

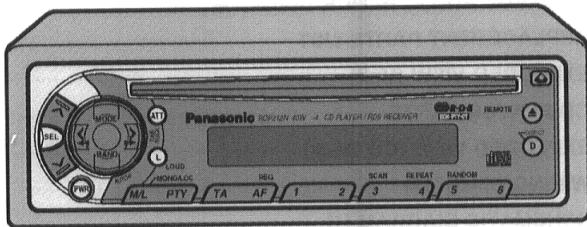
Service Manual

AUTOMOTIVE CONSUMER ELECTRONICS

COMPACT
disc
DIGITAL AUDIO

CQ-RDP212N CQ-RDP202N

High-Power CD Player / RDS Receiver



<CQ-RDP212N>

Specification*

General

Power Supply	DC 12V (11V - 16V), Test Voltage 14.4V Negative Ground
Tone Adjustment Range	Bass ; ± 12 dB at 100Hz Treble ; ± 12 dB at 10kHz
Current Consumption	Less than 2.5A (CD play mode, 0.5W-Speaker)
Maximum Power Output	40W \times 4ch (at 4 Ω)
Power Output	20W \times 4 (DIN45 324, at 4 Ω)
Speaker Impedance	4-8 Ω
Pre-AMP Output Voltage	2V (CD mode)
Pre-Amp Output Impedance	600 Ω

FM Stereo Radio

Frequency Range	87.5 - 108.0MHz
Usable Sensitivity	6dB/ μ V (S/N 30dB)

MW Radio

Frequency Range	531 - 1,602kHz
Usable Sensitivity	28dB/ μ V (S/N 20dB)

LW Radio

Frequency Range	153 - 279kHz
Usable Sensitivity	32dB/ μ V (S/N 20dB)

CD Player

Sampling Frequency	8 times over sampling
Pick-Up Type	3-beam
Light Source	Semiconductor Laser
Wavelength	780nm
Frequency Response	20Hz to 20,000Hz (± 1 dB)
Signal to Noise Ratio	96dB
Wow and Flutter	Below measurable limits
Channel Separation	75dB

Dimensions**

178 \times 50 \times 150mm

Weight**

1.5kg

* Specifications and the design are subject to possible modification without notice due to improvements.

** Dimensions and Weight shown are approximate.

Panasonic

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

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1 FEATUERS

- PLL (Phase Locked Loop) synthesized tuning.
- 18-FM, 6-AM presets with preset scan
- RDS (Radio Data System) function.
- Digital servo for reliable CD playback.

2 REPLACEING THE FUSE

Use fuses of the same specified rating (15amps). Using different substitutes or fuses with higher ratings, or connecting the unit directly without a fuse, could cause fire or damage to the stereo unit.

3 MAINTENANCE

Your products is designed and manufactured to ensure a minimum of maintenance. Use a soft cloth for routine exterior cleaning. Never use benzine, thinner or other solvents.

4 NOTES**[RADIO BLOCK]**

Do not align the AM/FM package block. When the package block is necessary, it will be supplied already aligned at the factory.

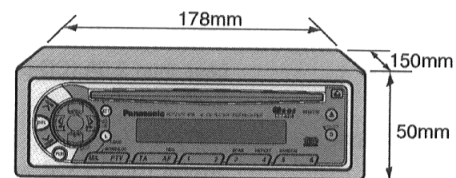
[CD DECK BLOCK]

This model has no servo alignment points because microcomputer controls the servo circuit.

[OTHER]

This operating instruction manual is for two models CQ-RDP212N and CQ-RDP202N. The differences among these models' are mentioned below.

	CQ-RDP212N	CQ-RDP202N
Illumination Colors	Amber	Green

5 DIMENSIONS

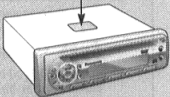
6 OPERATING INSTRUCTIONS

Label Indications and Their Locations
Warteketten und deren Anbringungsart
Indications portées les étiquettes et emplacement
Aanduiding van de labels en hun plaats
Varningsskyltarna, och deras placering
Indicazioni delle etichette e le loro posizioni
Indicaciones de las etiquetas y su ubicación

VORSICHT!
UNSIICHTBARE LASERSTRALUNG!
WENN ABDECKUNG GEÖFFNET IST,
NICHT DEM LASERSTRAHL AUSSETZEN.

- APPAREIL À LASER DE CLASSE 1
- KLASS 1 LASER APPARAT
- LUOKAN 1 LASERPLAITE

CLASS 1 LASER PRODUCT



- Caution Mark
- Warnzeichen
- Marque d'avertissement
- Waarschuwingssteken
- Varningsskyltar
- Marca di precauzione
- Marka de advertencia

DANGER! Invisible laser radiation when open. Avoid direct exposure to beam.

ADVARSEL! Usynlig laserlys udstråles ved åbning. Undgå direkte bestråling.

VARO! Avattaeassa ja suojatulkitus ohitettaessa olet alttiina näkymättömälle lasersträlylle. Älä kasto säteeseen.

WARNING! Osynlig laserstråling når dena del är öppnad och spåren är urkopplad. Betrakta ej strålen.

ADVERSEL! Usynlig laserstråling når deksel åpnes og sikkerhedsåls brytes. Unngå eksponering for strålen.



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Precautions (ISO Connector)

- The pin arrangement of the power connector conforms to ISO standard.
- The pin arrangement of ISO connectors in some cars may differ from the ISO standard.
- Please check that the pin arrangement of the connector in your car conforms to ISO standard.

- For car types A and B, change the wiring of the red and yellow leads as shown at right.
- After connection, insulate the portions marked (*) with insulating tape.
- Note:** For cars other than types A and B, please consult your local car shop.

Vorsichtsmaßnahmen (ISO-Stecker)

- Die Stiftanordnung des Versorgungssteckers entspricht dem ISO-Standard.
- Die Stiftanordnung der ISO-Stecker in manchen Fahrzeugen kann von dem ISO-Standard abweichen.
- Bitte stellen Sie sicher, daß die Stiftanordnung des Steckers in Ihrem Fahrzeug dem ISO-Standard entspricht.

- Im Falle der Anordnung für Auto A oder B die Anschlüsse der farbigen Kabel am Übertragungs-Steckerblock (*).
- Nach der Verkabelung sollte unbedingt der durch (*) gekennzeichnete Teil mit Hilfe von Isolierband o.ä. isoliert werden.
- Hinweis:** Für andere als die Fahrzeugtypen A und B wenden Sie sich bitte an Ihre örtliche Werkstatt.

Mesures de précaution (connecteur ISO)

- La disposition des broches du connecteur d'alimentation est conforme aux normes ISO.
- La disposition des broches des connecteurs ISO de certaines voitures risque d'être différente par rapport aux normes ISO.
- Vérifier si la disposition des broches du connecteur de votre voiture est conforme aux normes ISO.

- En ce qui concerne les véhicules des types A et B, modifier le câblage des fils rouge et jaune comme indiqué ci-contre.
- Une fois le branchement réalisé, isoler les sections identifiées par le signe (*) avec de l'adhésif isolant.
- Remarque:** En ce qui concerne les véhicules des types A et B, veuillez vous renseigner auprès de votre concessionnaire automobile habituel.

Voorzorgsmaatregelen (ISO aansluiting)

- De penen van de stroomaansluiting voldoen aan de vereisten van de ISO standaard.
- De penen van ISO aansluitingen in sommige auto's kunnen verschillen van de ISO standaard.
- Controleer of de penen van de aansluiting in uw auto voldoen aan de ISO standaard.

- Voor auto's van types A en B dienen de rode en gele draden gewijzigd te worden zoals rechts staat aangegeven.
- Na het aansluiten moeten de plekken die zijn aangegeven met (*) afgeplakt worden met isolatieband.
- Opmerking:** voor auto's van andere typen dan A en B dient u uw plaatselijke garage te raadplegen.

Observera (ISO-kontakt)

- Stiftans placering i strömkontaktens överensstämmer med ISO-standard.
- I vissa bilar kan stiftens placering i ISO-kontakter skilja sig från ISO-standard.
- Kontrollera att stiftens placering i kontakten på din bil överensstämmer med ISO-standard.

- För bilty A och B: Ändra ledningsdragnigen av de röda och gula kabarna så som visas till höger.
- Delar märkta med (*) måste efter slutförda anslutningar isoleras med isoleringstap.
- Obs:** Kontakta din lokala bilhandlare i fråga om bilar av annan typ än A och B.

Precauzioni (Connettore ISO)

- La disposizione dei pin del connettore di alimentazione è conforme allo standard ISO.
- La disposizione dei pin dei connettori ISO in alcune automobili potrebbe differire dallo standard ISO.
- Accertarsi che la disposizione dei pin del connettore dell'automobile sia conforme allo standard INSTALLATO.

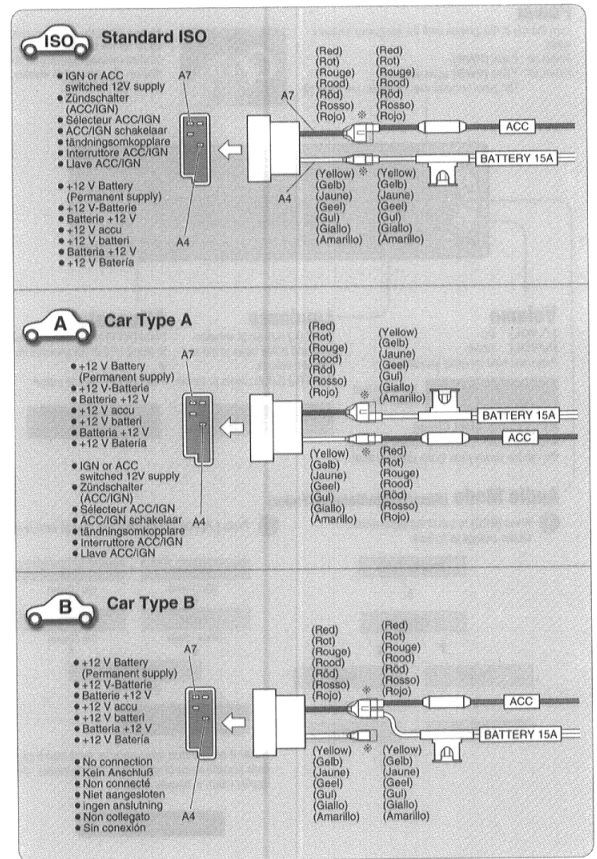
- Per le macchine del tipo A e B, cambiare i collegamenti dei cavi rosso e giallo come mostrato a destra.
- Dopo il collegamento, isolare le parti contrassegnate collegando (*) usando del nastro isolante.
- Note:** Per le macchine diverse dal tipo A e B, rivolgersi a una autorivendita locale.

Precauciones (conector ISO)

- La disposición de las patillas del conector de alimentación satisface las normas ISO.
- La disposición de las patillas de los conectores ISO de algunos vehículos puede ser distinta de las normas ISO.
- Compruebe que la disposición de las patillas del conector de su vehículo satisfaga las normas ISO.

- Para los tipos A y B de vehículos, cambie las conexiones de los cables rojo y amarillo como se muestra a la derecha.
- Después de la conexión, aisle las partes marcadas con (*) usando cinta aislante.
- Note:** Para los vehículos que no sean de los tipos A y B, consulte a su taller mecánico local.

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Panasonic welcomes you to their constantly growing family of electronic products owners. We endeavor to give you the advantages of precise electronic and mechanical engineering, manufactured with carefully selected components, and assembled by people who are proud of the reputation their work has built for our company. We know this product will bring you many hours of enjoyment, and after you discover the quality, value and reliability we have built into it, you too will be proud to be a member of our family.

Precautions

- Volume Level**
For your driving safety, keep the volume level low enough to be aware of road and traffic conditions.
 - Car Washing**
To avoid electrical shorts which may cause fire, or other damage, do not expose this Product (including the speakers and CDs) to water or excessive moisture.
 - Car Ventilation**
If your car is parked for several hours in direct sunlight, the temperature inside the car may become very high. It is advisable to drive the car and give the interior a chance to cool down before switching the unit on.
 - Power Supply**
This Product is designed to be used in a car having a 12-Volt negative ground battery system.
 - Disc Mechanism**
Do not insert coins or any small objects. Keep screwdrivers and other metallic objects away from the disc mechanism and disc.
 - Service**
This Product is made of precision parts. Do not attempt to disassemble or adjust any parts. For repair, please consult your nearest authorized Panasonic Service Center.
- Note:** The preset memory is cleared to return to the original factory setting when the power connector or battery is disconnected.

Note: This operating instruction manual is for two models CQ-RDP212N and CQ-RDP202N. The differences among these models' are mentioned below.

Features	Model	CQ-RDP212N	CQ-RDP202N
Illumination Colors		Amber	Green

Laser Products

Caution: This product utilizes a laser. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser products:
Wave Length: 780 nm
Laser Power: No hazardous radiation is emitted with safety protection.

Do not take apart this unit or attempt to make any changes yourself.
This unit is a very intricate device that uses a laser pickup to retrieve information from the surface of compact discs. The laser is carefully shielded so that its rays remain inside the cabinet. Therefore, never try to disassemble the player or alter any of its parts since you may be exposed to laser rays and dangerous voltages.

Power and Sound Controls

Power

Turn the key in the ignition until the accessory indicator lights.
Power on : Press [PWR].
Power off : Press [PWR] again and hold.
The panel removal alarm sounds. (⇒ Page 19).

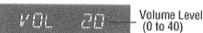


Note : When the power is switched on for the first time, a demonstration message appears on the display. To cancel this display, press [D] (DISP/CT).



Volume

[∧VOL] : Up
[∨VOL] : Down
Press and hold for rapid adjustment.



Loudness

Press [L] (LOUD) to enhance bass and treble tones at low or medium volume.
Press [L] (LOUD) again to cancel. Press [ATT] again to cancel.



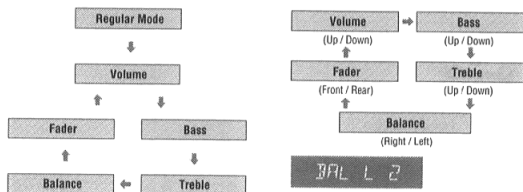
Attenuator

Press [ATT] to decrease volume to about 1/10 of the previous level.
Press [ATT] again to cancel.

Anti-Volume-Blast Circuit
When the power is switched off and on again, the volume slowly rises to the previous level.

Audio Mode (Bass/Treble/Balance/Fader)

- Press [SEL] to select the audio mode. Modes change as follows:
- Press [∧VOL] or [∨VOL] to change each level.

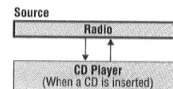


Note: If no operation takes place for more than 5 seconds in audio mode (2 seconds in Volume mode), the display return to Regular Mode.

Radio Basics

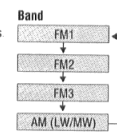
1 Mode Selection

Press [MODE] to change to the radio mode.



2 Band

Press [BAND] to change the bands



3 Manual Tuning

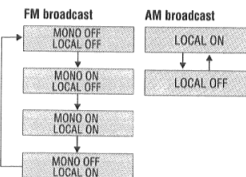
[>] : Higher frequency.
[<] : Lower frequency.
Seek Tuning
Press and hold [>] or [<] for more than 0.5 seconds, then release. Seeking will start.

4 Mono/Local Selection

MONO : Monaural reception. Select MONO to reduce noise when receiving a stereo broadcast.
LOCAL : Tunes in strong stations only.

FM broadcasts
Press and hold [ML] (MONO/LOC) to change the mode. Release when at the desired point.

AM broadcast
Press [ML] (MONO/LOC) to switch LOCAL mode on and off.



Preset Station Setting

Up to 6 stations each can be saved in the FM1, FM2, FM3 and AM (LW/MW) preset station memories.

Caution: To ensure safety, never attempt to preset stations while you are driving.

1 Band

Select a band. (⇒ Page 8)

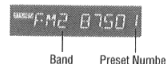


2 Auto Station Preset

Press and hold [BAND] (AUTO-P) for more than 2 seconds (Auto Preset Memory).
• The 6 strongest available stations will be automatically saved in the memory under preset buttons [1] to [6].
• Once set, the preset stations are sequentially scanned for 5 seconds each.

Manual Station Preset

- Use manual or seek tuning to find a station. (⇒ Page 8)
- Press and hold one of the preset buttons [1] to [6] until the display blinks once.



3 Tuning in a Preset Station

Press the corresponding preset button [1] to [6] to tune in a preset station.

Note: You can change the memory presetting by repeating the above procedure.

RDS (Radio Data System)

RDS Basics

The following functions are available when receiving RDS stations.

PS Display (Program Service Name)

The name of station is displayed instead of the frequency.

CT Service (Clock Time)

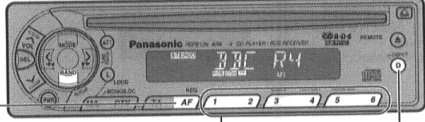
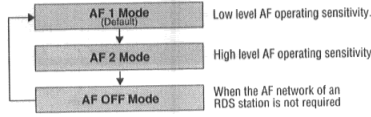
When reception is poor, the CT (Clock Time) service automatically adjusts the time and date. *NO CT is displayed in areas where CT service is not available. (⇒ Page 13 for Clock Set)

AF (Alternative Frequency)

When reception is poor, an RDS station broadcasting the same program is tuned in automatically.

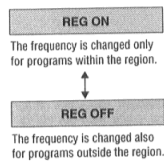
AF Mode

Press [AF] to select one of the following AF modes:



REG (Region) Mode

Changes the selection range of AF, Best Station Research and PI Seek. Press and hold [AF] (REG) when AF mode is on.



Auto Preset Memory

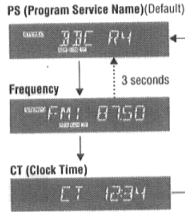
Auto preset memory works only for RDS stations when AF mode is on.

Best Station Research
Best Station Research is automatically activated to store the station with the best reception for each preset button.

PI (Program Identification) Seek
If Best Station Research does not work properly and reception is poor when tuning in a preset station, press the same preset button again. PI Seek will search an AF station with good reception.

Display Change

Press [D] (DISP/CT) to change the display as follows.



Traffic Announcements

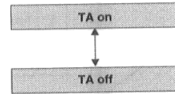
Some RDS FM stations periodically provide traffic information.

TP (Traffic Program)
Broadcasting of traffic information

TA (Traffic Announcements)
Radio announcements on traffic conditions

TA Mode

Press [TA] to switch TA mode on and off.

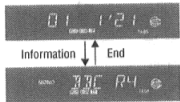


TA Volume Set (Volume Level : 0 to 40)

Press [▲VOL] or [▼VOL] while receiving traffic announcements. The TA volume differs from the regular volume (by up to 5 levels).

TA in CD Mode

When TA is on, CD playback will be interrupted by FM traffic announcements.



Muting in TA Mode

To listen only to Traffic Announcements while muting, press and hold [TA] for more than 2 seconds. To cancel the muting TA on mode (muting in TA mode → TA mode), take either following two.

- Press [TA] again.
 - Press [▲VOL] several times.
- Note : To switch to TA off, press [TA] again and hold for more than 2 seconds.

TP Auto Search

When reception of a TP station is poor, TP Auto Search will automatically search for a TP station with better reception.

Seek and Preset Station

- TP Seek Tuning**
Seek tunes only TP stations. (⇒ Page 8)
- Auto TP Station Preset**
The 6 strongest TP stations are saved in memory. (⇒ Page 9)
- Tuning in a TP Preset Station**
(⇒ Page 9)

RDS (Radio Data System) (continued)

PTY Reception (Program Type)

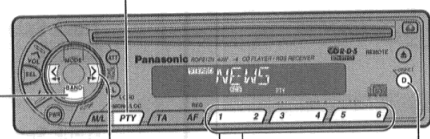
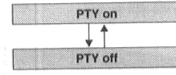
RDS FM stations provide a program type identification signal. Example: news, rock, classical music, etc.

PTY Mode

Press [PTY] to switch PTY display mode on or off.



When there is no corresponding program type, "NO PTY" is display



PTY Selection

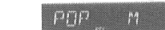
1 Press [>] to change the program type as follows. ([<]: opposite direction)

- SPEECH → MUSIC → NEWS → AFFAIRS → INFO → SPORT → EDUCATE → DRAMA → CULTURES → SCIENCE → VARIED → POP M → ROCK M → M.O.R.M → LIGHT M → CLASSICS → OTHER M → WEATHER → FINANCE → CHILDREN → SOCIAL A → RELIGION → PHONE IN → TRAVEL → LEISURE → JAZZ → COUNTRY → NATIONAL → OLDIES → FOLK M → DOCUMENT → SPEECH

2 Select the desired program and press [BAND]. Seek will start to tune in to a station broadcasting the selected program type.

PTY Preset Change

1 Select a program type by using PTY Selection or pressing PTY Preset buttons.



2 Press and hold one of the buttons [1] to [6]. Example: Press and hold preset button [2].



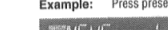
PTY display in Swedish

Press [D] (DISP/CT) to switch the PTY display language as follows.

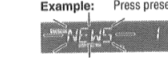


PTY Search

1 Select a program type by pressing the preset button. The preset program type appears on the display for 5 seconds. Example: Press preset button [1].



2 Press the same preset button again (or press [BAND]) to tune in the desired program type station. Example: Press preset button [1] again.



PTY Preset

Program types are stored in memory under preset buttons [1] to [6] as shown in the table below. To tune in the desired program type, press any of preset buttons [1] to [6].

Preset No.	Program Type	Display
1	News	NEWS
2	Speech	SPEECH
3	Sport	SPORT
4	Pop. Music	POP M
5	Classic Music	CLASSICS
6	Other Music	MUSIC

EON (Enhanced Other Networks)

When EON data is received, the EON indicator lights and the TA and AF functions are expanded as follows.

TA : Traffic information from the current and other network stations can be received.

AF : The frequency list of preset RDS stations is updated by EON data.

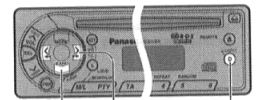
EON enables the radio to make fuller use of RDS information. It constantly updates the AF list of preset stations, including that currently tuned in to. For example, if you preset a station far from home, you will later be able to receive the same station at an alternative frequency, or any other station serving the same program. EON also keeps track of locally available TP stations for quick reception.

Emergency Announcement Reception

When an emergency announcement is broadcast, the unit is automatically switched to receiving that broadcast. If this happens in CD mode or in muting in TA mode, "ALARM" blinks on the display.

Clock Set

When RDS CT service is not available, set the clock as follows.



AM Band

1 Press [BAND] to change to AM band.
AM 1305 (AM band)

2 Press [D] (DISP/CT).
NO CT (Clock Display)

Hours

3 Press and hold [D] (DISP/CT).
CT 0:00 (hour blinks)

4 Press [D] or [<].
CT 10:00 (hour set)

Minutes

5 Press [D] (DISP/CT).
CT 10:00 (minute blinks)

6 Press [D] or [<].
CT 10:35 (minute set)

7 Press [D] (DISP/CT).
CT 10:35 (end)

Note : Hold [D] or [<] to change numbers rapidly.

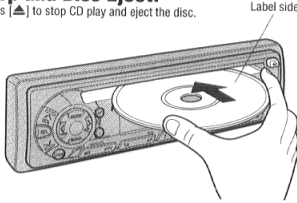
CD Player

Disc Insert and Playback

Insert a disc.
Play back will start automatically.

Stop and Disc Eject.

Press [EJECT] to stop CD play and eject the disc.

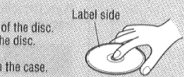


Caution: Only 12cm CD is available for this unit.

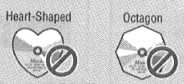
ONLY USE DISCS CARRYING THE LABEL SHOWN ON THE RIGHT

How to hold the CD

- Do not touch the underside of the disc.
- Do not make scratches on the disc.
- Do not bend disc.
- When not in use, keep CD in the case.



Do not use irregularly shaped CDs



Do not leave discs in the following places:

- Direct sunlight
- Dirty, dusty and damp area
- Near car heaters
- Seats and dashboards

Disc Cleaning

Use a dry, soft cloth to wipe from the center outward.



Caution on New Discs

A new disc may have rough edges on its inner and outer perimeter. These may cause malfunction.

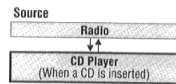
Remove the rough edges using a pencil, etc.



Listening to a CD

Mode Selection

Press [SOURCE] to change to the CD mode.

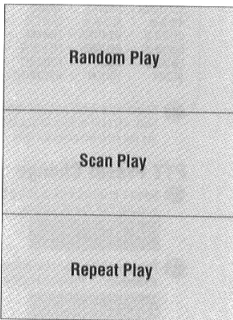


Track Selection

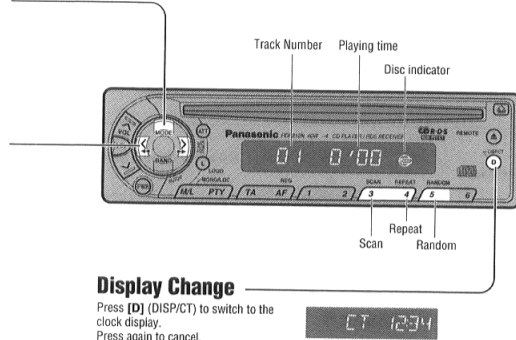
[▶▶TRACK]: Advance to the next track.
[◀◀TRACK]: Back to beginning of the current track.
[◀TRACK]: Back to previous track. (Press twice)

Track Search

Press and hold [▶▶TRACK]: Fast forward
[◀◀TRACK]: Fast backward
Release to resume the regular CD play.



Note: The CD changer functions are designed for an optional CD changer unit.



Display Change

Press [D] (DISP/CT) to switch to the clock display.
Press again to cancel.



Error Display Messages for CD Player

- Press [5] (RANDOM). All tracks are played in random order.
Press again to cancel.
- Press [3] (SCAN). The first 10 seconds of each track on the disc are played in sequence.
Press again to cancel.
- Press [4] (REPEAT). The current track is repeated.
Press again to cancel.

- E1 CD is dirty or inverted. The disc will be ejected automatically.
- E2 CD is scratched. The disc will be ejected automatically.
- E3 CD stops operating for some reason. Please eject the CD. If the error message E3 is still displayed, please turn off the car engine (ACC off) and remove the fuse from the battery lead (yellow) for 1 minute or more. Then reinstall the fuse.

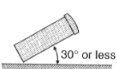
Installation

Preparation

- Before installation, check the radio operation with antenna and speakers.
- Disconnect the cable from the negative (-) battery terminal (see caution below).
- Unit should be installed in a horizontal position with the front end up at a convenient angle, but not more than 30°.

We strongly recommend that you wear gloves for installation work to protect yourself from injuries.

First complete the electrical connections, and then check them for correctness. (⇒ Page 20).

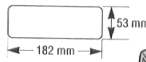


Caution: Do not disconnect the battery terminals of a car with trip or navigational computer since all user settings stored in memory will be lost. Instead take extra care with installing the unit to prevent shorts.

Dashboard Installation

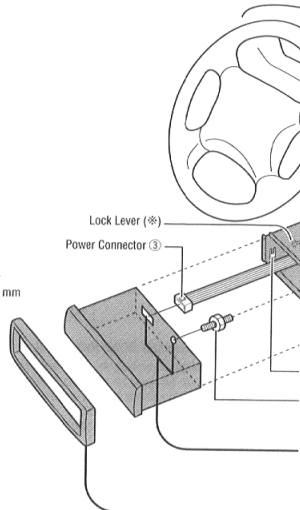
Installation Opening

The unit can be installed in any dashboard having an opening as shown at right. The dashboard should be 4.5 mm - 6 mm thick in order to be able to support the unit.

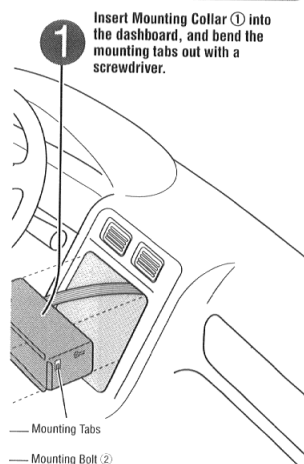


Installation Precautions

- This product should be installed by a professional installer, if possible.
- In case of difficulty, please consult your nearest authorized Panasonic Service Center.
- This system is to be used only in a 12-volt, DC battery system (car) with negative ground.
 - Follow the electrical connections carefully (⇒ Page 20). Failure to do so may result in damage to the unit.
 - Connect the power lead after all other connections are made.
 - Be sure to connect the battery lead (yellow) to the positive terminal (+) of the battery or fuse block (BAT) terminal.
 - Insulate all exposed wires to prevent short circuiting.
 - Secure all loose wires after installing the unit.
 - Please carefully read the operating and installation instructions of the respective equipment before connecting it to this unit.



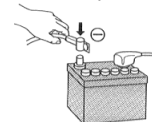
When bending the mounting tab of the mounting collar with a screwdriver, be careful not to injure your hands and fingers.



2 Secure the rear of the unit. After fixing Mounting Bolt (2) and Power Connector (3), fix the rear of the unit to the car body by either method (a) or (b) shown at right.

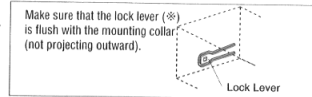
3 Insert Trim Plate (5).

4 After installation reconnect the negative (-) battery terminal.

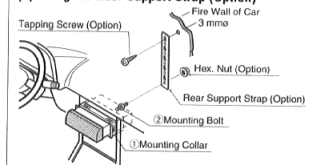


Supplied Hardware

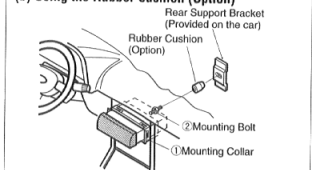
No.	Item	Diagram	Qty
1	Mounting Collar		1
2	Mounting Bolt (5 mm)		1
3	Power Connector		1
4	Removable Face Plate Case		1
5	Trim Plate		1
6	ISO Antenna Adaptor		1



(a) Using the Rear Support Strap (Option)



(b) Using the Rubber Cushion (Option)

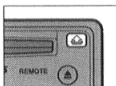


Installation (continued)

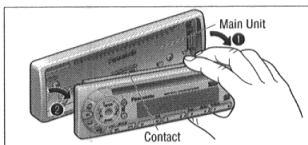
To Remove the Unit

1 Remove the removable face plate.

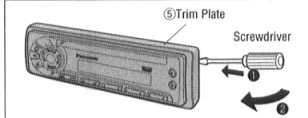
(a) Press the release button [REMOVER].



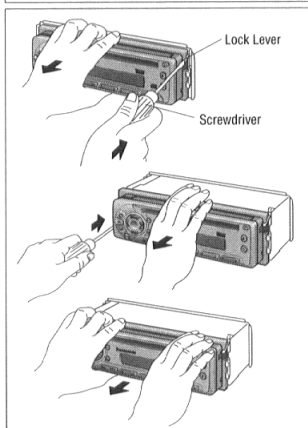
(b) Pull on the right side of the unit.



2 Remove the trim plate (5) with a screwdriver.



3 Pull out the unit while pushing down the lock lever with a screwdriver.



4 Remove the unit pulling with both hands.

Caution:
 • Do not touch the contacts on the face plate or on the main unit, since this may result in poor electrical contacts.
 • If dirt or other foreign substances get on the contacts, wipe them off with clean and dry cloth.

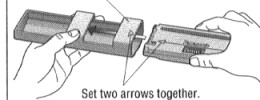
Anti-Theft System

This unit is equipped with a removable face plate. Removing this face plate makes the radio totally inoperable. The security indicator will blink.

Place Removable Face Plate into Case

- Switch off the power of the unit.
- Remove the removable face plate. (→ Page 18.)
- Gently press the bottom of the case and open the cover. Place the face plate into the case and take it with you when you leave the car.

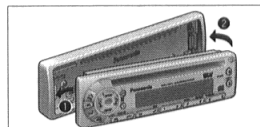
4 Removable Face Plate Case



Caution:
 • This face plate is not water-proof. Do not expose it to water or excessive moisture.
 • Do not remove the face plate while driving your car.
 • Do not place the face plate on the dashboard or nearby areas where the temperature rises to high levels.

Install Removable Face Plate

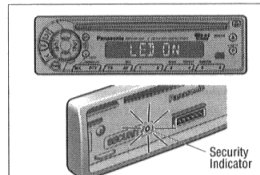
- Slide the left side of the removable face plate in place.
- Press the right end of removable face plate until "click" is heard.



Security Indicator

The security indicator blinks when the removable face plate is removed from the unit.

- Press and hold [SEL]. "LED ON" is displayed. The security indicator turns on.
- Press and hold [SEL] again to cancel.



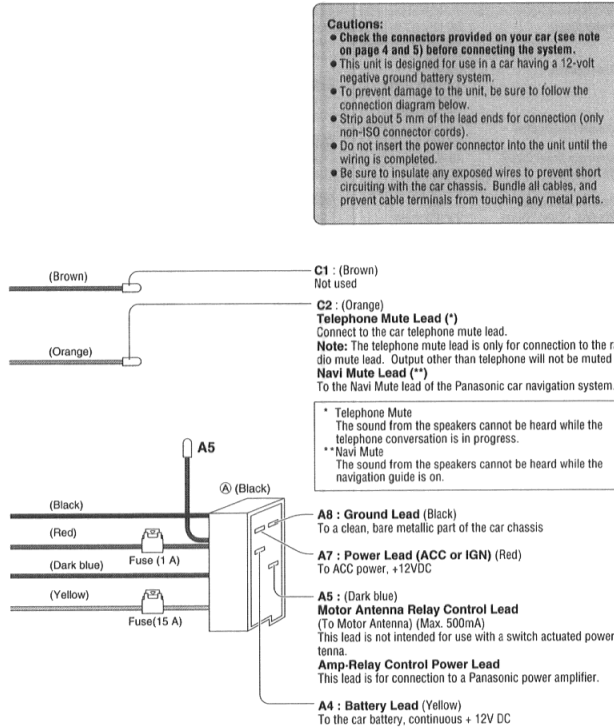
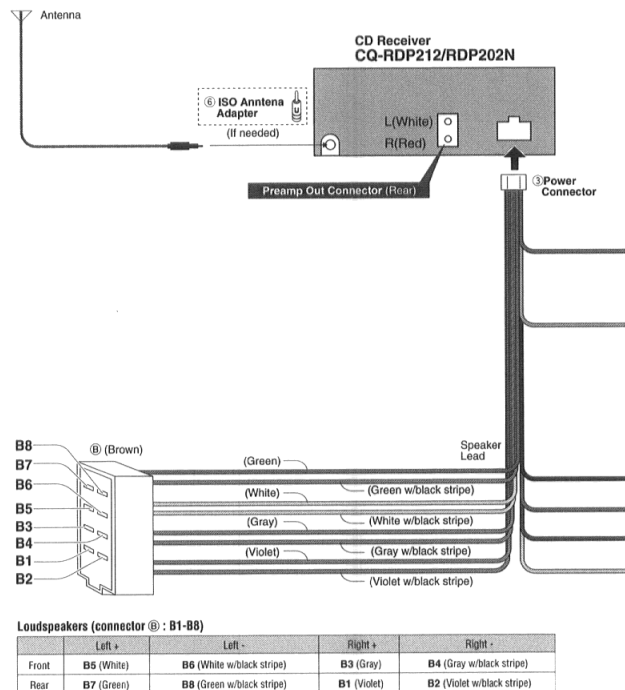
Display	Security Indicator	Panel Removal Alarm
LED ON	Blinks	ON
LED OFF	OFF	OFF

Panel Removal Alarm

This alarm sounds to warn you not to forget to remove the panel before leaving your car. This function is activated when the security indicator is on.

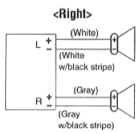
Electrical Connections

Cable Wiring Diagram



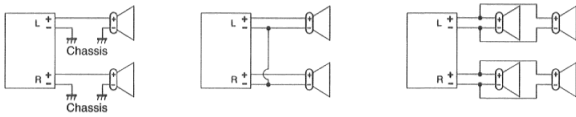
Speaker Connections

Caution: Please follow the instructions given below. Failure to do so will cause damage to the unit and speakers.



- Use ungrounded speaker only.
- The maximum speaker output should be 40 W or more. (If used with the optional power amplifier, the speaker output should be higher than the maximum amplifier output.)
- The speaker impedance should be 4 – 8 Ω.
- This unit uses the BTCL circuit, so each speaker should be connected separately using parallel vinyl insulated cords.
- The speaker cords and the power amplifier unit should be kept away (about 30 cm apart) from the antenna and antenna extension cord.

<Wrong>



- Never connect the speaker cord to the body of the car.
- Do not use a 3-wire type speaker system having a common earth lead.
- Do not connect more than one speaker to one set of speaker leads.

Fuse

Use fuses of the same specified rating (15 A). Using different substitutes or fuses with higher ratings, or connecting the unit directly without a fuse, could cause fire or damage to the unit. If the replacement fuse fails, contact your nearest authorized Panasonic Service Center.

Maintenance

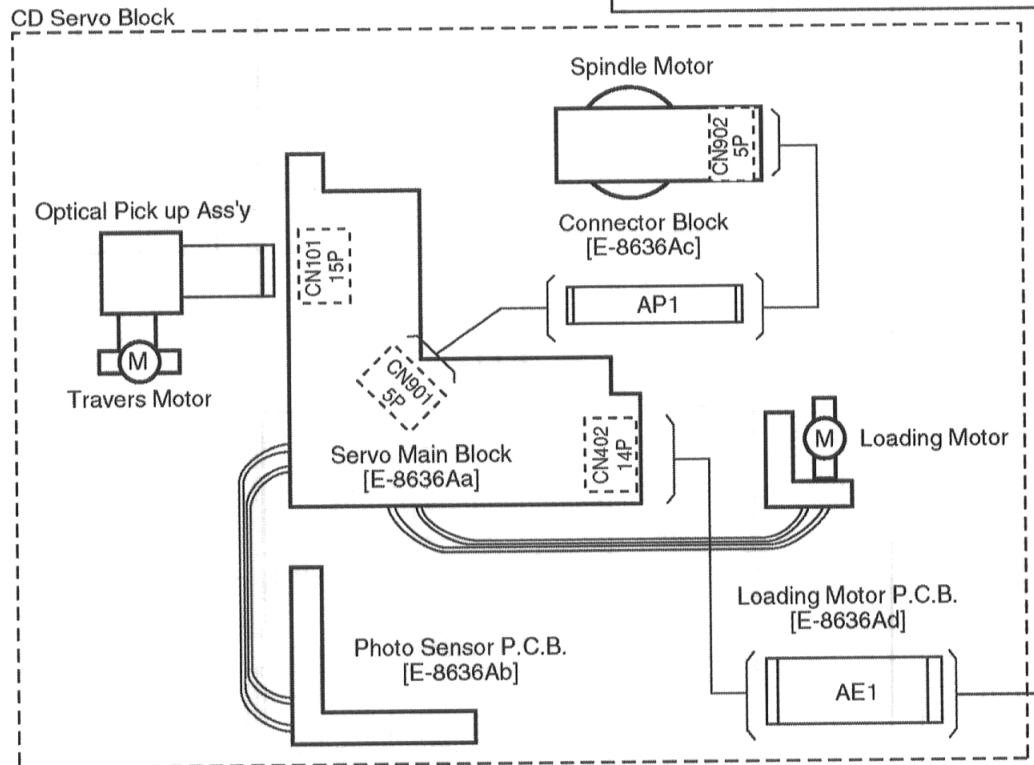
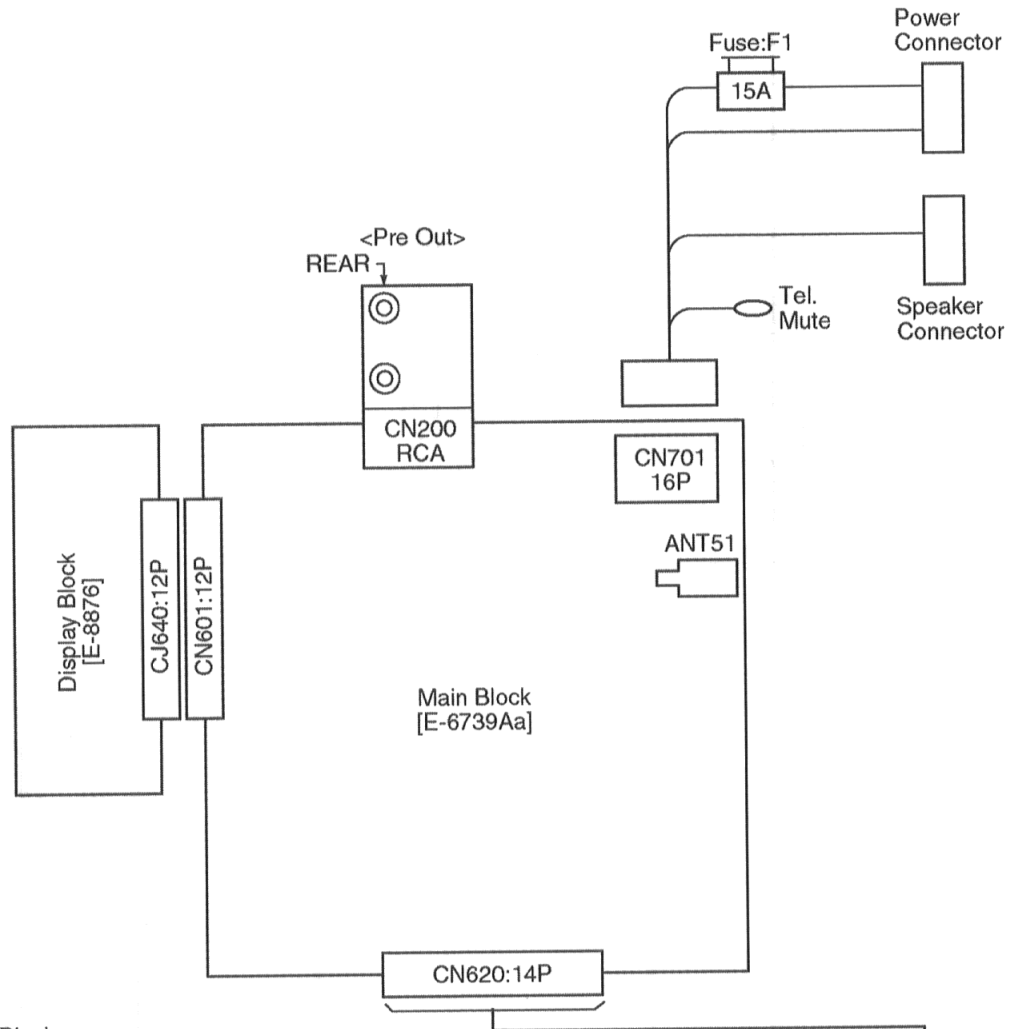
Your product is designed and manufactured to ensure the minimum of maintenance. Use a soft cloth for routine exterior cleaning. Never use benzene, thinner, or other solvents.

Specifications

General		FM Stereo Radio	
Power Supply	: DC 12 V (11 V - 16 V), Test Voltage 14.4 V, Negative Ground	Frequency Range	: 87.5 - 108 MHz
Tone Controls	: Bass; ±12 dB at 100 Hz; Treble; ±12 dB at 10 kHz	Usable Sensitivity	: 6 dB/μV(S/N 30 dB)
Current Consumption	: Less than 2.5 A (CD mode, 0.5 W 4-Speaker)	Stereo Separation	: 35 dB (at 1 kHz)
Maximum Power Output	: 40 W x 4 (at 4 Ω)	MW Radio	
Power Output	: 20 W x 4 (DIN45 324, at 4 Ω)	Frequency Range	: 531 - 1,602 kHz
Speaker Impedance	: 4 - 8 Ω	Usable Sensitivity	: 28 dB/μV (S/N 20 dB)
Pre-Amp Output Voltage	: 2 V (CD mode)	LW Radio	
Pre-Amp Output Impedance	: 600 Ω	Frequency Range	: 153 - 279 kHz
Dimensions (Main Unit)	: 178(W) x 50(H) x 150(D) mm	Usable Sensitivity	: 32 dB/μV (S/N 20 dB)
Weight (Main Unit)	: 1.5 kg	CD Player	
		Sampling Frequency	: 8 times oversampling
		DA Converter	: 1 bit DAC System
		Error Correction System	: Panasonic Super Decoding Algorithm
		Pick-Up Type	: 3-beam
		Light Source	: Semiconductor laser
		Wavelength	: 780 nm
		Frequency Response	: 20 Hz - 20 kHz (±1 dB)
		Signal to Noise Ratio	: 86 dB
		Total Harmonic Distortion	: 0.01 % (1 kHz)
		Wow and Flutter	: Below measurable limits
		Channel Separation	: 75 dB

Note: Specifications and design are subject to modification without notice due to improvements.

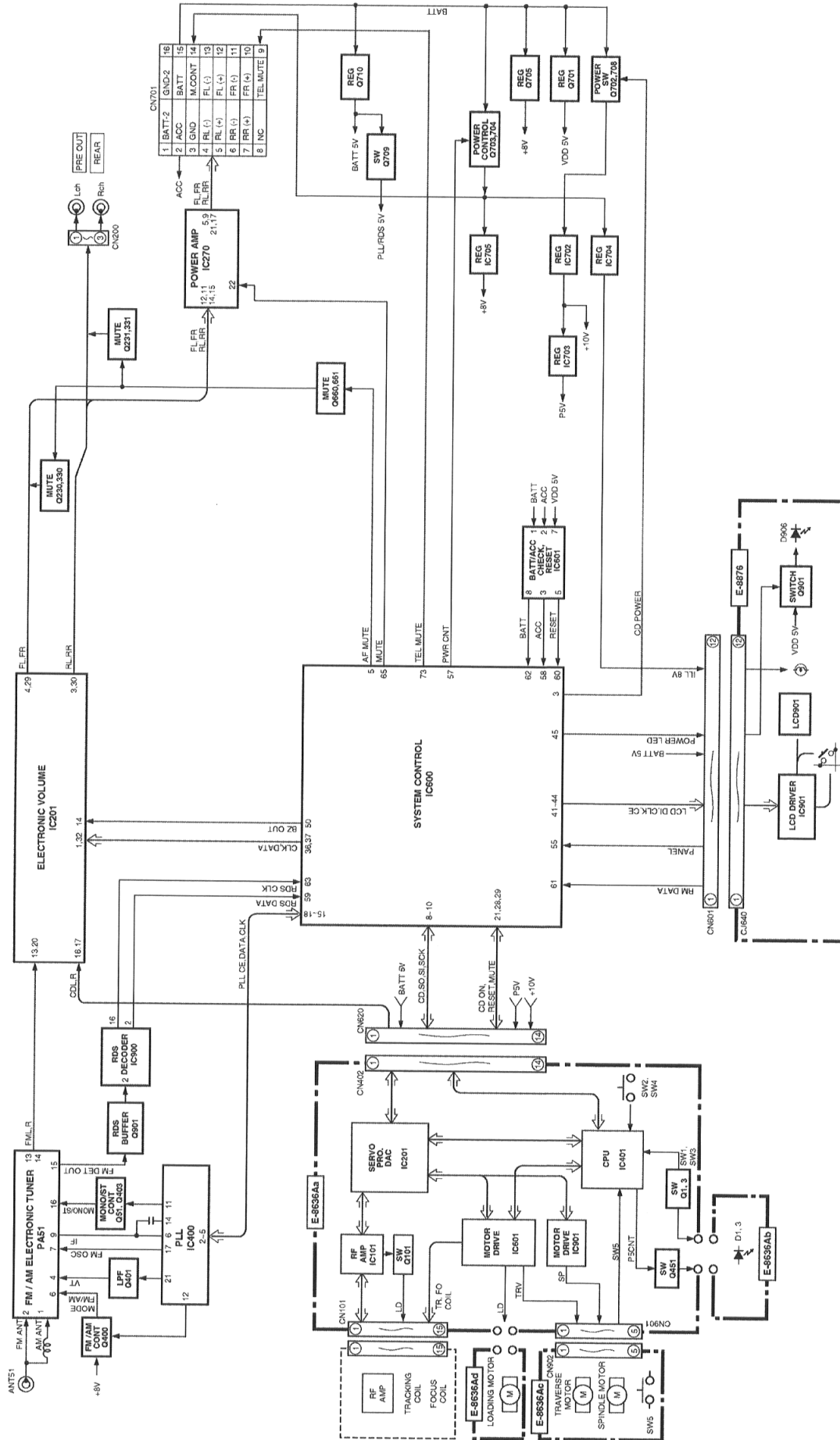
7 WIRING CONNECTION



<Note> :

-This mark shows a Ref. No. of connector
-This mark shows a mounting position of connector.

8 BLOCK DIAGRAM



9 TERMINALS DESCRIPTION

9.1. Main Block

IC600 : C2BBGF000013

Pin No.	Port	Description	I/O	(V)
1	INIT C	Initial C	I	4.9
2	P. IC STBY	Power Amp. stand-by	O	5.1
3	CD POWER	CD power control	O	5.1
4	AVSS	Analog ground	-	-
5	AF MUTE	AF mute	O	5.1
6	NC	No connection	-	-
7	AVREF	Reference voltage	-	5.1
8	CD-SO	CD data	I	3.2
9	CD-SI	CD data	O	3.8
10	CD-SCK	CD clock	O	5.0
11	CD.C DATA	Not used	-	-
12	NC	No connection	-	-
13	CD.C CLK	Not used	-	-
14	REM OUT	Not used	-	-
15	PLL CE	PLL controller chip enable	O	0
16	PLL DATA (MI)	Data from PLL	I	5.1
17	PLL DATA (MO)	Data for PLL	O	0
18	PLL CLK	Clock for PLL	O	0
19	NC	No connection	-	-
20	NC	No connection	-	-
21	CD-RESET	CD reset	O	5.0
22	NC	No connection	-	-
23	NC	No connection	-	-
24	NC	No connection	-	-
25	NC	No connection	-	-
26	NC	No connection	-	-
27	NC	No connection	-	-
28	CD-ON	CD power on	O	5.0
29	CD-MUTE	CD mute control	I	0
30	CD-SW2	Not used	-	-
31	NC	No connection	-	-
32	NC	No connection	-	-
33	Vss	Ground	-	0
34	NC	No connection	-	-
35	/ST	FM stereo detection	I	4.6
36	IC2-CLK	Electronic volume clock	O	5.0
37	IC2-DATA	Electronic volume data	I/O	5.0
38	LED	Security LED control	O	3.6
39	/HDB	Not used	-	-
40	BZIN	Power SW detection	I	4.9
41	LCD-DI (MO)	LCD data output	O	0
42	LCD-DO (MI)	LCD data input	I	5.0
43	LCD-CLK	LCD clock	O	0
44	LCD-CE	LCD chip enable output	O	0.2
45	POWER LED	Pilot lamp on	O	0
46	NC	No connection	-	-
47	NC	No connection	-	-
48	NC	No connection	-	-
49	NC	No connection	-	-
50	BZOUT	Beep output	O	0
51	NC	No connection	-	-
52	NC	No connection	-	-
53	NC	No connection	-	-
54	NC	No connection	-	-
55	PANEL	Panel detect	I	4.8
56	NC	No connection	-	-
57	PWR CNT	Power control	O	5.1
58	ACC	ACC detection	I	4.5

59	RDS DATA	RDS data input	I	2.5
60	/RESET	Reset input	I	4.7
61	REM	Remocon data input	I	4.4
62	BATT	Battery detection	I	4.7
63	RDS CLK	RDS clock input	I	2.5
64	CD.C.STB	(Ground pull-down)	I	0
65	MUTE	Mute control	O	5.1
66	NC	(Connecting to ground)	-	0
67	CD. C2	Not used	-	-
68	VDD	+5V power supply	-	5.1
69	X2	Crystal oscillator	-	3.0
70	X1	Crystal oscillator	-	1.7
71	Vss	Ground	-	0
72	NC	No connection	-	-
73	TEL MUTE	Telephone mute	I	4.9
74	AVDD	+5V power supply	-	5.1
75	AVREF	(Connecting to VDD)	-	5.1
76	NC	(Connecting to ground)	-	0
77	SD	Search detect	I	0.6
78	INIT D	Initial value D	I	5.1
79	INIT A	Initial value A	I	5.1
80	INIT B	Initial value B	I	5.1

Note 1 : Voltage measurements are with respect to ground, with a voltmeter (internal resistance : 10M ohms).

9.2. Display Block

IC901 : YEAMLC75854T

Pin No.	Port	Description	I/O	(V)
1~35	SEG1~35	LCD segment	O	2.5
36~39	NC	No connection	-	-
40~43	COM1~4	LCD common	O	2.5
44~49	KS1~6	Key data output	O	0.9
50~54	KI1~5	Key data input	I	0
55	TEST	(Connecting to ground)	-	0
56	VDD	+5V power supply	-	5.1
57	VDD1	Ground through capacitor	-	3.3
58	VDD2	Ground through capacitor	-	1.7
59	Vss	Ground	-	0
60	OSC	CR oscillator	-	3.9
61	DO	Key data output	O	4.4
62	CE	Chip enable	I	0
63	CLK	LCD clock	I	0
64	DI	LCD data input	I	0

9.3. CD Servo Block

IC201 : MN662748RPMF

Pin No.	Port	Description	I/O	(V)
1	BCLK	Not used	-	-
2	LRCK	Not used	-	-
3	SRDATA	Not used	-	-
4	DVDD	+5V digital power supply	-	5.0
5	DVSS1	Digital ground	-	0
6	TX	Not used	-	-
7	MCLK	MPU command clock	I	0
8	MDATA	MPU command data	I	0
9	MLD	MPU command load	I	0
10	SENSE	Sense signal	O	0
11	/FLOCK	Focus servo lock	O	0
12	/TLOCK	Tracking servo lock	O	4.9
13	BLKCK	Not used	-	-
14	SQCK	Q code external clock	I	4.9
15	SUBQ	Q code output	O	2.5
16	DMUTE	DSP mute	I	0
17	STAT	DSP Status output	O	3.1
18	/RST	Reset input	I	4.9
19, 20		Not used	-	-
21	TRV	Forced traverse output	O	2.5
22	TVD	Traverse drive output	O	2.5
23	PC	Spindle motor control	O	0
24	ECM	Spindle motor drive	O	2.5
25	ECS	Spindle motor drive	O	2.5
26	KICK	Kick pulse output	O	2.5
27	TRD	Tracking motor drive	O	2.5
28	FOD	Focus motor drive	O	2.5
29	VREF	D/A reference voltage	I	2.5
30	FBAL	Focus balance adjust	O	2.5
31	TBAL	Tracking balance adjust	O	2.5
32	FE	Focus error signal	I	2.5
33	TE	Tracking error signal	I	2.5
34	RFENV	RF envelope signal	I	2.5
35	VDET	Vibration detection	I	0
36	OFTR	Off track signal	I	0
37	TRCRS	Track cross signal	I	2.1
38	/RFDET	RF detection signal	I	0
39	BDO	Drop out signal	I	0
40	LDON	Laser on/off control	O	4.5
41	PLLF2	Not used	-	-
42	TOFS	TE offset	O	2.5
43	WVEL	Not used	-	-
44	ARE	RF signal	I	1.7
45	IREF	Reference current input	I	1.6
46	DRF	DSL bias	I	0
47	DSLFB	DSL loop filter	I/O	2.4
48	PLLF	PLL loop filter	I/O	1.8
49	VCOF	Not used	-	-
50	AVDD2	+5V analog power supply	-	5.0
51	AFSS2	Analog ground	-	0
52	EFM	Not used	-	-
53	PCK/DSLFB	DSL bias	I	2.4
54	VCOF2	Tracking offset	O	2.5
55	SUBC	Not used	-	-
56	SBCK	(Connecting to ground)	-	-
57	VSS	Ground	-	0
58	X1	Crystal oscillator	I	1.7
59	X2	Crystal oscillator	O	2.3
60	VDD	+5V power supply	-	5.0
61,62		Not used	-	-
63	FCLK	Not used	-	-

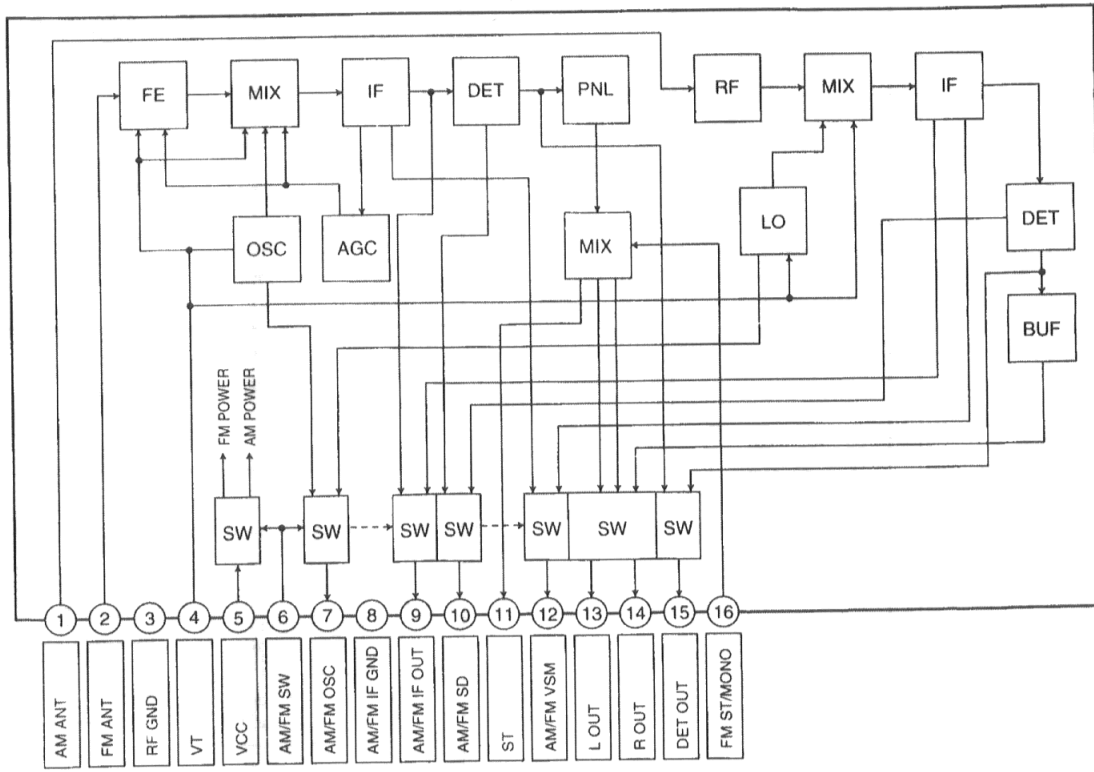
64	IPFLAG	Not used	-	-
65	FLAG	Not used	-	-
66-69		Not used	-	-
70	IOSEL	(Connecting to ground)	I	0
71	/TEST	(Connecting to ground)	I	0
72	AVDD1	+5V analog power supply	-	4.9
73	OUTL	Audio Lch output	O	4.9
74	AVSS1	Analog ground	-	0
75	OUTR	Audio Rch output	O	4.9
76	RSEL	(Connecting to ground)	-	0
77	CSEL	(Connecting to ground)	-	0
78	PSEL	(Connecting to ground)	-	0
79	MSEL	(Connecting to ground)	-	0
80	SSEL	mode select	I	5.0

IC401 : MN101C117AD

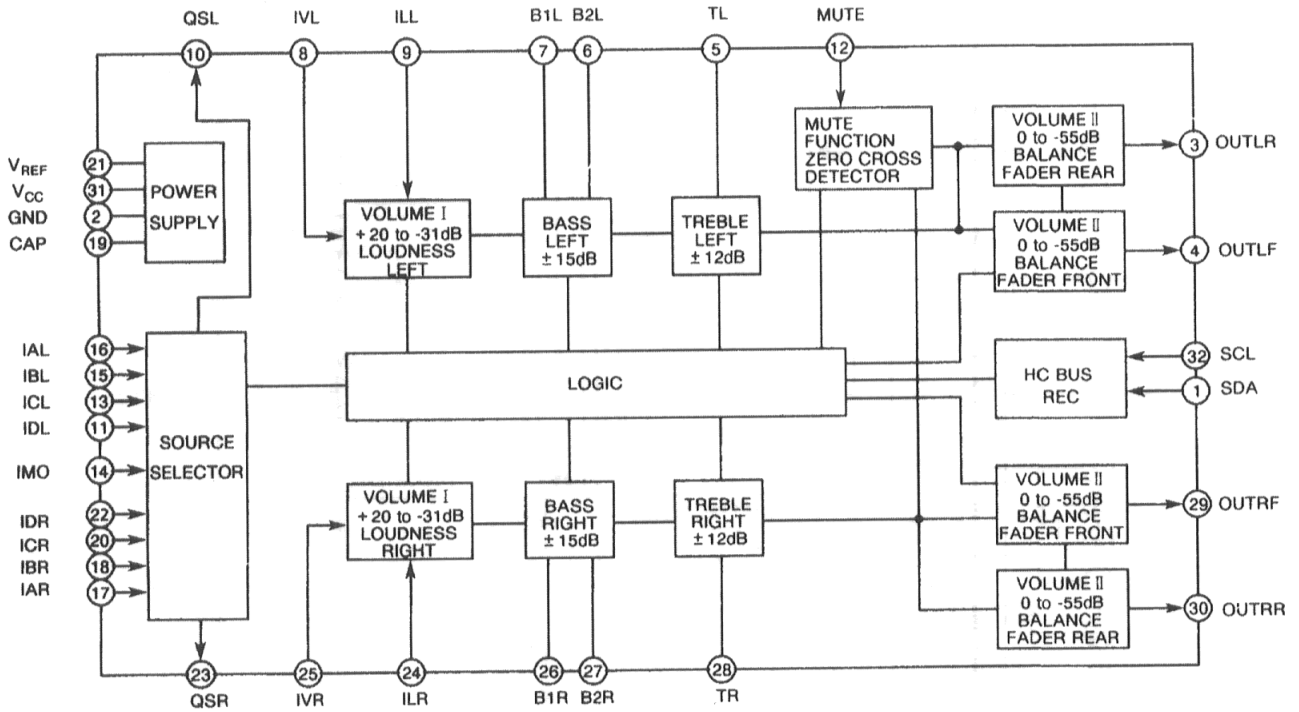
Pin No.	Port	Description	I/O	(V)
1	MASHON	Servo IC OSC control	O	5.0
2	P82	No connection	-	-
3	P81	No connection	-	-
4	P5CNT	LED power control	O	0
5	Q1	Photo sensor signal (DISC IN)	I	4.5
6	Q3	Photo sensor signal (DISC OUT)	I	4.2
7	Q6	Photo sensor signal (Option)	I	5.0
8	SW4	Clamp SW signal	I	0
9	SW5	Inner SW signal	I	5.0
10	SW2	Feeder arm SW	I	5.0
11	PA6	(Connection to ground)	-	0
12	PA7/IFR	(Connecting to ground)	I	0
13	VDD	+5V power supply	-	5.0
14	OSC2	Crystal oscillator	-	5.0
15	OSC1	Crystal oscillator	-	3.3
16	VSS	Ground	-	0
17	NC	No connection	-	-
18	SOMI	CD control data	O	3.2
19	SIMO	CD control data	I	3.8
20	SCLM	Data shift clock	I	5.0
21	AMUTE	Audio signal mute	O	0
22	BD0	Drop out signal	I	0
23	PC1	Loading motor driver control	O	5.0
24	PS2	Focus/Tracking driver control	O	0
25	VDET	Vibration detecting signal	I	0
26	P14	No connection	-	-
27	CDON	CD on signal	I	5.0
28	IRQ1.SENSE	(Connecting to ground)	-	0
29	IRQ2	(Connecting to ground)	-	0
30	LOD	Loading motor control	-	2.6
31	TRV	Traverse motor control	-	2.5
32	/PRST	Servo IC reset	O	5.0
33	STAT	Status signal	I	4.0
34	DMUTE	DSP mute	O	0
35	SUBQ	Sub code Q data	I	2.6
36	SQCK	Sub code Q clock	O	5.0
37	/TLOCK	Tracking servo lock	I	0
38	/FLOCK	Focus servo lock	I	0
39	NRST	reset input	I	5.0
40	MMOD	(Connecting to ground)	-	0
41	SENSE	Sense signal	I	0
42	MLD	Command load	O	5.0
43	MDATA	Command data	O	0.9
44	MCLK	Command clock	O	4.6

10 PACKAGE AND IC BLOCK DIAGRAM

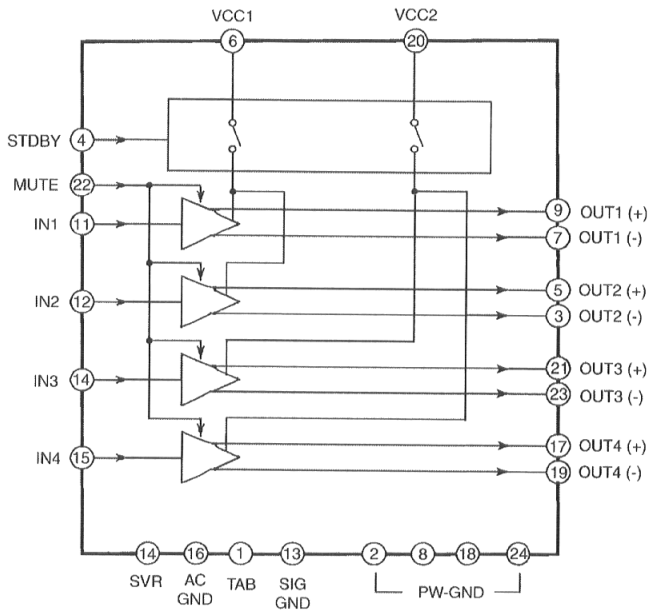
10.1. Main Block



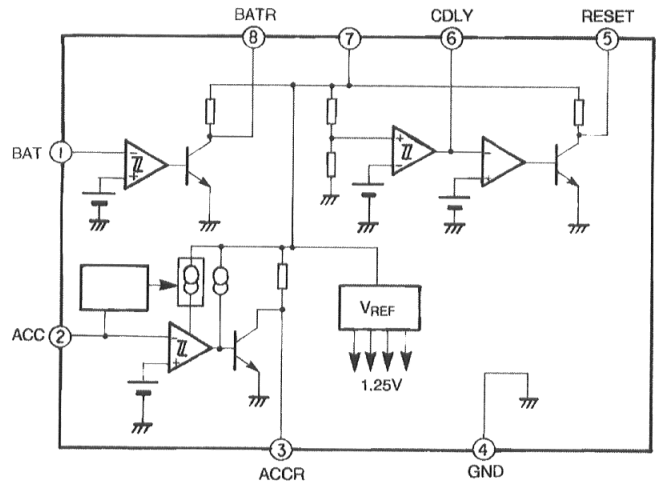
PA51 : YEAU03E052C



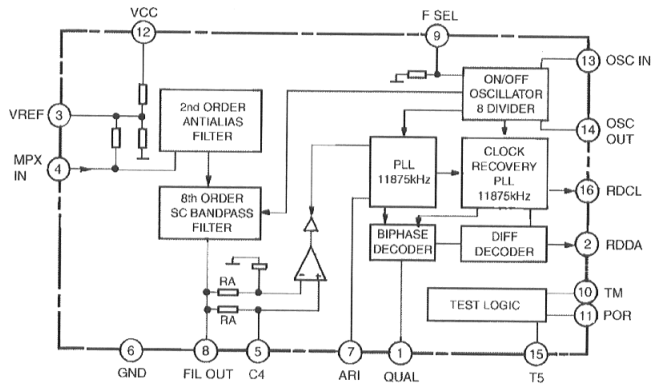
IC201 : YEAMEA6320TT



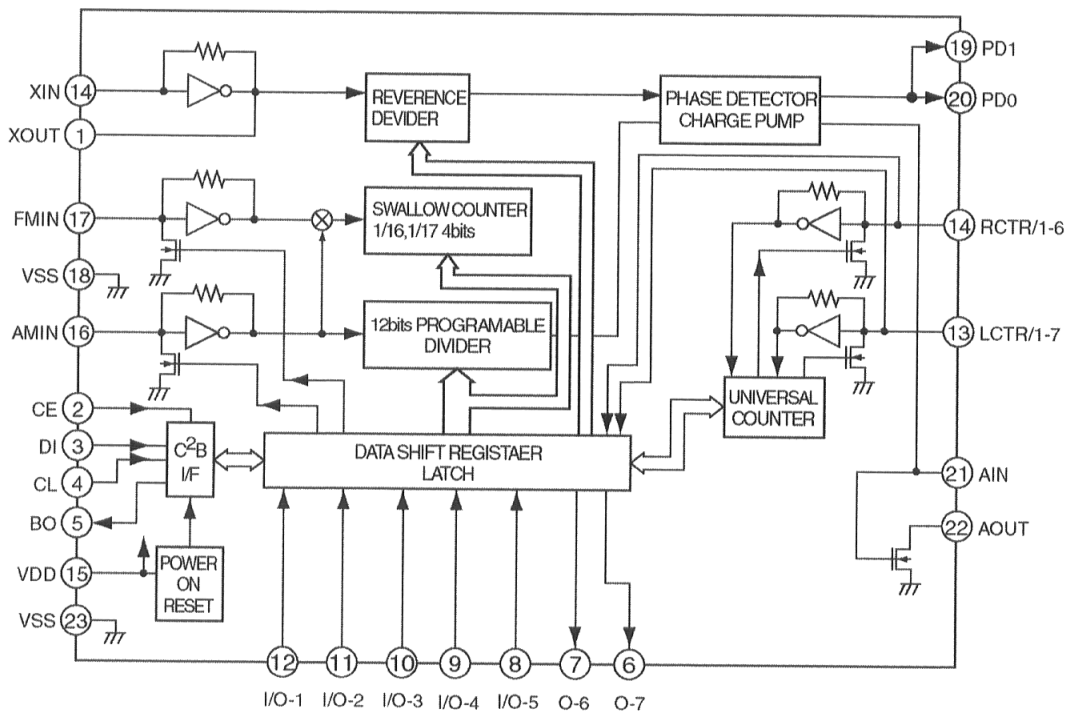
IC270 : YEAMTDA7384



IC601 : AN8065SE1

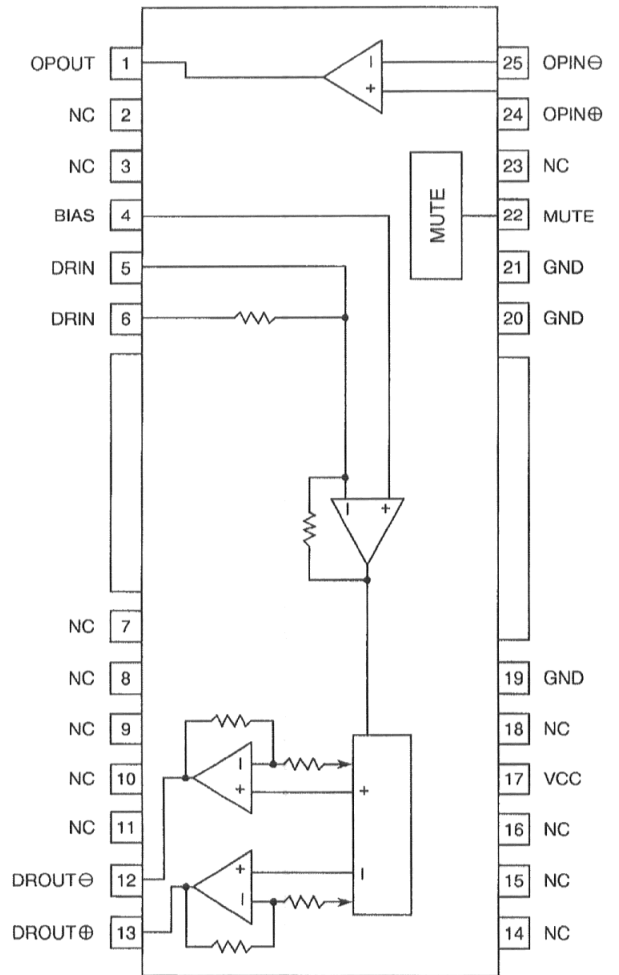
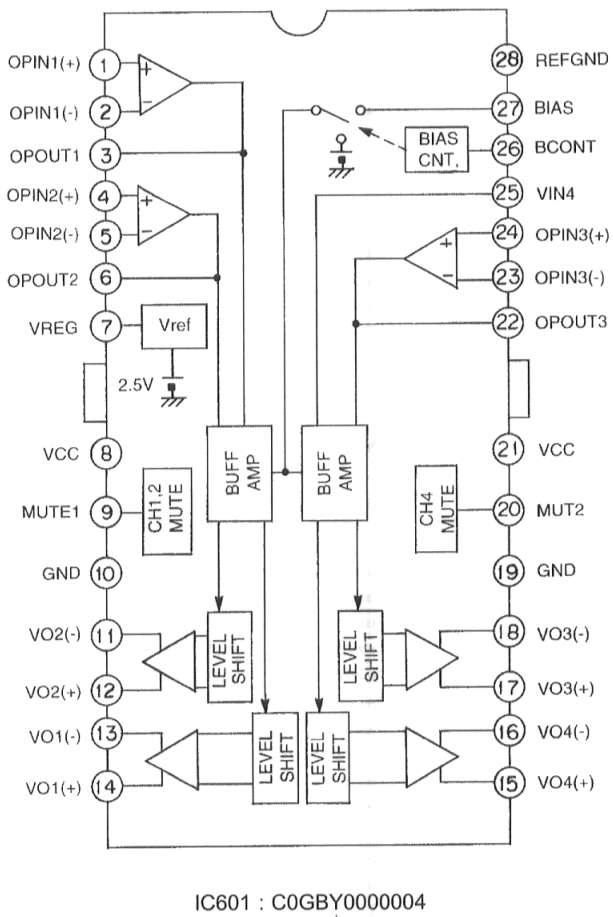
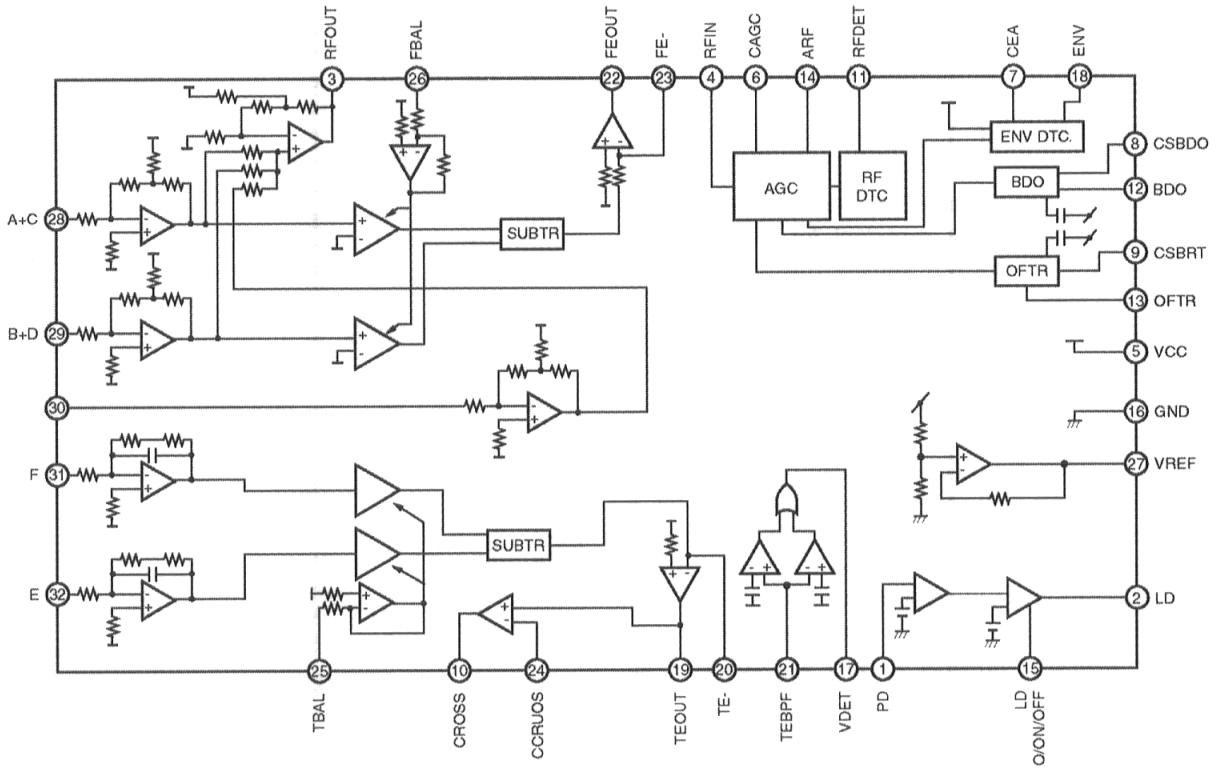


IC900 : YEAMDA7479D



IC400 : YEAMLC72146

10.2. CD Servo Block



11 REPLACEMENT PARTS LIST

Notes :

1. Be sure to make your orders of replacement parts according to this list.
2. Important safety notice: Components, identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. Location keys in the remarks column indicates the general location of the parts shown in the exploded drawing, as in a road map.
4. The marking (RTL) indicates that Retention Time is limited for this item. After the discontinuation of assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
5. "A" or "B" marks in remarks column are indicated as follows :

• A : CQ-RDP212N

• B : CQ-RDP202N

11.1. IC's and Transistors

MAIN BLOCK [E6739A]

Ref. No.	Part No.	Part Name & Description	Remarks
IC201	YEAMEA6320TT	IC	
IC270	YEAMTDA7384	IC	
IC400	YEAMLC72146T	IC	
IC600	C2BBGF000013	IC	
IC601	AN8065SE1	IC	
IC702	YEAMPC2910HF	IC	
IC703	AN78N05	IC	
IC704	YEAMPC78M08A	IC	
IC705	AN8009M-E1	IC	
IC900	YEAMDA7479D	IC	
PA51	YEAU03E052C	Electronic Tuner	
Q51	YEANA114EKTX	Transistor	
Q230	YEANC323TKT	Transistor	
Q231	YEANC323TKT	Transistor	
Q330	YEANC323TKT	Transistor	
Q331	YEANC323TKT	Transistor	
Q400	YEANF1F3PT1	Transistor	
Q401	YEAN2SK536TB	Transistor	
Q403	B1GBCFNN0005	Transistor	
Q660	YEANA114EKTX	Transistor	
Q661	YEANA114EUKT	Transistor	
Q701	YEAND1859T	Transistor	
Q702	YEANB1243QRT	Transistor	
Q703	YEANB1261ZT	Transistor	
Q704	YEANC143XKTX	Transistor	
Q705	2SD2139TA	Transistor	
Q708	YEANC114EUKT	Transistor	
Q709	YEANA114YKTX	Transistor	
Q710	YEAND1859T	Transistor	
Q901	B1ABCF000044	Transistor	

DISPLAY BLOCK [E8876]

Ref. No.	Part No.	Part Name & Description	Remarks
IC901	YEAMLC75854T	IC	
Q901	YEANA114EKTX	Transistor	

CD SERVO BLOCK [E8636A]

Ref. No.	Part No.	Part Name & Description	Remarks
IC101	C1BB00000173	IC	
IC201	MN662748RPMF	IC	
IC401	MN101C117AF	IC	
IC601	C0GBY00000004	IC	
IC901	C0GBY00000003	IC	
Q1	YEADPS1101W	Transistor	
Q3	YEADPS1101W	Transistor	
Q6	YEADPS1101W	Transistor	
Q101	2SB766ATX	Transistor	
Q451	YEANC113ZKTX	Transistor	

11.2. Diodes

MAIN BLOCK [E6739A]

Ref. No.	Part No.	Part Name & Description	Remarks
D602	LN25RP	LED	
D701	YEADDAM3MA47	Diode	
D702	MA165TA	Diode	
D703	B0BA5R700006	Diode	
D704	MA723TA	Diode	
D705	MA165TA	Diode	
D707	MA736TX	Diode	
D708	YEADRD91M1T2	Diode	

DISPLAY BLOCK [E8876]

Ref. No.	Part No.	Part Name & Description	Remarks
D901	MA8056LMHTX	Diode	
D902	MA8056LMHTX	Diode	
D903	MA8056LMHTX	Diode	
D904	MA8056LMHTX	Diode	
D905	MA8056LMHTX	Diode	
D906	LN1271RAL	LED	
D925-931	LN1461CTR	LED	A
D925-931	LN1361C6TR	LED	B

CD SERVO BLOCK [E8636A]

Ref. No.	Part No.	Part Name & Description	Remarks
D1	YEADAN1102W	Diode	
D3	YEADAN1102W	Diode	
D6	YEADAN1102W	Diode	
D201	YEAD1SS355T1	Diode	
D401	MA151WKTX	Diode	
D601	YEAD1SS355T1	Diode	

11.3. Capacitors

MAIN BLOCK [E6739A]

Ref. No.	Part No.	Part Name & Description	Remarks
C51	ECEA1CKA470I	Electrolytic, 47 μ F 16WV	
C52	YECUS1H103KX	Ceramic, 0.01 μ F 50WV	
C53	YECUS1H183KX	Ceramic, 0.018 μ F 50WV	
C56	YECUS1H183KX	Ceramic, 0.018 μ F 50WV	
C57	YECUS1H102KX	Ceramic, 0.001 μ F 50WV	
C201	F1J1H121A034	Ceramic, 120PF 50WV	
C203	ECEA1HKA3R3I	Electrolytic, 3.3 μ F 50WV	
C205	ECEA1HKA010I	Electrolytic, 1 μ F 50WV	
C208	YECUS1E333KX	Ceramic, 0.033 μ F 25WV	
C209	YECUS1H562KX	Ceramic, 0.0056 μ F 50WV	
C210	ECEA1CKA470I	Electrolytic, 47 μ F 16WV	
C211	YECUS1H103KX	Ceramic, 0.01 μ F 50WV	
C212	F1J1H121A034	Ceramic, 120PF 50WV	
C230	ECEA1CKA100I	Electrolytic, 10 μ F 16WV	
C231	ECEA1CKS100I	Electrolytic, 10 μ F 16WV	
C240	ECEA1HKS47I	Electrolytic, 0.47 μ F 50WV	
C241	ECEA1HKS47I	Electrolytic, 0.47 μ F 50WV	
C249	YECUS1H122KX	Ceramic, 0.0012 μ F 50WV	
C250	YECUS1H122KX	Ceramic, 0.0012 μ F 50WV	
C278	ECEA1AKS470I	Electrolytic, 47 μ F 10WV	

Ref. No.	Part No.	Part Name & Description	Remarks
C279	ECEA1HKS2R2I	Electrolytic, 2.2 μ F 50WV	
C301	F1J1H121A034	Ceramic, 120PF 50WV	
C303	ECEA1HKA3R3I	Electrolytic, 3.3 μ F 50WV	
C305	ECEA1HKA010I	Electrolytic, 1 μ F 50WV	
C308	YECUS1E333KX	Ceramic, 0.033 μ F 25WV	
C309	YECUS1H562KX	Ceramic, 0.0056 μ F 50WV	
C310	ECEA0JKA101I	Electrolytic, 100 μ F 6.3WV	
C311	ECEA1CKA470I	Electrolytic, 47 μ F 16WV	
C312	F1J1H121A034	Ceramic, 120PF 50WV	
C330	ECEA1CKS100I	Electrolytic, 10 μ F 16WV	
C331	ECEA1CKS100I	Electrolytic, 10 μ F 16WV	
C340	ECEA1HKS47I	Electrolytic, 0.47 μ F 50WV	
C341	ECEA1HKS47I	Electrolytic, 0.47 μ F 50WV	
C349	YECUS1H122KX	Ceramic, 0.0012 μ F 50WV	
C350	YECUS1H122KX	Ceramic, 0.0012 μ F 50WV	
C401	YECUS1H150JM	Ceramic, 15PF 50WV	
C402	YECUS1H150JM	Ceramic, 15PF 50WV	
C403	ECEA0JKA101I	Electrolytic, 100 μ F 6.3WV	
C404	YECUS1H103KX	Ceramic, 0.01 μ F 50WV	
C408	YECUS1E223KX	Ceramic, 0.022 μ F 25WV	
C409	ECQV1H224JL2	Plastic Film, 0.22 μ F 50WV	
C410	YECUS1H103KX	Ceramic, 0.01 μ F 50WV	
C412	ECEA1AKA221I	Electrolytic, 220 μ F 10WV	
C413	YECUS1H101JM	Ceramic, 100PF 50WV	
C414	ECEA1AKA221I	Electrolytic, 220 μ F 10WV	
C601	YECUS1H220JM	Ceramic, 22PF 50WV	
C602	YECUS1H220JM	Ceramic, 22PF 50WV	
C603	YECUS1C104KX	Ceramic, 0.1 μ F 16WV	
C604	YECUS1H103KX	Ceramic, 0.01 μ F 50WV	
C605	ECEA0JKS331I	Electrolytic, 330 μ F 6.3WV	
C607	EES5R5T473	Electrolytic, 0.047FD 5.5WV	
C608	YECUS1C104KX	Ceramic, 0.1 μ F 16WV	
C609	YECUS1C224KX	Ceramic, 0.22 μ F 16WV	
C611	YECUS1E104ZF	Ceramic, 0.1 μ F 25WV	
C612	YECUV1H104ZF	Ceramic, 0.1 μ F 50WV	
C631	ECEA1CKS470I	Electrolytic, 47 μ F 16WV	
C660	ECEA1HKS010I	Electrolytic, 1 μ F 50WV	
C661	YECUS1H103KX	Ceramic, 0.01 μ F 50WV	
C690	YECUS1H103KX	Ceramic, 0.01 μ F 50WV	
C702	ECEA0JKS470I	Electrolytic, 47 μ F 6.3WV	
C705	YECUS1C224KX	Ceramic, 0.22 μ F 16WV	
C706	YECUS1C104KX	Ceramic, 0.1 μ F 16WV	
C707	ECA1AM221I	Electrolytic, 220 μ F 10WV	
C710	ECA1CHG102B	Electrolytic, 1000 μ F 16WV	
C711	YECUS1C224KX	Ceramic, 0.22 μ F 16WV	
C712	ECEA1CKS470I	Electrolytic, 47 μ F 16WV	
C713	ECSH1CX475CR	Tantalum, 4.7 μ F 16WV	
C714	ECEA0JKS101I	Electrolytic, 100 μ F 6.3WV	
C715	YECUS1C224KX	Ceramic, 0.22 μ F 16WV	
C717	YECUS1C224KX	Ceramic, 0.22 μ F 16WV	
C720	YECUS1C104KX	Ceramic, 0.1 μ F 16WV	
C722	YECUS1C104KX	Ceramic, 0.1 μ F 16WV	
C723	ECEA0JKS470I	Electrolytic, 47 μ F 6.3WV	
C732	YECUS1E104ZF	Ceramic, 0.1 μ F 25WV	
C735	ECA1CDT472Y	Electrolytic, 4700 μ F 16WV	
C736	ECEA1HKS010I	Electrolytic, 1 μ F 50WV	
C901	ECEA0JKA470I	Electrolytic, 47 μ F 6.3WV	
C902	YECUS1E104ZF	Ceramic, 0.1 μ F 25WV	
C903	YECUS1H103KX	Ceramic, 0.01 μ F 50WV	
C904	YECUS1H270JM	Ceramic, 27PF 50WV	
C905	YECUS1H270JM	Ceramic, 27PF 50WV	
C906	ECEA1CKA100I	Electrolytic, 10 μ F 16WV	
C907	YECUV1H271JM	Ceramic, 270PF 50WV	
C909	YECUS1H471JM	Ceramic, 470PF 50WV	

DISPLAY BLOCK [E8876]

Ref. No.	Part No.	Part Name & Description	Remarks
C901	YECUS1E104ZF	Ceramic, 0.1 μ F 25WV	
C902	YECUS1E104ZF	Ceramic, 0.1 μ F 25WV	
C903	YECUS1H681JM	Ceramic, 680PF 50WV	
C904	YECUS1E104ZF	Ceramic, 0.1 μ F 25WV	
C912	YECUS1E104ZF	Ceramic, 0.1 μ F 25WV	

CD SERVO BLOCK [E8636A]

Ref. No.	Part No.	Part Name & Description	Remarks
C101	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C102	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C103	F3H0J1070005	Tantalum, 100 μ F 6.3WV	
C104	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C105	ECSH0JY475CR	Tantalum, 4.7 μ F 6.3WV	
C106	F1H1E273A011	Ceramic, 0.027 μ F 25WV	
C107	F1H1H152A201	Ceramic, 0.0015 μ F 50WV	
C108	YECUZ1H472KX	Ceramic, 0.0047 μ F 50WV	
C109	YECUZ1H102KX	Ceramic, 0.001 μ F 50WV	
C110	YECUZ1H102KX	Ceramic, 0.001 μ F 50WV	
C111	YECSW1A106MA	Tantalum, 10 μ F 10WV	
C112	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C113	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C115	YECUZ1H102KX	Ceramic, 0.001 μ F 50WV	
C116	YECUZ1H102KX	Ceramic, 0.001 μ F 50WV	
C117	YECUS1A105KX	Ceramic, 1 μ F 10WV	
C118	YECUZ1H471KX	Ceramic, 470PF 50WV	
C119	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C120	YECUZ1H561KX	Ceramic, 560PF 50WV	
C121	YECUZ1E123KX	Ceramic, 0.012 μ F 25WV	
C122	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C133	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C145	YECUZ1A124KX	Ceramic, 0.12 μ F 10WV	
C201	YECUZ1E123KX	Ceramic, 0.012 μ F 25WV	
C203	YECUS1C334KX	Ceramic, 0.33 μ F 16WV	
C204	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C205	YECSW1A106MA	Tantalum, 10 μ F 10WV	
C206	F1H1A4740004	Ceramic, 0.47 μ F 10WV	
C208	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C209	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C210	YECSW1A106MA	Tantalum, 10 μ F 10WV	
C214	YECUS1C334KX	Ceramic, 0.33 μ F 16WV	
C451	F1H1A4740004	Ceramic, 0.47 μ F 10WV	
C453	YECUZ1H103KX	Ceramic, 0.01 μ F 50WV	
C601	YECUS1C334KX	Ceramic, 0.33 μ F 16WV	
C602	ECEV1CA470SP	Electrolytic, 47 μ F 16WV	
C603	YECUZ1C104KX	Ceramic, 0.1 μ F 16WV	
C605	YECUS1A105KX	Ceramic, 1 μ F 10WV	
C901	YECUS1C334KX	Ceramic, 0.33 μ F 16WV	
C903	YECUZ1C333KX	Ceramic, 0.033 μ F 16WV	

11.4. Resistors

MAIN BLOCK [E6739A]

Ref. No.	Part No.	Part Name & Description	Remarks
J1	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
J501	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
J502	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
J503	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
J504	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
J505	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
J508	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
J510	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
J511	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
J512	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
J513	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
J520	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
J601	ERJ8GEY0R00V	Chip, 0 Ω 1/8W	
J604	ERJ8GEY0R00V	Chip, 0 Ω 1/8W	
J606	ERJ8GEY0R00V	Chip, 0 Ω 1/8W	
J607	ERJ8GEY0R00V	Chip, 0 Ω 1/8W	
J610	ERJ8GEY0R00V	Chip, 0 Ω 1/8W	
J613	ERJ8GEY0R00V	Chip, 0 Ω 1/8W	
R50	ERJ6GEYJ5R6	Chip, 5.6 Ω 1/10W	
R52	ERJ8GEYJ101V	Chip, 100 Ω 1/8W	
R53	ERJ8GEYJ331V	Chip, 330 Ω 1/8W	
R58	ERJ6GEYJ103	Chip, 10k Ω 1/10W	
R201	ERJ6GEYJ183	Chip, 18k Ω 1/10W	
R202	ERJ6GEYJ183	Chip, 18k Ω 1/10W	
R208	ERJ6GEY0R00V	Chip, 0 Ω 1/10W	
R230	ERD25TJ101	Carbon, 100 Ω 1/4W	

Ref. No.	Part No.	Part Name & Description	Remarks
R235	ERD25TJ101	Carbon, 100Ω 1/4W	
R236	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R241	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R243	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R301	ERJ6GEYJ183	Chip, 18kΩ 1/10W	
R302	ERJ6GEYJ183	Chip, 18kΩ 1/10W	
R308	ERJ6GEYOR00V	Chip, 0Ω 1/10W	
R330	ERD25TJ101	Carbon, 100Ω 1/4W	
R335	ERD25TJ101	Carbon, 100Ω 1/4W	
R336	ERJ8GEYJ561V	Chip, 560Ω 1/8W	
R341	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R343	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R401	ERJ6GEYJ152	Chip, 1.5kΩ 1/10W	
R402	ERJ6GEYJ222	Chip, 2.2kΩ 1/10W	
R406	ERJ6GEYJ182	Chip, 1.8kΩ 1/10W	
R407	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R409	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R600	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R602	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R604	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R606	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R608	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R609	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R610	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R611	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R614	ERDS2TJ681	Carbon, 680Ω 1/4W	
R615	ERDS2TJ100	Carbon, 10Ω 1/4W	
R616	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R617	ERDS2TJ102	Carbon, 1kΩ 1/4W	
R618	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R619	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R620	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R621	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R622	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R623	ERJ6GEYJ184	Chip, 180kΩ 1/10W	
R629	ERD25TJ102	Carbon, 1kΩ 1/4W	
R630	ERD25TJ102	Carbon, 1kΩ 1/4W	
R631	ERD25TJ102	Carbon, 1kΩ 1/4W	
R639	ERJ6GEYJ184	Chip, 180kΩ 1/10W	
R645	ERJ6GEYJ223	Chip, 22kΩ 1/10W	
R646	ERJ6GEYJ682	Chip, 6.8kΩ 1/10W	
R649	ERDS2TJ473	Carbon, 47kΩ 1/4W	
R653	ERDS2TJ102	Carbon, 1kΩ 1/4W	
R654	ERDS2TJ102	Carbon, 1kΩ 1/4W	
R660	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R661	ERJ6GEYJ393	Chip, 39kΩ 1/10W	
R673	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R686	ERJ6GEYJ272	Chip, 2.7kΩ 1/10W	
R690	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R691	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R692	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R693	ERDS2TJ102	Carbon, 1kΩ 1/4W	
R694	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R695	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R701	ERDS2FJ470	Carbon, 47Ω 1/4W	
R702	ERDS2FJ470	Carbon, 47Ω 1/4W	
R703	ERJ6GEYJ682	Chip, 6.8kΩ 1/10W	
R704	ERJ6GEYJ274	Chip, 270kΩ 1/10W	
R705	ERJ6GEYJ433	Chip, 43kΩ 1/10W	
R706	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R707	ERJ6GEYJ274	Chip, 270kΩ 1/10W	
R708	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R709	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R710	ERDS1FJ331	Carbon, 330Ω 1/10W	
R711	ERDS1FJ331	Carbon, 330Ω 1/10W	
R712	ERD25FJ1R0	Carbon, 1Ω 1/4W	
R713	ERD25FJ1R0	Carbon, 1Ω 1/4W	
R714	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R715	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R716	ERDS1FJ681	Carbon, 680Ω 1/2W	
R718	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R719	ERDS1FJ820	Carbon, 82Ω 1/2W	
R720	ERDS2TJ103	Carbon, 10kΩ 1/4W	

Ref. No.	Part No.	Part Name & Description	Remarks
R721	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R722	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R723	ERJ6GEYJ222	Chip, 2.2kΩ 1/10W	
R724	ERJ6GEYJ821	Chip, 820Ω 1/10W	
R725	ERD25TJ154	Carbon, 150kΩ 1/4W	
R726	ERDS2TJ472	Carbon, 4.7kΩ 1/4W	
R727	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R901	ERDS2TJ103	Carbon, 10kΩ 1/4W	
R902	ERDS2TJ103	Carbon, 10kΩ 1/4W	
R903	ERJ6GEYJ225V	Chip, 2.2MΩ 1/10W	
R904	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R905	ERJ6GEYJ334	Chip, 330kΩ 1/10W	
R906	ERJ6GEYJ222	Chip, 2.2kΩ 1/10W	

DISPLAY BLOCK [E8876]

Ref. No.	Part No.	Part Name & Description	Remarks
R901	ERJ6GEYJ4R7	Chip, 4.7Ω 1/10W	
R903	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R904	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R905	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R906	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R908	ERJ6GEYJ222	Chip, 2.2kΩ 1/10W	
R909	ERJ6GEYJ4R7	Chip, 4.7Ω 1/10W	
R910	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R911	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R912	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R921	ERJ8GEYJ391V	Chip, 390Ω 1/8W	
R922	ERJ8GEYJ101V	Chip, 100Ω 1/8W	
R923	ERJ8GEYJ101V	Chip, 100Ω 1/8W	
R926	ERJ8GEYOR00V	Chip, 0Ω 1/8W	
R927	ERJ8GEYOR00V	Chip, 0Ω 1/8W	
R928	ERJ8GEYOR00V	Chip, 0Ω 1/8W	

CD SERVO BLOCK [E8636A]

Ref. No.	Part No.	Part Name & Description	Remarks
J401	ERJ3GEYOR00V	Chip, 0Ω 1/16W	
J429	ERJ3GEYOR00V	Chip, 0Ω 1/16W	
L451	ERJ6GEYOR00V	Chip, 0Ω 1/10W	
R101	ERJ3GEYJ101V	Chip, 100Ω 1/16W	
R102	ERJ14YJ330H	Chip, 33Ω 1/4W	
R103	ERJ3GEYJ683V	Chip, 68kΩ 1/16W	
R104	ERJ3GEYJ683V	Chip, 68kΩ 1/16W	
R105	ERJ3GEYJ333V	Chip, 33kΩ 1/16W	
R106	ERJ3GEYJ184V	Chip, 180kΩ 1/16W	
R107	ERJ3GEYJ184V	Chip, 180kΩ 1/16W	
R108	ERJ3GEYJ823V	Chip, 82kΩ 1/16W	
R109	ERJ3GEYJ334V	Chip, 330kΩ 1/16W	
R110	ERJ3GEYJ102V	Chip, 1kΩ 1/16W	
R111	ERJ3GEYJ102V	Chip, 1kΩ 1/16W	
R112	ERJ3GEYJ393V	Chip, 39kΩ 1/16W	
R113	ERJ3GEYJ333V	Chip, 33kΩ 1/16W	
R114	ERJ3GEYJ153V	Chip, 15kΩ 1/16W	
R119	ERJ3GEYJ184V	Chip, 180kΩ 1/16W	
R120	ERJ3GEYJ333V	Chip, 33kΩ 1/16W	
R147	ERJ3GEYJ153V	Chip, 15kΩ 1/16W	
R207	ERJ3GEYJ473V	Chip, 47kΩ 1/16W	
R208	ERJ3GEYJ473V	Chip, 47kΩ 1/16W	
R209	ERJ3GEYJ391V	Chip, 390Ω 1/16W	
R210	ERJ3GEYJ334V	Chip, 330kΩ 1/16W	
R211	ERJ3GEYJ124V	Chip, 120kΩ 1/16W	
R213	ERJ3GEYJ470V	Chip, 47Ω 1/16W	
R214	ERJ3GEYJ272V	Chip, 2.7kΩ 1/16W	
R215	ERJ3GEYJ473V	Chip, 47kΩ 1/16W	
R401	ERJ3GEYJ563V	Chip, 56kΩ 1/16W	
R402	ERJ3GEYJ563V	Chip, 56kΩ 1/16W	
R404	ERJ3GEYJ473V	Chip, 47kΩ 1/16W	
R411	ERJ3GEYJ334V	Chip, 330kΩ 1/16W	
R454	ERJ6GEYJ271	Chip, 270Ω 1/10W	
R456	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R461	ERJ3GEYJ823V	Chip, 82kΩ 1/16W	
R463	ERJ3GEYJ823V	Chip, 82kΩ 1/16W	
R466	ERJ3GEYJ823V	Chip, 82kΩ 1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R471	ERJ8GEYJ121V	Chip, 120Ω 1/8W	
R473	ERJ8GEYJ121V	Chip, 120Ω 1/8W	
R476	ERJ8GEYJ121V	Chip, 120Ω 1/8W	
R481	ERJ3GEYJ104V	Chip, 100kΩ 1/16W	
R601	ERJ3GEYJ123V	Chip, 12kΩ 1/16W	
R602	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R603	ERJ3GEYJ273V	Chip, 27kΩ 1/16W	
R604	ERJ3GEYJ124V	Chip, 120kΩ 1/16W	
R605	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R606	ERJ3GEYJ822V	Chip, 8.2kΩ 1/16W	
R607	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R608	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R609	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R610	ERJ3GEYJ472V	Chip, 4.7kΩ 1/16W	
R613	ERJ3GEYJ122V	Chip, 1.2kΩ 1/16W	
R901	ERJ3GEYJ103V	Chip, 10kΩ 1/16W	
R902	ERJ3GEYJ333V	Chip, 33kΩ 1/16W	
R903	ERJ3GEYJ122V	Chip, 1.2kΩ 1/16W	

11.5. Connectors

MAIN BLOCK [E6739A]

Ref. No.	Part No.	Part Name & Description	Remarks
CJ620	K9ZZ00000176	Connector, 14P	
CN200	YEAE02165	Connector, 2P RCA	
CN601	YEAE012475	Connector, 12P	
CN620	YEAE012763	Connector, 14P	
CN701	YEAE012194	Connector, 16P	

DISPLAY BLOCK [E8876]

Ref. No.	Part No.	Part Name & Description	Remarks
CJ640	YEAE012476	Connector, 12P	

CD SERVO BLOCK [E8636A]

Ref. No.	Part No.	Part Name & Description	Remarks
CN101	YEAESFW15R2E	Connector, 15P	
CN402	K1MN14B00028	Connector, 14P	
CN901	K1MN05B00010	Connector, 5P	
CN902	K1MN05B00009	Connector, 5P	

11.6. Electric Parts

SWITCHES

Ref. No.	Part No.	Part Name & Description	Remarks
SW2	ESE102MH2	Switch	
SW4	YEAS09275	Switch	
SW902	EVQPJH05K	Switch	
SW903	EVQPJH05K	Switch	
SW904	YEAS09312	Switch	
SW905	EVQPJH05K	Switch	
SW906	EVQPJH05K	Switch	
SW907	EVQPJH05K	Switch	
SW908	EVQPJH05K	Switch	
SW909	EVQPJH05K	Switch	
SW910	YEAS09312	Switch	
SW911	EVQPJH05K	Switch	
SW912	EVQPJH05K	Switch	
SW913	YEAS09312	Switch	
SW914	EVQPJH05K	Switch	
SW915	YEAS09312	Switch	
SW916	YEAS09312	Switch	
SW917	YEAS09312	Switch	
SW918	YEAS09312	Switch	
SW919	YEAS09312	Switch	
SW920	EVQPJH05K	Switch	
SW921	EVQPJH05K	Switch	
SW922	EVQPJH05K	Switch	
SW926	EVQPJH05K	Switch	

CRYSTALS

Ref. No.	Part No.	Part Name & Description	Remarks
XL400	YEXL49U072TA	Crystal OSC	
XL451	YEXLSTCC419T	Crystal OSC	
XL600	YEXL49U0419T	Crystal OSC	
XL901	YEXL49U0433T	Crystal OSC	

CERAMIC FILTERS

Ref. No.	Part No.	Part Name & Description	Remarks
XL201	H2D169500005	Ceramic Filter	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L50	YELT02C330KT	Coil	
L400	YELT02C101KT	Coil	
L600	YELT02C470KT	Coil	
L601	YELT02C101KT	Coil	
L702	YETQ026F143	Coil	
L901	YELT02C101KT	Coil	

LCD

Ref. No.	Part No.	Part Name & Description	Remarks
LCD901	L5AAAJB00009	LCD Display	

LAMPS

Ref. No.	Part No.	Part Name & Description	Remarks
PL920	YEALHSK0002	Pilot Lamp	A
PL920	YEALHSG005	Pilot Lamp	B
PL921	YEALHSL0004	Pilot Lamp	A
PL921	YEALHSLG003	Pilot Lamp	B
PL922	YEALHSL0004	Pilot Lamp	A
PL922	YEALHSLG003	Pilot Lamp	B
Z50	J0LE00000002	Neon Tube	

THERMISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
PT701	YERT7AR4R7MT	Thermistor	

11.7. Accessories

PRINTINGS

Ref. No.	Part No.	Part Name & Description	Remarks
	YEFM283532	Operating Instructions	

INSTALLATION PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
	YEAJ02764	Power Cord	
	YEAA33144	Antenna Accessory	
	YEP9BS1111	Screws	
	YEFAL31290	Detachable Unit Case	
	YEFX0214198	Mounting Collar	

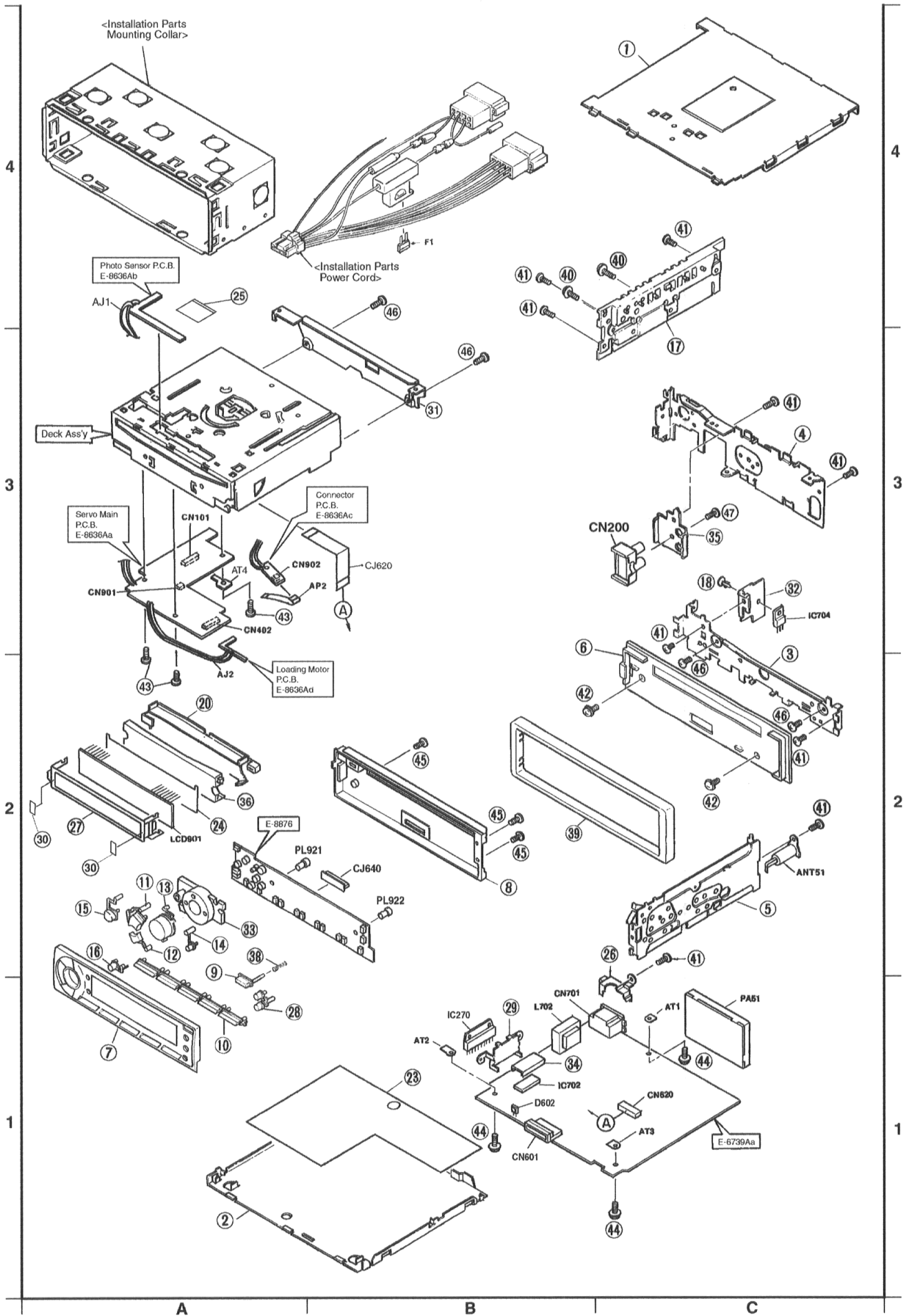
11.8. Mechanical Parts

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
F1	YEAFO2015	Fuse, 15A	△
ANT51	YGAA10082	Antenna Receptacle	
AJ1	YEAJ071287	Cord w/Plug	
AJ2	YEAJ071285	Cord w/Plug	
AP2	YEAP2711	Flexible P.C.B.	
AT1-3	K4ZZ01000048	Terminal	
AT4	YEATSD00405	Terminal	
1	YEFA031359E	Upper Cover	(4-C)
2	YEFA05594B	Bottom Cover	(1-B)
3	YEFA07472	Front Plate	(2-C)
4	YEFA08402BK	Rear Plate	(3-C)
5	YEFA09505	Side Plate	(2-C)
6	YEFC025670	Escutcheon Ass'y, Unit	(2-C)

Ref. No.	Part No.	Part Name & Description	Remarks
7	YEF026770	Escutcheon Ass'y, Detachable	A (1-A)
7	YEF026771	Escutcheon Ass'y, Detachable	B (1-A)
8	YEF131358	Cover, Detachable	(2-B)
9	YEF134685	Button, RLSE	(1-A)
10	YEF135158	Button, PRESET	(1-A)
11	YEF135150	Button, VOL UP	(2-A)
12	YEF135151	Button, VOL DOWN	(2-A)
13	YEF135152	Button, MODE/BAND	(2-A)
14	YEF135165	Button, ATT/LOUD	(2-A)
15	YEF135162	Button, SEL	(2-A)
16	YEF135145	Button, PWR	(2-A)
17	YEF01832C	Heat Sink	(4-C)
18	YEFJ05046	Color Rivet	(3-C)
20	YEFK06794	Holder, LCD	(2-A)
23	YEFV011813	Insulator	(1-B)
24	YEFV021485	Optical Shade	(2-A)
25	YEFM03982	Laser Seal	(4-A)
26	YEFX0213649A	Bracket, CN701	(1-C)
27	YEFX0214680A	Bracket, LCD	(2-A)
28	YEF134702	Button, EJECT/DISP	(1-A)
29	YEFX0213945B	Bracket, IC270	(1-C)
30	YEFV021626	Optical Shade	(2-A)
31	YEFX0214700	Bracket, Deck	(3-B)
32	YEFX0214167	Bracket IC704	(3-C)
33	YEFX0011809	Transparent Plate	(2-A)
34	YEFX0214168	Bracket, IC702	(2-C)
35	YEFX0213673	Bracket, RCA	(3-C)
36	YEFX0011814A	Transparent Plate	(2-A)
38	YEFX0052153	Spring	(1-A)
39	YEF05554	Trim Plate	(2-B)
40	YEJS06092	Screw, 3mm * 10mm	
41	XTB3+6FFX	Tapping Screw, 3mm * 6mm	
42	YEJT03156	Tapping Screw, 2.6mm * 4mm	
43	XYN2+J4FX	Screw, 2mm * 4mm	
44	YEJT03009	Tapping Screw, 3mm * 8mm	
45	XTN2+8GFZ	Tapping Screw, 2mm * 8mm	
46	YEJT03267	Tapping Screw,	
47	XTB3+8GFX	Tapping Screw, 3mm * 8mm	

12 EXPLODED VIEW (Unit)

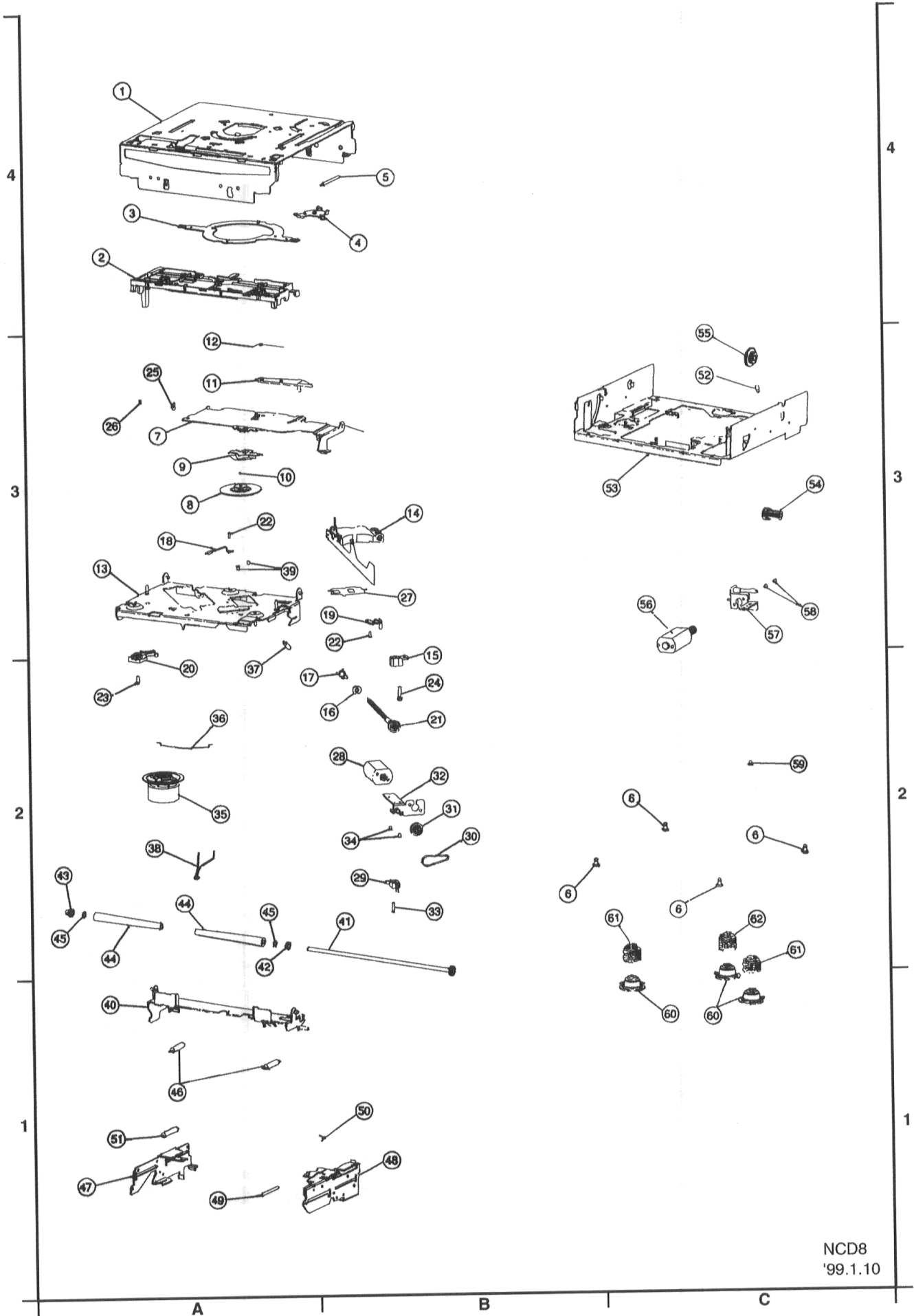


13 CD PLAYER PARTS

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
1	YGFA011781	Upper Chassis	(4-A)
2	YGFX236153	Disk Guide	(4-A)
3	YGFX0462017	Link Lever	(4-A)
4	YGFX0462018	Detection Lever (2)	(4-B)
5	YGFX0052357	Detection Lever (2) Spring	(4-B)
6	YEJT03131	Tapping Screw, 2.6 mm* 5mm	(2-C) (2-B)
7	YGFX249461	Clamp Arm	(3-A)
8	YGFX007640	Clamper	(3-A)
9	YGFX0052363	Clamper Spring Plate	(3-A)
10	YEFX999957	Ball Bearing	(3-A)
11	YGFX0462013	Detection Lever (1)	(3-A)
12	YGFX0052352	Detection Lever (1) Spring	(3-A)
13	YGFA011795	Suspension Chassis Ass'y	(3-A)
14	YESFD13006	Optical Pick-up Ass'y	(3-B)
15	YEFW04150	Feed Screw Housing A	(2-B)
16	YEFW04137A	Feed Screw Housing B	(2-B)
17	YGFX0052386	Thrust Adjusting Spring	(2-B)
18	YEFX236144B	Traverse Guide	(3-A)
19	YGFX9992027	Feed Screw Carrier	(3-B)
20	YEFX9991458A	FPC Holder	(2-A)
21	YGJT03240	Traverse Gear Ass'y	(2-B)
22	YEJS02037	Screw, (Pick-up)	(3-A) (3-B)
23	XYN2+C5FX	Screw, (FPC) 2mm * 5mm	(2-A)
24	XYN2+J10FX	Screw, (Housing) 2mm * 10m	(2-B)
25	YEFX0051590	Spring Washer	(3-A)
26	XUC15V	Retaining Ring, 1.5mm	(3-A)
27	YEFX9991806A	Sealed Plate	(3-B)
28	YGP0FX3503	Traverse Motor Ass'y	(2-B)
29	YEAS23151A	Inner Switch	(2-B)
30	YEFR03080	Rubber Belt	(2-B)
31	YEFX026124A	Idler Pulley	(2-B)
32	YGFX018611	Motor Bracket Ass'y	(2-B)
33	YEJS02018FZ	Screw, (SW)	(2-B)
34	XQN2+A25FX	Screw, 2mm * 25mm	(2-B)
35	YGP0FX3529	Spindle Motor Ass'y	(2-A)
36	YEFX0051991C	Spring (Motor)	(2-A)
37	YGFX0052353	Clamper Spring	(2-A)
38	YGAJ071286	Motor Cable	(2-A)
39	XQN17+A25FX	Screw, 1.7mm * 25mm	(3-A)
40	YGFX0462019	Feeder Arm Ass'y	(1-A)
41	YGP0FX3507	Roller Gear Ass'y	(2-B)
42	YEFW04144	Roller Shaft Collar (1)	(2-A)
43	YEFW04138	Roller Shaft Collar (2)	(2-A)
44	YEFX218282	Rubber Roller	(2-A)
45	YEJW04128	Washer	(2-A)
46	YGFX0052362	Spring (Feeder Arm)	(1-A)
47	YGFX0462015	Suspension Lock Plate (L)	(1-A)
48	YGP0FX3504	Suspension Lock Plate (R) Ass'y	(1-B)
49	YGFX0052355	Spring (Rack Gear)	(1-A)
50	YGFX0052356	Spring (Rack Lock Lever)	(1-B)
51	YGFX0052360	Spring (Suspension Lock Plate L)	(1-A)
52	YGFX0052361	Spring (Lock Plate)	(3-C)
53	YGFA011779	Bottom Chassis Ass'y	(3-C)
54	YGFX003940	Driving Gear (1)	(3-C)
55	YGFX003941	Driving Gear (2)	(3-C)
56	YGP0FX3506	Loding Motor Ass'y	(3-C)
57	YGFX018605	Loding Motor Bracket Ass'y	(3-C)
58	XQN2+A25FX	Screw, (Motor) 2mm * 25mm	(3-C)
59	YEJS06188	Screw	(2-C)
60	YEFX04693	Oil Dumper	(1-C)
61	YGFX0052358	Suspension Spring (A)	(2-C)
62	YGFX0052359	Suspension Spring (B)	(2-C)

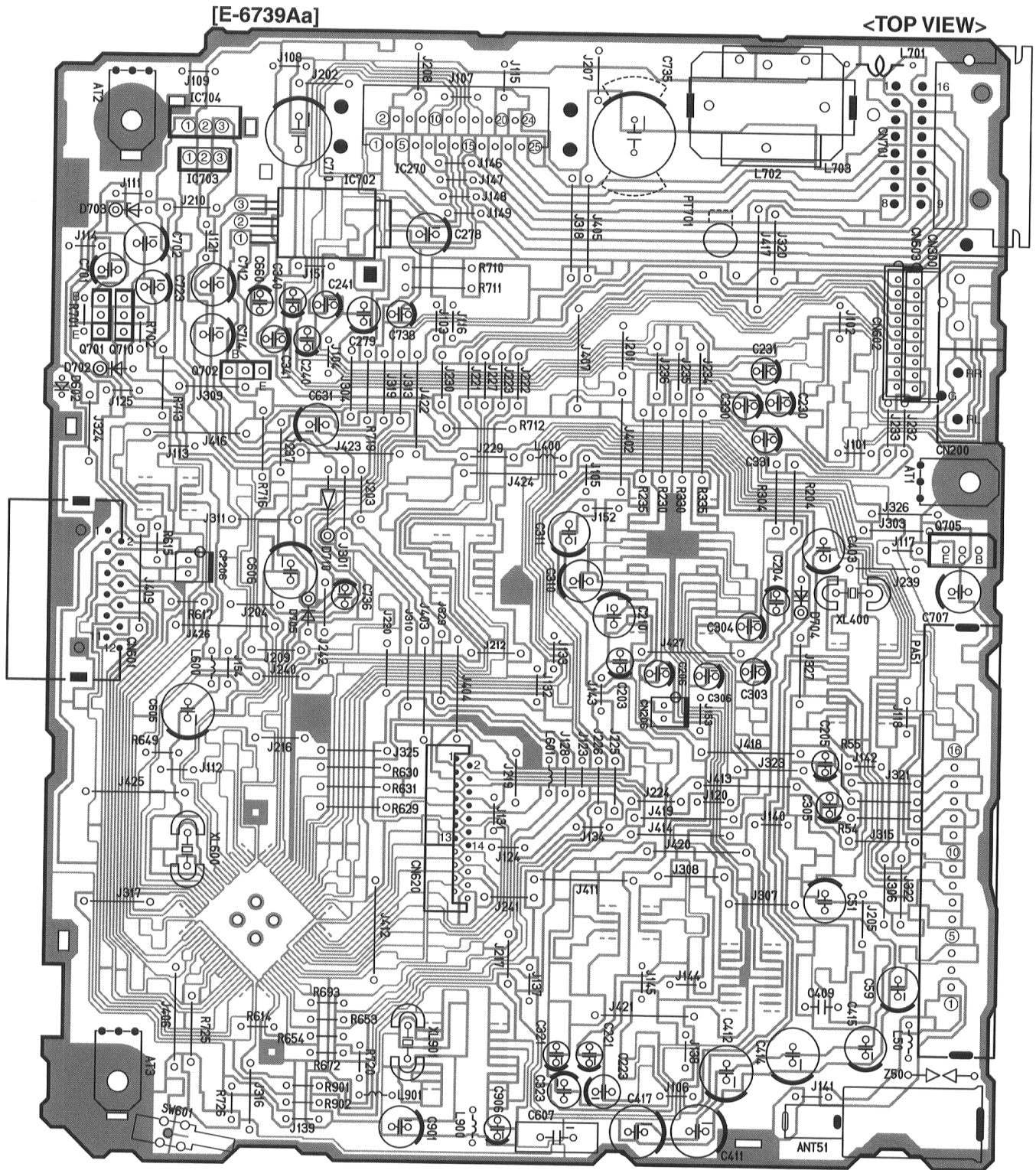
14 EXPLODED VIEW (CD Deck)



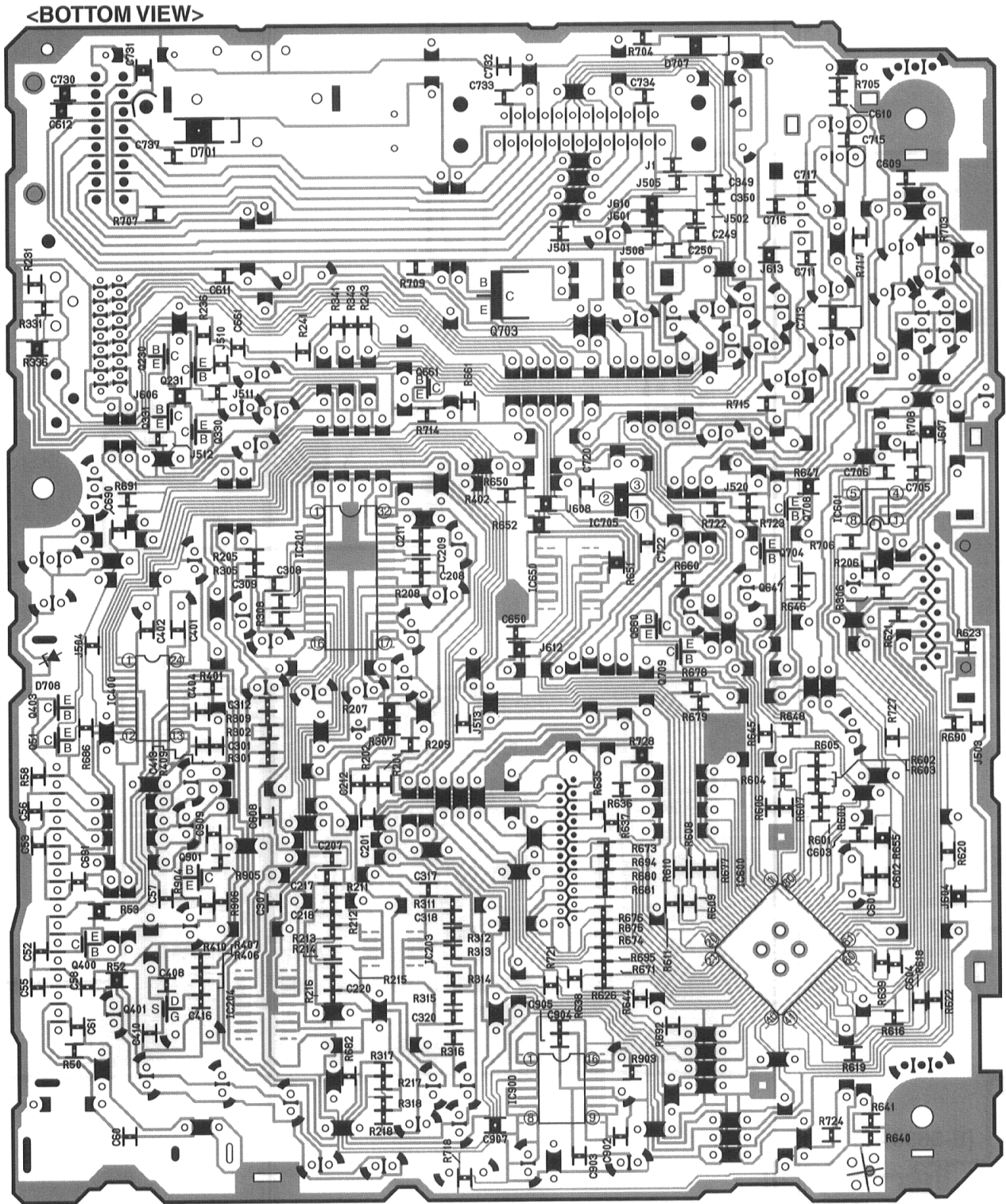
NCD8
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15 WIRING DIAGRAM

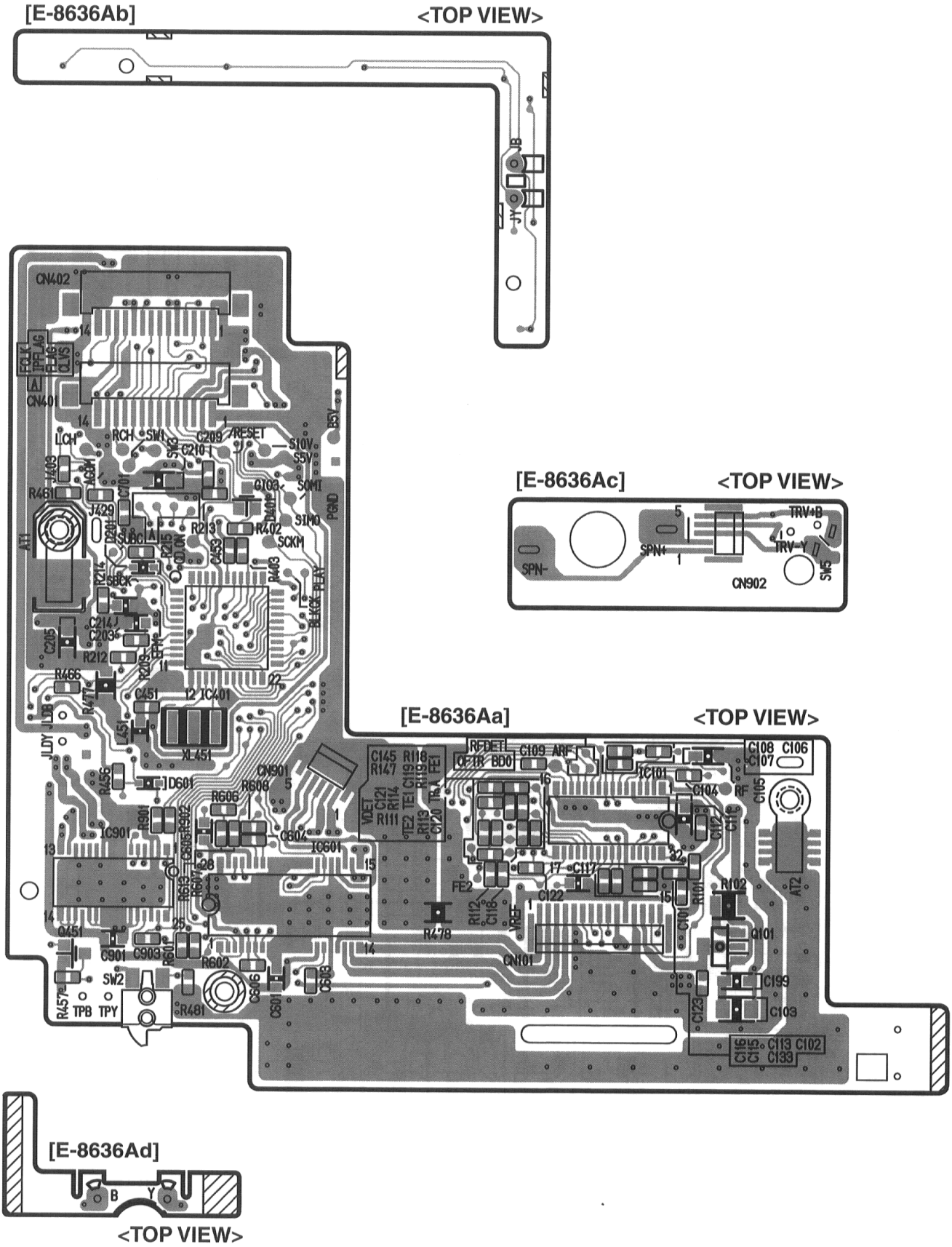
15.1. Main Block (Top View)



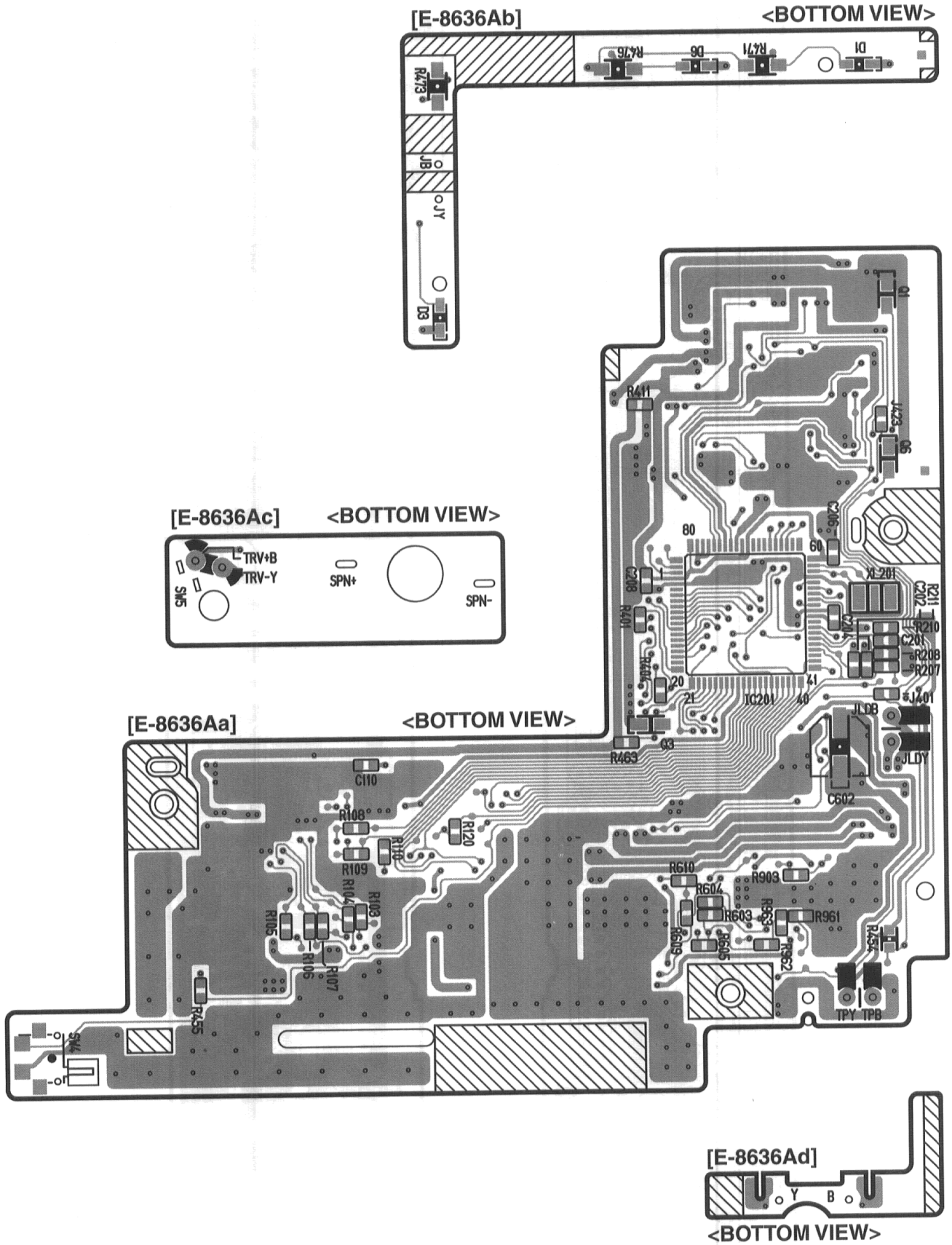
15.2. Main Block (Bottom View)



15.3. CD Servo Block (Top View)

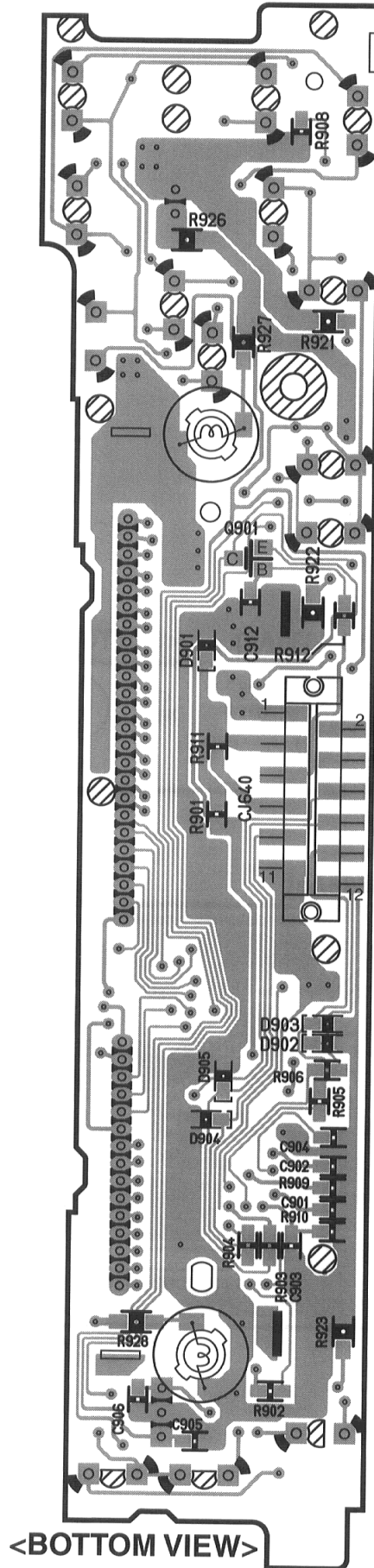
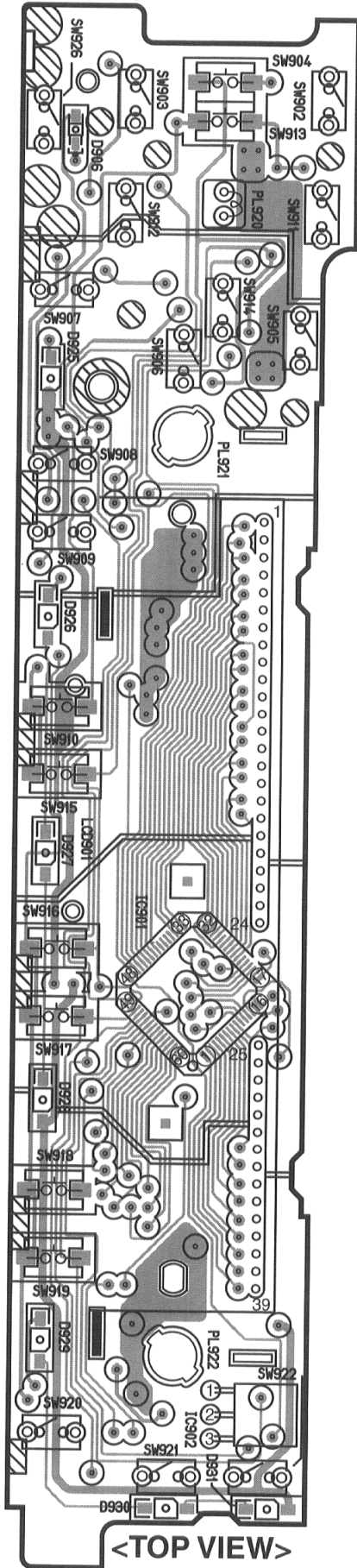


15.4. CD Servo Block (Bottom View)



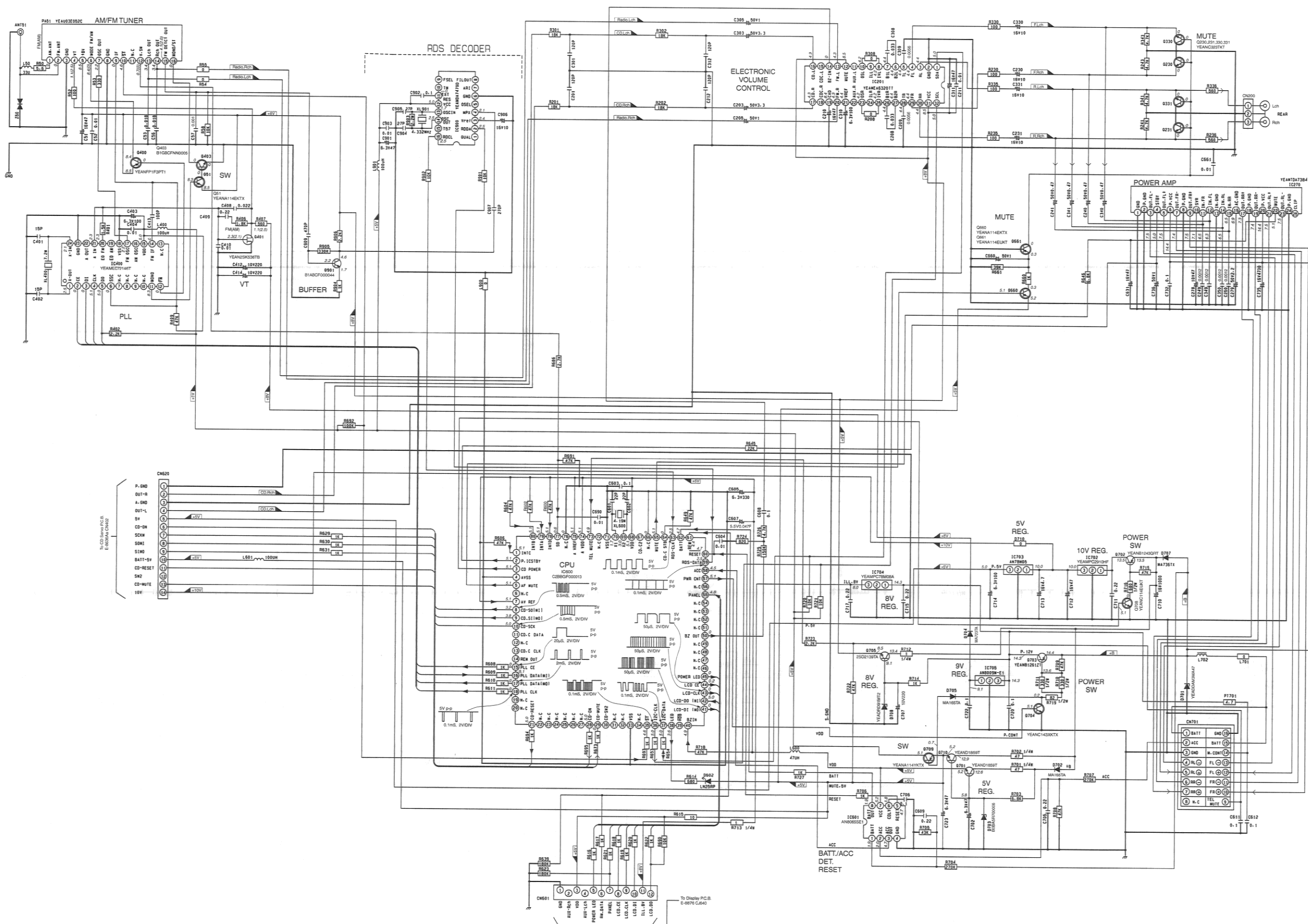
15.5. Display Block

[E-8876]

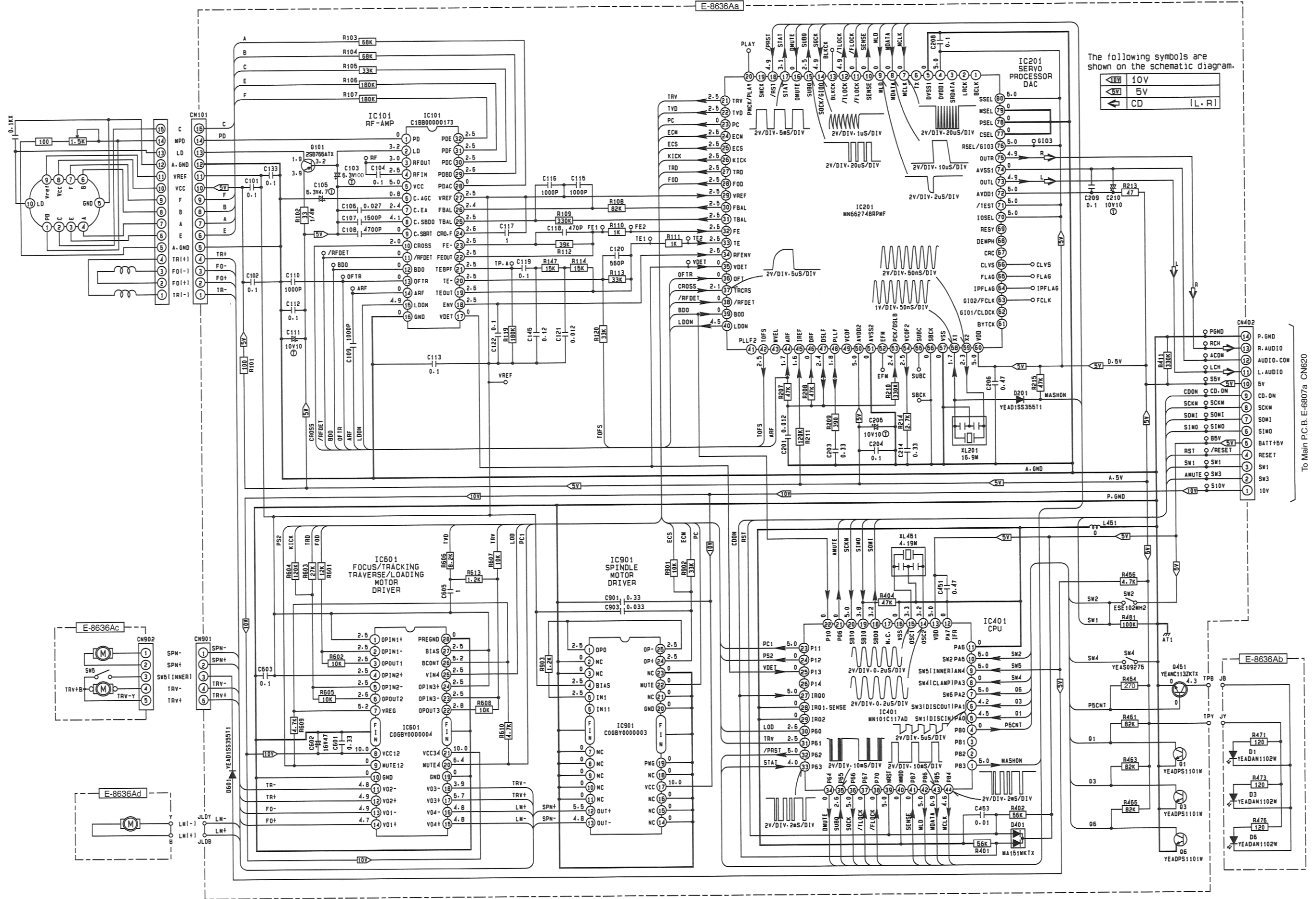


16 SCHEMATIC DIAGRAM (1)

16.1. Main Block



16.2. CD Servo Block



The following symbols are shown on the schematic diagram.

	10V
	5V
	CD (L·R)

To Main P.C.B. E-6807a CN620

17 SCHEMATIC DIAGRAM (2)

17.1. Display Block

