

Service Manual

AUTO PRODUCTS

CQ-RD40LEN

CQ-RD45LEN

Removable Face High-Power Cassette / RDS Receiver
Abnehmbares Bedienteil High-Power Cassettenspieler / RDS-Autoradio



< CQ-RD45LEN >

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trade marks of Dolby Laboratories Licensing Corporation.

SPECIFICATIONS\ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

ELECTRICAL CONNECTION\ЭЛЕКТРИЧЕСКИЕ СОЕДИНЕНИЯ

BLOCK DIAGRAM\БЛОК - СХЕМА

SCHEMATIC DIAGRAM\ПРИНЦИПИАЛЬНЫЕ СХЕМЫ

WIRING DIAGRAM\СХЕМЫ СОЕДИНЕНИЙ

OPERATION OF LSI\ЦОКОЛЕВКА И ФУНКЦИОНАЛЬНОЕ НАЗНАЧЕНИЕ ВЫВОДОВ МИКРОСХЕМ

ALIGNMENT INSTRUCTIONS\МЕТОДИКА НАСТРОЙКИ

ALIGNMENT POINTS\ТОЧКИ НАСТРОЙКИ

HEAD REPLACEMENT\ЗАМЕНА ГОЛОВКИ

PACKAGE AND IC BLOCK DIAGRAM\БЛОК - СХЕМЫ МИКРОСХЕМ

REPLACEMENT PARTS LIST\СПИСОК ЗАПАСНЫХ ЧАСТЕЙ

EXPLODED VIEWS\СБОРОЧНЫЕ ЧЕРТЕЖИ

Panasonic

■ FEATURES

- Radio Data System (PS, AF, TA, TP, PI Seek, EON, PTY, PTY Stand-By, CT)
- 20-Stations Preset Tuning (15 FM, 5 MW/LW)
- Dolby B NR Circuit (CQ-RD45LEN)
- Metal (CrO2)/Normal Tape Selector
- Programmable TPS (CQ-RD45LEN)
- Electronic Control of Volume, Bass, Treble, Balance and Fader
- CD Changer Control (CQ-RD45LEN)
- Detachable Face Plate Security

■ MERKMALE

- Radiodaten-System (PS, AF, TA, TP, PI-Suchlauf, EON, PTY, PTY-Bereitschaft, CT)
- 20 Festsender (5 für MW/LW, 15 für UKW)
- Dolby-Rauschunterdrückungssystem des Typs B (CQ-RD45LEN)
- Bandsortenwahlschalter für Reineisen(CrO2)-/Normalbänder
- Programmierbares TPS-System (CQ-RD45LEN)
- Elektronische Regelung der Lautstärke, Bässe, Höhen, Balance und Überblendung
- CD-Wechsler-Steuerung (CQ-RD45LEN)
- Sicherung für die abnehmbare Stirnplatte

FUSE

Be sure to use a fuse of the specified rating (1A, 10A) when replacing a blown fuse. Fuses with higher capacity ratings, use of any substitute, or connection without a fuse may result in a fire hazard or damage to the unit.

SICHERUNG

Als Ersatz für eine durchgebrannte Sicherung unbedingt eine Sicherung mit dem vorgeschriebenen Nennwert (1A, 10A) verwenden. Durch den Gebrauch von Sicherungen mit höheren Nennwerten, von Sicherungsersatzteilen oder durch den Anschluß ohne Gebrauch einer Sicherung kann ein Brand oder Geräteschaden verursacht werden.

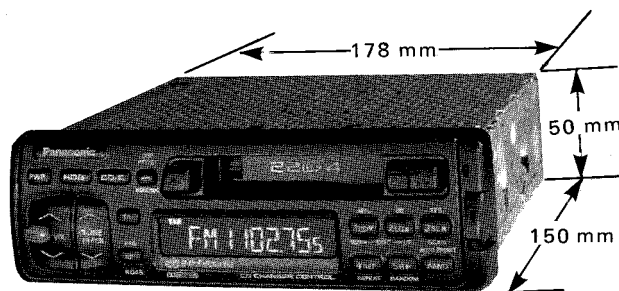
MAINTENANCE

To clean the exterior of this unit, use a soft cloth to wipe the surface. Do not use benzine, thinner, or any other type of solvents.

PFLEGE

Zur Reinigung des äußeren des Gerätes mit einem weichen Tuch abwischen. Auf keinen Fall Benzin, Verdünner oder irgendein anderes Lösemittel verwenden.

DIMENSIONS / ABMESSUNGEN



Specifications*

General

Power Supply	: DC 12V (11V - 16V), Test Voltage 14.4V Negative Ground
Tone Controls	: Bass; $\pm 12\text{dB}$ at 100Hz Treble; $\pm 12\text{dB}$ at 10kHz
Current Consumption	: Less than 2.0A (Tape mode, 0.5W 4-Speaker)
Maximum Power Output	: $4 \times 22\text{W}$ (at 4Ω)
Power Output	: $4 \times 11\text{W}$ (DIN45 324 at 4Ω)
Speaker Impedance	: 4 - 8Ω

FM Stereo Radio

Frequency Range	: 87.5 - 108MHz
Usable Sensitivity	: $6\text{dB}/\mu\text{V}$ (S/N 30dB)
Stereo Separation	: 35 dB (at 1kHz)

MW Radio

Frequency Range	: 531 - 1,602kHz
Usable Sensitivity	: $26\text{dB}/\mu\text{V}$ (S/N 20dB)

LW Radio

Frequency Range	: 153 - 279kHz
Usable Sensitivity	: $30\text{dB}/\mu\text{V}$ (S/N 20dB)

Cassette Player

Reproduction System	: 4-track, 2-program stereo
Tape Speed	: 4.76cm/sec.
FF/Rewind Time	: Less than 110sec. (C-60)
Frequency Response	: 35 - 14,000Hz (Normal) 35 - 17,000Hz (Metal)
Wow and Flutter	: 0.12% (WRMS)
Signal to Noise Ratio	
< CQ-RD45LEN >	: 52dB (Dolby B NR on ; 62dB)
< CQ-RD40LEN >	: 52dB

Dimensions**

Main unit	: 178(W) $\times$ 50(H) $\times$ 150(D) mm
-----------	--

Weight**

Main unit	: 1.5kg
-----------	---------

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

** Dimensions and Weight shown are approximate.

Technische Daten*

Allgemeines

Spannungsversorgung	: 12V (11V - 16V) Gleichstrom, Testspannung 14.4V, negative Erdung
Klangregelung	: Bässe; $\pm 12\text{dB}$ bei 100Hz Höhen; $\pm 12\text{dB}$ bei 10kHz
Leistungsaufnahme	: Weniger als 2.0A (Cassettenwiedergabe, 0.5W, 4 Lautsprecher)
Höchstausgangsleistung Ausgang	: $4 \times 22\text{W}$ (bei 4Ω) : $4 \times 11\text{W}$ (DIN45 324 bei 4Ω)
Lautsprecherimpedanz	: 4 - 8Ω

UKW-Stereo-Tunerteil

Frequenzbereich	: 87.5 - 108MHz
Anwendbare Empfindlichkeit	: $6\text{dB}/\mu\text{V}$ (Signal /Rauschabstand 30dB)
Stereoabscheidung	: 35 dB (bei 1kHz)

MW-Tunerteil

Frequenzbereich	: 531 - 1,602kHz
Anwendbare Empfindlichkeit	: $26\text{dB}/\mu\text{V}$ (Signal /Rauschabstand 20dB)

LW-Tunerteil

Frequenzbereich	: 153 - 279kHz
Anwendbare Empfindlichkeit	: $30\text{dB}/\mu\text{V}$ (Signal /Rauschabstand 20dB)

Cassettenspieler

Wiedergabe-System	: 4 Spuren, 2-Kanal-Stereo
Bandgeschwindigkeit	: 4.76cm/sek.
Schnellvorlauf- /Rücklaufzeit	: Weniger als 110 sek. (C-60)
Frequenzgang	: 35 - 14,000Hz (Normale Bänder) 35 - 17,000Hz (Reineisenband)
Gleichlaufschwankungen Signal /Rauschabstand	: 0.12% (WRMS)
< CQ-RD45LEN >	: 52dB (Dolby B NR ein; 62dB)
< CQ-RD40LEN >	: 52dB

Abmessungen**

Haupteinheit	: 178(B) $\times$ 50(H) $\times$ 150(T) mm
--------------	--

Gewicht**

Haupteinheit	: 1.5kg
--------------	---------

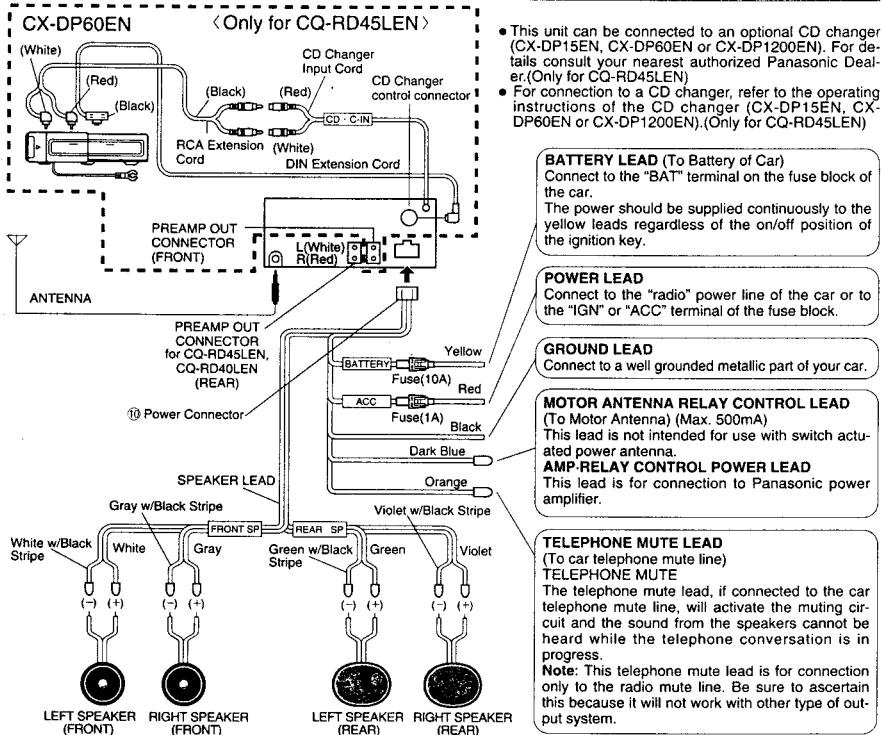
* Technische Daten und Ausführung können sich ändern ohne besondere Ankündigung bei gebührenden Verbesserungen.

** Abmessungen und Gewicht in angenäherten Werten angegeben.

Electrical Connection

Caution:

- To prevent damage to the unit, be sure to follow the connection diagram below.
- Remove the covering of the leads about 5 mm long from their end before connecting.
- Be sure to connect the ground lead (black) to the car chassis first before connecting the other leads to the specified wires of the car.
- 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.



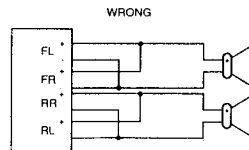
Connect All Leads

Now that you have identified all the wires in the vehicle, you're ready to begin connecting them to the stereo unit wires. The connection diagram on this page 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.

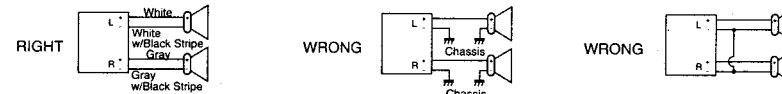


Speaker Connections

CAUTION:

1. Use ungrounded speakers only.
2. The speakers to be used with this unit should be able to handle more than 22W of audio power. If an optional amplifier is used, the speakers should be able to handle the maximum output power of the amplifier. Use of speakers with small input ratings can cause damage to the speakers.
3. The speaker impedance should be 4 - 8 ohms. If the impedance is too large or too small, it affects the output and may cause damage to the speakers or this unit.
4. Do not use 3-wire type speaker system having a common earth lead. Never connect the speaker cord to the body of the car. This unit uses the BTCL circuit, so each speaker should be connected separately using parallel vinyl insulated cords.
5. The speaker cords and the power amplifier unit should be kept away (about 30cm apart) from the antenna and antenna extension cord.
6. Follow the connection diagram below carefully. Failure to do so may cause damage to both unit and speakers.

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



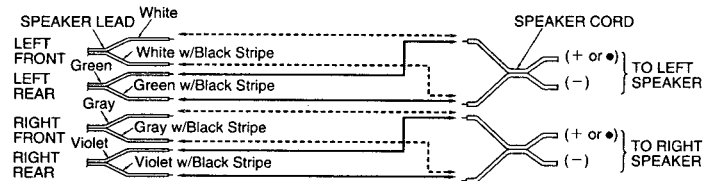
- Do not connect more than one speaker to one set of speaker leads.



2-SPEAKER SYSTEM

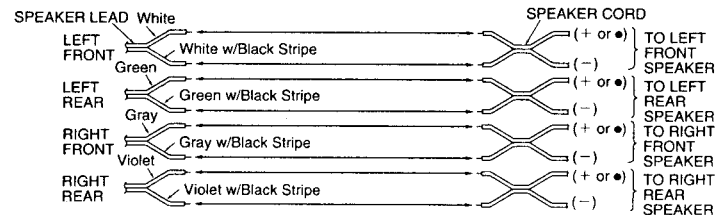
Use only front or rear speaker leads. Do not connect both (Front and Rear) together.

- When the front speakers are used, connect leads as illustrated in dotted lines (----) below.
- When the rear speakers are used, connect leads as illustrated in actual lines (—) below.

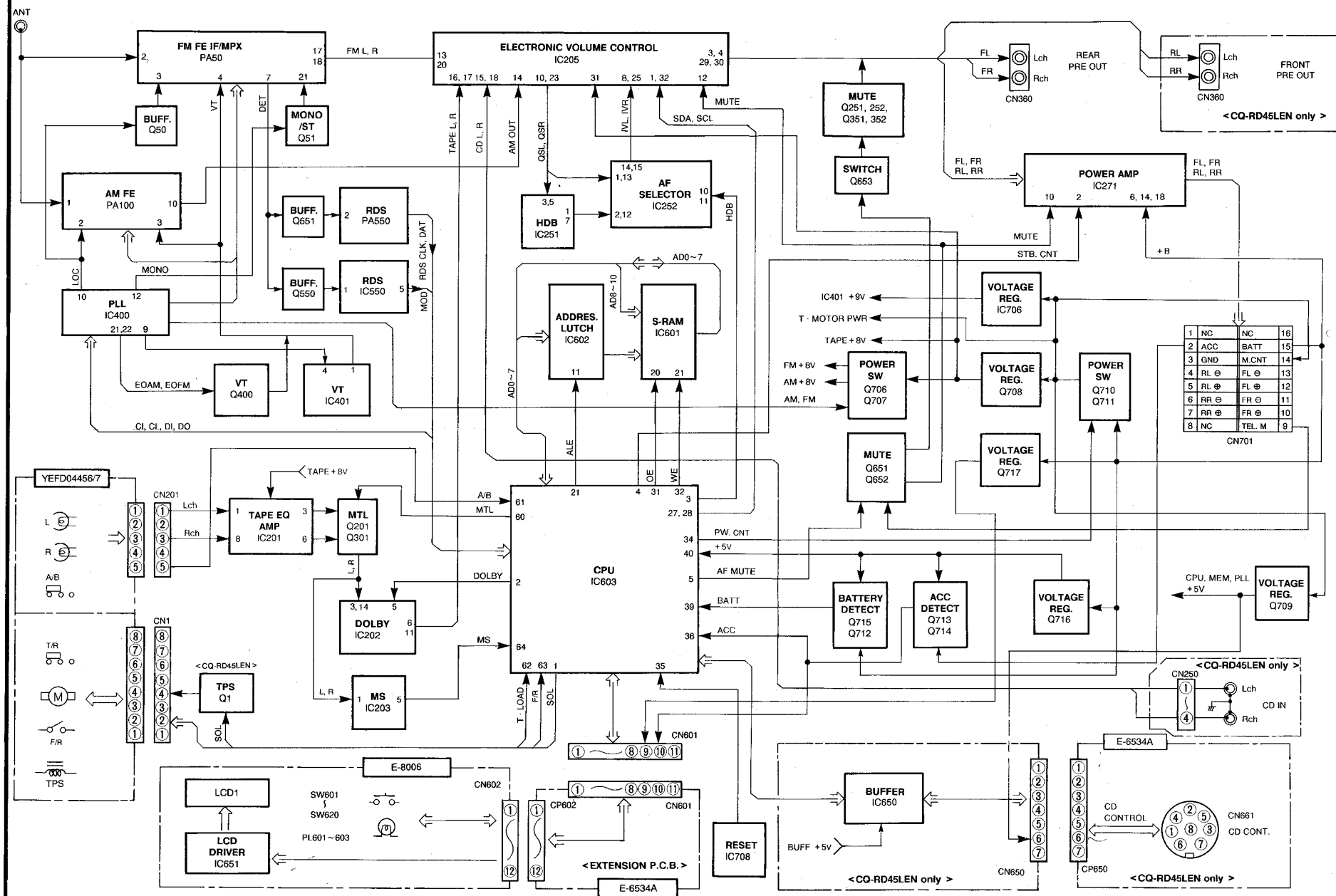


※To prevent unused speaker leads from any short-circuiting, protect them with insulating caps.

4-SPEAKER SYSTEM



BLOCK DIAGRAM MODELS CQ-RD40/45LEN



Removable Face High-Power Cassette / RDS Receiver

SCHEMATIC DIAGRAM / SCHALTBILT MODELS CQ-RD40/45LEN (Display Blo

E - 8006

LC01

YEXDCM1103

To Extend P.C.B.
E-6534Ab CP602

LCD DRIVER
IC651
YEAMPCF8576T

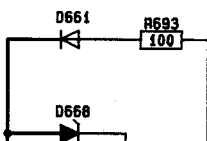
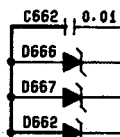
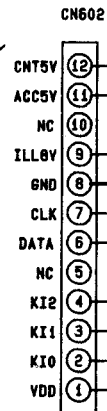
D661
LN01801RC5TA
D662, 666 ~ 668
MA8056LMHTX

(※1) SW605
CQ-RD45LEN only

(※2) R676
CQ-RD40LEN only

0 ohm : CQ-RD40LEN only
27k ohms : CQ-RD45LEN only

(※3) R661
0 ohm : CQ-RD40LEN only
15 ohms : CQ-RD45LEN only



R695 1K

R694 1K

R696 1K

R671 1.5K

R630 5.6K

R677 1.5K

R683 1.5K

R667 100K

C663 0.01

R697 100K

R672 1.5K

R673 2.2K

R674 3.9K

R675 6.2K

R676 ※2

SW601

SW602

SW603

SW604

SW605 (※1)

SW606

SW608

SW609

SW610

SW611

SW612

SW613

SW615

SW616

SW617

SW618

SW619

PL601

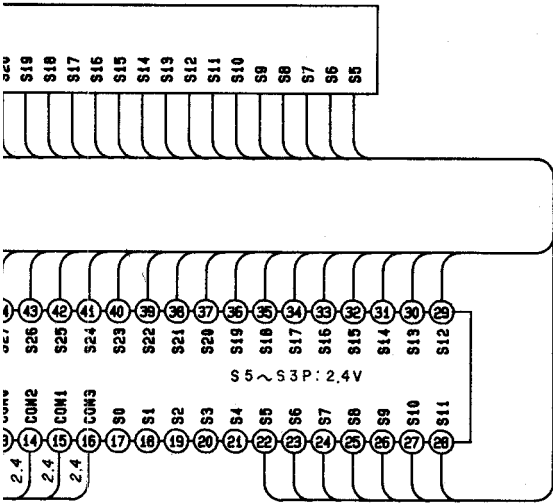
PL602

PL603

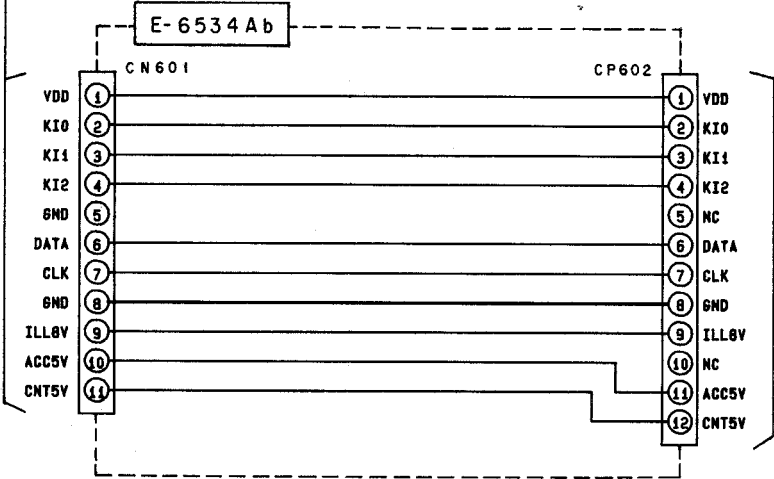
R661 ※3

Display Block)

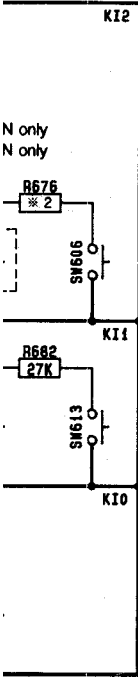
EXDCM1103



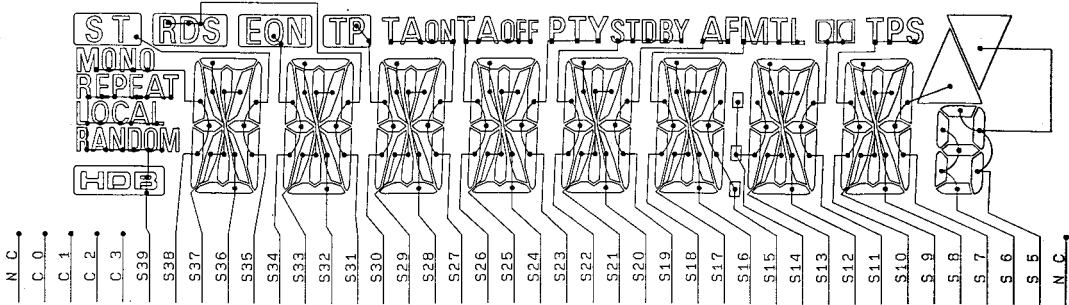
To Main P.C.B.
E-6534Aa CN601



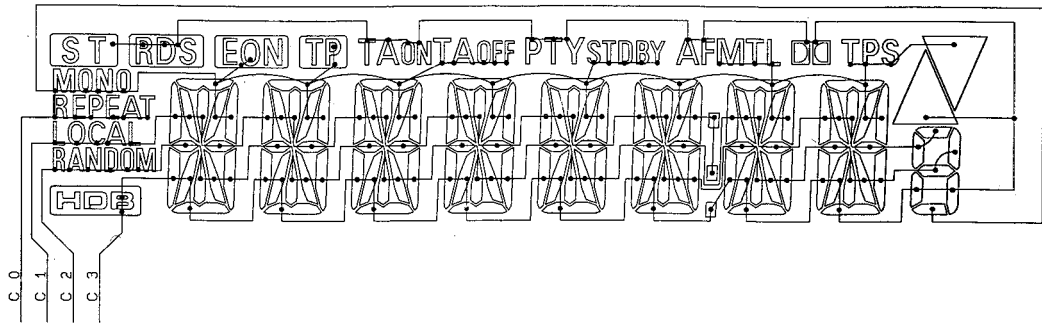
To Display P.C.B.
E-8006 CN602



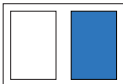
SEGMENT

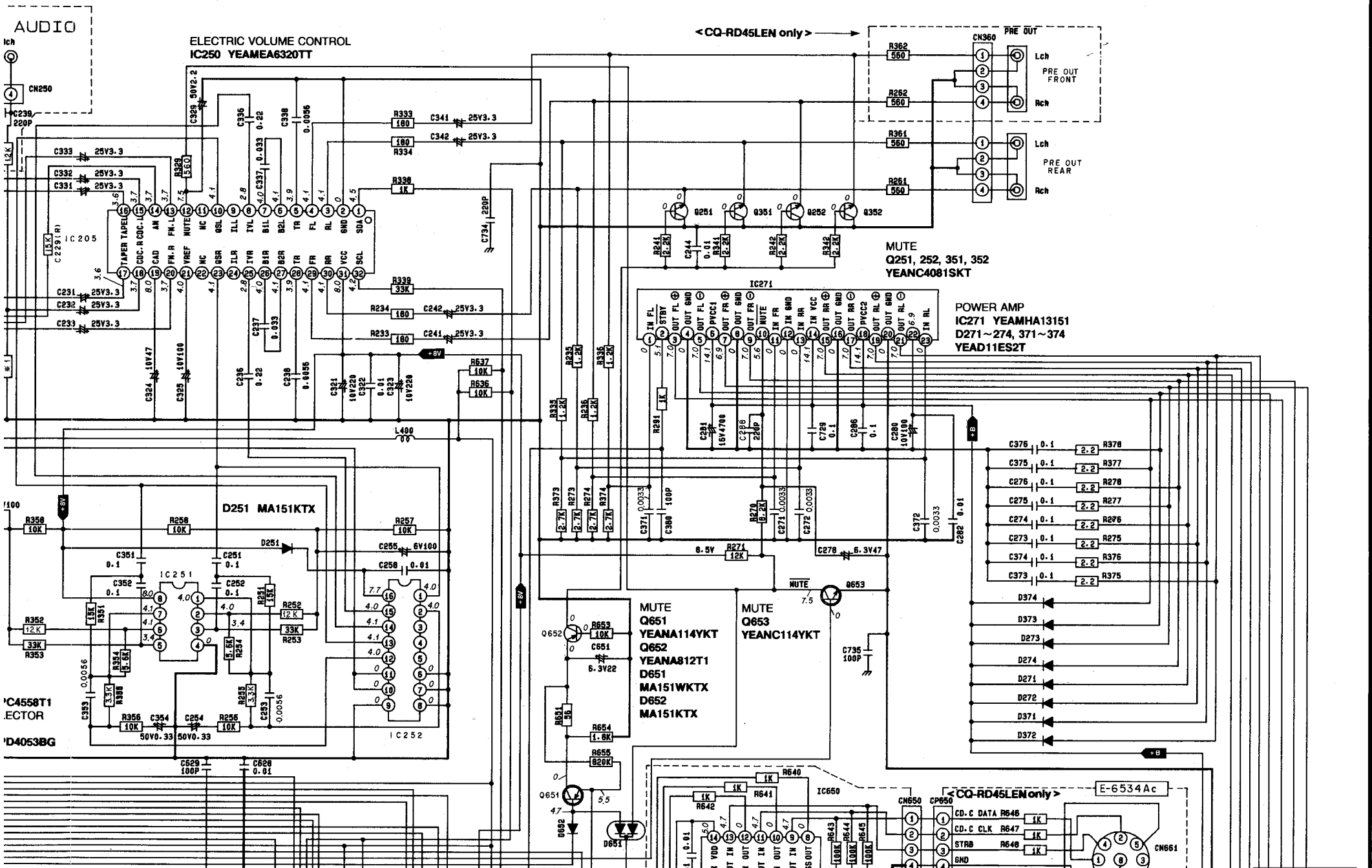


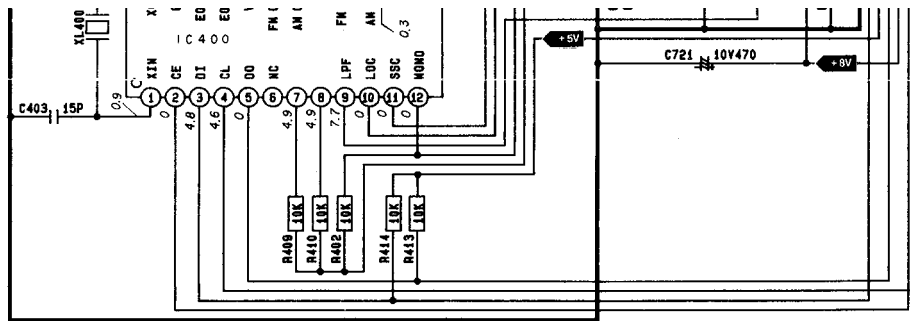
COMMON



Removable Face High-Power Cassette / RDS Receiver



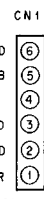




TAPE EQ AMP
IC201 YEAMLA3161
MTL
Q201, 301 YEANC144EKT

To
Tape Head P.C.B.
E-7542
CNP1

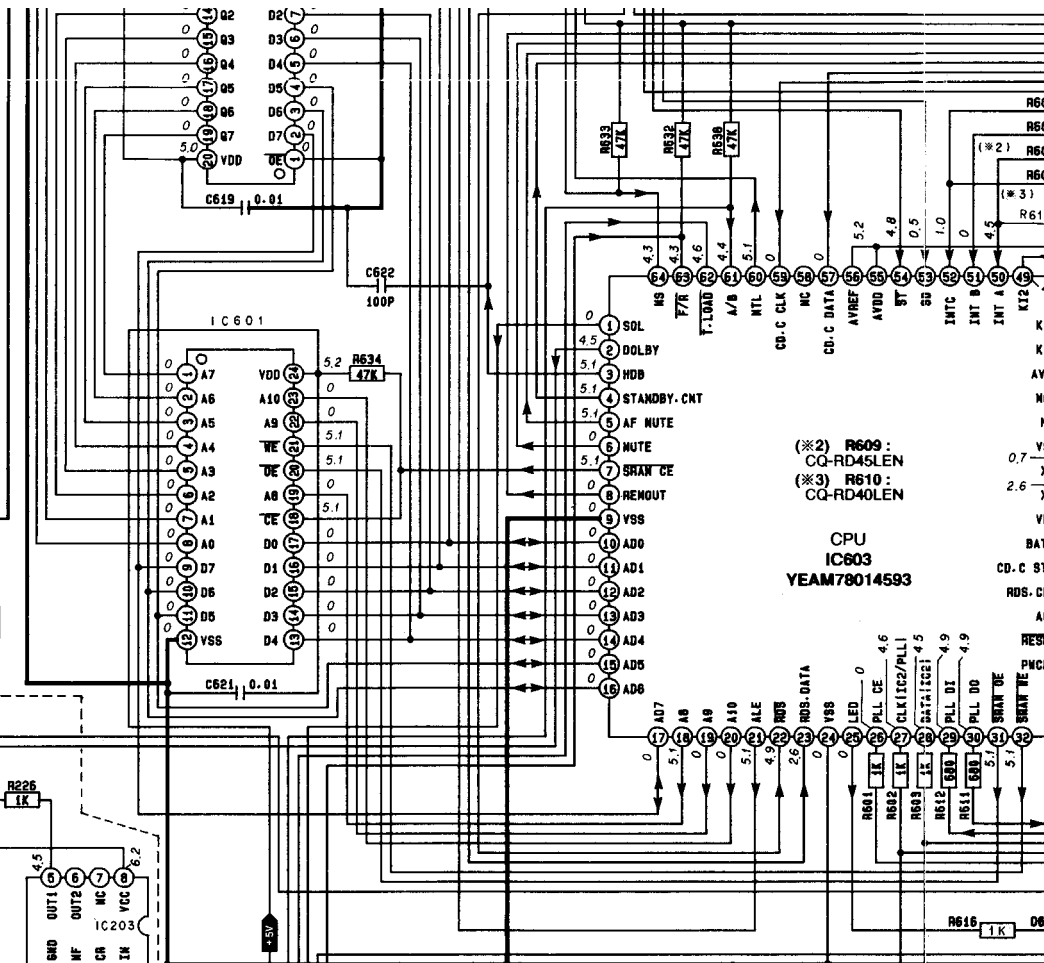
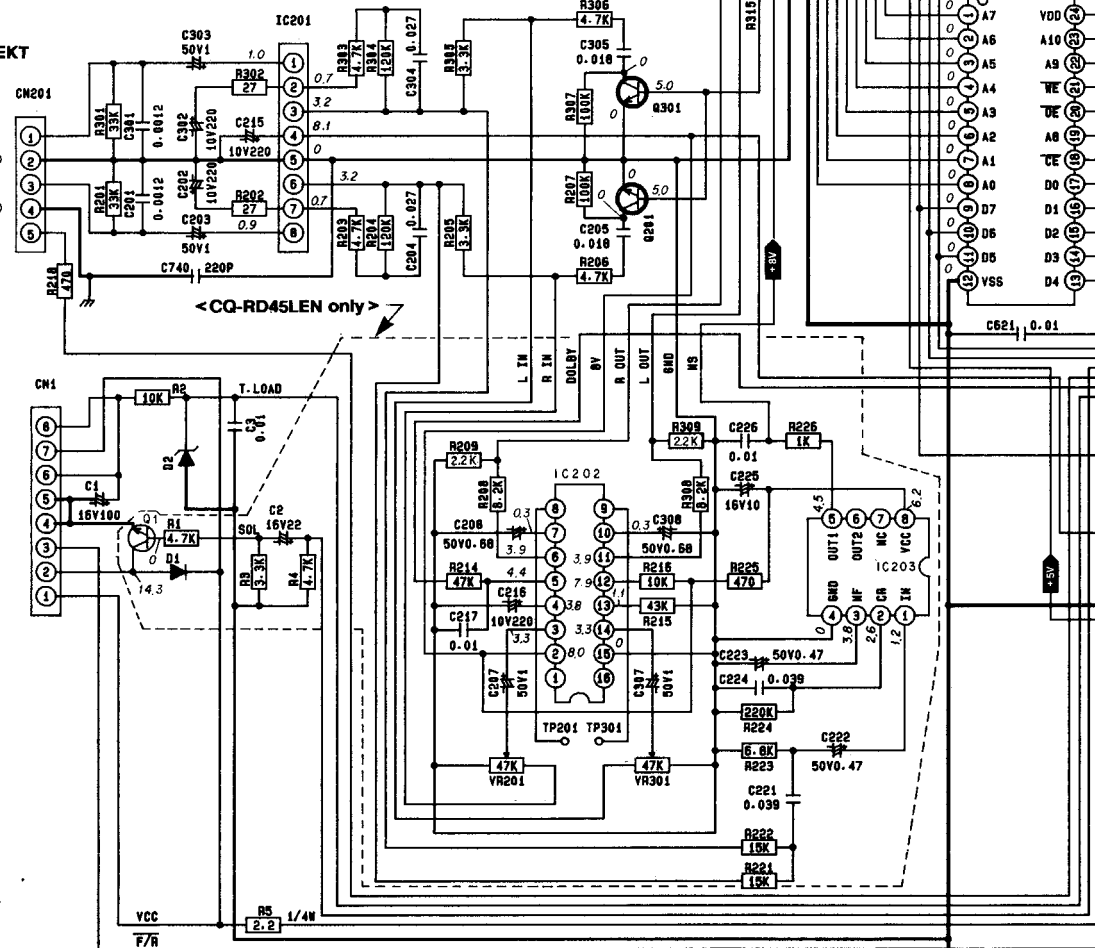
To Tape Deck P.C.B.
E-1940 CP701
<CQ-RD40LEN only>



To Tape Deck P.C.B.
E-1940 CP701
<CQ-RD45LEN only>

SOL DRIVER
Q1 YEAN2SD1111
D1 YEADDSM1A2T7
D2 YEADRD51M2T2

DOLBY
IC202 YEAMCX1102MT
MS
IC203 YEAMLA2000M

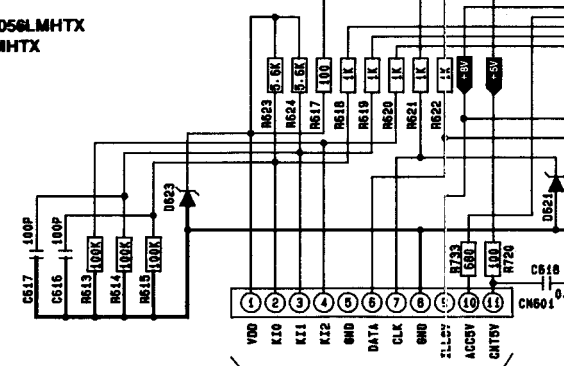


(*)2 R609 :
CQ-RD45LEN
(*)3 R610 :
CQ-RD40LEN

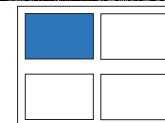
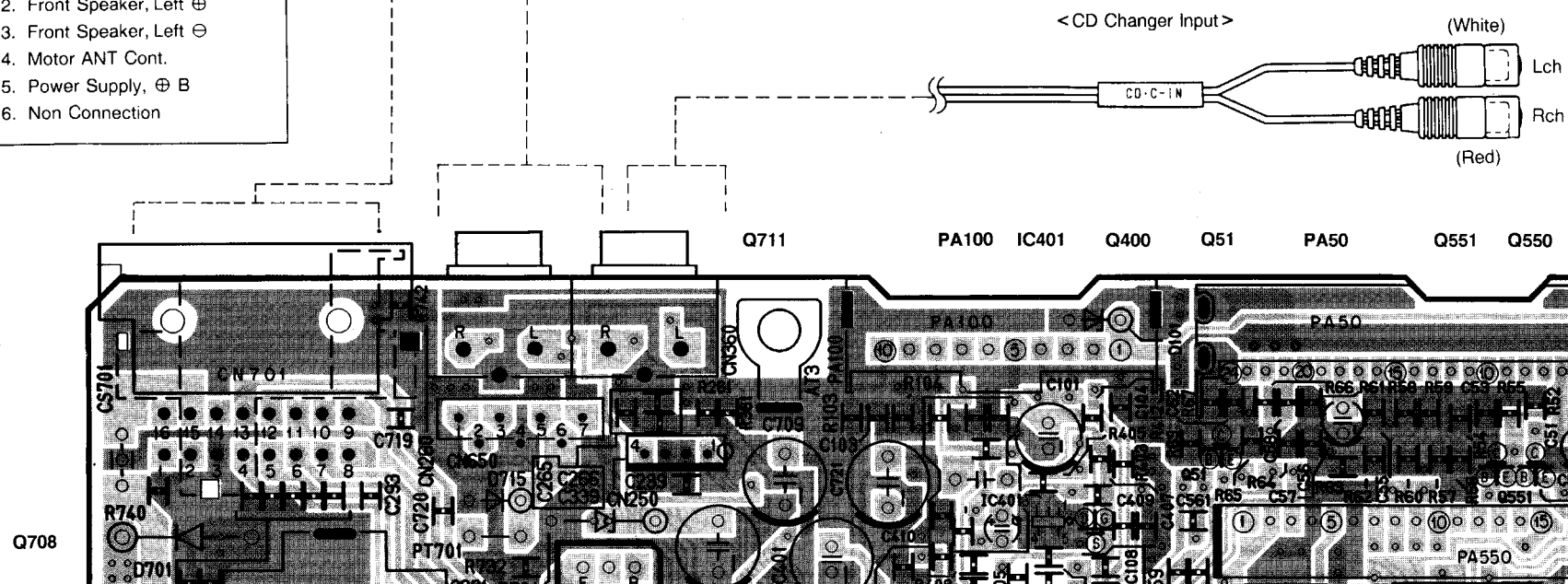
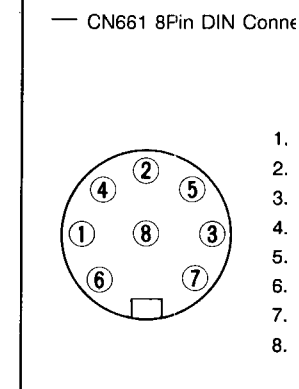
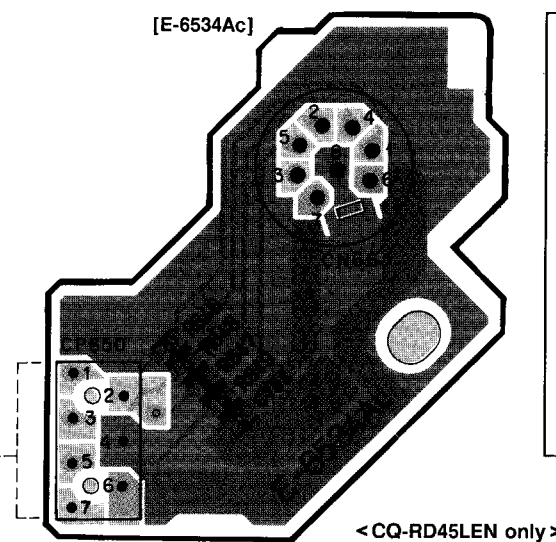
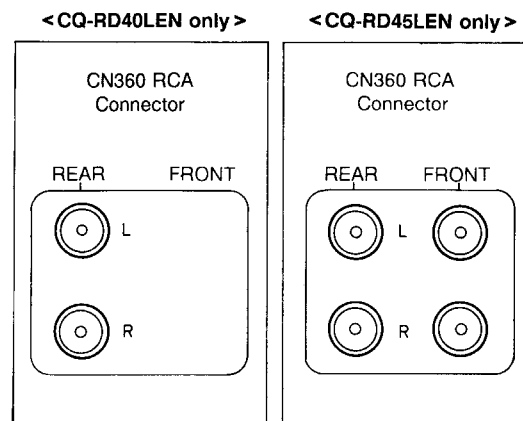
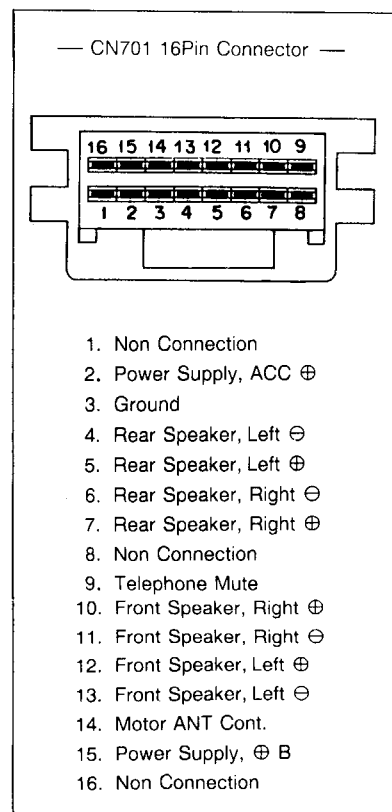
CPU
IC603
YEAM78014593

S-RAM
IC601 YEAM3517ML15
D621~623 MA8056LMHTX
D624 MA8091LMHTX

LED
D601 LN25

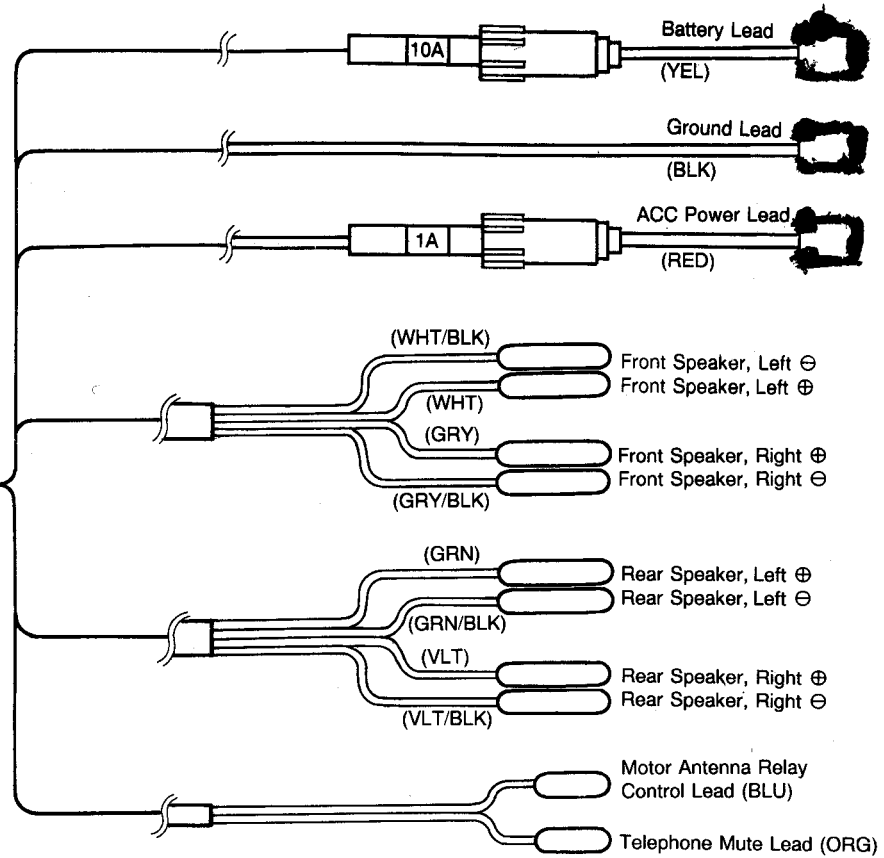
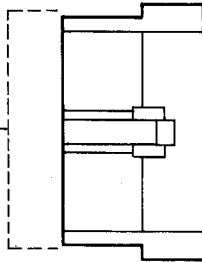


WIRING DIAGRAM / VERDHATUNG MODELS CQ-RD40/45LEN (Main Block)



I Connector —

1. CD. C Data
2. CD. C Clock
3. P. ON $\oplus$ 13V
4. CD. C Strobe
5. Remote Data
6. P. ON $\oplus$ 13V
7. Not Used
8. Signal Ground



PA50			
1	0 V	13	2.6 V
2	0 V	14	0.1 V
3	3.6 V	15	1.8 V
4	0.9 V	16	0 V
5	0 V	17	2.5 V
6	8.0 V	18	2.5 V
7	3.6 V	19	2.5 V
8	1.2 V	20	2.6 V
9	0.9 V	21	1.2 V
10	3.1 V	22	0.4 V
11	1.1 V	23	4.8 V
12	0.5 V	24	0 V

IC251			
1	4.0 V	5	3.4 V
2	4.0 V	6	4.1 V
3	3.4 V	7	4.1 V
4	0 V	8	8.0 V

IC252			
1	4.0 V	9	0 V
2	4.0 V	10	0 V
3	—	11	0 V
4	—	12	4.0 V
5	—	13	4.1 V
6	0 V	14	4.1 V
7	0 V	15	4.0 V
8	0 V	16	7.7 V

PA100			
1	0 V	6	—
2	0 V	7	0 V
3	1.9 V	8	0 V
4	0 V	9	0 V
5	8.0 V	10	0 V

PA550			
1	—	9	0 V
2	5.0 V	10	4.9 V
3	—	11	—
4	0 V	12	—

IC271			
1	0 V	13	0 V
2	5.1 V	14	14.1 V
3	7.0 V	15	7.0 V
4	0 V	16	0 V
5	7.0 V	17	7.0 V
6	14.1 V	18	14.1 V
7	6.9 V	19	7.0 V
8	0 V	20	0 V
9	7.0 V	21	7.0 V

IC602			
1	0 V	11	0 V
2	0 V	12	0 V
3	0 V	13	0 V
4	0 V	14	0 V
5	0 V	15	0 V
6	0 V	16	0 V
7	0 V	17	0 V
8	0 V	18	0 V
9	0 V	19	0 V
10	0 V	20	5.0 V

IC650			
1	0 V	8	0 V
2	—	9	4.7 V
3	0 V	10	0 V
4	—	11	4.7 V

Q1	
B	0 V
C	14.3 V
E	0 V

Q50	
B	0 V
C	2.4 V
E	0 V

Q51	
B	0 V
C	8.0 V
E	1.2 V

Q201	
B	5.0 V
C	0 V
E	0 V

Q251	
B	0 V
C	0 V
E	0 V

Q252	
B	0 V
C	0 V
E	0 V

Q301	
B	5.0 V
C	0 V
E	0 V

Q351	
B	0 V
C	0 V
E	0 V

Q352	
B	0 V
C	0 V
E	0 V

Q400	
G	2.0 V
D	0.9 V
S	0 V

Q550	
B	3.6 V
C	8.0 V
E	3.3 V

Q551	
B	3.6 V
C	8.0 V
E	3.2 V

Q651	
B	4.7 V
C	0 V
E	5.5 V

Q652	
B	0 V
C	0 V
E	0 V

Q653	
B	0 V
C	7.5 V
E	0 V

Q706	
B	0.3 V
C	8.0 V

Q707	
B	0.3 V
C	8.0 V

Q708	
B	8.6 V
C	13.0 V

Q709	
B	5.6 V
C	13.5 V

Q710	
B	13.4 V
C	14.0 V

[E-6534Aa]

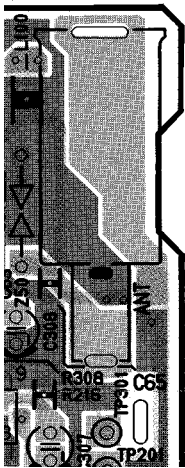
Q50

PA550

Q552

Q553

IC202



To Tape Deck P.C.B.

E-1940 CP701

< CQ-RD45LEN only >

To Tape Deck P.C.B.

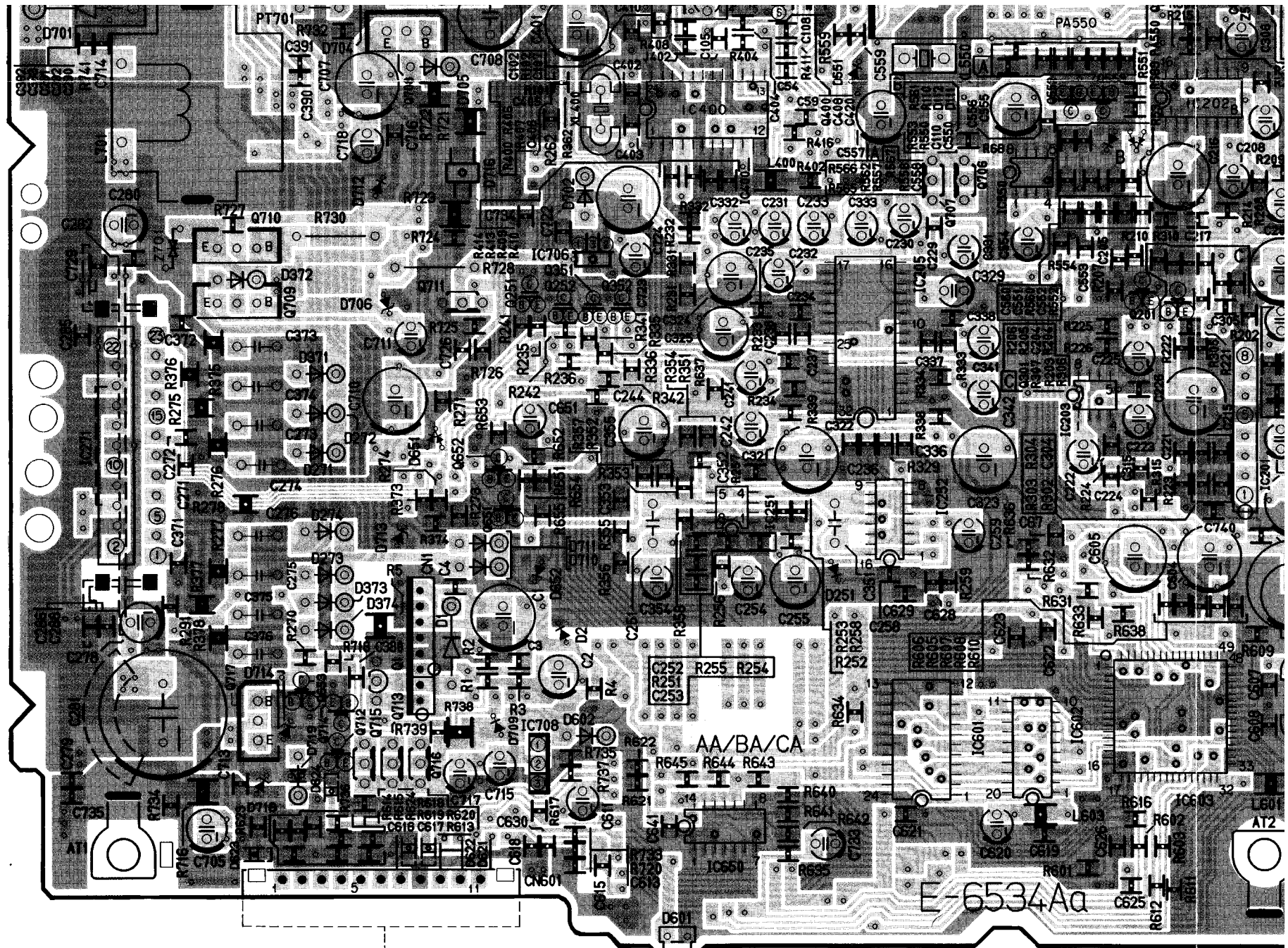
E-1940 CP701

< CQ-RD40LEN only >

Q708
IC400
Q710
IC706
Q251
Q709
Q252
Q351
Q352

IC271

Q652
IC251
Q651



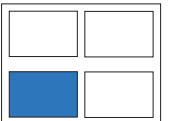
To Extend P.C.B.
E-6534Ab CN601

IC650

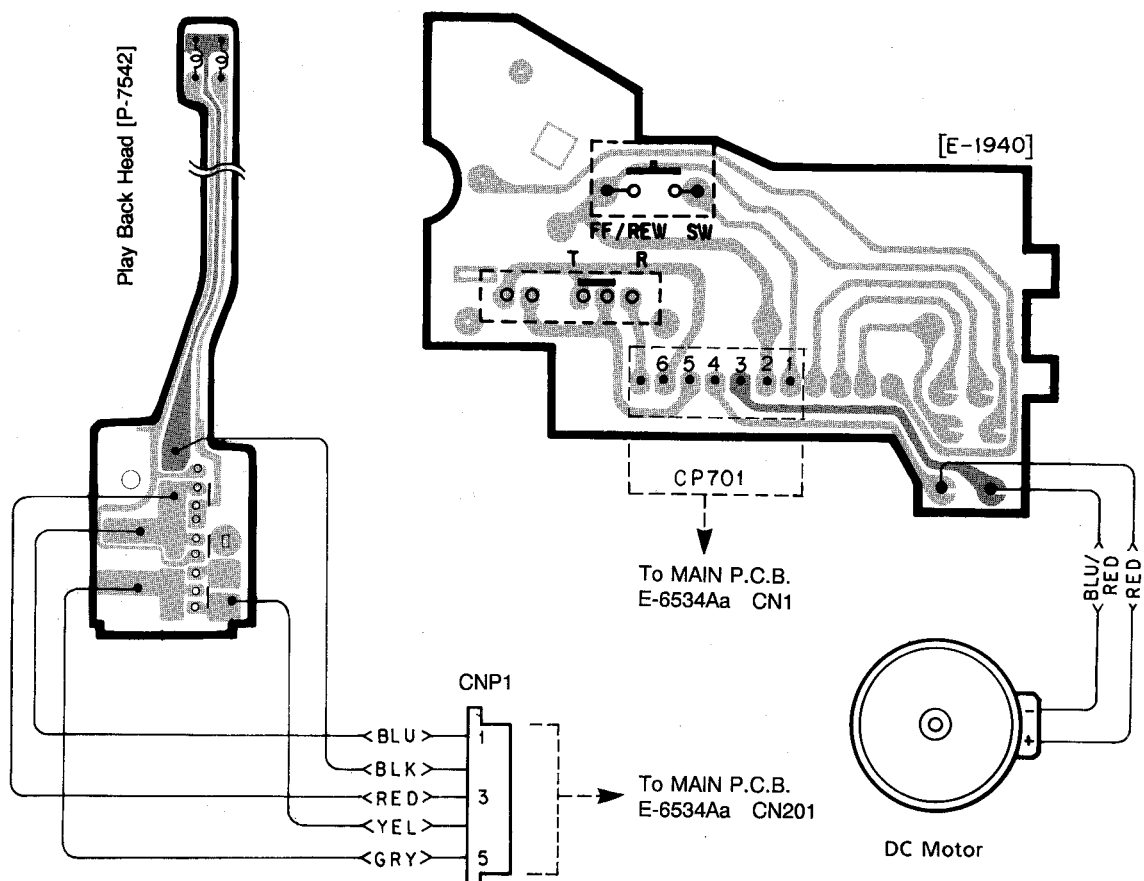
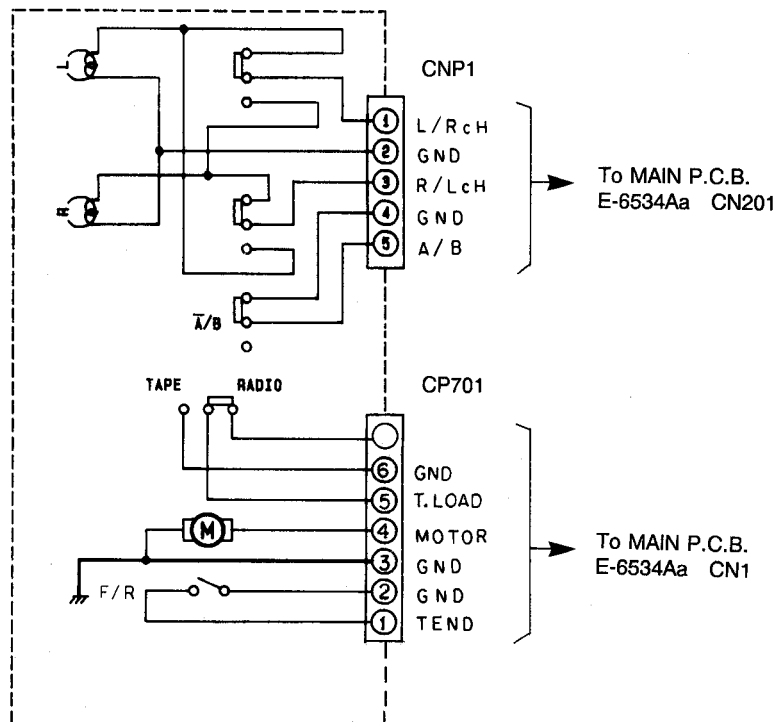
IC252

IC601

IC602



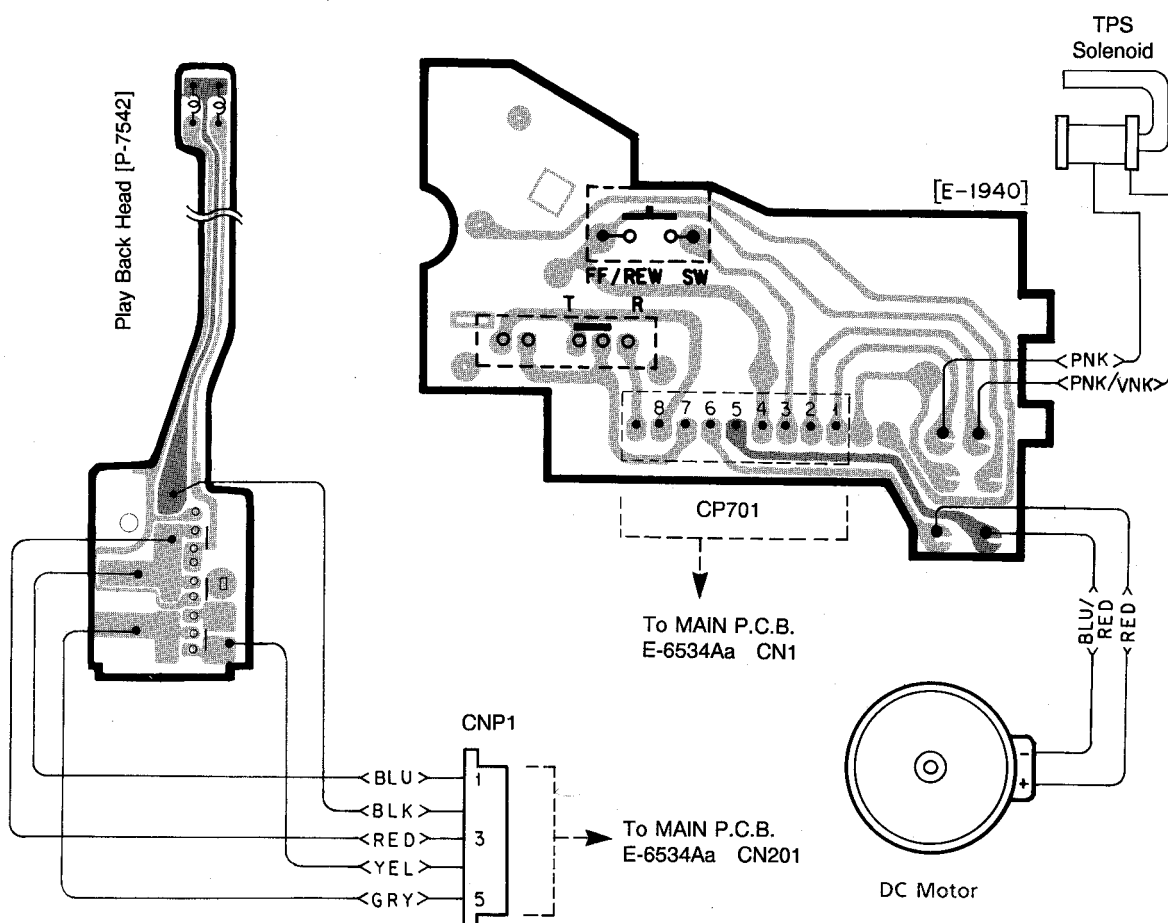
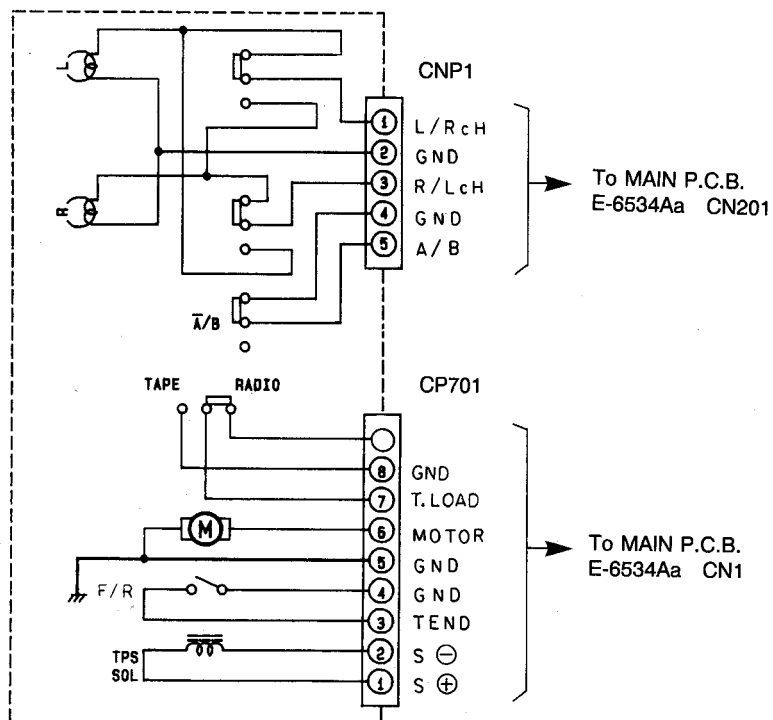
SCHEMATIC / WIRING DIAGRAM / SCHALTBILT / VERDHATUNG
MODEL CQ-RD40LEN only (Tape Block)



Removable Face High-Power Cassette / RDS Receiver

SCHEMATIC / WIRING DIAGRAM / SCHALTBIKT / VERDHATUNG

MODEL CQ-RD45LEN only (Tape Block)

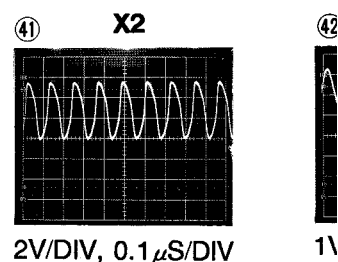
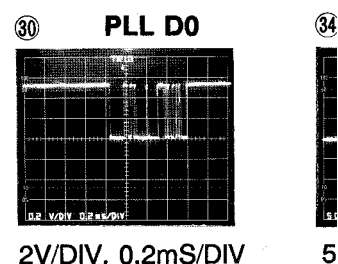
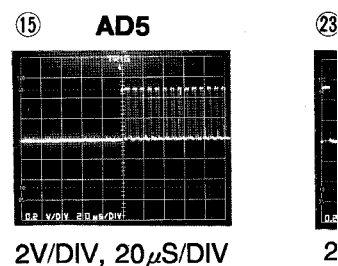


Removable Face High-Power Cassette / RDS Receiver

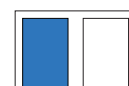
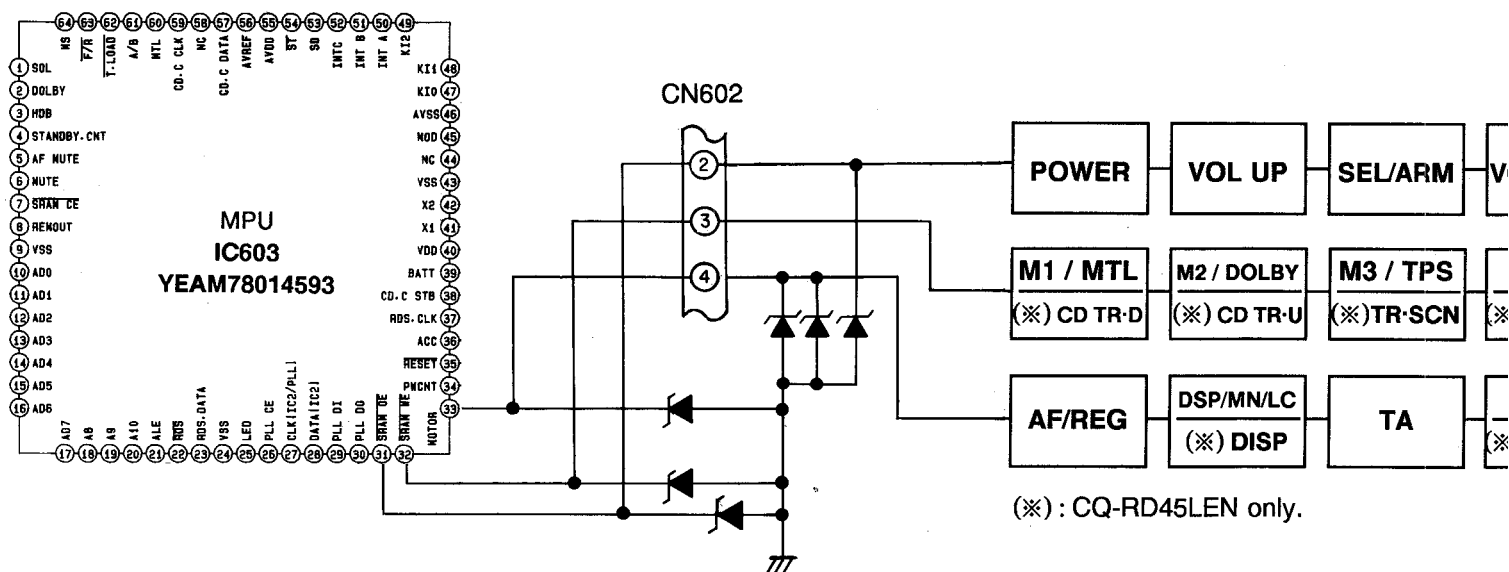
IC603 YEAM78014593

Pin No.	Port	Description	I/O	Vol. (V)	Pin No.	Port	Description	I/O	Vol. (V)
1	SOL	Tape solenoid control (Note 1)	O	0	36	ACC	ACC detection	I	2.5
2	DOLBY	Dolby control (Note 1)	O	4.5	37	RDS CLK	RDS clock	I	2.5
3	HDB	High definition bass control	O	5.1	38	CDC STB	CD changer strobe	I	0
4	STB CNT	Power Amp control	O	5.1	39	BATT	BATT detection	I	5.5
5	AF MUTE	AF mute control	O	5.1	40	V _{DD}	+5V power supply	—	5.2
6	MUTE	Mute control	O	0	41	X1	Crystal oscillator	—	2.6
7	SRAM CE	Static-RAM chip enable	O	5.1	42	X2	Crystal oscillator	—	0.7
8	REMOUT	CD. C remote control (Note 1)	O	0	43	V _{SS}	Ground	—	0
9	V _{SS}	Ground	—	0	44	NC	No connection	—	—
10~17	AD 0~7	Address / Data port	I/O	0	45	MOD	Mode input	I	4.3
18	A 8	Address port	O	5.1	46	AV _{SS}	Ground	—	0
19, 20	A 9, 10	Address port	O	0	47~49	KI0~2	Key data input	I	4.8
21	ALE	Memory address latch enable	O	5.1	50	INIT A	Initial setting	I	4.5
22	RDS	RDS signal input	I	4.9	51	INIT B	Initial setting	I	0
23	RDS DATA	RDS data input	I	2.6	52	INIT C	Initial setting	I	1.0
24	V _{SS}	Ground	—	0	53	SD	B/S detection	I	0.5
25	LED	Security LED control	O	0	54	ST	FM stereo	I	4.8
26	PLL CE	PLL chip enable	O	0	55	AV _{DD}	+5V power supply	—	5.2
27	CLK	LCD/PLL/VOL clock	O	4.6	56	AV _{REF}	+5V power supply	—	5.2
28	DATA	LCD/VOL data	O	4.5	57	CDC DAT	CD changer data	I	0
29	PLL DI	PLL data input	I	4.9	58	NC	No connection	—	—
30	PLL DO	PLL data output	O	4.9	59	CDC CLK	CD changer clock	I	0
31	SRAM OE	Static-RAM output enable	O	5.1	60	MTL	Metal tape mode	O	5.1
32	SRAM WE	Static-RAM write enable	O	5.1	61	A/B	Tape side input	I	4.4
33	MOTOR	Not used	—	—	62	T. LOAD	Tape loading	I	4.6
34	PWCNT	Power control	O	5.1	63	F/R	Tape FF/REW input	I	4.3
35	RESET	Reset input	I	5.1	64	MS	MS detection	I	4.3

• These waveforms are

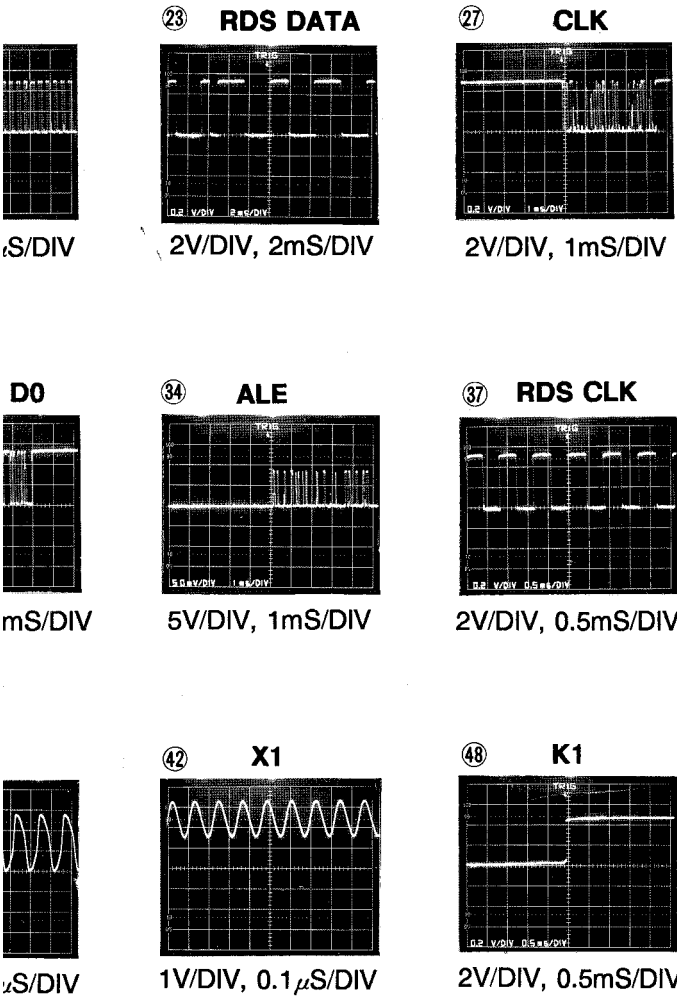


Note : Voltage measurements are with respect to ground,
with a voltmeter (Internal resistance : 10M ohms.)



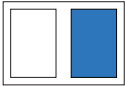
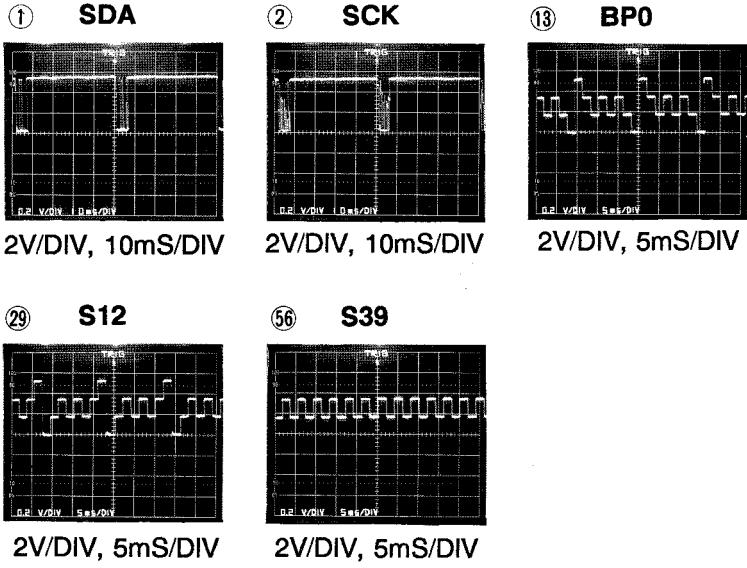
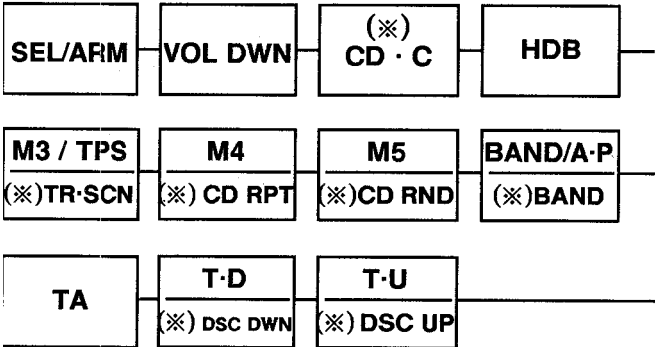
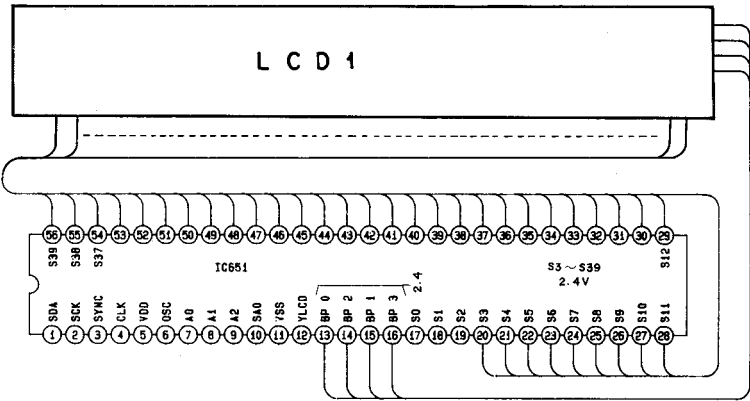
F LSI/BEDIENUNG DES LSI

se waveforms are measured by using ten times (×10) probe.



■ IC651 YEAMPCF8576T

Pin No.	Port	Description	I/O	Vol. (V)
1	SDA	Serial data	I	3.9
2	SCK	Serial clock	I	4.0
3	SYNC	No connection	—	—
4	CLK	No connection	—	—
5	V _{DD}	+5V power supply	—	4.9
6	OSC	Connect to ground	—	0
7~9	A0~2	Connect to ground	—	0
10	SA0	Connect to ground	—	0
12	YLCD	Connect to ground	—	0
13~	BP0~3	LCD back plane	O	2.4
17~19	S0~2	No connection	—	—
20~56	S3~39	LCD segment	O	2.4



ALIGNMENT INSTRUCTIONS

- | | |
|---|---|
| <ul style="list-style-type: none"> • Power Supply Voltage : DC 14.4V • Output Impedance : 4Ω • Output Power : 0.5W | <ul style="list-style-type: none"> • Balance, Fader Control : Center • Tone Control (Bass/Tre) : Center |
|---|---|

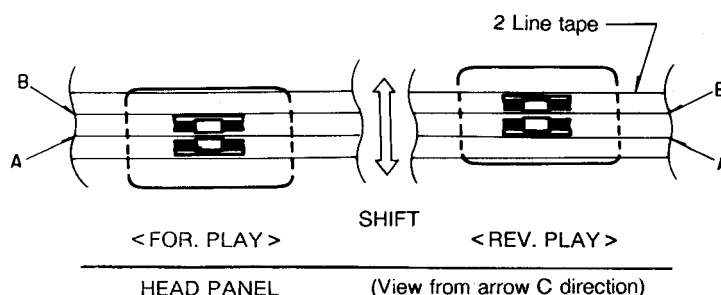
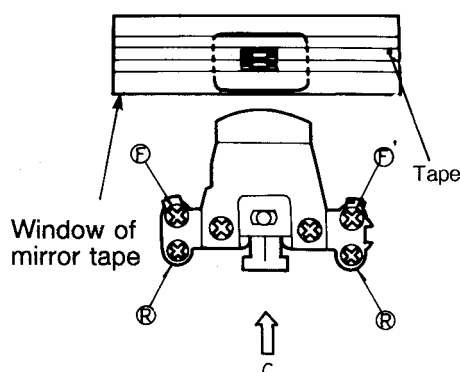
NOTE : Do not align the AM and FM package blocks. When the package block is necessary, it will be supplied already aligned at the factory.

1. DOLBY NR ALIGNMENT <CQ-R45EUC only>

Step	Alignment Item	Test Tape	VM Connection	Adjust	Remarks
1	DOLBY NR Rch	TCC-130	TP201	VR201	• Adjust for 245mV ± 14mV
2	DOLBY NR Lch	TCC-130	TP301	VR301	• Adjust for 245mV ± 14mV

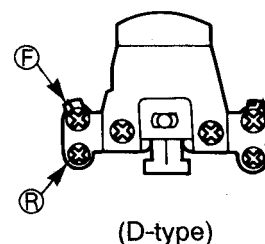
2. HEAD HEIGHT ALIGNMENT

- 2-Line Tape (Mirror tape) → A-BEX SCC-1659
- At forward play mode, adjust Ⓔ and Ⓔ' screws so that A-line on the mirror tape runs on the center of head shield plate.
- At reverse play mode, adjust Ⓕ and Ⓕ' screws so that B-line runs on the center of head shield plate.
- Then, again at forward play mode, check if or not A-line runs on the center. If not, re-adjust Ⓔ and Ⓔ' screws under the same way as the above.

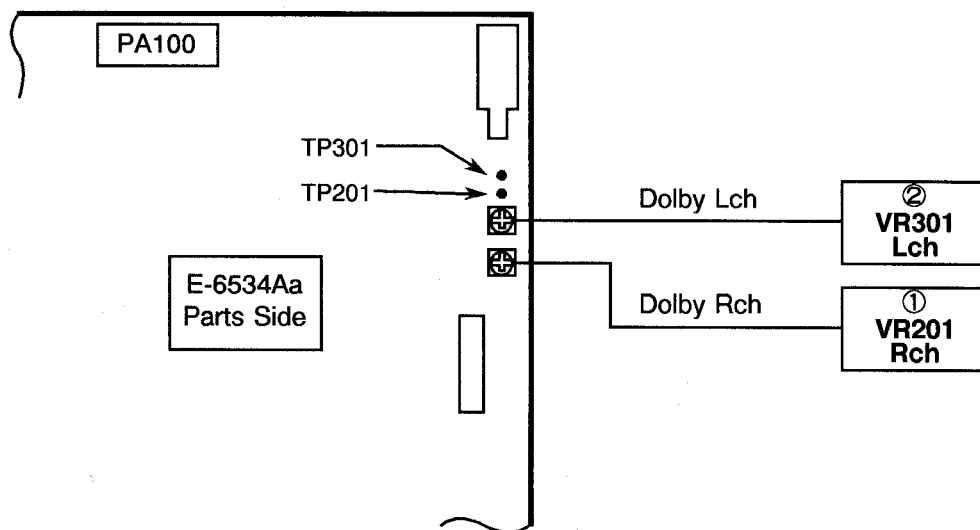


3. HEAD AZIMUTH ALIGNMENT

- Test tape is TCC-153.
- If you do not have a test tape, use a tape whose recording level is than 6 kHz for head adjustment. After the above adjustment apply bonding agent to the adjustment screw.
- At forward play mode, adjust Ⓔ screw only so that speaker terminal level shows max value.
- At reverse play mode, adjust Ⓕ screw only so that speaker terminal level shows max value.
- Then, again at forward play mode, check if or not speaker terminal level still shows max value.

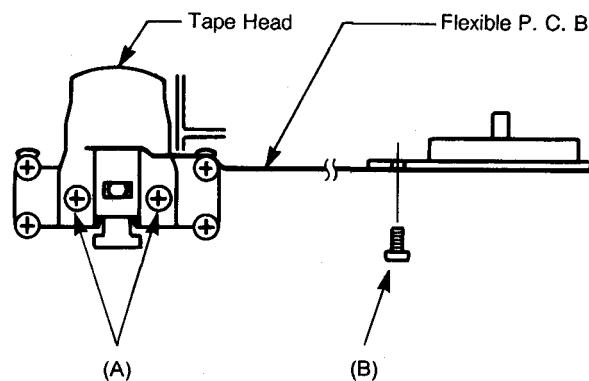


ALIGNMENT POINTS / ABGLEICHPUNKTE



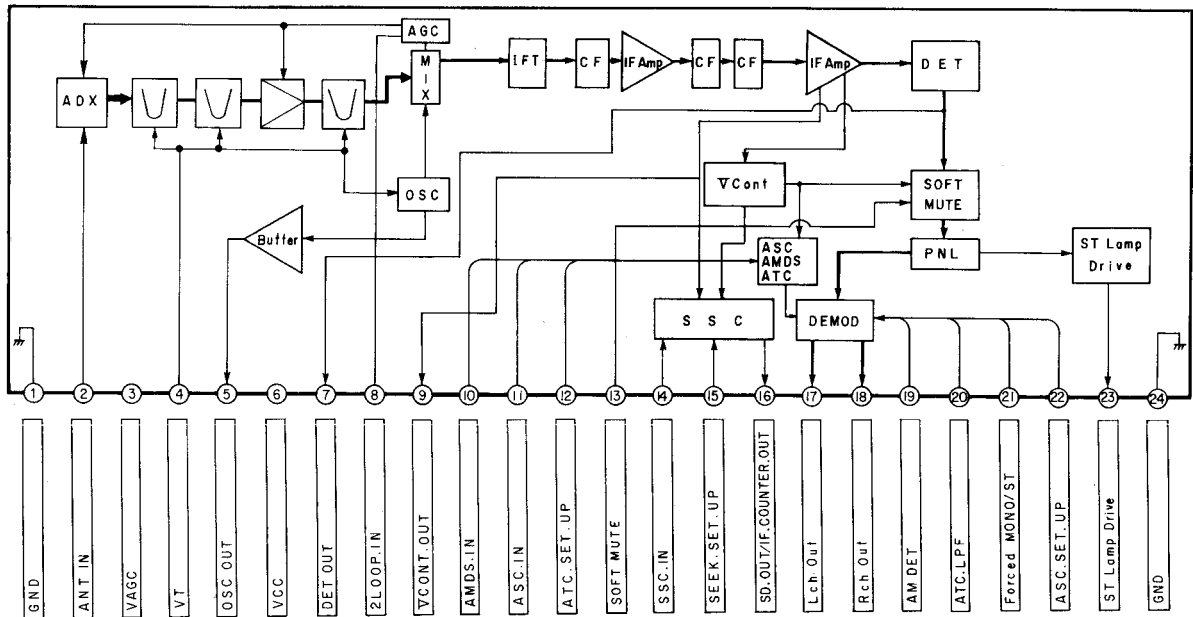
HEAD REPLACEMENT / AUSWECHSELN DES KOPFES

- Remove the two screws (A) and one screw (B).
- Remove the tape head.
- Die zwei Schrauben (A) und eine Schraube (B) abschrauben.
- Den Bandkopf entfernen.

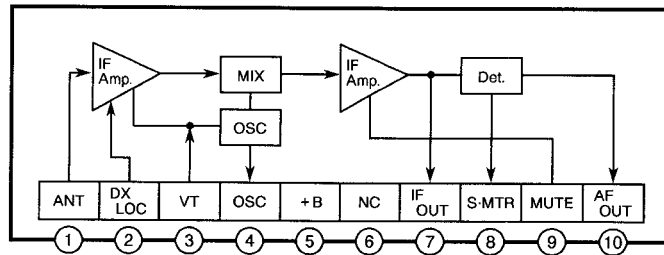


PACKAGE AND IC BLOCK DIAGRAM

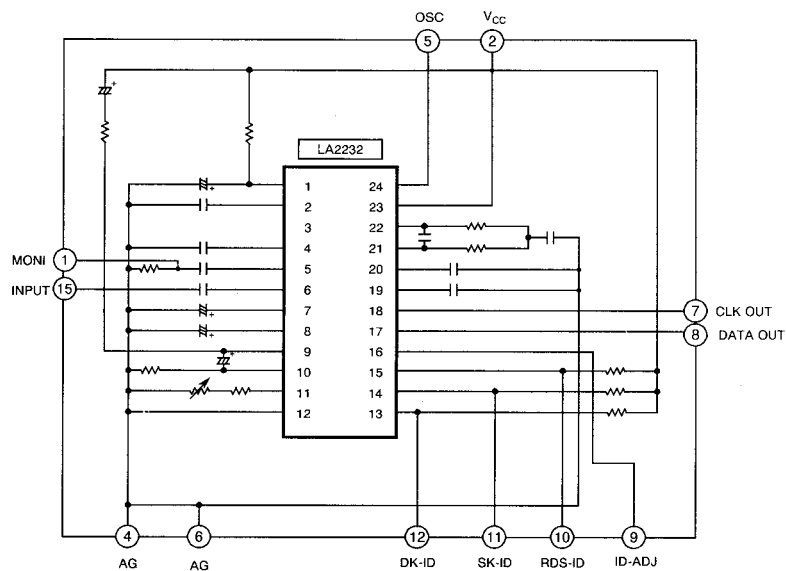
● PA50 YEP0PTY323A0



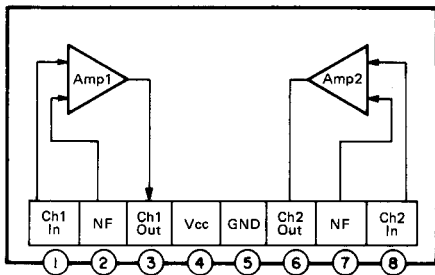
● PA100 YEAU03SKM16



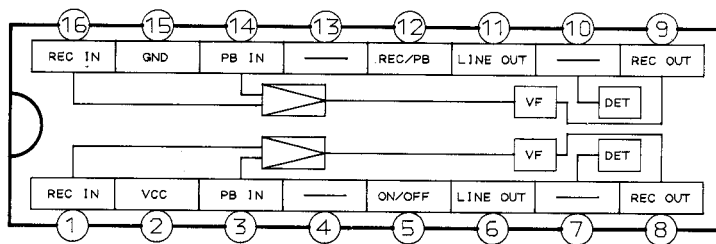
● PA550 YEAMSTK3120M



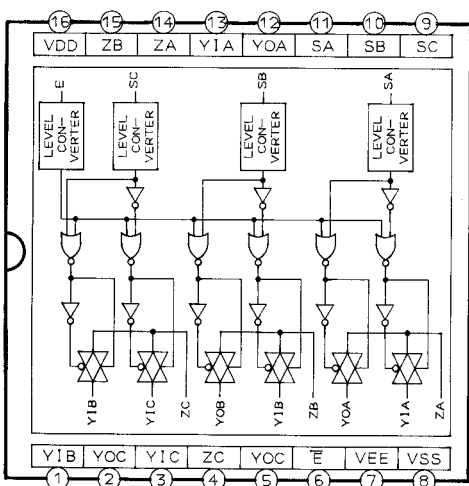
• IC201 YEAMLA3161



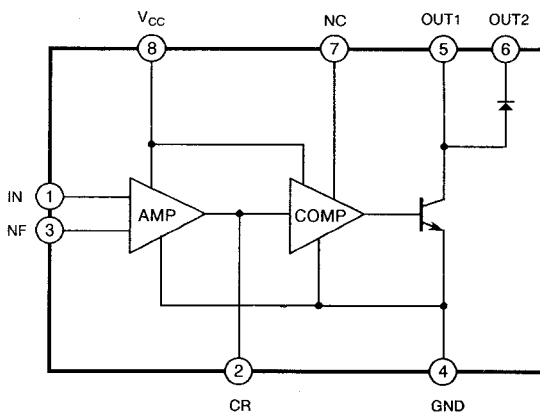
• IC202 YEAMCX1102MT



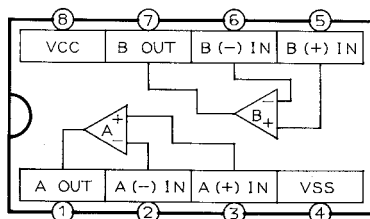
• IC252 YEAMPD4053BG



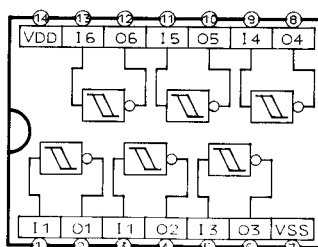
• IC203, 550 YEAMLA2000M



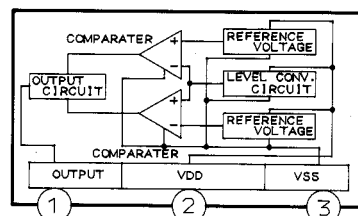
• IC251 YEAMPC4558T1



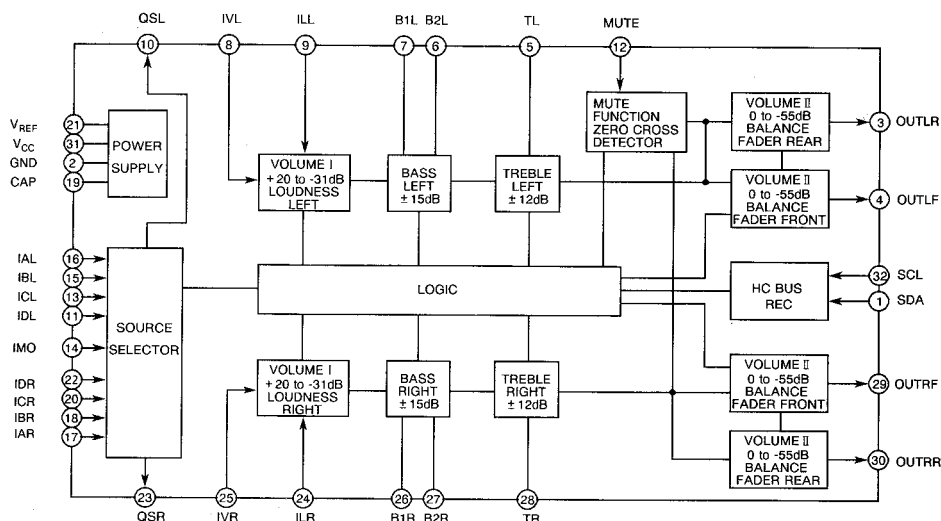
• IC650 MN4584BST1



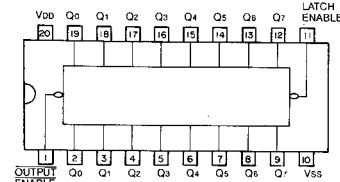
• IC708 MN1280Q



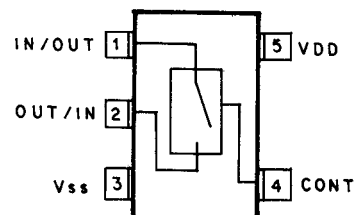
• IC205 YEAMEA6320TT



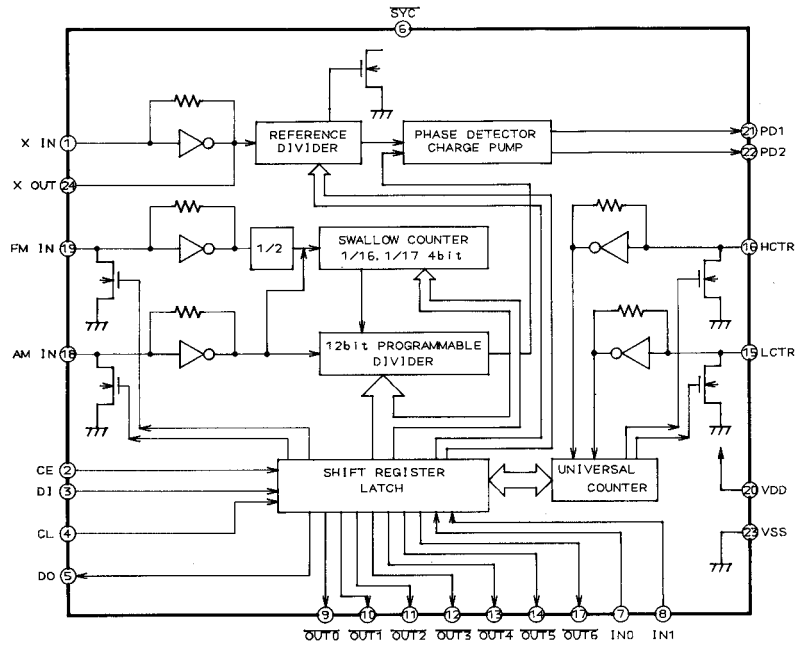
• IC602 YEAMUPH573T1



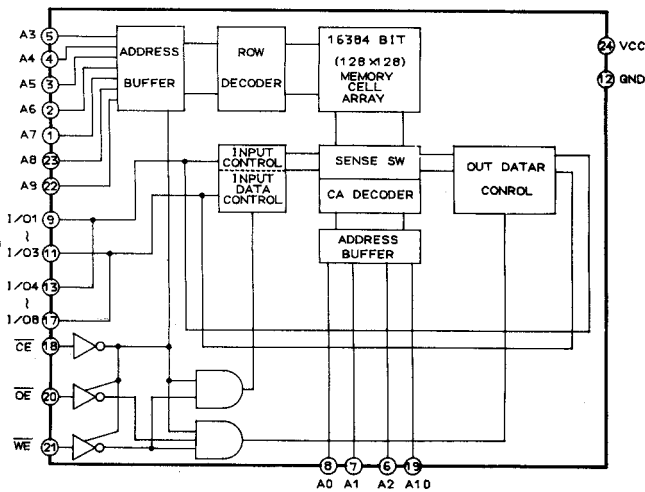
• IC401 YEAMTC4S66FL



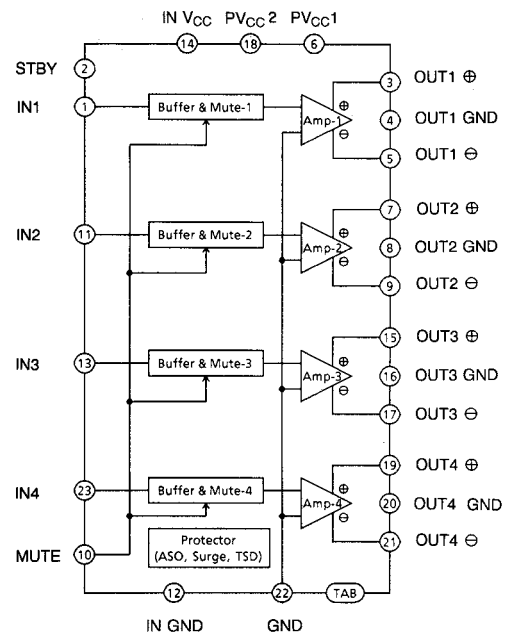
• IC400 YEAMLC72191M



• IC601 YEAM3517ML15



• IC271 YEAMHA13151



Replacement Parts List **Models NO. CQ-RD40LEN/RD45LEN**

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. Next to the Ref. No. in the parts list is a location key, to show 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.

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
ICs & TRANSISTORS					
MAIN BLOCK					
[E6534A]					
IC201	YEAMLA3161		IC	1	
IC202	YEAMCX1102MT		IC	1	CQ-RD45LEN only
IC203	YEAMLA2000M		IC	1	CQ-RD45LEN only
IC205	YEAMEA6320TT		IC	1	
IC251	YEAMPC4558T1		IC	1	
IC252	YEAMPD4053BG		IC	1	
IC271	YEAMHA13151		IC	1	
IC400	YEAMLC72191M		IC	1	
IC401	YEAMTC4S66FL		IC	1	
IC550	YEAMLA2000M		IC	1	
IC601	YEAM3517ML15		IC	1	
IC602	YEAMUPH573T1		IC	1	
IC603	YEAM78014593		IC	1	
IC650	MN4584BST1		IC	1	CQ-RD45LEN only
IC706	AN8009M-E1		IC	1	
IC708	MN1280Q		IC	1	
PA50	YEP0PTY323A0		Pack, FM	1	
PA100	YEAU03SKM16		Electronic Tuner	1	
PA550	YEAMSTK3120M		IC	1	
Q1	YEAN2SD1111		Transistor	1	CQ-RD45LEN only
Q50	YEANC144EKT		Transistor	1	

MODELS CQ-RD40LEN/RD45LEN

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
Q51	YEANC1623T1		Transistor	1	
Q201	YEANC144EKT		Transistor	1	
Q251, 252	YEANC4081SKT		Transistor	2	
Q301	YEANC144EKT		Transistor	1	
Q351, 352	YEANC4081SKT		Transistor	2	
Q400	YEAN2SK536T		Transistor	1	
Q550, 551	YEANC1623T1		Transistor	2	
Q651	YEANA114YKT		Transistor	1	
Q652	YEANA812T1		Transistor	1	
Q653	YEANC114YKT		Transistor	1	
Q706, 707	YEANB123YST		Transistor	2	
Q708	2SD2139TA		Transistor	1	
Q709	YEAND1762EF		Transistor	1	
Q710	2SB1417TA		Transistor	1	CQ-RD40LEN only
Q710	2SB948APQ		Transistor	1	CQ-RD45LEN only
Q711	YEAND2144STW		Transistor	1	
Q712	YEANC114YKT		Transistor	1	
Q713	YEANB123YST		Transistor	1	
Q714	YEANC114YKT		Transistor	1	
Q715	YEANDTA144ST		Transistor	1	
Q716	YEAN2SD1020T		Transistor	1	
Q717	2SD2139TA		Transistor	1	
DISPLAY BLOCK					
[E8006]					
IC651	YEAMPCF8576T		IC	1	
DIODEs					
MAIN BLOCK					
[E6534A]					
D1	YEADDSM1A2T7		Diode	1	CQ-RD45LEN only
D2	YEADRD51M2T2		Diode	1	

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks	Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
D111	MA151WKTX		Diode	1		CAPACITORS					
D112, 251	MA151KTX		Diode	2		MAIN BLOCK					
D271 to 274	YEAD11ES2T		Diode	4		[E6534A]					
D371 to 374	YEAD11ES2T		Diode	4		C1	ECEA1CKS101I		Electrolytic, 100MFD 16WV	1	
D551	YEARDR51M2T2		Diode	1		C2	ECEA1CKS220I		Electrolytic, 22MFD 16WV	1	CQ-RD45LEN only
D601	LN25RP		LED	1		C3, 50	YECUS1H103KX		Ceramic, 0.01MFD 50WV	2	
D602	MA723TA		Diode	1		C51	ECEA1AU101I		Electrolytic, 100MFD 10WV	1	
D621 to 623	MA8056LMHTX		Diode	3		C52	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
D624	MA8091LMHTX		Diode	1		C53	YECUS1H471JM		Ceramic, 470PF 50WV	1	
D651	MA151WKTX		Diode	1		C54	YECUS1H101JM		Ceramic, 100PF 50WV	1	
D652	MA151KTX		Diode	1		C55, 56	YECUS1E273KX		Ceramic, 0.027MFD 25WV	2	
D701	YEADDS3A2B		Diode	1		C57	ECEA1CKS100I		Electrolytic, 10MFD 16WV	1	
D702	MA723TA		Diode	1		C58	YECUS1E223KX		Ceramic, 0.022MFD 25WV	1	
D704	YEARDR91EB2T		Diode	1		C59	YECUS1H101JM		Ceramic, 100PF 50WV	1	
D705	YEAD11ES2T		Diode	1		C61	YECUS1H221JM		Ceramic, 220PF 50WV	1	
D706	YEARDR56M3T1		Diode	1		C63	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
D709	YEARDR62M2T2		Diode	1		C65	YECUS1H050CM		Ceramic, 5PF 50WV	1	
D710, 711	MA165TA		Diode	2		C67	YECUS1H221JM		Ceramic, 220PF 50WV	1	
D712	MA151KTX		Diode	1		C101	ECEA1AU101I		Electrolytic, 100MFD 10WV	1	
D713, 714	YEARDR68M2T2		Diode	2		C102, 104	YECUS1H103KX		Ceramic, 0.01MFD 50WV	2	
D715	YEAD11ES2T		Diode	1		C105	YECUS1H101JM		Ceramic, 100PF 50WV	1	
D718	YEARDR91M2T2		Diode	1		C107	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
D719	YEAD11ES2T		Diode	1		C108	YECUS1H101JM		Ceramic, 100PF 50WV	1	
Z701	ERZC07DK470		ZNR	1		C110	YECUS1H562KX		Ceramic, 0.0056MFD 50WV	1	
						C201	YECUS1H122KX		Ceramic, 0.0012MFD 50WV	1	
						C202	ECEA1AKS221I		Electrolytic, 220MFD 10WV	1	
						C203	ECEA1HKS010I		Electrolytic, 1MFD 50WV	1	
						C204	YECUS1E273KX		Ceramic, 0.027MFD 25WV	1	
						C205	YECUS1H183KX		Ceramic, 0.018MFD 50WV	1	
						C207	ECEA1HKS010I		Electrolytic, 1MFD 50WV	1	CQ-RD45LEN only
						C208	ECEA1HKS68I		Electrolytic, 0.68MFD 50WV	1	CQ-RD45LEN only
						C215	ECEA1AKS221I		Electrolytic, 220MFD 10WV	1	
						C216	ECEA1AKS221I		Electrolytic, 220MFD 10WV	1	CQ-RD45LEN only
DISPLAY BLOCK											
[E8006]											
D661	LN01801RC5TA		LED	1							
D662, 666	MA8056LMHTX		Diode	2							
D667, 668	MA8056LMHTX		Diode	2							

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks	Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
C217	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	CQ-RD45LEN only	C307	ECEA1HKS010I		Electrolytic, 1MFD 50WV	1	CQ-RD45LEN only
C221	YECUS1E393KX		Ceramic, 0.039MFD 25WV	1	CQ-RD45LEN only	C308	ECEA1HKS68I		Electrolytic, 0.68MFD 50WV	1	CQ-RD45LEN only
C222, 223	ECEA1HKS47I		Electrolytic, 0.47MFD 50WV	2	CQ-RD45LEN only	C321	ECEA1AKS221I		Electrolytic, 220MFD 10WV	1	
C224	YECUS1E393KX		Ceramic, 0.039MFD 25WV	1	CQ-RD45LEN only	C322	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C225	ECEA1CKS100I		Electrolytic, 10MFD 16WV	1	CQ-RD45LEN only	C323	ECEA1AKS221I		Electrolytic, 220MFD 10WV	1	
C226	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	CQ-RD45LEN only	C324	ECEA1AKS470I		Electrolytic, 47MFD 10WV	1	
C231 to 233	ECEA1EKS3R3I		Electrolytic, 3.3MFD 25WV	3		C325	ECEA1AKS101I		Electrolytic, 100MFD 10WV	1	
C236	YECUS1C224KX		Ceramic, 0.22MFD 16WV	1		C329	ECEA1HKS2R2I		Electrolytic, 2.2MFD 50WV	1	
C237	YECUS1E333KX		Ceramic, 0.033MFD 25WV	1		C331 to 333	ECEA1EKS3R3I		Electrolytic, 3.3MFD 25WV	3	
C238	YECUS1H562KX		Ceramic, 0.0056MFD 50WV	1		C336	YECUS1C224KX		Ceramic, 0.22MFD 16WV	1	
C239	YECUS1H221JM		Ceramic, 220PF 50WV	1	CQ-RD45LEN only	C337	YECUS1E333KX		Ceramic, 0.033MFD 25WV	1	
C241, 242	ECEA1EKS3R3I		Electrolytic, 3.3MFD 25WV	2		C338	YECUS1H562KX		Ceramic, 0.0056MFD 50WV	1	
C244	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1		C339	YECUS1H221JM		Ceramic, 220PF 50WV	1	CQ-RD45LEN only
C251	ECQV1H104JM2		Plastic Film, 0.1MFD 50WV	1		C341, 342	ECEA1EKS3R3I		Electrolytic, 3.3MFD 25WV	2	
C252	YECUS1C104KX		Ceramic, 0.1MFD 16WV	1		C351	ECQV1H104JM2		Plastic Film, 0.1MFD 50WV	1	
C253	YECUS1H562KX		Ceramic, 0.0056MFD 50WV	1		C352	YECUS1C104KX		Ceramic, 0.1MFD 16WV	1	
C254	ECEA1HKS3R3I		Electrolytic, 0.33MFD 50WV	1		C353	YECUS1H562KX		Ceramic, 0.0056MFD 50WV	1	
C255	ECEA0JKS101I		Electrolytic, 100MFD 6.3WV	1		C354	ECEA1HKS3R3I		Electrolytic, 0.33MFD 50WV	1	
C258	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1		C355	ECEA0JKS101I		Electrolytic, 100MFD 6.3WV	1	
C259	ECEA1CKS100I		Electrolytic, 10MFD 16WV	1		C371, 372	YECUS1H332KX		Ceramic, 0.0033MFD 50WV	2	
C271, 272	YECUS1H332KX		Ceramic, 0.0033MFD 50WV	2		C373 to 376	ECQV1H104JM3		Plastic Film, 0.1MFD 50WV	4	
C273 to 276	ECQV1H104JM3		Plastic Film, 0.1MFD 50WV	4		C380	YECUS1H101JM		Ceramic, 100PF 50WV	1	
C278	ECEA0JKS470I		Electrolytic, 47MFD 6.3WV	1		C390 to 393	YECUS1H221JM		Ceramic, 220PF 50WV	4	
C280	ECEA1AU101I		Electrolytic, 100MFD 10WV	1		C401	ECEA0JKS331I		Electrolytic, 330MFD 6.3WV	1	
C281	ECEA1CPU472		Electrolytic, 4700MFD 16WV	1		C402, 403	YECUS1H150JM		Ceramic, 15PF 50WV	2	
C282	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1		C404	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C286	YECUS1E104ZF		Ceramic, 0.1MFD 25WV	1		C405	ECQB1H333JF3		Plastic Film, 0.033MFD 50WV	1	
C288, 290	YECUS1H221JM		Ceramic, 220PF 50WV	2		C406	ECSF1VE474B1		Tantalum, 0.47FD 35WV	1	
C291 to 293	YECUS1H221JM		Ceramic, 220PF 50WV	3		C407	YECUS1H101JM		Ceramic, 100PF 50WV	1	
C301	YECUS1H122KX		Ceramic, 0.0012MFD 50WV	1		C408	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C302	ECEA1AKS221I		Electrolytic, 220MFD 10WV	1		C409	YECUS1E473KX		Ceramic, 0.047MFD 25WV	1	
C303	ECEA1HKS010I		Electrolytic, 1MFD 50WV	1		C410	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C304	YECUS1E273KX		Ceramic, 0.027MFD 25WV	1		C550	YECUS1E473KX		Ceramic, 0.047MFD 25WV	1	
C305	YECUS1H183KX		Ceramic, 0.018MFD 50WV	1		C551	YECUS1C104KX		Ceramic, 0.1MFD 16WV	1	

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks	Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
C552	YECUS1E273KX		Ceramic, 0.027MFD 25WV	1		C723	ECEA1CKS100I		Electrolytic, 10MFD 16WV	1	
C553	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1		C724	ECEA1AKS221I		Electrolytic, 220MFD 10WV	1	
C554	ECEA1HKS47I		Electrolytic, 0.47MFD 50WV	1		C726	YECUS1H103ZF		Ceramic, 0.01MFD 50WV	1	
C555	ECEA1AKS470I		Electrolytic, 47MFD 10WV	1		C729	YECUS1E104ZF		Ceramic, 0.1MFD 25WV	1	
C556	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1		C734	YECUS1H221JM		Ceramic, 220PF 50WV	1	
C557	ECEA1AKS470I		Electrolytic, 47MFD 10WV	1		C735	YECUS1H101JM		Ceramic, 100PF 50WV	1	
C558	YECUS1H331JM		Ceramic, 330PF 50WV	1		C740	YECUS1H221JM		Ceramic, 220PF 50WV	1	
C559	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1		CS701	YECCL55S222T		Noise Filter, 2200PF 100WV	1	
C560	YECUS1E273KX		Ceramic, 0.027MFD 25WV	1		R103	YECUS1C224KX		Ceramic, 0.22MFD 16WV	1	
C603	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1							
C604, 605	ECEA0JKS331I		Electrolytic, 330MFD 6.3WV	2							
C606	EECS5R5H473		Electrolytic, 0.047F 5.5WV	1		[E8006] DISPLAY BLOCK					
C607, 608	YECUS1H150JM		Ceramic, 15PF 50WV	2		C662	YECUS1H103ZF		Ceramic, 0.01MFD 50WV	1	
C616, 617	YECUS1H101JM		Ceramic, 100PF 50WV	2		C663	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	
C618	YECUS1H103ZF		Ceramic, 0.01MFD 50WV	1							
C619, 621	YECUS1H103KX		Ceramic, 0.01MFD 50WV	2							
C622, 625	YECUS1H101JM		Ceramic, 100PF 50WV	2		RESISTORS					
C626	YECUS1H680JM		Ceramic, 68PF 50WV	1		[E6534A] MAIN BLOCK					
C628	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1		R1	ERJ6GEYJ472		Chip, 4.7k ohms 0.1W	1	CQ-RD45LEN only
C629	YECUS1H101JM		Ceramic, 100PF 50WV	1		R2	ERJ6GEYJ103		Chip, 10k ohms 0.1W	1	
C641	YECUS1H103KX		Ceramic, 0.01MFD 50WV	1	CQ-RD45LEN only	R3	ERJ6GEYJ332		Chip, 3.3k ohms 0.1W	1	CQ-RD45LEN only
C651	ECEA0JKS220I		Electrolytic, 22MFD 6.3WV	1		R4	ERJ6GEYJ472		Chip, 4.7k ohms 0.1W	1	CQ-RD45LEN only
C704	YECUS1H103ZF		Ceramic, 0.01MFD 50WV	1	CQ-RD45LEN only	R5	ERJ14YJ2R2H		Chip, 2.2 ohms 0.25W	1	
C707	ECEA1AKS221I		Electrolytic, 220MFD 10WV	1		R50	ERJ6GEYJ274		Chip, 270k ohms 0.1W	1	
C708	ECEA1AU471B		Electrolytic, 470MFD 10WV	1		R51	ERJ6GEYJ221		Chip, 220 ohms 0.1W	1	
C709	ECEA1CU331B		Electrolytic, 330MFD 16WV	1		R52	ERJ6GEYJ273		Chip, 27k ohms 0.1W	1	
C710	ECEA1AKS221I		Electrolytic, 220MFD 10WV	1		R53	ERJ6GEYJ912		Chip, 9.1k ohms 0.1W	1	
C711	ECEA1CKS100I		Electrolytic, 10MFD 16WV	1		R54	ERJ6GEYJ393		Chip, 39k ohms 0.1W	1	
C713, 714	YECUS1H103ZF		Ceramic, 0.01MFD 50WV	2		R55	ERJ6GEYJ823		Chip, 82k ohms 0.1W	1	
C715, 717	ECEA1CKS100I		Electrolytic, 10MFD 16WV	2		R56	ERJ6GEYJ473		Chip, 47k ohms 0.1W	1	
C718	ECEA1HKS010I		Electrolytic, 1MFD 50WV	1		R57	ERJ6GEYJ393		Chip, 39k ohms 0.1W	1	
C719, 720	YECUS1H103ZF		Ceramic, 0.01MFD 50WV	2							
C721	ECEA1AU471B		Electrolytic, 470MFD 10WV	1							
C722	YECUS1E104ZF		Ceramic, 0.1MFD 25WV	1							

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks	Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
R58	ERJ6GEYJ563		Chip, 56k ohms 0.1W	1		R251	ERJ6GEYJ153		Chip, 15k ohms 0.1W	1	
R59	ERJ6GEYJ222		Chip, 2.2k ohms 0.1W	1		R252	ERJ6GEYJ123		Chip, 12k ohms 0.1W	1	
R60	ERJ6GEYJ104		Chip, 100k ohms 0.1W	1		R253	ERJ6GEYJ333		Chip, 33k ohms 0.1W	1	
R61, 62	ERJ6GEYJ102		Chip, 1k ohms 0.1W	2		R254	ERJ6GEYJ562		Chip, 5.6k ohms 0.1W	1	
R63, 64	ERJ6GEYJ822		Chip, 8.2k ohms 0.1W	2		R255	ERJ6GEYJ332		Chip, 3.3k ohms 0.1W	1	
R66	ERJ6GEYJ822		Chip, 8.2k ohms 0.1W	1		R256 to 259	ERJ6GEYJ103		Chip, 10k ohms 0.1W	4	
R67	ERJ6GEYJ153		Chip, 15k ohms 0.1W	1		R261	ERJ6GEYJ561		Chip, 560 ohms 0.1W	1	
R68	ERJ6GEYJ103		Chip, 10k ohms 0.1W	1		R262	ERJ6GEYJ561		Chip, 560 ohms 0.1W	1	CQ-RD45LEN only
R69	ERJ6GEYJ563		Chip, 56k ohms 0.1W	1		R270	ERJ6GEYJ822		Chip, 8.2k ohms 0.1W	1	
R110	ERJ6GEYJ183		Chip, 18k ohms 0.1W	1		R271	ERJ6GEYJ123		Chip, 12k ohms 0.1W	1	
R201	ERJ6GEYJ333		Chip, 33k ohms 0.1W	1		R273, 274	ERJ6GEYJ272		Chip, 2.7k ohms 0.1W	2	
R202	ERJ6GEYJ270		Chip, 27 ohms 0.1W	1		R275 to 278	ERJ8GEYJ2R2V		Chip, 2.2 ohms 0.13W	4	
R203	ERJ6GEYJ472		Chip, 4.7k ohms 0.1W	1		R291	ERJ6GEYJ102		Chip, 1k ohms 0.1W	1	
R204	ERJ6GEYJ124		Chip, 120k ohms 0.1W	1		R301	ERJ6GEYJ333		Chip, 33k ohms 0.1W	1	
R205	ERJ6GEYJ332		Chip, 3.3k ohms 0.1W	1		R302	ERJ6GEYJ270		Chip, 27 ohms 0.1W	1	
R206	ERJ6GEYJ472		Chip, 4.7k ohms 0.1W	1		R303	ERJ6GEYJ472		Chip, 4.7k ohms 0.1W	1	
R207	ERJ6GEYJ104		Chip, 100k ohms 0.1W	1		R304	ERJ6GEYJ124		Chip, 120k ohms 0.1W	1	
R208	ERJ6GEYJ822		Chip, 8.2k ohms 0.1W	1	CQ-RD45LEN only	R305	ERJ6GEYJ332		Chip, 3.3k ohms 0.1W	1	
R209	ERJ6GEYJ222		Chip, 2.2k ohms 0.1W	1	CQ-RD45LEN only	R306	ERJ6GEYJ472		Chip, 4.7k ohms 0.1W	1	
R214	ERJ6GEYJ473		Chip, 47k ohms 0.1W	1	CQ-RD45LEN only	R307	ERJ6GEYJ104		Chip, 100k ohms 0.1W	1	
R215	ERJ6GEYJ433		Chip, 43k ohms 0.1W	1	CQ-RD45LEN only	R308	ERJ6GEYJ822		Chip, 8.2k ohms 0.1W	1	CQ-RD45LEN only
R216	ERJ6GEYJ103		Chip, 10k ohms 0.1W	1	CQ-RD45LEN only	R309	ERJ6GEYJ222		Chip, 2.2k ohms 0.1W	1	CQ-RD45LEN only
R218	ERJ6GEYJ471		Chip, 470 ohms 0.1W	1		R315	ERJ6GEYJ472		Chip, 4.7k ohms 0.1W	1	
R221, 222	ERJ6GEYJ153		Chip, 15k ohms 0.1W	2	CQ-RD45LEN only	R329	ERJ6GEYJ561		Chip, 560 ohms 0.1W	1	
R223	ERJ6GEYJ682		Chip, 6.8k ohms 0.1W	1	CQ-RD45LEN only	R331	ERJ6GEYJ123		Chip, 12k ohms 0.1W	1	CQ-RD45LEN only
R224	ERJ6GEYJ224		Chip, 220k ohms 0.1W	1	CQ-RD45LEN only	R332	ERJ6GEYJ472		Chip, 4.7k ohms 0.1W	1	CQ-RD40LEN only
R225	ERJ6GEYJ471		Chip, 470 ohms 0.1W	1	CQ-RD45LEN only		ERJ6GEYJ222		Chip, 2.2k ohms 0.1W	1	CQ-RD45LEN only
R226	ERJ6GEYJ102		Chip, 1k ohms 0.1W	1	CQ-RD45LEN only	R333, 334	ERJ6GEYJ181		Chip, 180 ohms 0.1W	2	
R231	ERJ6GEYJ123		Chip, 12k ohms 0.1W	1	CQ-RD45LEN only	R335, 336	ERJ6GEYJ122		Chip, 1.2k ohms 0.1W	2	
R232	ERJ6GEYJ472		Chip, 4.7k ohms 0.1W	1	CQ-RD40LEN only	R338	ERJ6GEYJ102		Chip, 1k ohms 0.1W	1	
	ERJ6GEYJ222		Chip, 2.2k ohms 0.1W	1	CQ-RD45LEN only	R339	ERJ6GEYJ333		Chip, 33k ohms 0.1W	1	
R233, 234	ERJ6GEYJ181		Chip, 180 ohms 0.1W	2		R341, 342	ERJ6GEYJ222		Chip, 2.2k ohms 0.1W	2	
R235, 236	ERJ6GEYJ122		Chip, 1.2k ohms 0.1W	2		R351	ERJ6GEYJ153		Chip, 15k ohms 0.1W	1	
R241, 242	ERJ6GEYJ222		Chip, 2.2k ohms 0.1W	2		R352	ERJ6GEYJ123		Chip, 12k ohms 0.1W	1	

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks	Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
R353	ERJ6GEYJ333		Chip, 33k ohms 0.1W	1		R611, 612	ERJ6GEYJ681		Chip, 680 ohms 0.1W	2	
R354	ERJ6GEYJ562		Chip, 5.6k ohms 0.1W	1		R613 to 615	ERJ6GEYJ104		Chip, 100k ohms 0.1W	3	
R355	ERJ6GEYJ332		Chip, 3.3k ohms 0.1W	1		R616	ERJ6GEYJ102		Chip, 1k ohms 0.1W	1	
R356 to 358	ERJ6GEYJ103		Chip, 10k ohms 0.1W	3		R617	ERJ6GEYJ101		Chip, 100 ohms 0.1W	1	
R361	ERJ6GEYJ561		Chip, 560 ohms 0.1W	1		R618 to 622	ERJ6GEYJ102		Chip, 1k ohms 0.1W	5	
R362	ERJ6GEYJ561		Chip, 560 ohms 0.1W	1	CQ-RD45LEN only	R623, 624	ERJ6GEYJ562		Chip, 5.6k ohms 0.1W	2	
R373, 374	ERJ6GEYJ272		Chip, 2.7k ohms 0.1W	2		R631 to 634	ERJ6GEYJ473		Chip, 47k ohms 0.1W	4	
R375 to 378	ERJ8GEYJ2R2V		Chip, 2.2 ohms 0.13W	4		R635	ERJ6GEYJ104		Chip, 100k ohms 0.1W	1	
R400	ERJ6GEYJ561		Chip, 560 ohms 0.1W	1		R636, 637	ERJ6GEYJ103		Chip, 10k ohms 0.1W	2	
R402	ERJ6GEYJ103		Chip, 10k ohms 0.1W	1		R638	ERJ6GEYJ473		Chip, 47k ohms 0.1W	1	
R403	ERJ6GEYJ471		Chip, 470 ohms 0.1W	1		R640 to 642	ERJ6GEYJ102		Chip, 1k ohms 0.1W	3	CQ-RD45LEN only
R404	ERJ6GEYJ104		Chip, 100k ohms 0.1W	1		R643 to 645	ERJ6GEYJ104		Chip, 100k ohms 0.1W	3	CQ-RD45LEN only
R405	ERJ6GEYJ561		Chip, 560 ohms 0.1W	1		R646 to 649	ERJ6GEYJ102		Chip, 1k ohms 0.1W	4	CQ-RD45LEN only
R406	ERJ6GEYJ682		Chip, 6.8k ohms 0.1W	1		R651	ERJ6GEYJ560		Chip, 56 ohms 0.1W	1	
R407	ERJ6GEYJ222		Chip, 2.2k ohms 0.1W	1		R653	ERJ6GEYJ103		Chip, 10k ohms 0.1W	1	
R408	ERJ6GEYJ152		Chip, 1.5k ohms 0.1W	1		R654	ERJ6GEYJ182		Chip, 1.8k ohms 0.1W	1	
R409, 410	ERJ6GEYJ103		Chip, 10k ohms 0.1W	2		R655	ERJ6GEYJ824		Chip, 820k ohms 0.1W	1	
R412	ERJ6GEYJ472		Chip, 4.7k ohms 0.1W	1		R716	ERJ14YJ3R3H		Chip, 3.3 ohms 0.25W	1	
R413, 414	ERJ6GEYJ103		Chip, 10k ohms 0.1W	2		R718	ERJ6GEYJ332		Chip, 3.3k ohms 0.1W	1	
R416, 550	ERJ6GEYJ472		Chip, 4.7k ohms 0.1W	2		R720	ERJ6GEYJ101		Chip, 100 ohms 0.1W	1	
R551	ERJ6GEYJ472		Chip, 4.7k ohms 0.1W	1		R721	ERJ14YJ1R0H		Chip, 1 ohm 0.25W	1	
R552	ERJ6GEYJ682		Chip, 6.8k ohms 0.1W	1		R722	ERJ14YJ681H		Chip, 680 ohms 0.25W	1	
R553	ERJ6GEYJ823		Chip, 82k ohms 0.1W	1		R723	ERJ14YJ470H		Chip, 47 ohms 0.25W	1	
R554	ERJ6GEYJ224		Chip, 220k ohms 0.1W	1		R724	ERJ6GEYJ472		Chip, 4.7k ohms 0.1W	1	
R557	ERJ6GEYJ273		Chip, 27k ohms 0.1W	1		R725	ERJ6GEYJ473		Chip, 47k ohms 0.1W	1	
R558	ERJ6GEYJ333		Chip, 33k ohms 0.1W	1		R726	ERJ6GEYJ103		Chip, 10k ohms 0.1W	1	
R559	ERJ6GEYJ101		Chip, 100 ohms 0.1W	1		R727	ERJ6GEYJ473		Chip, 47k ohms 0.1W	1	
R560	ERJ6GEYJ682		Chip, 6.8k ohms 0.1W	1		R728, 730	ERDS1FJ181		Carbon, 180 ohms 0.5W	2	
R565, 566	ERJ6GEYJ474		Chip, 470k ohms 0.1W	2		R732, 733	ERJ6GEYJ681		Chip, 680 ohms 0.1W	2	
R601 to 603	ERJ6GEYJ102		Chip, 1k ohms 0.1W	3		R734	ERJ6GEYJ221		Chip, 220 ohms 0.1W	1	
R605	ERJ6GEYJ123		Chip, 12k ohms 0.1W	1		R735	ERJ6GEYJ682		Chip, 6.8k ohms 0.1W	1	
R606, 607	ERJ6GEYJ473		Chip, 47k ohms 0.1W	2		R736, 737	ERJ6GEYJ184		Chip, 180k ohms 0.1W	2	
R609	ERJ6GEYJ473		Chip, 47k ohms 0.1W	1	CQ-RD45LEN only	R738	ERJ14YJ470H		Chip, 47 ohms 0.25W	1	
R610	ERJ6GEYJ473		Chip, 47k ohms 0.1W	1	CQ-RD40LEN only	R739	ERJ6GEYJ682		Chip, 6.8k ohms 0.1W	1	

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
R740	ERJ6GEYJ121		Chip, 120 ohms 0.1W	1	
R741	ERJ6GEYJ101		Chip, 100 ohms 0.1W	1	
R742	ERJ6GEYJ1R0		Chip, 1 ohm 0.1W	1	
C229	ERJ6GEYJ153		Chip, 15k ohms 0.1W	1	
[E8006] DISPLAY BLOCK					
R630	ERJ6GEYJ562		Chip, 5.6k ohms 0.1W	1	
R661	ERJ6GEYJ150		Chip, 15 ohms 0.1W	1	CQ-RD45LEN only
R667	ERJ6GEYJ104		Chip, 100k ohms 0.1W	1	
R671, 672	ERJ6GEYJ152		Chip, 1.5k ohms 0.1W	2	
R673	ERJ6GEYJ222		Chip, 2.2k ohms 0.1W	1	
R674	ERJ6GEYJ392		Chip, 3.9k ohms 0.1W	1	
R675	ERJ8GEYJ822V		Chip, 8.2k ohms 0.13W	1	
R676	ERJ6GEYJ273		Chip, 27k ohms 0.1W	1	CQ-RD45LEN only
R677	ERJ8GEYJ152V		Chip, 1.5k ohms 0.13W	1	
R678	ERJ6GEYJ152		Chip, 1.5k ohms 0.1W	1	
R679	ERJ6GEYJ222		Chip, 2.2k ohms 0.1W	1	
R680	ERJ6GEYJ392		Chip, 3.9k ohms 0.1W	1	
R681	ERJ6GEYJ822		Chip, 8.2k ohms 0.1W	1	
R682	ERJ6GEYJ273		Chip, 27k ohms 0.1W	1	
R683, 684	ERJ6GEYJ152		Chip, 1.5k ohms 0.1W	2	
R685	ERJ8GEYJ222V		Chip, 2.2k ohms 0.13W	1	
R686	ERJ6GEYJ392		Chip, 3.9k ohms 0.1W	1	
R687	ERJ6GEYJ822		Chip, 8.2k ohms 0.1W	1	
R693	ERJ8GEYJ101V		Chip, 100 ohms 0.13W	1	
R694, 695	ERJ6GEYJ102		Chip, 1k ohms 0.1W	2	
R696	ERJ8GEYJ102V		Chip, 1k ohms 0.13W	1	
R697	ERJ6GEYJ184		Chip, 180k ohms 0.1W	1	

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
CONNECTORS					
[E6534A] MAIN BLOCK					
CN1	YEA0906MXN1		Connector, 9P	1	
CN201	YEAEM2005S		Connector, 5P	1	
CN250	YEA012173		Connector, 2P RCA cord	1	CQ-RD45LEN only
CN360	YEA02165		Connector, 2P RCA	1	CQ-RD40LEN only
	YEA02166		Connector, 4P RCA	1	CQ-RD45LEN only
CN601	YEAETJCA11		Connector, 11P	1	
CN650	YEAETSCP07P		Connector, 7P	1	CQ-RD45LEN only
CN661	YEA012307		Connector, 8P DIN	1	CQ-RD45LEN only
CN701	YEA012194		Connector, 16P	1	
CP602	YEA012298		Connector, 12P	1	
CP650	YEAETSCP07X		Connector, 7P	1	CQ-RD45LEN only
CNP1	YEA012314		Connector, 5P	1	
[E8006] DISPLAY BLOCK					
CN602	YEA012282		Connector, 12P	1	
SWITCHES					
SW601 to 604	EVQ21505R		Switch	4	
SW605	EVQ21505R		Switch	1	CQ-RD45LEN only
SW606	EVQ21505R		Switch	1	
SW608 to 613	EVQ21505R		Switch	6	
SW615 to 619	EVQ21505R		Switch	5	
CRYSTALS					
XL400	YEXL49U072TA		Crystal OSC	1	
XL550	YEXLS456F33M		Crystal OSC	1	
XL600	YEXL49U838TA		Crystal OSC	1	

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
COILs					
L100	YELT03N330KT		Coil	1	
L701	YETQ026F116		Coil	1	
LCD					
LCD1	YEXDCM1103		LCD	1	
VARIABLE RESISTORS					
VR201, 301	YEVN412C47K		Variable Resistor	2	CQ-RD45LEN only
THERMISTOR					
PT701	YERT6AR4R7MT		Thermistor	1	
PRINTINGs					
	YEFM282158		Instruction Book	1	
INSTALLATION PART					
1	YEFX0213629		Mounting Collar	1	
2	XWG5FX		Plain Washer, 5mm	2	
3	XWA5BFX		Spring Washer, 5mm	2	
4	XNG5AFX		Hex. Nut, 5mm	2	
5	YFEG04019		Rear Support Strap	1	
6	XVG5C25FX		Hex. Bolt, 5mm x 25mm	1	
7	XWC5CFX		Toothed Lock Washer, 5mm	1	
8	YEVJ01060		Mounting Bolt, 5mm x 8mm	1	
9	YEFX0213377		Dismounting Pin	1	
10	YEAJ01371A		Power Cord	1	
11	YEFA131100		Removable Face Plate Case	1	

Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
MISCELLANEOUS					
PL601, 602	YEALFTAN003		Pilot Lamp	2	
PL603	YEAL01184		Pilot Lamp	1	
Z50	YEAL02010T		Neon Lamp	1	
F1	XBA1C100NS1		Fuse, 10A	1	
F2	XBB1C10NR1		Fuse, 1A	1	
ANT1	YEAA10060		Antenna Receptacle	1	
TP201, 301	YEAT03269		Terminal	2	CQ-RD45LEN only
1 (1-B)	YEFA05594		Bottom Cover	1	
2 (4-B)	YEFA031354		Upper Cover	1	
3 (2-A)	YEFA131107		Cover for Detachable	1	
4 (2-B)	YEFA07333		Front Plate	1	
5 (3-A)	YEFA08402AK		Rear Plate	1	CQ-RD40LEN only
	YEFA08404AK			1	CQ-RD45LEN only
6 (2-C)	YEFA09453		Side Plate	1	
7 (2-B)	YEFC024201		Escutcheon	1	
8 (1-A)	YEFC024211		Escutcheon, Detachable	1	CQ-RD40LEN only
	YEFC024213			1	CQ-RD45LEN only
9 (3-B)	YEFF01773		Heat Sink	1	
10 (1-B)	YEFX0213648A		Bracket for IC271	1	
11 (3-A)	YEFX0213652A		Bracket for Deck	1	
12 (3-C)	YEFX0213649		Bracket for CN701	1	
13 (3-C)	YEFX0213673		Bracket for RCA Connector	1	CQ-RD40LEN only
	YEFX0213650			1	CQ-RD45LEN only
14 (2-A)	YEFK04482		Holder for PL903	1	
15 (1-A)	YEFK06641		Holder for LCD	1	
17 (1-C)	YEFR04333		Illumination Cap	3	
18 (1-B)	YEFV011566		Insulator	1	
19 (1-A)	YEFX0011513		Transparent Plate	1	
20 (3-A)	YEFX0461522		Lever for Eject	1	
21 (1-A)	YEFX0213651		Bracket for LCD	1	
22 (4-C)	YEFX007380		Cord Clamper	1	CQ-RD45LEN only
23 (3-A)	YEFX9991191		Blind Piece Eject	1	

[illegible][illegible]

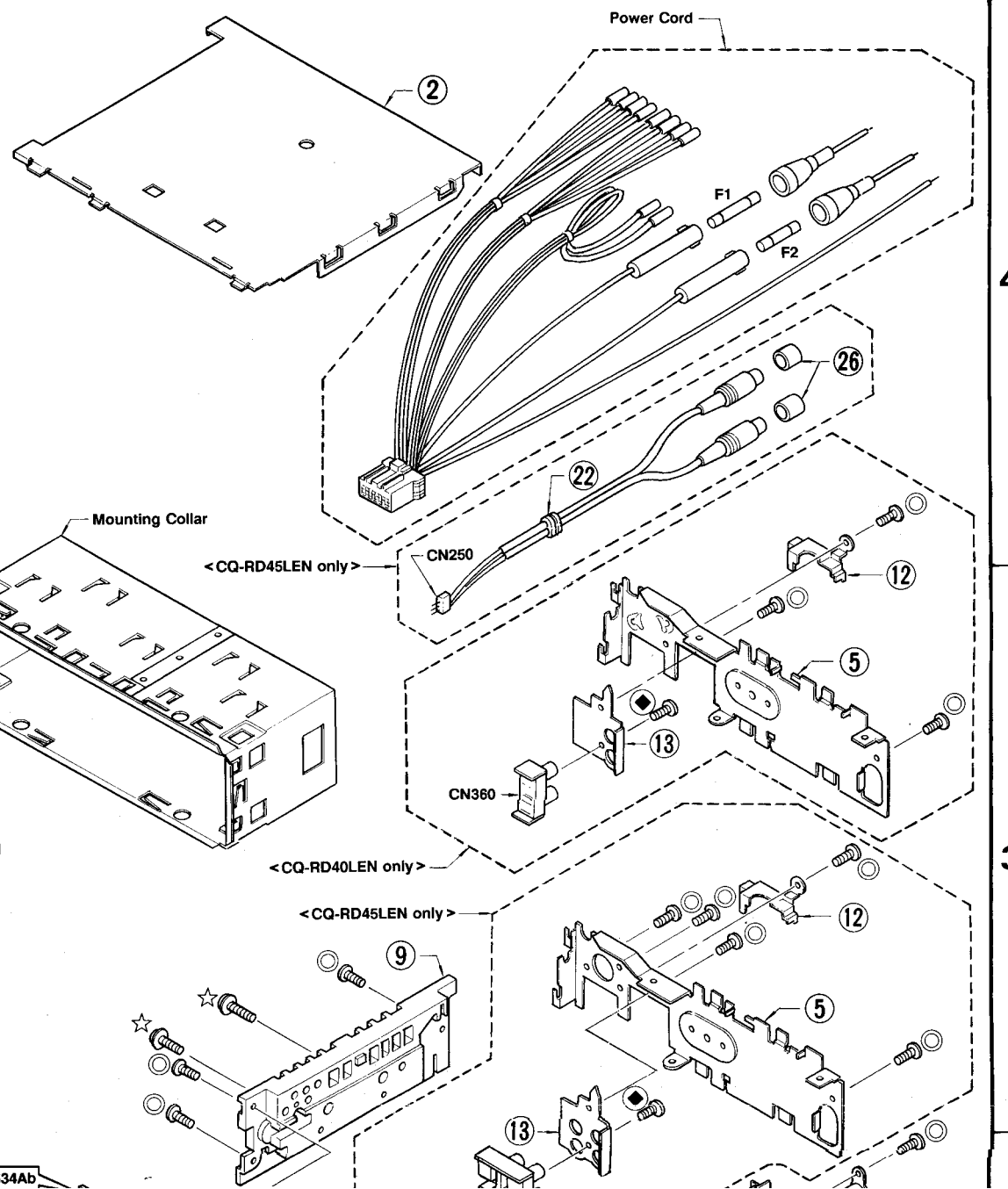
MODEL CQ-RD40LE													
Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks	Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks		
TAPE PLAYER PARTS							35	(3-C)	YEFX0051542		T.A Spring (C)	1	
							36	(2-A)	YEFX0051539		P.P Spring	1	
1	(3-B)	YEFA011451		Chassis Ass'y	1		37	(3-B)	YEFX003510		Main Gear	1	
2	(2-C)	YEP0FX1894		Head Panel Ass'y	1		38	(3-B)	YEFX026120		Middled Pulley	1	
3	(2-C)	YEFX0051533		Head Spring	1		39	(3-A)	YEFX0051540		Head Panel Spring	1	
4	(2-C)	YEAHP7542BB		Head Ass'y w/PCB	1		40	(3-C)	YEFX249361		Trigger Arm (C)	1	
5	(3-B)	YEFX249359		Pinch Roller Arm (F) Ass'y	1		41	(3-C)	YEJS06128		Collar Screw (T)	1	
6	(2-A)	YEFX249360		Pinch Roller Arm (R) Ass'y	1		42	(2-A)	YEFX249362		H.P Push Arm	1	
7	(2-A)	YEP0FX1895		Main Gear Plate Ass'y	1		43	(3-C)	YEFX249363		Seesaw Working Plate	1	
8	(3-A)	YEAP5818		PCB for Switch	1		44	(4-A)	YEFX0051541		Power Switch Spring	1	
9	(2-C)	YEAS07161		Switch	1		45	(2-C)	YEJT03117		Screw Tapping 2mm × 4	1	
10	(3-A)	YEAS07162		Switch	1		46		YEFX014052		Snap Ring	2	
11	(3-B)	YEAS08035		Switch	1		47		YEJT03118		Screw Tapping 2mm × 3mm	4	
12	(3-B)	YEA012017		Connector	1		48(2-B)(3-A)	YEJE01027		E-Ring 2mm	2		
13	(4-B)	YEP0FX1481		Cassette Case Ass'y	1		49	(2-B)	YEJS06130		Screw 2mm × 3mm	2	
14	(4-B)	YEFX005973		P.E Spring	1		50(1-B)(2-B)	YEJW05102		Washer 2.1mm × 5mm × 0.13mm	2		
16	(2-A)	YEFX218255		H.P Roller (A)	1		51	(3-B)	YEJW05103		Washer 1.85 × 3.2 × 0.2	2	
17	(2-A)	YEFX218256		H.P Roller (B)	1		52	(3-B)	YEJW05104		Washer 1.5 × 3.2 × 0.5	2	
18	(2-A)	YEFX0461254		C.H Push Plate	1		53	(3-B)	YEFX014053		Washer 1.2 × 3 × 0.25	1	
19	(2-A)	YEFX0051535		Push Lever Spring	1		54	(3-B)	YEJS06131		Screw Tamas 2.5mm × 4mm	1	
20	(3-A)	YEFX0051534		C.H Spring	1		55	(2-C)	YEJS06132		Screw	2	
21	(3-A)	YEFX0461255		Push Lever	1		57	(3-B)	YEJW05122		Washer 0.85 × 2.8 × 0.25	1	
22	(3-C)	YEP0FX2152		FR Lever Ass'y	1								
24	(2-B)	YEFX0461256		Main Plate	1								
25	(2-B)	YEFX0051536		M.S Spring	1								
26	(2-C)	YEFX0051537		H.S Spring	1								
27	(2-B)	YEFX0461258		FR Slide Plate (M)	1								
28	(3-B)	YEA01021		Motor Ass'y (1940-11-305)	1								
29	(2-A)	YEJS06129		Collar Screw (W)	1								
30	(2-B)	YEFX0461861		FR Working Plate Ass'y	1								
31	(2-B)	YEFX0051538		FR Spring	1								
32	(2-B)	YEFX249364		H.P Return Arm	1								
33	(1-B)	YEFX213198		Flywheel Ass'y	2								
34	(1-B)	YEFR03074		Main Belt	1								

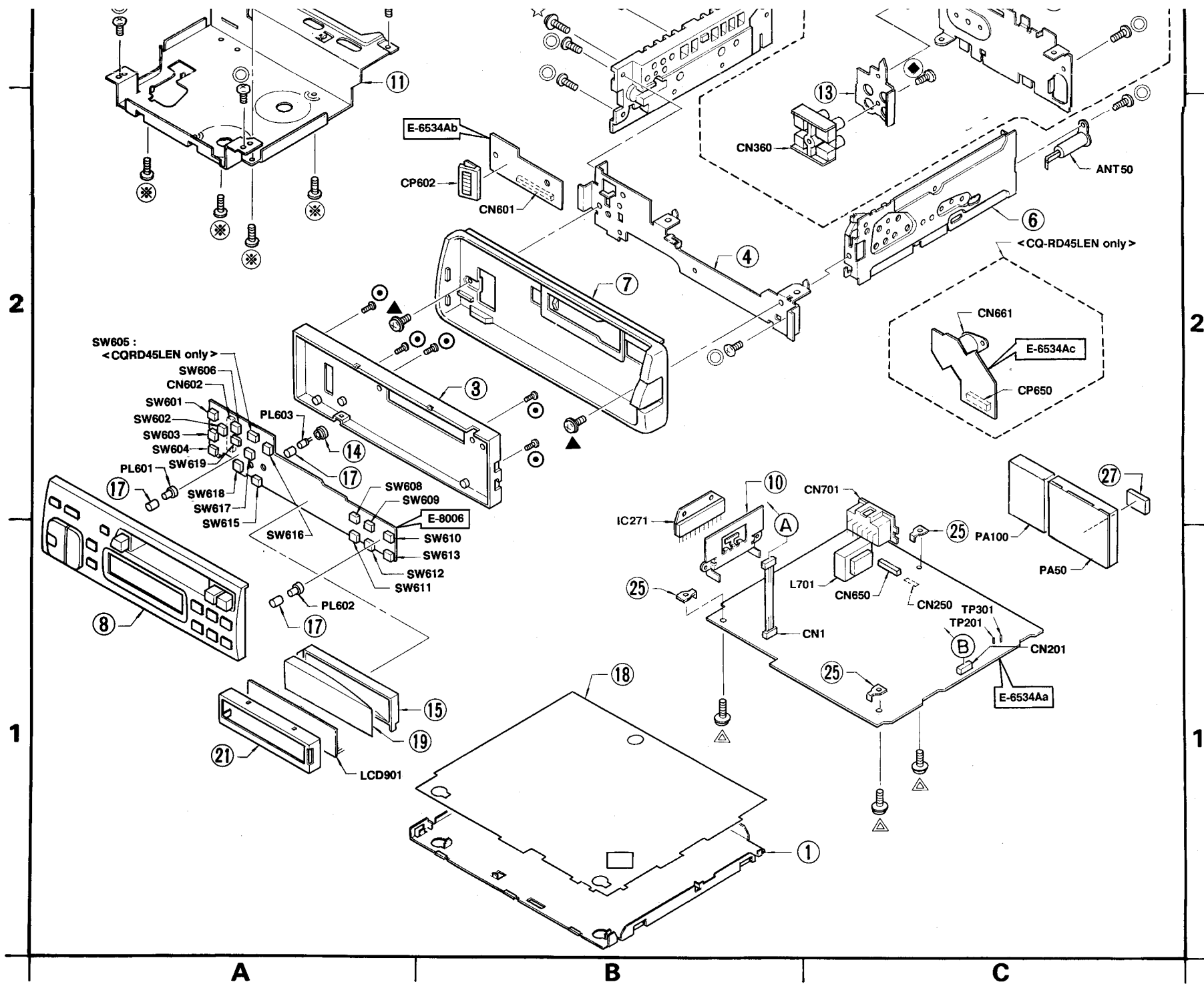
EXPLODED VIEW (UNIT) / AUFGELOTE DARSTELLUNGS (GANZES GERÄT)

■ Numbers in ○ are indicated REF.No. in the REPLACEMENT PARTS LIST

■ The symbols next to the screws indicate as follows.

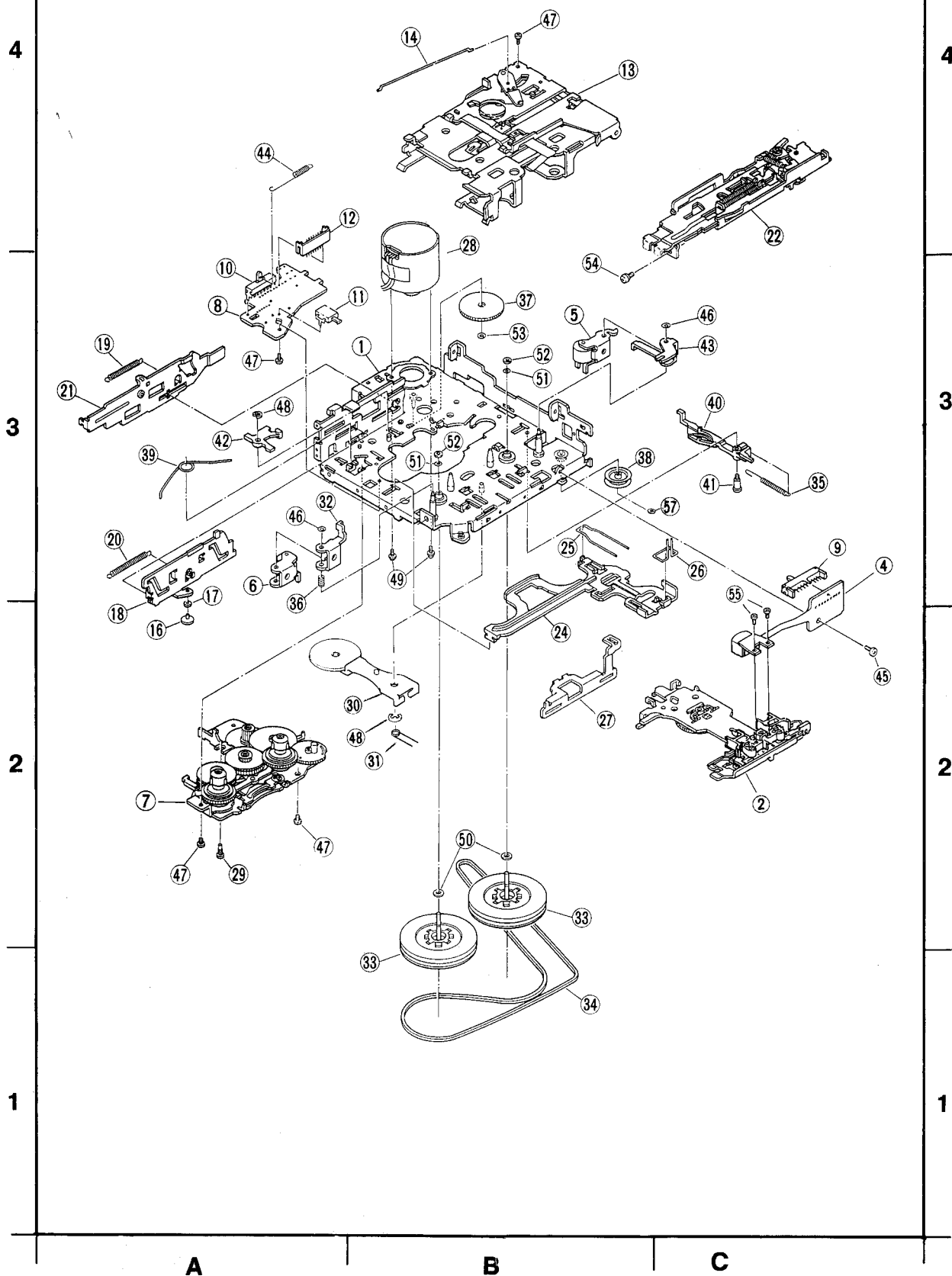
32	★	YEJT03081	⊕Screw	2.6mmφ × 2.5mm
33	⊙	XTB3 + 6FFX	⊕Screw	3mmφ × 6mm
34	⊙	XTN2 + 6GFZ	⊕Screw	2mmφ × 6mm
35	⊙	XTB3 + 8GFX	⊕Screw	3mmφ × 8mm
36	△	YEJT03015	⊕Screw	3mmφ × 6mm
37	⊙	YEJS06027	⊕Screw	3mmφ × 4mm
38	▲	YEJT03156	⊕Screw	2.6mmφ × 4mm
39	☆	YEJS05016	⊕Screw	3mmφ × 15mm





EXPLODED VIEW (TAPE DECK) / AUFGELOÖTE DARSTELLUNGS (TONBAND GERÄT) MODEL CQ-RD40LEN only

■ Numbers in ○ are indicated REF.No. in the REPLACEMENT PARTS LIST



Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks	Ref. No.	Part No.	Part Code	Part Name & Description	Pcs set	Remarks
TAPE PLAYER PARTS											
TN-707DH205 457 [93.12.6]											
1	(3-B)	YEFA011451		Chassis Ass'y	1	33	(1-B)	YEFX213198		Flywheel Ass'y	2
2	(2-C)	YEP0FX1894		Head Panel Ass'y	1	34	(1-B)	YEFR03074		Main Belt	1
3	(2-C)	YEFX0051533		Head Spring	1	35	(3-C)	YEFX0051542		T.A Spring (C)	1
4	(2-C)	YEAHP7542BB		Head Ass'y w/PCB	1	36	(2-A)	YEFX0051539		P.P Spring	1
5	(3-B)	YEFX249359		Pinch Roller Arm (F) Ass'y	1	37	(3-B)	YEFX003510		Main Gear	1
6	(2-A)	YEFX249360		Pinch Roller Arm (R) Ass'y	1	38	(3-B)	YEFX026120		Middled Pulley	1
7	(2-A)	YEP0FX1895		Main Gear Plate Ass'y	1	39	(3-A)	YEFX0051540		Head Panel Spring	1
8	(3-A)	YEAP5818		PCB for Switch	1	40	(3-C)	YEFX249361		Trigger Arm (C)	1
9	(2-C)	YEAS07161		Switch	1	41	(3-C)	YEJS06128		Collar Screw (T)	1
10	(3-A)	YEAS07162		Switch	1	42	(2-A)	YEFX249362		H.P Push Arm	1
11	(3-B)	YEAS08035		Switch	1	43	(3-C)	YEFX249363		Seesaw Working Plate	1
12	(3-B)	YEA012017		Connector	1	44	(4-A)	YEFX0051541		Power Switch Spring	1
13	(4-B)	YEP0FX1481		Cassette Case Ass'y	1	45	(2-C)	YEJT03117		Screw Tapping 2mm x 4	1
14	(4-B)	YEFX005973		P.E Spring	1	46		YEFX014052		Snap Ring	2
15	(4-C)	YEAX01106		Solenoid Core	1	47		YEJT03118		Screw Tapping 2mm x 3mm	4
16	(2-A)	YEFX218255		H.P Roller (A)	1	48	(2-B)(3-A)	YEJE01027		E-Ring 2mm	2
17	(2-A)	YEFX218256		H.P Roller (B)	1	49	(2-B)	YEJS06130		Screw 2mm x 3mm	2
18	(2-A)	YEFX0461254		C.H Push Plate	1	50	(1-B)(2-B)	YEJW05102		Washer 2.1mm x 5mm x 0.13mm	2
19	(2-A)	YEFX0051535		Push Lever Spring	1	51	(3-B)	YEJW05103		Washer 1.85 x 3.2 x 0.2	2
20	(3-A)	YEFX0051534		C.H Spring	1	52	(3-B)	YEJW05104		Washer 1.5 x 3.2 x 0.5	2
21	(3-A)	YEFX0461255		Push Lever	1	53	(3-B)	YEFX014053		Washer 1.2 x 3 x 0.25	1
22	(3-C)	YEP0FX2154		FR Lever Ass'y	1	54	(3-B)	YEJS06131		Screw Tamas 2.5mm x 4mm	1
23	(4-C)	YEAX01105		Solenoid Coil	1	55	(2-C)	YEJS06132		Screw	2
24	(2-B)	YEFX0461256		Main Plate	1	56	(4-C)	YEJS06133		Screw	1
25	(2-B)	YEFX0051536		M.S Spring	1	57	(3-B)	YEJW05122		Washer 0.85mm x 2.8mm x 0.25mm	1
26	(2-C)	YEFX0051537		H.S Spring	1						
27	(2-B)	YEFX0461258		FR Slide Plate (M)	1						
28	(3-B)	YEA010121		Motor Ass'y (1940-11-305)	1						
29	(2-A)	YEJS06129		Collar Screw (W)	1						
30	(2-B)	YEFX0461861		FR Working Plate Ass'y	1						
31	(2-B)	YEFX0051538		FR Spring	1						
32	(2-B)	YEFX249364		H.P Return Arm	1						

EXPLODED VIEW (TAPE DECK) / AUFGELOÖTE DARSTELLUNGS (TONBAND GERÄT) MODEL CQ-RD45LEN only

■ Numbers in ○ are indicated REF.No. in the REPLACEMENT PARTS LIST

