

COMPACT DISC PLAYER CDC-625/90/91

SERVICE MANUAL

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 any 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).

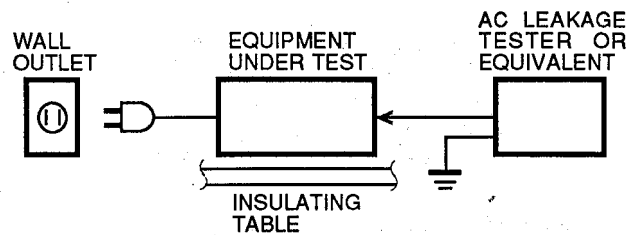
IMPORTANT: Turn the unit OFF during disassembly and part replacement. Recheck all work before you apply power to the unit.

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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.



● **POLARIZATION (U, C models)**

This CD player product is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature.

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.

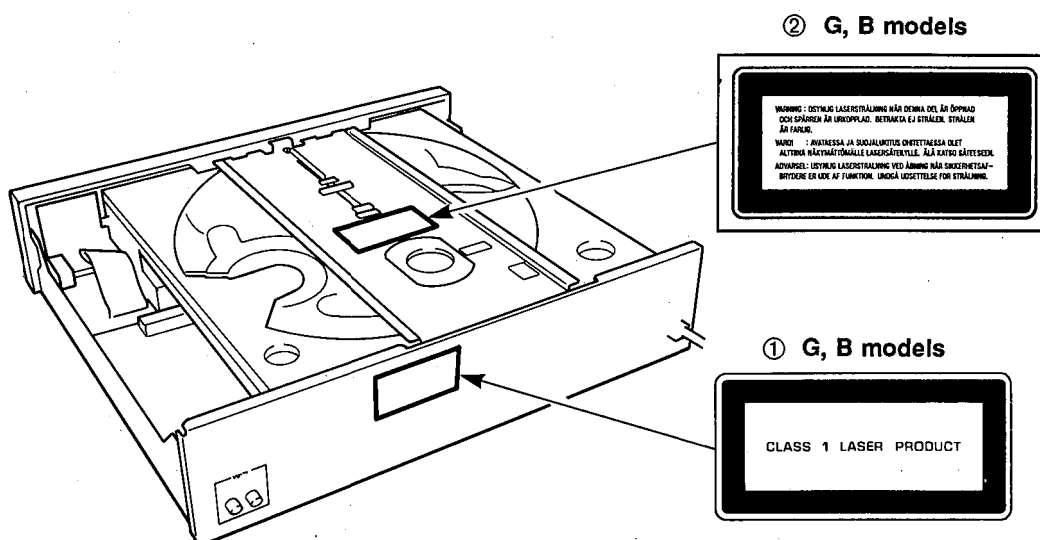
WARNING: CHEMICAL CONTENT NOTICE!

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.



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 KLASS 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.

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 UDSÆTTELSE FOR STRÅLING.

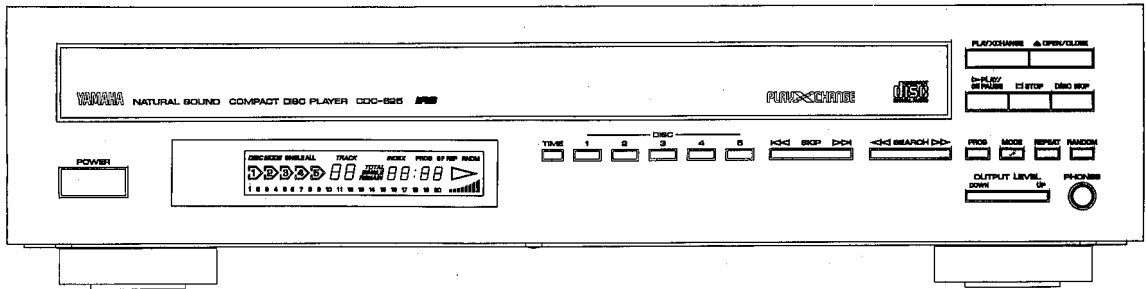
Finnish

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

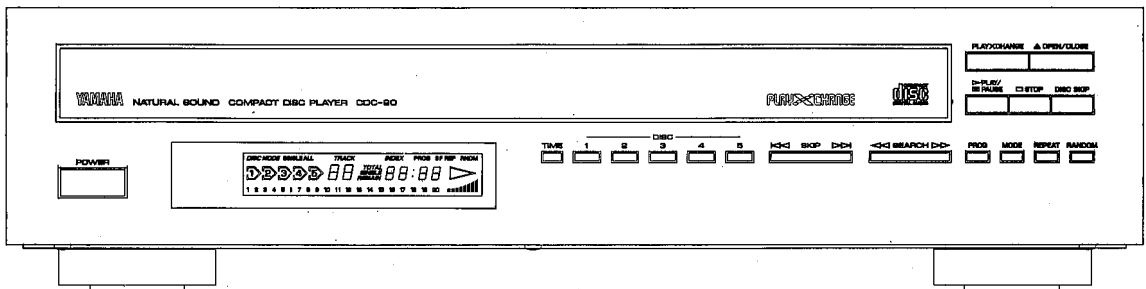
CDC-625/90/91

FRONT PANELS

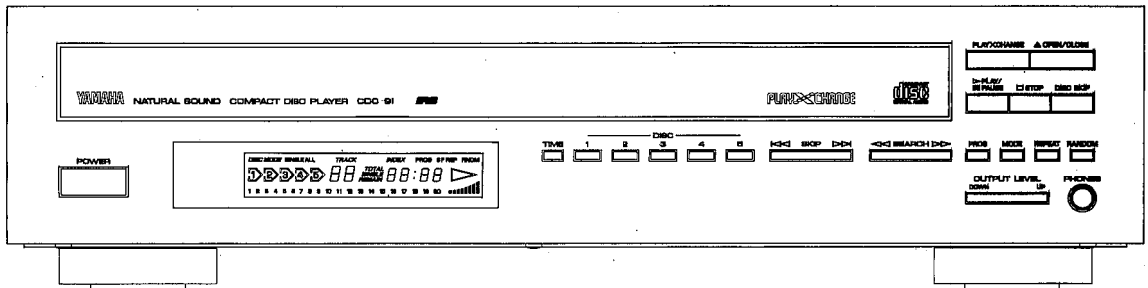
●CDC-625



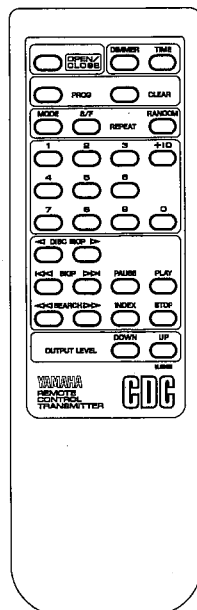
●CDC-90



●CDC-91



●CDC-625/91 only



CAUTION FOR TRANSFERRING THIS UNIT

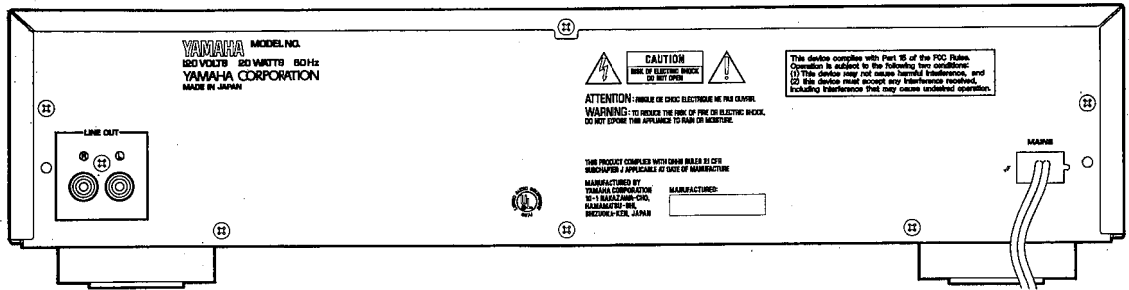
When transferring this unit, first remove all discs from the disc tray and close the tray by pressing the OPEN/CLOSE button, and then switch off the power after you confirm that the display has turned as follows.



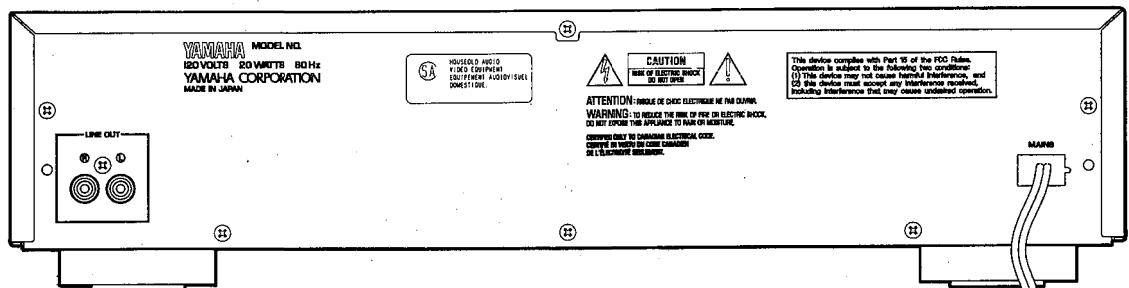
Never switch off the power if the display does not turn as above, otherwise the unit will get out of order during transferring because the internal mechanism is not locked.

REAR PANELS

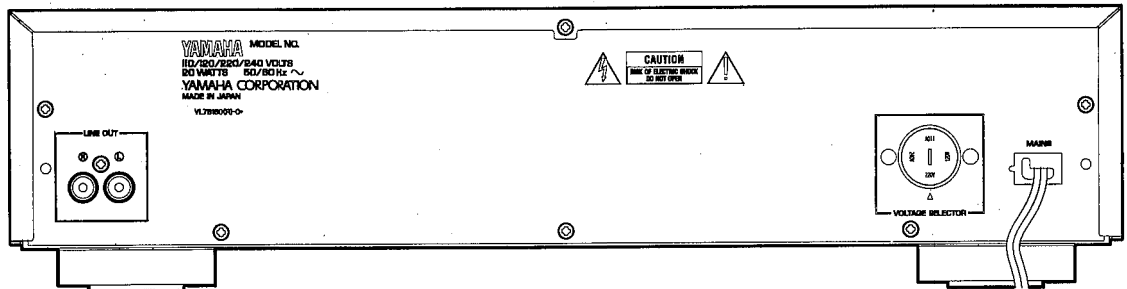
USA model



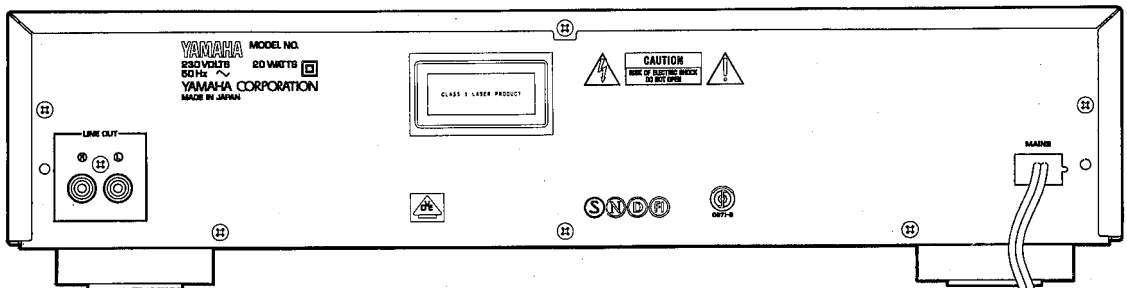
Canadian model



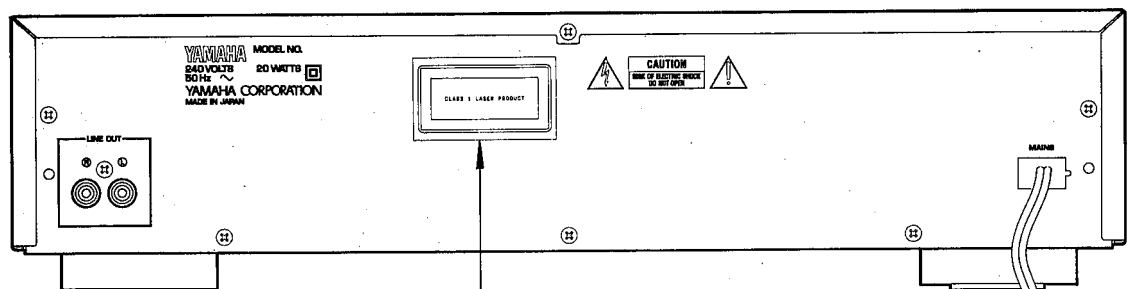
General model



European model



Australian & British models



British model only

■ SPECIFICATIONS

■ AUDIO SECTION

Frequency Response	2Hz~20kHz+0.5/-1.0dB
De-Emphasis Equalization	±0.5dB
Harmonic Distortion+Noise	Less than 0.004%, (1kHz)
S/N Ratio	108dB
Dynamic Range	98dB
Wow & Flutter	Unmeasurable
Channel Separation	95dB
Output Impedance	1kΩ
Output Voltage	2.0±0.5V
Headphone Output(1kHz -20dB)[CDC-625/91]	200mV/150Ω

■ INTERNAL SYSTEM

Optical Pick-up	3-beam laser
Error Correction System	CIRC
D/A Conversion	SL-bit DAC system
Filter	8fs 18bit noise shaping Digital Filter

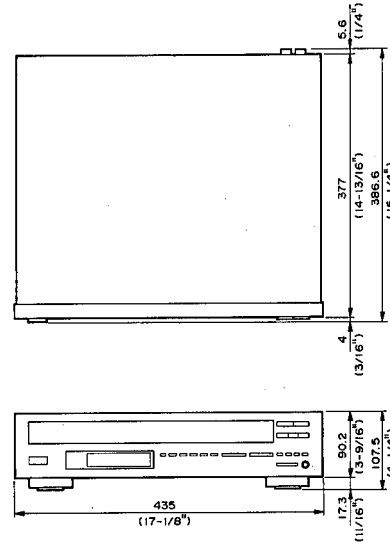
■ GENERAL

Power Requirements	
U, C models	120V AC 60Hz
A, B models	240V AC 50Hz
G model	230V AC 50Hz
R model	110/120/220/240V AC 50/60Hz
Power Consumption 20W	
Dimensions (W x H x D) 435 x 107.5 x 386.6 mm (17-1/8" x 4-1/4" x 15-1/4")	
Weight 6.2kg (13 lbs 10 oz)	
Accessories Pin plug cord	
CDC-625/91: Remote control transmitter	
Dry-cell: x2 (Size "AA", R06)	

* Specifications subject to change without notice.

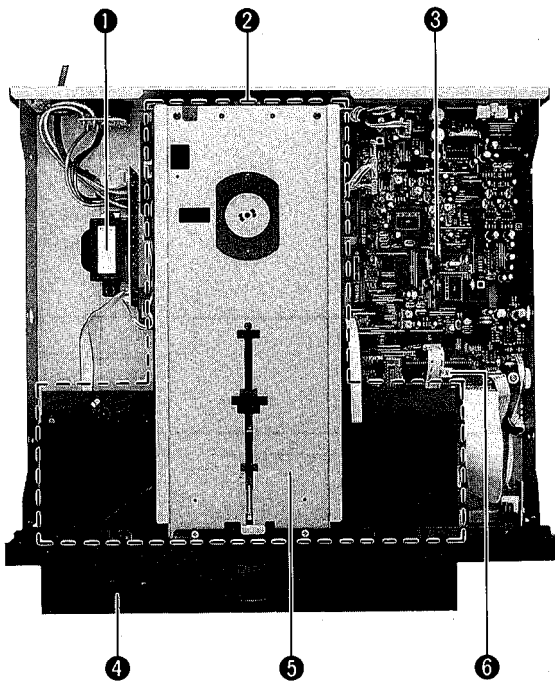
- U USA model
- C Canadian model
- A Australian model
- B British model
- G European model
- R General model

● DIMENSIONS



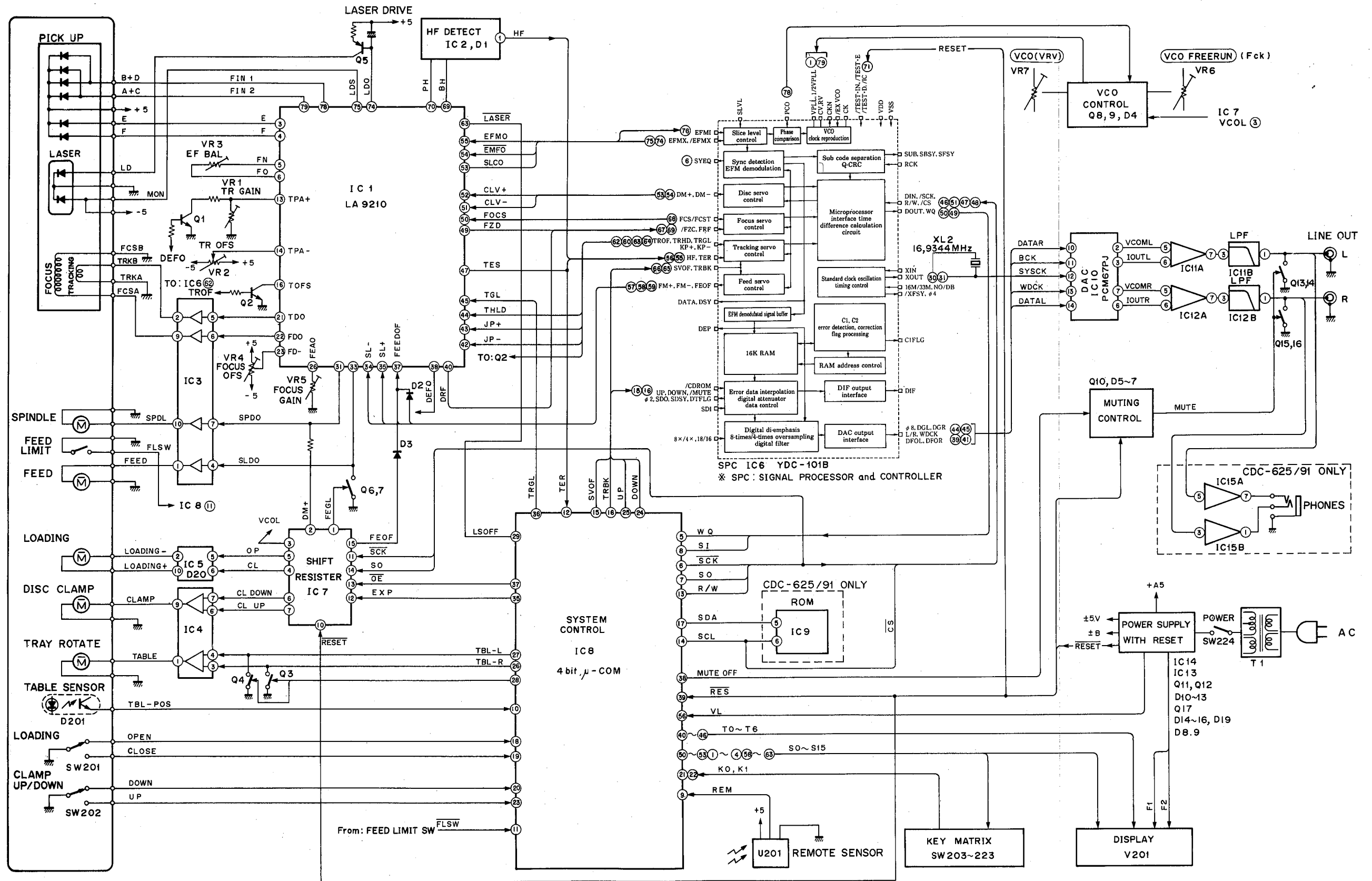
Unit : mm (inch)

■ INTERNAL VIEW



- ① POWER TRANSFORMER
- ② CM-91 UNIT
- ③ MAIN CIRCUIT BOARD (1)
- ④ TRAY ASS'Y
- ⑤ SHUTTER ASS'Y
- ⑥ 8 bit μ-COM

■ BLOCK DIAGRAM



DISASSEMBLY PROCEDURES

(Remove parts in the order as numbered.)

Precaution for disassembly : Note that use of any screws other than specified ones may cause a radio wave interruption which will prevent the unit from maintaining its performance.

1. Removal of Top Cover

a. Remove 4 screws (①) and also 1 screw (②) as shown in Fig. 1.

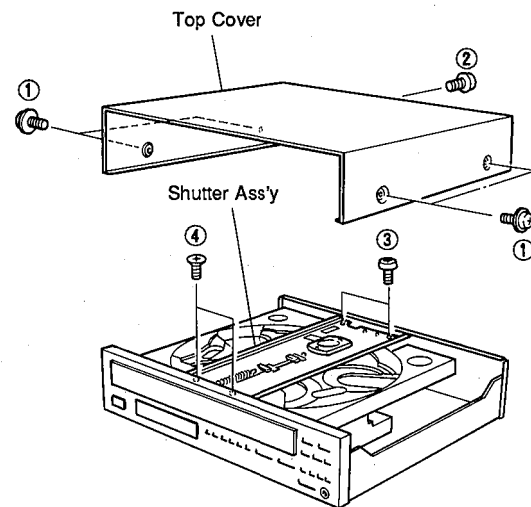
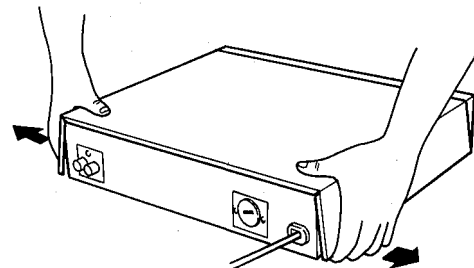


Fig. 1

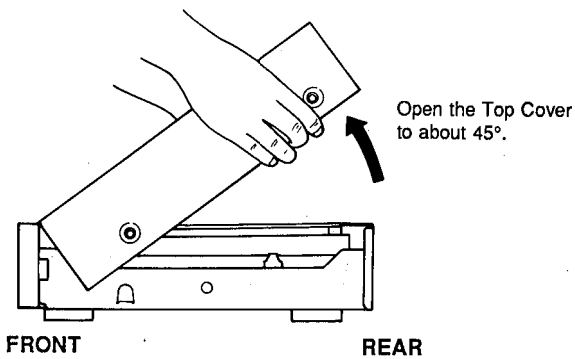
b. Pull the bottom edges of the Top Cover till they get disengaged as shown in Fig. 2. (About 5 mm at both sides)



Pull toward outside till the bottom edges are disengaged. (by about 5 mm at both sides)

Fig. 2

c. Keep lifting up the Top Cover till it opens about 45° as shown in Fig. 3.



Open the Top Cover to about 45°.

Fig. 3

d. Pull off the Top Cover diagonally as shown in Fig. 4.

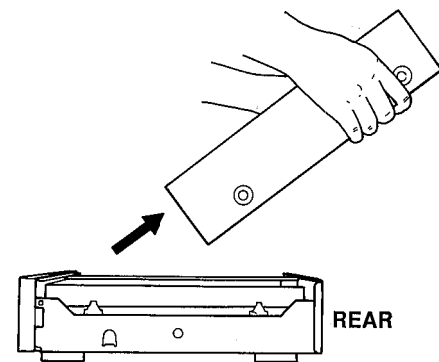


Fig. 4

2. Installation of Top Cover.

a. Fit the hooks of the Top Cover (at its front) between the front panel and sub-panel as shown in Fig. 5.
b. Pull the bottom edges of the Top Cover toward outside with both hands and lower it as shown in Fig. 5.

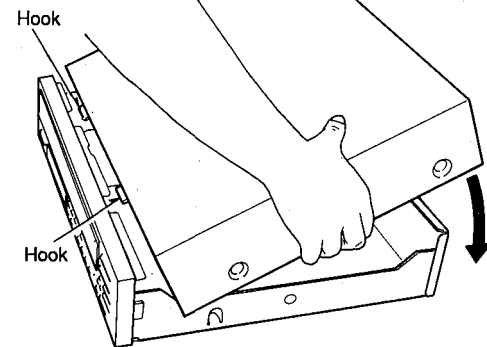


Fig. 5

3. Removal of Shutter Ass'y

a. Remove 2 screws (③) and also 2 screws (④) as shown Fig. 1.

4. Removal of Tray Ass'y

a. Turn the stopper/tray pin (⑤) counterclockwise by 90° degrees to pull it out as shown in Fig. 6.
b. Slowly remove the Tray Ass'y as shown in Fig. 6. Remove connector #4 from the Main Circuit Board.

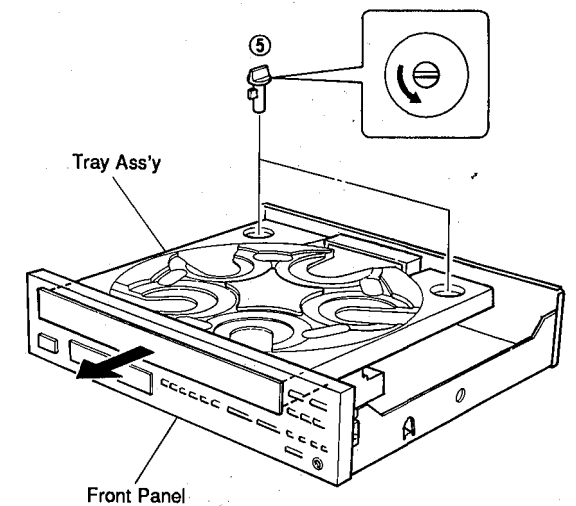


Fig. 6

5. Removal of CM-91 Unit

a. Remove 4 screws (⑥) as shown in Fig. 7.
b. Take out the CM-91 Unit out slowly as shown in Fig. 7.

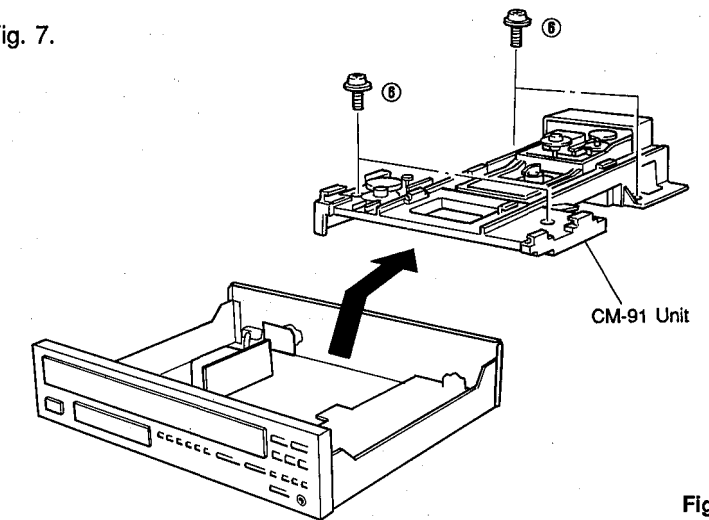


Fig. 7

6. Removal of Front Panel

a. Remove 5 screws, (⑦, ⑧) and also 1 screw (⑨) as shown in Fig. 8.
b. Take off the Front Panel Unit slowly as shown in Fig. 8.

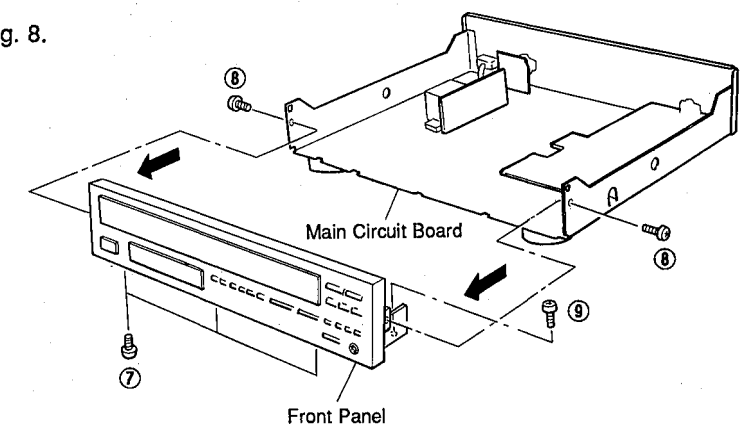


Fig. 8

● Operation Check Procedure (with electricity charged)

- ① Disassembly
 - 1) Remove the top cover.
 - 2) Remove the shutter assembly.
 - 3) Remove the stabilizer from the shutter assembly.
- ② Remove the connector #5 and stand the circuit board upright. (Even when the connector #5 is removed, the TEST mode can be entered but the disc clamp cannot be move up or down.)
- ③ Clamp the disc by using the stabilizer.
- ④ Set to the TEST mode and check for any faulty conditions.

ADJUSTMENTS

Necessary Items

Measuring instruments

Oscilloscope	: x 1
(Band width of 50MHz or more, 2 ch type with X-Y position)	
AC voltmeter (ACVM)	: 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	: x 1
(For Pre-set Potentiometer adjustment)	

Before Adjustment

Carry out following adjustments in order as numbered.

1. Confirmation of power voltage and operation

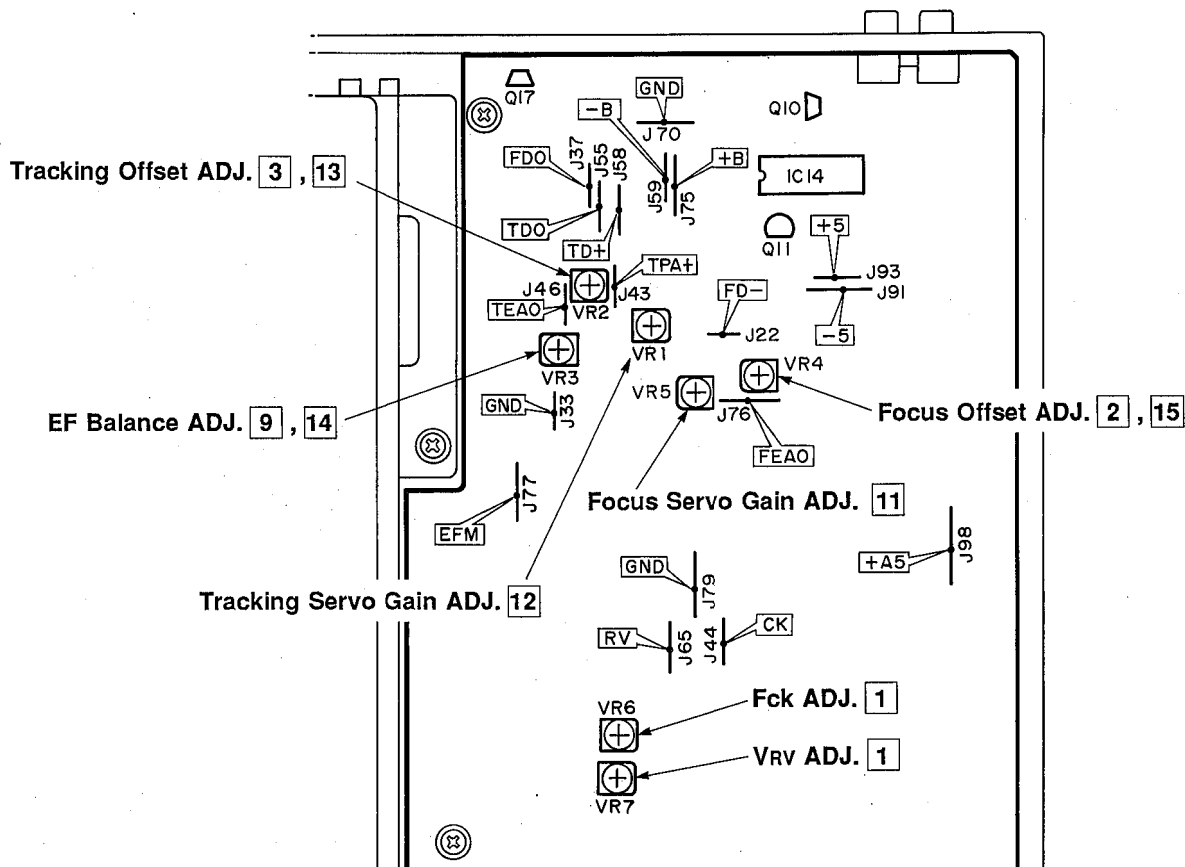
- 1) Confirmation of power voltage
- 2) Confirmation of reset operation
- 3) Confirmation of muting operation

2. Adjustment of pick-up servo

- 1) VCO free-run adjustment (VRV ADJ. & Fck ADJ.)
- 2) Focus offset adjustment
- 3) Tracking offset adjustment
- 4) Confirmation of focus search
- 5) Confirmation of loading operation
- 6) Confirmation of turntable operation
- 7) Confirmation of disc clasper operation
- 8) Confirmation of focus & tracking operation
- 9) EF balance adjustment
- 10) Confirmation jitter
- 11) Focus servo gain adjustment
- 12) Tracking servo gain adjustment
- 13) Confirmation of tracking offset
- 14) Confirmation of EF balance
- 15) Confirmation of focus offset

TEST POINT

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



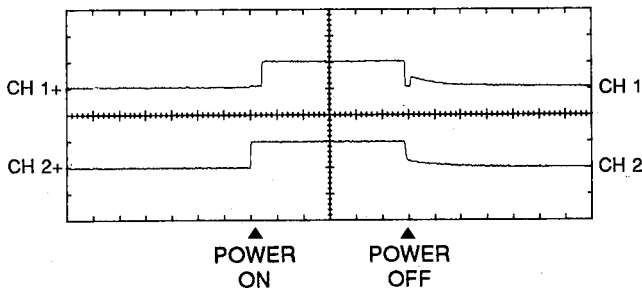
Confirmation of Power Voltage

ITEM	TEST POINT	RATING
+B	+B (J75)~GND	About 10.6V (at STOP)
-B	-B (J59)~GND	About -11.6V (at STOP)
+5	+5 (J63)~GND	5V±0.25V
-5	-5 (J91)~GND	-5V±0.25V
+A5	+A5 (J98)~GND	5V±0.2V
-20	Q17 emitter~GND	About -20.15V~-21.20V
Mute power supply	Q10 emitter~GND	4.94V~5.2V

Confirmation of Reset Operation

The Pin 8 of IC14 changes from Low to High about 500msec. after the power is turned ON. Also, it changes from High to Low when the power is turned OFF and +5 drops to 4.2V.

CH1 : 8 pin of IC14
CH2 : +5V

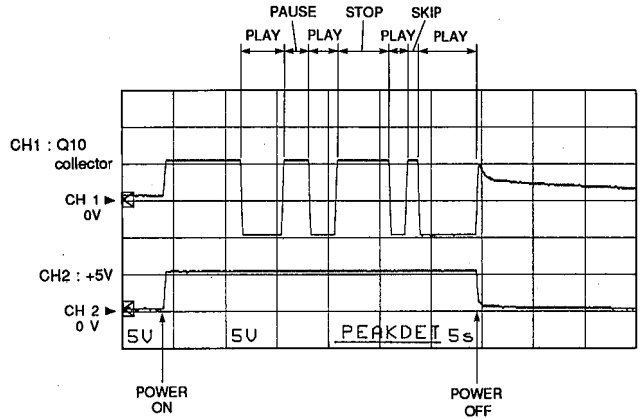


V : 500mV/div
H : 1sec/div
DC range
10:1 probe

Confirmation of Muting Operation

The voltage of the Q10 collector should be about 5V immediately after the power is turned ON and -5V upon entering the PLAY mode. Also it should be 5V in PAUSE, STOP and SKIP modes and finally immediately after the power is turned OFF from the PLAY mode.

CH1 : Q10 collector
CH2 : +5V



Starting TEST Mode

While pressing both the PLAY/PAUSE and STOP 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**

- PLAYXCHANGE : Focus start
- OPEN/CLOSE : Open, close
- PLAY/PAUSE : Play
- STOP : Laser OFF, stop of every item including spindle
- DISC SKIP : Disc skip
- TIME : Display test
(→ all ON → 888888 → OFF →)
- DISC 1 : Change from TEST mode to PRODUCT mode
- DISC 2 : ADJUSTMENT mode Step 1
- DISC 3 : ADJUSTMENT mode Step 2
- DISC 4 : ADJUSTMENT mode Step 3
- DISC 5 : ADJUSTMENT mode Step 4
- ⏪ : Forced feed to inner circumference
- ⏩ : Forced feed to outer circumference
- ⏴ : Disc clamber raised
- ⏵ : Disc clamber lowered
- PROG : E² ROM check
- MODE : Acceleration of spindle
- REPEAT : Tracking servo OFF
- RANDOM : Tracking servo ON
- DOWN : Turntable spins counterclockwise (CDC-625/91 only)
- UP : Turntable spins clockwise (CDC-625/91 only)

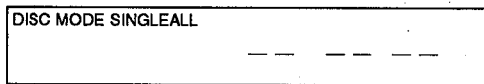
* When the PLAYXCHANGE key is pressed to execute FOCUS start, it sometimes takes a few seconds before FOCUS is locked. Therefore, avoid pressing the PLAY/PAUSE key too quickly.

Adjustment Mode

There are Steps 1 to 4 of the adjustment mode. Use the DISC Keys (2 to 5) to select the desired step.

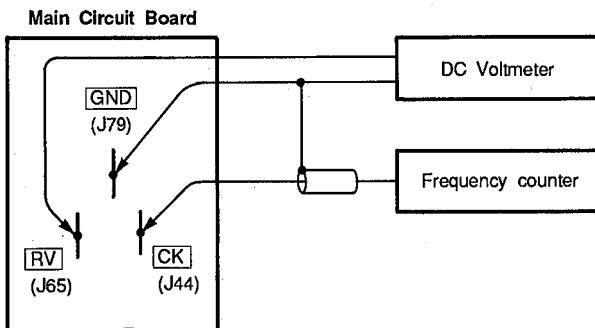
Content of Adjustment Mode	
Step 1	STOP VCO free run adjustment Focus offset adjustment
Step 2	Tracking offset adjustment
Step 3	EF balance adjustment
Step 4	Confirmation of jitter Focus servo gain adjustment Tracking servo gain adjustment

NOTE) The indicator lights as shown below during the preparation period of each step. Start adjustment upon completion of the preparation period (which is about a few seconds long).



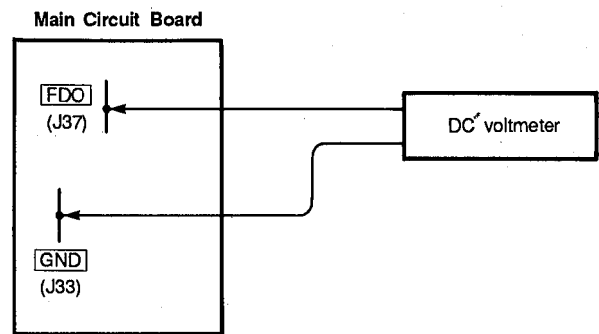
This parts lights during the preparation period.

1 VCO Free Run Adjustment



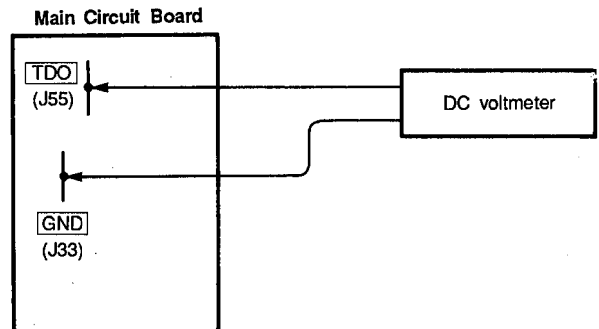
- ① Do not load the disc.
- ② Set to the TEST mode.
- ③ Press the DISC 2 key to adjustment mode Step 1.
- ④ Measure the voltage at the test point **RV** and adjust the VR7 so that the following rating will be satisfied.
 $V_{RV} = 2.3V \pm 0.05V (DC)$
- ⑤ Connect a frequency counter to the test point **CK**.
* Make sure to use a probe (10 : 1 probe for oscilloscope) to input data to the frequency counter.
- ⑥ Adjust the VR6 so that the following rating will be satisfied.
 $F_{CK} = 4.3218MHz \pm 0.01MHz$
- ⑦ Repeat above Steps ④ and ⑥ so that both ratings will be satisfied.

2 Focus Offset Adjustment



- ① Do not load the disc.
- ② Set to the TEST mode.
- ③ Press the DISC 2 key to adjustment mode Step 1.
- ④ Measure the voltage at test point **FDO** and adjust the VR4 so that the following rating will be satisfied.
 $V_{FDO} = 0V \pm 100mV(DC)$

3 Tracking Offset Adjustment



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

4 Confirmation of Focus Search

- ① Do not load the disc.
- ② Set to the TEST mode.
- ③ Press the PLAYXCHANGE key.
- ④ Check to make sure that the laser diode of the optical pick-up head emits light and the objective lens moves smoothly from the lowest point to the highest point.
- ⑤ Press the STOP key.

5 Confirmation of Loading Operation

- ① Set to the TEST mode.
- ② Press OPEN side of the OPEN/CLOSE key.
- ③ Check to make sure that the tray opens smoothly.
- ④ Press CLOSE side of the OPEN/CLOSE key.
- ⑤ Check to make sure that the tray closes smoothly.

6 Confirmation of Turntable Operation

- ① Set to the TEST mode.
- ② Press the DISC SKIP key.
- ③ Check to make sure that the turntable spins smoothly.

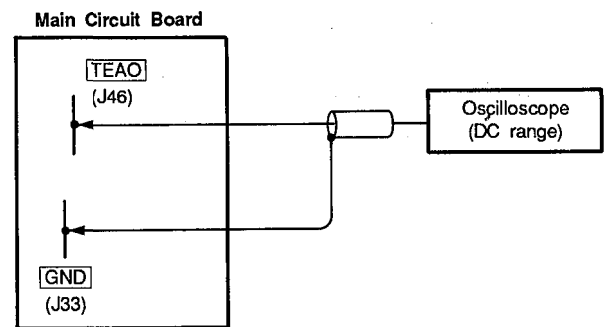
7 Confirmation of Disc Clamper Operation

- ① Set to the TEST mode.
- ② Press the ◀ or ▶ key.
- ③ Check to make sure that the disc clamper raised or lowered smoothly.

8 Confirmation of Focus & Tracking Operation

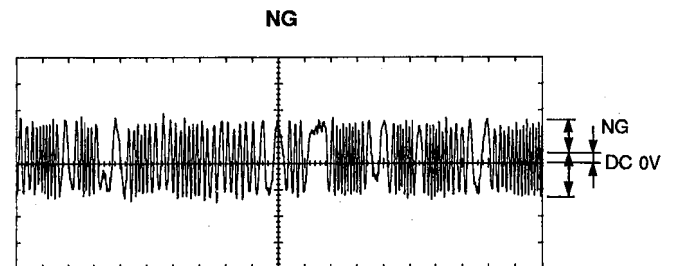
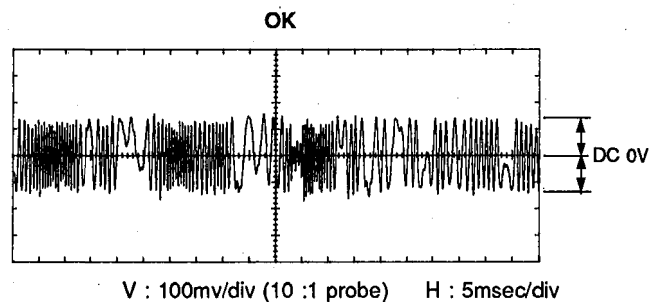
- ① Set to the TEST mode.
- ② Load the test disc.
(Set the disc by using ▶ or ◀ keys)
- ③ Press the PLAYXCHANGE key.
- ④ Check to make sure that the focus servo is applied by moving the test disc a little by hand.
- ⑤ Press the PLAY/PAUSE key.
- ⑥ Check that the disc starts turning and the time read from the disc is displayed on the display.

9 EF Balance Adjustment

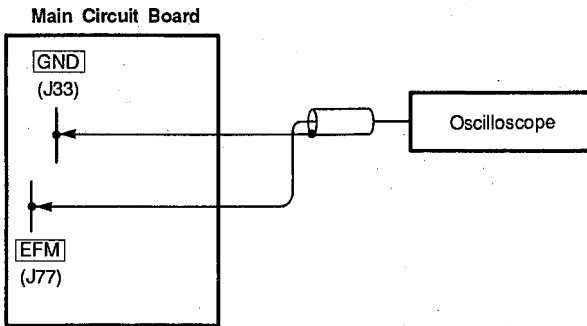


- ① Connect an oscilloscope to the test point **TEAO**.
* Make sure to use a 10 : 1 probe.
- ② Set to the TEST mode.
- ③ Set the test disc.
- ④ Press the DISC 4 key to adjustment mode Step 3.
- ⑤ Adjust VR3 so that the waveform at the test point **TEAO** has the same amplitude on both upper and lower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

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

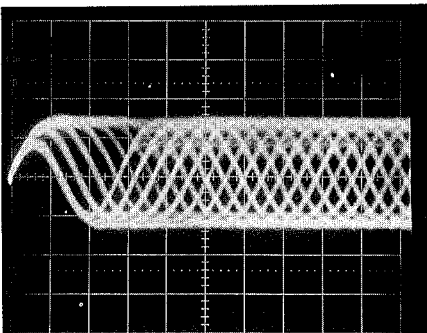


10 Confirmation of Jitter

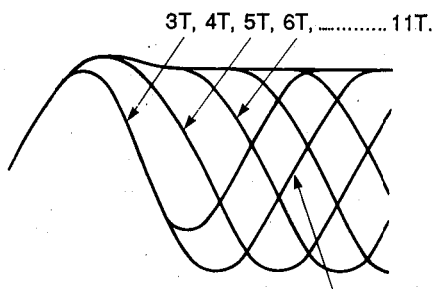


- ① Connect an oscilloscope to the test point **EFM**.
- ② Set to the TEST mode.
- ③ Load the test disc.
- ④ Press the DISC 5 key to adjustment mode Step 4.
- ⑤ Check to make sure that a clear waveform (eye pattern) is obtained at the test point **EFM**.

● **EYE PATTERN**



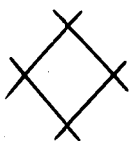
Waveforms 3T—11T.



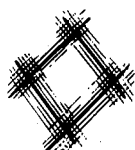
This portion is referred to as the eye pattern.

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

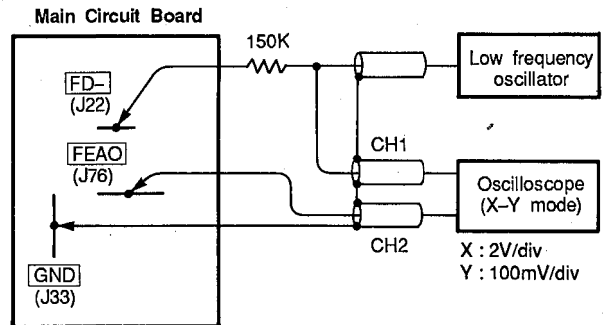
Good waveform



Abnormal waveform



11 Focus Servo Gain Adjustment



- 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.
- ④ Press the DISC 5 key to adjustment mode Step 4.
- ⑤ Apply a sine wave as in Table A to the test point **FD-** through a 150kΩ resistance.

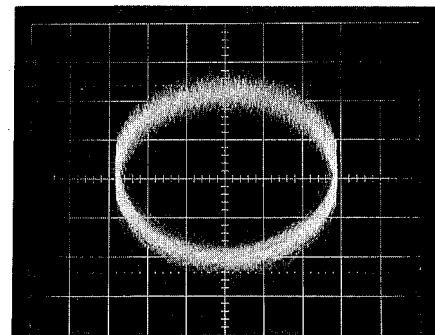
The frequency varies depending on the test disc.

Test Disc	Signal
TCD-782	660Hz, 2Vrms
YEDS-18	670Hz, 2Vrms
Philips 5	650Hz, 2Vrms

Table A

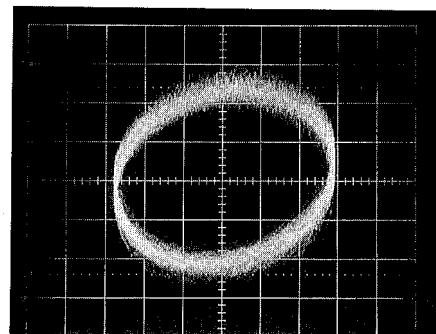
- ⑥ Adjust VR5 so that the phase difference between the waveform at the test point **FD-** and that at the **FEAO** becomes 90 degrees.

90° OK

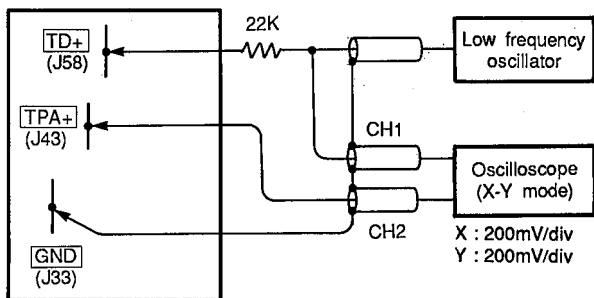


X : 2V/div Y : 100mV/div

NG



12 Tracking Servo Gain Adjustment



- 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.
- ④ Press the DISC 5 key to adjustment mode Step 4.
- ⑤ Apply a sine wave to the test point **TD+** as in Table B through a 22kΩ resistance.

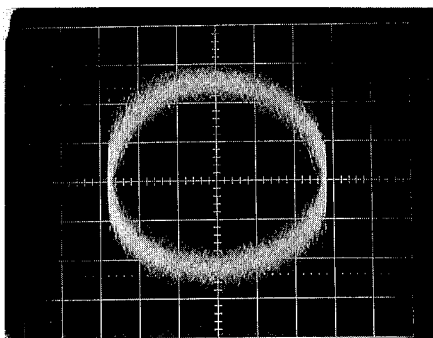
The frequency varies depending on the test disc.

Test Disc	Signal
TCD-782 (Lot No. T7098DA or T90808)	670Hz, 300mVrms
TCD-782 (Lot No. 00101A)	630Hz, 300mVrms
YEDS-18	600Hz, 300mVrms
Philips 5	640Hz, 300mVrms

Table B

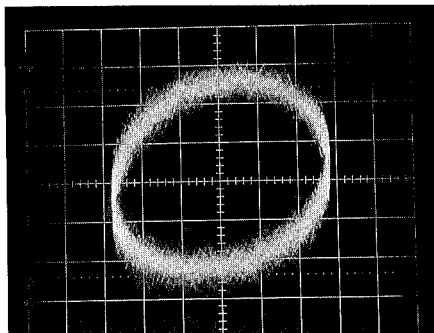
- ⑥ Adjust VR1 so that the phase difference between the waveform at the test point **TD+** and that at the **TPA+** is 90 degrees.

90° OK

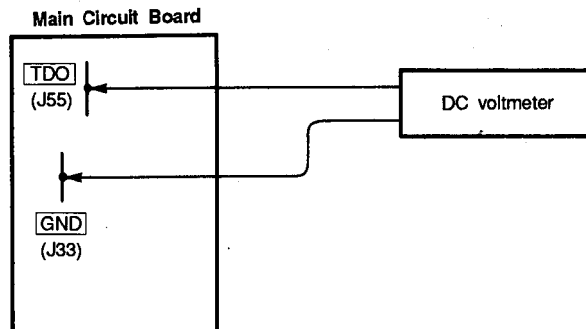


X : 200mV/div Y : 200mV/div

NG

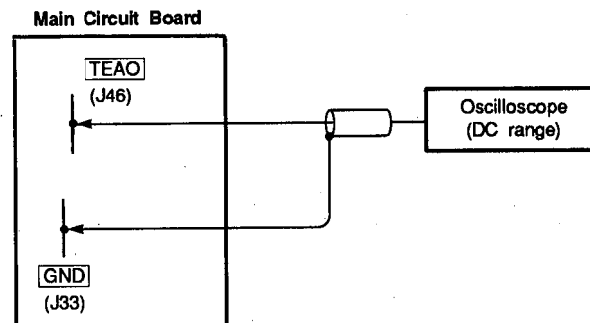


13 Confirmation of Tracking Offset



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

14 Confirmation of EF Balance

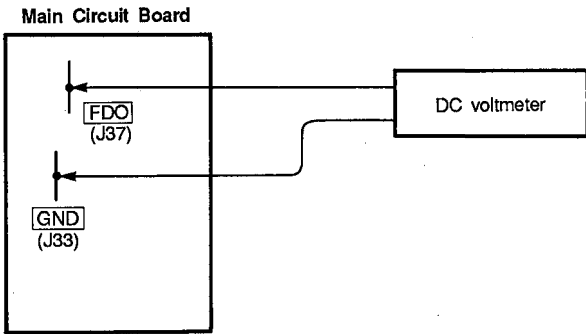


- ① Connect an oscilloscope to the test point **TEAO** .
* Make sure to use a 10 : 1 probe.
- ② Set to the TEST mode.
- ③ Load the test disc.
- ④ Press the DISC 4 key to adjustment mode Step 3.
- ⑤ Check the waveform at the test point **TEAO** for the same amplitude on both upper and lower sides of the DC 0V position.

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

- ⑥ If the rating is not satisfied, adjust VR3.

15 Confirmation of Focus Offset

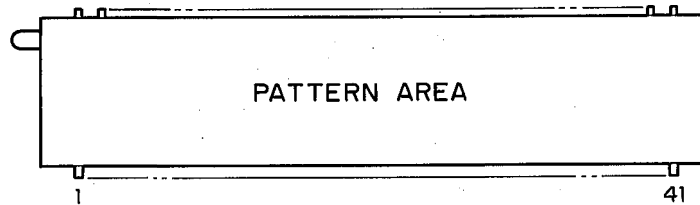


- ① Do not load the disc.
- ② Set to the TEST mode.
- ③ Press the DISC 2 key to adjustment mode Step 1.
- ④ Measure the voltage at the test point **FDO** and check if the following rating is satisfied.
Rating : $V_{FDO} = 0V \pm 100mV(DC)$
- ⑤ If the measured voltage does not satisfy the rating, adjust VR4.

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

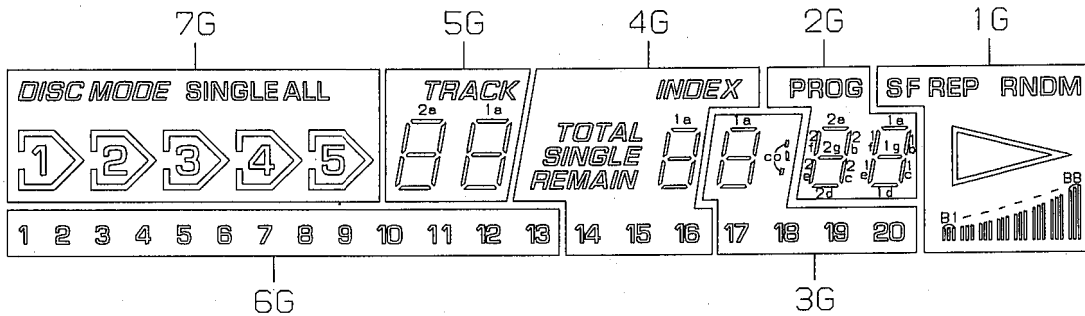
■ DISPLAY DATA (VL851100)

V201 : 7-BT-153GK



PIN CONNECTION

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33		
CONNECTION	F1	F1	NP	NP	P14	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	6G	5G
PIN NO.	34	35	36	37	38	39	40	41	NOTE 1) F1, F2..... Filament 2) NP No pin 3) NC No connection 4) 1G~7G Grid																										
CONNECTION	4G	3G	2G	1G	NP	NP	F2	F2																											



ANODE CONNECTION

	7G	6G	5G	4G	3G	2G	1G
P1	DISC MODE	1	1a	1a	1a	1a	S
P2	—	2	1b	1b	1b	1b	F
P3	(1)	5	1c	1c	1c	1c	▷
P4	(2)	7	1d	1d	1d	1d	REP
P5	1	6	1e	1e	1e	1e	RNDM
P6	SINGLE	3	1f	1f	1f	1f	—
P7	ALL	4	1g	1g	1g	1g	—
P8	2	8	2a	TOTAL	col	2a	B1
P9	(3)	9	2b	SIGNAL	—	2b	B2
P10	4	12	2c	15	18	2c	B3
P11	5	—	2d	—	20	2d	B4
P12	(5)	13	2e	16	19	2e	B5
P13	3	10	2f	REMAIN	—	2f	B6
P14	(4)	11	2g	14	17	2g	B7
P15	—	—	TRACK	INDEX	—	PROG	B8

■ TEST MODE

● Starting TEST mode

While pressing both the "PLAY/PAUSE" and "STOP" 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.

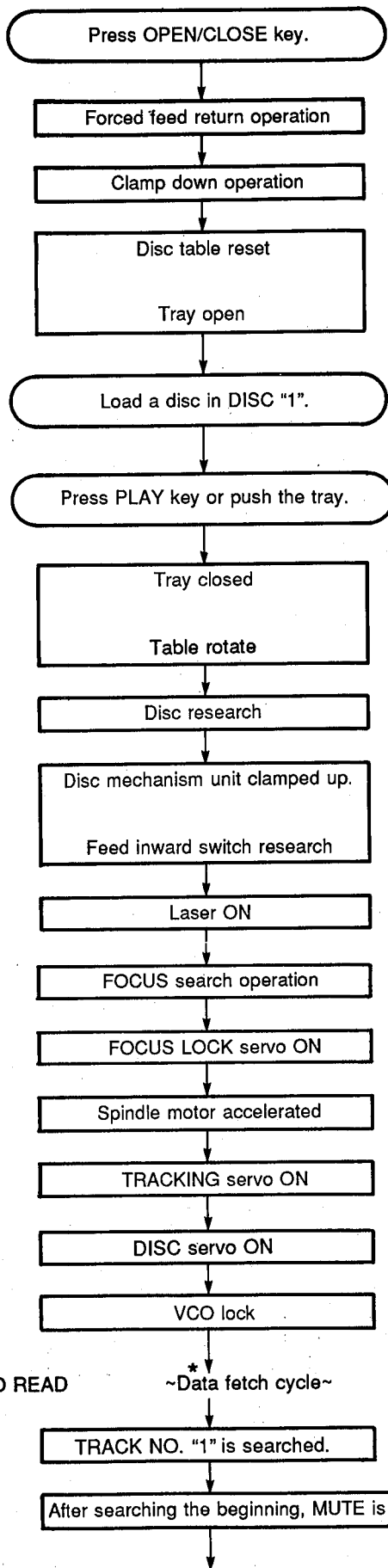
● TEST mode key descriptions

KEY	DESCRIPTION												
OPEN/CLOSE	Tray OPEN/CLOSE operation is executed according to the conditions of SW201 (Loading limit switch). <table border="1" style="margin: 5px 0;"> <thead> <tr> <th>Operation</th> <th>Open</th> <th>Close</th> </tr> </thead> <tbody> <tr> <td>—</td> <td>H</td> <td>H</td> </tr> <tr> <td>Open</td> <td>H</td> <td>L</td> </tr> <tr> <td>Close</td> <td>L</td> <td>H</td> </tr> </tbody> </table> Operation (open or close) remains unchanged unless the condition of SW201 is changed.	Operation	Open	Close	—	H	H	Open	H	L	Close	L	H
Operation	Open	Close											
—	H	H											
Open	H	L											
Close	L	H											
DISC SKIP	The disc skip operation is executed once. (Clockwise) (Effective only when the tray is open or the clamper is lowered all way down.)												
PLAY	<ul style="list-style-type: none"> ● If focus servo is applied, VCO is drawn in and operation mode is set to PLAY mode. (A play command is sent to SPC-6.) Regardless of the above state, a MUTE signal is output to cancel MUTE. ● Tracking servo ON, Tracking gain "L". 												
PLAYXCHANGE	Focus search is executed once. Focus lock effective if a disc is loaded.												
STOP	For stopping whatever is set by any command within TEST mode. (motor, laser, etc.)												
RANDOM	Tracking ON, Tracking gain "H". Mute ON "L".												
⏮	Forced feed return is executed. Press the PLAY or STOP key for cancellation. When returned to the innermost position, FLSW = "L" is detected and operation is automatically stopped.												
⏭	Outward forced feed is executed. Press the PLAY or STOP key for cancellation.												
⏪	Disc clamper lowered.												
⏩	Disc clamper raised.												
REPEAT	Tracking OFF.												
MODE	Turntable starts to turn and its speed increases.												
PROG	E2 PROM check. Mute ON "L" at OK. Mute cancel "H" at NG.												
TIME	For testing LCD lighting. <input type="checkbox"/> → ALL ON → 888888 → ALL OFF <input type="checkbox"/>												
DISC 1	Return to product mode. Neither tray nor table operates.												
DISC 2	For adjusting VCO, and focus offset.												
DISC 3	For adjusting tracking offset, and confirming focus offset.												
DISC 4	For adjusting EF balance.												
DISC 5	For adjusting tracking gain, focus gain, and focus.												
VOL DOWN (CDC-625/91)	Turntable spins counterclockwise. Press the STOP key for cancellation. Note : When the TEST mode has been cancelled, the table position is not set accurately. Therefore, be sure to execute disc skip operation once before cancellation. (When operating the table, first confirm that the Disc Clamper is lowered.)												
VOL UP (CDC-625/91)	Turntable spins clockwise. Press the STOP key for cancellation. As described in DISC SKIP ◀ above, it is necessary to note operation conditions before cancellation.												

● μ-COM operation for each key

	LS OFF	FCS	TROF	TRGL	VCOL	MUTE OFF	FEOF	REMARKS
STOP	H	L	H			L	H	Focus OFF
PLAYXCHANGE	L	H	H				H	Follow the focus search chart.
PLAY	—	—	L	L → H	L → H	H	L	
RANDOM	—	—	L	L	L	L	L	
REPEAT	—	—	H	L	L	L	—	
⏮	—	—					H	FE-
⏭	—	—					H	FE+
⏪				L				KP-
⏩				L				KP+
MODE								DM+
PROG								DM-
TIME								
DISC 1								
DISC 2	H		H	L	L		H	Clamp DOWN
DISC 3	H		L				H	Clamp UP
DISC 4	L	H	H				H	Clamp UP
DISC 5	L	H	L	L		H	L	Clamp UP

STANDARD OPERATION CHART



: "OPEN" appears in the TIME indicator.

: $\overline{\text{FEM-}}$ = "H" is output until detection of LIMIT switch.

: Proceeds to next step after detection of CLAMP switch (SW202)

: Stop after detection of LOADING switch (SW201)

: "DISC" "1" flash, \triangle indicator lights.

: Proceeds to next step after detection of LOADING switch (SW201)

: DISC "1" is turned to DM clamp position.

: "DISC" \square from flashing to lighting.

: Proceeds to next step after detection of CLAMP switch (SW202)

: If $\overline{\text{FL SW}}$ = "L", PROCEED TO THE NEXT STEP.

: $\overline{\text{LSOFF}}$ = "L" (LD=2V)

: $\overline{\text{FCS}}$ = "L"→"H"

: $\overline{\text{FCS}}$ = "H"→"L"

: $\overline{\text{DM+}}$ = "L"→"H" (Pulse output)

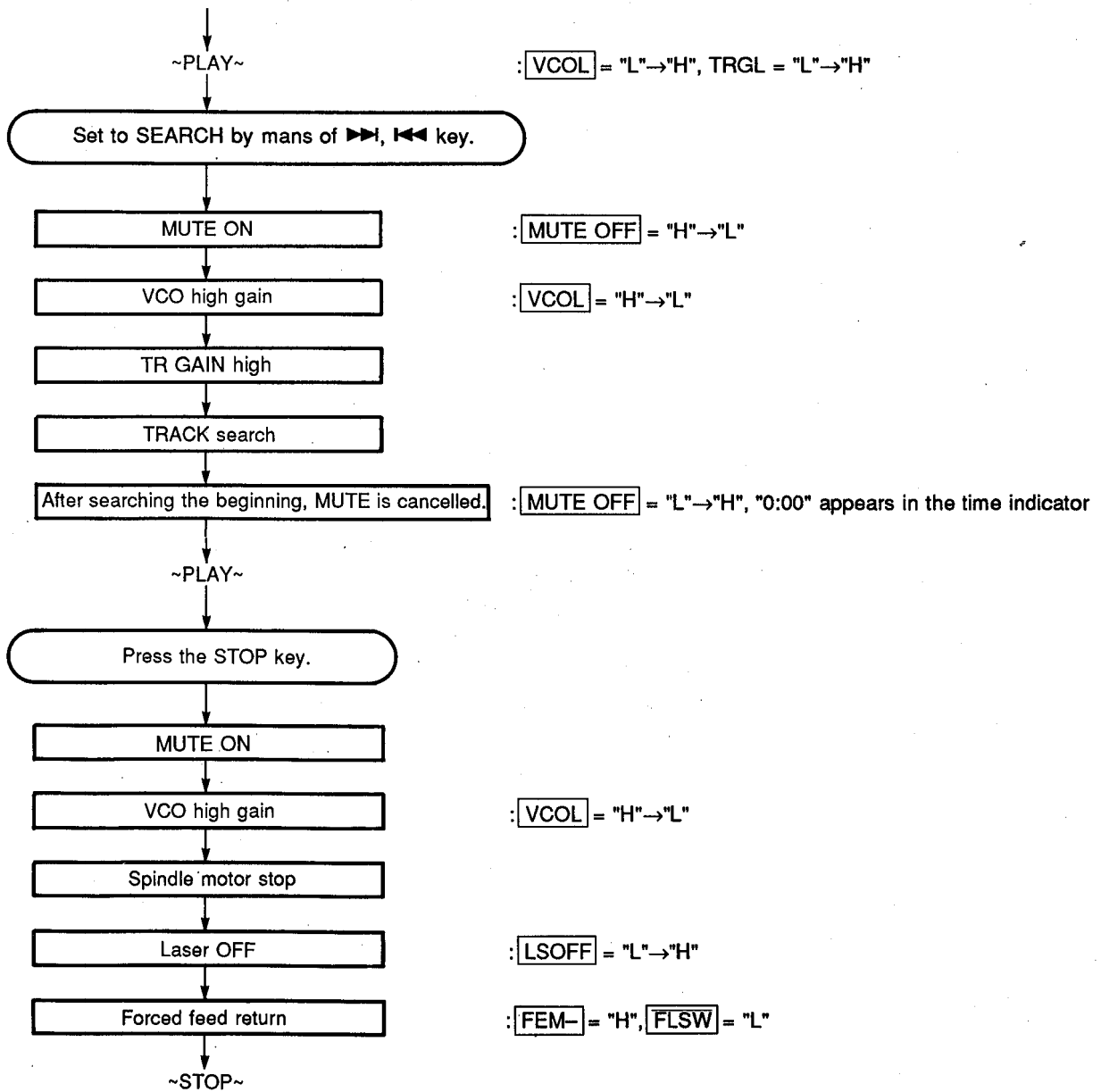
: $\overline{\text{TROF}}$ = "L"→"H"

: $\overline{\text{SYEQ}}$ = "H"

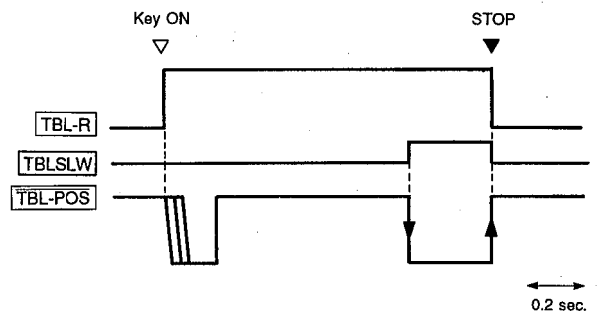
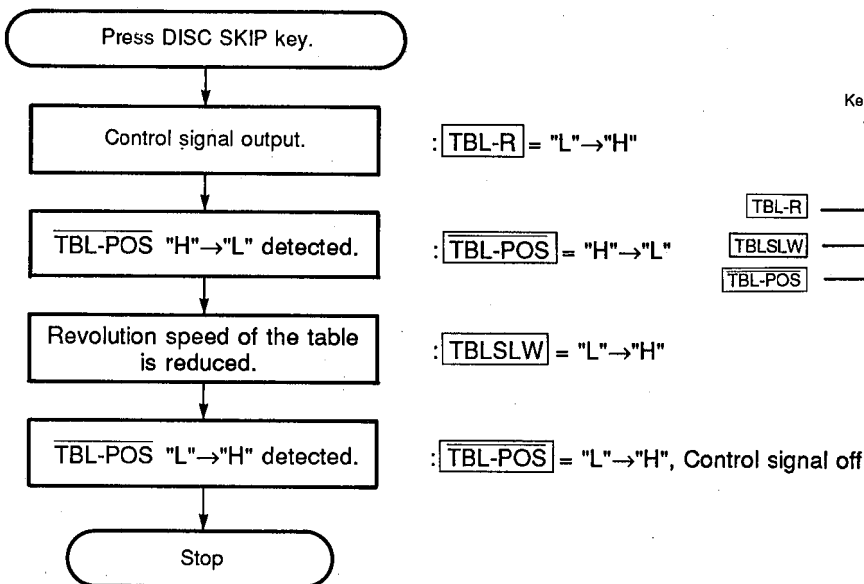
* TCO READ

~*Data fetch cycle~

: $\overline{\text{MUTE OFF}}$ = "L"→"H", "0:00" appears in the time indicator



● Tray Operation

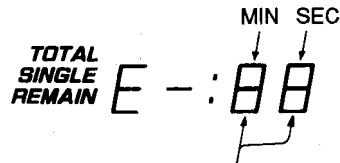


■ ERROR MESSAGE

If operation has stopped due to some fault, error messages can be used to investigate the fault.

● How to get an error message displayed

With the unit stopped as it is, press the STOP key of the remote controller while pressing the STOP key on the main unit, and an error message will be displayed in the time display segment as shown below.



Error message (in 2 figures)

● Error message and meaning

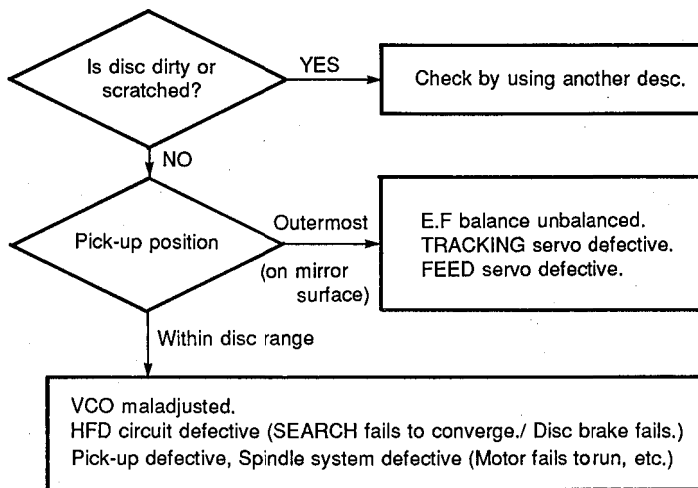
Error message		Meaning
X	0	No data reading executed after search.
X	1	Data reading failed in the midst of operation. (X=0, 3, 4)
7	3	No data reading executed at start.
X	4	Tray closed but SW201 CLOSE SW failed to turn ON.
X	5	Tray opened but SW201 OPEN SW failed to turn ON.
X	6	No table rotation.
X	7	Inward feed SW failed to turn ON.
X	8	Focus dropped and could not be restored even when retried.
X	9	Clamp raised but SW202 UP SW failed to turn ON.
X	'-'	Clamp lowered but SW202 DOWN SW failed to turn ON.
X	E	Table position out of place, failure of fine adjustment.

Note : "X" represents one of the states below.

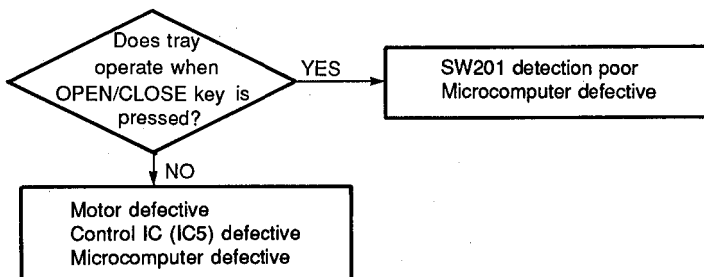
- 0PLAY
- 3SCAN
- 4PAUSE
- 5SEARCH
- 7START
- 8STOP
- 9DISC SEARCH
- AEJECT
- CNO DISC

1) Error Code Troubleshooting

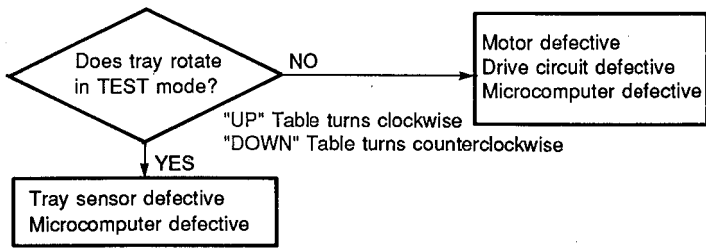
Error code **X0** , **X1** , **73** Data cannot be read.



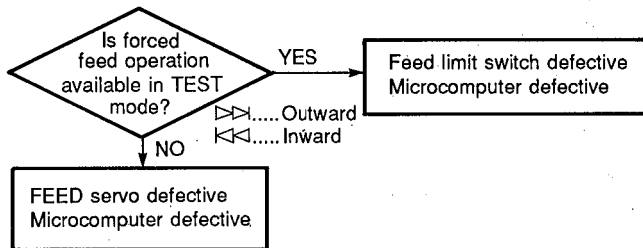
Error codes **X4** , **X5** Poor tray loading operation.



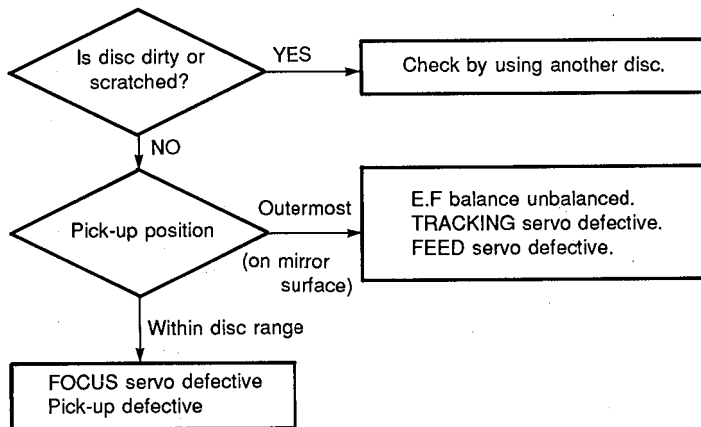
Error code **X6** Poor table rotation.



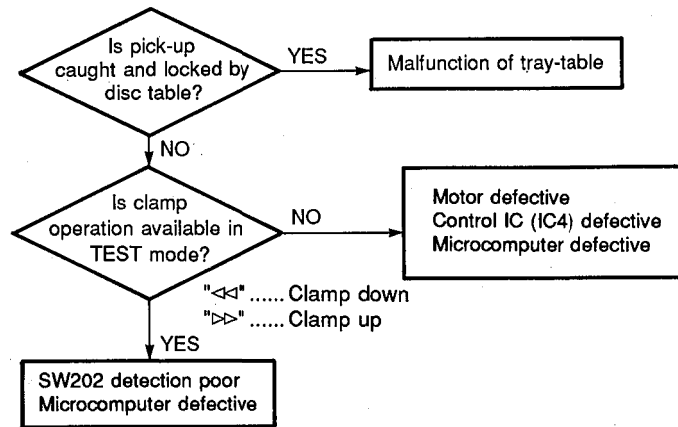
Error code **X7** FEED operation defective. (Limit switch fails)



Error code **X8** Focus drops.

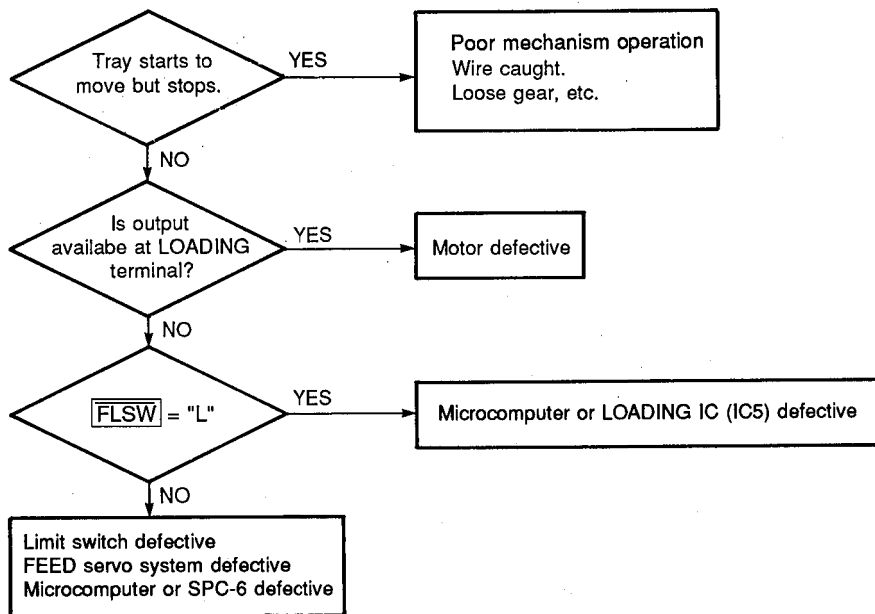


Error code **X9** , **X-** Poor Clamp operation.

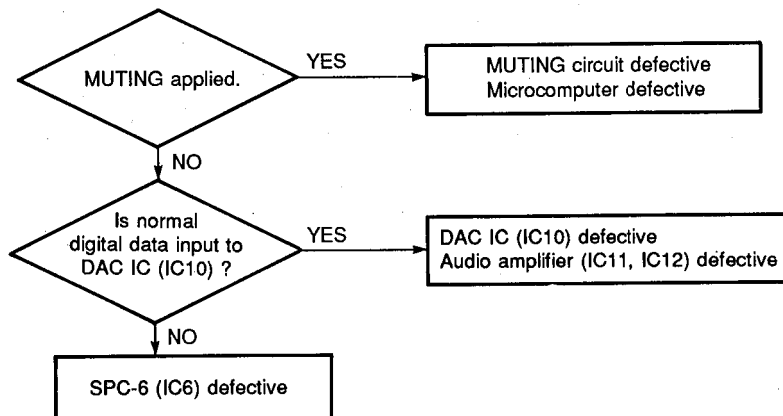


2) Troubleshooting from System Malfunctions

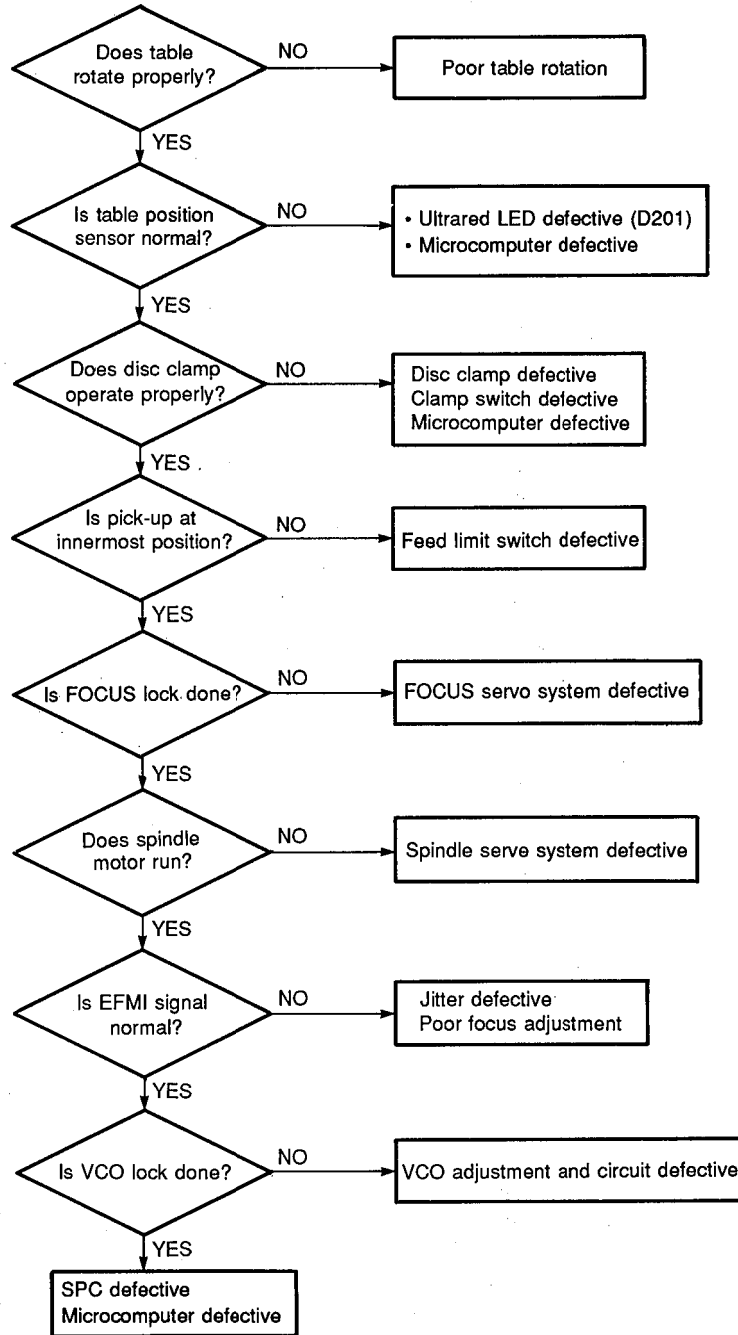
a) Tray fails to come out/go in.



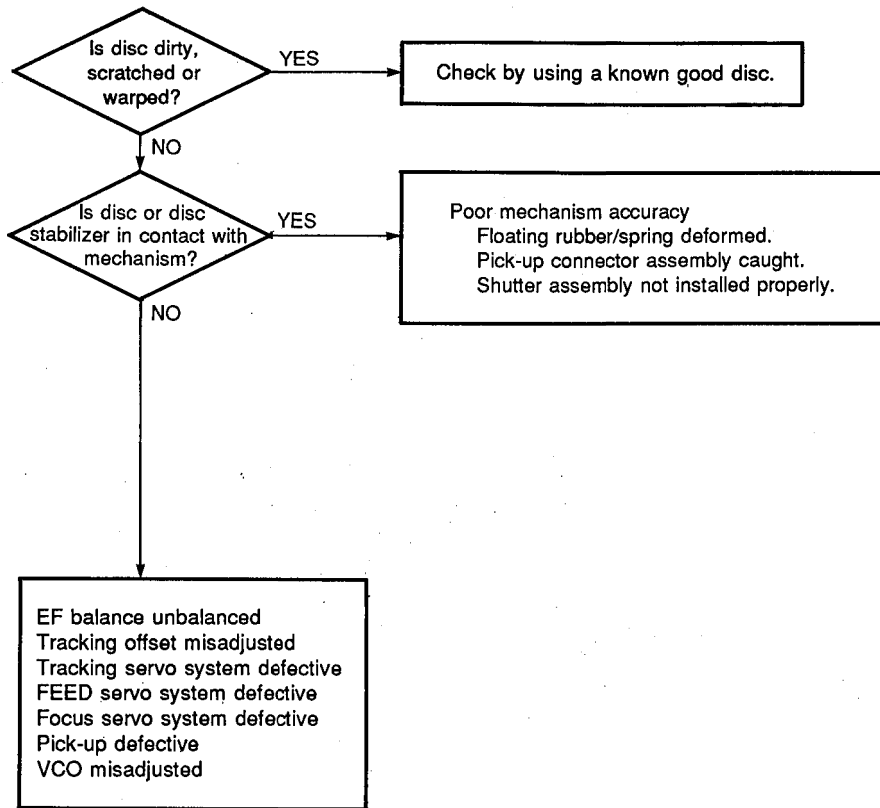
b) No sound generated, Sound cut during play. (but time display advances properly)



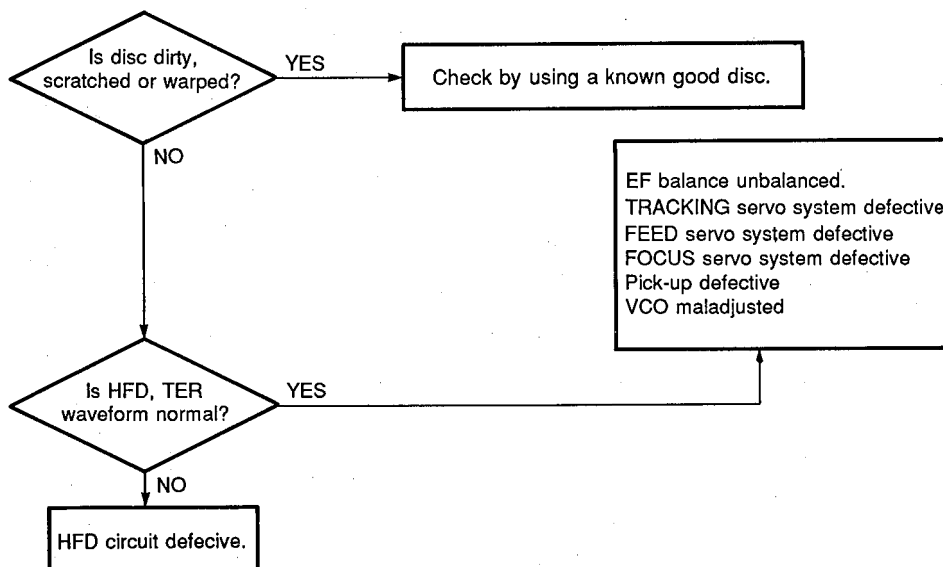
c) Operates as if no disc loaded. (although loaded)



d) Sound skips. (Time display fails to advance properly)

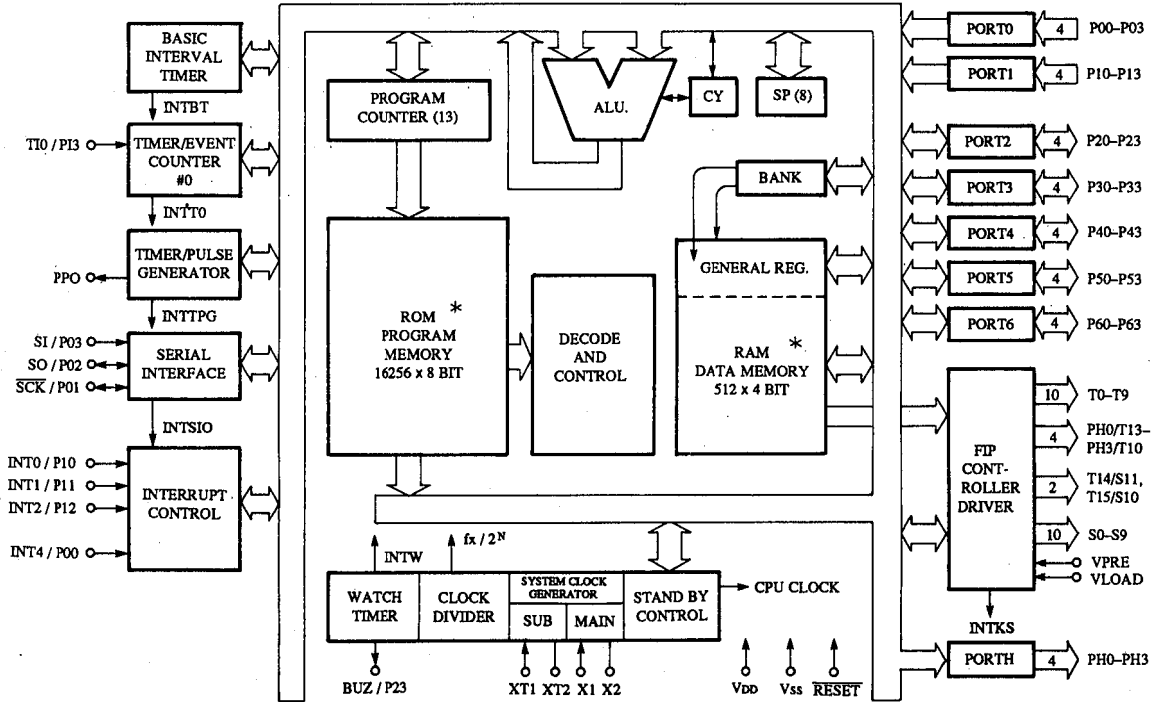
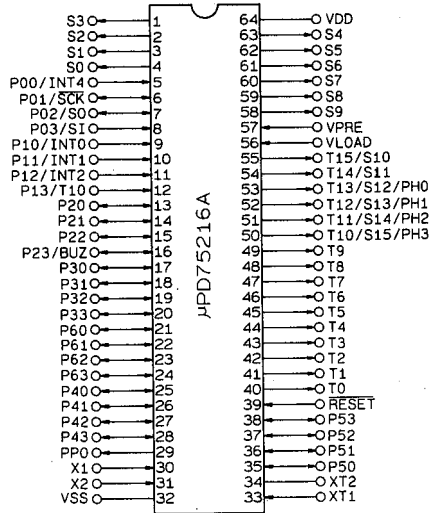


e) No search provided. (Sound skipped after search)



■ IC DATA

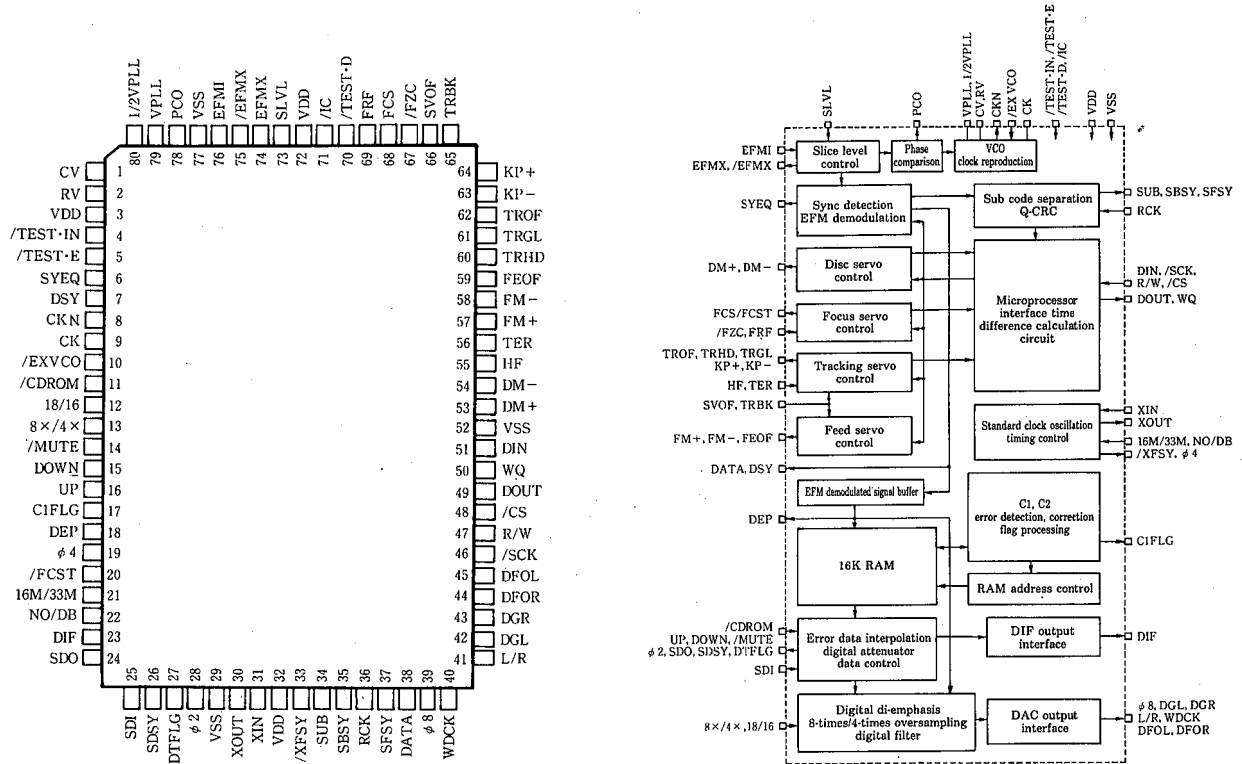
IC8 : μ PD75216 or μ PD75P216A
System Controller (4bit μ -COM)



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-101B
6	PO1	SCK	Serial clock output to YDC-101B and 74HC595
7	PO2	SO	Serial data output to YDC-101B and 74HC595
8	PO3	SI	Serial data input from YDC-101B
9	P10	REM	Input from remote control beam receiving unit
10	P11	TBL-POS	Sensor to detect table position
11	P12	FLSW	Feed origin switch input Feed origin at "L"
12	P13	TER	Track count signal input
13	P20	R/W	From microcompressor to YDC-101 at "H" and from YDC-101 to microcompressor at "L"

Pin No.	Pin Name	Description	Function
14	P21	SCL	Serial clock signal with X24C01
15	P22	TRBK	Tracking brake enable instruction to YDC-101 Brake enable at "H"
16	P23	SVOF	Servo off instruction to YDC-101 Servo off at "H"
17	P30	SDA	Serial data signal with X24C01
18	P31	OPSW	Open state of tray sensing switch input Open state at "L"
19	P32	CLSW	Closed state of tray sensing switch input Closed state at "L"
20	P33	DNSW	PU unit down limit switch, ON at "L"
21	P60	K0] Key matrix input
22	P61	K1	
23	P62	UPSW	PU unit up limit switch, ON at "L"
24	P63	DOWN	Digital volume down instruction to YDC-101
25	P40	UP	Digital volume up instruction to YDC-101
26	P41	TBL-R	Table rotate R. (Clockwise)
27	P42	TBL-L	Table rotate L. (Counterclockwise)
28	P43	TBLSLW	Table rotate SLOW
29	PP0	LSOFF	Laser diode ON at "L" and OFF at "H"
30	X1	XI] Crystal oscillator Oscillation terminal
31	X2	XO	
32	VSS	VSS	GND
33	XT1	XT1	GND
34	XT2	XT2	Open
35	P50	EXP	
36	P51	TRGL	LOW at tracking gain "H"
37	P52	OE	
38	P53	MUTE OFF	Sound output at "H" (play, fast forward, rewind modes) Sound output muted (other mode than in parentheses at the left)
39	RESET	RES	Operation starts at $\underline{\quad}$ → and stops at \neg → .
40	T0	T0] Fluorescent character display tube grid drive signal
41	T1	T1	
42	T2	T2	
43	T3	T3	
44	T4	T4	
45	T5	T5	
46	T6	T6	
47	T7	T7] NC
48	T8	T8	
49	T9	T9	
50	T10	S15] Fluorescent character display tube anode drive signal
51	T11	S14	
52	T12	S13	
53	T13	S12	
54	T14		NC
55	T15	S10	Fluorescent character display tube anode drive signal
56	V LOAD	VL	-20V
57	V PRE	VP	GND
58	S9	S9] Fluorescent character display tube grid drive signal
59	S8	S8	
60	S7	S7	
61	S6	S6	
62	S5	S5	
63	S4	S4	
64	VDD	VDD	+5V

IC6 : YDC101B
Signal Processor & Controller for Compact Disc Player



Pin No.	Pin Name	I/O	Function
1	CV	I	VCO control voltage input
2	RV		External terminal for stabilizing capacitor of adjusting VCO
3	VDD		+5V power terminal (for VCO)
4	/TEST IN	I+	LSI test terminal (normally disconnected)
5	/TEST E	I+	LSI test terminal (normally disconnected)
6	SYEQ	O	Signal output for checking synchronous agreement
7	DSY	O	Synchronous signal output for checking EFM demodulation signal
8	CKN	O	VCO clock output (Opposite phase)
9	CK	O	VCO clock output [4.3218MHz (average)/8.6436MHz (average) for double speed reproduction]
10	/EXVCO	I+	VCO select
11	/CDROM	I+	Interpolation prohibition control input ("L" : Interpolation prohibited)
12	18/16	I+	Digital filter output selection ("H" : 18 bit, "L" : 16 bit)
13	8x/4x	I+	Digital filter selection ("H" : 8-times, "L" : 4-times)
14	/MUTE	I+	Sound mute control input ("L" : mite)
15	DOWN	I+	Digital attenuator volume down pulse input
16	UP	I+	Digital attenuator volume up pulse input
17	C1FLG	O	Signal output for checking correction of C1 error
18	DEP	O	De-emphasis control signal output
19	Ø4	O	System clock output (4.2336MHz)
20	/FCST	OD	Focus search start signal output
21	16M/33M	I	Master clock input selection ("H" : 384fs, "L" : 768fs)
22	NO/DB	I	Audio reproduction selection ("H" : Standard reproduction, "L" : Double speed reproduction Only 16M/33M = "L" is effective.)
23	CIF	O	Digital audio interface signal output
24	SDO	O	Audio data output Serial data
25	SDI	I	Digital filter input
26	SDSY	O	Audio data output L/R clock
27	DTFLG	O	Audio data output Data incorrectable flag

Pin No.	Pin Name	I/O	Function
28	Ø2	O	Audio data output Serial clock
29	VSS		Ground (for digital system)
30	X OUT	O	Terminal for connecting crystal oscillator
31	X IN	I	Terminal for connecting crystal oscillator (384 fs/768 fs)
32	VDD		+5V power source (for digital system)
33	/XFSY	OD+	Internal frame synchronous signal output
34	SUB	OD	Sub code output Sub code data
35	SBSY	OD	Sub code output Block synchronous signal
36	RCK	I-	Sub code output Data read clock input
37	SFSY	OD	Sub code output Frame synchronous signal
38	DATA	O	Data signal output for checking EFM demodulation signal
39	Ø8	O	Digital filter output Serial clock
40	WDCK	O	Digital filter output Work clock
41	L/R	O	Digital filter output L/R clock
42	DGL	O	Digital filter output Deglitcher signal (L)
43	DGR	O	Digital filter output Deglitcher signal (R)
44	DFOR	O	Digital filter output Serial data (R)
45	DFOL	O	Digital filter output (L)
46	/SCK	I	Microprocessor interface Serial clock input
47	R/W	I	Microprocessor interface Signal transmission/reception identification signal input
48	/CS	I+	Microprocessor interface Chip select input
49	D OUT	O	Microprocessor interface Status data output
50	WQ	O	Microprocessor interface Status data output request signal
51	DIN	I	Microprocessor interface Command data input
52	VSS		Ground (for digital system)
53	DM+	O	Disc motor acceleration signal output
54	DM-	O	Disc motor deceleration signal output
55	HF	I	On-track (mirror) signal input
56	TER	I	Tracking error signal input
57	FM+	O	Feed motor outward movement signal
58	FM	O	Feed motor inward movement signal
59	FEOF	O	Feed servo off control signal output
60	TRHD	O	Tracking hold control signal output
61	TRGL	O	Tracking gain low control signal output
62	TROF	O	Tracking servo off control signal output
63	KP-	O	Inward kick pulse signal output
64	KP+	O	Outward kick pulse signal output
65	TRBK	I	Tracking brake control signal input
66	SVOF	I	Tracking servo forced off signal input
67	/FZC	I+	Focus zero cross signal input
68	FCS	O	Focus search start signal output
69	FRF	I	Focus reflection signal input
70	/TEST D	I+	LSI test terminal (usually disconnected)
71	/IC	I+	Initial clear input
72	VDD		+5V power source (for digital system)
73	SLVL	O	Slice level output
74	FEMX	O	Signal output for making EFM binary (normal phase)
75	/FEMX	O	Signal output for making EFM binary (opposite phase)
76	EFMI	I	EFM signal input
77	VSS		Ground (for VCO system)
78	PCO	O	Clock reproduction phase error signal output
79	VPLL	I	VCO standard voltage input
80	1/2 VPLL		VCO standard voltage median voltage

Note)

Symbols in I/O I : Input terminal O : output terminal + : Pull-up terminal - : Pull-down terminal D : open drain terminal

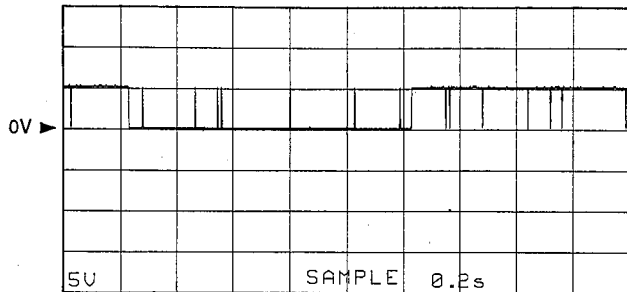
■ WAVEFORM OF TEST POINT

Point ①

(Pin 14 of IC 7)

V : 5 V/div H : 0.2 sec/div

DC range 1 : 1 probe

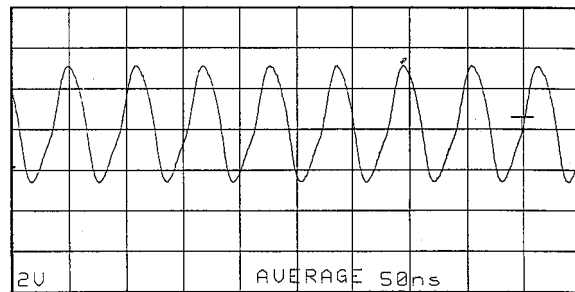


Point ④

(Pin 12 of IC 10)

V : 2 V/div H : 50 nsec/div

DC range 1 : 1 probe

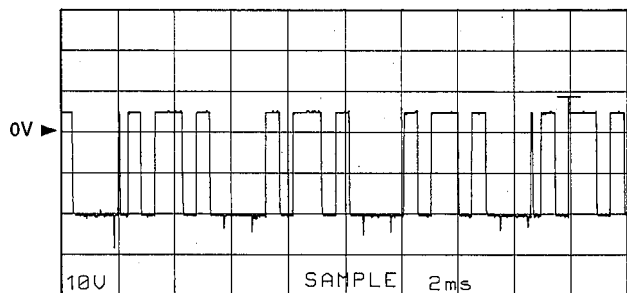


Point ②

(Pin 2 of IC 8)

V : 10 V/div H : 2 msec/div

DC range 1 : 1 probe



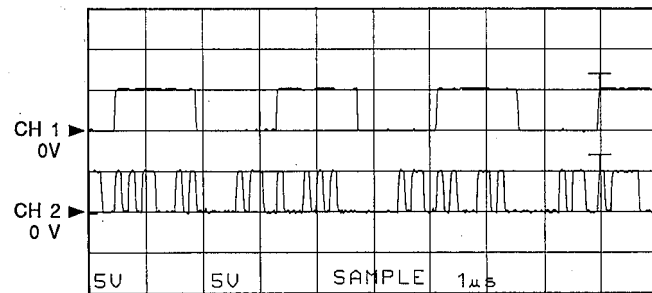
Point ⑤

(CH 1 : Pin 13 of IC 10)
(CH 2 : Pin 10 of IC 10)

V : 5 V/div H : 1 μsec/div

DC range 1 : 1 probe

TriggerCH 1

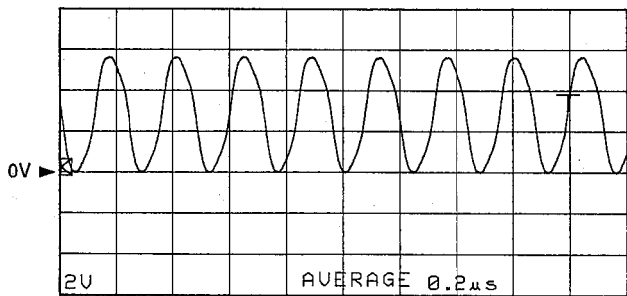


Point ③

(Pin 31 of IC 8)

V : 2 V/div H : 0.2 μsec/div

DC range 1 : 1 probe



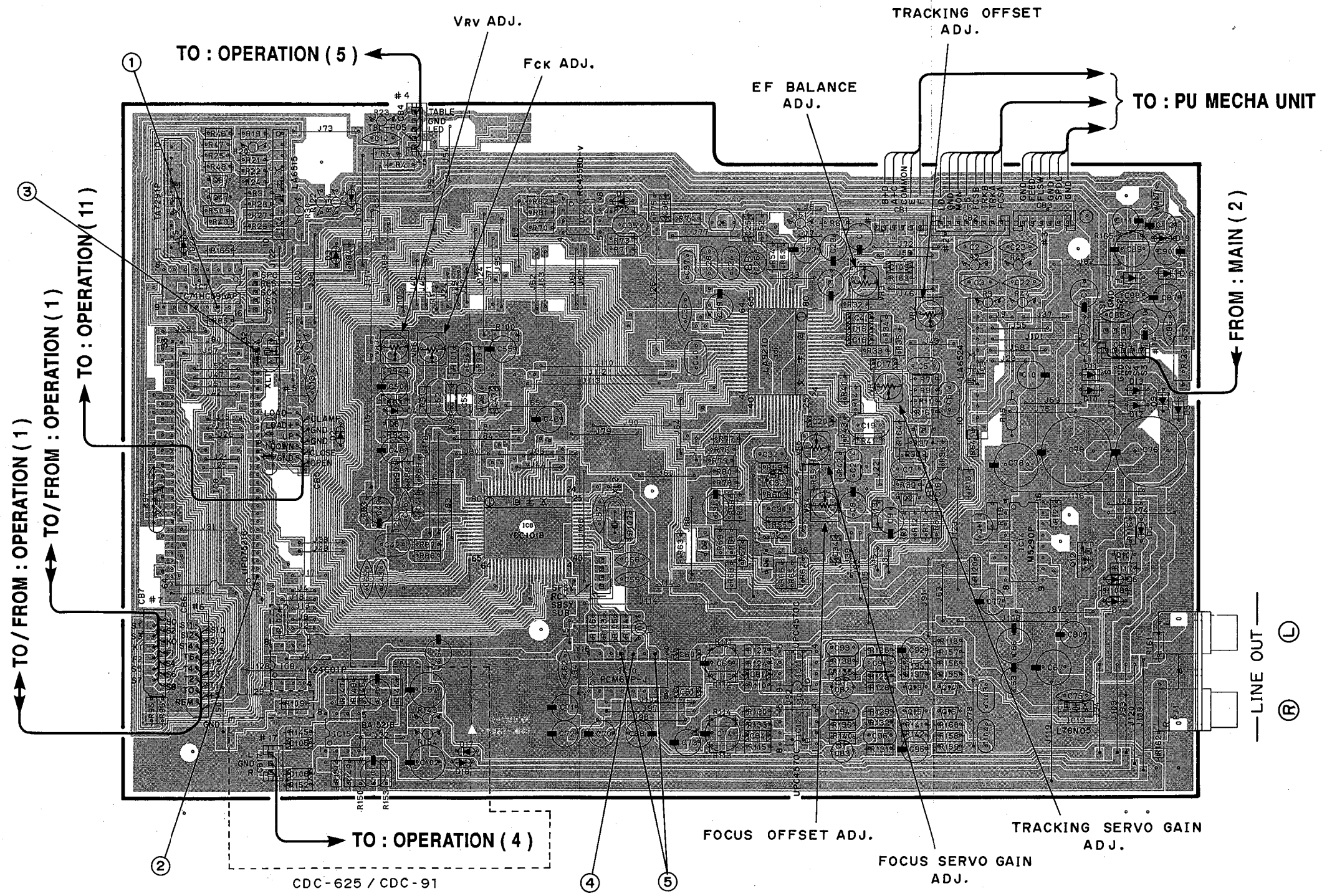
■ PRINTED CIRCUIT BOARD (Parts side)

① to ⑤ : WAVEFORM OF TEST POINT (See page 29)

MAIN C. B (1)

● Semiconductor Location

Ref. No.	Location
D 1	E2
D 2	D3
D 3	D2
D 4	D3
D 5	G4
D 6	G4
D 7	G4
D 8	G3
D 9	G3
D 10	G3
D 11	G3
D 12	G3
D 13	G3
D 14	G3
D 15	D2
D 16	G3
D 17	D5
D 18	D5
D 19	G2
D 20	C2
IC 1	E3
IC 2	E2
IC 3	F3
IC 4	C2
IC 5	C2
IC 6	D4
IC 7	C3
IC 8	C3
IC 9	C4
IC10	E4
IC11	F4
IC12	F4
IC13	G4
IC14	G4
IC15	D5
Q 1	F3
Q 2	F4
Q 3	C2
Q 4	C2
Q 5	E2
Q 6	E2
Q 7	E4
Q 8	D3
Q 9	D3
Q 10	G4
Q 11	F4
Q 12	G4
Q 13	F4
Q 14	F4
Q 15	F4
Q 16	F4
Q 17	G2



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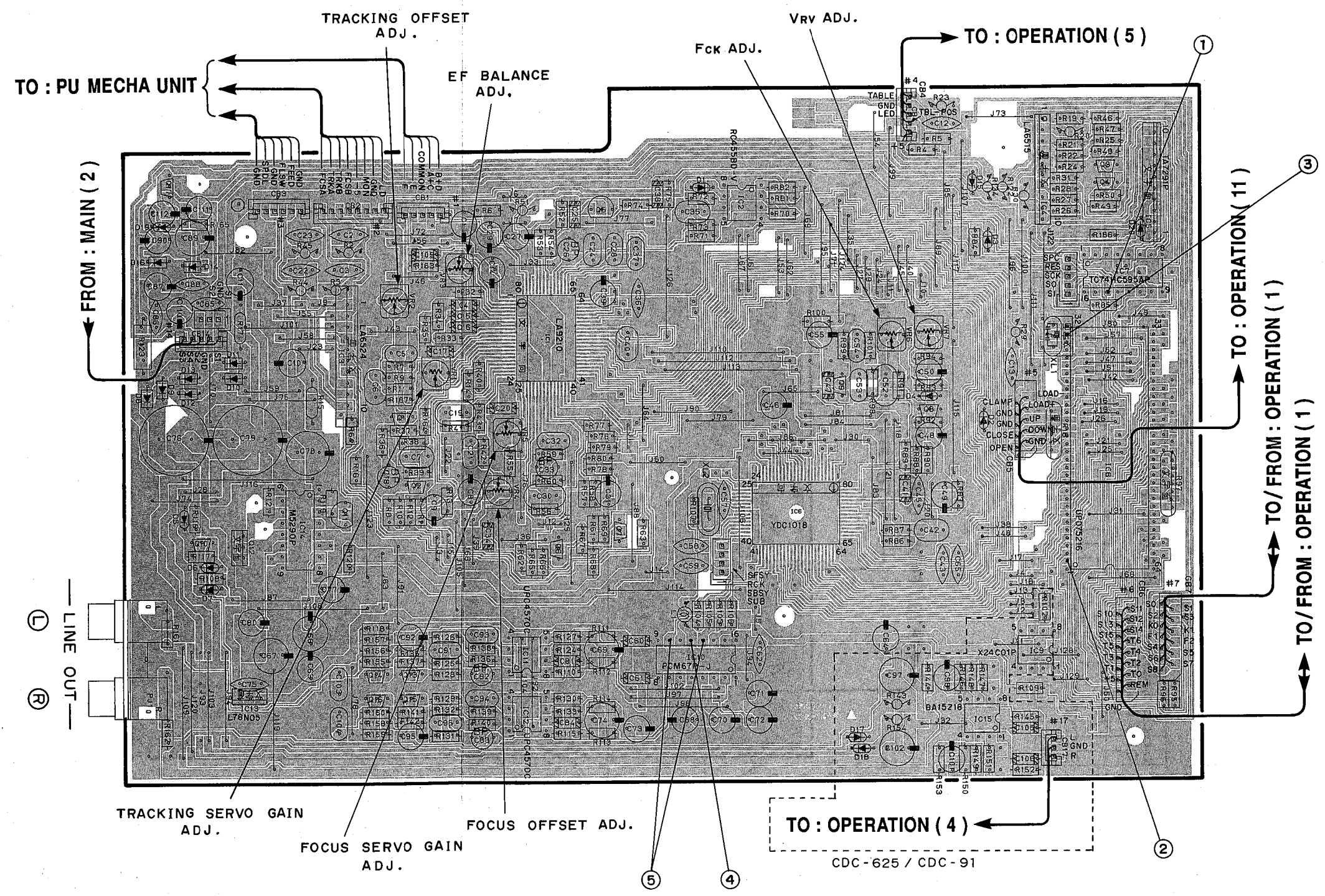
■ PRINTED CIRCUIT BOARD (Foil side)

① to ⑤ : WAVEFORM OF TEST POINT (See page 29)

MAIN C. B (1)

● Semiconductor Location

Ref. No.	Location
D 1	E2
D 2	G3
D 3	G3
D 4	F3
D 5	C4
D 6	C4
D 7	C4
D 8	C3
D 9	C3
D 10	C3
D 11	C3
D 12	C3
D 13	C3
D 14	C3
D 15	G2
D 16	C3
D 17	F5
D 18	F5
D 19	C2
D 20	G2
IC 1	E3
IC 2	F2
IC 3	D3
IC 4	G2
IC 5	G2
IC 6	F4
IC 7	G3
IC 8	G4
IC 9	G4
IC10	E4
IC11	E5
IC12	E5
IC13	C4
IC14	D4
IC15	G5
Q 1	D3
Q 2	D4
Q 3	G2
Q 4	G2
Q 5	E2
Q 6	E4
Q 7	E4
Q 8	F3
Q 9	F3
Q10	C4
Q11	D4
Q12	C4
Q13	D4
Q14	D4
Q15	D4
Q16	D4
Q17	C2

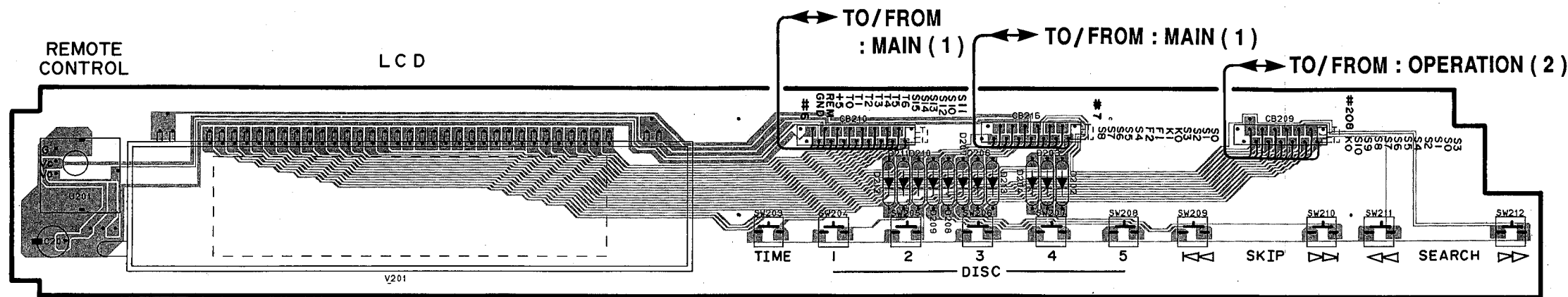


1
2
3
4
5
6

PRINTED CIRCUIT BOARD (Foil side)

1

OPERATION C. B (1)



2

3

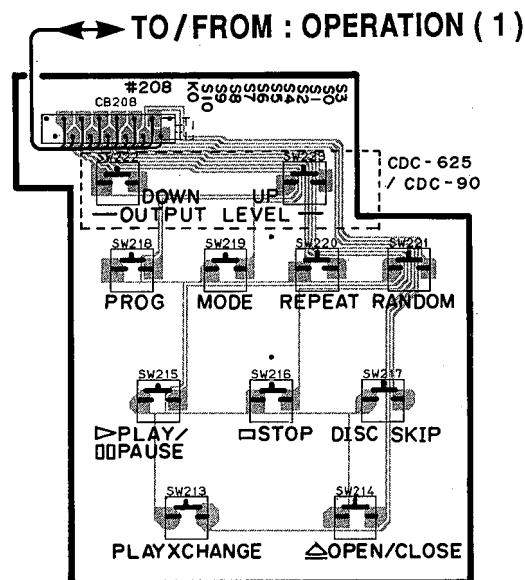
OPERATION C. B (2)

OPERATION C. B (3)

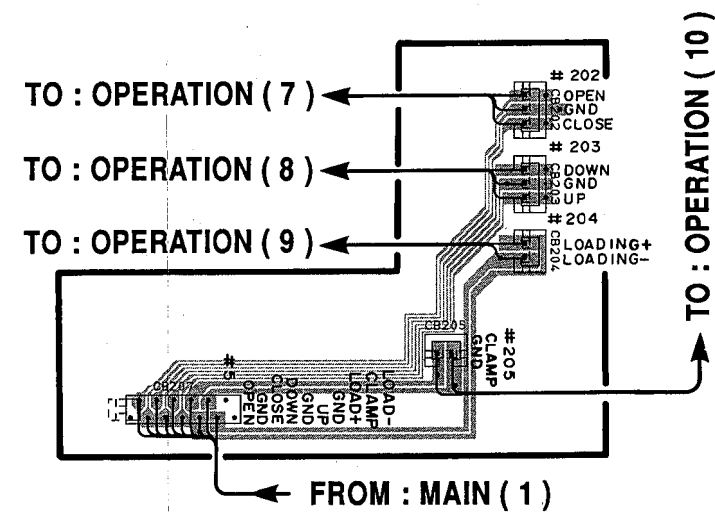
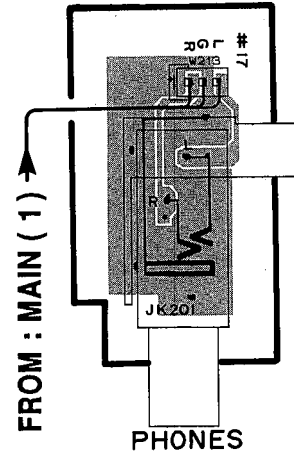
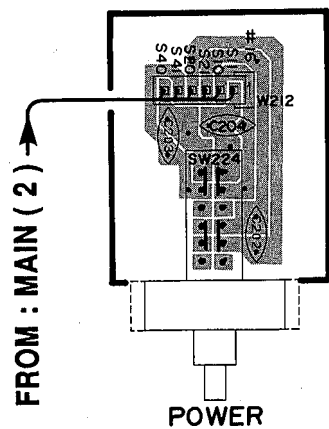
CDC-625/CD-91
OPERATION C. B (4)

OPERATION C. B (11)

4



5



6

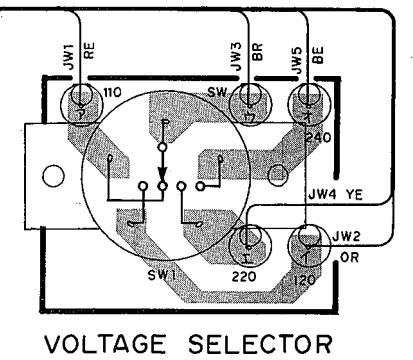
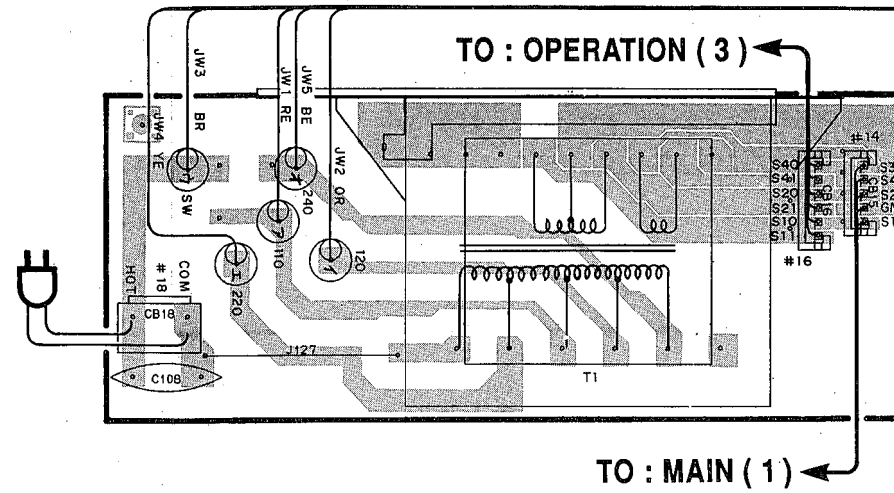
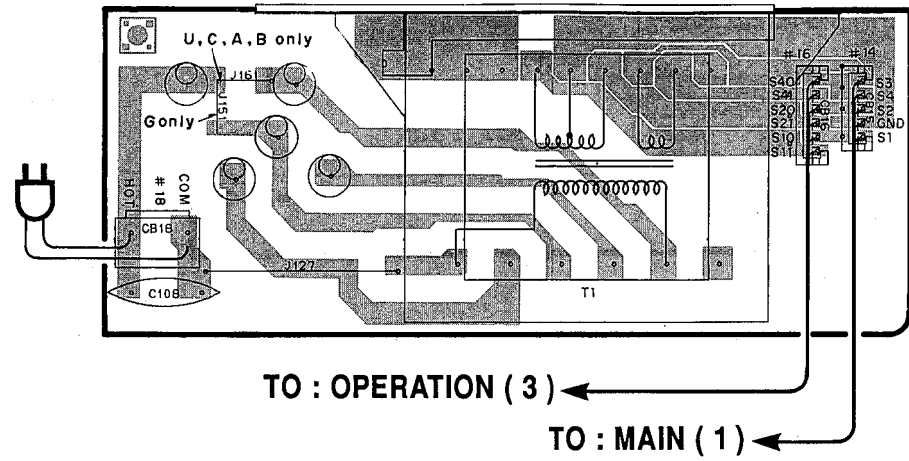
■ PRINTED CIRCUIT BOARD (Foil side)

● U, C, A, B, G models
MAIN C. B (2)

● R model

MAIN C. B (2)

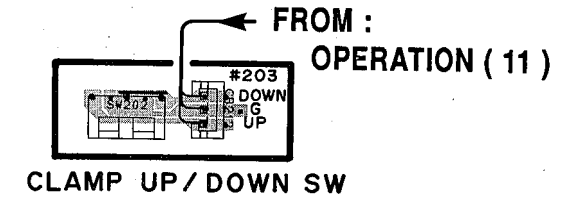
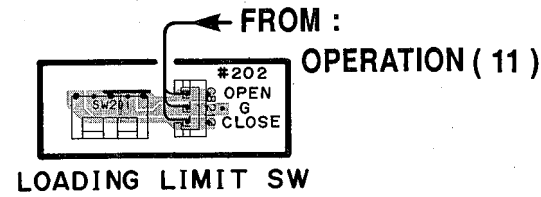
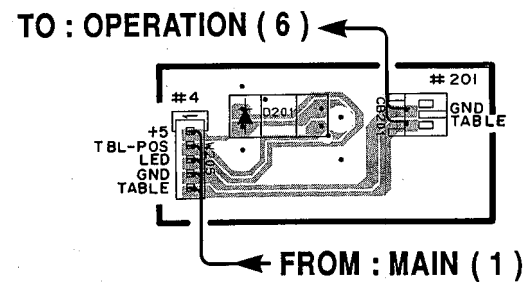
MAIN C. B (3)



OPERATION C. B (5)

OPERATION C. B (7)

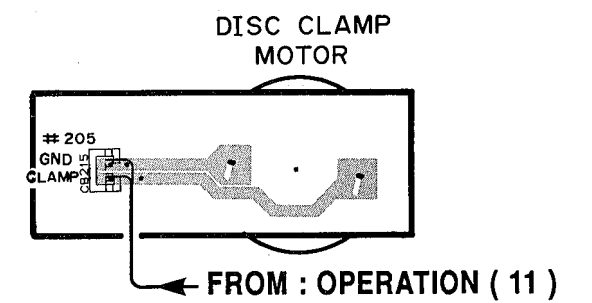
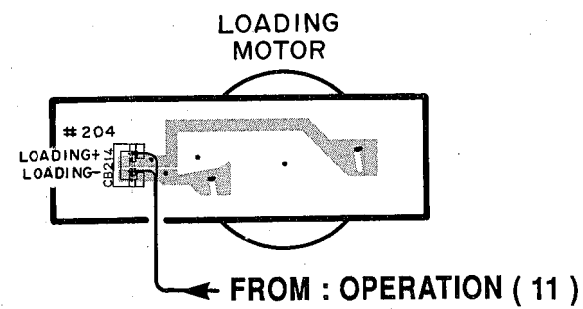
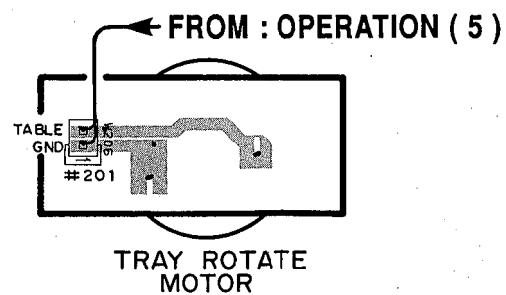
OPERATION C. B (8)



OPERATION C. B (6)

OPERATION C. B (9)

OPERATION C. B (10)



* The voltage are measured by TEST mode at PLAY (1) to (5) : WAVEFORM OF TEST POINT (See page 28)

SCHEMATIC DIAGRAM

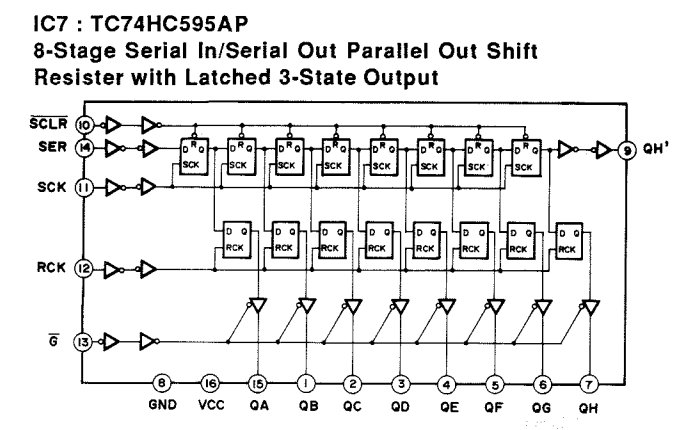
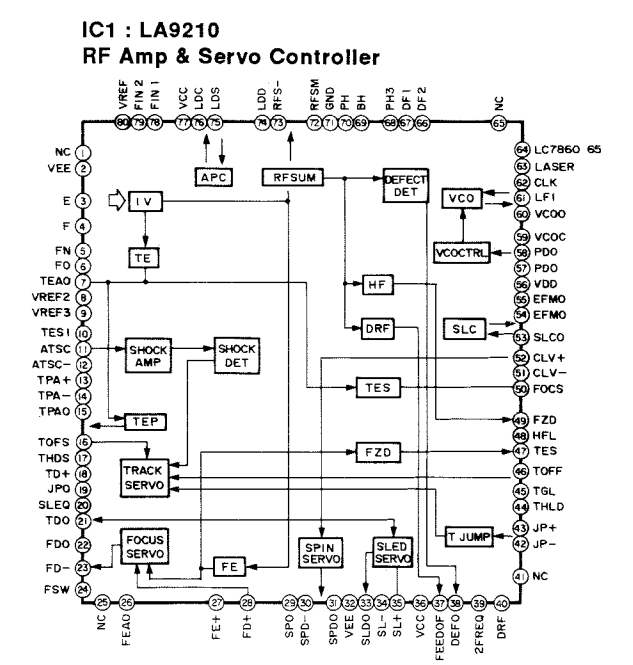
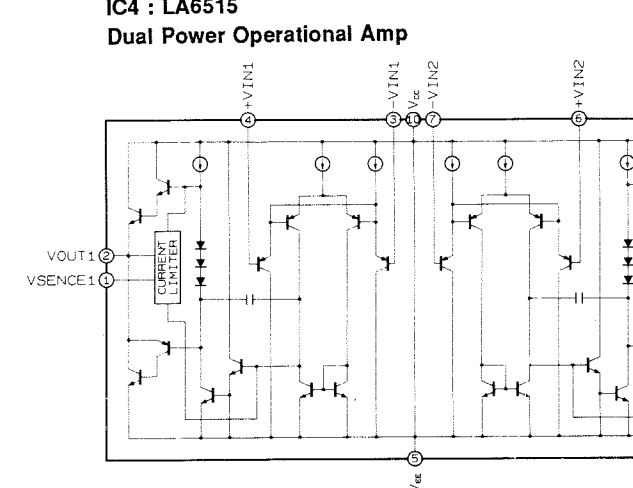
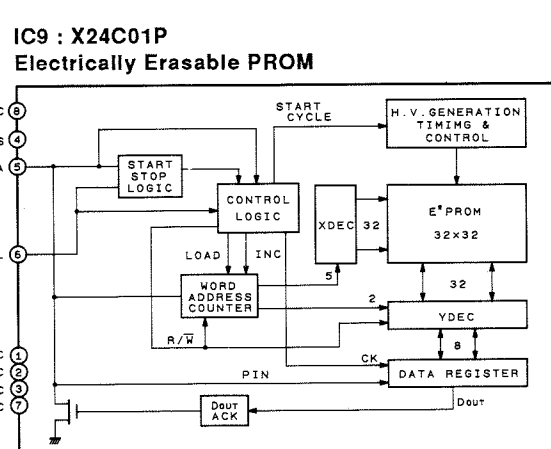
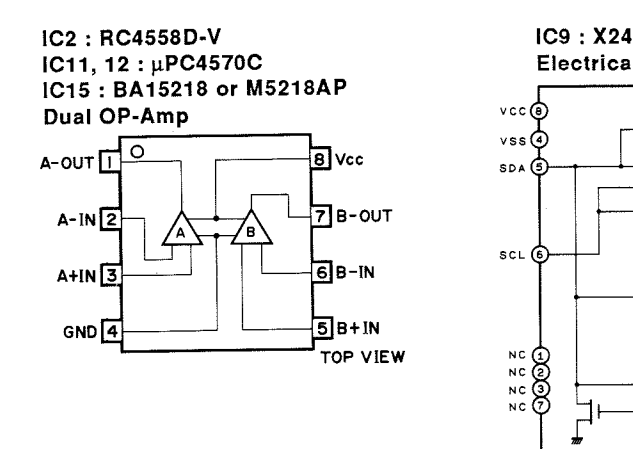
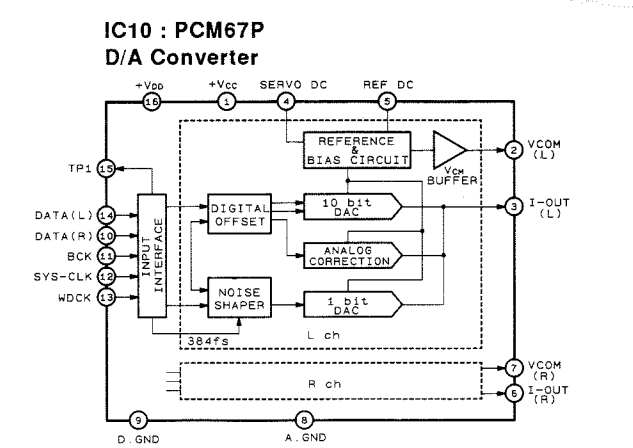
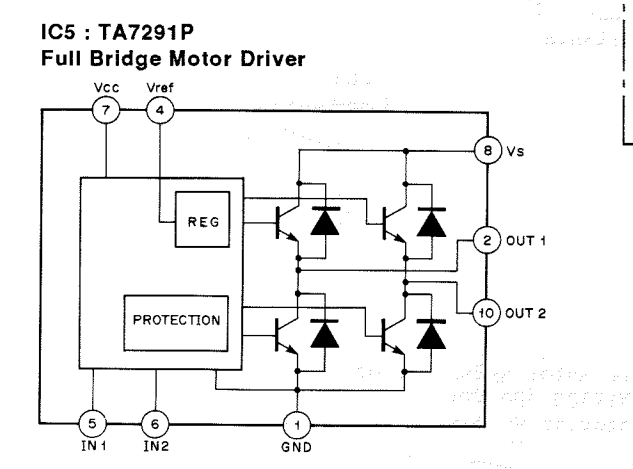


Table with 4 columns: RCK, SCLR, SCK, Q. It defines the functions of the shift register control signals: RCK (Shift Register cleared), SCLR (Shift Register clocked), SCK (Shift Register clocked), and Q (Contents of Shift Register transferred to output latches).



Other ICs
- IC 6 : YDC 101B → SEE P. 27
- IC 8 : μPD75216 or μPD75P216A → SEE P. 25

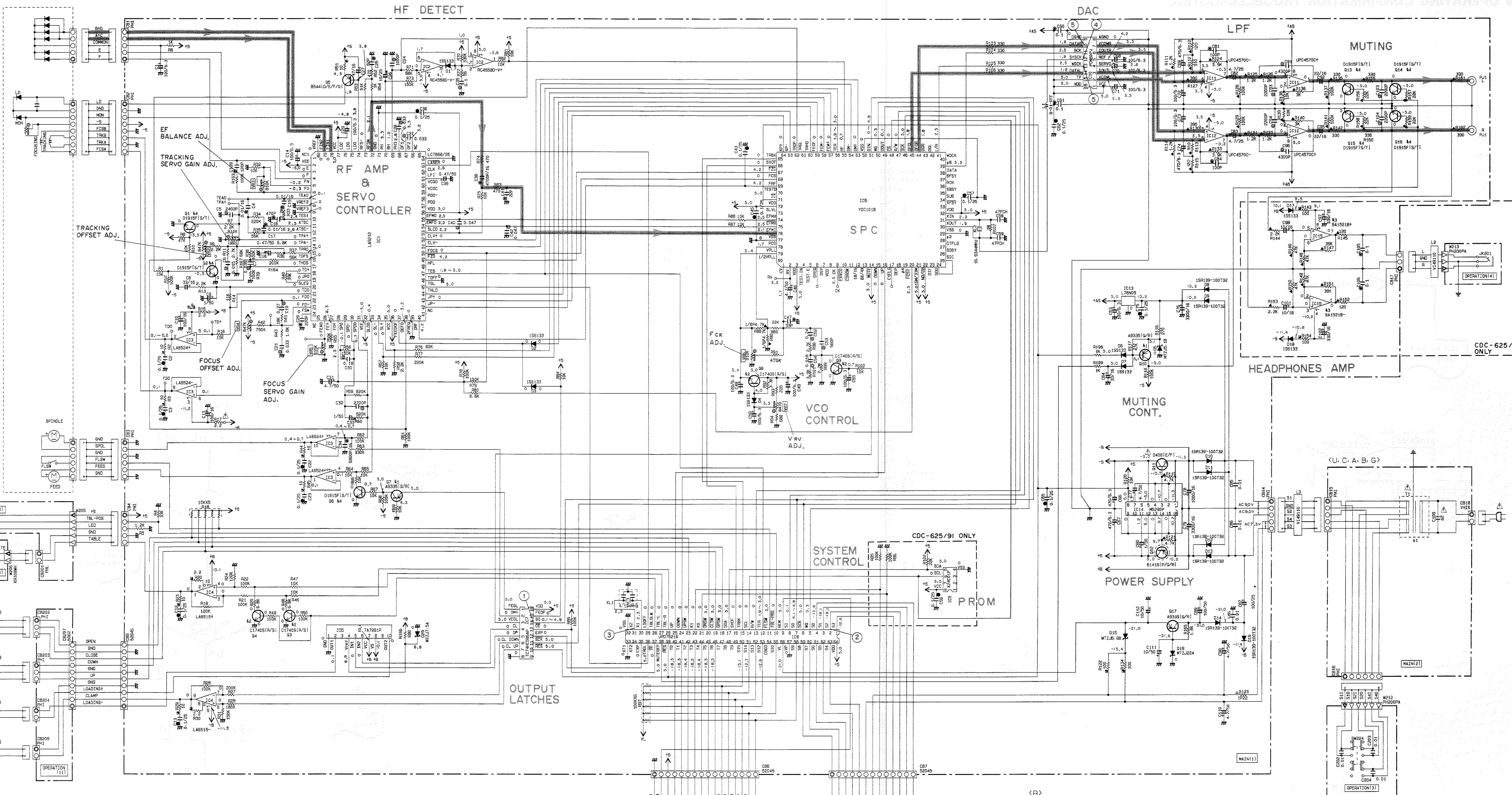
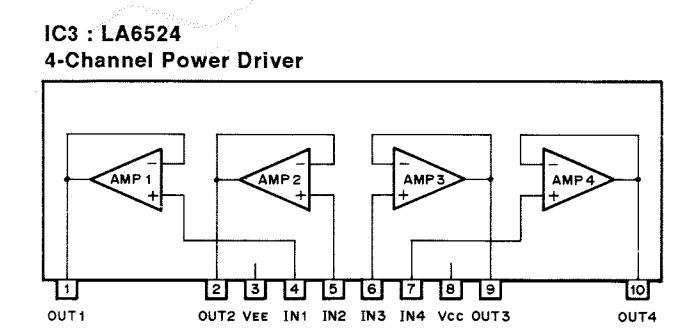
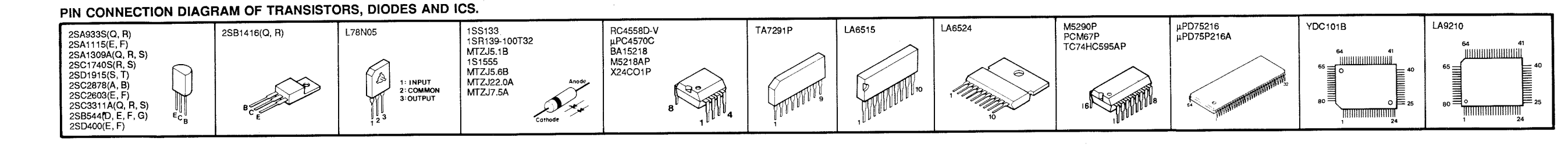
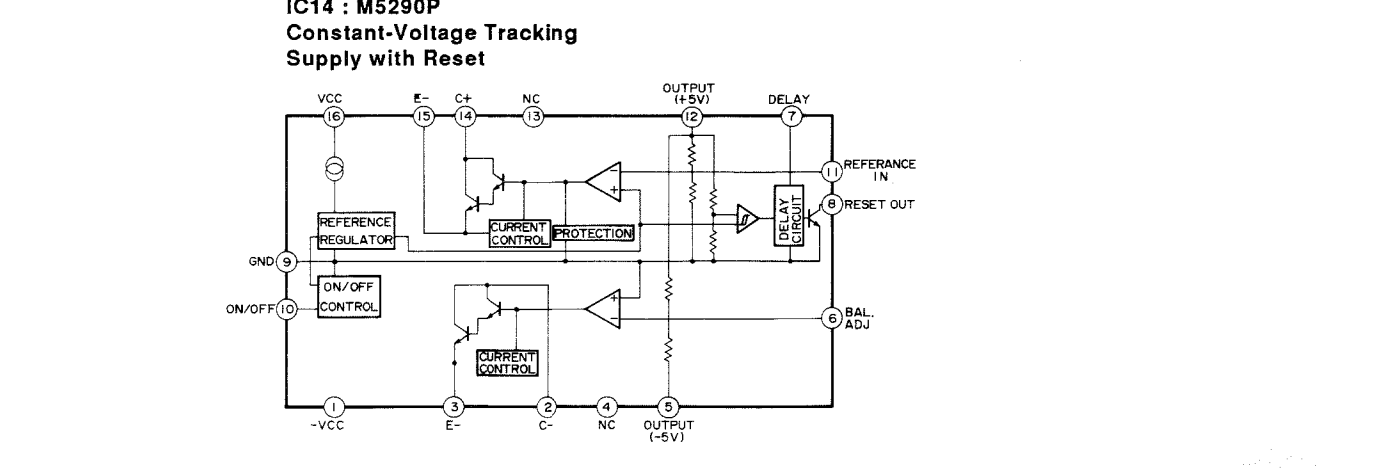


Table with 4 columns: REF. PARTS NUMBER, PARTS NAME, REF. PARTS NUMBER, PARTS NAME. It lists various components used in the circuit, such as resistors, capacitors, and diodes.

Table with 2 columns: REMARKS, PARTS NAME. It provides specific notes for component selection, such as capacitor types and resistor values.



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 are equal to those originally installed. Schematic diagram is subject to change without notice.

PARTS LIST

■ ELECTRICAL PARTS

■ **WARNING**

Components having special characteristics are marked \triangle 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 P. 54.

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Schm Ref.	PART NO.	Description	Remarks	Markets	
**	VM408100	P.C.B. ASS'y, MAIN	CDC-625, 01	U, C	
**	VM408200	P.C.B. ASS'y, MAIN	CDC-025	R	
**	VM408300	P.C.B. ASS'y, MAIN	CDC-025	A, B	
**	VM408400	P.C.B. ASS'y, MAIN	CDC-625	G	
**	VH752800	P.C.B. ASS'y, MAIN	CDC-90		
C1	UJ818100	ELECTROLYTIC CAP	100uF	6.3V	
C2	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V	
C3	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V	
C4	VF467300	CERAMIC TUBULAR CAP	0.01uF	16V	
**	C5	UA653240	MYLAR FILM CAP	2400pF	50V
**	C6	UA654150	MYLAR FILM CAP	0.015uF	50V
**	C7	UA654390	MYLAR FILM CAP	0.0390uF	50V
C8	UJ737330	ELECTROLYTIC CAP	33uF	16V	
C9	UJ766100	ELECTROLYTIC CAP	1uF	50V	
C10	UJ738100	ELECTROLYTIC CAP	100uF	16V	
C11	UJ738100	ELECTROLYTIC CAP	100uF	16V	
C12	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V	
C13	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V	
C14	UJ818100	ELECTROLYTIC CAP	100uF	6.3V	
C15	VF467300	CERAMIC TUBULAR CAP	0.01uF	16V	
C16	VF466900	CERAMIC TUBULAR CAP	470pF	50V	
C17	VF467300	CERAMIC TUBULAR CAP	0.01uF	16V	
C18	UK165470	ELECTROLYTIC CAP	0.47uF	50V	
**	C19	UA655270	MYLAR FILM CAP	0.27uF	50V
C20	VG278400	CERAMIC TUBULAR CAP	220pF	50V	
**	C21	UA654330	MYLAR FILM CAP	0.033uF	50V
C22	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V	
C23	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V	
**	C24	UA653100	MYLAR FILM CAP	1000pF	50V
C25	VG277900	CERAMIC TUBULAR CAP	82pF	50V	
C26	UK147100	ELECTROLYTIC CAP	10uF	25V	
C27	UJ837470	ELECTROLYTIC CAP	47uF	16V	
**	C28	UA654330	MYLAR FILM CAP	0.033uF	50V
C29	UJ818100	ELECTROLYTIC CAP	100uF	6.3V	
**	C30	UA655180	MYLAR FILM CAP	0.18uF	50V
C31	UJ866470	ELECTROLYTIC CAP	4.7uF	50V	
**	C32	UA653270	MYLAR FILM CAP	2700pF	50V
**	C33	FM176100	ELECTROLYTIC CAP	1uF	50V
C34	VG279900	CERAMIC TUBULAR CAP	6800pF	16V	
C35	UA655100	MYLAR FILM CAP	0.1uF	50V	
C36	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V	
**	C37	UA654330	MYLAR FILM CAP	0.033uF	50V
C38	VF467100	CERAMIC TUBULAR CAP	4700pF	16V	
C39	UJ865470	ELECTROLYTIC CAP	0.47uF	50V	
**	C40	UA654470	MYLAR FILM CAP	0.047uF	50V
C41	VG276600	CERAMIC TUBULAR CAP	22pF	50V	
**	C42	UA654470	MYLAR FILM CAP	0.047uF	50V
C43	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V	
C45	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V	
C46	UJ866470	ELECTROLYTIC CAP	4.7uF	50V	

*New Parts (新規部品)

MAIN P. C. B.

Schm Ref.	PART NO.	Description	Remarks	Markets
C47	VG277000	CERAMIC TUBULAR CAP	33pF	50V (SL)
C48	UJ818100	ELECTROLYTIC CAP	100uF	6.3V
C49	UJ818100	ELECTROLYTIC CAP	100uF	6.3V
C50	UJ818100	ELECTROLYTIC CAP	100uF	6.3V
C52	UA655240	MYLAR FILM CAP	0.24uF	50V
C53	UA652560	MYLAR FILM CAP	560pF	50V
* C54	UA654180	MYLAR FILM CAP	0.018uF	50V
C55	UJ818100	ELECTROLYTIC CAP	100uF	6.3V
C56	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V
C57	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V
C58	VA761400	CERAMIC CAP	47pF	50V (CH)
C59	VA761400	CERAMIC CAP	47pF	50V (CH)
C60	VJ599100	CERAMIC TUBULAR CAP	0.1uF	50V
C61	VJ599100	CERAMIC TUBULAR CAP	0.1uF	50V
C62	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V
C63	UJ818100	ELECTROLYTIC CAP	100uF	6.3V
C64	UJ737330	ELECTROLYTIC CAP	33uF	16V
C65	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V
C66	UJ818470	ELECTROLYTIC CAP	470uF	6.3V
C67	UJ818470	ELECTROLYTIC CAP	470uF	6.3V
C68	UJ818100	ELECTROLYTIC CAP	100uF	6.3V
C69	UJ818470	ELECTROLYTIC CAP	470uF	6.3V
C70	UJ818100	ELECTROLYTIC CAP	100uF	6.3V
C71	UJ818100	ELECTROLYTIC CAP	100uF	6.3V
C72	UJ818100	ELECTROLYTIC CAP	100uF	6.3V
C73	UJ818100	ELECTROLYTIC CAP	100uF	6.3V
C74	UJ818470	ELECTROLYTIC CAP	470uF	6.3V
C75	VD930900	SEMI-CONDUCTIVE CERAMIC CAP	0.1uF	25V
C76	VK180600	ELECTROLYTIC CAP	3300uF	16V
C77	UJ866470	ELECTROLYTIC CAP	4.7uF	50V
C78	VK180400	ELECTROLYTIC CAP	1000uF	16V
C79	VK180600	ELECTROLYTIC CAP	3300uF	16V
C80	UJ766100	ELECTROLYTIC CAP	1uF	50V
C81	VF466800	CERAMIC TUBULAR CAP	100pF	50V
C82	UK146470	ELECTROLYTIC CAP	4.7uF	25V
C83	UK146470	ELECTROLYTIC CAP	4.7uF	25V
C84	VF466800	CERAMIC TUBULAR CAP	100pF	50V
C85	FI554100	CERAMIC CAP	0.01uF	50V
C86	FI554100	CERAMIC CAP	0.01uF	50V
C87	UJ848100	ELECTROLYTIC CAP	100uF	25V
C88	FI554100	CERAMIC CAP	0.01uF	50V
C89	UJ868100	ELECTROLYTIC CAP	100uF	50V
C90	UJ866470	ELECTROLYTIC CAP	4.7uF	50V
* C91	UA653430	MYLAR FILM CAP	4300pF	50V
C92	UJ737220	ELECTROLYTIC CAP	22uF	16V
* C93	UA653220	MYLAR FILM CAP	2200pF	50V
* C94	UA653220	MYLAR FILM CAP	2200pF	50V
C95	UJ737220	ELECTROLYTIC CAP	22uF	16V
* C96	UA653430	MYLAR FILM CAP	4300pF	50V
C97	UJ838330	ELECTROLYTIC CAP	330uF	16V

CDC-625,91

*New Parts (新規部品)

MAIN P. C. B.

Schm Ref.	PART NO.	Description	Remarks	Markets
C98	UJ737100	ELECTROLYTIC CAP 10uF 16V	CDC-625,91	
C101	UJ737100	ELECTROLYTIC CAP 10uF 16V	CDC-625,91	
C102	UJ838330	ELECTROLYTIC CAP 330uF 16V	CDC-625,91	
* C103	UA653220	MYLAR FILM CAP 2200pF 50V		
* C104	UA653220	MYLAR FILM CAP 2200pF 50V		
C105	VJ599100	CERAMIC TUBULAR CAP 0.1uF 50V	CDC-625,91	
C106	VJ599100	CERAMIC TUBULAR CAP 0.1uF 50V	CDC-625,91	
C108	FJ384100	RECOGNIZED CAP 0.01uF 400V		U,C △
C108	VE179200	RECOGNIZED CAP 0.01uF 400V		R,A,B,G △
C109	VG278100	CERAMIC TUBULAR CAP 120pF 50V		
C110	UJ866470	ELECTROLYTIC CAP 4.7uF 50V		
C111	UJ867100	ELECTROLYTIC CAP 10uF 50V		
C112	UJ867100	ELECTROLYTIC CAP 10uF 50V		
CB1	VD004800	CONNECTOR PH i-TYPE 5P TE		
CB2	VD005100	CONNECTOR PH i-TYPE 8P TE		
CB3	VD004900	CONNECTOR PH i-TYPE 6P TE		
CB4	VD004800	CONNECTOR PH i-TYPE 5P TE		
CB5	VM688900	CONNECTOR 52045 10P TE		
* CB6	VM859700	CONNECTOR 52045 16P TE		
* CB7	VM923600	CONNECTOR 52045 13P TE		
CB14	VD004800	CONNECTOR PH i-TYPE 5P TE		
CB15	VD004800	CONNECTOR PH i-TYPE 5P TE		
CB16	VD004900	CONNECTOR PH i-TYPE 6P TE		
CB17	VD004600	CONNECTOR PH i-TYPE 3P TE	CDC-625,91	
CB18	VG879900	CONNECTOR VH 2P TE		
D1	IF004600	DIODE 1SS133		
D2	IF004600	DIODE 1SS133		
D3	IF004600	DIODE 1SS133		
D4	IF004600	DIODE 1SS133		
D5	VG437400	ZENER DIODE MTZJ5.1B		
D6	IF004600	DIODE 1SS133		
D7	IF004600	DIODE 1SS133		
D8	VH770800	DIODE 1SR139-100 T-32		
D9	VH770800	DIODE 1SR139-100 T-32		
D10	VH770800	DIODE 1SR139-100 T-32		
D11	VH770800	DIODE 1SR139-100 T-32		
D12	VH770800	DIODE 1SR139-100 T-32		
D13	VH770800	DIODE 1SR139-100 T-32		
D14	VH770800	DIODE 1SR139-100 T-32		
D15	VG437700	ZENER DIODE MTZJ5.6B		
D16	VH770800	DIODE 1SR139-100 T-32		
D17	IF004600	DIODE 1SS133	CDC-625,91	
D18	IF004600	DIODE 1SS133	CDC-625,91	
* D19	VG442000	ZENER DIODE MTZJ22A		
D20	VG438500	ZENER DIODE MTZJ7.5A		
IC1	XJ742A00	IC LA9210		
IC2	IG001390	IC RC4558D-V		
IC3	XJ740A00	IC LA6524		
IC4	XI250A00	IC LA6515		
IC5	XK583A00	IC TA7291P		

*New Parts (新規部品)

MAIN P. C. B.

Schm Ref.	PART NO.	Description	Remarks	Markets
* IC6	Xi474B00	IC	YDC101B-F	
IC7	iR059500	IC	TC74HC595AP	
* IC8	XJ743B00	IC	uPD75216ACW-C86	
IC9	Xi668A00	IC	X24C01P	CDC-625,91
IC10	XJ399A00	IC	PCM67PJ	
IC11	XC520A00	IC	uPC4570C	
IC12	XC520A00	IC	uPC4570C	
IC13	XA506001	IC	L78N05	
IC14	XD201A00	IC	M5290P	
IC15	Xi249A00	IC	BA15218	CDC-625,91
L1	VE795500	FERRITE BEAD	B-01-RTF	
PJ1	VE484600	PIN JACK	2P	
Q1	VK432900	TRANSISTOR	2SD1915 (F) S,T	
Q2	VK432900	TRANSISTOR	2SD1915 (F) S,T	
Q3	iC174020	TRANSISTOR	2SC1740S R,S	
Q4	iC174020	TRANSISTOR	2SC1740S R,S	
Q5	iB054430	TRANSISTOR	2SB544 D,E,F,G	
Q6	VK432900	TRANSISTOR	2SD1915 (F) S,T	
Q7	iA093320	TRANSISTOR	2SA933S Q,R	
Q8	iC174020	TRANSISTOR	2SC1740S R,S	
Q9	iC174020	TRANSISTOR	2SC1740S R,S	
Q10	iA093320	TRANSISTOR	2SA933S Q,R	
Q11	iD040040	TRANSISTOR	2SD400 E,F	△
Q12	VH481100	TRANSISTOR	2SB1416 (TA) Q,R	
Q13	VK432900	TRANSISTOR	2SD1915 (F) S,T	
Q14	VK432900	TRANSISTOR	2SD1915 (F) S,T	
Q15	VK432900	TRANSISTOR	2SD1915 (F) S,T	
Q16	VK432900	TRANSISTOR	2SD1915 (F) S,T	
Q17	iA093320	TRANSISTOR	2SA933S Q,R	
R2	HV454100	FLAME PROOF CARBON RESISTOR	10Ω 1/4W	
R3	HV454100	FLAME PROOF CARBON RESISTOR	10Ω 1/4W	
R15	VH293400	FUSABLE RESISTOR	2.2Ω 1/6W	△
R17	VH293400	FUSABLE RESISTOR	2.2Ω 1/6W	△
R18	VW758200	RESISTOR ARRAY	10KΩx5	
R20	HV453220	FLAME PROOF CARBON RESISTOR	2.2Ω 1/4W	
R23	HV454100	FLAME PROOF CARBON RESISTOR	10Ω 1/4W	
R29	HV454100	FLAME PROOF CARBON RESISTOR	10Ω 1/4W	
R30	HV453220	FLAME PROOF CARBON RESISTOR	2.2Ω 1/4W	
R44	HV454100	FLAME PROOF CARBON RESISTOR	10Ω 1/4W	
R45	HV454100	FLAME PROOF CARBON RESISTOR	10Ω 1/4W	
R51	HV454100	FLAME PROOF CARBON RESISTOR	10Ω 1/4W	
R88	VH254500	METAL FILM RESISTOR	4.7KΩ 1/6W	
R90	VH254500	METAL FILM RESISTOR	4.7KΩ 1/6W	
R110	HU594910	METAL FILM RESISTOR	91Ω 1/4W	
R111	HU576120	METAL FILM RESISTOR	1.2KΩ 1/4W	
R112	HU575910	METAL FILM RESISTOR	910Ω 1/4W	
R113	HU575910	METAL FILM RESISTOR	910Ω 1/4W	
R114	HU576120	METAL FILM RESISTOR	1.2KΩ 1/4W	
R115	HU594910	METAL FILM RESISTOR	91Ω 1/4W	
R119	HU576470	METAL FILM RESISTOR	4.7KΩ 1/4W	

*New Parts (新規部品)

MAIN P. C. B.

Schm Ref.	PART NO.	Description	Remarks	Markets
R121	HU576470	METAL FILM RESISTOR 4.7KΩ	1/4W	
R122	HV455100	FLAME PROOF CARBON RESISTOR 100Ω	1/4W	
R123	HL314220	METAL OXIDE RESISTOR 22Ω	1W	
R124	HU576390	METAL FILM RESISTOR 3.9KΩ	1/4W	
R125	HU576120	METAL FILM RESISTOR 1.2KΩ	1/4W	
R126	HU576120	METAL FILM RESISTOR 1.2KΩ	1/4W	
R127	HU575390	METAL FILM RESISTOR 390Ω	1/4W	
R128	HU598100	METAL FILM RESISTOR 100KΩ	1/4W	
R129	HU598100	METAL FILM RESISTOR 100KΩ	1/4W	
R130	HU575390	METAL FILM RESISTOR 390Ω	1/4W	
R131	HU576120	METAL FILM RESISTOR 1.2KΩ	1/4W	
R132	HU576120	METAL FILM RESISTOR 1.2KΩ	1/4W	
R133	HU576390	METAL FILM RESISTOR 3.9KΩ	1/4W	
R134	HV455100	FLAME PROOF CARBON RESISTOR 100Ω	1/4W	
R135	HU575330	METAL FILM RESISTOR 330Ω	1/4W	
R136	HU576300	METAL FILM RESISTOR 3KΩ	1/4W	
R137	HU598100	METAL FILM RESISTOR 100KΩ	1/4W	
R138	HU597100	METAL FILM RESISTOR 10KΩ	1/4W	
R139	HU597100	METAL FILM RESISTOR 10KΩ	1/4W	
R140	HU576300	METAL FILM RESISTOR 3KΩ	1/4W	
R141	HU598100	METAL FILM RESISTOR 100KΩ	1/4W	
R142	HU575330	METAL FILM RESISTOR 330Ω	1/4W	
R143	HV455100	FLAME PROOF CARBON RESISTOR 100Ω	1/4W	CDC-625,91
R144	HU576220	METAL FILM RESISTOR 2.2KΩ	1/4W	CDC-625,91
R145	HU575120	METAL FILM RESISTOR 120Ω	1/4W	CDC-625,91
R146	HU577470	METAL FILM RESISTOR 47KΩ	1/4W	CDC-625,91
R147	HU577390	METAL FILM RESISTOR 39KΩ	1/4W	CDC-625,91
R148	HU577470	METAL FILM RESISTOR 47KΩ	1/4W	CDC-625,91
R149	HU577470	METAL FILM RESISTOR 47KΩ	1/4W	CDC-625,91
R150	HU577470	METAL FILM RESISTOR 47KΩ	1/4W	CDC-625,91
R151	HU577390	METAL FILM RESISTOR 39KΩ	1/4W	CDC-625,91
R152	HU575120	METAL FILM RESISTOR 120Ω	1/4W	CDC-625,91
R153	HU576220	METAL FILM RESISTOR 2.2KΩ	1/4W	CDC-625,91
R154	HV455100	FLAME PROOF CARBON RESISTOR 100Ω	1/4W	CDC-625,91
R155	HU575330	METAL FILM RESISTOR 330Ω	1/4W	
R156	HU577220	METAL FILM RESISTOR 22KΩ	1/4W	
R157	HU577220	METAL FILM RESISTOR 22KΩ	1/4W	
R158	HU577220	METAL FILM RESISTOR 22KΩ	1/4W	
R159	HU577220	METAL FILM RESISTOR 22KΩ	1/4W	
R160	HU575330	METAL FILM RESISTOR 330Ω	1/4W	
R161	HU575390	METAL FILM RESISTOR 390Ω	1/4W	
R162	HU575390	METAL FILM RESISTOR 390Ω	1/4W	
SW1	VL908000	VOLTAGE SELECTOR ESE-370		R
T1	XG539A00	POWER TRANSFORMER		U,C
T1	XI824A00	POWER TRANSFORMER		R
T1	XK023A00	POWER TRANSFORMER		A,B,G
VR1	VJ693600	PRE-SET POTENTIOMETER B10KΩ	TR. GAIN	
VR2	VJ694000	PRE-SET POTENTIOMETER B47KΩ	TR. O.F.S.	
VR3	VJ693600	PRE-SET POTENTIOMETER B10KΩ	EF BALANCE	
VR4	VJ694000	PRE-SET POTENTIOMETER B47KΩ	FOCUS O.F.S.	

*New Parts (新規部品)

MAIN & OPERATION P. C. B.

Schm Ref.	PART NO.	Description	Remarks	Markets
VR5	VJ693700	PRE-SET POTENTIOMETER	B15KΩ	FOCUS GAIN
VR6	VJ693600	PRE-SET POTENTIOMETER	B10KΩ	VCO Fck
VR7	VJ692800	PRE-SET POTENTIOMETER	B470Ω	VCO Vr-v
XL1	VJ677200	CERAMIC RESONATOR	4.19MHz	
XL2	VJ719800	CRYSTAL RESONATOR	16.9344MHz	
	VA119100	HEAT SINK		
	VK503200	GROUND PLATE	TR	
	VM988600	RADIATOR		
	VB966900	CONNECTOR	INSA-6024	
	EN340030	BONDING HEAD B-TITE SCREW	3x6 FCRM3-BL	
	VM408500	P.C.B. ASS'y, OPERATION		CDC-625 (BL), 91
	VM414500	P.C.B. ASS'y, OPERATION		CDC-625 (TI)
	VM752700	P.C.B. ASS'y, OPERATION		CDC-90
C201	UM388100	ELECTROLYTIC CAP	100uF 6.3V	
C202	F1554100	CERAMIC CAP	0.01uF 50V	
C203	F1554100	CERAMIC CAP	0.01uF 50V	
C204	F1554100	CERAMIC CAP	0.01uF 50V	
CB201	VB858100	BASE POST	PH 2P SE	
CB202	VD004600	CONNECTOR	PH i-TYPE 3P TE	
CB203	VD004600	CONNECTOR	PH i-TYPE 3P TE	
CB204	VD004500	CONNECTOR	PH i-TYPE 2P TE	
CB205	VD004500	CONNECTOR	PH i-TYPE 2P TE	
CB207	VM689100	CONNECTOR	5062 10P TE	
CB208	VM689300	CONNECTOR	5062 12P TE	
CB209	VM689300	CONNECTOR	5062 12P TE	
CB210	VM689500	CONNECTOR	5062 16P TE	
CB212	VD004600	CONNECTOR	PH i-TYPE 3P TE	
CB213	VD004600	CONNECTOR	PH i-TYPE 3P TE	
CB214	VD004500	CONNECTOR	PH i-TYPE 2P TE	
CB215	VD004500	CONNECTOR	PH i-TYPE 2P TE	
CB216	VK492500	CONNECTOR	5062 13P TE	
D201	VJ544400	PHOTO INTERRUPTER	RPI-2572	
D202	IF003840	DIODE	1S1555	
D203	IF003840	DIODE	1S1555	
D204	IF003840	DIODE	1S1555	
D206	IF003840	DIODE	1S1555	
D207	IF003840	DIODE	1S1555	
D208	IF003840	DIODE	1S1555	
D209	IF003840	DIODE	1S1555	
D210	IF003840	DIODE	1S1555	
D211	IF003840	DIODE	1S1555	
D212	IF003840	DIODE	1S1555	
D213	IF003840	DIODE	1S1555	
JK201	LB302420	PHONES JACK		CDC-625 (TI)
JK201	LB302430	PHONES JACK		CDC-625 (BL), 91

*New Parts (新規部品)

OPERATION P. C. B.

Schm Ref.	PART NO.	Description	Remarks	Markets
L2	Vi491100	FERRITE CORE	BF53RB19012080M	CDC-625,91
SW201	Vi294000	LEVER SWITCH	SSCF21	
SW202	Vi294000	LEVER SWITCH	SSCF21	
SW203	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW204	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW205	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW206	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW207	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW208	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW209	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW210	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW211	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW212	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW213	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW214	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW215	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW216	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW217	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW218	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW219	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW220	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW221	VJ827400	PUSH SWITCH	EVQ-214 04M	
SW222	VJ827400	PUSH SWITCH	EVQ-214 04M	CDC-625,91
SW223	VJ827400	PUSH SWITCH	EVQ-214 04M	CDC-625,91
SW224	Vi272700	PUSH SWITCH		
U201	VK498900	LIGHT DETECTING MODULE	S-100	
V201	VL851100	FLUORESCENT DISPLAY	7-BT-153GK	
*	VH407900	SHEET	FL	
*	VH432700	SPACER	FL	
*	VH725500	GROUND PLATE	HP	CDC-625,91

*New Parts (新規部品)

MECHANICAL PARTS Note) Ø : Diameter

Ref. NO.	PART NO.	Description	Remarks	Markets
* 1	VM450700	DISC CHANGER UNIT	CM-91	
* 2	VM450300	SHUTTER ASS'y		
* 2-1	VL782300	PLATE, SHUTTER		
2-2	VL782200	SUPPORT		
2-3	VL782500	STABILIZER		
2-4	V1493400	MAGNET		
2-5	VJ106100	PLATE		
2-6	VL382300	HOLDER	STABILIZER	
2-7	VL783000	SPRING		
* 2-8	VM823400	DAMPER		
2-11	ED330066	BIND HEAD SCREW	3x6 FCRM3-BL PACK	
3-1	VL752400	FRONT PANEL		CDC-625(TI)
3-1	VL752500	FRONT PANEL		CDC-625(BL),91
3-1	VL883300	FRONT PANEL		CDC-90(TI)
3-1	VL883700	FRONT PANEL		CDC-90(BL)
3-2	VL752700	SUB PANEL		TI
3-2	VL752800	SUB PANEL		BL
3-3	VL753700	SUPPORT		
3-4	VL992600	WINDOW PANEL		
3-5	VH841900	BUTTON	POWER	BL
3-5	VH842000	BUTTON	POWER	TI
* 3-15	VM408500	P.C.B. ASS'y, OPERATION		CDC-625(BL),91
* 3-15	VM414500	P.C.B. ASS'y, OPERATION		CDC-625(TI)
* 3-15	VM752700	P.C.B. ASS'y, OPERATION		CDC-90
3-20	EX601360	BIND HEAD P-TITE SCREW	3x10 FCRM3-BL	
3-21	EP620160	BIND HEAD P-TITE SCREW	2.6x6 ZMC2-BL	
* 4	VM450800	TRAY ASS'y		BL
* 4	VM450900	TRAY ASS'y		TI
4-1	VL138500	MOTOR	DC FF-130SH-11340	
4-2	VF956900	GEAR	WO	
4-5	VL241100	TRAY		BL
4-5	VL241200	TRAY		TI
4-6	V1238800	GEAR	WW	
4-7	VL241400	ROTARY TABLE		BL
4-7	VL241500	ROTARY TABLE		TI
* 4-8	VM426400	PLATE, TABLE		BL
* 4-8	VM426500	PLATE, TABLE		TI
* 4-9	VM427600	SPACER, TRAY		
4-10	VK390800	SPACER	GEAR 2	
4-11	VL794400	SUPPORT	MOTOR	
* 4-13	VM427900	SHEET, TRAY	B	
* 4-15	EX601600	BW HEAD P-TITE SCREW	2.6x10 FCRM3-BL	
4-16	EP620150	BIND HEAD P-TITE SCREW	2.6x5 ZMC2-BL	
* 4-17	EL300520	BW HEAD P-TITE SCREW	3x12-8 ZMC2-Y	
* 4-30	VN347900	SUPPORT, CONNECTOR		
* 5	VM408100	P.C.B. ASS'y, MAIN		CDC-625,91 U,C
* 5	VM408200	P.C.B. ASS'y, MAIN		CDC-625 R
* 5	VM408300	P.C.B. ASS'y, MAIN		CDC-625 A,B
* 5	VM408400	P.C.B. ASS'y, MAIN		CDC-625 G
* 5	VM752800	P.C.B. ASS'y, MAIN		CDC-90

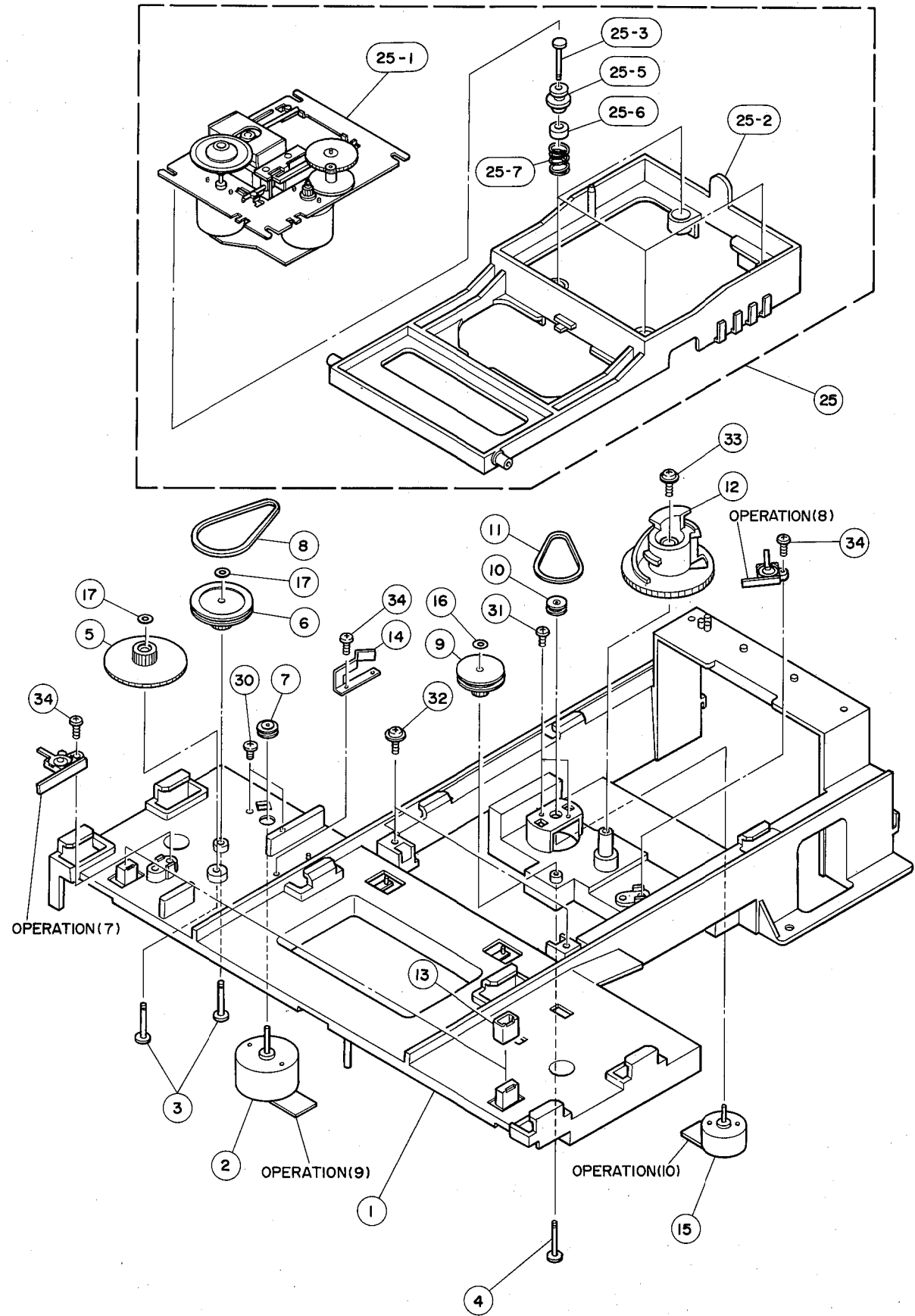
*New Parts (新規部品)

Ref. NO.	PART NO.	Description	Remarks	Markets
* 6	VL012900	POWER CORD ASS'y		U,C
6	VL238100	POWER CORD ASS'y		R
6	VL238400	POWER CORD ASS'y		A
6	VL238600	POWER CORD ASS'y		B
6	VL238900	POWER CORD ASS'y		G
11	VL781200	CHASSIS		
12	VL781400	REAR PANEL	CDC-625	U
12	VL781500	REAR PANEL	CDC-625	C
12	VL781600	REAR PANEL	CDC-625	R
12	VL781700	REAR PANEL	CDC-625	A,B
12	VL781800	REAR PANEL	CDC-625	G
12	VL882800	REAR PANEL	CDC-90	U
12	VL882900	REAR PANEL	CDC-90	C
* 12	VN159100	REAR PANEL		CDC-91 U
13	VJ060100	TOP COVER		BL
13	VJ060200	TOP COVER		TI
15	VK016600	LEG	D60/H16	CDC-90
* 15	VK016800	LEG		CDC-625,91
16	VL542000	LID		CDC-625(BL)
16	VL542100	LID		CDC-625(TI)
* 16	VM480600	LID		CDC-90(BL)
16	VM480700	LID		CDC-90(TI)
* 16	VN159200	LID		CDC-91
17	VG414400	STOPPER	TRAY	
18	VJ613900	CUSHION	SHUTTER	
* 20	VN390800	DAMPER, TOP		
22	V1048500	PC SUPPORT		
24	CB601420	PLASTIC RIVET	No.6204	R
26	VD375900	CORD STOPPER		CDC-625,90
* 26	VN158600	CORD STOPPER	No.2104	CDC-91
29	VL298200	SPACER, P.C.B.		
51	EK365090	BW HEAD SCREW	4x8 ZMC2-BL	BL
52	EX601150	BW HEAD S-TITE SCREW	4x8-10 FNM3-BL	TI
53	EK365090	BW HEAD SCREW	4x8 ZMC2-BL	
55	EK930010	BW HEAD TAPPING SCREW	3x8-8 FCRM3-BL	
56	EP630640	BIND HEAD P-TITE SCREW	3x20 FCRM3-BL	
* 57	EX602610	BW HEAD B-TITE SCREW	3x6-8 FCM3	
59	EN340030	BONDING HEAD B-TITE SCREW	3x6 FCRM3-BL	
60	EN335030	BIND HEAD BONDING TAP. SCREW	3x10 FCRM3-BL	
61	EX601360	BIND HEAD P-TITE SCREW	3x10 FCRM3-BL	
62	E1330066	BIND HEAD TAPPING SCREW	3x6 FCRM3-BL PACK	
63	E0030066	FLAT HEAD SCREW	3x6 ZMC2-Y PACK	
* 64	E0030106	FLAT HEAD SCREW	3x10 ZMC2-Y PACK	
65	EN301010	BIND HEAD BONDING TAP. SCREW	3x8 FCRM3-BL	
ACCESSORIES				
* 5	VL964600	REMOTE CONTROL TRANSMITTER		CDC-625,90
* 5	CX672770	LID		CDC-625,90
* 5	VG718700	PIH-PLUG CORD	2P 0.8m	
* 5		DRY CELL	SUM-3,AA,R06	

*New Parts (新規部品)

CDC-625/90/91

EXPLODED VIEW (CM-91)



MECHANICAL PARTS (CM-91) Note) Ø : Diameter

Ref. NO.	PART NO.	Description	Remarks	Markets
*	VM450700	DISC CHANGER UNIT	CH-91	
1	VL241700	CHASSIS	CH	
*	VM444200	MOTOR	RF-500TB-14415	
3	VI239100	PIN	φ3	
4	VJ143700	PIN		
5	VJ613000	GEAR	LO/CH	
6	VJ612900	GEAR, PULLEY		
7	VG254500	PULLEY	S	
8	VB820600	BELT	V	
9	VJ432200	PULLEY	L	
10	VJ432700	PULLEY	S	
11	VF910400	BELT	DH	
12	VL241900	CAM	CH	
13	VJ354100	DAMPER	TRAY	
14	VL782800	LEVER	TRAY	
*	VM444100	MOTOR	RF-320CH-12400	
16	CB662020	STOPPER RING		
17	VI907700	CUT WASHER	2.2x5xt0.25	
*	VM497700	WASHER	7x2.5x0.13	
*	VM450600	PICK UP ASS'y		
*	VM444300	PU MECHA. UNIT	CD90V1YA	
25-2	VL242100	HOLDER	PU	
25-3	VJ143700	PIN		
25-5	VJ635200	DAMPER	BUSH	
25-6	VJ635300	CUSHION	DAMPER	
25-7	VJ635400	SPRING	FRONT	
30	ED326056	BIND HEAD SCREW	2.6x5	ZMC2-BL
31	ED320056	BIND HEAD SCREW	2x5	ZMC2-BL
*	EL300520	BW HEAD P-TITE SCREW	3x12-8	ZMC2-Y
*	EX602600	BW HEAD P-TITE SCREW	2.6x12	ZMC2-Y
34	EX601590	BIND HEAD P-TITE SCREW	2.6x8	FCRM3-BL

*New Parts (新規部品)

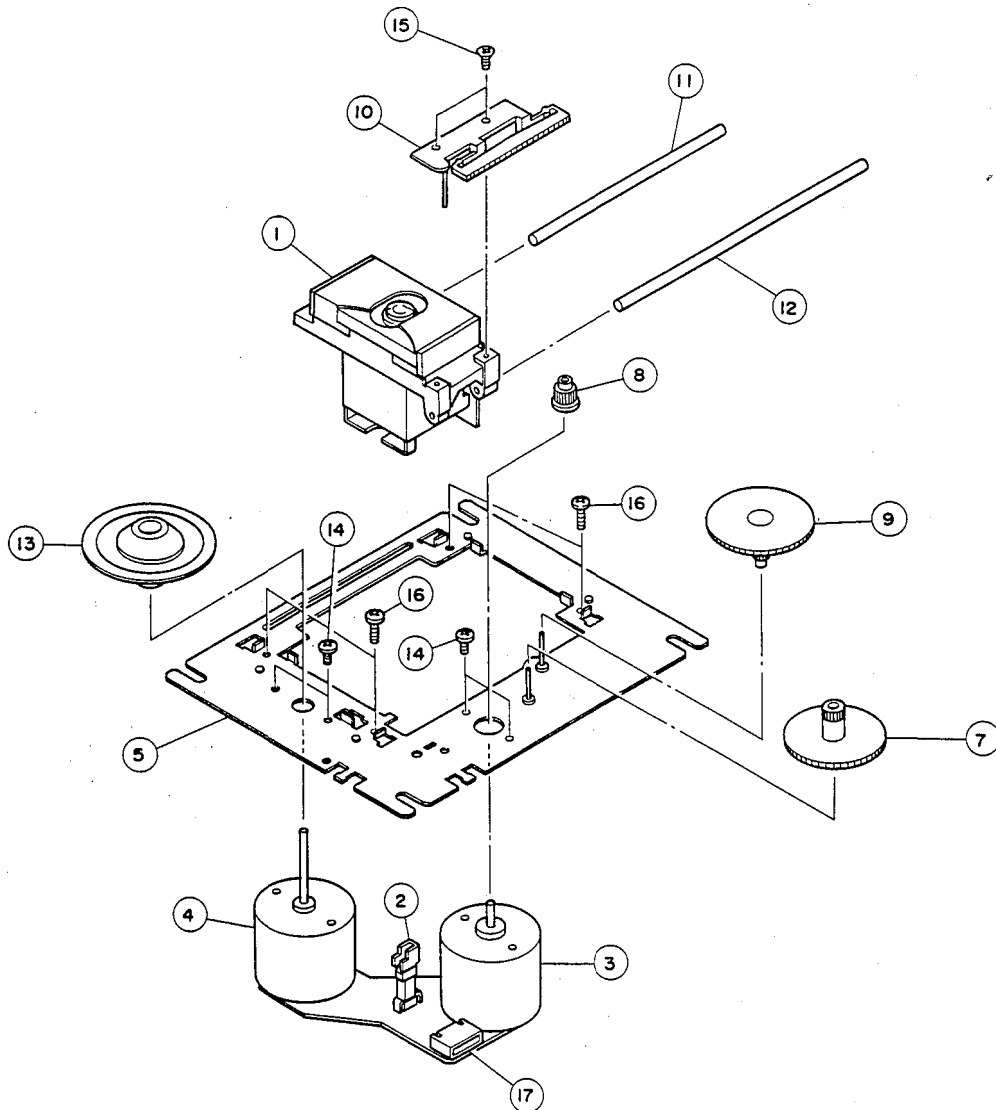
1

EXPLODED VIEW (PU Mecha. Unit)

2

3

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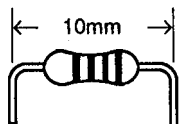
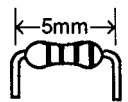


Ref. NO.	PART NO.	Description	Remarks	Markets
*	VM444300	PU MECHA. UNIT	CD90V1YA	
* 1	PX601520	PICK UP ASS'y	SF-91P	
* 2	KX603540	LIMIT SWITCH		
* 3	JX601050	MOTOR		
* 4	JX601060	SPINDLE MOTOR		
* 5	NX609970	CHASSIS ASS'y		
* 7	CX618680	GEAR, MIDDLE		
* 8	CX618690	GEAR, MOTOR		
* 9	CX618700	GEAR, POWER		
* 10	AX615020	PLATE, RACK		
* 11	AX615030	GUIDE BAR		
* 12	AX615040	GUIDE BAR		
* 13	NX609980	TURNTABLE ASS'y		
* 14	EX602300	PAN HEAD SCREW	1.7x2.5	ZMC2-Y
* 15	EB020056	FLAT HEAD SCREW	2x5	ZMC2-Y
* 16	EX602310	SPECIAL SCREW		
* 17	LX606800	CONNECTOR	6P	

*New Parts (新規部品)

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	12 KΩ	HJ35 7120	HF85 7120
1.8 Ω	HJ35 3180	*	15 KΩ	HJ35 7150	HF85 7150
2.2 Ω	HJ35 3220	HF85 3220	18 KΩ	HJ35 7180	HF85 7180
3.3 Ω	HJ35 3330	HF85 3330	22 KΩ	HJ35 7220	HF85 7220
4.7 Ω	HJ35 3470	HF85 3470	27 KΩ	HJ35 7270	HF85 7270
5.6 Ω	HJ35 3560	HF85 3560	33 KΩ	HJ35 7330	HF85 7330
10 Ω	HJ35 4100	HF85 4100	39 KΩ	HJ35 7390	HF85 7390
15 Ω	HJ35 4150	HF85 4150	47 KΩ	HJ35 7470	HF85 7470
22 Ω	HJ35 4220	HF85 4220	56 KΩ	HJ35 7560	HF85 7560
27 Ω	HJ35 4270	HF85 4270	68 KΩ	HJ35 7680	HF85 7680
33 Ω	HJ35 4330	HF85 4330	82 KΩ	HJ35 7820	HF85 7820
39 Ω	HJ35 4390	HF85 4390	91 KΩ	HJ35 7910	HF85 7910
47 Ω	HJ35 4470	HF85 4470	100 KΩ	HJ35 8100	HF85 8100
56 Ω	HJ35 4560	HF85 4560	120 KΩ	HJ35 8120	HF85 8120
68 Ω	HJ35 4680	HF85 4680	150 KΩ	HJ35 8150	HF85 8150
82 Ω	HJ35 4820	HF85 4820	180 KΩ	HJ35 8180	HF85 8180
100 Ω	HJ35 5100	HF85 5100	220 KΩ	HJ35 8220	HF85 8220
110 Ω	HJ35 5110	HF85 5110	270 KΩ	HJ35 8270	HF85 8270
120 Ω	HJ35 5120	HF85 5120	330 KΩ	HJ35 8330	HF85 8330
150 Ω	HJ35 5150	HF85 5150	390 KΩ	HJ35 8390	HF85 8390
160 Ω	HJ35 5160	*	470 KΩ	HJ35 8470	HF85 8470
180 Ω	HJ35 5180	HF85 5180	560 KΩ	HJ35 8560	HF85 8560
220 Ω	HJ35 5220	HF85 5220	680 KΩ	HJ35 8680	HF85 8680
270 Ω	HJ35 5270	HF85 5270	820 KΩ	HJ35 8820	HF85 8820
330 Ω	HJ35 5330	HF85 5330	1.0 MΩ	HJ35 9100	HF85 9100
390 Ω	HJ35 5390	HF85 5390	1.2 MΩ	HJ35 9120	*
470 Ω	HJ35 5470	HF85 5470	1.5 MΩ	HJ35 9150	HF85 9150
510 Ω	*	HF85 5510	1.8 MΩ	HJ35 9180	HF85 9180
560 Ω	HJ35 5560	HF85 5560	2.2 MΩ	HJ35 9220	HF85 9220
680 Ω	HJ35 5680	HF85 5680	3.3 MΩ	HJ35 9330	HF85 9330
820 Ω	HJ35 5820	HF85 5820	3.9 MΩ	HJ35 9390	*
910 Ω	HJ35 5910	HF85 5910	4.7 MΩ	HJ35 9470	HF85 9470
1.0 KΩ	HJ35 6100	HF85 6100			
1.2 KΩ	HJ35 6120	HF85 6120			
1.5 KΩ	HJ35 6150	HF85 6150			
1.8 KΩ	HJ35 6180	HF85 6180			
2.0 KΩ	HJ35 6200	HF85 6200			
2.2 KΩ	HJ35 6220	HF85 6220			
2.4 KΩ	HJ35 6240	HF85 6240			
2.7 KΩ	HJ35 6270	HF85 6270			
3.0 KΩ	HJ35 6300	HF85 6300			
3.3 KΩ	HJ35 6330	HF85 6330			
3.6 KΩ	HJ35 6360	HF85 6360			
3.9 KΩ	HJ35 6390	HF85 6390			
4.7 KΩ	HJ35 6470	HF85 6470			
5.1 KΩ	HJ35 6510	HF85 6510			
5.6 KΩ	HJ35 6560	HF85 6560			
6.8 KΩ	HJ35 6680	HF85 6680			
8.2 KΩ	HJ35 6820	HF85 6820			
9.1 KΩ	HJ35 6910	HF85 6910			
10 KΩ	HJ35 7100	HF85 7100			

<p>1/4W Type</p> <p>HJ35 ○○○○</p> 	<p>1/6W Type</p> <p>HF85 ○○○○</p> 
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CDC-625/90/91

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