

COMPACT DISC PLAYER CDX-470/570

SERVICE MANUAL

CDX-470/570

IMPORTANT NOTICE

This manual has been provided for the use of authorized YAMAHA Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically YAMAHA Products, are already known and understood by the users, and have therefore not been restated.

WARNING: Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all YAMAHA product owners that all service required should be performed by an authorized YAMAHA Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification or recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of YAMAHA are continually striving to improve YAMAHA products. Modifications are, therefore, inevitable and specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

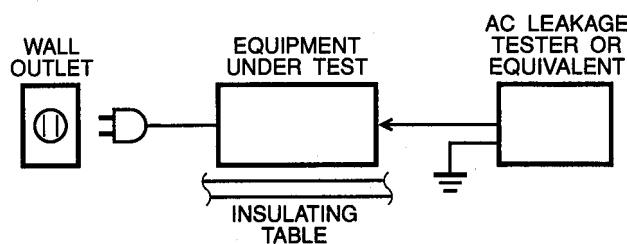
IMPORTANT: Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

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■ TO SERVICE PERSONNEL

1. Critical Components Information.
Components having special characteristics are marked and must be replaced with parts having specifications equal to those originally installed.
2. Leakage Current Measurement (For 120V Models Only).
When service has been completed, it is imperative to verify that all exposed conductive surfaces are properly insulated from supply circuits.
 - Meter impedance should be equivalent to 1500 ohm shunted by 0.15 μ F.
 - Leakage current must not exceed 0.5mA.
 - Be sure to test for leakage with the AC plug in both polarities.



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

THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED SERVICE PERSONNEL.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

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

1. Laser Diode Properties
 - Material : GaAlAs
 - Wavelength : 780 nm
 - Emission Duration : Continuous
 - Laser Output : max. 44.6 μ W*
2. When checking the laser diode emission, keep your eyes more than 30 cm away from the objective lens.

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

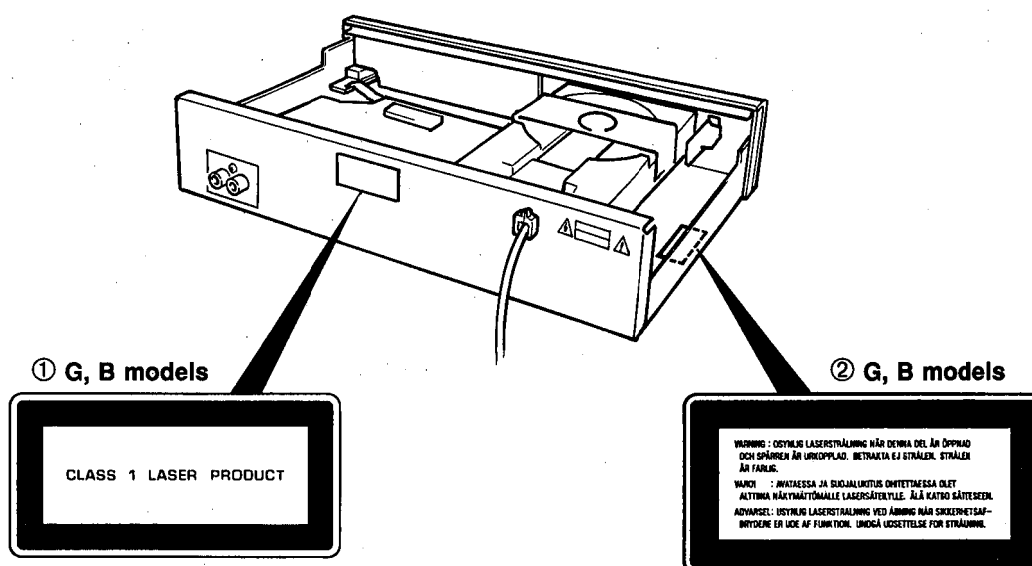
WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

CDX-470
CDX-570


English

- ① THIS LABEL (SEE POSITION SHOWN IN THE ILLUSTRATION) INFORMS THE USER THAT THE APPARATUS CONTAINS A LASER COMPONENT.
- ② THIS LABEL (SEE POSITION SHOWN IN THE ILLUSTRATION) WARNS THAT ANY FURTHER PROCEDURE WILL BRING THE USER INTO EXPOSURE WITH THE LASER BEAM.

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

Swedish

- ① DENNA MÄRKNING (SE FIGUR) UPPLYSER OM ATT DET I APPARATEN INGÅR EN LASERKOMPONENT AV TYP KLAS 1.
- ② VARNINGSMÄRKNING (SE FIGUR) FÖR STRÅLNING. INGREPP I APPARATEN BÖR ENDAST FÖRETAGAS AV FACKMAN MED KÄNNEDOM OM LASER. APPARATEN INNEHÅLLER EN LASERKOMPONENT SOM AVGER STRÅLNING ÖVERSTIGANDE GRÄNSEN FÖR LASERKLASS 1.

VARNING : OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD: BETRAKTA EJ STRÅLEN.

Danish

- ① DETTE MÆRKAT ER ANBRAGT SOM VIST I ILLUSTRATIONEN FOR AT ADVARE BRUGEREN OM AT APPARATET INDEHOLDER EN LASERKOMPONENT.
- ② DETTE MÆRKAT OM LASEREN ER ANBRAGT PÅ APPARATET SOM EN OPLYSNING OM AT APPARATET INDEHOLDER ET LASERKOMPONENT.

ADVARSEL : INDGREB BOR KUN FORETAGES AF EN FAGMAND DA DER ER RISIKO FOR RADIOAKTIV STRÅLING.

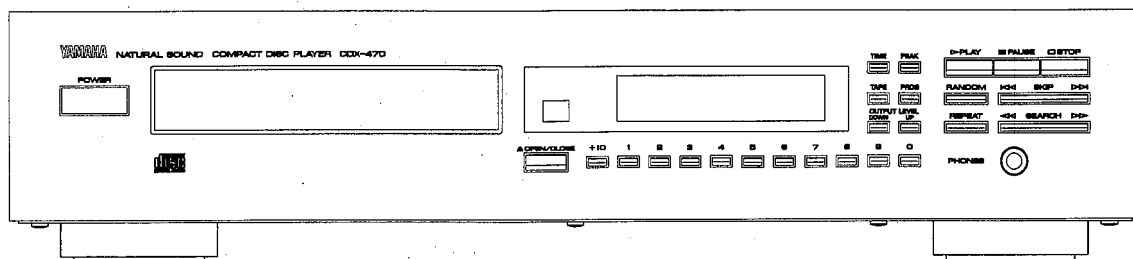
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING.
UNDGÅ UDSAETTELSE FOR STRÅLING.

Finnish

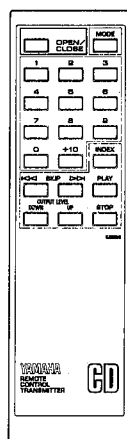
VARO! :
AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

■ CDX-470 PANELS & SECIFICATIONS

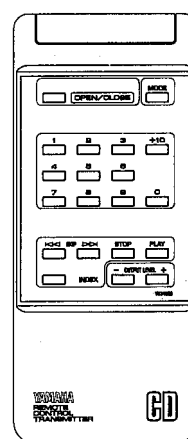
● FRONT PANEL



▼ U, C, R, A models



▼ B, G models



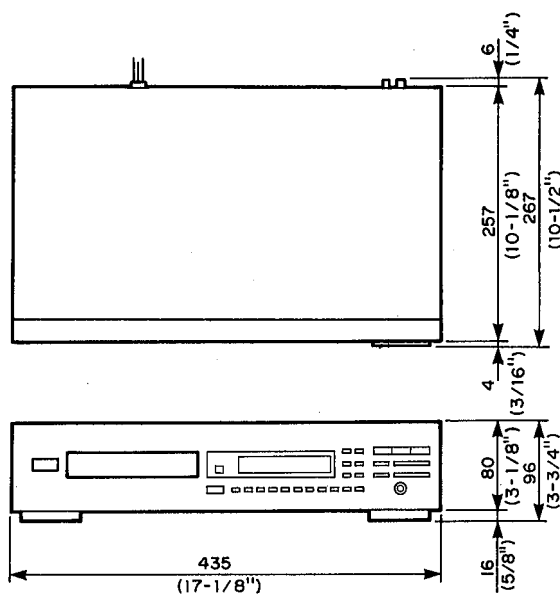
● SPECIFICATION

Output Level 1kHz, 0dB	2.0±0.5Vrms
Signal to Noise Ratio (EIAJ)	108dB
Dynamic Range	98dB
Harmonic Distortion+Noise (1kHz)	0.003%
Frequency Response 10Hz — 20kHz	±0.5dB
De-Emphasis Equalization Deviation	±0.5dB
Headphone Output 150Ω, 1kHz, -20dB Input	200mV±40mV
Power Requirements	
U, C models	120V AC 60Hz
G model	230V AC 50Hz
A, B models	240V AC 50Hz
R models	110/120/220/240V AC 50/60Hz
Power Consumption	20W
Dimensions (W x H x D)	435 x 96 x 267mm (17-1/8" x 3-3/4" x 10-1/2")
Weight	3.8kg (8 lbs 6 oz)
Accessories	Pin plug code Remote control transmitter
Dry-cell: x 2	(U, C, R, A models : Size "AAA", R03 B, G models : Size "AA", R06)

*Specifications are subject to change without notice.

U U. S. A. model A Australian model
C Canadian model G European model
B British model R General model

● DIMENSION

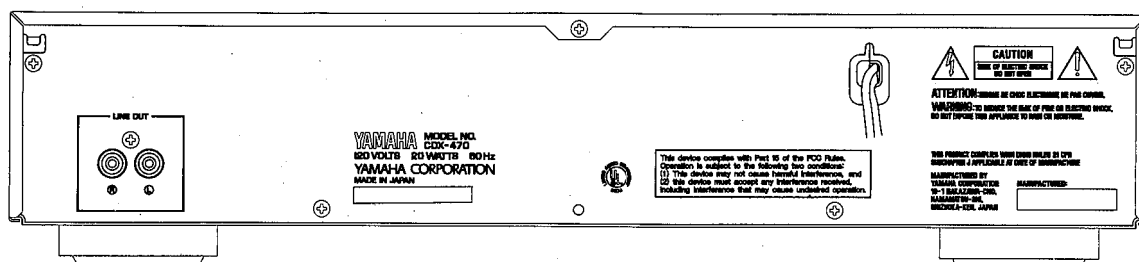


Unit : mm (inch)

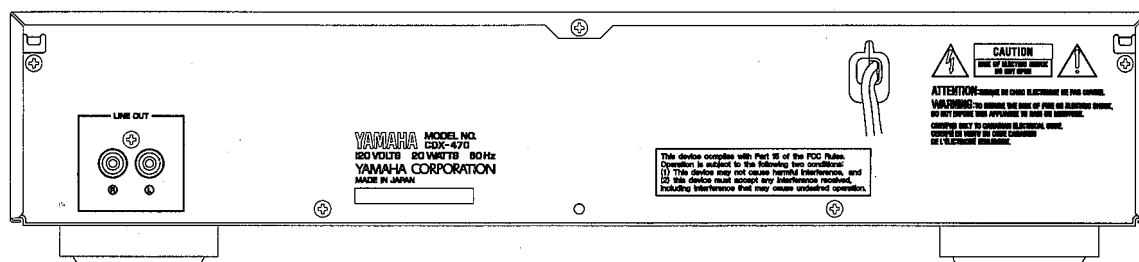
CDX-470

● REAR PANEL

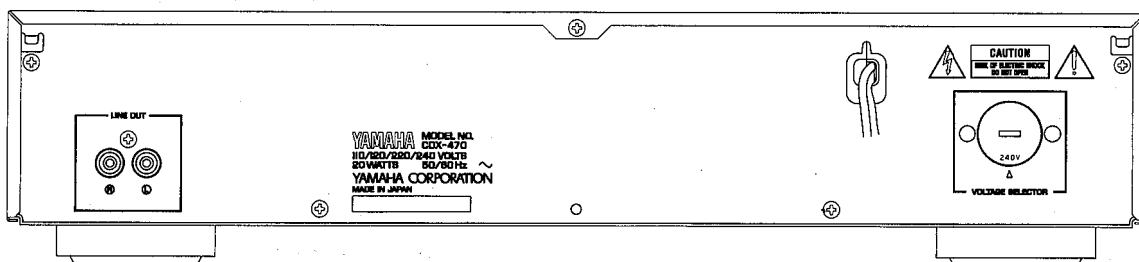
▼ U model



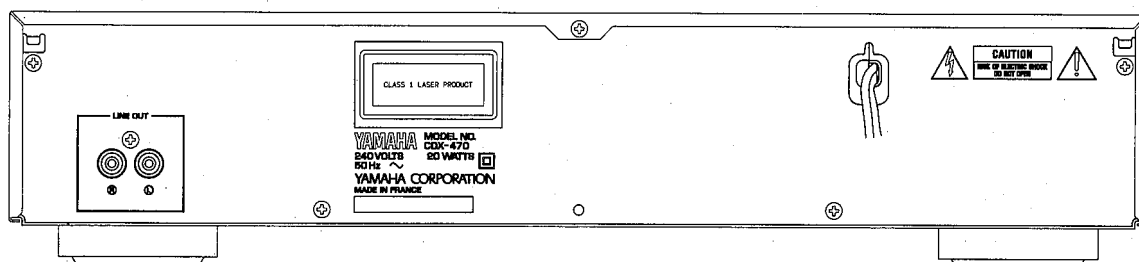
▼ C model



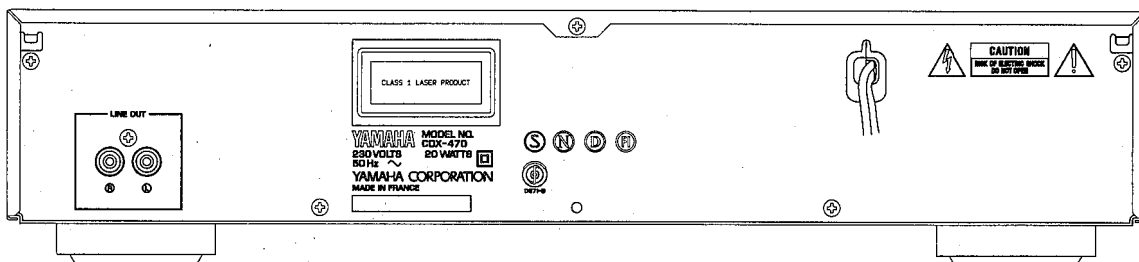
▼ R model



▼ A, B models

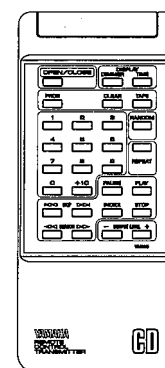
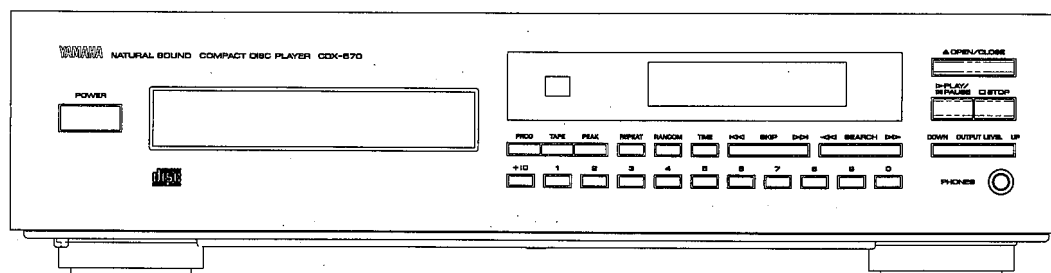


▼ G model

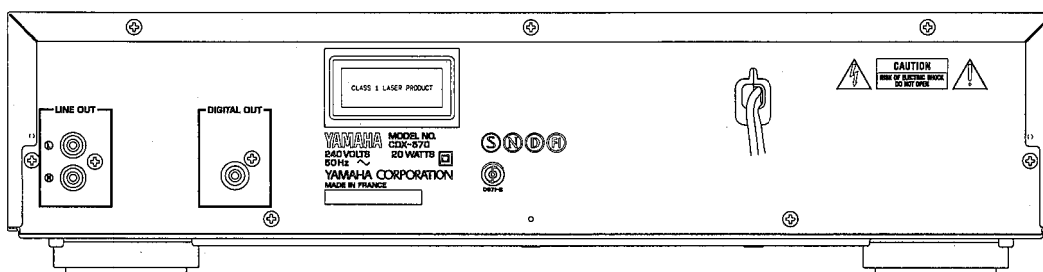


CDX-570 PANELS & SECIFICATIONS

● FRONT PANEL



● REAR PANEL



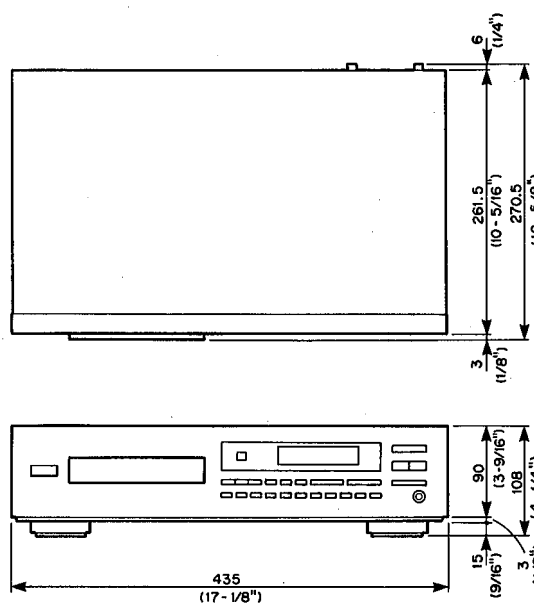
● SPECIFICATION

Output Level 1kHz, 0dB	2.0±0.5Vrms
Signal to Noise Ratio (EIAJ)	115dB
Dynamic Range	98dB
Harmonic Distortion+Noise (1kHz)	0.003%
Frequency Response 10Hz — 20kHz	±0.5dB
De-Emphasis Equalization Deviation	±0.5dB
Headphone Output 150Ω, 1kHz, -20dB Input	200mV±40mV
Power Requirements G model B model	230V AC 50Hz 240V AC 50Hz
Power Consumption	20W
Dimensions (W x H x D)	435 x 108 x 270.5mm (17-1/8" x 4-1/4" x 10-5/8")
Weight	4.7kg (10 lbs 5 oz)
Accessories	Pin plug code Remote control transmitter Dry-cell: x 2 (Size "AAA", R03)

*Specifications are subject to change without notice.

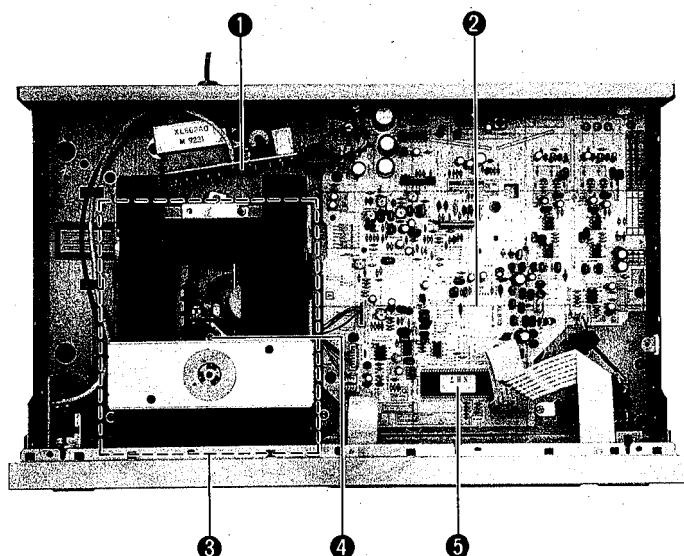
B British model
G European model

● DIMENSION



Unit : mm (inch)

INTERNAL VIEW



CDX-470

- ① MAIN P.C.B. ASS'Y (3)
- ② MAIN P.C.B. ASS'Y (1)
- ③ PU MECHANICAL UNIT (KSL-2102AAM)
- ④ OPTICAL PICK UP HEAD
- ⑤ IC8 : μ -PD75P216 (4bit μ -COM)

CDX-570

- ① OPERATION P.C.B. ASS'Y (1)
- ② MAIN P.C.B. ASS'Y (1)
- ③ PU MECHANICAL UNIT (KSL-2102AAM)
- ④ OPTICAL PICK UP HEAD
- ⑤ IC8 : μ -PD75P216 (4bit μ -COM)

DISASSEMBLY PROCEDURES

(Remove parts in disassembly order as numbered.)

CDX-470

1. Removal of Top Cover

- a. Remove 5 screws (①) in Fig. 1-a.
- b. Lift the Top Cover to the back side and move it rearward slantingly.

2. Removal of Front Panel

- a. Remove connector #13 from the Main P.C.B. (4) (POWER SW).
- b. Remove connectors #1, #2 and #7 from the Main P.C.B. (1).
- c. Remove 3 screws (②) and 1 screw (③) in Fig. 1-a.
- d. Pull the Front Panel forward.

3. Removal of PU Mechanism Unit

- a. Remove connectors #8, #9, #10 and #11 from Main P.C.B. (1).
- b. Remove 3 screws (④) in Fig. 1-a.

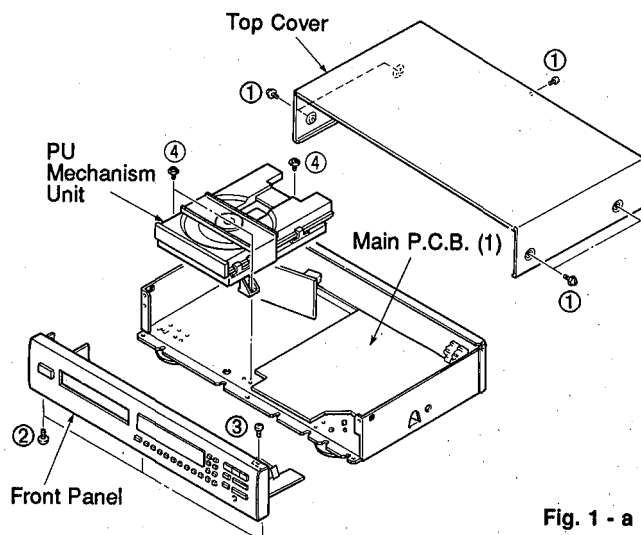


Fig. 1 - a

CDX-570

1. Removal of Top Cover

- a. Remove 7 screws (①) in Fig. 1-b.
- b. Lift the Top Cover to the back side and move it rearward slantingly.

2. Removal of Front Panel

- a. Remove 6 screws (②) in Fig. 1-b.
- b. Pull the Front Panel forward.
- c. Remove the Power Switch by removing 2 screws (③) in Fig. 1-b.
- d. Remove 3 connectors (CB5, CB7, CB10).

3. Removal of PU Mechanism Unit

- a. Remove 3 screws (④) in Fig. 1-b.
- b. Remove 4 connectors (CB1 to CB4).

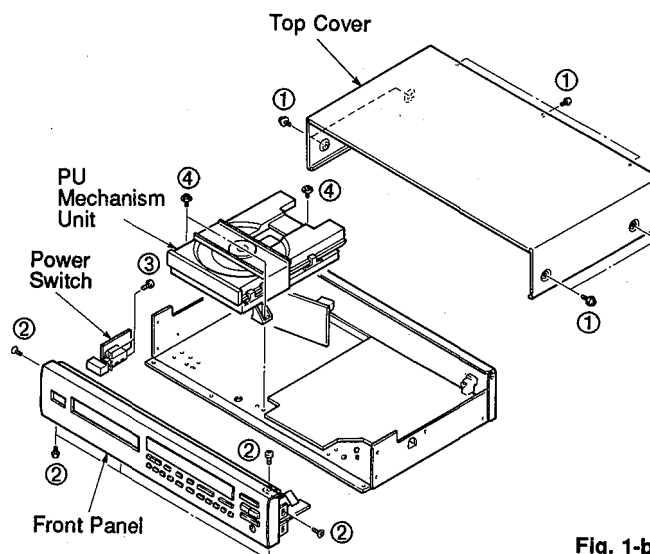


Fig. 1-b

4. Removal of Pick-up Head

- a. Remove 2 screws (⑤) in Fig. 2.
- b. Remove the tray by turning the Control Cam.
- c. Remove 2 screws (⑥) and remove the hinge holder in Fig. 2.

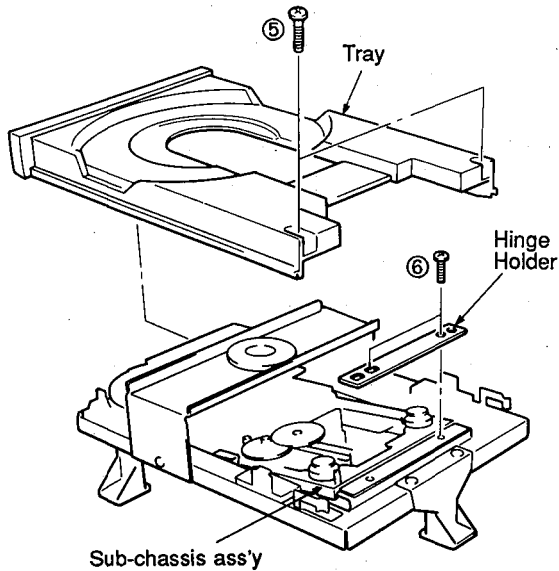


Fig. 2

- d. Remove the Mechanism Sub Ass'y by removing 4 screws (⑦) in Fig. 3.

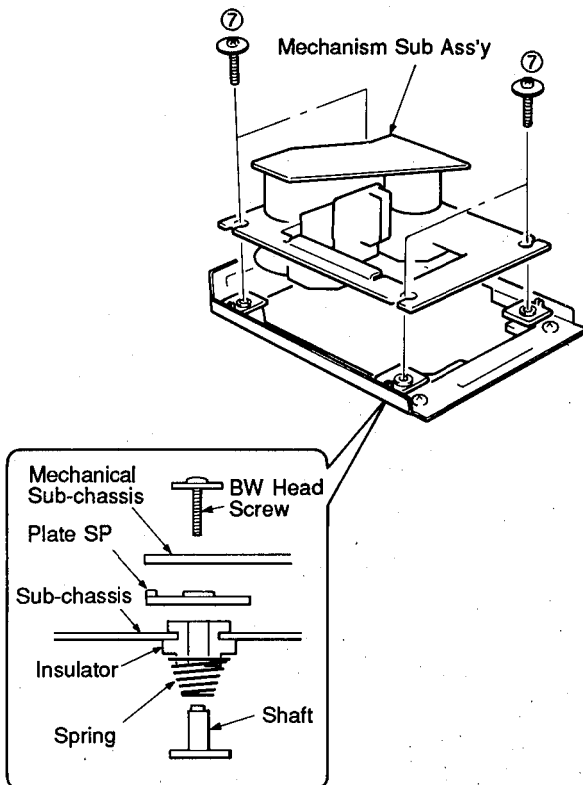


Fig. 3

- e. Remove the gear A in Fig. 4.
- f. Pull out the Slide Shaft in Fig.4.
- g. Remove the Pick-up Head.

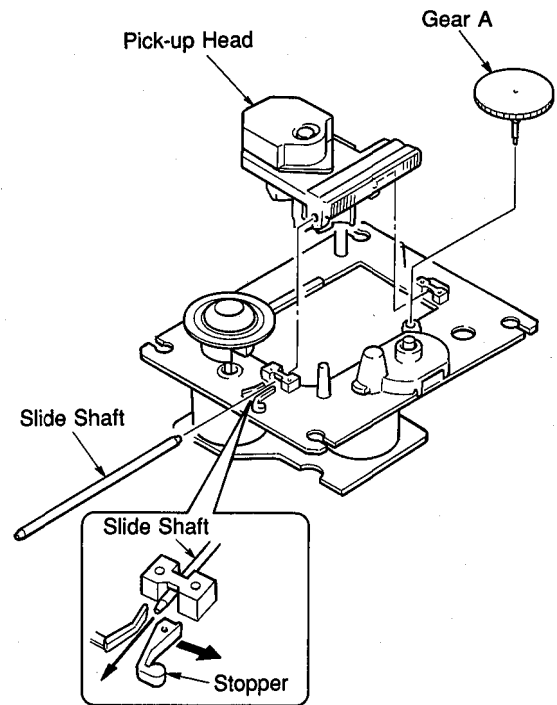
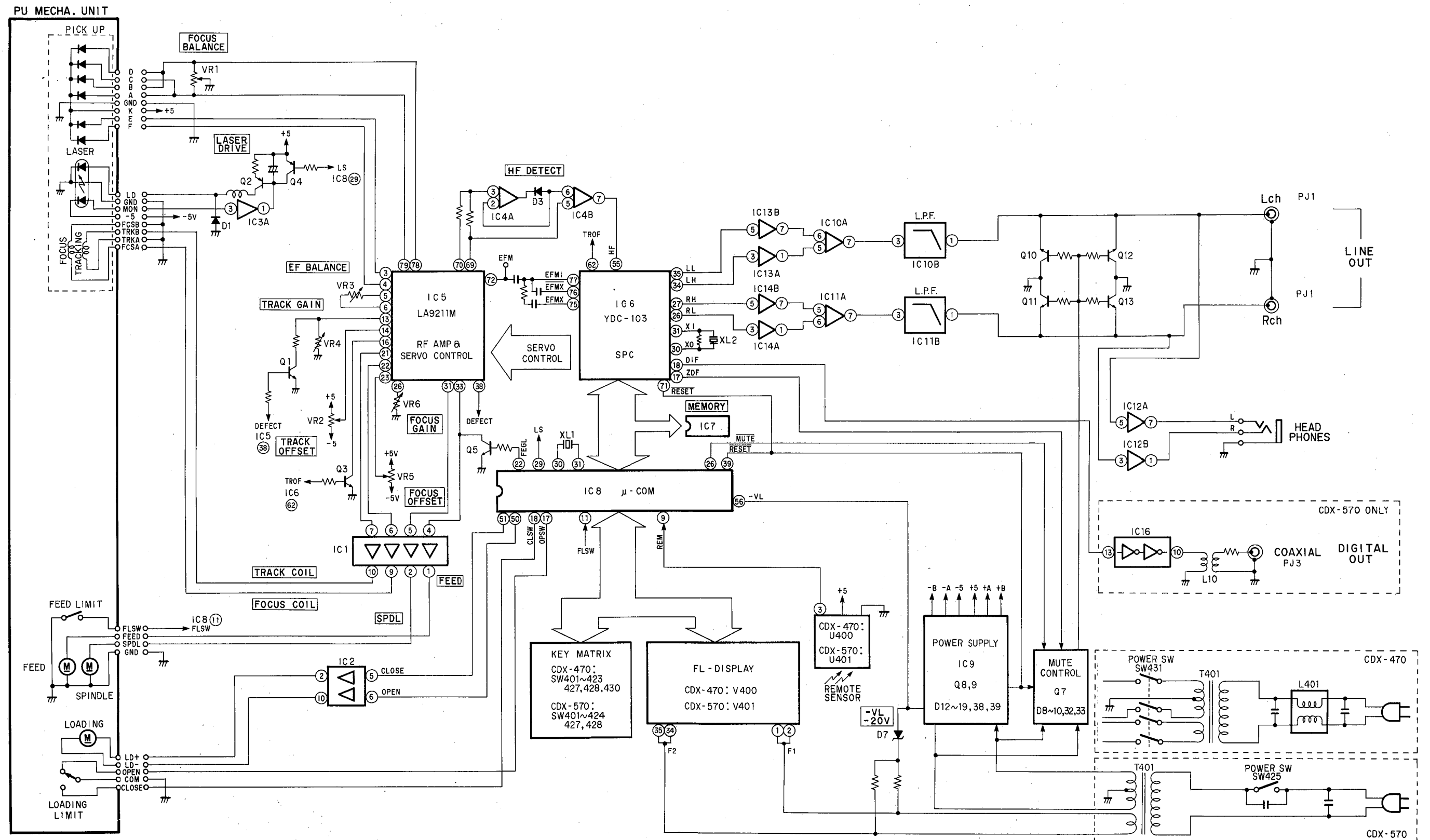


Fig. 4

BLOCK DIAGRAM

CDX-470
CDX-570



ADJUSTMENTS

TEST POINT

Before adjustment, be sure to perform the necessary work at each test point including clipping or soldering test-lead wires.

Test Point	Jumper No.	
	CDX-470	CDX-570
FOCUS	J150	J177
TRACK	J146	J171
TD+	J157	J173
FD-	J144	J181
TPA+	J151	J182
TEAO	J149	J176
FEAO	J147	J175
GND	J109	J127
EFM	J57	J63
GND	J56	J72

Necessary Items

Measuring Instruments

Oscilloscope (Band width of 50MHz or more, 2 ch type with X-Y position)	: x 1
DC voltmeter (DCVM)	: x 1
Frequency counter (FC)	: x 1
Low frequency oscillator	: x 1

Test disc

SONY YEDS-18 (P/No. TX911730), A-BEX TCD-782 or Philips 5	: x 1
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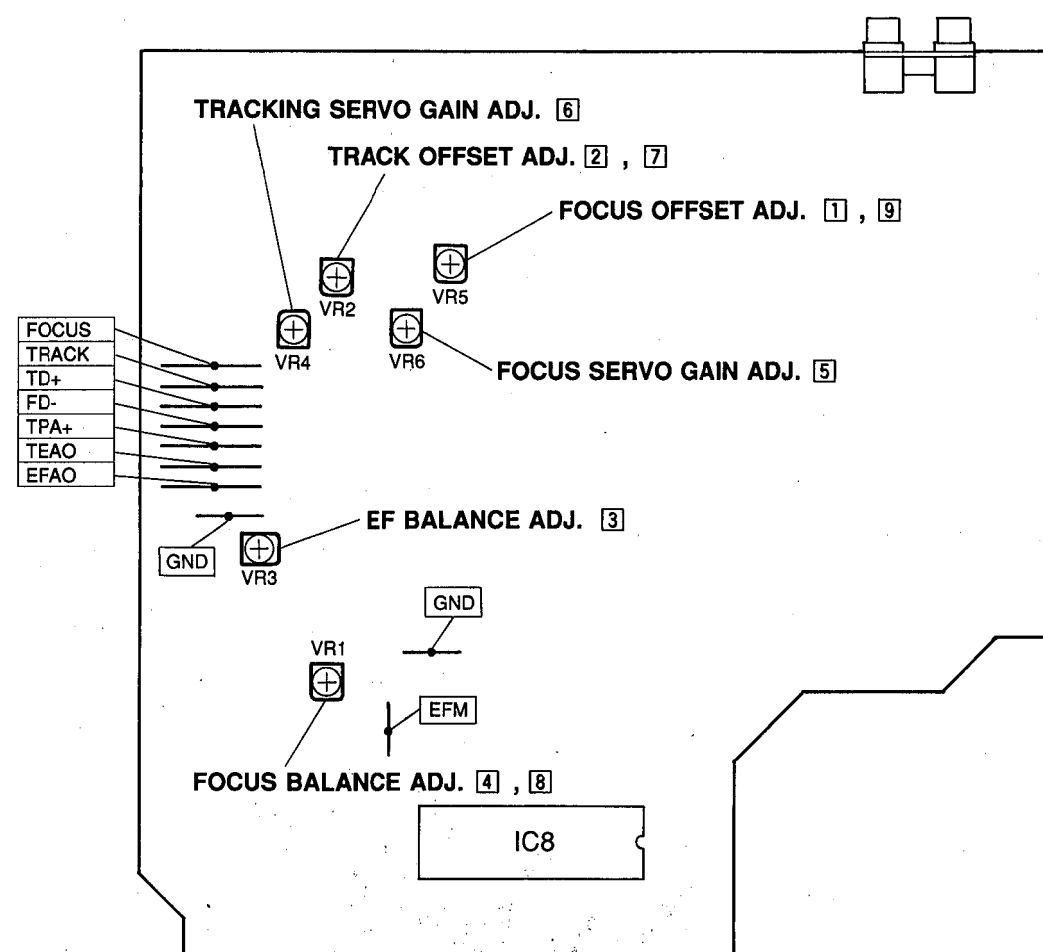
Tools

Screwdriver (For Pre-set Potentiometer adjustment)	: x 1
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Before Adjustment

Carry out following adjustments in order as numbered.

- 1) Focus offset adjustment
- 2) Track offset adjustment
- 3) EF balance adjustment
- 4) Focus balance adjustment
- 5) Focus servo gain adjustment
- 6) Tracking servo gain adjustment
- 7) Confirmation of track offset
- 8) Confirmation of EF balance
- 9) Confirmation of focus offset



Starting TEST Mode

While pressing both the "4" and "7" keys, turn ON the power switch. Take fingers off both keys, and all the display segments will light for about 1 second and the operation mode is then set to TEST mode.

Contents of TEST mode

OPEN/CLOSE	: Open, close
STOP	: All stop
TIME	: Display test (→ all ON → 888888 → OFF →)
"1"	: Change from TEST mode to NORMAL mode
"2"	: ADJUSTMENT mode Step 1
"3"	: ADJUSTMENT mode Step 2
"4"	: ADJUSTMENT mode Step 3
"5"	: ADJUSTMENT mode Step 4
"6"	: ADJUSTMENT mode Step 5
"7"	: ADJUSTMENT mode Step 6
"8"	: ADJUSTMENT mode Step 7

(See page 15 for TEST mode explanation.)

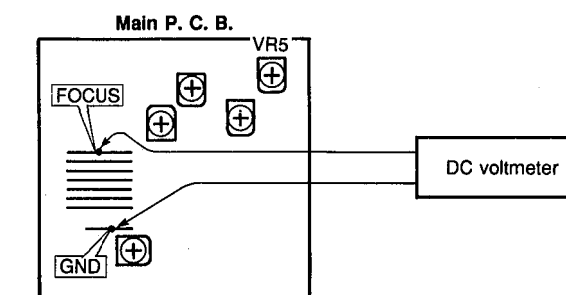
Adjustment Mode

There are Steps 1 to 7 of the adjustment mode. Use the panel Keys (2 to 8) to select the desired step. The step is indicated on the music calendar.

Panel key	Content of Adjustment Mode	Indication on Music Calendar
2	Step 1 Focus offset adjustment	1 2 3 4 5 6 7
3	Step 2 Track offset adjustment	2 3 4 5 6 7
4	Step 3 EF balance adjustment	3 4 5 6 7
5	Step 4 Focus balance adjustment Focus servo gain adjustment Tracking servo gain adjustment	4 5 6 7
6	Step 5 Confirmation of track offset	5 6 7
7	Step 6 Confirmation of EF balance	6 7
8	Step 7 Confirmation of focus offset	7

1 Focus Offset Adjustment

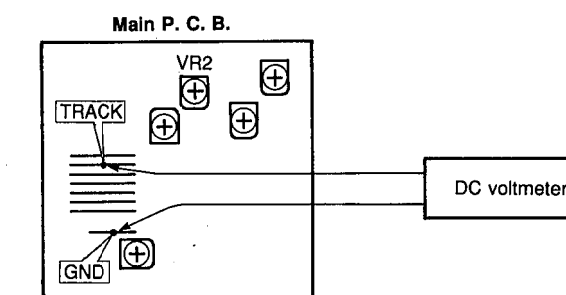
See page 10 for TP locations & potentiometers.



- ① Do not load the disc.
- ② Set to the TEST mode.
- ③ Press the "2" key to adjustment mode Step 1.
- ④ Measure the voltage at test point **FOCUS** and adjust VR5 so that the following rating will be satisfied.
V_{FOCUS COIL} = 0V±100mV(DC)

2 Track Offset Adjustment

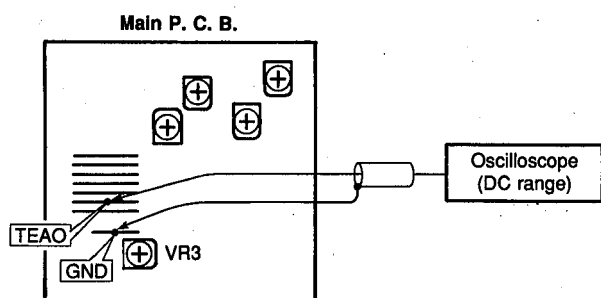
See page 10 for TP locations & potentiometers.



- ① Do not load the disc.
- ② Set to the TEST mode.
- ③ Press the "3" key to adjustment mode Step 2.
- ④ Measure the voltage at the test point **TRACK** and adjust VR2 so that the following rating will be satisfied.
V_{TRACK COIL} = 0V±50mV(DC)

3 EF Balance Adjustment

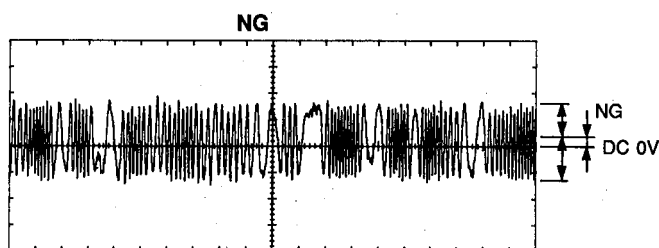
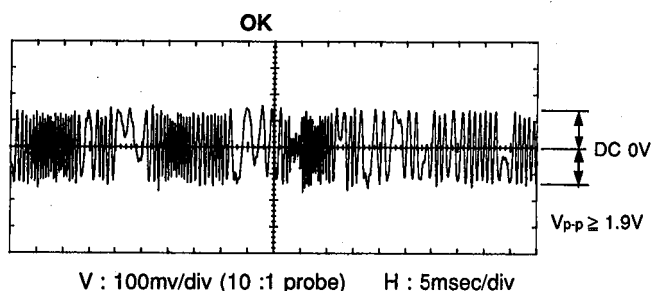
See page 10 for TP locations & potentiometers.



- ① Connect an oscilloscope to the test point **TEAO**.
* Make sure to use a 10 : 1 probe.
- ② Set to the TEST mode.
- ③ Load the test disc by using OPEN/CLOSE key.
- ④ Press the "4" key to adjustment mode Step 3.
- ⑤ Adjust VR3 so that the waveform at the test point **TEAO** has the same amplitude on both upper and lower sides of DC0V position.

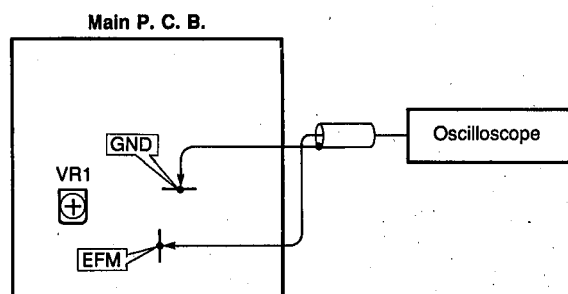
Rating : DC offset = $0V \pm 50mV$

- ⑥ The distance between the top and the bottom of the waveform should be 1.9V or over.

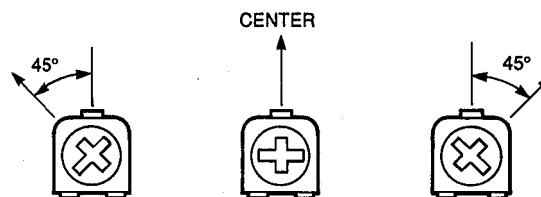


4 Focus Balance Adjustment

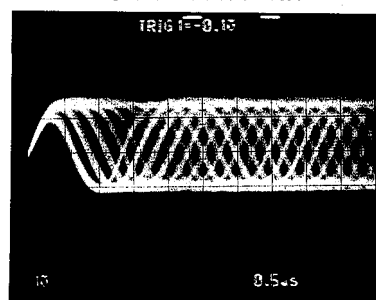
See page 10 for TP locations & potentiometers.



- ① Connect an oscilloscope to the test point **EFM**.
- ② Set to the TEST mode.
- ③ Load the test disc by using the OPEN/CLOSE key.
- ④ Press the "5" key to adjustment mode Step 4.
- ⑤ Confirm that the EFM signal (eye pattern) waveform is distinct and clear.
- ⑥ Adjust VR1 only when the eye pattern has not been obtained properly.
When adjusting it, however, note that adjustment should be done within 45° from its center position.
* If no change has occurred even after adjustment of VR1, set it to the center position mechanically.

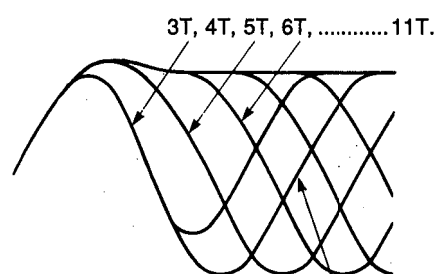


● EYE PATTERN



(AC)
V : 1V/div
(1 : 1 probe)
H : 0.5μsec/div

Waveforms 3T—11T.



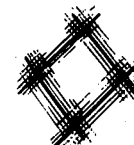
This portion is referred to as the eye pattern.

An abnormal eye pattern has less distinct lines and smaller amplitude than that of a good waveform.

Good waveform

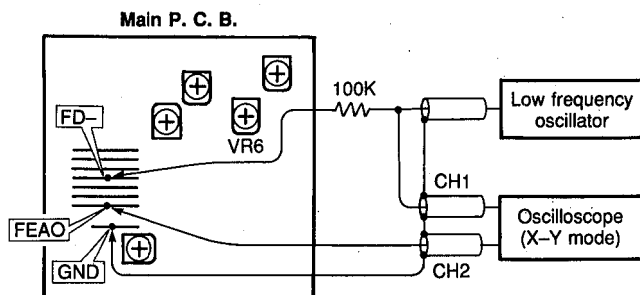


Abnormal waveform



5 Focus Servo Gain Adjustment

See page 10 for TP locations & potentiometers.



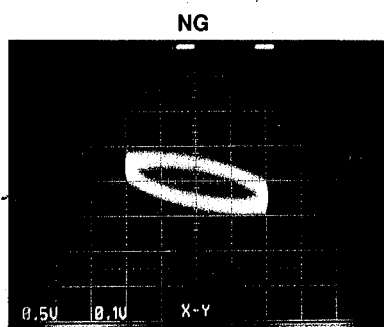
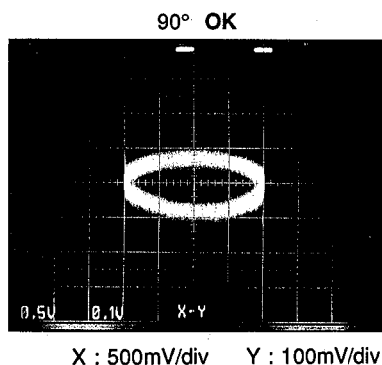
- ① Connect an oscilloscope and a low frequency oscillator to the test points **FD-** and **FEAO** as shown above.
- ② Set to the TEST mode.
- ③ Load the test disc by using the OPEN/CLOSE key.
- ④ Press the "5" key to adjustment mode Step 4.
- ⑤ Apply a sine wave as in Table A to the test point **FD-** through a 100k Ω resistance.

The frequency varies depending on the test disc.

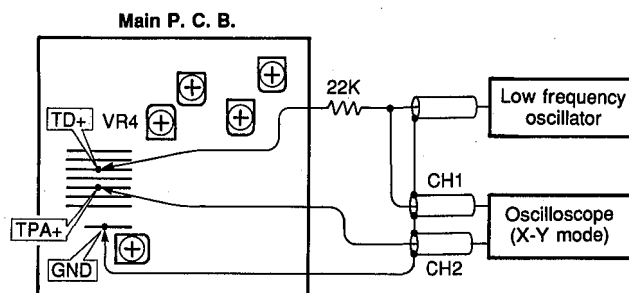
Test Disc	Lot No.	Signal
YEDS-7	2-26	680Hz, 2Vrms
YEDS-18	31	605Hz, 2Vrms
TCD-782	T00702A	655Hz, 2Vrms
TCD-782	000101A	590Hz, 2Vrms
Philips 5	—	575Hz, 2Vrms

Table A

- ⑥ Adjust VR6 so that the phase difference between the waveform at the test point **FD-** and that at the **FEAO** becomes 90 degrees.

**6 Tracking Servo Gain Adjustment**

See page 10 for TP locations & potentiometers.



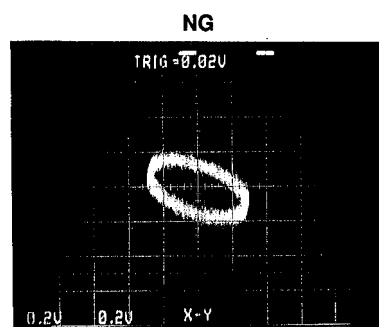
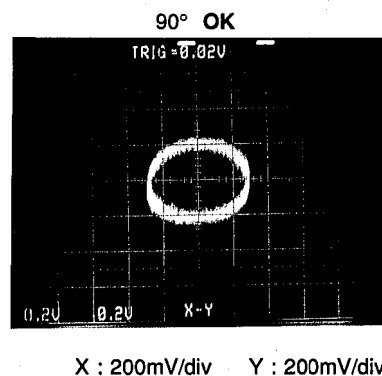
- ① Connect the oscilloscope and a low frequency oscillator to the test points **TD+** and **TPA+**.
- ② Set to the TEST mode.
- ③ Load the test disc by using the OPEN/CLOSE key.
- ④ Press the "5" key to adjustment mode Step 4.
- ⑤ Apply a sine wave to the test point **TD+** as in Table B through a 22k Ω resistance.

The frequency varies depending on the test disc.

Test Disc	Lot No.	Signal
YEDS-7	2-26	640Hz, 0.2Vrms
YEDS-18	31	615Hz, 0.2Vrms
TCD-782	T00702A	685Hz, 0.2Vrms
TCD-782	000101A	685Hz, 0.2Vrms
Philips 5	—	660Hz, 0.2Vrms

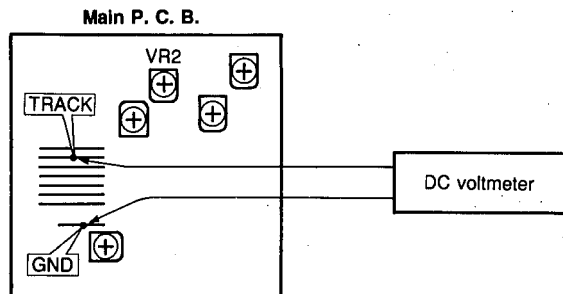
Table B

- ⑥ Adjust VR4 so that the phase difference between the waveform at the test point **TD+** and that at the **TPA+** is 90 degrees.

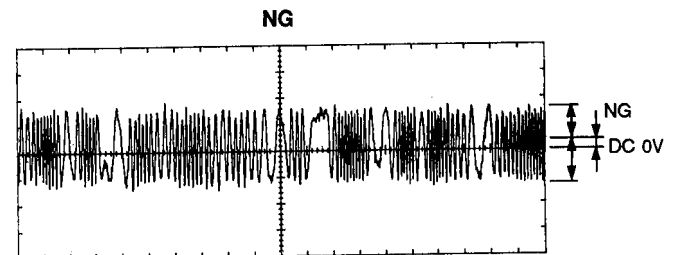
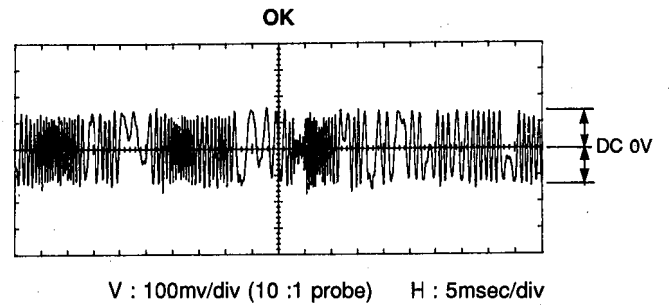


7 Confirmation of Track Offset

See page 10 for TP locations & potentiometers.

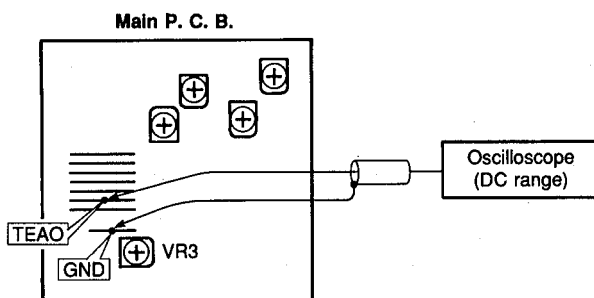


- ① Do not load the disc.
- ② Set to the TEST mode.
- ③ Press the "6" key to adjustment mode Step 5.
- ④ Measure the voltage at the test point **TRACK** and check if the following rating is satisfied.
Rating : $V_{\text{TRACK COIL}} = 0V \pm 50mV(DC)$
- ⑤ If the measured voltage does not satisfy the rating, adjust VR2.



8 Confirmation of EF Balance

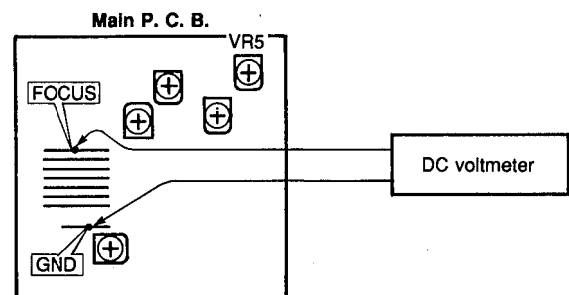
See page 10 for TP locations & potentiometers.



- ① Connect an oscilloscope to the test point **TEAO**.
* Make sure to use a 10 : 1 probe.
- ② Set to the TEST mode.
- ③ Load the test disc by using OPEN/CLOSE key.
- ④ Press the "7" key to adjustment mode Step 6.
- ⑤ Check the waveform at the test point **TEAO** for the same amplitude on both upper and lower sides of the DC 0V position.
Rating : DC offset = $0V \pm 50mV$
- ⑥ If the rating is not satisfied, adjust VR3.

9 Confirmation of Focus Offset

See page 10 for TP locations & potentiometers.



- ① Do not load the disc.
- ② Set to the TEST mode.
- ③ Press the "8" key to adjustment mode Step 7.
- ④ Measure the voltage at the test point **FOCUS** and check if the following rating is satisfied.
Rating : $V_{\text{FOCUS COIL}} = 0V \pm 100mV(DC)$
- ⑤ If the measured voltage does not satisfy the rating, adjust VR5.

NOTE : To cancel the TEST mode, turn OFF the power switch or press the "1" key.

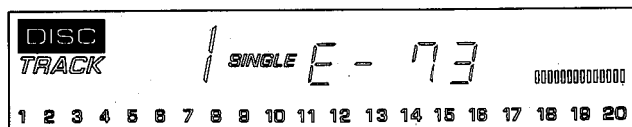
■ TEST MODE

- (1) Turning ON the POWER while pressing the keys "4" and "7" will set to the TEST mode. (When the TEST mode is set, all indicators light for 1 second.)
- (2) Shown below are the panel keys in the TEST mode. (Panel keys only)

Panel key	Operation
OPEN/CLOSE	Tray open/close
PLAY/PAUSE (CDX-570) PLAY (CDX-470)	Play & TRON, MUTE OF
STOP	All stop (Focus, spindle, feed, laser, tray)
◀◀ SKIP	Feed inward (Stop at inward switch ON)
▶▶ SKIP	Feed outward
◀◀ SEARCH	10 TRK KICK inward
▶▶ SEARCH	10 TRK KICK outward
1	To NORMAL mode
2	ADJUSTMENT mode 1 (Tray open, laser ON, TROF, FEOF)
3	ADJUSTMENT mode 2 (Tray close, laser OFF, TROF, FEOF)
4	ADJUSTMENT mode 3 (Tray close, laser ON, TROF, FEOF)
5	ADJUSTMENT mode 4 (Tray close, laser ON, TRON, FEON, MUTE OF)
6	ADJUSTMENT mode 5 (Same as ADJUSTMENT mode 2)
7	ADJUSTMENT mode 6 (Same as ADJUSTMENT mode 3)
8	ADJUSTMENT mode 7 (Same as ADJUSTMENT mode 1)
9	MUTE OFF
0	MUTE ON
+10	Laser ON
OUTPUT LEVEL DOWN/UP	—
REPEAT	TROF, FEOF
TIME	FL display check
RANDOM	TRON & MUTE ON
PROGRAM	Spindle acceleration
PEAK	EEPROM test (MUTE ON at OK)
TAPE	Laser ON & focus search

■ ERROR MESSAGE

- (1) When operation is terminated in an abnormal condition (stop or open), pressing STOP on the remote control while pressing STOP on the panel will set to the error message display enable mode.
- (2) Shown below is an example of display. ("E-73" as an example)



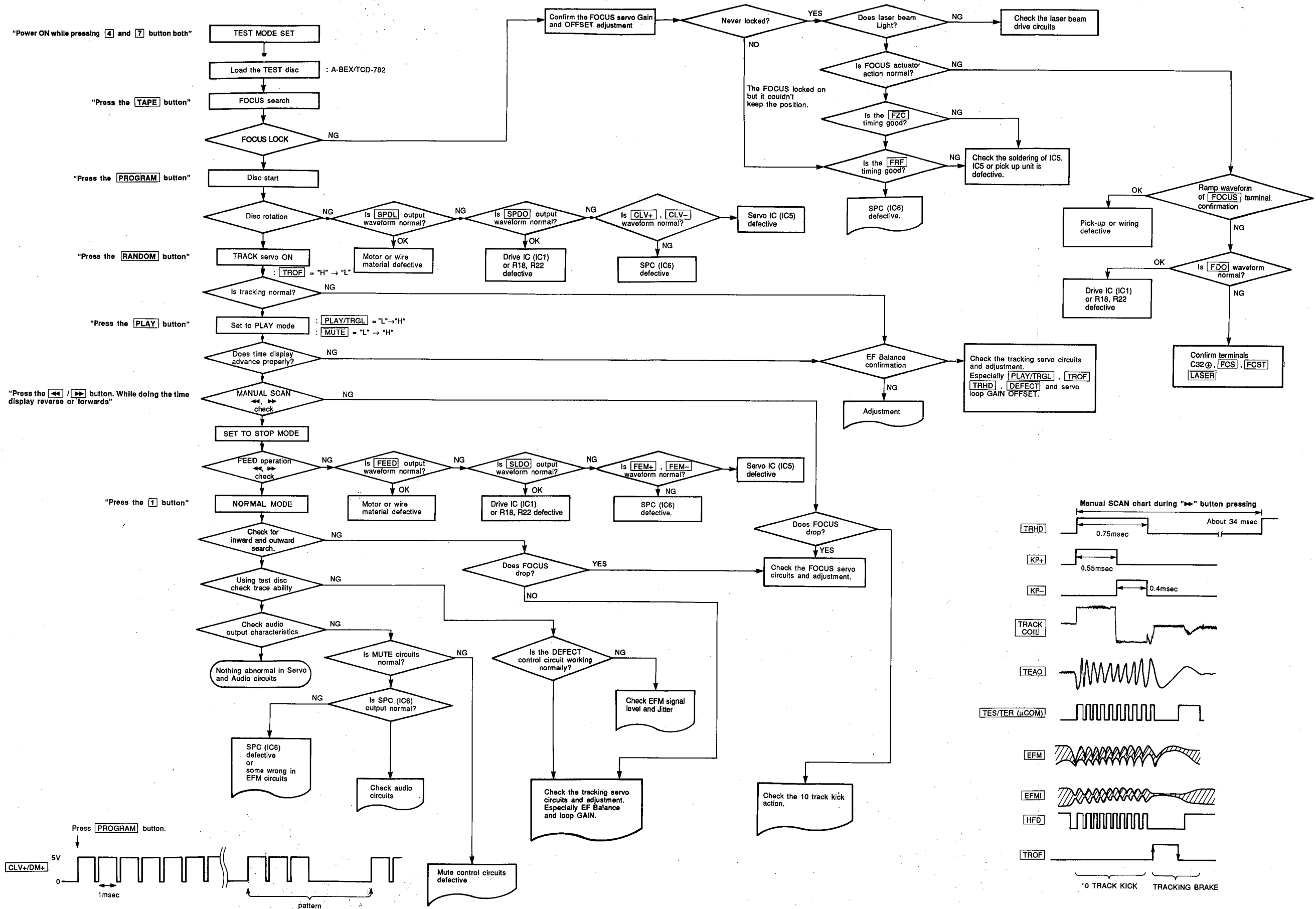
*No. for each state (meaning of "X")

PLAY	X="0"	SEARCH	X="6"	LOAD	X="9"
SCAN	X="3"	START	X="7"	OPEN	X="-"
PAUSE	X="4"	STOP	X="8"	NO DISC	X="C"
PEAK SEARCH X="5"					

- (3) This function stays effective till the power is turned OFF. (It is cleared at OFF.)
- (4) Listed in the table below are error messages.

No.	Error Message	Content
1	E-X0	Data not read after search
2	E-X1	Data not read during PLAY(X=0), PAUSE(X=4) and SCAN(X=3)
3	E-73	Data not read at start (even once)
4	E-95	Tray closed but CLOSE switch fails to turn ON.
5	E--5	Tray closed but OPEN switch fails to turn ON.
6	E-X7	Feed executed inward but INWARD switch fails to turn ON.
7	E-X8	Recovery fails after focus drop

OPERATING CONFIRMATION TROUBLESHOOTING



■ CDX-470 PRINTED CIRCUIT BOARD (Foil side)

① to ④ : WAVEFORM OF TEST POINT (See page 26)

● Semiconductor Location

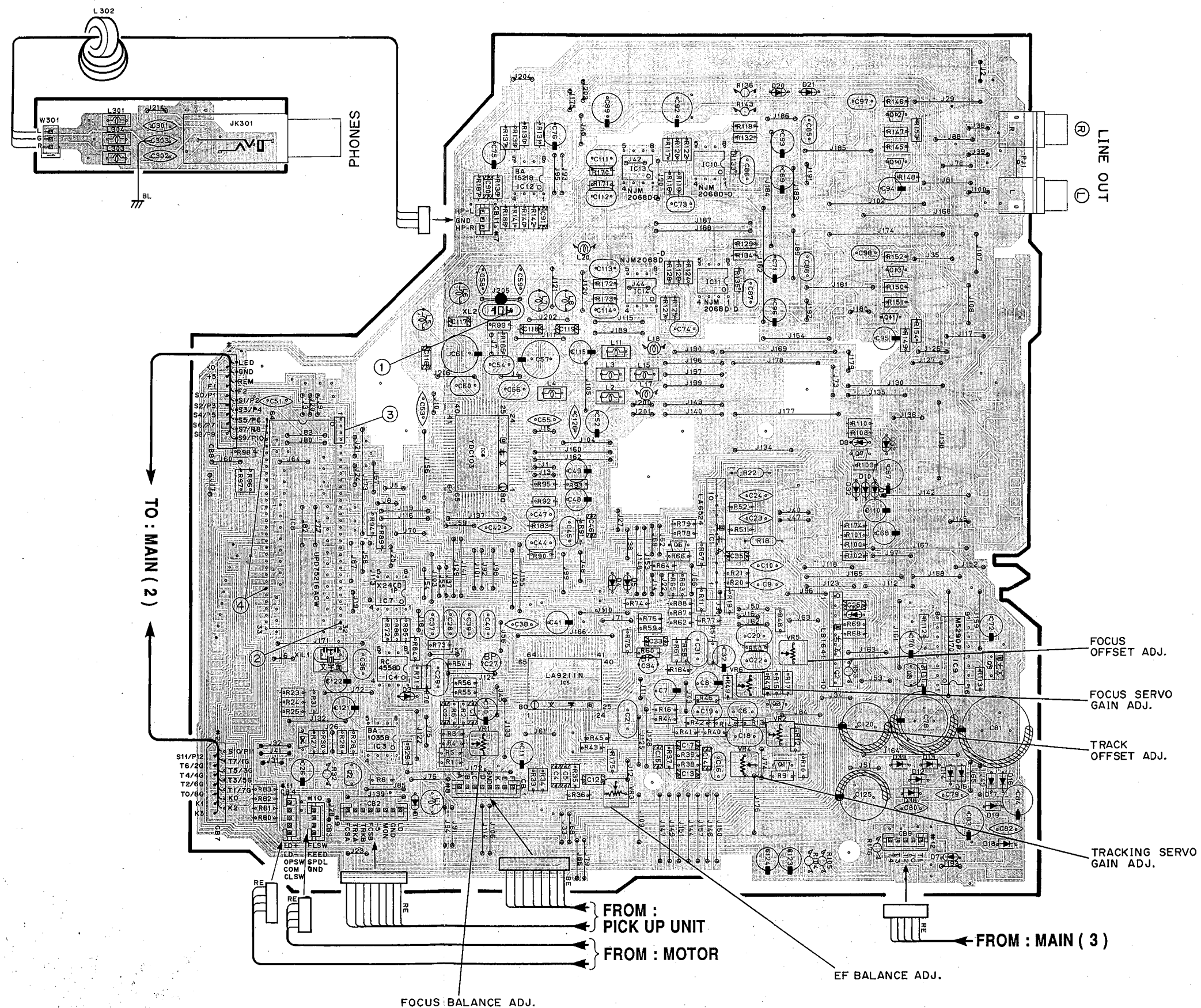
Ref. No.	Location
D 1	D5
D 2	F4
D 3	D4
D 4	E4
D 5	E4
D 7	G5
D 8	F3
D 9	F4
D 10	F4
D 12	G5
D 13	G5
D 14	G5
D 15	G5
D 16	G5
D 17	G5
D 18	G5
D 19	G5
D 20	F2
D 21	F2
D 32	F4
D 38	G5
D 39	G5

Ref. No.	Location
IC 1	F4
IC 2	F4
IC 3	D5
IC 4	D4
IC 5	E4
IC 6	E3
IC 7	D4
IC 8	D4
IC 9	G4
IC10	F2
IC11	F3
IC12	E2
IC13	E2
IC14	E3

Ref. No.	Location
Q 1	F5
Q 2	D5
Q 3	F5
Q 4	D5
Q 5	F4
Q 7	F3
Q 8	G4
Q 9	G4
Q10	F2
Q11	F3
Q12	F2
Q13	F3

CDX - 470 MAIN P. C. B. (5)

CDX - 470 MAIN P. C. B. (1)

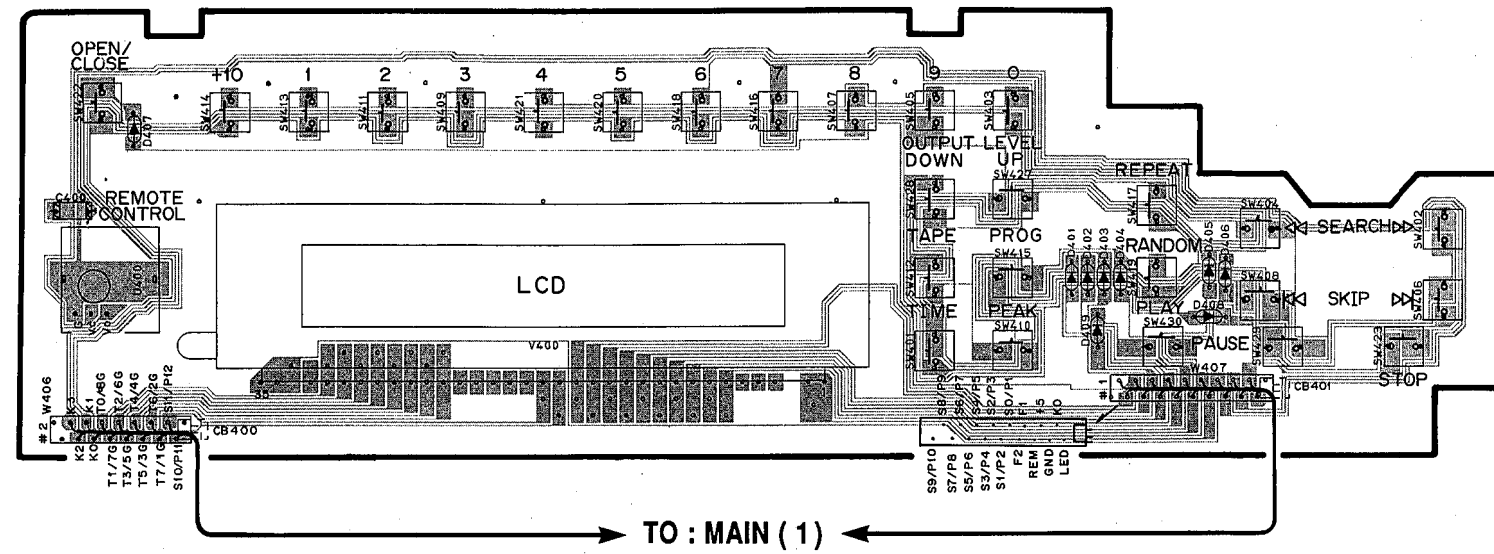


FOCUS BALANCE ADJ.

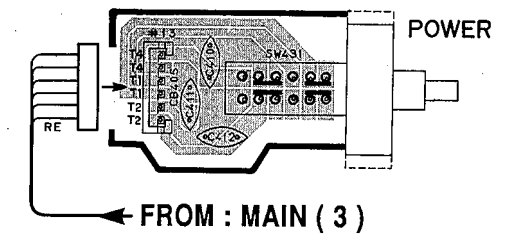
■ CDX-470 PRINTED CIRCUIT BOARD (Foil side)

CDX-470

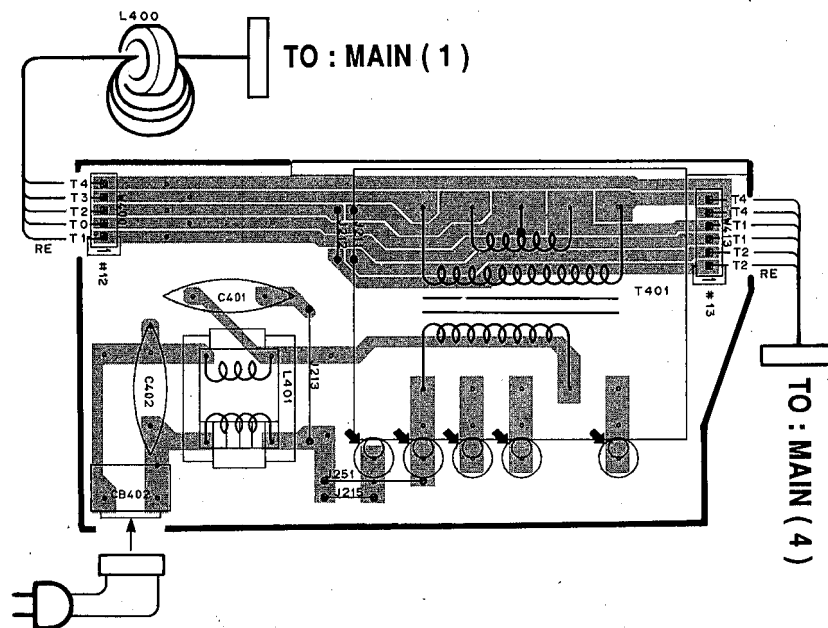
CDX - 470 MAIN P. C. B. (2)



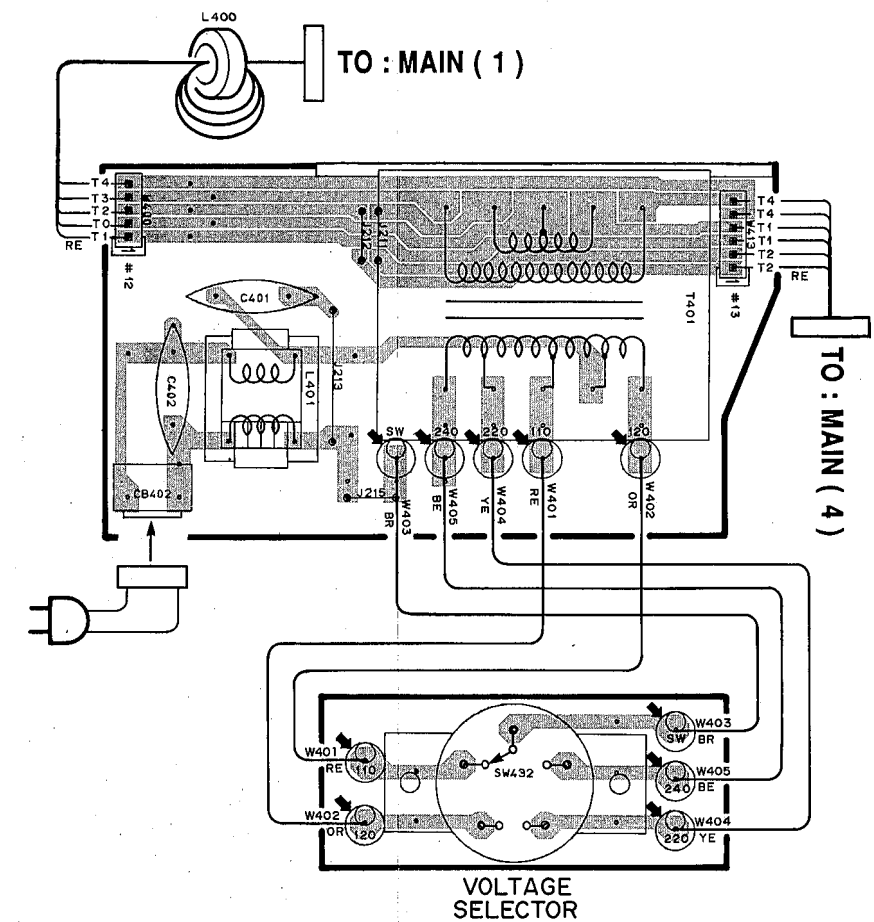
CDX - 470 MAIN P. C. B. (4)



CDX - 470 MAIN P. C. B. (3)



● R model
CDX - 470 MAIN P. C. B. (3)



■ CDX-570 PRINTED CIRCUIT BOARD (Foil side)

CDX-570

① to ④ : WAVEFORM OF TEST POINT (See page 26)

● Semiconductor Location

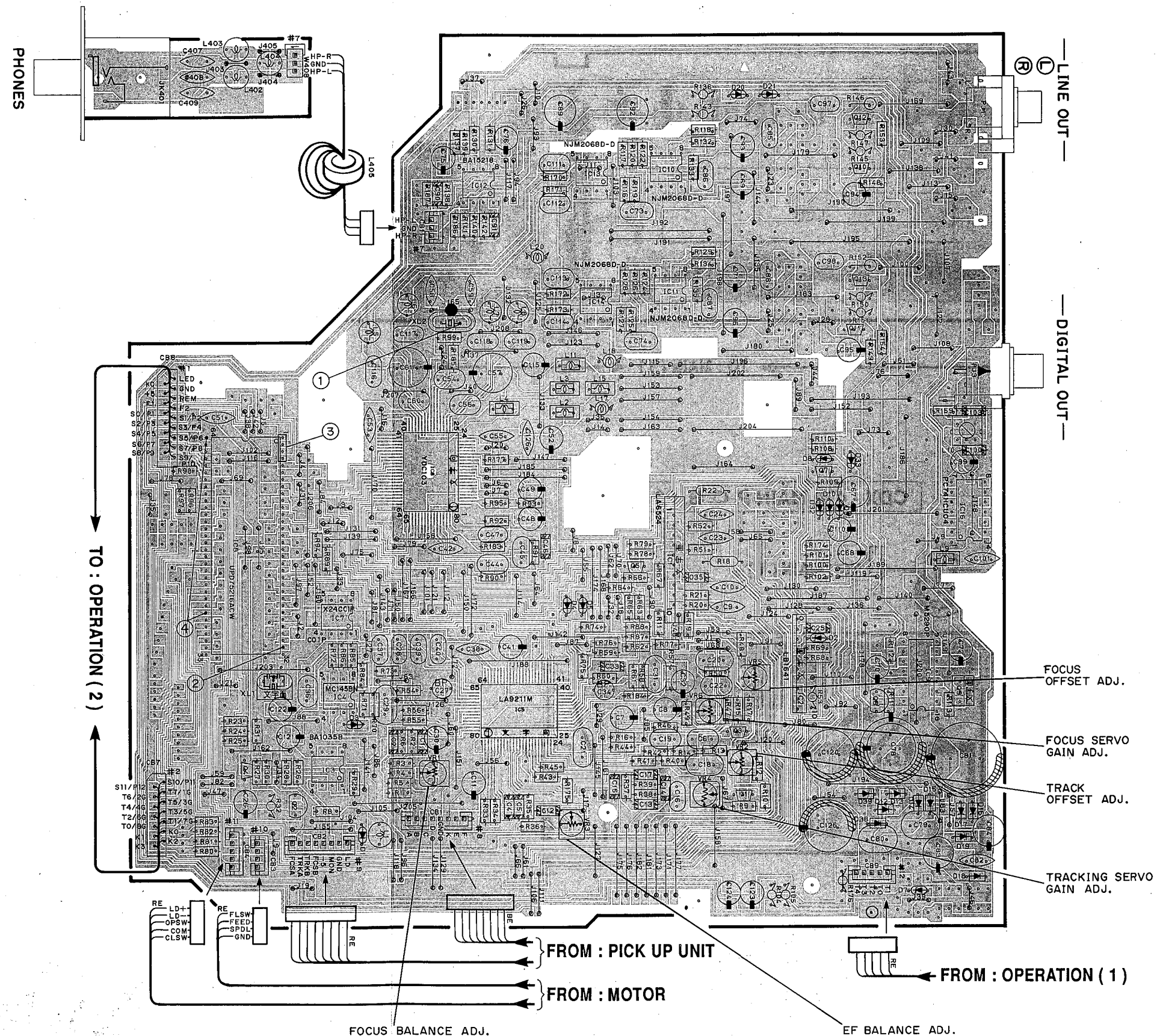
Ref. No.	Location
D 1	D5
D 2	F4
D 3	D4
D 4	E4
D 5	E4
D 7	G5
D 8	F3
D 9	F4
D 10	F4
D 12	G5
D 13	G5
D 14	G5
D 15	G5
D 16	G5
D 17	G5
D 18	G5
D 19	G5
D 20	F2
D 21	F2
D 32	F4
D 33	F3
D 38	G5
D 39	G5

Ref. No.	Location
IC 1	F4
IC 2	F4
IC 3	D5
IC 4	D4
IC 5	E4
IC 6	E3
IC 7	D4
IC 8	D4
IC 9	G4
IC10	F2
IC11	F3
IC12	E2
IC13	E2
IC14	E3
IC16	G4

Ref. No.	Location
Q 1	F5
Q 2	D5
Q 3	F5
Q 4	D5
Q 5	F4
Q 7	F3
Q 8	G4
Q 9	G4
Q10	F2
Q11	F3
Q12	F2
Q13	F3

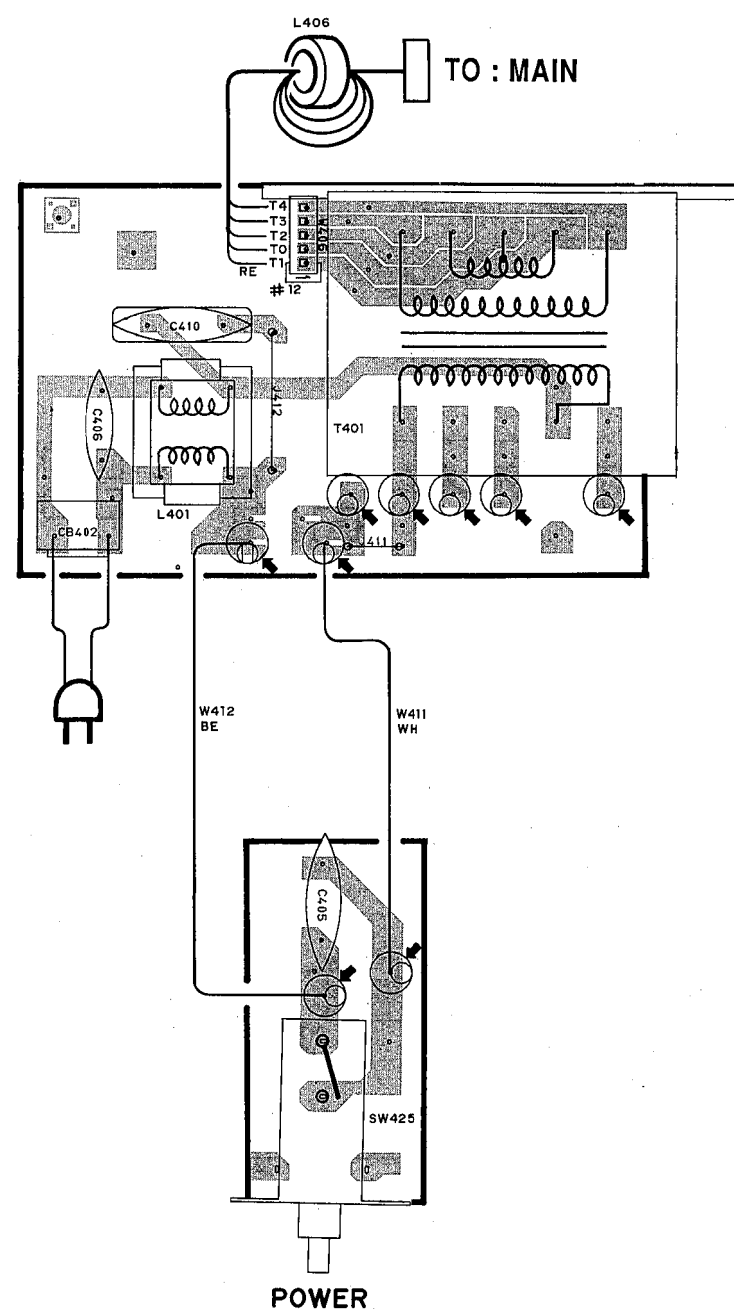
CDX - 570 OPERATION P. C. B. (3)

CDX - 570 MAIN P. C. B.



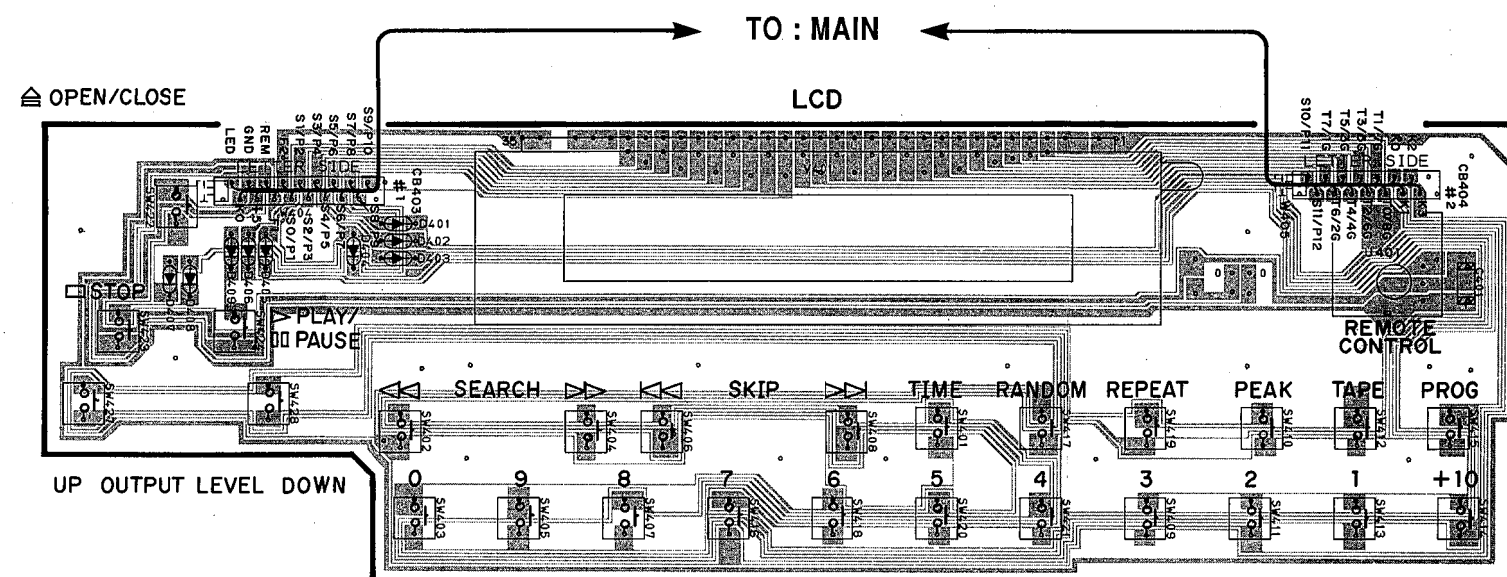
CDX-570 PRINTED CIRCUIT BOARD (Foil side)

CDX - 570 OPERATION P. C. B. (1)



CDX-570

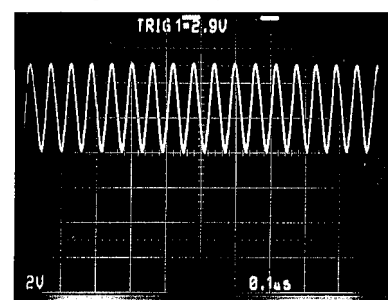
CDX - 570 OPERATION P. C. B. (2)



■ WAVEFORM OF TEST POINT

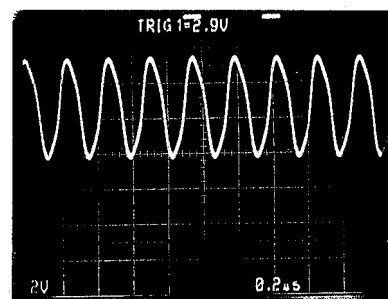
Point ① : XOUT

(Pin 30 of IC6)

V: 2V/div H: 0.1μsec/div
DC range 1:1 probe

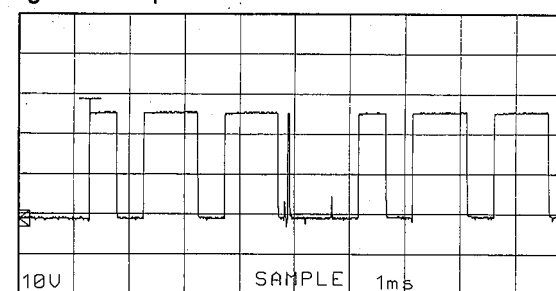
Point ② : XO

(Pin 31 of IC8)

V: 2V/div H: 0.2μsec/div
DC range 1:1 probe

Point ③ : S0 to S3

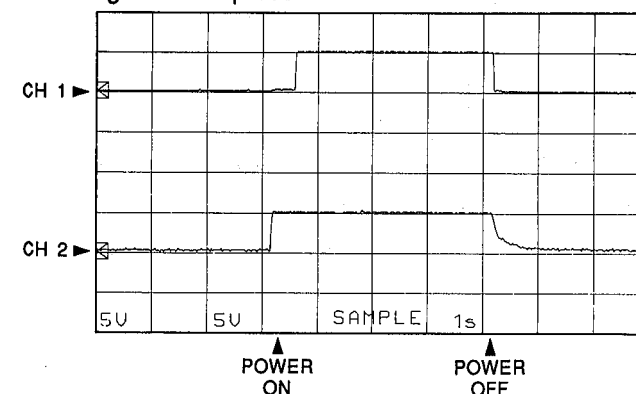
(Pin 1 to 4 of IC8)

V: 10V/div H: 1msec/div
DC range 1:1 probe

Point ④ : RESET, +5V

(CH 1 : Pin 39 of IC8)

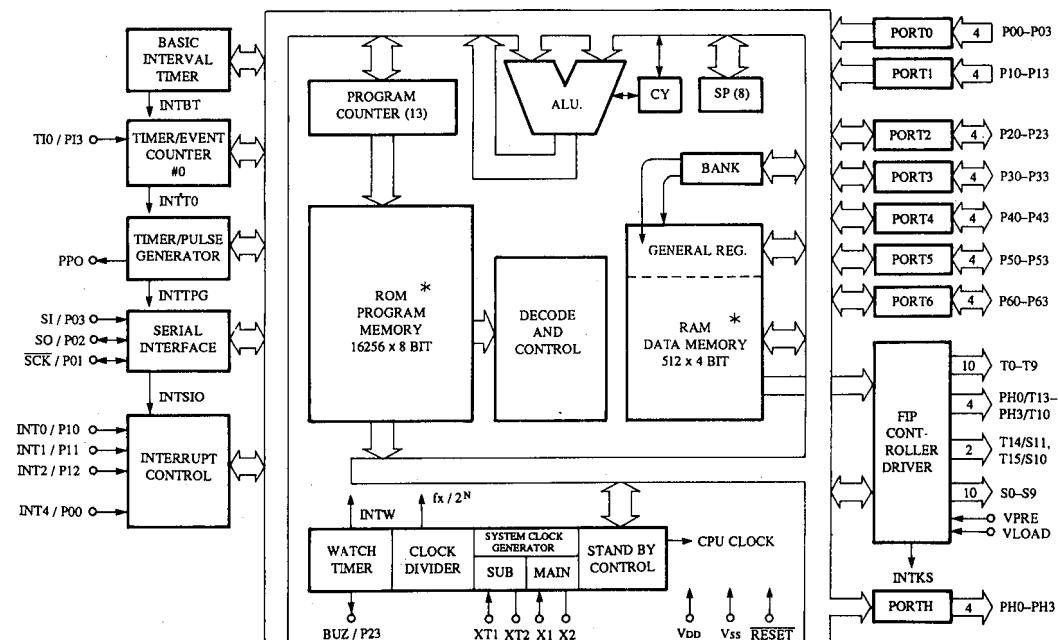
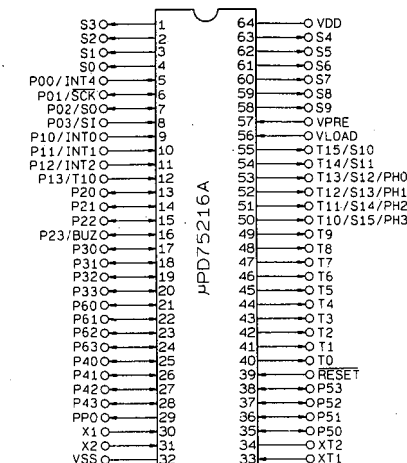
(CH 2 : Pin 64 of IC8)

V: 5V/div H: 1sec/div
DC range 1:1 probe

■ IC DATA

IC8 : μPD75P216ACW

System Controller (4bit μ-COM)

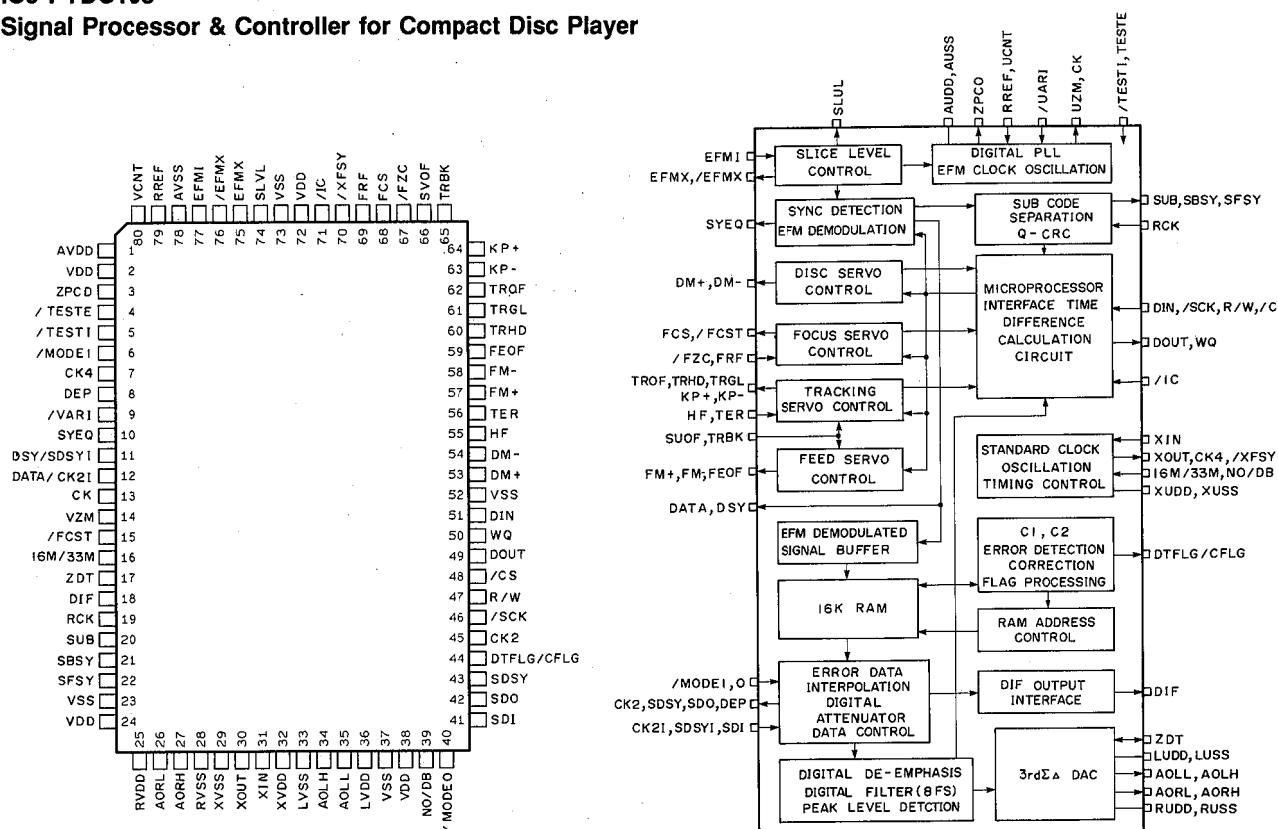


Pin No.	Pin Name	Description	Function
1	S3	S3	Fluorescent character display tube anode drive signal
2	S2	S2	
3	S1	S1	
4	S0	S0	
5	PO0	WQ	Request signal from YDC-103
6	PO1	SCK	Serial clock output to YDC-103
7	PO2	SO	Serial data output to YDC-103
8	PO3	SI	Serial data input from YDC-103
9	P10	REM	Input from remote control beam receiving unit
10	P11	—	Open
11	P12	FLSW	Feed origin switch input Feed origin at "L"
12	P13	TER	Track count signal input
13	P20	TRBK	Tracking brake enable instruction to YDC-103 Brake enable at "H"

Pin No.	Pin Name	Description	Function
14	P21	SVOF	Servo off instruction to YDC-103 Servo off at "H"
15	P22	R/W	From microprocessor to YCDC-103 at "H" and from YCDC-103 to microprocessor at "L"
16	P23	FLOF	FL Display OFF (Open)
17	P30	OPSW	Open state of tray sensing switch input Open state at "L"
18	P31	CLSW	Closed state of tray sensing switch input Closed state at "L"
19	P32	SDA	Serial data signal with X24C01
20	P33	—	Open
21	P60	FEOF	Feed servo OFF at "H" and feed servo ON at "L"
22	P61	FEGL	Feed gain H at "L" (during forced feeding) and gain L at "H" (other mode than forced feed)
23	P62	DM+	Spindle motor speed increase signal
24	P63	DM-	Spindle motor speed reduction signal
25	P40	DVL+	Digital volume up instruction to YDC-103
26	P41	MUTE	Sound output at "H" (play, fast forward, rewind modes) Sound output muted (other mode than in parentheses above)
27	P42	SCL	Serial clock signal with X24C01
28	P43	PLAY	VOC gain L and tracking gain L at "H" (during play mode) VOC gain H and tracking gain H at "L" (other than play mode)
29	PP0	LS	Laser diode ON at "H" and OFF at "L"
30	X1	X1	] Crystal oscillator Oscillation terminal (4.19MHz)
31	X2	X0	
32	VSS	VSS	GND
33	XT1	—	Open
34	XT2	—	Open
35	P50	K3	] Key matrix input
36	P51	K2	
37	P52	K1	
38	P53	K0	
39	RESET	RESET	Operation starts at $\underline{\text{L}} \rightarrow$ and stops at $\neg \text{L}$
40	T0	T0/8G	] Fluorescent character display tube grid drive signal
41	T1	T1/7G	
42	T2	T2/6G	
43	T3	T3/5G	
44	T4	T4/4G	
45	T5	T5/3G	
46	T6	T6/2G	
47	T7	T7/1G	
48	T8	—	Open
49	T9	—	Open
50	T10	OPEN	Opening of tray at OP "H" and CL "L"
51	T11	CLOSE	Closing of tray at CL "H" and OP "L"
52	T12	—	Open
53	T13	—	Open
54	T14	S11	] Fluorescent character display tube anode drive signal
55	T15	S10	
56	V LOAD	-VP	-20V
57	V PRE	GND	GND
58	S9	S9	] Fluorescent character display tube anode drive signal
59	S8	S8	
60	S7	S7	
61	S6	S6	
62	S5	S5	
63	S4	S4	
64	VDD	VDD	+5V

IC6 : YDC103

Signal Processor & Controller for Compact Disc Player



Pin No.	Pin Name	I/O	Function
1	AVDD	A	5V power supply (PLL section)
2	VDD		5V power supply (LOGIC section)
3	ZPC0	O	Phase comparison output for digital PLL drive clock generator
4	/TEST E	I+	LSI test terminal (No connection should be made)
5	/TEST I	I+	LSI test terminal (No connection should be made)
6	/MODE 1	I+	Sound output made setting 1
7	CK4	O	Clock output (4.2336MHz)
8	DEP	O	De-emphasis control output
9	/VARI	I+	Variable speed playback select ('L' : variable speed playback)
10	SYEQ	O	Synchronous equal signal output
11	DSY/SDSYI	I/O	EFM modulation signal, synchronous signal / L/R clock input when in DSP mode
12	DATA/CK2I	I/O	EFM modulation signal data signal / bit clock input when in DSP mode
13	CK	OD	EFM playback clock output
14	VZM	OD	Digital PLL drive clock output, driving into 3 or 6 output
15	/FCST	OD	Focus search start signal output
16	16M/33M	I+	Master clock select ('H' : 16.9344MHz, 'L' : 33.8688MHz)
17	ZDT	I+/O	DAC zero detect mute enable / sound zero detect output
18	DIF	O	Digital audio interface signal output
19	RCK	I-	Sub-code interface Read clock
20	SUB	OD	Sub-code interface Sub-code data
21	SBSY	OD	Sub-code interface Block synchronous signal
22	SFSY	OD	Sub-code interface Frame synchronous signal
23	VSS		Ground (Logic section)
24	VDD		5V power supply (Noise shaper section)
25	RVDD	A	5V power supply (DAC Rch section)
26	AORL	OA	DAC stream output (Rch L)
27	AORH	OA	DAC stream output (Rch H)

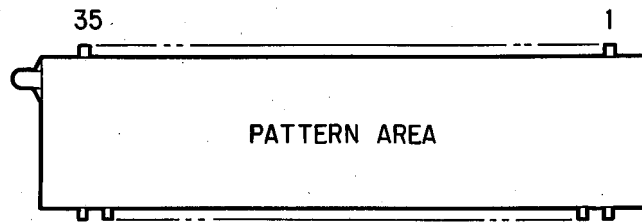
Pin No.	Pin Name	I/O	Function
28	RVSS	A	Ground (DAC Rch section)
29	XVSS		Ground (Crystal oscillator section)
30	XOUT	O	Crystal oscillator connection terminal
31	XIN	I	Crystal oscillator connection terminal (16.9344MHz or 33.8688MHz)
32	XVDD		5V power supply (Crystal oscillator section)
33	LVSS	A	Ground (DAC Lch section)
34	AOLH	OA	DAC stream output (Lch H)
35	AOLL	OA	DAC stream output (Lch L)
36	LVDD	A	5V power supply (DAC Lch section)
37	VSS		Ground (Noise shaper section)
38	VDD		5V power supply (Logic section)
39	NO/DB	I+	Normal/double speed playback select
40	/MODE0	I+	Sound output mode setting 0
41	SDI	I	DAC digital data input
42	SDO	O	Audio data output Serial data
43	SDSY	O	Audio data output L/R clock
44	DTFLG/CFLG	O	Audio data output Error flag
45	CK2	O	Audio data output Bit clock
46	/SCK	I	Microprocessor interface Serial clock
47	R/W	I	Microprocessor interface R/W identifying signal
48	/CS	I+	Microprocessor interface Chip select
49	DOUT	OT	Microprocessor interface Data output
50	WQ	O	Microprocessor interface Data read request signal
51	DIN	I	Microprocessor interface Data input
52	VSS		Ground (Logic section)
53	DM+	O	Disc motor control signal (acceleration)
54	DM-	O	Disc motor control signal (deceleration)
55	HF	IS	Mirror signal input
56	TER	IS	Tracking error signal input
57	FM+	O	Feed control signal (outward)
58	FM-	O	Feed control signal (inward)
59	FEOF	O	Feed servo OFF signal
60	TRHD	O	Tracking hold signal
61	TRGL	O	Tracking gain lowering signal
62	TROF	O	Tracking servo OFF signal
63	KP-	O	Kick pulse signal (inward)
64	KP+	O	Kick pulse signal (outward)
65	TRBK	I	Force tracking brake signal
66	SVOF	I	Focus servo OFF signal
67	/FZC	I+	Focus error zero cross signal input
68	FCS	O	Focus start signal
69	FRF	I	Focus reflection signal
70	/XFSY	OD+	Crystal frame synchronous signal (7.35kHz)
71	/IC	IS+	Initial clear input
72	VDD		5V power supply (Logic section)
73	VSS		Ground (Logic section)
74	SLVL	OA	EFM slice level voltage output
75	EFMX	OA	EFM duty detect output (positive phase)
76	/EFMX	OA	EFM duty detect output (negative phase)
77	EFMI	IA	EFM signal input
78	AVSS	A	Ground (PLL section)
79	RREF	IA	Digital PLL drive clock generator Constant current resistor connecting terminal
80	VCNT	IA	Digital PLL drive clock generator Control terminal

Note 1) Symbols in I/O

+ : Pull up, - : Pull down, D : Open Drain, T : 3-State, S : Schmitt Trigger, A : Analog Terminal

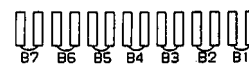
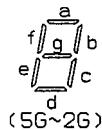
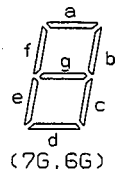
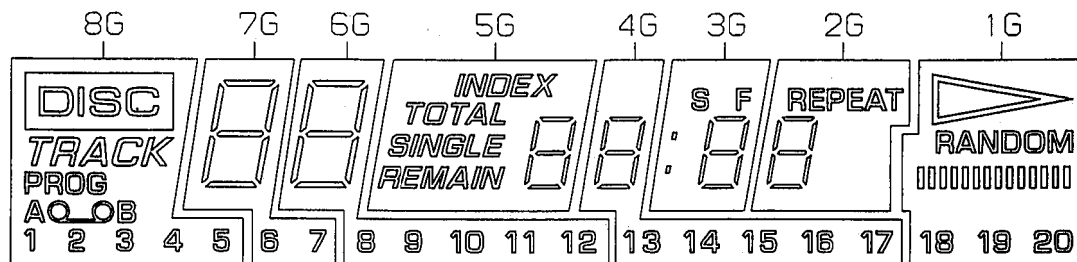
■ DISPLAY DATA (VK178000 or VP560900)

- V400(CDX-470)/V401(CDX-570) : 8-BT-102GK or 8-BT-102GRK


Pin Connection

Pin No.	Connection	Pin No.	Connection	Pin No.	Connection	Pin No.	Connection	Pin No.	Connection
1	F1	8	P4	15	P2	22	NC	29	6G
2	F1	9	P5	16	P10	23	NC	30	7G
3	NP	10	P6	17	P11	24	1G	31	8G
4	NC	11	P7	18	P12	25	2G	32	NC
5	NC	12	P8	19	NC	26	3G	33	NP
6	NC	13	P9	20	NC	27	4G	34	F2
7	P3	14	P1	21	NC	28	5G	35	F2

- 1) F1, F2 Filament 3) NC No connection
 2) NP No pin 4) 1G~8G Grid

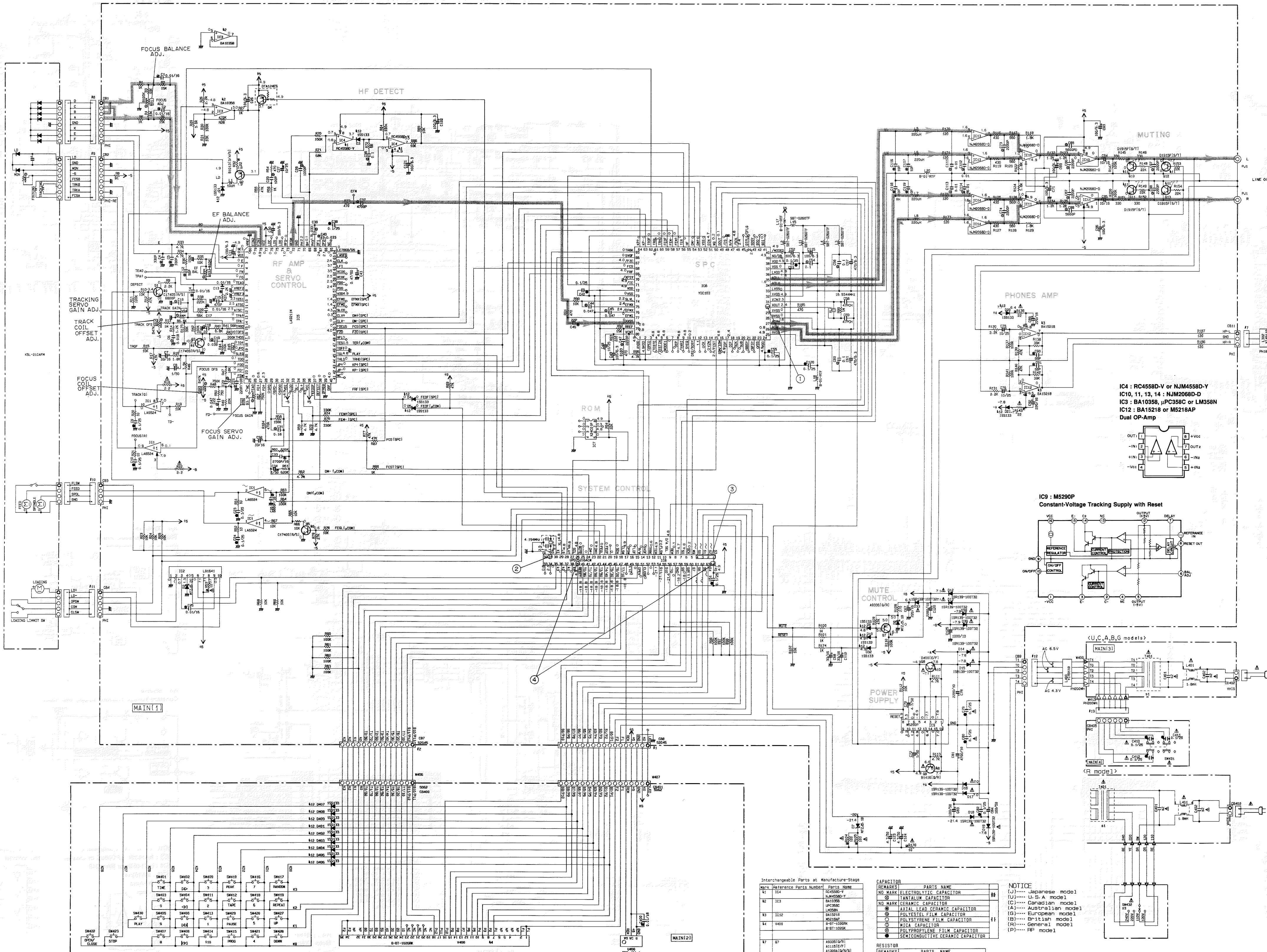
Grid Assignment

Anode Connection

	8G	7G	6G	5G	4G	3G	2G	1G
P1	DISC	—	11	INDEX	16	S	REPEAT	▶
P2	TRACK	—	12	TOTAL	17	F	—	RANDOM
P3	PROG	a	a	a	a	a	a	B1
P4	A	b	b	b	b	b	b	B2
P5	1	c	c	c	c	c	c	B3
P6	3	d	d	d	d	d	d	B4
P7	2	e	e	e	e	e	e	B5
P8	Q	f	f	f	f	f	f	B6
P9	B	g	g	g	g	g	g	B7
P10	4	6	8	SINGLE	13	:	—	20
P11	5	7	9	REMAIN	14	—	—	19
P12	—	—	10	—	15	—	—	18

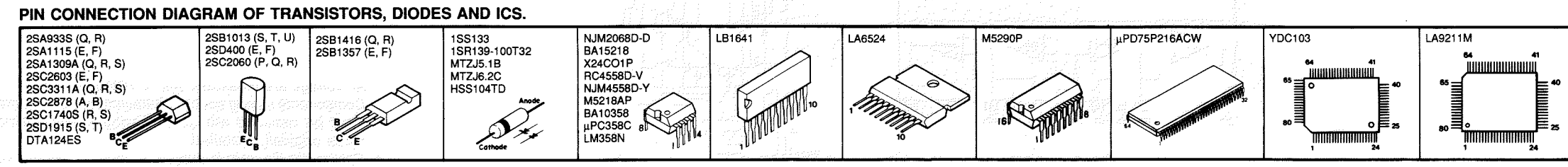
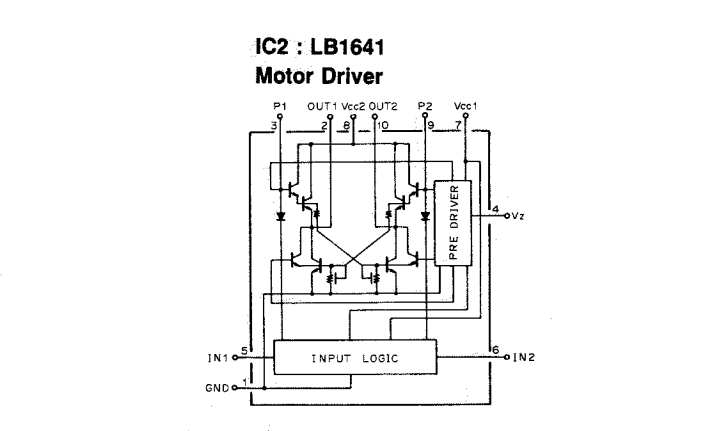
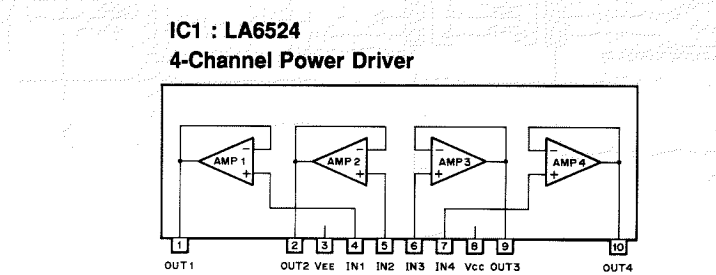
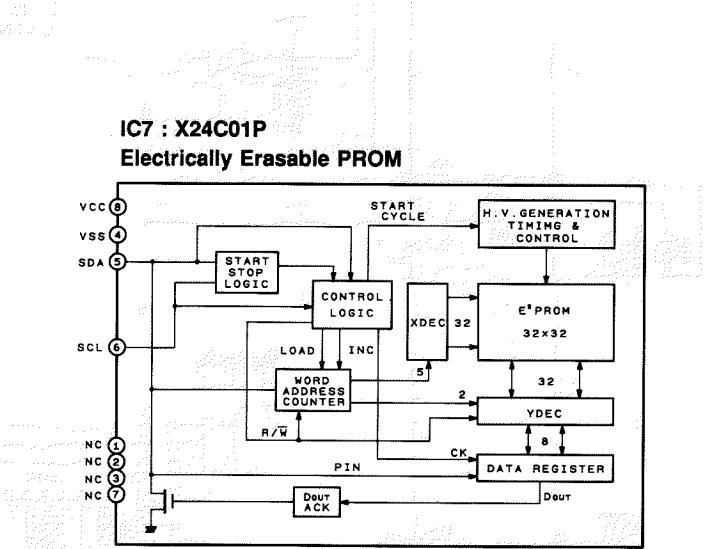
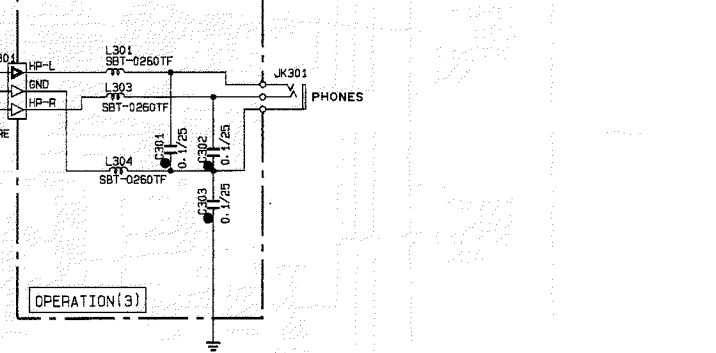
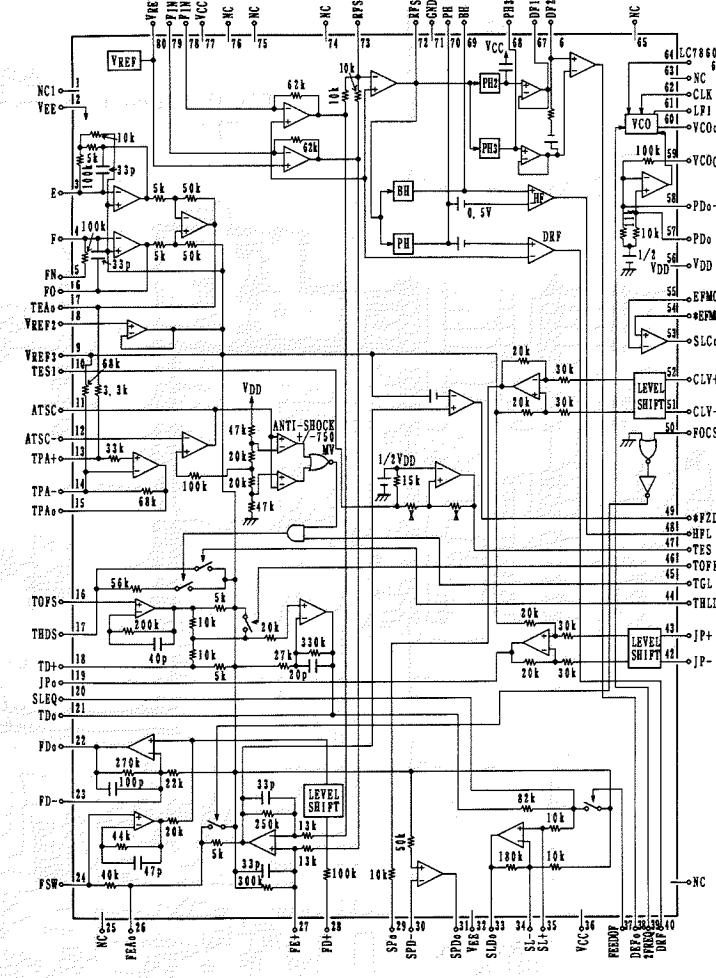
CDX-470 SCHEMATIC DIAGRAM

① to ④ : WAVEFORM OF TEST POINT (See page 26)

CDX-470



IC5 : LA9211M
RF Amp & Servo Controller



Interchangeable Parts at Manufacture Stage

REMARKS	REFERENCE PARTS NUMBER	PARTS NAME
1	1C4	RC4558D-V
2	1C3	NJM4558D-Y
3	1C2	BA1035B
4	1C1	μPC358C
5	1C12	BA1521B
6	V400	M5218AP
7	Q7	40001C/P
8	Q8	41181C/P
9	Q1-3	51812C/P
10	Q8	51740C/P
11	Q10	51813C/P
12	Q10-13	51813C/P
13	Q1-3-5-9-10-20-21	51813C/P
14	Q1-3-5-9-10-20-21	51813C/P

REMARKS

REMARKS	PARTS NAME
1	NO MARK ELECTROLYTIC CAPACITOR
2	AXIAL LEAD CERAMIC CAPACITOR
3	POLYSTYRENE FILM CAPACITOR
4	MICA CAPACITOR
5	POLYPROPYLENE FILM CAPACITOR
6	SEMICONDUCTIVE CERAMIC CAPACITOR
7	NO MARK CARBON FILM RESISTOR (1/4W)
8	CARBON FILM RESISTOR (1/4W)
9	METAL OXIDE FILM RESISTOR
10	METAL FILM RESISTOR
11	FINE PROBE CARBON FILM RESISTOR
12	CEMENT MOUSED RESISTOR
13	SEMI VARIABLE RESISTOR
14	CHIP RESISTOR

NOTICE

U.C	R	A	B	G
1	XL808	XL807	XL808	XL809
2	F13040	VL7000	VL7000	VL7000
3	X	VL8080	X	X

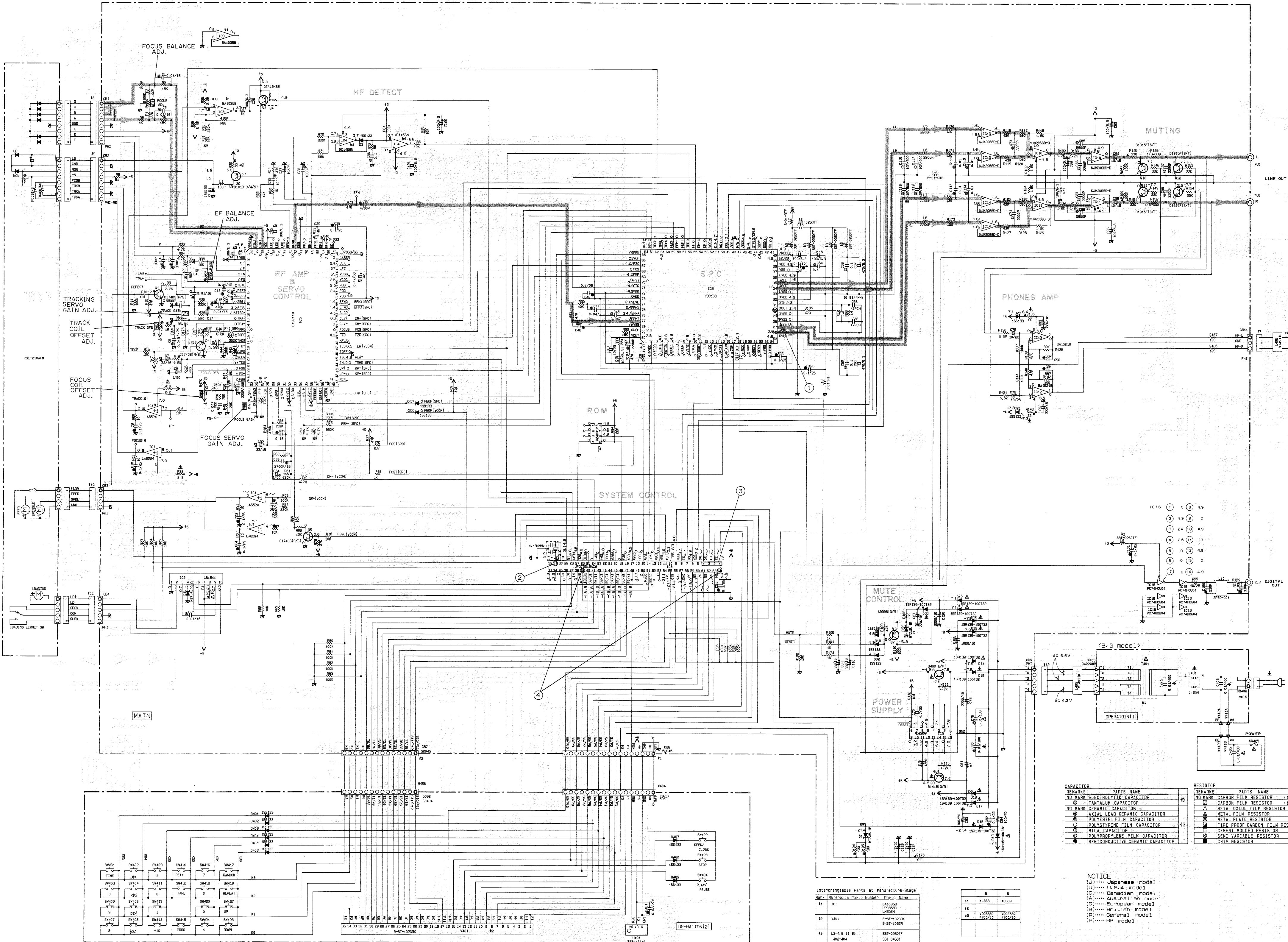
All voltage are measured with a 10MΩ/DC electric volt meter.
Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
Schematic diagram is subject to change without notice.

CDX-470

CDX-570 SCHEMATIC DIAGRAM

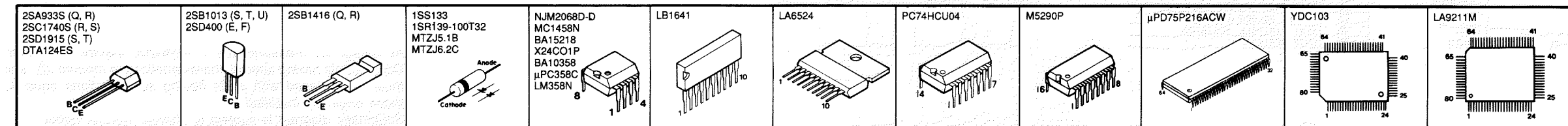
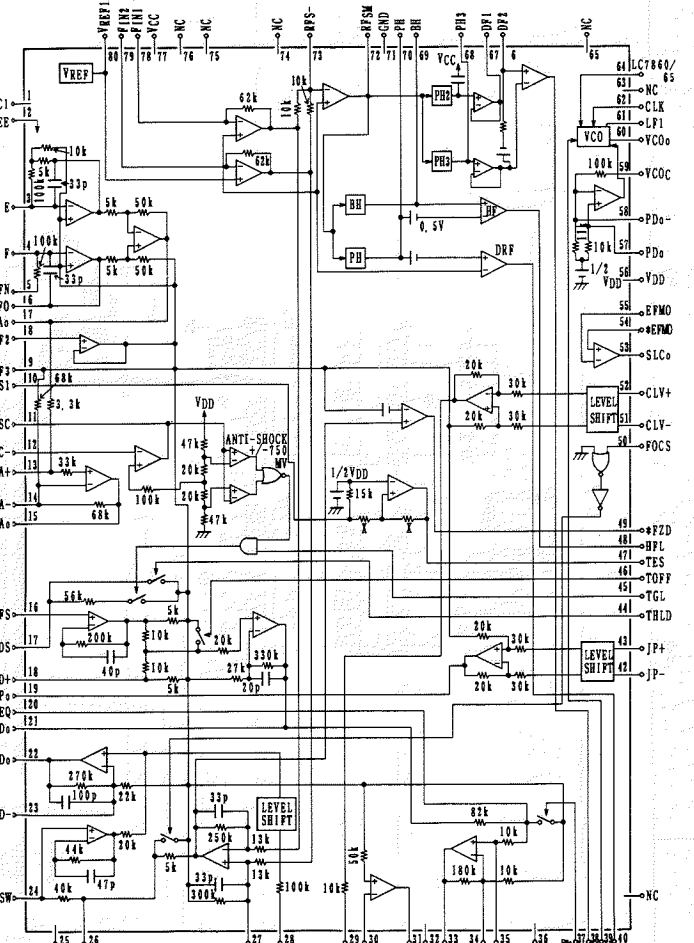
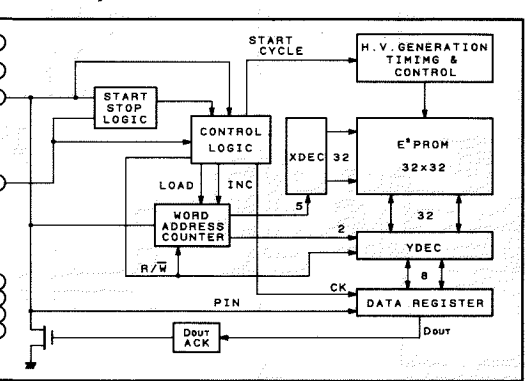
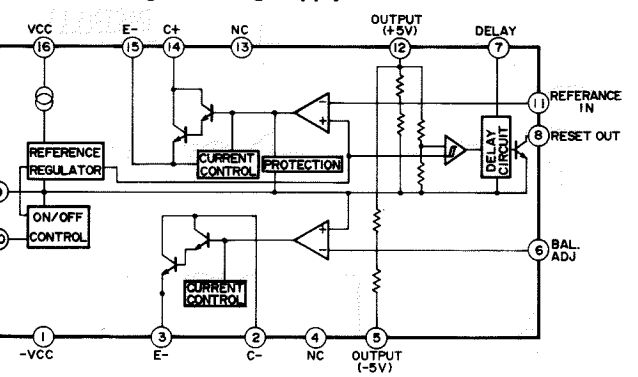
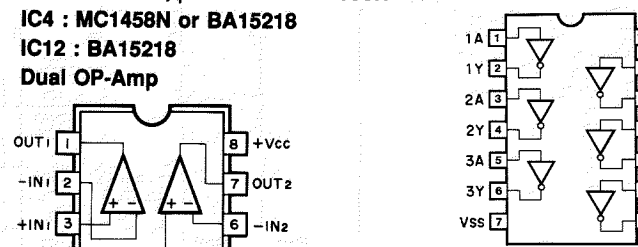
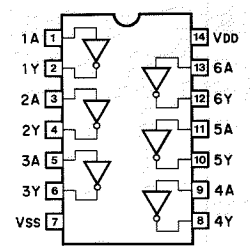
① to ④ : WAVEFORM OF TEST POINT (See page 26)

CDX-570



CDX-570

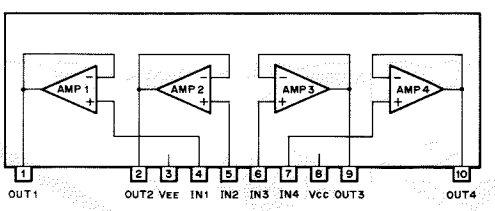
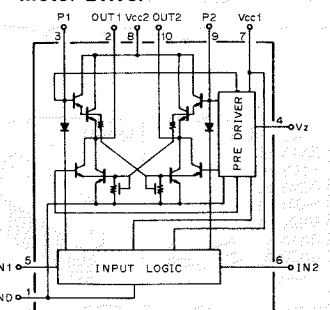
PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODES AND ICs.

IC5: LA9211M
RF Amp & Servo ControllerIC7: X24C01P
Electrically Erasable PROMIC9: M5290P
Constant-Voltage Tracking Supply with ResetIC10, 11, 13, 14: NJM2068D-D
IC3: BA10358, μPC358C or LM358N
IC4: MC1458N or BA15218
IC12: BA15218
Dual OP-AmpIC16: PC74HC04
Hex Inverter

CAPACITOR	PARTS NAME	REMARKS	PARTS NAME	REMARKS
NO MARK ELECTROLYTIC CAPACITOR	100μF	100μF	NO MARK CARBON FILM RESISTOR (1/8W)	100Ω
NO MARK CERAMIC CAPACITOR	100pF	100pF	CARBON FILM RESISTOR (1/8W)	100Ω
NO MARK OCEANIC CAPACITOR	100pF	100pF	METAL FILM RESISTOR	100Ω
AXIAL LEAD CERAMIC CAPACITOR	100pF	100pF	POLYESTER FILM CAPACITOR	100pF
POLYSTYRENE FILM CAPACITOR	100pF	100pF	POLYPROPYLENE FILM CAPACITOR	100pF
MICA CAPACITOR	100pF	100pF	PIRE PROOF CARBON FILM RESISTOR	100Ω
SEMICONDUCTIVE CERAMIC CAPACITOR	100pF	100pF	CEMENT MOUNTED RESISTOR	100Ω
			GEN. VARIABLE RESISTOR	100Ω
			CHD RESISTOR	100Ω

NOTICE

(J)..... Japanese model
(U)..... U.S.A. model
(C)..... Canadian model
(A)..... Australian model
(S)..... European model
(B)..... British model
(P)..... German model
(P)..... RF model

IC1: LA6524
4-Channel Power DriverIC2: LB1641
Motor Driver

All voltage are measured with a 10MΩ/DC electric volt meter.
Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
Schematic diagram is subject to change without notice.

PARTS LIST

■ ELECTRICAL PARTS

■ WARNING

Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.

- Carbon resistors (1/6W or 1/4W) are not included in the ELECTRICAL PARTS List. For the parts No. of the carbon resistors, refer to last page.

ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS :

C.A.EL.CHP	: CHIP ALUMI. ELECTROLYTIC CAP	L.EMIT	: LIGHT EMITTING MODULE
C.CE	: CERAMIC CAP	LED.DSPLY	: LED DISPLAY
C.CE.ARRAY	: CERAMIC CAP ARRAY	LED.INFRD	: LED, INFRARED
C.CE.CHP	: CHIP CERAMIC CAP	MODUL.RF	: MODULATOR, RF
C.CE.ML	: MULTILAYER CERAMIC CAP	PHOT.CPL	: PHOTO COUPLER
C.CE.M.CHP	: CHIP MULTILAYER CERAMIC CAP	PHOT.INTR	: PHOTO INTERRUPTER
C.CE.SAFTY	: RECOGNIZED CERAMIC CAP	PHOT.RFLCT	: PHOTO REFLECTOR
C.CE.TUBLR	: CERAMIC TUBULAR CAP	PIN.TEST	: PIN, TEST POINT
C.CE.SMI	: SEMI CONDUCTIVE CERAMIC CAP	PLST.RIVET	: PLASTIC RIVET
C.EL	: ELECTROLYTIC CAP	R.ARRAY	: RESISTOR ARRAY
C.MICA	: MICA CAP	R.CAR	: CARBON RESISTOR
C.ML.FLM	: MULTILAYER FILM CAP	R.CAR.CHP	: CHIP RESISTOR
C.MP	: METALLIZED PAPER CAP	R.CAR.FP	: FLAME PROOF CARBON RESISTOR
C.MYLAR	: MYLAR FILM CAP	R.FUS	: FUSABLE RESISTOR
C.MYLAR.ML	: MULTILAYER MYLAR FILM CAP	R.MTL.CHP	: CHIP METAL FILM RESISTOR
C.PAPER	: PAPER CAPACITOR	R.MTL.FLM	: METAL FILM RESISTOR
C.PLS	: POLYSTYRENE FILM CAP	R.MTL.OXD	: METAL OXIDE FILM RESISTOR
C.POL	: POLYESTER FILM CAP	R.MTL.PLAT	: METAL PLATE RESISTOR
C.POLY	: POLYETHYLENE FILM CAP	RSNR.CE	: CERAMIC RESONATOR
C.PP	: POLYPROPYLENE FILM CAP	RSNR.CRYS	: CRYSTAL RESONATOR
C.TNTL	: TANTALUM CAP	R.TW.CEM	: TWIN CEMENT FIXED RESISTOR
C.TNTL.CHP	: CHIP TANTALUM CAP	R.WW	: WIRE WOUND RESISTOR
C.TRIM	: TRIMMER CAP	SCR.BND.HD	: BIND HEAD B-TITE SCREW
CN	: CONNECTOR	SCR.BW.HD	: BW HEAD TAPPING SCREW
CN.BS.PIN	: CONNECTOR, BASE PIN	SCR.CUP	: CUP TITE SCREW
CN.CANNON	: CONNECTOR, CANNON	SCR.TERM	: SCREW TERMINAL
CN.DIN	: CONNECTOR, DIN	SCR.TR	: SCREW, TRANSISTOR
CN.FLAT	: CONNECTOR, FLAT CABLE	SUPRT.PCB	: SUPPORT, P.C.B.
CN.POST	: CONNECTOR, BASE POST	SURG.PRTCT	: SURGE PROTECTOR
COIL.MX.AM	: COIL, AM MIX	SW.TACT	: TACT SWITCH
COIL.AT.FM	: COIL, FM ANTENNA	SW.LEAF	: LEAF SWITCH
COIL.DT.FM	: COIL, FM DETECT	SW.LEVER	: LEVER SWITCH
COIL.MX.FM	: COIL, FM MIX	SW.MICRO	: MICRO SWITCH
COIL.OUTPT	: OUTPUT COIL	SW.PUSH	: PUSH SWITCH
DIOD.ARRAY	: DIODE ARRAY	SW.RT.ENC	: ROTARY ENCODER
DIODE.BRG	: DIODE BRIDGE	SW.RT.MTR	: ROTARY SWITCH WITH MOTOR
DIODE.CHP	: CHIP DIODE	SW.RT	: ROTARY SWITCH
DIODE.VAR	: VARACTOR DIODE	SW.SLIDE	: SLIDE SWITCH
DIOD.Z.CHP	: CHIP ZENER DIODE	TERM.SP	: SPEAKER TERMINAL
DIODE.ZENR	: ZENER DIODE	TERM.WRAP	: WRAPPING TERMINAL
DSCR.CE	: CERAMIC DISCRIMINATOR	THRMST.CHP	: CHIP THERMISTOR
FER.BEAD	: FERRITE BEADS	TR.CHP	: CHIP TRANSISTOR
FER.CORE	: FERRITE CORE	TR.DGT	: DIGITAL TRANSISTOR
FET.CHP	: CHIP FET	TR.DGT.CHP	: CHIP DIGITAL TRANSISTOR
FL.DSPLY	: FLUORESCENT DISPLAY	TRANS	: TRANSFORMER
FLTR.CE	: CERAMIC FILTER	TRANS.PULS	: PULSE TRANSFORMER
FLTR.COMB	: COMB FILTER MODULE	TRANS.PWR	: POWER TRANSFORMER ASS'y
FLTR.LC.RF	: LC FILTER ,EMI	TUNER.AM	: TUNER PACK, AM
GND.MTL	: GROUND PLATE	TUNER.FM	: TUNER PACK, FM
GND.TERM	: GROUND TERMINAL	TUNER.PK	: FRONT-END TUNER PACK
HOLDER.FUS	: FUSE HOLDER	VR	: ROTARY POTENTIOMETER
IC.PRTCT	: IC PROTECTOR	VR.MTR	: POTENTIOMETER WITH MOTOR
JUMPER.CN	: JUMPER CONNECTOR	VR.SW	: POTENTIOMETER WITH ROTARY SW
JUMPER.TST	: JUMPER, TEST POINT	VR.SLIDE	: SLIDE POTENTIOMETER
L.DTCT	: LIGHT DETECTING MODULE	VR.TRIM	: TRIMMER POTENTIOMETER

Note) Those parts marked with "#" are not included in the P.C.B. ass'y.

CDX-470 MAIN P. C. B.

Schm Ref.	PART NO.	Description
* VP840400	P.C.B.	MAIN(UC)
* VP840500	P.C.B.	MAIN(R)
* VP840600	P.C.B.	MAIN(A)
* VP684600	P.C.B.	MAIN(B)
* VP684700	P.C.B.	MAIN(G)
C1	VF467300	C.CE.TUBLR 0.01uF 16V
C2	VF467300	C.CE.TUBLR 0.01uF 16V
C4	VG278600	C.CE.TUBLR 330pF 50V
C5	VG278600	C.CE.TUBLR 330pF 50V
C6	UA654180	C.MYLAR 0.018uF 50V
C7	UM397330	C.EL 33uF 16V
C8	VJ839100	C.EL 1uF 50V
C9	VD930900	C.CE.SMI 0.1uF 25V
C10	VD930900	C.CE.SMI 0.1uF 25V
C11	VF760000	C.EL 100uF 10V
C12	VG277500	C.CE.TUBLR 56pF 50V
C13	VF467300	C.CE.TUBLR 0.01uF 16V
C14	VF467300	C.CE.TUBLR 0.01uF 16V
C15	VF466900	C.CE.TUBLR 470pF 50V
C16	UA653680	C.MYLAR 6800pF 50V
C17	VF467300	C.CE.TUBLR 0.01uF 16V
C18	UA655220	C.MYLAR 0.22uF 50V
C19	UA654390	C.MYLAR 0.039uF 50V
C20	UA655330	C.MYLAR 0.33uF 50V
C21	UT452220	C.PP 220pF 100V
C22	UA654470	C.MYLAR 0.047uF 50V
C23	VD930900	C.CE.SMI 0.1uF 25V
C24	VD930900	C.CE.SMI 0.1uF 25V
C25	VF467300	C.CE.TUBLR 0.01uF 16V
C26	VF760000	C.EL 100uF 10V
C27	VE040000	C.EL 10uF 25V
C28	UA653100	C.MYLAR 1000pF 50V
* C29	UA652100	C.MYLAR 100pF 50V
C30	VF760000	C.EL 100uF 10V
C31	UA655180	C.MYLAR 0.18uF 50V
C32	UM397330	C.EL 33uF 16V
C33	VG279500	C.CE.TUBLR 2700pF 16V
C34	VG722100	C.EL 1uF 50V
C35	VG279900	C.CE.TUBLR 6800pF 16V
C36	UA655100	C.MYLAR 0.1uF 50V
C37	UA653470	C.MYLAR 4700pF 50V
C38	VD930900	C.CE.SMI 0.1uF 25V
C39	UA654330	C.MYLAR 0.033uF 50V
C40	UA654330	C.MYLAR 0.033uF 50V
C41	VJ839000	C.EL 0.47uF 50V
C42	VD930900	C.CE.SMI 0.1uF 25V
C44	UA654470	C.MYLAR 0.047uF 50V
C45	UA654470	C.MYLAR 0.047uF 50V
C46	VG276600	C.CE.TUBLR 22pF 50V
C47	UA653220	C.MYLAR 2200pF 50V
C48	UM417100	C.EL 10uF 50V
C49	VF760000	C.EL 100uF 10V
C51	VD930900	C.CE.SMI 0.1uF 25V

* New Parts

Schm Ref.	PART NO.	Description
C52	VF760000	C.EL 100uF 10V
C53	VD930900	C.CE.SMI 0.1uF 25V
C54	UA655100	C.MYLAR 0.1uF 50V
C55	VD930900	C.CE.SMI 0.1uF 25V
C56	UA655100	C.MYLAR 0.1uF 50V
C57	UJ628470	C.EL 470uF 10V
C58	VA761400	C.CE 47pF 50V
C59	VA761400	C.CE 47pF 50V
C60	UA655100	C.MYLAR 0.1uF 50V
C61	UJ628470	C.EL 470uF 10V
C67	UJ648220	C.EL 220uF 25V
C68	UM397330	C.EL 33uF 16V
C69	VF760000	C.EL 100uF 10V
C70	UM416470	C.EL 4.7uF 50V
C71	VF760000	C.EL 100uF 10V
C72	VJ839100	C.EL 1uF 50V
C73	UA653220	C.MYLAR 2200pF 50V
C74	UA653220	C.MYLAR 2200pF 50V
C75	UM417100	C.EL 10uF 50V
C76	UM417100	C.EL 10uF 50V
C78	UJ729220	C.EL 2200uF 10V
C79	VD930900	C.CE.SMI 0.1uF 25V
C80	VD930900	C.CE.SMI 0.1uF 25V
C81	UJ729470	C.EL 4700uF 10V
C82	VD930900	C.CE.SMI 0.1uF 25V
C83	UJ668100	C.EL 100uF 50V
C84	UJ668100	C.EL 100uF 50V
C85	UA653560	C.MYLAR 5600pF 50V
C86	UA653220	C.MYLAR 2200pF 50V
C87	UA653220	C.MYLAR 2200pF 50V
C88	UA653560	C.MYLAR 5600pF 50V
C89	UJ648220	C.EL 220uF 25V
C90	VG277700	C.CE.TUBLR 68pF 50V
C91	VG277700	C.CE.TUBLR 68pF 50V
C92	UJ648220	C.EL 220uF 25V
C93	VF760000	C.EL 100uF 10V
C94	VJ836900	C.EL 10uF 16V
C95	VJ836900	C.EL 10uF 16V
C96	VF760000	C.EL 100uF 10V
C97	UA653220	C.MYLAR 2200pF 50V
C98	UA653220	C.MYLAR 2200pF 50V
C110	UM397330	C.EL 33uF 16V
C111	UA654100	C.MYLAR 0.01uF 50V
C112	UA654100	C.MYLAR 0.01uF 50V
C113	UA654100	C.MYLAR 0.01uF 50V
C114	UA654100	C.MYLAR 0.01uF 50V
C115	VF760000	C.EL 100uF 10V
C116	VF466600	C.CE.TUBLR 10pF 50V
C117	VF466600	C.CE.TUBLR 10pF 50V
C118	VF466600	C.CE.TUBLR 10pF 50V
C119	VF466600	C.CE.TUBLR 10pF 50V
C120	UJ729220	C.EL 2200uF 10V
C121	VF760000	C.EL 100uF 10V

* New Parts

CDX-470 MAIN P. C. B.

Schm Ref.	PART NO.	Description	
C122	VF760000	C.EL 100uF 10V	
C123	UM416470	C.EL 4.7uF 50V	
C124	UM416470	C.EL 4.7uF 50V	
C125	VF637900	C.EL 1000uF 10V	
C126	VD930900	C.CE.SMI 0.1uF 25V	
C301	VD930900	C.CE.SMI 0.1uF 25V	
C302	VD930900	C.CE.SMI 0.1uF 25V	
C303	VD930900	C.CE.SMI 0.1uF 25V	
C400	VF467300	C.CE.TUBLR 0.01uF 16V	
C401	Fi384100	C.CE.SAFTY 0.01uF 400V(UC)	△
C401	VE179200	C.CE.SAFTY 0.01uF 400V(RABG)	△
C402	Fi384100	C.CE.SAFTY 0.01uF 400V(UC)	△
C402	VE179200	C.CE.SAFTY 0.01uF 400V(RABG)	△
C410	VD930900	C.CE.SMI 0.1uF 25V	△
C411	VD930900	C.CE.SMI 0.1uF 25V	△
C412	VD930900	C.CE.SMI 0.1uF 25V	△
CB1	VD005100	CN.BS.PIN PH 8P TE	
CB2	VK506300	CN.BS.PIN PH 8P TE	
CB3	VD004700	CN.BS.PIN PH 4P TE	
CB4	VD004800	CN.BS.PIN PH 5P TE	
CB7	VN394900	CN.BS.PIN 52045 14P TE	
CB8	VM973500	CN.BS.PIN 52045 17P TE	
CB9	VD004800	CN.BS.PIN PH 5P TE	
CB11	VD004600	CN.BS.PIN PH 3P TE	
CB400	VL239800	CN 5062 14P TE	
CB401	VM973400	CN 5062 17P TE	
CB402	VG879900	CN.BS.PIN VH 2P TE	
CB405	VD004900	CN.BS.PIN PH 6P TE	
D1	iF004600	DIODE 1SS133	
D2	VG438100	DIODE.ZENR MTZJ6.2C 6.2V	
D3	iF004600	DIODE 1SS133	
D4	iF004600	DIODE 1SS133	
D5	iF004600	DIODE 1SS133	
D7	VG437400	DIODE.ZENR MTZJ5.1B 5.1V	
D8	VG437400	DIODE.ZENR MTZJ5.1B 5.1V	
D9	iF004600	DIODE 1SS133	
D10	iF004600	DIODE 1SS133	
D12	VH770800	DIODE 1SR139-100 T-32	△
D13	VH770800	DIODE 1SR139-100 T-32	△
D14	VH770800	DIODE 1SR139-100 T-32	△
D15	VH770800	DIODE 1SR139-100 T-32	△
D16	VH770800	DIODE 1SR139-100 T-32	△
D17	VH770800	DIODE 1SR139-100 T-32	△
D18	VH770800	DIODE 1SR139-100 T-32	△
D19	VH770800	DIODE 1SR139-100 T-32	△
D20	iF004600	DIODE 1SS133	
D21	iF004600	DIODE 1SS133	
D32	iF004600	DIODE 1SS133	
D33	VH770800	DIODE 1SR139-100 T-32	△
D38	VH770800	DIODE 1SR139-100 T-32	△
D39	VH770800	DIODE 1SR139-100 T-32	△
D401	iF004600	DIODE 1SS133	
D402	iF004600	DIODE 1SS133	

* New Parts

Schm Ref.	PART NO.	Description	
D403	iF004600	DIODE 1SS133	
D404	iF004600	DIODE 1SS133	
D405	iF004600	DIODE 1SS133	
D406	iF004600	DIODE 1SS133	
D407	iF004600	DIODE 1SS133	
D408	iF004600	DIODE 1SS133	
D409	iF004600	DIODE 1SS133	
IC1	XJ740B00	IC LA6524	
IC2	XF494A00	IC LB1641	
IC3	XG937A00	IC BA10358	
IC4	iG028400	IC NJM4558DY	
* IC5	XM037A00	IC LA9211M	
IC6	XL834A00	IC YDC103	
IC7	Xi668A00	IC X24C01P	
* IC8	XM000B00	IC uPD75216ACW	
IC9	XD201A00	IC M5290P	
IC10	XA987001	IC NJM2068D-D	
IC11	XA987001	IC NJM2068D-D	
IC12	Xi249A00	IC BA15218	
IC13	XA987001	IC NJM2068D-D	
IC14	XA987001	IC NJM2068D-D	
JK301	LB301720	JACK.PHONE M1669-A	
L1	VG668100	COIL 10uH	
L2	VF968800	COIL 60uH	
L3	VF968800	COIL 60uH	
L4	VF968800	COIL 60uH	
L5	VB056900	COIL 220uH	
L6	VB056900	COIL 220uH	
L7	VB056900	COIL 220uH	
L8	VB056900	COIL 220uH	
L11	VF968800	COIL 60uH	
L15	VF968800	COIL 60uH	
L17	VE795500	FER.BEAD B-01-RTF	
L18	VE795500	FER.BEAD B-01-RTF	
L20	VE795500	FER.BEAD B-01-RTF	
L301	VF968800	COIL 60uH	
L302	Vi491100	FER.CORE BP53RB19012080M	
L303	VF968800	COIL 60uH	
L304	VF968800	COIL 60uH	
L400	Vi491100	FER.CORE BP53RB19012080M	
L401	VE800700	FLTR 1.8mH ELF18D290V	△
PJ1	VE484600	JACK.PIN 2P	
Q1	iC174020	TR 2SC1740S R,S	
Q2	Vi915200	TR 2SB1013	
Q3	iC174020	TR 2SC1740S R,S	
Q4	VH257100	TR.DGT DTA124ES	
Q5	iC174020	TR 2SC1740S R,S	
Q7	iA093320	TR 2SA933S Q,R	
Q8	iD040040	TR 2SD400	△
Q9	VH481100	TR 2SB1416TA Q,R	△
Q10	VK432900	TR 2SD1915F S,T	
Q11	VK432900	TR 2SD1915F S,T	
Q12	VK432900	TR 2SD1915F S,T	

* New Parts

CDX-470 MAIN P. C. B.

Schm Ref.	PART NO.	Description	
Q13	VK432900	TR	2SD1915F S,T
R18	VH293400	R.FUS	2.2Ω 1/6W
R22	VH293400	R.FUS	2.2Ω 1/6W
R32	HV454220	R.CAR.FP	22Ω 1/4W
R53	HV454100	R.CAR.FP	10Ω 1/4W
R104	HV455100	R.CAR.FP	100Ω 1/4W
R105	HV455100	R.CAR.FP	100Ω 1/4W
R136	HV454220	R.CAR.FP	22Ω 1/4W
R143	HV454220	R.CAR.FP	22Ω 1/4W
R176	HV453390	R.CAR.FP	3.9Ω 1/4W
SW401	VG392900	SW.TACT	SKHVAA
SW402	VG392900	SW.TACT	SKHVAA
SW403	VG392900	SW.TACT	SKHVAA
SW404	VG392900	SW.TACT	SKHVAA
SW405	VG392900	SW.TACT	SKHVAA
SW406	VG392900	SW.TACT	SKHVAA
SW407	VG392900	SW.TACT	SKHVAA
SW408	VG392900	SW.TACT	SKHVAA
SW409	VG392900	SW.TACT	SKHVAA
SW410	VG392900	SW.TACT	SKHVAA
SW411	VG392900	SW.TACT	SKHVAA
SW412	VG392900	SW.TACT	SKHVAA
SW413	VG392900	SW.TACT	SKHVAA
SW414	VG392900	SW.TACT	SKHVAA
SW415	VG392900	SW.TACT	SKHVAA
SW416	VG392900	SW.TACT	SKHVAA
SW417	VG392900	SW.TACT	SKHVAA
SW418	VG392900	SW.TACT	SKHVAA
SW419	VG392900	SW.TACT	SKHVAA
SW420	VG392900	SW.TACT	SKHVAA
SW421	VG392900	SW.TACT	SKHVAA
SW422	VG392900	SW.TACT	SKHVAA
SW423	VG392900	SW.TACT	SKHVAA
SW427	VG392900	SW.TACT	SKHVAA
SW428	VG392900	SW.TACT	SKHVAA
SW429	VG392900	SW.TACT	SKHVAA
SW430	VG392900	SW.TACT	SKHVAA
SW431	Vi272700	SW.PUSH	
SW432	VL908000	VOLT.SELCT	ESE-370(R)
* T401	XL866A00	TRANS.PWR	(UC)
* T401	XL867A00	TRANS.PWR	(R)
* T401	XL868A00	TRANS.PWR	(AB)
* T401	XL869A00	TRANS.PWR	(G)
U400	VK498900	L.DTCT	S-100
* V400	VP560900	FL.DSPLY	8-BT-102GRK
VR1	VJ694200	VR.TRIM	B100KΩ
VR2	VJ694000	VR.TRIM	B47KΩ
VR3	VJ693600	VR.TRIM	B10KΩ
VR4	VJ693500	VR.TRIM	B6.8KΩ
VR5	VJ694000	VR.TRIM	B47KΩ
VR6	VJ693300	VR.TRIM	B3.3KΩ
W406	VN395000	CN.FLAT	14P 120mm
W407	VM973600	CN.FLAT	17P 250mm

* New Parts

Schm Ref.	PART NO.	Description
XL1	VJ677200	RSNR.CE 4.19MHz
XL2	VJ719800	RSNR.CRYS 16.9344MHz
	VK527000	SPACER FL
	VP931600	SHEET FL 25x98
	VB966900	CN IMSA-6024
	VP793400	GND.MTL
	CB644670	COVER.CAP (BG)

* New Parts

CDX-570 MAIN P. C. B.

Schm Ref.	PART NO.	Description
* CB1	VP685000	P.C.B. MAIN(B)
* CB2	VP792900	P.C.B. MAIN(G)
CB1	Vi375200	CNT.BS.PIN PH 8P TE
CB2	VK506300	CNT.BS.PIN PH (RED) 8P TE
CB3	Vi374800	CNT.BS.PIN PH 4P TE
CB4	Vi374900	CNT.BS.PIN PH 5P TE
CB7	VN394900	CNT.BS.PIN 52045 14P TE
CB8	VM973500	CNT.BS.PIN 52045 17P TE
CB9	Vi374900	CNT.BS.PIN PH 5P TE
CB11	Vi374700	CNT.BS.PIN PH 3P TE
C1	VF467300	C.CE.TUBLR 0.01uF 16V
C2	VF467300	C.CE.TUBLR 0.01uF 16V
C4	VG278600	C.CE.TUBLR 330pF 50V
C5	VG278600	C.CE.TUBLR 330pF 50V
C6	UA654180	C.MYLAR 0.018uF 50V
C7	UM397330	C.EL 33uF 16V
C8	VJ839100	C.EL 1uF 50V
C9	VD930900	C.CERA.SM 0.1uF 25V
C10	VD930900	C.CERA.SM 0.1uF 25V
C11	VF760000	C.EL 100uF 10V
C12	VG277500	C.CE.TUBLR 56pF 50V
C13	VF467300	C.CE.TUBLR 0.01uF 16V
C14	VF467300	C.CE.TUBLR 0.01uF 16V
C15	VF466900	C.CE.TUBLR 470pF 50V
C16	UA653680	C.MYLAR 6800pF 50V
C17	VF467300	C.CE.TUBLR 0.01uF 16V
C18	UA655220	C.MYLAR 0.22uF 50V
C19	UA654390	C.MYLAR 0.039uF 50V
C20	UA655330	C.MYLAR 0.33uF 50V
C21	UT452220	C.PP 220pF 100V
C22	UA654470	C.MYLAR 0.047uF 50V
C23	VD930900	C.CERA.SM 0.1uF 25V
C24	VD930900	C.CERA.SM 0.1uF 25V
C25	VF467300	C.CE.TUBLR 0.01uF 16V
C26	VF760000	C.EL 100uF 10V
C27	VE040000	C.EL 10uF 25V
C28	UA653100	C.MYLAR 1000pF 50V
* C29	UA652100	C.MYLAR 100pF 50V
C30	VF760000	C.EL 100uF 10V
C31	UA655180	C.MYLAR 0.18uF 50V
C32	UM397330	C.EL 33uF 16V
C33	VG279500	C.CE.TUBLR 2700pF 16V
C34	VG722100	C.EL 1uF 50V
C35	VG279900	C.CE.TUBLR 6800pF 16V
C36	UA655100	C.MYLAR 0.1uF 50V
C37	UA653470	C.MYLAR 4700pF 50V
C38	VD930900	C.CERA.SM 0.1uF 25V
C39	UA654330	C.MYLAR 0.033uF 50V
C40	UA654330	C.MYLAR 0.033uF 50V
C41	VJ839000	C.EL 0.47uF 50V
C42	VD930900	C.CERA.SM 0.1uF 25V
C44	UA654470	C.MYLAR 0.047uF 50V
C45	UA654470	C.MYLAR 0.047uF 50V

* New Parts

Schm Ref.	PART NO.	Description
C46	VG276600	C.CE.TUBLR 22pF 50V
C47	UA653220	C.MYLAR 2200pF 50V
C48	UM417100	C.EL 10uF 50V
C49	VF760000	C.EL 100uF 10V
C51	VD930900	C.CERA.SM 0.1uF 25V
C52	VF760000	C.EL 100uF 10V
C53	VD930900	C.CERA.SM 0.1uF 25V
C54	UA655100	C.MYLAR 0.1uF 50V
C55	VD930900	C.CERA.SM 0.1uF 25V
C56	UA655100	C.MYLAR 0.1uF 50V
C57	VG287100	C.EL 470uF 10V
C58	VK341300	C.CE 47pF 50V
C59	VK341300	C.CE 47pF 50V
C60	UA655100	C.MYLAR 0.1uF 50V
C61	VG287100	C.EL 470uF 10V
C67	UJ648220	C.EL 220uF 25V
C68	UM397330	C.EL 33uF 16V
C69	VE016500	C.EL 100uF 6.3V
C70	UM416470	C.EL 4.7uF 50V
C71	VE016500	C.EL 100uF 6.3V
C72	VJ839100	C.EL 1uF 50V
C73	VK512600	C.MYLAR 2200pF 50V
C74	VK512600	C.MYLAR 2200pF 50V
C75	UM417100	C.EL 10uF 50V
C76	UM417100	C.EL 10uF 50V
C78	VQ083700	C.EL 2200uF 10V
C79	VF279800	C.PP 0.01uF 100V
C80	VF279800	C.PP 0.01uF 100V
C81	VQ083800	C.EL 4700uF 10V(B)
C81	VQ085300	C.EL 4700uF 10V(G)
C82	VD930900	C.CERA.SM 0.1uF 25V
C83	UJ668100	C.EL 100uF 50V
C84	UJ668100	C.EL 100uF 50V
C85	Vi716400	C.MYLAR 5600pF 50V
C86	Vi715900	C.MYLAR 2200pF 50V
C87	Vi715900	C.MYLAR 2200pF 50V
C88	Vi716400	C.MYLAR 5600pF 50V
C89	UJ648220	C.EL 220uF 25V
C90	VG277700	C.CE.TUBLR 68pF 50V
C91	VG277700	C.CE.TUBLR 68pF 50V
C92	UJ648220	C.EL 220uF 25V
C93	VE016500	C.EL 100uF 6.3V
C94	Vi536300	C.EL 10uF 50V
C95	Vi536300	C.EL 10uF 50V
C96	VE016500	C.EL 100uF 6.3V
C97	Vi715900	C.MYLAR 2200pF 50V
C98	Vi715900	C.MYLAR 2200pF 50V
C99	UM417100	C.EL 10uF 50V
C100	VG278600	C.CE.TUBLR 330pF 50V
C101	VD930900	C.CERA.SM 0.1uF 25V
C103	VG278600	C.CE.TUBLR 330pF 50V
C110	UM397330	C.EL 33uF 16V
C111	UA654100	C.MYLAR 0.01uF 50V

* New Parts

CDX-570 MAIN P. C. B.

Schm Ref.	PART NO.	Description	
C112	UA654100	C.MYLAR	0.01uF 50V
C113	UA654100	C.MYLAR	0.01uF 50V
C114	UA654100	C.MYLAR	0.01uF 50V
C115	VF760000	C.EL	100uF 10V
C116	FU451100	C.MICA	10pF 500V
C117	FU451100	C.MICA	10pF 500V
C118	FU451100	C.MICA	10pF 500V
C119	FU451100	C.MICA	10pF 500V
C120	UJ729220	C.EL	2200uF 10V
C121	VF760000	C.EL	100uF 10V
C122	VF760000	C.EL	100uF 10V
C123	UM416470	C.EL	4.7uF 50V
C124	UM416470	C.EL	4.7uF 50V
C125	VF637900	C.EL	1000uF 10V
C126	VD930900	C.CERA.SM	0.1uF 25V
D1	iF004600	DIODE	1SS133
D2	VG438100	DIODE.ZENR	MTZJ6.2C 6.2V
D3	iF004600	DIODE	1SS133
D4	iF004600	DIODE	1SS133
D5	iF004600	DIODE	1SS133
D7	VG437400	DIODE.ZENR	MTZJ5.1B 5.1V
D8	VG437400	DIODE.ZENR	MTZJ5.1B 5.1V
D9	iF004600	DIODE	1SS133
D10	iF004600	DIODE	1SS133
D12	VH770800	DIODE	1SR139-100 T-32
D13	VH770800	DIODE	1SR139-100 T-32
D14	VH770800	DIODE	1SR139-100 T-32
D15	VH770800	DIODE	1SR139-100 T-32
D16	VH770800	DIODE	1SR139-100 T-32
D17	VH770800	DIODE	1SR139-100 T-32
D18	VH770800	DIODE	1SR139-100 T-32
D19	VH770800	DIODE	1SR139-100 T-32
D20	iF004600	DIODE	1SS133
D21	iF004600	DIODE	1SS133
D32	iF004600	DIODE	1SS133
D33	VH770800	DIODE	1SR139-100 T-32
D38	VH770800	DIODE	1SR139-100 T-32
D39	VH770800	DIODE	1SR139-100 T-32
IC1	XJ740B00	IC	LA6524
IC2	XF494A00	IC	LB1641
IC3	XG937A00	IC	BA10358
IC4	iG028400	IC	NJM4558DY
* IC5	XM037A00	IC	LA9211M
IC6	XL834A00	IC	YDC103
IC7	Xi668A00	IC	X24C01P
* IC8	XM000B00	IC	uPD75216ACW
IC9	XD201A00	IC	M5290P
IC10	XA987001	IC	NJM2068D-D
IC11	XA987001	IC	NJM2068D-D
IC12	Xi249A00	IC	BA15218
IC13	XA987001	IC	NJM2068D-D
IC14	XA987001	IC	NJM2068D-D
IC16	Xi677A00	IC	PC74HCU04

* New Parts

Schm Ref.	PART NO.	Description	
L1	VG668100	COIL	10uH
L2	VF968800	COIL	60uH
L3	VF968800	COIL	60uH
L4	VF968800	COIL	60uH
L5	VB056900	COIL	220uH
L6	VB056900	COIL	220uH
L7	VB056900	COIL	220uH
L8	VB056900	COIL	220uH
L9	VF968800	COIL	60uH
L10	Vi530800	TRANS.PULS	3PTD-001
L11	VF968800	COIL	60uH
L15	VF968800	COIL	60uH
L17	VE795500	FER.BEAD	B-01-RTF
L18	VE795500	FER.BEAD	B-01-RTF
L20	VE795500	FER.BEAD	B-01-RTF
PJ1	VJ898400	JACK.PIN	2P
PJ3	VG020100	JACK.PIN	1P
Q1	iC174020	TRANSISTOR	2SC1740S R,S
Q2	Vi915200	TRANSISTOR	2SB1013
Q3	iC174020	TRANSISTOR	2SC1740S R,S
Q4	VH257100	TR.DGT	DTA124ES
Q5	iC174020	TRANSISTOR	2SC1740S R,S
Q7	iA093320	TRANSISTOR	2SA933S Q,R
Q8	iD040040	TRANSISTOR	2SD400
Q9	VH481100	TRANSISTOR	2SB1416(TA) Q,R
Q10	VK432900	TRANSISTOR	2SD1915(E) S,T
Q11	VK432900	TRANSISTOR	2SD1915(F) S,T
Q12	VK432900	TRANSISTOR	2SD1915(F) S,T
Q13	VK432900	TRANSISTOR	2SD1915(F) S,T
R18	VH293400	R.FUS	2.2Ω 1/6W
R22	VH293400	R.FUS	2.2Ω 1/6W
R32	HV454220	R.CAR.FR	22Ω 1/4W
R53	HV454100	R.CAR.FR	10Ω 1/4W
R104	HV455100	R.CAR.FR	100Ω 1/4W
R105	HV455100	R.CAR.FR	100Ω 1/4W
R136	HV454220	R.CAR.FR	22Ω 1/4W
R143	HV454220	R.CAR.FR	22Ω 1/4W
R145	HU575330	R.MTL.FLM	330Ω 1/4W
R147	HU578100	R.MTL.FLM	100KΩ 1/4W
R150	HU578100	R.MTL.FLM	100KΩ 1/4W
R151	HU575330	R.MTL.FLM	330Ω 1/4W
R176	HV454100	R.CAR.FR	10Ω 1/4W
VR1	VJ694200	VR.TRIM	B100KΩ
VR2	VJ694000	VR.TRIM	B47KΩ
VR3	VJ693600	VR.TRIM	B10KΩ
VR4	VJ693500	VR.TRIM	B6.8KΩ
VR5	VJ694000	VR.TRIM	B47KΩ
VR6	VJ693300	VR.TRIM	B3.3KΩ
XL1	VJ677200	CERA.RESNR	4.19MHz
XL2	VJ719800	CRYS.RESNR	16.9344MHz
	VB966900	CNT	IMSA-6024

* New Parts

CDX-570 OPERATION P. C. B.

Schm Ref.	PART NO.	Description	
*	VP685400	P.C.B.	OPERATION (B)
*	VP685500	P.C.B.	OPERATION (G)
CB402	VG879900	CNT.POST	VH 2P TE
CB403	VL023700	CNT	5062 17P TE
CB404	VL239800	CNT	5062 14P TE
C401	VG280100	C.CE.TUBLR	0.022uF 25V
C405	VE179200	C.CE.SAFTY	0.01uF 400V
C406	VE179200	C.CE.SAFTY	0.01uF 400V
C407	VD930900	C.CERA.SM	0.1uF 25V
C408	VD930900	C.CERA.SM	0.1uF 25V
C409	VD930900	C.CERA.SM	0.1uF 25V
C410	VE179200	C.CCE	0.01uF 400V
D401	iF004600	DIODE	1SS133
D402	iF004600	DIODE	1SS133
D403	iF004600	DIODE	1SS133
D404	iF004600	DIODE	1SS133
D405	iF004600	DIODE	1SS133
D406	iF004600	DIODE	1SS133
D407	iF004600	DIODE	1SS133
D408	iF004600	DIODE	1SS133
D409	iF004600	DIODE	1SS133
JK401	VB097300	JACK.PHONE	
L401	VE800700	FILTER	1.8mH ELF18D290V
L402	VF968800	COIL	60uH
L403	VF968800	COIL	60uH
L404	VF968800	COIL	60uH
L405	Vi491100	FER.CORE	BP53RB19012080M
L406	Vi491100	FER.CORE	BP53RB19012080M
SW401	VG392900	SW.TACT	SKHVAA
SW402	VG392900	SW.TACT	SKHVAA
SW403	VG392900	SW.TACT	SKHVAA
SW404	VG392900	SW.TACT	SKHVAA
SW405	VG392900	SW.TACT	SKHVAA
SW406	VG392900	SW.TACT	SKHVAA
SW407	VG392900	SW.TACT	SKHVAA
SW408	VG392900	SW.TACT	SKHVAA
SW409	VG392900	SW.TACT	SKHVAA
SW410	VG392900	SW.TACT	SKHVAA
SW411	VG392900	SW.TACT	SKHVAA
SW412	VG392900	SW.TACT	SKHVAA
SW413	VG392900	SW.TACT	SKHVAA
SW414	VG392900	SW.TACT	SKHVAA
SW415	VG392900	SW.TACT	SKHVAA
SW416	VG392900	SW.TACT	SKHVAA
SW417	VG392900	SW.TACT	SKHVAA
SW418	VG392900	SW.TACT	SKHVAA
SW419	VG392900	SW.TACT	SKHVAA
SW420	VG392900	SW.TACT	SKHVAA
SW421	VG392900	SW.TACT	SKHVAA
SW422	VG392900	SW.TACT	SKHVAA
SW423	VG392900	SW.TACT	SKHVAA
SW424	VG392900	SW.TACT	SKHVAA
SW425	Vi319200	SW.PUSH	SDDL1

* New Parts

Schm Ref.	PART NO.	Description	
SW427	VG392900	SW.TACT	SKHVAA
SW428	VG392900	SW.TACT	SKHVAA
* T401	XL868A00	TRANS.PWR	(B)
* T401	XL869A00	TRANS.PWR	(G)
U401	VK498900	L.DETECT	S-100
V401	VP560900	FL.DISPLAY	8-BT-102GRK
W404	VM973600	CNT.FLAT	17P 250mm
W405	VN395000	CNT.FLAT	14P 120mm
	CB644670	COVER.CAP	
	VP931600	SHEET	FL 25x98
	VM440900	SPACER	FL
	VM865100	GRD.PLATE	

* New Parts

A

B

C

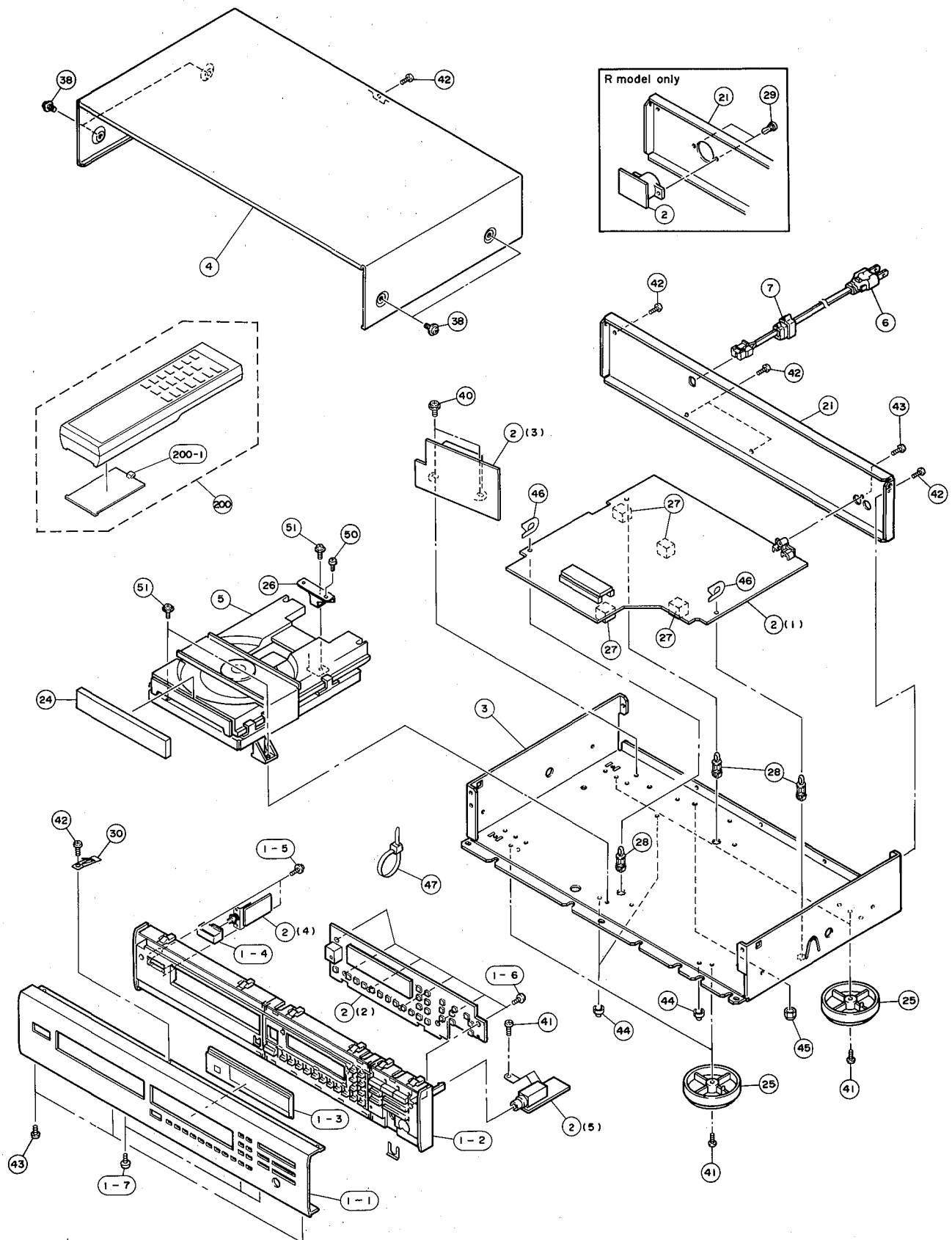
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CDX-470/570

CDX-470

■ CDX-470 EXPLODED VIEW



CDX-470

■ CDX-470 MECHANICAL PARTS

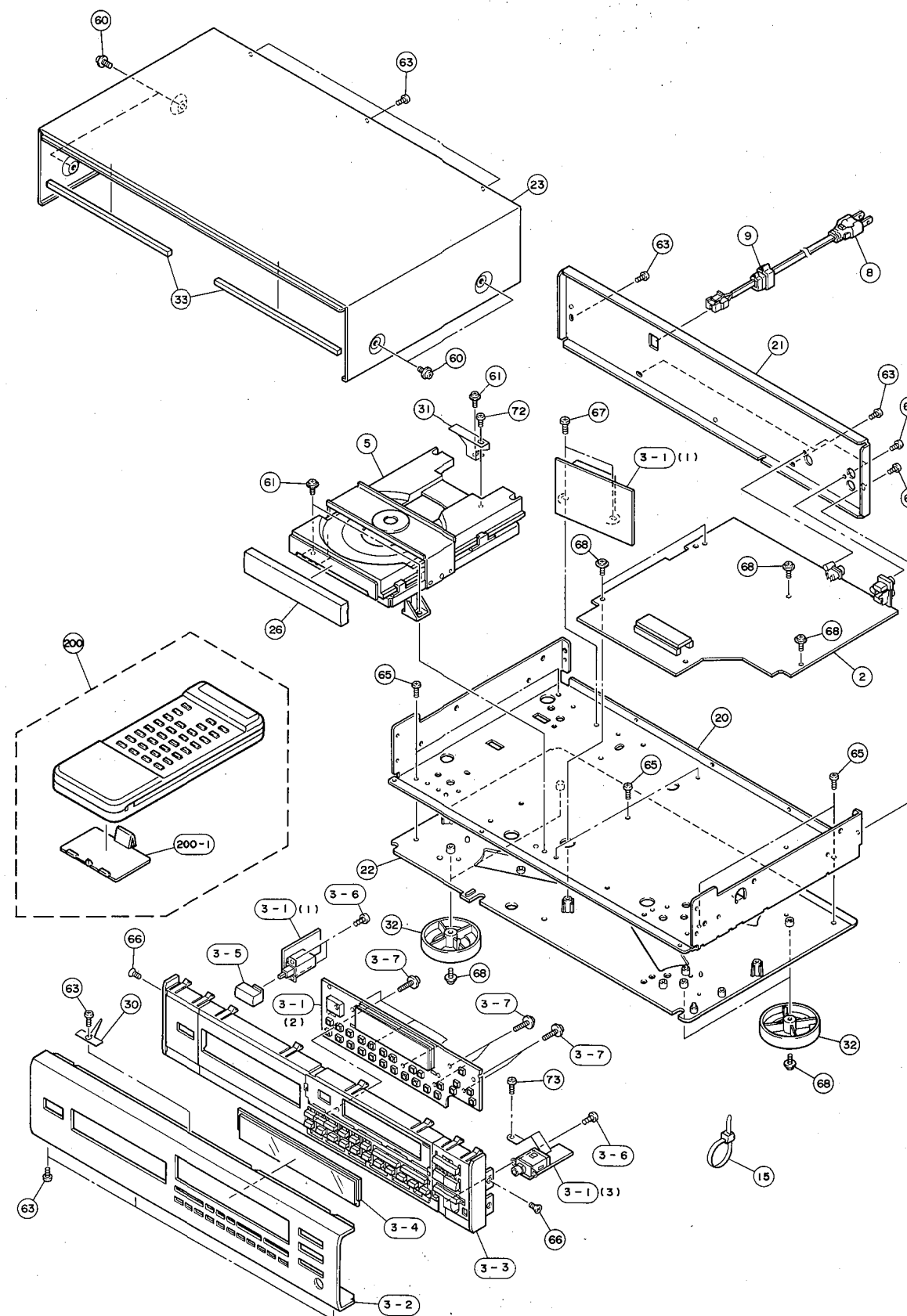
Ref. No.	PART NO.	Description	Remarks	Markets
* 1-1	VP348400	FRONT PANEL	BL	
* 1-1	VP348500	FRONT PANEL	TI	
1-2	VH690800	SUB PANEL	BL	
* 1-2	VP534500	SUB PANEL	TI	
* 1-3	VP533200	WINDOW PANEL		
1-4	VH841900	BUTTON	10x25 BL	
1-4	VP663400	BUTTON	10x25 TI	
1-5	EX601280	BW HEAD P-TITE SCREW	3x8-8 FCRM3-BL	
1-6	VF446600	BW HEAD S-TITE SCREW	2x6-6 FCRM3-BL	
1-7	EP600730	BIND HEAD P-TITE SCREW	3x8 FCRM3-BL	
* 2	VP684600	P.C.B. ASS'y, MAIN		(B)
* 2	VP684700	P.C.B. ASS'y, MAIN		(G)
* 2	VP840400	P.C.B. ASS'y, MAIN		(UC)
* 2	VP840500	P.C.B. ASS'y, MAIN		(R)
* 2	VP840600	P.C.B. ASS'y, MAIN		(A)
3	VH787200	BOTTOM		(UCRA)
3	VJ761700	BOTTOM CHASSIS ASS'y		(BG)
* 4	VN108100	TOP COVER ASS'y	BL	(BG)
* 4	VN108200	TOP COVER ASS'y	TI	(BG)
* 4	VP793500	TOP COVER	BL	(UCRA)
* 5	VM895800	PU MECHA. UNIT	KSL-2102AAM	
6	VL012900	POWER CORD ASS'y		(UC)
6	VL238100	POWER CORD ASS'y		(R)
6	VN034000	POWER CORD ASS'y		(B)
6	VN034100	POWER CORD ASS'y		(G)
6	VP418300	POWER CORD ASS'y		(A)
7	VD375900	CORD STOPPER		(UCRA)
7	VN158600	CORD STOPPER	No.2104	(BG)
* 21	VP793000	REAR PANEL		(U)
* 21	VP793100	REAR PANEL		(C)
* 21	VP793200	REAR PANEL		(R)
* 21	VP793300	REAR PANEL		(A)
* 21	VP796000	REAR PANEL		(B)
* 21	VP796100	REAR PANEL		(G)
24	VJ880500	LID	BL	
24	VJ880600	LID	TI	
25	VK016800	LEG		
26	Vi246500	GROUND PLATE		
27	VL298200	SPACER, P.C.B.		
28	CB097610	HOLDER, P.C.B.		
29	CB601420	PLASTIC RIVET	No.6204	
30	BB071170	GROUND PLATE		
38	EK365090	BW HEAD SCREW	4x8 ZMC2-BL	BL
38	EX601150	BW HEAD S-TITE SCREW	4x8-10 FNM3-BL	TI
40	EK396010	BIND HEAD S-TITE SCREW	4x8 FCRM3-BL	
41	VK527900	BW HEAD S-TITE SCREW	3x8-8 ZMC2-Y	
42	EN301010	BIND HEAD BONDING TAP. SCREW	3x8 FCRM3-BL	
43	EX602710	BIND HEAD BONDING P-T. SCREW	3x8 FCRM3-BL	
44	VK303400	CAP, SCREW		
45	EX601580	HEXAGONAL BLIND NUT	Ø4 FCRM3-BL	
46	VK798100	STOPPER		
47	VK341000	BINDING TIE	8904A3106	
50	EX000430	BIND HEAD S-TITE SCREW	3x6 ZMC2-Y	

* New Parts

Ref. No.	PART NO.	Description	Remarks	Markets
51	EK065030	BW HEAD SCREW	3x10 ZMC2-Y	
		ACCESSORIES		
200	VJ598100	REMOTE CONTROL TRANSMITTER		(UCRA)
200	VK340800	REMOTE CONTROL TRANSMITTER		(BG)
200-1	CX610740	LID	55.8x34 K-PM1-812	(UCRA)
200-1	CX616900	LID	54x34	(BG)
	VC167600	PIN-PLUG CORD	2P 0.8m	
		DRY CELL	R03 (NB) UM-4	(UCRA)
		DRY CELL	R06, SUM-3	(BG)

* New Parts

■ CDX-570 EXPLODED VIEW

**CDX-570**

■ CDX-570 MECHANICAL PARTS

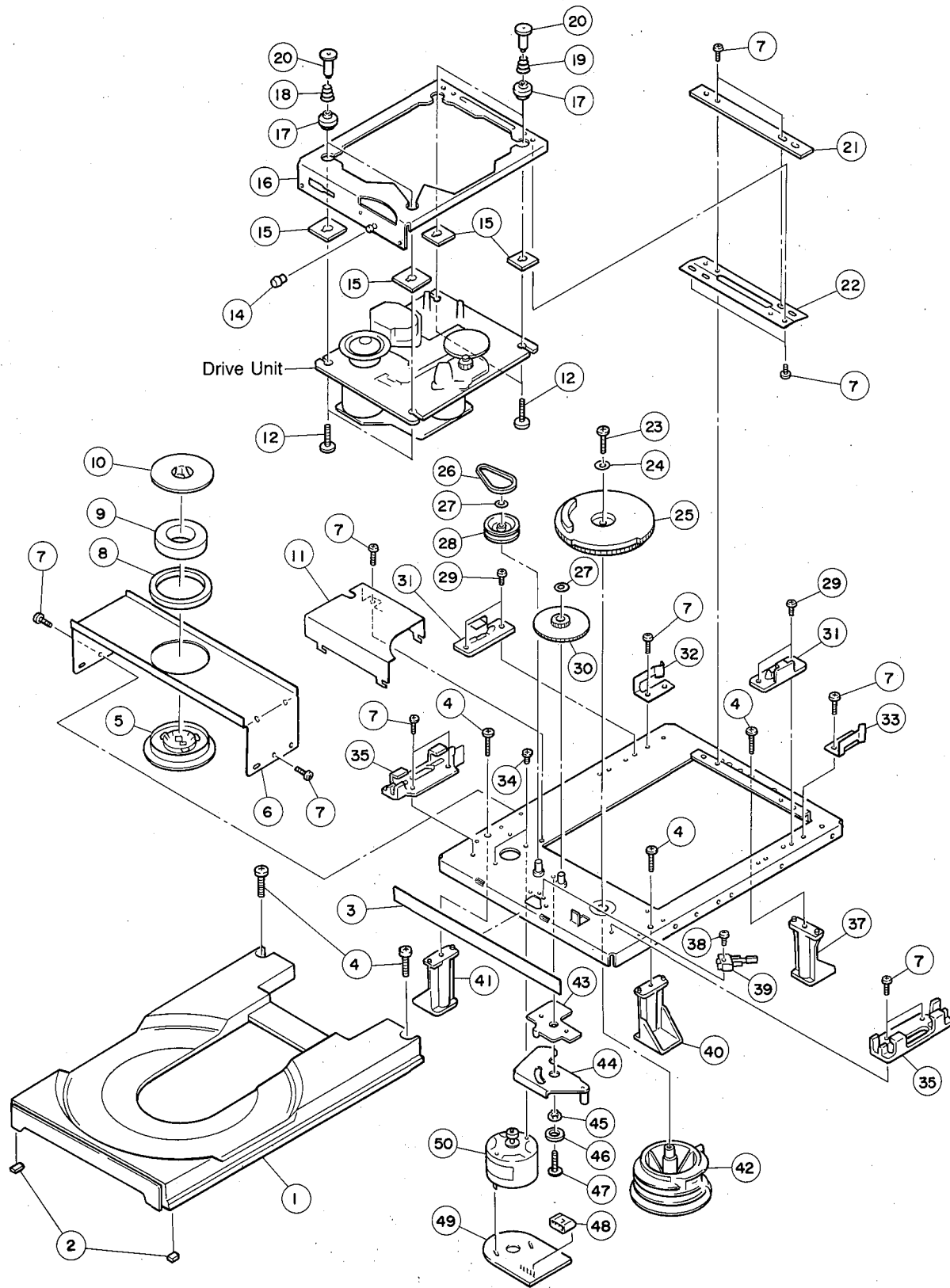
Ref. No.	PART NO.	Description	Remarks	Markets
*	2	VP685000	P.C.B. ASS'y, MAIN	(B)
*	2	VP792900	P.C.B. ASS'y, MAIN	(G)
*	3-1	VP685400	P.C.B. ASS'y, OPERATION	(B)
*	3-1	VP685500	P.C.B. ASS'y, OPERATION	(G)
*	3-2	VP534300	FRONT PANEL	BL
*	3-2	VP534400	FRONT PANEL	TI
	3-3	VL732600	SUB PANEL	BL
*	3-3	VP534600	SUB PANEL	TI
	3-4	VN238600	WINDOW PANEL	
	3-5	VH841900	BUTTON	10x25
	3-5	VP663400	BUTTON	10x25
	3-6	EP600730	BIND HEAD P-TITE SCREW	3x8 FCRM3-BL
	3-7	VF446600	BW HEAD S-TITE SCREW	2x6-6 FCRM3-BL
	5	VM895800	PU MECHA. UNIT	KSL-2102AAM
	8	VN034000	POWER CORD ASS'y	
	8	VN034100	POWER CORD ASS'y	
	9	VD375900	CORD STOPPER	
	15	VK341000	BINDING TIE	8904A3106
	20	VM842800	CHASSIS	
*	21	VP763900	REAR PANEL	(B)
*	21	VP764000	REAR PANEL	(G)
	22	VL732800	CHASSIS, ART BASE	
	23	VM842900	TOP COVER	BL
	23	VM843000	TOP COVER	TI
	26	VJ880500	LID	BL
	26	VJ880600	LID	TI
	30	VN806000	GROUND PLATE	
	31	Vi246500	GROUND PLATE	
	32	VK016800	LEG	
	33	VM525000	CUSHION	
	60	EK365090	BW HEAD SCREW	4x8 ZMC2-BL
	60	EX601150	BW HEAD S-TITE SCREW	4x8-10 FNM3-BL
	61	VK527900	BW HEAD S-TITE SCREW	3x8-8 ZMC2-Y
	63	EN301010	BIND HEAD BONDING TAP. SCREW	3x8 FCRM3-BL
	64	EN335030	BIND HEAD BONDING TAP. SCREW	3x10 FCRM3-BL
	65	EP600730	BIND HEAD P-TITE SCREW	3x8 FCRM3-BL
	66	EO030066	FLAT HEAD SCREW	3x6 ZMC2-Y
	67	EK396010	BIND HEAD S-TITE SCREW	4x8 FCRM3-BL
	68	EX601280	BW HEAD P-TITE SCREW	3x8-8 FCRM3-BL
	72	EX000430	BIND HEAD S-TITE SCREW	3x6 ZMC2-Y
	73	Ei330086	BIND HEAD B-TITE SCREW	3x8 FCRM3-BL
		ACCESSORIES		
200	VN430100	REMOTE CONTROL TRANSMITTER	SBAH20366A	
200-1	CX617450	LID		
	VC167600	PIN-PLUG CORD	2P 0.8m	
		BATTERY, MANGANESE	SUM-3, AA, R06	

* New Parts

A B C D E

CDX-470 CDX-570

EXPLODED VIEW (PU Mecha. Unit)



CDX-470
CDX-570

MECHANICAL PARTS (PU Mecha. Unit)

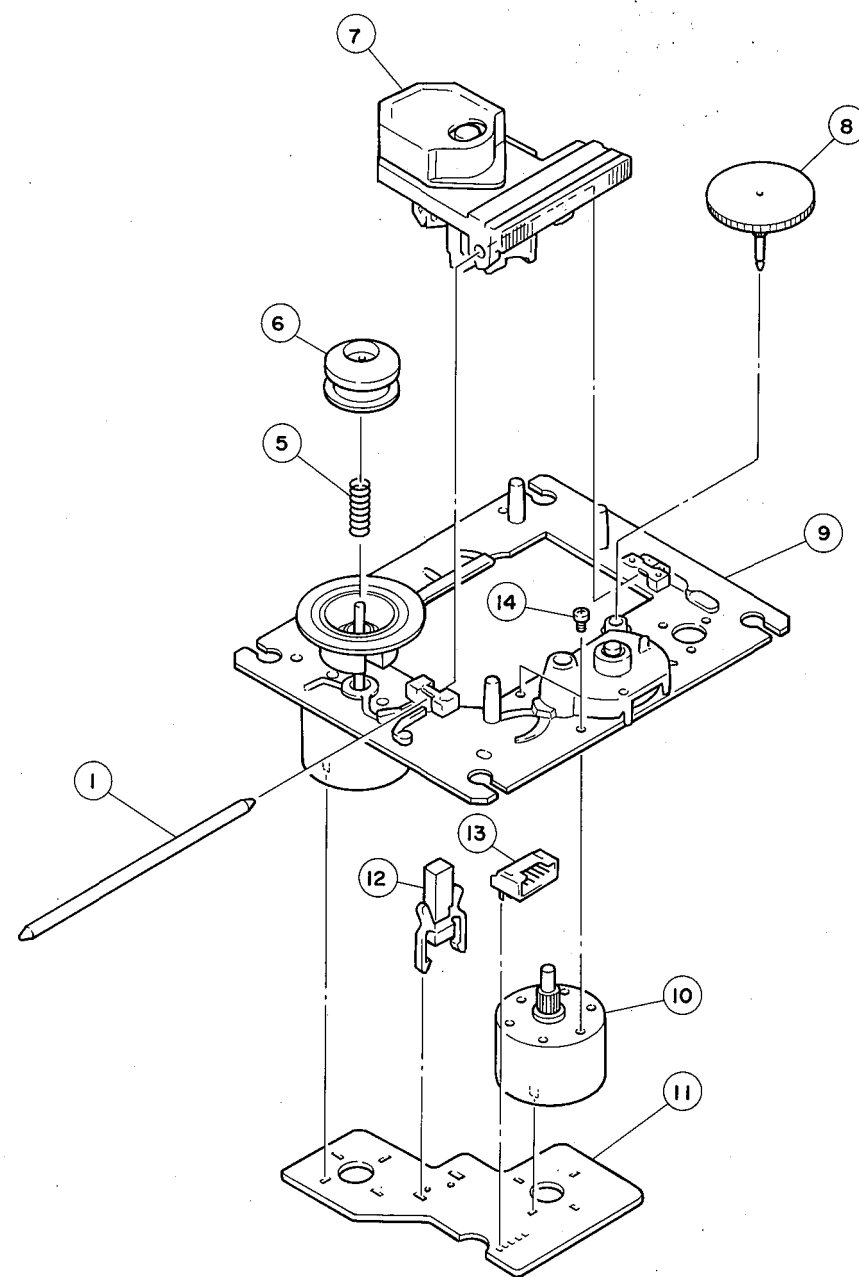
Ref. No.	PART NO.	Description	Remarks	Markets
*	VM895800	PU MECHA. UNIT	KSL-2102AAM	
*	1	CX672780 TRAY		264215602
2	CX610920 DAMPER			264212501
3	CX610930 FRONT TAPE			264215703
4	Ei130106 BIND HEAD TAPPING SCREW	3x10		768554719
*	5	CX672790 PULLEY, CHUCKING		264218102
6	AX607390 CHUCK CHASSIS			264216501
7	ED026066 BINDING HEAD SCREW	2.6x6 ZMC2-Y		768586201
*	8	CX672800 YOKE DAMPER		264243901
*	9	NX610570 MAGNET ASS'y		145249321
*	10	CX672810 CHUCKING YOKE		264217501
11	AX607400 GEAR COVER			264214902
12	AX607380 SPECIAL SCREW	2x8-8		264214201
*	14	CX672820 ROLLER		264216902
15	BX601570 PLATE	SP		264215901
*	16	NX610580 SUB CHASSIS ASS'y		X26421052
17	CX610770 INSULATOR			264215801
*	18	AX616440 SPRING A		264213902
*	19	AX616450 SPRING B		264213702
*	20	AX616460 SHAFT		264216002
*	21	AX607330 HINGE HOLDER		264217001
22	AX616470 HINGE			264216401
23	EJ026106 PAN HEAD TAPPING SCREW	2.6x10 ZMC2-Y		768553519
*	24	AX616480 WASHER		481255401
*	25	CX672830 DRIVE GEAR		264215403
*	26	CX672840 BELT, LOADING MOTOR		365338701
27	CX610820 WASHER			355870821
28	CX610850 LOADING PULLEY			491373101
29	EJ020046 PAN HEAD TAP-TITE SCREW	2x4		768578101
30	CX610830 GEAR			264214801
*	31	CX672850 TRAY HOLDER	R	264216203
*	32	CX672860 TRAY GUIDE L		264214702
*	33	CX672870 TRAY GUIDE R		264214602
34	ED026036 BIND HEAD SCREW	2.6x3		762177500
35	CX610860 TRAY HOLDER	F		264216101
*	36	NX610590 MAIN CHASSIS ASS'y		X26421062
37	AX607430 BOSS			264251201
38	ED020046 BIND HEAD SCREW	2x4		768585101
39	KX602360 LEAF SWITCH			157205211
40	AX607420 BOSS			264251001
41	AX607440 BOSS			264251101
42	CX610810 CAM, CONTROL			264215301
43	AX607450 LINK PLATE			264217301
44	NX605730 STOPPER LINK ASS'y			X26421091
45	CX610900 BOSS			264213302
46	CX610910 SPACER			264217201
47	EK036010 BW HEAD TAPPING SCREW	2.6x8 ZMC2-Y		768290231
48	LX601830 CONNECTOR PIN	5P		156472111
49	LX603460 MOTOR CIRCUIT BOARD			162479321
50	JX600540 MOTOR ASS'y			X26413361

* New Parts

CDX-470/570

CDX-470 CDX-570

EXPLODED VIEW (Drive Unit)

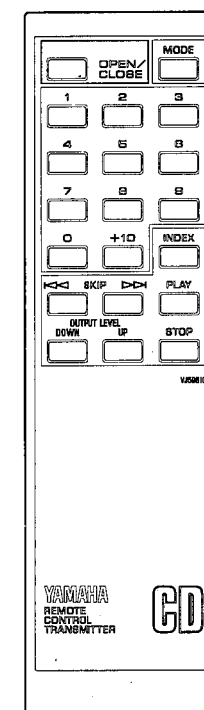
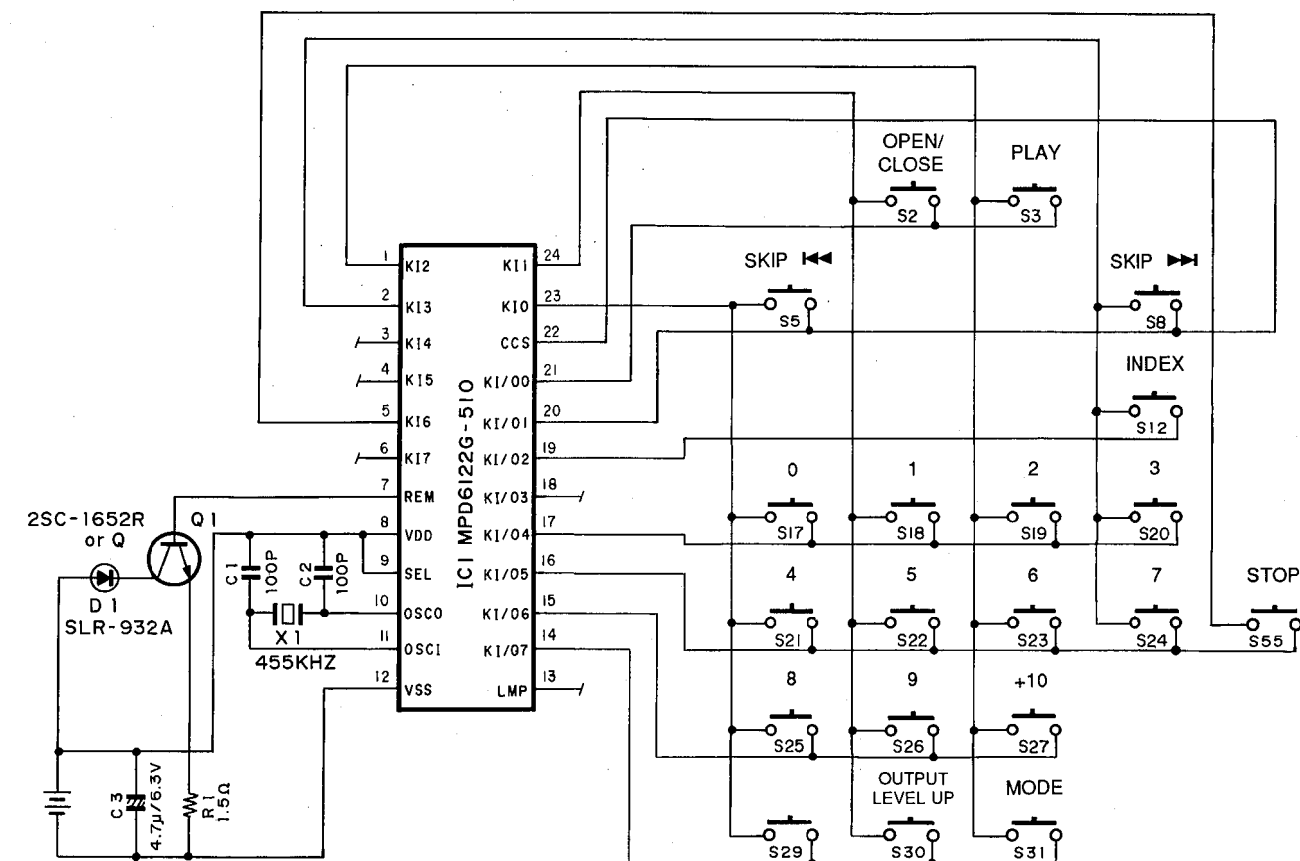


Ref. No.	PART NO.	Description	Remarks	Markets
1	BX601130	DRIVE UNIT	KSM-2101AAM	
* 5	AX616490	SLED SHAFT	491756501	
* 6	AX616500	COIL SPRING	262519101	
7	PX600431	CENTER RING	262518701	
* 8	CX672880	LASER PICK UP	884812731	
* 9	NX610600	GEAR A	262518802	
* 10	NX610610	CHASSIS ASS'y, TT	X26251332	
* 11	LX607300	MOTOR GEAR ASS'y	X26251321	
* 12	LX603720	P.C.B. MOTOR	163678813	
* 13	KX603720	LEAF SWITCH	157208512	
14	LX603480	CONNECTOR PIN	156472011	
	EA020036	PAN HEAD SCREW	762125515	

* New Parts

CDX-470 REMOTE CONTROL TRANSMITTER
U, C, R, A models

SCHEMATIC DIAGRAM



CUSTOM CODE

C0 C1 C2 C3 C4 C5 C6 C7
1 0 0 1 1 1 1 0

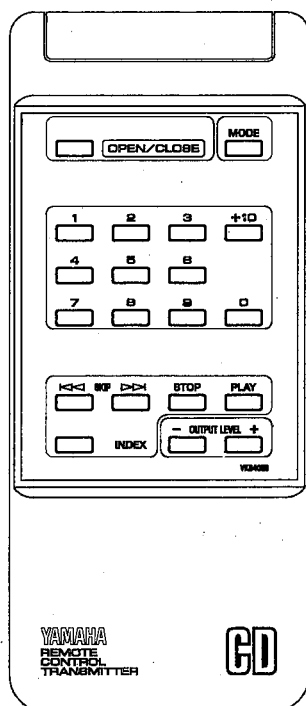
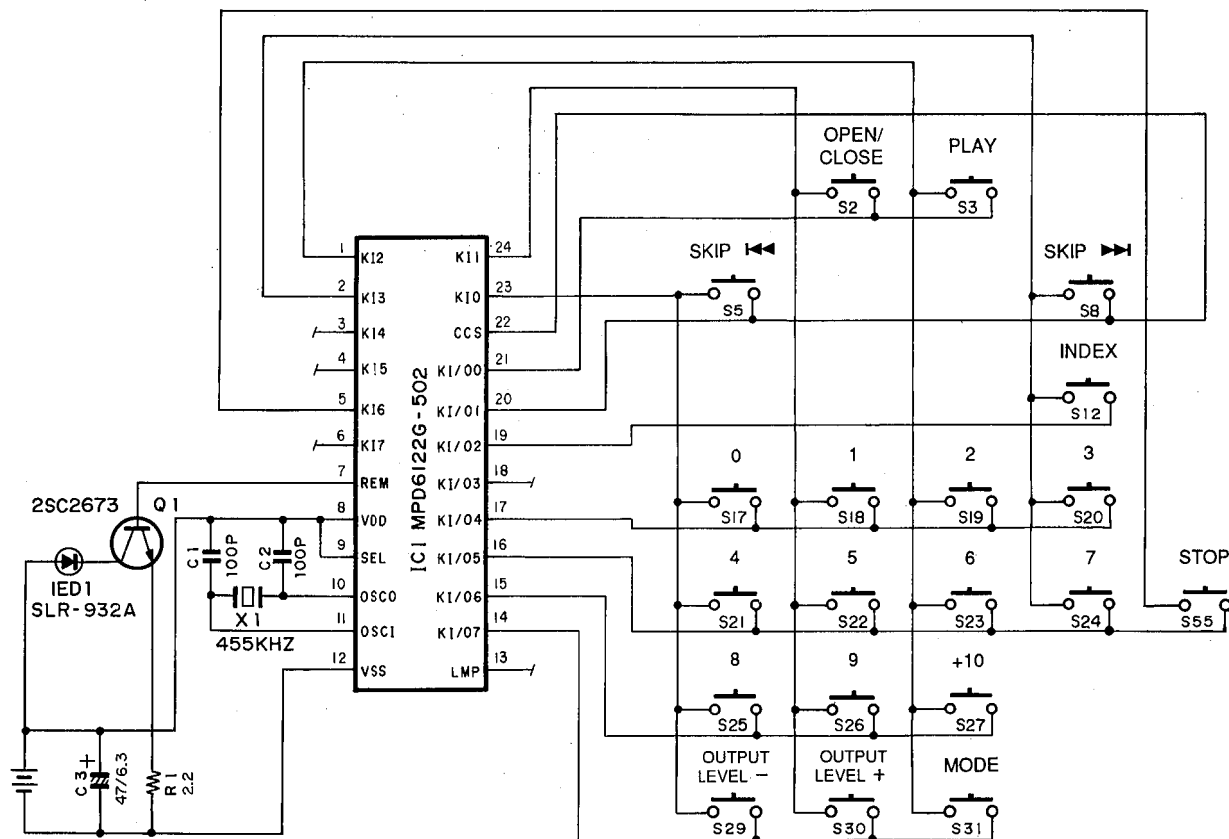
KEY No.	D0	D1	D2	D3	D4	D5	D6	D7	FUNCTION
2	1	0	0	0	0	0	0	0	OPEN/CLOSE
3	0	1	0	0	0	0	0	0	PLAY
5	0	0	1	0	0	0	0	0	SKIP ◀◀
8	1	1	1	0	0	0	0	0	SKIP ▶▶
12	1	1	0	1	0	0	0	0	INDEX
17	0	0	0	0	1	0	0	0	0
18	1	0	0	0	1	0	0	0	1
19	0	1	0	0	1	0	0	0	2
20	1	1	0	0	1	0	0	0	3
21	0	0	1	0	1	0	0	0	4
22	1	0	1	0	1	0	0	0	5
23	0	1	1	0	1	0	0	0	6
24	1	1	1	0	1	0	0	0	7
25	0	0	0	1	1	0	0	0	8
26	1	0	0	1	1	0	0	0	9
27	0	1	0	1	1	0	0	0	+10
29	0	0	1	1	1	0	0	0	OUTPUT LEVEL DOWN
30	1	0	1	1	1	0	0	0	OUTPUT LEVEL UP
31	0	1	1	1	1	0	0	0	MODE
55	0	1	1	0	1	0	1	0	STOP

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REMOTE CONTROL TRANSMITTER G, B models

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■ SCHEMATIC DIAGRAM



CUSTOM CODE

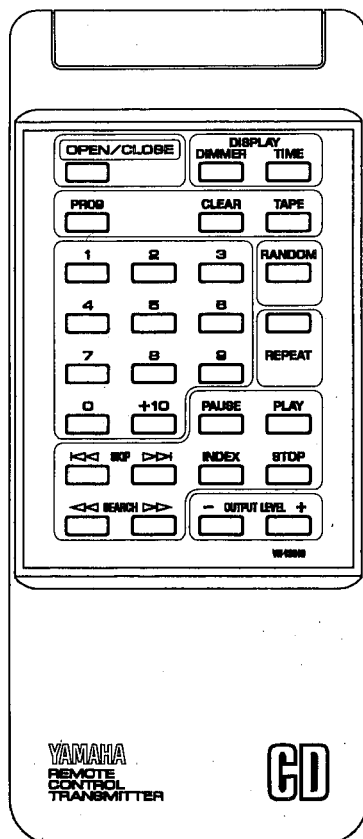
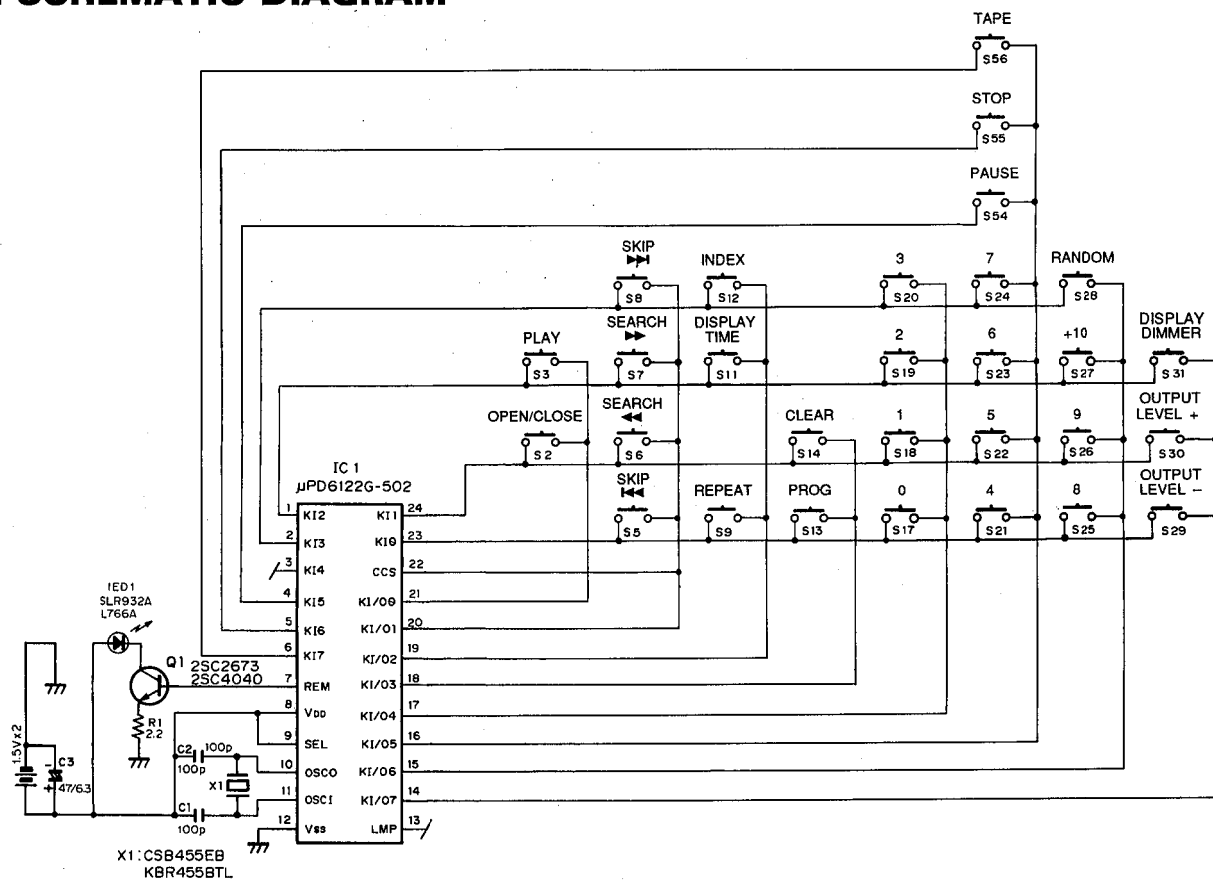
C0 C1 C2 C3 C4 C5 C6 C7
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KEY No.	DATA CODE								FUNCTION
	D0	D1	D2	D3	D4	D5	D6	D7	
2	1	0	0	0	0	0	0	0	OPEN/CLOSE
3	0	1	0	0	0	0	0	0	PLAY
5	0	0	1	0	0	0	0	0	SKIP ⏮
8	1	1	1	0	0	0	0	0	SKIP ⏭
12	1	1	0	1	0	0	0	0	INDEX
17	0	0	0	0	1	0	0	0	0
18	1	0	0	0	1	0	0	0	1
19	0	1	0	0	1	0	0	0	2
20	1	1	0	0	1	0	0	0	3
21	0	0	1	0	1	0	0	0	4
22	1	0	1	0	1	0	0	0	5
23	0	1	1	0	1	0	0	0	6
24	1	1	1	0	1	0	0	0	7
25	0	0	0	1	1	0	0	0	8
26	1	0	0	1	1	0	0	0	9
27	0	1	0	1	1	0	0	0	+10
29	0	0	1	1	1	0	0	0	OUTPUT LEVEL -
30	1	0	1	1	1	0	0	0	OUTPUT LEVEL +
31	0	1	1	1	1	0	0	0	MODE
55	0	1	1	0	1	0	1	0	STOP

CDX-470/570

CDX-570 REMOTE CONTROL TRANSMITTER

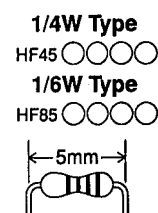
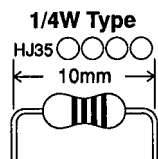
SCHEMATIC DIAGRAM



KEY No.	FUNCTION	DATA CODE								HEX CODE
		D0	D1	D2	D3	D4	D5	D6	D7	
S2	OPEN/CLOSE	1	0	0	0	0	0	0	0	01
S3	PLAY	0	1	0	0	0	0	0	0	02
S5	SKIP	0	0	1	0	0	0	0	0	04
S6	SEARCH	1	0	1	0	0	0	0	0	05
S7	SEARCH	0	1	1	0	0	0	0	0	06
S8	SKIP	1	1	1	0	0	0	0	0	07
S9	REPEAT	0	0	0	1	0	0	0	0	08
S11	DISPLAY TIME	0	1	0	1	0	0	0	0	0A
S12	INDEX	1	1	0	1	0	0	0	0	0B
S13	PROG	0	0	1	1	0	0	0	0	0C
S14	CLEAR	1	0	1	1	0	0	0	0	0D
S15										
S16										
S17	0	0	0	0	0	1	0	0	0	10
S18	1	1	0	0	0	1	0	0	0	11
S19	2	0	1	0	0	1	0	0	0	12
S20	3	1	1	0	0	1	0	0	0	13
S21	4	0	0	1	0	1	0	0	0	14
S22	5	1	0	1	0	1	0	0	0	15
S23	6	0	1	1	0	1	0	0	0	16
S24	7	1	1	1	0	1	0	0	0	17
S25	8	0	0	0	1	1	0	0	0	18
S26	9	1	0	0	1	1	0	0	0	19
S27	+10	0	1	0	1	1	0	0	0	1A
S28	RANDOM	1	1	0	1	1	0	0	0	1B
S29	OUTPUT LEVEL -	0	0	1	1	1	0	0	0	1C
S30	OUTPUT LEVEL +	1	0	1	1	1	0	0	0	1D
S31	DISPLAY DIMMER	0	1	1	1	1	0	0	0	1E
S54	PAUSE	1	0	1	0	1	0	1	0	55
S55	STOP	0	1	1	0	1	0	1	0	56
	TAPE	1	1	1	0	1	0	1	0	57
CUSTOM CODE C0 - C7		1	0	0	1	1	1	1	0	79

Parts List for Carbon Resistors

Value	1/4W Type Part No.	1/6W Type Part No.	Value	1/4W Type Part No.	1/6W Type Part No.
1.0 Ω	HJ35 3100	HF85 3100	10 k Ω	HF45 7100	HF45 7100
1.8 Ω	HJ35 3180	*	11 k Ω	HF45 7110	HF45 7110
2.2 Ω	HJ35 3220	HF85 3220	12 k Ω	HJ35 7120	HF85 7120
3.3 Ω	HJ35 3330	HF85 3330	13 k Ω	HF45 7130	HF45 7130
4.7 Ω	HJ35 3470	HF85 3470	15 k Ω	HF45 7150	HF45 7150
5.6 Ω	HJ35 3560	HF85 3560	18 k Ω	HF45 7180	HF45 7180
10 Ω	HF45 4100	HF45 4100	22 k Ω	HF45 7220	HF45 7220
15 Ω	HJ35 4150	HF85 4150	24 k Ω	HF45 7240	HF45 7240
22 Ω	HF45 4220	HF45 4220	27 k Ω	HJ35 7270	HF85 7270
27 Ω	HJ35 4270	HF85 4270	30 k Ω	HF45 7300	HF45 7300
33 Ω	HF45 4330	HF45 4330	33 k Ω	HF45 7330	HF45 7330
39 Ω	HJ35 4470	HF85 4390	36 k Ω	HF45 7360	HF45 7360
47 Ω	HF45 4470	HF45 4470	39 k Ω	HF45 7390	HF45 7390
56 Ω	HF45 4560	HF45 4560	47 k Ω	HF45 7470	HF45 7470
68 Ω	HF45 4680	HF45 4680	51 k Ω	HF45 7510	HF45 7510
75 Ω	HF45 4750	HF45 4750	56 k Ω	HF45 7560	HF45 7560
82 Ω	HF45 4820	HF45 4820	62 k Ω	HF45 7620	HF45 7620
91 Ω	HF45 4910	HF45 4910	68 k Ω	HF45 7680	HF45 7680
100 Ω	HF45 5100	HF45 5100	82 k Ω	HF45 7820	HF45 7820
110 Ω	HJ35 5110	HF85 5110	91 k Ω	HF45 7910	HF45 7910
120 Ω	HF45 5120	HF45 5120	100 k Ω	HF45 8100	HF45 8100
150 Ω	HF45 5150	HF45 5150	110 k Ω	HF45 8110	HF45 8110
160 Ω	HJ35 5160	*	120 k Ω	HF45 8120	HF45 8120
180 Ω	HF45 5180	HF45 5180	150 k Ω	HF45 8150	HF45 8150
200 Ω	HF45 5200	HF45 5200	180 k Ω	HF45 8180	HF45 8180
220 Ω	HF45 5220	HF45 5220	220 k Ω	HJ35 8220	HF85 8220
270 Ω	HF45 5270	HF45 5270	270 k Ω	HF45 8270	HF45 8270
330 Ω	HF45 5330	HF45 5330	300 k Ω	HF45 8300	HF45 8300
390 Ω	HF45 5390	HF45 5390	330 k Ω	HF45 8330	HF45 8330
430 Ω	HF45 5430	HF45 5430	390 k Ω	HJ35 8390	HF85 8390
470 Ω	HF45 5470	HF45 5470	470 k Ω	HF45 8470	HF45 8470
510 Ω	HF45 5510	HF45 5510	560 k Ω	HJ35 8560	HF85 8560
560 Ω	HF45 5560	HF45 5560	680 k Ω	HJ35 8680	HF85 8680
680 Ω	HF45 5680	HF45 5680	820 k Ω	HJ35 8820	HF85 8820
820 Ω	HF45 5820	HF45 5820	1.0 M Ω	HF45 9100	HF45 9100
910 Ω	HF45 5910	HF45 5910	1.2 M Ω	HJ35 9120	*
1.0 k Ω	HF45 6100	HF45 6100	1.5 M Ω	HJ35 9150	HF85 9150
1.2 k Ω	HF45 6120	HF45 6120	1.8 M Ω	HJ35 9180	HF85 9180
1.5 k Ω	HF45 6150	HF45 6150	2.2 M Ω	HJ35 9220	HF85 9220
1.8 k Ω	HF45 6180	HF45 6180	3.3 M Ω	HJ35 9330	HF85 9330
2.0 k Ω	HJ35 6200	HF85 6200	3.9 M Ω	HJ35 9390	*
2.2 k Ω	HF45 6220	HF45 6220	4.7 M Ω	HJ35 9470	HF85 9470
2.4 k Ω	HJ35 6240	HF85 6240			
2.7 k Ω	HF45 6270	HF45 6270			
3.0 k Ω	HF45 6300	HF45 6300			
3.3 k Ω	HF45 6330	HF45 6330			
3.6 k Ω	HJ35 6360	HF85 6360			
3.9 k Ω	HF45 6390	HF45 6390			
4.7 k Ω	HF45 6470	HF45 6470			
5.1 k Ω	HF45 6510	HF45 6510			
5.6 k Ω	HF45 6560	HF45 6560			
6.8 k Ω	HF45 6680	HF45 6680			
8.2 k Ω	HF45 6820	HF45 6820			
9.1 k Ω	HF45 6910	HF45 6910			



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