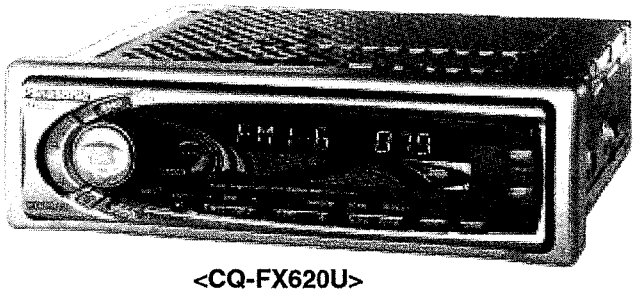
ORDER No. ACED0001550
C1

Service Manual

AUTOMOTIVE CONSUMER ELECTRONICS

CQ-FX620U
CQ-FR320U

Removable Full Front High-Power Cassette Player / Receiver with Changer Control



<CQ-FX620U>

Specification*

General	
Power Supply	DC 12V (11V - 16V),
	Test Voltage 14.4V
	Negative Ground
Tone Adjustment Range	Bass ; ±12dB at 100Hz
	Treble ; ±12dB at 10kHz
Current Consumption	Less than 2.5A (tape mode ; 0.5W×4-speaker)
Maximum Power Output	
<CQ-FX620U>	45W×4ch (at 4Ω)
<CQ-FR320U>	40W×4ch (at 4Ω)
Pre-Amp Output Voltage	
<CQ-FX620U>	4.0V
<CQ-FR320U>	2.0V
Output Impedance	200Ω
Suitable Speaker Impedance	4Ω (4-8Ω acceptable)
AM Radio	
Frequency Range	530 - 1,710kHz
Usable Sensitivity	28dB/μV (25μV, S/N 20dB)
FM Stereo Radio	
Frequency Range	87.9 - 107.9MHz
Usable Sensitivity	11.0dBf. (12.5μV, 75Ω)

Cassette Player	
Reproduction System	4-track, 2-program stereo
Tape Speed	1-7/8"/sec (4.76 cm/sec)
FF/REW Time	Less than 110 sec (C-60)
Frequency Response	30Hz to 17,000Hz (normal)
	30Hz to 18,000Hz (metal)
Signal to Noise Ratio	52dB (Dolby off)
	62dB (Dolby B NR on)
Wow and Flutter	0.12% (WRMS)
Dimensions**	7"×1-15/16"×5-7/8"
	(178×50×150mm)
Weight**	3lbs 5oz (1.5kg)

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

** Dimensions and Weight shown are approximate.

- Above specifications comply with EIA standards.

Doldy noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"Dolby" and the double-D symbol ◫ are trade marks of Dolby Laboratories Licensing Corporation.

Panasonic®

⚠ 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.

CONTENTS

1 FEATUERS

- PLL (Phase Locked Loop) synthesized tuning.
- 18-FM, 6-AM presets with preset scan.
- TPS operation.
- Dolby NR function.
- CD Changer control function.
- Electronic control of Volume, Bass, Treble, Balance and Fader.
- Detachable face plate security.

2 REPLACING 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 product 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 RADIO ALIGNMENT

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

5 ALIGNMENT JIG

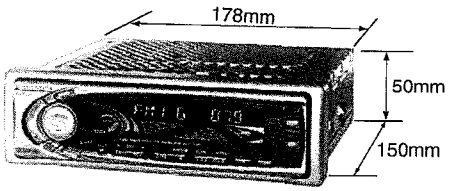
- Dolby NR Alignment Test Tape : RFKZ0038

6 NOTES

This operating instruction manual is for 2 models CQ-FX620U and CQ-FR320U. The differences between these models are mentioned below. All illustrations throughout this manual represent model CQ-FX620U unless otherwise specified.

	CQ-FX620U	CQ-FR320U
Output Power	45W	40W
S.HDB	Yes	None
Tone Enhancement	None	Yes
LCD Color	Multi Color	Blue
Pre-out Level	4V	2V
Pre-out	2 (Lead type)	2 (Fix type)
Remote Control	Supplied	Option

7 DIMENSIONS



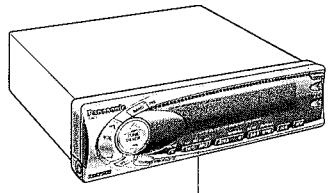
8 OPERATING INSTRUCTIONS

ENGLISH

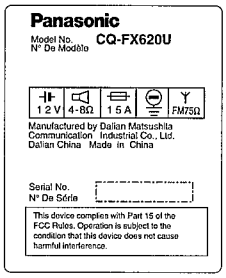
❑ Part 15 of the FCC Rules

This unit has been manufactured under the part 15 of the FCC Rules. Do not attempt to make any changes or modifications to this unit.

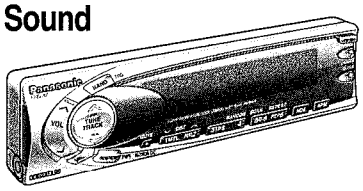
❑ Label Indication and Location



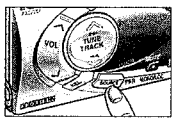
Identification label



Power and Sound Controls

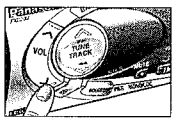


ENGLISH 1



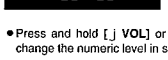
Power

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



Volume

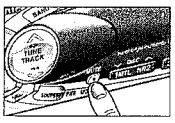
- Press **[j VOL]** or **[i VOL]** to increase or decrease the volume.



Volume Level (0 to 40)

- Press and hold **[j VOL]** or **[i VOL]** for more than 0.5 seconds to change the numeric level in sequence.

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

- Press **[•](MUTE)** to mute the sound completely. When MUTE is on, "MUTE" indicator will light, and "MUTE" will blink on the display.

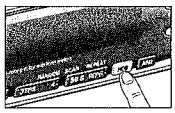
- Press **[•](MUTE)** again to cancel.

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).

Power and Sound Controls (continued)

ENGLISH 2

<Only for CQ-FX620U>

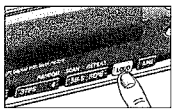


S•HDB (Super High Definition Bass)

(Only for CQ-FX620U)
Especially for rock music, the bass-sound will be more powerful.
- Press **[HDB]** to be able to listen to high-definition bass.

- Press **[HDB]** again to cancel.

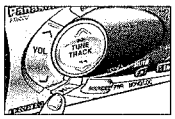
<Only for CQ-FR320U>



Tone Enhancement

(Only for CQ-FR320U)
- Press **[LOUD]** to enhance bass and treble tones when listening at low or medium volume.

- Press **[LOUD]** again to cancel.



Audio Mode

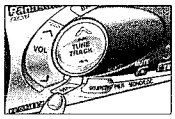
Press **[SEL]** to change the audio mode setting as follows.

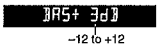
Regular Mode → VOLUME → BASS → TREBLE → BALANCE → FADER → (Regular Mode)

ENGLISH 3

Bass and Treble

Press **[SEL]** to change to the bass (or treble) mode. Press **[j VOL]** or **[i VOL]** to increase or decrease the bass (or treble) level by 3dB.



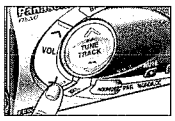


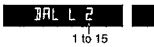
−12 to +12

−12 to +12

Balance

Press **[SEL]** to change to the balance mode. Press **[j VOL]** or **[i VOL]** to shift the sound volume to the right (R) or left (L) speakers.





1 to 15 | Balance Center | 1 to 15

Fader

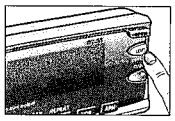
Press **[SEL]** to change to the fader mode. Press **[j VOL]** or **[i VOL]** to shift the sound volume to the front (F) or rear (R) speakers.

1 to 15 | Fader Center | 1 to 15

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

Power and Sound Controls (continued)

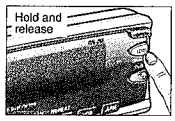
Display Controls



Level Meter

Press **[LEVEL]** to change the level meter setting as follows.
Select your desired pattern.

Pattern 1 → Pattern 2 → Pattern 3
↑ ↓
Pattern Off ← Pattern 5 ← Pattern 4

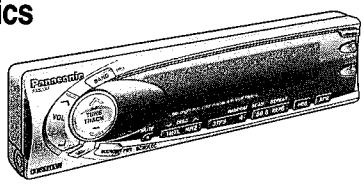


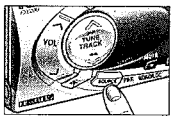
Dimmer

Press and hold **[LEVEL]**(DIMMER) for more than 2 seconds to change the dimmer level setting as follows. (**Default:** Brighter)

Brighter → Medium → Darker
↑ ↓

Radio Basics

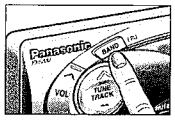




Tuner Mode

Press **[SOURCE]** to change the operation mode setting as follows.

Radio → Cassette Tape Player → CD Changer Control
↑ ↓
(When a tape is inserted) (When a CD changer is connected)

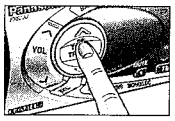


Band

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

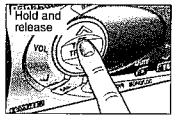
FM1 → FM2 → FM3 → AM
↑ ↓

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



Manual Tuning

Press **[j TUNE]** or **[i TUNE]** to tune in a higher or lower frequency.



Seek Tuning

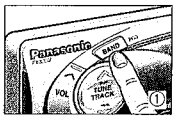
Press and hold **[j TUNE]** or **[i TUNE]** for more than 0.5 seconds, then release it. Seeking will automatically stop when a signal of the next broadcast station is received.

Radio Basics (continued)

Station Preset

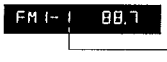
FM1, FM2, FM3 and AM can save maximum 6 stations each in their preset station memories.

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

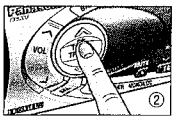


Manual Station Preset

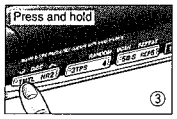
① Press **[BAND]** to select a desired band.
② Use manual or seek tuning to find a station which is to be preset in the memory.
③ Press and hold one of the preset buttons **[1]** to **[6]** for more than 2 seconds until the display blinks once.

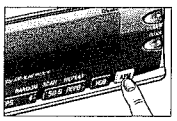


Preset Number



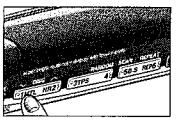
Note: You can change the memory presetting by repeating the above procedure.





Auto Station Preset

Select the band, press **[APM]** (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.

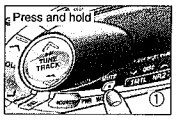


Tuning in a Preset Station

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

MONO/LOCAL Selection

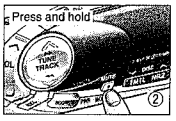
- At the MONO setting, the amount of interference heard when weak signals are received from an FM broadcast station is significantly decreased.
- At the LOCAL setting, only strong signals of stations are searched in seek turning, while at the LOCAL OFF setting, relatively weak signals are also searched.



① FM Broadcasts

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

MONO OFF LOCAL OFF → MONO ON LOCAL OFF → MONO ON LOCAL ON → MONO OFF LOCAL ON
↑ ↓

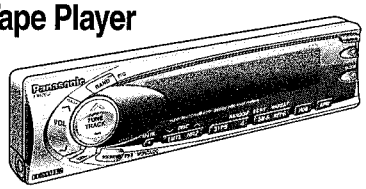


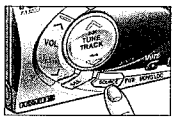
② AM Broadcasts

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

LOCAL OFF ↔ LOCAL ON

Cassette Tape Player Basics

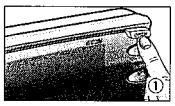




Mode Selection

Press **[SOURCE]** to change the operation mode setting as follows.

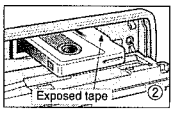
Radio → Cassette Tape Player (When a tape is inserted) → CD Changer Control (When a CD changer is connected) → Radio



Loading a Tape

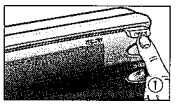
① Press **[OPEN]** to open the front panel.
② Insert a cassette with the exposed tape side facing to the right. Close the front panel manually. Play will start automatically.

Playing Side Indicator → 



Caution: 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.

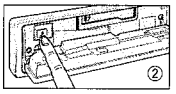
Notes:
- While a cassette tape is inserted, no sound is heard (MUTE). And the volume is back to the previous level when the front panel is closed completely.
- When a tape is in the deck, "□" indicator lights.



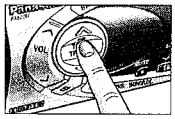
Ejecting the Tape

① Press **[OPEN]** to open the front panel.
② Press **[⏏]** to eject the tape. After the tape is removed, close the front panel manually. The previous operation mode will resume.

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

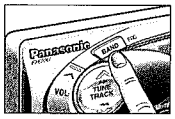


Notes:
- Always remove the cassette tape from the unit when the cassette tape player is not being used.
- While the cassette tape is ejected, no sound is heard (MUTE). And the volume is back to the previous level when the front panel is closed completely.

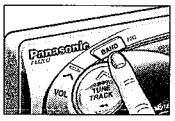


Rewind and Fast Forward

Press **[◄◄TRACK]** or **[►►TRACK]** to activate rewind or fast forward of the tape.



Press **[BAND](PRG)** to stop.

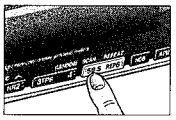


Play Side Change

Press **[BAND](PRG)** to reverse.

Top Side Playing

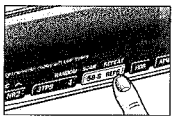
Bottom Side Playing



Blank Skip

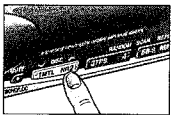
- Press **[5](B•S)** to skip long unrecorded portions on the tape.
- Press **[5](B•S)** again to cancel.

Notes:
- When repeat is on, the blank skip does not work because the repeat has priority over the blank skip.
- The blank skip does not work when an unrecorded portion of a tape is less than 15 seconds.



Repeat Play

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

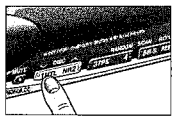


Dolby Noise Reduction

- Press **[2](NR)** once to set the Dolby B NR mode.
- Press **[2](NR)** again to cancel.

Note:
- Set the Dolby B NR mode when playing back a tape recorded with Dolby B Noise Reduction.

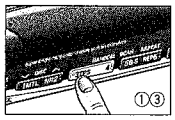
Cassette Tape Player Basics (continued)



Metal Tape Mode

- Press **[1](MTL)** when playing metal or chromium dioxide (CrO_2) tapes.
- Press **[1](MTL)** again to cancel.

Note: Playing non-metal tapes in MTL mode causes high frequency imbalance, which affects tone quality.

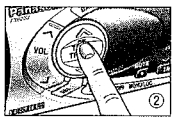


TPS Operation (Tape Program Search)

① Press **[3](TPS)** to activate the Tape Program Search mode.

② To select a desired program, press **[◄◄ TRACK]** or **[►►TRACK]** corresponding times to go forward (up to 9) or backward (up to 8).

(Rewind:) 8◄----------0 (Fast forward:) 1----------►9



Ex.1. To select the current program again, press **[3](TPS)** and **[◄◄ TRACK]**.

Ex.2. To select the last program, press **[3](TPS)** and **[◄◄TRACK]** twice.

Ex.3. To select the next program, press **[3](TPS)** and **[►►TRACK]**.

Ex.4. To select the next 3rd program, press **[3](TPS)** and **[►►TRACK]** three times.

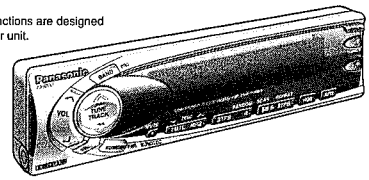
③ Press **[3](TPS)** again to cancel.

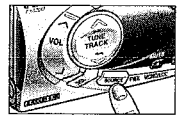
Notes:
The TPS mode may not work correctly in the following cases. This, however, does not mean that the unit is defective.
- There is an interval less than 3 seconds or having a high level of noise or hum between programs.
- There is particularly low-level passage during the program.

Notes:
- To maintain your cassette player in top condition, avoid using tapes that are longer than 90 minutes (C-90).
- If you insert into the unit a cassette with a loose tape caused by forcing it into cassette with a finger or the like, the cassette may not be properly reproduced. In such a case, eject the cassette, make the tape tight, then insert it back into the deck.

CD Changer Basics

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

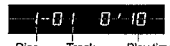




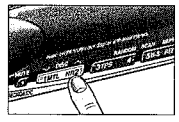
Starting the CD Changer

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.

Radio → Cassette Tape Player (When a tape is inserted) → CD Changer Control (When a CD changer is connected) → Radio

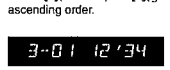


Disc Number, Track Number, Play time

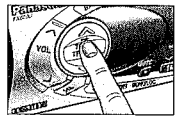


Disc Selection

Press **[1](i DISC)** or **[2](_j DISC)** to select a disc in descending or ascending order.



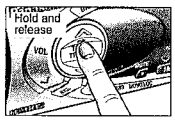
Then, the selected disc will start to play from the first track.



Track Selection

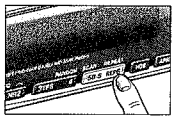
- Press **[►►TRACK]** to advance to the next track.
- Press **[◄◄TRACK]** to start play from the beginning of the track now playing.
- Press **[►►TRACK]** or **[◄◄TRACK]** repeatedly to skip the desired number of tracks.

CD Changer Basics (continued)



Track Search

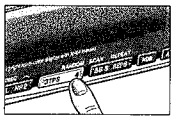
- Press and hold [▶▶TRACK] or [◀◀TRACK] for more than 0.5 seconds to activate fast forward or reverse.
- Release [▶▶TRACK] or [◀◀TRACK] to resume regular CD changer play from the released position.



Track Repeat

- Press [6](REPEAT) to repeat the current selection.

- Press [6](REPEAT) again to cancel.

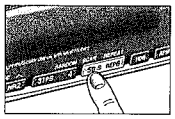


Track Random

- Press [4](RANDOM). All the available tracks on all discs in the magazine will be played in a random sequence.

- Press [4](RANDOM) again to cancel.

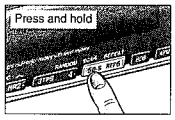
Note: When [6](REPEAT) is pressed in the random mode, random play stops and repeat play starts.



Track Scan

- Press [5](SCAN). The display blinks and the first 10 seconds of each track on the discs play in sequence.

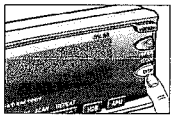
- Press [5](SCAN) again to cancel.



Disc Scan

- Press and hold [5](SCAN) for more than 2 seconds. The 1st track of all the discs in the magazine is played for 10 seconds each.

- Press [5](SCAN) again to cancel.



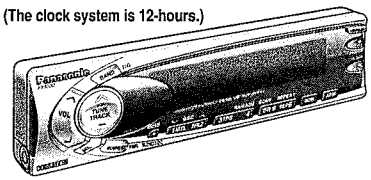
Changing the Display

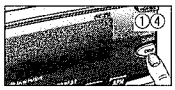
Press [DISP] to switch the display as follows.

Disc/Track/Play Time ◀——▶ Clock display

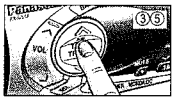
Note: You cannot change the current display while the CD changer is set to the scan play mode.

Clock Basics (The clock system is 12-hours.)





Initial Time



① Press [DISP](CLOCK).
"ADJUST" appears on the display.
② Press and hold [DISP](CLOCK) again for more than 2 seconds. "12" blinks, and the time setting mode is activated.
③ Press [i TUNE] or [j TUNE] to set the hour.
④ Press [DISP](CLOCK) again to proceed with the minutes setting.
⑤ Press [i TUNE] or [j TUNE] to set the minute.
Press [i TUNE] or [j TUNE] for more than 0.5 seconds to change numbers on the display in sequence.
⑥ Once the time has been set, press [DISP](CLOCK).

Note: The [DISP](CLOCK) button will not work while the CD changer is set to the scan play mode. Cancel the scan play mode before pressing [DISP](CLOCK).

Time Reset

Press and hold [DISP](CLOCK) for more than 2 seconds to activate the time setting mode to reset the time. Then, repeat step ③ to ⑥ above.

Clock Display

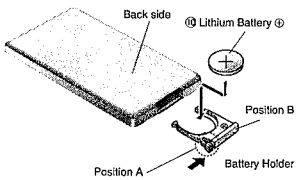
Press [DISP] to change the clock display as follows.

In Radio Mode	Current Frequency ◀——▶	Clock
In Tape Mode	Tape Display ◀——▶	Clock

Remote Control Basics (CQ-FX620U : Supplied / CQ-FR320U : Option)

Battery Installation

1. 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.
2. Install the battery.
Set a new battery properly with its (+) side facing up as shown in the figure.
3. Insert the battery holder.
Push in the battery holder back into its original position.



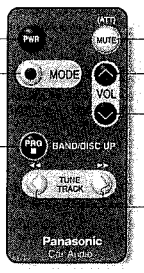
Battery Notes

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



Power Button (Refer to page 7.)
Mode Button (Refer to page 11, 14, 17.)
Band/Stop/Disc up Button (Refer to page11,15, 17.)
MUTE Button (Refer to page 7.)
Volume Control Button (Refer to page 7.)
TUNE/TRACK Fast Forward/ Backward Button (Refer to page11, 15, 16, 17, 18.)

Installation Guide

⚠ WARNING

This installation information is designed for experienced installers and is not intended for non-technical individuals. It does not contain warnings or cautions of potential dangers involved in attempting to install this product.

Any attempt to install this product in a motor car by anyone other than qualified installer could cause damage to the electrical system and could result in serious personal injury or death.

❑ Overview

This product should be installed by a professional. However, if you plan to install this product yourself, your first step is to decide where to install it. The instructions in these pages will guide you through the remaining steps: **(Please refer to the "WARNING" statement above).**

- Identify and label the car wires
- Connect the car wires to the wires of the power connector
- Install the unit in the dash
- Check the operation of the unit

If you encounter problems, please consult your nearest professional installer.

Caution: This unit will operate with a 12 volt DC negative ground auto battery system only. Do not attempt to use it in any other systems. Doing so could cause serious damage.

Before you begin installation, look for the items on the right which are packed.

- **Warranty Card** ..... Fill this out promptly.
- **Panasonic Servicenter for service Directory** ..... Keep this for future reference in case the unit needs servicing.
- **Installation Hardware** ..... Needed for in-dash installation

❑ Installation Hardware

No.	Item	Diagram	Q'ty
①	Mounting Collar		1
②	Hex. Nut (5 mmϕ)		1
③	Rear Support Strap		1
④	Tapping Screw (5 mmϕ x 16 mm)		1
⑤	Mounting Bolt (5 mmϕ)		1
⑥	Power Connector		1
⑦	Removable Face Plate Case		1
⑧	Remote Control Unit (Only for CQ-FX620U)		1
⑨	Trim Plate		1
⑩	Lithium battery (CR2025) (Only for CQ-FX620U)		1

Installation Guide (continued)

❑ Connect All Leads

Now that you have identified all the wires in the car, you're ready to begin connecting them to the stereo unit wires. The connection diagram (➡ page 30 or 31) shows the proper connections and color coding of the leads.
We strongly recommend that you test the unit before making a final installation.
You can set the unit on the floor and make temporary connections to test the unit. Use electrical tape to cover all exposed wires.

Important: Connect the red power lead last, after you have made and insulated all other connections.

Ground

Connect the black ground lead of the power connector to the metal car chassis.

Speakers

Connect the speaker wires. See the wiring diagram (➡ page 30 or 31) for the proper hookups. Follow the diagram carefully to avoid damaging the speakers and the stereo unit.

The speaker used must be able to handle more than 45 watts (CQ-FX620U) or 40 watts (CQ-FR320U) of audio power. If using an optional audio amplifier, the speakers should be able to handle the maximum amplifier output power. Speakers with low input ratings can be damaged.

Speaker impedance should measure 4 - 8 ohms, which is typically marked on most speakers. Lower or higher impedance speakers will affect output and can cause both speaker and stereo unit damage.

Caution: Never ground the speaker cords. For example, do not use a chassis ground system or a three-wire speaker common system. Each speaker must be connected separately using parallel insulated wires. If in doubt about how your car's speakers are wired, please consult with your nearest professional installer.

Motor Antenna

Connect the car motor antenna lead to the blue motor antenna relay control lead.

Battery

Connect the yellow battery lead to the correct radio wire or to the battery fuse port on the fuse block.

Antenna

Connect the antenna by plugging the antenna lead into the antenna receptacle.

Equipment

Connect any optional equipment such as amplifier, according to the instructions furnished with the equipment. Leave about 12 inches (30 cm) of distance between the speaker cords/amplifier unit and the antenna/antenna extension cord. Read the operating and installation instructions for any equipment you will connect to this unit.

Power

Connect the red power lead to the correct car radio wire or to the appropriate fuse port on the fuse block.
If the stereo unit functions properly with all these connections made, disconnect the wires and proceed to the final installation.

❑ Final Installation

Lead Connections

Connect all wires, making sure that each connection is insulated and secure. Bundle all loose wires and fasten them with tape so they won't fall down later. Now insert the stereo unit into the mounting collar.

Congratulations! After making a few final checks, you're ready to enjoy your new auto stereo system.

❑ Final Checks

1. Make sure that all wires are properly connected and insulated.
2. Make sure that the stereo unit is securely held in the mounting collar.
3. Turn on the ignition to check the unit for proper operation.

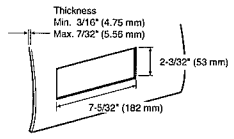
If you have difficulties, consult your nearest authorized professional installer for assistance.

❑ Required Tools

You'll need a screwdriver, a 1.5 volt AA battery, and the following:

12 V DC Test Bulb | Electrical Tape | Side-Cut Pliers

❑ Dashboard Specifications

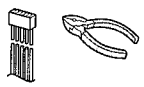


❑ Identify All Leads

The first step in installation is to identify all the car wires you'll use when hooking up your sound system.
As you identify each wire, we suggest that you label it using masking tape and a permanent marker. This will help avoid confusion when making connections later.

Note: Do not connect the power connector to the stereo unit until you have made all connections. If there are no plastic caps on the stereo hooking wires, insulate all exposed leads with electrical tape until you are ready to use them. Identify the leads in the following order.

Power Lead
If your car has a radio or is pre-wired for one :
Cut the connector wires one at a time from the plug (leaving the leads as long as possible) so that you can work with individual leads.



Turn the ignition on to the accessory position, and ground one lead of the test bulb to the chassis.
Touch the other lead of the test bulb to each of the exposed wires from the cut radio connector plug. Touch one wire at a time until you find the outlet that causes the test bulb to light.

Now turn the ignition off and then on. If the bulb also turns off and on, that outlet is the car power lead.

If your car is not wired for an audio unit :
Go to the fuse block and find the fuse port for radio (RADIO), accessory (ACC), or ignition (IGN).

Battery Lead
If your stereo unit has a yellow lead, you will need to locate the car's battery lead. Otherwise you may ignore this procedure. (The yellow battery lead provides continuous power to maintain a clock, memory storage, or other function.)
If your car has a radio or is pre-wired for one:
With the ignition and headlights off, identify the car battery lead by grounding one lead of the test bulb to the chassis and checking the remaining exposed wires from the cut radio connector plug.
If your car is not wired for an audio unit :
Go to the fuse block and find the fuse port for the battery, usually marked BAT.

Speakers
Identify the car speaker leads. There are two leads for each speaker which are usually color coded.
A handy way to identify the speaker leads and the speaker they connect with is to test the leads using a 1.5 volt AA battery as follows.
Hold one lead against one pole of the battery and stroke the other lead across the other pole. You will hear a scraping sound in one of the speakers if you are holding a speaker lead.
If not, keep testing different lead combinations until you have located all the speaker leads. When you label them, include the speaker location for each.

Antenna Motor
If your car is equipped with an automatic power antenna, identify the car motor antenna lead by connecting one bulb tester lead to the car battery lead and touching the remaining exposed wires from the cut radio connector plug one at a time. You will hear the antenna motor activate when you touch the correct wire.

Antenna
The antenna lead is a thick, black wire with a metal plug at the end.

❑ Precautions

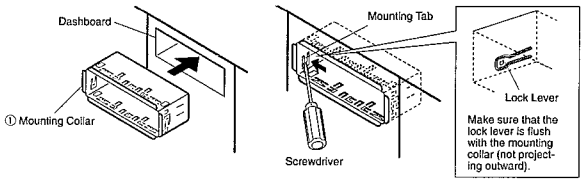
- When bending the mounting tab of the mounting collar with a screwdriver, be careful not to injure your hands and fingers.
- We strongly recommend you to wear gloves for installation work to protect yourself from injuries.

❑ Installation Procedures

- **Disconnect the cable from the negative (–) battery terminal.**

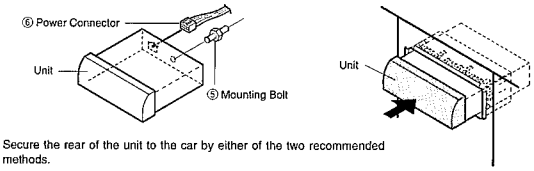
1. Secure the Mounting Collar ①.

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



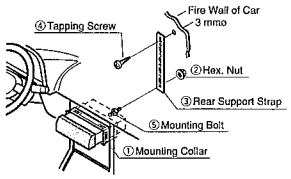
2. Secure the rear of the unit.

a) Check the electrical connections by referring to this operating instructions.
b) Connect Mounting Bolt ⑤, using a suitable wrench.
c) Insert Power Connector ⑥ to the unit.
d) Insert the unit into Mounting Collar ① and push it in until "click" is heard.



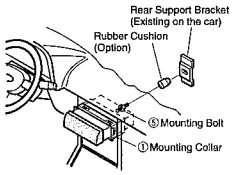
e) Secure the rear of the unit to the car by either of the two recommended methods.

- **Using the Rear Support Strap**
  Affix one end of the Rear Support Strap ③ to the rear of the unit, and the other end to the fire wall of car, or some other metallic area.

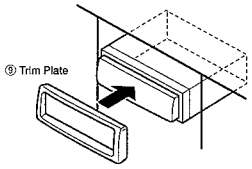


Installation Guide (continued)

- **Using the Rubber Cushion (Option)**
  (If there is an existing Rear Support Bracket on the fire wall of car.)
  Cover Mounting Bolt ⑤ on the rear of the unit with Rubber Cushion, and mount it into the existing Rear Support Bracket.



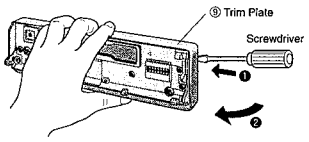
3. Insert Trim Plate ⑨.



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

To Remove the Unit

a) Remove the removable face plate. (➡ Page 27.)
b) Remove Trim Plate ⑨ with a screwdriver as shown in the figure.



c) Pull out the unit while pushing the lock lever using screwdriver. (Fig. 1, Fig. 2)
d) Remove the unit pulling with both hands. (Fig. 3)

Fig. 1

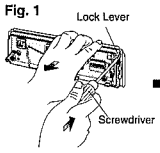


Fig. 2

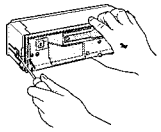
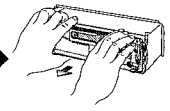


Fig. 3



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

① Switch off the power.
② Press **[OPEN]**. The face plate will be opened.

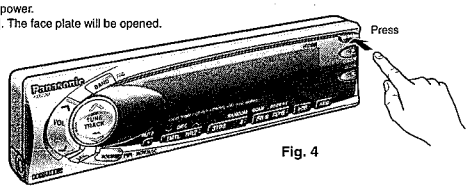


Fig. 4

③ Push the face plate to either the right or left, then pull it out toward you.

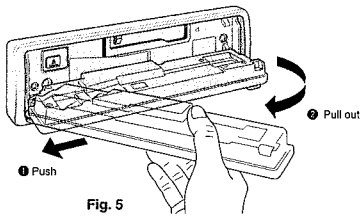


Fig. 5

④ As shown in Fig. 6, gently push the lower side of the case and open its cover. Keep the face plate in the case. Then, you can safely take the plate with you.

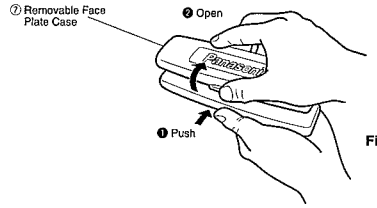


Fig. 6

Installation Guide (continued)

To Install the Removable Face Plate

① Fit either the edge of the right or left hole in the face plate over the main unit's pins.
② Fit it over on the other side while pushing it.

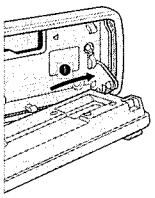
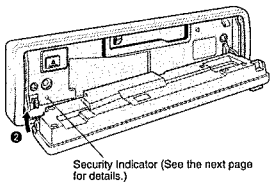


Fig. 7



③ 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 the face plate until a "click" is heard.

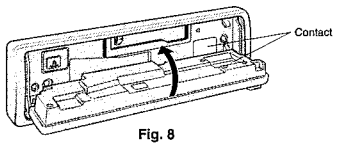


Fig. 8

Cautions:
1. Before removing the face plate, make sure the power is off.
2. This face plate is not water-proof. Do not expose it to water or excessive moisture.
3. Do not remove the face plate while driving your car.
4. Do not place the face plate on the dashboard or nearby areas where the temperature rises to high levels.
5. Do not touch the contacts on the face plate or on the main unit, since this may result in poor electrical contacts.
6. If dirt or other foreign substances get on the contacts, wipe them off with clean and dry cloth.
7. 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.

Security Indicator

The security indicator blinks when the removable face plate is removed from the unit. (See Fig. 7 on the previous page.)

Activate Security Indicator

Press and hold **[SEL]** for more than 2 seconds when the power is ON. "LED ON" is displayed, and the security indicator turns ON.

Display	Security Indicator
LED ON	Blinks
↑↓ (Press and hold [SEL] for more than 2 seconds.)	
LED OFF	OFF

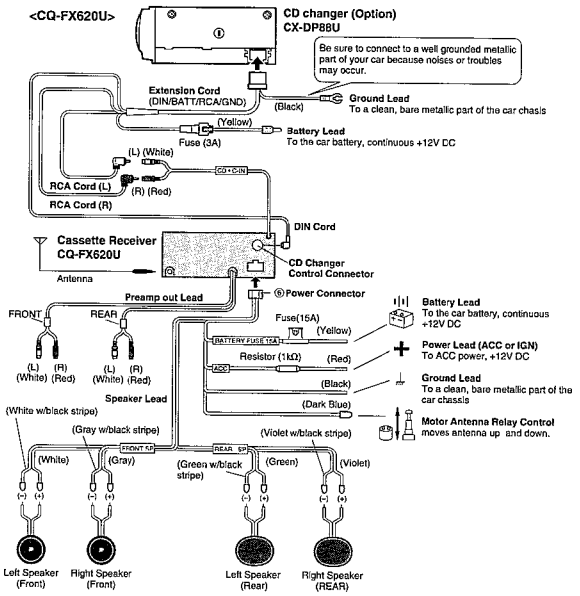
Caution: When you want to remove the unit, the security indicator functions can be canceled by the following procedure.

- Install the removable face plate.
- Disconnect the power connector.

Electrical Connection

Cautions:
- This product is designed to operate of a 12 volt, negative ground battery system.
- To prevent damage to the unit, be sure to follow the connection diagram below.
- Remove approx. 5 mm of protective covering from the ends of the leads before connecting.
- 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.

- This unit can be connected to an optional CD changer (CX-DP88U or CX-DP801EUC, etc.). For details consult your nearest authorized Panasonic Dealer.
- For connection to a CD changer, refer to the operating instructions of the CD changer (CX-DP88U or CX-DP801EUC, etc.).



Troubleshooting

❑Maintenance

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

❑When Something Doesn't Work

Check the charts (➡ Page 33) for possible causes and solutions to any problem you might be experiencing. Some simple checks or minor adjustments may eliminate the problem.

❑Product Servicing

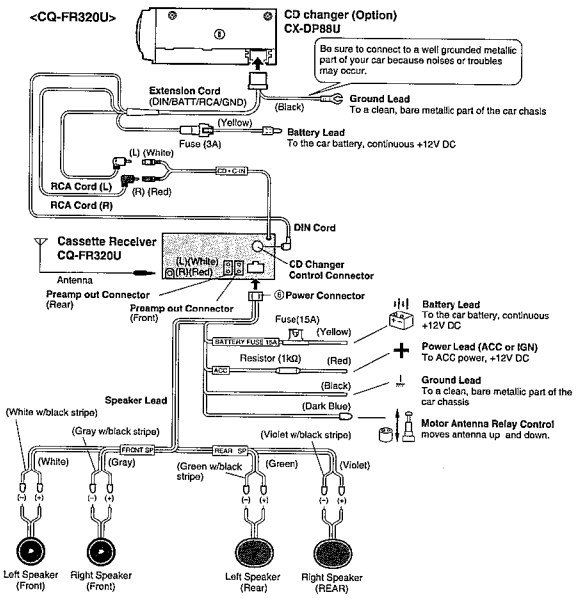
If the suggestions in the charts don't solve the problem, we recommend that you take it to your nearest authorized Panasonic Servicenter. The unit should be serviced only by a qualified technician.

❑Replacing the Fuse

Use fuses of the same specified rating (15 amps). 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.
If the replacement fuse fails, contact your nearest Panasonic Servicenter for service.

Error Display Messages

	Appears on the display when the compact disc is dirty or inverted. Selects the next available compact disc.
	Appears on the display when compact disc is scratched. Selects the next available compact disc.
	Appears on the display when the unit stops operating for some reason. Press the reset switch on the CD changer (option).
	Appears on the display when there is no disc in the magazine.

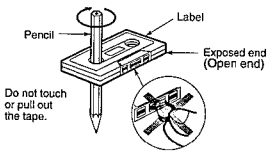


❑Troubleshooting Tips

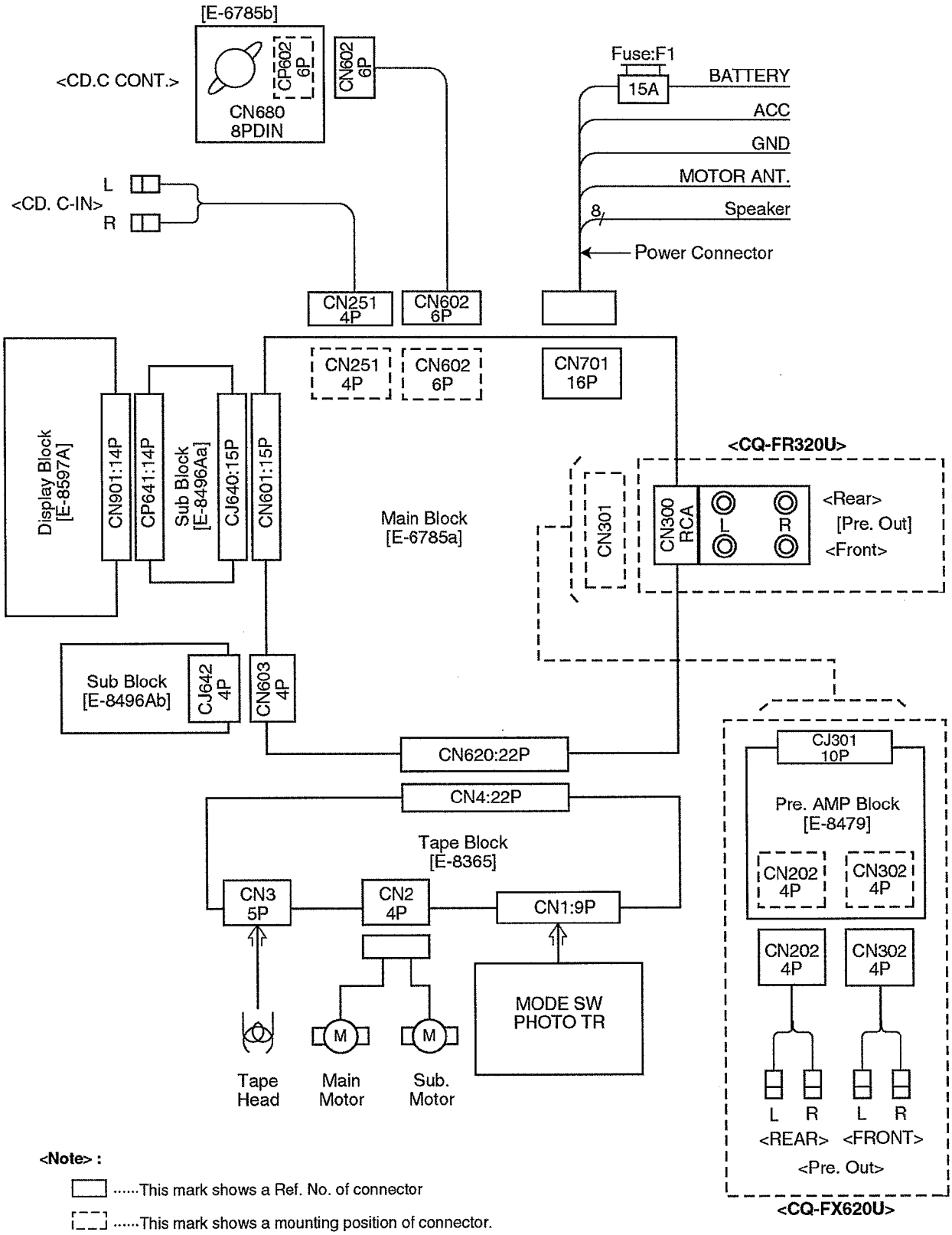
Problem	Possible Cause	Probable Solution
Unit does not turn on.	Dead car battery. Ignition not on. Bad power line connection Fuse is blown.	Charge car battery. Turn the ignition key to ON (ACC). Check connections. Replace fuse.
Radio has static.	Antenna not hooked up. Close to high power lines.	Hook up antenna. Move away from high power lines.
Radio memory buttons do not work.	Not holding buttons down long enough.	Press and hold buttons for more than 2 seconds.
Tape sound quality is poor.	Heads are dirty. Poor quality tape.	Clean heads. (Ask a service representative for advice.) Use better quality tape.
CD changer does not operate.	Unit not properly connected. Unit not switched into CD changer mode. No CDs in the magazine.	Check connections. Press **[SOURCE]** to change to the CD changer mode. Check disc magazine.
CD does not play a specific disc.	Disc loaded inverted. Disc damaged. Disc not loaded in magazine.	Reload disc properly. Check disc for scratches and chips. Check disc magazine.

Cassette Tape Notes

Tape Slack:
Use a pencil or similar object to take up the slack as shown. If a loose tape is used, this may result in the tape becoming tangled in the rotating parts of the unit.



9 WIRING CONNECTION

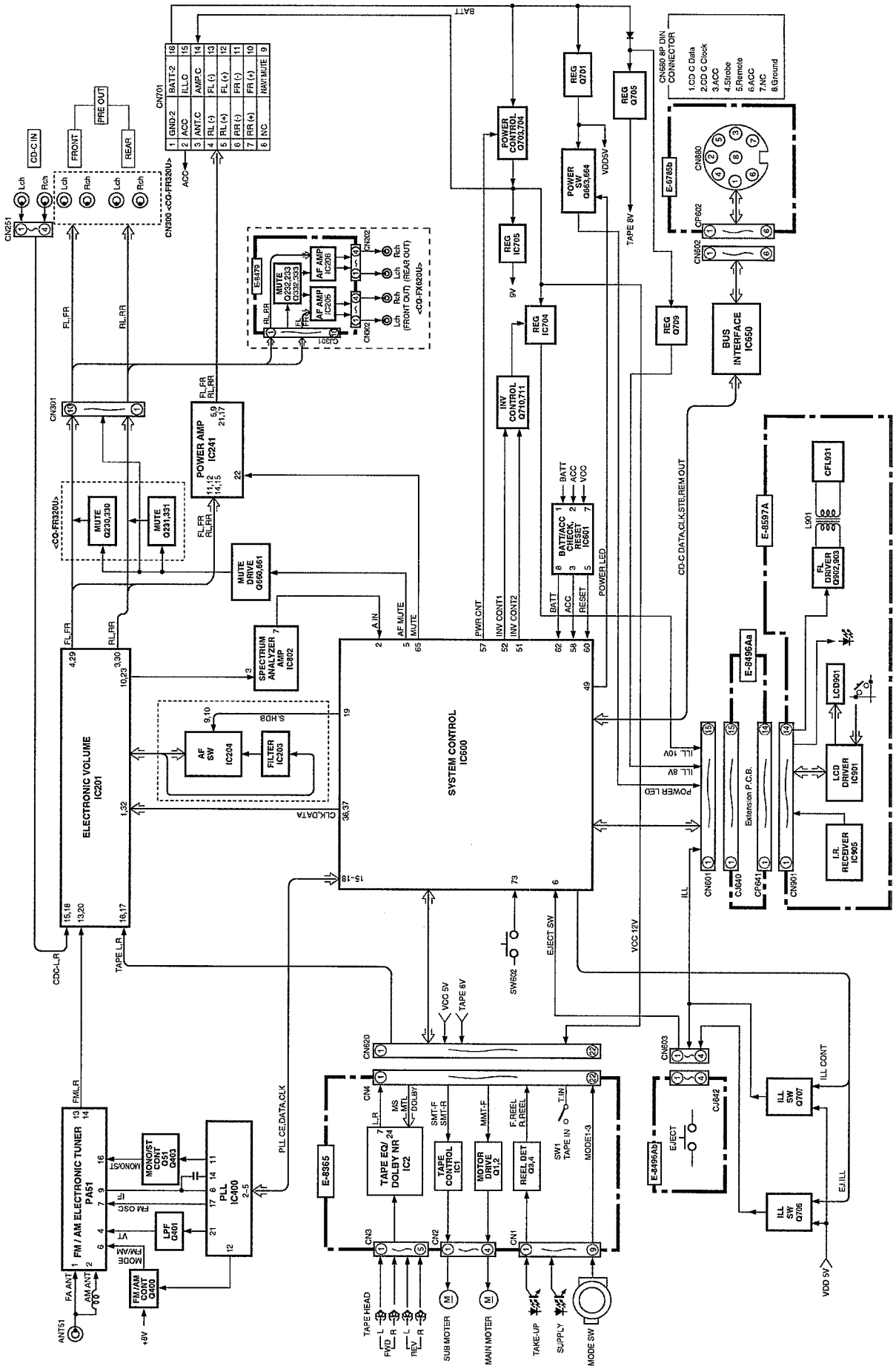


<Note> :

▭ .....This mark shows a Ref. No. of connector

[- -] .....This mark shows a mounting position of connector.

10 BLOCK DIAGRAM



11 TERMINALS DESCRIPTION

11.1. Main Block

IC600 : C2BBGF000142

Pin No.	Port	Description	I/O	(V)
1	INIT C	Initial C	I	0
2	A-IN	Spectrum analyzer data	I	0
3	SEL CONT	Not used	-	-
4	AVss	Analog ground	-	0
5	AF MUTE	AF mute	O	0
6	EJECT	Eject SW input	I	4.7
7	AVREF	Reference voltage	-	4.8
8	MODE1	Tape mode SW	I	4.7
9	STNBY	Power Amp. stand-by	O	4.9
10	MODE3	Tape mode SW	I	4.7
11	CD.C DATA	CD changer data	I	0
12	N.C.	No connection	-	-
13	CD.C CLK	CD changer clock	I	0
14	REM OUT	CD changer remote control	O	4.6
15	PLL CE	PLL controller chip enable	O	0
16	PLL DATA (MI)	Data from PLL	I	5.1
17	PLL DATA (MO)	Data for PLL	O	0
18	PLL CLK	Clock for PLL	O	4.8
19	S.HDB	Super High Definition Bass on/off	O	4.8
20	MMT-F	Main motor control	O	0
21	SMT-F	Sub motor control	O	4.8
22	DOLBY	Dolby control	O	4.8
23	F/R	Tape FF/REW detection	I	4.8
24	MS GAIN	MS gain control	O	4.8
25	MTL	Motor tape select	O	0
26	SMT-R	Sub motor control	O	4.8
27	R.REEL	Tape REW detection	I	1.5
28	F.REEL	Tape FF detection	I	1.5
29	MS IN	TPS input	I	0
30	T-IN	Tape in detection	I	0
31	CONT A	Not used	-	-
32	CONT B	Not used	-	-
33	VSS	Ground	-	0
34	CONT C	Not used	-	-
35	ST	FM stereo detection	I	4.7
36	IC2-CLK	Electronic volume clock	O	4.6
37	IC2-DATA	Electronic volume data	I/O	5.2
38	LED	Warming alarm LED control	O	5.2
39	NC	No connection	-	-
40	BZIN	Power ON/OFF detection	I	4.9
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	NC	No connection	-	-
46	NC	No connection	-	-
47	NC	No connection	-	-
48	NC	No connection	-	-
49	POWER.LED	Power LED control	O	4.8
50	BZOUT	Not used	-	-
51	INV CONT2	Invertor control	O	0
52	INV CONT1	Invertor control	O	0
53	NC	No connection	-	-
54	NC	No connection	-	-
55	FP OPN/CLS	Front panel open/close	I	5.1
56	ILL CONT	Illumi. control	O	4.8
57	PWR CNT	Power control	O	4.8
58	ACC	ACC detection	I	4.4
59	RDS DATA	Not used	-	-
60	/RESET	Reset input	I	4.4
61	REM	Remocon data input	I	4.1
62	BATT	Battery detection	I	4.3
63	EJ.ILL	Eject button illumi.	O	4.9
64	CD.C.STB	CD changer strobe input	I	0
65	MUTE	Mute control	O	0
66	MODE2	Tape mode SW	I	0
67	GND	Ground	-	0
68	VDD	+5V power supply	-	4.8
69	X2	Crystal oscillator	-	2.8
70	X1	Crystal oscillator	-	1.9
71	VSS	Ground	-	0
72	NC	No connection	-	-
73	PANEL	Panel detection	I	0.4
74	AVDD	+5V power supply	-	4.8
75	AVREF	(Connecting to VDD)	-	4.8
76	N.C.	No connection	-	-
77	NC	(Connecting to ground)	-	0
78	SD	B/S detection	I	0.4
79	INIT A	Initial value A	I	0
80	INIT B	Initial value B	I	(#1)

Note 1 :

Voltage measuerments are with respect to ground, with a voltmeter (Internal resistance : 10M ohms.)

Note 2 : (#1)

<CQ-FX620U> : 0V

<CQ-FR320U> : 4.8V

11.2. Display Block

IC901 : YEAMLC75884W

Pin No.	Port	Description	I/O	(V)
1-51	S3 ~ 53	LCD segment data	O	2.5
52-55	COM1-4	LCD common	O	2.5
56,57	S54,55	LCD segment data	O	2.5
58-61	KS3-6	Key strobe	O	0.9
62-66	KI1-5	Key data	I	0
67	VDD	+5V power supply	-	5.1
68	VLCD	+5V power supply	-	5.1
69	VLCD1	LCD angle	-	3.3
70	VLCD2	LCD angle	-	1.7
71	VSS	Ground	-	0
72	TEST	(Connecting to ground)	-	0
73	OSC	Oscillator terminal	-	3.9
74	/RESET	(Connecting to VCC)	-	5.1
75	DO	Key data output	O	4.1
76	CE	LCD driver chip enable	I	0
77	CLK	LCD clock	I	0
78	DI	LCD data	I	0
79	S1	LCD segment data	O	2.5
80	S2	LCD segment data	O	2.5

12 ALIGNMENT INSTRUCTIONS

12.1. Alignment Conditions

- Power Supply Voltage : DC14.4V
- Output Impedance : 4Ω
- Output Power : 0.5W
- Balance, Fader Control : Center
- Bass, Treble Control : Center

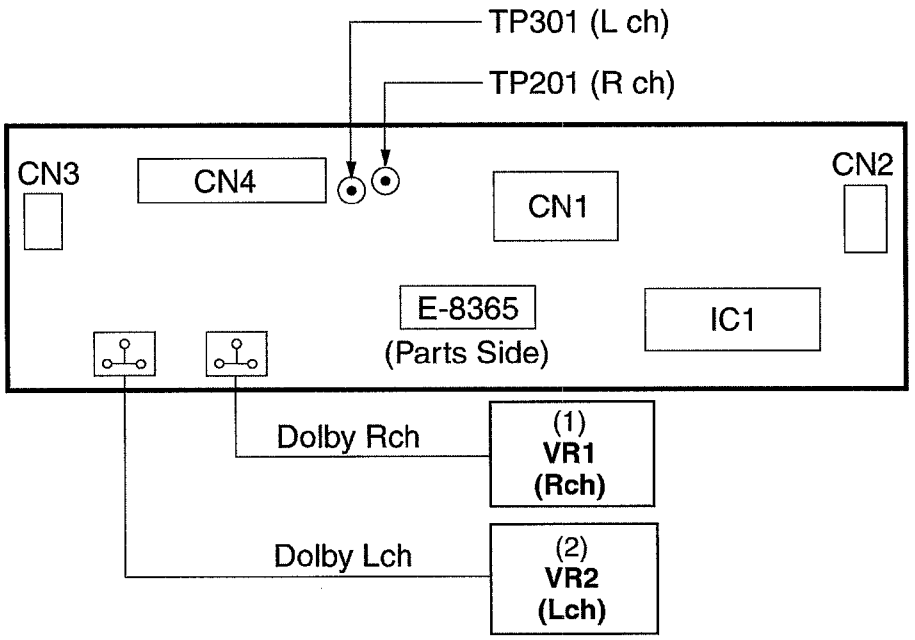
Note:

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

12.2. Dolby NR Alignment

Step	Alignment Item	Test Tape	VTVM Connection	Adjust	Remarks
(1)	DOLBY NR Rch	RFKZ0038	TP201	VR1	Adjust for 388mV ±20mV
(2)	DOLBY NR Lch	RFKZ0038	TP301	VR2	Adjust for 388mV ±20mV

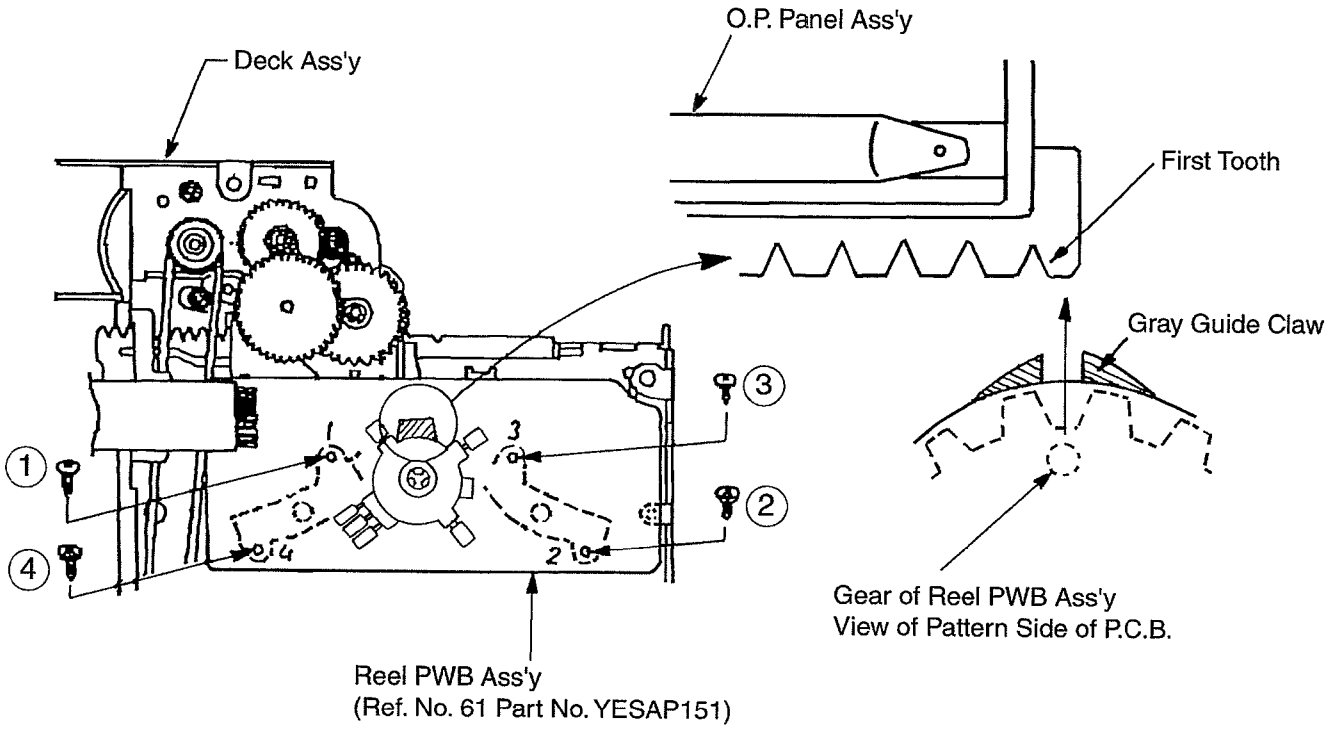
13 ALIGNMENT POINTS



14 RE-ASSEMBLY PROCEDURE for REEL PWB ASS´Y

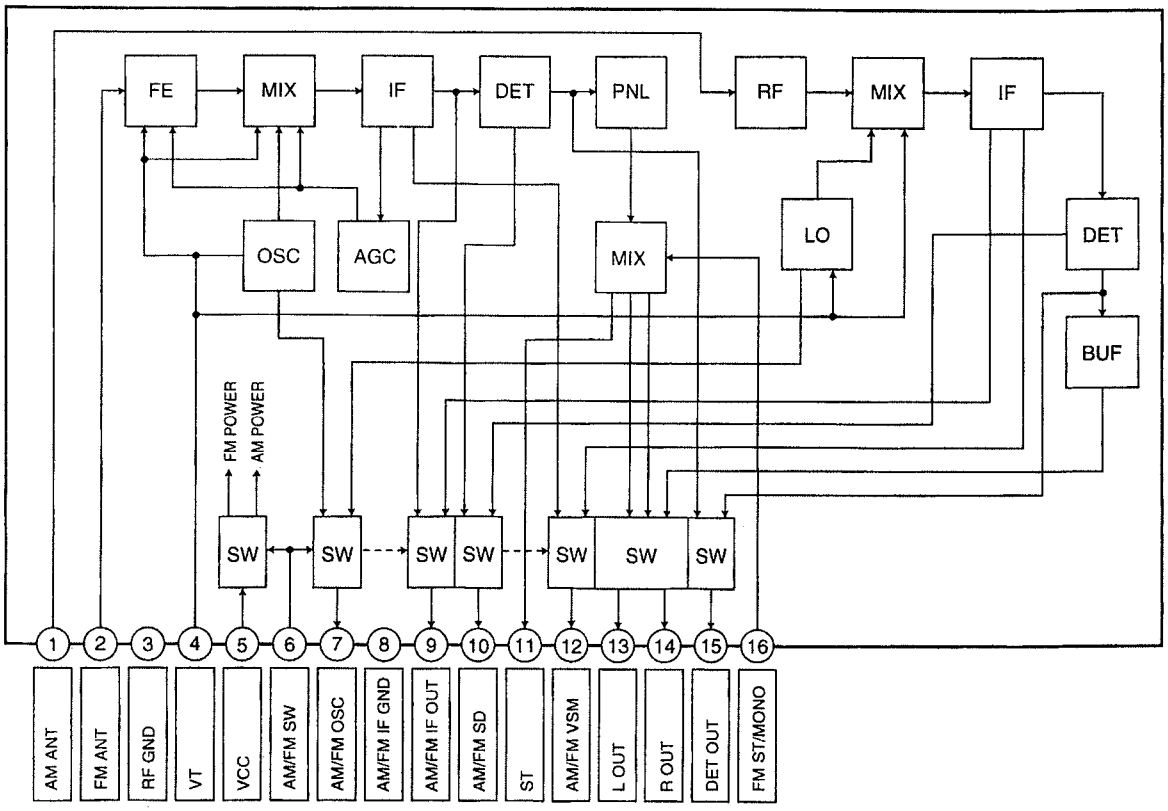
• When you re-assembly the REEL PWB Ass´y please refer to the following procedure.

1. Set the gear of Reel PWB Ass´y (Ref. No. 61) into the first tooth of O.P. Plate Ass´y (Ref. No. 20) as shown below.
2. Tighte the (1-4) screws of Reel PWB Ass´y shown in the figure.

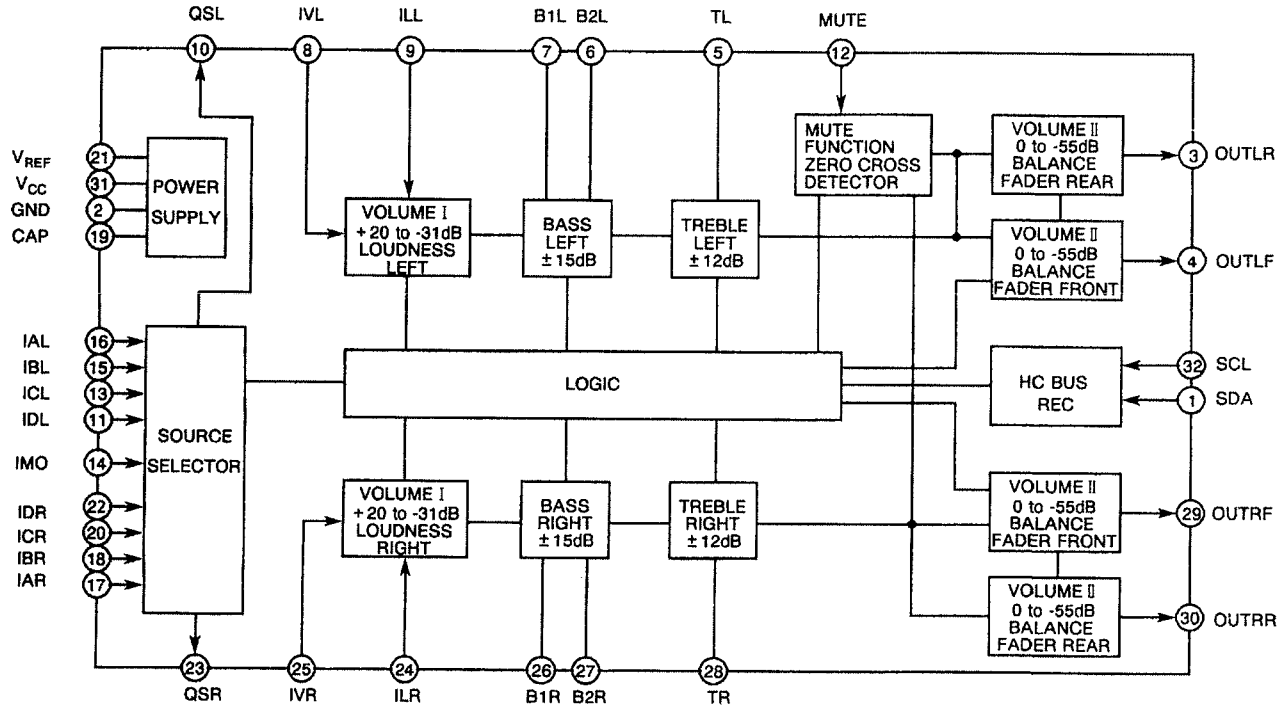


15 PACKAGE AND IC BLOCK DIAGRAM

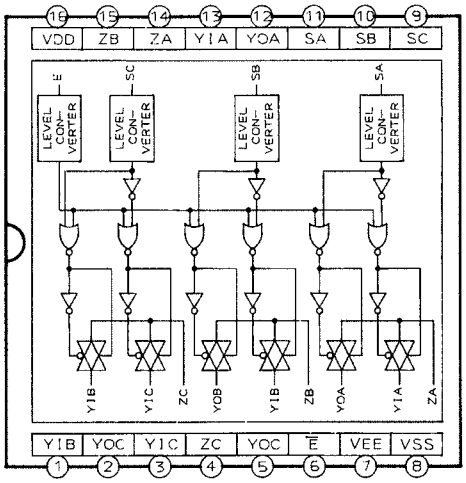
15.1. Main Block



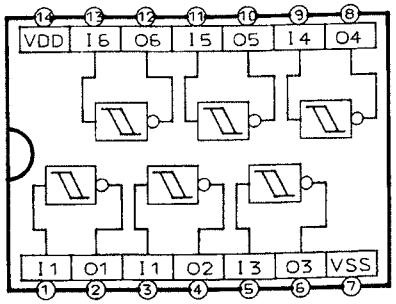
PA51 : YEAU03A052C



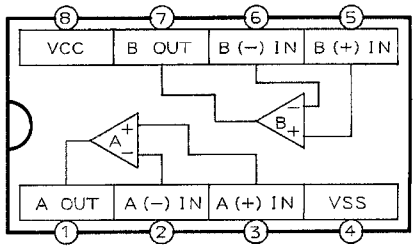
IC201 : YEAMEA6320TT



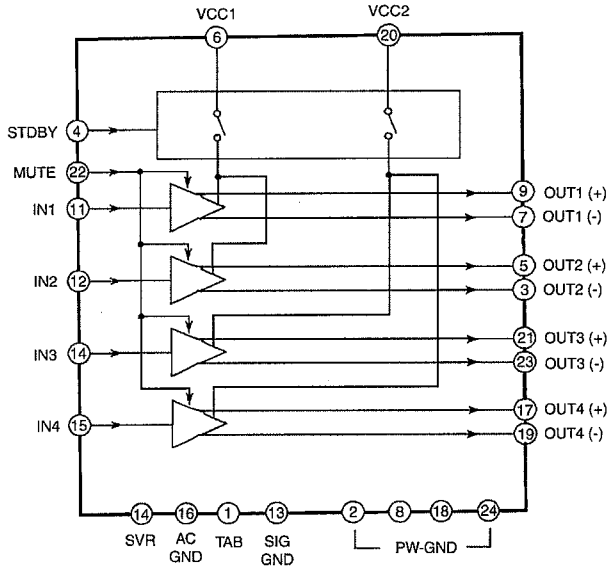
IC204 : YEAMPD4053E2



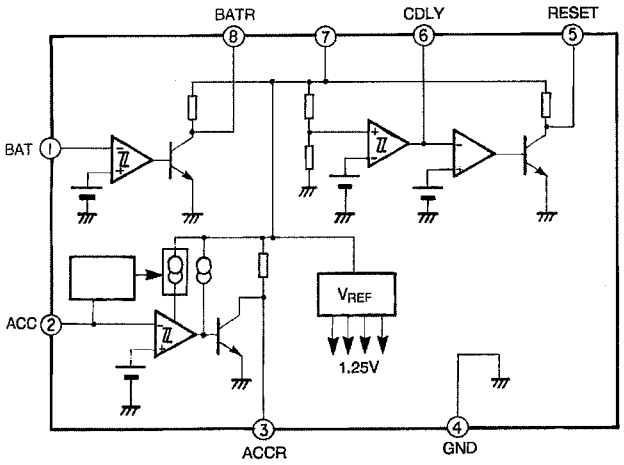
IC650 : YEAMC14584BE



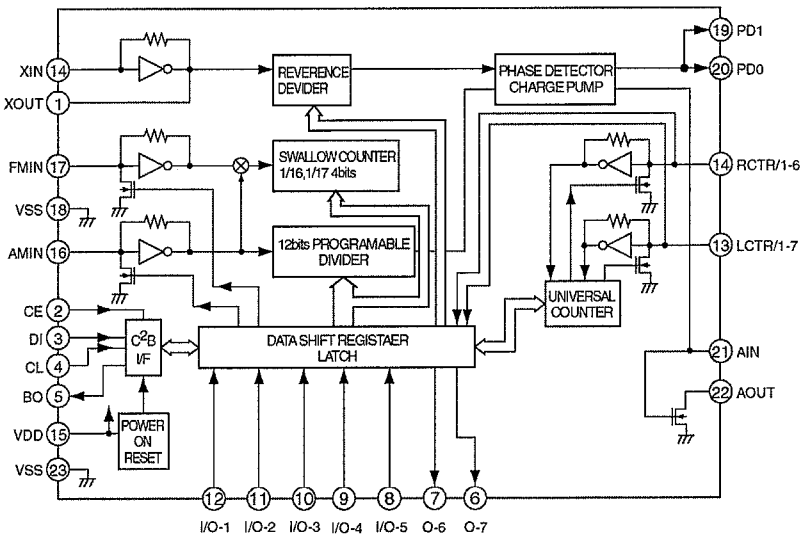
IC203 : YEAMPC4570T1
IC802 : YEAMM5218AFE



IC241 : C1EA00000021 <CQ-FX620U>
IC241 : C1EA0000016 <CQ-FR320U>

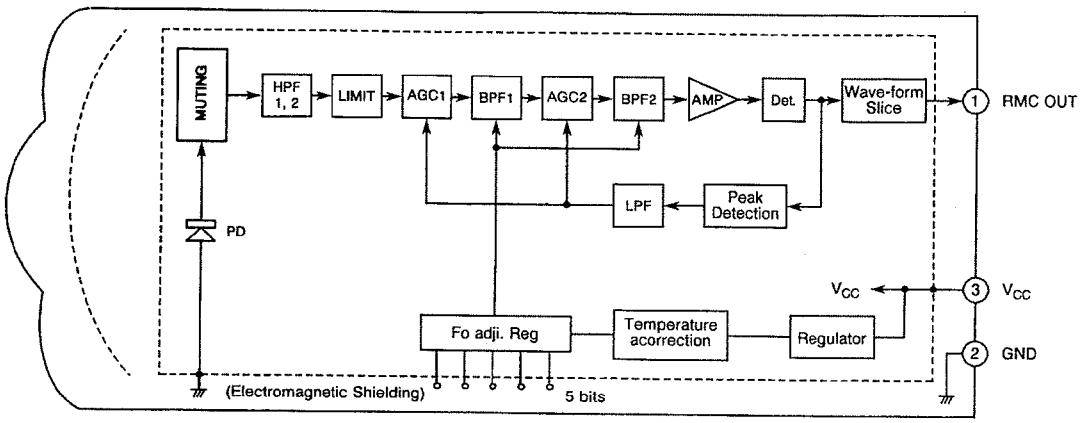


IC601 : AN8065SE1



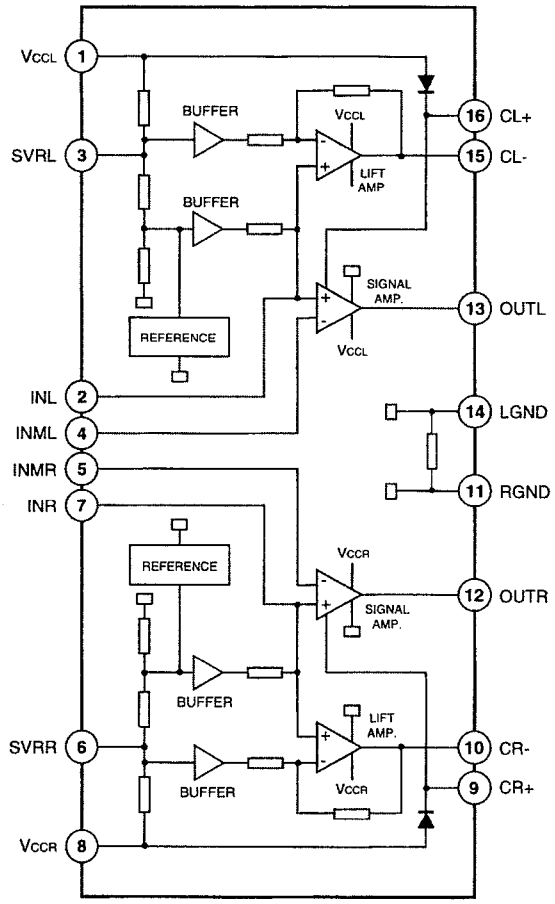
IC400 : YEAMLC72146

15.2. Display Block



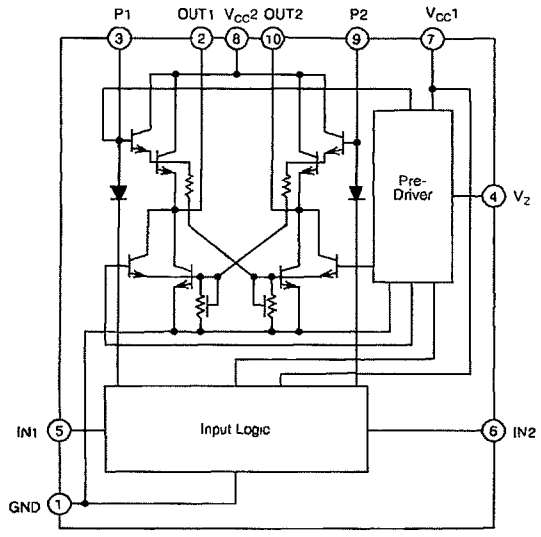
IC905 : YEAMSBX8035F

15.3. Pre. Amp. Block

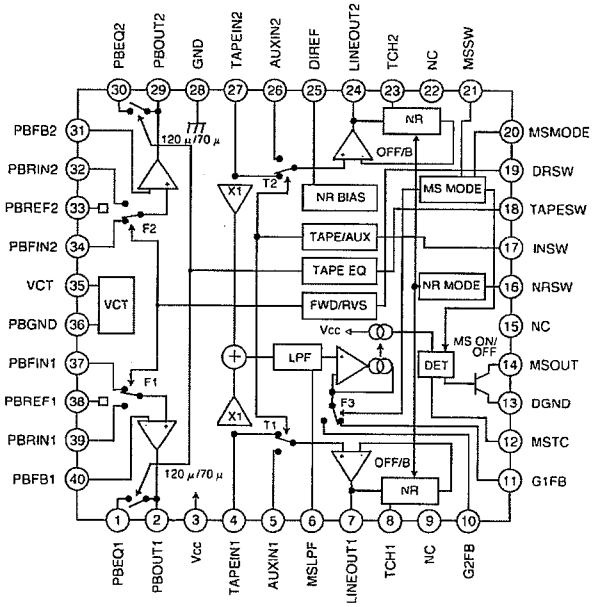


IC205,206 : YEAMDA8574TT

15.4. Tape Block

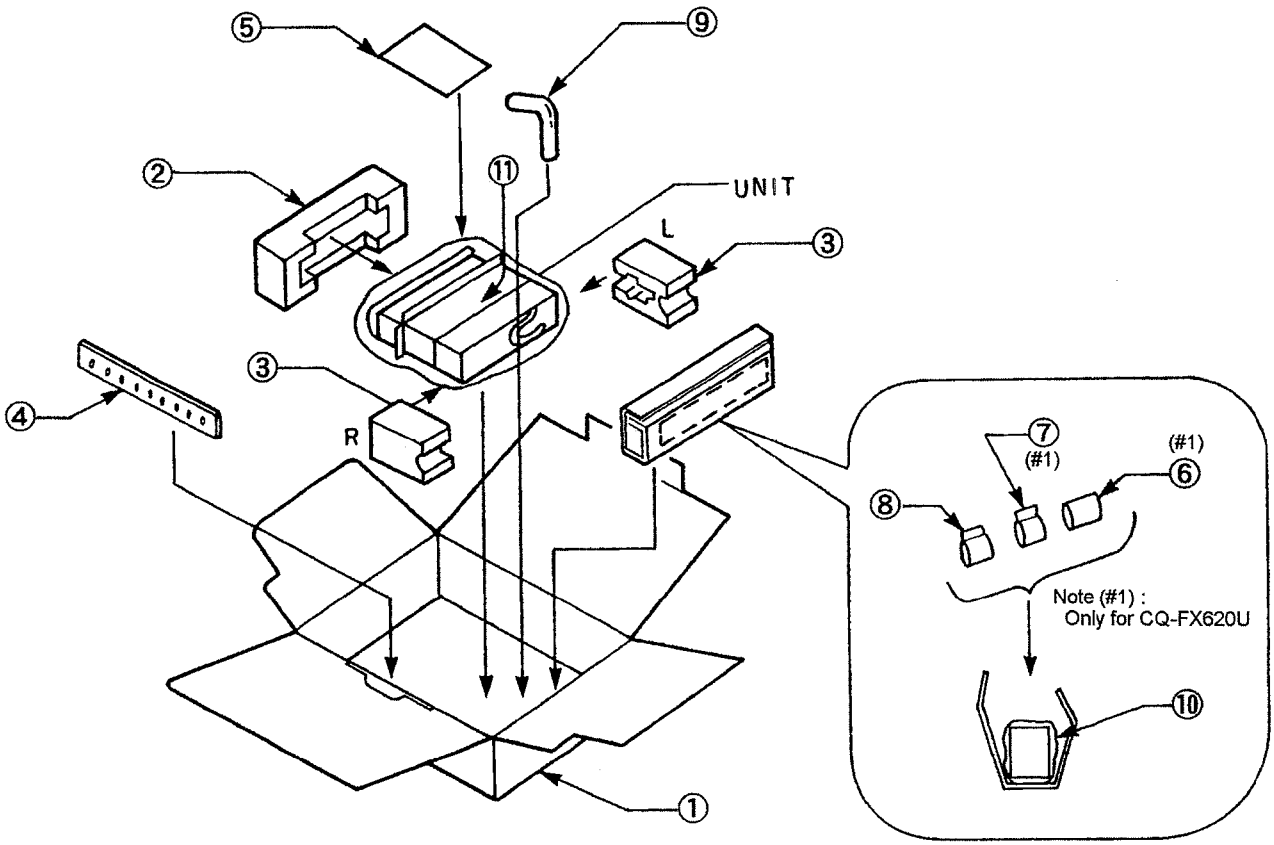


IC1 : YEAMLB1641



IC2 : YEAMCX2510AQ

16 PACKING PARTS LIST



• Item numbers listed below should not order regular spare parts. **(not available)**

Item No.	Part No.	Part Name & Description	Q'ty	Remarks
1	-	Inner Carton	1	Not available
2	-	Packing Pad Front	1	Not available
3	-	Packing Pad R and L	1	Not available
4	YEFG04019	Rear Support Strap	1	
5	YEP9PR3410 YEP9PR3412 YEFM283491	Instruction Book Kit <CQ-FX620U> Instruction Book Kit <CQ-FR320U> Instruction Book Warranty Card Servicenter List	1 1 (1) (1) (1)	Not available Not available Not available Not available
6	YEP9FZ2714	Screw Kit	1	
7	CR2025/1F	Battery <CQ-FX620U>	1	
8	YEFX9992013	Remote Control Unit <CQ-FX620U>	1	
9	YEAJ02792	Power Connector	1	
10	YEFA131302	Removal Face Plate Case	1	
11	YEFX0214898	Mounting Collar	1	

17 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 ⚠ 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", "B" or "C" marks in remarks column are indicated as follows :

- A : CQ-FX620U
- B : CQ-FR320U

17.1. IC's and Transistors

MAIN BLOCK [E6785]

Ref. No.	Part No.	Part Name & Description	Remarks
IC201	YEAMEA6320TT	IC	
IC203	YEAMPC4570T1	IC	A
IC204	YEAMPD4053E2	IC	A
IC241	C1EA00000021	IC	A
IC241	C1EA00000016	IC	B
IC400	YEAMLC72146	IC	
IC600	C2BBGF000142	IC	
IC601	AN8065SE1	IC	
IC650	YEAMC14584BE	IC	
IC704	AN7805F	IC	
IC705	AN8009M-E1	IC	
IC802	YEAMM5218AFE	IC	
PA51	YEAU03A052C	Electronic Tuner	
Q51	YEANA114EKTX	Transistor	
Q230	YEANC323TKT	Transistor	B
Q231	YEANC323TKT	Transistor	B
Q330	YEANC323TKT	Transistor	B
Q331	YEANC323TKT	Transistor	B
Q400	YEANFP1F3PT1	Transistor	
Q401	YEAN2SK536TB	Transistor	
Q403	B1GBCFNN0005	Transistor	
Q660	YEANA114EKTX	Transistor	
Q661	YEANA114EKTX	Transistor	
Q663	YEANA114EKTX	Transistor	
Q664	B1GBCFNN0005	Transistor	
Q701	YEAND1859T	Transistor	
Q703	YEANB1243QRT	Transistor	
Q704	B1GBCFJN0005	Transistor	
Q705	2SD2139TA	Transistor	
Q706	YEANA114EKTX	Transistor	
Q707	YEANA114EKTX	Transistor	
Q709	2SD1994ATA	Transistor	
Q710	B1GBCFNN0005	Transistor	
Q711	B1GBCFNN0005	Transistor	

DISPLAY BLOCK [E8597A]

Ref. No.	Part No.	Part Name & Description	Remarks
IC901	YEAMLC75884W	IC	
IC905	YEAMSBX8035F	IC	
Q902	YEANSSTA06T	Transistor	
Q903	YEANSSTA06T	Transistor	

PRE. AMP. BLOCK [E8479] <Only for CQ-FX620U>

Ref. No.	Part No.	Part Name & Description	Remarks
IC205	YEAMDA8574TT	IC	
IC206	YEAMDA8574TT	IC	
Q232	YEANC323TKT	Transistor	
Q233	YEANC323TKT	Transistor	
Q332	YEANC323TKT	Transistor	
Q333	YEANC323TKT	Transistor	

17.2. Diodes

MAIN BLOCK [E6785]

Ref. No.	Part No.	Part Name & Description	Remarks
D201	MA151ATX	Diode	A
D601	MA723TA	Diode	
D602	LN25RP	LED	
D701	B0EAMM000003	Diode	
D702	MA165TA	Diode	
D703	B0BA5R700006	Diode	
D704	MA723TA	Diode	
D705	MA736TX	Diode	
D707	YEADRB100AT	Diode	
D708	YEADRD91M1T2	Diode	
D709	MA153TX	Diode	
D710	YEADRD27M2T1	Diode	
D711	MA4051LMTA	Diode	
D803	MA151ATX	Diode	
D804	YEADRD51MBT1	Diode	

DISPLAY BLOCK [E8597]

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 [E8496A]

Ref. No.	Part No.	Part Name & Description	Remarks
D641	LNJ306G5TUWQ	LED	
D643	LNJ306G5TUWQ	LED	

17.3. Capacitors

MAIN BLOCK [E6785]

Ref. No.	Part No.	Part Name & Description	Remarks
C51	ECA1CM470I	Electrolytic, 47µF 16WV	
C52	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C53	YECUS1E273KX	Ceramic, 0.027µF 25WV	
C56	YECUS1E273KX	Ceramic, 0.027µF 25WV	
C57	YECUS1H102KX	Ceramic, 0.001µF 50WV	
C59	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C203	ECA1HSA3R3I	Electrolytic, 3.3µF 50WV	
C204	ECA1HSA3R3I	Electrolytic, 3.3µF 50WV	
C205	YECUX1C334KX	Ceramic, 0.33µF 16WV	
C207	YECUS1C224KX	Ceramic, 0.22µF 16WV	A
C208	YECUS1E333KX	Ceramic, 0.033µF 25WV	
C209	YECUS1H562KX	Ceramic, 0.0056µF 50WV	
C210	ECA1CSA470I	Electrolytic, 47µF 16WV	
C211	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C217	YECUS1C104KX	Ceramic, 0.1µF 16WV	A
C218	YECUS1C104KX	Ceramic, 0.1µF 16WV	A
C220	YECUS1H123KX	Ceramic, 0.012µF 50WV	A

Ref. No.	Part No.	Part Name & Description	Remarks
C221	ECA1HSA010I	Electrolytic, 1µF 50WV	A
C223	ECA0JSA470I	Electrolytic, 47µF 6.3WV	A
C230	ECA1CSA100I	Electrolytic, 10µF 16WV	
C231	ECA1CSA100I	Electrolytic, 10µF 16WV	
C238	YECUS1H221JM	Ceramic, 220PF 50WV	B
C239	YECUS1H221JM	Ceramic, 220PF 50WV	B
C241	ECA1HSAR47I	Electrolytic, 0.47µF 50WV	
C242	YECUS1H122KX	Ceramic, 0.0012µF 50WV	
C244	ECA1HSAR47I	Electrolytic, 0.47µF 50WV	
C245	YECUS1H122KX	Ceramic, 0.0012µF 50WV	
C248	ECA1CDT472Y	Electrolytic, 4700µF 16WV	
C249	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C250	YECUV1H101JM	Ceramic, 100PF 50WV	
C251	YECUS1H101JM	Ceramic, 100PF 50WV	
C252	YECUV1H101JM	Ceramic, 100PF 50WV	
C253	YECUS1H101JM	Ceramic, 100PF 50WV	
C303	ECA1HSA3R3I	Electrolytic, 3.3µF 50WV	
C304	ECA1HSA3R3I	Electrolytic, 3.3µF 50WV	
C305	YECUX1C334KX	Ceramic, 0.33µF 16WV	
C307	YECUS1C224KX	Ceramic, 0.22µF 16WV	A
C308	YECUS1E333KX	Ceramic, 0.033µF 25WV	
C309	YECUV2A562KX	Ceramic, 0.0056µF 100WV	
C310	ECEA0JKS331I	Electrolytic, 330µF 6.3WV	
C311	ECEA1AKS221I	Electrolytic, 220µF 10WV	
C317	YECUS1C104KX	Ceramic, 0.1µF 16WV	A
C318	YECUS1C104KX	Ceramic, 0.1µF 16WV	A
C320	YECUS1H123KX	Ceramic, 0.012µF 50WV	A
C321	ECA1HSA010I	Electrolytic, 1µF 50WV	A
C323	ECA0JSA470I	Electrolytic, 47µF 6.3WV	A
C330	ECA1CSA100I	Electrolytic, 10µF 16WV	
C331	ECA1CSA100I	Electrolytic, 10µF 16WV	
C332	YECUS1H103KX	Ceramic, 0.01µF 50WV	A
C338	YECUS1H221JM	Ceramic, 220PF 50WV	B
C339	YECUS1H221JM	Ceramic, 220PF 50WV	B
C341	ECA1HSAR47I	Electrolytic, 0.47µF 50WV	
C342	YECUV2A122KX	Ceramic, 0.0012µF 100WV	
C344	ECA1HSAR47I	Electrolytic, 0.47µF 50WV	
C345	YECUV2A122KX	Ceramic, 0.0012µF 100WV	
C346	ECA1HSA010I	Electrolytic, 1µF 50WV	
C347	ECEA1AKS101	Electrolytic, 100µF 10WV	
C348	ECEA1HKS2R2I	Electrolytic, 2.2µF 50WV	
C350	YECUS1H101JM	Ceramic, 100PF 50WV	
C351	YECUV1H101JM	Ceramic, 100PF 50WV	
C352	YECUS1H101JM	Ceramic, 100PF 50WV	
C353	YECUV1H101JM	Ceramic, 100PF 50WV	
C360	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C361	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C401	YECUS1H150JM	Ceramic, 15PF 50WV	
C402	YECUS1H150JM	Ceramic, 15PF 50WV	
C403	ECA0JM101I	Electrolytic, 100µF 6.3WV	
C404	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C408	YECUS1E223KX	Ceramic, 0.022µF 25WV	
C409	ECQV1H224JL2	Plastic Film, 0.22µF 50WV	
C410	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C411	ECEA1AKS221I	Electrolytic, 220µF 10WV	
C412	ECEA1AKS221I	Electrolytic, 220µF 10WV	
C413	YECUS1H101JM	Ceramic, 100PF 50WV	
C601	YECUS1H220JM	Ceramic, 22PF 50WV	
C602	YECUS1H220JM	Ceramic, 22PF 50WV	
C603	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C604	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C605	ECA0JSA101I	Electrolytic, 100µF 6.3WV	
C606	ECA0JSA101I	Electrolytic, 100µF 6.3WV	
C607	EECS5R5H473	Electrolytic, 0.047F 5.5WV	
C609	YECUS1C224KX	Ceramic, 0.22µF 16WV	
C610	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C612	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C613	YECUS1H221JM	Ceramic, 220PF 50WV	
C614	YECUS1H101JM	Ceramic, 100PF 50WV	
C650	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C660	ECA1HSA010I	Electrolytic, 1µF 50WV	
C661	YECUS1H103KX	Ceramic, 0.01µF 50WV	B
C662	ECA1CSA100I	Electrolytic, 10µF 16WV	
C690	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C701	ECEA1CKS101I	Electrolytic, 100µF 16WV	
C702	ECA1HSA4R7I	Electrolytic, 4.7µF 50WV	
C703	ECA0JSA470I	Electrolytic, 47µF 6.3WV	
C704	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C705	ECA1HMR47I	Electrolytic, 0.47µF 50WV	
C706	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C707	ECEA1AKS221I	Electrolytic, 220µF 10WV	
C709	ECEA1AKS101	Electrolytic, 100µF 10WV	
C710	ECA1CM102B	Electrolytic, 1000µF 16WV	
C716	ECA1CM470I	Electrolytic, 47µF 16WV	
C718	YECUX1C334KX	Ceramic, 0.33µF 16WV	
C719	YECUX1C334KX	Ceramic, 0.33µF 16WV	
C720	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C721	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C722	ECEA1AKS221I	Electrolytic, 220µF 10WV	
C725	ECA0JSA470I	Electrolytic, 47µF 6.3WV	
C727	EEUFC1A820H	Electrolytic, 82µF 10WV	
C728	YECUS1E104ZF	Ceramic, 0.1µF 25WV	
C729	ECEA1AKS221I	Electrolytic, 220µF 10WV	
C810	ECA0JSA220I	Electrolytic, 22µF 6.3WV	
C811	F1J1H102A034	Ceramic, 0.001µF 50WV	
C812	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C813	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C814	ECSH1CY225CR	Tantalum, 2.2µF 16WV	
J530	YECUV2A103KX	Ceramic, 0.01µF 100WV	

DISPLAY BLOCK [E8597A]

Ref. No.	Part No.	Part Name & Description	Remarks
C905	YECUM2A683JN	Plastic Film, 0.068µF 100WV	
C906	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C907	ECEV1CA220SR	Electrolytic, 22µF 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	

PRE. AMP. BLOCK [E8479] <Only for CQ-FX620U>

Ref. No.	Part No.	Part Name & Description	Remarks
C232	ECEA1EKS3R3I	Electrolytic, 3.3µF 25WV	
C233	ECEA1EKS3R3I	Electrolytic, 3.3µF 25WV	
C234	ECEA1CKS100I	Electrolytic, 10µF 16WV	
C235	ECEA1CKS100I	Electrolytic, 10µF 16WV	
C236	YECUS1H221JM	Ceramic, 220PF 50WV	
C237	YECUS1H221JM	Ceramic, 220PF 50WV	
C250	YECUS1H152KX	Ceramic, 0.0015µF 50WV	
C251	YECUS1H152KX	Ceramic, 0.0015µF 50WV	
C252	ECEA1AKS101	Electrolytic, 100µF 10WV	
C253	ECEA1AKS470I	Electrolytic, 47µF 10WV	
C254	ECEA1AKS221I	Electrolytic, 220µF 10WV	
C255	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C256	ECEA1AKS101	Electrolytic, 100µF 10WV	
C332	ECEA1EKS3R3I	Electrolytic, 3.3µF 25WV	
C333	ECEA1EKS3R3I	Electrolytic, 3.3µF 25WV	
C334	ECEA1CKS100I	Electrolytic, 10µF 16WV	
C335	ECEA1CKS100I	Electrolytic, 10µF 16WV	
C336	YECUS1H221JM	Ceramic, 220PF 50WV	
C337	YECUS1H221JM	Ceramic, 220PF 50WV	
C350	YECUS1H152KX	Ceramic, 0.0015µF 50WV	
C351	YECUS1H152KX	Ceramic, 0.0015µF 50WV	
C352	ECEA1AKS101	Electrolytic, 100µF 10WV	
C353	ECEA1AKS221I	Electrolytic, 220µF 10WV	
C354	ECEA1AKS470I	Electrolytic, 47µF 10WV	
C355	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C357	ECEA1AKS101	Electrolytic, 100µF 10WV	

17.4. Resistors

MAIN BLOCK [E6785]

Ref. No.	Part No.	Part Name & Description	Remarks
J159	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J192	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J194	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J335	ERD25TJ330	Carbon, 33Ω 1/4W	
J502	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J503	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J504	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J507	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J508	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J509	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J510	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J511	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J512	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J513	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J515	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J516	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J517	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J518	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J519	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J520	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J521	ERJ8GX0R00V	Chip, 0Ω 1/8W	
J522	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J523	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J524	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J525	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J526	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J527	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J528	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J529	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J531	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J532	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J601	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J602	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J603	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J604	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J605	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J606	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J608	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J609	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J610	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J611	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J612	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J613	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J614	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
J619	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J620	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
R50	ERJ6GEYJ5R6	Chip, 5.6Ω 1/10W	
R52	ERJ8GEYJ101V	Chip, 100Ω 1/8W	
R53	ERJ6GEYJ431V	Chip, 430Ω 1/10W	
R54	ERJ6GEYJ563	Chip, 56kΩ 1/10W	
R55	ERJ6GEYJ563	Chip, 56kΩ 1/10W	
R58	ERJ6GEYJ683	Chip, 68kΩ 1/10W	
R201	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R202	ERJ6GEYJ682	Chip, 6.8kΩ 1/10W	
R204	ERJ6GEYJ183	Chip, 18kΩ 1/10W	
R205	ERJ6GEYJ822	Chip, 8.2kΩ 1/10W	
R209	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R211	ERJ6GEYJ123	Chip, 12kΩ 1/10W	A
R212	ERJ6GEYJ473	Chip, 47kΩ 1/10W	A
R213	ERJ8GEYJ183V	Chip, 18kΩ 1/8W	A
R214	ERJ6GEYJ752	Chip, 7.5kΩ 1/10W	A
R215	ERJ6GEYJ272	Chip, 2.7kΩ 1/10W	A
R216	ERJ6GEYJ682	Chip, 6.8kΩ 1/10W	A
R217	ERJ6GEYJ103	Chip, 10kΩ 1/10W	A
R218	ERJ6GEYJ103	Chip, 10kΩ 1/10W	A
R225	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R226	ERJ8GEYJ333V	Chip, 33kΩ 1/8W	
R230	ERJ6GEYJ561	Chip, 560Ω 1/10W	A
R230	ERJ6GEYJ221	Chip, 220Ω 1/10W	B
R232	ERJ6GEYJ272	Chip, 2.7kΩ 1/10W	A
R232	ERJ6GEYJ103	Chip, 10kΩ 1/10W	B
R235	ERJ6GEYJ561	Chip, 560Ω 1/10W	A
R235	ERJ6GEYJ221	Chip, 220Ω 1/10W	B
R237	ERJ6GEYJ272	Chip, 2.7kΩ 1/10W	A
R237	ERJ6GEYJ103	Chip, 10kΩ 1/10W	B
R240	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R242	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R250	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R251	ERJ6GEY0R00V	Chip, 0Ω 1/10W	B
R301	ERJ6GEY0R00V	Chip, 0Ω 1/10W	
R302	ERJ6GEYJ682	Chip, 6.8kΩ 1/10W	
R304	ERJ6GEYJ183	Chip, 18kΩ 1/10W	
R305	ERJ6GEYJ822	Chip, 8.2kΩ 1/10W	
R309	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R311	ERJ6GEYJ123	Chip, 12kΩ 1/10W	A
R312	ERJ8GEYJ473V	Chip, 47kΩ 1/8W	A
R313	ERJ6GEYJ183	Chip, 18kΩ 1/10W	A
R314	ERJ6GEYJ752	Chip, 7.5kΩ 1/10W	A
R315	ERJ6GEYJ272	Chip, 2.7kΩ 1/10W	A
R316	ERJ8GEYJ682V	Chip, 6.8kΩ 1/8W	A
R317	ERJ6GEYJ103	Chip, 10kΩ 1/10W	A
R318	ERJ6GEYJ103	Chip, 10kΩ 1/10W	A
R330	ERJ6GEYJ561	Chip, 560Ω 1/10W	A
R330	ERJ6GEYJ221	Chip, 220Ω 1/10W	B
R332	ERJ6GEYJ272	Chip, 2.7kΩ 1/10W	A
R332	ERJ6GEYJ103	Chip, 10kΩ 1/10W	B
R335	ERJ6GEYJ561	Chip, 560Ω 1/10W	A
R335	ERJ6GEYJ221	Chip, 220Ω 1/10W	B
R337	ERJ6GEYJ272	Chip, 2.7kΩ 1/10W	A
R337	ERJ6GEYJ103	Chip, 10kΩ 1/10W	B
R340	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R342	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R344	ERJ8GEYJ223V	Chip, 22kΩ 1/8W	
R350	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R351	ERJ6GEY0R00V	Chip, 0Ω 1/10W	B
R401	ERJ6GEYJ152	Chip, 1.5kΩ 1/10W	
R402	ERJ6GEYJ222	Chip, 2.2kΩ 1/10W	
R403	ERJ6GEYJ100	Chip, 10Ω 1/10W	
R406	ERJ6GEYJ182	Chip, 1.8kΩ 1/10W	
R407	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R408	ERJ8GEYJ473V	Chip, 47kΩ 1/8W	
R409	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R603	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R604	ERJ6GEYJ473	Chip, 47kΩ 1/10W	B
R605	ERJ6GEYJ473	Chip, 47kΩ 1/10W	A
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	ERJ8GEYJ102V	Chip, 1kΩ 1/8W	
R617	ERDS2TJ102	Carbon, 1kΩ 1/4W	
R618	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R619	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R620	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R621	ERJ8GEYJ102V	Chip, 1kΩ 1/8W	
R622	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R623	ERJ8GEYJ184V	Chip, 180kΩ 1/8W	
R626	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R629	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R630	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R631	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R632	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R633	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R635	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R636	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R637	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R638	ERJ8GEYJ473V	Chip, 47kΩ 1/8W	
R639	ERJ6GEYJ184	Chip, 180kΩ 1/10W	
R642	ERJ8GEYJ103V	Chip, 10kΩ 1/8W	
R643	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R644	ERJ8GEYJ473V	Chip, 47kΩ 1/8W	

Ref. No.	Part No.	Part Name & Description	Remarks
R645	ERJ6GEYJ273	Chip, 27kΩ 1/10W	
R650	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R651	ERJ8GEYJ104V	Chip, 100kΩ 1/8W	
R652	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R660	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R661	ERJ6GEYJ393	Chip, 39kΩ 1/10W	
R664	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R671	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R672	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R673	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R674	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R675	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R676	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R677	ERDS2TJ102	Carbon, 1kΩ 1/4W	
R680	ERJ8GEYJ331V	Chip, 330Ω 1/8W	
R681	ERJ8GEYJ331V	Chip, 330Ω 1/8W	
R686	ERJ6GEYJ153	Chip, 15kΩ 1/10W	
R690	ERJ6GEYJ184	Chip, 180kΩ 1/10W	
R691	ERJ6GEYJ363V	Chip, 36kΩ 1/10W	
R692	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R693	ERJ8GEYJ102V	Chip, 1kΩ 1/8W	
R694	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R695	ERJ8GEYJ102V	Chip, 1kΩ 1/8W	
R701	ERDS2FJ470	Carbon, 47Ω 1/4W	
R703	ERJ6GEYJ472	Chip, 4.7kΩ 1/10W	
R704	ERJ6GEYJ274	Chip, 270kΩ 1/10W	
R705	ERJ6GEYJ433V	Chip, 43kΩ 1/10W	
R706	ERJ6GEYJ102	Chip, 1kΩ 1/10W	
R707	ERJ6GEYJ224	Chip, 220kΩ 1/10W	
R708	ERJ8GEYJ433V	Chip, 43kΩ 1/8W	A
R708	ERJ6GEYJ433V	Chip, 43kΩ 1/10W	B
R709	ERJ8GEYJ473V	Chip, 47kΩ 1/8W	
R710	ERDS1FJ681	Carbon, 680Ω 1/2W	
R711	ERDS1FJ681	Carbon, 680Ω 1/2W	
R712	ERJ8GEYJ1R0V	Chip, 1.0Ω 1/8W	
R714	ERJ6GEYJ561	Chip, 560Ω 1/10W	
R717	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
R718	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R719	ERJ8GEYJ1R0V	Chip, 1.0Ω 1/8W	
R720	ERJ8GEYJ103V	Chip, 10kΩ 1/8W	
R721	ERJ8GEYJ103V	Chip, 10kΩ 1/8W	
R722	ERJ8GEYJ473V	Chip, 47kΩ 1/8W	
R727	ERJ6GEYJ151	Chip, 150Ω 1/10W	
R728	ERJ6GEYJ151	Chip, 150Ω 1/10W	
R729	ERJ6GEY0R00V	Chip, 0Ω 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	
R810	ERJ6GEY0R00V	Chip, 0Ω 1/10W	

DISPLAY BLOCK [E8597A]

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	ERJ6GEYJ332	Chip, 3.3kΩ 1/10W	
R931	ERJ6GEYJ332	Chip, 3.3kΩ 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	

PRE. AMP. BLOCK [E8479] <Only for CQ-FX620U>

Ref. No.	Part No.	Part Name & Description	Remarks
R231	ERJ6GEYJ221	Chip, 220Ω 1/10W	
R234	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R236	ERJ6GEYJ221	Chip, 220Ω 1/10W	
R238	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R251	ERJ6GEYJ393	Chip, 39kΩ 1/10W	
R252	ERJ6GEYJ273	Chip, 27kΩ 1/10W	
R253	ERJ6GEYJ273	Chip, 27kΩ 1/10W	
R254	ERJ6GEYJ393	Chip, 39kΩ 1/10W	
R331	ERJ6GEYJ221	Chip, 220Ω 1/10W	
R334	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R336	ERJ6GEYJ221	Chip, 220Ω 1/10W	
R338	ERJ6GEYJ103	Chip, 10kΩ 1/10W	
R351	ERJ6GEYJ393	Chip, 39kΩ 1/10W	
R352	ERJ6GEYJ273	Chip, 27kΩ 1/10W	
R353	ERJ6GEYJ273	Chip, 27kΩ 1/10W	
R354	ERJ6GEYJ393	Chip, 39kΩ 1/10W	

17.5. Connectors

MAIN BLOCK [E6785]

Ref. No.	Part No.	Part Name & Description	Remarks
CJ620	YEAES22B100B	Connector, 22P flexible	
CN251	YEAE012503	Connector, 1P RCA	
CN300	YEAE02166	Connector, 6P	B
CN601	YEAE0115MX	Connector, 15P	
CN602	YEAE0616YAA	Connector, 6P	
CN603	YEAE0104MX	Connector, 4P	
CN620	YEAE012659	Connector, 22P	
CN680	YEAE012307	Connector, 8P DIN	
CN701	YEAE012748	Connector, 16P	

DISPLAY BLOCK [E8597A]

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

PRE. AMP. BLOCK [E8479] <Only for CQ-FX620U>

Ref. No.	Part No.	Part Name & Description	Remarks
CJ301	K1ZZ00000965	Connector, 10P	
CN202	YEAE012655	Connector, RCA FRONT	
CN302	YEAE012656	Connector, RCA REAR	

SUB. BLOCK [E8496A]

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

17.6. Electric Parts

SWITCHES

Ref. No.	Part No.	Part Name & Description	Remarks
SW602	YEAS08042	Switch	
SW610	YEAS09267	Switch	
SW901	YEAS09312	Switch	
SW902	YEAS09312	Switch	
SW903	K0H1BA000285	Switch	
SW904	K0H1BA000285	Switch	
SW905	YEAS09312	Switch	
SW906	YEAS09312	Switch	
SW907	YEAS09312	Switch	
SW908	K0H1BA000285	Switch	
SW909	K0H1BA000285	Switch	
SW910	YEAS09312	Switch	
SW911	YEAS09312	Switch	
SW912	K0H1BA000285	Switch	
SW913	K0H1BA000285	Switch	
SW914	K0H1BA000285	Switch	
SW915	YEAS09312	Switch	
SW916	YEAS09312	Switch	

Ref. No.	Part No.	Part Name & Description	Remarks
SW917	K0H1BA000285	Switch	
SW918	K0H1BA000285	Switch	

CRYSTALS

Ref. No.	Part No.	Part Name & Description	Remarks
XL400	YEXL49U072TA	Crystal OSC	
XL600	YEXL49U0419T	Crystal OSC	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
BPF50	YEXC07T009	Coil	
L50	YELT02M330KT	Coil	
L400	YELT02C101KT	Coil	
L600	YELT02C470KT	Coil	
L702	YETQ026F143	Coil	
L703	ELEH330KA	Coil	
L800	YELT02C101KT	Coil	
L901	YELT216825TG	Coil	
L902	YELTD75F101T	Coil	

LCD

Ref. No.	Part No.	Part Name & Description	Remarks
LCD901	L5ACDLC00009	LCD Display	A
LCD901	L5ACALC00003	LCD Display	B

LAMPS

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

SURGE ABSORBERS

Ref. No.	Part No.	Part Name & Description	Remarks
Z50	J0LE00000002	Neon Tube	
Z701	ERZC07DK470	ZNR	

THERMISTOR

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

17.7. Accessories

PRINTING

Ref. No.	Part No.	Part Name & Description	Remarks
	YEFM283491	Operating Instructions	

INSTALLATION PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
	YEAJ02792	Power Cord	
	CR2025/1F	Battery	A
	YEFA131302	Detachable Unit Cover	
	YEFG04019	Rear Support Strap	
	YEFX0214198	Mounting Collar	
	YEFX9992013	Remote Controller	A
	YEP9FZ2714	Screws	

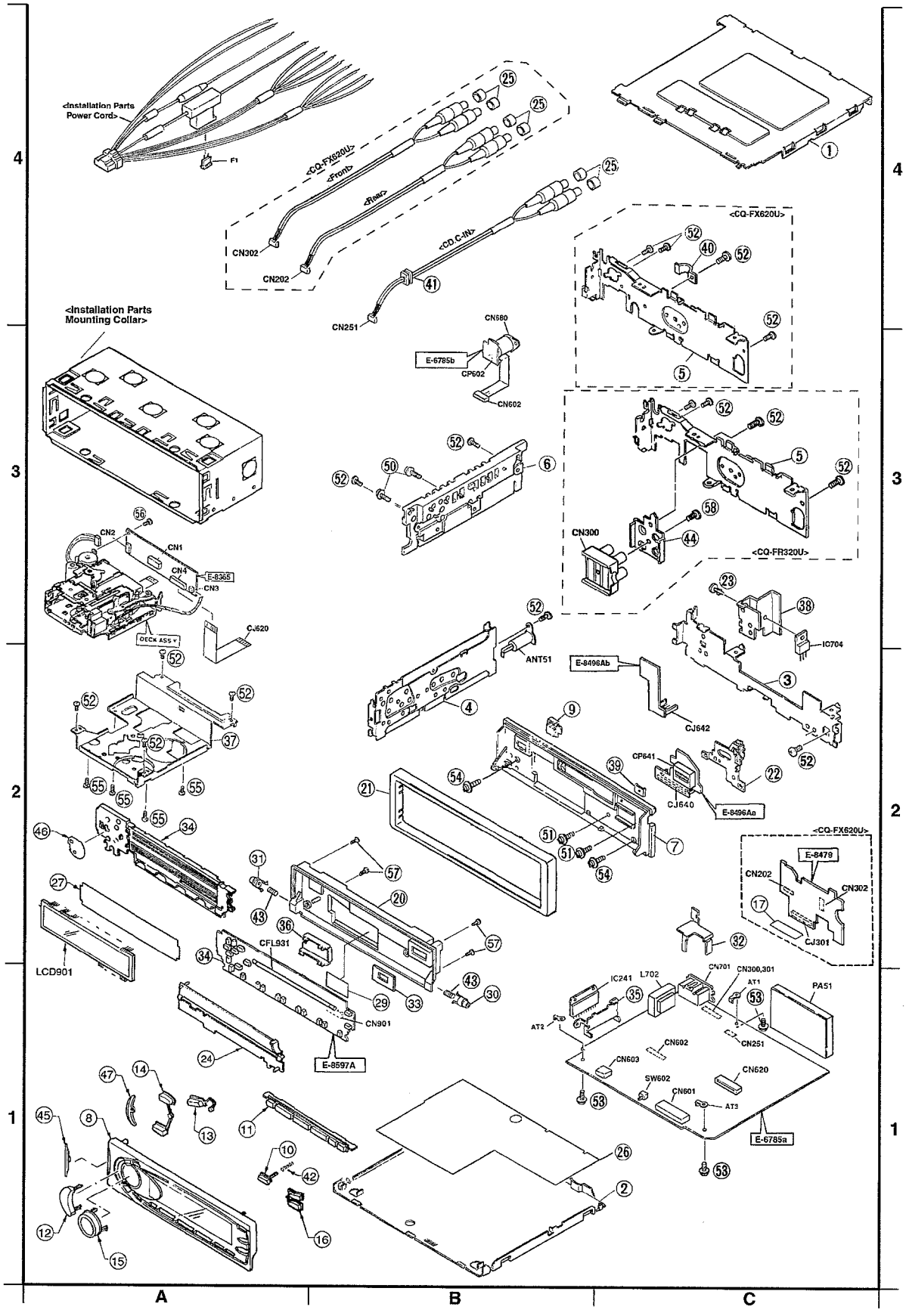
17.8. Mechanical Parts

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
F1	YEAF02015	Fuse, 15A	⚠
ANT51	YGAA10082	Antenna Receptacle	
AT1-3	YEAT03420	Terminal	
AT1	K4ZZ01000044	Terminal	
1	YEFA031354E	Upper Cover	(4-C)
2	YEFA05594B	Bottom Cover	(1-B)
3	YEP9FX066A	Front Chassis Ass´y	(2-C)
4	YEFA09508	Side Plate	(2-B)
5	YEFA08461AK	Rear Plate	A, (3-C)

Ref. No.	Part No.	Part Name & Description	Remarks
5	YEFA08462AK	Rear Plate	B, (3-C)
6	YEFF01921	Heat Sink	(3-B)
7	YEFC025659A	Escutcheon Ass´y, Unit	(2-B)
8	YEFC026659	Escutcheon Ass´y, Detachable	A, (1-A)
8	YEFC026663	Escutcheon Ass´y, Detachable	B, (1-A)
9	YEFE135147	Button, EJECT	(2-B)
10	YEFE135442	Button, OPEN	(1-A)
11	YEFE135942	Button, PRESET	(1-A)
11	YEFE135943	Button, PRESET	B, (1-A)
12	YEFE135435	Button, VOL	(1-A)
13	YEFE135436	Button, SEL	(1-A)
14	YEFE135713	Button, BAND/SOURCE	(1-A)
15	YEFE135439	Button, TUNE/TRACK	(1-A)
16	YEFE135940	Button, LEVEL/DISP	(1-A)
17	YEFL02634	Spacer	A, (2-C)
20	YEFA131413	Cover, Detachable	(2-B)
21	YEFC05570	Trim Plate	(2-B)
22	YEP9FX069	Hook Bracket Ass´y	(2-C)
23	YEFJ05030	Color Rivet	(3-C)
24	YEFK06835	Holder, LCD	(1-A)
25	YEFR04187	Lead Cap	(4-B)
26	YEFV011813	Insulator	(1-B)
27	YEFV021596	Optical Shade	(2-A)
29	YEFV03457	Magnetic Shield	(1-B)
30	YEFW04156	Shaft Collar	(1-B)
31	YEFW04157	Shaft Collar	(2-A)
32	YEFX0214422	Bracket, CN701	(2-C)
33	YEFV011928	Insulator	(1-B)
34	YEFX0011903	Transparent Plate	(2-A)
35	YEFX0213945B	Bracket, IC241	(1-C)
36	YEFX0214625	Bracket, LCD	(2-B)
37	YEFX0214197B	Bracket, Deck	(2-A)
38	YEFX0214423	Bracket, IC702	(3-C)
39	YEFX0011816	Transparent Plate	(2-C)
40	YAFX016027	Cord Clamper	A, (4-C)
41	YEFX007380	Cord Clamper	(4-B)
42	YEFX0052396	Spring	(1-A)
43	YEFX0052253	Spring	(2-A) (1-B)
44	YEFX0213650		B, (3-C)
45	YEFX0011904	Transparent Plate	(1-A)
46	YEFX025137	Color Screen	(2-A)
47	YEFX0011905	Transparent Plate	(1-A)
50	YEJS06092	Screw, 3mm * 10mm	
51	YEJS03020	Screw, 2mm * 4mm	
52	XTB3+6FFX	Tapping Screw, 3mm * 6mm	
53	YGJT03009	Tapping Screw, 3mm * 8mm	
54	YGJT03156	Tapping Screw, 2.6mm * 5mm	
55	YEJS03022	Screw, 3mm * 3mm	
56	YEJT03163	Tapping Screw, 2mm * 6mm	
57	XTN2+8GFZ	Tapping Screw, 2mm * 8mm	
58	XTB3+8GFX	Tapping Screw, 3mm * 8mm	B

18 EXPLODED VIEW (Unit)



19 TAPE PLAYER PARTS

19.1. IC´s and Transistors

[E8365]

Ref. No.	Part No.	Part Name & Description	Remarks
IC1	YEAMLB1641	IC	
IC2	YEAMCX2510AQ	IC	
Q1	YEANB1237QRT	Transistor	
Q2	YEANC113ZKTX	Transistor	
Q3	YEANC113ZKTX	Transistor	
Q4	YEANC113ZKTX	Transistor	

19.2. Diodes

[E8365]

Ref. No.	Part No.	Part Name & Description	Remarks
D1	YEAD11ES2	Diode	
D2	YEADRD43EST1	Diode	

19.3. Capacitors

[E8365]

Ref. No.	Part No.	Part Name & Description	Remarks
C1	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C2	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C3	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C4	YECUS1H103KX	Ceramic, 0.01µF 50WV	
C5	ECEA1AKS330I	Electrolytic, 33µF 10WV	
C6	ECEA1CKS470I	Electrolytic, 47µF 16WV	
C7	ECEA1CKS470I	Electrolytic, 47µF 16WV	
C8	ECEA1HKS2R2I	Electrolytic, 2.2µF 50WV	
C9	ECEA1HKS2R2I	Electrolytic, 2.2µF 50WV	
C10	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C11	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C12	YECUS1C104KX	Ceramic, 0.1µF 16WV	
C15	YECUS1E223KX	Ceramic, 0.022µF 25WV	
C16	YECUS1C224KX	Ceramic, 0.22µF 16WV	
C17	ECEA1CKS100I	Electrolytic, 10µF 16WV	
C18	ECEA1CKS100I	Electrolytic, 10µF 16WV	
C19	YECUS1H391JM	Ceramic, 390PF 50WV	
C20	YECUS1H391JM	Ceramic, 390PF 50WV	
C21	YECUS1H391JM	Ceramic, 390PF 50WV	
C22	YECUS1H391JM	Ceramic, 390PF 50WV	
C24	YECUS1H822KX	Ceramic, 0.0082µF 50WV	

19.4. Resistors

[E8365]

Ref. No.	Part No.	Part Name & Description	Remarks
J101	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J102	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J103	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J104	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J105	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J106	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J107	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J108	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J109	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J110	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J111	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J112	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J113	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J114	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J115	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J116	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J117	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J118	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J119	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J120	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J121	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J122	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J123	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J124	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J125	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
J126	ERJ8GEY0R00V	Chip, 0Ω 1/8W	
R1	ERJ6GEYJ683	Chip, 68kΩ 1/10W	
R2	ERJ6GEYJ223	Chip, 22kΩ 1/10W	
R3	ERJ6GEYJ683	Chip, 68kΩ 1/10W	
R4	ERJ6GEYJ683	Chip, 68kΩ 1/10W	
R5	ERJ6GEYJ683	Chip, 68kΩ 1/10W	
R6	ERJ6GEYJ271	Chip, 270Ω 1/10W	
R7	ERJ6GEYJ271	Chip, 270Ω 1/10W	
R8	ERJ6GEYJ104	Chip, 100kΩ 1/10W	
R9	ERJ6GEYJ392	Chip, 3.9kΩ 1/10W	
R12	ERJ8GEYJ103V	Chip, 10kΩ 1/8W	
R13	ERJ8GEYJ103V	Chip, 10kΩ 1/8W	
R14	ERJ8GEYJ103V	Chip, 10kΩ 1/8W	
R15	ERJ8GEYJ222V	Chip, 2.2kΩ 1/8W	
R17	ERJ6GEYJ223	Chip, 22kΩ 1/10W	
R18	ERG1SJ100	Metal Oxid, 10Ω 1W	
R19	ERJ6GEYJ121	Chip, 120Ω 1/10W	
R22	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R23	ERJ6GEYJ473	Chip, 47kΩ 1/10W	
R24	ERJ6GEYJ183	Chip, 18kΩ 1/10W	
R25	ERJ6GEYJ183	Chip, 18kΩ 1/10W	
R26	ERJ6GEYJ183	Chip, 18kΩ 1/10W	
R27	ERJ6GEYJ123	Chip, 12kΩ 1/10W	
R28	ERJ6GEYJ123	Chip, 12kΩ 1/10W	
R29	ERJ6GEYJ334	Chip, 330kΩ 1/10W	
R30	ERJ6GEYJ334	Chip, 330kΩ 1/10W	
R31	ERJ8GEYJ152V	Chip, 1.5kΩ 1/8W	
R33	ERJ8GEYJ101V	Chip, 100Ω 1/8W	

19.5. Connectors

[E8365]

Ref. No.	Part No.	Part Name & Description	Remarks
CN1	YEAE5597A09	Connector, 9P	
CN2	YEAE5325404	Connector, 4P	
CN3	YEAE012684	Connector, 5P	
CN4	YEAE012659	Connector, 22P	

19.6. Electric Parts

SWITCHES

Ref. No.	Part No.	Part Name & Description	Remarks
SW1	YEAS08031B62	Switch	

VARIABLE RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
VR1	EVNDCAA03BQ2	Variablr resistor	
VR2	EVNDCAA03BQ2	Variablr resistor	

OTHER

Ref. No.	Part No.	Part Name & Description	Remarks
TP201	YEAT03240	Terminal	
TP301	YEAT03240	Terminal	

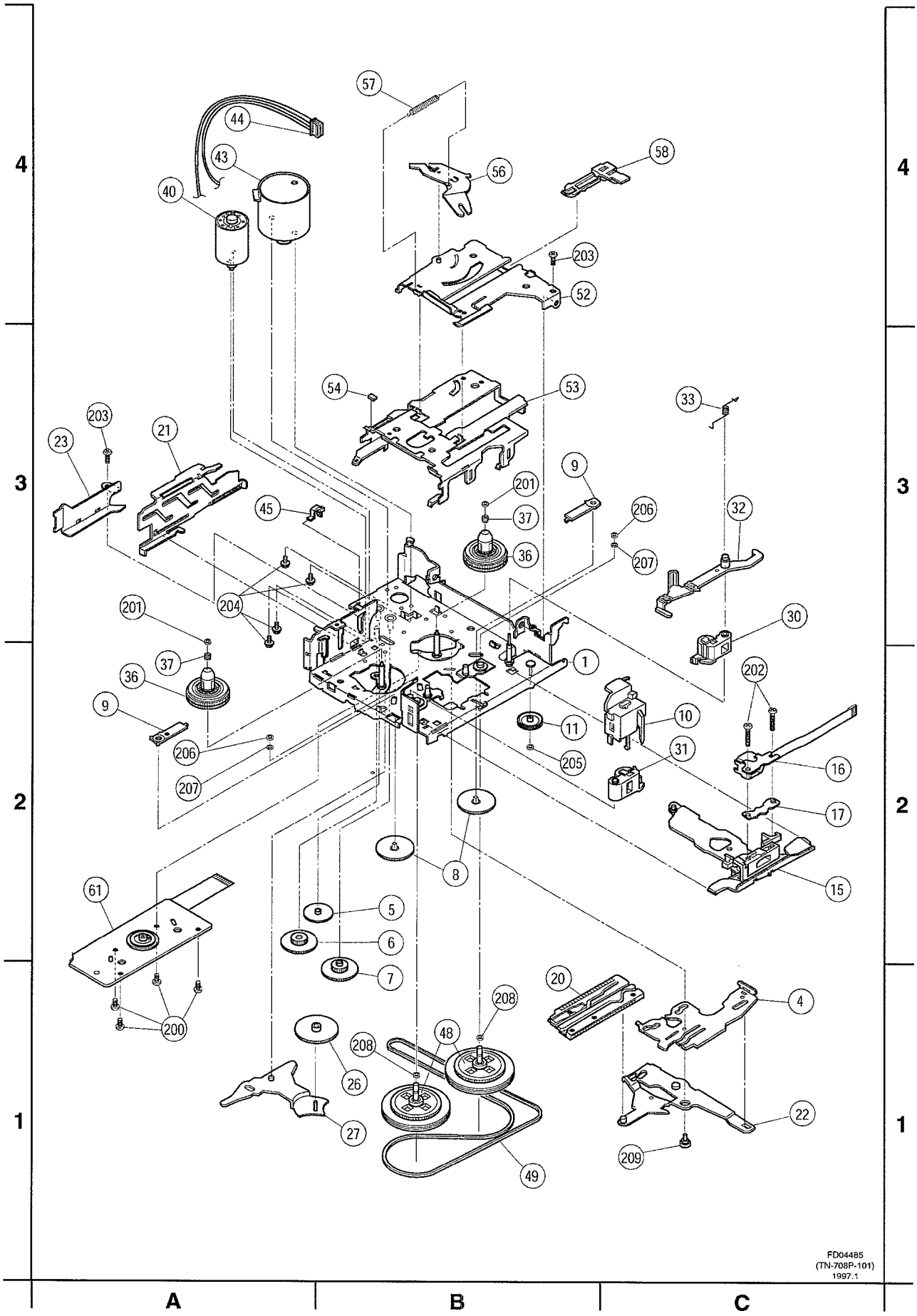
19.7. Mechanical Parts

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
1	YESFA01055	Chassis Rivet Ass´y	(2-B)
4	YESFX046056	Main Plate	(1-C)
5	YESFX003049	B Gear	(2-B)

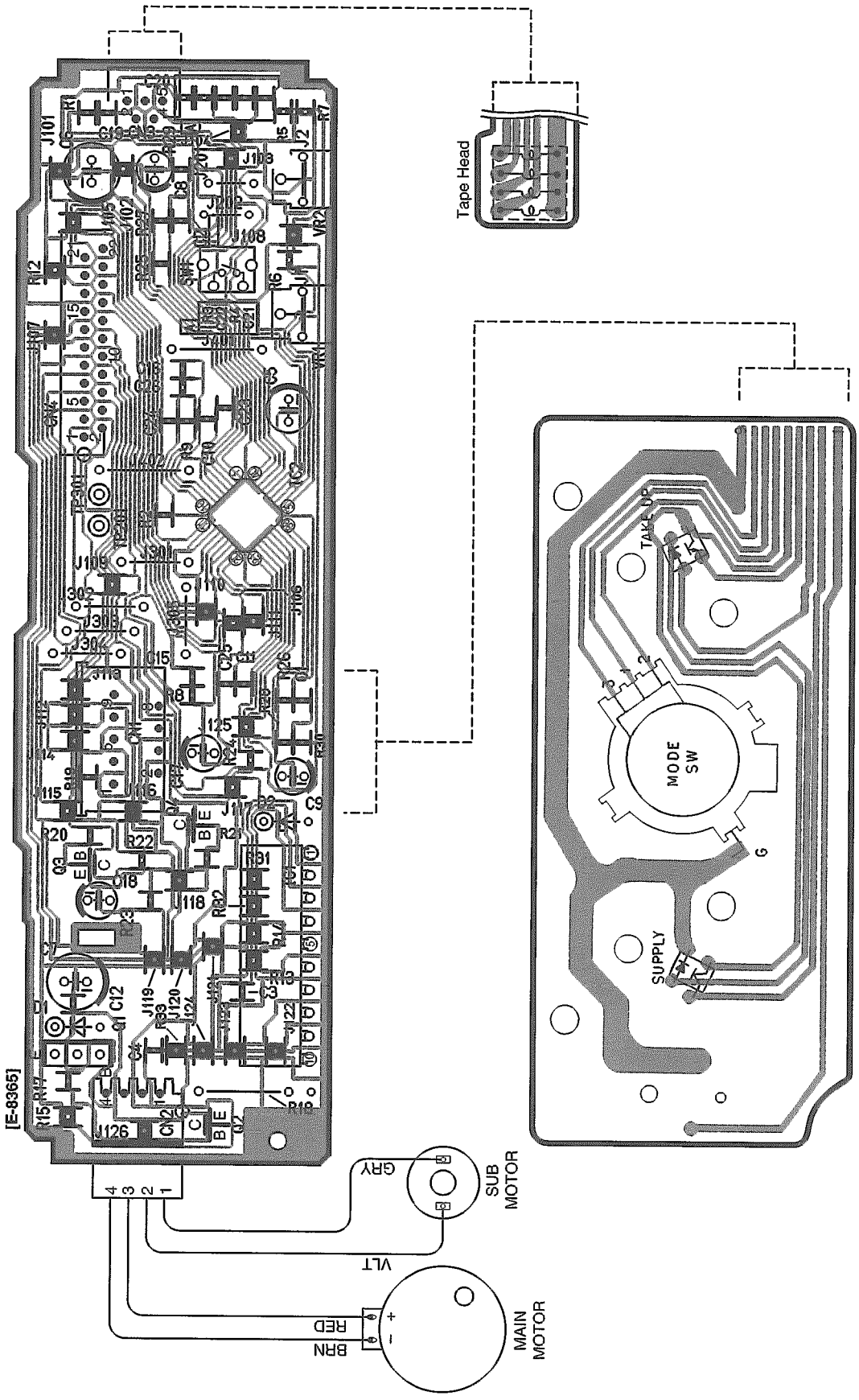
Ref. No.	Part No.	Part Name & Description	Remarks
6	YESFX003050	C Gear	(2-A)
7	YESFX003051	D Gear	(1-B)
8	YESFX003052	P Gear	(2-B)
9	YESFX003053	P.G Plate	(2-A) (3-B)
10	YESFG02021	Guide BKT	(2-C)
11	YESFX026013	Middle Pulley	(2-B)
15	YESFX046057	Head Panel Ass´y	(2-C)
16	YESAH006	P.Head P-5544SD-9949	(2-C)
17	YESFX046058	Head SP Plate	(2-C)
20	YESFX046059	O.P Plate Ass´y	(1-B)
21	YESFX215015	Eject Lever Rivet Ass´y	(3-A)
22	YESFX046060	S.B Plate Rivet Ass´y	(1-C)
23	YESFX046061	O.P Plate Holder	(3-A)
26	YESFX003054	FR Gear	(1-B)
27	YESFX046062	FR Plate	(1-A)
30	YESFX218011	Pinch Roller Arm (F) Ass´y	(3-C)
31	YESFX218012	Pinch Roller Arm (R) Ass´y	(2-C)
32	YESFX046063	SW Actuator B	(3-C)
33	YESFX005088	SA Spring M	(3-C)
36	YESFX209007	Reel Ass´y	(2-A) (3-B)
37	YESFX005074	B.Tension Spring (F)	(2-A) (3-B)
40	YESAK01013	Sub Motor Ass´y	(4-A)
43	YESAK01014	Main Motor Ass´y	(4-A)
44	YESAE283	M Conector Ass´y	(4-A)
45	YESFX006002	Wire Clamper	(3-A)
48	YESFX213004	FL Capstan Ass´y	(1-B)
49	YEFSFR03003	Main Belt	(1-B)
52	YESFX046064	Case Lifter	(4-B)
53	YESFX239006	Cassette Case	(3-B)
54	YESFS04007	Cusion Rubber	(3-B)
56	YESFX046065	P.S Actuator Plate	(4-B)
57	YESFX005075	P.S Spring	(4-B)
58	YESFX046066	Pack Slider	(4-B)
61	YESAP151	Reel PWB Ass´y	(2-A)
200	YESJS01090	Camera Screw (Tams) 2.0~2.2	(1-A)
201	YESJW01019	Lumilar Washer (Cut) 1.55~3.5~0.5	(3-A) (3-B)
202	YEJS01070	Adjust Screw 2.0~13	(2-C)
203	YEFT03084	Camera Tapping Screw S 2.0~3.0	(3-A) (4-B)
204	YEJS06130	Tams Screw 2.0~3.0	(3-A)
205	YEJW05130	P.Washer (Cut) 0.85~2.8~0.25	(2-B)
206	YESJW01012	P.Washer (Cut) 1.55~3.5~0.5	(2-A) (3-C)
207	YESJW01013	P.Washer 2.1~3.5~0.2	(2-A) (3-C)
208	YESJW01014	Lumilar Washer 2.1~3.5~0.1	(1-B)
209	YESJS01091	PK Collar Screw A	(1-C)

20 EXPLODED VIEW (Tape Deck)



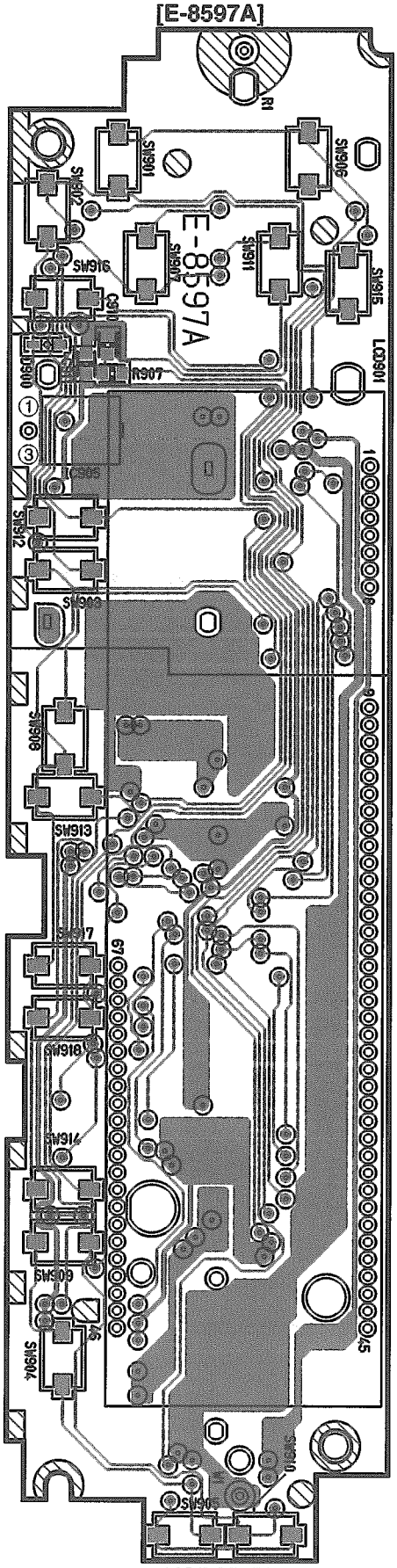
21 WIRING DIAGRAM

21.1. Tape Block

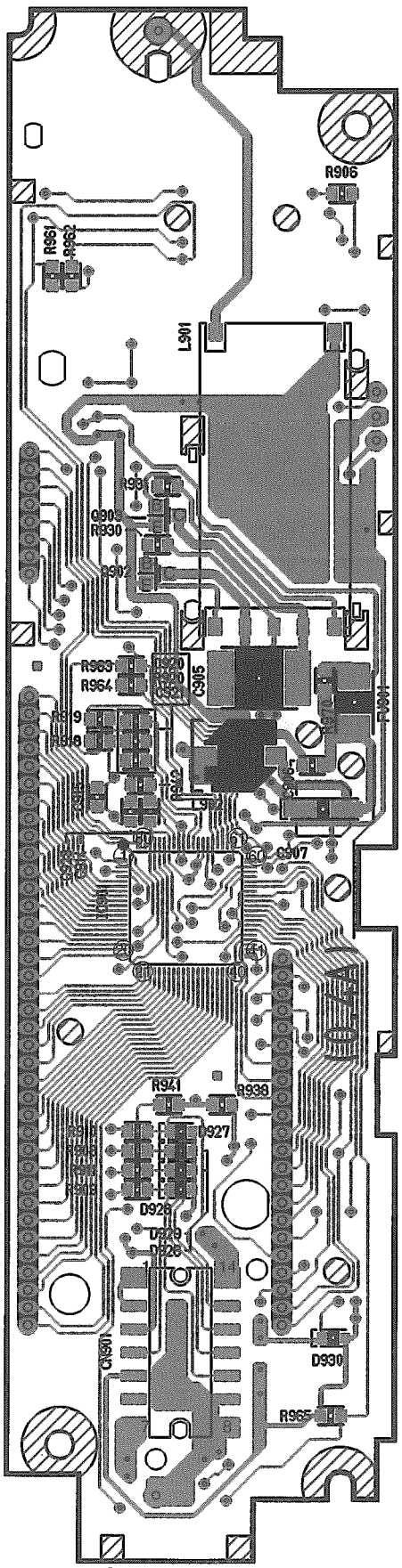


21.2. Display Block

[E-8597A]



<TOP VIEW>

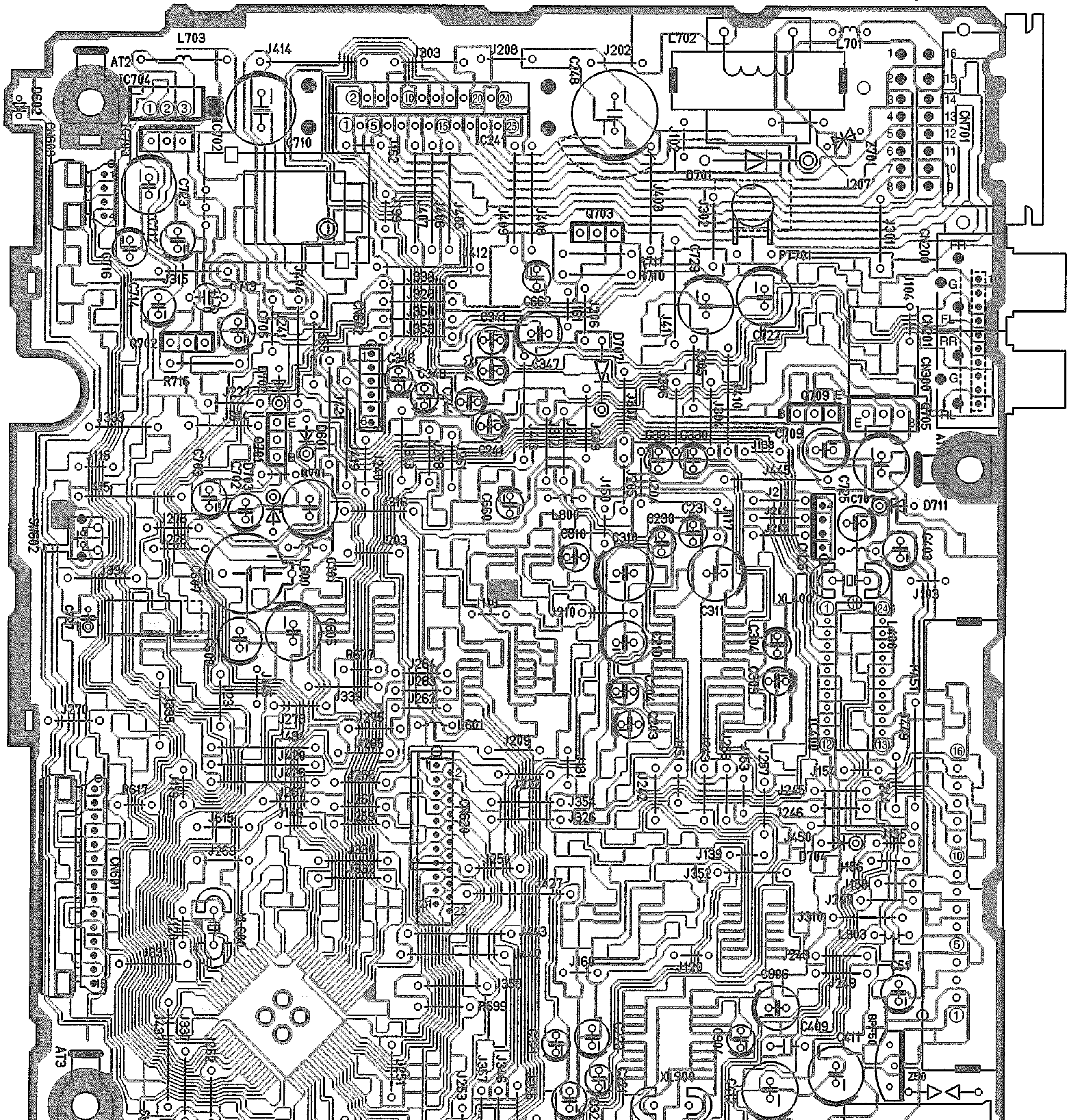


<BOTTOM VIEW>

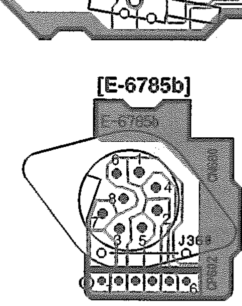
21.3. Main Block (Top View)

[E-6785a]

<TOP VIEW>

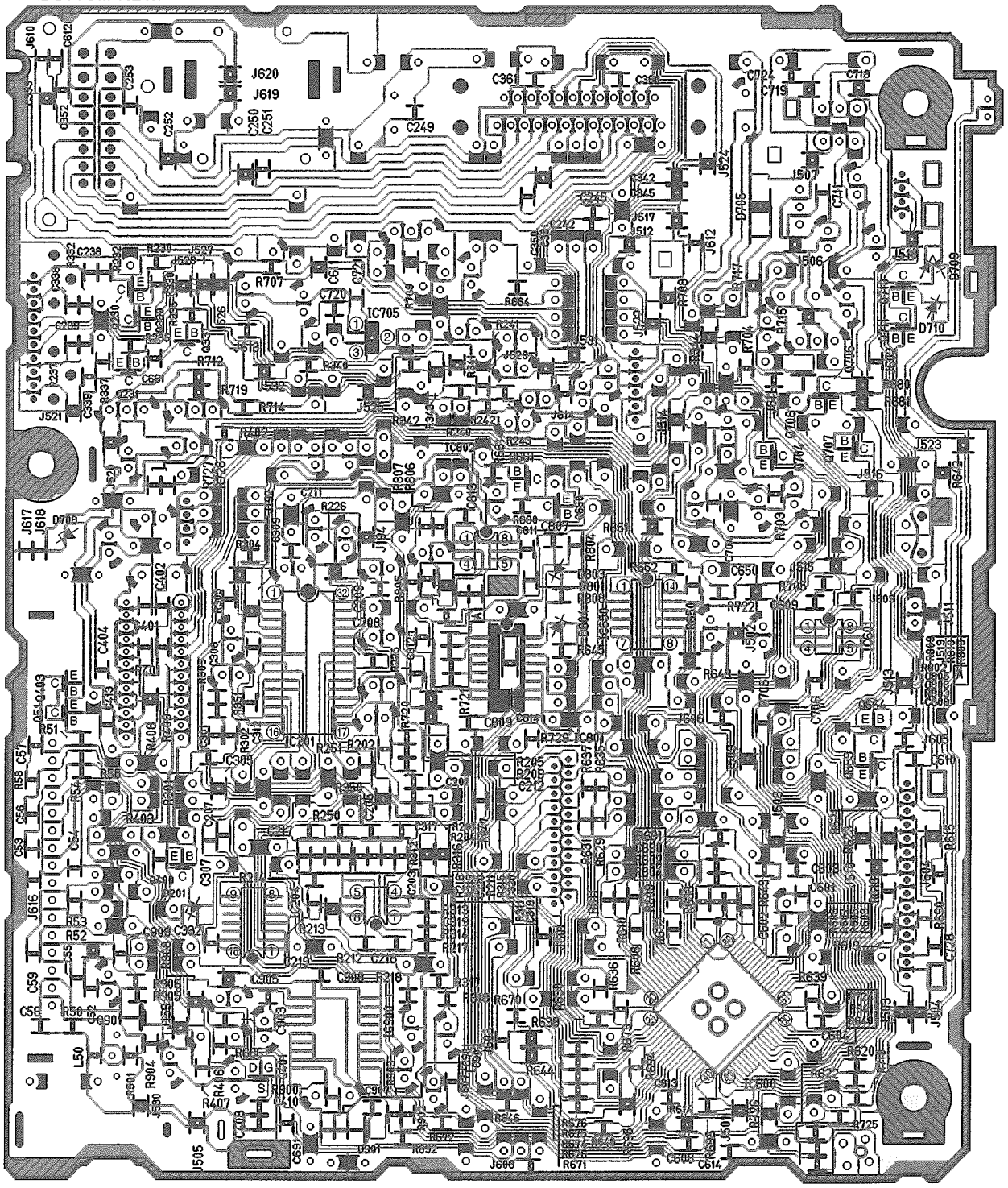


[E-6785b]

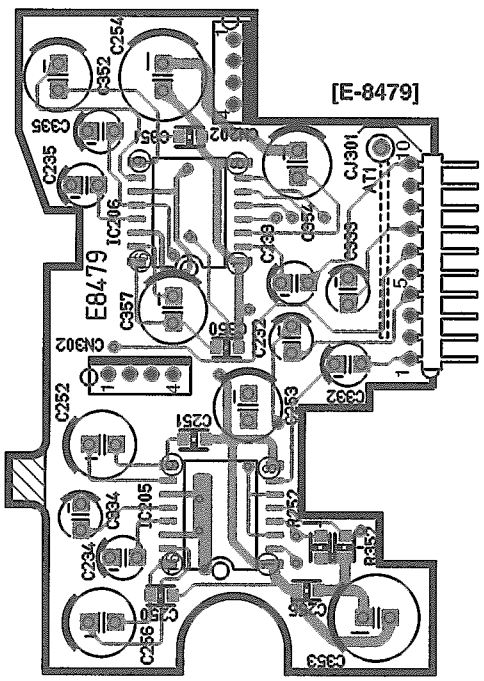


21.4. Main Block (Bottom View)

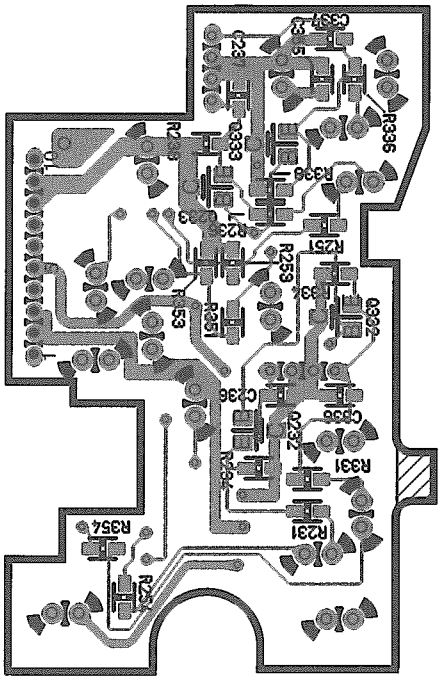
<BOTTOM VIEW>



21.5. Pre. Amp. Block



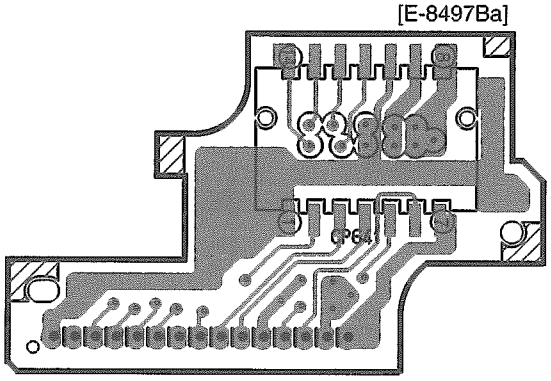
<TOP VIEW>



<BOTTOM VIEW>

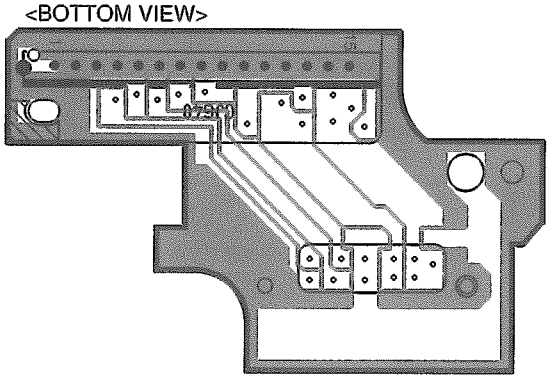
21.6. Sub. Block

[E-8497Ba]

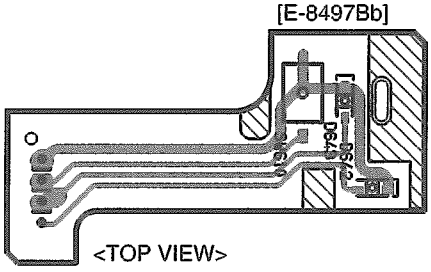


<TOP VIEW>

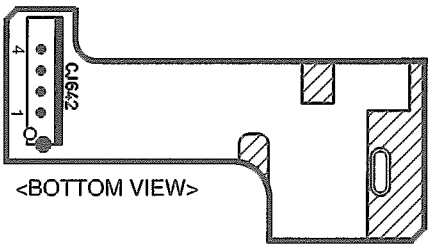
<BOTTOM VIEW>



[E-8497Bb]



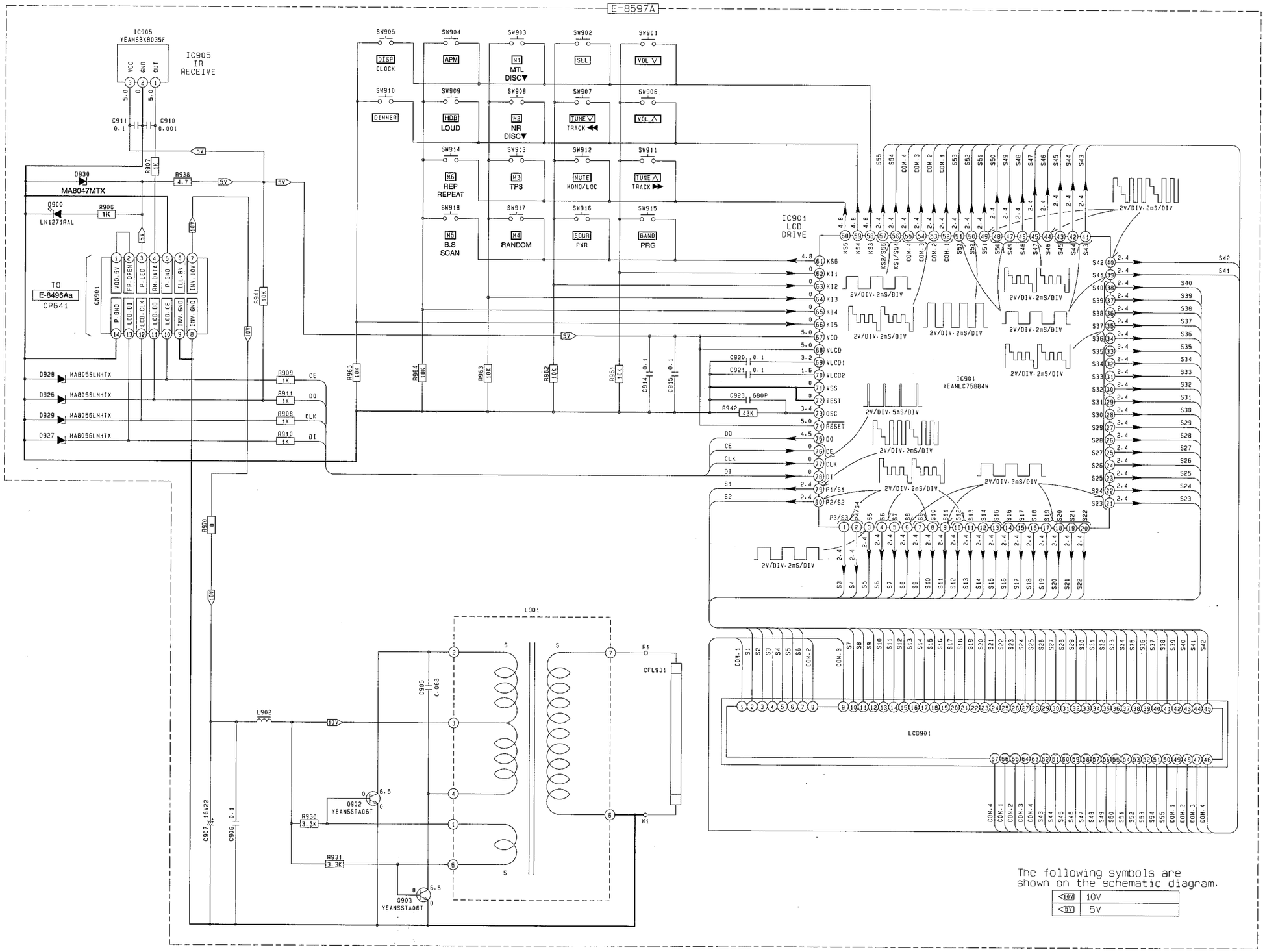
<TOP VIEW>



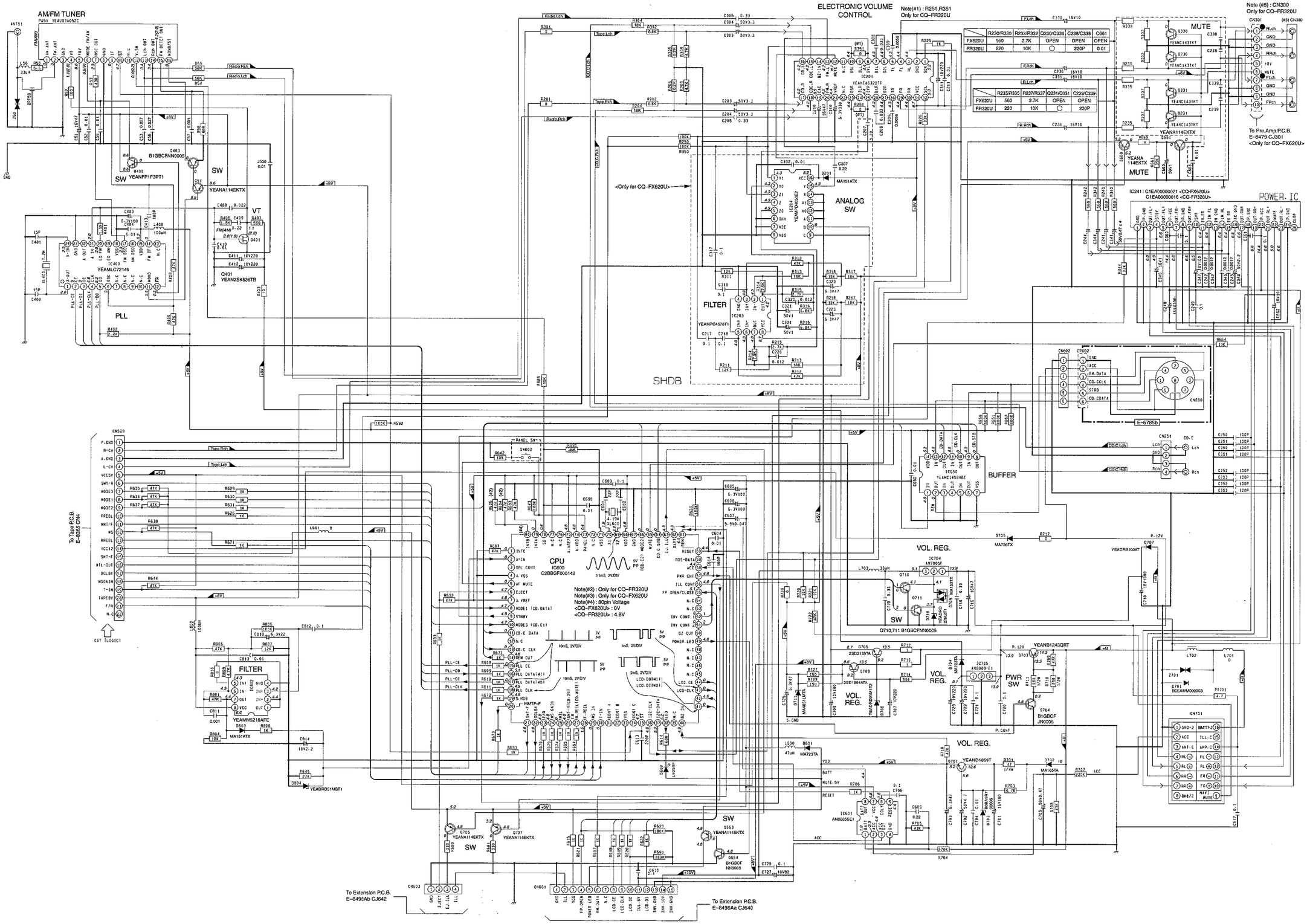
<BOTTOM VIEW>

22 SCHEMATIC DIAGRAM (1)

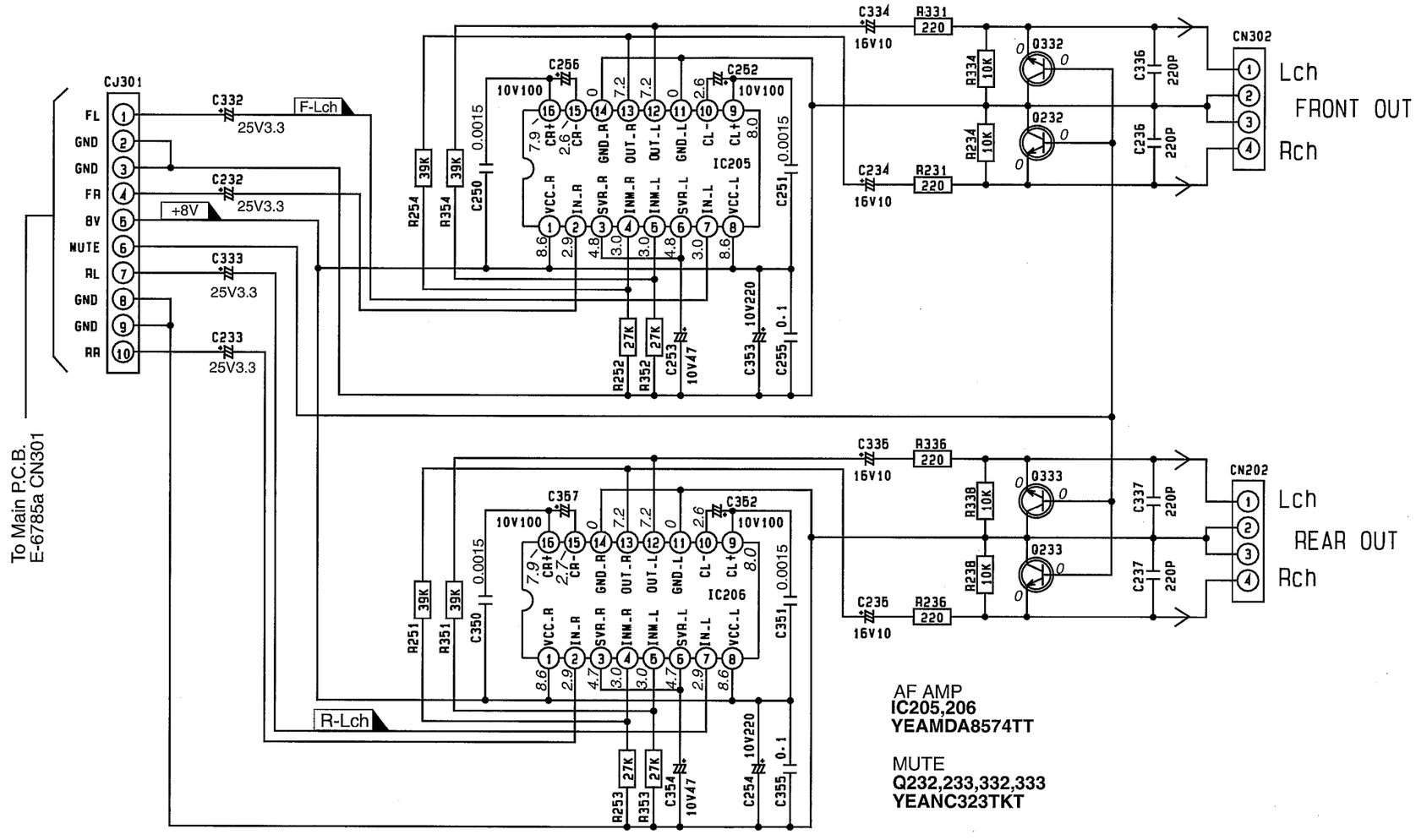
22.1. Display Block



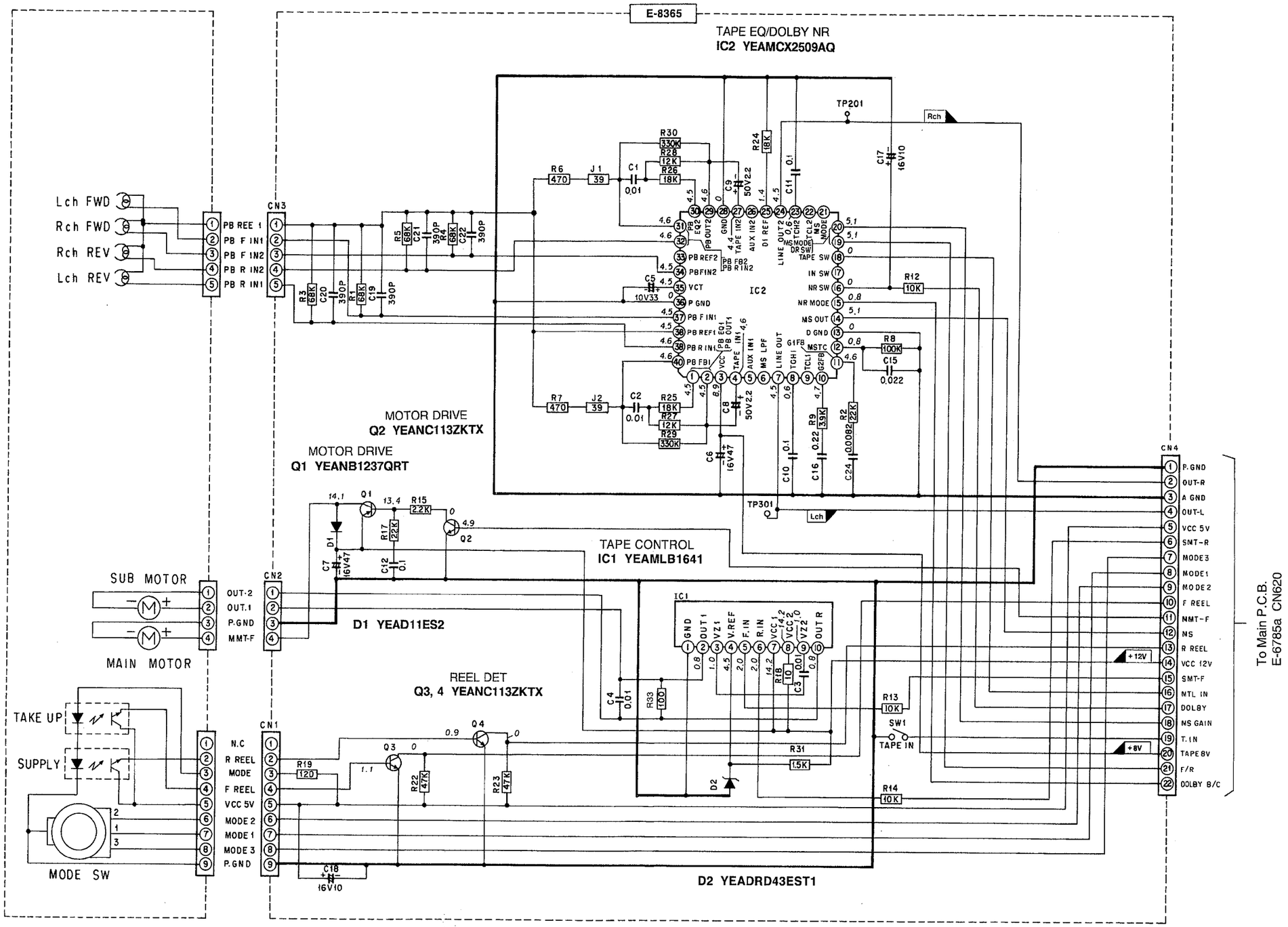
22.2. Main Block



22.3. Pre. Amp. Block



22.4. Tape Block



23 SCHEMATIC DIAGRAM (2)

23.1. Sub. Block