

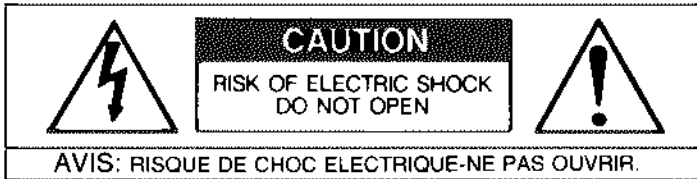


# **SERVICE MANUAL**

## **GCD-600 CAROUSEL CD PLAYER**

## THE FOLLOWING PRECAUTIONS AND SAFETY INSTRUCTIONS ARE REQUIREMENTS OF UL AND CSA SAFETY REGULATIONS

**Warning:** To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture.



The graphic symbol of a lightning flash with an arrow point within a triangle signifies that there is dangerous voltage within the unit and it poses a hazard to anyone removing the cover to gain access to the interior of the unit. **Only qualified service personnel should make any such attempt.**



The graphic symbol of an exclamation point within an equilateral triangle warns a user of the device that it is necessary to refer to the instruction manual and its warnings for proper operation of the unit.



Do not place this unit on an unstable cart, stand, tripod, bracket, or table. The unit may fall, causing serious injury to a child or adult, and serious damage to the unit. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the unit. Any mounting of the device should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

Read all the safety and operating instructions before connecting or using this unit.

Retain this notice and the owner's manual for future reference.

All warnings on the unit and in its operating instructions should be adhered to.

All operating and use instructions should be followed.

Do not use this unit near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.

The unit should be installed so that its location or position does not interfere with its proper ventilation. For example, it should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or placed in a built-in installation, such as bookcase or cabinet, that may impede the flow of air through its ventilation openings.

The unit should be situated away from heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that produce heat.

The unit should be connected to a power-supply outlet only of the voltage and frequency marked on its rear panel.

The power-supply cord should be routed so that it is not likely to be walked on or pinched, especially near the plug, convenience receptacles, or where the cord exits from the unit.

Clean unit only as recommended in its instruction manual.

The power-supply cord of the unit should be unplugged from the wall outlet when it is to be unused for a long period of time.

Care should be taken so that objects do not fall, and liquids are not spilled, into the enclosure through any openings.

This unit should be serviced by qualified service personnel when:

- A. The power cord or the plug has been damaged; or
- B. Objects have fallen, or liquid has been spilled, into the unit; or
- C. The unit has been exposed to rain, or liquids of any kind; or
- D. The unit does not appear to operate normally, or exhibits a marked change in performance; or
- E. The device has been dropped, or the enclosure damaged.

**DO NOT ATTEMPT SERVICING OF THIS UNIT YOURSELF.  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

### ATTENTION

POUR PRÉVENIR LES CHOC ÉLECTRIQUES NE PAS UTILISER CETTE FICHE POLARISÉE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ÊTRE INSÉRÉES À FOND SANS EN LAISSER AUCUNE PARTIE À DÉCOUVERT.

### CAUTION

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS POLARIZED PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

### CAUTION POWER LINES

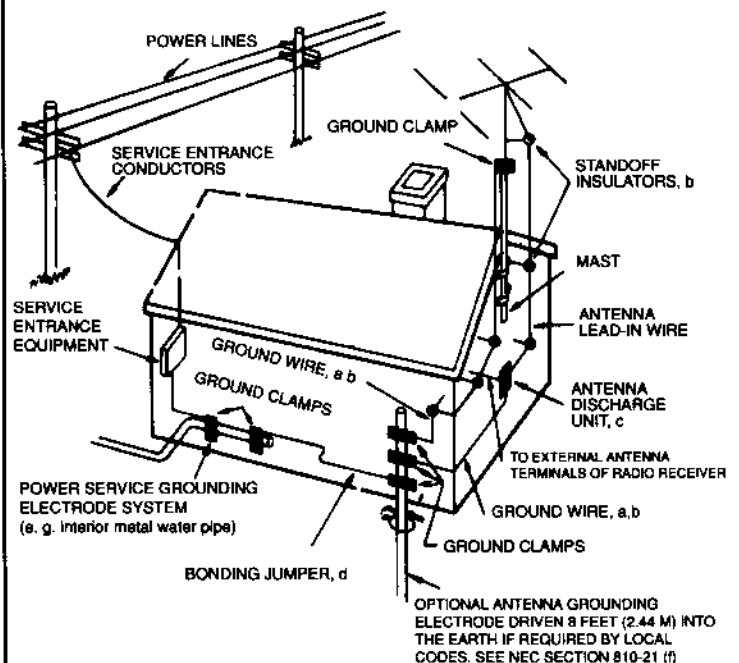
Any outdoor antenna must be located away from all power lines.

### OUTDOOR ANTENNA GROUNDING

If an outside antenna is connected to your tuner or tuner-preamplifier, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

- a. Use No.10 AWG (5.3 mm<sup>2</sup>) copper, No.8 AWG (8.4 mm<sup>2</sup>) aluminum, No.17 AWG (1.0 mm<sup>2</sup>) copper-clad steel or bronze wire, or larger, as a ground wire.
- b. Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4-6 feet (1.22-1.83 m) apart.
- c. Mount antenna discharge unit as close as possible to where lead-in enters house.
- d. Use jumper wire not smaller than No.6 AWG (13.3 mm<sup>2</sup>) copper, or the equivalent, when a separate antenna-grounding electrode is used. See NEC Section 810-21 (j).

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS CONTAINED IN ARTICLE 810 - RADIO AND TELEVISION EQUIPMENT.



### NOTE TO CATV SYSTEM INSTALLER

This reminder is provided to call the CATV system installer's attention to Article 820-22 of the National Electrical Code that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

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## **Caution for Handling the Laser Pick - Up**

The laser pick - up KSS-240A is assembled and precisely adjusted using a sophisticated manufacturing process in our plant. Do not disassemble or attempt to readjust it. Please refer to the following instructions in handling pick - up.

### **1. Handle With Care**

#### **(1) Storage**

Do not store the pick - up in dusty, high - temperature, or high - humidity environments.

(2) Prevent shock from dropping, or careless handling.

### **2. Laser Diode (LD)**

#### **(1) Protect your eyes**

The laser beam may damage the human eye, since the intensity of the focused beam may reach  $7 \times 10^3$  W/CM<sup>2</sup>, even if the intensity at the objective lens is 400 $\mu$ W maximum. As the light beam spreads after being focused through the objective lens, it does not affect you from more than 30 cms. Do not look at the laser light beam directly through the objective lens, or any other lens or mirror.

#### **(2) Toxicity of As.**

The LD chip contains As (Arsenic), as GaAs + GaAlAs, known as a poison. The poison is relatively weak in comparison to others (e.g. - As<sub>2</sub>O<sub>3</sub>, AsCl<sub>3</sub>). Avoid putting the chip in acid, or an alkali solution, or heating it over 200°C or putting it into your mouth.

#### **(3) Avoid surge current or electrostatic discharge.**

The LD may be damaged or deteriorated by its own strong light if a large current is supplied to it, regardless of the duration.

Make sure that there is no surge current in the LD driving circuit. Be careful handling the pick - up as it may be damaged by human electrostatic discharge. The pins of the LD are shorted by solder for protection during shipment of the part.

For safe handling of an LD, grounding of the human body, measuring equipment, and test jigs is recommended. It is further desirable to make use of an antistatic mat on the platform and floor where the LD will be handled.

To open the short circuit, remove the solder quickly with a soldering iron that is grounded. The temperature should not exceed 320°C (30W).

### **3. Actuator.**

(1) The performance of the actuator may be affected if magnetic material is located in it's proximity, due to the actuator's strong magnetic circuit. Do not allow dust to enter through the clearance of the cover.

#### **(2) Cleaning the lens.**

Changes of the specifications may occur from dust or ash accumulating on the objective lens. Clean the lens with a cleaning paper, dampened with a little water. Use a gentle touch, so as not to damage the lens and actuator.

### **4. Metal bearing.**

The metal bearing, of CU-compound sintered alloy is impregnated with FROIL946P, lubricate the bushing with the same lubricant when replacing the pick - up.

### **5. Handling.**

Please handle the laser pick - up by holding the side base (rosin molded part).

When either a part of the human body, or some other object touches the circuit part of the PWB, it may cause deterioration to the LD.

### **6. Deterioration .**

As the KSS-240 includes a built - in RF amplifier and APC circuit, it resists against external electrostatic damages that occur in the former type pick - up. There is a possibility of pick - up deterioration in the following cases.

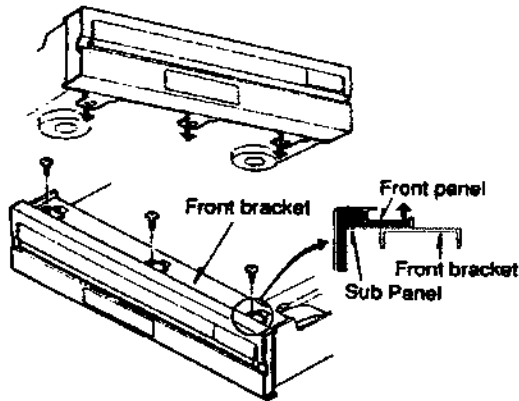
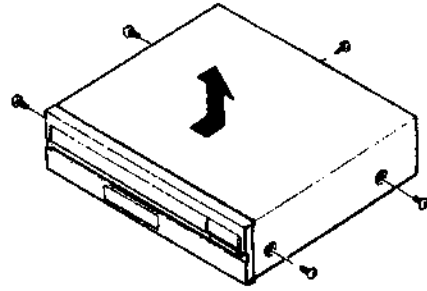
(1) Low HF level, or excessive jitter.

(2) Tracking offset (EF Balance) out of specification (refer to Adjustment Procedure for methods of diagnosis).

## Disassembly

### ● Top Cover

Remove 4 screws from both sides and 1 screw from the rear panel. Slide the top cover slightly backwards (approx. 5 mm) and pull it up.

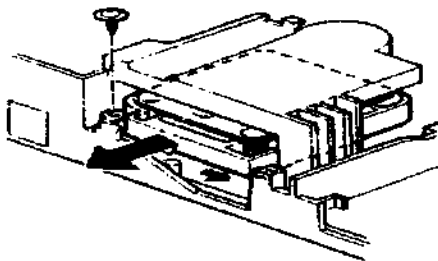
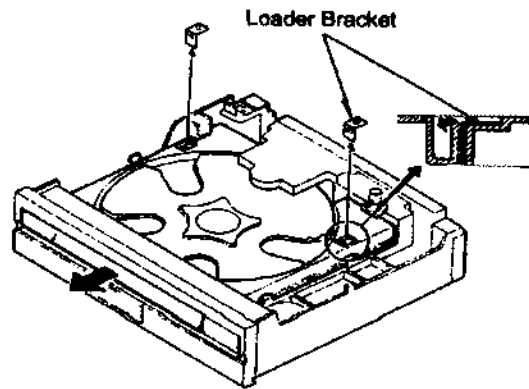


### ● Front Panel

1. Remove the 3 hooks from the bottom surface of the unit.
2. Remove the screws fixing the front bracket and detach the sub-panel from the hook on the front panel

### ● Loader Frame Ass'y

1. Remove hooks from the Loader Frame, and pull out the 2 loader brackets from the right and left sides.
2. Pull the Loader Frame Assembly forward.

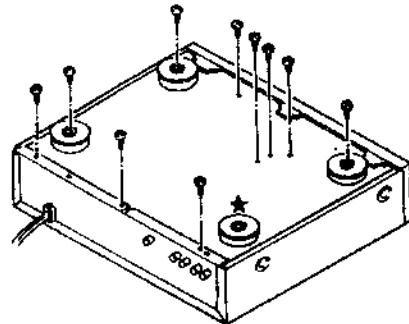


### ● Pick Up Mechanism

After removing the rear panel, remove 1 screw and remove the mechanism.

### ● Bottom Panel

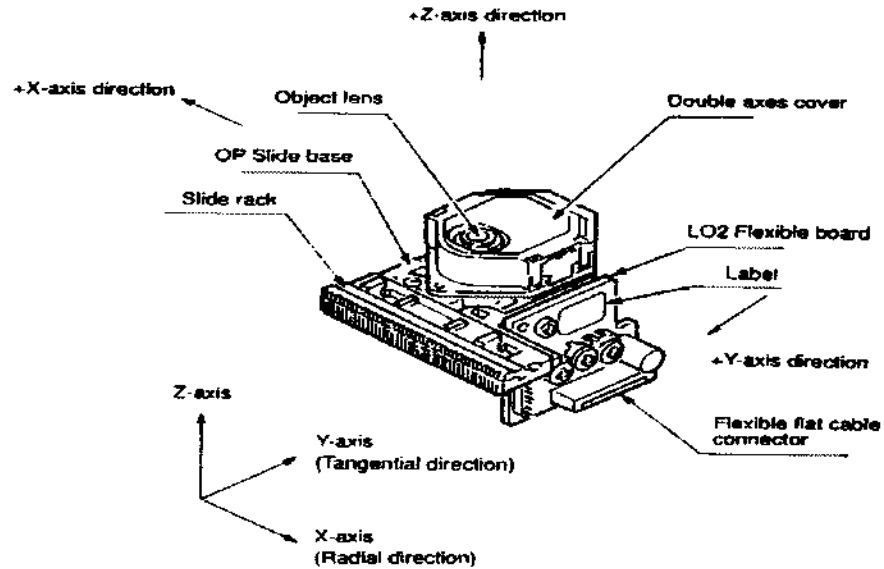
1. Remove all screws, except for the one in the right side rear foot (left when unit is inverted).
2. Slide the bottom cover backward (approx. 5mm) until it touches the rear panel end. Lift up the front portion of the bottom panel and pull it up.



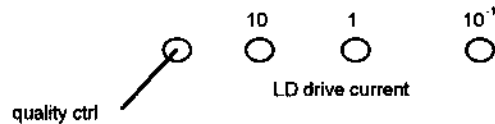
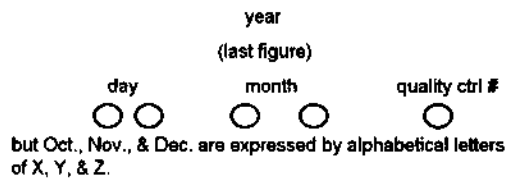
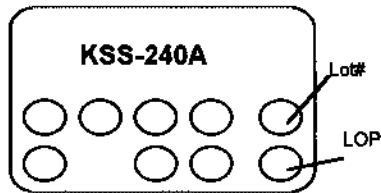
## Note For Handling Of The Laser Pick - Up

### Description of the components

#### NOTE FOR HANDLING OF LASER PICK-UP DESCRIPTION OF THE COMPONENTS

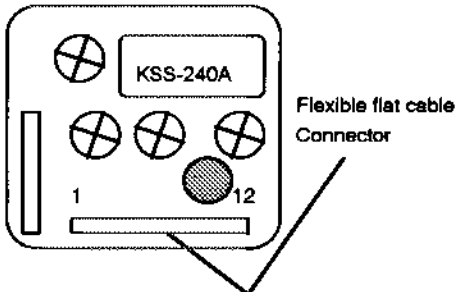


#### Label



The expressed unit is in mA, with omission of the decimal point (for example: 56.5 mA will be expressed as 565). The letter is the quality control designation for the manufacturing plant.

#### PIN CONNECTOR



pin #	Descr	I/O	pin#	Descr	I/O
1	VC(2.5V)	OUT	7	VCC(5V)	IN
2	TE	OUT	8	LDC	IN
3	FE	OUT	9	FCS+	IN
4	FZC	OUT	10	TRK+	IN
5	RF	OUT	11	TRK-	IN
6	GND	IN	12	FCS -	IN

## ADJUSTMENT

A microcomputer built into the unit utilizes a service program to facilitate servo adjustment by using the function buttons.

### 1. Start service program

- (1) Turn the power switch to the OFF position.
- (2) Short circuit J184 (SWOP) and J185 (SWCL) of TP101 on the main PWB.
  - **Caution** : Do Not Touch Other Jumper Wires.
- (3) Turn the power switch to the ON position.
  - Service program starts, and displays track number " 01"

- **Caution**: When service program starts, normal operation of buttons will be defeated.

### 2. Service Program Function

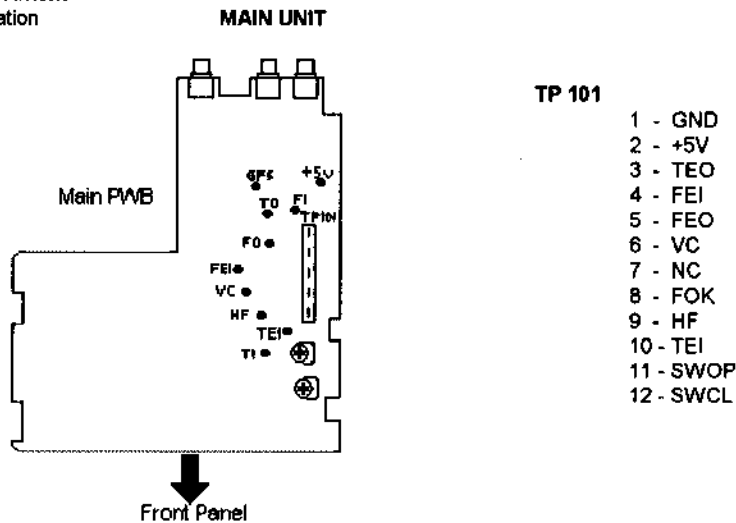
- Make sure a disc has been loaded in the #1 position of the disc tray.

Button	Function	Description
Open / Close	Opens / closes the drawer.	
Stop	Stops system function.	<ul style="list-style-type: none"> <li>• Displays track "01"</li> <li>• Push when adjustment complete or to repeat test.</li> </ul>
Play	Starts focus servo.	<ul style="list-style-type: none"> <li>• When complete displays "02".</li> </ul>
Pause	Starts tracking & slide servo	<ul style="list-style-type: none"> <li>• When complete displays "03"</li> </ul>
Other Buttons	No normal operation	<ul style="list-style-type: none"> <li>• Do not operate, if used turn power off immediately.</li> </ul>

- **Caution**: Do not use remote control while in the service program mode.

### 3. Adjustment

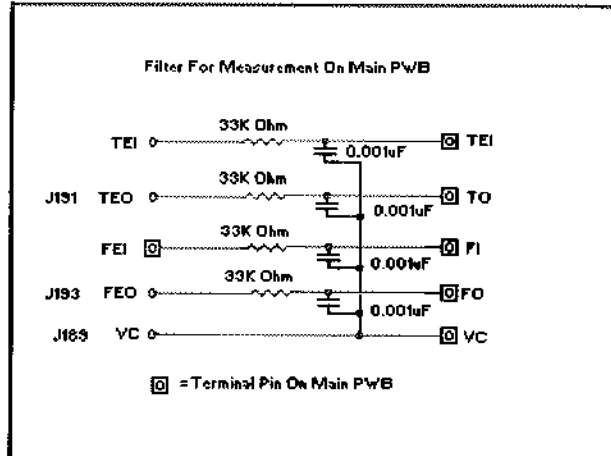
#### (1) Location



- **Caution** : When operating the unit with an open cover, there may be a possibility of playback failure, due to light entering into the disc detection sensor. In such a case, shield the light by hand or other means so the light does not reach the sensor.

(2) Necessary equipment for adjustment.

1. Dual Trace Oscilloscope
2. Reference Disc.
3. Oscillator (10Hz - 10kHz, 0 - 3 V p-p)
4. Frequency Counter (resolution > 5 KHz)

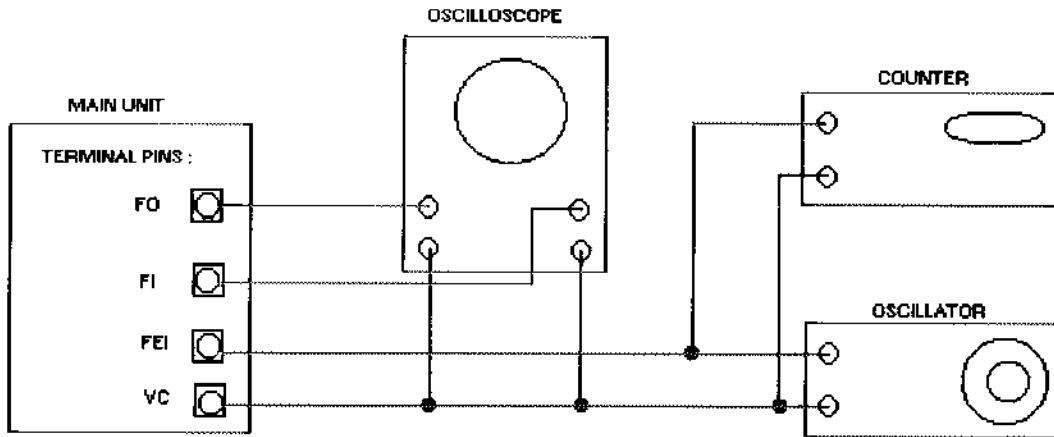


(3) Set - Up

1.	Start Service Program	
2.	Preset VR101, 102.	Set VR101 and !02 to their center position.
3.	Designation	1. Focus Gain (VR101) 2. Tracking Gain (VR102)

**4. Focus Gain.**

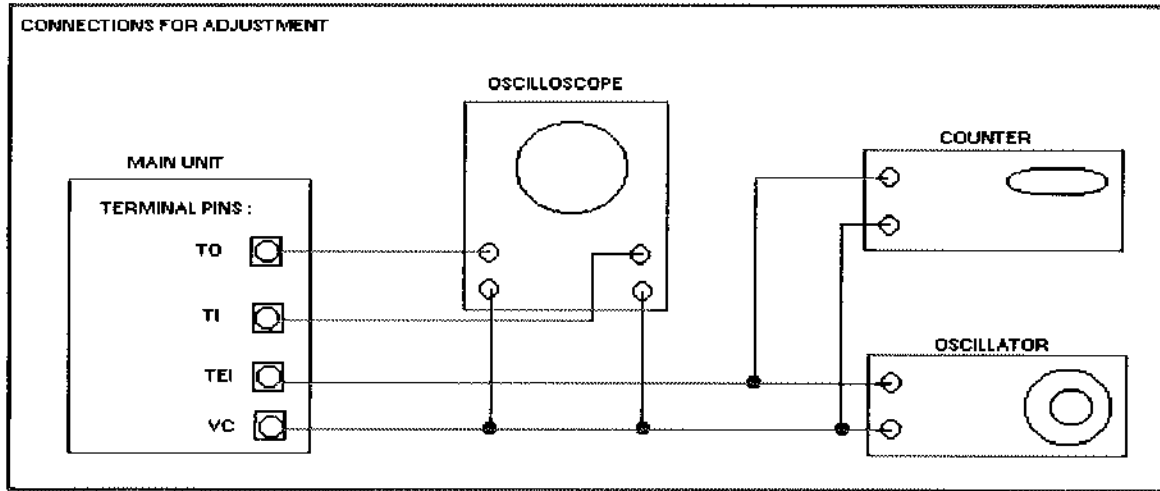
CONNECTION FOR ADJUSTMENT



Oscillator	Counter	Oscilloscope	Adjust (Volume)	Check (Oscilloscope)	Step
930Hz 4V p-p (+/- 0.1 V)	930Hz	Vert   Horiz ----- -DC Range - X-Y Mode	VR101	90° Lissajous phase measured.	1. Push PAUSE ("03" displayed). 2. Connect O-Scope. 3. Set oscillator to 930 Hz / 4 v p-p. 4. Put O-scope into X-Y mode. 5. Adjust VR101 to gain a symmetrical lissajous figure.

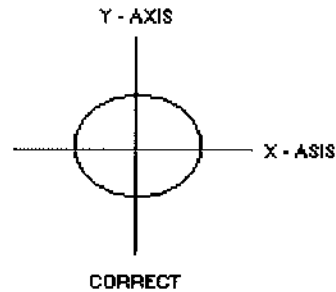
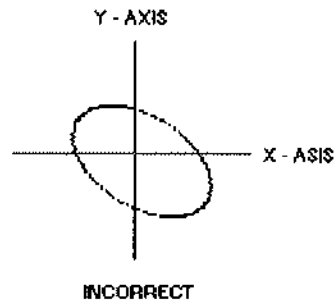


## 5. Tracking Gain



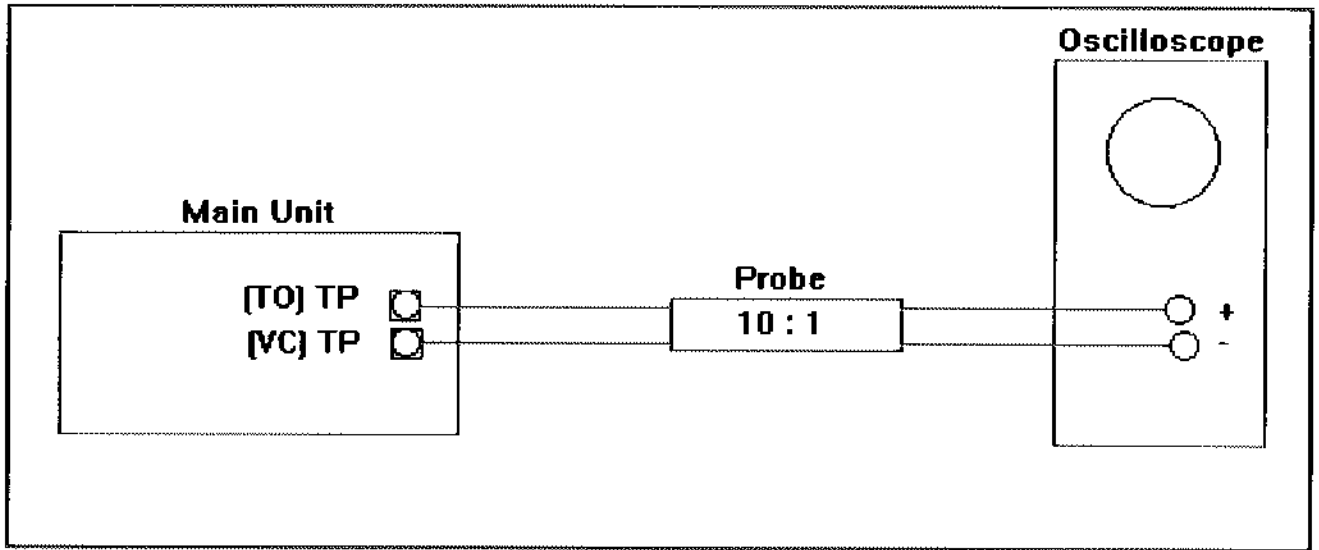
Oscillator	Counter	Oscilloscope		Adjust Volume	Check Oscilloscope	Step
		V	H			
-2.9 KHz (+/- 120 Hz)  -1.5 V p-p (+/- 0.1 V)	2.9 KHz (+/- 120 Hz)	- DC Range		VR102	Adjust for a 90° Lissajous Figure.	<ol style="list-style-type: none"> <li>1. Push PAUSE ("03" displayed)</li> <li>2. Connect oscillator.</li> <li>3. Set oscillator to 2.9kHz / 1.5 V p-p</li> <li>4. Switch O-scope to X-y mode.</li> <li>5. Adjust VR102 to obtain a symmetrical Lissajous figure on the X - Y axes.</li> </ol>

## LISSAJOUS WAVEFORM



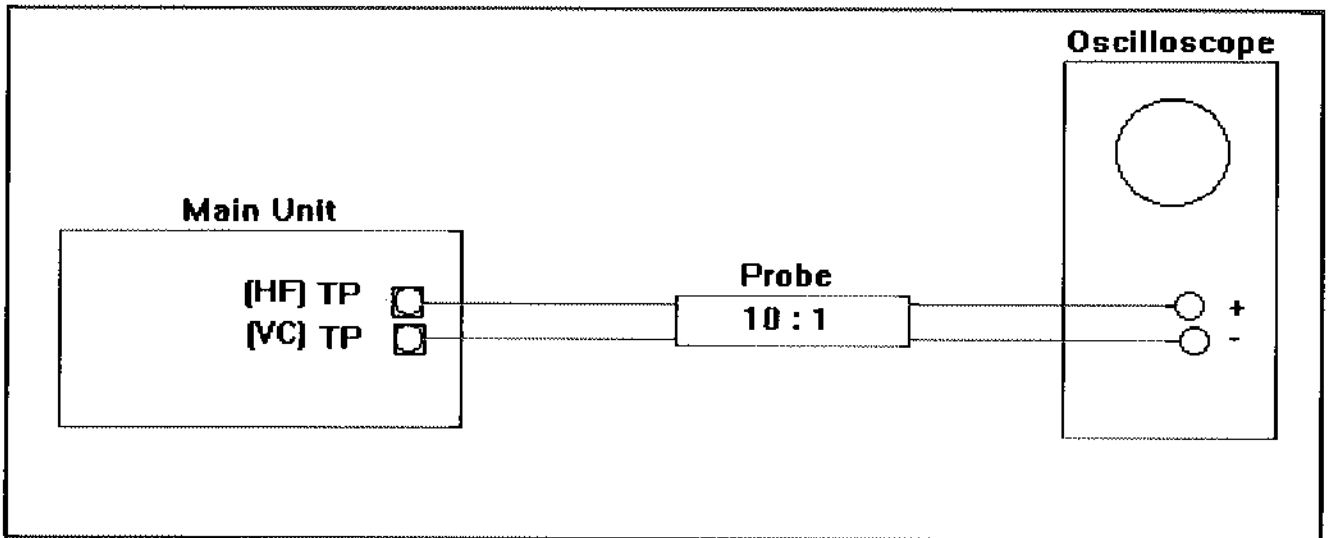
90 Degree

### 6. Tracking Offset (E / F Balance)



Oscilloscope		Check	Step
V	H	Oscilloscope	
0.1 V / Div	1 - 2 ms / Div	Symmetrical Waveform across a dc baseline.	<ol style="list-style-type: none"> <li>1. Press the Open / Close button, load a reference disc, and close the door.</li> <li>2. Press play to rotate disc. ("02" displayed).</li> <li>3. Set the baseline on your oscilloscope.</li> <li>4. Confirm that the p - p amplitude of the waveform is symmetrical across the 0Vdc baseline.</li> </ol>

### 7. HF Level



Oscilloscope		Check	Step
V	H	Oscilloscope	
50 mv/div or 20mv/div	0.2us/div or 0.5us/div	The HF waveform shall be 1.2 + 0.3 V p-p. The pattern will be a typical "Eye Pattern" common in CD players.	<ol style="list-style-type: none"> <li>1. Press PAUSE. ("03" displayed)</li> <li>2. Check HF level on O-Scope.</li> <li>3. Confirm that the waveform is in good shape. (Diamond pattern must be clear)</li> </ol>
Set input mode to Alternate or Chopper.			

## HEAT RUN MODE FUNCTION

### Heat Run Mode

#### 1) To Activate

While holding RANDOM, REPEAT, and DISC SKIP keys simultaneously, turn the power on (using the POWER SWITCH). Be sure to load the disc into the unit before entering Heat Run Mode. Press the Open / Close button to cancel Heat Run Mode.

◆ This mode functions only for a disc with 21 tracks or more, do not use discs with less than 21 tracks.

#### 2) Operation.

The unit will begin play at the first track, and then will play the last track - then repeat this format. If an error occurs the unit will cease operation and an error code will be displayed on the TOC section of the display. The Timer section of the display will show when the error occurred (# of steps). This is useful for finding intermittent problems. The error codes are listed below.

#### 3) Error Codes .

##### 1. E1

Focus servo does not activate.

##### 2. E2

Unable to detect synchronous pattern, even though disc is rotating. (GFS does not drive).

##### 3. E3

No synchronous pattern can be detected while in play mode. (No GFS drives).

##### 4. E4

TOC is unreadable / servo is active.

##### 5. E5

Loader malfunctions. (Unable to turn on the switch).

##### 6. E6

The inner circle switch of pick - up does not turn off.

##### 7. E7

The inner circle switch of pick - up does not turn on.

##### 8. E10

Improper function of pick - up base Up / Down.

##### 9. E11

Improper function of disc select.

◆ - The number of operations up to the point of error will be displayed on the timer portion of the indicator.

## ADCOM GCD-600 SERVICE PARTS LIST

REF NO.	DESCRIPTION	PART NO.
***** RESISTORS *****		
R104	7.5KΩ - 1/6 W	27007360
R107	220Ω - 1/6 W	27007310
R109	10KΩ - 1/6 W	27007230
R110	200KΩ - 1/6 W	27007060
R111	39KΩ - 1/6 W	27007180
R112	56KΩ - 1/6 W	27007150
R113	10KΩ - 1/6 W	27007230
R115	680KΩ - 1/6 W	27007020
R116	120KΩ - 1/6 W	27007080
R117	1KΩ - 1/6 W	27007290
R118	10KΩ - 1/6 W	27007230
R119	100KΩ - 1/6 W	27007100
R120	10KΩ - 1/6 W	27007230
R121	47KΩ - 1/6 W	27007170
R122	6.8KΩ - 1/6 W	27007250
R123	6.8KΩ - 1/6 W	27007250
R124	22Ω - 1/6 W	27007330
R125	220Ω - 1/6 W	27007310
R126	110KΩ - 1/6 W	27007090
R127	110KΩ - 1/6 W	27007090
R128	220Ω - 1/6 W	27007310
R130	91KΩ - 1/6 W	27007110
R131	1Ω - 1/6 W	27007340
R132	220KΩ - 1/6 W	27007050
R133	75KΩ - 1/6 W	27007130
R136	51KΩ - 1/6 W	27007160
R139	82KΩ - 1/6 W	27007120
R140	33KΩ - 1/6 W	27007190
R141	4.7KΩ - 1/6 W	27007260
R142	110KΩ - 1/6 W	27007090
R143	110KΩ - 1/6 W	27007090
R144	220Ω - 1/6 W	27007310
R145	75KΩ - 1/6 W	27007130
R146	18KΩ - 1/6 W	27007210
R147	130KΩ - 1/6 W	27007070
R148	130KΩ - 1/6 W	27007070
R149	68KΩ - 1/6 W	27007140
R150	22Ω - 1/6 W	27007330
R151	68KΩ - 1/6 W	27007140
R152	82KΩ - 1/6 W	27007120
R153	18KΩ - 1/6 W	27007210
R160	33KΩ - 1/6 W	27007190
R161	33KΩ - 1/6 W	27007190
R162	33KΩ - 1/6 W	27007190
R163	33KΩ - 1/6 W	27007190
R164	1KΩ - 1/6 W	27007290
R166	100KΩ - 1/6 W	27007100
R167	10KΩ - 1/6 W	27007230
R170	82KΩ - 1/6 W	27007120
R171	220Ω - 1/6 W	27007310
R177	470Ω - 1/6 W	27007300
R180	100KΩ - 1/6 W	27007100
R181	47KΩ - 1/6 W	27007170
R182	47KΩ - 1/6 W	27007170
R183	220Ω - 1/6 W	27007310
R184	220Ω - 1/6 W	27007310
R185	47KΩ - 1/6 W	27007170
R186	47KΩ - 1/6 W	27007170
R188	220Ω - 1/6 W	27007310
R189	100KΩ - 1/6 W	27007100
R190	47KΩ - 1/6 W	27007170
R191	47KΩ - 1/6 W	27007170
R194	100KΩ - 1/6 W	27007100

REF NO.	DESCRIPTION	PART NO.
R195	100KΩ - 1/6 W	27007100
R196	100KΩ - 1/6 W	27007100
R197	100KΩ - 1/6 W	27007100
R199	110KΩ - 1/6 W	27007090
R201	10KΩ - 1/6 W	27007230
R202	10KΩ - 1/6 W	27007230
R203	10KΩ - 1/6 W	27007230
R204	10KΩ - 1/6 W	27007230
R205	10KΩ - 1/6 W	27007230
R206	10KΩ - 1/6 W	27007230
R207	10KΩ - 1/6 W	27007230
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R219	10KΩ - 1/6 W	27007230
R220	10KΩ - 1/6 W	27007230
R221	10KΩ - 1/6 W	27007230
R222	10KΩ - 1/6 W	27007230
R223	6.8KΩ - 1/6 W	27007250
R226	10KΩ - 1/6 W	27007230
R227	10KΩ - 1/6 W	27007230
R231	10KΩ - 1/6 W	27007230
R232	1KΩ - 1/6 W	27007290
R240	6.8KΩ - 1/6 W	27007250
R241	6.8KΩ - 1/6 W	27007250
R242	10KΩ - 1/6 W	27007230
R352	1KΩ - 1/6 W	27007290
R353	1KΩ - 1/6 W	27007290
R354	1KΩ - 1/6 W	27007290
R355	1.5KΩ - 1/6 W	27007280
R356	1KΩ - 1/6 W	27007290
R357	1KΩ - 1/6 W	27007290
R358	1KΩ - 1/6 W	27007290
R501	4.7KΩ - 1/6 W	27007260
R502	4.7KΩ - 1/6 W	27007260
R504	47KΩ - 1/6 W	27007170
R505	100Ω - 1/6 W	27007320
R506	100Ω - 1/6 W	27007320
R507	100KΩ - 1/6 W	27007100
R508	10KΩ - 1/6 W	27007230
R601	1KΩ - 1/6 W	27007290
R602	1KΩ - 1/6 W	27007290
R603	100KΩ - 1/6 W	27007100
R604	1KΩ - 1/6 W	27007290
R605	1KΩ - 1/6 W	27007290
R606	1KΩ - 1/6 W	27007290
R611	560KΩ - 1/6 W	27007450
R612	560KΩ - 1/6 W	27007450
R614	560KΩ - 1/6 W	27007450
R615	560KΩ - 1/6 W	27007450
R616	560KΩ - 1/6 W	27007450
R621	560KΩ - 1/6 W	27007450
R622	560KΩ - 1/6 W	27007450
R623	560KΩ - 1/6 W	27007450
R624	560KΩ - 1/6 W	27007450
R625	560KΩ - 1/6 W	27007450
R626	560KΩ - 1/6 W	27007450

## ADCOM GCD-600 SERVICE PARTS LIST

REF NO.	DESCRIPTION	PART NO.
R627	560KΩ - 1/6 W	27007450
R640	10KΩ - 1/6 W	27007230
R641	3.3KΩ - 1/6 W	27007270
R651	10KΩ - 1/6 W	27007230
R652	1KΩ - 1/6 W	27007290
R653	560KΩ - 1/6 W	27007450
R701	10KΩ - 1/6 W	27007230
R702	20KΩ - MK1 - 1/6 W	27007420
R703	20KΩ - MK1 - 1/6 W	27007420
R704	7.5KΩ - MK1 - 1/6 W	27007360
R705	470KΩ - MK1 - 1/6 W	27007430
R710	100Ω - MK1 - 1/6 W	27007410
R711	100KΩ - MK1 - 1/6 W	27007380
R713	7.5KΩ - MK1 - 1/6 W	27007360
R714	2.43KΩ - MK1 - 1/6 W	27007440
R716	2.43KΩ - MK1 - 1/6 W	27007440
R717	7.5KΩ - MK1 - 1/6 W	27007360
R718	1.82KΩ - MK1 - 1/6 W	27007370
R719	4.7MΩ - 1/6 W	27007460
R720	1.00KΩ - MK1 - 1/6 W	27007390
R722	3.32KΩ - MK1 - 1/6 W	27007400
R723	3.32KΩ - MK1 - 1/6 W	27007400
R724	100Ω - MK1 - 1/6 W	27007410
R729	7.5KΩ - MK1 - 1/6 W	27007360
R730	2.43KΩ - MK1 - 1/6 W	27007440
R731	100Ω - 1/6 W	27007320
R732	2.43KΩ - MK1 - 1/6 W	27007440
R733	7.5KΩ - MK1 - 1/6 W	27007360
R734	1.82KΩ - MK1 - 1/6 W	27007370
R735	4.7MΩ - 1/6 W	27007460
R736	1.00KΩ - MK1 - 1/6 W	27007390
R737	3.32KΩ - MK1 - 1/6 W	27007400
R739	3.32KΩ - MK1 - 1/6 W	27007400
R740	100KΩ - MK1 - 1/6 W	27007380
R742	470Ω - 1/6 W	27007300
R743	470Ω - 1/6 W	27007300
R744	10KΩ - 1/6 W	27007230
R749	20KΩ - 1/6 W	27007200
R750	470Ω - 1/6 W	27007300
R751	12KΩ - 1/6 W	27007220
R759	7.5KΩ - MK1 - 1/6 W	27007360
R760	470KΩ - MK1 - 1/6 W	27007430
R761	100Ω - MK1 - 1/6 W	27007410
R762	100Ω - MK1 - 1/6 W	27007410
R764	20KΩ - MK1 - 1/6 W	27007420
R763	7.5KΩ - MK1 - 1/6 W	27007360
R765	20KΩ - MK1 - 1/6 W	27007420
R801	47KΩ - 1/6 W	27007170
R802	1KΩ - 1/6 W	27007290
R803	47KΩ - 1/6 W	27007170
R804	33KΩ - 1/6 W	27007190
R805	6.8KΩ - 1/6 W	27007250
R905	4.7KΩ - 1/6 W	27007260
R910	1KΩ - 1/6 W	27007290
R950	110KΩ - 1/6 W	27007090
R953	20KΩ - 1/6 W	27007200
R954	20KΩ - 1/6 W	27007200
R956	330KΩ - 1/6 W	27007030
R957	18KΩ - 1/6 W	27007210
R958	1Ω - 1/6 W	27007340
R959	270KΩ - 1/6 W	27007040
***** I C 's *****		
IC101	CXA1372S	21001372

REF NO.	DESCRIPTION	PART NO.
IC103	BA15218	21001521
IC104	BA15218	21001521
IC105	BA15218	21001521
IC106	BA15218	21001521
IC201	M50959-4495	21005095
IC202	CXD2500AQ	21002500
IC205	74HCU04AP	21007404
IC300	CXD1244	21001244
IC301	TDA1541A	21001541
IC302	74HC14AP	21007414
IC401	TA7815S	21007815
IC402	TA7915S	21007915
IC501	M5290P	21005290
IC601	TC74HC240FP	21007424
IC602	TC74HC240FP	21007424
IC703	UPD6254	21006254
IC708	MN6632	21006632
IC743	ADCOM 6AA	21006001
IC744	ADCOM 6AA	21006001
IC745	ADCOM 6AA	21006001
IC748	ADCOM 6AA	21006001
IC749	ADCOM 6AA	21006001
IC751	ADCOM 6AA	21006001
IC755	ADCOM 6AA	21006001
IC756	ADCOM 6AA	21006001
IC801	UPD75C402A	21007540
***** TRANSFORMERS *****		
T701	R12-M644X / PULSE XFRMR	24001264
PT501	2335907009 / 120V ONLY	24005010
PT501	PZ-J1257 / MULTI	24001257
PT502	120V ONLY XFRMR	24001187
PT502	PZ-J1256 / MULTI	24001256
L103	AXCOIL 22uH	14001010
L701	EL0606SKI-471K COIL	14001020
L702	EL0606SKI-471K COIL	14001020
X201	X'TAL 16.933MHZ	44001020
X801	RESONATOR 4.19M KBR	45004190
***** VARIABLE RESISTORS *****		
VR101	22KΩ / RH0681C	35001200
VR102	22KΩ / RH0681C	35001200
***** RELAYS AND SWITCHES *****		
RY701	RY18W - DE-EMPHASIS	28001100
RY703	RY18W - MUTING	28001100
RY707	RY18W - MUTING	28001100
TACT SW. GREEN	SKHJFB0001	37001370
TACT SW. RED	SKHJFA	37001380
TACT SW. SKHHBV		37001390
POWER SWITCH	SPPH13024A	37001400
SWITCH SSCF21		37001410 <sup>15</sup>
SWITCH SSCF21		37001440 <sup>15</sup>
***** TRANSISTORS *****		
Q101	2SB562CTF	33005620
Q102	2SD468CTF	33004680
Q104	2SD468CTF	33004680
Q105	2SB562CTF	33004680
Q106	2SD468CTF	33004680
Q107	2SB562CTF	33005620

## ADCOM GCD-600 SERVICE PARTS LIST

REF NO.	DESCRIPTION	PART NO.
Q108	2SD468CTF	33004680
Q109	2SB562CTF	33005620
Q180	2SB562CTF	33005620
Q181	2SD1913R	33001913
Q182	2SB562CTF	33005620
Q183	2SD468CTF	33004680
Q184	2SB562CTF	33005620
Q185	2SD468CTF	33004680
Q190	DTC144ES	33001440
Q501	2SD1913R	33001913
Q502	2SB1274R	33001274
Q503	2SA933	33009330
Q601	2SA933	33009330
Q602	2SA933	33009330
Q604	2SA933	33009330
Q605	2SA933	33009330
Q606	2SA933	33009330
Q610	2SC2458GR	33002458
Q651	2SA933	33009330
Q652	2SC3327	33003327
Q701	2SD1207	33001207
Q702	2SD1207	33001207
Q950	2SA933	33009330
***** DIODES *****		
D201	1S133	16001330
D202	1S133	16001330
D203	1S133	16001330
D204	1S133	16001330
D205	1S133	16001330
D206	1S133	16001330
D207	1S133	16001330
D208	1S133	16001330
D209	1S133	16001330
D401	1N4003	16004003
D402	1N4003	16004003
D403	1N4003	16004003
D404	1N4003	16004003
D501	1N4003	16004003
D502	1N4003	16004003
D503	1N4003	16004003
D504	1N4003	16004003
D505	1S133	16001330
D506	1S133	16001330
D507	HZS24-2TD, ZENER	16002420
D508	HZS7B-2TD, ZENER	16007200
D601	1S133	16001330
D602	1S133	16001330
D603	1S133	16001330
D604	1S133	16001330
D605	1S133	16001330
D606	1S133	16001330
D607	1S133	16001330
D608	1S133	16001330
D611	1S133	16001330
D612	1S133	16001330
D701	1S133	16001330
D702	1S133	16001330
D704	1S133	16001330
D950	1S133	16001330
D951	1S133	16001330
D952	1S133	16001330

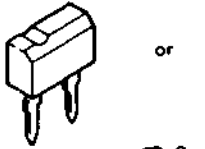
REF NO.	DESCRIPTION	PART NO.
***** LED'S *****		
GCD-LED	LED GL-450	16004500
LED618	LED TLR206	24002060
LED619	LED TLR206	24002060
LED625	LED TLR206	24002060
FL TUBE	FL TUBE FIP87J	17001040
PTQ108	LED PT491F	16006107
***** SENSORS *****		
PHOTO COUPLER	GP1A52HR	<del>45001010</del> 16001520
REMOTE SENSOR	SPS-420-1	16004201
***** CHASSIS CONNECTIONS *****		
DIN JACK	FEMALE DIN	
F401	FUSE HOLDER	20006000
F402	FUSE HOLDER	20006000
F502	FUSE HOLDER	20006000
F503	FUSE HOLDER	20006000
F504	FUSE HOLDER	20006000
F505	FUSE HOLDER	20006000
FUSE	0.5A TSC	19000051
AUDIO OUT JACK (2P)		22001070
DIGITAL OUT JACK (1P)		22001100
***** SOCKETS *****		
CB116	FPC SOCKET (12P)	
CB200	FPC SOCKET (31P)	
FPC SOCKET	(31P) HLEM31R	
FPC SOCKET	(GOLD) L= 460	
***** CAPACITORS *****		
C103	CERA-CON TF 332	12001380
C104	AX-CON 560P	12002150
C107	CERA-CON TF 473	12002010
C108	CERA-CON TF 222	12001100
C109	CERA-CON TF 104	12001280
C110	CERA-CON TF 104	12001280
C111	CERA-CON TF 104	12001280
C112	CERA-CON TF 104	12001280
C113	ELECT-CON 50V 6.8u	12005630
C114	CERA-CON TF 224	12001100
C115	AX-CON 104	12001210
C116	CERA-CON TF 103	12002070
C118	AX-CON 102	12001440
C119	AX-CON 102	12001440
C120	AX-CON 103	12001240
C121	AX-CON 103	12001240
C122	ELECT-CON 50V 0.22u	12005640
C123	ELECT-CON 50V 0.22u	12005640
C124	CERA-CON TF 103	12002070
C125	CERA-CON TF 562	12001220
C126	AX-CON 103	12001240
C127	CERA-CON TF 332	12001380
C128	CERA-CON TF 103	12002070
C129	CERA-CON TF 333	12001340
C132	AX-CON 150P	12003280
C133	AX-CON 20P	12003290
C135	ELECT-CON 25V 10u	12005090
C136	AX-CON 220P	12003040
C138	AX-CON 104	12001210

## ADCOM GCD-600 SERVICE PARTS LIST

REF NO.	DESCRIPTION	PART NO.
C142	AX-CON 51P	12003270
C152	AX-CON 51P	12003270
C160	AX-CON 102	12001440
C161	AX-CON 102	12001440
C162	AX-CON 102	12001440
C163	AX-CON 102	12001440
C175	CERA-CON TF 473	12002010
C176	AX-CON 104	12001210
C180	AX-CON 15P	12003140
C181	CERA-CON 75P	12002160
C182	AX-CON 104	12001210
C200	AX-CON 100P	12003030
C201	AX-CON 104	12001210
C202	AX-CON 103	12001240
C203	AX-CON 103	12001240
C210	CERA-CON TF 473	12002010
C211	CERA-CON 152	12001650
C212	AX-CON 104	12001210
C214	AX-CON 104	12001210
C215	ELECT-CON 16V 33u	12005660
C223	CERA-CON NPO 5P	12002030
C224	CERA-CON NPO 5P	12002030
C253	ELECT-CON 16V 220u	12005120
C314	AX-CON 560P	12002150
C316	CERA-CON TF 104	12001280
C317	CERA-CON TF 104	12001280
C318	CERA-CON TF 104	12001280
C319	CERA-CON TF 104	12001280
C320	CERA-CON TF 104	12001280
C321	CERA-CON TF 104	12001280
C322	CERA-CON TF 104	12001280
C323	AX-CON 104	12001210
C324	AX-CON 104	12001210
C325	CERA-CON TF 104	12001280
C326	CERA-CON TF 104	12001280
C327	CERA-CON TF 104	12001280
C328	CERA-CON TF 104	12001280
C329	CERA-CON TF 104	12001280
C330	CERA-CON TF 104	12001280
C331	CERA-CON TF 104	12001280
C332	CERA-CON TF 561	12002150
C401	ELECT-CON 25V 3300u	12005570
C402	ELECT-CON 25V 1000u	12005010
C403	ELECT-CON 16V 220u	12005120
C404	ELECT-CON 16V 1000u	12005420
C405	AX-CON 104	12001210
C501	ELECT-CON 16V 2200u	12005030
C502	ELECT-CON 16V 4700u	12005560
C503	ELECT-CON 16V 220u	12005120
C504	ELECT-CON 16V 220u	12005120
C505	ELECT-CON 50V 3.3u	12005300
C507	ELECT-CON 50V 47u	12005280
C508	ELECT-CON 50V 100u	12005360
C509	ELECT-CON 50V 33u	12005610
C510	ELECT-CON 50V 33u	12005610
C511	ELECT-CON 50V 3.3u	12005300
C700	CERA-CON TF 182	12001660
C703	CERA-CON TF 152	12001650
C704	CERA-CON TF 153	12001670
C705	CERA-CON TF 472	12001620
C706	ELECT-CON 16V 4.7u	12005650
C708	ELECT-CON 16V 47u	12005650
C730	AX-CON 104	12001210
C731	ELECT-CON 50V 33u	12005610
C733	AX-CON 103	12001240

REF NO.	DESCRIPTION	PART NO.
C734	ELECT-CON 16V 10u	12005500
C735	ELECT-CON 16V 10u	12005500
C736	CERA-CON TF 362	12001640
C737	CERA-CON TF 362	12001640
C784	AX-CON SL 33P	12003150
C785	AX-CON SL 33P	12003150
C786	CERA-CON TF 362	12001640
C787	CERA-CON TF 474	12001270
C788	ELECT-CON 16V 10u	12005500
C789	CERA-CON TF 820P	12001670
C790	CERA-CON TF 820P	12001670
C793	CERA-CON TF 152	12001650
C794	CERA-CON TF 153	12001070
C795	CERA-CON TF 472	12001110
C796	ELECT-CON 16V 1000u	12005420
C797	CERA-CON TF 362	12001640
C800	AX-CON 104	12001210
C801	CERA-CON NPO 33P	12002110
C802	CERA-CON NPO 33P	12002110
C803	CERA-CON TF 104	12001280
C900	AX-CON 104	12001210
C911	AX-CON 103	12001240
C950	ELECT-CON 16V 10u	12005500

● IC PROTECTOR



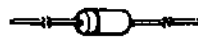
ICP-F15

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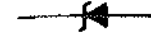


ICP-N15

● DIODES

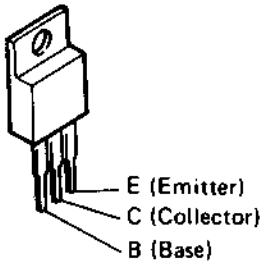


1S2076A  
1SS270A  
1SR139



HZS7B-2  
HZS24-2

● TRANSISTORS



2SD1913  
2SB1274



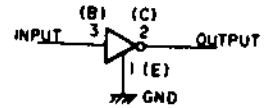
2SA933(Q)  
2SD2144



2SB562  
2SD468(C)



RN1202(10K-10K)NPN  
DTA124XS(22K-47K)





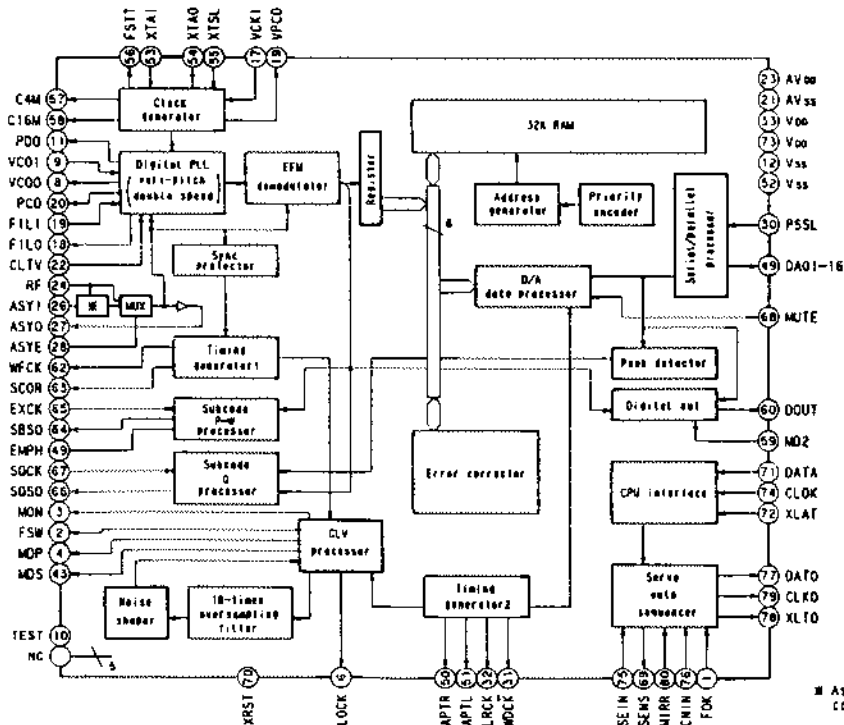
## IC TERMINAL FUNCTION LIST

### CXD2500AQ Terminal Function

Terminal No.	Symbol	I/O	Terminal Function
1	FOK	I	Input terminal for OK focussing. Use for Servo-autosequencer.
2	FSW	O Z,0	Output to shift time constant of output filter for spindle motor.
3	MON	O 1,0	ON/OFF control output for spindle motor.
4	MDP	O 1,Z,0	Servo control for spindle motor.
5	MDS	O 1,Z,0	Servo control for spindle motor.
6	LOCK	O 1,0	Sampling GFS by 460 Hz and if it is "H", delivers "H" ; if it is continuously "L" 8 times, delivers "L".
7	NC	—	
8	VCOO	O 1,0	Oscillation current output for analog EFM PLL.
9	VCOI	I	Oscillation current output for analog EFM PLL. / LOCK=8.6436MHz.
10	TEST	I	TEST output. Normally GND.
11	PDO	O 1,Z,0	Charge pump output for analog EFM PLL.
12	Vss		GND.
13	NC	—	
14	NC	—	
15	NC	—	
16	VPCO	O 1,Z,0	Charge pump output for variable pitch PLL.
17	VCKI	O	Clock input from external VCO for variable pitch. fc center=16.9344MHz.
18	FILO	O Analog	Filter output for master PLL. (slave=digital PLL)
19	FILI	I	Filter input for master PLL.
20	PCO	O 1,Z,0	Charge pump output for master PLL.
21	AVss		Analog GND.
22	CLTV	I	Control voltage input for master VCO.
23	AVcc		Analog power supply (+5V).
24	RF	I	EFM signal input.
25	BIAS	I	Constant-current input for Asymmetry circuit.
26	ASYI	I	Compare voltage input for Asymmetry.
27	ASYO	O 1,0	Full swing output for EFM. (L=Vss, H=VDD).
28	ASYE	I	L: Asymmetry circuit → OFF. H: Asymmetry circuit → ON.
29	NC	—	
30	PSSL	I	Input to shift output mode of audio data. Serial output at L; parallel output at H.
31	WDCK	O 1,0	D/A Interface for 48 bit slot. Word-clock f=2 Fs.
32	LRCK	O 1,0	D/A Interface for 48 bit slot. LR-clock f= Fs.
33	Vcc		Power supply (+5V).
34	DA16	O 1,0	At PSSL=1 for DA16 (MBS) output; PSSL=0 for serial data of 48 bit slot. (2s'COMP, MSB first).
35	DA15	O 1,0	At PSSL=1 for DA15 output; PSSL=0 for bit clock of 48 bit slot.
36	DA14	O 1,0	At PSSL=1 for DA14 output; PSSL=0 for serial data of 64 bit slot. (2s'COMP, LSB first).
37	DA13	O 1,0	At PSSL=1 for DA13 output; PSSL=0 for bit clock of 64 bit slot.
38	DA12	O 1,0	At PSSL=1 for DA12 output; PSSL=0 for LR clock of 64 bit slot.
39	DA11	O 1,0	At PSSL=1 for DA11 output; PSSL=0 for GTOP output.
40	DA10	O 1,0	At PSSL=1 for DA10 output; PSSL=0 for XUGF output.
41	DA09	O 1,0	At PSSL=1 for DA09 output; PSSL=0 for XPLCK output.
42	DA08	O 1,0	At PSSL=1 for DA08 output; PSSL=0 for GFS output.
43	DA07	O 1,0	At PSSL=1 for DA07 output; PSSL=0 for RFCK output.
44	DA06	O 1,0	At PSSL=1 for DA06 output; PSSL=0 for C2PO output.
45	DA05	O 1,0	At PSSL=1 for DA05 output; PSSL=0 for XRAOF output.
46	DA04	O 1,0	At PSSL=1 for DA04 output; PSSL=0 for MNT3 output.
47	DA03	O 1,0	At PSSL=1 for DA03 output; PSSL=0 for MNT2 output.
48	DA02	O 1,0	At PSSL=1 for DA02 output; PSSL=0 for MNT1 output.
49	DA01	O 1,0	At PSSL=1 for DA01 output; PSSL=0 for MNT0 output.
50	APTR	O 1,0	Control output for aperture compensation. In H for R-ch.
51	APTL	O 1,0	Control output for aperture compensation. In H for L-ch.

Terminal No.	Symbol	I/O	Terminal Function
52	Vss		GND.
53	XTAI	I	X'tal oscillation circuit input. By selecting of mode, f=16.9344MHz or 33.8688MHz.
54	XTAO	O 1,0	X'tal oscillation circuit input. f=16.9344MHz.
55	XTSL	I	Selection input terminal of X'tal. "L" for X'tal 16.9344MHz; H for 33.8688MHz.
56	FSTT	O 1,0	2/3 Dividing output of 53 and 54 terminal. No change by variable pitch.
57	C4M	O 1,0	4.2338MHz output. When variable pitched, simultaneously changes.
58	C16M	O 1,0	16.9344MHz output. When variable pitched, simultaneously changes.
59	MD2	I	Digital-out ON/OFF control. ON at H; OFF at L.
60	DOUT	O 1,0	Digital-out output terminal.
61	EMPH	O 1,0	When playback disc emphasized, outputs H; otherwise outputs L.
62	WFCK	O 1,0	WFCK ( Write Flame Clock) output.
63	SCOR	O 1,0	Output of subcode sync. S0+S1. H output when either one detected.
64	SBSO	O 1,0	Serial output of Sub P~W.
65	EXCK	I	Clock input for SBSO read-out.
66	SQSO	O 1,0	Output for Sub Q 80 bits and PCM peak level 16 bits.
67	SOCK	I	Clock input for SQSO read-out.
68	MUTE	I	Mute at H; remove mute at L.
69	SENS	I 1,2,0	SENS output. Outputs to CPU.
70	XRST	I	System reset input. Resets at "L".
71	DATA	I	Input of serial data from CPU.
72	XLAT	I	Input for latch from CPU. Latches serial data at release.
73	Vcc		Power supply (+5V).
74	CLOCK	I	Serial data transfer clock input from CPU.
75	SEIN	I	SENS input from SSP.
76	CNIN	I	Input of tracking pulse.
77	DATO	O 1,0	Serial data output to SSP.
78	XLTO	O 1,0	Serial data latch output to SSP.
79	CLKO	O 1,0	Serial data transfer clock output to SSP.
80	MIRR	I	Mirror signal input. Use for track jump for over 128 tracks, using autosequencer.

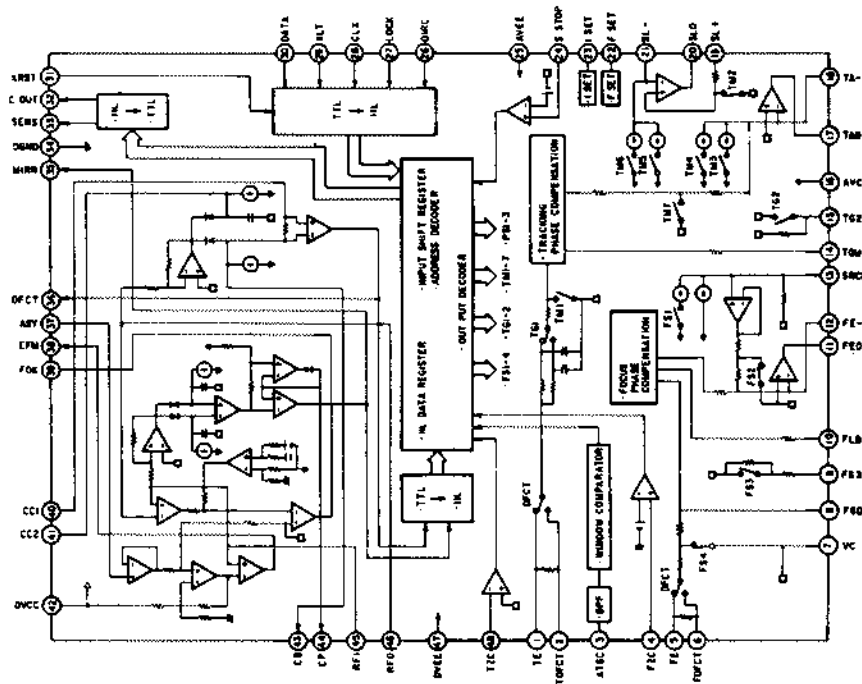
### CXD2500AQ



■ Asymmetry correction.

## CXA1372S Terminal Function

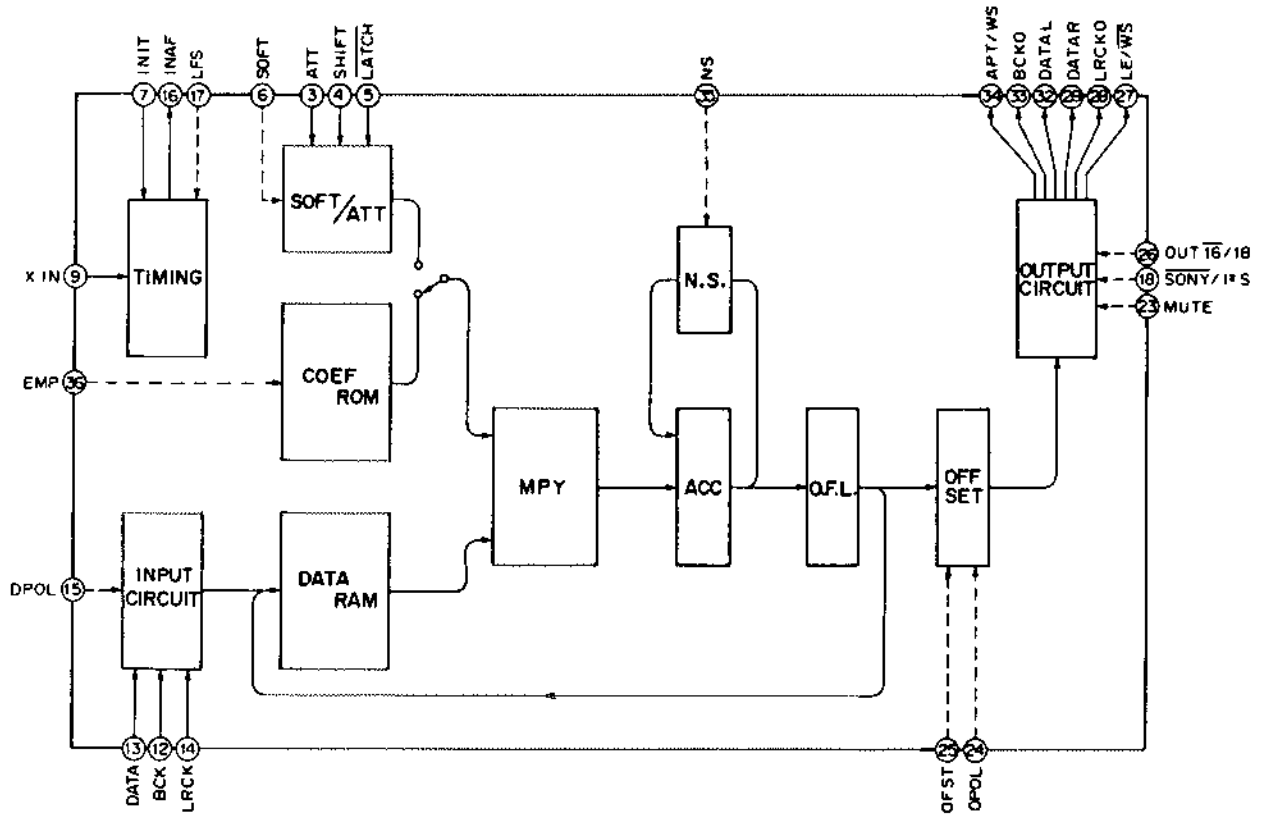
Terminal No.	Symbol	I/O	Terminal Function
1	TE	I	Tracking error signal input terminal.
2	TDFCT	I	Capacitor connecting terminal for time constant at the time of defect.
3	ATSC	I	Input terminal of ATSC detecting window comparator.
4	FZC	I	Input terminal of focus zero-cross comparator.
5	FE	I	Focus error signal input terminal.
6	FDFCT	I	Capacitor connecting terminal for time constant at the time of defect.
7	Vc	I	Mid-point voltage input terminal.
8	FGD	I	In case of reducing higher range gain of focus servo, connect a capacitor between this terminal and terminal number (9).
9	FS3	I	Shifts higher range gain of focus servo by FS3 ON/OFF.
10	FLB	I	Terminal for external time constant to increase lower range of focus servo.
11	FEO	O	Focus drive output.
12	FE-	I	Reverse input terminal for focus amplifier.
13	SRCH	I	Terminal for external time constant to make focus search waveform.
14	TGU	I	Terminal for external time constant to shift higher range gain of tracking.
15	TG2	I	Terminal for external time constant to shift higher range gain of tracking.
17	TAO	O	Tracking drive output.
18	TA-	I	Reverse input terminal for tracking amplifier.
19	SL+	I	Non-reverse input terminal for sled amplifier.
20	SLO	O	Sled drive output.
21	SL-	I	Reverse input terminal for sled amplifier.
22	FSET	I	Terminal to compensate peak in focus/tracking phase.
23	ISET	I	Delivers a current to set the height of focus search, track jump, and sled kick.
24	SSTOP	I	Terminal for limit switch ON/OFF to detect disc innermost circle.
26	DIRC	I	Terminal is used at the time of 1 track jump. A 47 kohm pull up resistor is included.
27	LOCK	I	Reckless drive protection circuit of sled; activates at "L". A 47k ohm pull up resistor is included.
28	CLK	I	Serial data transfer clock input from CPU.
29	XLT	I	Latch input from CPU.
30	DATA	I	Serial data input from CPU.
31	XRST	I	Reset input terminal. Resets at "L".
32	C.OUT	O	Terminal to output signal for track number count.
33	SENS	O	Terminal to output FZC, AS, TZC, SSTOP by command from CPU.
35	MIRR	O	Output terminal for MIRR comparator.
36	DFCT	O	Output terminal for DEFECT comparator.
37	ASY	I	Input terminal for auto-symmetric control.
38	EFM	O	Output terminal for EFM comparator.
39	FOK	O	Output terminal for focus OK (FOK) comparator.
40	CC1	O	DEFECT bottom hold output terminal.
41	CC2	I	Input terminal to input DEFECT bottom hold output by capacitance combination.
43	CB	I	Capacitor connecting terminal for DEFECT bottom hold.
44	CP	I	MIRR hold capacitor connecting terminal. A non-reverse input terminal for MIRR comparator.
45	RFI	I	input terminal to input RF summing amplifier output by capacitance combination.
46	RFO	O	Output terminal for RF summing amplifier. Check point for eye pattern.
48	TZC	I	Tracking zero-cross comparator input terminal.



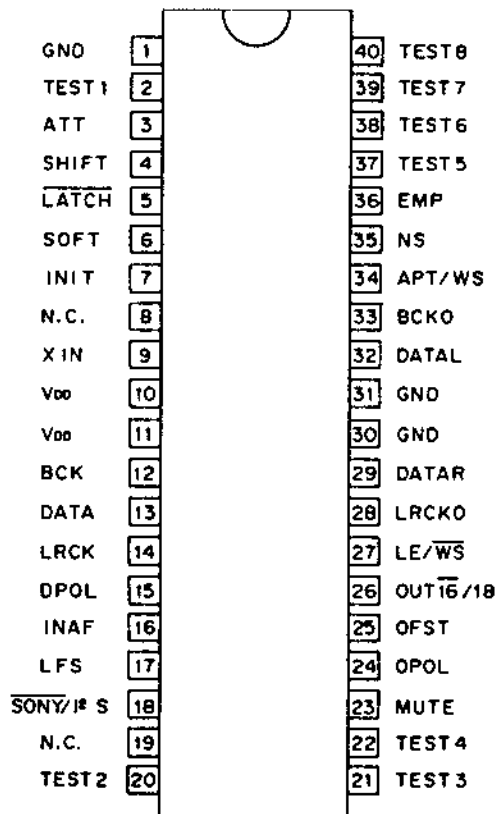
## Pin Description

No.	Symbol	I/O	Description
1	GND	—	
2	TEST1	I	Test pin (Normally fixed to "L" level)
3	ATT	I	Attenuate data input
4	SHIFT	I	Attenuate data shift clock input
5	LATCH	I	Attenuate data latch clock input
6	SOFT	I	Soft muting ON/OFF active at "H".
7	INIT	I	Synchronous again with the rising edge of this signal.
8	NC		
9	XIN	I	Master CLK input (f=384 Fs)
10, 11	V <sub>DD</sub>	—	Supply (+5V)
12	BCK	I	BCK input
13	DATA	I	Serial data input (2's complement)
14	LRCK	I	LRCK input
15	DPOL	I	Output data polarity "L" : non inversion "H" : inversion.
16	INAF	O	When I/O sync is missed "H" is output.
17	LFS	I	4Fs mode ON/OFF available at "H" only during I <sup>2</sup> S.
18	SONY/I <sup>2</sup> S	I	Output format specified at "L": Sony, at "H": I <sup>2</sup> S
19	NC	I	
20 to 22	TEST 2 to 4	I	Test pin (Normally fixed to 'L' level)
23	MUTE	I	Turns output to 0 or offset value. Active at 'H'.
24	DPOL	I	Offset polarity 'L': (-) 'H': (+)
25	OFST	I	Offset ON/OFF Active at 'H'
26	OUT16/18	I	Output data word length specified at 'L': 16 bit at 'H': 18 bit
27	LE/WS	O	LE output (Sony format)/WS output (I <sup>2</sup> S format)
28	LRCKO	O	LRCKO output
29	DATAR	O	Rch serial data output (2's complement)
30, 31	GND	—	
32	DATAL	O	Lch serial data output (2's complement)
33	BCKO	O	BCKO output
34	APT/WS	O	APT output (Sony format)/WS output (I <sup>2</sup> S format)
35	NS	I	Noise shaping ON/OFF Active at 'H'
36	EMP	I	Deemphasis ON/OFF Active at 'H'
37 to 40	TEST 5 to 8	I	Test pin (Normally fixed to 'L' level)

Block Diagram



Pin Configuration (Top View)



# 7. TDA1541 (IC201)

## DUAL 16-BIT DAC

### Features

- Selectable two-channel input format: offset binary or two's complement.
- Internal timing and control circuit
- TTL compatible digital inputs
- High maximum input bit-rate and fast settling time

### (1) EXTERNAL VIEW

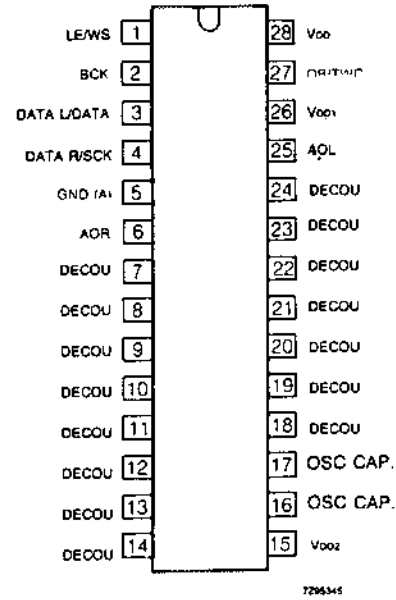


Fig. 2 Pinning diagram

### (2) BLOCK DIAGRAM

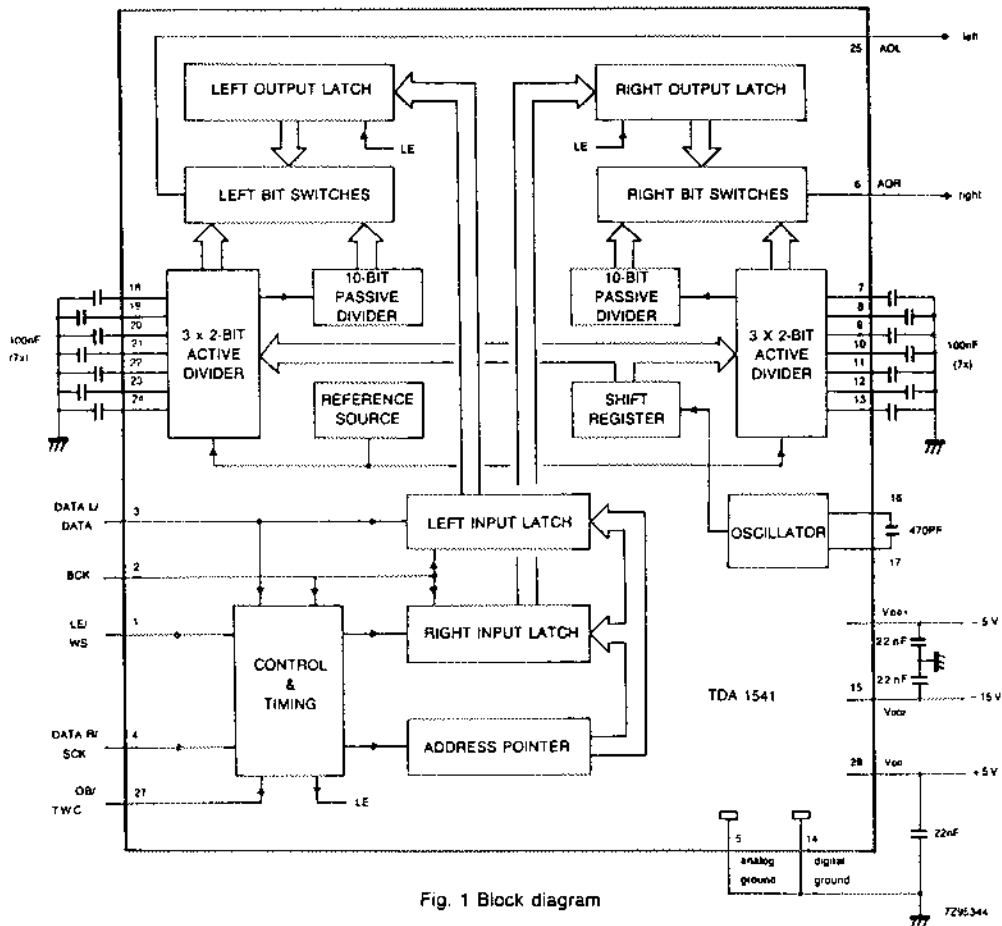


Fig. 1 Block diagram

**PARTS LIST OF MECHANISM EXPLODED VIEW :**

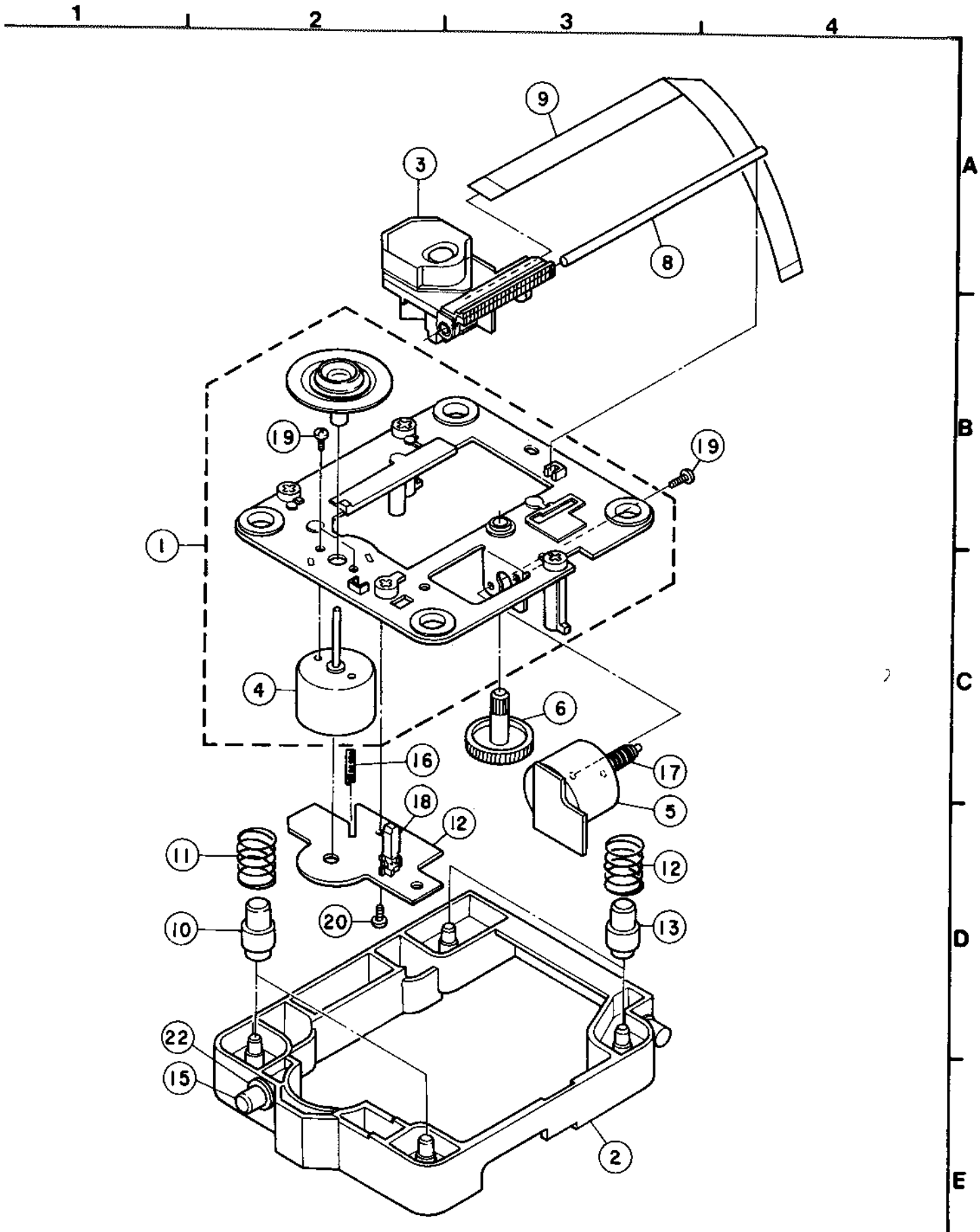
REFERENCE #	PART #	PART NAME	REMARKS
1	46001480	SPINDLE MOTOR SUB ASSEMBLY	
2	46001470	MECHA FRAME ASSEMBLY	
3	46001400	LASER PICK - UP	KSS-240A
5	46001460	SLIDE MOTOR SUB ASSEMBLY	
6	46001090	HELICAL GEAR	
8	46001410	PICK - UP SHAFT	
9	48000700	12P. FFC	
10	46001420	DAMPER	
11	46001380	SPRING (F)	
12	46001390	SPRING F. (R)	
13	46001430	DAMPER	
15		MECHA GUIDE PIN	
16		FFC CLAMP	
17	46001440	SLIDE MOTOR	
18	46001450	INNER SWITCH (P-U)	
19	46001230	2 X 3 CBS-Z SCREW	
20	46001240	2.6 X 6 CBTS(P)-Z SCREW	
22	46001250	WASHER	

#4

46001481  
Spindle motor →



# EXPLODED VIEW OF MECHANISM UNIT

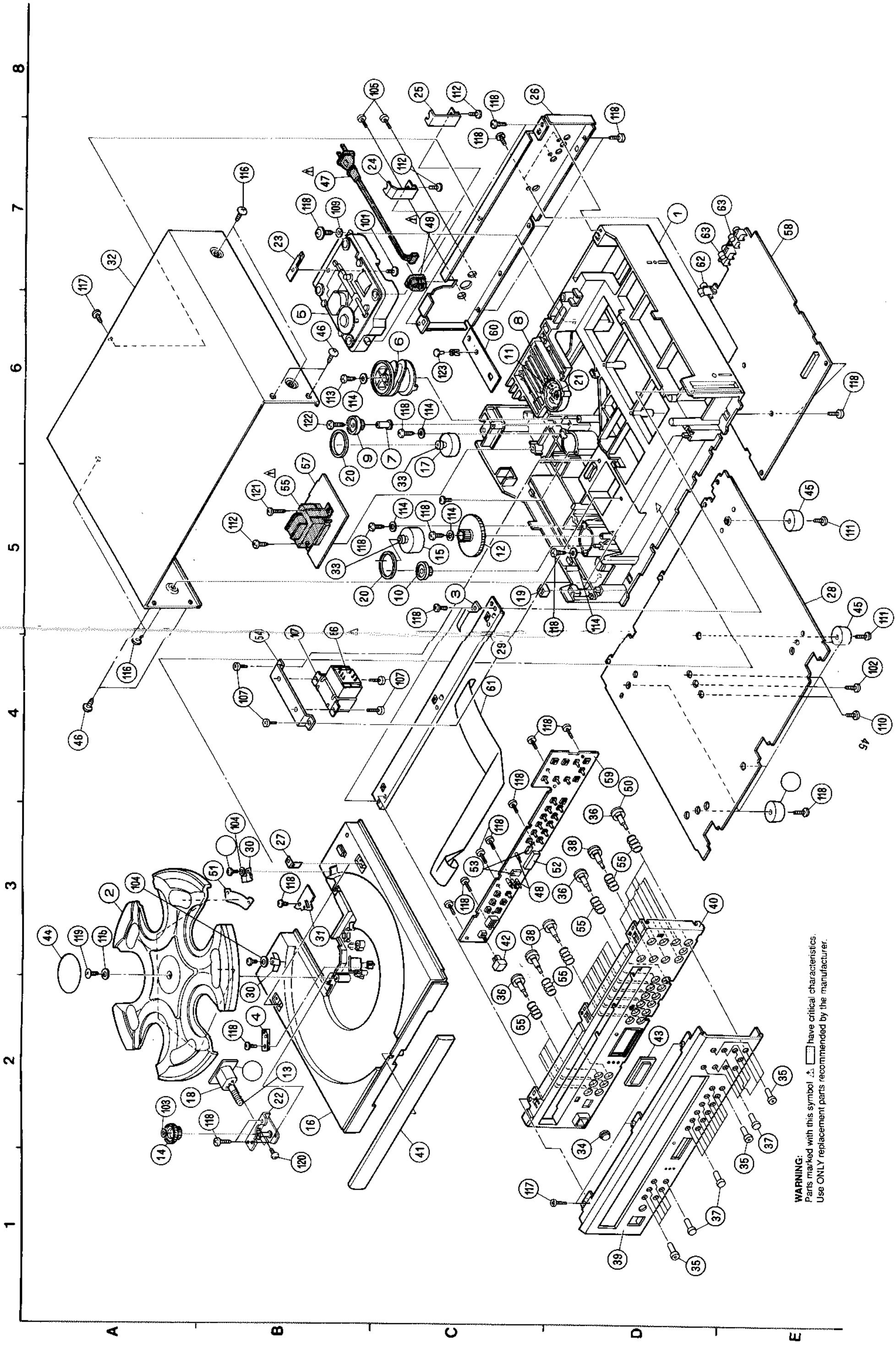


**PARTS LIST OF EXPLODED VIEW**

REF #	PART#	DESCRIPTION	QTY
1		MECH. CHASSIS	1
2	42001110	ROULETTE	1
3	42001120	EARTH PLATE	1
4	42001130	MOTOR SPRING	1
5	42001050	CD MECH. UNIT	1
6	42001140	CLAMPING CAM	1
7	42001150	COLLAR	1
8	42001160	CLAMPER PRESS	1
9	42001170	PULLEY GEAR	1
10	42001180	PULLEY GEAR	1
11	42001090	CLAMP YOKE	1
12	42001060	LOADER GEAR	1
13	42001070	WORM GEAR ASS'Y	1
14	42001090	HELICAL GEAR	1
15	42001080	LOADING MOTOR	1
16	42001200	LOADER FRAME	1
17	42001210	CLAMPING MOTOR	1
18	42001100	ROULETTE MOTOR UNIT	1
19	42001220	LOADER STOPPER	1
20	42001230	BELT	2
21	42001240	CLAMP FERRO	1
22	42001250	GEAR BRACKET ASS'Y	1
23	42001260	REAR BRACKET	1
24	42001270	FG BRACKET (2)	1
25	42001280	FG BRACKET	1
26	13002190	BACK PANEL	1
27	42001290	LOADER BRACKET	2
28	13002200	BOTTOM COVER	1
29	42001300	FRONT BRACKET	1
30	42001310	ROULETTE STOPPER	2
31	42001320	BLIND PLATE	1
32	13002210	TOP COVER	1
33	42001330	MOTOR PULLEY	2
34	13002300	SENSOR WINDOW	1
35	11001070	PUSH BUTTON 9/2	10
36	11001020	BUTTON CONNECTOR	10
37	11001060	PUSH BUTTON 9	17
38	11001030	BUTTON CONNECTOR	17
39	13002220	FRONT PANEL	1
40	13002290	INNER PANEL	1
41		ROTOR COVER	1
42	11001050	POWER KNOB	1
43	13002310	PANEL WINDOW	1
44	42001340	BLIND SHEET	1
45	13002230	FOOT	5
46	13002300	RUBBER CAP	4
47	15001070	ACCORD STP-2 w/P	1
48	15001150	CORD BUSHING	1
49		LED COLLAR	4
50	11001100	BUTTON SPACER	17
51	42001350	ROULETTE SHEET	5
52	42001360	RUBBER PAD 2I	2
53	42001370	RUBBER PAD 7I	2
54		TRANS BRACKET	1
55	24001256	POWER TRANS - A	1
56	24001257	POWER TRANS - B	1
57	36001210	TRANS PWB	1

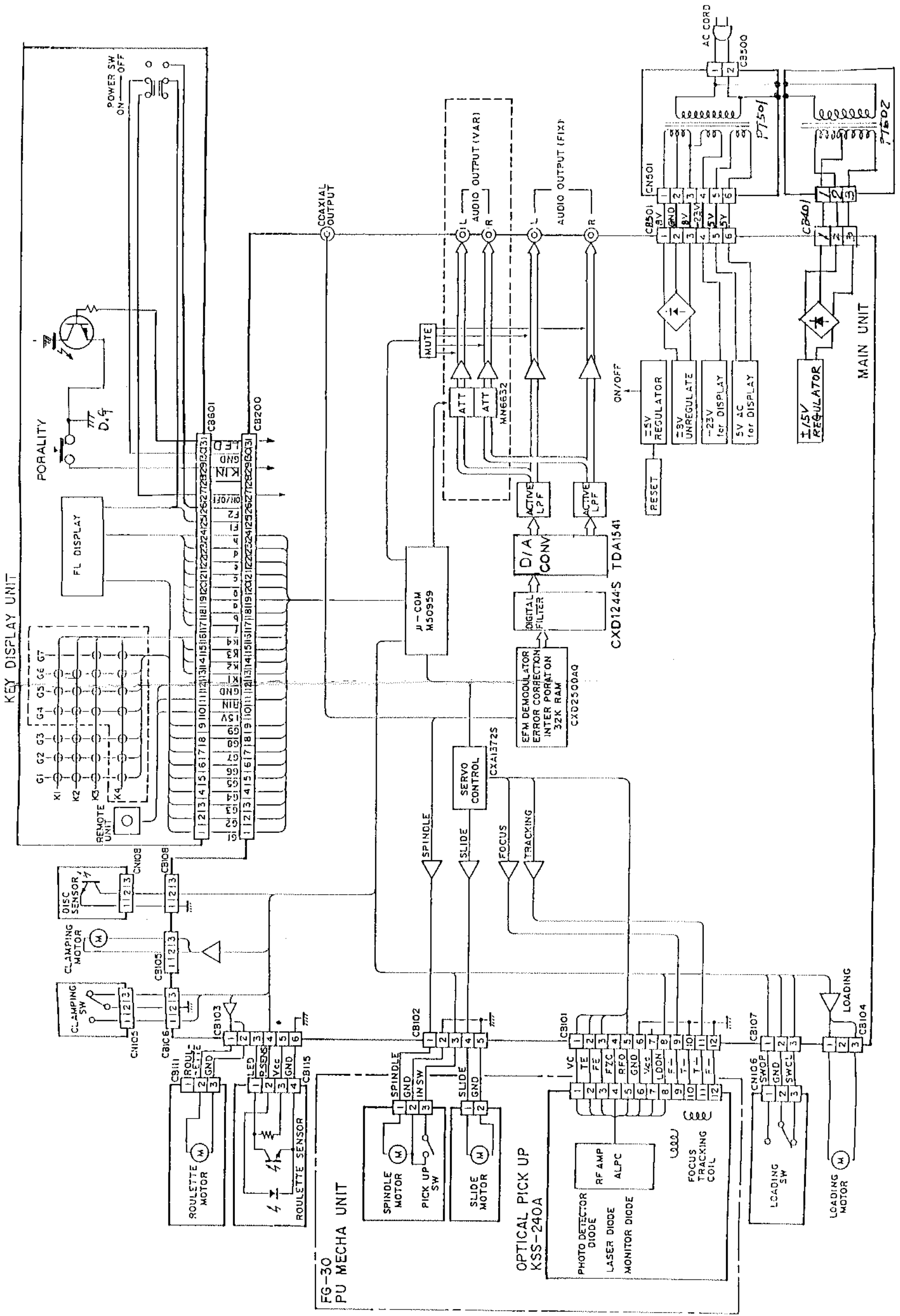
REF #	PART #	DESCRIPTION	QTY
58	36001220	MAIN PWB	1
59	36001240	KEY PWB	1
60	36001250	LED PWB	1
61	48000702	31P FPC CABLE	1
62	22001250	1P PIN JACK	1
63	22001070	2P PIN JACK	2
64	36001230	MOTOR PWB	1
101	46001010	3 X 6ST	1
102	46001020	3 X 30BT	1
103	46001030	POLY WASHER 3 Ø	1
104	46001040	4 Ø W	
105	46001050	3 X 5ST BLACK	2
106	46001060	2.6 X 10BT	2
107	46001070	3 X 5ST	4
109	46001080	12 Ø W	1
110	46001090	3 X 10 BT	5
111	46001100	3 X 6ST BLACK	2
112	46001116	3 X 8BT	1
113	46001120	3 X 14BT	1
114	46001130	9 Ø W	5
115	46001140	10 Ø W	1
116	46001150	4 X 10 BT SPECIAL HEAD	4
117	46001160	3 X 8ST BLACK	4
118	46001170	3 X 10 BT BLACK	30
119	46001180	S3 X 12 BT BLACK	1
120	46001190	2 X 3ST	2
121	46001200	3 X 18BT	1
122	46001210	3 X 20BT BLACK	1
123	46001220	PUSH RIVET 3.5 X 5.5	1

EXPLODED VIEW



**WARNING:**  
 Parts marked with this symbol Δ have critical characteristics.  
 Use ONLY replacement parts recommended by the manufacturer.

**GCD-600  
WIRING DIAGRAM**

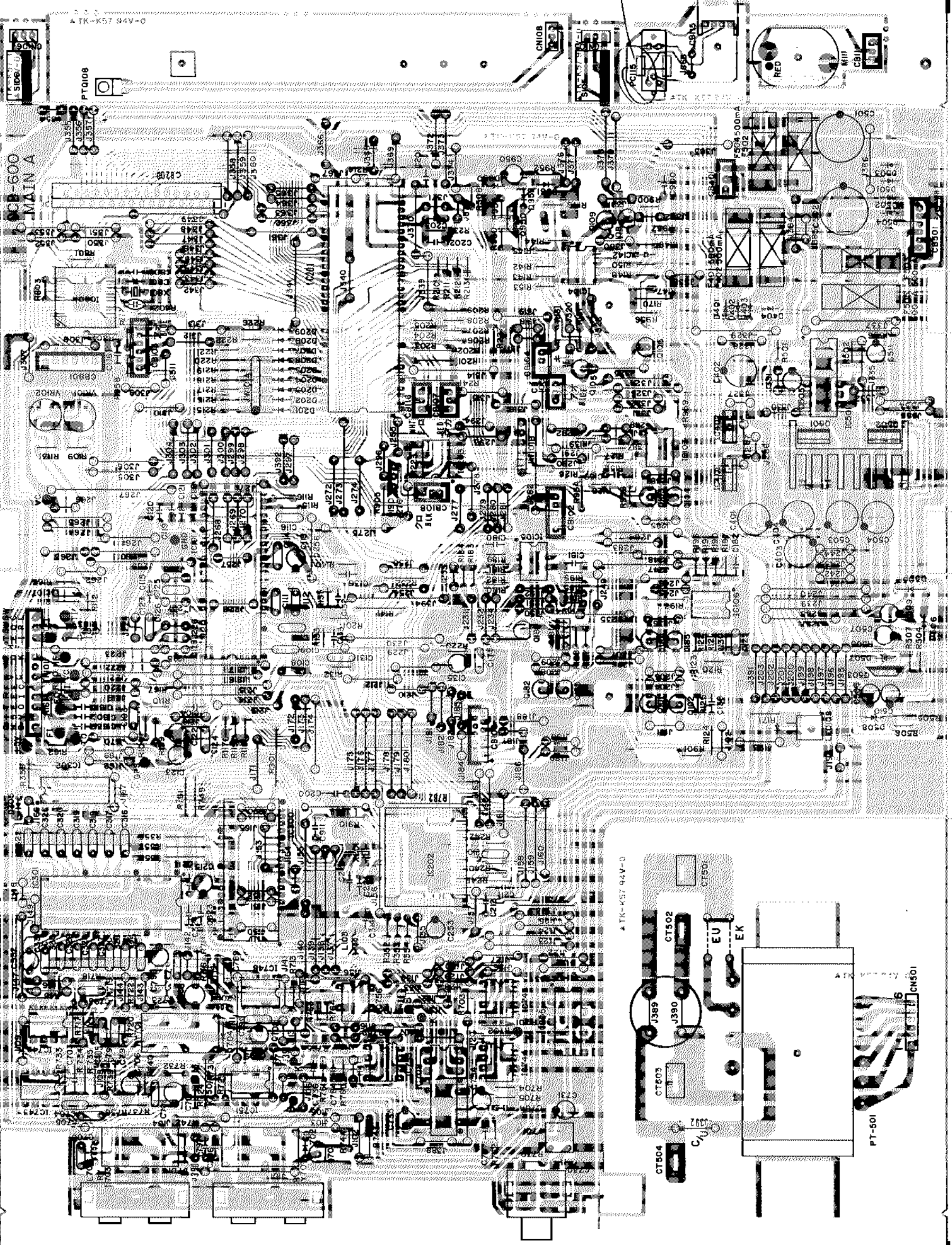


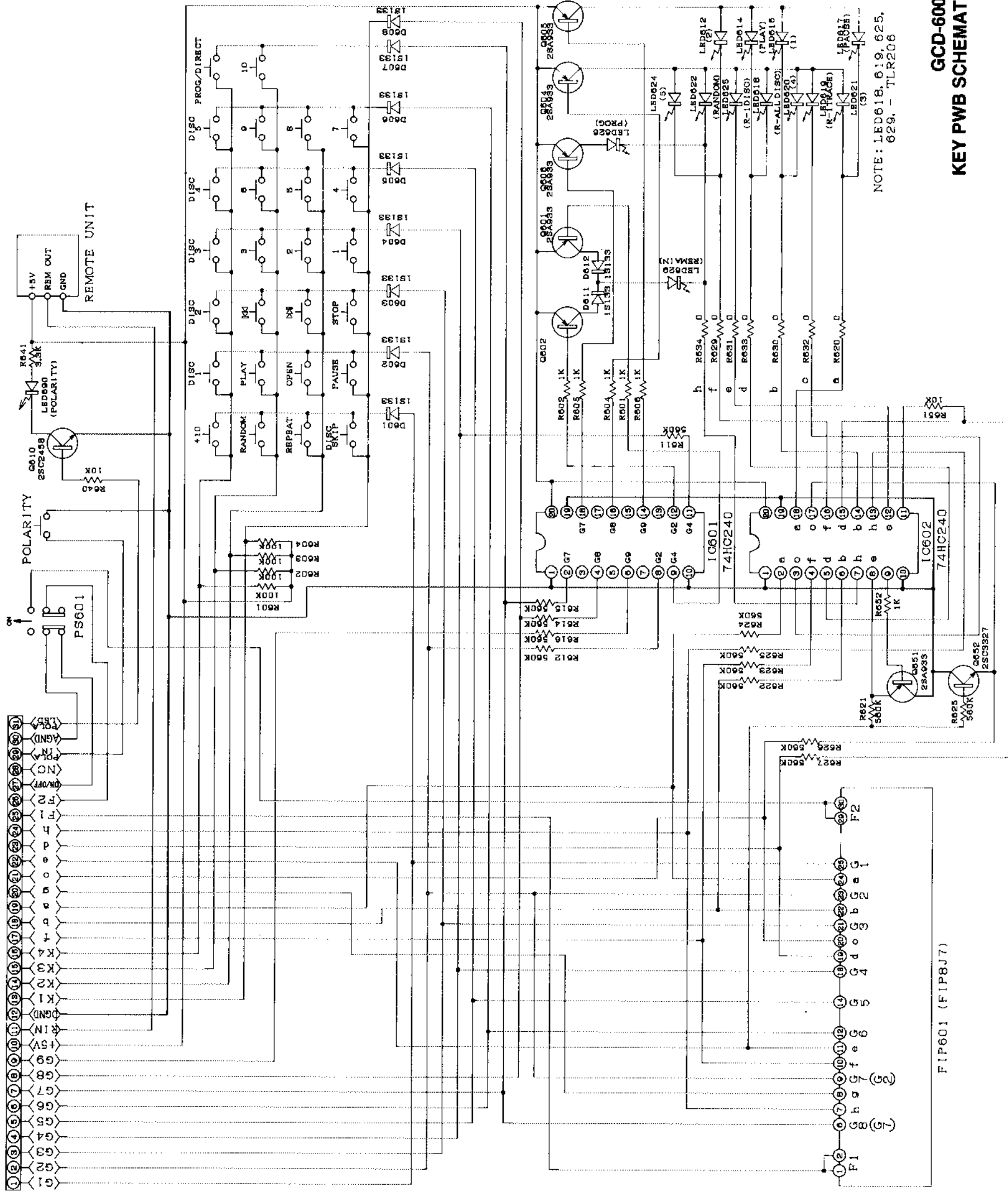




GCD-600  
MAIN PWB DIAGRAM

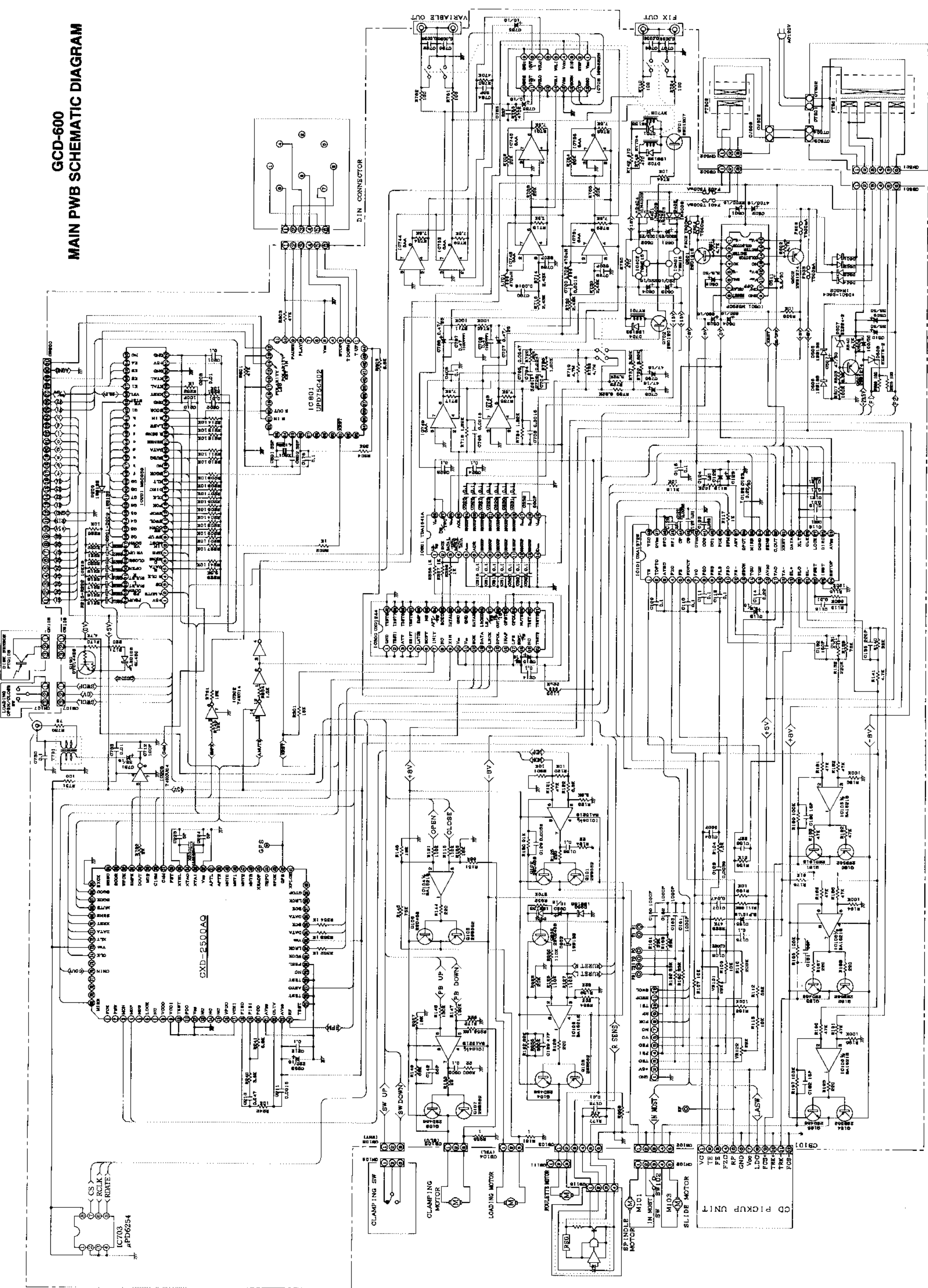
251001-16001520





GCD-600  
KEY PWB SCHEMATIC DIAGRAM

# GCD-600 MAIN PWB SCHEMATIC DIAGRAM





# ADCOM GCD-600

## TECHNICAL SPECIFICATIONS

FREQUENCY RESPONSE ( +0, -0.5dB ):	20Hz - 20kHz
SIGNAL-TO-NOISE RATIO ( "A" Weighted ):	≥100dB
DYNAMIC RANGE:	≥96dB
THD ( 20Hz - 20kHz):	0.005%
CHANNEL SEPARATION (1kHz):	≥100dB
WOW AND FLUTTER:	Below Measurable Limits
OUTPUT IMPEDANCE:	
Fixed	100 Ohms
Variable	100 Ohms
Digital	75 Ohms
OUTPUT LEVEL:	
Fixed	2.5 Volts RMS
Variable	0 to 2.5 Volts RMS
Digital	0.5 Volts Peak-to-Peak
FORMAT:	Optical
LASER:	GaAlAs
SAMPLING RATE:	176.4kHz
QUANTIZED BITS:	16-Bit Linear

## GENERAL

POWER:	120VAC/50/60 Hz (available in 220V or 240V on special order)
POWER CONSUMPTION:	15 Watts
CHASSIS DIMENSIONS:	17"(430mm) x 3-7/8"(99mm) x 15-1/4"(388mm)
MAXIMUM DIMENSIONS:	17"(430mm) x 4-3/16"(107mm) x 16-1/4"(410mm)
WEIGHT:	15 lbs. (6.8 kg)
WEIGHT (Packed):	18.5 lbs. (8.4 kg)
ACCESSORIES:	Two AA, 1-1/2 Volt (R6P) Batteries Remote Transmitter RC-600CD Low-loss Audio Cable

Specifications subject to change without notice.

**ADCOM**  
11 Elkins Road  
East Brunswick, NJ 08816 USA  
Telephone (908) 390-1130  
Fax (908)390-9152

GCD600/1.0/494

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