

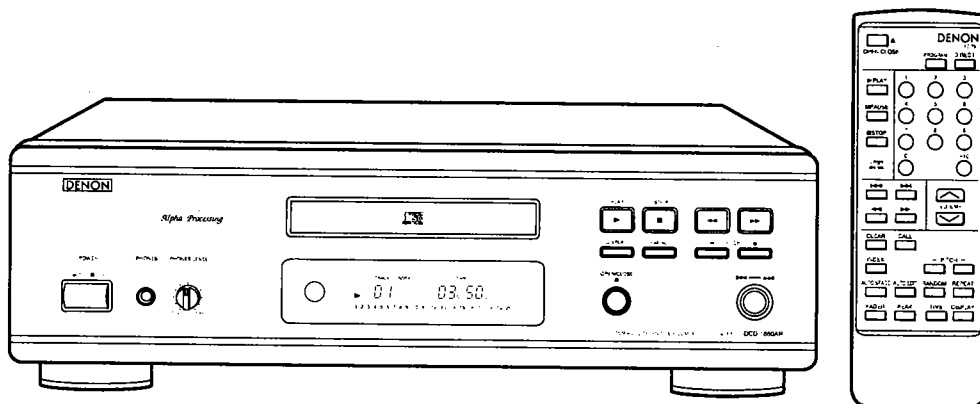
DENON

Hi-Fi Component

SERVICE MANUAL

MODEL DCD-1550AR/ DCD-1880AR

STEREO CD PLAYER



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● In order to explain clearly, some illustrations using in this service manual may be slightly different from the actual set.

NIPPON COLUMBIA CO., LTD.

IMPORTANT TO SAFETY

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

1. **Handle the power supply cord carefully**
Do not damage or deform the power supply cord. If it is damaged or deformed, it may cause electric shock or malfunction when used. When removing from wall outlet, be sure to remove by holding the plug attachment and not by pulling the cord.
2. **Do not open the top cover**
In order to prevent electric shock, do not open the top cover. If problems occur, contact your DENON DEALER.
3. **Do not place anything inside**
Do not place metal objects or spill liquid inside the CD player. Electric shock or malfunction may result.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

安全注意事項

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

注意：為減少觸電危險，切勿折下機殼（或機背）。機身內並無用戶修理用零件。請交由專業修理人員修理本機。

三角形內有箭頭的閃電符號旨在提醒用戶，本產品機殼內有未經絕緣的“危險電壓”，其幅度足以使人觸電而發生危險。

三角形內加感嘆號旨在提醒用戶，有重要的操作與維修說明書配合本機。

警告：為減少著火或觸電危險，切勿讓本機受雨淋濕或受潮。

注意：

為防觸電，切勿將此（有極性的）插頭隨意配用延長電線、插座或其它電源插口，除非各插腳能完全插到底而不露出金屬部分。

Please, record and retain the Model name and serial number of your set shown on the rating label.

Model No. DCD-1880AR/1550AR Serial No. _____

NOTE:

This CD player uses the semiconductor laser. To allow you to enjoy music at a stable operation, it is recommended to use this in a room of 5°C (41°F) — 35°C (95°F).

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT



ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSÅFBRYDERE ER UDE AF FUNKTION. UNGDÅ UDSÆTTELSE FOR STRÅLING.

VAROITUSI: LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTA AALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

WARNING: OM APPARATEN ANVÄNDS PÅ ANNAT SÄTT ÄN I DENNA BRUKSANVISNING SPECIFICERATS, KAN ANVÄNDAREN UTSÄTTAS FÖR OSYNLIG LASERSTRÅLNING SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.

重要安全事項

警告：
為防著火或觸電，切勿讓本機遭雨淋濕或受潮。

注意：

1. **小心處理電源引線**
勿使電源引線損壞或變形。若有損壞或變形，使用時即易造成觸電或失靈。從牆壁插座拔下時一定要抓住插頭部分拔，切勿拖拉電線。
2. **切勿拆開頂蓋**
為防觸電，切勿拆開頂蓋。有問題應請教DENON經銷商。
3. **勿在機內放任何物件**
勿在機內放置金屬物體或潑灑入液體。否則會觸電或失靈。

注意：本雷射唱盤使用半導體激光器。為了使你能在平穩操作狀態下欣賞音樂，本機最好在室溫 5°C (41°F) 至 35°C (95°F) 之間使用。

NOTE ON USE

<ul style="list-style-type: none"> • Avoid high temperatures. Allow for sufficient heat dispersion when installed on a rack. 	<ul style="list-style-type: none"> • Keep the set free from moisture, water, and dust. 	<ul style="list-style-type: none"> • Do not let foreign objects in the set.
<ul style="list-style-type: none"> • Unplug the power cord when not using the set for long periods of time. 	<ul style="list-style-type: none"> • Do not let insecticides, benzene, and thinner come in contact with the set. 	
<ul style="list-style-type: none"> • Handle the power cord carefully. Hold the plug when unplugging the cord. 	<p><small>* (For sets with ventilation holes)</small></p> <ul style="list-style-type: none"> • Do not obstruct the ventilation holes. 	<ul style="list-style-type: none"> • Never disassemble or modify the set in any way.

使用注意事項

<p>防止高溫</p> <ul style="list-style-type: none"> • 勿將本機放置於受烈日曬曬或靠近發熱器材的位置。 	<p>注意濕氣、水和塵</p> <ul style="list-style-type: none"> • 勿將本機放置於濕度很高或多塵的位置。花瓶或其它有水的物件均不宜擺在本機上方。 	<p>勿讓雜物掉入機內</p> <ul style="list-style-type: none"> • 特別要留意勿讓針、髮夾、硬幣等進入本機。
<p>機架/機箱安裝注意</p> <ul style="list-style-type: none"> • 避免將本機裝於密封的機架內。 • 裝於機架或機箱時，要配備足夠大的通風孔，以加強散熱。 	<p>當你外出時</p> <ul style="list-style-type: none"> • 長時間不用本機時，例如外出旅行時，須將插頭拔離電源插座。 	<p>保護機殼</p> <ul style="list-style-type: none"> • 避免在本機附近噴灑殺蟲劑，勿用汽油天拿水或其它溶劑洗機箱，因這類液體易引起品成顏色改變。擦機要用軟布，在化學處理過的布擦機時請小心遵守說明書規定。
<p>留意電源線</p> <ul style="list-style-type: none"> • 從插座拔出插頭時切勿按電源線，應抓住插頭將其拔出。 	<p>勿堵塞機殼的通風孔</p> <ul style="list-style-type: none"> • 堵塞通風孔會損壞本機。 • 各通風孔對本機內部散熱異常重要。必須特別留意，若通風孔有物件阻擋，就會使機內溫度升得很高。 	<p>勿打開機殼</p> <ul style="list-style-type: none"> • 打開機殼頂蓋或底板，及伸手入機殼內部是危險的。切勿打開機殼。如果本機表現有不受管時，宜立刻拔下電源插頭，再與購入本機的商店或鄰近經銷商聯絡。

Thank you for purchasing this DENON Compact Disc Player. Please read the operating instructions thoroughly in order to acquaint yourself with the CD player and achieve maximum satisfaction from it.

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Please check to make sure the following items are included with the main unit in the carton:

(1) Operating Instructions	1
(2) Connection Cord	1
(3) Remote Control Unit RC-251	1
(4) R6P AA Dry Cell Battery	2
(5) AC Cord	1
(6) Service Station List	1

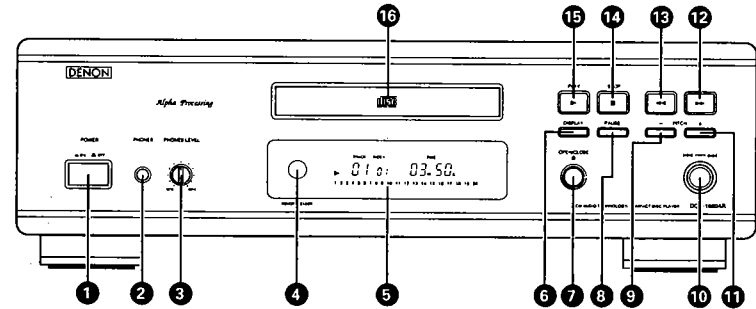
FEATURES

The DCD-1880AR/1550AR is a CD player which uses DENON's unique λ SLC (Super Linear Converter) for eliminating loss of sound quality in the PCM playback section to offer playback of the same sounds as those in the studio or hall where the CD was recorded. In addition, the use of carefully selected parts makes this a high performance CD player reproducing the original sound field with rich musical expression.

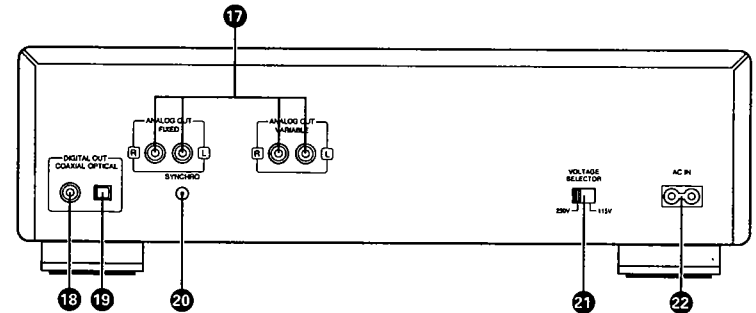
- Ultimate signal reproduction thanks to the alpha processor**
The high speed interpolation operations of the alpha processor reproduce the LSB (lowest significant bit) data lost from the disc upon recording to provide a smooth waveform. The audible effects of alpha processing are particularly great during playback at low levels at the instant the sound fades out.
- High precision D/A converter**
The DCD-1880AR/1550AR uses an λ SLC (lambda super linear converter) that theoretically eliminates all zero-cross distortion, the main cause of reduced sound quality. This in combination with the multi-bit high precision 20-bit D/A converter increases sound reproduction performance, particularly at low volumes.
- Dual coil transformer**
To preserve the purity of the sound, separate power transformer coils are used for the digital and audio sections, thereby greatly reducing interference from the digital section on the audio section.
- Digital Output (OPTICAL/COAXIAL)**
The data on the compact disc is output in digital format, so the music can be reproduced on an external digital processor or MD Recorder.

NAMES AND FUNCTIONS OF PARTS

FRONT PANEL (The DCD-1550AR FRONT PANEL model name inscription shows DCD-1550AR.)



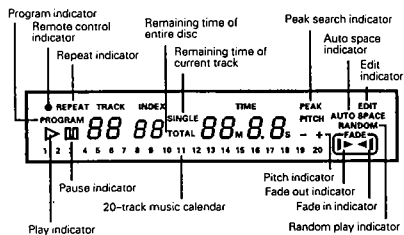
REAR PANEL



- Power Operation Button (POWER)**
 - When the power is turned on, "P" appears on the TIME display, and if no disc is loaded, "00" appears on the digital display.
 - If the power is turned on with a disc already loaded, the total number of tracks on the disc is displayed on the TRACK NO. display, the total time is displayed on the TIME display, the numbers on the music calendar light up to the number of tracks on the disc, and playback begins.
- Headphones Jack (PHONES)**
 - For private listening, you can connect your headphones to this jack. Do not raise the volume level too much when listening through headphones. (Headphones are sold separately.)
- Volume Control (PHONES LEVEL)**
 - Use this to adjust the output level (VOLUME) of the headphones.
- Remote Control Sensor (REMOTE SENSOR)**
 - This sensor receives the infrared light transmitted from the wireless remote control unit.
 - For remote control, point the supplied remote control unit RC-251 towards this sensor.
 - When a signal is transmitted from the remote control unit, the remote control indicator in the display 9 will light up briefly.

5 Display

- The digital display is divided into sections, such as displays for track number, index, playback time and calendar, as shown below.



6 Display Button (DISPLAY)

- Press this button to change the brightness of the display.
- Press once to make the display 2/3 as bright as normal.
- Press again to make the display 1/3 as bright as normal.
- Press once again to turn the entire display off during playback and all but the track number off in any other mode.

7 Open / Close Button (OPEN / CLOSE)

- The disc holder is opened and closed by pressing this button.
- Press this button once to open the disc holder, and once again to close it.
- When the disc holder is closed with a disc loaded, the disc will rotate for a couple of seconds while the disc contents are read. The number of tracks and total playback time on the disc are then displayed on the digital display.

8 Pause Button (PAUSE)

- Press this button to stop playback temporarily.
- If this button is pressed during playback, playback is stopped temporarily, the \triangleright indicator goes out and the Π indicator lights.
- Press this button or the play button (\blacktriangleright) again to continue playback.

9 Pitch - Button (PITCH -)

- Press this button to slow down the playing speed. (Refer to page 13.)

10 Jog Dial (JOG DIAL)

- Turn this to move to the beginning of the desired track. (Refer to page 8, 9.)

11 Pitch + Button (PITCH +)

- Press this button to make the playing speed faster. (Refer to page 13.)

12 Manual Search Forward Button (FF)

- Press this button during playback for fast forward search. As long as the button is kept pressed, music signals are played back faster than normal.
- Pressing this button when the pause mode is engaged, you can quickly forward the pickup to a desired position, three times faster compared to manual forward search during playback. During this time, no sound is heard.

13 Manual Search Reverse Button (RR)

- Press this button during playback for fast reverse search. As long as the button is kept pressed, music signals are played back faster than normal.
- Pressing this button when the pause mode is engaged, you can quickly reverse the pickup to a desired position, three times faster compared to manual reverse search during playback. During this time, no sound is heard.

14 Stop Button (STOP)

- Press this button to stop playback. The disc will stop rotating, and the number of tracks and total playing time of the disc are displayed on the TRACK NO. and TIME displays, respectively.
- In case programmed playback is engaged when this button is pressed, the remaining tracks and total playing time of the program are displayed.

15 Play Button (PLAY)

- Press this button to start playback of a disc.
- When this button is pressed, \triangleright is displayed, and the track number being played is displayed together with the elapsed playback time of the track.
- Tracks are shown on the calendar display. Once a track has been played, the corresponding track number goes out on the calendar display.

16 Disc Holder

- Place the disc on the disc holder with the label facing up.
- Use the open/close button (OPEN/CLOSE) to open and close the disc holder.
- The disc holder may also be closed by pressing the play button (PLAY) or pause button (PAUSE).

17 Output Terminal (FIXED-VARIABLE)

- Connect these jacks to the input jacks on your amplifier. (Refer to page 7 for details on the connections.)
- Fixed Output Jacks (FIXED):** These jacks output a signal of fixed volume level.
- Variable Output Jacks (VARIABLE):** These jacks output a signal of a volume level which is varied by the remote control volume button. When the power is switched on, the output level is automatically set to -10 dB. (" -10 " is displayed for 2 seconds in the TIME section of the display panel.)

18 Digital Output Jack (COAXIAL)

- This jack outputs digital data.
- We recommend using a 75 Ω /ohm pin cord (available in stores) for connections.

19 Digital Output Jack (OPTICAL)

- Digital data is output in optical form from this jack.

20 SYNCHRO JACK

- To make a synchronized recording, this jack must be connected to the SYNCHRO jack of the deck with a connection cord. (See page 7 for connections.)

21 Voltage Selector Switch (VOLTAGE SELECTOR)

- Do not twist the VOLTAGE SELECTOR switch with excessive force as this may cause damage.
- If the VOLTAGE SELECTOR switch does not turn smoothly, please contact a qualified serviceman.

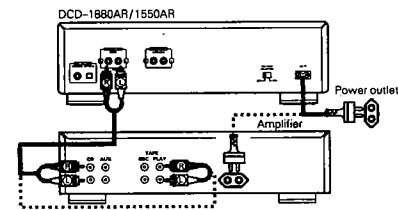
22 AC INLET

- Connect the included AC cord here.

CONNECTION

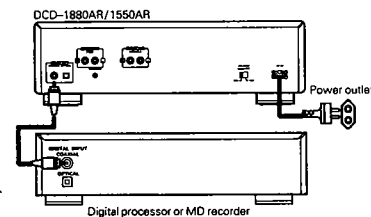
(1) Connecting the Output Terminal (FIXED-VARIABLE)

- Use the included pin cords to connect the left (L) and right (R) output terminal (FIXED-VARIABLE) of the DCD-1880AR/1550AR to the CD, AUX, or TAPE PLAY left (L) and right (R) input jacks of the amplifier. There are two types of output jacks, one of the variable type and one of the fixed type. Be sure to use the variable outputs if you want to be able to control the output level from the DCD-1880AR/1550AR.



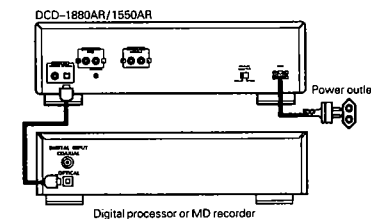
(2) Connecting the Digital Output Jack (COAXIAL)

- Use a 75 Ω /ohm pin cord to connect the digital output jack (COAXIAL) of the DCD-1880AR/1550AR to the digital input jack (COAXIAL) on a digital processor or a MD recorder, available in stores.



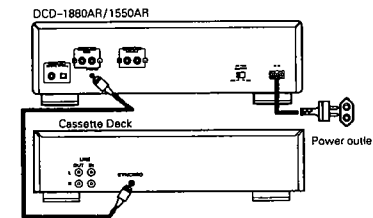
(3) Connections to the Digital Optical Output Jack (OPTICAL)

- Use an optical fiber cable to connect the digital optical output jack on the DCD-1880AR/1550AR to the optical input jack on a digital processor or a MD recorder.



(4) SYNCHRO Jack Connections

- Connect the SYNCHRO jack with a DENON cassette deck which is equipped with a SYNCHRO jack, then make a synchronized recording. Use the connection cord supplied with the cassette deck. To make use of this function, also connect the output jacks and make the settings so that a recording can be made from the CD player to the cassette deck.



Connection Precautions

- Before proceeding with connections or disconnections of cables and power cords, be sure to turn all system components off.
- Ensure that all cables are connected properly to the L (left) and R (right) jacks.
- Insert plugs fully into the terminals.
- Connect the output jacks to the amplifier CD, AUX or TAPE PLAY input jacks.

OPENING AND CLOSING THE DISC HOLDER AND LOADING A DISC

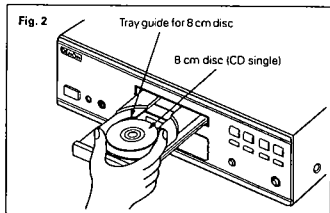
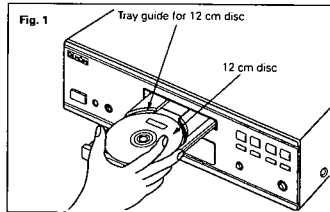
Opening and closing the disc holder (This operation only works while the power is on.)

- Press the power operation button (POWER) to turn on the power.
- Press the open/close button (OPEN/CLOSE).

How to load a disc

- Make sure the disc holder is completely open.
- Hold the disc by the edges and place it on the disc tray. (Do not touch the signal surface, i.e., the glossy side.)
- When using 12 cm. diameter discs, make sure the outer edge matches the tray guide circumference (Fig. 1), and when using CD singles (8 cm. diameter) match the outer edge with the inner tray guide circumference. (Fig. 2)
- Press the open/close button (OPEN/CLOSE) to close the disc holder.

- When the disc holder is closed, the disc is read and after a few seconds the number of tracks and total playing time are displayed on the TRACK NO. and TIME displays, respectively.
- When the disc holder is open and a disc is loaded, you may also press the play (▶) button or pause (⏸) button to close the disc holder. If the play button (▶) is pressed, playback will start immediately upon the disc contents having been read.

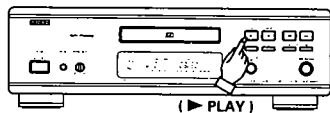


Caution:

- If your finger should get caught in the disc holder when it closes, press the open/close button (⏏) OPEN/CLOSE.
- Do not place any foreign objects on the disc tray, and do not place more than one disc on the tray at a time. Otherwise malfunction may occur.
- Do not push in the disc tray manually when the power is off as this may cause malfunction and damage the CD player.

NORMAL CD PLAYBACK

(1) Starting Playback



1. Turn the power operation button on and load the disc.
 2. Press the play button (▶) (PLAY).
- The number of the track currently playing, the index number, and the elapsed time, etc., are displayed.

(2) Stopping Playback



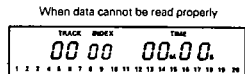
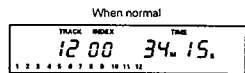
1. Press the stop button (■) (STOP).
- The stop mode is set automatically once all tracks on the disc are played.

NOTES:

- If no disc is loaded or if the disc is loaded upside-down, the track number, index, and time displays will all read zero, and the entire calendar will light.

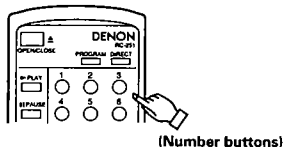


- If the information at the innermost side of the disc cannot be read properly due to dirt or scratches, the display will be as shown below, and the number of tracks and remaining time per track will not be displayed. Also, the search operation may take longer than usual.



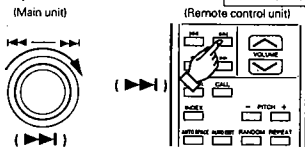
ADVANCED CD PLAYBACK

(1) Playing a Specific Track **Direct Search**
(Remote control only)

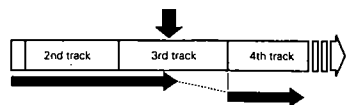


1. Use the number buttons and the +10 button to input the number of the desired track.
For example, to play the fourth track press [4], and to play the 12th track press [+10] and [2]. The beginning of the track is found and playback starts.

(2) Moving to Following Tracks During Playback **Automatic Search**

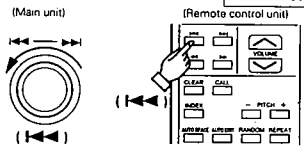


Turn the jog dial on the main unit clockwise (↻) or press the automatic search forward button (▶▶) on the remote control unit.

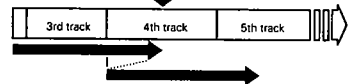


1. Either turn the jog dial on the main unit clockwise (↻) or press the automatic search forward button (▶▶) on the remote control unit.
- During the search operation, turn the jog dial on the main unit clockwise (↻) again or press the automatic search forward button (▶▶) on the remote control unit again to move further on to the beginning of the following track.

(3) Returning to the Beginning of the Current Track **Automatic Search**



Turn the jog dial on the main unit counterclockwise (↺) or press the automatic search reverse button (◀◀) on the remote control unit.

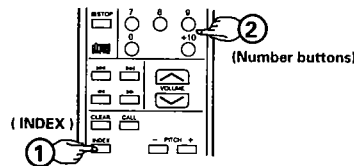


1. Either turn the jog dial on the main unit counterclockwise (↺) or press the automatic search reverse button (◀◀) on the remote control unit.

- During the search operation, turn the jog dial on the main unit counterclockwise (↺) again or press the automatic search reverse button (◀◀) on the remote control unit again to move further back to the beginning of previous track.

(4) Finding Sections Within a Track **Index Search**
(Remote control only)

- Use this function to start playback from certain sections within a track divided by index numbers.



1. Press the INDEX button. "--" appears at the TRACK NO. display.
2. Use the number buttons to specify the track number.
"--" now appears at the INDEX display. Input the desired index number. Playback starts from there.
For example, to start listening from index number 2 on track 3; press INDEX, 3 and 2.

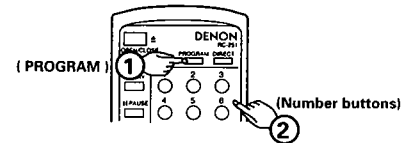
Indexes

- Indexes are numbers which are assigned to sections within a track. Check the disc's explanatory notes for the index numbers.
- If you make an index search for an index number that is not on the disc, playback will start from the last index number on the track.

(5) Playing Specific Tracks in a Specific Order **Programmed Play**

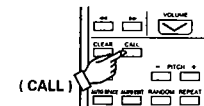
- With this function, you can choose any of the tracks on the disc and program them to play in any order.
- Programming is possible with the disc holder open.
- Up to 20 tracks can be programmed.
- The programmed tracks are shown on the calendar.

(1) Programming (Remote control only)



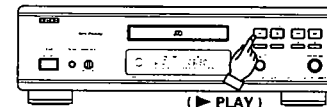
- The PROGRAM indicator lights when the program button (PROGRAM) is pressed. Next, use the number buttons and the +10 button to program the tracks.
To program tracks 3, 12, and 7, for example, press [PROGRAM], [3], [+10], [2] and [7].
The track number lights on the calendar each time a track is programmed. The number of tracks programmed is displayed at the index display, and the total playing time for the programmed tracks is indicated at the time display. After the tracks are programmed, the total number of programmed tracks is displayed at the track number display, and the total playing time for the programmed tracks is indicated at the time display.

(2) Checking the Programmed Tracks (Remote control only)



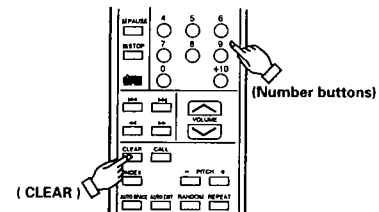
- Press the CALL button. The programmed tracks are displayed in order on the TRACK NO. display each time the CALL button is pressed.

(3) Playing the Programmed Tracks



- Press the ▶ button to play the tracks in the programmed order.

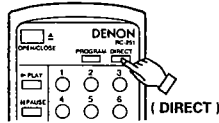
(4) Correcting Programs (Remote control only)



- To correct a programmed track, first press the CLEAR button, then program the correct track.
- The last track programmed is replaced with the correct track.
- To clear a track in the middle of the program, use the CALL button to call out that track, then press the CLEAR button to clear it from the program.

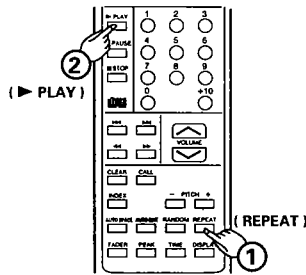
(5) Clearing the Entire Program (Remote control only)

- Press the DIRECT button to clear the entire program. The entire program can also be cleared by pressing the OPEN/CLOSE button.
- If the DIRECT button is pressed during programmed playback, the program mode is cleared and normal playback continues from that track on.



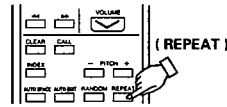
- NOTES:**
- If the programming operation is performed in the play or pause mode, the current track is programmed as the first track in the program. Other programs can be added, but the number of programmed tracks and playing time will not be displayed.
 - Direct search is not possible during programmed playback. Pressing the number buttons adds tracks to the end of the program.
 - Programming is also possible when the disc holder is open. A track number greater than the number of tracks on the disc can be set in the program, but it will automatically be cleared from the program before playback starts.
 - The remaining time per track can only be displayed for the first 20 tracks on the disc.
 - The total program time and remaining program time as well will not be displayed if tracks numbers greater than 20 are programmed.

(6) Playing All Tracks Repeatedly (Repeat Playback) (Remote control only)

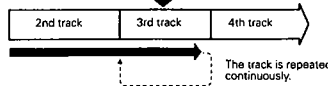


- Press the REPEAT button. The REPEAT indicator lights.
- The operation is the same whether button ① or ② is pressed first.
- The one-track repeat mode is set if the REPEAT button is pressed again during repeat playback.
- The all-track repeat mode is set even if the REPEAT button is pressed during playback.
- To cancel the repeat mode, press the REPEAT button twice.
- If the REPEAT button is pressed during programmed playback, the tracks are repeated in the programmed order.

(7) Playing a Single Track Repeatedly (One-track Repeat) (Remote control only)

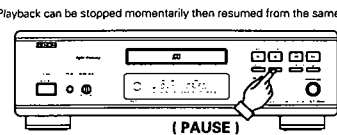


Press the REPEAT button twice

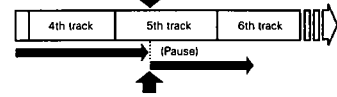


- Press this button when you hear a track you want to play repeatedly.
- Press the REPEAT button twice during playback. The REPEAT indicator lights, and if you are at track number 20 or less, that number appears on the calendar display and that track is played repeatedly.
- For track numbers 21 and above, the track number is not displayed on the calendar display but the one-track repeat mode will function.
- If the REPEAT button is pressed twice in the stop mode, track number 1 appears on the calendar display and one-track repeat is possible. Press the PLAY button to start playback.
- Press the REPEAT button once again to cancel the one-track repeat mode. The display and playback return to normal.

(8) Stopping Momentarily During Playback (Pause)



① Press the pause button (PAUSE).

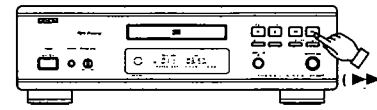


- ② Press the play button (▶ PLAY) or the pause button (⏸ PAUSE).
- To resume playback, press either the play button (▶ PLAY) or the pause button (⏸ PAUSE).

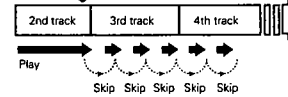
(9) Finding a Track While Listening at High Speed (Manual Search)

- You can skip through the disc while listening at high speed. This function comes in handy for finding a certain part in the middle of a long track and starting playback from there.
- Once you find the desired position using the manual search operation, release the manual search forward button (▶▶) or manual search reverse button (◀◀) to start normal playback.

(1) Manual Search Forward

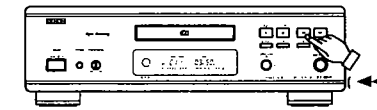


Hold in the manual search forward button (▶▶).

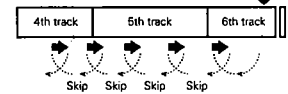


- ① During playback, press and hold in the manual search forward button (▶▶) to skip through the disc while listening at high speed.
- The number of the track being skipped through, the index, number, and the elapsed time for that track are indicated on the display window.
- In the pause mode, the disc moves at about three times the speed as during the play mode, but no sound is heard.
- When the end of the last track is reached while pressing the manual search forward button (▶▶), "JJ" appears on the display window and the manual search operation is stopped. To resume playback, press the manual search reverse button (◀◀), then do another operation once the "JJ" disappears from the display.

(2) Manual Search Reverse



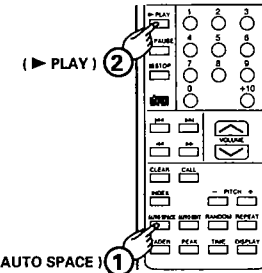
Hold in the manual search reverse button (◀◀).



- ① During playback, press and hold in the manual search reverse button (◀◀) to skip through the disc while listening at high speed.
- The display is the same as during the manual search forward operation.
- In the pause mode, the disc moves at about three times the speed as during the play mode, but no sound is heard.
- When the beginning of the first track is reached while pressing the manual search reverse button (◀◀), "CC" appears on the display window and the manual search operation is stopped. To resume playback, press the manual search forward button (▶▶), then do another operation once the "CC" disappears from the display.

(10) Inserting Blanks Between Tracks (Auto Space) (Remote control only)

- This function inserts blank spaces between tracks, making editing easier.

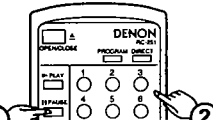


- ① The AUTO SPACE indicator lights when the auto space button is pressed.
- ② Press the play button (▶ PLAY) to start playback. When the end of a track is reached, a blank space of approximately 4 seconds is inserted before the beginning of the next track.
- ③ Press the auto space button again to turn the auto space function off.

(11) Pausing At the Beginning of a Track After Searching (Pause)

(1) Direct Search (Remote control only)

- Pausing at the beginning of a track found with the direct search operation comes in handy.

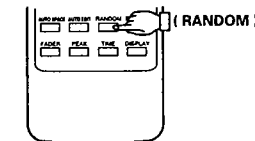


(2) Program Search (Remote control only)

- Press the pause button (⏸ PAUSE) after programming tracks. The beginning of the first track in the program is found and the disc is paused there.

(12) Playing Tracks in Random Order (Random Playback) (Remote control only)

- All of the tracks recorded on the disc can be played once in random order.



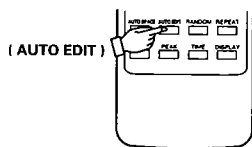
- When the random button (RANDOM) is pressed, the RANDOM indicator lights and random playback starts automatically.
- If the random button (RANDOM) is pressed when tracks are programmed, only the programmed tracks are played at random.
- If the random button (RANDOM) is pressed when the repeat function is set, all tracks will be played through once in random order, after which all tracks will be played through again in different order, and so on.
- During the search operation, the track numbers from the first to the last track on the disc are displayed in rapid succession on the track number display, so you cannot tell what track is going to be played next until playback begins.

NOTES:

- The total remaining time is not displayed during the random mode.
- The auto edit mode is cancelled if the random button (RANDOM) is pressed during the random mode.

15 Edit Recording on Sides A and B of the Tape **Auto Edit**
(Remote control only)

The auto edit function automatically divides the tracks on the compact disc into sides A and B, with the division at the beginning of a track in such a way that the disc's total playing time is divided as close as possible by one half.

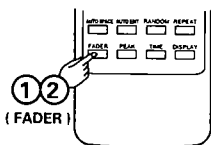


- When the AUTO EDIT button is pressed in the stop condition, the total play time of side A (the first half) and the track numbers (on the calendar) are displayed for about 2 seconds. Next, the side B (last half) information is similarly displayed after which the player automatically pauses at the beginning of the first track of side A. EDIT and PROGRAM will be lit on the display at this time.
- Pressing the play button (▶ PLAY) or the pause button (⏸ PAUSE) will start the play mode. When side A has finished playing, the player will pause at the beginning of the first track on side B.
- Pressing the play button (▶ PLAY) or the pause button (⏸ PAUSE) again will start the play mode. When side B has finished playing, the player automatically stop.

16 Fading Out or Fading In at the Desired Location **Fader Function**
(Analog output only)

- Fading out and fading in is possible at the desired position during play **Manual Fader**
(Remote control only)

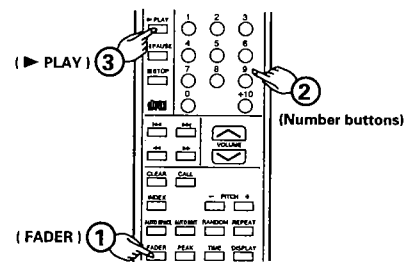
- Fade Out**
When the fader button (FADER) is pressed during play, fade out will be provided for about 5 seconds. (FADER) will light up during the operation and (▶) will flash. When fade out is completed the player will automatically pause.
- Fade In**
When the fader button (FADER) is pressed from the pause mode, the player will start playing and fade in will be provided for about 3 seconds. (FADER) will light up during the operation and (▶) will flash.



(2) Setting the Fade Out Time In Advance (TIME FADE)
(Remote control only)

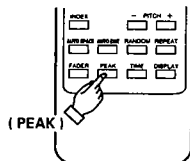
- When the fader button (FADER) is pressed in the stop mode, the FADE indicator (FADER) will light up, TIME will appear as --:-- s., and the player will wait for the input of the fade out time.
- Input the fade out time with the (0-9) number buttons.
- Pressing the play button (▶ PLAY) will start the playback and the FADE indicator (FADER) will light up.
- The (▶) indication will start flashing 5 seconds before the specified fade out time and then the fade out will begin. The fade out will end at the specified time and the player will automatically pause.

The time fade function will be cancelled if an auto search or manual search is performed during playback.



15 To Search for the Peak Level of the Disc **Peak Search**
(Remote control only)

- The player searches for the peak portion and plays a few seconds either side of this point repeatedly. This is convenient for making recording adjustments on the tape recorder.



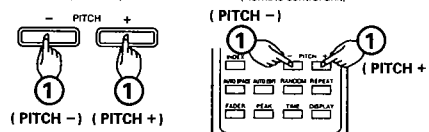
- When the peak search button (PEAK) is pressed in the stop mode, the PEAK indicator will flash and the player will search for the portion having the peak level.
- After the search, the PEAK indicator lights up and a few seconds either side of the peak level point are played back repeatedly. This is convenient for making recording adjustments on the tape recorder.
- To cancel the peak search, press the stop button (■ STOP).
- When the play button (▶ PLAY) or the pause button (⏸ PAUSE) is pressed during peak search or while playing the peak portion back repeatedly, the player will go to the beginning of the first track (the first track of the program for program playback, or the track that was first selected in the time edit) and begin playback from here if the play button was pressed or enter the pause mode if the pause button was pressed.

NOTES:

- The peak search function reads the level of the disc from the beginning of the disc to the end at a fixed interval and regards the maximum value that was read as the peak. Peak search takes a little time for this reason.
- The peak portion may change each time the disc is read and there may be a slight difference in the actual peak level, but since this difference ever so slight there will be no adverse effects on the adjustment of the recording level.
- The time fade function is cancelled when the peak search operation is performed. To use the time fade function, set to the stop mode then reset the function.
- Buttons other than the open/close button (▲ OPEN/CLOSE), play button (▶ PLAY), pause button (⏸ PAUSE), and stop button (■ STOP) will not function during peak search or repeat play of the peak portion.

16 Changing the Speed of Playback **Pitch Control**

- Playback can be speeded up or slowed down.

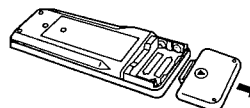


PLAYBACK USING THE REMOTE CONTROL UNIT

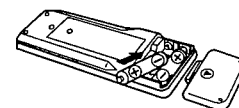
The accessory RC-251 remote control unit can be used to control the CD player from a convenient distance.

(1) Inserting the dry cell batteries

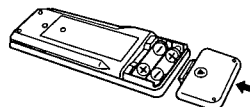
- Remove the battery cover on the back of the remote control unit.



- Insert two R6P (standard size AA) dry cell batteries with correct polarity as indicated inside the battery compartment.



- Replace the battery cover.



Notes on the Batteries

- The remote control unit uses standard size AA dry cell batteries.
- The batteries will need to be replaced approximately once a year. Replacement may be necessary earlier depending on how much the remote control unit is used.
- If, in less than a year from the time new batteries were inserted, the remote control fails to operate the CD player from a near-by position, it is time to replace the batteries.
- Insert the batteries properly, following the polarity diagram inside the battery compartment, in other words make sure (+) and (-) terminals are properly aligned.

- Press the PITCH + or PITCH - button during the play or pause mode to change the speed of playback.
- When one of the PITCH buttons is pressed, the amount of the speed change appears on the seconds section ("S") of the TIME display for approximately 2 seconds. "PITCH -" appears when the speed is slower than normal, "PITCH +" when the speed is faster than normal. The speed can be changed in steps of 0.1% from -12.0% to +12.0%.
- Press the PLAY button (▶ PLAY) during playback with a different speed to return to normal speed playback. Also, the speed setting is cancelled if the stop mode is set during playback at a different speed.

NOTES:

- No data is output from the digital output jack (OPTICAL) during playback with a different speed (when "PITCH" is lit). If you want to output data, press the PLAY button (▶ PLAY) to return to normal speed playback.
- The pitch also changes when the speed is changed.
- If the speed is changed during the time edit operation, the total playing time changes, so the time of the blank space is not calculated accurately.
- The time display (elapsed playback time, remaining time per track, or total remaining time) will not be accurate during playback with a different speed.
- A maximum of 3 second is required to return to the normal speed when the play button (▶ PLAY) is pressed during playback with a different speed. During this time, only the open/close (▲ OPEN/CLOSE) and stop buttons (■ STOP) will function.

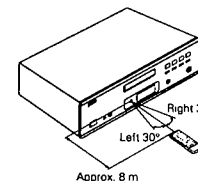
Batteries are prone to damage and leakage.

Therefore:

- Do not combine new batteries with used ones.
- Do not combine different types of batteries.
- Do not jumper opposite poles of the batteries, expose them to heat, break them open nor expose them in open fire.
- If the remote control unit is not to be used for a long period of time, remove the batteries from the unit.
- If the batteries have leaked, remove any traces of battery fluid from the battery compartment, wiping thoroughly with a dry cloth. Then insert new batteries.

(2) Directions for Use

- Operate the remote control unit while pointing it towards the remote control sensor on the CD player (see below).



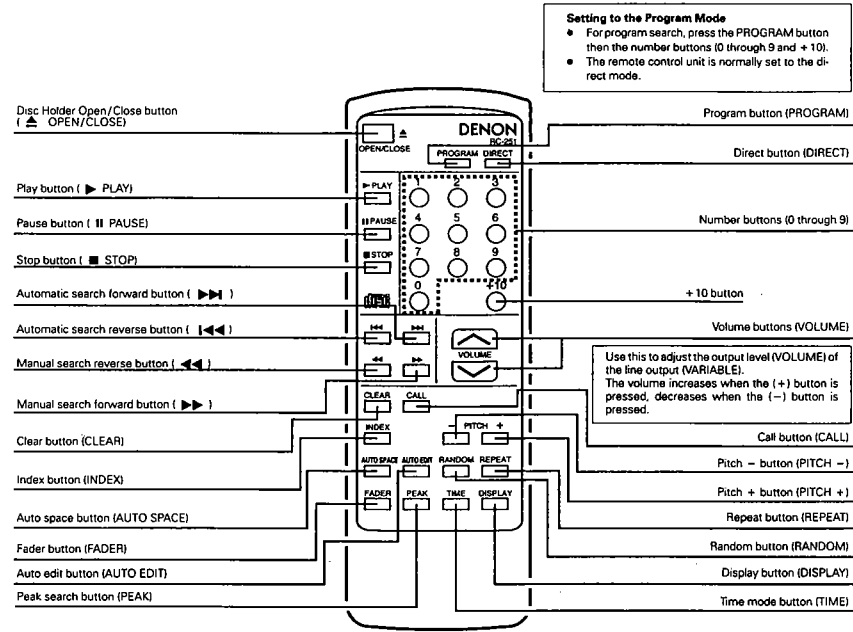
When a remote control signal is received, the remote control indicator on front of the CD player lights briefly.

- The remote control unit can be used at a distance up to 8 meters in a straight line from the CD player. This distance decreases if there are obstructions blocking the signal path or when the remote control unit is operated at an angle from the remote control sensor.
- The buttons on the remote control unit have identical functions with those on the CD player. However, the following functions cannot be remote controlled: Power ON/OFF.

Cautions on Use

- Do not press the operation buttons on the main unit and on the remote control unit simultaneously, as this will result in malfunction.
- The remote control unit may not operate properly if the remote control sensor is exposed to direct sunlight or strong artificial lighting, or if there is an object between the remote control unit and the remote control sensor.

REMOTE CONTROL UNIT RC-251



Setting to the Program Mode

- For program search, press the PROGRAM button then the number buttons (0 through 9 and + 10).
- The remote control unit is normally set to the direct mode.

Use this to adjust the output level (VOLUME) of the line output (VARIABLE). The volume increases when the (+) button is pressed, decreases when the (-) button is pressed.

- Direct Search**
Normally, direct search is possible simply by pressing the desired number buttons.
- Program Search (During playback, the track which is currently playing is programmed as the 1st track.)**
Press the PROGRAM button, then press the number buttons.
For example, to program tracks number 3, 11 and 5, press PROGRAM → 3 → +10 and 1 → 5.
To cancel the program, press the DIRECT button.
- Clear button**
This button is used both for clearing when in the program mode and for clearing the index search mode.

- Inputting the Track Numbers**
For track numbers below 9, simply press the corresponding button. For track numbers of 10 and greater, press the + 10 then the number buttons.
For example, for track number 22 press +10 twice then 2.
- Volume**
When a volume button is pressed, "—" appears in the minutes portion (M) of the TIME display and the level is displayed at the seconds portion (S) for approximately 2 seconds. The maximum level is 0, the minimum -50. There are 50 steps, one step corresponding to about 1.5 dB.

THE COMPACT DISC

1. Use compact discs that include the mark.

CD's with special shapes (heart-shaped CDs, octagonal CDs etc.) cannot be played on this set.

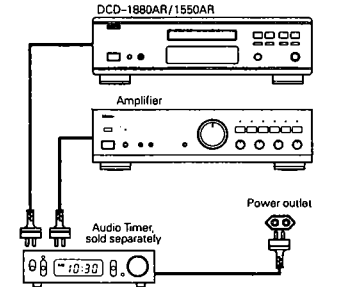
- Attempting to do so may damage the set. Do not use such CDs.
- Precautions on handling compact discs**
 - Do not allow fingerprints, oil or dust on the surface of the compact disc. If the signal surface is dirty, wipe it off with a soft, dry cloth. Wipe in circular motions from the center and out.
 - Do not use water, benzene, thinner, record sprays, electrostatic proof chemicals, or silicone-treated cloth to clean discs.
 - Always use care when handling discs to prevent damaging the surface, in particular when removing a disc from the case and returning it.
 - Do not bend compact discs.
 - Do not apply heat to compact discs.
 - Do not enlarge the hole in the center of the disc.

- Do not write on the disc and do not attach any labels.
- Condensation will form on the disc surface if it is brought into a warm room from a cold area, such as outdoors during winter. Wait until the condensation disappears. Never dry discs with hair dryers, etc.

- Precautions on storage**
 - After playing a disc, always return it to its case.
 - Keep discs in the cases when they are not to be played. This will protect them from dust and dirt and prolong their service life.
 - Do not store discs in the following places:
 - Places exposed to direct sunlight for a considerable time.
 - Places subject to accumulation of dust or high humidity.
 - Places exposed to high temperatures, such as close to heater outlets.

TIMER-CONTROLLED PLAYBACK

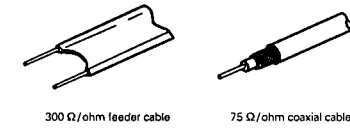
- Operation**
 - Turn on the power of all system components.
 - Set the input selector on the amplifier to correspond to the inputs the CD player is connected to.
 - Make sure a disc has been loaded in the disc holder.
 - Check the time on the timer and then set the desired turn-on time.
 - Turn the audio timer ON.
Power is turned off automatically in all components connected to the timer.
 - When the preset turn-on time is reached, power is turned on in the system components, and CD playback starts from the first track.
- Connection**



INSTALLATION PRECAUTIONS

The CD player uses a microcomputer for controlling internal electronic circuits. In the event that the player is used while a rear-by-tuner or TV is turned on, although unlikely, interference could occur either in the sound from the tuner or the picture of the TV. To avoid this, please take the following precautions.

- Keep the CD player as far away from the tuner or TV set as possible.
- Keep the power cable and connecting cable of the CD player separate from the antenna wires of the tuner and TV.
- Interference is particular likely to occur when an indoor antenna or a 300 Ω/ohm feeder cable is used. Thus, use of an outdoor antenna and 75 Ω/ohm coaxial cable is strongly recommended.



TROUBLESHOOTING

- If the CD player does not seem to be functioning properly, check the following:
- Disc holder does not open or close.**
 - Is the power on?
 - When a disc is loaded, is displayed.**
 - Is the disc loaded properly? See page 7, 8
 - When the play button (▶) is pressed, playback does not start.**
 - Is the disc dirty or scratched? See page 14
 - There is no sound, or it is distorted.**
 - Is the output cord properly connected to the amplifier? See page 7
 - Have the amplifier controls been set correctly?

- A specific section of the disc will not play.**
 - Is the disc dirty or scratched? See page 14
- Programmed playback does not work.**
 - Have programming been properly done? See pages 9 and 14
- Incorrect operation when buttons on the remote control are pressed.**
 - Is the remote control unit being operated too far from the CD player? See page 13
 - Are there obstacles blocking the ray?
 - Is the remote control sensor exposed to strong light?
 - Are the batteries exhausted?
- No data is output from the digital output jack (OPTICAL/COAXIAL).**
 - Is the pin cord properly connected? See page 7
 - Have you changed the speed of playback? See page 13

SPECIFICATIONS

AUDIO	
No. of Channels:	2 channels
Frequency Response:	2 – 20,000 Hz
Dynamic Range:	100 dB
Signal-to-noise Ratio:	112 dB
Harmonic Distortion:	0.0025% (1 kHz)
Separation:	105 dB (1 kHz)
Wow & Flutter:	Below measurable limit: (±0.001% W, peak)
Output Voltage:	FIXED 2.0 V, VARIABLE 0–2.0 V
DISCS	
GENERAL CHARACTERISTICS	
Power Supply:	Voltage and frequency is shown on rating label
Power Consumption:	16 W
Dimensions:	434 (W) x 134 (H) x 340 (D) mm
Weight:	7.4 kg

FUNCTIONS AND DISPLAY	
Functions:	Direct selection, automatic search, programmed playback, repeat playback, manual search, auto space, time mode, auto edit, peak search, fader
Display:	Track number, time, music calendar, and engaged modes
Others:	Headphones jack
REMOTE CONTROL UNIT	
Remote Control System:	Infrared pulse system
Power Supply:	3 V DC, two R6P (standard size AA) dry cell batteries
External Dimensions:	60 (W) x 177 (H) x 18 (D) mm
Weight:	100 g including batteries

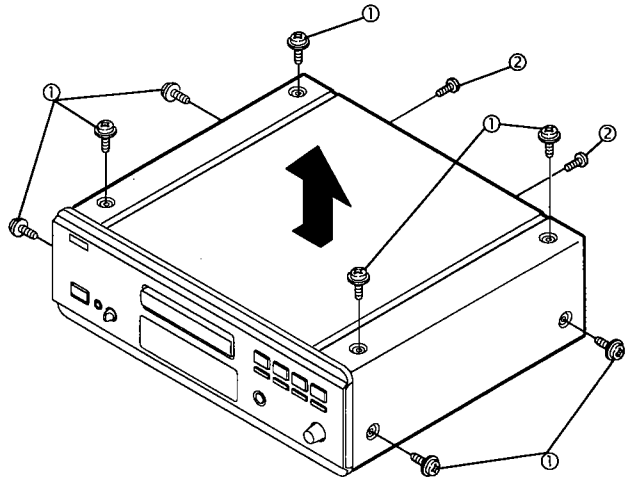
* Design and specifications are subject to change without notice in the course of product improvement

DISASSEMBLY

(Follow the procedure below in reverse order when reassembling)

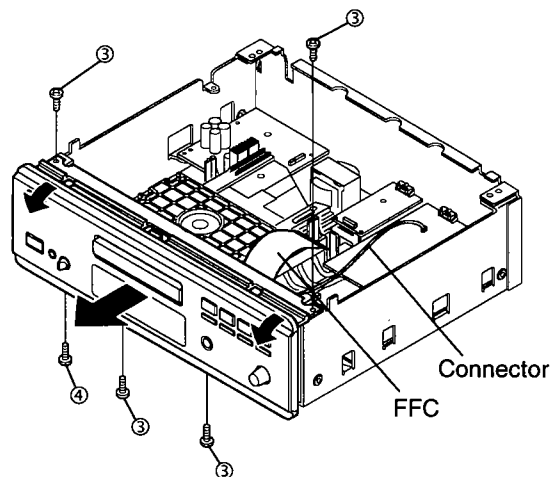
Top Cover

1. Remove 8 screws ① fixing the Top Cover on both sides and on the top.
2. Remove 2 screws ② on the rear.
3. Detach the Top Cover as shown in the arrow direction.



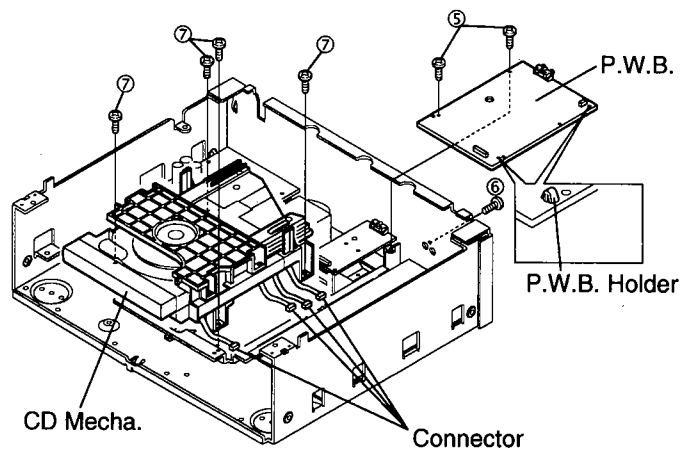
Front Panel

1. Disconnect FFC and Connector coming from the Front Panel.
2. Remove 5 upper and lower screws ③ and ④.
3. Pull and slant the top of the Front Panel first in the arrow direction, then detach it.



CD Mecha.

1. Remove 3 screws ⑤, ⑥ and detach the P.W.B. by releasing from 2 P.W.B. Holders.
2. Disconnect 4 Connector coming from the CD Mecha.
3. Remove 4 screws ⑦ and detach the CD Mecha.



CONFIRMING THE SERVO

A microcomputer adopted in this unit has the service programs so that each servo adjustment can be performed easily by the operating buttons.

This unit which adopted digital servo has the ability to automatically adjust Focus Gain, Focus Balance, Focus Offset, Tracking Gain, Tracking Balance, and Tracking Offset.

1. Actuating the Service Program









(1) Close the disc holder and turn power switch OFF.

(2) While pressing switch SW101 which is on the Main P.W.Board, turn power switch ON.

(Service program start actuates and displays track number 0 1.)

Note: The operating button do not function when service program actuates.

2. Operating Function at Service Program Actuation

Button Operation	Function	Description																					
 OPEN/CLOSE	Opens or closes the disc holder.	<ul style="list-style-type: none"> • Opens or closes when disc is stopped. • Operates other keys after open or close. 																					
 STOP	Stops system operation.	<ul style="list-style-type: none"> • Displays track number 0 1. • Press when adjustment completed or correcting it. 																					
 PLAY	Operates the Focus servo and turns disc.	<ul style="list-style-type: none"> • Displays track number 0 2 when operation is completed. 																					
	Performs Focus servo, Tracking servo, Slide servo, Spindle servo and various automatically adjustment.	<ul style="list-style-type: none"> • Performs Tracking servo and Slide servo when pressing PLAY button. • Displays track number 0 3 when operation is completed. • When unusualness is existed, displays index number (error message). But E 9 , E - is not error message. 																					
	Displays automatically adjustment effect of EG, FBAL, FOFS, TG, TBAL and TOFS.	<ul style="list-style-type: none"> • Press  button when  button operation is completed. • When pressing  button every once, displays automatically adjusting value about FG, FBAL, FOFS, TG, TBAL, and TOFS in the sequence. <p>Displays following indication:</p> <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>INDEX</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td>FG</td> <td>0 1</td> <td>XXnXXs</td> </tr> <tr> <td>FBAL</td> <td>0 2</td> <td>XXnXXs</td> </tr> <tr> <td>FOFS</td> <td>0 3</td> <td>XXnXXs</td> </tr> <tr> <td>TG</td> <td>0 4</td> <td>XXnXXs</td> </tr> <tr> <td>TBAL</td> <td>0 5</td> <td>XXnXXs</td> </tr> <tr> <td>TOFS</td> <td>0 6</td> <td>XXnXXs</td> </tr> </tbody> </table>		INDEX	TIME	FG	0 1	XXnXXs	FBAL	0 2	XXnXXs	FOFS	0 3	XXnXXs	TG	0 4	XXnXXs	TBAL	0 5	XXnXXs	TOFS	0 6	XXnXXs
	INDEX	TIME																					
FG	0 1	XXnXXs																					
FBAL	0 2	XXnXXs																					
FOFS	0 3	XXnXXs																					
TG	0 4	XXnXXs																					
TBAL	0 5	XXnXXs																					
TOFS	0 6	XXnXXs																					
Other Buttons	No normal operation.	<ul style="list-style-type: none"> • Do not operate other button except above. • When an error occurs, immediately turn power switch OFF. 																					

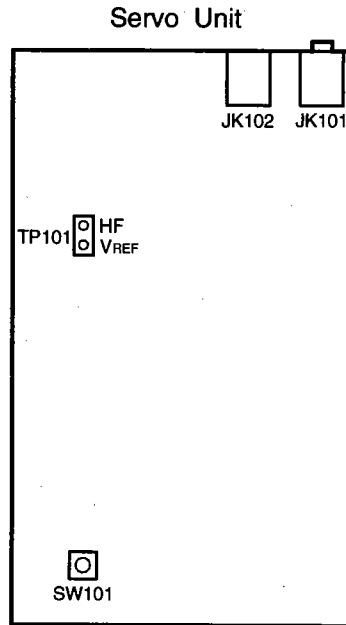
Note: Do not use remote control during service program operation.

3. Confirming Method

(1) Required Measuring Equipments for adjustment

1. Dual-trace oscilloscope
2. Adjustment disc TCD-784

(2) Adjustment location



(1) Confirming procedure

1. Actuate service program.
2. Load adjustment disc TCD784.
3. When pressing ◀◀ button, confirm error message (refer to table1).
4. Press ■ button.
5. When pressing ▶▶ button every once, confirm automatically adjusting values about FG, FBAL, FOFS, TG, TBAL and TOFS (refer to table 2 within the limits of value).
6. When service program is completed, return to normal mode (turn power switch ON).
7. Confirm HF level.

(4) Error message confirmation

1. When pressing ◀◀ button, displays track number 03 .
2. Confirm error message with index number indication

TRACK INDEX TRACK INDEX TRACK INDEX

(a) 03 E- (b) 03 E9 (c) 03 no display

Defect is existing except above indication.

If an error occurs, the error message is displayed as following.

Error Message Table (table 1)

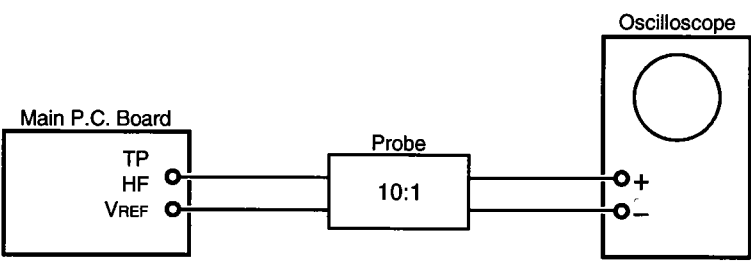
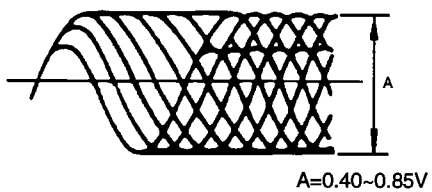
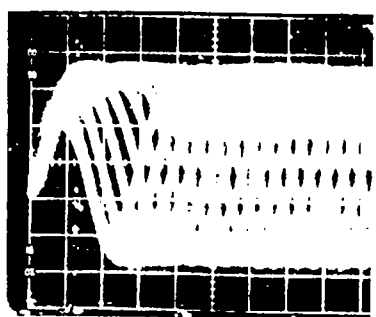

Indication		Contents
TRACK	INDEX	
03	E1	Unable to adjust tracking offset
03	E2	Unable to adjust focus offset
03	E3	Unable to adjust focus gross gain
03	E4	Unable to enter focus (include spindle)
03	E5	Unable to enter tracking
03	E6	Unable to adjust tracking gross gain
03	E7	Unable to adjust tracking balance
03	E8	Unable to adjust focus balance

- (5) Confirm automatically adjustment values about FG, FBAL, FOFS, TG, TBAL and TOFS.
- (1) Press ◀◀ button, displays track number **03**.
 - (2) Press ■ button, displays track number **01**.
 - (3) Press ▶▶ button 2 times, displays FG (Focus Gain Tentative) value, confirm the value within the limits of table 2.
 - (4) Press ▶▶ button, displays FBAL (Focus balance) value, confirm the value within the limits of table 2.
 - (5) Press ▶▶ button, displays FOFS (Focus offset) value, confirm the value within the limits of table 2.
 - (6) Press ▶▶ button, displays TG (Tracking Gain Tentative) value, confirm the value within the limits of table 2.
 - (7) Press ▶▶ button, displays TBAL (Tracking Balance) value, confirm the value within the limits of table 2.
 - (8) Press ▶▶ button, displays TOFS (Tracking Offset) value, confirm the value within the limits of table 2.

Confirming Table about Digital Servo Adjusting Value (table 2)

	TRACK INDEX	XXMXXS
FG	01 <u>01</u>	M66s~4M48s
FBAL	01 <u>02</u>	-1M28s~1M27s
FOFS	01 <u>03</u>	-M35s~M35s
TG	01 <u>04</u>	M40s~3M52s
TBAL	01 <u>05</u>	-1M28s~1M02s
TOFS	01 <u>06</u>	-M15s~M15s

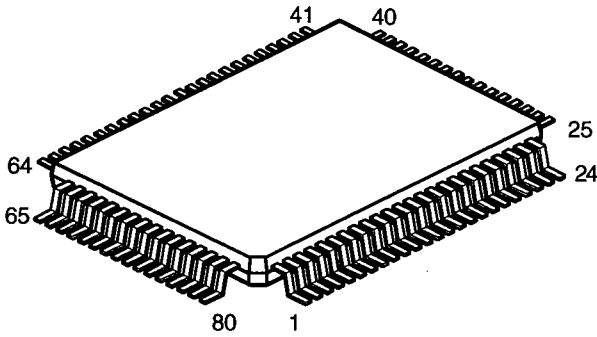
(6) HF level Confirming

Oscilloscope		Check	Step
<p>Connection</p> 		 <p>A=0.40~0.85V</p>  <p>Eye Pattern</p>	<ol style="list-style-type: none"> 1. Press  button. 2. Check HF level with oscilloscope. 3. Confirm that the waveform is in good shape. (\diamond eye pattern in center must be able to discriminate clearly.)
<p>V</p> <p>50mV/div or 20mV/div</p>	<p>H</p> <p>0.2μs/div or 0.5μs/div</p>	<ul style="list-style-type: none"> • Set input mode to ALTERNATE or CHOPPER. 	

SEMICONDUCTORS

● IC's

HD6433724E87F



Typ : TYPE

A: standard input port

B: standard input/output port

C: Hi-voltage proof input port

D: P-ch open, drain hi-voltage proof

Ext : EXTERNAL

P. UP : Pull-up

P. D : Pull-down to VDISP

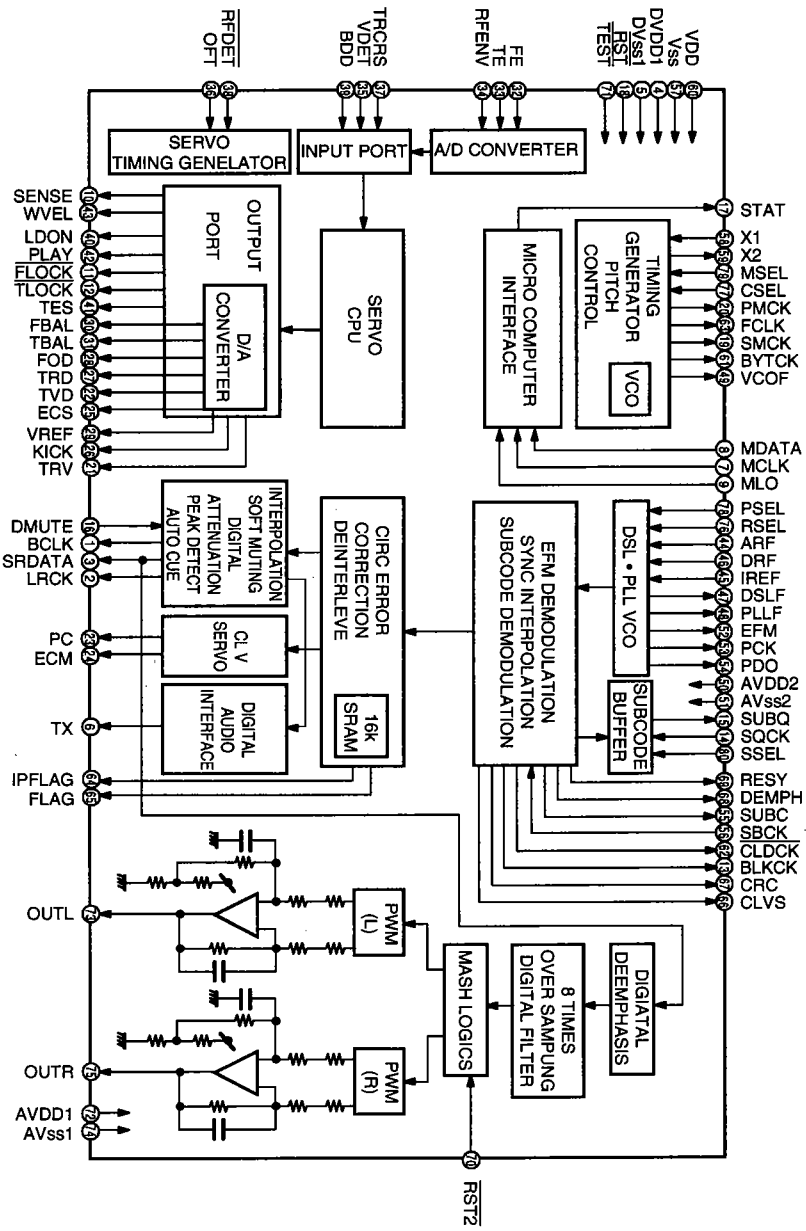
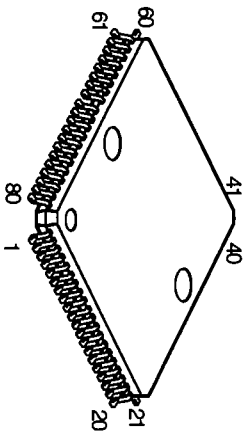
P. DG : Pull-down to GND

HD6433724E87F Terminal Function

PIN	Symbol	Port	I/O	TY	RE	IN	AC	Ext	Function
1	P04/AN4	SWCL	I	A	HZ	—	L	P.UP	Door close detect switch signal in (H: OFF, L: ON).
2	P05/AN5	SWOP	I	A	HZ	—	L	P.UP	Door open detect switch signal input (H: OFF, L: ON).
3	P06/AN6	DF. SEL	I	A	HZ	—	—	—	Digital filter select pin (H: ALPHA, L: LAMDA).
4	P07/AN7	TX	I	A	HZ	—	—	—	Digital out ON/OFF SW detect in (H: OFF, L: ON).
5	AVss	AVss	—	—	—	—	—	—	GND (System GND).
6	TEST	TEST	—	—	—	—	—	—	GND (System GND).
7	X2	X2	—	—	—	—	—	—	Open (Not used).
8	X1	X1	—	—	—	—	—	—	+5V (System power).
9	Vss	Vss	—	—	—	—	—	—	GND (System GND).
10	OSC1	OSC1	I	—	—	—	—	—	X'tal input (4.23 MHz).
11	OSC2	OSC2	O	—	—	—	—	—	X'tal output (4.23 MHz).
12	RES	RESET	I	—	—	—	L	—	Reset signal in (stabilize time 40ms).
13	P10/IRQ0	REMOTE	I	B	HZ	—	↑	P.UP	Remote control in.
14	P11/IRQ1	SENS	I	B	HZ	—	HL	—	DSP SENS signal detect.
15	P12/IRQ2	BLKCK	I	BD	HZ	—	↓	—	Sub-code block interrupt signal in.
16	P13/IRQ3	JOG A	I	B	HZ	—	—	—	Rotary encoder A input.
17	P14/IRQ4	JOG B	I	B	HZ	—	—	—	Rotary encoder B input.
18	P15/IRQ5	JOG A	I	B	HZ	—	—	—	Rotary encoder reversed A input.
19	P16/EVENT	RF DET	I	A	HZ	—	L	—	RF detect signal in.
20	P33/FS27	NC	O	D	HZ	H	—	—	Open (Not used).
21	P32/FS26	VR DOWN	O	D	HZ	—	—	P.DG	DOWN signal out for electronic VR (MN6632A).
22	P31/FS25	VR UP	O	D	HZ	—	—	P.DG	UP signal out for electronic VR (MN6632A).
23	P30/FS24	VR STEP	O	D	HZ	—	—	P.DG	STEP signal out for electronic VR (MN6632A).
24	P47/FS23	INMOST	I	D	HZ	—	—	P.UP	Pick-up inner circle detect SW (L: ON).
25	P46/FS22	FLOCK	I	D	HZ	—	L	—	Focus servo lead-in signal (L: lead-in).
26	P45/FS21	TLOCK	I	D	HZ	—	L	—	Tracking servo lead-in signal (L: lead-in).
27	P44/FS20	STAT	I	D	HZ	L	—	—	Status signal.
28	P43/FS19	CRC	I	D	HZ	L	H	—	Sub-code CRC result (H: OK, L: NG).
29	P42/FS18	CLVS	I	D	HZ	L	H	—	Spindle servo phase synchronous signal (H: CLV).
30	P41/FS17	DEMPH	I	D	HZ	L	H	—	MN662324 emphasis ON/OFF input (H: ON).

PIN	Symbol	Port	I/O	TY	RE	IN	AC	Ext	Function
31	P40/FS16	RXD	I	D	HZ	—	H	—	Synchronous REC communication input.
32	P50/FS15	TXD	O	D	HZ	H	H	P.UP	Synchronous REC communication output.
33	P51/FS14	—	O	D	HZ	—	H	—	Not used.
34	P52/FS13	S1	O	D	HZ	L	H	P.D	FL segment S1 (e).
35	P53/FS12	S2	O	D	HZ	L	H	P.D	FL segment S2 (d).
36	P54/FS11	S3	O	D	HZ	L	H	P.D	FL segment S3.
37	P55/FS10	S4	O	D	HZ	L	H	P.D	FL segment S4.
38	P56/FS9	S5	O	D	HZ	L	H	P.D	FL segment S5.
39	P57/FS8	S6	O	D	HZ	L	H	P.D	FL segment S6 (c).
40	P17/VDISP	VDISP	I	C	—	—	—	—	VDISP (connect to -24V).
41	P60/FD0/FS7	S7	O	D	HZ	L	H	P.D	FL segment S7 (g).
42	P61/FD1/FS6	S8	O	D	HZ	L	H	P.D	FL segment S8 (f).
43	P62/FD2/FS5	S9	O	D	HZ	L	H	P.D	FL segment S9 (b).
44	P63/FD3/FS4	S10	O	D	HZ	L	H	P.D	FL segment S10 (a).
45	P64/FD4/FS3	S11	O	D	HZ	L	H	P.D	FL segment S11.
46	P65/FD5/FS2	S12	O	D	HZ	L	H	P.D	FL segment S12.
47	P66/FD6/FS1	G1	O	D	HZ	L	H	P.D	FL digit G1.
48	P67/FD7/FS0	G2	O	D	HZ	L	H	P.D	FL digit G2 (SEC-L).
49	P70/FD8	G3	O	D	HZ	L	H	P.D	FL digit G3 (SEC-H).
50	P71/FD9	G4	O	D	HZ	L	H	P.D	FL digit G4 (MIN-L).
51	P72/FD10	G5	O	D	HZ	L	H	P.D	FL digit G5 (MIN-H).
52	P73/FD11	G6	O	D	HZ	L	H	P.D	FL digit G6 (INDEX-L).
53	P74/FD12	G7	O	D	HZ	L	H	P.D	FL digit G7 (INDEX-H).
54	P75/FD13	G8	O	D	HZ	L	H	P.D	FL digit G8 (TRACK-L).
55	P76/FD14	G9	O	D	HZ	L	H	P.D	FL digit G9 (TRACK-H).
56	P77/FD15	G10	O	D	HZ	L	H	P.D	FL digit G10.
57	Vcc	+5V	I	—	—	—	—	—	+5V (system power).
58	P80		O	B	HZ	L	—	—	Not used.
59	P81	A. MUTE	O	B	HZ	H	H	P.UP	Analog mute signal out.
60	P82	CLOSE	O	B	HZ	H	L	P.UP	Loader close signal out pin.
61	P83	OPEN	O	B	HZ	H	L	P.UP	Loader open signal out pin.
62	P84	DEMO	O	B	HZ	L	H	—	Hi out when Demo Mode.
63	P85	SHIFT	O	B	HZ	H	L	—	Output for SM5845 alpha test pin2 (H: OFF, L: ON).
64	P86	MAINS	O	B	HZ	H	H	—	Output for SM5845 alpha test pin1 (H: OFF, L: ON).
65	P87	DMUTE	O	B	HZ	H	H	P.UP	Signal out for digital mute (H: ON, L: OFF).
66	P90/PWM		—	B	HZ	—	—	—	
67	P91/SCK1	MCLK	O	B	HZ	H	↑	—	Clock out for MN662720 control.
68	P92/SI1	MLD	O	B	HZ	H	L	—	Latch out for MN662720 control.
69	P93/SO1	MDATA	O	B	HZ	H	—	—	Data out for MN662720 control.
70	P94/SCK2	SQCK	O	B	HZ	H	↑	—	Clock for sub-code read off.
71	P95/SI2/CS	SUBQ	I	B	HZ	H	—	—	Sub-code data signal in.
72	P96/SO2	RST	O	B	HZ	L	L	P.DG	Peripheral LSI reset signal out.
73	P97/UD	MCK	O	B	HZ	H	↑	—	μcom data clock out for SM5845/SM5841.
74	PA0	MDT	O	B	HZ	H	—	—	μcom out for SM5845/SM5841.
75	PA1	MLEN	O	B	HZ	H	↑	—	μcom latch enable out for SM5845/SM581.
76	AVcc	+5V	—	—	—	—	—	—	+5V (system power).
77	P00/AN0	D0	I	A	HZ	—	—	P.UP	Key data input 0 (A/D)
78	P01/AN1	D1	I	A	HZ	—	—	P.UP	Key data input 1 (A/D)
79	P02/AN2	D2	I	A	HZ	—	—	P.UP	Key data input 2 (A/D)
80	P03/AN3	D3	I	A	HZ	—	—	P.UP	Key data input 3 (A/D)

MN662720 (IC104)

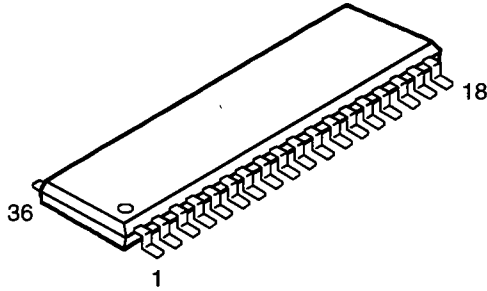


MN662720 Terminal Function

Pin No	Symbol	I/O	Function
1	BCLK	O	Bit clock output for SRDATA.
2	LRCK	O	L, R discriminating signal output.
3	SRDATA	O	Serial data output.
4	DVDD1	I	Power supply for digital circuit.
5	DVSS1	I	Ground for digital circuit.
6	TX	O	Digital audio interface signal output.
7	MCLK	I	Microcomputer command clock signal input (Latch data with leading edge).
8	MDATA	I	Microcomputer command data input.
9	MLD	I	Microcomputer command load signal input ("L": Load).
10	SENSE	O	Sense signal output (OFT, FESL, NACEND, NAJEND, POSAD and SFG).
11	FLOCK	O	Focus servo Lead-in signal ("L": Lead-in state).
12	TLOCK	O	Tracking servo Lead-in signal ("L": Lead-in state).
13	BLKCK	O	Subcode block clock signal (BLKCK=75Hz).
14	SOCK	I	External clock input for subcode Q register.
15	SUBQ	O	Subcode Q code output.
16	DMUTE	I	Muting input ("H": Mute).
17	STAT	O	Status signal (CRC, CUE, CLVS, TTSTOP, FCLV and SOCK).
18	RST	I	Reset input ("L": Reset).
19	SMCK	O	8.4672MHz clock signal output at MSEL="H": 4.2336MHz clock signal output at MSEL="L".
20	PMCK	O	88.2kHz clock signal output.
21	TRV	O	Traverse forced feed output.

Pin No	Symbol	I/O	Function
22	TVD	O	Traverse drive output.
23	PC	O	Spindle motor ON signal ("L": ON).
24	ECM	O	Spindle motor drive signal (Forced mode output). 3-state.
25	ECS	O	Spindle motor drive signal (Servo error signal output).
26	KICK	O	Kick pulse output.
27	TRD	O	Tracking drive output.
28	FOD	O	Focus drive output.
29	VREF	I	Reference voltage for DA output portion (TVD, ECS, TRD, FOD, FBAL, and TBAL).
30	FBAL	O	Focus balance adjusting output.
31	TBAL	O	Tracking balance adjusting output.
32	FE	I	Focus error signal input (Analog input).
33	TE	I	Tracking error signal input (Analog input).
34	RFENV	I	RF envelope signal input (Analog input).
35	VDET	I	Oscillating detection signal input ("H": detecting).
36	OFT	I	Offtrack signal input ("H": Offtrack).
37	TRCRS	I	Track cross signal input.
38	RFDET	I	RF detecting signal input ("L": detecting).
39	BDO	I	Drop out signal input ("H": Drop out).
40	LDON	O	Laser ON signal output ("H": ON).
41	TES	O	Tracking error shunt signal output ("H": shunt).
42	PLAY	O	Play signal output ("H": play).
43	WVEL	O	Double speed status signal output.
44	ARF	I	RF signal input.
45	IREF	I	Reference current input terminal.
46	DRF	I	Bias terminal for DSL.
47	DSL F	I/O	Loop filter terminal for DSL.
48	PLL F	I/O	Loop filter terminal for PLL.
49	VCO F	I/O	Loop filter terminal for VCO.
50	AVDD2	I	Power supply for analog circuit (for DSL, PLL and DA output sections).
51	AVSS2	I	Ground for analog circuit (for DSL, PLL and DA output sections).
52	EFM	O	EFM signal output.
53	PCK	O	PLL extract clock output (fPCK=4.321MHz).
54	PDO	O	Phase comparing signal output between EFM signal and PCK signal.
55	SUBC	O	Subcode serial data output.
56	SBCK	I	Clock input for subcode serial output.
57	VSS	I	Ground for oscillating circuit.
58	X1	I	Crystal oscillating circuit input terminal. (f=16.9344MHz).
59	X2	O	Crystal oscillating circuit output terminal (f=16.9344MHz).
60	VDD	I	Power supply for oscillating circuit.
61	BYTCK	O	Byte clock output.
62	CLDCK	O	Subcode frame clock signal output (fCLDCK=7.35kHz).
63	FCLK	O	Crystal frame clock output (fFCLK=7.35kHz).
64	IPFLAG	O	Interpolation flag output ("H": interpolation).
65	FLAG	O	Flag output.
66	CLVS	O	Spindle servo phase synchronous state signal output ("H": CLV, "L": Rough servo).
67	CRC	O	Subcode CRC check result output ("H": OK, "L": NG).
68	DEMPH	O	Deemphasis detecting signal output ("H": ON).
69	RESY	O	Re-synchronous signal output of frame synchronous ("H": synchronous, "L": synchronous come off).
70	RST2	I	Reset terminal for stopped MASH circuit ("L": Reset).
71	TEST	I	Test terminal (normally "H").
72	AVDD1	I	Power supply for analog circuit (Audio output using both as Lch and Rch).
73	OUTL	O	Lch output.
74	AVSS1	I	Ground for analog circuit (Audio output using both as Lch and Rch).
75	OUTR	O	Rch output.
76	RSEL	I	RF signal polarity selective terminal (RSEL="H" at brightness level "H". RSEL="L" at brightness level "L").
77	CSEL	I	Crystal oscillating frequency selective terminal (normally "L").
78	PSEL	I	Test terminal (normally "L").
79	MSEL	I	SMCK and frequency shifting output terminal ("H": SMCK=8.4672MHz, "L": SMCK=4.2336MHz).
80	SSEL	I	SUBQ and mode shifting output terminal ("H": Q code buffer using mode).

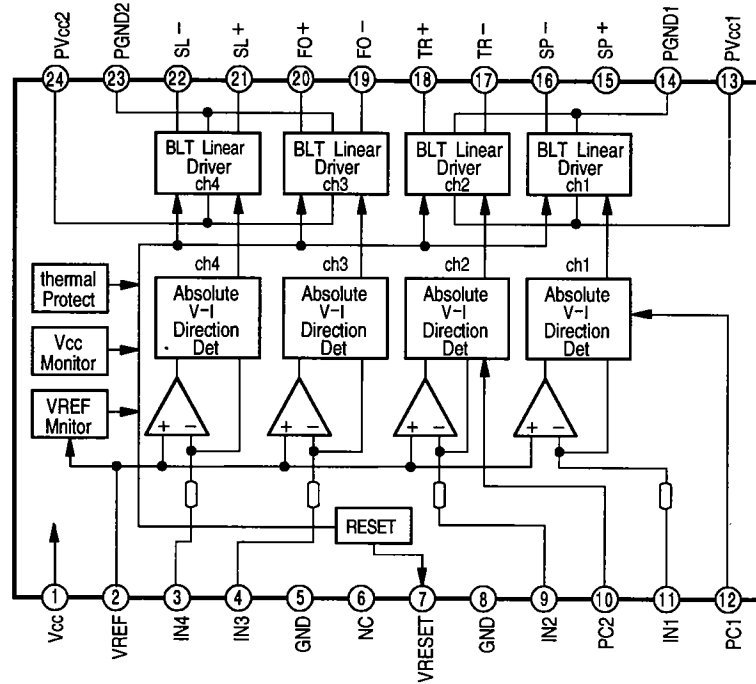
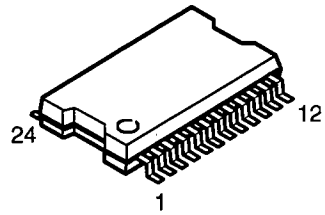
AN8805S (IC102)



AN8805S Terminal Function

Pin No	Symbol	I/O	Function
1	PD	I	PD signal input for output monitor of LD.
2	LD	O	Connect to external transistor's base for LD drive.
3	LDON	I	LD APC ON/OFF switching signal.
4	C.CRS	—	Capacitor connecting terminal for CROSS.
5	VCC	—	Power supply connecting terminal.
6	RF	I	RF AMP reversal input terminal. Connect a resistor.
7	RFOUT	O	RF AMP output terminal (reversal AMP).
8	RFIN	I	Input terminal of RF AGC.
9	C. AGC	—	Capacitor connecting terminal for RF AGC loop filter.
10	ARF	O	RF output terminal of after AGC.
11	C. ENV	—	Capacitor connecting terminal for RF.
12	C. EA	—	Capacitor connecting terminal for AMP.
13	C. SBDO	—	Capacitor connecting terminal for low speed detection of dark level DO detection.
14	BDO	O	BDO detection output terminal. Positive logic.
15	C. SBRT	—	Capacitor connecting terminal for low speed detection of OFTR detection.
16	OFTR	O	Output terminal of OFF TRACK detection. Positive logic.
17	NRFDET	O	Output terminal of RF signal amplitude detection. Negative logic.
18	GND	—	GND
19	ENV	O	ENV output terminal.
20	VREF	O	VCC x 0.5(V) output terminal.
21	LD OFF	I	Input terminal of LD APC forcible stop.
22	VDET	O	Output terminal of vibration detection.
23	TEBPF	I	Input terminal of vibration detection.
24	CROSS	O	Output terminal of TE CROSS detection signal.
25	TEOUT	O	Output terminal of TEAMP.
26	TE	I	TEAMP reversal input terminal. Connect a resistor.
27	FEOUT	O	Output terminal of FEAMP.
28	FE	I	FEAMP reversal input terminal. Connect a resistor.
29	FBAL	I	Control signal input terminal of FO balance adjustment.
30	TBAL	I	Control signal input terminal of TE balance adjustment.
31	PDFR	—	Resistor connecting terminal for setting IV converting resistance value of PDE.
32	PDER	—	Resistor connecting terminal for setting IV converting resistance value of PDF.
33	PDE	I	Connect to PIN diode E.
34	PDF	I	Connect to PIN diode F.
35	PDBD	I	Connect to B, D of astigmatism 1/4 divided PD.
36	PDAC	I	Connect to A, C of astigmatism 1/4 divided PD.

AN8389S (IC101)

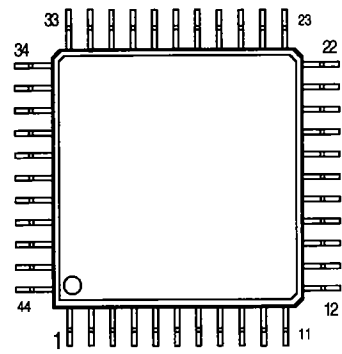


AN8389S Terminal Function

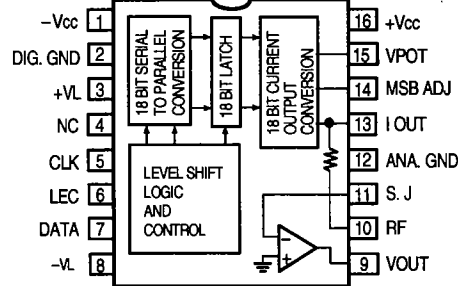
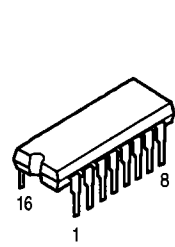
Pin No.	Symbol	I/O	DC Voltage (Vcc/8V)	Equivalent Circuit Diagram	Function
1	SVcc	I	8V		SVcc terminal for driver control circuit, not connected to power Vcc terminal.
2	Vref	I	2.5V		Vref input terminal.
3	IN4	I	2.5V		Driver 4 error input terminal.
4	IN3	I	2.5V		Driver 3 error input terminal.
5	SGND	I	0V		SGND terminal for driver control circuit.
6	NC				
7	NRESET	O	—		Reset output terminal.
8	SGND	I	0V		SGND terminal for driver control circuit.

Pin No.	Symbol	I/O	DC Voltage (Vcc/8V)	Equivalent Circuit Diagram	Function
9	IN2	I	2.5V		Driver 2 error input terminal.
10	PC2	I	0V		Control power cutting input terminal to ⑰ ⑱ output.
11	IN1	I	2.5V		Driver 1 error input terminal.
12	PC1	I	0V		Control power cutting input terminal to ⑮ and ⑯ output.
13	PVcc1	I	8V		Supply current feeding ⑮ ~ ⑱ power output transistor from Vcc power supply terminal.
14	PGND1	I	0V		P GND terminal for ⑮ ~ ⑱ output transistor.
15	D1 -	O	0V		Driver 1 inverting output terminal.
16	D1 +	O	0V		Driver 1 noninverting output terminal.
17	D2 -	O	0V		Driver 2 inverting output terminal.
18	D2 +	O	0V		Driver 2 noninverting output terminal.
19	D3 -	O	0V		Driver 3 inverting output terminal.
20	D3 +	O	0V		Driver noninverting output terminal.
21	D4 -	O	0V		Driver 4 noninverting output terminal
22	D4 +	O	0V		Driver 4 noninverting output terminal.
23	PGND2	I	0V		P GND terminal for ⑲ ~ ⑳ output transistor.
24	PVcc2	I	8V		Supply current feeding ⑲ ~ ⑳ power output transistor from Vcc power supply terminal.

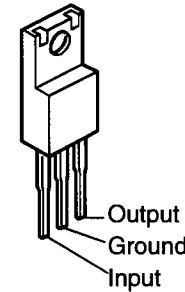
SM5845-AF (IC301)



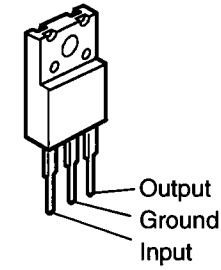
PCM61P-L (IC311,312)



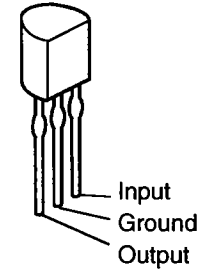
NJM7912FA (IC308)
NJM7915FA (IC309)



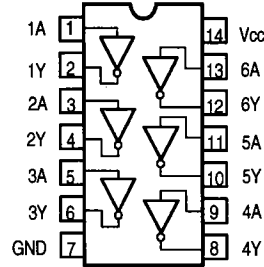
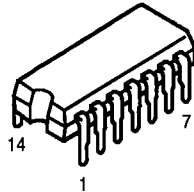
NJM7805FA (S) (IC306)
NJM7806FA (S) (IC801)
NJM7812FA (S) (IC304)
NJM7815FA (S) (IC305)



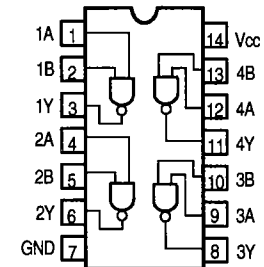
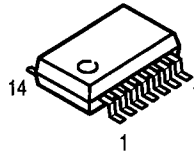
PST600C (IC502)



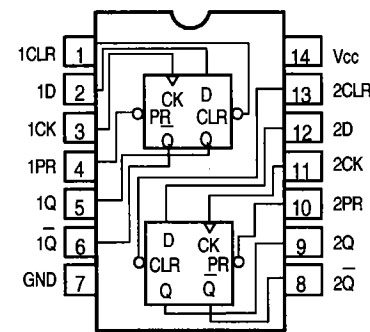
TC74HCU04AF (IC105)



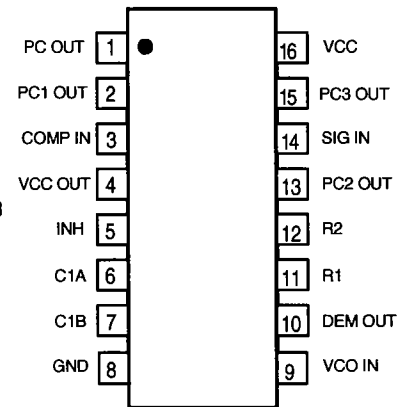
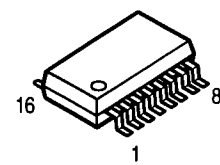
TC74HC00AF (IC107)



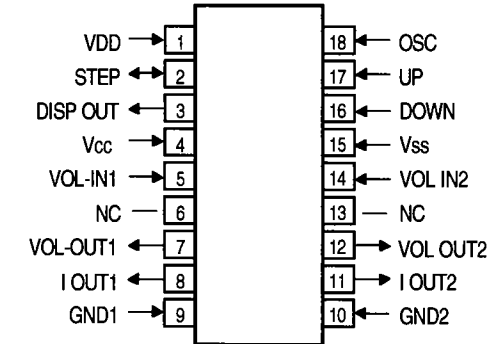
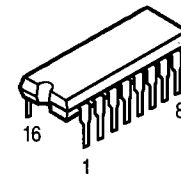
HD74HC74FP (IC110)



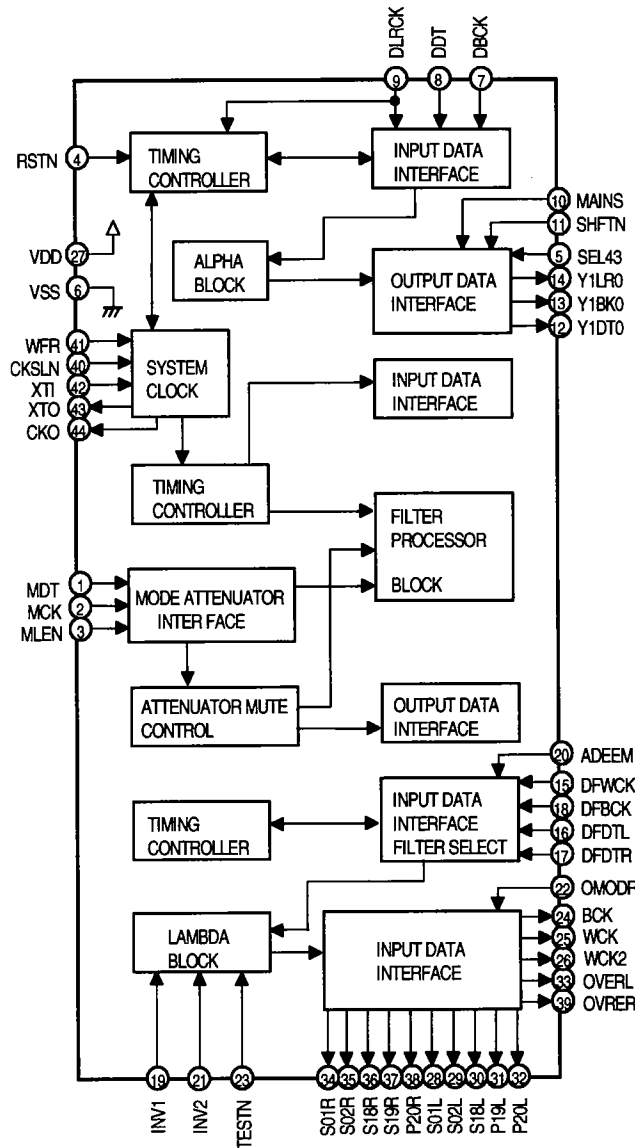
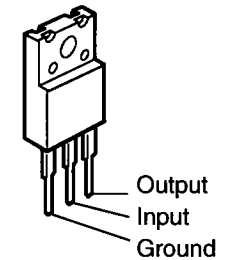
PC74HC4046AT (IC108)



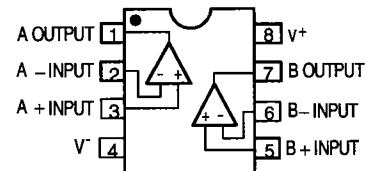
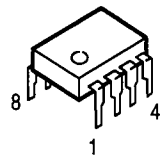
MN6632A (IC316)



NJM7905FA (IC307)

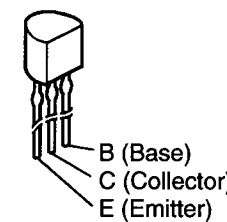


BA15218 (IC103)
μPC4570C (IC317,318)

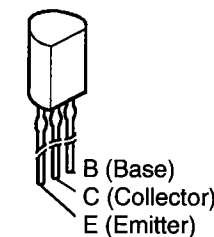


TRANSISTORS

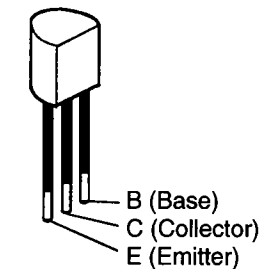
2SA933 (R/S)



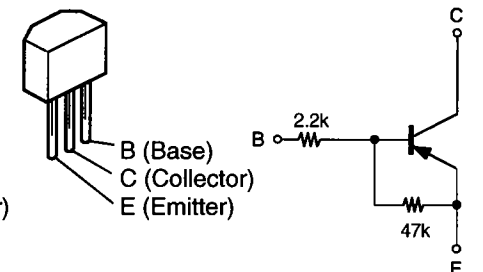
2SB562 (C)
2SD468 (C)



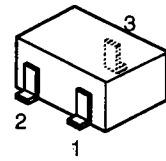
2SC2878 (A/B)



RN2205

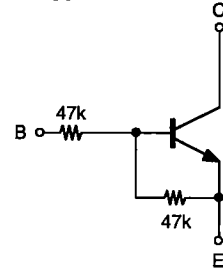


**DTA-124XKA
DTA144EK
DTC144EK**

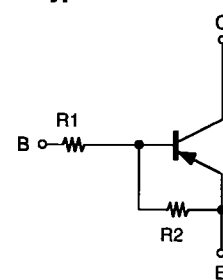


1: E/GND
2: B/Input
3: C/Output

**DTC144EK
NPN Type**

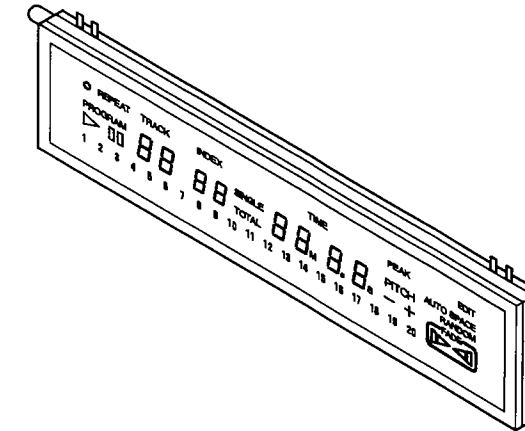


**DTA124XKA
DTA144EK
PNP Type**



	R1	R2
DTA124XKA	22k	47k
DTA144EK	47k	47k

**● FL DISPLAY TUBE 10-BT-201G (FL701)
(Part No.: DCD2150423)**



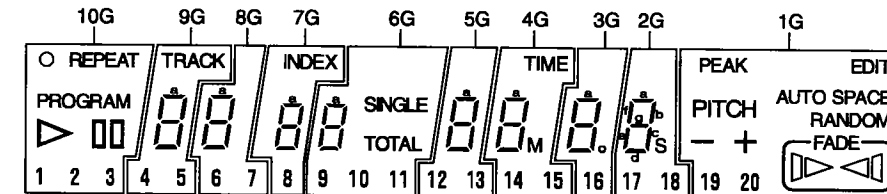
Pin Connection

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Connection	F1	F1	NP	NP	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	NC	NC	NC	NC

Pin No.	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Connection	NC	NC	NC	NC	NC	NC	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F2	F2

NOTE: 1) F1, F2 Filament
2) NP No pin
3) NC No connection
4) P1~P12 Anode
5) 1G~10G Grid

Grid Assignment

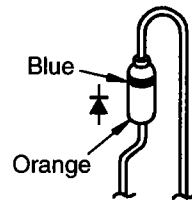


Anode Connection

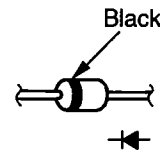
	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	1	e	e	e	e	e	e	e	e	—
P2	2	d	d	d	d	d	d	d	d	FADE
P3	—	—	—	—	TOTAL	—	M	o	S	▶◀
P4	3	4	6	—	10	12	14	—	17	20
P5	—	5	7	8	11	13	15	16	18	19
P6	—	c	c	c	c	c	c	c	c	+
P7	▶◀	g	g	g	g	g	g	g	g	RANDOM
P8	▶	f	f	f	f	f	f	f	f	PITCH
P9	PROGRAM	b	b	b	b	b	b	b	b	AUTO SPACE
P10	○	a	a	a	a	a	a	a	a	PEAK
P11	REPEAT TRACK	—	INDEX	SINGLE	—	TIME	—	—	—	EDIT
P12	—	—	—	—	9	—	—	—	—	▶

● DIODES

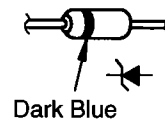
1SR35-200A



1SS252

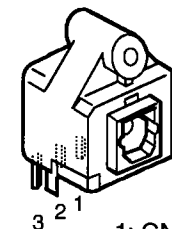


**MTZJ15A
MTZJ5.6A
MTZJ33A**



● OPTICAL OUTPUT

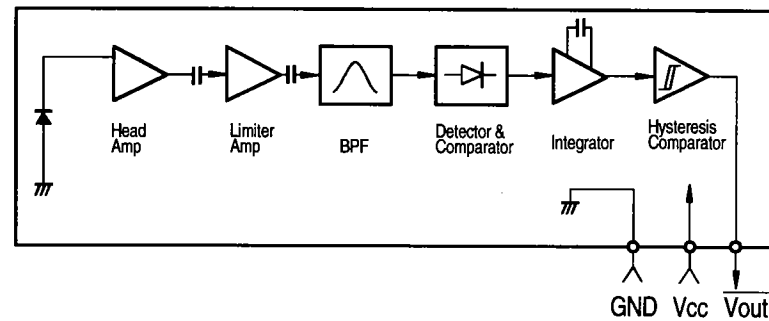
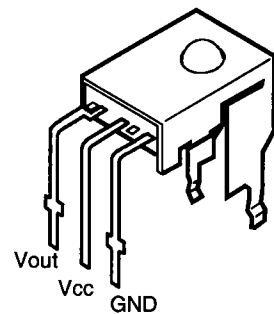
TOTX178 (JK102)



1: GND
2: Vcc
3: Vin

● OTHERS (Remote Control Sensor)

**GP1U271X
(VI: IC101)**



PRINTED WIRING BOARD

1 2 3 4 5 6 7 8

1U-3088 P. W. Board Unit

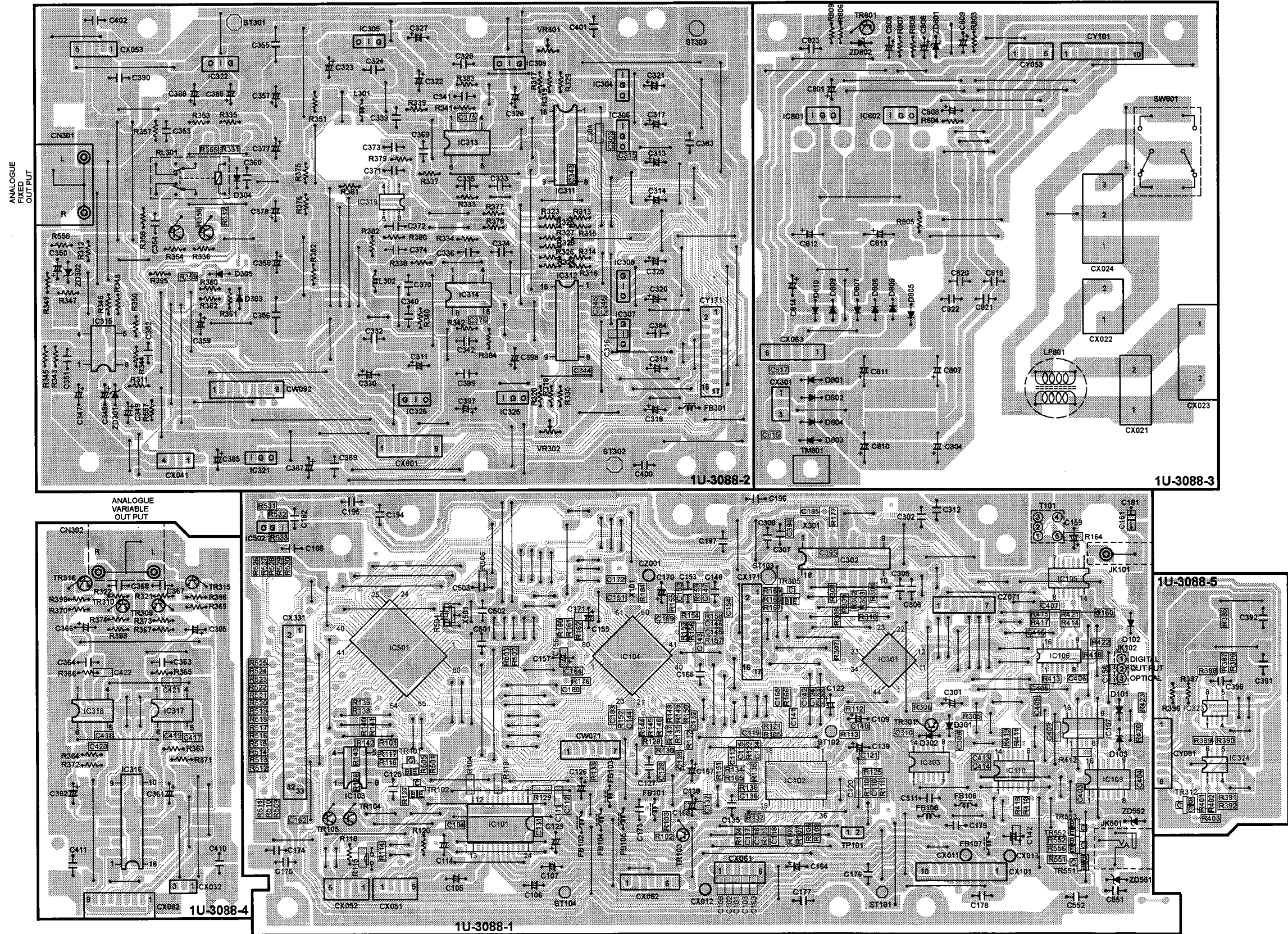
A

B

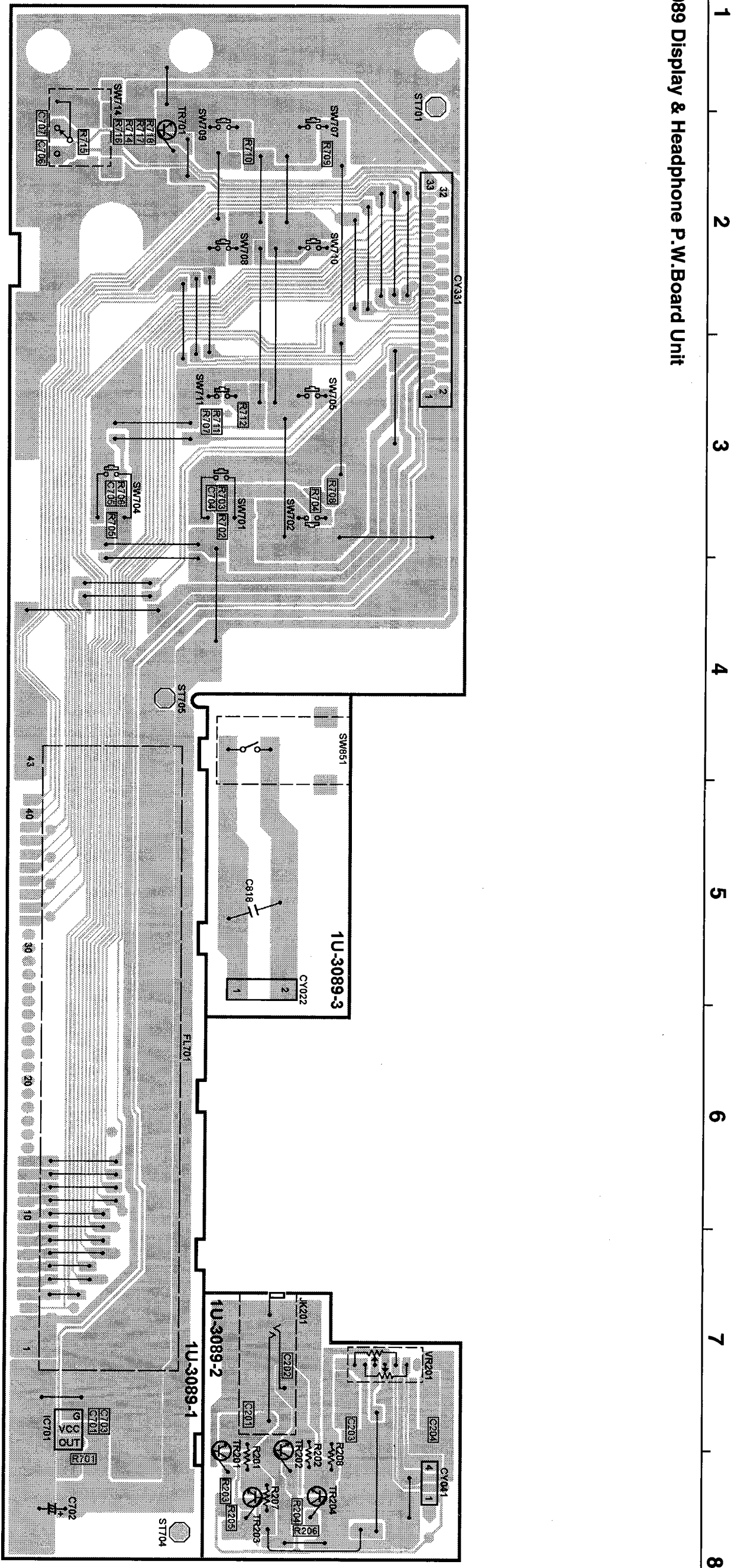
C

D

E



1U-3089 Display & Headphone P.W.Board Unit



NOTE FOR PARTS LIST

- Part indicated with the mark "⊙" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:

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

● **Resistors**

Ex.: **RN** **14K** **2E** **182** **G** **ER**
 Type Shape Power Resist- Allowable ER
 and- ance error Others
 performance

RD : Carbon	2B : 1/8W	F : ±1%	P : Pulse-resistant type
RC : Composition	2E : 1/4W	G : ±2%	NL : Low noise type
RS : Metal oxide film	2H : 1/2W	J : ±5%	NB : Non-burning type
RW : Winding	3A : 1W	K : ±10%	FR : Fuse-resistor
RN : Metal film	3D : 2W	M : ±20%	F : Lead wire forming
RK : Metal mixture	3F : 3W		
	3H : 5W		

* **Resistance**

$\overset{1}{\text{R}}\overset{2}{\text{R}} \Rightarrow 1800 \text{ ohm} = 1.8 \text{ kohm}$
 Indicates number of zeros after effective number.
 2-digit effective number.

• Units: ohm

$\overset{1}{\text{R}}\overset{2}{\text{R}} \Rightarrow 1.2 \text{ ohm}$
 1-digit effective number.
 2-digit effective number, decimal point indicated by R.

• Units: ohm

● **Capacitors**

Ex.: **CE** **04W** **1H** **2R2** **M** **BP**
 Type Shape Dielectric Capacity Allowable BP
 and- strength error Others
 performance

CE : Aluminum foil electrolytic	0J : 6.3V	F : ±1%	HS : High stability type
CA : Aluminum solid electrolytic	1A : 10V	G : ±2%	BP : Non-polar type
CS : Tantalum electrolytic	1C : 16V	J : ±5%	HR : Ripple-resistant type
CO : Film	1E : 25V	K : ±10%	DL : For charge and discharge
CK : Ceramic	1V : 35V	M : ±20%	HF : For assuring high frequency
CC : Ceramic	1H : 50V	Z : +80%	U : UL part
CP : Oil	2A : 100V	-20%	C : CSA part
CM : Mica	2B : 125V	P : +100%	W : UL-CSA type
CF : Metallized	2C : 160V	-0%	F : Lead wire forming
CH : Metallized	2D : 200V	C : ±0.25pF	
	2E : 250V	D : ±0.5pF	
	2H : 500V	= : Others	
	2J : 630V		

* **Capacity (electrolyte only)**

$\overset{2}{\text{R}}\overset{2}{\text{R}} \Rightarrow 2200\mu\text{F}$
 Indicates number of zeros after effective number.
 2-digit effective number.

• Units: μF.

$\overset{2}{\text{R}}\overset{2}{\text{R}} \Rightarrow 2.2\mu\text{F}$
 1-digit effective number.
 2-digit effective number, decimal point indicated by R.

• Units: μF.

* **Capacity (except electrolyte)**

$\overset{2}{\text{R}}\overset{2}{\text{R}} \Rightarrow 2200\text{pF} = 0.0022\mu\text{F}$
 (More than 2) — Indicates number of zeros after effective number.
 2-digit effective number.

• Units: μF.

$\overset{2}{\text{R}}\overset{2}{\text{R}}\overset{1}{\text{R}} \Rightarrow 220\text{pF}$
 (0 or 1) — Indicates number of zeros after effective number.
 2-digit effective number.

• Units: pF.

• When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

PARTS LIST OF MECHANISM UNIT

1U-3088B CD P.W.B. UNIT ASS'Y (DCD-1550ARE2)

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP				RESISTORS GROUP			
IC101	262 2143 903	IC AN8389		TR801	271 0271 907	Transistor 2SA934(Q)	
IC102	262 2142 904	IC AN8805S		D101,102	276 0616 907	Diode 1SS252	
IC103	263 0565 007	IC BA15218		D301-303	276 0616 907	Diode 1SS252	
IC104	262 2141 002	IC MN662720		D801-810	276 0553 905	Diode 1SR35-200A	
IC105	262 1205 907	IC TC74HC04AF		ZD301,302	276 0644 982	Zener diode MTZJ15A	15V
IC107	262 1718 902	IC TC74HC00AF		ZD551,552	276 0637 902	Zener diode MTZJ6.2A	6.2V
IC108	262 1356 908	IC PC74HC046AT		ZD801	276 0643 996	Zener diode MTZJ5.6A	5.6V
IC109	262 2361 905	IC TC74AC163FP		ZD802	276 0645 965	Zener diode MTZJ33A	33V
IC110	262 1665 903	IC HD74HC74FP		JK102	269 0170 005	Optical connector TOTX178	
IC301	262 1869 000	IC SM5845AF		R101,102	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
IC303	262 1665 903	IC HD74HC74FP		R103,104	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J
IC304	263 0801 004	IC NJM7812FA(S)		R105	247 0012 998	Carbon chip 200 kohm 1/10W	RM73B--204J
IC305	263 0812 006	IC NJM7815FA(S)		R106-109	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B--0R0K
IC306	263 0809 006	IC NJM7805FA(S)		R110,111	247 0009 927	Carbon chip 5.6 kohm 1/10W	RM73B--562J
IC307	263 0554 005	IC NJM7905FA		R114,115	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
IC308	263 0641 002	IC NJM7912FA		R116	247 0011 999	Carbon chip 75 kohm 1/10W	RM73B--753J
IC309	263 0561 001	IC NJM7915FA		R117	247 0010 916	Carbon chip 13 kohm 1/10W	RM73B--133J
IC311,312	262 1409 004	IC PCM61P-L		R118	244 2051 945	Metal oxide 1 ohm 1W	RS14B3A010JNBS(S)
IC313,314	263 0990 009	IC OP275GP		R120	244 2050 904	Metal oxide 22 ohm 1W	RS14B3A220JNBS(S)
IC315	262 0864 006	IC UPC4570C		R121	247 0013 942	Carbon chip 330 kohm 1/10W	RM73B--334J
IC316	262 0640 000	IC MN6632A		R122	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B--0R0K
IC317,318	262 0864 006	IC UPC4570C		R123	247 0011 986	Carbon chip 68 kohm 1/10W	RM73B--683J
IC321	263 0812 006	IC NJM7815FA(S)		R124,125	247 0010 987	Carbon chip 27 kohm 1/10W	RM73B--273J
IC322	263 0561 001	IC NJM7915FA		R125	247 0007 987	Carbon chip 1.5 kohm 1/10W	RM73B--152J
IC325	263 0812 006	IC NJM7815FA(S)		R126	247 0005 989	Carbon chip 220 ohm 1/10W	RM73B--221J
IC326	263 0561 001	IC NJM7915FA		R127	247 0003 949	Carbon chip 22 ohm 1/10W	RM73B--220J
IC501	262 2436 102	IC HD6433724E87F		R128	247 0009 901	Carbon chip 4.7 kohm 1/10W	RM73B--472J
IC502	263 0913 905	IC PST600C		R129	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J
IC801	263 0793 002	IC NJM7806FA(S)		R130	247 0008 931	Carbon chip 2.4 kohm 1/10W	RM73B--242J
IC802	263 0809 006	IC NJM7805FA(S)		R131	247 0010 945	Carbon chip 18 kohm 1/10W	RM73B--183J
IC803,804	268 0074 904	IC ICP-N20T		R132	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
TR101	269 0055 900	Transistor DTA144EK		R133	247 0013 939	Carbon chip 300 kohm 1/10W	RM73B--304J
TR102	269 0054 901	Transistor DTC144EK		R134	247 0008 960	Carbon chip 3.3 kohm 1/10W	RM73B--332J
TR103	271 0192 905	Transistor 2SA933S(S)		R136	247 0011 928	Carbon chip 39 kohm 1/10W	RM73B--393J
TR104	273 0195 908	Transistor 2SC2060(Q)		R137	247 0013 900	Carbon chip 220 kohm 1/10W	RM73B--224J
TR105	271 0271 907	Transistor 2SA934(Q)		R138,139	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
TR301	269 0089 905	Transistor RN2205		R140,141	247 0012 943	Carbon chip 120 kohm 1/10W	RM73B--124J
TR303,304	273 0253 918	Transistor 2SC2878(A/B)		R142	247 0010 929	Carbon chip 15 kohm 1/10W	RM73B--153J
TR305	269 0156 906	Transistor DTA124XKA		R143	247 0009 956	Carbon chip 7.5 kohm 1/10W	RM73B--752J
TR306	269 0082 902	Transistor DTC114EK		R144	247 0012 901	Carbon chip 82 kohm 1/10W	RM73B--823J
TR309,310	273 0253 918	Transistor 2SC2878(A/B)		R145	247 0010 945	Carbon chip 18 kohm 1/10W	RM73B--183J
TR313-316	273 0253 918	Transistor 2SC2878(A/B)		R146	247 0011 960	Carbon chip 56 kohm 1/10W	RM73B--563J
TR551-553	269 0082 902	Transistor DTC114EK		R147	247 0008 944	Carbon chip 2.7 kohm 1/10W	RM73B--272J

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R148	247 0012 998	Carbon chip 200 kohm 1/10W	RM73B--204J	CAPACITORS GROUP			
R149	247 0009 901	Carbon chip 4.7 kohm 1/10W	RM73B--472J	C103	257 0005 944	Ceramic chip 220 pF/50V	CC73SL1H221J
R150	247 0008 944	Carbon chip 2.7 kohm 1/10W	RM73B--272J	C104	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K
R152	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J	C105-107	254 3056 917	Electrolytic 1 μF/50V	CE04D1H010MBP
R153	247 0012 927	Carbon chip 100 kohm 1/10W	RM73B--104J	C108	257 0005 944	Ceramic chip 220 pF/50V	CC73SL1H221J
R154	247 0005 989	Carbon chip 220 ohm 1/10W	RM73B--221J	C109	254 4260 951	Electrolytic 2.2 μF/50V	CE04W1H2R2M
R155	247 0007 903	Carbon chip 680 ohm 1/10W	RM73B--681J	C110-112	257 0001 948	Ceramic chip 2.0 pF/50V	CC73SL1H2R0C
R156	247 0011 986	Carbon chip 68 kohm 1/10W	RM73B--683J	C114	254 3056 917	Electrolytic 1 μF/50V	CE04D1H010MBP
R157	247 0012 943	Carbon chip 120 kohm 1/10W	RM73B--124J	C116	257 0005 931	Ceramic chip 200 pF/50V	CC73SL1H201J
R158	247 0014 967	Carbon chip 1 Mohm 1/10W	RM73B--105J	C117	257 0005 986	Ceramic chip 330 pF/50V	CC73SL1H331J
R160-162	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J	C118-120	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K
R164	247 0004 977	Carbon chip 75 ohm 1/10W	RM73B--750J	C121	257 0004 961	Ceramic chip 100 pF/50V	CC73SL1H101J
R165,166	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B--0R0K	C122	254 4260 948	Electrolytic 1 μF/50V	CE04W1H010M
R167,168	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J	C123	257 0004 961	Ceramic chip 100 pF/50V	CC73SL1H101J
R169	247 0007 987	Carbon chip 1.5 kohm 1/10W	RM73B--152J	C124	257 0010 955	Ceramic chip 0.027 μF/25V	CK73B1E273K
R176	247 0006 962	Carbon chip 470 ohm 1/10W	RM73B--471J	C125	253 9031 920	Ceramic 0.1 μF/25V	CK45=1E104K
R181	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J	C126	254 4254 938	Electrolytic 47 μF/16V	CE04W1C470M
R184	247 0014 967	Carbon chip 1 Mohm 1/10W	RM73B--105J	C127	256 1035 907	Metallized 0.18 μF/50V	CF93A1H184J
R305	247 0008 944	Carbon chip 2.7 kohm 1/10W	RM73B--272J	C128	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K
R306	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J	C129	254 4254 938	Electrolytic 47 μF/16V	CE04W1C470M
R307-310	247 0003 981	Carbon chip 33 ohm 1/10W	RM73B--330J	C130	257 0009 908	Ceramic chip 1500 pF/50V	CK73B1H152K
R311,312	241 2377 989	Carbon film 150 ohm 1/4W(NB)	RD14B2E151JNBS	C131	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K
R331,332	247 0008 944	Carbon chip 2.7 kohm 1/10W	RM73B--272J	C132	257 0009 995	Ceramic chip 8200 pF/50V	CK73B1H822K
R337,338	245 2384 987	Metal film 470 ohm 1/4W	RN14K2E471F(EROS2)	C133	257 0009 924	Ceramic chip 2200 pF/50V	CK73B1H222K
R339-342	245 2385 902	Metal film 2.2 kohm 1/4W	RN14K2E222F(EROS2)	C135	256 1034 937	Metallized 0.047 μF/50V	CF93A1H473J
R355,356	247 0008 944	Carbon chip 2.7 kohm 1/10W	RM73B--272J	C136	257 0009 966	Ceramic chip 4700 pF/50V	CK73B1H472K
R359	247 0012 998	Carbon chip 200 kohm 1/10W	RM73B--204J	C137	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K
R360	244 2052 902	Metal oxide 2.7 kohm 1W	RS14B3A272JNBS(S)	C138	254 4260 948	Electrolytic 1 μF/50V	CE04W1H010M
R361	241 2377 934	Carbon film 91 ohm 1/4W(NB)	RD14B2E910JNBS	C139	254 4252 943	Electrolytic 220 μF/10V	CE04W1A221M
R383,384	245 2385 928	Metal film 39 kohm 1/4W	RN14K2E393F(EROS2)	C140	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K
R395	245 2385 915	Metal film 10 kohm 1/4W	RN14K2E103F(EROS2)	C141	257 0009 966	Ceramic chip 4700 pF/50V	CK73B1H472K
R410-412	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J	C142	257 0009 924	Ceramic chip 2200 pF/50V	CK73B1H222K
R413	247 0006 920	Carbon chip 330 ohm 1/10W	RM73B--331J	C143	257 0006 943	Ceramic chip 560 pF/50V	CC73SL1H561J
R414,415	247 0009 972	Carbon chip 9.1 kohm 1/10W	RM73B--912J	C144	257 0004 961	Ceramic chip 100 pF/50V	CC73SL1H101J
R416	247 0008 973	Carbon chip 3.6 kohm 1/10W	RM73B--362J	C145,146	257 0010 942	Ceramic chip 0.022 μF/50V	CK73B1H223K
R420	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J	C148	256 1035 910	Metallized 0.22 μF/50V	CF93A1H224J
R421	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J	C151	257 0002 950	Ceramic chip 13 pF/50V	CC73SL1H130J
R501	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J	C153	256 1035 936	Metallized 0.33 μF/50V	CF93A1H334J
R502,503	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J	C154	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K
R505,506	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J	C155	254 4254 941	Electrolytic 100 μF/16V	CE04W1C101M
R509-530	247 0012 927	Carbon chip 100 kohm 1/10W	RM73B--104J	C156	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K
R531	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J	C157	254 4250 929	Electrolytic 100 μF/6.3V	CE04W0J101M
R532	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B--0R0K	C158	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K
R551,552	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J	C159	254 4254 925	Electrolytic 33 μF/16V	CE04W1C330M
R556	247 0010 961	Carbon chip 22 kohm 1/10W	RM73B--223J	C160-163	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K
R557,558	241 2377 989	Carbon film 150 ohm 1/4W(NB)	RD14B2E151JNBS	C164	254 4254 938	Electrolytic 47 μF/16V	CE04W1C470M
VR301,302	211 6093 970	Semi fixed resistor 100 kohm	V06PB104	C166	253 1179 974	Ceramic 390 pF/50V	CK45B1H391K(DD-3)
				C167	254 4254 776	Electrolytic 470 μF/16V	CE04W1C471MC
				C168,169	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K
				C171	257 0010 900	Ceramic chip 0.01 μF/50V	CK73B1H103K
				C172	257 0002 950	Ceramic chip 13 pF/50V	CC73SL1H130J
				C174,175	253 1181 904	Ceramic 0.01 μF/50V	CK45F1H103Z(DD-3)

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
C180	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B-0R0K	C413	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K
C183,184	257 0010 900	Ceramic chip 0.01 μ F/50V	CK73B1H103K	C415,416	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K
C194-197	253 1181 904	Ceramic 0.01 μ F/50V	CK45F1H103Z(DD-3)	C423,424	253 9030 963	Ceramic chip 0.01 μ F/25V	CK45=1E103K
C301	254 4260 948	Electrolytic 1 μ F/50V	CE04W1H010M	C501	253 9039 906	Ceramic 0.1 μ F/25V	CK45=1E104Z(DD-3)
C303	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C502,503	253 9030 963	Ceramic 0.01 μ F/25V	CK45=1E103K
C304	257 0010 900	Ceramic chip 0.01 μ F/50V	CK73B1H103K	C551	253 9039 906	Ceramic 0.1 μ F/25V	CK45=1E104Z(DD-3)
C305	253 9039 906	Ceramic 0.1 μ F/25V	CK45=1E104Z(DD-3)	C801	254 4258 934	Electrolytic 33 μ F/35V	CE04W1V330M
C307	253 9039 906	Ceramic 0.1 μ F/25V	CK45=1E104Z(DD-3)	C804	254 4319 792	Electrolytic 4700 μ F/25V	CE04W1E472MC(ASF)
C309	257 0009 908	Ceramic chip 1500 pF/50V	CK73B1H152K	C805,806	254 4258 934	Electrolytic 33 μ F/35V	CE04W1V330M
C310	257 0003 988	Ceramic chip 47 pF/50V	CC73SL1H470J	C807	254 4319 792	Electrolytic 4700 μ F/25V	CE04W1E472MC(ASF)
C311	253 9039 906	Ceramic 0.1 μ F/25V	CK45=1E104Z(DD-3)	C808	254 4258 934	Electrolytic 33 μ F/35V	CE04W1V330M
C313,314	254 4517 905	Electrolytic 22 μ F/35V	CE04W1V220M(ARA)	C809	254 4261 921	Electrolytic 100 μ F/50V	CE04W1H101M
C315,316	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C810,811	254 4356 742	Electrolytic 470 μ F/50V	CE04W1H471(ARS)
C317-321	254 4517 905	Electrolytic 22 μ F/35V	CE04W1V220M(ARA)	C812,813	254 4257 702	Electrolytic 3300 μ F/25V	CE04W1E332MC
C322,323	254 4356 739	Electrolytic 47 μ F/50V	CE04W1H470MC(ARS)	C814	254 4262 946	Electrolytic 47 μ F/63V	CE04W1J470M
C324	255 4235 934	Polypropylene film 0.01 μ F/100V	CQ93P2A103J(NH)	C815	253 9031 920	Ceramic 0.1 μ F/25V	CK45=1E104K
C325	254 4517 905	Electrolytic 22 μ F/35V	CE04W1V220M(ARA)	C815	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K
C326,327	254 4356 739	Electrolytic 47 μ F/50V	CE04W1H470MC(ARS)	C817	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K
C328	255 4235 934	Polypropylene film 0.01 μ F/100V	CQ93P2A103J(NH)	OTHER PARTS GROUP			
C330,331	254 4356 739	Electrolytic 47 μ F/50V	CE04W1H470MC(ARS)	CN301,302	204 8537 012	2P pin jack (GND)	2
C332	255 4235 934	Polypropylene film 0.01 μ F/100V	CQ93P2A103J(NH)	CW032	203 5202 004	3P PH-SAN shield cord	1
C333,334	255 4237 929	Polypropylene film 56 pF/50V	CQ93P2A560J(NH)	CW071	204 2234 049	7P DA-DA connectotor cord	CW071-CZ071 1
C335,336	255 4235 918	Polypropylene film 100 pF/50V	CQ93P2A101J(NH)	CW092	204 2824 006	9P PH-SAN shield cord	1
C339,340	255 4235 950	Polypropylene film 6800 pF/100V	CQ93P2A682J(NH)	CX022	205 0581 085	2P VH connector base	1
C341,342	253 1179 945	Ceramic 220 pF/50V	CK45B1H221K(DD-3)	A CX023	203 2340 009	2P inlet	1
C343	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	CX024	205 0581 001	2P VH connector base	1
C347,348	254 4250 929	Electrolytic 100 μ F/6.3V	CE04W0J101M	CX031	205 0190 036	3P NH connector base	1
C349,350	254 4256 949	Electrolytic 100 μ F/25V	CE04W1E101M	CX032	205 0343 032	3P connector base (KR-PH)	1
C351,352	253 4537 982	Ceramic 56 pF/50V	CC45SL1H560J(DD-3)	CX041	205 0343 045	4P connector base(KR-PH)	1
C353,354	255 4232 937	Polypropylene film 1000 pF/100V	CQ93P2A102J(NH)	CX051	205 0343 058	5P connector base(KR-PH)	1
C357,358	254 4356 713	Electrolytic 100 μ F/50V	CE04W1H101MC(ARS)	CX052	205 0321 054	5P connector base (RED)	1
C359	254 4256 952	Electrolytic 220 μ F/25V	CE04W1E221M	CX053	205 0343 058	5P connector base(KR-PH)	1
C361,362	254 4254 909	Electrolytic 10 μ F/16V	CE04W1C100M	CX061	205 0343 061	6P connector base(KR-PH)	1
C363,364	253 4537 924	Ceramic 33 pF/50V	CC45SL1H330J(DD-3)	CX062	205 0321 067	6P connector base (RED)	1
C365,366	254 4261 921	Electrolytic 100 μ F/50V	CE04W1H101M	CX063	205 0190 065	6P NH connector base	1
C367,368	253 1180 921	Ceramic 1000 pF/50V	CK45B1H102K(DD-3)	CX092	205 0343 090	9P connector base (KR-PH)	1
C369,370	255 4232 937	Polypropylene film 1000 pF/100V	CQ93P2A102J(NH)	CX101	205 0375 000	10P connector base (KR-PH)	1
C377,378	254 4356 713	Electrolytic 100 μ F/50V	CE04W1H101MC(ARS)	CX171	205 0736 047	17P FFC connector base	1
C383,384	255 4235 934	Polypropylene film 0.01 μ F/100V	CQ93P2A103J(NH)	CX331	205 0736 005	33P FFC base	1
C385-388	254 4517 905	Electrolytic 22 μ F/35V	CE04W1V220M(ARA)	CY053	205 0343 058	5P connector base (KR-PH)	1
C387,398	254 4356 739	Electrolytic 47 μ F/50V	CE04W1H470MC(ARS)	CY101	205 0375 000	10P connector base (KR-PH)	1
C389,390	253 9039 906	Ceramic 0.1 μ F/25V	CK45=1E104Z(DD-3)				
C399	255 4235 934	Polypropylene film 0.01 μ F/100V	CQ93P2A103J(NH)				
C400-402	253 1181 904	Ceramic 0.01 μ F/50V	CK45F1H103Z(DD-3)				
C403	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K				
C405	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B-0R0K				
C406	257 0003 962	Ceramic chip 39 pF/50V	CC73SL1H390J				
C407	257 0005 902	Ceramic chip 150 pF/50V	CC73SL1H151J				
C409	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K				
C412	254 4250 929	Electrolytic 100 μ F/6.3V	CE04W0J101M				

1U-3088D CD P.W.B. UNIT ASS'Y (DCD-1880ARE1)

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks
CY171	205 0736 047	17P FFC connector base		1	SEMICONDUCTORS GROUP			
JK101	204 8417 006	1P pin jack (S-GND)		1	IC101	262 2143 903	IC AN8389	
JK501	204 8416 007	Mini jack		1	IC102	262 2142 904	IC AN8805S	
L301,302	235 0110 923	Inductor (1 μ H)		2	IC103	263 0565 007	IC BA15218	
ST101	205 0452 017	Style pin		1	IC104	262 2141 002	IC MN662720	
ST104	205 0452 017	Style pin		1	IC105	262 1205 907	IC TC74HCU04AF	
ST301,302	205 0452 017	Style pin		2	IC107	262 1718 902	IC TC74HC00AF	
SW101	212 5604 910	Tact switch -TA (ALPS)		1	IC108	262 1356 908	IC PC74HC4046AT	
T101	231 8063 009	Pulse trans.		1	IC109	262 2361 905	IC TC74AC163FP	
TP101	205 0190 023	2P NH connector base		1	IC110	262 1665 903	IC HD74HC74FP	
CX014	203 0383 054	1P sin con cord		1	IC301	262 1869 000	IC SM5845AF	
CX017	203 0386 093	1P sin con cord		1	IC303	262 1665 903	IC HD74HC74FP	
CZ014	203 0383 054	1P sin con cord		1	IC304	263 0801 004	IC NJM7812FA(S)	
CZ017	203 0386 093	1P sin con cord		1	IC305	263 0812 006	IC NJM7815FA(S)	
X101	399 0165 007	Crystal 16.9344 MHz		1	IC306	263 0809 006	IC NJM7805FA(S)	
	417 0476 049	Radiator		2	IC307	263 0554 005	IC NJM7905FA	
	471 3304 015	Screw 3 x 8 CBS-Z		2	IC308	263 0641 002	IC NJM7912FA	
					IC309	263 0561 001	IC NJM7915FA	
					IC311,312	262 1409 004	IC PCM61P-L	
					IC313,314	263 0990 009	IC OP275GP	
					IC315	262 0864 006	IC UPC4570C	
					IC316	262 0640 000	IC MN6632A	
					IC317,318	262 0864 006	IC UPC4570C	
					IC321	263 0812 006	IC NJM7815FA(S)	
					IC322	263 0561 001	IC NJM7915FA	
					IC325	263 0812 006	IC NJM7815FA(S)	
					IC326	263 0561 001	IC NJM7915FA	
					IC501	262 2436 005	IC HD6433724E84F	Up to 500 unit
					IC501	262 2436 102	IC HD6433724E87F	From 501 unit on
					IC502	263 0913 905	IC PST600C	
					IC801	263 0793 002	IC NJM7806FA(S)	
					IC802	263 0809 006	IC NJM7805FA(S)	
					IC803,804	268 0074 904	IC ICP-N20T	
					TR101	269 0055 900	Transistor DTA144EK	
					TR102	269 0054 901	Transistor DTC144EK	
					TR103	271 0183 927	Transistor 2SA933 (R/S)	
					TR104	274 0036 905	Transistor 2SD468(C)	
					TR105	272 0025 907	Transistor 2SB562(C)	
					TR301	269 0089 905	Transistor RN2205	
					TR303,304	273 0253 918	Transistor 2SC2878(A/B)	
					TR305	269 0156 906	Transistor DTA124XKA	
					TR306	269 0082 902	Transistor DTC114EK	
					TR309,310	273 0253 918	Transistor 2SC2878(A/B)	
					TR313-316	273 0253 918	Transistor 2SC2878(A/B)	
					TR551-553	269 0082 902	Transistor DTC114EK	

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
TR801	272 0025 907	Transistor 2SB562(C)		R149	247 0009 901	Carbon chip 4.7 kohm 1/10W	RM73B--472J
D101,102	276 0616 907	Diode 1SS252		R150	247 0008 944	Carbon chip 2.7 kohm 1/10W	RM73B--272J
D301~303	276 0616 907	Diode 1SS252		R152	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
D801~810	276 0553 905	Diode 1SR35-200A		R153	247 0012 927	Carbon chip 100 kohm 1/10W	RM73B--104J
ZD301,302	276 0644 982	Zener diode MTZJ15A	15V	R154	247 0005 989	Carbon chip 220 ohm 1/10W	RM73B--221J
ZD551,552	276 0637 902	Zener diode MTZJ6.2A	6.2V	R155	247 0007 903	Carbon chip 680 ohm 1/10W	RM73B--681J
ZD801	276 0643 996	Zener diode MTZJ5.6A	5.6V	R156	247 0011 986	Carbon chip 68 kohm 1/10W	RM73B--683J
ZD802	276 0645 965	Zener diode MTZJ33A	33V	R157	247 0012 943	Carbon chip 120 kohm 1/10W	RM73B--124J
JK102	269 0170 005	Optical connector TOTX178		R158	247 0014 967	Carbon chip 1 Mohm 1/10W	RM73B--105J
RESISTORS GROUP				R160~162	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R101,102	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J	R164	247 0004 977	Carbon chip 75 ohm 1/10W	RM73B--750J
R103,104	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J	R165,166	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B--0R0K
R105	247 0012 998	Carbon chip 200 kohm 1/10W	RM73B--204J	R167,168	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R106~109	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B--0R0K	R169	247 0007 987	Carbon chip 1.5 kohm 1/10W	RM73B--152J
R110,111	247 0009 927	Carbon chip 5.6 kohm 1/10W	RM73B--562J	R176	247 0006 962	Carbon chip 470 ohm 1/10W	RM73B--471J
R114,115	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J	R184	247 0014 967	Carbon chip 1 Mohm 1/10W	RM73B--105J
R116	247 0011 999	Carbon chip 75 kohm 1/10W	RM73B--753J	R305	247 0008 944	Carbon chip 2.7 kohm 1/10W	RM73B--272J
R117	247 0010 916	Carbon chip 13 kohm 1/10W	RM73B--133J	R306	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R118	244 2051 945	Metal oxide 1 ohm 1W	RS14B3A010JNBS(S)	R307~310	247 0003 981	Carbon chip 33 ohm 1/10W	RM73B--330J
R120	244 2050 904	Metal oxide 22 ohm 1W	RS14B3A220JNBS(S)	R311,312	241 2377 989	Carbon film 150 ohm 1/4W(NB)	RD14B2E151JNBS
R121	247 0013 942	Carbon chip 330 kohm 1/10W	RM73B--334J	R331,332	247 0008 944	Carbon chip 2.7 kohm 1/10W	RM73B--272J
R122	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B--0R0K	R337,338	245 2384 987	Metal film 470 ohm 1/4W	RN14K2E471F(EROS2)
R123	247 0011 986	Carbon chip 68 kohm 1/10W	RM73B--683J	R339~342	245 2385 902	Metal film 2.2 kohm 1/4W	RN14K2E222F(EROS2)
R124	247 0010 987	Carbon chip 27 kohm 1/10W	RM73B--273J	R355,356	247 0008 944	Carbon chip 2.7 kohm 1/10W	RM73B--272J
R125	247 0007 987	Carbon chip 1.5 kohm 1/10W	RM73B--152J	R359	247 0012 998	Carbon chip 200 kohm 1/10W	RM73B--204J
R126	247 0005 989	Carbon chip 220 ohm 1/10W	RM73B--221J	R360	244 2052 902	Metal oxide 2.7 kohm 1W	RS14B3A272JNBS(S)
R127	247 0003 949	Carbon chip 22 ohm 1/10W	RM73B--220J	R361	241 2377 934	Carbon film 91 ohm 1/4W(NB)	RD14B2E910JNBS
R128	247 0009 901	Carbon chip 4.7 kohm 1/10W	RM73B--472J	R383,384	245 2385 928	Metal film 39 kohm 1/4W	RN14K2E393F(EROS2)
R129	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J	R395	245 2385 915	Metal film 10 kohm 1/4W	RN14K2E103F(EROS2)
R130	247 0008 931	Carbon chip 2.4 kohm 1/10W	RM73B--242J	R410~412	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R131	247 0010 945	Carbon chip 18 kohm 1/10W	RM73B--183J	R413	247 0006 920	Carbon chip 330 ohm 1/10W	RM73B--331J
R132	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J	R414,415	247 0009 972	Carbon chip 9.1 kohm 1/10W	RM73B--912J
R133	247 0013 939	Carbon chip 300 kohm 1/10W	RM73B--304J	R416	247 0008 973	Carbon chip 3.6 kohm 1/10W	RM73B--362J
R134	247 0008 960	Carbon chip 3.3 kohm 1/10W	RM73B--332J	R420	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R136	247 0011 928	Carbon chip 39 kohm 1/10W	RM73B--393J	R421	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R137	247 0013 900	Carbon chip 220 kohm 1/10W	RM73B--224J	R501	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R138,139	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J	R502,503	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J
R140,141	247 0012 943	Carbon chip 120 kohm 1/10W	RM73B--124J	R505,506	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R142	247 0010 929	Carbon chip 15 kohm 1/10W	RM73B--153J	R509~530	247 0012 927	Carbon chip 100 kohm 1/10W	RM73B--104J
R143	247 0009 956	Carbon chip 7.5 kohm 1/10W	RM73B--752J	R531	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R144	247 0012 901	Carbon chip 82 kohm 1/10W	RM73B--823J	R532	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B--0R0K
R145	247 0010 945	Carbon chip 18 kohm 1/10W	RM73B--183J	R551	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R146	247 0011 960	Carbon chip 56 kohm 1/10W	RM73B--563J	R552	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J
R147	247 0008 944	Carbon chip 2.7 kohm 1/10W	RM73B--272J	R556	247 0010 961	Carbon chip 22 kohm 1/10W	RM73B--223J
R148	247 0012 998	Carbon chip 200 kohm 1/10W	RM73B--204J	R557,558	241 2377 989	Carbon film 150 ohm 1/4W(NB)	RD14B2E151JNBS
				VR301,302	211 6093 970	Semi fixed resistor 100 kohm	V06PB104

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
CAPACITORS GROUP							
C103	257 0005 944	Ceramic chip 220 pF/50V	CC73SL1H221J	C172	257 0002 950	Ceramic chip 13 pF/50V	CC73SL1H130J
C104	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C174,175	253 1181 904	Ceramic 0.01 μ F/50V	CK45F1H103Z(DD-3)
C105~107	254 3056 917	Electrolytic 1 μ F/50V	CE04D1H010MBP	C180	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B--0R0K
C108	257 0005 944	Ceramic chip 220 pF/50V	CC73SL1H221J	C183,184	257 0010 900	Ceramic chip 0.01 μ F/50V	CK73B1H103K
C109	254 4260 951	Electrolytic 2.2 μ F/50V	CE04W1H2R2M	C194~197	253 1181 904	Ceramic 0.01 μ F/50V	CK45F1H103Z(DD-3)
C110	257 0001 948	Ceramic chip 2.0 pF/50V	CC73SL1H2R0C	C301	254 4260 948	Electrolytic 1 μ F/50V	CE04W1H010M
C111,112	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C303	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K
C114	254 3056 917	Electrolytic 1 μ F/50V	CE04D1H010MBP	C304	257 0010 900	Ceramic chip 0.01 μ F/50V	CK73B1H103K
C116	257 0005 931	Ceramic chip 200 pF/50V	CC73SL1H201J	C305	253 9039 906	Ceramic 0.1 μ F/25V	CK45=1E104Z(DD-3)
C117	257 0005 986	Ceramic chip 330 pF/50V	CC73SL1H331J	C307	253 9039 906	Ceramic 0.1 μ F/25V	CK45=1E104Z(DD-3)
C118~120	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C309	257 0009 908	Ceramic chip 1500 pF/50V	CK73B1H152K
C121	257 0004 961	Ceramic chip 100 pF/50V	CC73SL1H101J	C310	257 0003 988	Ceramic chip 47 pF/50V	CC73SL1H470J
C122	254 4260 948	Electrolytic 1 μ F/50V	CE04W1H010M	C311	253 9039 906	Ceramic 0.1 μ F/25V	CK45=1E104Z(DD-3)
C123	257 0004 961	Ceramic chip 100 pF/50V	CC73SL1H101J	C313,314	254 4517 905	Electrolytic 22 μ F/35V	CE04W1V220M(ARA)
C124	257 0010 955	Ceramic chip 0.027 μ F/25V	CK73B1E273K	C315,316	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K
C125	253 9031 920	Ceramic 0.1 μ F/25V	CK45=1E104K	C317~321	254 4517 905	Electrolytic 22 μ F/35V	CE04W1V220M(ARA)
C126	254 4254 938	Electrolytic 47 μ F/16V	CE04W1C470M	C322,323	254 4356 739	Electrolytic 47 μ F/50V	CE04W1H470MC(ARS)
C127	256 1035 907	Metallized 0.18 μ F/50V	CF93A1H184J	C324	255 4235 934	Polypropylene film 0.01 μ F/100V	CQ93P2A103J(NH)
C128	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C325	254 4517 905	Electrolytic 22 μ F/35V	CE04W1V220M(ARA)
C129	254 4254 938	Electrolytic 47 μ F/16V	CE04W1C470M	C326,327	254 4356 739	Electrolytic 47 μ F/50V	CE04W1H470MC(ARS)
C130	257 0009 908	Ceramic chip 1500 pF/50V	CK73B1H152K	C328	255 4235 934	Polypropylene film 0.01 μ F/100V	CQ93P2A103J(NH)
C131	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C330,331	254 4356 739	Electrolytic 47 μ F/50V	CE04W1H470MC(ARS)
C132	257 0009 995	Ceramic chip 8200 pF/50V	CK73B1H822K	C332	255 4235 934	Polypropylene film 0.01 μ F/100V	CQ93P2A103J(NH)
C133	257 0009 924	Ceramic chip 2200 pF/50V	CK73B1H222K	C333,334	255 4237 929	Polypropylene film 56 pF/50V	CQ93P2A560J(NH)
C135	256 1034 937	Metallized 0.047 μ F/50V	CF93A1H473J	C335,336	255 4235 918	Polypropylene film 100 pF/50V	CQ93P2A101J(NH)
C136	257 0009 966	Ceramic chip 4700 pF/50V	CK73B1H472K	C339,340	255 4235 950	Polypropylene film 6800 pF/100V	CQ93P2A682J(NH)
C137	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C341,342	253 1179 945	Ceramic 220 pF/50V	CK45B1H221K(DD-3)
C138	254 4260 948	Electrolytic 1 μ F/50V	CE04W1H010M	C343	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K
C139	254 4252 943	Electrolytic 220 μ F/10V	CE04W1A221M	C347,348	254 4250 929	Electrolytic 100 μ F/6.3V	CE04W0J101M
C140	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C349,350	254 4256 949	Electrolytic 100 μ F/25V	CE04W1E101M
C141	257 0009 966	Ceramic chip 4700 pF/50V	CK73B1H472K	C351,352	253 4537 982	Ceramic 56 pF/50V	CC45SL1H560J(DD-3)
C142	257 0009 924	Ceramic chip 2200 pF/50V	CK73B1H222K	C353,354	255 4232 937	Polypropylene film 1000 pF/100V	CQ93P2A102J(NH)
C143	257 0006 943	Ceramic chip 560 pF/50V	CC73SL1H561J	C357,358	254 4356 713	Electrolytic 100 μ F/50V	CE04W1H101MC(ARS)
C144	257 0004 961	Ceramic chip 100 pF/50V	CC73SL1H101J	C359	254 4256 952	Electrolytic 220 μ F/25V	CE04W1E221M
C145,146	257 0010 942	Ceramic chip 0.022 μ F/50V	CK73B1H223K	C361,362	254 4254 909	Electrolytic 10 μ F/16V	CE04W1C100M
C148	256 1035 910	Metallized 0.22 μ F/50V	CF93A1H224J	C363,364	253 4537 924	Ceramic 33 pF/50V	CC45SL1H330J(DD-3)
C151	257 0002 950	Ceramic chip 13 pF/50V	CC73SL1H130J	C365,366	254 4261 921	Electrolytic 100 μ F/50V	CE04W1H101M
C153	256 1035 936	Metallized 0.33 μ F/50V	CF93A1H334J	C367,368	253 1180 921	Ceramic 1000 pF/50V	CK45B1H102K(DD-3)
C154	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C369,370	255 4232 937	Polypropylene film 1000 pF/100V	CQ93P2A102J(NH)
C155	254 4254 941	Electrolytic 100 μ F/16V	CE04W1C101M	C377,378	254 4356 713	Electrolytic 100 μ F/50V	CE04W1H101MC(ARS)
C156	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C383,384	255 4235 934	Polypropylene film 0.01 μ F/100V	CQ93P2A103J(NH)
C157	254 4250 929	Electrolytic 100 μ F/6.3V	CE04W0J101M	C385~388	254 4517 905	Electrolytic 22 μ F/35V	CE04W1V220M(ARA)
C158	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C389,390	253 9039 906	Ceramic 0.1 μ F/25V	CK45=1E104Z(DD-3)
C159	254 4254 925	Electrolytic 33 μ F/16V	CE04W1C330M	C397,398	254 4356 739	Electrolytic 47 μ F/50V	CE04W1H470MC(ARS)
C160,161	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C399	255 4235 934	Polypropylene film 0.01 μ F/100V	CQ93P2A103J(NH)
C163	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C400~402	253 1181 904	Ceramic 0.01 μ F/50V	CK45F1H103Z(DD-3)
C164	254 4254 938	Electrolytic 47 μ F/16V	CE04W1C470M	C403	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K
C166	253 1179 974	Ceramic 390 pF/50V	CK45B1H391K(DD-3)	C405	247 0018 905	Carbon chip 0 ohm 1/10W	RM73B--0R0K
C167	254 4254 776	Electrolytic 470 μ F/16V	CE04W1C471MC	C406	257 0003 962	Ceramic chip 39 pF/50V	CC73SL1H390J
C168,169	257 0011 996	Ceramic chip 0.1 μ F/25V	CK73B1E104K	C407	257 0005 902	Ceramic chip 150 pF/50V	CC73SL1H151J
C171	257 0010 900	Ceramic chip 0.01 μ F/50V	CK73B1H103K				

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	Q'ty
C409	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K	CY101	205 0375 000	10P connector base (KR-PH)		1
C412	254 4250 929	Electrolytic 100 μF/6.3V	CE04W0J101M	CY171	205 0736 047	17P FFC connector base		1
C413	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K					
C415,416	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K	JK101	204 8417 006	1P pin jack (S-GND)		1
C423,424	253 9030 963	Ceramic 0.01 μF/25V	CK45=1E103K					
C501	253 9039 906	Ceramic 0.1 μF/25V	CK45=1E104Z(DD-3)	JK501	204 8416 007	Mini jack		1
C502,503	253 9030 963	Ceramic 0.01 μF/25V	CK45=1E103K	L301,302	235 0110 923	Inductor (1μH)		2
C551	253 9039 906	Ceramic 0.1 μF/25V	CK45=1E104Z(DD-3)					
C801	254 4258 934	Electrolytic 33 μF/35V	CE04W1V330M	ST101	205 0452 017	Style pin		1
C804	254 4319 792	Electrolytic 4700 μF/25V	CE04W1E472MC(ASF)	ST104	205 0452 017	Style pin		1
C805,806	254 4258 934	Electrolytic 33 μF/35V	CE04W1V330M	ST301	205 0452 017	Style pin		1
C807	254 4319 792	Electrolytic 4700 μF/25V	CE04W1E472MC(ASF)	ST303	205 0452 017	Style pin		1
C808	254 4258 934	Electrolytic 33 μF/35V	CE04W1V330M	SW101	212 5604 910	Tact switch -TA (ALPS)		1
C809	254 4261 921	Electrolytic 100 μF/50V	CE04W1H101M	A SW801	212 1118 002	Voltage selector		1
C810,811	254 4356 742	Electrolytic 470 μF/50V	CE04W1H471(ARS)	T101	231 8063 009	Pulse trans.		1
C812,813	254 4257 702	Electrolytic 3300 μF/25V	CE04W1E332MC	TP101	205 0190 023	2P NH connector base		1
C814	254 4262 946	Electrolytic 47 μF/63V	CE04W1J470M					
C815	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K	CX014	203 0383 054	1P sin con cord		1
C817	257 0011 996	Ceramic chip 0.1 μF/25V	CK73B1E104K	CX017	203 0386 093	1P sin con cord		1
OTHER PARTS GROUP				Q'ty				
CN301,302	204 8537 012	2P pin jack (GND)		CZ014	203 0383 054	1P sin con cord		1
CW032	203 5202 004	3P PH-SAN shield cord		CZ017	203 0386 093	1P sin con cord		1
CW071	204 2234 049	7P DA-DA connectotor cord		X101	399 0165 007	Crystal 16.9344 MHz		1
CW092	204 2824 006	9P PH-SAN shield cord						
CX022	205 0581 085	2P VH connector base			417 0476 049	Radiator		2
A CX023	203 2349 009	2P Inlet			471 3304 015	Screw 3 x 8 CBS-Z		2
CX024	205 0825 000	3P AC connector base						
CX031	205 0190 036	3P NH connector base						
CX032	205 0343 032	3P connector base (KR-PH)						
CX041	205 0343 045	4P connector base (KR-PH)						
CX051	205 0343 058	5P connector base (KR-PH)						
CX052	205 0321 054	5P connector base (RED)						
CX053	205 0343 058	5P connector base (KR-PH)						
CX061	205 0343 061	6P connector base (KR-PH)						
CX062	205 0321 067	6P connector base (RED)						
CX063	205 0190 065	6P NH connector base						
CX092	205 0343 090	9P connector base (KR-PH)						
CX101	205 0375 000	10P connector base (KR-PH)						
CX170	205 0736 047	17P FFC connector base						
CX331	205 0736 005	33P FFC base						
CY053	205 0343 058	5P connector base (KR-PH)						

1U-3089 DISPLAY & H/P P.W.B. UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	Q'ty
SEMICONDUCTORS GROUP				SW701,702	212 5604 910	Tact switch -TA (ALPS)		2
IC701	499 0290 007	Remocon sensor GP1U271X		SW704,705	212 5604 910	Tact switch -TA (ALPS)		2
TR201,202	273 0253 918	Transistor 2SC2878(A/B)		SW707-711	212 5604 910	Tact switch -TA (ALPS)		5
TR701	269 0062 906	Transistor DTC124ES(22K-22K)		SW714	212 0382 004	Rotary encoder		1
RESISTORS GROUP				Δ SW851	212 1101 006	Power switch TV-5		1
R201,202	241 2376 980	Carbon film 56 ohm 1/4W(NB)	RD14B2E560JNBS	461 0862 032		FL spacer		2
R203,204	247 0009 901	Carbon chip 4.7 kohm 1/10W	RM73B--472J					
R701	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J					
R702	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J					
R703	247 0005 947	Carbon chip 150 ohm 1/10W	RM73B--151J					
R704	247 0005 963	Carbon chip 180 ohm 1/10W	RM73B--181J					
R705	247 0007 945	Carbon chip 1 kohm 1/10W	RM73B--102J					
R706	247 0005 947	Carbon chip 150 ohm 1/10W	RM73B--151J					
R707	247 0005 963	Carbon chip 180 ohm 1/10W	RM73B--181J					
R708	247 0006 904	Carbon chip 270 ohm 1/10W	RM73B--271J					
R709	247 0006 946	Carbon chip 390 ohm 1/10W	RM73B--391J					
R710	247 0007 903	Carbon chip 680 ohm 1/10W	RM73B--681J					
R711	247 0006 904	Carbon chip 270 ohm 1/10W	RM73B--271J					
R712	247 0006 946	Carbon chip 390 ohm 1/10W	RM73B--391J					
R714,715	247 0005 905	Carbon chip 100 ohm 1/10W	RM73B--101J					
R716-718	247 0009 985	Carbon chip 10 kohm 1/10W	RM73B--103J					
VR201	211 0903 008	Variable resistor 2 kohm	V1420Q15FC202					
CAPACITORS GROUP								
C201-204	257 0010 900	Ceramic chip 0.01 μF/50V	CK73B1H103K					
C706,707	257 0010 900	Ceramic chip 0.01 μF/50V	CK73B1H103K					
C818	253 8014 702	Ceramic 0.01 μF/400V(AC)	CK45F2GAC103MC					
OTHER PARTS GROUP								
CY022	205 0581 085	2P VH connector base						1
CY041	205 0343 045	4P connector base (KR-PH)						1
CY331	205 0736 005	33P FFC base						1
FL701	393 8030 000	VFD(10-BT-201GK)						1
JK201	204 8322 007	Headphone jack						1
ST704,705	205 0452 017	Style pin						2

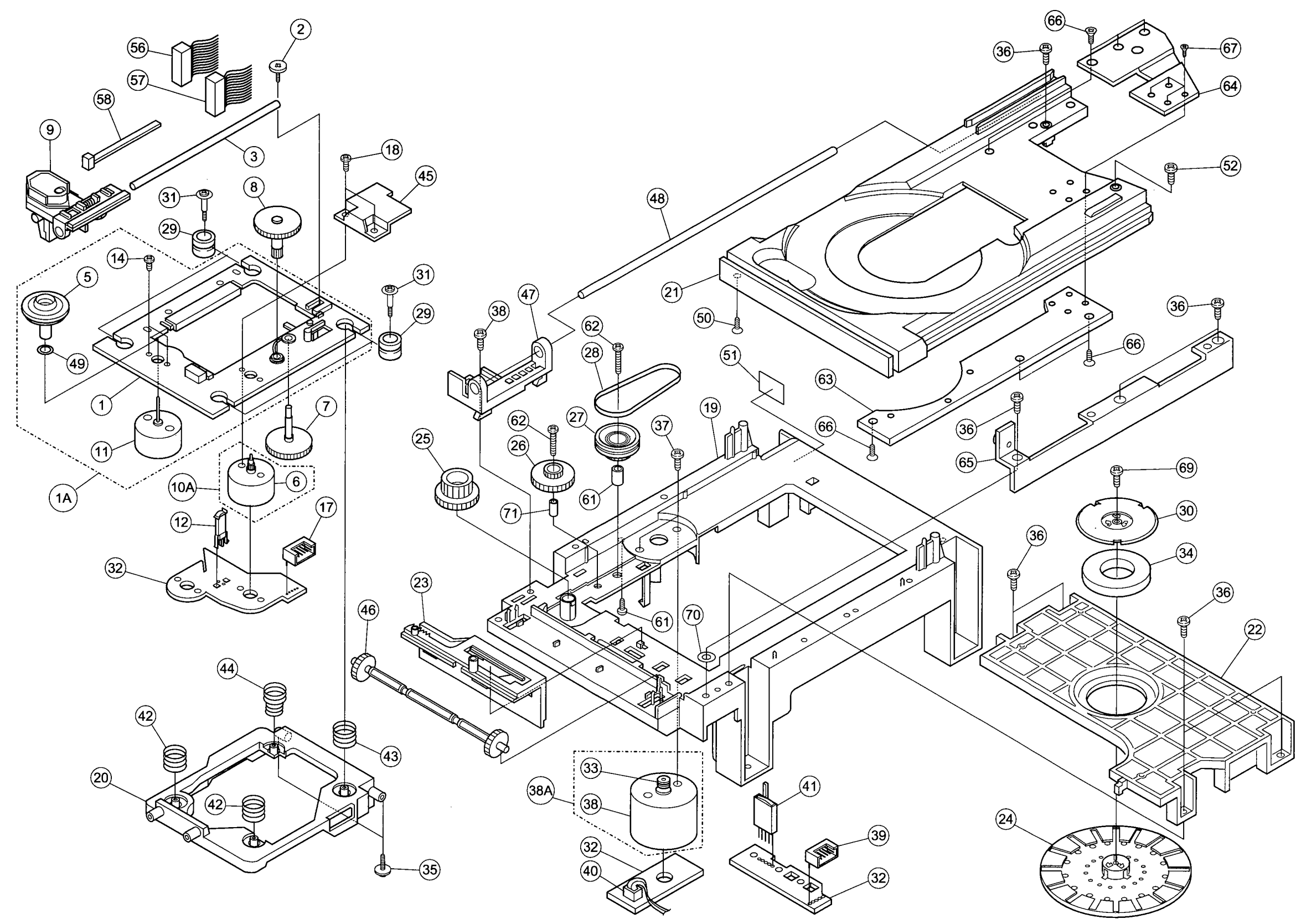
PARTS LIST OF MECHANISM UNIT

TCD-79S CD MECHANISM UNIT

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
1		Base outsert FG40	A85A001	1	55		Cushion 75	A4G017A	0.1
1-1		Base FG40	A85P003	1	56	204 0494 001	6P Shield wire		1
2		FS Fixing screw	A90H006	1	57		6PConnector cord	A4G031A	1
3		Feed shaft	A4H002A	1	58		Nylon band 7M	M01T122	3
5		Turn table Ass'y	A81A293	1	60		FG-collar-8	A4H005A	1
6		Gear motor (FG40)	A85G028	1	61		FG-collar-10	A4H006A	1
7		Drive gear (A)	A85G057	1	62		Screw 3x20 Baint	A92H022	2
8		Drive gear (B)	A85G018	1	63		Support bracket	A2P377A	1
9	499 0289 005	Laser PU (HPC-1C)		1	64		Loader bracket	A2P376A	1
10		MT RF310T11400-30	M01T136	1	65	425 0245 006	Bearing ass'y	A2A313A	(1)
11		MT RF310T11400-38	M01T131	1	-1	412 4245 006	Bearing bracket	A2P371A	1
12		Leaf switch (LSA-1121EAU)	S01W147	1	-2	425 0244 007	Bearing shaft	A2H030A	1
13		Motor P.W.B. FG40N	A85P009	1	-3		Bearing L-730ZZ	E01L962	1
14		Screw 2x3	M20S003	2	-4		PSW 3.1x4.4x0.5	P31W405	1
17		S5B-PH Connector base	A82G253	1	66	473 7520 008	Screw 2.6x6		6
18		Screw 2x4	M20S004	2	67		Screw 2x6	A4H009A	4
19	411 4319 505	Mecha. chassis	A4G008E	1	68	471 2203 010	Screw 2.6x6		2
20		Mecha. frame (FG70)	A4G026A	1	69		Screw 3x6	B30BK06	1
21	431 0383 303	Loader 75	A4G012D	1	70		PSW 3.2x7x0.2	P32W702	1
22	412 4246 005	Clamper holder	A2G350A	1					
23		UD Plate gear (FG70)	A4G005A	1	1A	9KA 85A0 14	Spring motor ass'y	A85A014	1
24	421 0716 300	Clamper	A4G030A	1			'(1+5+11+14+49)		
25		Relay gear (A)	A85G007	1	10A	9KA 85A0 08	Slide motor ass'y (6+10)	A85A008	1
26		Relay gear (B)	A85G008	1	38A	9KA 85A0 06	Loader motor ass'y (33+38)	A85A006	1
27		Relay gear (C)	A85G009	1					
28		Gear belt F	A85G010	1					
29		Damper (FG40)	A4G021A	4					
30		Clamper plate (FG40)	A85P007	1					
31		Screw (F)	A85H001	4					
32		Motor P.W.B. FG70	A85P005	1					
33		Motor pulley R	A82G049	1					
34		Magnet 17 x 27 x 5	A82G057	1					
35		Special screw 3 x 10	A92H001	2					
36		Screw 3x8 Baint	B30B008	9					
37		Screw 2.6x4 Baint	M26BK04	2					
38		MT RF500TB14415	M01T132	1					
39		B5B-PH (Red)	A82G308	1					
40		2P connector wire (FG70)	A85G027	1					
41		OP/CL Switch (SSS-12)	S01W148	1					
42		Spring (D)	A85S004	2					
43		Spring (B)	A85S002	1					
44		Spring (C)	A85S003	1					
45		Gear guide	A85G033	1					
46	424 0246 109	Loader gear	A4G013B	1					
47	412 3944 308	Holder	A4G014D	1					
48	431 0384 001	Slide shaft	A4H004A	1					
49		Washer	B22G029	1					
50		Screw 3x8 CPS	H30PK08	1					
51		Serial seal	LABKL01	1					
52		Screw 3x10 Baint	B30PK10	1					
53		Poly. cover 300x400	A87G360	1					
54		Carton 75	A4P001A	0.05					

EXPLODED VIEW OF CD MECHANISM UNIT (TCD-79S)

1 2 3 4 5 6 7 8



A
B
C
D
E

PARTS LIST OF EXPLODED VIEW


Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
1	See next page	CD P.W.B. unit ass'y		1	PACKING & ACCESSORIES (Not included EXPLODED VIEW)				
1-1	See next page	Servo unit			201	See next page	No. sheet		1
1-2	See next page	Audio unit			202	See next page	Cabinet cover		1
1-3	See next page	Power unit			203	See next page	Cushion		2
1-4	See next page	Variable out unit			204	See next page	Carton case		1
2	1U-3089	Display & H/P P.W.B. unit ass'y		1	205	See next page	Color label (gold)		1
2-1	1U-3089-1	Display unit			206	See next page	Poly. cover		1
2-2	1U-3089-2	H/P unit			207	See next page	Instruction manual		1
2-3	1U-3089-3	Power SW unit			208	515 0671 601	Service station list (EX)		1
3	See next page	Chassis		1	209	See next page	Service station list		1
4	See next page	Rear panel		1	209	203 2310 009	2P pin cord		1
7	445 8004 007	Wire clammer		3	210	399 0259 007	Remote controller RC-251		1
9	104 0194 205	Foot ass'y		4	△ 211	206 2108 083	AC connector with plug		1
10	412 4329 100	Mech. fix bracket		1	212	513 1389 006	Control card base		1
△ 11	See next page	Power trans.		1	213	513 1349 004	Thermal carbon film		1
12	445 0048 016	Cord holder (L50)		2	214	See next page	E2 POS label		1
13	441 1856 001	PWB bracket		1	215	See next page	Rating sheet (E1)		1
14	449 0074 082	Locking card spacer	L=20	2	216	See next page	Stylen paper		1
15	449 0074 079	Locking card spacer	L=14	2	217	See next page	Preset label		1
16	129 0215 002	Bass rubber (S)		1					
17	203 8489 002	5P PH-PH connector cord	CW053	1					
18	204 2823 007	10P PH-PH connector cord	CW101	1					
19	009 0155 004	17P FFC cable	CW171	1					
20	337 0057 007	CD mech. (TCD-79S)		1					
21	203 8366 002	5P PH-PH connector cord	CW051	1					
22	203 8299 030	5P KR-KR connector cord	CW052	1					
23	415 0804 107	Protect sheet		1					
24	477 0210 003	Push rivet		2					
25	See next page	Front panel ass'y		1					
26	See next page	OP/CL knob		1					
27	009 0149 010	33P FFC cable	CW331	1					
28	See next page	Knob (MARU)		1					
29	412 4286 104	H/P bracket		1					
30	See next page	Knob (FUJI)		1					
31	203 6514 005	4P PH-PH shield cord	CW041	1					
32	See next page	P. knob (P) ass'y		1					
33	203 5132 093	3P VH connector cord	CW022	1					
34	See next page	Loader panel ass'y		1					
35	461 0501 005	Rubber sheet		2					
36	See next page	Top cover		1					
37	See next page	E2 laser caution		1					
SCREWS									
101	473 7002 021	Screw 3 x 8 CBTS(S)-B		36					
102	473 7007 000	Screw 4 x 8 CBTS(S)-B		4					
103	473 7508 017	Screw 3 x 10 CBTS(P)-B		14					
104	See next page	3P. swelling screw		8					
105	473 7002 005	Screw 3 x 6 CBTS(S)-Z		2					
106	473 7511 004	Screw 3 x 10 CFTS (P)-Z		3					

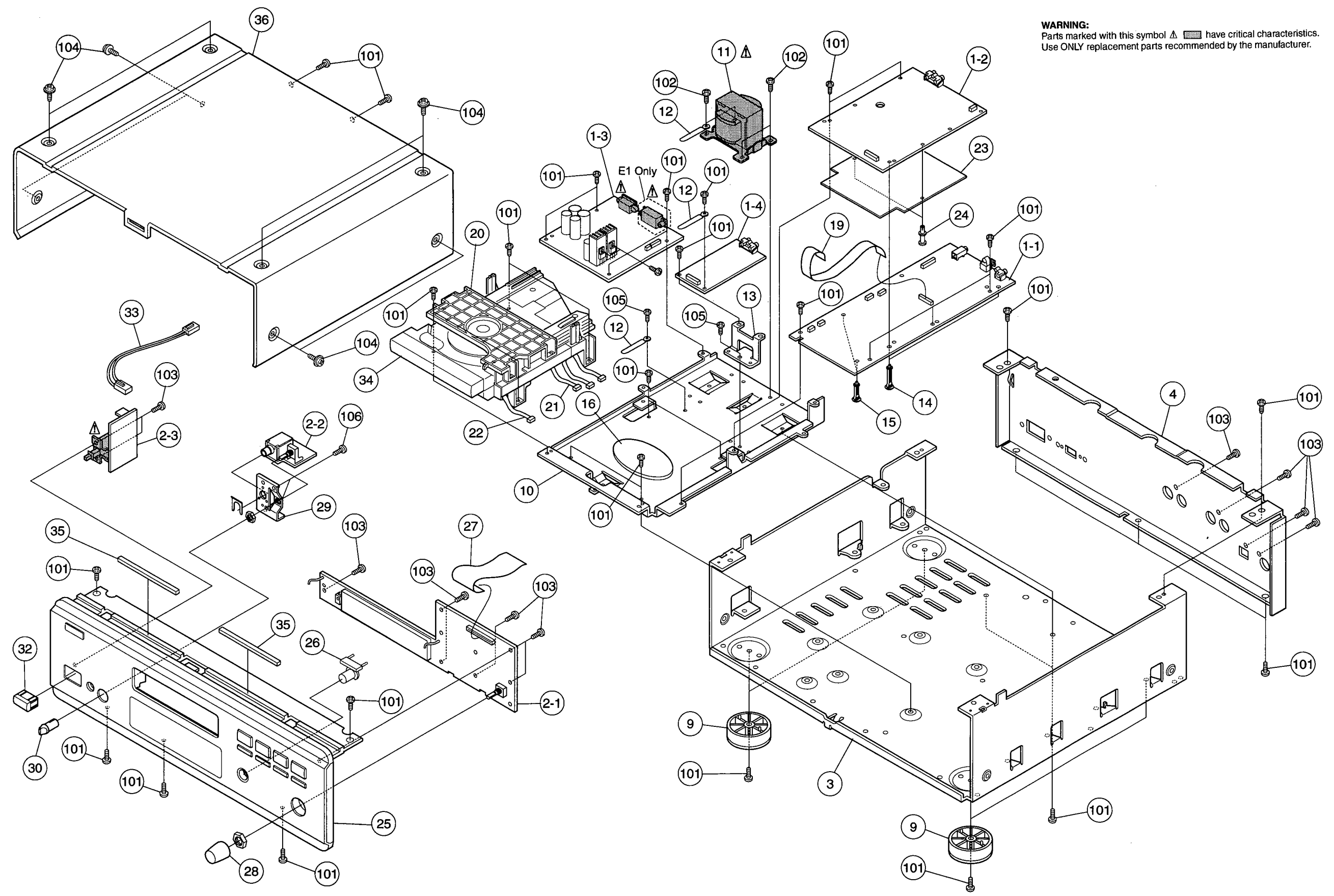
ADDENDUM PARTS LIST OF EXPLODED VIEW

Ref. No.	Part Name	Part No.		
		DCD-1550AR		DCD-1880AR
		Black Model	Gold model	Gold model
1	CD P.W.B. unit ass'y	1U-3088B	1U-3088B	1U-3088D
1-1	Servo unit	1U-3088B-1	1U-3088B-1	1U-3088-1
1-2	Audio unit	1U-3088B-2	1U-3088B-2	1U-3088-2
1-3	Power unit	1U-3088B-3	1U-3088B-3	1U-3088-3
1-4	Variable out unit	1U-3088B-4	1U-3088B-4	1U-3088-4
3	Chassis	411 1371 213	411 1371 213	411 1371 200
4	Rear panel	105 1269 213	105 1269 213	105 1269 226
△ 11	Power trans.	233 0525 004	233 0525 004	233 0526 003
25	Front panel ass'y	144 2589 227	144 2589 201	144 2589 214
26	OP/CL knob	113 1705 066	113 1705 053	113 1705 053
28	Knob (MARU)	112 0779 045	112 0779 003	112 0779 003
30	Knob (FUJI)	112 0811 013	112 0811 000	112 0811 000
32	P. knob (P) ass'y	113 9213 000	113 9213 084	113 9213 084
34	Loader panel ass'y	144 2436 244	144 2436 231	144 2436 231
36	Top cover	102 9048 291	102 9048 288	102 9048 275
37	E2 laser caution	—	—	513 2065 002
104	3P. swelling screw	477 0263 005	477 0263 018	477 0263 018
201	No. sheet	513 1642 002	513 1642 002	—
202	Cabinet cover	505 0131 050	505 0131 050	505 0131 076
203	Cushion	503 1281 000	503 1281 000	503 1269 103
204	Carton case	501 1993 004	501 1993 004	501 1992 021
205	Color label (gold)	—	513 9111 001	513 9111 001
206	Poly. cover	505 0283 018	505 0283 018	505 0038 030
207	Instruction manual	511 3228 004	511 3228 004	511 3229 003
209	Service station list	—	—	515 0576 201
214	E2 POS label	517 1351 010	517 1351 007	—
215	Rating sheet (E1)	—	—	513 2781 001
216	Stylen paper	—	—	504 0092 060
217	Preset label	—	—	515 8030 040

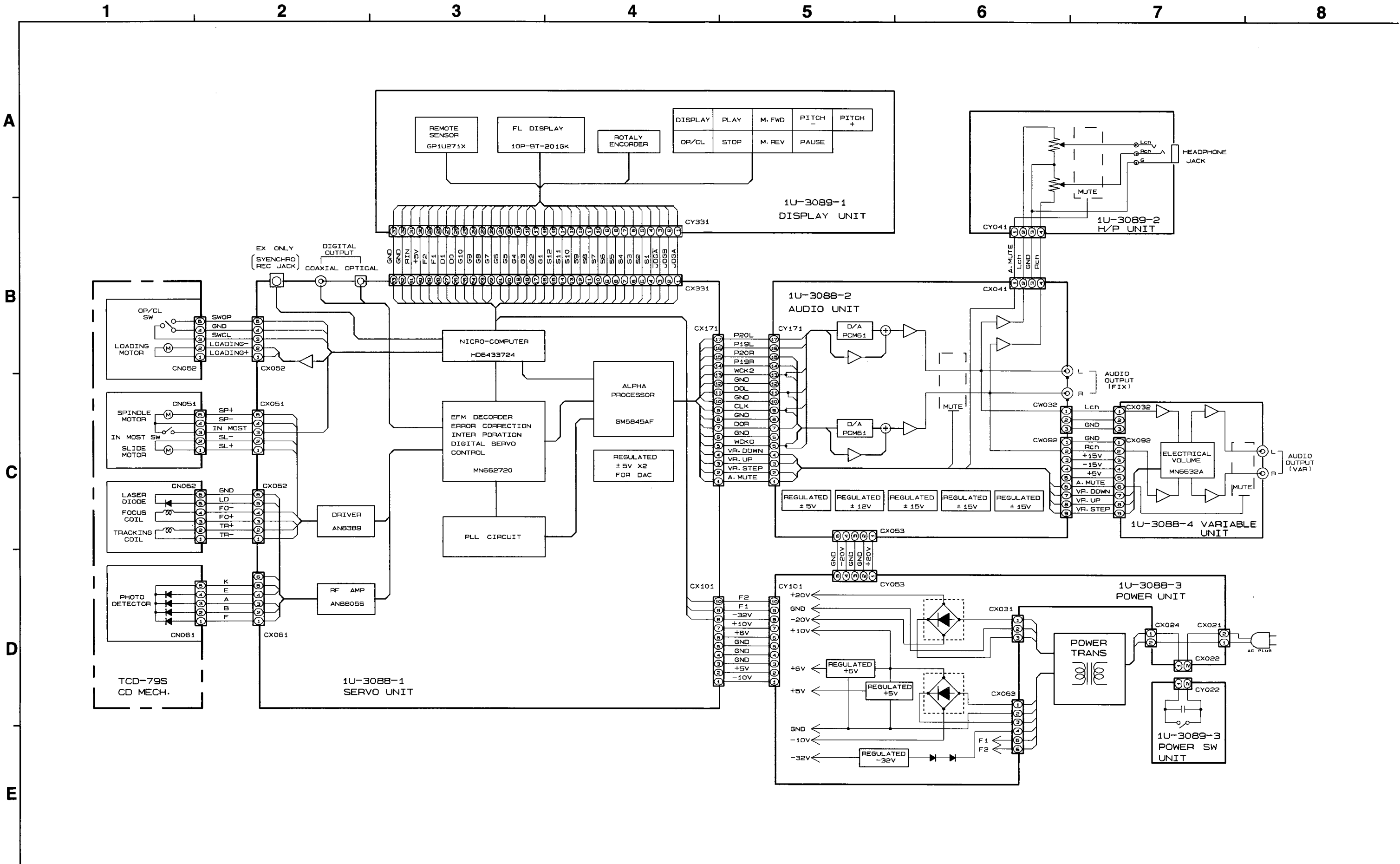
EXPLODED VIEW

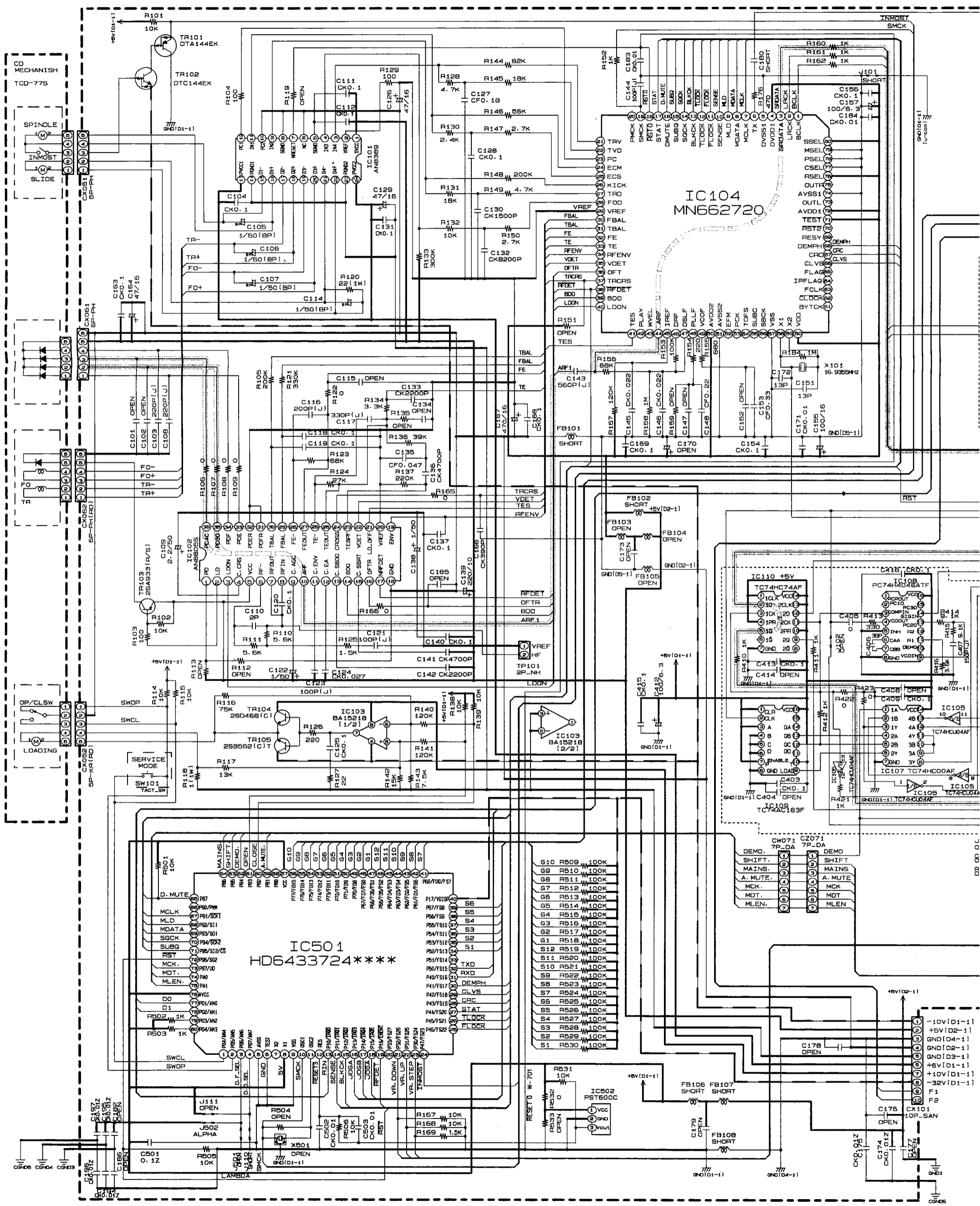
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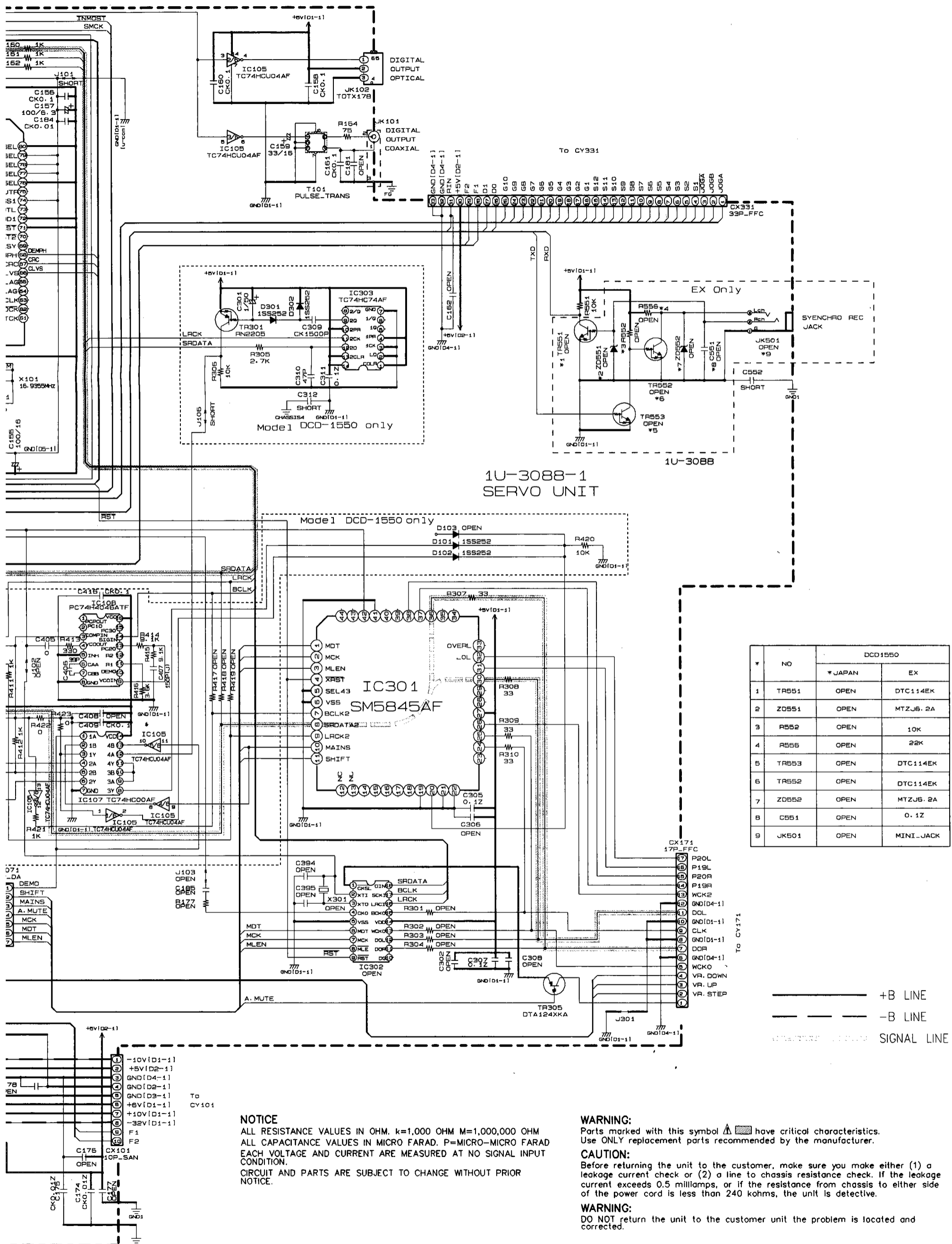
WARNING:
Parts marked with this symbol  have critical characteristics.
Use **ONLY** replacement parts recommended by the manufacturer.



WIRING DIAGRAM







1U-3088-1
SERVO UNIT

NOTICE
ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT
CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
NOTICE.

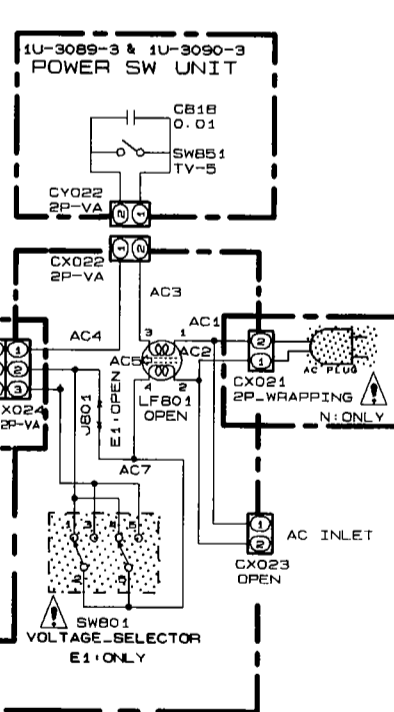
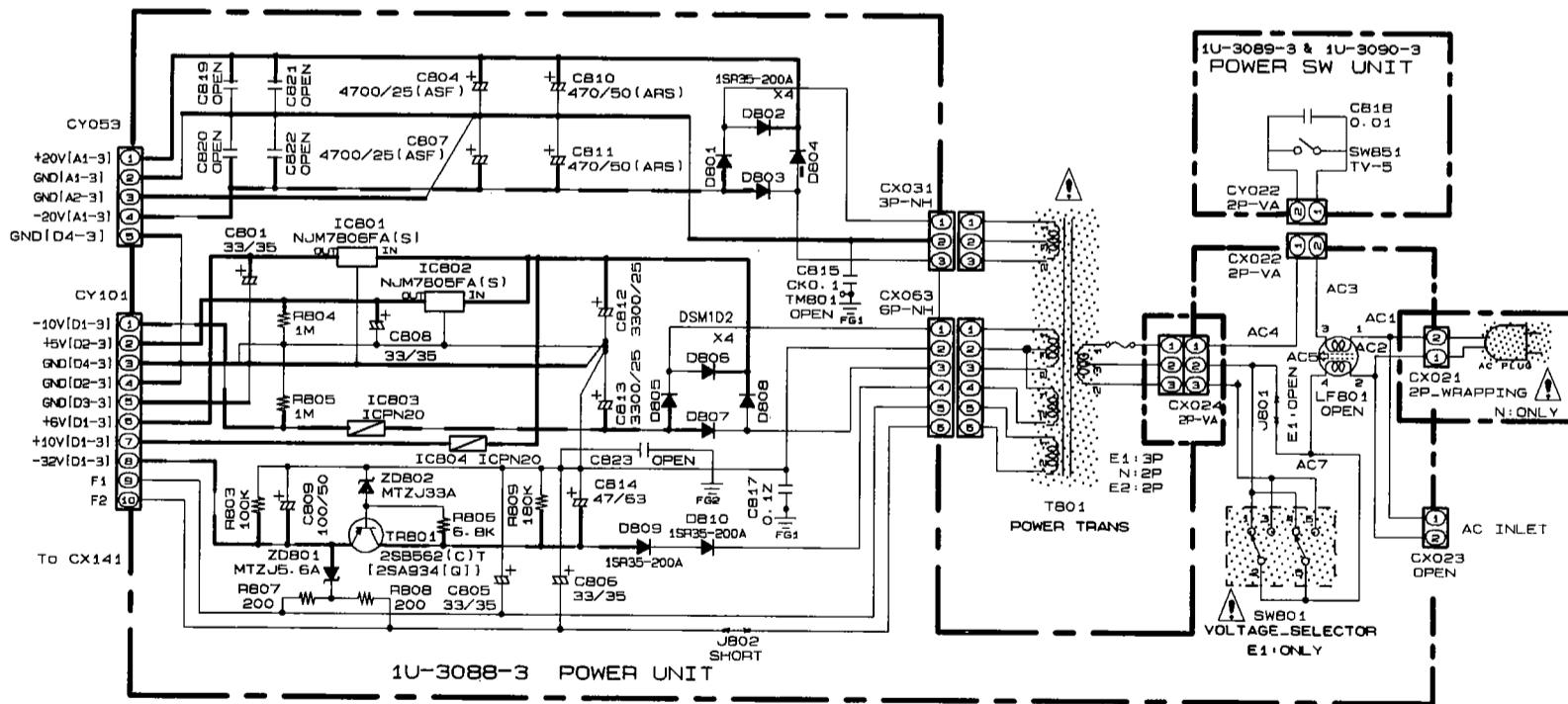
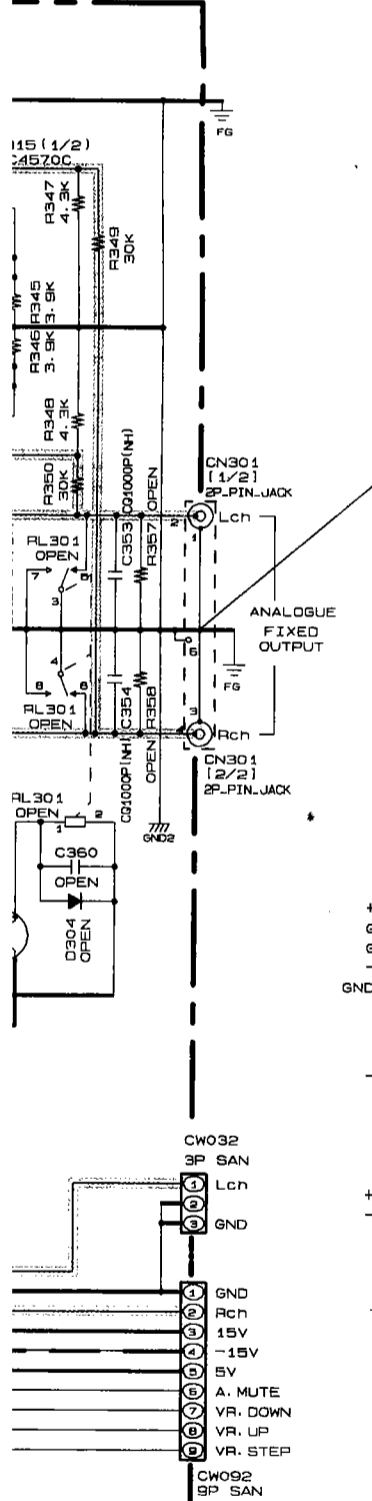
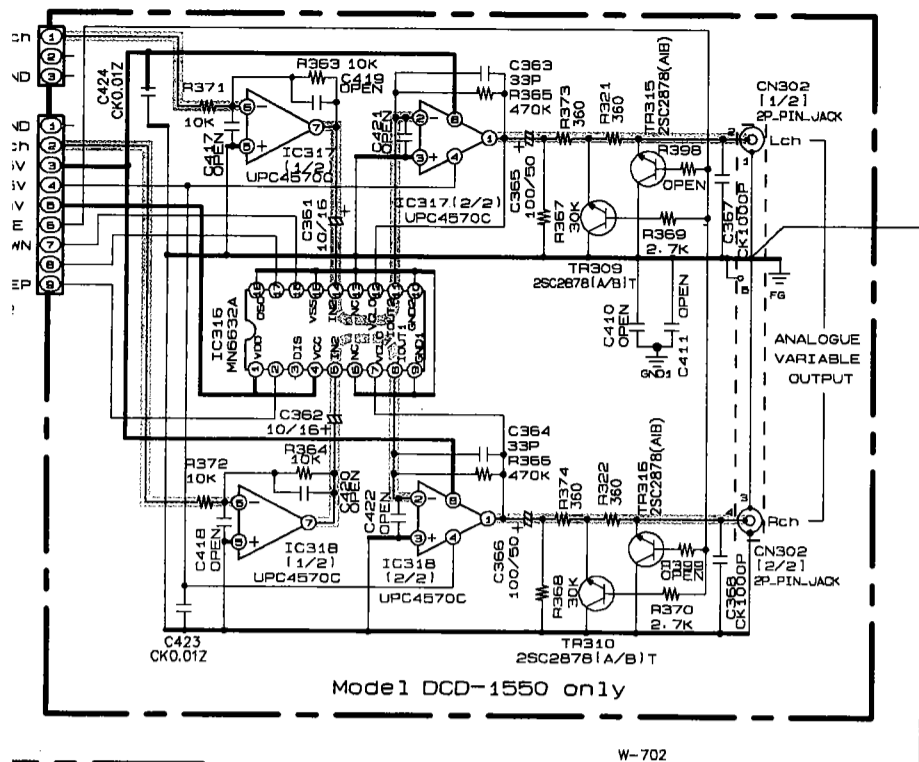
WARNING:
Parts marked with this symbol have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
DO NOT return the unit to the customer unit the problem is located and corrected.

#	NO	DCD1550	
		*JAPAN	EX
1	TR551	OPEN	DTC114EK
2	Z0551	OPEN	MTZJ6. 2A
3	R552	OPEN	10K
4	R556	OPEN	22K
5	TR553	OPEN	DTC114EK
6	TR552	OPEN	DTC114EK
7	Z0552	OPEN	MTZJ6. 2A
8	C551	OPEN	0. 1Z
9	JK501	OPEN	MINI-JACK

A
B
C
D
E
F
G
H



— +B LINE
 - - - -B LINE
 ... SIGNAL LINE

NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT
 CONDITION.
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
 NOTICE.

WARNING:

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

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamperes, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

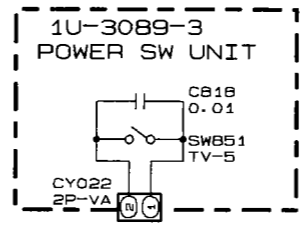
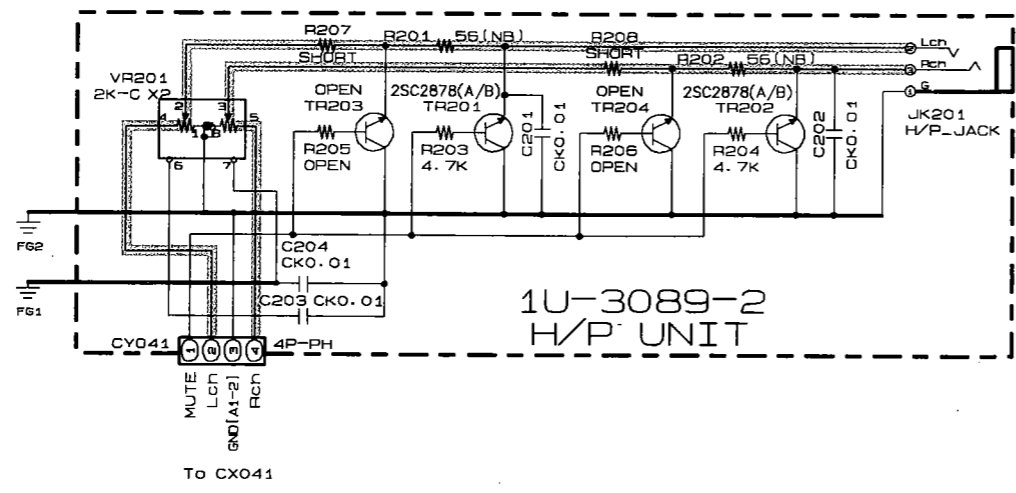
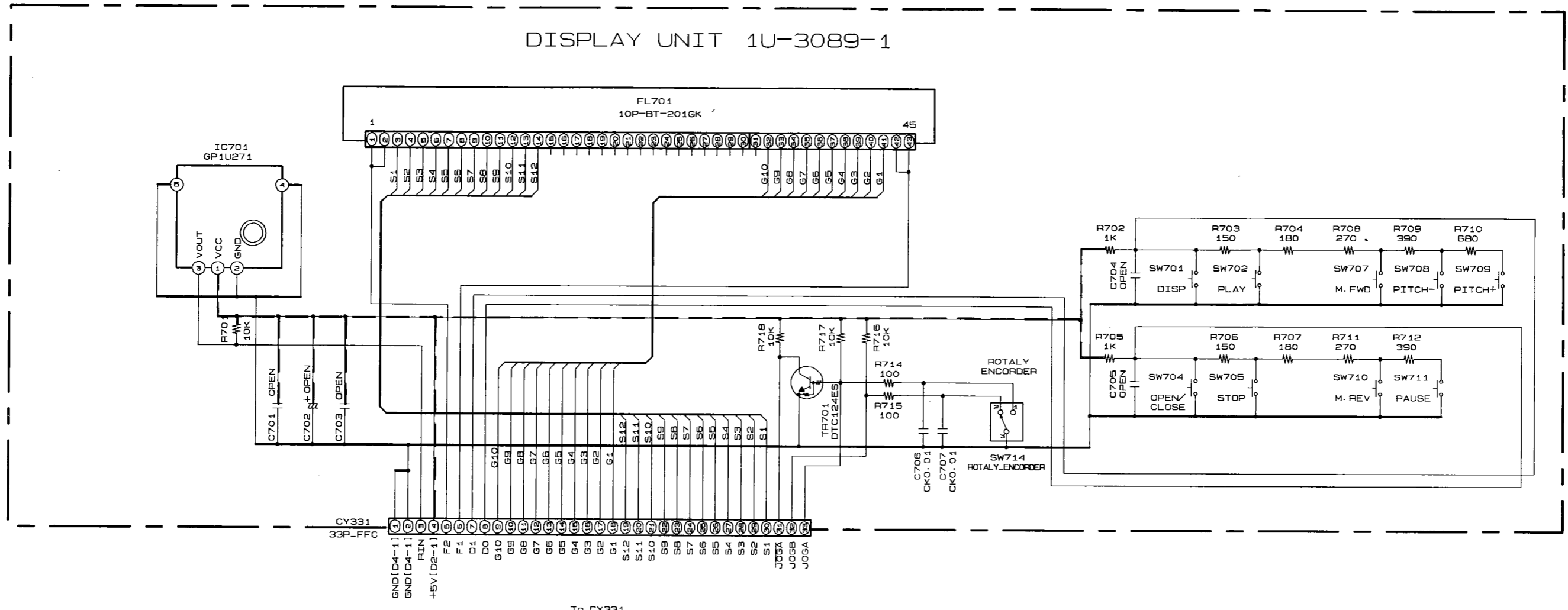
WARNING:

DO NOT return the unit to the customer unit the problem is located and corrected.


SCHEMATIC DIAGRAM (3/3)

1 2 3 4 5 6 7 8

DISPLAY UNIT 1U-3089-1



NOTICE
 ALL RESISTANCE VALUES IN OHM. k=1,000 OHM M=1,000,000 OHM
 ALL CAPACITANCE VALUES*IN MICRO FARAD. P=MICRO-MICRO FARAD
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT
 CONDITION.
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
 NOTICE.

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

CAUTION:
 Before returning the unit to the customer, make sure you make either (1) a
 leakage current check or (2) a line to chassis resistance check. If the leakage
 current exceeds 0.5 milliamps, or if the resistance from chassis to either side
 of the power cord is less than 240 kohms, the unit is defective.

WARNING:
 DO NOT return the unit to the customer unit the problem is located and
 corrected.

A
B
C
D
E