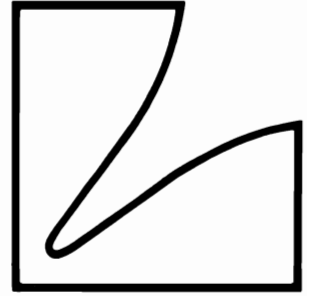


SERVICE MANUAL



Compact Disk Player **DZ-121**

- For information that is not mentioned in this Service Manual, refer to the Service Manual. DZ-122(68P31568W02).



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Disassembly Instructions } Please refer to the
 Packing Method View } Service Manual DZ-122 (68P31568W02)

Spare Schematic Diagram Inserted

Specifications

<CD SECTIONS>

System	Optical (Compact Disc System)
Quantizing Bit Number	16bit linear
Channel	2 (Stereo)
Pickup	Semiconductor laser type
Distortion (at 1kHz)	0.01%
Frequency Response	5Hz to 20kHz: 0 ± 1dB
S/N Ratio	100dB
Separation	95dB
Dynamic Range	90dB

<COMPACT DISC>

Track Pitch	1.6 μ m
Modulation Frequency	44.1kHz
Transfer Rate	43.218M bit/sec.
Dimension	80 / 120 × 1.2mm

<GENERAL>

Power Supply	AC 120/220/240V, 50Hz (○, △) AC 120V, 60Hz (●, ▲)
Output Voltage (at 1kHz, 0dB)	2.1V ± 1.5dB
Headphone Output Voltage (at 1kHz, 0dB/8ohm)	370mV ± 1.5dB
Semiconductors	14IC's, 17Transistors, 32Diodes, 1Zener Diode
Dimensions	438(W) × 311(D) × 85(H)mm
Weight	4.2kg

NOTE : Due to continuing product improvement, specifications and designs are subject to change without notice.

○ : With Safety Regulations Version (AD), △ : Without Safety Regulations Version (EK)

● : U. S. A. Version (UZ), ▲ : Canada Version (UQ), Others : Common.

In Case of Difficulty

If you encounter a problem, please review the items in the following checklist. Also, be sure to thoroughly

check other connected components, such as speakers, amplifier or receiver, etc.

PROBLEM	PROBABLE CAUSE AND SOLUTION
Power Does Not Come On.	<ul style="list-style-type: none">• Check AC power cord to ensure good connection at AC outlet.
Does Not Play.	<ul style="list-style-type: none">• CD disc placed in tray label side down. Open and place with label side up.• Disc damaged. Replace.
No Output	<ul style="list-style-type: none">• Be sure correct input is selected on the connected amplifier or receiver.
Remote Inoperative	<ul style="list-style-type: none">• Check "AAA" batteries. See page 14.

Special Features

Digital Direct Output Jack

To provide the highest sonic quality possible, the DZ-121 utilizes a fiber optic digital output jack. This allows the superior performance of the digital direct connection and the high quality D/A converters in the companion Luxman integrated amplifiers to be utilized.

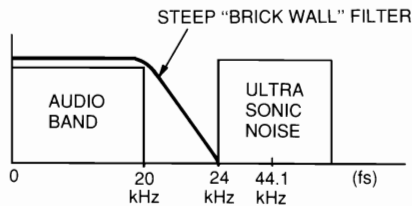
Although highest quality reproduction is assured when using Luxman integrated amplifiers, such as the LV-113, LV-117, etc., the DZ-121 may be teamed with any amplifier or D/A converter system that conforms to the EIA-J Digital Audio Interface format.

Dual Digital-to-Analog Converters

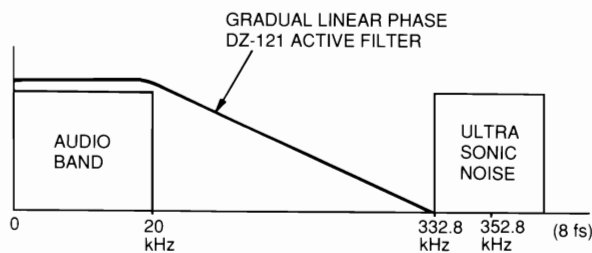
Separate 18 bit DACs on one IC substrate provide precision conversion, allowing the elimination of inter-channel phase shift as well as greatly improved S/N ratio and channel separation.

8 Times Oversampling Digital Filter

A high resolution 18 bit 8 times oversampling digital F.I.R. (Finite Impulse Response) filter is used in the DZ-121. It permits extremely rapid roll-off of the undesired ultra-high frequencies before D/A conversion, without any of the phase distortion of "brick wall" analog filters used with conventional "single sampling" data rate converters.



CONVENTIONAL "SINGLE SAMPLING" SYSTEM



DZ-121 8 TIMES OVERSAMPLING SYSTEM

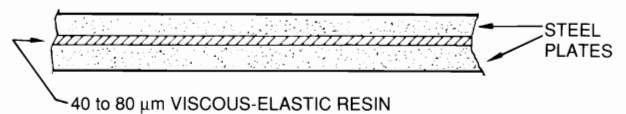
In addition, 8 times oversampling moves the remaining ultra-sonic frequencies well above 300 kHz, instead of just over 24 kHz, allowing the use of a very gradual linear phase analog filter. Such a filter virtually eliminates phase and transient distortion effects, for pure, accurate sound reproduction.

High Mass Magnetic Disc Clamper

A high density magnetic disc clamper mass loads the disc center to minimize spindle motor micro vibration, thus improving tracking accuracy for lowest error rate. The magnetic clamp also provides a perfect friction-free non-wearing clamping action to hold the CD disc to the player drive spindle.

Anti-Vibration Laser Pick-up Assembly

The laser pick-up subchassis that supports the entire pick-up drive mechanism, consists of a unique 2 layer steel plate construction, bonded by a viscous-elastic resin material.



Vibration energy is effectively dissipated within the resin material as heat, virtually eliminating vibration deformation and any resultant mistracking.

In addition, the subchassis laser assembly of controlled mass is isolated by 3 glass fiber reinforced polyethylene terephthalate plastic suspension dampers.

This combination results in a mechanical filter that effectively removes any but the most gross of shock or vibration influences.

Advanced 3-Beam Laser

A highly refined 3-beam configuration, it employs advanced techniques to provide precision tracking and focusing. Combined with state-of-the-art digital tracking and focus servos, accuracy of the digital data is preserved even with discs having significant surface defects.

Serial Remote Jacks

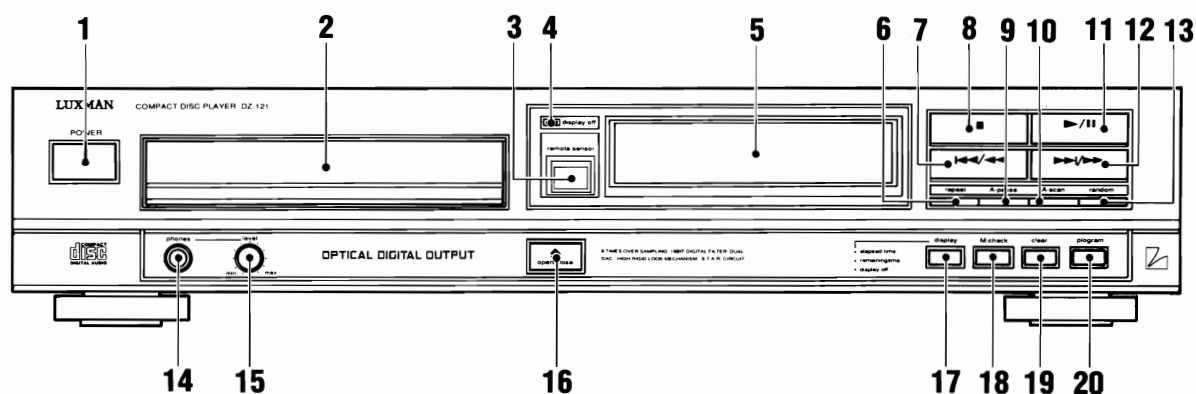
These jacks provide input and output connections for the simple "daisy chain" connection of the serially encoded RC signal of Luxman's unified remote control systems.

Gold Plated Output Jacks

The L and R analog output jacks are gold plated for the highest possible quality connections and the elimination of corrosion losses over long term use.

Controls & Switches

Front Panel



1. "POWER" button

Press this button to turn power on and off to the unit. If a disc is already loaded into the Disc Tray when power is turned on, the unit will automatically start playback, beginning with track #1.

In programmed play mode, pressing this button will repeat only those programmed.

Pressing the "repeat" button a second time, will cancel the repeat function.

2. Disc Tray

Place a disc on this tray, label side up. A light touch on the Tray, when open, will cause it to retrack back into the unit ready for play. Pressing Play/Pause (item #11), "A-scan" (item #10) and Direct Access Select (item #21) buttons on the remote control will also close the tray and cause the unit to go into immediate play operation.

7. Backward Skip/Scan button (⏮/⏪)

Pressing this button for longer than 0.5 seconds will activate the backward scan mode. To more than double the scan speed, press this button in the pause mode.

Pressing this button and releasing it immediately will cause return to the beginning of the current selection; a second immediate push will cause a skip to the preceding selection.

When the pick-up comes to the first selection, the next push will cause it to go to the beginning of the last selection on the disc.

Note:

To use 8 cm (3 inch) single CDs, place them on the inner circular recessed area marked "8 cm disc" on the tray.

3. Remote Sensor

When using the hand held remote control, it must be pointed toward this sensor to activate operational functions.

4. "display off" indicator

Lights up when the display is turned off with the "display" button.

5. Display

Track, index, time, etc. are all simultaneously shown in this Display. Refer to Operation Guidelines for details.

6. "repeat" button

In normal play, random play or A-scan mode, press this button to repeat all tracks on a disc.

8. Stop button (■)

One press of this button will stop playback and return the pick-up to the beginning of the disc. A second push will clear (reset) all memory contents.

Note:

The total number of tracks and the total playing time on the disc will always show on the display in the STOP mode.

9. "A-pause" (auto-pause) button

Pressing this button will cause the machine to activate Pause automatically at the end of any currently playing track.

To resume play, press the Play button.

While the auto pause function is activated, "A-pause" will show in the display.

10. "A-scan" (auto-scan) button

When pressed, "A-Scan" begins and the track number digit(s) in the display flash continuously. The first 10 seconds of each track on the disc will be automatically played, beginning at track #1. If in programmed mode, pressing this button will scan each track in the program, beginning with the first selection programmed.

"Repeat" will also work with "A-Scan" and "RANDOM" continuously repeating the scanned tracks in both the programmed and nonprogrammed operations mentioned above.

Note:

Pressing the "A-scan" button will cancel the A-pause function.

11. Play/Pause button (▶/⏸)

When pressed in stop or pause mode, playback will begin.

When pressed during playback, the player will go into pause mode.

12. Forward Skip/Scan button (▶▶/▶▶▶)

Pressing this button for longer than 0.5 seconds will activate the forward scan mode. To more than double the scan speed, press this button in the pause mode.

Pressing this button and releasing it immediately will cause the player to skip forward, one selection (track) at a time for each successive push. When the player comes to the last selection, the next push will return the pick-up to the first selection.

13. "random" button

Use this button to automatically change the order of tracks to be played at random.

During random play operation, "RANDOM" appears in the display.

14. "phones" jack

Use the "phones" jack to connect stereo headphones for private listening.

15. "phones-level" control

Use the "phones" jack to connect stereo headphones for private listening. The "level" control adjusts the "phones" jack (item #14) levels.

16. "open/close" button (⏏)

Press to open or close the Disc Tray. (See also item #2.)

17. "display" button

Each push of this button selects one of 2 disc timing displays and will turn off display as follows:

- "REMAIN" OFF
Time elapsed since beginning of current track. This occurs with "REMAIN" indicator OFF.
- "REMAIN"
Play time remaining on entire disc. This occurs with "REMAIN" indicator ON.

Note:

When in programmed play mode, the remaining time displayed will be that of the selections programmed, not the entire disc.

18. "M-check" (memory-check) button

Use this button to check the order of the selections that have been programmed. With each successive push of this button, the track numbers that have been programmed will be shown to the left and the programmed order to the right, in the track display area (the time portion of the display will turn off).

Note:

The "M-check" operates only in the stop mode.

Note:

Clear operates only in the stop mode.

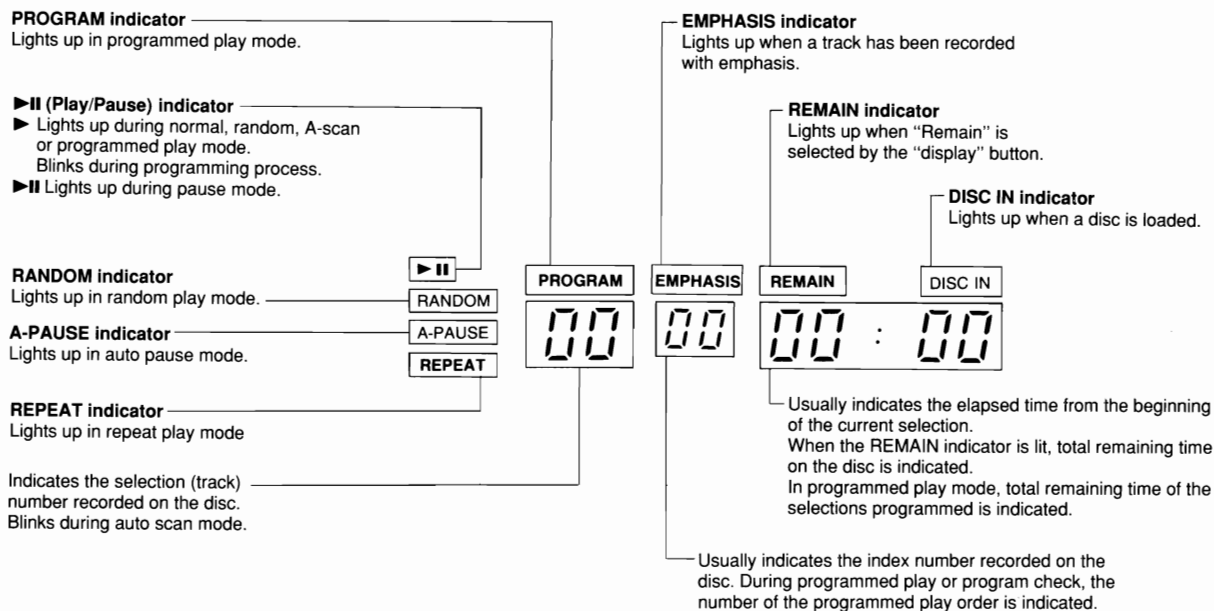
20. "program" button

Use this button in conjunction with the Skip up/down buttons (item #7,12), or any Direct Access Select button (item #21) on the remote control, to program up to 32 track selections in any random order. To clear program contents, press Stop button (item #8) in the stop mode.

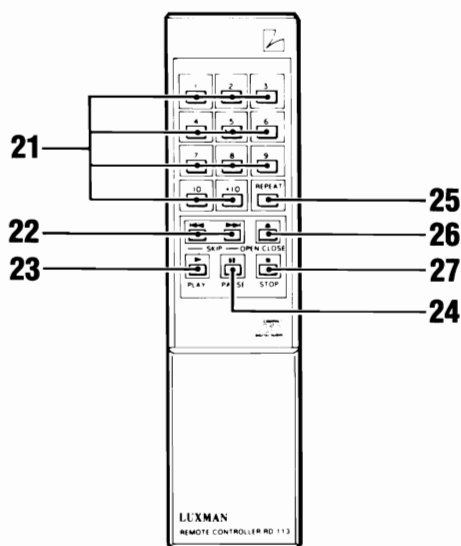
19. "clear" button

This function allows track by track clearing, in sequence, of any programmed track, beginning with the last track programmed. With each push of this button, the next track to be cleared will appear under "PROGRAM" in the display. The program sequence number appears just to the right of the "PROGRAM" track number.

Display



Remote Control Unit



21. Direct Access select buttons

Use for programming or immediate play of any track from 1 to 99.

22. "SKIP" buttons (◀◀, ▶▶)

These buttons allow the player to "skip" forward or backward over any selection (track) in one selection increments.

Pressing the ◀◀ button once will cause return to the beginning of the current selection; a second immediate push will cause a skip back to the preceding selection.

When the pick-up comes to the first selection, the next push will cause it to go to the beginning of the last selection on the disc.

Pressing the ▶▶ button will cause the player to skip forward, one selection at a time for each successive push.

When the player comes to the last selection, the next push will return the pick-up to the first selection.

23. "PLAY" button (▶)

Press the "PLAY" button when loading a disc for immediate playback beginning at track 1 and for starting a programmed or random sequence.

24. "PAUSE" button (II)

Press this button to temporarily cease playback or to cue up a track or segment for recording etc. To resume playback, press the "PAUSE" button again or press the "PLAY" button.

25. "REPEAT" button

In normal play, random play or A-scan mode, press this button to repeat all tracks on a disc.

In programmed play mode, pressing this button will repeat only those programmed.

Pressing the "repeat" button a second time, will cancel the repeat function.

26. "OPEN/CLOSE" button

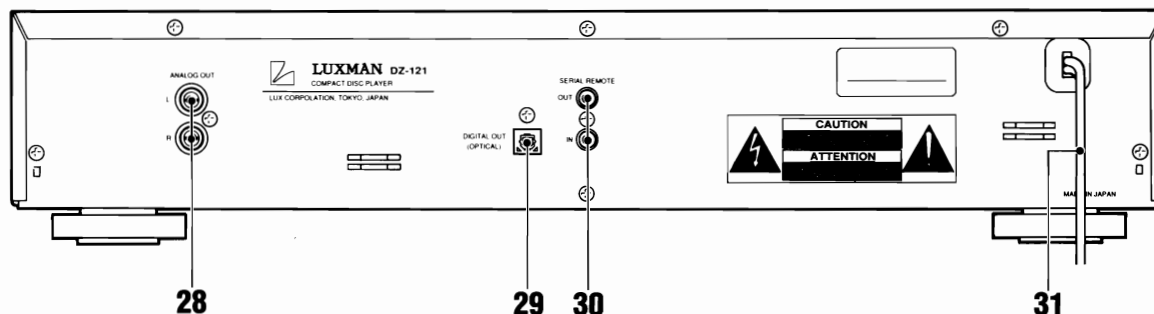
Press to open or close the Disc Tray.

27. "STOP" button

One press of this button will stop playback and return the pick-up to the beginning of the disc. A second push will clear (reset) all memory contents.

Jacks & Terminals

Rear Panel



28. "ANALOG OUT" jacks

For connection to the CD inputs of any amplifier or receiver. The output level is 2 volts fixed, referenced to 0 dB recording level.

29. "DIGITAL OUT-OPTICAL" jack

This is a standard optical jack for digital output. Use the fiber optic cable for connection to an amplifier having a digital optical input (such as the Luxman LV-113 or LV-117).

30 "SERIAL REMOTE IN/OUT" jacks

Use these jacks for a simple and convenient connection to other Luxman components for Remote Control operation. Connect these "SERIAL REMOTE IN and OUT" Jacks to the "SERIAL REMOTE OUT and IN" Jacks, respectively, on other Luxman components (in daisy chain fashion), for a unified remote control system.

Note:

Turn the power off before connecting these jacks.

31. AC Power Cord

Insert the polarized AC plug of the DZ-121 into any 120 volt AC, 60 Hz wall outlet, or, preferably, into the switched outlet of the amplifier or receiver used with it.

Operation Guidelines

Initial Set-Up

Make sure all connections are securely made. Turn the volume of the amplifier fully down and turn the power on to all the components in use. Adjust the volume of the amplifier to a suitable level just prior to playback.

Push the "open/close" button (item #16) on the DZ-121 and set a disc on the disc tray, label surface up.

Note:

To use 8 cm (3 inch) single CDs, place them on the inner circular recessed area marked "8 cm disc" on the tray.

Normal Play

1. After the disc is loaded, press the Play/Pause button (item #11).
2. Playback will begin from the first track number, continuing on through the remaining tracks.
3. Playback automatically stops after the last track on the disc is played (unless in repeat mode).

Note:

The word "**EMPHASIS**" will light up in the display if a disc or track has been recorded with pre-emphasis. This is a standard CD noise reduction system sometimes used by the disc manufacturer. The DZ-121 automatically switches in the standard deemphasis circuit when this occurs and requires no action on the part of the user.

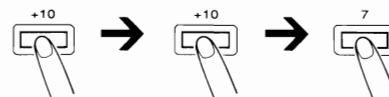
Direct Track Access

- Direct access operation is available on the Remote Controller only. (Not available on the main unit.)

1. Use the Direct Access Select buttons (item #21) to specify a desired track.
2. The selected track number will appear on the display and playback will begin immediately.
3. Playback will stop automatically after the last track is played (unless in repeat mode).

Example:

For Direct Access to the 27th selection.



Random Play

If desired, activating this function will allow the computer in the unit to select tracks, in a completely random manner, for playback. While the selection is random, it does not repeat any given track. Rather, it plays each randomly selected track once, shutting off automatically after all tracks are played. If the REPEAT function is also selected, then the unit will continuously replay all tracks but in a completely different order each time.

1. Press the "random" button (item #13) and "RANDOM" will light up on the display.

Note:

When random is pressed, it will cancel any programmed tracks.

2. Press the Play/Pause button (item #11).
3. When playback of the last track completes with the "REPEAT" not lit on the display, the unit enters the stop mode.
4. To cancel the random function, press the "random" button. The "RANDOM" indicator will turn off.

Repeat Play

1. When the "repeat" button (item #6) is pressed during normal or random playback, all tracks on the disc will be repeated continuously.

If the "repeat" button is pressed during programmed playback, all programmed tracks will be repeated continuously.

2. Pressing the "repeat" button a second time, will cancel the repeat function.

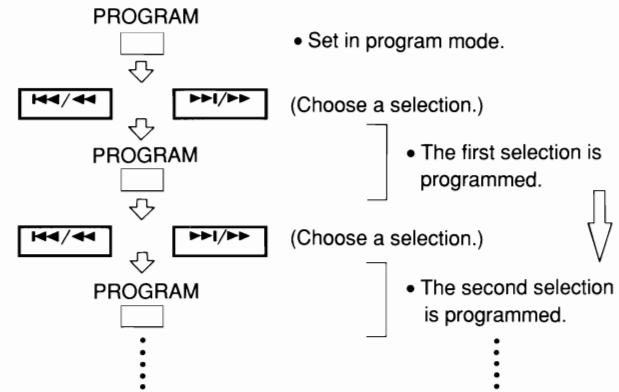
Programmed Play Operations

Programming

1. Press the "program" button (item #20) in stop mode to enter the program mode.
2. Choose the selection to be programmed by pressing the Forward Skip button (item #12), the Backward Skip button (item #7) or any Direct Access Select button (item #21) on the remote.
3. Press the "program" button after each selection, except when using the Direct Access Select buttons on the remote. Track numbers may be entered directly, one after the other, when using the remote. See (Direct Track Access), page 00 for instructions on entering numbers above 10. Also, "__" indication will appear on the display, instead of numbers, if more than 99 minutes and 59 seconds (99:59) of total remaining times has been accumulated in a programmed sequence. (This does not indicate a malfunction.)

Note:

If more than 32 selections are chosen, "FULL" will be displayed on the Display for about 4 seconds, showing that no more selections can be added to the program.



4. Press the Play/Pause button (item #11), and the selections are played back in the programmed order.

Program Check

The programmed track numbers and the order they were placed in memory can be checked.

1. Press the "M-check" button (item #18) with the unit in stop mode.
2. With each successive push of the "M-check" button, the programmed track numbers will be shown on the display in the order of playback.

Note:

When the "M-check" button is continuously pressed, the memory check function will operate automatically, showing the track numbers to the left and order of playback to the right in the display.

When the check operation completes, it will stop on the last track programmed. If the button is held down, it will scan the memory again.

Clearing Programms

1. Select the specific track you wish to clear with the "M-check" button (item #18). Then press the "clear" button (item #19).

Note:

If you do not use the "M-check" button, clearing will begin with the last track programmed and continue with each successive push of the "clear" button.

2. To clear the entire program, press the Stop button (item #8) twice.

Timer Play

With the use of an external AC power timer, the DZ-121 can be made to turn on and go into automatic play at any desired time.

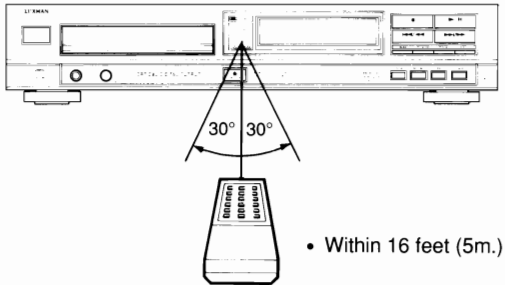
Note:

The AC power plugs of the components used for timed playback must be connected to the AC outlets of the timer.

1. Be sure the "POWER" button (item #1) is pressed ON (IN) on the DZ-121 and load a compact disc.
2. Set the playback start time and end time with the external timer. Also properly set all controls on each component used in the system for timer play as necessary.
3. Make sure the power switches on all other components used in the system for timer play operation are switched to their ON positions.
4. Set the timer to the desired start and stop times. When the power is turned on by the timer, the DZ-121 will start playback and the entire system will operate as previously set.

Remote Operations

For reliable operation, use the hand-held remote within the basic dimensional area shown below.

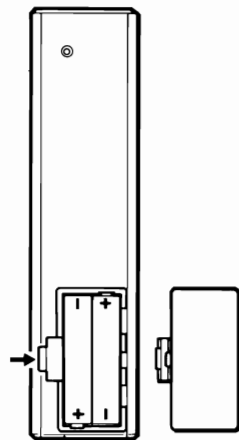


Battery Replacement

1. Open the battery compartment cover on the rear of the remote control unit. The cover should open easily if you press on the tab with your thumbnail and lift up.
2. Place two "AAA" size dry batteries in the battery compartment in accordance with the diagram in the compartment, then replace the cover.

Incorrect use of batteries may lead to leakage or rupture. Be sure to follow these guidelines:

- A. Always insert batteries into the battery compartment correctly matching the positive (+) and negative (-) polarities as shown in the diagram inside the compartment.
- B. Never mix new and used batteries together.
- C. Both rechargeable and non-rechargeable batteries are available. Be sure to use your batteries in accordance with the instructions provided on the cells.



Care & Maintenance

Precautions

Condensation may occur inside the set if it is brought into a warm room from the cold or if a cold room is heated quickly. If this happens, drops of water may form on the pickup, scattering the laser beam and hampering operation.

The extent of condensation depends on various conditions, but if condensation should occur, remove the disc then turn on the power and wait at least one hour before using the unit.

Proper Care of Compact Disc

Improper handling of your CDs will shorten their life. When handling, hold them at the edges so that you will not leave fingerprints on the playing surfaces.

When your discs are not in use, replace them in their respective cases and store away from sunlight, high temperature, humidity, and dust. Should they require cleaning, use a clean soft cloth slightly moistened with water only. A good commercially available CD cleaner may also be used. Do not use oil or chemically treated cloths.

Cleaning

The durable finish of the knobs and heavy aluminum front panel will last indefinitely with proper care and cleaning. Never use scouring pads, steel wool, scouring powders, or harsh chemical agents, such as lye solution. These will mar the finish. Clean with a soft, lintfree cloth or cotton swab slightly dampened with a mild solution of detergent and water.

Repacking for Shipment

Should it become necessary to ship your DZ-121 for any reason, use the original packing materials. If these are no longer available, be sure that adequate materials, at least equivalent to the original, are used.

Repairs

Only the most competent and qualified service technicians should be allowed to service the DZ-121. The Luxman company and its factory-trained warranty station personnel have the knowledge and special equipment needed for repair and calibration of this precision instrument.

In the event of difficulty, call the toll free telephone number listed on the Warranty to obtain name and address of the Luxman Authorized Service Station nearest your home or business. In many cases, the dealer where you purchased your Luxman unit will be equipped to provide service.

Memo

Adjustment Procedures

1. Compact Disc System

For Adjustment of VCO, Focus Bias, Tracking Error Balance, Tracking Gain and Focus Gain, refer to the Service Manual DZ - 122 (68P31568W02).

(1) Connections

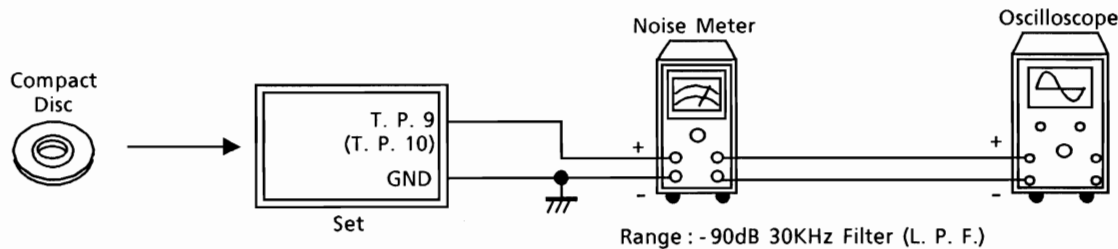


Figure 10

(2) Control Settings

Power Switch	ON
Play Switch	ON
Others	OFF

(3) Test CD

Xero Cross Waveform Adjustment A-BEX TCD - 781 (TNO. 28)

(4) Adjustment Procedures

Step	Description	Connections	Oscillator	Test Point	Adjustment
6	Xero Cross Waveform Adjustment	Figure 10	—	T. P. 9 (Lch) T. P. 10 (Rch)	Plays back track No. 28 of the test CD (TCD - 781). Then, sets the range of the noise meter to -90dB, 30KHz filter (L. P. F). Adjust VR1402 (Lch) and VR1401 (Rch), respectively, so that the zero-cross waveform on the oscilloscope is like the one in Figure 13. (Only the portion of the zero-cross waveform displaced in the upper or lower directions <as shown in Figure 11 or 12> can be operated using the adjustment volume.)

- ① When the zero cross waveform is displaced upward.

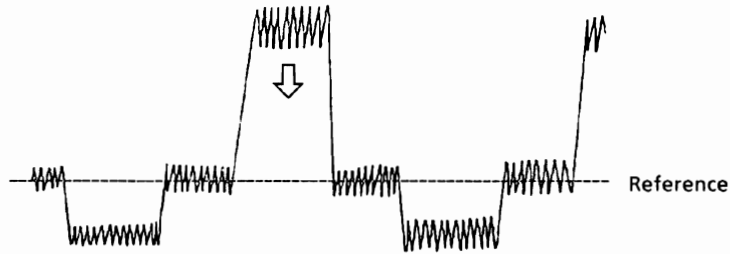


Figure 11

- ② When the zero cross waveform is displaced downward.

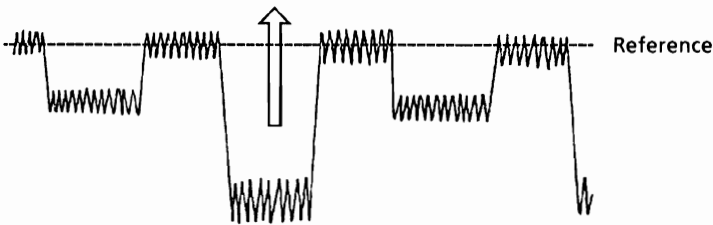


Figure 12

- ③ After the zero cross waveform is adjusted.

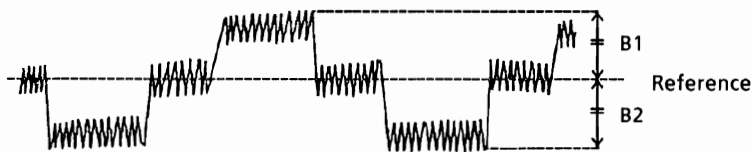
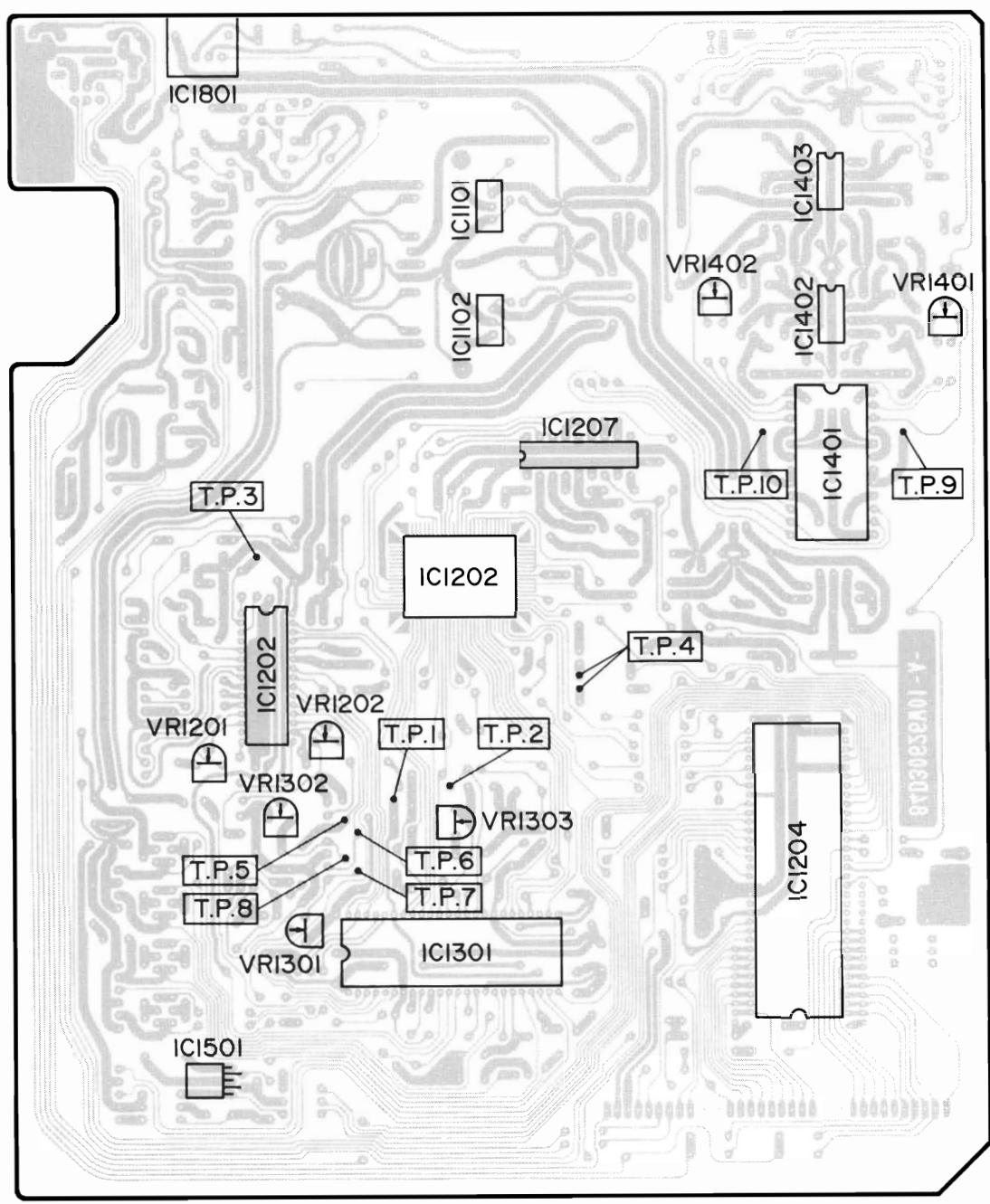


Figure 13

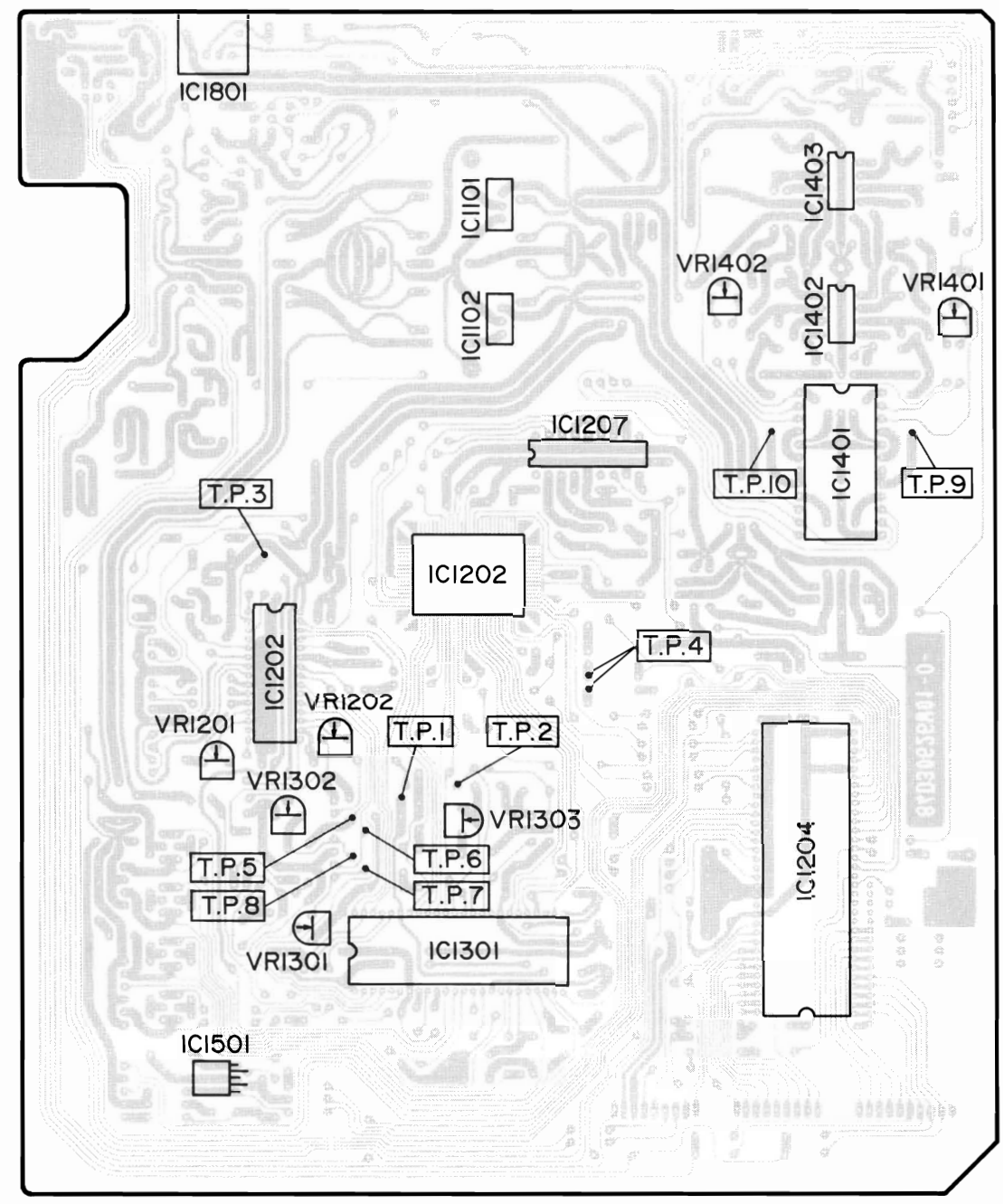
Make adjustments so that the upper and lower waveform widths become equal ($B1 = B2$).

Adjustment Locations (With Safety Regulations Version)

(Without Safety Regulations Version/ U.S.A Version/Canada Version)

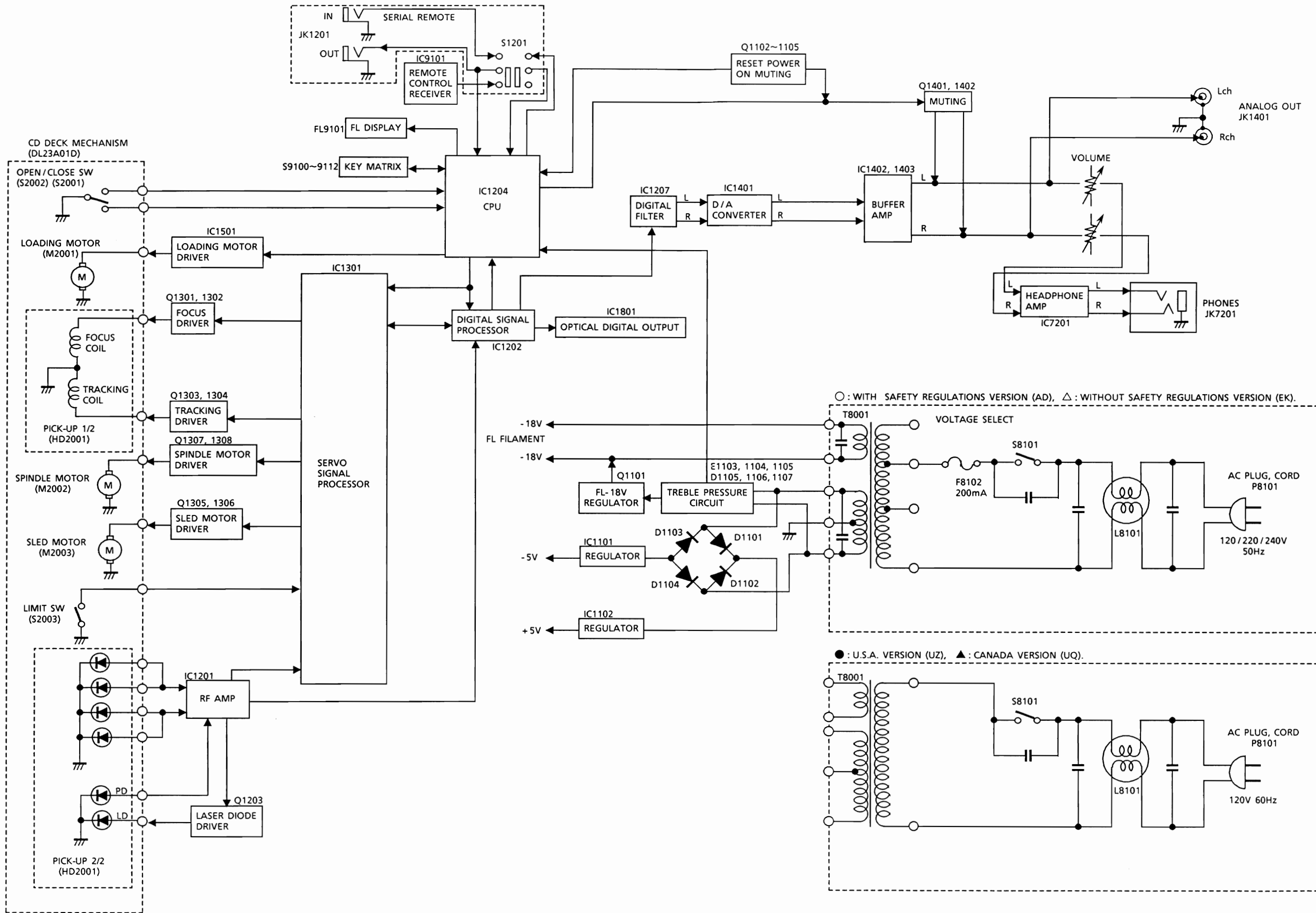


Main P.C.Board (Component Side)

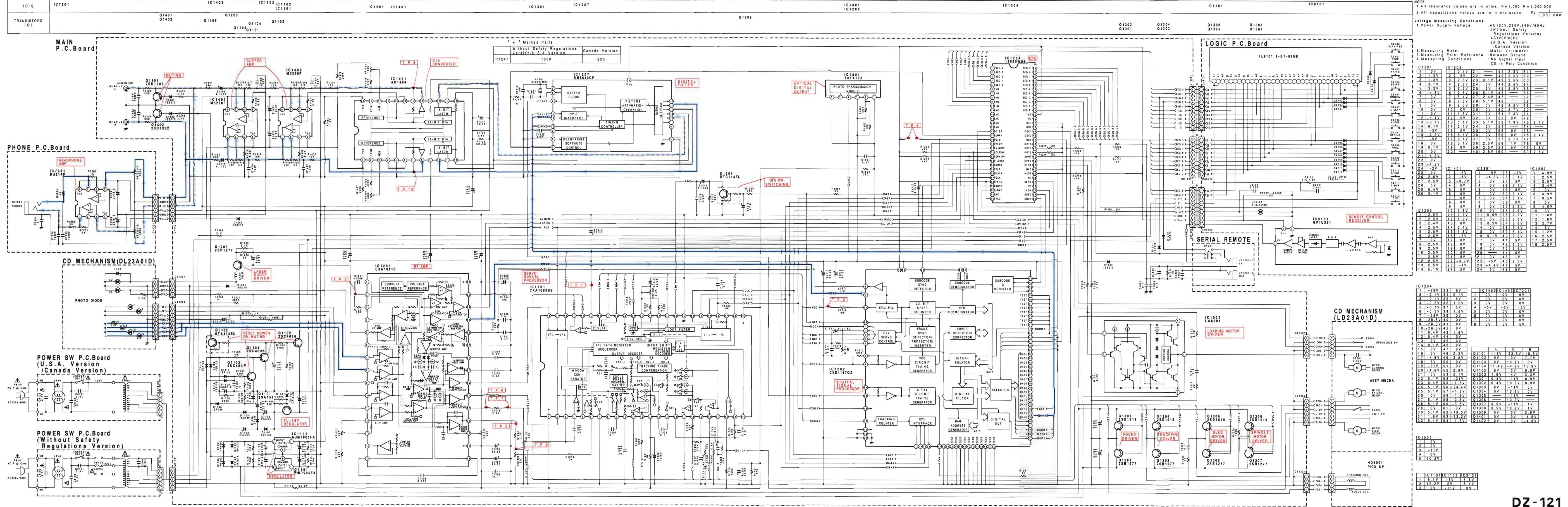


Main P.C.Board (Component Side)

Block Diagram



Schematic Diagram < Without Safety Regulations Version/U.S.A Version/Canada Version >



NOTE
 1. All resistance values are in ohms. K=1,000 M=1,000,000
 2. All capacitance values are in microfarads. P=1,000,000
 Voltage Measuring Conditions
 1. Power Supply Voltage AC120V, 220V, 240V/50Hz (Without Safety Regulations Version)
 AC120V/60Hz (U.S.A. Version)
 AC220V/60Hz (Canada Version)
 2. Measuring Meter Multi Voltmeter
 3. Measuring Point Reference Between Ground
 4. Measuring Conditions No Signal Input CD in Play Condition

IC1201	IC1202
1 0V	1 2.5V
2 1.3V	2 5V
3 1.3V	3 2.8V
4 3.3V	4 2.5V
5 3.3V	5 2.5V
6 -4.8V	6 2.5V
7 0V	7 5.1V
8 0V	8 2.5V
9 0V	9 2.5V
10 0V	10 0V
11 0V	11 1.6V
12 -1.1V	12 0V
13 0.7V	13 5.1V
14 0.1V	14 5.1V
15 -3V	15 0V
16 3.3V	16 5.1V
17 -5V	17 0.1V
18 0V	18 5.1V
19 0V	19 2.5V
20 0V	20 4.2V
21 -4.3V	21 2.5V
22 0V	22 2.5V
23 -1.2V	23 2.5V
24 -2V	24 2.5V
25 -5V	25 2.5V
26 2.6V	26 0.1V
27 2.5V	27 2.5V
28 0V	28 5.1V
29 0.4V	29 0V
30 5.1V	30 5.1V
31 0V	31 0V
32 0V	32 0V
33 0V	33 2.5V
34 0V	34 2.5V
35 0V	35 2.5V
36 0V	36 2.5V
37 0V	37 2.5V
38 0V	38 2.5V
39 0V	39 2.5V
40 0V	40 2.5V
41 0V	41 2.5V
42 0V	42 2.5V
43 0V	43 2.5V
44 0V	44 2.5V
45 0V	45 2.5V
46 0V	46 2.5V
47 0V	47 2.5V
48 0V	48 2.5V
49 0V	49 2.5V
50 0V	50 2.5V
51 0V	51 2.5V
52 0V	52 2.5V
53 0V	53 2.5V
54 0V	54 2.5V
55 0V	55 2.5V
56 0V	56 2.5V
57 0V	57 2.5V
58 0V	58 2.5V
59 0V	59 2.5V
60 0V	60 2.5V
61 0V	61 2.5V
62 0V	62 2.5V
63 0V	63 2.5V
64 0V	64 2.5V
65 0V	65 2.5V
66 0V	66 2.5V
67 0V	67 2.5V
68 0V	68 2.5V
69 0V	69 2.5V
70 0V	70 2.5V
71 0V	71 2.5V
72 0V	72 2.5V
73 0V	73 2.5V
74 0V	74 2.5V
75 0V	75 2.5V
76 0V	76 2.5V
77 0V	77 2.5V
78 0V	78 2.5V
79 0V	79 2.5V
80 0V	80 2.5V
81 0V	81 2.5V
82 0V	82 2.5V
83 0V	83 2.5V
84 0V	84 2.5V
85 0V	85 2.5V
86 0V	86 2.5V
87 0V	87 2.5V
88 0V	88 2.5V
89 0V	89 2.5V
90 0V	90 2.5V
91 0V	91 2.5V
92 0V	92 2.5V
93 0V	93 2.5V
94 0V	94 2.5V
95 0V	95 2.5V
96 0V	96 2.5V
97 0V	97 2.5V
98 0V	98 2.5V
99 0V	99 2.5V
100 0V	100 2.5V

IC1205	IC1301	IC1207
1 2.5V	1 -5V	1 1.8V
2 2.5V	2 -1V	2 1.8V
3 2.5V	3 -4.3V	3 1.8V
4 2.5V	4 2.8V	4 1.8V
5 0V	5 0V	5 1.8V
6 0V	6 0V	6 1.8V
7 0V	7 0V	7 1.8V
8 0V	8 0V	8 1.8V
9 0V	9 0V	9 1.8V
10 0V	10 0V	10 1.8V
11 0.9V	11 0.9V	11 1.8V
12 0.9V	12 0.9V	12 1.8V
13 0.9V	13 0.9V	13 1.8V
14 0.9V	14 0.9V	14 1.8V
15 0.9V	15 0.9V	15 1.8V
16 0.9V	16 0.9V	16 1.8V
17 0.9V	17 0.9V	17 1.8V
18 0.9V	18 0.9V	18 1.8V
19 0.9V	19 0.9V	19 1.8V
20 0.9V	20 0.9V	20 1.8V
21 0.9V	21 0.9V	21 1.8V
22 0.9V	22 0.9V	22 1.8V
23 0.9V	23 0.9V	23 1.8V
24 0.9V	24 0.9V	24 1.8V

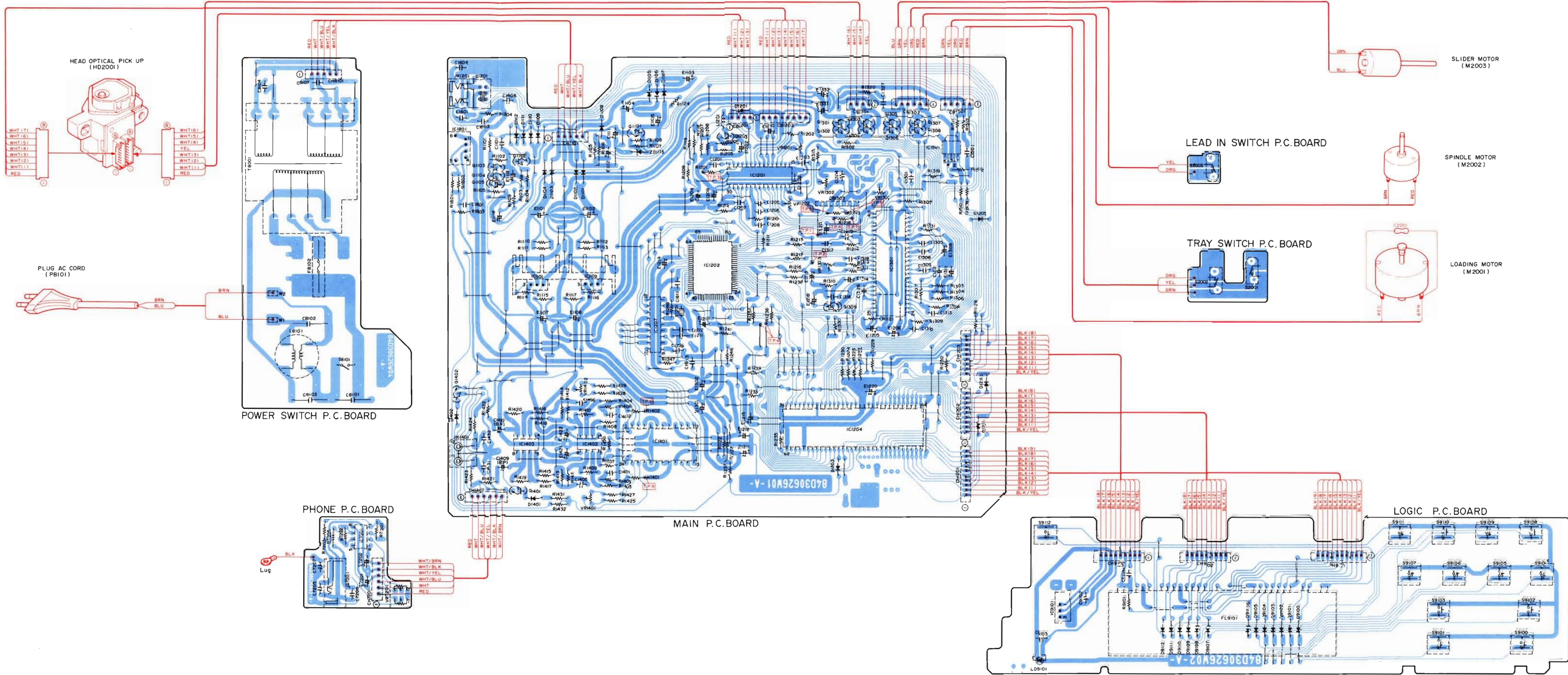
IC1204	IC1492	IC1403	IC1201
1 -28V	1 0V	1 0V	1 4.8V
2 -0.1V	2 0V	2 0V	2 0V
3 -0.1V	3 0V	3 0V	3 0V
4 -0.2V	4 0V	4 0V	4 0V
5 -0.1V	5 0V	5 0V	5 0V
6 -0.5V	6 0V	6 0V	6 0V
7 -28V	7 0V	7 0V	7 0V
8 -28.5V	8 0V	8 0V	8 0V
9 -28.3V	9 0V	9 0V	9 0V
10 -28.3V	10 0V	10 0V	10 0V
11 0.4V	11 0V	11 0V	11 0V
12 0.4V	12 0V	12 0V	12 0V
13 0.4V	13 0V	13 0V	13 0V
14 0.1V	14 0V	14 0V	14 0V
15 0V	15 0V	15 0V	15 0V
16 0V	16 0V	16 0V	16 0V
17 -4.8V	17 -3.5V	17 -1.8V	17 0V
18 5V	18 10V	18 0V	18 0V
19 5V	19 4.8V	19 0V	19 0V
20 -4.6V	20 0V	20 0V	20 0V
21 0V	21 4V	21 3.3V	21 0V
22 5.1V	22 -11V	22 0V	22 0V
23 0.4V	23 10.2V	23 0V	23 0V
24 5.1V	24 0.4V	24 0V	24 0V
25 5.1V	25 0.4V	25 0V	25 0V
26 0V	26 -1.1V	26 0V	26 0V
27 5.1V	27 19.2V	27 0V	27 0V
28 5.1V	28 0.5V	28 0V	28 0V
29 0V	29 10.2V	29 0V	29 0V
30 5.1V	30 18.5V	30 0V	30 0V
31 5.1V	31 4.3V	31 4.8V	31 0V
32 5.1V	32 -1.3V	32 0V	32 0V

IC1301	IC1102	IC1101	IC1102
1 0V	1 0V	1 0V	1 0V
2 0V	2 0V	2 0V	2 0V
3 -11V	3 0V	3 0V	3 0V
4 0V	4 0V	4 0V	4 0V
5 10.2V	5 0V	5 0V	5 0V

IC1101	IC1102	IC1101	IC1102
1 5.1V	1 4.8V	1 5.1V	1 4.8V
2 10.2V	2 5.1V	2 10.2V	2 5.1V
3 0V	3 -11V	3 0V	3 -11V

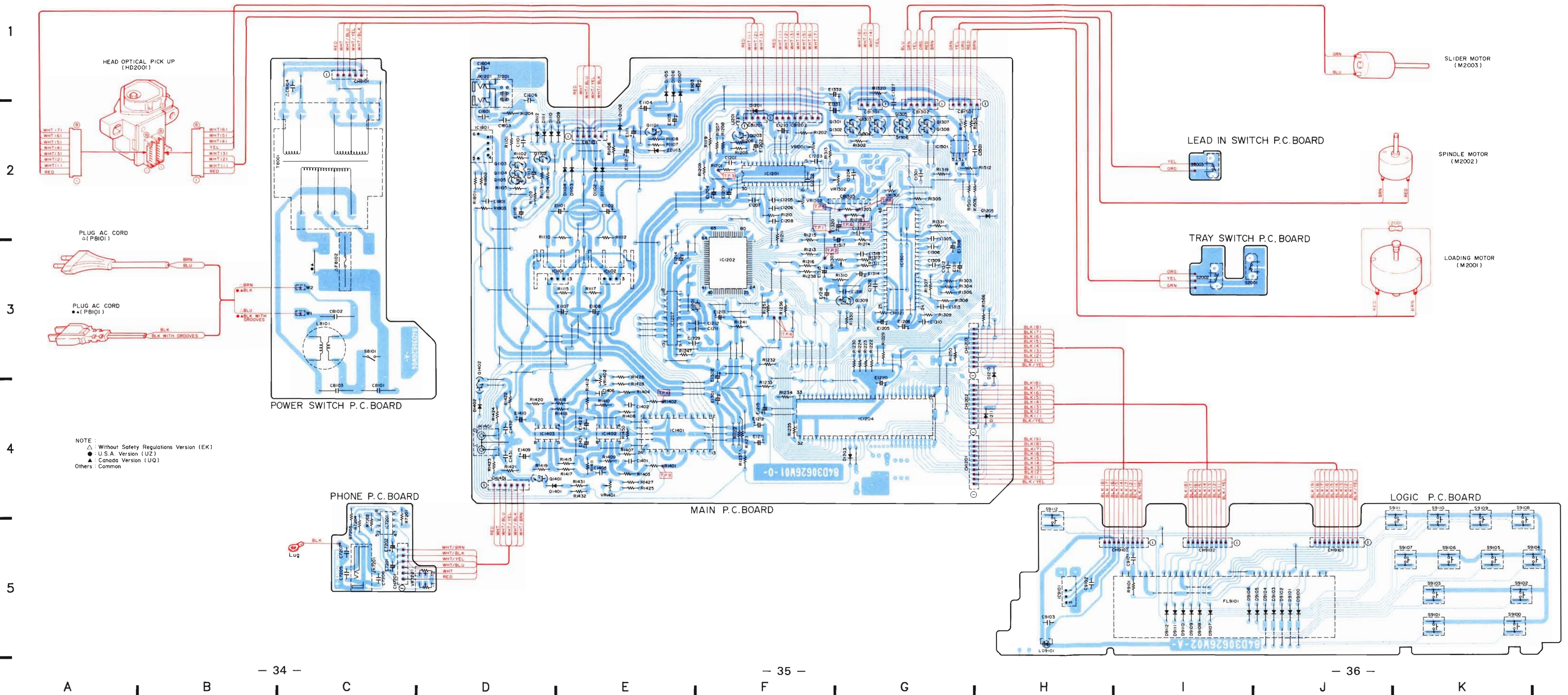
Parts Layout on P.C. Boards and Wiring Diagram (With Safety Regulations Version)

1
2
3
4
5



A | B | C | D | E | F | G | H | I | J | K

Parts Layout on P.C.Boards and Wiring Diagram (Without Safety Regulations Version/U.S.A. Version/Canada Version)



NOTE :
 △ : Without Safety Regulations Version (EK)
 ● : U.S.A. Version (UZ)
 ▲ : Canada Version (UQ)
 Others : Common

A | B | C | D | E | F | G | H | I | J | K

Electrical Parts List

Resistor : Carbon resistors under 1/4 watts are not mentioned in the parts list, please confirm them by schematic diagram.

Capacitor : μ F = microfarads, pF = picofarads

Abbreviations	
RES. = Resistor	CAP. = Capacitor
C.F. = Carbon Film	ELY. = Electrolytic
M.F. = Metal Film	CER. = Ceramic
M.O. = Metal Oxide Film	MYL. = Mylar
M.P. = Metal Plate	TAN. = Tantalum
TR. = Transistor	POLY. = Polystyrol
TRANS. = Transformer	PP. = Polypropylene
CP. = Chip	PLT. = Polyethylene
	PF. = Polyester Film

Symbol No.	Part No.	Description
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Main P. C. Board

IC's

○	IC1101	51T35135W01	M5F7905L
△	IC1101	51T80339F01	NJM7905FA
●	IC1101	51T80339F01	NJM7905FA
▲	IC1101	51T80339F01	NJM7905FA
○	IC1102	51T35134W01	M5F7805L
△	IC1102	51T80338F01	NJM7805FA
●	IC1102	51T80338F01	NJM7805FA
▲	IC1102	51T80338F01	NJM7805FA
	IC1201	51T84721F01	CXA1081S
	IC1202	51T25718W01	CXD1167QZ
	IC1204	51T15980W04	15980W04
	IC1207	51T35105W01	SM5840CP
	IC1301	51T84722F02	CXA1082BS
	IC1401	51T35103W01	AD1864P
	IC1402	51T80136F01	M5238P
	IC1403	51T80136F01	M5238P
	IC1501	51T90889F01	LA6501
	IC1801	51T95249F02	TOTX176

Transistors

	Q1101	48T82757F01	2SA1561
	Q1102	48T82758F01	2SC4038
	Q1103	48T82758F01	2SC4038
	Q1104	48T82758F01	2SC4038
	Q1105	48T82762F02	DTA114EL
	Q1203	48T82759F01	2SB1277
	Q1301	48T82759F01	2SB1277
	Q1302	48T83275F01	2SD1919
	Q1303	48T82759F01	2SB1277
	Q1304	48T83275F01	2SD1919
	Q1305	48T82759F01	2SB1277
	Q1306	48T83275F01	2SD1919
	Q1307	48T82759F01	2SB1277
	Q1308	48T83275F01	2SD1919
	Q1309	48T82763F02	DTC114EL

Symbol No.	Part No.	Description
Q1401	48T57305F04	2SD1302
Q1402	48T57305F04	2SD1302

Diodes

D1101	48S40477U01	1N4003
D1102	48S40477U01	1N4003
D1103	48S40477U01	1N4003
D1104	48S40477U01	1N4003
D1105	48T16313W01	1SR139
D1106	48T16313W01	1SR139
D1107	48T16313W01	1SR139
D1108	48T16313W01	1SR139
D1109	48T16313W01	1SR139
D1110	48T16313W01	1SR139
D1111	48T16313W01	1SR139
D1112	48T16313W01	1SR139
D1201	48T84758F01	1SS270
D1203	48T84758F01	1SS270
D1205	48T84758F01	1SS270
D1210	48T84758F01	1SS270
D1211	48T84758F01	1SS270
D1401	48T84758F01	1SS270
D1402	48T84758F01	1SS270
ZD1103	48T52741F54	Zener, HZ18-3L

Coil / Crystal

L1201	24T70381F21	Inductor, 10 μ H
X1201	91T84727F02	Crystal, 16.9344MHz

Jacks

JK1201	09T84124F01	Head Phone (SERIAL REMOTE) T6302 (ANALOG OUT)
S1201		
JK1401	09T15974W06	

Notes : ○ : With Safety Regulations Version (AD), △ : Without Safety Regulations Version (EK)

● : U.S.A. Version (UZ), ▲ : Canada Version (UQ), Others : Common.

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
Capacitors					
○	C1101	08T90316F29 TF, 0.1 μ F	○	E1215	23T00180L12 ELY., 22 μ F / 25V
△	E1101	23T00181L32 ELY., 3300 μ F / 25V	●	E1218	23T00180L21 ELY., 1 μ F / 50V
●	E1102	23T00181L32 ELY., 3300 μ F / 25V	▲	E1220	23T00180L22 ELY., 2.2 μ F / 50V
▲	E1103	23T00181L58 ELY., 330 μ F / 63V	○	C1229	08T90316F01 TF, 470pF
○	E1104	23T00181L58 ELY., 330 μ F / 63V	△	C1301	08T90316F13 TF, 4700pF
△	E1105	23T00181L58 ELY., 330 μ F / 63V	○	E1301	23T00180L03 ELY., 4.7 μ F / 10V
●	E1106	23T00181L21 ELY., 1000 μ F / 16V	△	E1301	23T00180L17 ELY., 33 μ F / 35V
▲	E1107	23T00181L56 ELY., 100 μ F / 63V	●	E1301	23T00180L17 ELY., 33 μ F / 35V
○	E1107	23T00181L73 ELY., 100 μ F / 100V	▲	E1301	23T00180L17 ELY., 33 μ F / 35V
●	E1107	23T00181L73 ELY., 100 μ F / 100V	○	E1302	23T00180L03 ELY., 4.7 μ F / 10V
▲	E1107	23T00181L73 ELY., 100 μ F / 100V	△	E1302	23T00180L17 ELY., 33 μ F / 35V
○	E1108	23T00181L56 ELY., 100 μ F / 63V	●	E1302	23T00180L17 ELY., 33 μ F / 35V
△	E1108	23T00181L73 ELY., 100 μ F / 100V	▲	E1302	23T00180L17 ELY., 33 μ F / 35V
●	E1108	23T00181L73 ELY., 100 μ F / 100V	○	C1305	08T90316F29 TF, 0.1 μ F
▲	E1108	23T00181L73 ELY., 100 μ F / 100V	△	C1306	08T90316F23 TF, 0.033 μ F
○	E1111	23T00180L17 ELY., 33 μ F / 35V	○	E1308	23T00180L25 ELY., 10 μ F / 50V
△	E1111	23T00180L25 ELY., 10 μ F / 50V	○	C1309	08T90316F29 TF, 0.1 μ F
●	E1111	23T00180L25 ELY., 10 μ F / 50V	○	C1310	08T90316F17 TF, 0.01 μ F
▲	E1111	23T00180L25 ELY., 10 μ F / 50V	○	E1311	23T00180L25 ELY., 10 μ F / 50V
○	E1112	23T00180L22 ELY., 2.2 μ F / 50V	○	C1312	08T90316F27 TF, 0.068 μ F
△	E1112	23T00180L24 ELY., 4.7 μ F / 50V	○	C1313	08T90316F19 TF, 0.015 μ F
●	E1112	23T00180L24 ELY., 4.7 μ F / 50V	△	E1314	23T00180L24 ELY., 4.7 μ F / 50V
▲	E1112	23T00180L24 ELY., 4.7 μ F / 50V	○	E1315	23T00180L12 ELY., 22 μ F / 25V
○	E1113	23T00180L25 ELY., 10 μ F / 50V	○	C1316	08T90316F13 TF, 4700pF
△	C1201	08T90316F13 TF, 4700pF	○	C1317	08T90316F37 TF, 0.47 μ F
●	C1202	08S65480F63 CER., 0.1 μ F	△	E1317	23T00180L20 ELY., 0.47 μ F / 50V
△	E1202	23T00180L04 ELY., 100 μ F / 10V	●	E1317	23T00180L20 ELY., 0.47 μ F / 50V
●	E1202	23T00180L13 ELY., 47 μ F / 25V	▲	E1317	23T00180L20 ELY., 0.47 μ F / 50V
▲	E1202	23T00180L13 ELY., 47 μ F / 25V	○	C1318	08T90316F05 TF, 1000pF
○	C1203	08T90316F23 CER., 0.033 μ F	○	C1319	08T90316F17 TF, 0.01 μ F
△	C1204	08T90316F09 TF, 2200pF	○	E1320	23T00180L17 ELY., 33 μ F / 35V
●	E1204	23T00180L17 ELY., 33 μ F / 35V	△	E1320	23T00180L12 ELY., 22 μ F / 25V
▲	C1205	08T90316F17 TF, 0.01 μ F	●	E1320	23T00180L12 ELY., 22 μ F / 25V
○	E1205	23T00180L12 ELY., 22 μ F / 25V	▲	E1320	23T00180L12 ELY., 22 μ F / 25V
△	C1206	08T90316F17 TF, 0.01 μ F	○	C1326	08T90316F29 TF, 0.1 μ F
●	E1206	23T00180L12 ELY., 22 μ F / 25V	△	C1326	08T57298F01 CER., 0.1 μ F
▲	C1207	08T90316F37 TF, 0.47 μ F	●	C1326	08T57298F01 CER., 0.1 μ F
○	C1207	08T25620W01 CER., 0.47 μ F	▲	C1326	08T57298F01 CER., 0.1 μ F
△	C1207	08T25620W01 CER., 0.47 μ F	○	C1327	08T90316F29 TF, 0.1 μ F
●	C1207	08T25620W01 CER., 0.47 μ F	△	C1327	08T57298F01 CER., 0.1 μ F
▲	C1207	08T25620W01 CER., 0.47 μ F	●	C1327	08T57298F01 CER., 0.1 μ F
○	C1208	08T90316F17 TF, 0.01 μ F	▲	C1327	08T57298F01 CER., 0.1 μ F
△	E1209	23T00180L17 ELY., 33 μ F / 35V	○	E1331	23T00180L17 ELY., 33 μ F / 35V
●	E1210	23T00180L12 ELY., 22 μ F / 25V	○	E1332	23T00180L17 ELY., 33 μ F / 35V
▲	C1211	08T55260F13 CER., 10pF	○	C1401	08T93406F03 PP., 120pF
○	E1211	23T00180L25 ELY., 10 μ F / 50V	△	C1401	08T93406F01 PP., 100pF
△	C1212	08T55260F13 CER., 10pF	●	C1401	08T93406F01 PP., 100pF
●	E1212	23T00180L25 ELY., 10 μ F / 50V	▲	C1401	08T93406F01 PP., 100pF
▲	E1213	23T00180L17 ELY., 33 μ F / 35V	○	C1402	08T93406F03 PP., 120pF
○	E1214	23T00180L13 ELY., 47 μ F / 25V	△	C1402	08T93406F01 PP., 100pF

Notes : ○ : With Safety Regulations Version (AD), △ : Without Safety Regulations Version (EK)
 ● : U.S.A. Version (UZ), ▲ : Canada Version (UQ), Others : Common.

Symbol No.	Part No.	Description
●	C1402	08T93406F01 PP., 100pF
▲	C1402	08T93406F01 PP., 100pF
○	C1405	08T93406F09 PP., 220pF
△	C1405	08T93406F01 PP., 100pF
●	C1405	08T93406F01 PP., 100pF
▲	C1405	08T93406F01 PP., 100pF
○	C1406	08T93406F09 PP., 220pF
△	C1406	08T93406F01 PP., 100pF
●	C1406	08T93406F01 PP., 100pF
▲	C1406	08T93406F01 PP., 100pF
○	C1409	23T61177F06 ELY., (B.P) 4.7μF / 100V
△	E1409	23T00180L24 ELY., 4.7μF / 50V
●	E1409	23T00180L24 ELY., 4.7μF / 50V
▲	E1409	23T00180L24 ELY., 4.7μF / 50V
○	C1410	23T61177F06 ELY., (B.P) 4.7μF / 100V
△	E1410	23T00180L24 ELY., 4.7μF / 50V
●	E1410	23T00180L24 ELY., 4.7μF / 50V
▲	E1410	23T00180L24 ELY., 4.7μF / 50V
	E1421	23T00180L25 ELY., 10μF / 50V
	E1422	23T00180L25 ELY., 10μF / 50V
○	C1431	08T90316F06 TF, 1200pF
△	C1431	08T90316F05 TF, 1000pF
●	C1431	08T90316F05 TF, 1000pF
▲	C1431	08T90316F05 TF, 1000pF
○	C1432	08T90316F06 TF, 1200pF
△	C1432	08T90316F05 TF, 1000pF
●	C1432	08T90316F05 TF, 1000pF
▲	C1432	08T90316F05 TF, 1000pF
○	C1501	08T90316F29 TF, 0.1μF
△	C1501	08T57298F01 CER., 0.1μF
●	C1501	08T57298F01 CER., 0.1μF
▲	C1501	08T57298F01 CER., 0.1μF
	C1601	08T57298F01 CER., 0.1μF
	C1603	08T57298F01 CER., 0.1μF
	C1604	08T57298F01 CER., 0.1μF
	C1606	08T40794F50 CER., 1000pF
○	C1611	21S40655F17 CER., 33pF
○	C1613	21S40655F17 CER., 33pF
	C1801	08T25620W01 CER., 0.47μF
Resistors		
○	R1106	06T92263F34 M.F., 240 ohm 1W
△	R1106	06T92263F32 M.F., 200 ohm 1W
●	R1106	06T92263F32 M.F., 200 ohm 1W
▲	R1106	06T92263F32 M.F., 200 ohm 1W
	R1119	06T92264F25 M.F., 100 ohm 2W
	R1123	06T92264F25 M.F., 100 ohm 2W
	VR1201	18T15356W15 Variable, RH0634C 22K ohm

Symbol No.	Part No.	Description
	VR1202	18T15356W15 Variable, RH0634C 22K ohm
	VR1301	18T15356W15 Variable, RH0634C 22K ohm
	VR1302	18T15356W15 Variable, RH0634C 22K ohm
	VR1303	18T15356W09 Variable, RH0634C 2.2K ohm
	VR1401	18T15356W19 Variable, RH0634C 100K ohm
	VR1402	18T15356W19 Variable, RH0634C 100K ohm
Phone P. C. Board		
IC		
	IC7201	51T81896F01 M5216P
Jacks		
○	JK7201	09T66672F04 Phones (PHONES)
△	JK7201	09T74077F02 Phones (PHONES)
●	JK7201	09T74077F02 Phones (PHONES)
▲	JK7201	09T74077F02 Phones (PHONES)
Capacitors		
○	E7201	23T16145W10 ELY., 10μF / 16V
△	E7201	23T16145W14 ELY., 22μF / 6.3V
●	E7201	23T16145W14 ELY., 22μF / 6.3V
▲	E7201	23T16145W14 ELY., 22μF / 6.3V
○	E7202	23T16145W10 ELY., 10μF / 16V
△	E7202	23T16145W14 ELY., 22μF / 6.3V
●	E7202	23T16145W14 ELY., 22μF / 6.3V
▲	E7202	23T16145W14 ELY., 22μF / 6.3V
	C7205	08T90316F05 TF, 1000pF
	C7206	08T90316F05 TF, 1000pF
	C7207	08T57298F01 CER., 0.1μF
Resistor		
	VR7201	18T84123F01 Variable, RK9A00

Notes : ○ : With Safety Regulations Version (AD), △ : Without Safety Regulations Version (EK)
 ● : U.S.A. Version (UZ), ▲ : Canada Version (UQ), Others : Common.

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description	
Power Switch P. C. Board			LED			
Coil			LD9101	48T66616F02	SLR-54VR3 (RED)	
	L8101	24T15610W01 PLA6003R3A	Switches			
Switch			S9100	40T83324F11	Tact, SKHHAP (▶ / ◻)	
	S8101	40T84122F01 Power, SDDLE (POWER)	S9101	40T83324F11	Tact, SKHHAP (■)	
Capacitors			S9102	40T83324F11	Tact, SKHHAP (▶▶ / ▶▶)	
	C8101	08T00196L01	S9103	40T83324F11	Tact, SKHHAP (◀◀ / ◀◀)	
	C8102	08T00196L01	S9104	40T83324F06	Tact, SKHHAN (RANDOM)	
	C8103	08T00196L01	S9105	40T83324F06	Tact, SKHHAN (A - SCAN)	
○	C8104	08T90316F22	S9106	40T83324F06	Tact, SKHHAN (A - PAUSE)	
△	C8104	08T90316F22	S9107	40T83324F06	Tact, SKHHAN (REPEAT)	
	C8107	08T90316F19	S9108	40T83324F11	Tact, SKHHAP (PROGRAM)	
			S9109	40T83324F11	Tact, SKHHAP (CLEAR)	
			S9110	40T83324F11	Tact, SKHHAP (M - CHECK)	
			S9111	40T83324F11	Tact, SKHHAP (DISPLAY)	
			S9112	40T83324F11	Tact, SKHHAP (OPEN / CLOSE)	
Logic P. C. Board			Capacitors			
IC's			C9101	08T90316F22	TF, 0.027 μ F	
	IC9101 or	51T16094W01 51T16094W02 GP1U521 GP1U521X	C9102	08T90316F09	TF, 2200pF	
Diodes			C9103	08T90316F22	TF, 0.027 μ F	
	D9100	48T84758F01	Miscellaneous			
	D9101	48T84758F01	○	C2001	08S40154T63	CAP., CER. 0.022 μ F
	D9102	48T84758F01	△	F8102	65T42077U09	Fuse Semko (250V-200mA)
	D9103	48T84758F01		F8102	65T42077U09	Fuse Semko (250V-200mA)
	D9104	48T84758F01		FL9101	65T15806W01	FL Display 8-BT-82GK
	D9105	48T84758F01		HD2001	88T81528F01	Optical Pick Up Unit
	D9106	48T84758F01		M2001	01V11200W42	Assy., Loading Motor (5.5V-115mA)
	D9107	48T84758F01		M2002	59T81431F01	Spindle Motor (2.5V-85mA)
	D9108	48T84758F01		M2003	01V94700F74	Assy., Sled Motor (6V-210mA)
	D9109	48T84758F01	○	P8101	28T43812P04	AC Plug, Cord
	D9110	48T84758F01	○	or	28T00001K01	AC Plug, Cord
	D9111	48T84758F01	△	P8101	28T43812P04	AC Plug, Cord
	D9112	48T84758F01	△	or	28T00001K01	AC Plug, Cord

Notes: ○: With Safety Regulations Version (AD), △: Without Safety Regulations Version (EK)

●: U.S.A. Version (UZ), ▲: Canada Version (UQ), Others: Common.

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
● P8101	28T55335F02	AC Plug, Cord			
● or	28T00002K01	AC Plug, Cord			
▲ P8101	28T55335F02	AC Plug, Cord			
▲ or	28T00002K01	AC Plug, Cord			
S2001	40T71025F01	Switch, Detector (CLOSE)			
S2002	40T71025F01	Switch, Detector (OPEN)			
S2003	40T71025F01	Switch, Detector (LIMIT)			
○ T8001	25T16090W01	TRANS., Power			
△ T8001	25T16090W01	TRANS., Power			
● T8001	25T16092W01	TRANS., Power			
▲ T8001	25T16092W01	TRANS., Power			

Notes : ○ : With Safety Regulations Version (AD), △ : Without Safety Regulations Version (EK)
 ● : U.S.A. Version (UZ), ▲ : Canada Version (UQ), Others : Common.

Cabinet Assembly Parts List

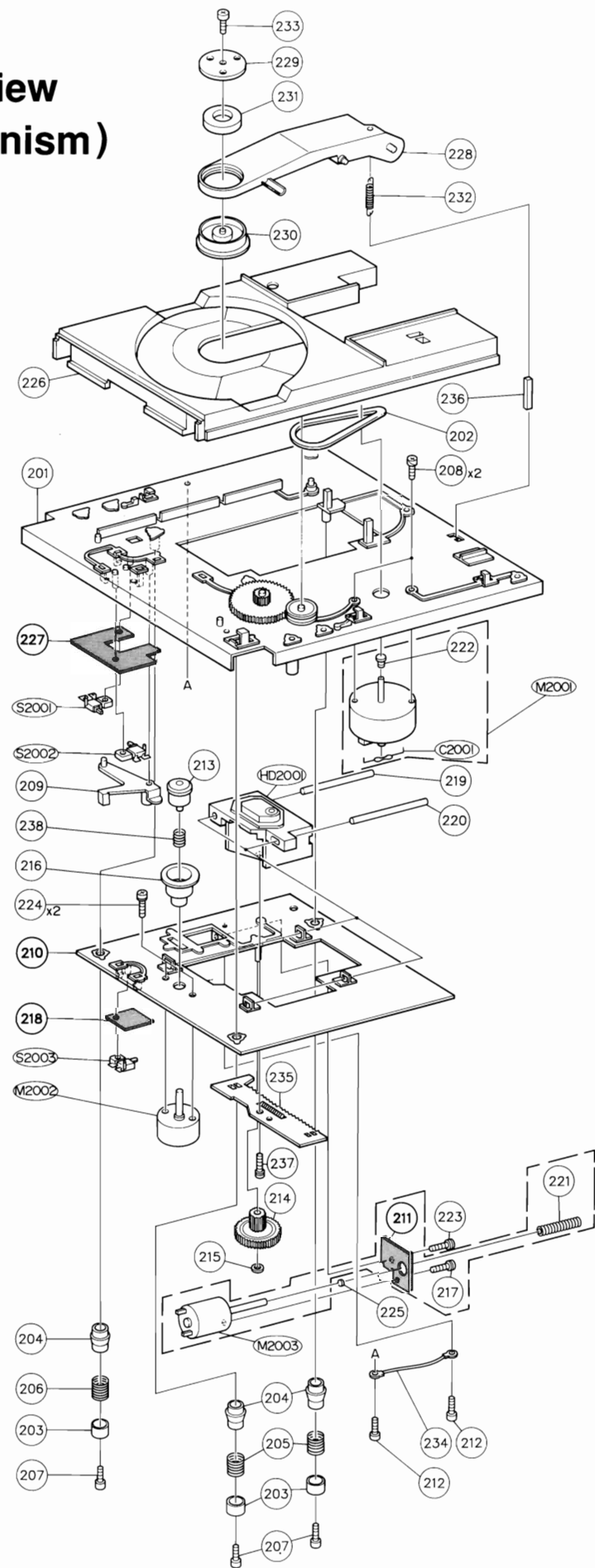
NOTE : The parts without parts list are not supplied.

Symbol No.	Index	Part No.	Description	Symbol No.	Index	Part No.	Description
○	1	5-C	01C30666W02	Assy., Front Panel			
△	1	5-C	01C30666W01	Assy., Front Panel			
●	1	5-C	01C30666W01	Assy., Front Panel			
▲	1	5-C	01C30666W01	Assy., Front Panel			
	2	2-D	15C12903W01	Cover, Top			
○	4	4-G	15C12902W15	Cover, Rear			
△	4	4-G	15C12902W11	Cover, Rear			
●	4	4-G	15C12902W13	Cover, Rear			
▲	4	4-G	15C12902W13	Cover, Rear			
	5	3-F	43T16093W01	Support, Cord			
○	6	5-D	75A96563F03	Pad, Trannleg			
△	6	5-D	75A96563F03	Pad, Trannleg			
●	6	5-D	75A96563F02	Pad, Trannleg			
▲	6	5-D	75A96563F02	Pad, Trannleg			
	7	4-D	07A91046F01	Support, P.C.Board			
○	8	1-C	03S44205G49	Screw, Bind (M4×8)			
△	9		03S82672F33	Screw, Bind (M3×8)			
●	9		03S71031F04	Screw, Bind (M3×8)			
▲	9		03S71031F04	Screw, Bind (M3×8)			
	9		03S82672F33	Screw, Bind (M3×8)			
	10	5-D	03S71677F25	Screw, Bind (M4×12)			
	11	2-B	47A12896W02	Shaft, Power			
	12	2-C	43T25269W01	Pushing, Rubber			
	14	2-C	03A83946F01	Screw, Special (M4×35)			
	15	2-C	04S40071G14	Washer, Spring (M4.1)			
	16	2-C	04S40070G59	Washer, Flat (M4.1)			
	17		03S71031F02	Screw, Bind (M2.6×8)			
	18	1-A	03S71677F38	Screw, Flange (M3×6)			
	21	3-A	03S72235F19	Screw, Bind (M3×6)			
○	24	1-B	09T51410F10	Holder, Fuse			
△	24	1-B	09T51410F01	Holder, Fuse			
○	27	4-A	01T15318W02	Assy., Lug Wire (1P)			
△	27	4-A	01T15318W01	Assy., Lug Wire (1P)			
●	27	4-A	01T15318W01	Assy., Lug Wire (1P)			
▲	27	4-A	01T15318W01	Assy., Lug Wire (1P)			
	30	4-C	07A83876F01	Support, FL			
	31	4-C	43A61758F01	Spacer, Lamp			
	32		03S40036U01	Screw, W/Washer (M4×8)			
	33	2-B	64B10696W01	Panel, Tray			
	34	5-A	36A55234F04	Knob, Control			
	35		03S82672F33	Screw, Bind (M3×8)			
	36	2-C	03S13049W04	Screw, Bind (M3×33)			
	37	5-C	75S12196W21	Cushion, Rubber			

Notes : ○ : With Safety Regulations Version (AD), △ : Without Safety Regulations Version (EK)

● : U.S.A. Version (UZ), ▲ : Canada Version (UQ), Others : Common.

Exploded View (CD Mechanism)



CD Mechanism Assembly Parts

NOTE : The parts without part numbers are not supplied.

Symbol No.	Index	Part No.	Description	Symbol No.	Index	Part No.	Description
201	2-B	01C82391F02	Assy., Main Chassis				
202	2-C	42A81427F02	Belt, Drive				
203	5-B	43A81407F01	Bush., Damper				
204	5-B	75A81411F01	Rubber, Damper				
205	5-B	41A81428F03	Spring, Compression				
206	5-B	41A81428F05	Spring, Compression				
207	5-B	03S40012G47	Screw, Pan (M2.6 x 8)				
208	2-C	03D40014G19	Screw, W / Washer (M2.6 x 5)				
209	3-B	45A81434F01	Arm, Switch				
212	5-C	03S44205G30	Screw, Pan (M2.6 x 4)				
213	3-B	49B81417F01	Disc, Guide				
214	4-B	44A81401F01	Gear, Worm Wheel				
215	4-B	04B41345P02	Washer, Lock (M1.7)				
216	3-B	49B81414F01	Disc, Table				
217	5-C	03D40014G62	Screw, W / Washer (M2 x 3)				
219	3-C	47A81426F01	Shaft, Head				
220	3-C	47A81426F02	Shaft, Head				
221	4-C	44A96257F01	Worm, Drive				
222	2-C	49A81397F01	Pulley, Loading Motor				
223	4-C	03S94385F23	Screw, Pan (M2 x 5)				
224	3-B	03D40014G07	Screw, W / Washer (M2 x 4)				
225	5-C	43A41182P02	Ball, Steel				
226	2-B	01C10716W01	Assy., Tray Disc				
228	1-C	45C81418F04	Arm, Clamp				
229	1-B	07A81413F02	Bracket, Magnet				
230	1-B	49A81403F01	Wheel, Clamp				
231	1-B	59T81430F01	Magnet				
232	1-C	41B81429F02	Spring, Extension				
233	1-B	03S70494F08	Screw, Bind (M2 x 5)				
234	5-C	01T92483F01	Assy., Lug Wire (1P)				
235	4-B	01A82323F01	Assy., Rack				
236	2-C	75S12196W06	Cushion, Rubber				
237	4-B	03S70494F01	Screw, Bind (M2 x 5)				
238	3-B	41A81428F01	Spring, Compression				

Packing Assembly Parts List

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
101	56S10005W96	Carton, Packing			
102	56D13765W01	Tray, Packing (L)			
103	56D13765W02	Tray, Packing (R)			
104	56B40230G23	Sack, Polyethylene			
○ 105-1	68P21552W24	Owner's Manual			
△ 105-1	68P21552W24	Owner's Manual			
● 105-1	68P21552W25	Owner's Manual			
▲ 105-1	68P21552W24	Owner's Manual			
105-2	28T70621F03	Plug, Output			
105-3	01T82091F01	Assy., Mini Plug Cord			
or	28T15332W04	Cord, Control			
105-4	01T90545F01	Unit, Remote Control			
105-5	60T81756F01	Battery, UM4UC			

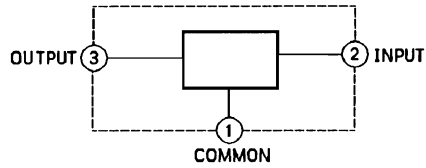
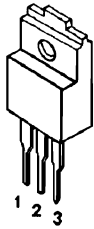
Notes : ○ : With Safety Regulations Version (AD), △ : Without Safety Regulations Version (EK)
 ● : U.S.A. Version (UZ), ▲ : Canada Version (UQ), Others : Common.

Packing Method View

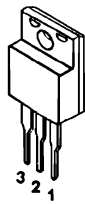
For Packing Method View of this Service Manual,
 refer to the Service Manual · DZ-122 (68P31568W02).

Semi - Conductor Lead Identifications

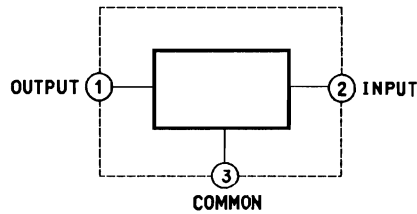
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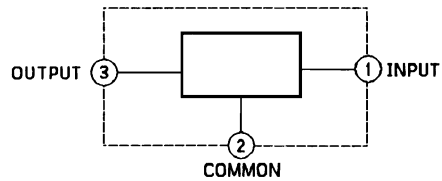
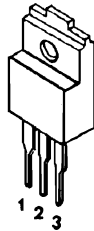
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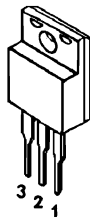
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3: COMMON



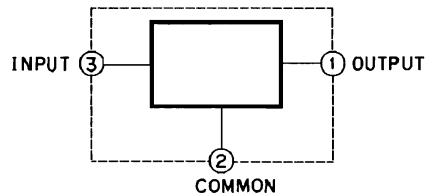
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NJM7805FA : IC1102 (△, ●, ▲)

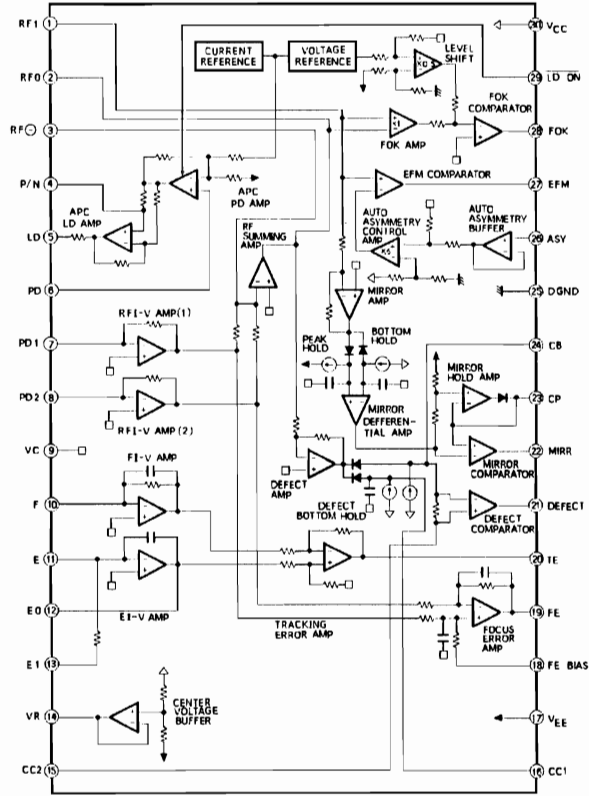
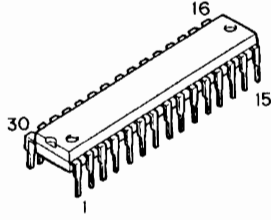


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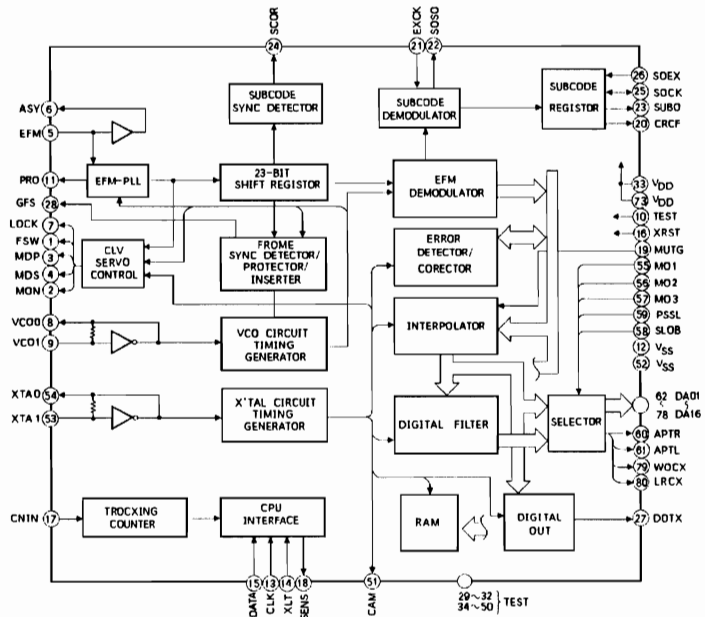
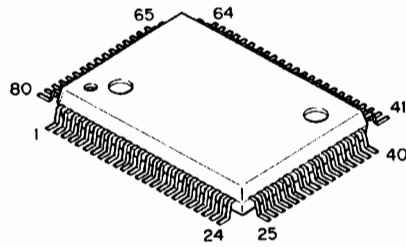


Notes : ○ : With Safety Regulations Version (AD), △ : Without Safety Regulations Version (EK)
● : U.S.A. Version (UZ), ▲ : Canada Version (UQ), Others : Common.

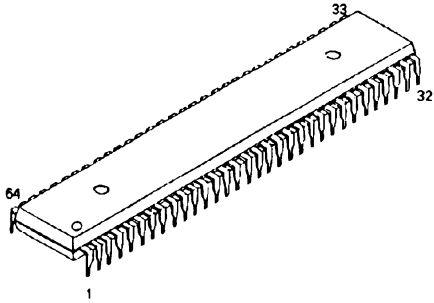
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CXD1167QZ : IC1202

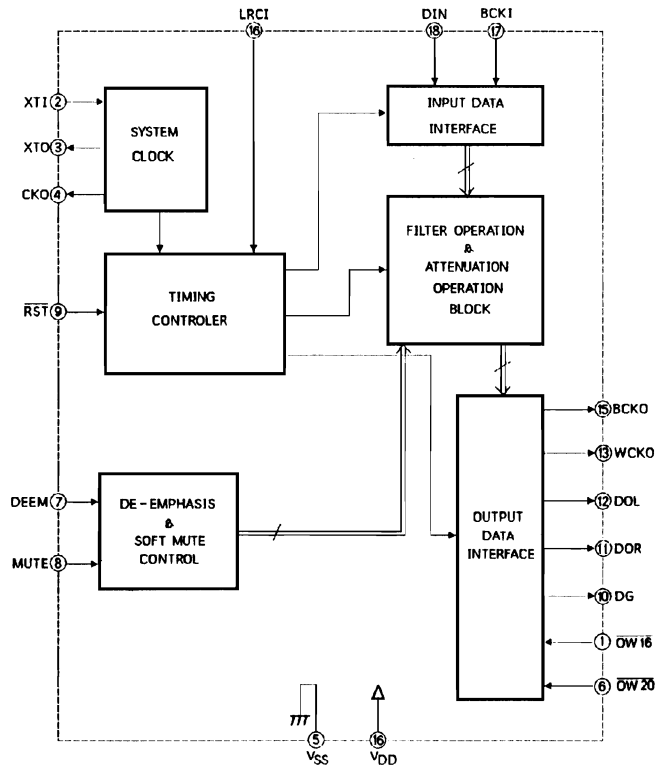
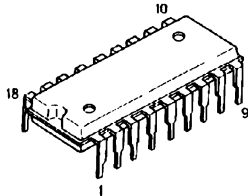


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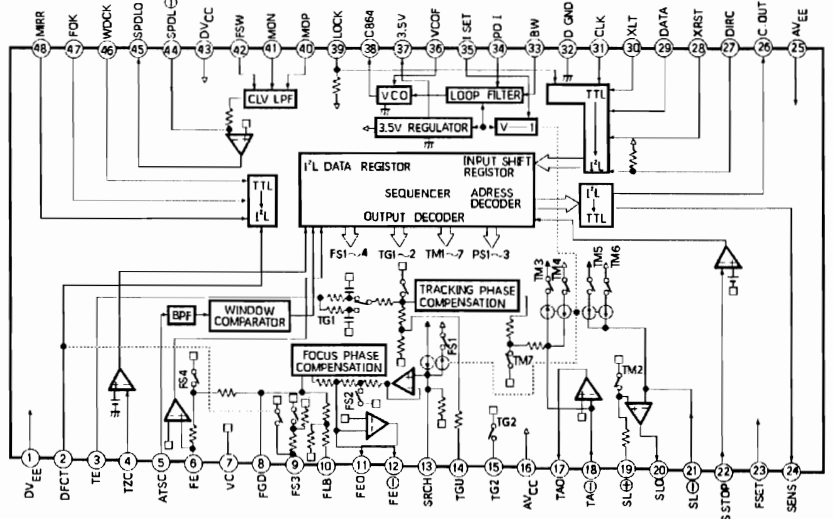
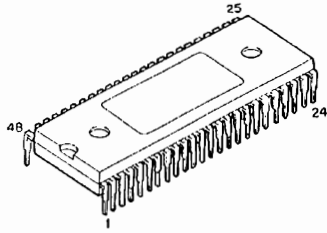


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1	SEG 4	I/O	23	/LDON	I/O	45	KRT 1	I
2	SEG 3	I/O	24	XRST	I/O	46	KRT 0	I
3	SEG 2	I/O	25	XLT	I/O	47	RST	I
4	SEG 1	I/O	26	DATA	I/O	48	OSC 2	I/O
5	SEG 0	I/O	27	CLK	I/O	49	OSC 1	I/O
6	5G	I/O	28	INTO	I/O	50	GND	—
7	4G	I/O	29	SCOR	I/O	51	CL 1	I/O
8	3G	I/O	30	/RMC	I/O	52	NC	—
9	2G	I/O	31	NC	—	53	TST	I
10	1G	I/O	32	VCC	—	54	SEGF	I/O
11	NC	—	33	SQCK	I/O	55	SEGE	I/O
12	NC	—	34	SUBQ	I/O	56	SEGD	I/O
13	NC	—	35	FOK	I/O	57	SEGC	I/O
14	NC	—	36	NC	—	58	SEGB	I/O
15	NC	—	37	SENS	I/O	59	SEGA	I/O
16	DISP	I/O	38	NC	—	60	SEG 9	I/O
17	EMPH	I/O	39	MUTG	I/O	61	SEG 8	I/O
18	GFS	I	40	GND	—	62	SEG 7	I/O
19	VFDP	I	41	CLOS	I/O	63	SEG 6	I/O
20	AMUTE	I/O	42	OPEN	I/O	64	SEG 5	I/O
21	CLSSW	I/O	43	SWRT	I			
22	OPNSW	I/O	44	KRT 2	I			

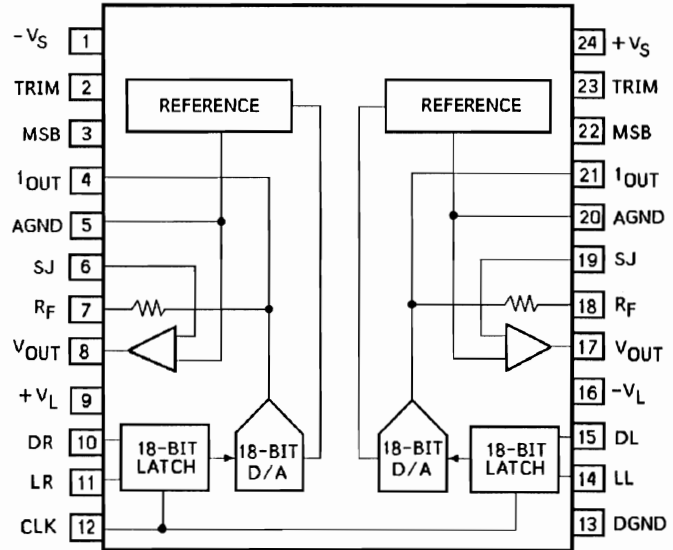
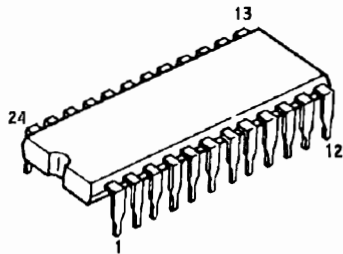
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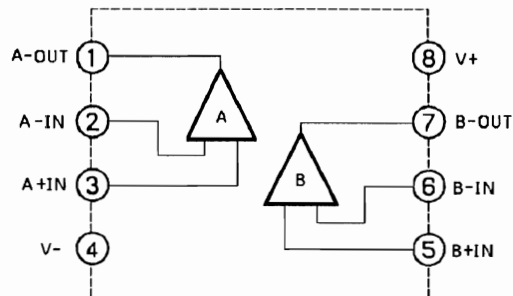
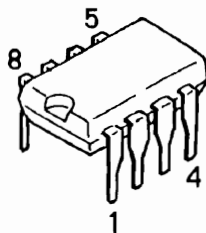


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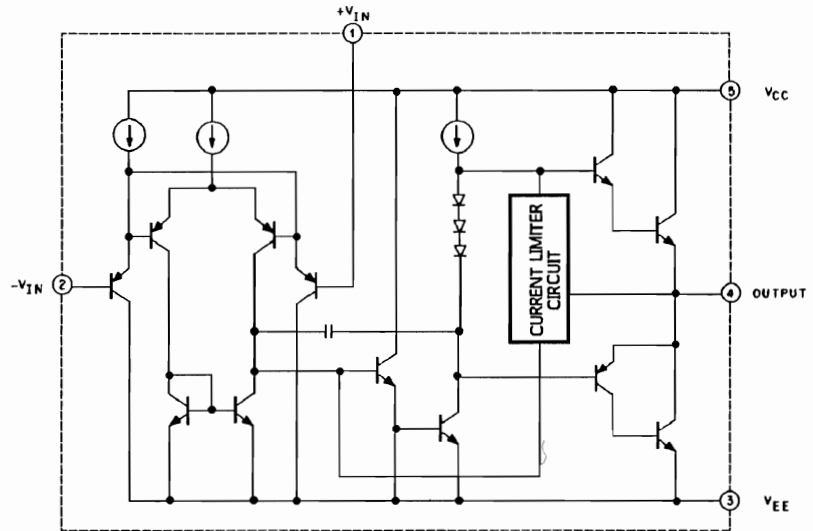
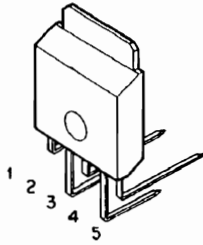


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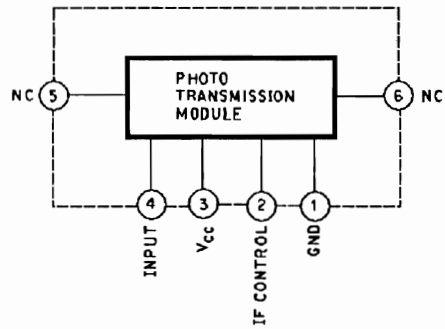
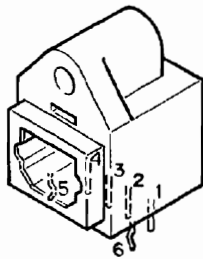
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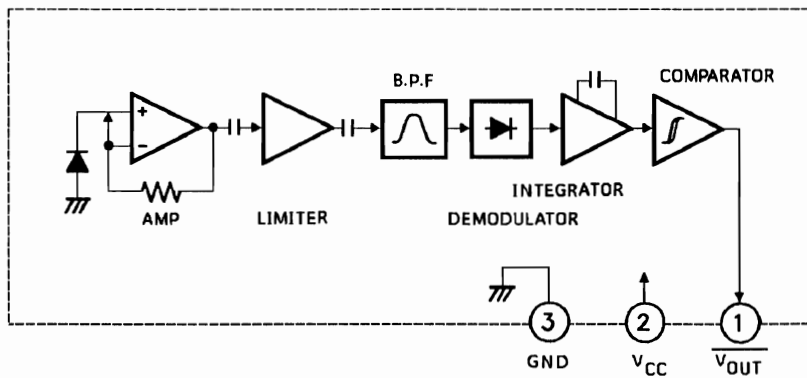
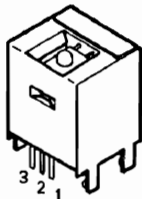
LA6501 : IC1501



TOTX176 : IC1801



GP1U521 }
GP1U521X } : IC9101



- inside back cover -



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