

Service Manual

AUTOMOTIVE CONSUMER ELECTRONICS

COMPACT
disc
DIGITAL AUDIO

CQ-DFX600N

CQ-DFX400N

High-Power CD Player / RDS Receiver
with Changer Control



<CQ-DFX600N>

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	45W \times 4ch (at 4 Ω)
Power Output	22W \times 4 (DIN45 324, at 4 Ω)
Speaker Impedance	4-8 Ω
Pre-AMP Output Voltage	2.0V (CD play mode)
Pre-Amp Output Impedance	600 Ω
Sub-Woofers Output Voltage	2V

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	Astigma 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**

1.6kg

* 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.
- CD changer control function.

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 and FM package blocks. When the package block is necessary, it will be supplied already aligned at the factory.

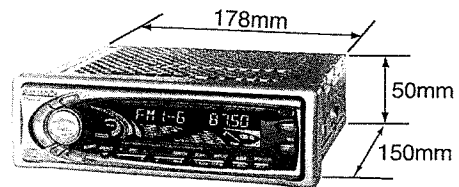
[CD DECK BLOCK]

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

[OTHER]

This operating instruction manual is for 2 models CQ-DFX600N and DFX400N. All illustrations throughout this manual represent model CQ-DFX600N unless otherwise specified. The following table describes the differences between 2 models.

	DFX600N	DFX400N
LCD Color	Multi Color	Blue
Remote Control	Supplied	Option

5 DIMENSIONS

6 OPERATING INSTRUCTIONS

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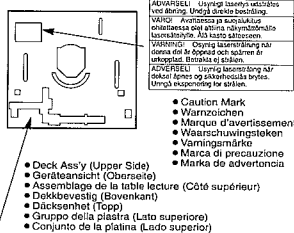
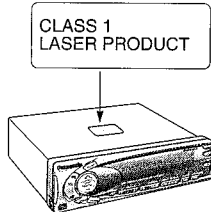
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- Label Indications and Their Locations
- Warnetiketter und deren Anbringungsort
- Indications portées les étiquettes et emplacement

- Aanduiding van de labels en hun plaats
- Varningsskyltarna, och deras placering
- Indiciatori delle etichette e le loro posizioni
- Indicações de las etiquetas y su ubicación

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

VORSICHT! UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET IST, NICHT DEM LASERSTRAHL AUSSETZEN.



CQ-DFX600/DFX400N

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 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.

About Preset Memory
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-DFX600N and CQ-DFX400N. The differences between these models are mentioned below. All illustrations throughout this manual represent model CQ-DFX600N unless otherwise specified.

Features	Model	CQ-DFX600N	CQ-DFX400N
LCD Color		Multi Color	Blue
Remote Control		Supplied	Option

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.

CQ-DFX600/DFX400N

Precautions (ISO Connector)

- Wiring for the power connector conforms to the arrangement of standard ISO connectors.
- In case of some car types, the arrangement of connector may differ from the standard ISO as shown in Table 1, even though ISO connectors are adopted.

Table 1

	Fig. 1 Pin No.	
	A4	A7
Car for standard ISO	Battery (permanent 12 V supply)	"IGN" or "ACC" (switched 12 V supply)
In case of Car type A	"IGN" or "ACC" (switched 12 V supply)	Battery (permanent 12 V supply)
In case of Car type B	No Connection	Battery (permanent 12 V supply)

- Make sure the ISO connector arrangement in your car side is as the same as the standard ISO. (Table 1, Fig. 1)
- In case of arrangement for Car type A or B, change connections of the red/yellow leads at the re-connectable joint (*) as shown in Fig.1.

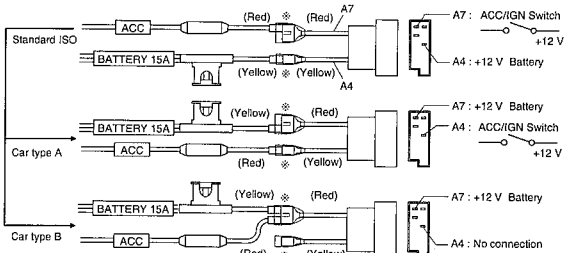
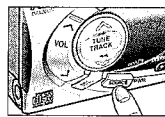
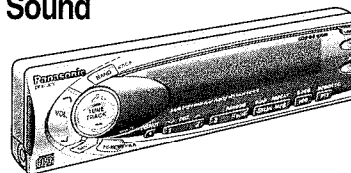


Fig.1

- After fixing the connections, the part (*) should be insulated with electrical tape to keep away from unit damage.

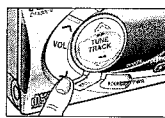
CQ-DFX600/DFX400N

Power and Sound Controls



Power

Turn the key in the ignition until the accessory indicator lights. Press [SOURCE](PWR) to switch on the power. Press and hold [SOURCE](PWR) again for more than 2 seconds to switch off the power. When the power is switched off, the panel removal alarm sounds. (See page 41 about the panel removal alarm.) Note: When the power is switched on for the first time, a demonstration message appears on the display. To cancel this display, press [] (DISP/CT).



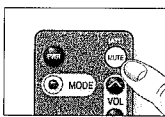
Volume

• Press [^VOL] or [vVOL] to increase or decrease the volume.
VOL 20 — Volume Level (0 to 40)
• Press and hold [^VOL] or [vVOL] for more than 0.5 seconds to change the numeric level in sequence.

Note: In the audio mode, the display will be back to regular operation mode with no operation for more than 5 seconds (2 seconds in the VOL mode).

Anti-Volume-Blast Circuit

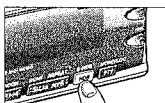
This unit has a safety function which slowly raises volume level when power is switched back on after it is turned off at a specific level (20) or higher.



Mute (Only for Remote Control)

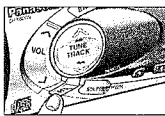
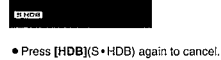
• Press [MUTE] to mute the sound completely.
MUTE
• Press [MUTE] again to cancel.

CQ-DFX600/DFX400N



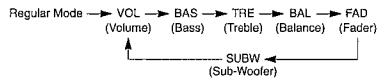
S+HDB (Super High Definition Bass)

Especially for rock music, the bass-sound will be more powerful.
 • Press [HDB](S+HDB) to be able to listen to high-definition bass.



Audio Mode

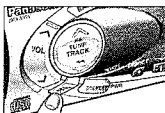
Press [SEL] to change the audio mode setting as follows.



Note: In the audio mode (BAS/TRE/BAL/FAD/SUBW), the display will be back to regular operation mode with no operation for more than 5 seconds (2 seconds in the VOL mode).

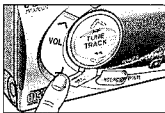
Bass and Treble

Press [SEL] to change to the bass (or treble) mode. Press [^VOL] or [vVOL] to increase or decrease the bass (or treble) level by 3 dB step.



Balance

Press [SEL] to change to the balance mode. Press [^VOL] or [vVOL] to shift the sound volume to the right or left speakers.



Fader

Press [SEL] to change to the fader mode. Press [^VOL] or [vVOL] to shift the sound volume to the front or rear speakers.

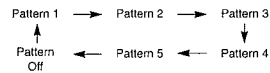


CQ-DFX600/DFX400N



Level Meter

Press [SEL] during the display control mode to change to the level meter mode. Press [^TUNE] to change the level meter setting as follows. Select your desired pattern.

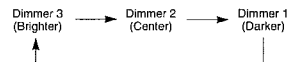


([vTUNE]: opposite direction)



Dimmer

Press [SEL] during the display control mode to change to the dimmer change mode. Press [^TUNE] to change the dimmer level setting as follows. (Default: Dimmer 3)

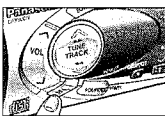


([^TUNE]: opposite direction)

CQ-DFX600/DFX400N

Power and Sound Controls (continued)

Sub-Woofers

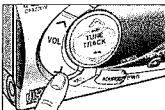


Sub-Woofers Volume

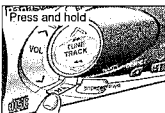
Press [SEL] to change to the Sub-Woofers volume mode. Press [^VOL] or [vVOL] to increase or decrease the Sub-Woofers volume.



Sub-Woofers
Volume Level: MUTE (0) to 8

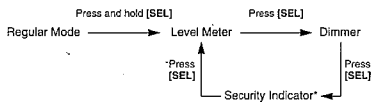


Display Controls



Change to the Display Control Mode

- Press and hold [SEL] for more than 2 seconds to change to the display control mode.
- Press [SEL] to change the display control mode as follows.

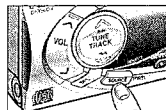
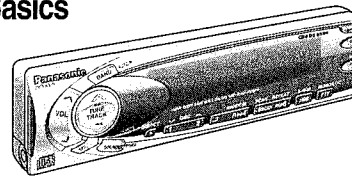


* See page 41 about the Security Indicator.

Note: In the display control mode, the display will be back to the previous mode with no operation for more than 5 seconds.

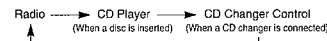
CQ-DFX600/DFX400N

Radio Basics



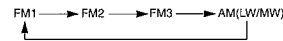
Tuner Mode

Press [SOURCE] to change the source as follows.

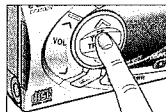


Band

Press [BAND] to change the band setting as follows.

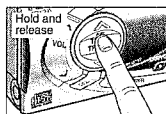


The stereo indicator lights during reception of an FM stereo broadcast.



Manual Tuning

Press [^TUNE] or [vTUNE] to tune in a higher or lower frequency.



Seek Tuning

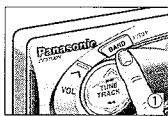
Press and hold [^TUNE] or [vTUNE] for more than 0.5 seconds, then release it. Seeking will automatically stop when a signal of the next broadcast station is received.

CQ-DFX600/DFX400N

Station Preset

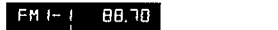
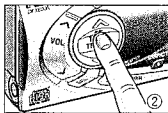
FM1, FM2, FM3 and AM (LW/MW) can save maximum 6 stations each in their preset station memories.

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



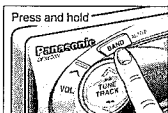
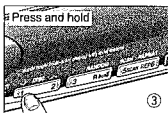
Manual Station Preset

- 1 Press [BAND] to select a desired band.
- 2 Use manual or seek tuning to find a station which is to be preset in the memory.
- 3 Press and hold one of the preset buttons [1] to [6] for more than 2 seconds until the display blinks once.



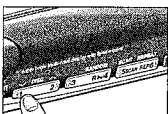
Preset Number

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



Auto Station Preset

- Select the band, 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 on preset buttons [1] to [6].
 - Once set, the preset stations are sequentially scanned for 5 seconds each.



Tuning in a Preset Station

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

RDS (Radio Data System) Reception

Many FM stations are broadcasting added data compatible with RDS. This radio set offers convenient functions using such data.

AF (Alternative Frequency)

When receiving condition becomes poor, an RDS station with the same program will be automatically selected.

PS (Program Service Name)

When an RDS station is received, the name of that station is automatically displayed instead of the frequency. When [DISP/CT] is pressed during PS display, the frequency appears on the display for 3 seconds, then PS display returns.

EON (Enhanced Other Networks)

When EON data is received, the EON indicator lights and the TA and AF functions are expanded.
 TA: Traffic information from not only the station now tuned in to but also other stations of the same network can be received.

PI (Program Identification)

If a preset RDS station is poor in receiving condition when it is selected, the automatic seek (PI Seek) starts to seek the same program and tune in to it.

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

PTY (Program Type)

Program type identification signal
 Example : News, rock, classical music, etc.

TA (Traffic Announcement)

When an FM station that periodically provides the latest traffic information is received, the TP Indicator lights. If TA ON is set, FM traffic information automatically interrupts your listening to a CD or CD changer until it ends, then you will listen again to whatever you have been listening to.

Best Station Research

If a preset RDS station is in poor condition of reception when you try to tune in to it, the best frequency is selected from the AF list of that station.

REG (Region)

The AF, Best Station Research, PI Seek functions will be as follows:
REG ON : The frequency changes only with the same regional program. This function is mainly used while driving in the same area, for example, in a city.
REG OFF : The frequency changes even with a different regional program if the station is in the same network. The broadcast may be different depending on the case. This function is mainly used when driving far from one region to another.

What Provides EON Capabilities

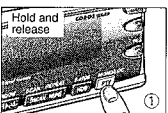
EON lets the radio set take advantage of RDS information much more than before. It constantly updates the AF list of all presets, including the station currently tuned in to. So, even if you change preset far from home, you will be able to receive the same station at an alternative frequency, or another station serving the same program if any. EON also keeps track of locally available TP stations for quick reception.

Note: When you're in AF ON mode, auto preset memory only works for RDS station. When in TA ON mode, it only works for TP stations. To make auto preset for ordinary stations, cancel AF mode and change to TA off in advance.

Radio Basics (continued)

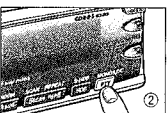
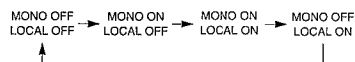
MONO/LOCAL Selection

- At the MONO setting, the amount of interference heard when weak signals are received from an FM broadcast station is significantly decreased.
- At the LOCAL setting, only strong signals of stations are searched in seek tuning, while at the LOCAL OFF setting, relatively weak signals are also searched.



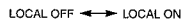
1 FM Broadcasts

Press and hold [PTY](MONO/LOC) to change the mode until the desired mode is reached, then release it.



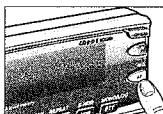
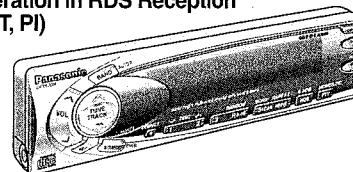
2 AM Broadcasts

Press [PTY](MONO/LOC) to switch the Local mode as follows.



RDS (Radio Data System) Reception (continued)

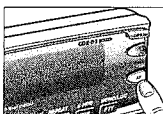
A. Basic Operation in RDS Reception (PS, AF, CT, PI)



RDS Reception

Press [AF] when receiving a station in the FM1, FM2 or FM3 band.
 • The AF ON/OFF can be set in each FM band.

- Select AF ON if you wish to use the AF network of an RDS station. Best station research is activated at the same time.
- Select AF OFF if the AF network of an RDS station is not necessary.



Changing AF Mode

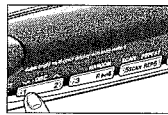
Press [AF] to change AF ON and activate best station research at the same time. (3 seconds maximum)

- AF 1 ON AF AF 1 mode (Default)
- AF 2 ON AF AF 2 mode
- AF OFF AF OFF mode

Notes:

1. Default mode is AF1.
2. AF1 has a low level of AF operating sensitivity in urban areas. Therefore, AF does not frequently operate even when sensitivity is temporarily lowered between skyscrapers, for example.
3. AF2 is for suburban areas with a higher level of sensitivity than AF1.

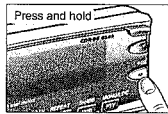
For Seek Tuning, RDS Station Preset, Tuning in a RDS preset station, and Auto RDS Station Preset, please refer to Radio Basics (pages 22 to 24).



RDS Seek Tuning (PI Seek)

The PI seek function may be used if an RDS station selected from the memory is poor in receiving condition. Press the preset button again for the station now tuned in to.

PI seek: If Best Station Research fails in selecting the best station, the PI seek function operates to automatically tune in to the same program.

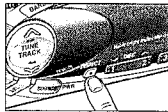


Region (REG) Switching

Press and hold [AF](REG) for more than 2 seconds in AF mode to alternately select between REG ON and REG OFF.

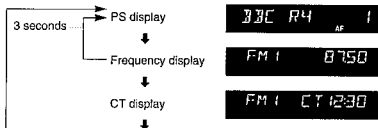


Note: If you wish to stay with the same program, keep REG ON. In REG OFF mode, there is a higher possibility of returning to an AF station in better receiving condition. The relationship of the PI seek function with REG ON and REG OFF is as described above.



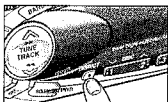
Changing Display

Press [DISP/CT] to change the display as follows. (Frequency display continues for only 3 seconds, returning to PS display after that.)



Clock Time (CT) System

The CT (24-hour) system may not properly operate in areas where RDS CT service is not available. Once CT service is received, the CT system keeps operating. "NO CT" appears on the display in areas where no CT service is available.



Clock Display

Press [DISP/CT] to indicate the clock display.



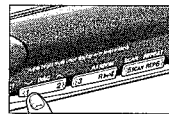
TP Seek Tuning

Press and hold [^TUNE] or [V TUNE] for more than 0.5 seconds, then release. The seeking automatically stops at the next available TP station.



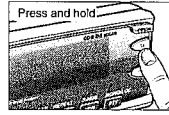
Auto TP Station Preset

Press and hold [BAND](AUTO+P) for more than 2 seconds. The six strongest available TP stations are automatically saved in the memory on the preset button [1] to [6]. Once saved, the preset stations are sequentially scanned for 5 seconds each.



Tuning in a TP Station Preset

Press any of the preset buttons [1] to [6] that you want to listen to. Best Station Research function is activated to automatically select the strongest available frequency for the TP station (through the built-in frequency) lists, if reception is weak.



Muting TA on

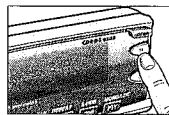
Press and hold [TA] for more than 2 seconds to light "TA on". Then Traffic Announcement (TA) function is activated to operate, allowing you to listen to only Traffic Program whenever it is available.

Muting TA on Canceling (Muting TA on -> TA on)

Press [TA] again. Or press [^VOL] to increase the volume level.

TP Auto Search

If receiving conditions are poor when TA is on during muting and if there is no other alternative frequency in the same network, a traffic announcement station in good receiving condition is automatically searched for.



CD/CD Changer TA on

Press [TA] during CD or CD changer mode. When TA on mode is selected while listening to the source in that mode, wait for Traffic Announcement to begin.



Switching to TA off Mode

- Select either one of the following steps.
- Press [TA] when TA is on.
- Press and hold [TA] for more than 2 seconds when Muting TA is on.
- Press [TA] when CD/CD changer TA is on.

RDS (Radio Data System) Reception (continued)



Initial Time Setting

- Press [BAND] to change to AM mode.
- Press [DISP/CT], "NO CT" appears on the display.
- Press and hold [DISP/CT] again for more than 2 seconds, "hours" blinks and the time setting mode is activated.
- To set hours, press [^TUNE] or [V TUNE].
- Hold [^TUNE] or [V TUNE] to change numbers rapidly.
- Press [DISP/CT] again for minutes setting.
- To set minutes, press [^TUNE] or [V TUNE].
- After setting the time, press [DISP/CT].



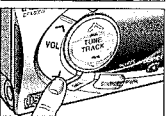
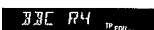
- Notes:**
- If CT display is kept on, it remains on even if [SOURCE](PWR) and accessory are turned off and back on again.
 - In other modes, press [DISP/CT] to get RDS CT-service.

B. TP Reception



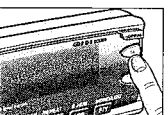
Select Traffic Announcement (TA on) Mode

Press [TA] to switch on and keep it there when you wish to listen to traffic information. Press [TA] again to switch off.



Volume Setting (Only for TA on Mode)

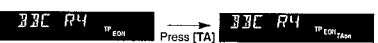
Adjust the volume as desired by pressing [^VOL] or [V VOL] while receiving Traffic Announcement. (TA) After volume for Traffic Announcement (TA) is set, the difference between normal volume and TA volume is automatically stored in the memory (up to 5 levels) so that next traffic information will be received at the preceding TA volume which may be higher or lower than normal volume. Normal volume can be changed up to 5 levels upward or downward. If the volume level is over 40 or less than 0, any further change will not be made.



When receiving a station other than TP station (including EON stations)

A traffic information station is automatically searched for and the radio automatically stops the next available TP station.

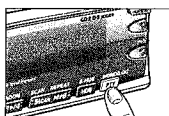
EON Capabilities: EON lets the radio take advantage of much more RDS information than before. It constantly updates the AF lists for all switch presets far from home, you will receive an alternative frequency for the same station, or another station carrying the same program, when such exists. EON also keeps track of locally available TP station.



RDS (Radio Data System) Reception (continued)

C. PTY Reception

(There are some areas where PTY service may not be available.)

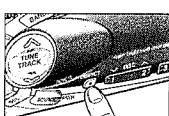


Switching to PTY Mode

Press [PTY] to select PTY display mode, and the PTY of the broadcast now received appears on the display.

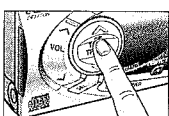


"NO PTY" appears on the display if there is no corresponding program type.



Changing PTY Display Language

The display language can be changed to Swedish as required. Press [DISP/CT] in PTY mode to alternate the language between English and Swedish.



Program Type Selection

Press [^TUNE] or [V TUNE] to select the program type as follows.

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

When a desired selection has been made, press [BAND]. Then automatic seek will start to tune in to the station broadcasting the selected program type.

Note: Seek tuning does not operate as long as "NO PTY" appears on the display.

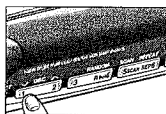
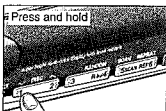


Table of PTY Code and Program Type
Press any of the preset buttons [1] to [6] according to your preference. These buttons already have the program types as follows. (Default setting)

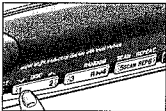
<Preset PTY>

Preset No.	1	2	3	4	5	6
Program Type	News	Speech	Sport	Pop. Music	Classics	Music
Display	NEWS 1	SPEECH 2	SPORT 3	POP # 4	CLASSICS 5	MUSIC 6
	NEWS	AFFAIRS INFO EDUCATE DRAMA CULTURES SCIENCE VARIED WEATHER FINANCE CHILDREN SOCIAL A RELIGION PHONE IN TRAVEL LEISURE DOCUMENT	SPORT	POPM	CLASSICS	ROCK M M.O.R.M LIGHT M OTHER M JAZZ COUNTRY NATIONAL OLDIES FOLK M



Program Type Preset

Press and hold one of the buttons [1] to [6] for more than 2 seconds to preset the desired program type selection in the button.

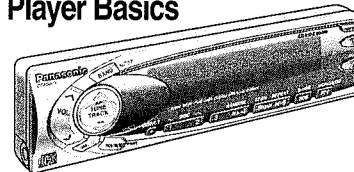


Tuning in a PTY Preset Station

Press any of the preset buttons [1] to [6] that you want to listen to.

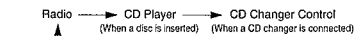
Compact Disc Player Basics

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



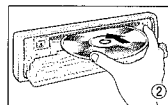
Mode Selection

When a disc is in the deck, press [SOURCE] to change the source as follows.



Disc Insert

- Press [OPEN] to open the front panel.
- With the label side up, insert the disc.
- Close the front panel manually. Play will start automatically.



Cautions:
• When the front panel is opened, do not force it down and do not put anything on it because these may result in damage to the unit.
• Do not use irregularly-shaped (heart-shaped, octagon, etc.) CD. Failure to observe this may cause malfunction.

Note: While a disc is inserted, no sound is heard (MUTE). And the volume is back to the previous level when the front panel is closed completely.

Note: When a disc is in the deck, "Ⓢ" indicator lights.

Disc Eject

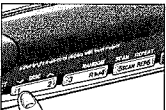
- Press [OPEN] to open the front panel.
- Press [EJECT] to stop CD play, and the disc will be quietly ejected from the CD slot.



Caution: When ejecting a CD, do not close the front panel until the disc is ejected and removed from the CD slot completely.

Note: While the disc is ejected, no sound is heard (MUTE). And the volume is back to the previous level when the front panel is closed completely.

RDS (Radio Data System) Reception (continued)



Searching for PTY

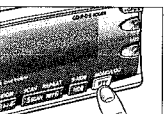
- Select the desired station from preset in the preset number buttons [1] to [6]. Then, the preset PTY and that preset number appear on the display for 5 seconds.



- While the desired type from 6 presets appears on the display, take either of the following two steps.
 - Press the same preset button again.
 - Press [BAND].
 If the desired PTY station is available, it is directly received. If it is not, "NO PTY" blinks and the radio returns to the station that was received before the search.



Press the same button again to cancel.



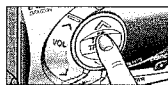
Canceling of PTY Mode

Press [PTY] to cancel. The set returns to the state existing before PTY mode while the receiving frequency remains unchanged.

Emergency Announcement Reception

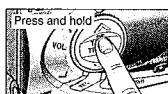
(Some areas are not covered by emergency announcement service.) If an emergency announcement is broadcast in muting TA on/CD/CD changer mode, the radio is automatically selected to receive the emergency announcement. "ALARM" blinks.

Compact Disc Player Basics (continued)



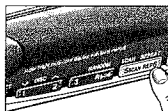
Track Selection

- Press [▶▶TRACK] once to go to the next track.
- Press [◀◀TRACK] once to play from the beginning of the track you are listening to. Press twice to play the previous track.
- Press repeatedly to skip the desired number of tracks.



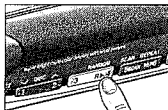
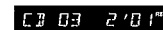
Track Search

- Press and hold [◀◀TRACK] or [▶▶TRACK] for more than 0.5 seconds to activate reverse through or fast forward a track.
- Release [◀◀TRACK] or [▶▶TRACK] to resume the regular CD play.



Track Repeat

- Press [6](REP) to repeat the current selection.
- Press [6](REP) again to cancel.

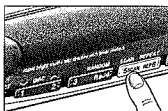


Random Selection

- Press [4](R▶). A random selection of music is played from all available tracks.
- Press [4](R▶) again to cancel.

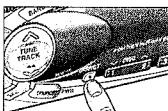


Note: When [6](REP) is pressed in the random mode, random play stops and repeat play starts.



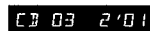
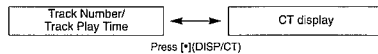
Track Scan

- Press [5](SCAN). The display will blink and the first 10 seconds of each track on the disc will play in order.
- Press [5](SCAN) again to cancel.



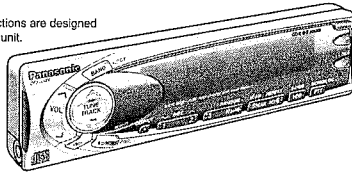
Changing the Display

Press [⏏](DISP/CT) to switch the display as follows.

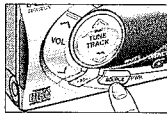


CD Changer Basics

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

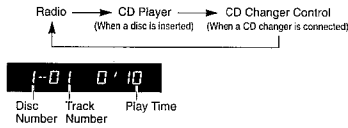


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Starting the CD Changer

Once the CD changer has been connected, press [SOURCE] to change to the CD changer mode as follows. When a disc magazine is inserted, CD play starts automatically.

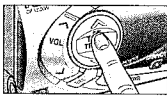


Disc Selection

Press [1](V/DISC) or [2](^/DISC) to select a disc in descending or ascending order.



Then, the selected disc will start to play from the first track.
Note: The number of discs you can load the CD changer with is specific to each model.



Track Selection

- Press [▶▶TRACK] to advance to the next track.
- Press [◀◀TRACK] to start play from the beginning of the track now playing.
- Press [▶▶TRACK] or [◀◀TRACK] repeatedly to skip the desired number of tracks.

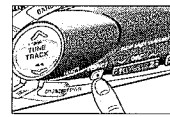


Track Search

- Press and hold [▶▶TRACK] or [◀◀TRACK] for more than 0.5 seconds to activate fast forward or reverse.
- Release [▶▶TRACK] or [◀◀TRACK] to resume regular CD changer play from the released position.

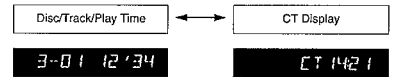
CQ-DFX600/DFX400N

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Changing the Display

Press [DISP/CT] to switch the display as follows.



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Error Display Messages for CD/CD Changer

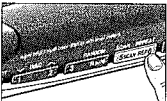
E1	Appears on the display when the compact disc is dirty or inverted. The disc will be ejected automatically.
E2	Appears on the display when compact disc is scratched. The disc will be ejected automatically.
E3	Appears on the display when the compact disc stops operating for some reason. Please eject the disc. 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. Then reinstall the fuse.
0000	Appears on the display when there is no disc in the magazine.

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CD Changer Basics (continued)

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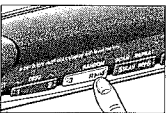


Track Repeat

- Press [REPEAT] to repeat the current selection.



- Press [REPEAT] again to cancel.



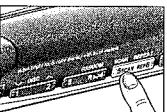
Track Random

- Press [RANDOM]. All the available tracks on all discs in the magazine will be played in a random sequence.



- Press [RANDOM] again to cancel.

Note: When [REPEAT] is pressed in the random mode, random play stops and repeat play starts.

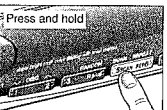


Track Scan

- Press [SCAN]. The display blinks and the first 10 seconds of each track on the discs play in sequence.



- Press [SCAN] again to cancel.



Disc Scan

- Press and hold [SCAN] for more than 2 seconds. The 1st track of all the discs in the magazine is played for 10 seconds each.



- Press [SCAN] again to cancel.

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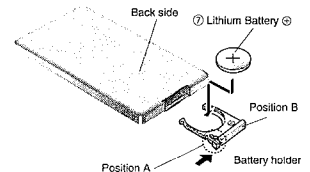
CQ-DFX600/DFX400N

Remote Control Basics (CQ-DFX600N: Supplied / CQ-DFX400N: Option)

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Battery Installation

- Remove the battery holder. Take hold of the holder at position B and pull it out to remove the battery by pushing position A in the direction shown by the arrow.
- Install the battery. Set a new battery properly with its (+) side facing up as shown in the figure.
- Insert the battery holder. Push in the battery holder back into its original position.



Battery Notes

Remove and dispose of an old battery immediately.

Battery Information:

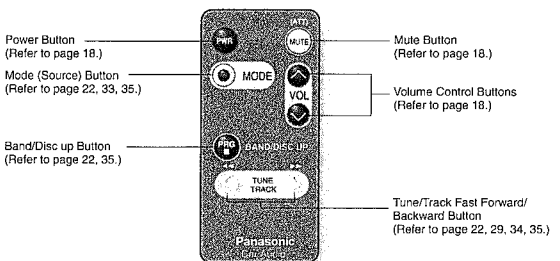
- Battery type: Panasonic lithium battery (CR2025)
- Battery Life: Approximately 6 months under normal use (at room temperature)

Caution: Improper use of batteries may cause overheating, an explosion or ignition, resulting in injury or a fire. Battery leakage may damage the unit.

- Do not disassemble or short the battery. Do not throw a battery into a fire.
- Keep batteries away from children to avoid the risk of accidents.
- Be careful to the disposal rules when you dispose of batteries.

Main Controls

For details of each function, refer to the pages in parentheses. Some of the functions may not be usable even if they are shown.



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CQ-DFX600/DFX400N

Anti-Theft System

This unit is equipped with a removable face plate. By removing this face plate, the radio becomes totally inoperable. The security indicator will blink.

To Remove the Removable Face Plate

- Switch off the power.
- Press [OPEN]. The face plate will be opened.

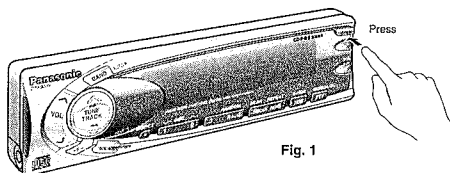


Fig. 1

- Push the face plate to either the right or left, then pull it out toward you.

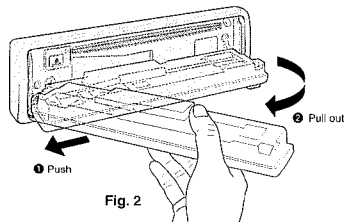


Fig. 2

- As shown in Fig. 3, gently push the lower side of the case and open its cover. Keep the face plate in the case. Then, you can bring the plate safely.

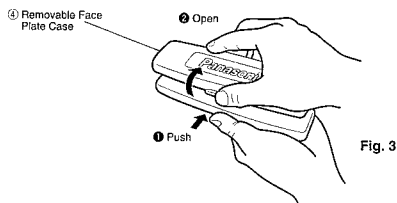


Fig. 3

CQ-DFX600/DFX400N

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Security Indicator

The security indicator blinks when the removable face plate is removed from the unit. (See Fig. 4 on the previous page.)

Activate Security Indicator

- Press and hold [SEL] for more than 2 seconds to change to the display control mode when the power is on.
- Press [SEL] in the display control mode to change to the security indicator mode. (See page 20.)
- Press [^TUNE] or [vTUNE] to turn the security indicator on or off. (LED On or OFF)
(Default: The security indicator is on.)

Note: "LED On" appears on the display when the security indicator is on.

- To check whether the unit is set in the LED On mode, make sure that the security indicator blinks when the removable face plate is removed.

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

(Press [^TUNE] or [vTUNE].)

Note: In the display control mode, the display will be back to the previous mode with no operation for more than 5 seconds.

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.

Anti-Theft System (continued)

To Install the Removable Face Plate

- Fit either the edge of the right or left hole in the face plate over the main unit's pins.
- Fit it over on the other side while pushing it.

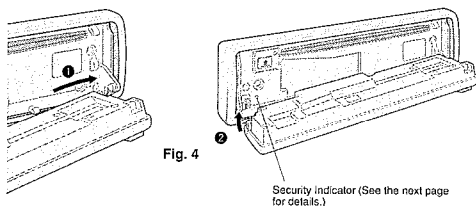


Fig. 4

Security Indicator (See the next page for details.)

- After fitting the face plate holes, try moving the face plate up and down a few times to make sure that it has been fitted securely. Close the front panel and press the right side of face plate until "click" is heard.

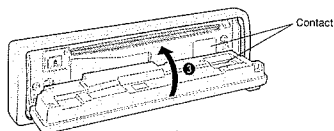


Fig. 5

Cautions:

- Before removing the face plate, make sure the power is off.
- 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.
- 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.
- Do not apply a strong downward force onto the face plate and do not put anything on it while it is open, or it might be damaged.

CQ-DFX600/DFX400N

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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°.

Caution: For installation to cars with trip or navigational computers, all electronic memory settings previously registered in the computer will be lost when the battery terminal is disconnected. For this type of car, battery could not be disconnected. Therefore, extra care should be taken to prevent short circuiting.

In-dash Installation

Installation Opening

In-dash installation can be done if the car's dashboard has an opening for this unit as shown in Fig. 6. The car's dashboard should have a thickness of 4.5 mm - 6 mm in order to make the installation of the unit.

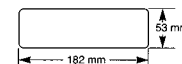


Fig. 6

Installation Precautions

This product, if possible, should be installed by a professional installer.

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 on pages 45 to 46 carefully. Failure to do so may result in damage to the unit.
- Connect the power lead (red) 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 product before connecting it to this unit.

Supplied Hardware

No.	Item	Diagram	Q'ty	No.	Item	Diagram	Q'ty
①	Mounting Collar		1	④	Remote Control Unit (only for CQ-DFX600N)		1
②	Mounting Bolt (5 mmø)		1	⑤	Trim Plate		1
③	Power Connector		1	⑦	Lithium Battery (CR2025) (only for CQ-DFX600N)		1
④	Removable Face Plate Case		1	⑧	ISO Antenna Adaptor		1

CQ-DFX600/DFX400N

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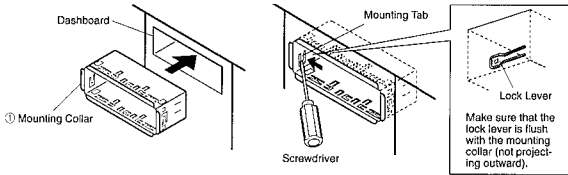
- When bending the mounting tab of the mounting collar with a screwdriver, be careful not to injure your hands and fingers.
- We strongly recommend you to wear gloves for installation work to protect yourself from injuries.

Installation Procedures

Note: Disconnect the cable from the negative (-) battery terminal.

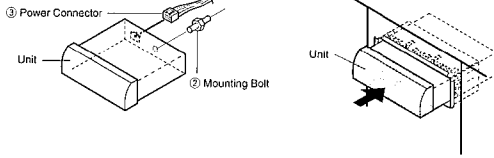
1. Secure the Mounting Collar ①.

Insert Mounting Collar ① into the dashboard, and bend the mounting tabs out with a screwdriver.



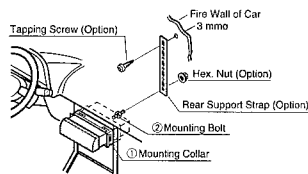
2. Secure the rear of the unit.

- Check the electrical connections by referring to this operating instructions.
- Connect Mounting Bolt ②, using a suitable wrench.
- Insert Power Connector ③ to the unit.
- Insert the unit into Mounting Collar ① and push it in until "click" is heard.



Using the Rear Support Strap (Option)

Affix one end of the Rear Support Strap to the rear of the unit, and the other end to the fire wall of car, or some other metallic area.

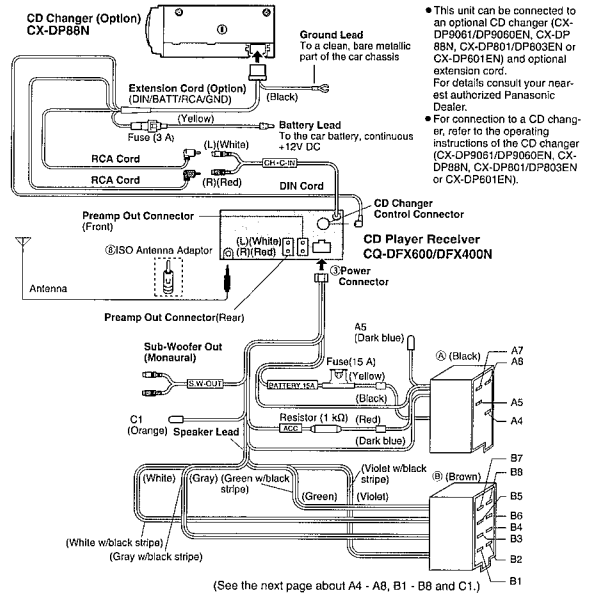


Electrical Connections

Cautions:

- Confirm the note on page 4, and make connections to the connectors on car side.
- This product is designed to be used in a car having 12-volt negative ground battery system.
- To prevent damage to the unit, be sure to follow the connection diagram below.
- Remove the covering of the leads about 5 mm long from their end before connecting, (the cords except for ISO connector's cords)
- Do not insert the power connector into the unit until the wiring is completed.
- Be sure to insulate any exposed wires from a possible short-circuit from the car chassis. Bundle all cables and keep cable terminals free from touching any metal parts.

Cable Wiring Diagram

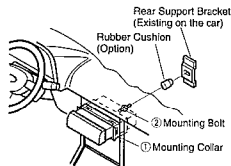


• This unit can be connected to an optional CD changer (CX-DP9061/DP9060EN, CX-DP88N, CX-DP801/DP803EN or CX-DP501EN) and optional extension cord.
For details consult your nearest authorized Panasonic Dealer.
• For connection to a CD changer, refer to the operating instructions of the CD changer (CX-DP9061/DP9060EN, CX-DP88N, CX-DP801/DP803EN or CX-DP501EN).

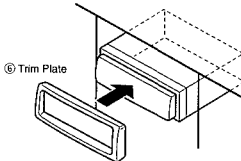
(See the next page about A4 - A8, B1 - B8 and C1.)

Installation (continued)

- Using the Rubber Cushion (Option)
(If there is an existing Rear Support Bracket on the fire wall of car.)
Cover Mounting Bolt ② on the rear of the unit with Rubber Cushion, and mount it into the existing Rear Support Bracket.



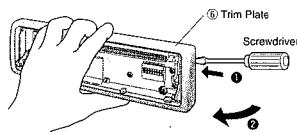
3. Insert Trim Plate ⑤.



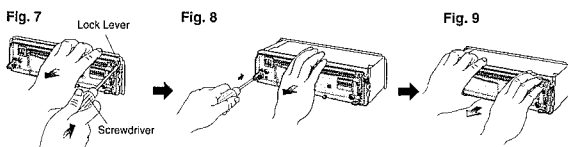
4. After installation reconnect the negative (-) battery terminal.

To Remove the Unit

- Remove the removable face plate. (See page 39.)
- Remove Trim Plate ⑤ with a screwdriver as shown in the figure.



- Pull out the unit while pushing the lock lever using screwdriver. (Fig. 7, Fig. 8)
- Remove the unit, pulling with both hands. (Fig. 9)



Electrical Connections (continued)

Loudspeakers (connector ⑧ : B1 - B8)

	Left +	Left -	Right +	Right -
Front	B5 (White)	B6 (White w/black stripe)	B3 (Gray)	B4 (Gray w/black stripe)
Rear	B7 (Green)	B8 (Green w/black stripe)	B1 (Violet)	B2 (Violet w/black stripe)

A4

Battery Lead (Yellow)
To the car battery, continuous +12V DC

A8

Ground Lead (Black)
To a clean, bare metallic part of the car chassis

A5

Motor Antenna Relay Control Lead (Dark blue)
(To Motor Antenna) (Max. 500 mA)
This lead is not intended for use with switch actuated power antenna.
Amp. Relay Control Power Lead (Dark blue)
This lead is for connection to Panasonic power amplifier.

C1

Telephone Mute Lead (Orange)
Connect to the car telephone mute lead.
Note: This telephone mute lead is for connection only to the radio mute lead. Be sure to ascertain this because it will not work with other type of output system.

Navl Mute Lead (Orange)
Connect to the Navl Mute lead of the Panasonic car navigation system (for example, CN-DV2000 EN).

A7

Power Lead (ACC or IGN) (Red)
To ACC power, +12V DC

Notes:

Telephone Mute
The sound from the speakers cannot be heard while the telephone conversation is in progress.

Navl Mute
The sound from the speakers cannot be heard while the navigation voice guide is on.

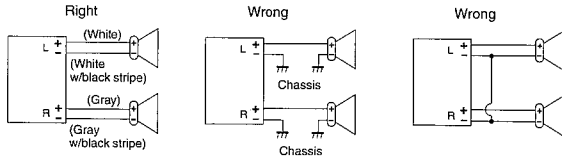
Speaker Connections

ENGLISH 30

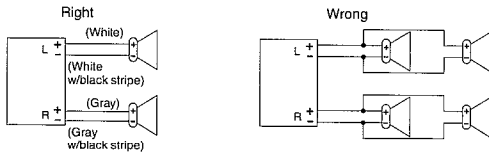
Cautions:

1. Use ungrounded speakers only.
2. The speakers to be used with this unit should be able to handle more than 45 W of audio power. If an optional amplifier is used, the speakers should be able to handle the maximum output power of the amplifier. Use of speakers with small input ratings can cause damage to the speakers.
3. The speaker impedance should be 4 - 8 Ω. If the impedance is too large or too small, it affects the output and may cause damage to the speakers or this unit.
4. Do not use 3-wire type speaker system having a common earth lead. Never connect the speaker cord to the body of the car. This unit uses the BTCL circuit, so each speaker should be connected separately using parallel vinyl insulated cords.
5. The speaker cords and the power amplifier unit should be kept away (about 30 cm apart) from the antenna and antenna extension cord.
6. Follow the connection diagram below carefully. Failure to do so may cause damage to both unit and speakers.

• Unit will be damaged if speakers (Front, Rear) are not connected properly.



• Do not connect more than one speaker to one set of speaker leads.



CQ-DFX600/DFX400N

Specifications

ENGLISH 32

General	
Power Supply	: DC 12 V (11 V - 16 V), test voltage 14.4 V, negative ground
Tone Controls	: Bass: ±12 dB at 100 Hz Treble: ±12 dB at 10 kHz
Current Consumption	: Less than 2.5 A (CD mode, 0.5 W 4-speaker)
Maximum Power Output	: 45 W x 4 (at 4 Ω)
Power Output	: 22 W x 4 (DIN45 324, at 4 Ω)
Speaker Impedance	: 4 - 8 Ω
Dimensions (Main Unit)	: 178(W) x 50(H) x 150(D) mm
Weight (Main Unit)	: 1.6 kg
Pre-Amp Output Voltage	: 2 V (CD mode)
Pre-Amp Output Impedance	: 600 Ω
Sub-Woofer Output Voltage	: 2 V
FM Stereo Radio	
Frequency Range	: 87.5 - 108 MHz
Usable Sensitivity	: 6 dBμV (S/N 30 dB)
Stereo Separation	: 35 dB (at 1 kHz)
MW Radio	
Frequency Range	: 531 - 1,602 kHz
Usable Sensitivity	: 28 dBμV (S/N 20 dB)
LW Radio	
Frequency Range	: 153 - 279 kHz
Usable Sensitivity	: 32 dBμV (S/N 20 dB)
CD Player	
Sampling Frequency	: 8 times oversampling
DA Converter	: MASH-1bit/4 DAC System
Error Correction System	: Panasonic Super Decoding Algorithm
Pick-Up Type	: Astigma 3-beam
Light Source	: Semiconductor laser
Wavelength	: 780 nm
Frequency Response	: 20 Hz - 20 kHz (±1 dB)
Signal to Noise Ratio	: 96 dB
Total Harmonic Distortion	: 0.01 % (1 kHz)
Wow and Flutter	: Below measurable limits
Channel Separation	: 75 dB

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

CQ-DFX600/DFX400N

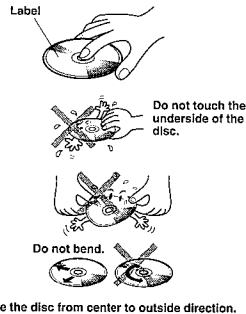
Disc Notes

ENGLISH 31

ONLY USE DISCS CARRYING LABEL SHOWN ON THE RIGHT



- Dirt, dust, scratches and bending of disc will cause misoperation. Handle discs with care.
- Do not place stickers or make scratches on disc.
- Do not bend discs.
- Disc should always be kept in the case when not in use to prevent from damaging.
- Do not place discs in the following places:
 1. Direct sunlight;
 2. Dirty, dusty and damp areas;
 3. Near car heaters;
 4. Seats and dashboard.
- Do not use irregularly-shaped (heart-shaped, octagon, etc.) CD. Failure to observe this may cause malfunction.

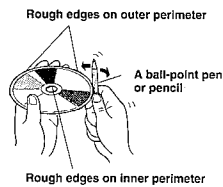


Disc Cleaning

Use dry soft cloth to wipe the surface. If the disc is quite dirty use soft cloth slightly dampened in isopropyl (rubbing) alcohol. Never use solvents such as benzene, thinner, conventional record cleaner, or moppet as they may mar the surface of the disc.

Caution for use of a new Disc

A new disc may have rough edges on its inner and outer perimeter. If a disc with rough edges is used, proper setting will not be possible and the CD player will not play the disc. Therefore, remove the rough edges in advance by using a ball-point pen or pencil as shown on right. To remove the rough edges, press the side of the pen or pencil against the inner and outer perimeter of the disc.



Fuse

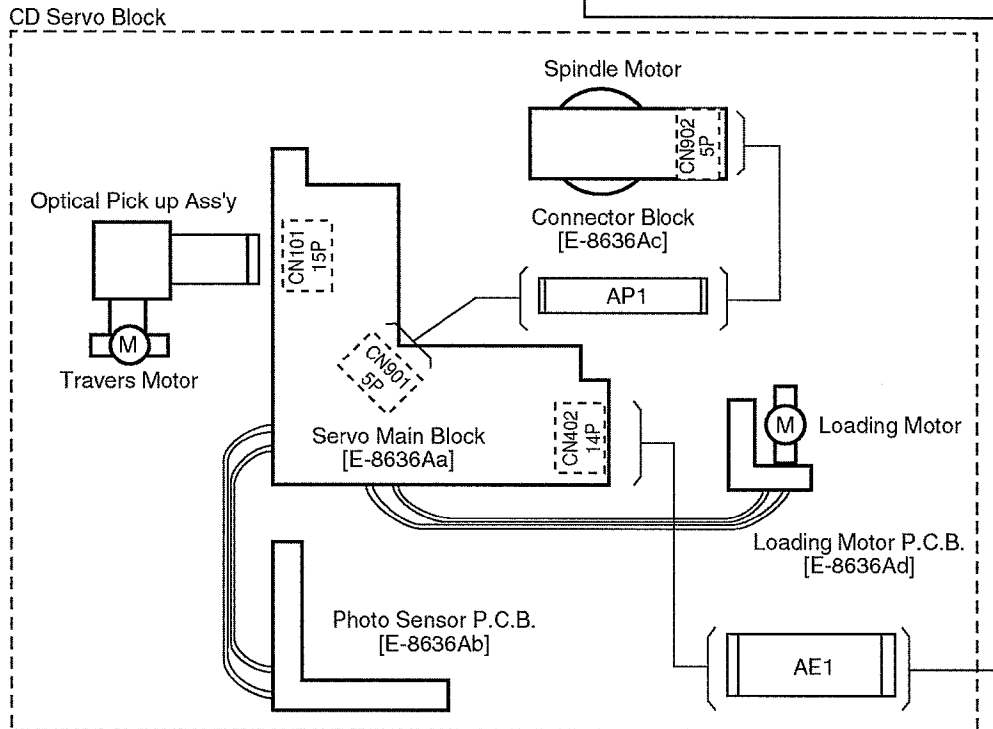
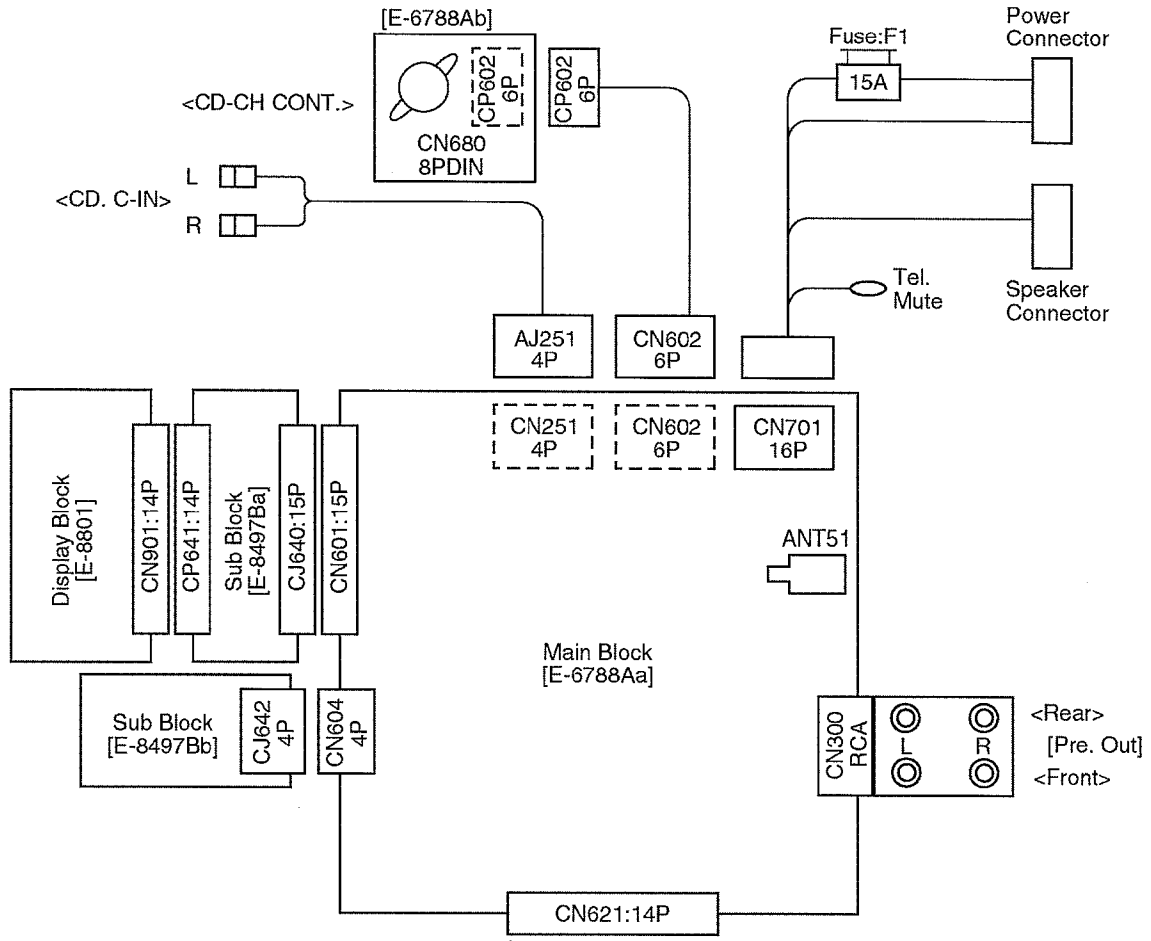
Use fuses of the same specified rating (15 A). Using different substitutes or fuses with higher ratings, or connecting the unit directly without a fuse, could cause fire or damage to the unit. If the replacement fuse fails, contact your nearest authorized Panasonic Service Center.

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.

CQ-DFX600/DFX400N

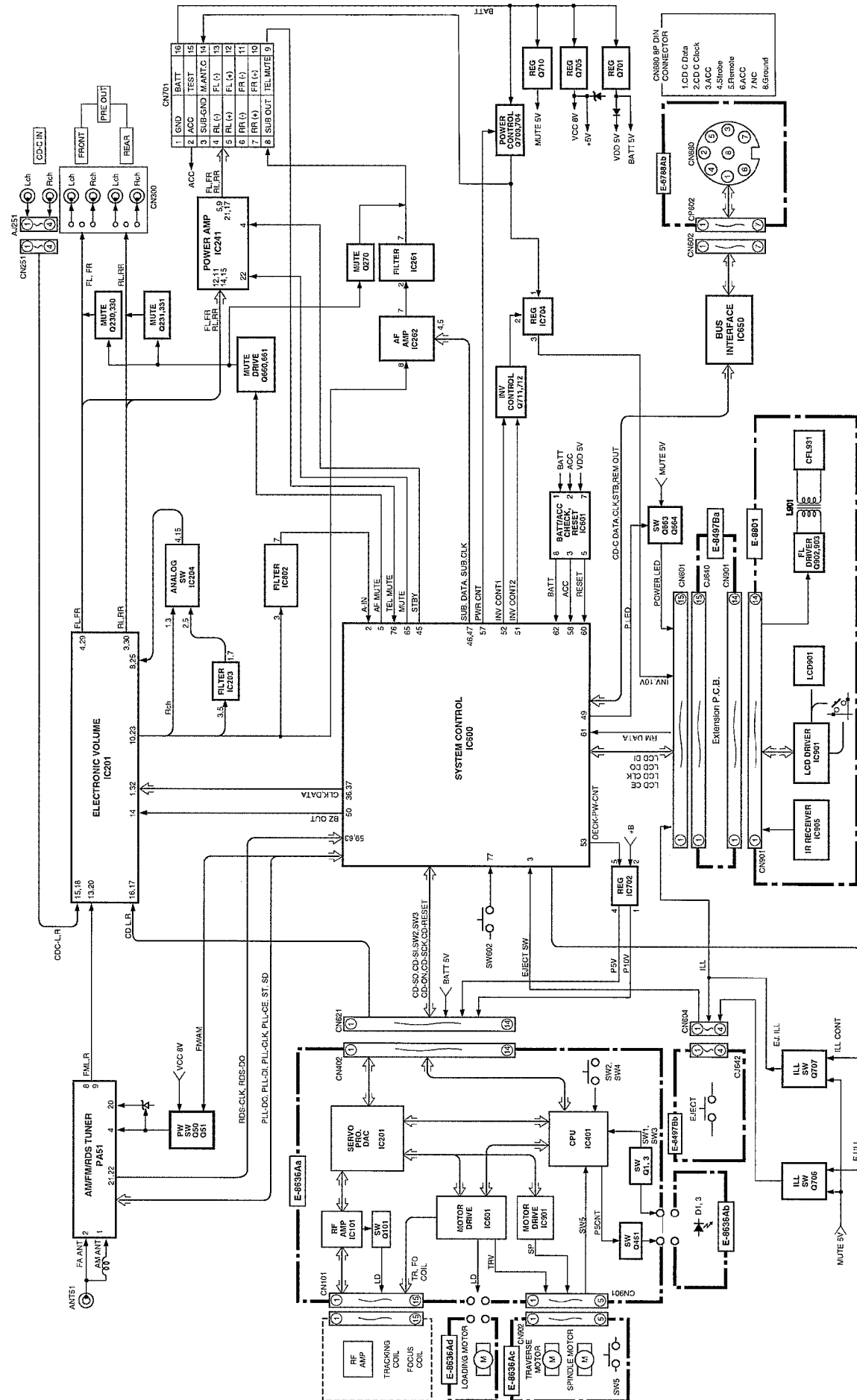
7 WIRING CONNECTION



<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 : C2ABGF000109

Pin No.	Port	Description	I/O	(V)
1	INIT C	Initial C	I	0
2	A-IN	Spectrum analyzer data	I	0
3	EJECT	Eject SW input	I	5.3
4	AVSS	Analog ground	-	0
5	AF MUTE	AF mute	O	5.3
6	NC	No connection	-	-
7	AVREF	Reference voltage	-	5.0
8	CD-SO	CD data	I	3.1
9	CD-SI	CD data	O	3.7
10	CD-SCK	CD clock	O	5.1
11	CD.C DATA	CD changer data	O	0
12	N.C.	No connection	-	-
13	CD.C CLK	CD changer clock	I	0
14	REM OUT	CD changer remote control	O	5.3
15	PLL CE	PLL controller chip enable	O	0
16	PLL DATA (MI)	Data from PLL	I	5.2
17	PLL DATA (MO)	Data for PLL	O	0
18	PLL CLK	Clock for PLL	O	5.3
19	S.HDB	Bass-sound control	O	5.3
20	CD RESET	CD reset	O	5.1
21	N.C.	No connection	-	-
22	N.C.	No connection	-	-
23	N.C.	No connection	-	-
24	N.C.	No connection	-	-
25	N.C.	No connection	-	-
26	CD ON	CD on/off control	O	5.1
27	SW3	CD mute	I	5.0
28	N.C.	No connection	-	-
29	SW2	CD sw2 input	I	0
30	N.C.	No connection	-	-
31	N.C.	No connection	-	-
32	N.C.	No connection	-	-
33	VSS	Ground	-	0
34	FM/AM	FM/AM selection	O	5.1
35	IF-SEL	Not used	-	-
36	IC2-CLK	Electronic volume clock	O	5.2
37	IC2-DATA	Electronic volume data	I/O	5.2
38	LED	Warning alarm LED control	O	4.1
39	EJ.ILL	Eject illumi. control	O	5.6
40	/ST	FM stereo signal	I	5.1
41	LCD-DI	LCD data input	O	0
42	LCD-DO	LCD data output	I	4.5
43	LCD-CLK	LCD clock	O	0
44	LCD-CE	LCD chip enable output	O	0
45	STBY	Amp stand-by	O	5.3
46	SUB.W.DAT A	Sub. woofer data	O	0
47	SUB.W.CLK	Clock for sub. woofer data	O	0
48	NC	No connection	-	-
49	POWER.LED	Power LED control	O	5.0
50	BZOUT	BEEP output	O	0
51	INV CONT2	Invertor control	O	0
52	INV CONT1	Invertor control	O	0
53	DECK.CNT	Deck power control	O	5.0
54	NC	No connection	-	-
55	FP OPN/CLS	Front panel open/close	I	0
56	ILL CONT	Illumi. control	O	5.3
57	PWR CNT	Power control	O	5.3

58	ACC	ACC detection	I	5.0
59	RDS DATA	RDS data input	I	2.9
60	/RESET	Reset input	I	5.0
61	REM	Remocon data input	I	4.2
62	BATT	Battery detection	I	5.0
63	RDS CLK	RDS clock input	I	2.6
64	CD.C.STB	CD changer strobe input	I	0
65	MUTE	Mute control	O	5.3
66	N.C.	No connection	-	-
67	VSS	(Connecting to ground)	-	0
68	VDD	+5V power supply	-	5.0
69	X2	Crystal oscillator	-	3.0
70	X1	Crystal oscillator	-	2.6
71	VSS	Ground	-	0
72	SUB.X2	No connection	-	-
73	SUB.X1	(Connecting to ground)	-	0
74	AVDD	+5V power supply	-	5.0
75	AVREF	(Connecting to VDD)	-	5.0
76	TEL MUTE	Telephone mute	O	5.0
77	PANEL	Panel detection	I	5.0
78	SD	B/S detection	I	0
79	INIT A	Initial value A	I	5.0
80	INIT B	Initial value B	I	0

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

9.2. Display Block

IC901 : YEAMLC75884W

Pin No.	Port	Description	I/O	(V)
1-51	S3-53	LCD segment data	O	2.4
52-55	COM1-4	LCD common	O	2.4
56,57	S54, 55	LCD segment data	O	2.4
58-61	KS3-6	Key strobe	O	4.8
62-66	KI1-5	Key data	I	0
67	VDD	+5V power supply	-	5.0
68	VLCD	+5V power supply	-	5.0
69	VLCD1	LCD angle	-	3.2
70	VLCD2	LCD angle	-	1.6
71	VSS	Ground	-	0
72	TEST	(Connecting to ground)	-	0
73	OSC	Oscillator terminal	-	3.4
74	/RESET	(Connecting to VCC)	-	5.0
75	DO	Key data output	O	4.5
76	CE	LCD driver chip enable	I	0
77	CLK	LCD clock	I	0
78	DI	LCD data	I	0
79, 80	S1,2	LCD segment data	O	2.4

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	BLCK	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	PLL2	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	PLLFB	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	-	-

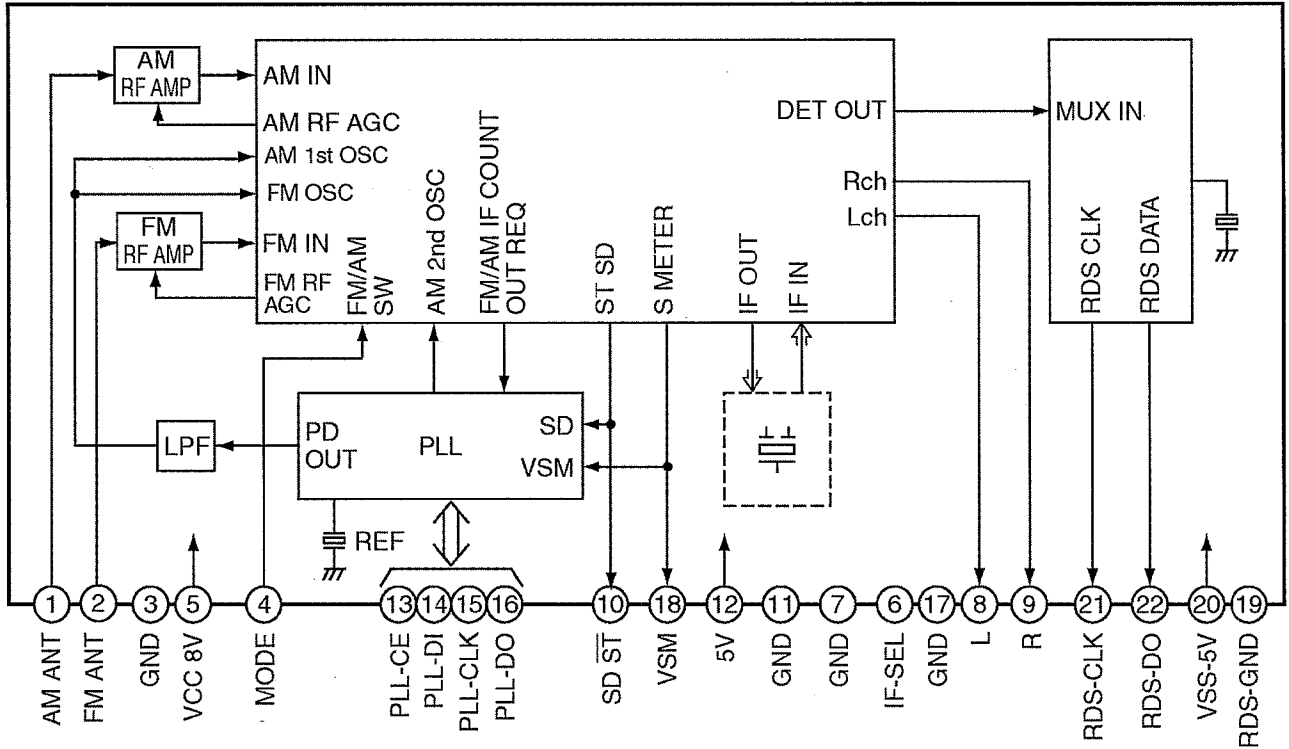
64	IPFLAG	Not used	-	-
65	FLAG	Not used	-	-
66-69		Not used	-	-
70	IOSEL	(Connecting to ground)	I	0
71	/TEST	(Connecting to ground)	I	0
72	AVDD1	+5V analog power supply	-	4.9
73	OUTL	Audio Lch output	O	4.9
74	AVSS1	Analog ground	-	0
75	OUTR	Audio Rch output	O	4.9
76	RSEL	(Connecting to ground)	-	0
77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

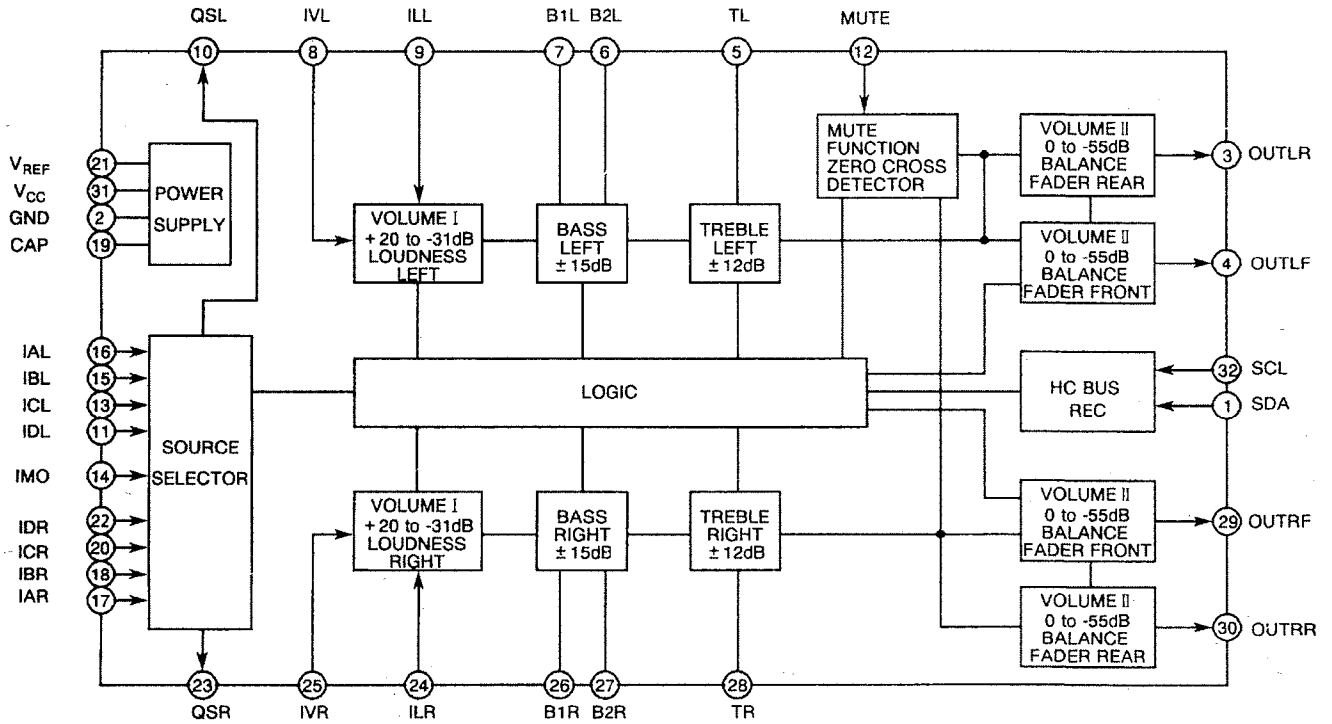
Pin No.	Port	Description	I/O	(V)
1	MASHON	Servo IC OSC control	O	5.0
2	P82	No connection	-	-
3	P81	No connection	-	-
4	P5CNT	LED power control	O	0
5	Q1	Photo sensor signal (DISC IN)	I	4.5
6	Q3	Photo sensor signal (DISC OUT)	I	4.2
7	Q6	Photo sensor signal (Option)	I	5.0
8	SW4	Clamp SW signal	I	0
9	SW5	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

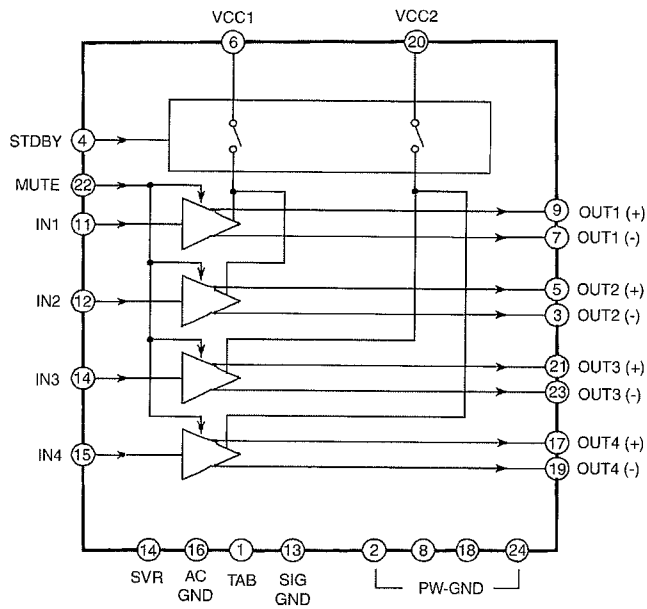
10.1. Main block



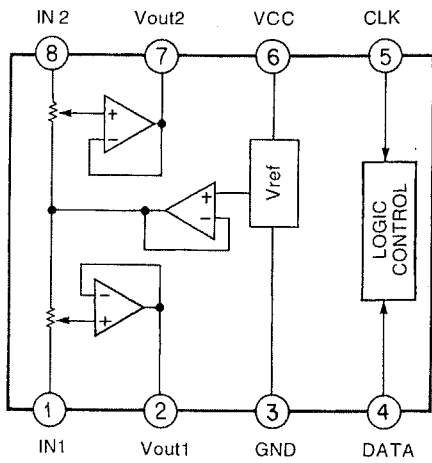
PA51 : C5BA0000053



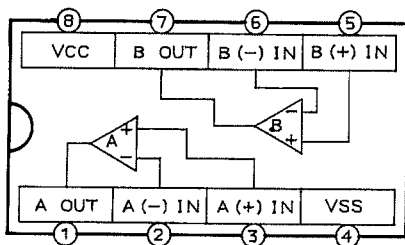
IC201 : YEAMEA6320TT



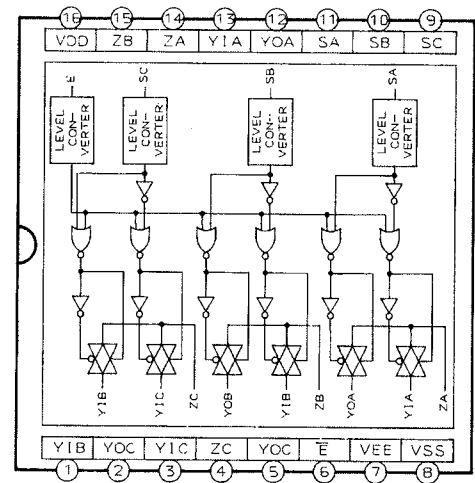
IC241 : C1EA0000021



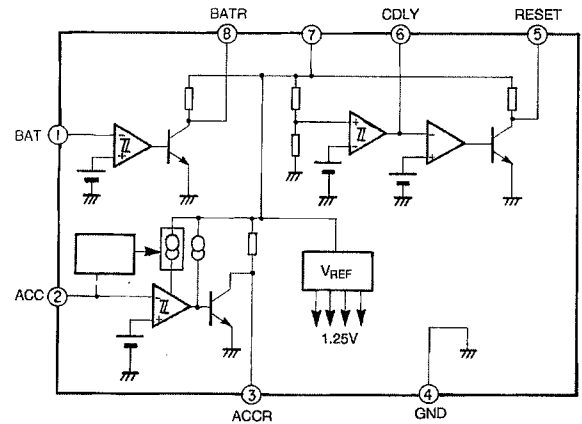
IC262 : YEAMM62429FP



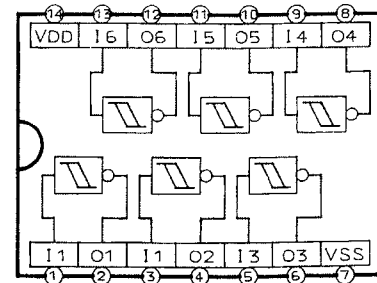
IC203, 261, 802 : YEAMM5218AFE



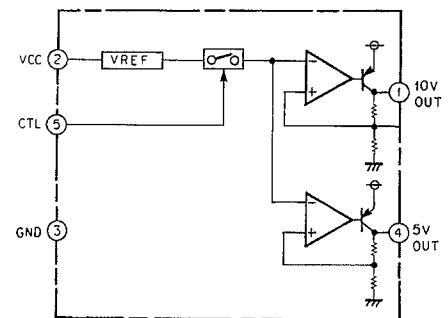
IC204 : YEAMPD4053E2



IC601 : AN8065SE1

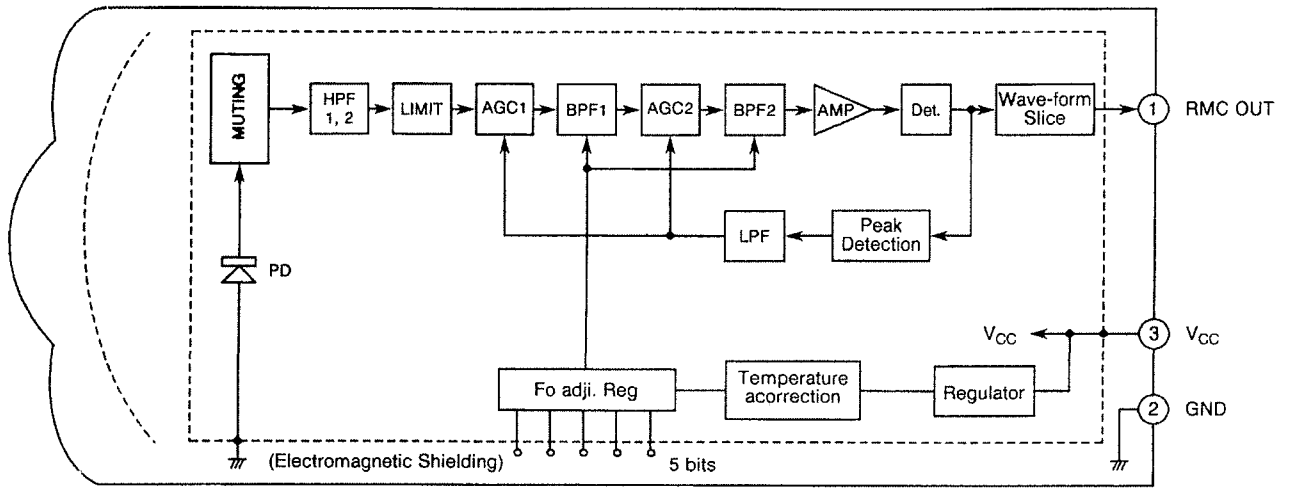


IC650 : YEAMC14584BE

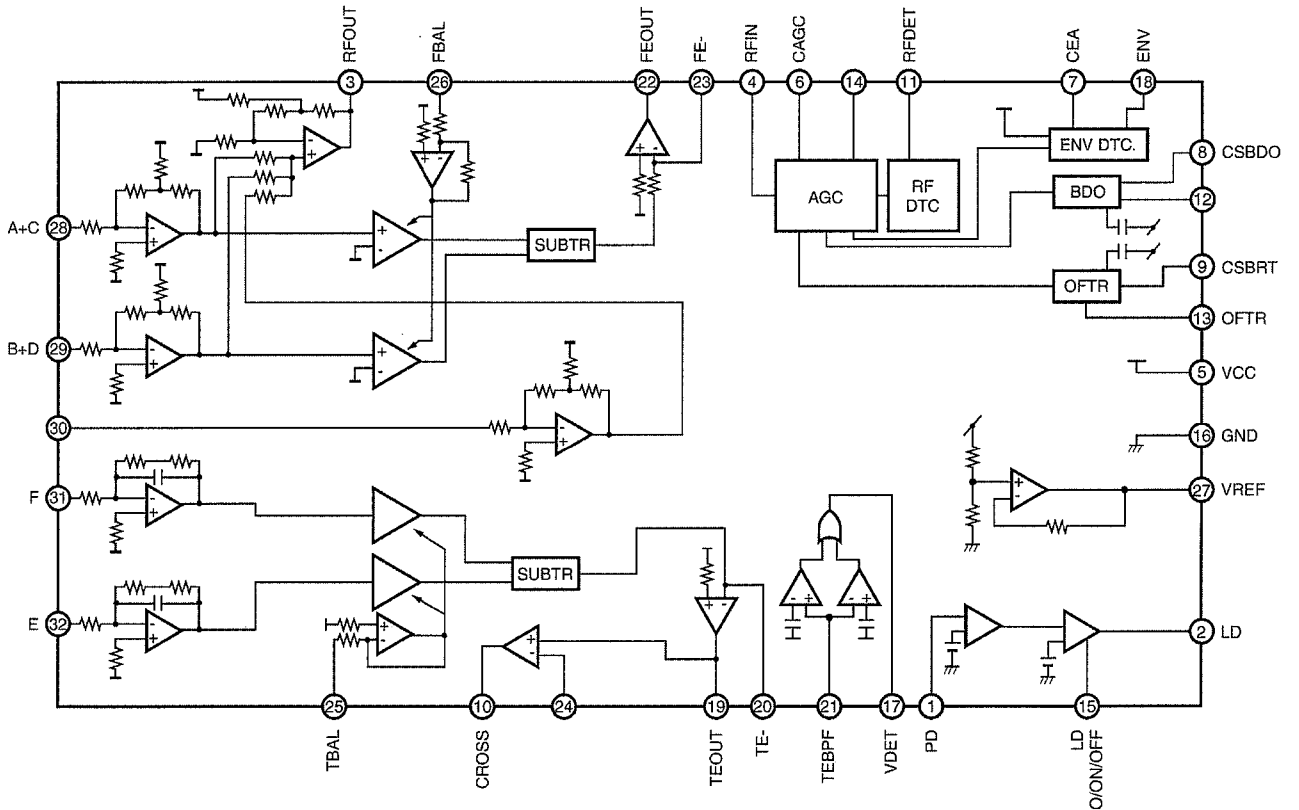


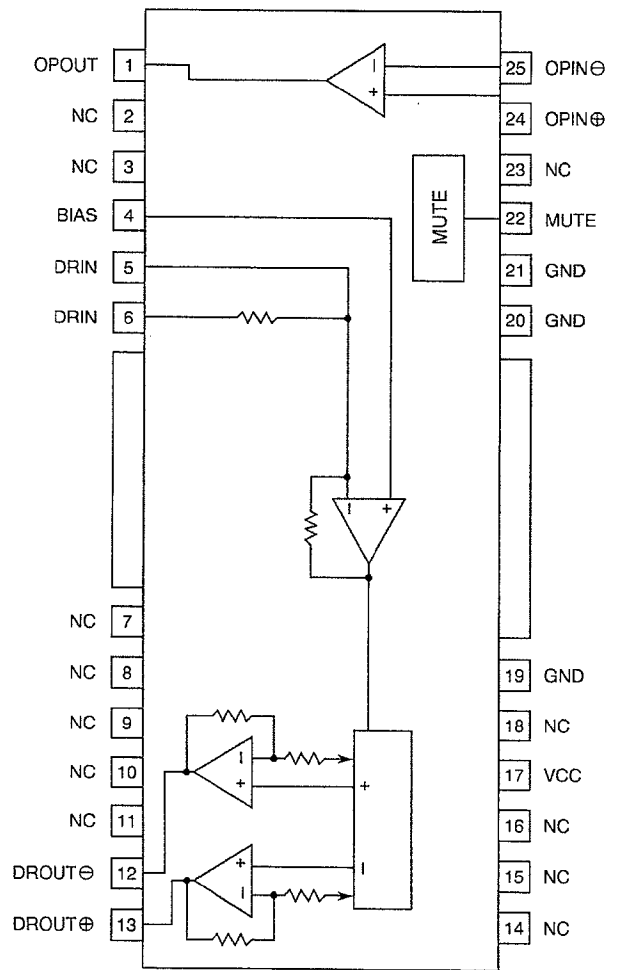
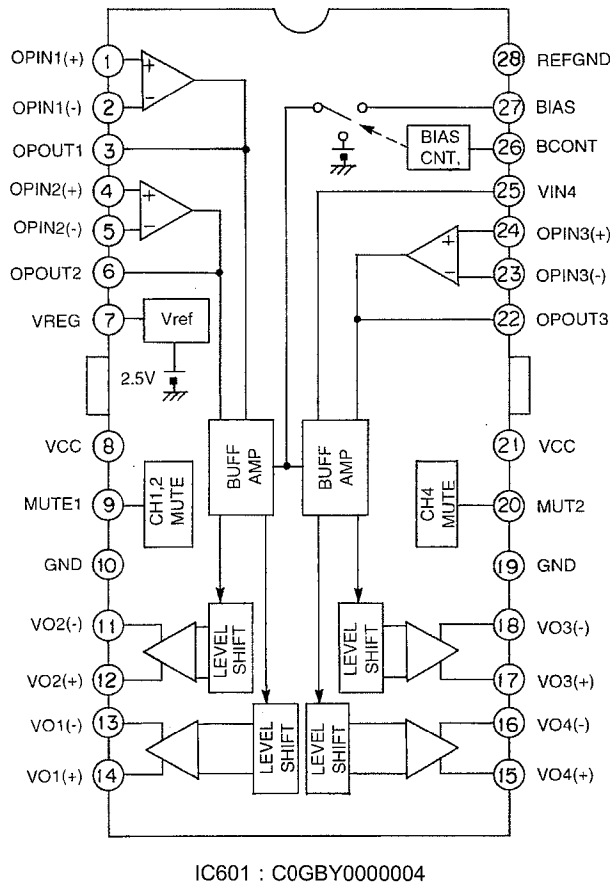
IC702 : YEAMA61W12ST

10.2. Display Block



10.3. 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-DFX600N
- B : CQ-DFX400N

11.1. IC's and Transistors

MAIN BLOCK [E6788A]

Ref. No.	Part No.	Part Name & Description	Remarks
IC201	YEAMEA6320TT	IC	
IC203	YEAMM5218AFE	IC	
IC204	YEAMPD4053E2	IC	
IC241	C1EA00000021	IC	
IC261	YEAMM5218AFE	IC	
IC262	YEAMM62429FP	IC	
IC600	C2BBGF000109	IC	
IC601	AN8065SE1	IC	
IC650	YEAMC14584BE	IC	
IC702	YEAMA61W12ST	IC	
IC704	C0CBAEG000003	IC	
IC802	YEAMM5218AFE	IC	
PA51	C5BA00000053	Electronic Tuner	
Q50	YEANFP1F3PT1	Transistor	
Q51	B1GBCFNN0005	Transistor	
Q230	YEANC323TUTX	Transistor	
Q231	YEANC323TUTX	Transistor	
Q270	YEANC323TUTX	Transistor	
Q330	YEANC323TUTX	Transistor	
Q331	YEANC323TUTX	Transistor	
Q660	YEANA114EKTX	Transistor	
Q661	YEANA114EKTX	Transistor	
Q663	YEANA114EKTX	Transistor	
Q664	B1GBCFNN0005	Transistor	
Q701	YEAND1859T	Transistor	
Q703	YEANB1243QRT	Transistor	
Q704	B1GBCFNN0005	Transistor	
Q705	2SD2139TA	Transistor	
Q706	YEANA114EKTX	Transistor	
Q707	YEANA114EKTX	Transistor	
Q710	YEAND1859T	Transistor	
Q711	B1GBCFNN0005	Transistor	
Q712	B1GBCFNN0005	Transistor	

DISPLAY BLOCK [E8801]

Ref. No.	Part No.	Part Name & Description	Remarks
IC901	YEAMLC75884W	IC	

Ref. No.	Part No.	Part Name & Description	Remarks
IC905	YEAMSEX8035F	IC	
Q902	YEANSSTA06T	Transistor	
Q903	YEANSSTA06T	Transistor	

CD SERVO BLOCK [E8636A]

Ref. No.	Part No.	Part Name & Description	Remarks
IC101	C1BB00000173	IC	
IC201	MN662748RPMF	IC	
IC401	MN101C117AF	IC	
IC601	COGBY0000004	IC	
IC901	COGBY0000003	IC	
Q1	YEADPS1101W	Transistor	
Q3	YEADPS1101W	Transistor	
Q6	YEADPS1101W	Transistor	
Q101	2SB766ATX	Transistor	
Q451	YEANC113ZKTX	Transistor	

11.2. Diodes

MAIN BLOCK [E6788A]

Ref. No.	Part No.	Part Name & Description	Remarks
D50	YEARDR51MBT1	Diode	
D201	MA165TA	Diode	
D602	LN25RP	LED	
D701	YEADSR1544TL	Diode	
D702	MA165TA	Diode	
D703	BOBA5R700006	Diode	
D707	YEADRB100AT	Diode	
D708	YEARDR91M1T2	Diode	
D709	MA153TX	Diode	
D710	YEARDR27M2T1	Diode	
D715	YEADDAM3MA47	Diode	
D717	MA151ATX	Diode	
D720	YEARDR51MBT1	Diode	
D803	MA165TA	Diode	
D804	YEARDR51MBT1	Diode	

DISPLAY BLOCK [E8801]

Ref. No.	Part No.	Part Name & Description	Remarks
D900	LN1271RAL	LED	
D926	MA8056LMHTX	Diode	
D927	MA8056LMHTX	Diode	
D928	MA8056LMHTX	Diode	
D929	MA8056LMHTX	Diode	
D930	MA8047MTX	Diode	

SUB BLOCK [E8497B]

Ref. No.	Part No.	Part Name & Description	Remarks
D642	LNJ306G5TUWQ	LED	
D643	LNJ306G5TUWQ	LED	

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 [E6788A]

Ref. No.	Part No.	Part Name & Description	Remarks
C50	FLJ1H8R0A007	Ceramic, 8PF 50WV	
C51	ECEA1AKS221I	Electrolytic, 220 μ F 10WV	
C53	YECUS1H103KX	Ceramic, 0.01 μ F 50WV	
C54	ECEA1AKS221I	Electrolytic, 220 μ F 10WV	
C55	ECEA1AKA221I	Electrolytic, 220 μ F 10WV	

Ref. No.	Part No.	Part Name & Description	Remarks
C56	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C57	ECEA0JKS331I	Electrolytic, 330µF 6.3WV	
C58	ECEA1AKS220I	Electrolytic, 22µF 10WV	
C59	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C62	YECUS1H183KX	Ceramic, 0.018µF 50WV	
C63	YECUS1H183KX	Ceramic, 0.018µF 50WV	
C66	ECEA1AKA221I	Electrolytic, 220µF 10WV	
C68	YECUS1H221JM	Ceramic, 220PF 50WV	
C201	YECUS1H560JM	Ceramic, 56PF 50WV	
C203	ECEA1HKS3R3I	Electrolytic, 3.3µF 50WV	
C204	ECEA1HKS3R3I	Electrolytic, 3.3µF 50WV	
C205	YECUV1C224KX	Ceramic, 0.22µF 16WV	
C207	YECUS1C224KX	Ceramic, 0.22µF 16WV	
C208	YECUS1E333KX	Ceramic, 0.033µF 25WV	
C209	YECUS1H562KX	Ceramic, 0.0056µF 50WV	
C210	ECEA1CKA470I	Electrolytic, 47µF 16WV	
C211	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C212	YECUS1H560JM	Ceramic, 56PF 50WV	
C217	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C218	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C220	YECUS1H123KX	Ceramic, 0.012µF 50WV	
C221	ECEA1HKS010I	Electrolytic, 1µF 50WV	
C223	ECEA0JKS470I	Electrolytic, 47µF 6.3WV	
C230	ECEA1HKS3R3I	Electrolytic, 3.3µF 50WV	
C231	ECEA1HKS3R3I	Electrolytic, 3.3µF 50WV	
C241	ECEA1HKS47I	Electrolytic, 0.47µF 50WV	
C242	YECUS1H122KX	Ceramic, 0.0012µF 50WV	
C244	ECEA1HKS47I	Electrolytic, 0.47µF 50WV	
C245	YECUS1H122KX	Ceramic, 0.0012µF 50WV	
C246	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C248	ECA1CDT472Y	Electrolytic, 4700µF 16WV	
C249	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C250	ECEA1CKA470I	Electrolytic, 47µF 16WV	
C251	ECEA1HKS2R2I	Electrolytic, 2.2µF 50WV	
C252	ECEA1AKS10I	Electrolytic, 100µF 10WV	
C260	ECEA1CKS100I	Electrolytic, 10µF 16WV	
C261	ECEA0JKS470I	Electrolytic, 47µF 6.3WV	
C262	YECUS1C224KX	Ceramic, 0.22µF 16WV	
C263	YECUS1E223KX	Ceramic, 0.022µF 25WV	
C264	ECEA1HKS2R2I	Electrolytic, 2.2µF 50WV	
C265	ECEA1HKS3R3I	Electrolytic, 3.3µF 50WV	
C266	ECEA0JKS470I	Electrolytic, 47µF 6.3WV	
C301	YECUS1H560JM	Ceramic, 56PF 50WV	
C303	ECEA1HKS3R3I	Electrolytic, 3.3µF 50WV	
C304	ECEA1HKS3R3I	Electrolytic, 3.3µF 50WV	
C305	YECUV1C224KX	Ceramic, 0.22µF 16WV	
C307	YECUS1C224KX	Ceramic, 0.22µF 16WV	
C308	YECUS1E333KX	Ceramic, 0.033µF 25WV	
C309	YECUS1H562KX	Ceramic, 0.0056µF 50WV	
C310	ECEA0JKS101I	Electrolytic, 100µF 6.3WV	
C311	ECEA1CKA470I	Electrolytic, 47µF 16WV	
C312	YECUS1H560JM	Ceramic, 56PF 50WV	
C317	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C318	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C320	YECUS1H123KX	Ceramic, 0.012µF 50WV	
C321	ECA1HSA010I	Electrolytic, 1µF 50WV	
C323	ECEA0JKS470I	Electrolytic, 47µF 6.3WV	
C330	ECEA1HKS3R3I	Electrolytic, 3.3µF 50WV	
C331	ECEA1HKS3R3I	Electrolytic, 3.3µF 50WV	
C332	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C341	ECEA1HKS47I	Electrolytic, 0.47µF 50WV	
C342	YECUS1H122KX	Ceramic, 0.0012µF 50WV	
C344	ECEA1HKS47I	Electrolytic, 0.47µF 50WV	
C345	YECUS1H122KX	Ceramic, 0.0012µF 50WV	
C348	YECUV1H104ZF	Ceramic, 0.1µF 50WV	
C366	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C601	YECUS1H220JM	Ceramic, 22PF 50WV	
C602	YECUS1H220JM	Ceramic, 22PF 50WV	
C603	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C604	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C605	ECEA0JKS331I	Electrolytic, 330µF 6.3WV	
C607	ECS5R5T473	Electrolytic, 0.047FD 5.5WV	
C608	YECUS1C104KX	Ceramic, 0.1µF 16WV	

Ref. No.	Part No.	Part Name & Description	Remarks
C611	YECUV1H104ZF	Ceramic, 0.1µF 50WV	
C612	YECUV1H104ZF	Ceramic, 0.1µF 50WV	
C617	YECUS1H221JM	Ceramic, 220PF 50WV	
C618	YECUS1H221JM	Ceramic, 220PF 50WV	
C637	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C650	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C660	ECEA1HKS2R2I	Electrolytic, 2.2µF 50WV	
C661	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C662	ECEA1HKS010I	Electrolytic, 1µF 50WV	
C664	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C666	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C667	YECUS1H221JM	Ceramic, 220PF 50WV	
C668	YECUS1H221JM	Ceramic, 220PF 50WV	
C690	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C702	ECEA1HKS4R7I	Electrolytic, 4.7µF 50WV	
C703	ECEA0JKS470I	Electrolytic, 47µF 6.3WV	
C705	ECEA1HKS47I	Electrolytic, 0.47µF 50WV	
C706	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C707	ECA1AM471B	Electrolytic, 470µF 10WV	
C710	ECA1CHG102B	Electrolytic, 1000µF 16WV	
C711	F1K1E334A022	Ceramic, 0.33µF 25WV	
C712	EEAFC1A820H	Electrolytic, 82µF 10WV	
C714	ECEA0JKS101I	Electrolytic, 100µF 6.3WV	
C715	ECSH1CC106CR	Tantalum, 10µF 16WV	
C716	ECEA1CKS470I	Electrolytic, 47µF 16WV	
C718	F1K1E334A022	Ceramic, 0.33µF 25WV	
C719	F1K1E334A022	Ceramic, 0.33µF 25WV	
C720	ECEA0JKS470I	Electrolytic, 47µF 6.3WV	
C723	ECEA1AKS221I	Electrolytic, 220µF 10WV	
C724	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C727	EEVFC1C470P	Electrolytic, 47µF 16WV	
C728	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C810	ECEA0JKS220I	Electrolytic, 22µF 6.3WV	
C811	YECUS1H102KX	Ceramic, 0.001µF 50WV	
C812	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C813	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C814	ECEA1HKS2R2I	Electrolytic, 2.2µF 50WV	

DISPLAY BLOCK [E8801]

Ref. No.	Part No.	Part Name & Description	Remarks
C905	FOF2A2230001	Plastic Film, 0.022µF 100WV	
C906	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C907	ECEV1CA101WP	Electrolytic, 100µF 16WV	
C910	YECUS1H102KX	Ceramic, 0.001µF 50WV	
C911	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C914	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C915	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C920	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C921	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C923	YECUS1H681JM	Ceramic, 680PF 50WV	
C934	F1L3F1200001	Ceramic, 12PF 3160WV	

CD SERVO BLOCK [E8636A]

Ref. No.	Part No.	Part Name & Description	Remarks
C101	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C102	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C103	F3H0J1070005	Tantalum, 100µF 6.3WV	
C104	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C105	ECSH0JY475CR	Tantalum, 4.7µF 6.3WV	
C106	F1H1E273A011	Ceramic, 0.027µF 25WV	
C107	F1H1H152A201	Ceramic, 0.0015µF 50WV	
C108	YECUZ1H472KX	Ceramic, 0.0047µF 50WV	
C109	YECUZ1H102KX	Ceramic, 0.001µF 50WV	
C110	YECUZ1H102KX	Ceramic, 0.001µF 50WV	
C111	YECSW1A106MA	Tantalum, 10µF 10WV	
C112	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C113	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C115	YECUZ1H102KX	Ceramic, 0.001µF 50WV	
C116	YECUZ1H102KX	Ceramic, 0.001µF 50WV	
C117	YECUS1A105KX	Ceramic, 1µF 10WV	
C118	YECUZ1H471KX	Ceramic, 470PF 50WV	
C119	YECUZ1C104KX	Ceramic, 0.1µF 16WV	

Ref. No.	Part No.	Part Name & Description	Remarks
C120	YECUZ1H561KX	Ceramic, 560PF 50WV	
C121	YECUZ1E123KX	Ceramic, 0.012µF 25WV	
C122	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C133	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C145	YECUZ1A124KX	Ceramic, 0.12µF 10WV	
C201	YECUZ1E123KX	Ceramic, 0.012µF 25WV	
C203	YECUS1C334KX	Ceramic, 0.33µF 16WV	
C204	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C205	YECUS1A106MA	Tantalum, 10µF 10WV	
C206	F1H1A4740004	Ceramic, 0.47µF 10WV	
C208	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C209	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C210	YECUS1A106MA	Tantalum, 10µF 10WV	
C214	YECUS1C334KX	Ceramic, 0.33µF 16WV	
C451	F1H1A4740004	Ceramic, 0.47µF 10WV	
C453	YECUZ1H103KX	Ceramic, 0.01µF 50WV	
C601	YECUS1C334KX	Ceramic, 0.33µF 16WV	
C602	ECEV1CA470SP	Electrolytic, 47µF 16WV	
C603	YECUZ1C104KX	Ceramic, 0.1µF 16WV	
C605	YECUS1A105KX	Ceramic, 1µF 10WV	
C901	YECUS1C334KX	Ceramic, 0.33µF 16WV	
C903	YECUZ1C333KX	Ceramic, 0.033µF 16WV	

11.4. Resistors

MAIN BLOCK [E6788A]

Ref. No.	Part No.	Part Name & Description	Remarks
C615	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J59	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J401	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J402	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J601	ERJ8GX0R00V	Chip, 0Ω 1/8W	
R50	ERJ6GEYJ5R6	Chip, 5.6Ω 1/10W	
R51	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R52	ERJ6GEYJ822	Chip, 8.2kΩ 1/10W	
R53	ERJ6GEYJ333	Chip, 33kΩ 1/10W	
R56	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R58	ERJ6GEYJ331	Chip, 330Ω 1/10W	
R60	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R64	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R201	ERJ6GEYJ273	Chip, 27kΩ 1/10W	
R202	ERJ6GEYJ223	Chip, 22kΩ 1/10W	
R204	ERJ6GEYJ822	Chip, 8.2kΩ 1/10W	
R205	ERJ6GEYJ332	Chip, 3.3kΩ 1/10W	
R211	ERJ6GEYJ123	Chip, 12kΩ 1/10W	
R212	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R213	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R214	ERJ6GEYJ392	Chip, 3.9kΩ 1/10W	
R215	ERJ6GEYJ272	Chip, 2.7kΩ 1/10W	
R216	ERJ6GEYJ682	Chip, 6.8kΩ 1/10W	
R217	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R218	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R225	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R226	ERJ6GEYJ333	Chip, 33kΩ 1/10W	
R230	ERJ6GEYJ101	Chip, 100Ω 1/10W	
R231	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R235	ERJ6GEYJ101	Chip, 100Ω 1/10W	
R236	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R240	ERJ6GEYJ681	Chip, 680Ω 1/10W	
R241	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R242	ERJ6GEYJ681	Chip, 680Ω 1/10W	
R243	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R250	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R257	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R261	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R262	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R263	ERJ6GEYJ822	Chip, 8.2kΩ 1/10W	
R264	ERJ6GEYJ433	Chip, 43kΩ 1/10W	
R265	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R267	ERJ6GEYJ153	Chip, 15kΩ 1/10W	
R268	ERJ6GEYJ223	Chip, 22kΩ 1/10W	
R270	ERJ6GEYJ104	Chip, 100kΩ 1/10W	

Ref. No.	Part No.	Part Name & Description	Remarks
R273	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R274	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R275	ERJ6GEYJ393	Chip, 39kΩ 1/10W	
R276	ERJ6GEYJ101	Chip, 100Ω 1/10W	
R277	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R301	ERJ6GEYJ273	Chip, 27kΩ 1/10W	
R302	ERJ6GEYJ223	Chip, 22kΩ 1/10W	
R304	ERJ6GEYJ822	Chip, 8.2kΩ 1/10W	
R305	ERJ6GEYJ332	Chip, 3.3kΩ 1/10W	
R311	ERJ6GEYJ123	Chip, 12kΩ 1/10W	
R312	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R313	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R314	ERJ6GEYJ392	Chip, 3.9kΩ 1/10W	
R315	ERJ6GEYJ272	Chip, 2.7kΩ 1/10W	
R316	ERJ6GEYJ682	Chip, 6.8kΩ 1/10W	
R317	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R318	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R330	ERJ6GEYJ101	Chip, 100Ω 1/10W	
R331	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R335	ERJ6GEYJ101	Chip, 100Ω 1/10W	
R336	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R340	ERJ6GEYJ681	Chip, 680Ω 1/10W	
R341	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R342	ERJ6GEYJ681	Chip, 680Ω 1/10W	
R343	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R350	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R370	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R600	ERJ6GEYJ330	Chip, 33Ω 1/10W	
R602	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R605	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R607	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	ERJ6GEYJ681	Chip, 680Ω 1/10W	
R615	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R617	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
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	
R625	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R629	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R631	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R632	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R633	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R634	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R639	ERJ6GEYJ184	Chip, 180kΩ 1/10W	
R642	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R643	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R645	ERJ6GEYJ273	Chip, 27kΩ 1/10W	
R649	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R650	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R651	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R652	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R656	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R658	ERJ6GEYJ562	Chip, 5.6kΩ 1/10W	
R659	ERJ6GEYJ223	Chip, 22kΩ 1/10W	
R660	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R661	ERJ6GEYJ393	Chip, 39kΩ 1/10W	
R663	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R667	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R668	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R671	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R672	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R673	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R676	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R677	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R680	ERJ6GEYJ331	Chip, 330Ω 1/10W	
R681	ERJ6GEYJ331	Chip, 330Ω 1/10W	

Ref. No.	Part No.	Part Name & Description	Remarks
R684	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R685	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R690	ERJ6GEYJ184	Chip, 180kΩ 1/10W	
R692	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
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	ERJ6GEYJ224	Chip, 220kΩ 1/10W	
R708	ERJ6GEYJ433	Chip, 43kΩ 1/10W	
R709	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R710	ERDS1FJ681	Carbon, 680Ω 1/2W	
R711	ERDS1FJ681	Carbon, 680Ω 1/2W	
R712	ERDS2TJ1R0	Carbon, 1.0Ω 1/4W	
R714	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R715	ERJ8GEYJ151V	Chip, 150 ohms 1/8W	
R716	ERJ8GEYJ151V	Chip, 150 ohms 1/8W	
R720	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R721	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R722	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R723	ERJ6GEYJ222	Chip, 2.2kΩ 1/10W	
R724	ERJ6GEYJ222	Chip, 2.2kΩ 1/10W	
R725	ERJ6GEYJ154	Chip, 150kΩ 1/10W	
R726	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R729	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R801	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R804	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R805	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R806	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R807	ERJ6GEYJ123	Chip, 12kΩ 1/10W	
R808	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R809	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R902	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R903	ERJ6GEYJ103	Chip, 10kΩ 1/10W	

DISPLAY BLOCK [E8801]

Ref. No.	Part No.	Part Name & Description	Remarks
R906	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R907	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R908	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R909	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R910	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R911	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R930	ERJ6GEYJ222	Chip, 2.2kΩ 1/10W	
R931	ERJ6GEYJ222	Chip, 2.2kΩ 1/10W	
R938	ERJ6GEYJ4R7	Chip, 4.7Ω 1/10W	
R941	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R942	ERJ6GEYJ433	Chip, 43kΩ 1/10W	
R961	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R962	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R963	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R964	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R965	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R970	ERJ6GEY0R00V	Chip, 0Ω 1/10W	

CD SERVO BLOCK [E8636A]

Ref. No.	Part No.	Part Name & Description	Remarks
J401	ERJ3GEY0R00V	Chip, 0Ω 1/16W	
J429	ERJ3GEY0R00V	Chip, 0Ω 1/16W	
L451	ERJ6GEY0R00V	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	

Ref. No.	Part No.	Part Name & Description	Remarks
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	
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 [E6788A]

Ref. No.	Part No.	Part Name & Description	Remarks
AJ251	K2KF49Z00005	Connector, 4P	
CN251	YEAE04BPHT1	Connector, 4P	
CJ620	K9Z200000176	Flexible Connector, 14P	
CN300	YEAE02166	Connector, 4P RCA	
CN601	YEAE0115MX	Connector, 15P	
CN602	YEAE1SBP0607	Connector, 6P	
CN604	YEAE0104MX	Connector, 4P	
CN621	K1MN14B00028	Connector, 14P	
CN680	YEAE012307	Connector, 8P DIN	
CN701	YEAE012748	Connector, 16P	

DISPLAY BLOCK [E8801]

Ref. No.	Part No.	Part Name & Description	Remarks
CN901	YEAE012760	Connector, 14P	

SUB BLOCK [E8497B]

Ref. No.	Part No.	Part Name & Description	Remarks
CJ640	YEAE0115MPA	Connector, 15P	
CJ642	YEAE0104MPA	Connector, 4P	
CP641	YEAE012761	Connector, 14P	

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	
SW602	YEAS09248R	Switch	
SW901	YEAS09312	Switch	
SW902	YEAS09312	Switch	
SW903	KOH1BA000285	Switch	A
SW903	YEAS09312	Switch	B
SW904	KOH1BA000285	Switch	A
SW904	YEAS09312	Switch	B
SW905	YEAS09312	Switch	
SW906	YEAS09312	Switch	
SW907	YEAS09312	Switch	
SW908	KOH1BA000285	Switch	A
SW908	YEAS09312	Switch	B
SW909	KOH1BA000285	Switch	A
SW909	YEAS09312	Switch	B
SW910	YEAS09312	Switch	
SW911	YEAS09312	Switch	
SW912	KOH1BA000285	Switch	A
SW912	YEAS09312	Switch	B
SW913	KOH1BA000285	Switch	A
SW913	YEAS09312	Switch	B
SW914	KOH1BA000285	Switch	A
SW914	YEAS09312	Switch	B
SW915	YEAS09312	Switch	
SW916	YEAS09312	Switch	
SW917	KOH1BA000285	Switch	A
SW917	YEAS09312	Switch	B
SW918	KOH1BA000285	Switch	A
SW918	YEAS09312	Switch	B

CRYSTALS

Ref. No.	Part No.	Part Name & Description	Remarks
XL451	YEXLSTCC419T	Crystal OSC	
XL600	YEXL49U0419T	Crystal OSC	
XL201	H2D169500005	Ceramic Filter	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L50	YELT03A330KT	Coil	
L51	YELT02C330KT	Coil	
L52	YELT02C330KT	Coil	
L600	YELT02C101KT	Coil	
L601	YELT02C101KT	Coil	
L702	YETQ026F143	Coil	
L703	ELEAR330KA	Coil	
L901	ETJ11K92AM	Transformer	
L902	YELTD75F101T	Coil	

LCD

Ref. No.	Part No.	Part Name & Description	Remarks
LCD901	L5ACCLC00016	LCD Display	A
LCD901	L5ACALC00004	LCD Display	B

LAMPS

Ref. No.	Part No.	Part Name & Description	Remarks
CFL931	A2CA00000018	Display Tube	A
CFL931	A2CA00000019	Display Tube	B
Z50	J0LE00000002	Neon Tube	

THERMISTORS

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

11.7. Accessories

PRINTING

Ref. No.	Part No.	Part Name & Description	Remarks
	YEFM283497	Operating Instructions	

INSTALLATION PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
	YEAJ02827	Power Cord	
	YEAA33144	Antenna Accessory	
	CR2025/1F	Battery	A
	YEP9BS1111	Screws	
	YEFAL31302	Detachable Unit Cover	
	YEFX0214198	Mounting Collar	
	YEFX9992013	Remote Controller	A

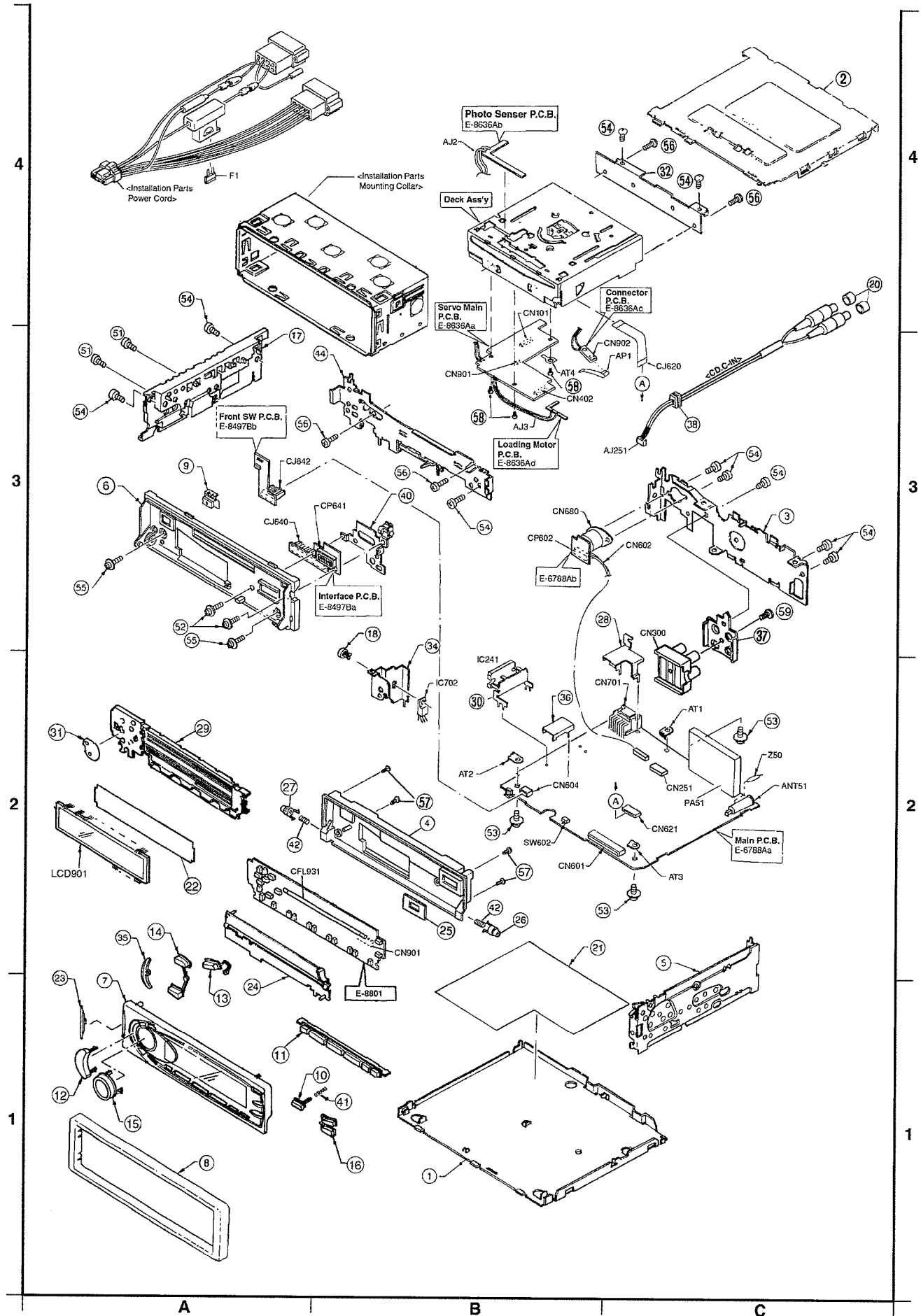
11.8. Mechanical Parts

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
F1	YEAFO2015	Fuse, 15A	△
ANT51	YGAA10082	Antenna Receptacle	
AJ2	YEAJ071287	Cord w/Plug	
AJ3	YEAJ071285	Cord w/Plug	
AP1	YEAP2711	Flexible P.C.B.	
AT1-3	K4ZZ01000048	Terminal	
AT4	YEATSD00405	Terminal	
1	YEFA05594B	Bottom Cover	(1-B)
2	YEFA031359E	Upper Cover	(4-C)
3	YEFA08462AK	Rear Plate	(3-C)
4	YEFAL31413	Case, Detachable	(2-B)
5	YEFA09505	Side Plate	(1-C)
6	YEF026243	Escutcheon Ass'y, Unit	(3-A)
7	YEF026671	Escutcheon Ass'y, Detachable	A (1-A)
7	YEF026673	Escutcheon Ass'y, Detachable	B (1-A)
8	YEF05570	Trim Plate	(1-A)
9	YEFEL35147	Button, EJECT	(3-A)
10	YEFEL35442	Button, OPEN	(1-A)
11	YEFEL35532	Button, PRESET	A (1-A)
11	YEFEL35533	Button, PRESET	B (1-A)
12	YEFEL35435	Button, VOL	(1-A)
13	YEFEL35436	Button, SEL	(1-A)
14	YEFEL35713	Button, BAND/SOURCE	(1-A)
15	YEFEL35439	Button, TUNE/TRACK	(1-A)
16	YEFEL35534	Button, TA/AF	(1-A)
17	YEFF01922	Heat Sink	(3-A)
18	YEFJ05030	Color Rivet	A (2-B)
18	YEFJ05046	Color Rivet	B (2-B)
20	YEFR04187	Lead Cap	(4-C)
21	YEFV011813	Insulator	(1-B)
22	YEFV021596	Optical Shade	(2-A)
23	YEFX0011904	Transparent Plate	(1-A)
24	YEFK06835	Holder, LCD	(1-A)
25	YEFV011928	Insulator	(2-B)
26	YEFW04156	Shaft Collar	(2-B)
27	YEFW04157	Shaft Collar	(2-A)
28	YEFX0214422	Bracket, CN701	(2-C)
29	YEFX0011903	Transparent Plate	(2-A)
30	YEFX0213945B	Bracket, IC241	(2-B)
31	YEFX025137	Color Screen	(2-A)
32	YEFX0214700	Bracket, Deck	(4-C)
34	YEFX0214423	Bracket, IC702	(2-B)
35	YEFX0011905	Transparent Plate	(1-A)
36	YEFX0214168	Bracket, IC704	(2-B)
37	YEFX0213650	Bracket, RCA	(3-C)
38	YEFX007380	Cord Clamper, AJ251	(3-C)
40	YEP9FX069	Hook Bracket Ass'y	(3-B)
41	YEFX0052396	Spring, OPEN	(1-A)

Ref. No.	Part No.	Part Name & Description	Remarks
42	YEFX0052253	Spring	(2-A) (2-B)
44	YEP9FX088	Front Chassis Ass'y	(3-B)
51	YEJS06092	Screw, 3mm * 10mm	
52	YEJS03020	Screw, 2mm * 4mm	
53	YEJT03009	Tapping Screw, 3mm * 8mm	
54	XTB3+6FFX	Tapping Screw, 3mm * 6mm	
55	YEJT03156	Tapping Screw, 2.6mm * 4mm	
56	YEJT03267	Tapping Screw,	
57	XTN2+8GFZ	Tapping Screw, 2mm * 8mm	
58	XYN2+J4FX	Screw, 2mm * 4mm	
59	XTB3+8GFX	Tapping Screw, 3mm * 8mm	

12 EXPLODED VIEW (Unit)

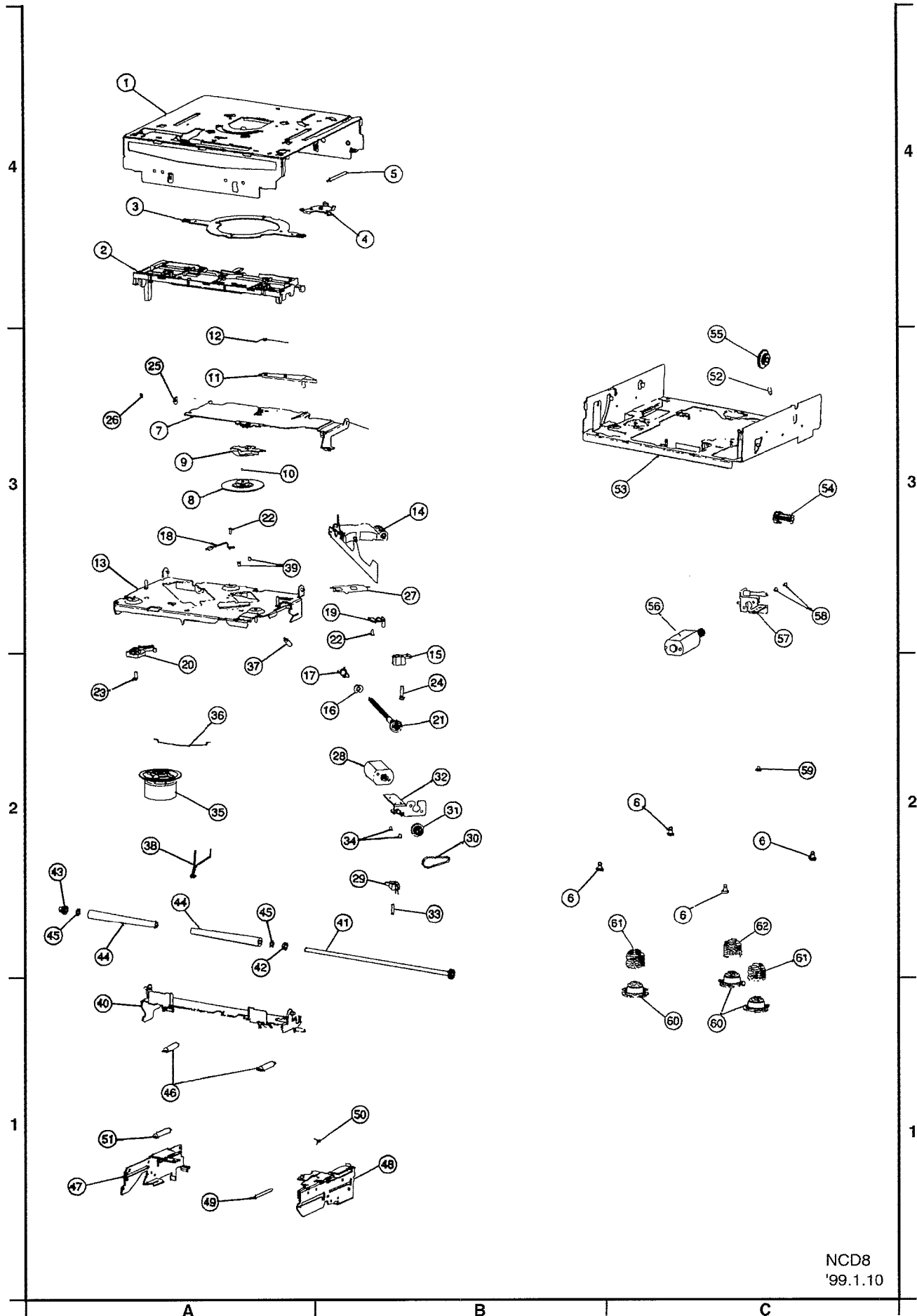


13 CD PLAYER PARTS

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	YEP0FX3100	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)

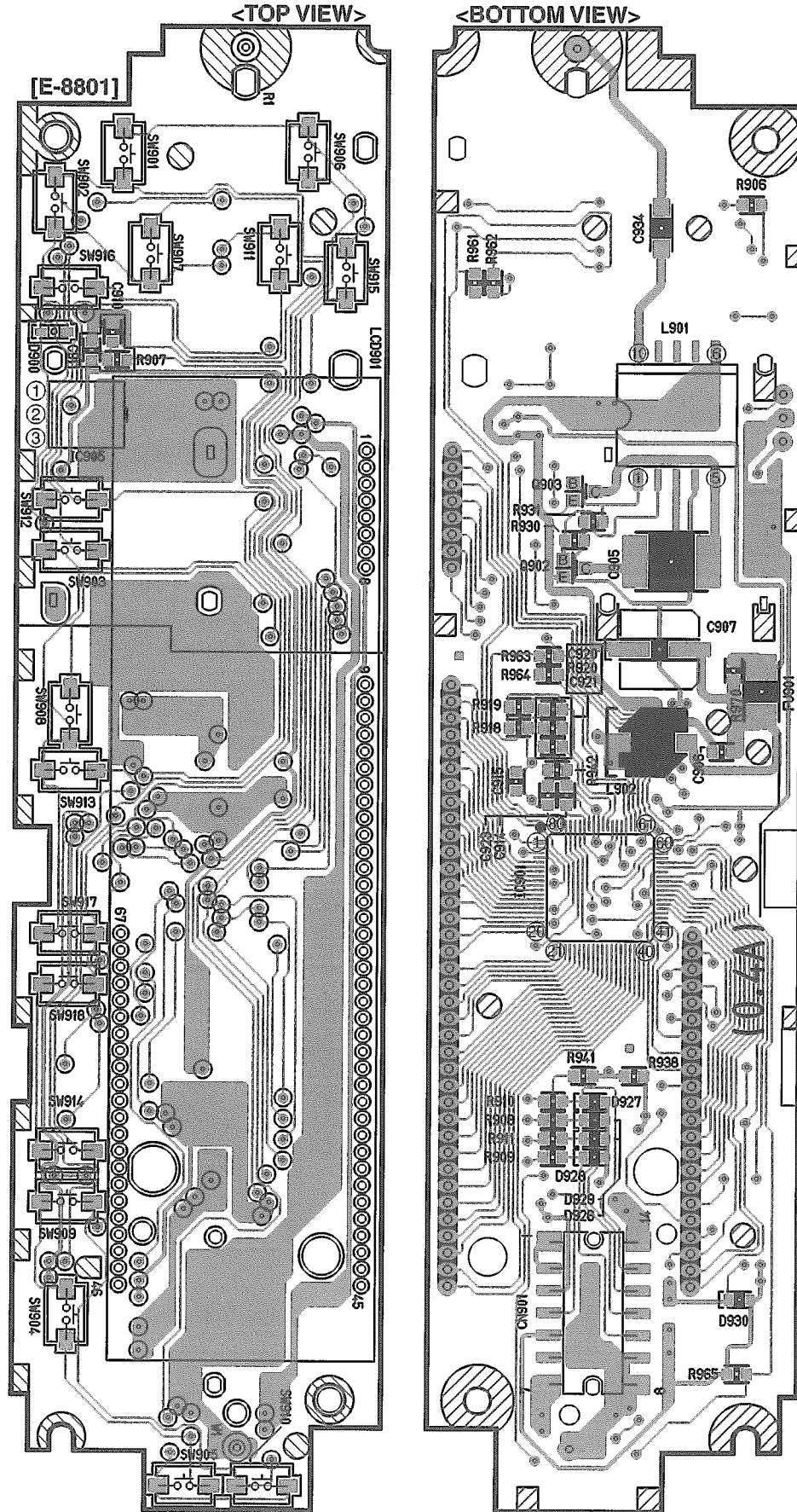
14 EXPLODED VIEW (CD Deck)



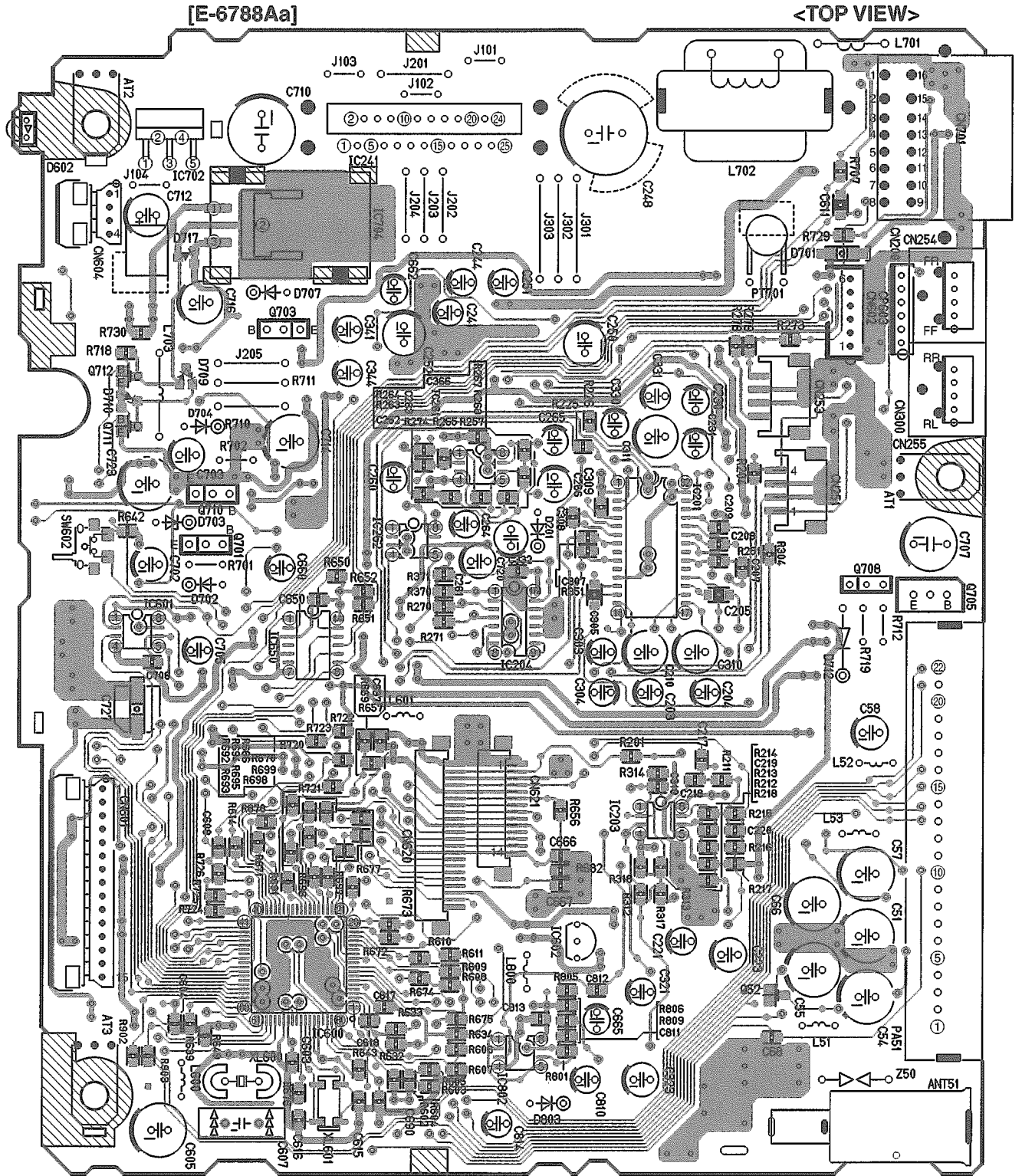
NCD8
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15 WIRING DIAGRAM

15.1. Display Block



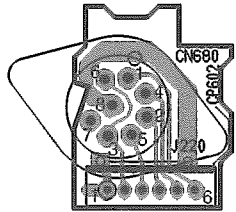
15.2. Main Block (Top View)



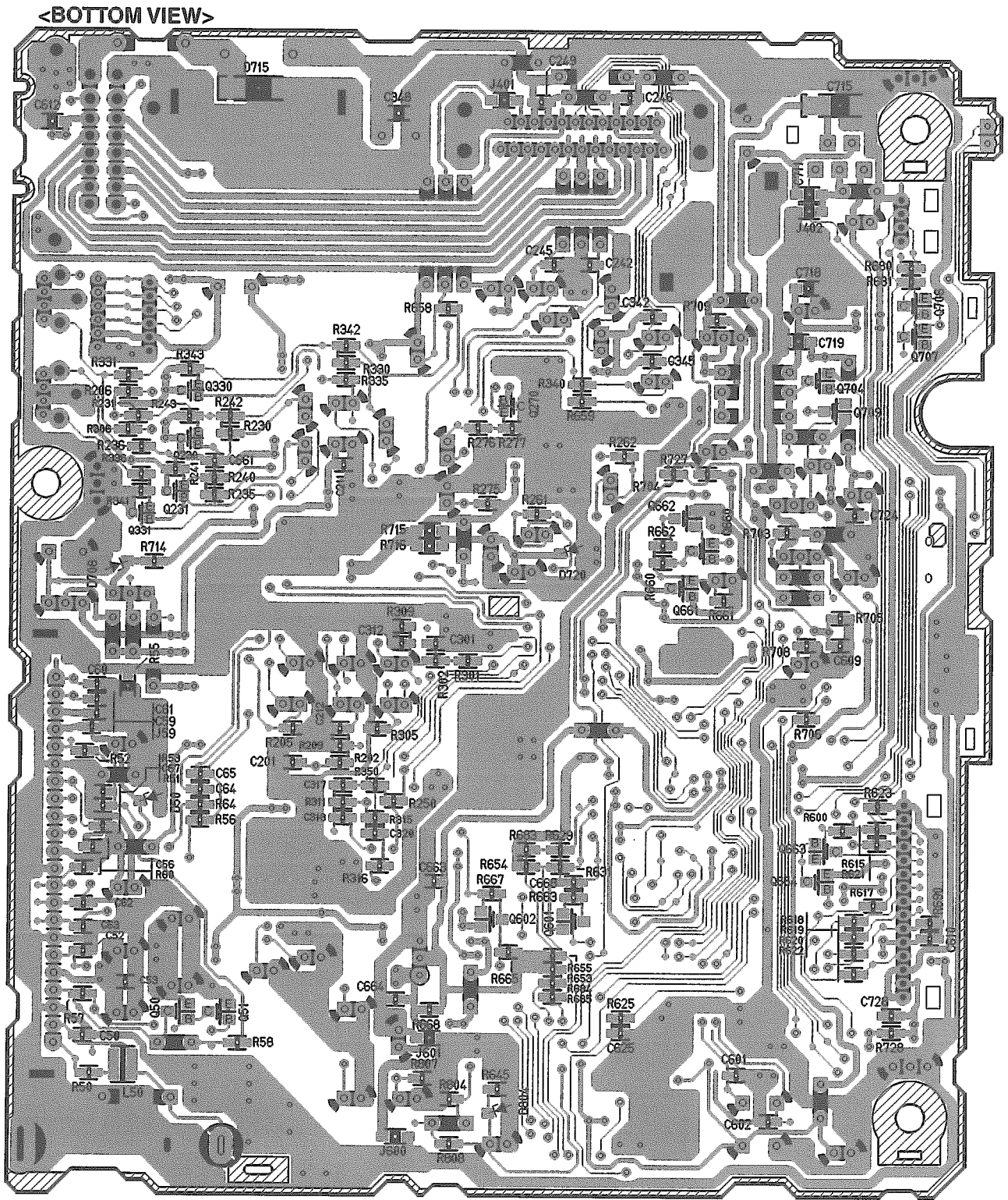
[E-6788Aa]

<TOP VIEW>

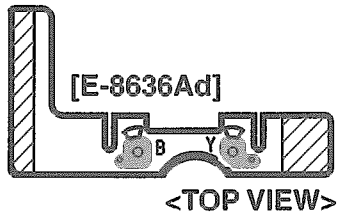
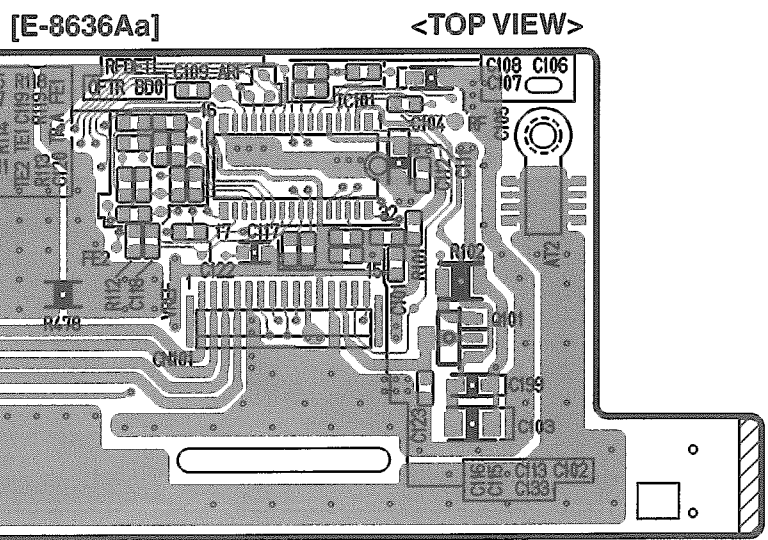
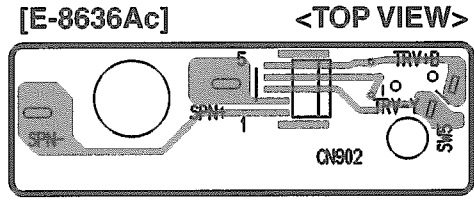
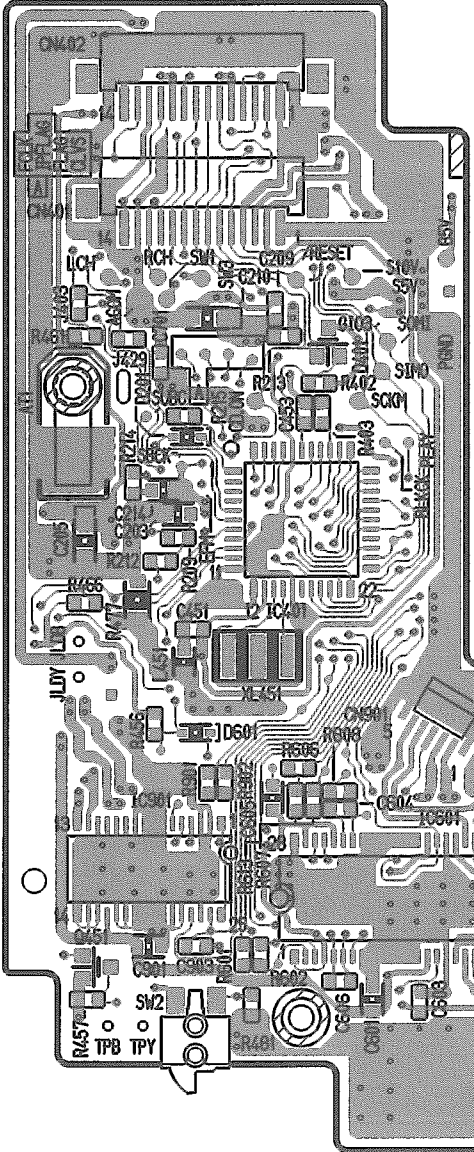
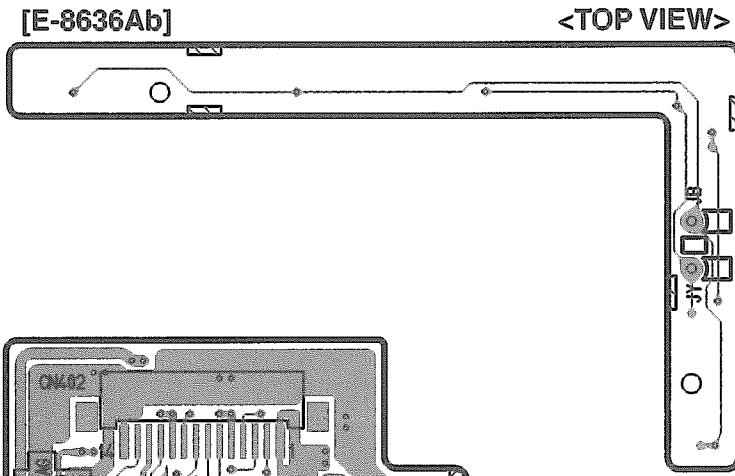
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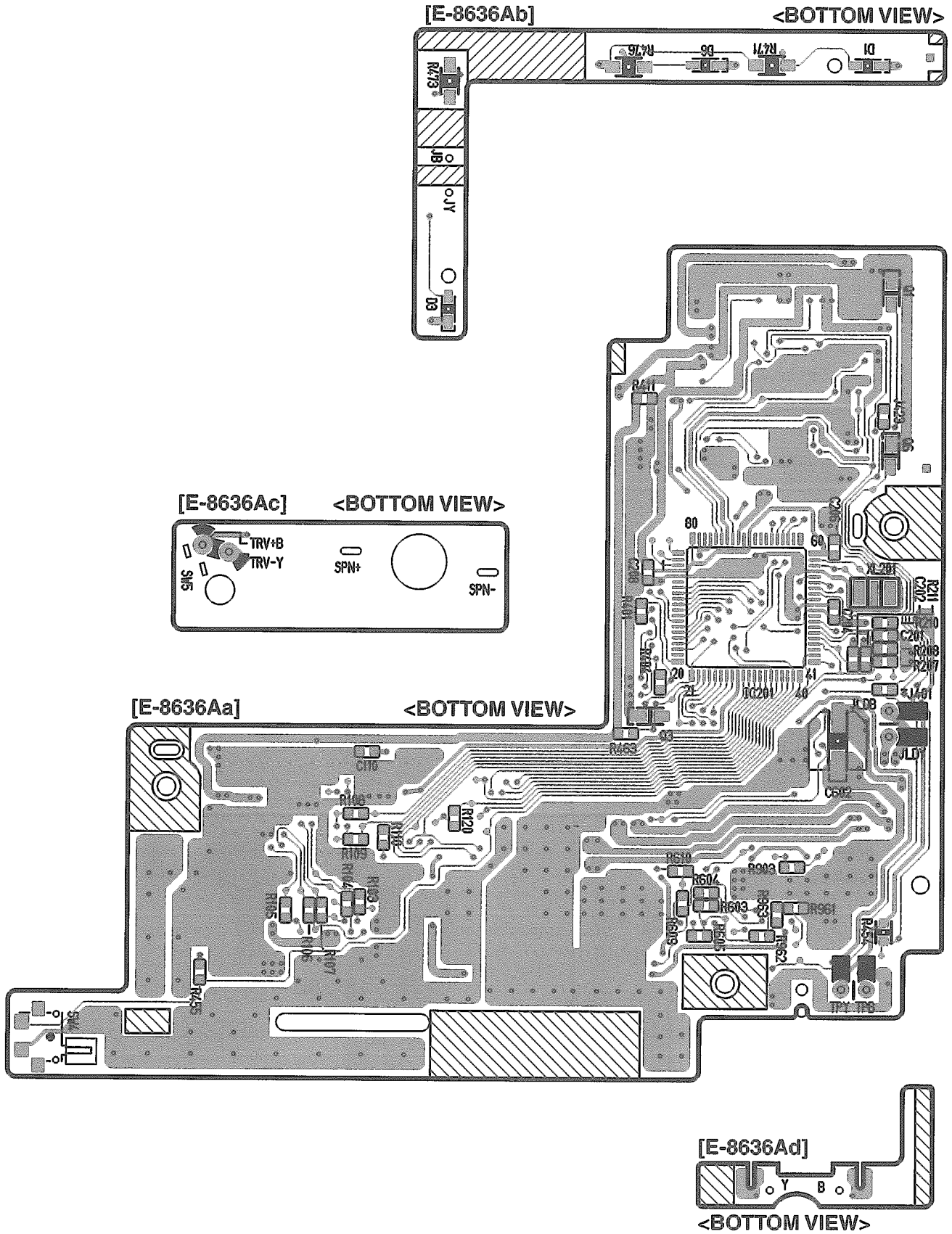
15.3. Main Block (Bottom View)



15.4. CD Servo Block (Top View)

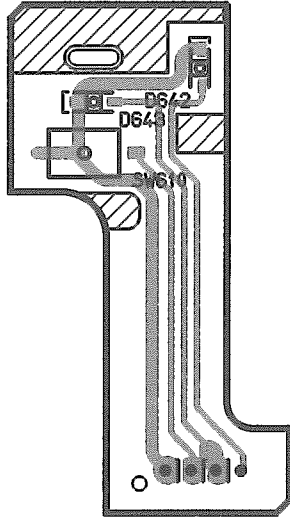


15.5. CD Servo Block (Bottom View)

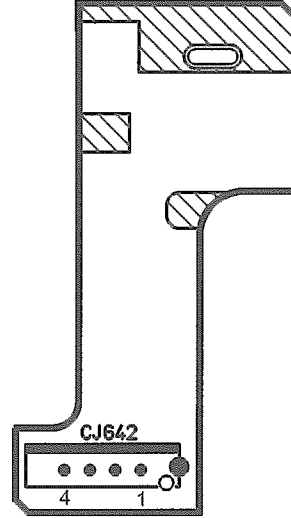


15.6. Sub. Block

[E-8497Bb]

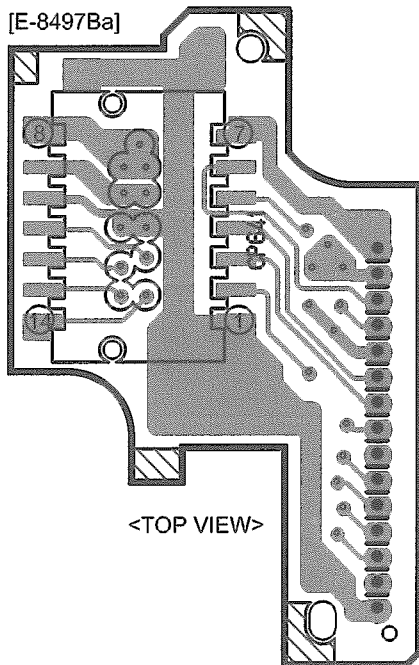


<TOP VIEW>

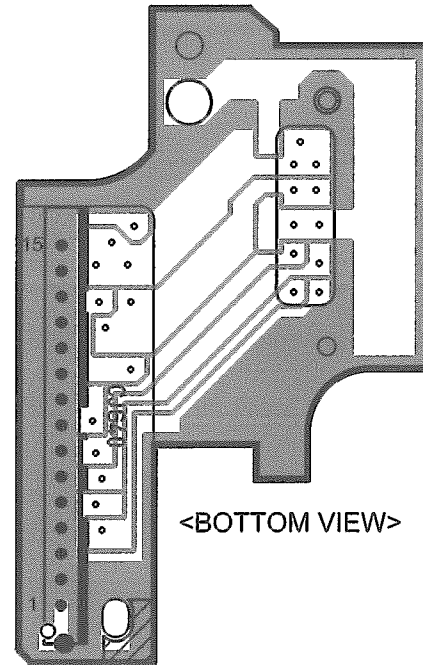


<BOTTOM VIEW>

[E-8497Ba]



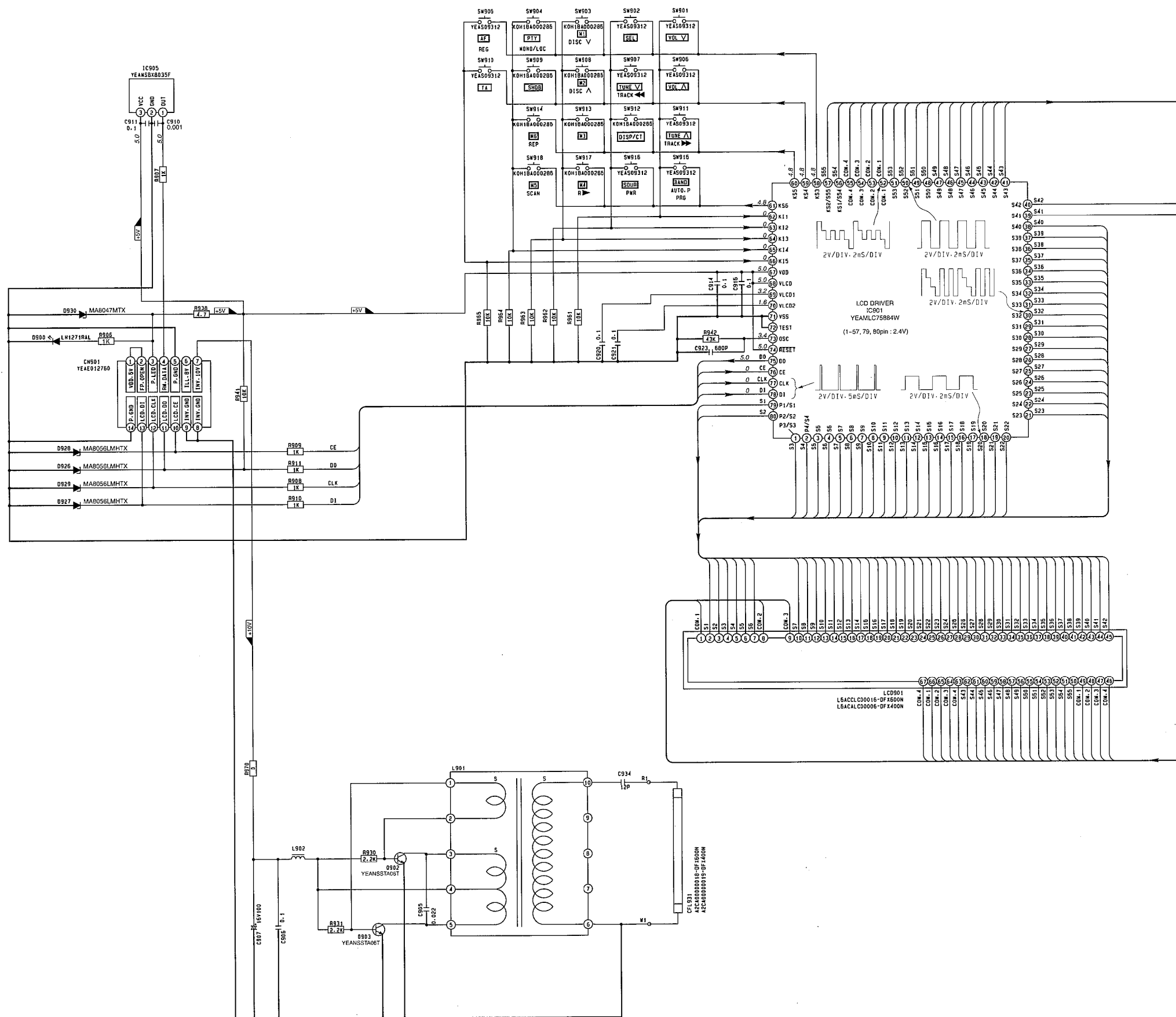
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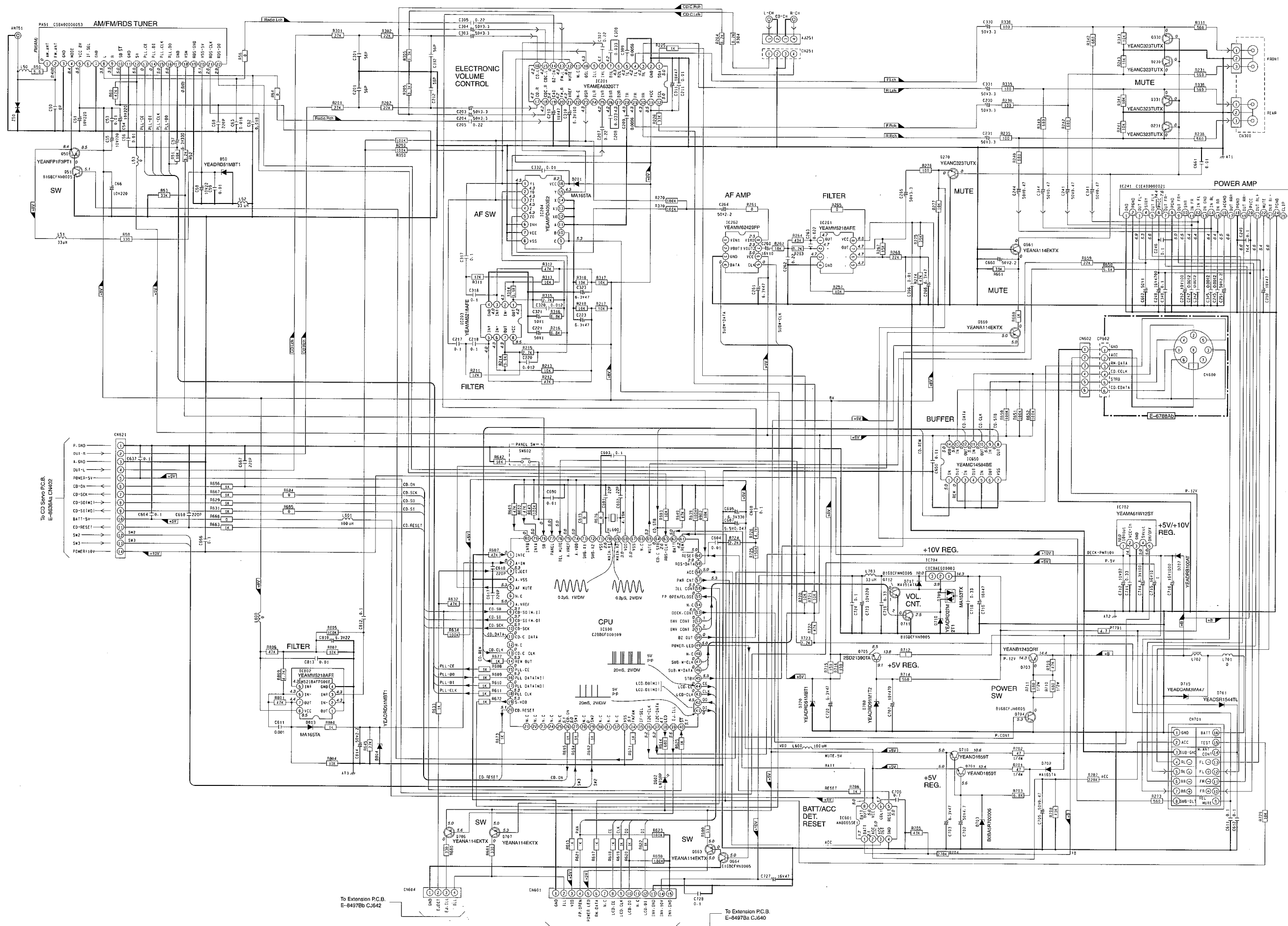
<BOTTOM VIEW>

16 SCHEMATIC DIAGRAM

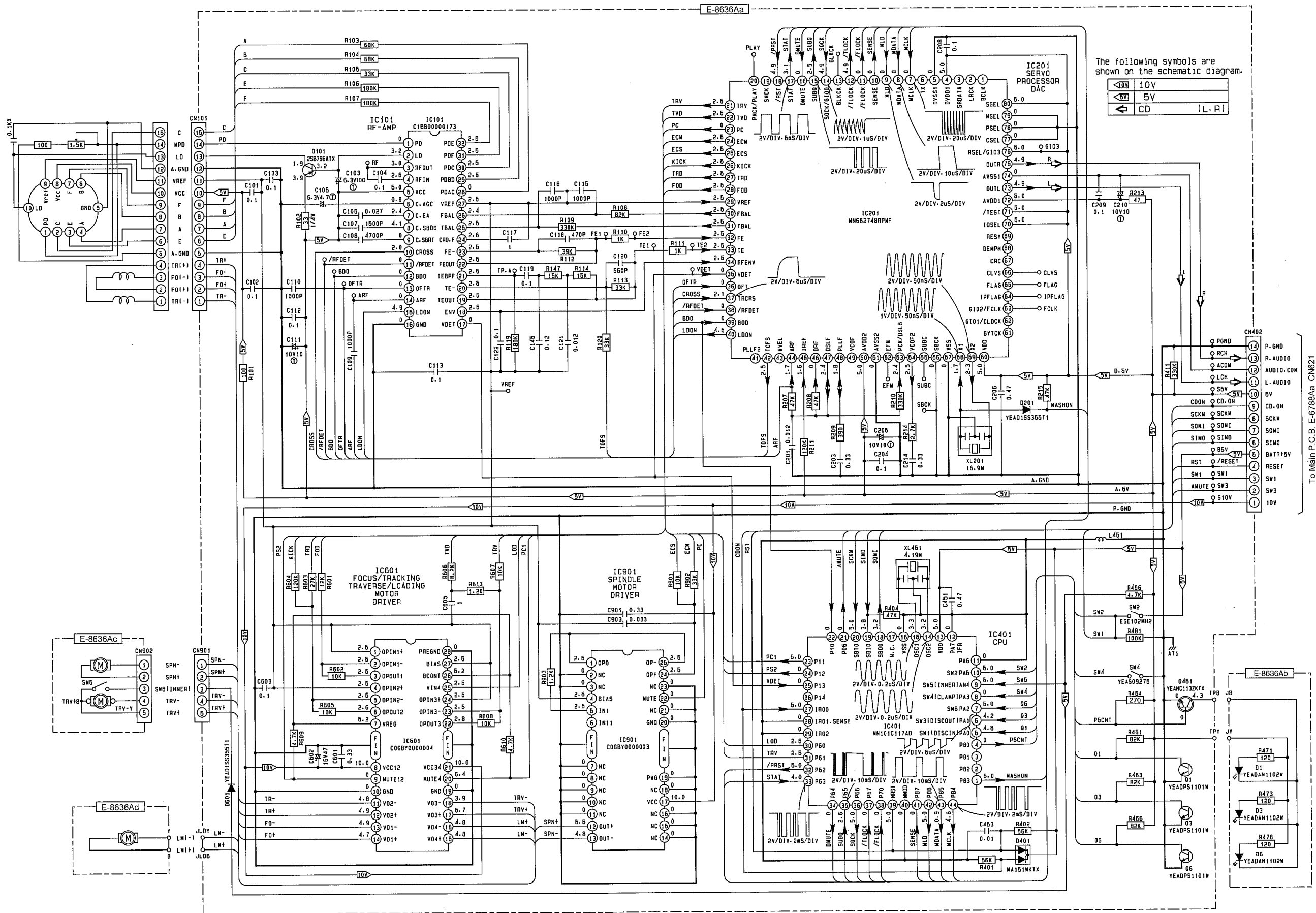
16.1. Display Block



16.2. Main Block



16.3. CD Servo Block



16.4. Sub. Block

