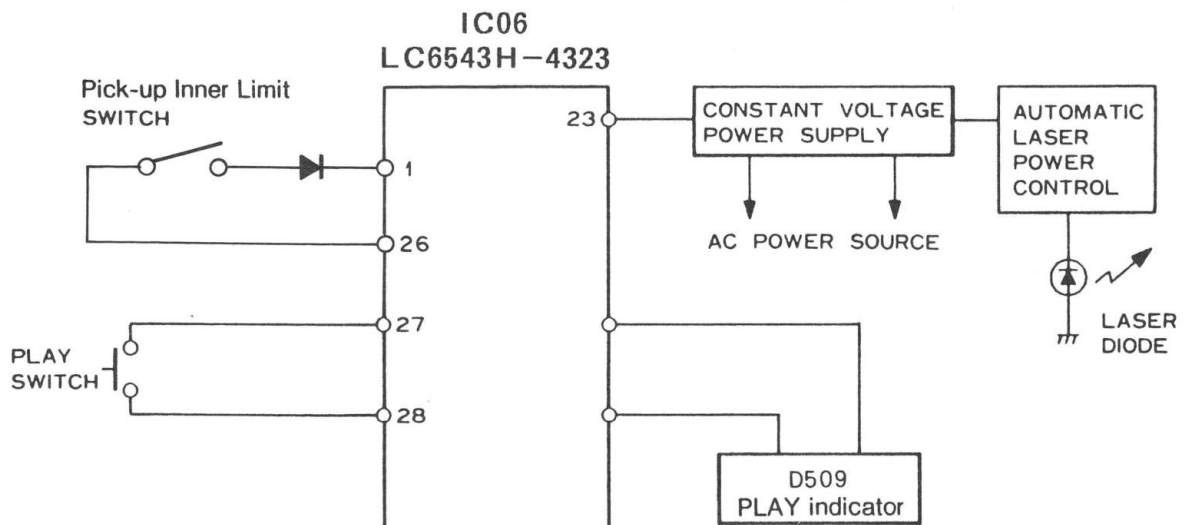
Pin23 is set in "H" level when the unit is loaded with the disc and it reads the index signals or when the unit is set in the play mode after that.

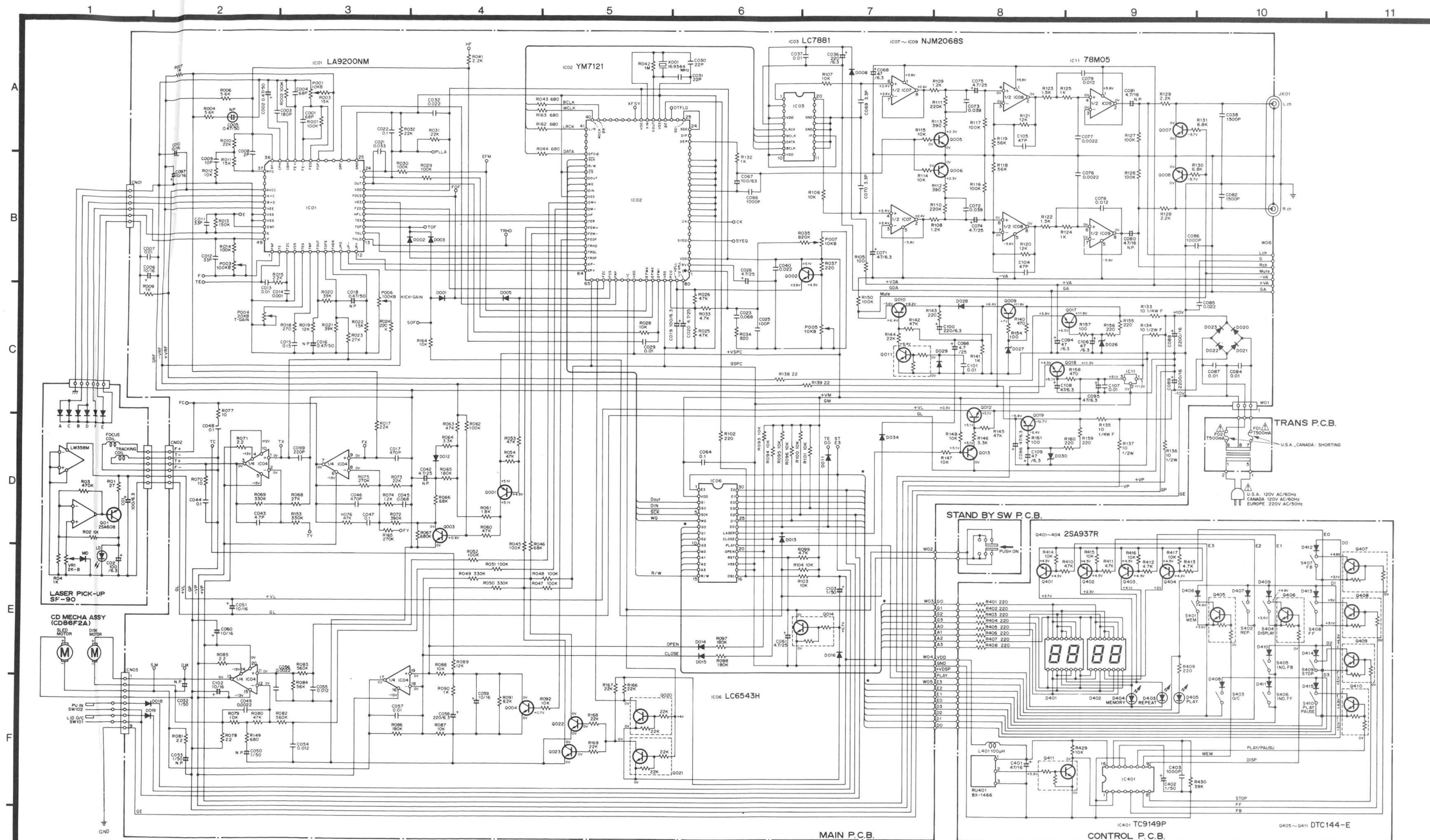
When the unit reads the index signals and the following two conditions are met, the laser emits the beam.

- 1) When the Pick-up Inner Limit Switch is on.
(The disc tray is closed.)
- 2) The pick-up is located at the area of the minimum internal circumference.

After the above conditions are met and the index signals have been read, the laser emits the beam when the following two conditions are met.

- 1) When the PLAY button is pressed.
- 2) When the PLAY indicator is on.





SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC1	LA9200NM	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V
		2.1V	2.1V	2.6V	2.6V	0V	2.5V	2.5V	2.5V	0V	0.6V	0.6V	-0.2V	-0.2V	-0.2V	0V	4V	-0.1V	5.1V		
		0V	0V	-5.4V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V

SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC2	YM7121	1.9V	2.9V	5.1V	5.1V	0V	0.3V	1.6V	2.8V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V
		0V	0V	2.8V	0V	2.6V	3.5V	2.8V	0V	2.0V	3.0V	5.1V	5.0V	0.1V	0V	0V	0V	5.1V	2.7V	3.0V	0V
		0V	0V	2.8V	0V	2.6V	3.5V	2.8V	0V	2.0V	3.0V	5.1V	5.0V	0.1V	0V	0V	0V	5.1V	2.7V	3.0V	0V

SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC3	LC7881	2.4V	4.8V	4.8V	4.8V	0V	0V	3.0V	0V	2.6V	4.8V	0.8V	0V	0V	4.8V	0V	0V	0V	0V	-0.2V	2.4V

SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC6	LC6543H	3.6V	5.1V	0V	5.1V	5.1V	0V	2.5V	2.5V	2.5V	2.5V	2.5V	3.1V	2.0V	0V	2.8V	0V	0V	4.0V	0V	0V
		3.2V	0V	5.1V	5.1V	5.1V	5.1V	5.1V	5.1V	5.1V	5.1V	5.1V	5.1V	5.1V	5.1V	5.1V	5.1V	5.1V	5.1V	5.1V	5.1V

SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC401	TC9149P	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V

No.	Name	Position
SW101	LOADING OPEN LIMIT Switch	OFF
SW102	PICKUP LIMIT Switch	OFF
S201	POWER Switch	OFF
S403	OPEN/CLOSE Switch	OFF
S404	DISPLAY Switch	OFF
S405	SEARCH INDEX FB Switch	OFF
S406	SEARCH INDEX FF Switch	OFF
S407	F BACK Switch	OFF
S408	F FWD Switch	OFF
S409	STOP Switch	OFF
S410	PLAY/PAUSE Switch	OFF

- NOTES:**
- All resistors values are indicated in "ohm" (K=10³, M=10⁶).
 - All capacitors values are indicated in "μF" (P=10⁻¹²).
 - All voltages indicated on the schematics are measured under the following conditions:
 - Use a V.T.V.M.
 - All voltages ±10% with respect to chassis ground.
 - No signals at input terminals.
 - AC input at 220 or 240 volts 50Hz, and 120 volts 60 Hz.
 - This is a basic schematic diagram.

CHUO DENKI CO., LTD. reserves the right to make any changes or modifications without notice for improvements.