CD RECEIVER

KDC-138/138CR
KDC-139/139S

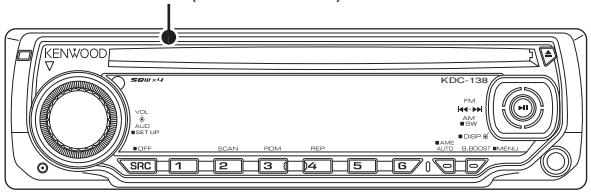
SERVICE MANUAL

KENWOOD

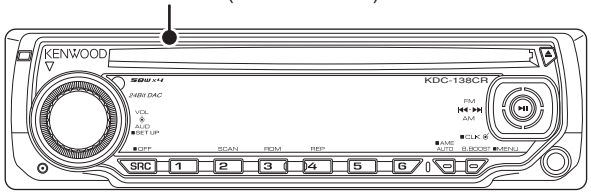
Kenwood Corporation

B53-0577-00 (N) 373

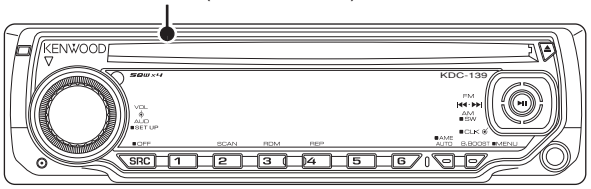
Panel assy
KDC-138 (A64-4276-02)



Panel assy
KDC-138CR (A64-4277-02)



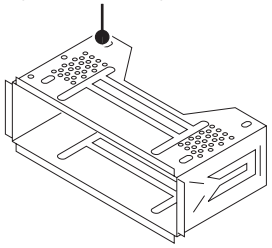
Panel assy
KDC-139 (A64-4286-02)
KDC-139S (A64-4287-02)



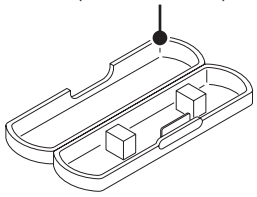
TDF SPARE-PANEL

MAIN UNIT NAME	TDF PARTS No.	TDF NAME
KDC-138	Y33-2830-63	TDF-81D
KDC-138CR	Y33-2830-64	TDF-81DCR
KDC-139	Y33-2820-65	TDF-139
KDC-139S	Y33-2820-66	TDF-139S

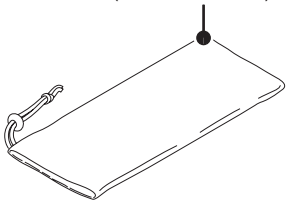
Mounting hardware assy
(J21-9716-03)



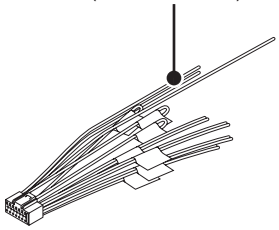
* Plastic cabinet assy
(A02-2736-03)



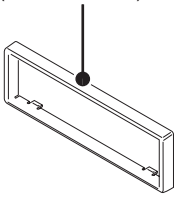
* Carrying case
(W01-1692-05)



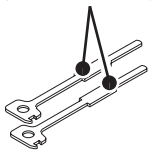
DC cord
(E30-6415-15)



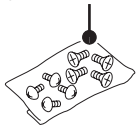
* Escutcheon
(B07-xxxx-xx)



Lever
(D10-4589-04) x2



Screw set
(N99-1757-05)

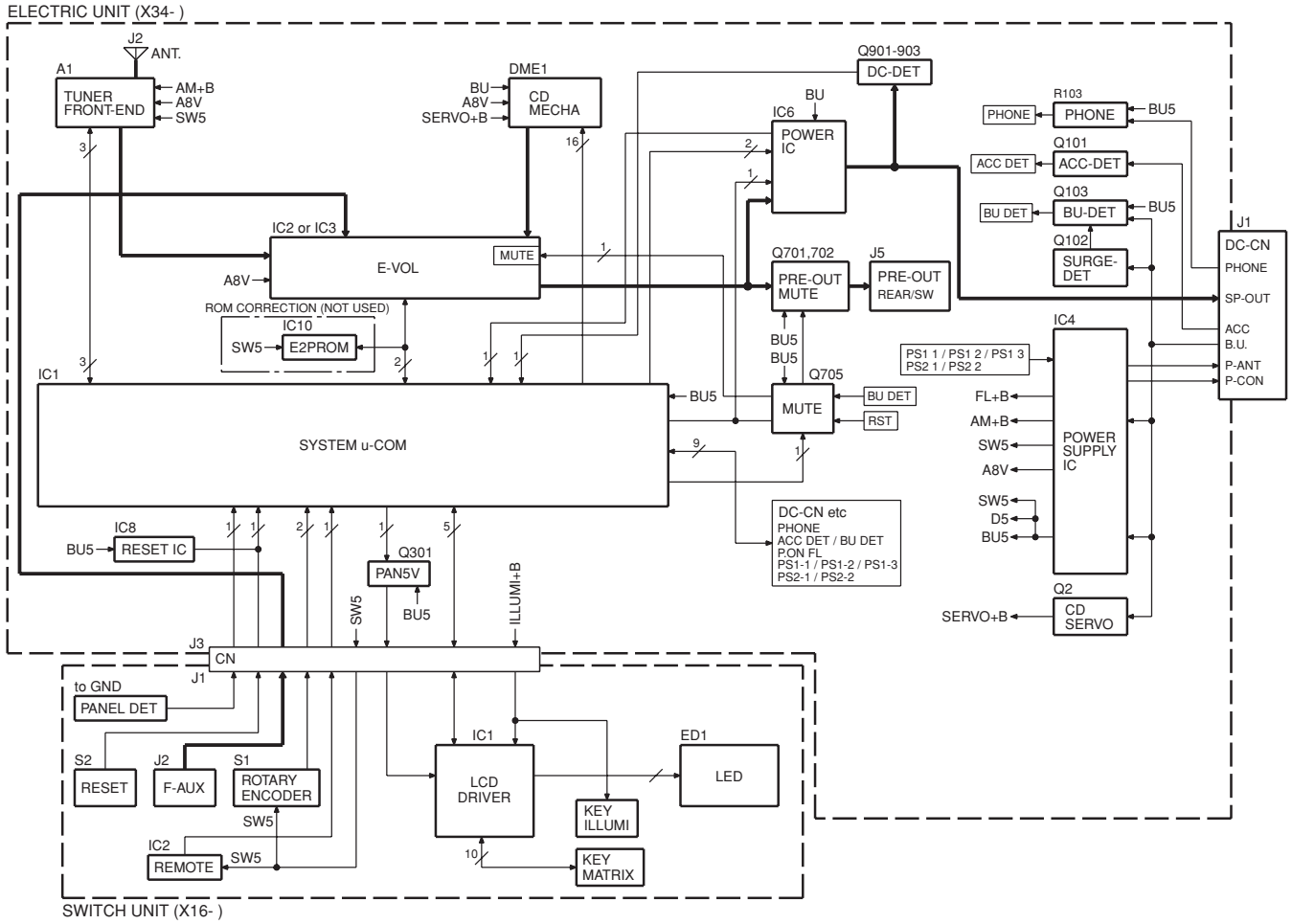


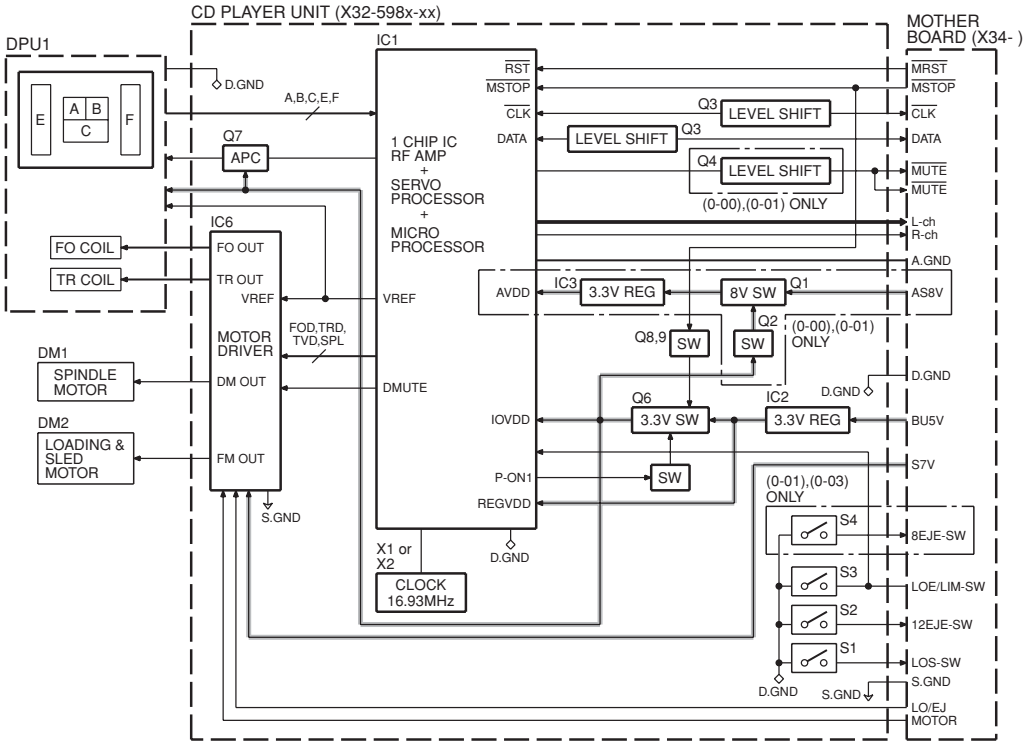
Screw (4x16)
(N84-4016-48)

* Depends on the model. Refer to the parts list.

This product uses Lead Free solder.
This product complies with the **RoHS** directive for the European market.

BLOCK DIAGRAM





COMPONENTS DESCRIPTION

● ELECTRIC UNIT (X34-564x-xx)

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC1	System µ-COM	Controls FM/AM tuner, the changer, CD mechanism, panel, volume and tone.
IC2,3	E-VOL	Controls the source, volume and tone.
IC4	Power Supply IC	Outputs 5Vx2, 8.1Vx2, 10.2V, P-CON and P-ANT.
IC6	Power IC	Amplifies the front L/R and the rear L/R to 50W or 45W maximum.
IC8	Reset IC	Lo when detection voltage goes below 3.6V.
Q2	Servo+B AVR	When Q3's base goes Hi, Servo+B AVR outputs 7.5V.
Q3	Control SW for Servo+B	ON when the base goes Hi.
Q11	14V SW	ON when the base goes Hi.
Q12	14V SW	ON when the base goes Lo.
Q13	Control SW for IC4	ON when the base goes Hi.
Q14	Control SW for IC4	ON when the base goes Lo.
Q101	ACC DET	ON when the base goes Hi during ACC is applied.
Q102	Serge DET	When the base goes Hi, surge voltage is detected.
Q103	BU DET	ON when the base goes Hi during BU is applied.
Q104,105	Mute Control	ON when the base goes Hi.
Q301	Panel 5V SW	ON when the base goes Lo.
Q402	Quick Charge Voltage SW	Charges voltage quickly when the base goes Hi.
Q701,702	Pre-out Mute SW	When a base of the 4 transistors goes Hi, pre-out is muted.
Q705	Mute Driver for Pre-out	ON when the base goes Lo.
Q801	Electric Discharge Circuit for C805 (SVR)	ON when the base goes Lo.
Q901	DC Offset DET	ON when the base goes Hi after Q902's and Q903's outputs are separated.
Q902,903	DC Offset DET SW	ON when the bases go Lo after IC6's SP-OUTs (DC) are separated.

● SWITCH UNIT (X16-616x-xx)

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC1	LCD Driver	
IC2	Remote Control Sensor	

● CD PLAYER UNIT (X32-5980-04)

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC1	CD Signal Processor & MECHA µ-COM RF Amplifier responding to CD-RW	Focusing, tracking, sled and spindle servo processing. Automatic adjustment (focusing, tracking, gain, offset and balance) operations. Digital signal processing (DSP, PLL, sub-codes, CIRC error correction, audio data interpolation processing) operations, and microcomputer function. Generation of RF signal based on the signals from the APC circuit and the laser pick-up, and generation of servo error (focusing error and tracking error) signals. Detection of dropout, anti-shock, track crossing and off-tracking conditions, included gain control function during CD-RW.
IC2	3.3V REG	Supplies 3.3V to IC1 and the laser pick-up.
IC6	4ch BTL Driver	Focusing and tracking coil, sled and spindle motor driver, disc loading and eject operation.

COMPONENTS DESCRIPTION

Ref. No.	Application / Function	Operation / Condition / Compatibility
Q3	5V-3.3V Level Shift	Shifts 5V to 3.3V, or 3.3V to 5V.
Q4	5V-3.3V Level Shift	Shifts 3.3V to 5V.
Q6	BU3.3V SW	Q6 is ON when Q8 or Q9 is ON.
Q7	APC (Auto Power Control)	Drives LD (Laser Diode).
Q8	Power Supply Control	Power Supply Control from MECHA µ-COM. Q6 is ON when pin 63 (P_ON1) of IC1 is Hi.
Q9	Power Supply Control	Power Supply Control from system µ-COM. Q6 is ON when pin 125 (MSTOP) of IC1 is Hi.
D1,2	5V Force Voltage Prevention	5V Force Voltage Prevention from MECHA µ-COM side.
D3	Laser Diode Protection	Prevents reverse bias which is applied to laser. Laser destruction prevention.
D4	Static Electricity Countermeasure	Prevents malfunction by static electricity.

MICROCOMPUTER'S TERMINAL DESCRIPTION

● SYSTEM µ-COM: IC1 on X34- (ELECTRIC UNIT)

Pin No.	Pin Name	I/O	Application	Truth Value Table	Processing Operation Description
1	LX DATA M	I/O	Data to slave unit		Pull-down (GND)
2	LX CLK	I/O	LX-BUS clock		125k~65kHz
3~5	NC	-	Not used		Output L fixed
6	REMO	I	Remote control signal input		Detects pulse width
7	NC	-	Not used		Output L fixed
8	BYTE	-	Memory extended bus width setting		Connects to VSS
9	CNVSS	-			Connects to VSS
10	XCIN	-	32.768kHz		
11	XCOUT	-	32.768kHz		
12	$\overline{\text{RESET}}$	-			L: Reset
13	XOUT	-	10.0MHz		
14	VSS	-			
15	XIN	-	10.0MHz		
16	VCC1	-			
17	NMI	I			Connects to VCC
18	$\overline{\text{PANEL DET}}$	I	Panel communication detection		H: Panel detached, L: Panel attached
19,20	NC	-	Not used		Output L fixed
21	ROMCOR DET	I	E2PROM writing request		H: Writing
22,23	NC	-	Not used		Output L fixed
24	PON FL	-	Not used		Output L fixed
25	NC	-	Not used		Output L fixed
26	$\overline{\text{PON PANEL}}$	I/O	Panel 5V control		ON: L, Momentary power down/Panel detached: Hi-Z, 11 minutes after ACC OFF: Hi-Z
27,28	NC	-	Not used		Output L fixed
29	AUD SCL	I/O	E-VOL clock output		
30	AUD SDA	I/O	E-VOL data input/output		
31	VFD SYS DATA	O	LCD data output		
32	VFD PAN DATA	I	LCD data input		
33	VFD CLK	O	LCD clock output		125kHz
34	VFD BLK	-	Not used		Output L fixed
35	CD DATA	I/O	CD mechanism I2C data input/output		
36	CD CLK	I/O	CD mechanism I2C clock output		
37	NC	-	Not used		Output L fixed
38	CD LOS SW	I	CD loading detection		
39	PIO0	I	Communication request from mechanism DSP		H: Data request
40	CD MSTOP	O	CD mechanism µ-com stop		H: Mechanism µ-com operates, L: Mechanism µ-com stops
41	EPM	I	Flash EPM input		Connects to VSS
42	CD LOE LIM SW	I	CD detection (Chucking SW)		H: Loading completed, L: No disc
43	PON CD	-	Not used		

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Truth Value Table	Processing Operation Description
44	CD LOEJ	I/O	CD motor control	①	Refer to the truth value table
45	CD MOTOR	I/O	CD motor control	①	Refer to the truth value table
46	VFD CE	O	LCD control request		
47	CD DRIVEMUTE	O	Motor driver mute output		
48	CD CCE	O	CD mechanism chip enable		
49	NC	I	Not used		
50	CD MRST	O	CD mechanism µ-com reset		H: Normal, L: Reset
51~53	NC	-	Not used		Output L fixed
54	CD MUTE	I	CD mute request		L: Mute request
55	CD DISC12 SW	I	12cm disc detection		Pull-up (B.U.)
56	ROTARY CCW	I	VOL key input		Detects pulse width
57	ROTARY CW	I	VOL key input		Detects pulse width
58~61	NC	-	Not used		Output L fixed
62	VCC2	-			
63	NC	-	Not used		Output L fixed
64	VSS	-			
65	NC	-	Not used		
66	TUN IFC OUT	I	Front-end IFC-OUT input		H: Station found, L: No station
67	PON EXT GND	I/O	IC2 external input quick charge control		L: OFF, Hi-Z: Quick charge, When IC2 is in source select: Hi-Z, Mute L: L, Momentary power down/Power OFF: L
68	MUTE	I/O	Mute		L: Mute OFF, Hi-Z: Mute ON
69	ANALOG CON	O	AUX/LX audio switching		AUX: H (Switches after 100ms after first-out mute begins to work), LX/Other source: L
70	LX RST	O	Forced reset to slave unit		H: Reset, L: Normal
71	LX CON	O	Start-up request to slave unit		H: Slave unit ON, L: Slave unit OFF
72	LX MUTE	I	Mute request from slave unit		H: Mute ON, L: Mute OFF
73	LX REQ M	O	Communication request to slave unit		
74	NC	-	Not used		
75	LX REQ S	I	Communication request from slave unit		Pull-down (GND)
76	PWIC SVR	O	SVR discharging circuit		During 500ms after power OFF and momentary power down: H, Since then: L
77	PWIC STBY	O	Power IC standby control		Power ON: H, Power OFF: L
78	PWIC MUTE	O	Power IC mute		STANDBY source/Momentary power down: L, TEL mute: L
79	$\overline{\text{ACC DET}}$	I	ACC power supply detection		ACC found: L, No ACC: H
80	$\overline{\text{BU DET}}$	I	Detection of momentary power down		BU found: L, No BU/Momentary power down: H (Operates after less than 4ms after momentary power down is detected)
81~83	NC	-	Not used		Output L fixed
84	TUN SMETER	I	S-meter input		
85	TYPE1	I	Destination switching	③	Refer to the truth value table

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Truth Value Table	Processing Operation Description
86	TYPE2	I	Destination switching	③	Refer to the truth value table
87	PWIC DC DET	I	DC offset detection		If DC offset is found 20 times in 100ms with condition of over 1.0V, it will be judged as DC offset detected.
88	LINE MUTE	I	Line mute detection		TEL mute: Below 1V, NAVI mue: Over 2.5V
89	OFFSET DET	I	Power IC offset detection		
90	PS2 2	O	Power supply IC control	④	Refer to the truth value table
91	PS2 1	O	Power supply IC control	④	Refer to the truth value table
92	PS1 1	O	Power supply IC control	④	Refer to the truth value table
93	PS1 2	O	Power supply IC control	④	Refer to the truth value table
94	PS1 3	O	Power supply IC control	④	Refer to the truth value table
95	NC	-	Not used		Output L fixed
96	AVSS	-			
97	REF CON	O	VREF control		Connects to VREF
98	VREF	-			
99	AVCC	-			
100	LX DATA S	I	Data from slave unit		Pull-down (GND)

• Truth value table

① CD motor control

	CD motor	CD loading/eject
Stop	L	L
Load	H	L
Eject	H	H
Brake	H	Hi-z

③ Destination switching

TYPE 2 (Pin 86)	TYPE 1 (Pin 85)	Model
0V	0V	KDC-135
0V	2.4V	KDC-135CR
1.2V	0V	KDC-136

④ Power supply IC (IC4) control

SEL1 (Pin 10)

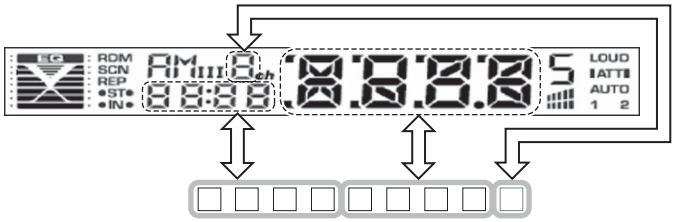
PS1-2	PS1-3	PS2-1	ILLUMI	P-CON	P-ANT
L	L	L	OFF	OFF	OFF
L	L	H	ON	OFF	OFF
H	L	H	ON	ON	OFF
H	H	H	ON	ON	ON

SEL2 (Pin 11)

PS1-1	PS2-2	AUDIO/SW5	AM
L	L	OFF	OFF
H	L	ON	OFF
H	H	ON	ON

TEST MODE

■ Example



Key	Description of display		Description
5	Disc EJECT times display	E J C X X X X X	Disc EJECT times display. MAX 65535 (times)
■5			While disc EJECT times is displayed, press and hold for 2 seconds or longer to clear disc EJECT times.

A symbol "■" in the key column indicates that the key should be pressed and held for 1 second or longer.

■ How to enter the test mode

Procedure	Note
Press and hold the [1] key and [3] key and reset.	

All lamps blink when it is detected that the sub-clock resonator is disconnected.

When having started up in the test mode, change the LINE MUTE inhibition time from 10 seconds to 1 second.

When operating in the test mode, even if a DC offset error occurs, detection information is not written in the E2PROM.

Forced disc ejection is prohibited in the test mode.

■ How to clear the test mode

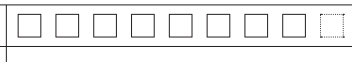
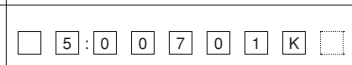
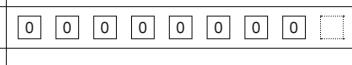
Procedure	Note
Reset, momentary power down, ACC OFF, Power OFF, Panel detached.	Clearing the test mode

■ Test mode default condition

Description	Default values
Source	STANDBY
Display	Display lights are all turned on.
Volume	-10dB ("30" is displayed.)
Bass Boost	OFF
CRSC	OFF regardless of having/not having the switching function.
AUX	ON (Only model equipped with AUX)
System Q	NATURAL (FLAT)
Preout	Rear

TEST MODE

■ Special displays when all lights are on in STANDBY source

Key	Description of display		Description
Common	All lights ON.		All lights ON.
1	Destination terminal condition indication		“TYPE” indicates system µ-com (IC1) destination, and shows real-time condition of the destination terminal.
	Development ID condition indication		Development ID – Version (system µ-com: IC1)
2	Serial No. display		Serial No. is displayed (8 digits)
3	Power ON time display		00~50 is displayed for “XX”. When less than 1 hour, displayed by displayed by increments of 10 minutes.
			00001~10922 is displayed for “XXXXX”. MAX 10922 (hours)
■3			When Power ON time is displayed, press and hold for 2 seconds or longer to clear Power ON time.
4	Disc operation time display		00~50 is displayed for “XX”. When less than 1 hour, displayed by increments of 10 minutes.
			00001~10922 is displayed for “XXXXX”. MAX 10922 (hours)
■4			While the disc operation time is displayed, press and hold for 2 seconds or longer to clear the disc operation time. (Cleared only for displayed media.)
5	Disc EJECT times display		Disc EJECT times display. MAX 65535 (times)
■5			While disc EJECT times is displayed, press and hold for 2 seconds or longer to clear disc EJECT times.
6	Panel open/close times display		PANEL open/close times display. MAX 65535 (times)
■6			Press the key for more than 2 seconds while the PANEL open/close count is displayed and PANEL open/close count is cleared.
FM	ROM correction version display		The number is the ROM correction version number.
			When E2PROM is not installed.
			When not written in yet.
			When data not matched. (due to the difference in versions)
■AM	ROM data transfer		
▶▶I	Audio data initialization		AUDIO setting value is re-set to the test mode default value.
I◀◀	Forced Power OFF information display		No forced power OFF
			Forced power OFF by communication error between system µ-com and panel.
■I◀◀			While the forced power OFF data is displayed, press and hold for 2 seconds to clear the data.
▶II	CD information display mode ON/OFF		For the display contents, refer to “CD information display mode” in the next section.
■▶II			While in CD information display mode, press and hold for 2 seconds or longer to clear all CD information.

TEST MODE

• CD information display mode

Key		Description of display		Description
FM (forward rotation) AM (reverse rotation)		I2C communication status	I C O K	I2C communication OK
			I C E R	I2C communication NG
	⏮ / ⏭	CD mechanism error log display	1 : X X M – E R	Mechanism error log 1 (Latest) XX: Error number. "– –" is displayed in case there is no error.
			2 : X X M – E R	Mechanism error log 2 (Latest) XX: Error number. "– –" is displayed in case there is no error.
			3 : X X M – E R	Mechanism error log 3 (Latest) XX: Error number. "– –" is displayed in case there is no error.
	⏮ / ⏭	CD Load error information display	1 : X X L D E R	Load error switch 1 XX: Number of errors. "– –" is displayed in case there is no error.
			2 : X X L D E R	Load error switch 2 XX: Number of errors. "– –" is displayed in case there is no error.
	⏮ / ⏭	CD Ejection error information display	1 : X X E J E R	Ejection error switch 1 XX: Number of errors. "– –" is displayed in case there is no error.
			2 : X X E J E R	Ejection error switch 2 XX: Number of errors. "– –" is displayed in case there is no error.
			3 : X X E J E R	Ejection error switch 3 XX: Number of errors. "– –" is displayed in case there is no error.
			4 : X X E J E R	Ejection error switch 4 XX: Number of errors. "– –" is displayed in case there is no error.
	⏮ / ⏭	CD time code error count data display (Missing counts)	L O S E	CD time code error count data (Missing counts) mode display.
			: X X C D D A	Number of CD-DA count errors XX: Number of errors. "– –" is displayed in case there is no error.
	⏮ / ⏭	CD time code error count data display (count not updated)	S T A Y	CD time code error count data (count not updated) mode display.
			: X X C D D A	Number of CD-DA count errors XX: Number of errors. "– –" is displayed in case there is no error.

■ Test mode specifications in TUNER source

Error is found in front-end (A1), etc. if indications below is displayed while in tuner source.

Status	Display	Description
Front-end (A1) E2PROM data error	E 2 E R	Front-end (A1) E2PROM is still the default (unspecified) value.
Front-end (A1) communication error	I C E R	Communication with front-end (A1) is not possible.
Destination mismatch	T P E R	When destination is mismatch between front-end (A1) E2PROM and the product.

TEST MODE

• TUNER preset operation

Key	Description of display		Description
4	Preset function	□ □ □ □ 9 8.3 □ □	Change to 98.3MHz with the preset key [4].

• K3I forced switching

Every time when [6] key is pressed in tuner FM source, switched in the following order: AUTO → Forced WIDE → Forced MIDDLE → Forced NARROW → AUTO. Default status is AUTO, and displayed as shown below.

Key	Description of display		Description
6	K3I Forced switching	□ □ □ A 9 8.1 □ □	AUTO (1)
		□ □ □ 3 9 8.1 □ □	Forced WIDE (2)
		□ □ □ 2 9 8.1 □ □	Forced MIDDLE (3)
		□ □ □ 1 9 8.1 □ □	Forced NARROW (4)

• FST adjustment mode

Perform FST soft-mute adjustment.

Key	Note
■▶II	Enter the FST adjustment mode. (Press for 1 second or longer.)

Operations in the FST adjustment mode are as follows:

Key	Description of display		Description
FM (UP) AM (DOWN)	Soft-mute adjustment	□ □ □ □ S D – F □	18dBμ (0) ↔ 36dBμ (F)
■▶II	Adjustment value memory	□ □ □ □ W R T □ □	Displays the data that has been written in the E2PROM when pressing the key for 2 seconds or longer.
▶II	Mode clear	□ □ □ □ 9 8.3 □ □	Clear the FST adjustment mode. (Returns to normal display and the test mode is retained.)

After completing the FST adjustment, if You wish to clear the test mode, You can do this using the reset button.

■ Test mode specifications in CD source

• Procedure in CD-DA media (KTD-02A)

Key	Description of display		Description
▶▶I	Track up procedure		Every time pressed, jumps to the track shown below. No.9 → No.15 → No.10 → No.11 → No.12 → No.13 → No.22 → No.14 → No.9 (recursive) But in case the disc has 8 tracks or less, playback starts with track No.1.
I◀◀	Track down procedure		Goes down by 1 track from the currently played track.
1	Jump procedure		Jump to No. 28 (Scratch 0.7mm for MUSIC line vibration testing)
2	Jump procedure		Jump to No. 14 (Blurring surface disc TCD-731RA Tr14)
3	Information display Mechanism model name Mechanism version	6 C 0 0 0 0 0 0 □	Display of Mechanism model name and Mechanism version. (When key is pressed while the display in the left is being shown, returns to normal display.)
6	Jump procedure		Jump to No. 15. Set the volume value to “25”. (For 20Hz 0dB DC protection false-operation FCT checking)

Used media: For CD, KTD-02A

TEST MODE

■ Audio-related test mode

Procedure	Note
Press the [AUD] key (main unit) Press the [AUD] and [∗] keys (Remote control)	Enter audio adjustment mode (the initial item should be Fader, and then, Balance → Bass Level → Middle Level → Treble Level → SW Level → System Q → V-Offset → LPF Sub Woofer.

About audio adjustment items (include both Audio Function Mode and Audio Setup Mode)

Procedure	Item	Procedure	Description
For item forwarding procedure, press [AUD] key and [FM] key	Fader	[VOL] knob and [I◄◄ / ►►I] key	Adjust to 3 steps of R15 ↔ 0 ↔ F15. (Default value: 0)
	Balance	[VOL] knob and [I◄◄ / ►►I] key	Adjust to 3 steps of L15 ↔ 0 ↔ R15. (Default value: 0)
	Bass Level	[VOL] knob and [I◄◄ / ►►I] key	Adjust to 3 steps of -8 ↔ 0 ↔ +8. (Default value 0)
	Middle Level	[VOL] knob and [I◄◄ / ►►I] key	Adjust to 3 steps of -8 ↔ 0 ↔ +8. (Default value 0)
	Treble Level	[VOL] knob and [I◄◄ / ►►I] key	Adjust to 3 steps of -8 ↔ 0 ↔ +8. (Default value 0)
	LPF Sub woofer	[VOL] knob and [I◄◄ / ►►I] key	Adjust to 2 steps of 80Hz ↔ Through. (Default value: Through) (Only in models with Sub Woofer output)
	Volume Offset	[VOL] knob and [I◄◄ / ►►I] key	Adjust to 2 steps of -8 ↔ 0. (Default value 0) (Other than model with internal AUX) Adjust to 3 steps of -8 ↔ 0 ↔ +8. (Default value 0) (Only models with internal AUX)

Procedure	Note
Press the [B.BOOST] key for 1 second or longer	Switch Bass Boost (Note: Front key functions as MENU.)

■ [ATT] key operation

Procedure	Note
In the TUNER source, press [►II] key	ATT OFF/ON

■ MENU-related test mode

Procedure	Note
Press the [B.BOOST] key (main unit) Press the [DNPP/SBF] and [DIRECT] keys (Remote control)	Continuous forwarding by remote control is prohibited

■ Backup current measurement

Procedure	Note
While ACC OFF (Back Up ON), Reset	MUTE terminal is OFF after 2 seconds, not after 15 seconds. (During this time, the CD mechanism does not function.)

■ PREOUT switching (KDC-138/139/139S only)

Procedure	Note
In the STANDBY source, press and hold [AUTO] key for 1 second or longer	Switches PREOUT

TEST MODE

■ LCD (ED1) short check

Procedure	Note
In the STANDBY source, press [ATT] key	All lights are off → Turns on odd and even terminals alternatively every 125ms (terminals that have a maximum number of grids) → Turns on only the odd terminals → Turn on only the even terminals →

■ Clearing CD mechanism information / Service information / DC offset error information (Clearing E2PROM data)

Status	Display	Description
While pressing and holding [2] key and [5] key, reset-start.	C D O	At normal termination
	C D –	At abnormal termination

This mode is cancelled by resetting. (The last screen will not be retained.)

Data to be cleared is shown below.

CD mechanism information	I2C communication status display
	CD mechanism error log display
	Displays CD loading error data
	Displays CD EJECT error data
	Displays CD time code count error data (missing count)
	Displays CD time code count error data (count not updated)
Service Information	Power ON time display
	CD operation time display
	CD EJECT times display
	PANEL open/close times display
	Forced Power OFF information display
DC offset error information	DC offset error 1 display (Provides information on whether there is an improper connection or another error)
	DC offset error 2 display (Provides information on the number of capacitor leaks)

■ Clearing DC offset error detection data (E2PROM data clearing)

Procedure	Note
While pressing and holding [3] key and [6] key, reset-start.	Entering DC offset error display mode.

Procedure	Display	Description
Press and hold the [3] and [6] keys, and reset-start	d C E R	When DC offset error is detected (when either one of capacitors is leaking, or an improper connection or another error is detected)
	d C O K	When DC offset error is not detected (when none of capacitors leak, no improper connection or other error is detected)
1	d C 1 E R	When improper connection or other DC offset errors are detected.
	d C 1 O K	When improper connection or other DC offset errors are not detected.
■1	d C 1 O K	When detecting improper connection or other DC offset errors, clears detection data. (Clear E2PROM)
2	d C 2 4	When detecting capacitor leak, provides information on the number of capacitor leaks. (0~4)
■2	d C 2 0	When detecting capacitor leak, clears the number of capacitor leaks. (Clear E2PROM)

This mode is cancelled by resetting. (The last screen will not be retained.)

TEST MODE

■ FM/AM channel space switching

Procedure	Note
While Power OFF, press and hold [1] key and [5] key, and press [SRC] key to Power ON	FM200kHz/AM10kHz ↔ FM50kHz/AM9kHz

■ ROM data transfer

When replacing front-end (A1), this function is used to transfer E2PROM data (ROM correction, security and other data) to front-end (A1) to E2PROM of to mother unit (X34-), used for saving data, and, after completing replacement of front-end (A1), to recover data from the E2PROM of the mother unit (X34-), and for saving data to the new front-end (A1). Refer to “ROM data transfer processes” on the next page for details on front-end (A1) replacement procedures and on the data to be transferred.

Procedure	Display	Description
While pressing and holding [1] key and [3] keys, reset-start	□□□□:□□□□	All lights ON.
Press [B.BOOST] key (MENU)	□□□□READ	MENU mode
Press [I◄◄] key or [►►I] key	□□□□READ	Front-end (A1) → Mother unit (X34-). Data transfer processing.
	□□□□WRT	Mother unit (X34-) → Front-end (A1). Data transfer processing.
(In the above ROM READ status), ■[►II] key for 2 seconds or longer	□□□□R–	Front-end (A1) → Mother unit (X34-). ROM data is being transferred.
	□□□□R–OK	Front-end (A1) → Mother unit (X34-). ROM correction transfer, security and other data is OK.
	□□□□R–02	Front-end (A1) → Mother unit (X34-). Transfer of security and other data is OK.
	□□□□R–ER	Front-end (A1) → Mother unit (X34-). ROM data transfer is NG.
(In the above ROM WRT status), ■[►II] key for 2 seconds or longer	□□□□W–	Mother unit (X34-) → Front -end (A1). ROM data is being transferred.
	□□□□W–OK	Mother unit (X34-) → Front-end (A1). ROM correction, security and other data transfer is OK.
	□□□□W–01	Mother unit (X34-) → Front-end (A1). ROM correction data transfer is OK.
	□□□□W–02	Mother unit (X34-) → Front-end (A1). Transfer of security and other data is OK.
	□□□□W–ER	Mother unit (X34-) → Front-end (A1). ROM data transfer is NG
(In every status of ROM data [►II] transfer processing)	□□□□:□□□□	Clear from ROM correction data transfer processing

ROM DATA TRANSFER PROCESSES

When replacing front-end (A1) of mother unit (X34-), or when adding or replacing ROM correction (program correction with ROM IC (IC10)), the following activities are required.

■ Overview

When replacing front-end (A1) in the model where ROM correction and security data have been written into E2PROM, included in the front-end (A1) pack, the transfer function of the E2PROM data itself in the replaced front-end (A1) is required.

This function in the above system configuration is used to allow for complete replacement of the front-end at any service center.

■ Overview of specifications

Procedures for replacement are as follows: To install the E2PROM to the mother unit (X34-), and replace front-end (A1) with new front-end after copying the data in the E2PROM (such as ROM correction data and other data) in the front-end (A1) to the mother unit (X34-) by operating the system, and then copy the data (such as ROM correction data and other data) into the mother unit to the E2PROM of the front-end (A1), operating the main body.

Tuner adjustment data was inserted during the tuner pack manufacturing, and data will not be transferred because front-end (A1) is built-in.

In addition, tuner adjustment data for new front-end (A1) is supplied as a service part in which data was inserted.

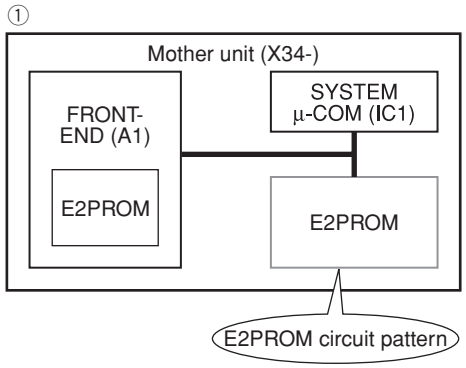
■ Data to be copied

- ROM correction data
- Other data
  - Security data
  - DEMO MODE ON/OFF status
  - POWER ON time (For maintenance)
  - Playback time (For maintenance)
  - EJECT count (For maintenance)
  - Panel open/close count (For maintenance)
  - CD I2C status (For maintenance)
  - CD offset error code (For maintenance)
  - CD sound skips count (For maintenance)
  - CD time code not updated count (For maintenance)
  - CD load switch errors count (For maintenance)
  - CD ejection errors count (For maintenance)
  - DC offset error (For maintenance)
  - Forced Power OFF information (For maintenance)
  - Serial number (For maintenance)
  - E2PROM data check data (For internal check)

■ Operation procedure

Operation procedure is different depending on the conditions. Proceed with the appropriate operation procedure depending on the specific condition.

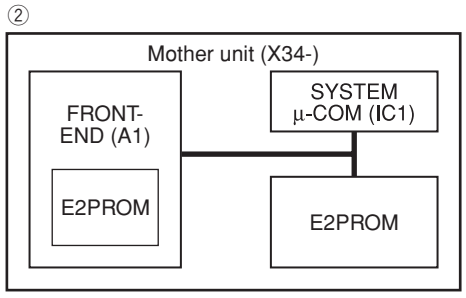
1. In case of replacing front-end (A1) without an applicable ROM correction.
2. In case of replacing front-end (A1) with an applicable ROM correction.
3. In case of applying new ROM correction at the same time when front-end (A1) is replaced. (No ROM correction has been carried out.)



Install new E2PROM.

Install E2PROM containing no data, in case of [1] and [2].

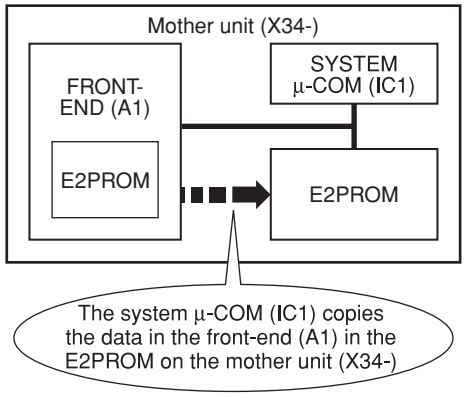
In case of [3], install maintenance E2PROM with an applicable ROM correction program.



ROM DATA TRANSFER PROCESSES

Turn power on.
Press and hold the [1] and [3] keys and press reset button. (Enter the system in the test mode.)
Press [B.BOOST] key. (ROM data System enters data transfer mode.)
Press [⏮] (or [⏭].) (Select READ)
Press [⏯] key for 1 second or longer. (Data transfer)

③



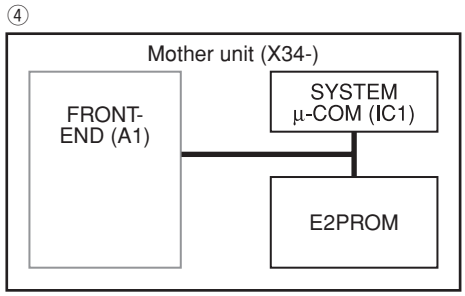
In case of [2]

In case of [1] or [3]

Press [⏯] key. (Exit ROM data transfer mode.)
Turn power off.

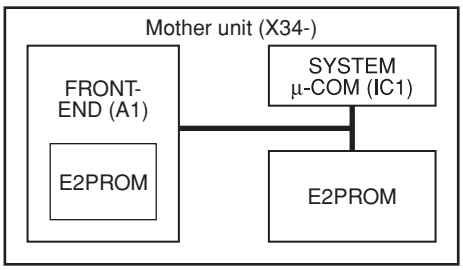
Remove front-end (A1).

④



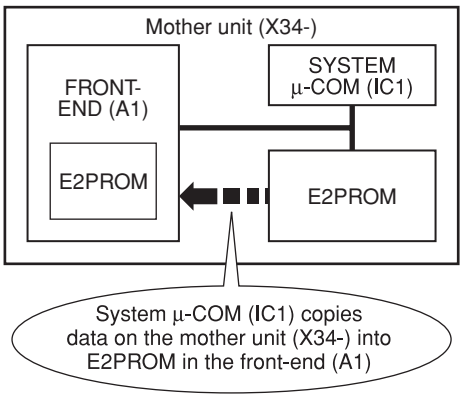
Install new front-end (A1).
No ROM correction or other data status.

⑤



Turn power on.
Press and hold the [1] and [3] keys and press reset button. (Enter the system in the test mode.)
Press [B.BOOST] key. (Start transferring ROM data.)
Press [⏮] (or [⏭].) (Select WRT)
Press [⏯] key for 1 second or longer. (Data transfer)

⑥



In case of [2] or [3]

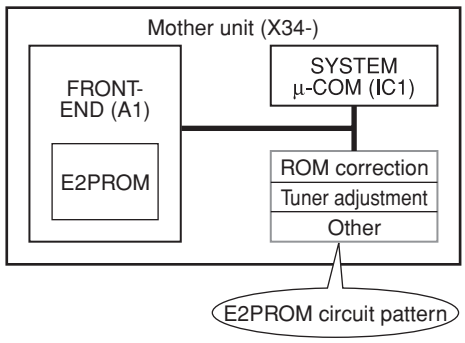
In case of [1]

Press [⏯] key. (Exit ROM data transfer mode.)

ROM DATA TRANSFER PROCESSES

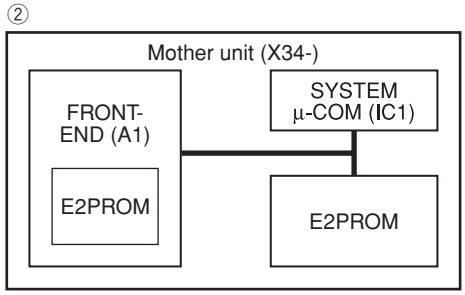
4. In case of applying a new ROM correction when front-end (A1) is replaced (There is ROM correction data.)
5. In case of applying a new ROM correction even when front-end (A1) is not replaced.

①



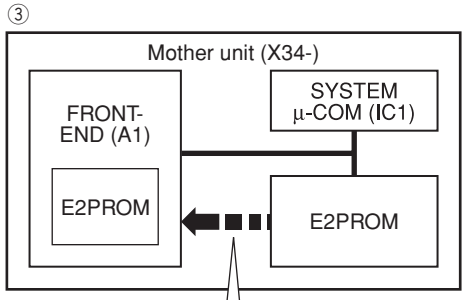
Install new E2PROM. (E2PROM that has been updated with ROM correction)

②



Turn power on.
Press and hold the [1] and [3] keys, press reset button. (Enter the system in the test mode.)
Press [B.BOOST] key. (ROM data System enters data transfer mode.)
Press [I◄◄] (or [►►I].) (Select WRT)
Press [►II] key for 1 second or longer. (Data transfer)

③



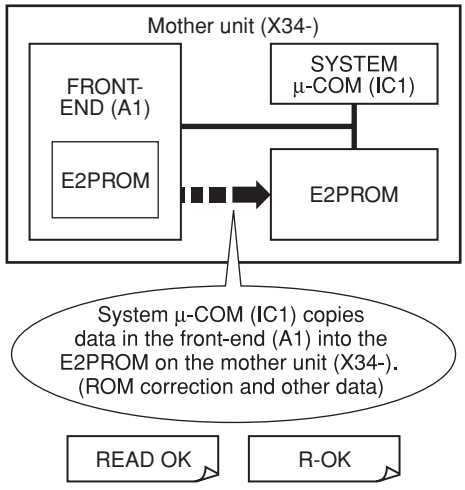
WRT OK1 | W-O1

In case of [4]

In case of [5]

Press [►II] key. (Exit ROM data transfer mode.)

Press [I◄◄] (or [►►I].) (Select READ)
Press [►II] key for 1 second or longer. (Data transfer)



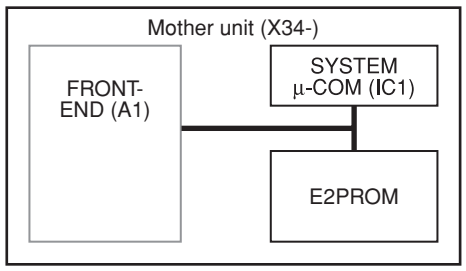
READ OK | R-OK

ROM DATA TRANSFER PROCESSES

Press [▶II] key. (Exit ROM data transfer mode.)
Turn power off.

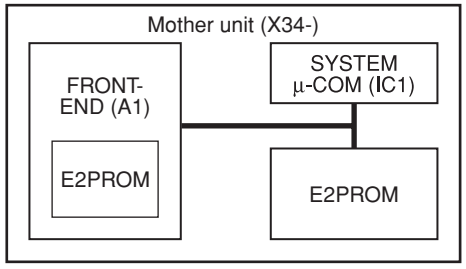
Remove front-end (A1).

④



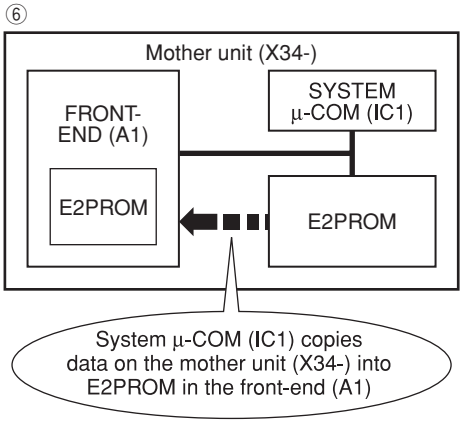
Install new front-end (A1).
No ROM correction or other data status.

⑤



Turn power on.
Press and hold the [1] and [3] keys press reset button. (Enter the system in the test mode.)
Press [B.BOOST] key. (Enter the system in ROM data transfer mode.)
Press [I◀◀] (or [▶▶I].) (Select WRT)
Press [▶II] key for 1 second or longer. (Data transfer)

⑥

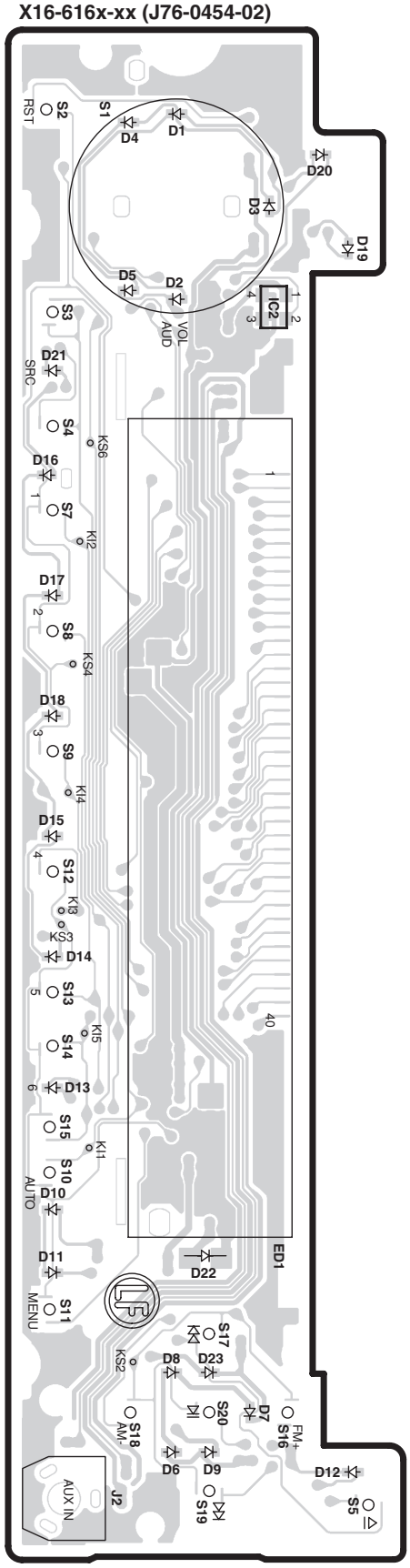


WRT OK W-OK

Press [▶II] key. (Exit ROM data transfer mode.)

PC BOARD (COMPONENT SIDE VIEW)

SWITCH UNIT
X16-616x-xx (J76-0454-02)

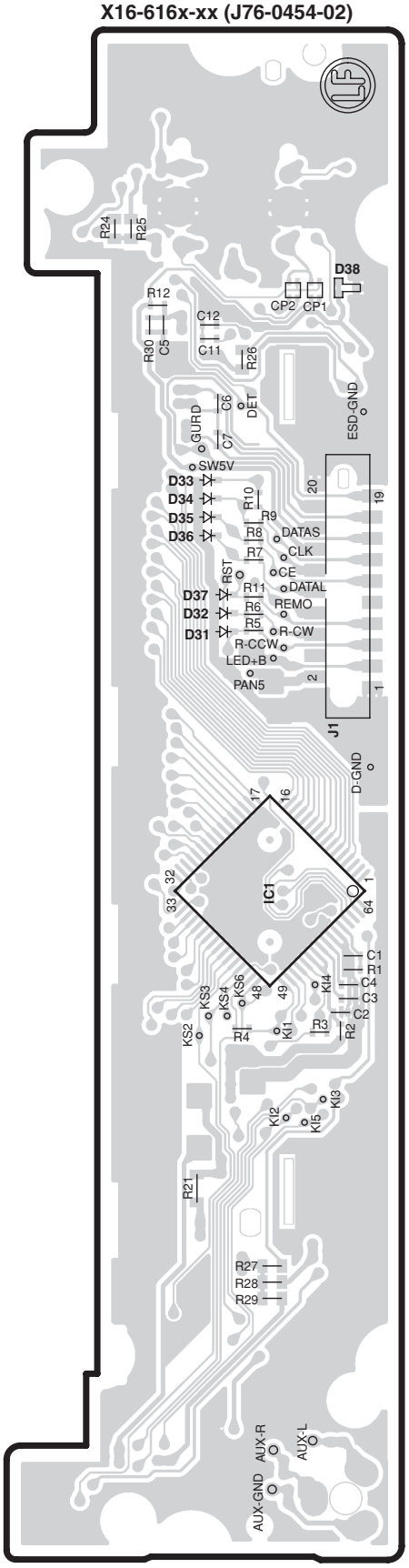


X16-616x-xx

Ref. No.	Address
IC2	2B

(FOIL SIDE VIEW)

SWITCH UNIT
X16-616x-xx (J76-0454-02)



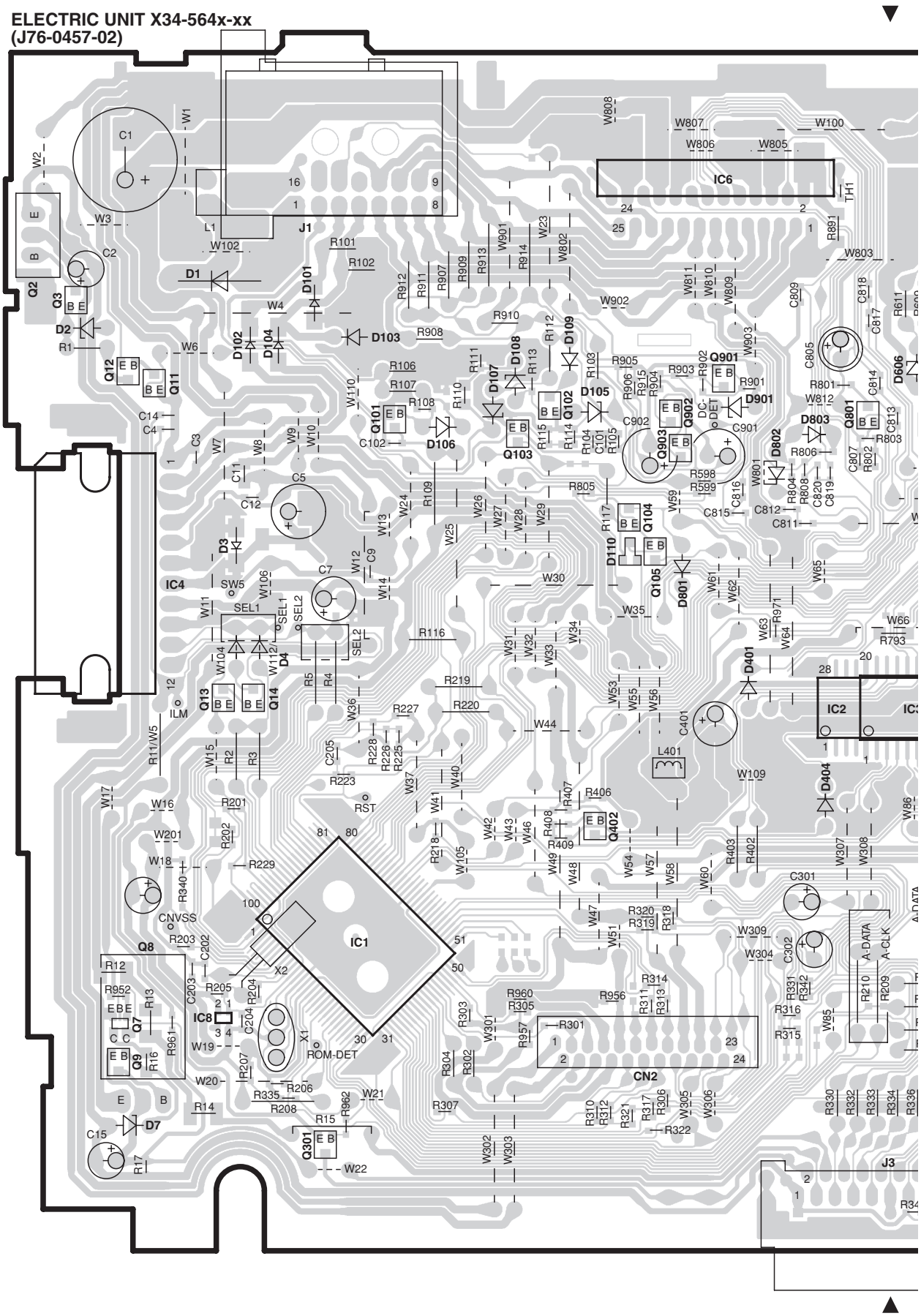
X16-616x-xx

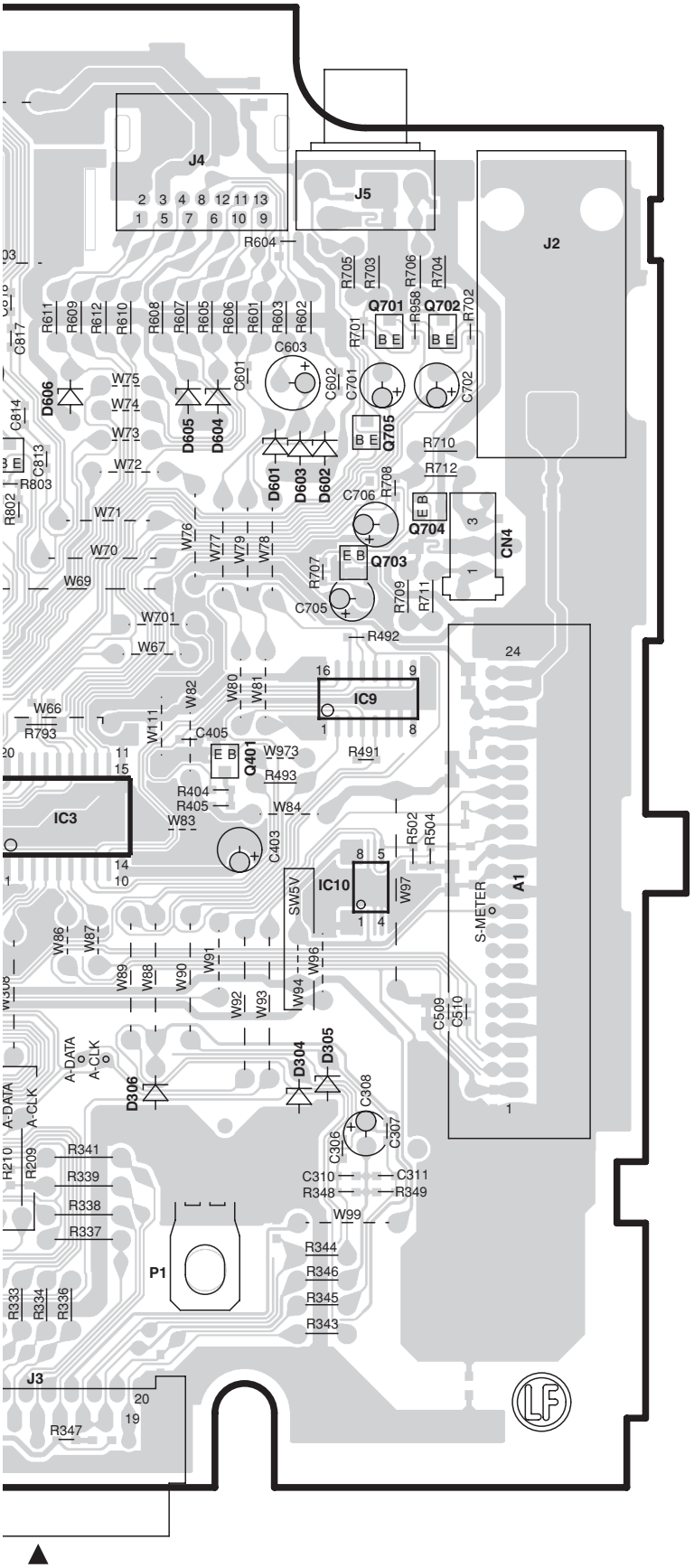
Ref. No.	Address
IC1	5D

Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (FOIL SIDE VIEW)

ELECTRIC UNIT X34-564x-xx
(J76-0457-02)





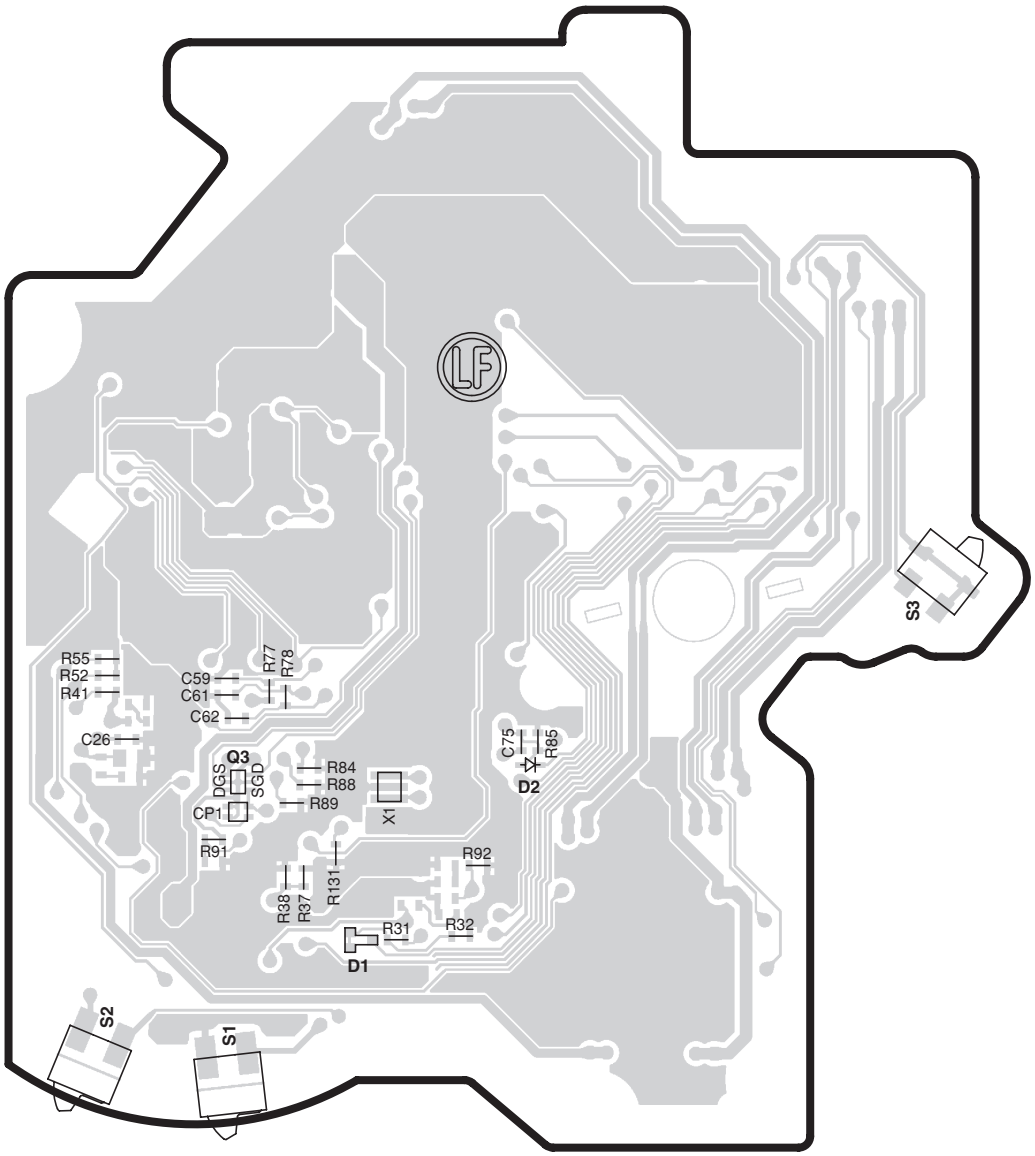
X34-564x-xx

Ref. No.	Address
IC1	5H
IC2	4J
IC3	4K
IC4	4G
IC6	2J
IC8	6G
Q2	3F
Q3	3G
Q11	3G
Q12	3G
Q13	4G
Q14	4H
Q101	3H
Q102	3I
Q103	3I
Q104	4I
Q105	4I
Q301	6H
Q402	5I
Q701	3L
Q702	3L
Q705	3L
Q801	3J
Q901	3J
Q902	3I
Q903	3I

Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (COMPONENT SIDE VIEW)

CD PLAYER UNIT X32-5980-04 (J76-0448-02)



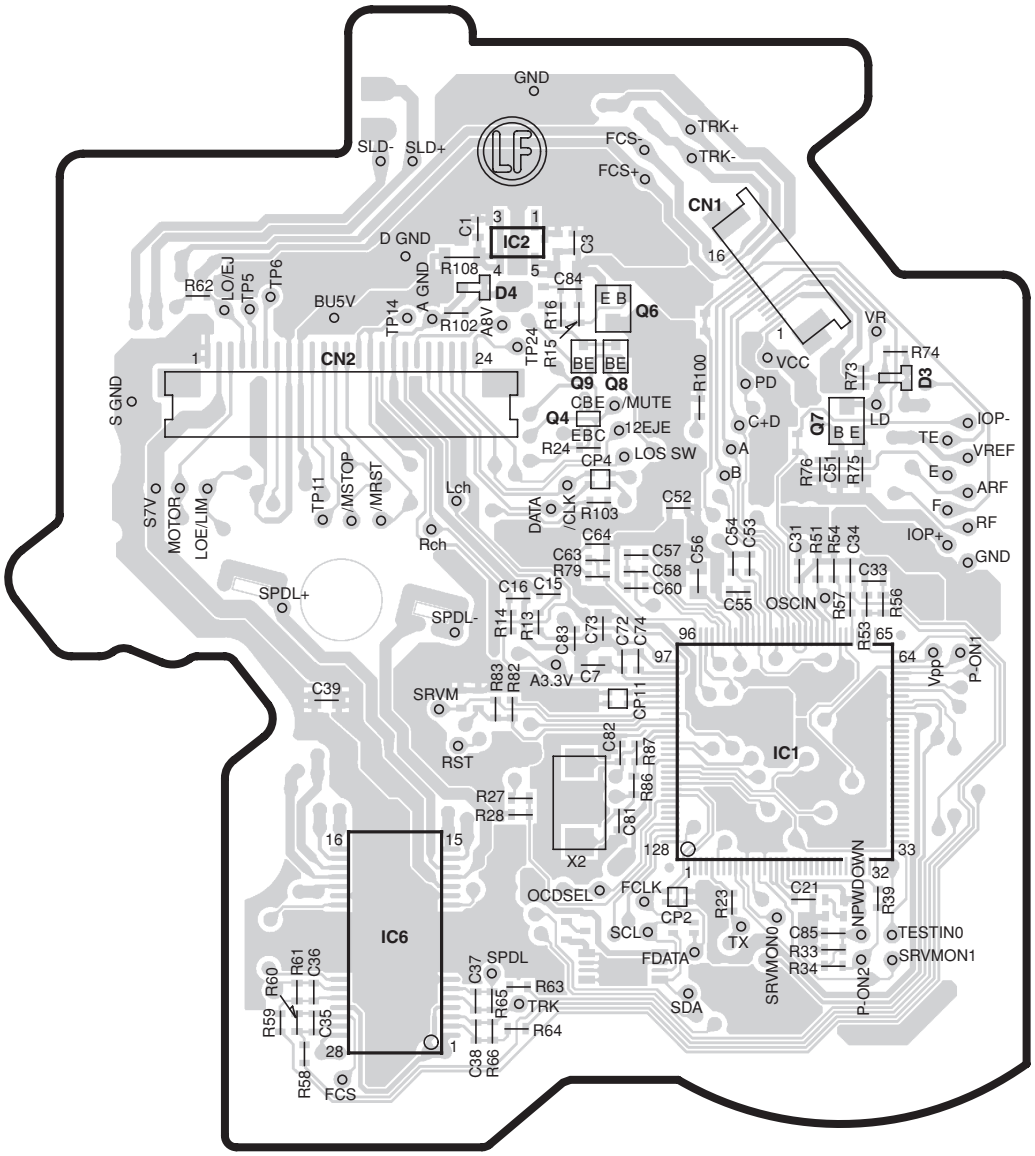
X32-5980-04

Ref. No.	Address
Q3	4Q

Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (FOIL SIDE VIEW)

CD PLAYER UNIT X32-5980-04 (J76-0448-02)

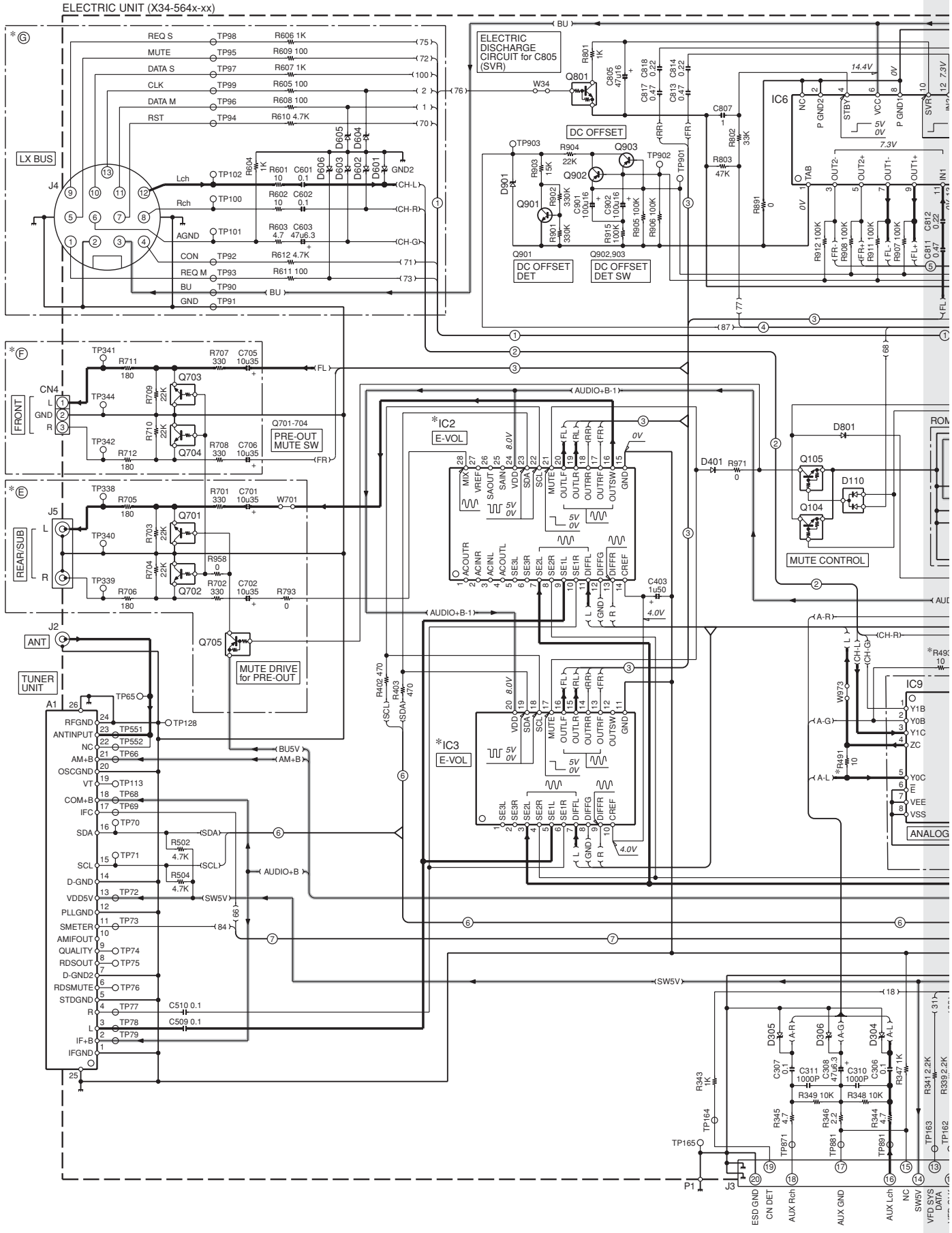


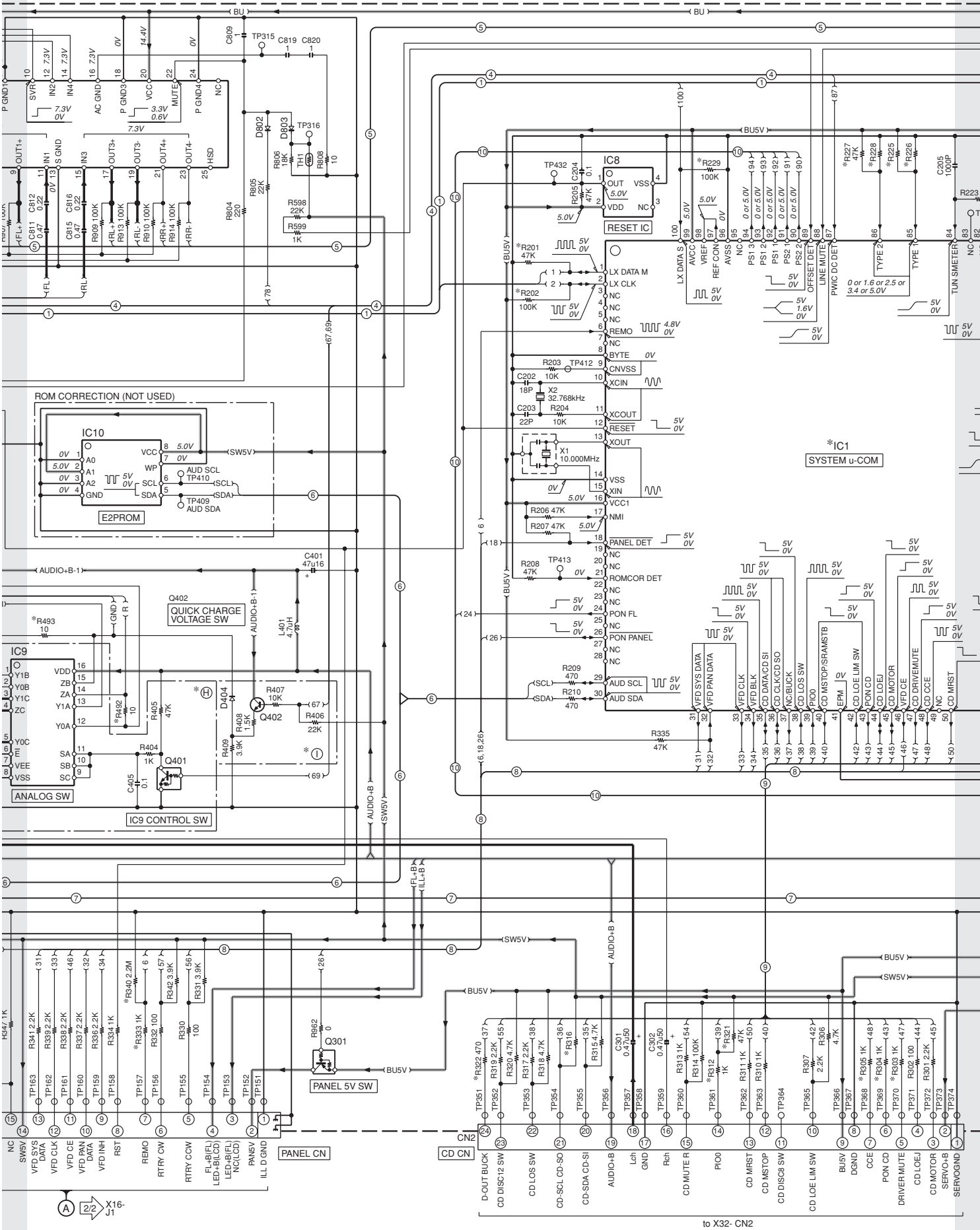
X32-5980-04

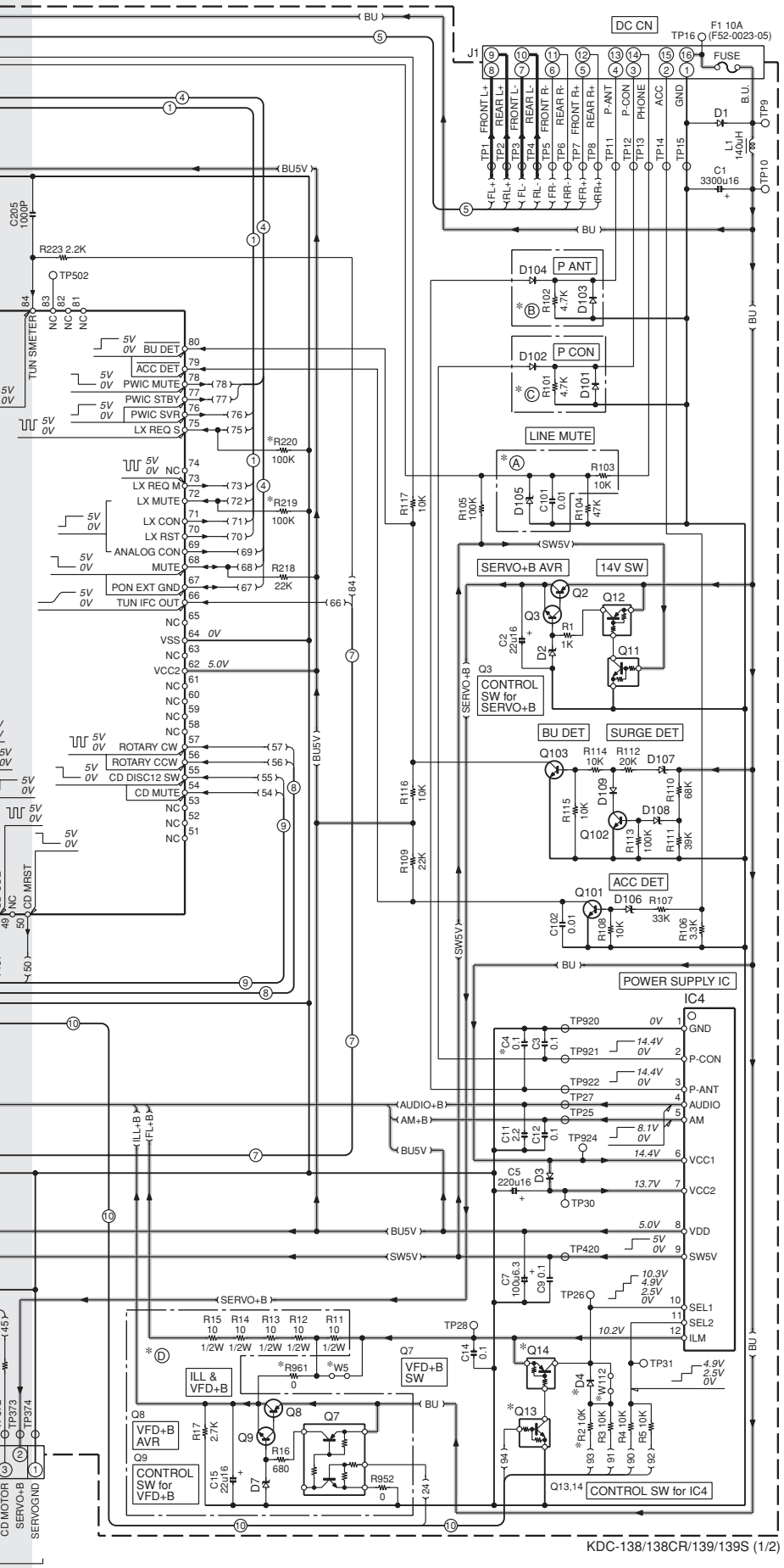
Ref. No.	Address	Ref. No.	Address
IC1	4X	Q6	2W
IC2	2W	Q7	3X
IC6	4V	Q8	3W
Q4	3W	Q9	3W

Refer to the schematic diagram for the values of resistors and capacitors.

KDC-138/138CR/139/139S




IC8
RESET IC
*IC1
SYSTEM u-COM
ROM CORRECTION (NOT USED)
IC10
E2PROM
IC9
ANALOG SW
IC9 CONTROL SW
QUICK CHARGE VOLTAGE SW
PANEL 5V SW
PANEL CN
CD CN
to X32- CN2
X16-J1



KDC-138/138CR/139/139S (1/2)

ELECTRIC UNIT (X34-564x-xx)

MODEL NAME	DESTINATION	UNIT No.	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ	Ⓘ	C4	D4	IC1	IC2	IC3	Q13, 14	R2	R201,202, 219,220,229	R225	R226	R227	R228	R303-305, 312,321,322	R316	R333, 340	R491-493	R961	W5	W112
E232/S	JU1	0-02	YES	YES	YES	YES	—	—	—	—	—	YES	YES	30622MEPB44FP	—	YES	YES	YES	—	47K	—	47K	47K	YES	2.2K	—	—	—	—	—
KDC-MP208	K2	0-14	YES	—	YES	YES	YES	—	—	—	YES	—	—	30622MEPB44FP	YES	—	—	YES	—	47K	47K	—	22K	YES	2.2K	YES	YES	—	—	YES
KDC-MP238	K	0-12	YES	—	YES	YES	YES	YES	—	—	YES	—	—	30622MGPB45FP	YES	—	—	YES	YES	—	47K	—	—	YES	2.2K	YES	—	—	—	YES
KDC-MP238CR	K1	0-13	YES	—	YES	YES	YES	—	—	—	YES	—	—	30622MEPB44FP	YES	—	—	YES	—	—	47K	—	47K	YES	2.2K	YES	YES	—	—	YES
KDC-MP239	M2																													
KDC-MP3039	M3	0-23	YES	YES	YES	YES	YES	—	—	—	YES	YES	YES	30622MEPB44FP	YES	—	YES	YES	—	47K	22K	—	—	47K	YES	2.2K	YES	—	—	—
KDC-MP339/S	MA/MS																													
KDC-MP439	M1	0-22	YES	—	YES	YES	YES	—	—	—	YES	YES	YES	30622MGPB45FP	YES	—	YES	YES	YES	47K	47K	—	—	—	YES	2.2K	YES	—	—	—
RDT-131	J	0-01	—	YES	—	—	—	—	—	—	—	YES	YES	30302MAPA83FP	—	YES	YES	YES	—	22K	47K	—	—	—	—	4.7K	—	YES	YES	YES
KDC-138	K3	0-10	YES	—	YES	—	YES	—	—	—	YES	—	—	30302MAPA83FP	YES	—	—	YES	—	—	47K	—	—	—	—	4.7K	—	YES	YES	YES
KDC-138CR	K4	0-11	YES	—	—	—	—	—	—	—	—	—	—	30302MAPA83FP	—	YES	—	—	—	47K	22K	—	—	—	—	4.7K	YES	YES	YES	YES
KDC-139/S	M6/M7	0-21	YES	YES	YES	—	YES	—	—	—	YES	YES	YES	30302MAPA83FP	YES	—	YES	YES	—	47K	47K	—	—	—	—	4.7K	—	YES	YES	—

IC1 : *
IC2 : E-TDA7419
IC3 : E-TDA7418
IC4 : BD4913-V4
IC6 : KKZ10Z
IC8 : S-80836CNNB-J
IC9 : HEF4053BT
IC10 : NOT USED

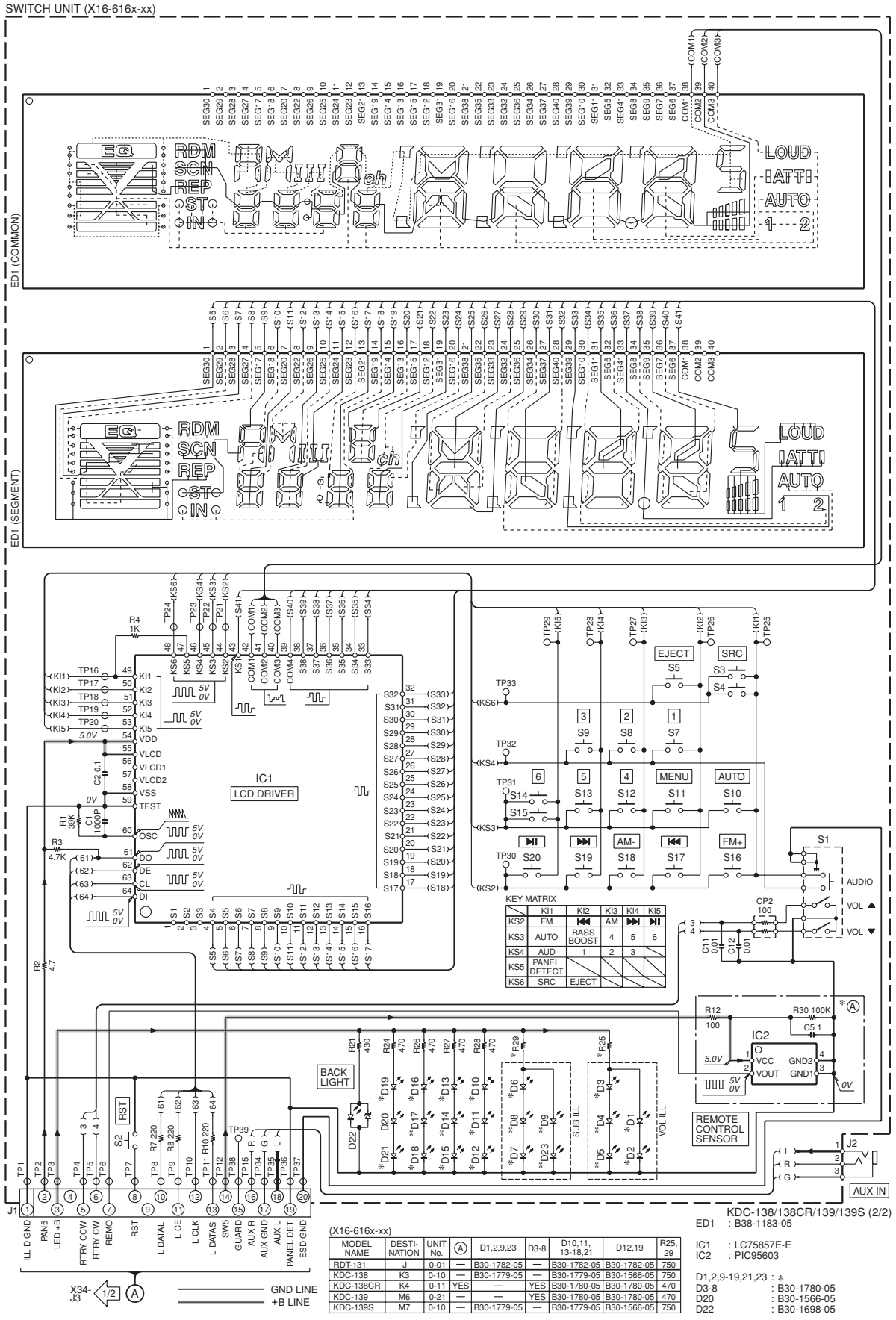
Q2,8 : KTA1046-P
Q3,9,101-103,402,901 : 2SC4081
Q7 : UMC2N
Q11,13 : RT1N241M
Q12,14,705 : RT1P241M
Q104,105,401 : RT1N441M
Q301 : RT1P144M
Q701-704 : RT1N430M
Q801 : RT1N144M
Q902,903 : 2SA1576A

D1 : S2V60-5009F46
D2 : MTZJ8.2(B)
D3,101,102,104 : D1F60-5063
D4,109,401,404, 801-803 : 1SS133
D7 : MTZJ12(B)
D103 : 1SR139-400T64
D105,901 : MTZJ4.7(B)
D106-108,304-306, 601-606 : MTZJ6.8(B)
D110 : BAV70W

SIGNAL LINE
GND LINE
+B LINE

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).
⚠Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.



KDC-138/138CR/139/139S (2/2)

ED1 : B38-1183-05

IC1 : LC75857E-E
IC2 : PIC95603

D1,2,9-19,21,23 : *
D3-8 : B30-1780-05
D20 : B30-1566-05
D22 : B30-1698-05

(X16-616x-xx)

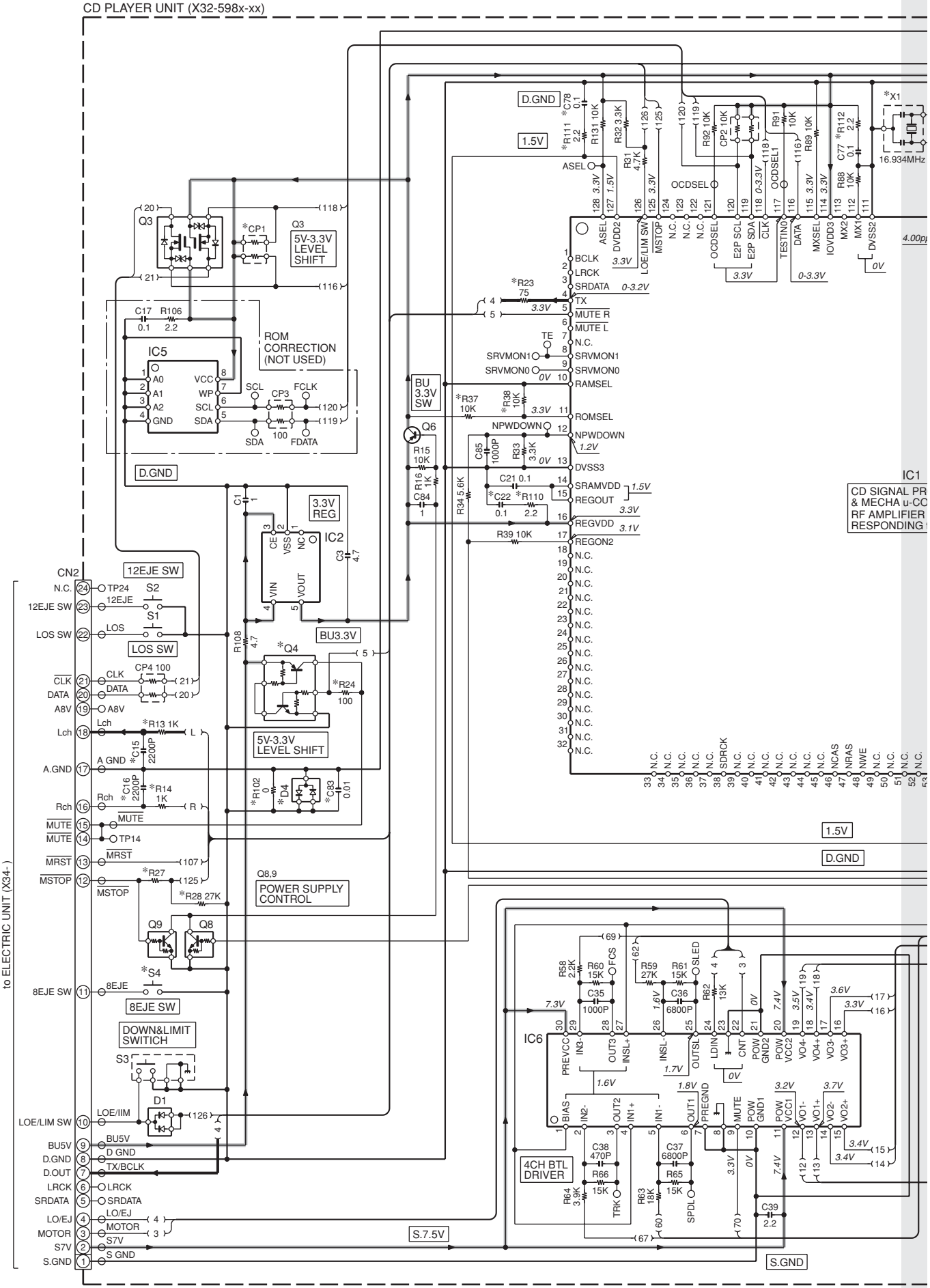
MODEL NAME	DESTI-NATION	UNIT No.	Ⓐ	D1,2,9,23	D3-8	D10,11, 13-18,21	D12,19	R25, 29
RDT-131	J	0-01	—	B30-1782-05	—	B30-1782-05	B30-1782-05	750
KDC-138	K3	0-10	—	B30-1779-05	—	B30-1779-05	B30-1566-05	750
KDC-138CR	K4	0-11	YES	—	YES	B30-1780-05	B30-1780-05	470
KDC-139	M6	0-21	—	—	YES	B30-1780-05	B30-1780-05	470
KDC-139S	M7	0-10	—	B30-1779-05	—	B30-1779-05	B30-1566-05	750

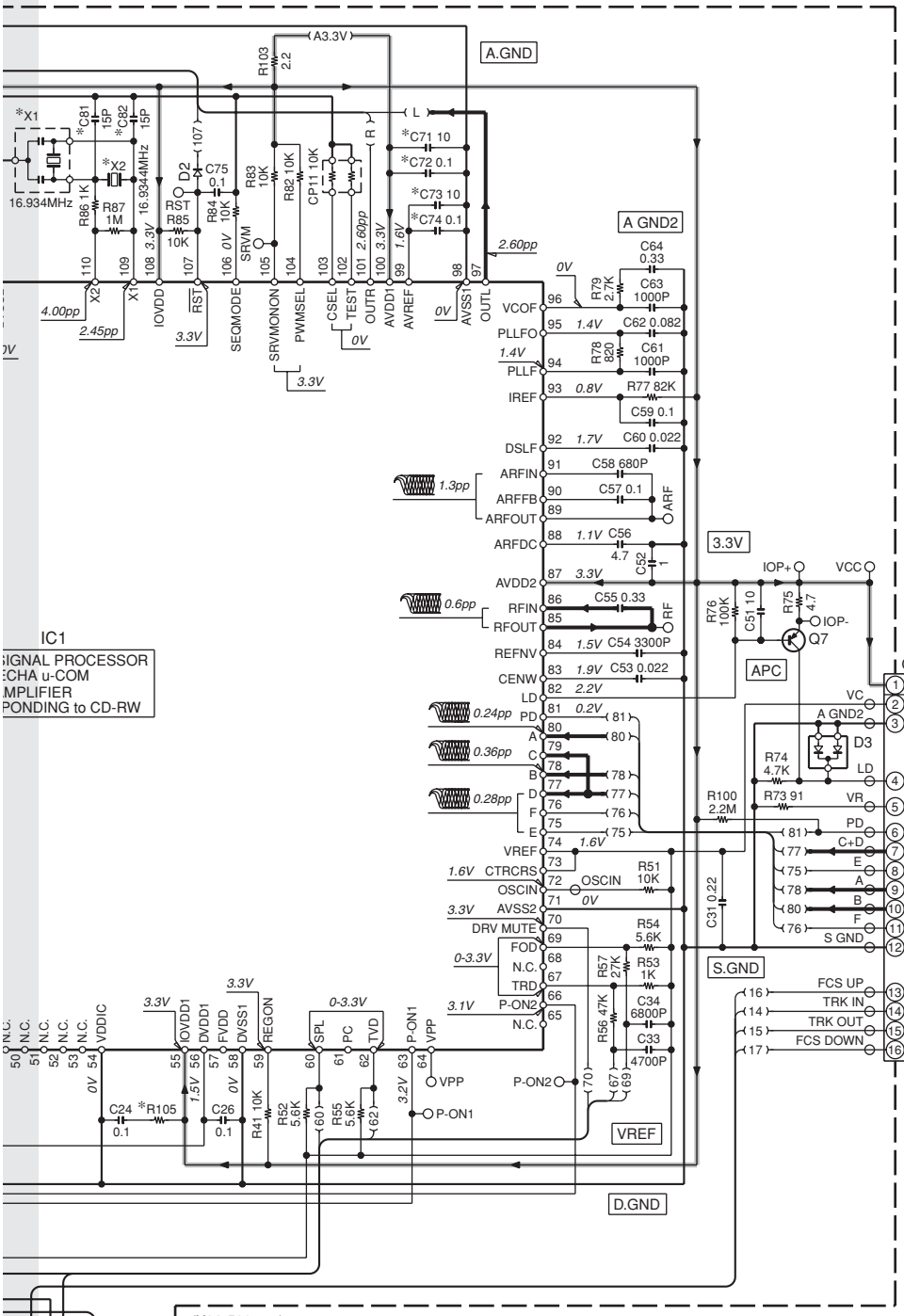
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

KDC-138/138CR/139/139S

CD PLAYER UNIT (X32-598x-xx)





(X32-598x-xx)

AUDIO (PC BOARD)	DESTI-NATION	UNIT No.	C15,16, 71,73,83	C22, 78	C72,74, 81,82	CP1	D4	Q4	R13,14, 28,38	R23,24, 37,102	R27	R105, 112	R110, 111	S4	X1	X2
ANALOG (J76-0377)	J/K/M/E	0-00	YES	YES	—	10K	YES	YES	YES	—	22K	2.2	YES	—	YES	—
	—	0-01	YES	YES	—	10K	YES	YES	YES	—	22K	2.2	YES	YES	YES	—
DIGITAL (J76-0377)	J/K/M/E	0-02	—	YES	YES	2.2K	—	—	—	YES	100	2.2	YES	—	—	YES
	—	0-03	—	YES	YES	2.2K	—	—	—	YES	100	2.2	YES	YES	—	YES
ANALOG (J76-0448)	J/K/M/E	0-04	YES	—	—	10K	YES	YES	YES	—	22K	0	—	—	YES	—

IC1 : MN6627781KC
IC2 : XC6219B332PR
IC5 : (NOT USED)
IC6 : BA5824FP

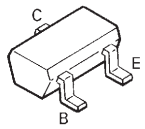
Q3 : UM6K1N
Q4 : UMD9N
Q6 : 2SB1295-E
Q7 : 2SB0970
Q8,9 : DTC114YUA

D1,3 : DAN202U
D2 : MA2S784-F
D4 : DA204U

SIGNAL LINE
GND LINE
+B LINE

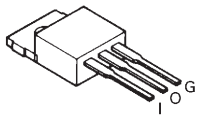
DTC114YUA
2SA1576A
2SB1295-E

2SC4081



DAN202U

KTA1046-P

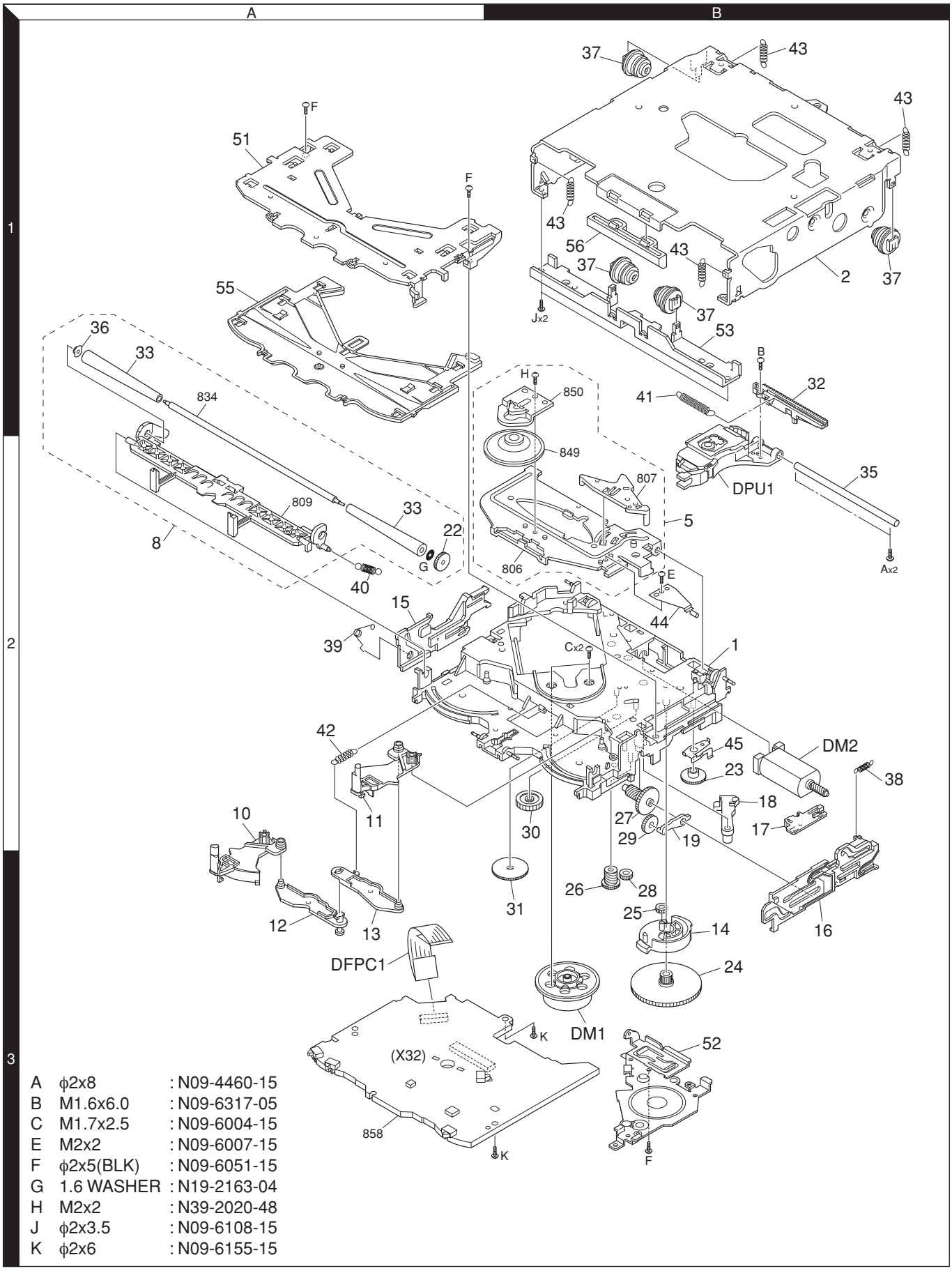


DA204U

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).
⚠Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

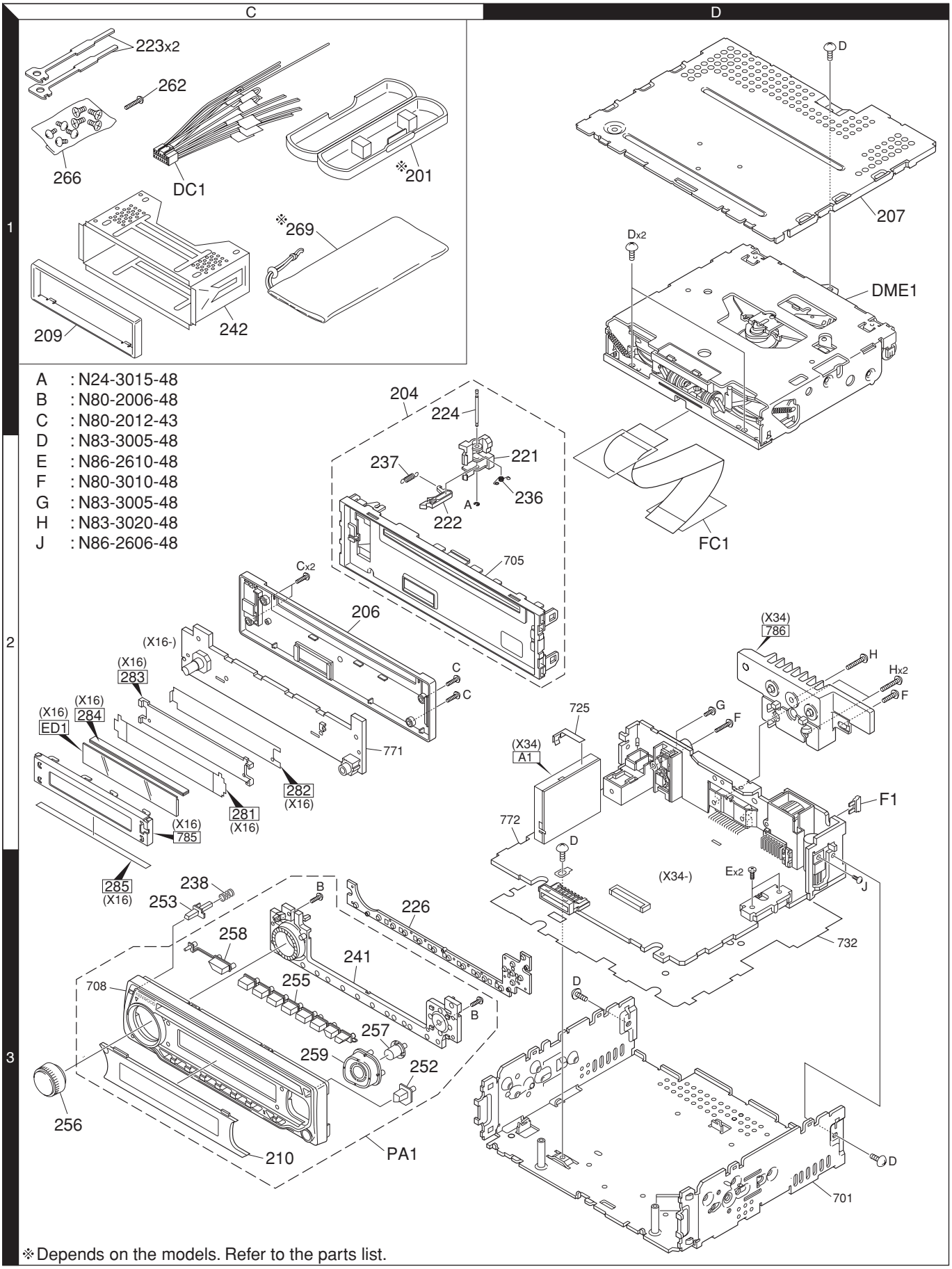
EXPLODED VIEW (CD MECHANISM)



A	ϕ2x8	: N09-4460-15
B	M1.6x6.0	: N09-6317-05
C	M1.7x2.5	: N09-6004-15
E	M2x2	: N09-6007-15
F	ϕ2x5(BLK)	: N09-6051-15
G	1.6 WASHER	: N19-2163-04
H	M2x2	: N39-2020-48
J	ϕ2x3.5	: N09-6108-15
K	ϕ2x6	: N09-6155-15

Parts with the exploded numbers larger than 700 are not supplied.

EXPLODED VIEW (UNIT)



Parts with the exploded numbers larger than 700 are not supplied.

KDC-138/138CR/139/139S

PARTS LIST

✻ New parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

Ref. No.	Add	New	Parts No.	Description	Destination
KDC-138/138CR/139/139S					
201	1C		A02-2736-03	PLASTIC CABINET ASSY	M6M7
204	1C	✻	A22-3149-03	SUB PANEL ASSY	
206	2C	✻	A46-1861-01	REAR COVER	
207	1D		A52-0804-12	TOP PLATE	
PA1	3C	✻	A64-4276-02	PANEL ASSY	K3
PA1	3C	✻	A64-4277-02	PANEL ASSY	K4
PA1	3C	✻	A64-4286-02	PANEL ASSY	M6
PA1	3C	✻	A64-4287-02	PANEL ASSY	M7
-			B46-0690-04	ID CARD	
-		✻	B64-3898-00	INST. MANUAL (ENG.FRE.SPA.)	K3K4
-		✻	B64-3901-00	INST. MANUAL (ENG.S-CHI.)	M6M7
-		✻	B64-3902-00	INST. MANUAL (ARABIC)	M6M7
209	1C		B07-3122-01	ESCUTCHEON	K3K4M6
209	1C	✻	B07-3229-01	ESCUTCHEON	M7
210	3C	✻	B10-4999-01	FRONT GLASS	K3
210	3C	✻	B10-5000-01	FRONT GLASS	K4
210	3C	✻	B10-5007-01	FRONT GLASS	M6M7
221	2D		D10-4446-03	LEVER	
222	2C		D10-4447-03	LEVER	
223	1C		D10-4589-04	LEVER	
224	1C		D21-2329-04	SHAFT	
226	3C	✻	E29-2115-02	CONDUCTIVE RUBBER	
⚠ DC1	1C		E30-6415-15	DC CORD	
FC1	2D	✻	E39-0958-05	FLAT CABLE	
⚠ F1	2D		F52-0023-05	FUSE (MINI BLADE TYPE) (10A)	
236	2D		G01-2987-04	TORSION COIL SPRING	
237	2C		G01-3096-04	EXTENSION SPRING	
238	3C		G01-3244-04	COMPRESSION SPRING (REL)	
-		✻	H54-4154-03	ITEM CARTON CASE	K3
-		✻	H54-4155-03	ITEM CARTON CASE	K4
-		✻	H54-4164-03	ITEM CARTON CASE	M6
-		✻	H54-4165-03	ITEM CARTON CASE	M7
241	3C	✻	J19-7186-01	HOLDER	
242	1C		J21-9716-03	MOUNTING HARDWARE ASSY	
252	3C	✻	K24-4783-04	PUSH KNOB (EJECT)	
253	3C	✻	K24-4786-04	PUSH KNOB (RELEASE)	
255	3C	✻	K25-1906-02	PUSH KNOB (PRESET)	
256	3C	✻	K28-0272-04	KNOB ASSY (VOL)	
257	3C	✻	K24-4789-04	PUSH KNOB (PLAY/PAUSE)	
258	3C	✻	K25-1909-03	PUSH KNOB (RESET/SRC)	
259	3C	✻	K25-1912-03	PUSH KNOB (FM/AM)	
262	1C		N84-4016-48	PAN HEAD TAPTITE SCREW	
266	1C		N99-1757-05	SCREW SET	
A	2C		N24-3015-48	E TYPE RETAINING RING	
B	3C		N80-2006-48	PAN HEAD TAPTITE SCREW	
C	2C		N80-2012-43	PAN HEAD TAPTITE SCREW	
D	1D		N83-3005-48	PAN HEAD TAPTITE SCREW	
E	3D		N86-2610-48	BINDING HEAD TAPTITE SCREW	
269	1C		W01-1692-05	CARRYING CASE	K4

Ref. No.	Add	New	Parts No.	Description	Destination
DME1	1D	✻	X92-5860-06	MECHANISM ASSY (DXM-6C06W)	
SWITCH UNIT (X16-616x-xx)					
281	2C		B11-1489-04	OPTICAL DIFFUSER	
282	2C		B11-1495-04	REFLECTION SHEET	
283	2C	✻	B19-2463-02	LIGHTING BOARD	
D1,2		✻	B30-1779-05	LED (1608,SR)	K3M7
D3-8		✻	B30-1780-05	LED (1608,PG)	K4M6
D9-11		✻	B30-1779-05	LED (1608,SR)	K3M7
D10-19		✻	B30-1780-05	LED (1608,PG)	K4M6
D12			B30-1566-05	LED (1608,RED)	K3M7
D13-18		✻	B30-1779-05	LED (1608,SR)	K3M7
D19,20			B30-1566-05	LED (1608,RED)	K3M7
D20			B30-1566-05	LED (1608,RED)	K4M6
D21		✻	B30-1779-05	LED (1608,SR)	K3M7
D21		✻	B30-1780-05	LED (1608,PG)	K4M6
D22			B30-1698-05	LED	
D23		✻	B30-1779-05	LED (1608,SR)	K3M7
ED1	2C		B38-1183-05	LCD	
C1			CK73GB1H102K	CHIP C 1000PF K	
C2			CK73GB1H104K	CHIP C 0.10UF K	
C5			CK73GB1A105K	CHIP C 1.0UF K	K4
C11,12			CK73GB1H103K	CHIP C 0.010UF K	
284	2C	✻	E29-2116-04	CONDUCTIVE RUBBER	
J1			E59-0852-05	RECTANGULAR PLUG	
J2			E11-0649-05	3.5D PHONE JACK	
285	3C		F19-1468-04	BLIND PLATE	
CP2			RK74GA1J101J	CHIP-COM 100 J 1/16W	
R1			RK73GB2A393J	CHIP R 39K J 1/10W	
R2			RK73GB2A4R7J	CHIP R 4.7 J 1/10W	
R3			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R4			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R7,8			RK73GB2A221J	CHIP R 220 J 1/10W	
R10			RK73GB2A221J	CHIP R 220 J 1/10W	
R12			RK73GB2A101J	CHIP R 100 J 1/10W	K4
R21			RK73EB2E431J	CHIP R 430 J 1/4W	
R24			RK73FB2B471J	CHIP R 470 J 1/8W	K3M7
R24-29			RK73FB2B471J	CHIP R 470 J 1/8W	K4M6
R25			RK73FB2B751J	CHIP R 750 J 1/8W	K3M7
R26-28			RK73FB2B471J	CHIP R 470 J 1/8W	K3M7
R29			RK73FB2B751J	CHIP R 750 J 1/8W	K3M7
R30			RK73GB2A104J	CHIP R 100K J 1/10W	K4
S1			T99-0474-05	ROTARY ENCODER	
IC1		✻	LC75857E-E	MOS-IC	
IC2		✻	PIC95603	ANALOGUE IC	K4
CD PLAYER UNIT (X32-5980-04) IN CD MECHA					
C1			CK73GB1A105K	CHIP C 1.0UF K	
C3			CK73GB0J475K	CHIP C 4.7UF K	
C15,16			CK73GB1H222K	CHIP C 2200PF K	
C21			C93-1451-05	CHIP C 0.10UF K	
C24			C93-1451-05	CHIP C 0.10UF K	
C26			C93-1451-05	CHIP C 0.10UF K	

K3 : KDC-138 **K4** : KDC-138CR **M6** : KDC-139 **M7** : KDC-139S
(**E** : Europe **K** : North America **M** : Other Areas)

⚠Indicates safety critical components.

PARTS LIST

CD PLAYER UNIT (X32-5980-04) IN CD MECHA

Ref. No.	Add	New	Parts No.	Description	Destination
C31			CK73GB1C224K	CHIP C 0.22UF K	
C33			CK73GB1H472K	CHIP C 4700PF K	
C34			CK73GB1H682K	CHIP C 6800PF K	
C35			CK73GB1H102K	CHIP C 1000PF K	
C36,37			CK73GB1H682K	CHIP C 6800PF K	
C38			CK73GB1H471K	CHIP C 470PF K	
C39			CK73FB1A225K	CHIP C 2.2UF K	
C51			CK73FB0J106K	CHIP C 10UF K	
C52			CK73GB1A105K	CHIP C 1.0UF K	
C53			CK73GB1H223K	CHIP C 0.022UF K	
C54			CK73GB1H332K	CHIP C 3300PF K	
C55			CK73GB1A334K	CHIP C 0.33UF K	
C56			CK73FB0J475K	CHIP C 4.7UF K	
C57			C93-1451-05	CHIP C 0.10UF K	
C58			CC73GCH1H681J	CHIP C 680PF J	
C59			C93-1451-05	CHIP C 0.10UF K	
C60			CK73GB1H223K	CHIP C 0.022UF K	
C61			CC73GCH1H102J	CHIP C 1000PF J	
C62			CK73GB1C823K	CHIP C 0.082UF K	
C63			CC73GCH1H102J	CHIP C 1000PF J	
C64			CK73GB1A334K	CHIP C 0.33UF K	
C71			CK73FB0J106K	CHIP C 10UF K	
C73			CK73FB0J106K	CHIP C 10UF K	
C75			C93-1451-05	CHIP C 0.10UF K	
C77			C93-1451-05	CHIP C 0.10UF K	
C83			CK73GB1H103K	CHIP C 0.010UF K	
C84			CK73GB1A105K	CHIP C 1.0UF K	
C85			CK73GB1H102K	CHIP C 1000PF K	
CN1			E41-2612-05	FLAT CABLE CONNECTOR	
CN2			E41-2083-15	FLAT CABLE CONNECTOR	
X1			L78-0851-05	RESONATOR (16.93MHZ)	
CP1,2			RK74GA1J103J	CHIP-COM 10K J 1/16W	
CP4			RK74GA1J101J	CHIP-COM 100 J 1/16W	
CP11			RK74GA1J103J	CHIP-COM 10K J 1/16W	
R13,14			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R15			RK73GB2A103J	CHIP R 10K J 1/10W	
R16			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R27			RK73GH2A223D	CHIP R 22K D 1/10W	
R28			RK73GH2A273D	CHIP R 27K D 1/10W	
R31			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R32,33			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R34			RK73GB2A562J	CHIP R 5.6K J 1/10W	
R38,39			RK73GB2A103J	CHIP R 10K J 1/10W	
R41			RK73GB2A103J	CHIP R 10K J 1/10W	
R51			RK73GB2A103J	CHIP R 10K J 1/10W	
R52			RK73GB2A562J	CHIP R 5.6K J 1/10W	
R53			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R54,55			RK73GB2A562J	CHIP R 5.6K J 1/10W	
R56			RK73GB2A473J	CHIP R 47K J 1/10W	
R57			RK73GB2A273J	CHIP R 27K J 1/10W	
R58			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R59			RK73GB2A273J	CHIP R 27K J 1/10W	
R60,61			RK73GB2A153J	CHIP R 15K J 1/10W	

Ref. No.	Add	New	Parts No.	Description	Destination
R62			RK73GB2A133J	CHIP R 13K J 1/10W	
R63			RK73GB2A183J	CHIP R 18K J 1/10W	
R64			RK73GB2A392J	CHIP R 3.9K J 1/10W	
R65,66			RK73GB2A153J	CHIP R 15K J 1/10W	
R73			RK73GB2A910J	CHIP R 91 J 1/10W	
R74			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R75			RK73FB2B4R7J	CHIP R 4.7 J 1/8W	
R76			RK73GB2A104J	CHIP R 100K J 1/10W	
R77			RK73GB2A823J	CHIP R 82K J 1/10W	
R78			RK73GB2A821J	CHIP R 820 J 1/10W	
R79			RK73GB2A272J	CHIP R 2.7K J 1/10W	
R82-85			RK73GB2A103J	CHIP R 10K J 1/10W	
R86			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R87			RK73GB2A105J	CHIP R 1.0M J 1/10W	
R88,89			RK73GB2A103J	CHIP R 10K J 1/10W	
R91,92			RK73GB2A103J	CHIP R 10K J 1/10W	
R100			RK73GB2A225J	CHIP R 2.2M J 1/10W	
R103			RK73GB2A2R2J	CHIP R 2.2 J 1/10W	
R105			RK73GB2A000JX	CHIP R 0.0 J 1/10W	
R108			RK73EB2E4R7J	CHIP R 4.7 J 1/4W	
R112			RK73GB2A000JX	CHIP R 0.0 J 1/10W	
R131			RK73GB2A103J	CHIP R 10K J 1/10W	
S1,2			S68-0863-05	PUSH SWITCH	
S3			S68-0862-05	PUSH SWITCH	
D1			DAN202U	DIODE	
D2			MA2S784-F	DIODE	
D3			DAN202U	DIODE	
D4			DA204U	DIODE	
IC1			MN6627781KC	MOS-IC	
IC2			XC6219B332PR	ANALOGUE IC	
IC6			BA5824FP	ANALOGUE IC	
Q3			UM6K1N	DUAL FET	
Q4			UMD9N	TRANSISTOR	
Q6			2SB1295-E	TRANSISTOR	
Q7			2SB0970	TRANSISTOR	
Q8,9			DTC114YUA	DIGITAL TRANSISTOR	

ELECTRIC UNIT (X34-564x-xx)

C1			CD04AZ1C332M2	ELECTRO 3300UF 16WV	
C2			CD04AB1C220M	ELECTRO 22UF 16WV	
C3			CK73GB1H104K	CHIP C 0.10UF K	K3K4
C3,4			CK73GB1H104K	CHIP C 0.10UF K	M6M7
C5			CD04AR1C221M	ELECTRO 220UF 16WV	
C7			CD04AB0J101M	ELECTRO 100UF 6.3WV	
C9			CK73GB1C104K	CHIP C 0.10UF K	
C11			CK73FB1A225K	CHIP C 2.2UF K	
C12			CK73GB1C104K	CHIP C 0.10UF K	
C14			CK73GB1C104K	CHIP C 0.10UF K	
C101,102			CK73GB1H103K	CHIP C 0.010UF K	
C202			CC73GCH1H180J	CHIP C 18PF J	
C203			CC73GCH1H220J	CHIP C 22PF J	
C204			CK73GB1C104K	CHIP C 0.10UF K	
C205			CK73GB1H102K	CHIP C 1000PF K	
C301,302			CD04AB1HR47M	ELECTRO 0.47UF 50WV	

K3 : KDC-138 **K4** : KDC-138CR **M6** : KDC-139 **M7** : KDC-139S
(**E** : Europe **K** : North America **M** : Other Areas)

⚠Indicates safety critical components.

PARTS LIST

ELECTRIC UNIT (X34-564x-xx)

Ref. No.	Add	New	Parts No.	Description				Destination
C306,307			CK73GB1C104K	CHIP C	0.10UF	K		
C308			CD04AB0J470M	ELECTRO	47UF	6.3WV		
C310,311			CK73GB1H102K	CHIP C	1000PF	K		
C401			CD04AB1C470M	ELECTRO	47UF	16WV		
C403			CD04AB1H010M	ELECTRO	1.0UF	50WV		
C509,510			CK73GB1C104K	CHIP C	0.10UF	K		
C701,702			CD04AB1V100M	ELECTRO	10UF	35WV		K3M6M7
C805			CD04AB1C470M	ELECTRO	47UF	16WV		
C807			CK73GB1A105K	CHIP C	1.0UF	K		
C809			CK73GB1A105K	CHIP C	1.0UF	K		
C811			CK73GB1A474K	CHIP C	0.47UF	K		
C812			CK73GB1A224K	CHIP C	0.22UF	K		
C813			CK73GB1A474K	CHIP C	0.47UF	K		
C814			CK73GB1A224K	CHIP C	0.22UF	K		
C815			CK73GB1A474K	CHIP C	0.47UF	K		
C816			CK73GB1A224K	CHIP C	0.22UF	K		
C817			CK73GB1A474K	CHIP C	0.47UF	K		
C818			CK73GB1A224K	CHIP C	0.22UF	K		
C819,820			CK73GB1A105K	CHIP C	1.0UF	K		
C901,902			CD04AB1C101M	ELECTRO	100UF	16WV		
CN2			E41-1822-05	FLAT CABLE CONNECTOR				
⚠ J1			E58-0991-05	RECTANGULAR RECEPTACLE				
J2			E04-0332-05	RF COAXIAL CABLE RECEPTACLE				
J3			E58-1060-05	RECTANGULAR RECEPTACLE				
J5			E63-0941-05	PIN JACK				K3M6M7
L1			L33-2319-05	CHOKE COIL ASSY				
L401			L40-4791-58	SMALL FIXED INDUCTOR				
X1			L78-1218-05	RESONATOR				
X2			L77-2920-05	CRYSTAL RESONATOR				
F	2D		N80-3010-48	PAN HEAD TAPTITE SCREW				
G	2D		N83-3005-48	PAN HEAD TAPTITE SCREW				
H	2D		N83-3020-48	PAN HEAD TAPTITE SCREW				
J	3D		N86-2606-48	BINDING HEAD TAPTITE SCREW				
R1			RD14BB2C102J	RD	1.0K	J	1/6W	
R2-5			RD14BB2C103J	RD	10K	J	1/6W	K3M6M7
R3-5			RD14BB2C103J	RD	10K	J	1/6W	K4
R101			RD14BB2C472J	RD	4.7K	J	1/6W	K3
R101,102			RD14BB2C472J	RD	4.7K	J	1/6W	M6M7
R103			RD14BB2C103J	RD	10K	J	1/6W	
R104			RK73GB2A473J	CHIP R	47K	J	1/10W	
R105			RK73GB2A104J	CHIP R	100K	J	1/10W	
R106			RD14BB2C332J	RD	3.3K	J	1/6W	
R107			RD14BB2C333J	RD	33K	J	1/6W	
R108			RK73GB2A103J	CHIP R	10K	J	1/10W	
R109			RD14BB2C223J	RD	22K	J	1/6W	
R110			RK73FB2B683J	CHIP R	68K	J	1/8W	
R111			RK73GB2A393J	CHIP R	39K	J	1/10W	
R112			RD14BB2C203J	RD	20K	J	1/6W	
R113			RK73GB2A104J	CHIP R	100K	J	1/10W	
R114,115			RK73GB2A103J	CHIP R	10K	J	1/10W	
R116,117			RD14BB2C103J	RD	10K	J	1/6W	
R203,204			RK73GB2A103J	CHIP R	10K	J	1/10W	
R205-207			RK73GB2A473J	CHIP R	47K	J	1/10W	
R208			RD14BB2C473J	RD	47K	J	1/6W	

Ref. No.	Add	New	Parts No.	Description				Destination
R209,210			RD14BB2C471J	RD	470	J	1/6W	
R218			RK73GB2A223J	CHIP R	22K	J	1/10W	
R223			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R225			RK73GB2A473J	CHIP R	47K	J	1/10W	K4
R225,226			RK73GB2A473J	CHIP R	47K	J	1/10W	M6M7
R226			RK73GB2A223J	CHIP R	22K	J	1/10W	K4
R226			RK73GB2A473J	CHIP R	47K	J	1/10W	K3
R301			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R302			RD14BB2C101J	RD	100	J	1/6W	
R306			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R307			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R310,311			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R313			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R314			RK73GB2A104J	CHIP R	100K	J	1/10W	
R315,316			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R317			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R318			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R319			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R320			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R330			RD14BB2C101J	RD	100	J	1/6W	
R331			RK73GB2A392J	CHIP R	3.9K	J	1/10W	
R332			RD14BB2C101J	RD	100	J	1/6W	
R333,334			RD14BB2C102J	RD	1.0K	J	1/6W	K4
R334			RD14BB2C102J	RD	1.0K	J	1/6W	K3M6M7
R335			RK73GB2A473J	CHIP R	47K	J	1/10W	
R336-339			RD14BB2C222J	RD	2.2K	J	1/6W	
R340			RK73GB2A225J	CHIP R	2.2M	J	1/10W	K4
R341			RD14BB2C222J	RD	2.2K	J	1/6W	
R342			RK73GB2A392J	CHIP R	3.9K	J	1/10W	
R343			RD14BB2C102J	RD	1.0K	J	1/6W	
R344,345			RD14BB2C4R7J	RD	4.7	J	1/6W	
R346			RD14BB2C2R2J	RD	2.2	J	1/6W	
R347			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R348,349			RK73GB2A103J	CHIP R	10K	J	1/10W	
R402,403			RD14BB2C471J	RD	470	J	1/6W	
R406			RK73GB2A223J	CHIP R	22K	J	1/10W	K3M6M7
R407			RK73GB2A103J	CHIP R	10K	J	1/10W	K3M6M7
R408			RK73GB2A152J	CHIP R	1.5K	J	1/10W	K3M6M7
R409			RK73GB2A392J	CHIP R	3.9K	J	1/10W	K3M6M7
R491,492			RK73GB2A100J	CHIP R	10	J	1/10W	
R493			RD14BB2C100J	RD	10	J	1/6W	
R502			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R504			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R598			RK73GB2A223J	CHIP R	22K	J	1/10W	
R599			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R701,702			RK73GB2A331J	CHIP R	330	J	1/10W	K3M6M7
R703,704			RD14BB2C223J	RD	22K	J	1/6W	K3M6M7
R705,706			RD14BB2C181J	RD	180	J	1/6W	K3M6M7
R793			RK73EB2E000J	CHIP R	0.0	J	1/4W	K3M6M7
R801			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R802			RK73GB2A333J	CHIP R	33K	J	1/10W	
R803			RK73GB2A473J	CHIP R	47K	J	1/10W	
R804			RK73GB2A221J	CHIP R	220	J	1/10W	
R805			RK73GB2A223J	CHIP R	22K	J	1/10W	
R806			RK73GB2A183J	CHIP R	18K	J	1/10W	

K3 : KDC-138 **K4** : KDC-138CR **M6** : KDC-139 **M7** : KDC-139S
(**E** : Europe **K** : North America **M** : Other Areas)

⚠Indicates safety critical components.

PARTS LIST

ELECTRIC UNIT (X34-564x-xx)

Ref. No.	Add	New	Parts No.	Description	Destination
R808			RK73GB2A100J	CHIP R 10 J 1/10W	
R891			RK73EB2E000J	CHIP R 0.0 J 1/4W	
R901,902			RK73GB2A334J	CHIP R 330K J 1/10W	
R903			RK73GB2A153J	CHIP R 15K J 1/10W	
R904			RK73GB2A223J	CHIP R 22K J 1/10W	
R905,906			RK73GB2A104J	CHIP R 100K J 1/10W	
R907-914			RD14BB2C104J	RD 100K J 1/6W	
R915			RK73GB2A104J	CHIP R 100K J 1/10W	
R958			RK73GB2A000J	CHIP R 0.0 J 1/10W	K3M6M7
R961,962			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R971			RK73GB2A000J	CHIP R 0.0 J 1/10W	
D1			S2V60-5009F46	DIODE	
D2			MTZJ8.2 (B)	ZENER DIODE	
D3			D1F60-5063	DIODE	
D4			1SS133	DIODE	M6M7
D101,102			D1F60-5063	DIODE	K3M6M7
D103			1SR139-400T64	DIODE	M6M7
D104			D1F60-5063	DIODE	M6M7
D105			MTZJ4.7 (B)	ZENER DIODE	
D106-108			MTZJ6.8 (B)	ZENER DIODE	
D109			1SS133	DIODE	
D110			BAV70W	DIODE	
D304-306			MTZJ6.8 (B)	ZENER DIODE	
D401			1SS133	DIODE	
D404			1SS133	DIODE	K3M6M7
D801-803			1SS133	DIODE	
D901			MTZJ4.7 (B)	ZENER DIODE	
IC1		✻	30302MAPA83FP	MICROCONTROLLER IC	
IC2			E-TDA7419	ANALOGUE IC	K3M6M7
IC3			E-TDA7418	ANALOGUE IC	K4
IC4			BD4913-V4	ANALOGUE IC	
IC6			KKZ10Z	ANALOGUE IC	
IC8			S-80836CNNB-J	MOS-IC	
Q2			KTA1046-P	TRANSISTOR	
Q3			2SC4081	TRANSISTOR	
Q11			RT1N241M	TRANSISTOR	
Q12			RT1P241M	TRANSISTOR	
Q13			RT1N241M	TRANSISTOR	M6M7
Q14			RT1P241M	TRANSISTOR	M6M7
Q101-103			2SC4081	TRANSISTOR	
Q104,105			RT1N441M	TRANSISTOR	
Q301			RT1P144M	TRANSISTOR	
Q402			2SC4081	TRANSISTOR	K3M6M7
Q701,702			RT1N430M	TRANSISTOR	K3M6M7
Q705			RT1P241M	TRANSISTOR	K3M6M7
Q801			RT1N144M	TRANSISTOR	
Q901			2SC4081	TRANSISTOR	
Q902,903			2SA1576A	TRANSISTOR	
TH1			PRF18BE471QS2	POSITIVE RESISTOR	
A1	2D	✻	X86-4030-14	FRONT-END UNIT	
MECHANISM ASSY (X92-5860-06) DXM-6C06W					
1	2B		A10-5328-31	CHASSIS	
2	1B		A10-5329-11	CHASSIS	

Ref. No.	Add	New	Parts No.	Description	Destination
5	2B		D10-4910-13	ARM ASSY	
8	2A		D10-4911-23	LEVER ASSY	
10	2A		D10-4906-33	ARM	
11	2A		D10-4907-33	ARM	
12	3A		D10-4908-03	ARM	
13	3A		D10-4909-03	ARM	
14	3B		D10-4915-03	ARM	
15	2A		D10-4916-23	SLIDER	
16	3B		D10-4914-12	SLIDER	
17	2B		D10-4588-13	SLIDER	
18	2B		D10-4917-04	ARM	
19	2B		D10-4596-24	ARM	
22	2A		D13-2151-04	GEAR	
23	2B		D13-2152-04	GEAR	
24	3B		D13-2153-04	GEAR	
25	3B		D13-2154-04	GEAR	
26	3B		D13-2155-04	WORM	
27	2B		D13-2156-14	GEAR	
28	3B		D13-2157-04	GEAR	
29	2B		D13-2158-04	GEAR	
30	2B		D13-2168-04	GEAR	
31	3B		D13-2171-04	GEAR	
32	1B		D13-2400-13	RACK (GEAR)	
33	2A		D14-0759-04	ROLLER	
35	2B		D21-2382-04	SHAFT	
36	1A		D23-0954-04	RETAINER	
37	1B		D39-0246-05	DAMPER	
38	2B		G01-3072-04	EXTENSION SPRING	
39	2A		G01-3073-04	TORSION COIL SPRING	
40	2A		G01-3074-04	EXTENSION SPRING	
41	1B		G01-4615-04	EXTENSION SPRING	
42	2A		G01-3076-04	EXTENSION SPRING	
43	1B		G01-3077-14	EXTENSION SPRING	
44	2B	✻	G02-1399-14	FLAT SPRING	
45	2B	✻	G02-1547-14	FLAT SPRING	
51	1A		J22-0473-21	MOUNTING HARDWARE	
52	3B		J22-0474-12	MOUNTING HARDWARE	
53	1B	✻	J22-0519-13	MOUNTING HARDWARE	
55	1A		J90-1138-41	GUIDE	
56	1B		J90-1023-03	GUIDE	
DPC1	3A		J86-0039-05	FPC (LEAD FREE)	
A	2B		N09-4460-15	TAPTITE SCREW (PT2X8)	
B	1B		N09-6317-05	TAPTITE SCREW (1.6X6.0)	
C	2B		N09-6004-15	MACHINE SCREW (M1.7X2.5)	
E	2B		N09-6007-15	MACHINE SCREW (M2X2)	
F	1A		N09-6051-15	TAPTITE SCREW (PT2X5)	
G	2A		N19-2163-04	FLAT WASHER (1.6X6X0.25)	
H	1B		N39-2020-48	PAN HEAD MACHINE SCREW (M2X2)	
J	1B		N09-6108-15	TAPTITE SCREW (M2X3.5)	
K	3B		N09-6155-15	SEMS (TAPTITE SCREW) (PT2X6)	
DM1	3B		T42-1066-14	DC MOTOR (SPINDLE)	
DM2	2B		T42-1067-14	DC MOTOR (LOADING/SLED)	

K3 : KDC-138 **K4** : KDC-138CR **M6** : KDC-139 **M7** : KDC-139S
(**E** : Europe **K** : North America **M** : Other Areas)

⚠Indicates safety critical components.

PARTS LIST

MECHANISM ASSY (X92-5860-06) DXM-6C06W

Ref. No.	Add	New	Parts No.	Description	Destination
DPU1	2B		X93-2130-01	OPTICAL PICKUP ASSY	

Ref. No.	Add	New	Parts No.	Description	Destination

K3 : KDC-138 **K4** : KDC-138CR **M6** : KDC-139 **M7** : KDC-139S
(**E** : Europe **K** : North America **M** : Other Areas)

⚠Indicates safety critical components.

SPECIFICATIONS (KDC-138/138CR)

FM tuner section

Frequency range
- 200kHz space .....87.9MHz~107.9MHz
- 50kHz space (KDC-138CR).....87.5MHz~108.0MHz

Usable sensitivity (S/N=30dB).....9.3dBf (0.8μV/75Ω)
Quieting Sensitivity (S/N=50dB).....15.2dBf (1.6μV/75Ω)
Frequency response (±3dB).....30Hz~15kHz
Signal to Noise ratio (MONO).....70dB
Selectivity (±400kHz).....≧80dB
Stereo separation (1kHz).....40dB

AM tuner section

Frequency range (10kHz space) .....530kHz~1700kHz
Usable sensitivity (S/N=20dB) 28dBμ (25μV)

CD player section

Laser diode..... GaAlAs
Digital filter (D/A) ..... 8 Times Over Sampling
D/A Converter..... 1Bit
Spindle speed.....500~200rpm (CLV)
Wow & Flutter ..... Below Measurable Limit
Frequency response (±1dB).....20Hz~20kHz
Total harmonic distortion (1kHz)..... 0.01%
Signal to Noise ratio (1kHz).....93dB
Dynamic range 93dB

Audio section

Maximum output power ..... 50W x 4
Full Bandwidth Power (at less than 1% THD)..... 22W x 4
Speaker Impedance .....4~8Ω
Tone action
- Bass .....100Hz±8dB
- Middle .....1kHz±8dB
- Treble .....10kHz±8dB

Preout level/Load (CD) 2000mV/10kΩ
Preout impedance .....≦600Ω

Auxiliary input

Frequency response (±3dB).....20Hz~20kHz
Input Maximum Voltage 1200mV
Input Impedance.....100kΩ

General

Operating voltage (11~16V allowable).....14.4V
Current consumption 10A
Installation Size (W x H x D).....182 x 53 x 155mm
.....7-3/16 x 2-1/16 x 6-1/8inch
Weight 2.9lbs (1.30kg)

KDC-138/138CR/139/139S

SPECIFICATIONS (KDC-139/139S)

FM tuner section

Frequency range
- 200kHz space ..... 87.9 MHz~107.9MHz
- 50kHz space ..... 87.5MHz~108.0MHz

Usable sensitivity (S/N=30dB) 9.3dBf (0.8µV/75Ω)
Quieting Sensitivity (S/N=50dB) 15.2dBf (1.6µV/75Ω)
Frequency response (±3dB) ..... 30Hz~15kHz
Signal to Noise ratio (MONO) 70dB
Selectivity (±400kHz) ..... ≧80dB
Stereo separation (1kHz) 40dB

AM tuner section

Frequency range
- 10kHz space ..... 530kHz~1700kHz
- 9kHz space ..... 531kHz~1611kHz

Usable sensitivity (S/N=20dB) 28dBµ (25µV)

CD player section

Laser diode ..... GaAlAs
Digital filter (D/A) ..... 8 Times Over Sampling
D/A Converter 1Bit
Spindle speed ..... 500~200rpm (CLV)
Wow & Flutter ..... Below Measurable Limit
Frequency response (±1dB) ..... 20Hz~20kHz
Total harmonic distortion (1kHz) 0.01%
Signal to Noise ratio (1kHz) 93dB
Dynamic range 93dB

Audio section

Maximum output power ..... 50W x 4
Full Bandwidth Power (at less than 1% THD) ..... 22W x 4
Speaker Impedance ..... 4~8Ω
Tone action
- Bass ..... 100Hz±8dB
- Middle ..... 1kHz±8dB
- Treble ..... 10kHz±8dB

Preout level/Load (CD) 2000mV/10kΩ
Preout impedance ..... ≦600Ω

Auxiliary input

Frequency response (±3dB) ..... 20Hz~20kHz
Input Maximum Voltage 1200mV
Input Impedance 100kΩ

General

Operating voltage (11~16V allowable) 14.4V
Current consumption 10A
Installation Size (W x H x D) ..... 182 x 53 x 155mm
Weight 1.30kg

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

DANGER:
Please do not look at the laser beam directly during repair or operation check.