

KDC-HD942U

SERVICE MANUAL

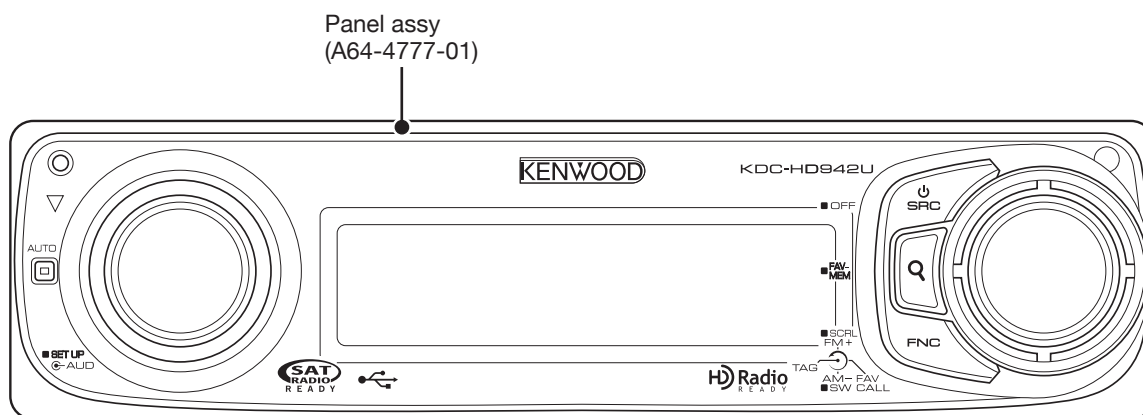
KENWOOD

Kenwood Corporation

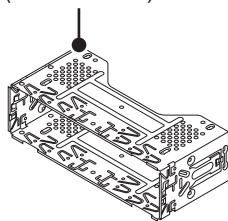
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B53-0719-00 (N) 166

TDF SPARE-PANEL

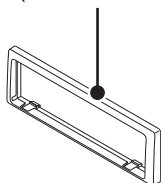
MAIN UNIT NAME	TDF PARTS No.	TDF NAME
KDC-HD942U	Y33-3110-11	TDF-HD99D



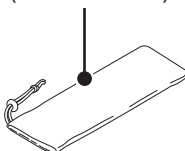
Mounting hardware assy
(J22-0789-03)



Escutcheon
(B07-3235-03)



Carrying case
(W01-1710-05)



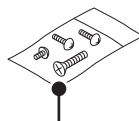
Remote controller assy (RC-547)
(A70-2085-15)



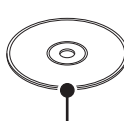
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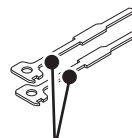
Screw set
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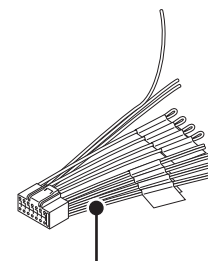
Compact disc
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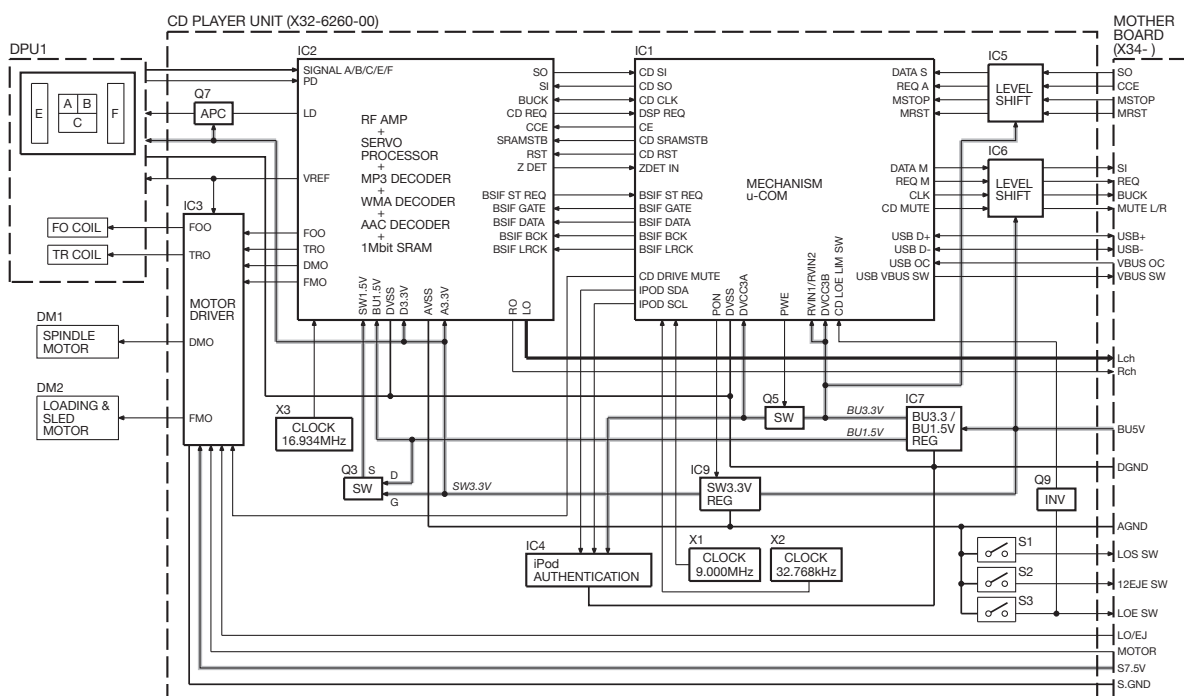
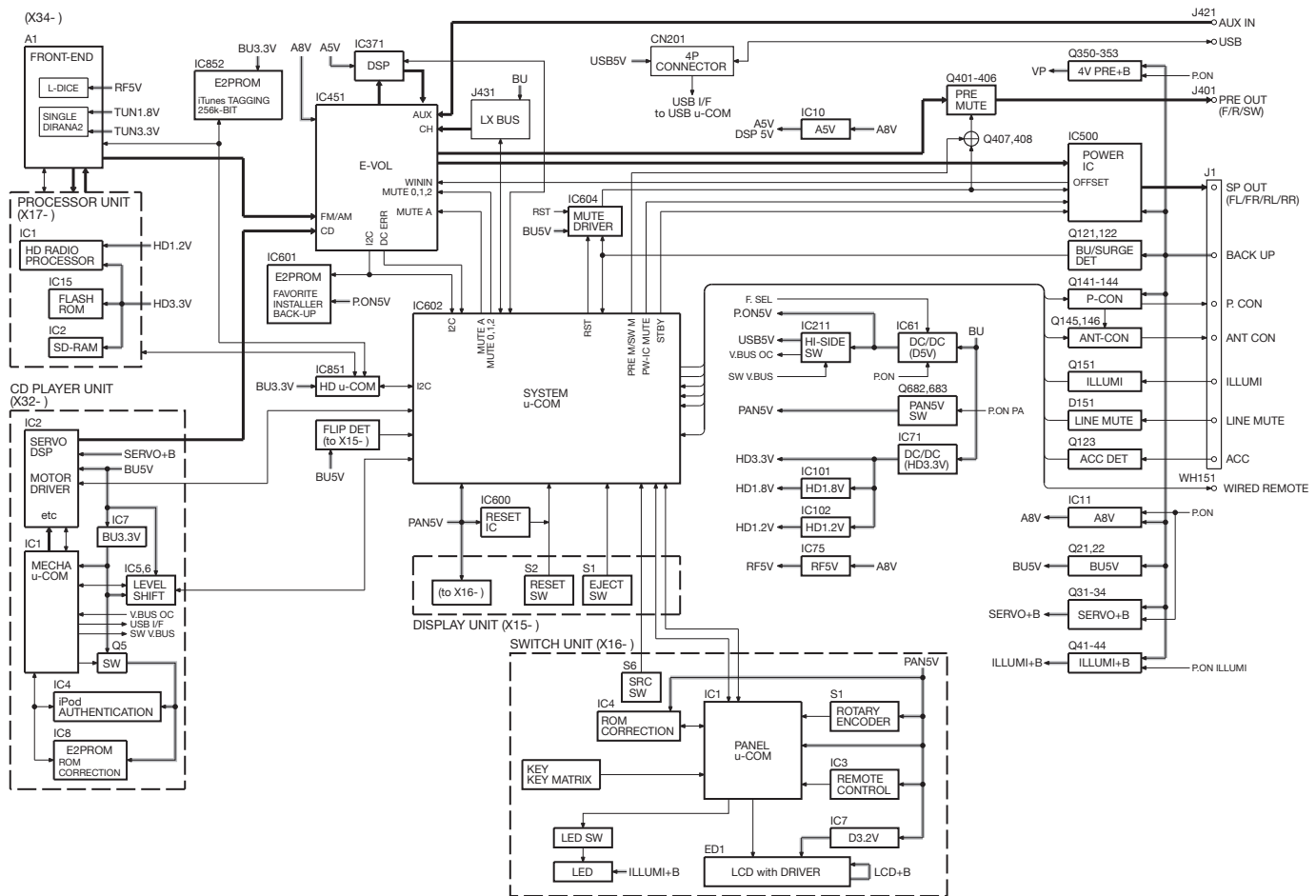
Lever
(D10-7049-04) x2



DC cord
(E30-6428-05)



BLOCK DIAGRAM



COMPONENTS DESCRIPTION

● ELECTRIC UNIT (X34-6320-10)

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC10	A5V REG	Power supply for A5V to DSP.
IC11	AUD8V REF Power Supply	Outputs 1.27V.
IC61	D5V & P.ON5V SW REG	Power supply for D5V to USB/PANEL and P.ON5V.
IC71	HD3.3V SW REG	Power supply for HD3.3V to the front-end and X17.
IC74	BU3.3V REG	Power supply for BU3.3V to system μ -com and E2PROM.
IC75	RF5V REG	Power supply for RF5V to the front-end.
IC101	HD1.8V REG	Power supply for HD1.8V to the front-end.
IC102	HD1.2V REG	Power supply for HD1.2V to X17.
IC211	Hi-side SW	Detects USB over-current and ON/OFF SW.
IC371	DSP	Digital signal processor.
IC451	E-VOL & Source Selecter	Controls the sources and volume.
IC500	Power IC	Amplifies the front L/R and the rear L/R to 50W maximum.
IC600	Reset IC	Outputs Lo (system μ -com is reset) when detection voltage goes below 3.6V.
IC601	E2PROM	For the favorite memory, installer memory, back-up memory and ROM collection.
IC602	System μ -COM	Controls FM/AM tuner, the changer, CD mechanism, panel, volume and DSP.
IC604	Muting Logic	Controls muting logic.
IC851	HD μ -COM	Control μ -com for the front-end and HD module.
IC852	E2PROM	For iTunes Tagging data.
Q11-13	AUD8V AVR	When Q13's base goes ON, A8V AVR outputs 8.0V.
Q21,22	BU5V AVR	While back-up is applied, BU5V AVR outputs +5V.
Q31-34	Servo+B	When Q34's base goes ON, Servo+B outputs 7.5V.
Q41-44	ILLUMI+B	When Q44's base goes ON, AVR outputs 10.5V.
Q61	FREQ CONT SW	Changes frequency of IC61. (SW REG)
Q72	FREQ CONT SW	Changes frequency of IC71. (SW REG)
Q121	BU DET SW	When the base goes Hi, back-up voltage is detected.
Q122	Surge DET SW	When the base goes Hi, surge voltage is detected.
Q123	ACC DET SW	When the base goes Hi, ACC voltage is detected.
Q141,144	P.CON SW	When Q144's base goes Hi, AVR outputs 14V.
Q142,143	P.CON Protect	Protects Q143 by turning on when P.CON output is grounded.
Q145,146	Power ANT SW	When Q146's base goes Hi, power antenna switch outputs 14V.
Q151	Small-lamp DET SW	When the base goes Hi, small-lamp is detected.
Q350-353	4V PRE+B	When Q353's base goes ON, 4V_PRE+B is output (up to 12V).
Q401-406	Pre-out Mute SW	When a base goes Hi, pre-out is set to mute.
Q407,408	Pre-out Mute Driver	When a base goes Lo, mute driver is turned on.
Q451	DC Offset Error DET Cancellor	Circuit turns off when one or more audio terminals of IC451 have voltage below 1.0V.
Q681	X15's LED SW	When DSI port is Lo, X15's LED is ON.
Q682,683	Panel+5V SW	When Q682's base goes Hi, Panel+5V is output.
Q766	HD Radio Mute SW	When the base goes Hi, HD radio mute is ON.
Q768	HD Radio Reset SW	When the base goes Hi, HD radio reset is ON.

● SWITCH UNIT (X16-6520-10)

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC1	Panel μ -COM	LCD, encoder key and LED SW (ON/OFF) are controlled by IC1.
IC3	Remote Control IC	Remote control signal receiver.

COMPONENTS DESCRIPTION

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC7	3.2V REG	Power supply for 3.2V.
Q1	LED Driver	Being controlled by IC1.
Q8	Rotary (R) LED Driver	Being controlled by IC1.
Q9	Rotary (L) LED Driver	Being controlled by IC1.
Q41	LCD Back Light LED Driver	Being controlled by IC1.

● PROCESSOR UNIT (X17-2050-10)

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC1	HD Radio Processor	HD Radio data decoder.
IC2	SD RAM	For buffering program and data.
IC151	Flash ROM	For firmware installing.
Q101	Reset Inverter	When the base goes Hi, reset of IC101 is ON.

● CD PLAYER UNIT (X32-6260-00)

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC1	Mechanism μ -COM	Controls DSP and peripheral circuit. USB host controller. (Compliant with Universal Serial Bus Specification Rev2.0)
IC2	Servo DSP with Built-in Audio DAC	Built-in MP3-WMA-AAC decoder. Built-in 1M-bit-SRAM.
IC3	4ch BTL Driver	Driver for focusing & tracking coil, driver for sled & spindle motor, and operation for disc loading & ejection.
IC4	iPod Authentication	Connection authentication for iPod. MFI341S2162: iPhone-compliant.
IC5	3.3V→5.0V Level Shift	Converts communication signal from 3.3V to 5.0V.
IC6	5.0V→3.3V Level Shift	Converts communication signal from 5.0V to 3.3V.
IC7	BU1.5V / BU3.3V Regulator	Power supply for digital back-up. Power supply for mechanism μ -COM.
IC8	E2PROM	Memory for ROM correction. Countermeasure for software malfunction.
IC9	A3.3V Regulator	Power supply for digital, analog and audio line.
Q3	D1.5V Output	The output voltage in which the power supply that diverges from the BU1.5V line is turned on and off is used as D1.5V.
Q5	B.3.3V Output	The output voltage in which the power supply that diverges from the BU3.3V line is turned on and off is used as D3.3V.
Q6	Control signal Inverter	Controls Q5.
Q7	APC (Auto Power Control)	Laser diode driver.
Q9	Control signal Inverter	Because the detection logic of LOE/LIM_SW is different in the mechanism μ -COM and the system μ -COM, the logic to the mechanism μ -COM side is reversed.
D1	Laser Diode Protection	Prevents reverse bias which is applied to laser. Laser destruction prevention.
D2,3	Countermeasure against Static Electricity	The potential difference between DGND and AGND is absorbed, and the malfunction by static electricity is prevented.

MICROCOMPUTER'S TERMINAL DESCRIPTION

● System μ -COM: IC602 on X34- (ELECTRIC UNIT)

Pin No.	Pin Name	I/O	Application	Truth Value Table	Processing / Operation / Description
1	WIRED REMO	I	Remote control signal input		Pulse width detection
2	NC	-	Not used		Output L fixed
3	CD SYS DATA	O	Data from system μ -com to Bolero		
4	CD CD DATA	I	Data from Bolero to system μ -com		
5	CD CD CLK	I	Clock from Bolero		
6	BYTE	-			
7	CVSS	-			
8	XCIN	-	Resonator		32.768kHz
9	XCOU	-	Resonator		32.768kHz
10	$\overline{\text{RESET}}$	-			
11	XOUT	-	Resonator		12MHz
12	VSS	-			
13	XIN	-	Resonator		12MHz
14	VCC1	-			
15	NMI	-	Not used		
16	NC	-	Not used		Output L fixed
17	FLIP DET	I	Panel-opened detection for flip-down panel		H: Opened, L: Closed
18	BU DET	I	Back-up detection		BU found: L, No BU or momentary power-down or over-voltage: H
19	NC	-	Not used		Output L fixed
20	PAN RST	O	Panel reset		H: Normal, L: Reset
21	SRC KEY	I	Source key input		H: OFF, L: ON
22	PANEL DET	I	Panel connector detached/attached detection		L: Panel detached, H: Panel attached
23	EJECT KEY	I	Eject key input		H: OFF, L: ON
24	NC (SYNC)	-	Not used		Output L fixed
25	$\overline{\text{DSI}}$ (EJECT ILL)	I/O	DSI control		L: Turned ON, Hi-Z: Turned OFF
26	PWIC BEEP	O	Beep output		2kHz / 1kHz
27	HR I2C SCL	O	I2C communication		MAX 400kHz
28	HR I2C SDA	O	I2C communication		MAX 400kHz
29	PAN SYS DATA	O	Data from system μ -com to panel		UART MAX 500kHz
30	PAN PAN DATA	I	Data from panel to system μ -com		UART MAX 500kHz
31	PAN SYS REQ	O	Communication request from system μ -com to panel		
32	PAN PAN REQ	I	Communication request from panel to system μ -com		
33,34	NC	-	Not used		Output L fixed
35	HD RST	O	HD μ -com reset		L: Normal, H: HD reset
36	CD DISC12 SW	I	12cm disc detection		L: 12cm disc
37	CD LOS SW	I	CD loading detection		L: Eject completed
38	M STOP	O	Mechanism stop		H: Normal, L: SOC stopped
39	ROM COR DET	I	ROM correction writing request		H: ROM correction rewritable (I2C opened)
39	ROM COR EPM	I	Becomes EPM input when ROM collection is written		Rewritable in Lo at the start-up
40	$\overline{\text{CD MUTE}}$	I	Mechanism mute request		L: Mute request, H: Normal
41	CD CD REQ	I	Communication request from mechanism to system μ -com		
42	$\overline{\text{M RST}}$	O	Mechanism reset		H: Normal, L: Reset

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Truth Value Table	Processing / Operation / Description
43	CD LOE LIM SW	I	CD detection (chucking detection)		H: Loading completed, L: No disc
44	PAN SC CON	O	Panel operation control (Becomes CE when system μ -com is rewritten)		H: Normal, L: Panel operation stopped
45	CD SYS REQ	O	Communication request from system μ -com to mechanism		
46	CD LOEJ	I/O	CD motor control	①	Refer to the truth value table
47	CD MOTOR	O	CD motor control	①	Refer to the truth value table
48	P.ON PANEL	I/O	Power supply for panel μ -com (Necessary to certificate panel)		H: ON, Hi-Z: OFF (Panel detached, Panel opened, POWER OFF)
49	P.ON ILL	I/O	Panel LED power supply control		H: ON, Hi-Z: OFF (Panel detached, Panel opened, POWER OFF)
50	NC	-	Not used		Output L fixed
51	F.SEL	I/O	SW-REG frequency setting		Hi-Z: 530kHz-1100kHz in AM source, H: All sources except AM H: 1110kHz-1700kHz in AM source
52	P.ON	I/O	Power supply control		H: ON, Hi-Z: OFF
53-55	NC	-	Not used		Output L fixed
56	P.CON	I/O	P.CON control		POWER ON: H, POWER OFF: Hi-Z, STANDBY source: Hi-Z
57	ANT CON	I/O	ANT control		TUNER source: H, Other sources: Hi-Z
58	ACC DET	I	ACC detection		ACC found: L, No ACC: H
59	ILLUMI DET	I	Dimmer illumination detection		L: ON, H: OFF
60	VCC2	-			
61	NC (P.ON D5V)	-	Not used		Output L fixed
62	VSS	-			
63	LINE MUTE	I	Line mute detection		TEL mute: Below 1V, NAVI mute: Over 2.5V
64	DSP PDN	O	DSP reset		H: Normal, L: Reset
65	P.ON 4VPRE	O	4V-PRE power supply control		H: ON, Hi-Z: OFF
66	MUTE 0	O	E-VOL front mute control		L: Mute ON, Time constant isolation setting: 10ms, H: Normal
67	MUTE 1	O	E-VOL rear mute control		L: Mute ON, Time constant isolation setting: 10ms, H: Normal
68	MUTE 2	O	IC-2 SW mute control		L: Mute ON, Time constant isolation setting: 10ms, H: Normal
69	PWIC DC DET	I	DC offset detection		
70	MUTE AFS	I/O	IC-2 mute AFS control		L: Mute ON, Time constant isolation setting: 0.5ms, Hi-Z: Normal
71	EVOL SDA	I/O	Data from system μ -com to E-VOL		
71	E2P SDA	I/O	I2C data for mother E2PROM		
71	DSP SDA	I/O	I2C data for DSP		
72	EVOL SCL	I/O	Clock from system μ -com to E-VOL		
72	E2P SCL	I/O	I2C clock for mother E2PROM		
72	DSP SCL	I/O	I2C clock for DSP		
73	LX REQ S	I	Communication request from slave unit		
74	PWIC MUTE	O	Power IC mute		STANDBY source or momentary power-down: L, TEL mute: L

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Truth Value Table	Processing / Operation / Description
75	PWIC STBY	O	Power IC standby		POWER ON: H, POWER OFF: L
76	LX REQ M	O	Communication request to slave unit		
77	LX MUTE	I	Mute request from slave unit		H: Mute ON, L: Mute OFF
78	LX CON	O	Start-up request to slave unit		H: Slave unit ON, L: Slave unit OFF
79	LX RST	O	Forced reset to slave unit		H: Reset, L: Normal
80	MUTE PRE	O	External preout mute		0-bit or momentary power-down: L, L: Mute ON
81	MUTE PRE SW	O	External preout mute sub		0-bit or momentary power-down: L, L: Mute ON
82-86	NC	-	Not used		Output L fixed
87	HR P.CON	O	P.CON control for HD μ -com		H: ON (same timing as LX-P.CON)
88	HR MUTE	I	Mute request from HD μ -com		H: Mute cancelled, L: Mute
89	HR BU DET	O	Back-up detection for HD μ -com		L: Back-up found (L fixed)
90-93	NC	-	Not used		Output L fixed
94	AVSS	-			
95	NC	-	Not used		Output L fixed
96	VREF	-			
97	AVCC	-			
98	LX DATA S	I	Data from slave unit		
99	LX DATA M	O	Data to slave unit		
100	LX CLK	I/O	LX-BUS clock		

Truth value table

① CD motor control

	CD MOTOR (Pin 47)	CD LOEJ (Pin 46)
Standby	L	L
Eject	H	H
Load	H	L
Brake	H	Hi-z

● HD μ -COM: IC851 on X34- (ELECTRIC UNIT)

Pin No.	Pin Name	I/O	Application	Truth Value Table	Processing / Operation / Description
1	IBOC BLEND	I	IBOC BLEND signal input		L: Analog, H: Digital
2,3	NC	-	Not used		Output L fixed
4	TOOL 1	O	Debug		Output L fixed
5	TOOL 0	I/O	Debug		Output L fixed
6	RESET	I	Reset		L: Reset
7,8	NC	-	Not used		General-purpose input setting
9	FLMD 0	I	Debug		Built-in pull-down

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MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Truth Value Table	Processing / Operation / Description
10	X2	I	20MHz		External oscillation setting
11	X1	O	20MHz		External oscillation setting
12	REGC	-	Built-in regulator stabilization		
13	VSS	-	VSS		
14	EVSS	-	EVSS		
15	VDD	-	VDD 3.3V		
16	EVDD	-	EVDD 3.3V		
17	I2C SCL	I	System μ -com communication		Clock input from system μ -com
18	I2C SDA	I/O	System μ -com communication		Data input/output with system μ -com
19-32	NC	-	Not used		Output L fixed
33	BU DET	I	Back-up detection input		Not used
34	P.CON	I	Power control (Stop) input		Rising edge: ON, L: OFF (Same timing as LX-BUS)
35	PROTOCOL SEL	I	Communication protocol selection		L: KAB (Kenwood Advanced Bus), H: LX-BUS
36	PHY SEL	I	Physical layer selection		L: Head unit (Over I2C) H: Black box (Protocol compliant)
37	RESERVED 0	O	Destination (Spare)		Output L fixed
38	RESERVED 1	O	Destination (Spare)		Output L fixed
39	MUTE	I/O	Mute output (Head unit)		Hi-Z: Mute cancelled, H: Mute
40,41	NC	-	Not used		Output L fixed
42	TERMINAL RX	I	External terminal		
43	TERMINAL TX	O	External terminal		
44-46	NC	-	Not used		Output L fixed
47	AVREF	-			
48	AVSS	-			
49	DIRANA INT END	I	Initial-end input from Dirana		Hi when initial-end is output
50	DIRANA RESET	O	Reset output to Dirana		L: Reset
51,52	NC	-	Not used		Output L fixed
53	HD P.ON	I/O	HD (Cayman) P.ON Switching power supply 3.3V ON/OFF		H: 3.3V ON, Hi-Z: 3.3V OFF
54	CAYMAN RESET	O	Reset output to HD (Cayman)		H: Reset Hi is output after P.CON becomes Hi
55,56	NC	-	Not used		Output L fixed
57	TUNER P.ON	O	Tuner (L-Dice) P.ON, AF5V ON/OFF		H: RF5V ON, L: RF5V OFF
58	I2C SCL	I/O	Dirana, Cayman, E2PROM communication		I2C clock
59	I2C SDA	I/O	Dirana, Cayman, E2PROM communication		I2C data input/output
60	NC	-	Not used		Output L fixed
61	3.3V F.SEL 0	I/O	3.3V REG frequency selection		H: 530kHz-1100kHz or 1610kHz-1700kHz in AM Hi-Z: All sources except AM Hi-Z: 1110kHz-1600kHz in AM
62	3.3V P.ON	O	Power supply 3.3V control HD pack & module 3.3V/1.8V/1.2V control		H: 3.3V ON, L: 3.3V OFF
63	CHECKER 1	O	Chip select start-up check		H: ON, L: OFF
64	CHECKER 0	O	Chip select start-up check		H: ON, L: OFF

MICROCOMPUTER'S TERMINAL DESCRIPTION

● Panel μ -COM: IC1 on X16- (SWITCH UNIT)

Pin No.	Pin Name	I/O	Application	Truth Value Table	Processing / Operation / Description
1	REMO	I	Remote control signal input		Pulse width detection
2-5	NC	-	Not used		Output L fixed
6	BYTE	-	GND		Connects to GND
7	CNVSS	-			
8	LED CONT LEFT BLUE	O	Blue key (left side) output		Not used
9	LED CONT LEFT RED	O	Red key (left side) output		Not used
10	RESET	-	Reset		H: Normal, L: Reset
11	XOUT	-	Resonator		12MHz
12	VSS	-	GND		Connects to GND
13	XIN	-	Resonator		12MHz
14	VCC1	-	Power supply (5V)		Connects to PAN5V
15	NMI	-	Not used		Input fixed
16	LED CONT LEFT GREEN	O	Green key (left side) output		Not used
17	LED CONT RIGHT BLUE	O	Blue key (right side) output		Not used
18	LED CONT RIGHT RED	O	Red key (right side) output		Not used
19	LED CONT RIGHT GREEN	O	Green key (right side) output		Not used
20	LED CONT TRI RED	O	Triangle-red turning-on SW PWM output		H: Turned ON, L: Turned OFF, PWM frequency: 100Hz
21	LED CONT TRI GREEN	O	Triangle-green turning-on SW		Not used
22	LED CONT LCD	O	LCD back-light PWM output		H: Turned ON, L: Turned OFF, PWM frequency: 23kHz
23	NC	-	Not used		Output L fixed
24	LED CONT RTY2	O	LED rotary (MULTI-key side) PWM output		H: Turned ON, L: Turned OFF, PWM frequency: 100Hz
25	NC	-	Not used		Output L fixed
26	LED CONT RTY1	O	LED rotary (VOL-key side) PWM output		H: Turned ON, L: Turned OFF, PWM frequency: 100Hz
27,28	NC	-	Not used		Output L fixed
29	PAN DATA	O	Data transmission from panel		
30	SYS DATA	I	Data reception from system μ -com		
31	SYS REQ	I	System μ -com communication request input		H: Data communication
32	PAN REQ	O	Panel communication request output		H: Data communication
33	LCD SDA	O	LCD data		Outputs LCD SDA
34	NC	-	Not used		Output L fixed
35	LCD SCK	O	LCD clock		Outputs LCD SCK
36	LCD RST	O	LCD reset		Normal: H, Reset: L
37	LCD CD	O	LCD CD		L: Control data, H: Display data
38	LCD CS	O	LCD CS		Outputs LCD CS
39	ROM COR DET	I	ROM correction writing mode		H: ROM correction rewritable (I2C opened)
40-43	NC	-	Not used		Output L fixed
44	FLASH CE	I	Chip enable for flash ROM rewriting		
45-50	NC	-	Not used		Output L fixed

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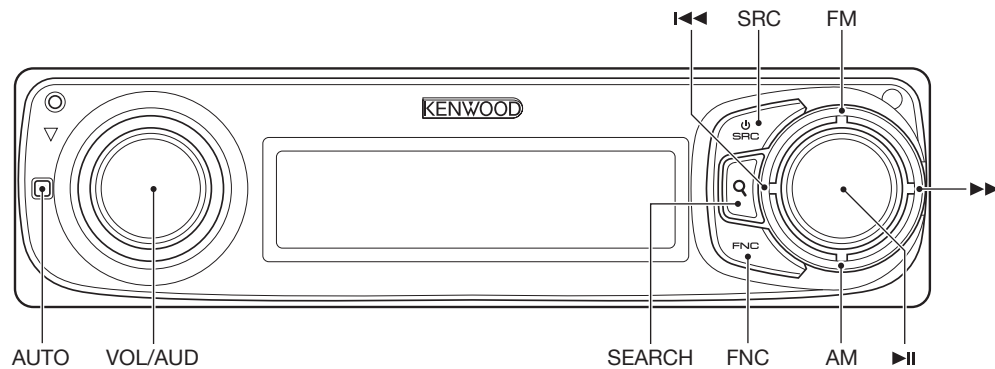
Pin No.	Pin Name	I/O	Application	Truth Value Table	Processing / Operation / Description
51	ROM COR SDA	I/O	Data transmission and reception for ROM correction		Always output except in reading
52	ROM COR SCL	I/O	Clock for ROM correction		Always output except in reading
53-55	NC	-	Not used		Output L fixed
56	ROTALY2 CW	I	Rotary (MULTI-key) B input		Pulse width detection. 1-pulse/2-click, 15-pulse/360°
57	ROTALY2 CCW	I	Rotary (MULTI-key) A input		Pulse width detection. 1-pulse/2-click, 15-pulse/360°
58	ROTALY1 CW	I	Rotary (VOL-key) B input		Pulse width detection. 1-pulse/2-click, 15-pulse/360°
59	ROTALY1 CCW	I	Rotary (VOL-key) A input		Pulse width detection. 1-pulse/2-click, 15-pulse/360°
60	VCC2	-	Power supply (5V)		Connects to PAN5V
61	NC	-	Not used		Output L fixed
62	VSS	-	GND		Connects to GND
63-70	NC	-	Not used		Output L fixed
71	SC CON	I	System μ -com communication Panel operation control		H: Panel operation, L: Panel operation stopped
72	NC	-	Not used		Output L fixed
73	KR2	I	Key return input	①	Refer to the truth value table
74	KR1	I	Key return input	①	Refer to the truth value table
75	NC	-	Not used		Output L fixed
76-80	KS1-KS5	I/O	Key scan	①	Refer to the truth value table
81	TYPE	I	Destination port		H: Variable (RGB), L: Unicolor (blue)
82-93	NC	-	Not used		Output L fixed
94	AVSS	-	GND		Connects to GND
95	NC	-	Not used		Output L fixed
96	VREF	-	A/D analog reference voltage		Connects to PAN5V
97	AVCC	-	Power supply (5V)		Connects to PAN5V
98-100	NC	-	Not used		Output L fixed

Truth value table

① Key matrix

	KR1 (Pin 74)	KR2 (Pin 73)
KS1 (Pin 76)	TI	AM
KS2 (Pin 77)	FNC	<<
KS3 (Pin 78)		PLAY
KS4 (Pin 79)	SEARCH	>>
KS5 (Pin 80)	AUDIO	FM

TEST MODE



● How to enter the test mode

Press and hold the [FNC] and [AUD] keys and reset. (While “----” is being displayed, power can be ON for 30 minutes.)

- * Reset can be done by power activation because the reset button is placed on the sub panel.

● How to clear the test mode

Reset, momentary power down, ACC OFF, POWER OFF, detach the panel.

● Test mode default condition

- Source is STANDBY
- Display lights are all turned on.
- The volume is at “30” (-10dB).
- CRSC is off regardless of the availability of switching function
- BEEP should always function when the key is pressed briefly.
- AUX is ON
- DSP shall be BYPASS setting (not passing DSP).
- DISPLAY TYPE is TYPE A, Status is OFF, and SIDE is Display Tag.
- Indication of HD source shall be as below.
 - 1st row = Freq, 2nd row = Call Letter, 3rd row = Song
- TUNER source indication: 1st row = Frequency
- CD/USB source indication: 1st row = P-TIME
- At all sources: 4th row=date, 5th row = Spectrum analyzer/Clock
- SOURCE SELECT shall be “2” (A mode switched by pressing [SRC] key briefly).

● HD source test mode

(*1) Display [1] key, [2] key, and [3] key on the multi-function during the test mode only.

1. Press the [FNC] key briefly to make the multi-function display.
2. Rotate the control knob on the right side and use the [FM] or [AM] key to display the target key in the center.
3. Press the [▶II] key briefly to finalize the display.

(*2) Perform the same operations as above on the keys, [1], [2], and [3] on the remote controller.

● HD display item switching

Switch the display item for the “Song” line every time the [1] key is pressed in HD-FM band.

(Adjusted result status (displayed, but unused), Frequency and HD reception status, S-meter, IF Counter, Multiplex Noise, IF Bandwidth, Adjacent Noise, Call Letter, QI, S/N, Ballgame, Digital Audio Gain)

● Each version display (HD μ -com/Cayman/DiRaNa) switching

Display version on the “Song” line with the preset call [53] (key code 0x3C:ebu3). Display HD μ -com→Cayman (shortened)→Cayman (full) by every input.

- * [5] key on the remote controller is operable because [5] key is not displayed on the multi-function in the head unit.

TEST MODE

● Specification of the test mode for tuner source

The frequency of 98.3MHz is received when the [4] key is pressed in the TUNER FM band.

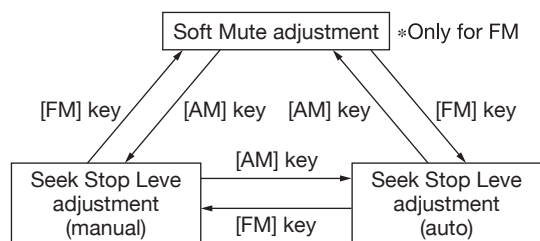
(*1) Only in the test mode, [1] key, [2] key, [3] key, [4] key, [5] key and [6] key (K3I) shall be displayed on the multi-function key.

1. Press the [FNC] key briefly to make the multi-function display.
2. Rotate the control knob on the right side and use the [FM] or [AM] key to display the target key in the center.
3. Press the [▶II] key briefly to finalize the display.

(*2) Perform the same operations as above on the keys, [1], [2], [3], [4], [5], and [6] of the remote controller.

● TUNER Setup adjustment mode specification

1. Use [FM] or [AM] key to select TUNER band.
2. Press and hold [▶II] key for 2 seconds to enter TUNER adjustment mode. At this point, set FM reception frequency to 98.3MHz at the same time.
3. Use [FM] or [AM] key to change between the adjustment items.



(Note) The first item shall be Soft Mute adjustment. But, in the case of AM band, the first item shall be Seek Stop Level adjustment (auto) because there is no Soft Mute adjustment for AM band.

4. Proceed with the following steps for every adjustment item:

[Soft Mute Adjustment]

This item exists only in TUNER FM. Make adjustment under the condition when VOLUME=30 and LOUD is OFF.

(Display) S M D - x _ _ : Adjustment values, 0 ~ 7, are shown in "x".

- a. Adjust the value between 0 (18dBμ)~7 with [◀◀] or [▶▶] key (possible to press continuously)
- b. After the completion of the adjustment, press and hold [▶II] key for 2 seconds to start writing the adjustment values in E2PROM. At the successful completion of the writing, "EP_WRITE" is displayed

[Seek Stop Level Adjustment (Auto)]

(Display) A T N _ 4. 3 2 V : When at Normal (Local OFF)

(Display) A T L _ 3. 4 5 V : When at Local (Local ON)

Current receive level

- a. In the band in which Local Seek ON/OFF is selectable, Press [AUTO] key briefly to change between Local Seek ON and OFF.
- b. Press and hold [▶II] key for 2 seconds to make the current receive level to be the seek stop level in order to start writing the adjustment values in E2PROM. At the successful completion of the writing, "EP_WRITE" is displayed. (In this step, use Local Seek ON/OFF setup to change the destination of the writing.)

[Seek Stop Level Adjustment (Manual)]

(Display) M N N _ 3. 9 8 V : When at Normal (Local OFF)

(Display) M N L _ 4. 4 4 V : When at Local (Local ON)

Adjustment values: Contents written in E2PROM as the initial values are displayed.

- a. In the band in which Local Seek ON/OFF is selectable, Press [AUTO] key briefly to change between Local Seek ON and OFF.
 - b. Manually adjust the seek stop level between 0.00~5.00V according to the destination with [◀◀] or [▶▶] key (possible to press continuously).
 - c. Press and hold [▶II] key for 2 seconds to make the voltage that is adjusted in the above step to be the seek stop level and to start writing the voltage in E2PROM. At the successful completion of the writing, "EP_WRITE" is displayed. (In this step, use Local Seek ON/OFF setup to change the destination of the writing.)
5. Press [▶II] key briefly to exit from TUNER Adjustment mode (and to keep running the Test mode).

● K3I forced switching

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

· AUTO	aF1
· Forced WIDE	wF1
· Forced MIDDLE	mF1
· Forced NARROW	nF1

TEST MODE

● CD source test mode specification

- Jumps to the following tracks by pressing the [▶▶] key.
No.9→No.15→No.10→No.11→No.12→No.13→No.22→
No.14→No.9 (recursive)
Note that when playing a CD-DA disc and MP3/WMA/
AAC discs with 8 files or less, the disc is played from
No.1 track in the normal order.
- Pressing the [◀◀] key goes back by 1 track from the
track being played
- While in CD source, press the [1] key ([1] and [FM] keys
are for CD-DA) briefly to jump to No.28.
- While in CD source, press the [2] key briefly to jump to
No.14.
- While in CD source, press the [3] key briefly to display
CD mechanism model name and the version. Press the
[3] key briefly again to return to the normal display. (Time
code display)

9 E 3 0	V 0 1 2 3
S E R V	V 1 . 2 3
B O O T	V 1 . 2 3

- While in CD source, press the [5] key briefly to repeat
No.9 and No.22 (Jump toggle operation between No.9↔
No.22)
- Jump to No.9 if the track in play is not No.9.
- Jump to No.22 if the track in play is No.9.
- While in CD source, press the [6] key ([6] and [AM] keys
are for CD-DA) briefly to jump to No.15. At this time, the
volume value is set to 21 (2V-PRE), 24 (4V-PRE).
(*1) Only in the test mode, [1] key, [2] key, [3] key and [6]
key shall be displayed on the multi-function key.
- 1. Press the [FNC] key briefly to make the multi-function
display.
- 2. Rotate the control knob on the right side and use the
[FM] or [AM] key to display the target key in the center.
- 3. Press the [▶] key briefly to finalize the display.
- (*2) Perform the same operations as above on the keys,
[1], [2], [3], [5] and [6] on the remote controller.
- While in CD source, press the [AUTO] key briefly to jump
to No.15 and set the volume value to 21 (2V-PRE) or 24
(4V-PRE).
- While in CD source, press [AUTO] key for 1 second to
jump to No.9 and set VOLUME to "35" (Refer to *)
- * Due to circuit request (due to DCErr), E-VOL latter
phase Gain (Fader Gain) setting at VOLUME "35" is set
as below in the test mode, CD (USB) source, and DSP
Bypass.

Normal +2dB → +6dB

● AUDIO adjust mode

- Press the [AUD] key briefly to enter the audio adjustment
mode.
- Press the remote control [✱] key and [AUD] key to enter
the audio adjustment mode.
- Both AUDIO FUNCTION MODE and SETUP MODE ad-
justment items are included.
- By pressing [AUD] and [FM] key briefly, switch the item to
be adjusted in the following order. (Only in forward rota-
tion)
The default item shall be DSP Bypass/Through switch
and shall be Bypass/Through→Dual Zone→Fader→
Balance→SubWoofer→VolumeOffset.
- Continuous forwarding by remote control is prohibited.
- BYPASS is adjusted by the VOL knob and [◀◀] or [▶▶]
key in 2 steps: BYPASS↔THROUGH. (Default value: BY-
PASS) *Displayed only in the test mode.
- Dual Zone ON/OFF is adjusted by the VOL knob and [◀◀]
or [▶▶] key in 2 steps: OFF↔ON. (Default value: OFF)
- Fader is adjusted by the VOL knob and [◀◀] or [▶▶] key
in 3 steps: R15↔0↔F15. (Default value: 0)
- Balance is adjusted by the VOL knob and [◀◀] or [▶▶]
key in 3 steps: L15↔0↔R15. (Default value: 0)
- Sub Woofer Level is adjusted by the VOL knob and [◀◀]
or [▶▶] key in 3 steps: -15↔0↔+15. (Default value: 0)
- Volume Offset (Built in AUX OFF) is adjusted by the VOL
knob and [◀◀] or [▶▶] key in 2 steps: -8↔0. (Default
value: 0)
- Volume Offset (Built in AUX ON) is adjusted by the VOL
knob and [◀◀] or [▶▶] key in 3 steps: -8↔0↔+8. (Default
value: 0)

● MENU

- Press the [FNC] key briefly to make the multi-function
display and press the [◀◀] key to select MENU item, and
press the [▶] key briefly to enter the MENU.
- Press the remote control [DNPP/SBF] key and the [DI-
RECT] key to enter the MENU.
- Continuous forwarding by remote control is prohibited.
- Only in the Test mode, [PHONE-SEL] (Phone Selec-
tion) shall be added to the multi-function display in the
STANDBY source and place it as the initial item (head).
- Only in the Test mode, it shall be made possible to show
"ROM Write Mode" and "ROM Read Mode" items in the
STANDBY source MENU to allow the ROM data transfer
process.

TEST MODE

● Backup current measurement

If reset while in ACC OFF (Back Up ON) condition, MUTE terminal goes off 2 seconds later, rather than 15 seconds. (During this time, the CD mechanism does not function.)

● Special displays while all lights are on

When all lights are on with STANDBY source, if the following keys are pressed, the following messages are displayed.

[FM] key	Key pressed briefly: ROM correction version is displayed (Display) S Y S _ R O M _ R 1 2 3 4 (Display) P A N _ R O M _ R 1 2 3 4 (Display) B O L _ R O M _ R 1 2 3 4 When E2PROM is not installed: R O M _ E R R _ _ When not written in: R O M _ R _ _ _ _ When data not matching: R O M _ R * * * *
[▶▶] key	Key pressed briefly: AUDIO data initialization (Display) A U D I O _ I N I T
[◀◀] key	Key pressed briefly: Forced Power OFF data displayed. Press and hold: To clear the forced power OFF information. (Press and hold for 2 seconds while the forced power OFF data is displayed.) (Display) P O F F _ _ _ _ (No Forced Power OFF) SEC (Forced Power OFF because of missing Security Code) PNL (Forced Power OFF because of system μ-com and panel communication error)
[AUD] key	Key pressed briefly: iPod authentication IC installation status display (Display) i P o d _ O K _ (Installation status OK) NG _ (Installation status NG)
[FNC] key	Key pressed briefly: Multi-function display Press and hold: Version & Service information display mode ON Refer to the Table 1.
[1]~[6] key (Remote controller)	Key pressed briefly: Version & Service information display mode ON Refer to the Table 1.
[▶II] key	Key pressed briefly: CD information display mode ON Refer to the Table 2.

Table 1 - Version & Service information display mode
([1]~[6] keys: Remote controller)

[AM] key ↑ [FM] key ↓	[1] key	Key pressed briefly: Version is displayed (Switch) (Display) C 0 8 6 3 W K _ _ S Y S 1 . 2 3 (Display) S T Y P E : x x _ P A N 1 . 1 1 (Display) P T Y P E : x _ _ (Display) 9 B 3 0 _ V x x x x ↓↑: Switch with the remote controller [1] key or [◀◀] or [▶▶] key. * “STYPE” indicates destination of system μ-com and “PTYPE” indicates destination of panel μ-com, and they display the status of destination terminal in real-time. (Display) B T _ V E R : H W x x x _ S W x x x BT module H/W & S/W Version (Display) A D D R : x x x x x x x x x x BT module Address (Display) P I N : x x x x x x x x BT module PIN Code
	[2] key	Key pressed briefly: Serial No. is displayed (8 digits) (Display) S N o _ x x x x x x x x
	[3] key	Key pressed briefly: Power ON time is displayed. (Display) P o n T i m _ 0 H x x _ (00~50 is displayed for “xx”. When less than 1 hour, display by increment of 10 minutes.) (Display) x x x x x (00001~10922 is displayed for “xxxxx”). MAX 10922 (hours)
	[4] key	Key pressed briefly: CD operation time is displayed. (Display) C D T i m _ 0 H x x _ (00~50 is displayed for “xx”. When less than 1 hour, display by increment of 10 minutes.) (Display) x x x x x (00001~10922 is displayed for “xxxxx”). MAX 10922 (hours)
	[5] key	Key pressed briefly: Number of CD EJECT times is displayed. (Display) E j e C n t _ x x x x x MAX 65535 (times)
[▶II] key		Key pressed briefly: Invalid Press and hold: To clear the service information that is being displayed. (Press and hold for 2 seconds while each service information is displayed.)
[FNC] key		Key pressed briefly: Version & Service information display mode OFF

TEST MODE

Table 2 - CD information display mode

[AM] key ↑ ↓ [FM] key	I2C communication condition and CD mechanism error log display (Display) I 2 C _ ○ ○ _ _ _ _ _ _ _ _ _ _ (Display) E R R _ 1 - △ △ , 2 - △ △ , 3 - △ △ “OK” or “NG” is displayed for “○○”. “--” or the error code is displayed for “△△”.
	CD loading error log display (Display) L o a d _ E r r o r _ _ _ _ (Display) _ _ (1) x x _ _ (2) x x (Number of times is displayed for “xx”.) MAX 99 (times)
	CD ejection error log display (Display) E j e c t _ E r r o r _ _ _ _ (Display) _ _ (1) x x _ _ (2) x x (Display) _ _ (3) x x _ _ (4) x x (Number of times is displayed for “xx”.) MAX 99 (times)
	CD time code error count data display (missing counts) (Display) C o u n t _ L o s e (Display) _ _ C D D A _ : x x (Display) _ _ C D R O M : x x (Number of times is displayed for “xx”.) MAX 99 (times)
	CD time code error count data display (count not updated) (Display) C o u n t _ S t a y (Display) _ _ C D D A _ : x x (Display) _ _ C D R O M : x x (Number of times is displayed for “xx”.) MAX 99 (times)
[▶] key	Key pressed briefly: CD information display mode OFF Press and hold: To clear entire CD information (Press and hold for 2 seconds)

● Initializing AUDIO-related setting value

Press the [▶|] key briefly in the STANDBY source to reset the AUDIO setting value to the test mode default value.

● Other

- When Power ON, do not display “CODE_NG”, “CODE_OFF”, and “CODE_ON”.
- When started with the test mode, set the LINE MUTE prohibition time from 10 to 1 second.
- When in the test mode, when DC offset error detection is run, the detection information is not written into the E2PROM.
- When in the test mode, even if the specified time has passed, back-up memory items are not written into E2PROM.

- DEMO mode shall not be operated while in the test mode, Backup/Installer Memory & CD Mechanism Information & Service Information & DC offset Error Detection Information & BT Memory Information Clear Mode, and DC offset Error Detection Information Clear Mode. Also, do not display DEMO ON/OFF option items in the MENU in the above modes.

● Panel combination check

To avoid improper connection of the main body and panel, the below will be indicated in STANDBY source in the test mode according to the combination of system μ-com and panels

K destination mother + K destination panel
E destination mother + E destination panel
M destination mother + M destination panel
J destination mother + J destination panel

OK !

K destination mother + J destination panel

NG _ M o t h e r : K _ P a n e l _ : J	NG !
--	------

K destination mother + M destination panel (M destination: KDC-X7013U/XBT8013U)

NG _ M o t h e r : K _ P a n e l _ : M	NG !
--	------

K destination mother + M3 destination panel (M3 destination: KDC-X7013UL/XBT8013UL)

NG _ M o t h e r : K _ P a n e l _ : M3	NG !
---	------

E destination mother + J destination panel

NG _ M o t h e r : E _ P a n e l _ : J	NG !
--	------

E destination mother + M destination panel (M destination: KDC-X7013U/XBT8013U)

NG _ M o t h e r : E _ P a n e l _ : M	NG !
--	------

TEST MODE

E destination mother + M3 destination panel (M3 destination: KDC-X7013UL/XBT8013UL)

NG
_Mother : E
_Panel _ : M3

NG !

M destination mother + K or E destination panel (M destination: KDC-X7013U/XBT8013U)

NG
_Mother : M
_Panel _ : K / E

NG !

M destination mother + J destination panel (M destination: KDC-X7013U/XBT8013U)

NG
_Mother : M
_Panel _ : J

NG !

J destination mother + K or E destination panel

NG
_Mother : J
_Panel _ : K / E

NG !

J destination mother + M destination panel (M destination: KDC-X7013U/XBT8013U)

NG
_Mother : J
_Panel _ : M

NG !

J destination mother + M3 destination panel (M3 destination: KDC-X7013UL/XBT8013UL)

NG
_Mother : J
_Panel _ : M3

NG !

Note: Power will be forcefully and immediately shut off if the normal start up is performed with any of the combination of NG indications above (not test mode start up).

● Clearing backup / installer memory & CD mechanism information & service information & DC offset error detection information (Clearing E2PROM data)

1. Press and hold [SRC] and [AUD] keys and reset-start to start initialization process of Backup/Installer Memory Data, CD Mechanism Information, Service Information, DC Offset Error Detection Information, and Hybrid Memory (While “----” is being displayed, power can be ON for 30 minutes.)

[CD mechanism information]

- Displays I2C communication condition
- Displays CD mechanism error log
- Displays CD loading error data
- Displays CD ejection error data
- Displays CD time code error count data (missing count).
- Displays CD time code error count data (count not updated).

[Service information]

- Displays power ON time is displayed
- Displays CD operation time.
- Displays number of CD EJECT times.
- Displays forced Power OFF data

[DC offset error detection information]

- DC offset error detection display 1
- DC offset error detection display 2

[HD memory information]

- Backup memory (preset/frequency)
- iTunes Tagging data

2. After the initialization process is completed, the following is displayed.

When successfully completed

HD_E2P_CLR : o
Mother_E2P_CLR : o

TUN_E2P_CLR : o
Mother_E2P_CLR : -

TEST MODE

When finished but unsuccessful 1: Mother E2PROM initialization NG

```
HD_E2P_CLR: o
Mother_E2P_CLR: x
```

When finished but unsuccessful 2: HD-related E2PROM initialization NG

```
HD_E2P_CLR: x
Mother_E2P_CLR: o
```

When finished but unsuccessful 3: All initialization NG

```
HD_E2P_CLR: x
Mother_E2P_CLR: x
```

3. In this mode, even if the specified time has passed, the backup memory items are not written into E2PROM.
4. This mode is cancelled by resetting. (The last screen will not be retained.)

Note: In this mode, the DC offset error detection display, “Protect” is not shown.

Note: Do not operate any keys in this mode (during clearing) including power OFF/ON.

● Clearing DC offset error detection information (E2PROM data clearing)

1. Press and hold [SRC] and [▶▶] keys and reset-start to go into the DC offset error display mode.
(While “----” is being displayed, power can be ON for 30 minutes.)
2. While in STANDBY source, the current DC offset error detection condition is displayed.

1st row	DC offset error detection display 1 (To show such detection as the improper connection, and other detection) (Display) DC1_OK__ (not detected) ERR_ (Improper connection or other error is detected.)
2nd row	DC offset error detection display 2 (To show the number of capacitor leaks.) (Display) DC2_0___ (not detected) 1 (Leak is detected once.) 2 (Leak is detected twice.) 3 (Leak is detected 3 times.) 4 (Leak is detected 4 times or more.)

3. While the DC offset error detection condition is being displayed as above, press and hold [1] key for 2 seconds to clear the information about the improper connection, and other detection. Press and hold [2] key for 2 seconds to clear the information about the number of capacitor leaks. (Clear E2PROM)
4. DC offset error display mode is cancelled by resetting. (The last screen will not be retained.)

Note: In this mode, the DC offset error detection display, “Protect” is not shown.

● FM/AM channel space switching

FM: 50kHz↔200kHz, AM: 9kHz↔10kHz

While power is OFF, press and hold [AUD] and [▶▶] keys, and press [SRC] key to power ON.

● Security

• How to enter the forced POWER ON mode

While “----” is being displayed, while simultaneously pressing [FNC] key and [▶▶] key, press [RESET] button.

With this, it is possible to turn the power on for 30 minutes only.

• How to clear the security code

1. While “----” is being displayed, press [▶▶] key for 3 seconds or longer while pressing the [AUTO] key. (This makes the “----” display disappear.)
2. Input “KCAR”, using the remote controller.
Press [5] key of the remote controller 2 times (Input for “K”) and press [▶▶] key.
Press [2] key of the remote controller 3 times (Input for “C”) and press [▶▶] key.
Press [2] key of the remote controller once (Input for “A”) and press [▶▶] key.
Press [7] key of the remote controller 2 times (Input for “R”) and press [▶▶] key.
3. The security is cleared and the unit enters STANDBY mode.
4. If wrong codes are input, “----” will be displayed again.

INSTALLER MEMORY SPECIFICATIONS

At specialists (or specialty stores), when the installer sends the vehicle back to the user, they may make the store-recommended audio configuration.

When the user changes the setting values, when the backup power supply was taken out at times of battery change or when the reset button was pressed, to make it possible to recall the setting values, the store-recommended configuration values can be saved into E2PROM.

The specification detail defer in “with-DSP model” and in “without-DSP model”.

[Models with DSP]

- Calling and saving the configuration is done by the multi-function key. ([Preset-1])
- Items to be saved are Cabin, Position, Speaker, EQ, X'over, D.T.A., and Sub Woofer Level. Only one setting can be saved for each item. (EQ setting can be changed for each source, but only one setting can be saved as the installer memory specification, and the source in which the saving operation was carried out is saved as such.)

Also, the setting values of all Preset Positions will be memorized for the setting value of Manual Position. (6 speakers x4)

- The contents read out by the call key shall be reflected only to the current source at the time. → EQ curve is “USER”. (EQ setting can be changed for each source, but not reflected to EQ settings of sources other than where the calling operation was carried out.)
- When the backup power supply was taken out at times of battery change or when the reset button was pressed, as the initial setting values of Cabin, Position, Speaker, EQ, X'over, D.T.A., and Sub Woofer Level, the saved memory is reflected (EQ setting initial setting value memory is reflected in all sources).

NOTE: By such, EQ curve initial setting shall always be “USER”. (NOT “NATURAL” or “FLAT”.)

USER MEMORY SPECIFICATION (ONLY WITH-DSP MODELS)

In with-DSP models, audio-settings set by users' preference, as well as the setting by the installer, can be saved into the E2PROM. (1 memory of [Preset-2])

When the user changes the setting values, when the backup power supply was taken out at times of battery change, or when the reset button was pressed, to make it possible to recall the setting values, the store-recommended configuration values can be saved into E2PROM. (The memory is saved separately from the installer memory.)

Also, they will not be memorized in E2PROM aside from above, but another memory will be prepared to memorize them until the backup power supply is taken out or the reset button is pressed. (4 memories of [Preset-3] – [Preset-6])

- Calling and saving the configuration is done by the multi-function key. ([Preset-2] and [Preset-3] – [Preset-6])
- Items to be saved are Cabin, Position, Speaker, EQ, X'over, D.T.A., and Sub Woofer Level. Only one setting can be saved for each item (EQ setting can be changed for each source, but only one setting can be saved as the user memory specification, and the source in which the saving operation was carried out is saved as such).
Also, the setting values of all Preset Positions will be memorized for the setting value of Manual Position. (6 speakers x4)
- The contents read out by the call key shall be reflected only to the current source at the time. → EQ curve is “USER”. (EQ setting can be changed for each source, but not reflected to EQ settings of sources other than where the calling operation was carried out.)

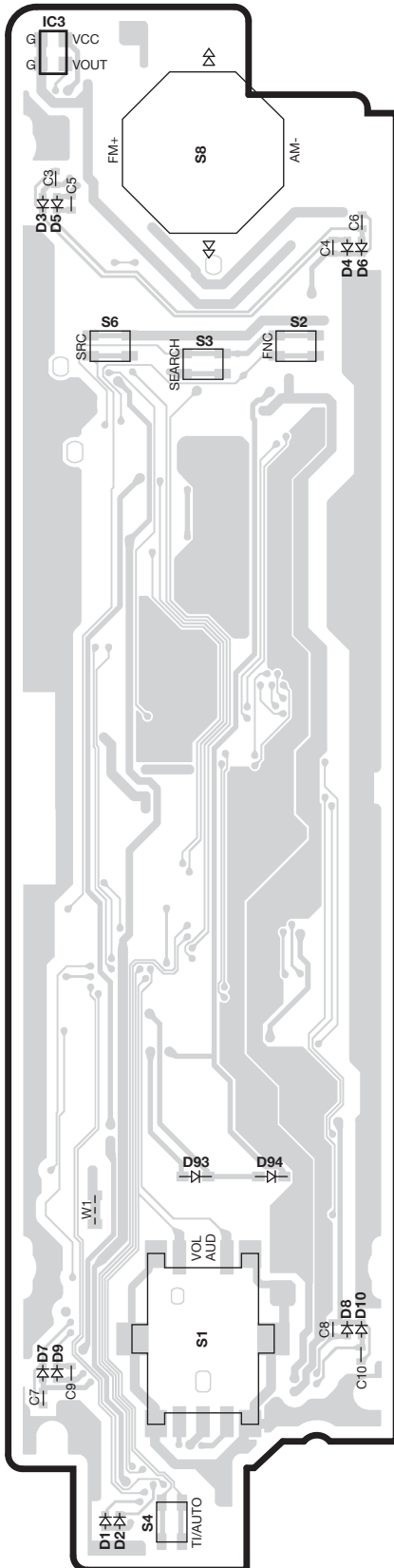
BACKUP MEMORY SPECIFICATIONS

Settings by the user other than the installer memory items are saved into the E2PROM, and when the backup power supply was taken out at times of battery change or when the reset button was pressed, it is made possible to recall the setting values saved.

- While Power ON, the memory is saved and accumulated at a certain interval.
- Items to be saved into the memory are: Volume Offset (for all sources) and preset frequencies (FM/AM all bands x 6 channels).
- When the backup power supply was taken out at times of battery change or when the reset button was pressed, as the initial setting values of Volume Offset (for all sources) and preset frequencies (FM/AM all bands x 6 channels), the saved memory is reflected.
- In models which includes FM/AM channel space switching, when the space is switched, TUNER-preset frequencies are set back to the default values.

PC BOARD (COMPONENT SIDE VIEW)

SWITCH UNIT (BLUE ILLUMI.)
X16-6520-10 (J76-0577-02)

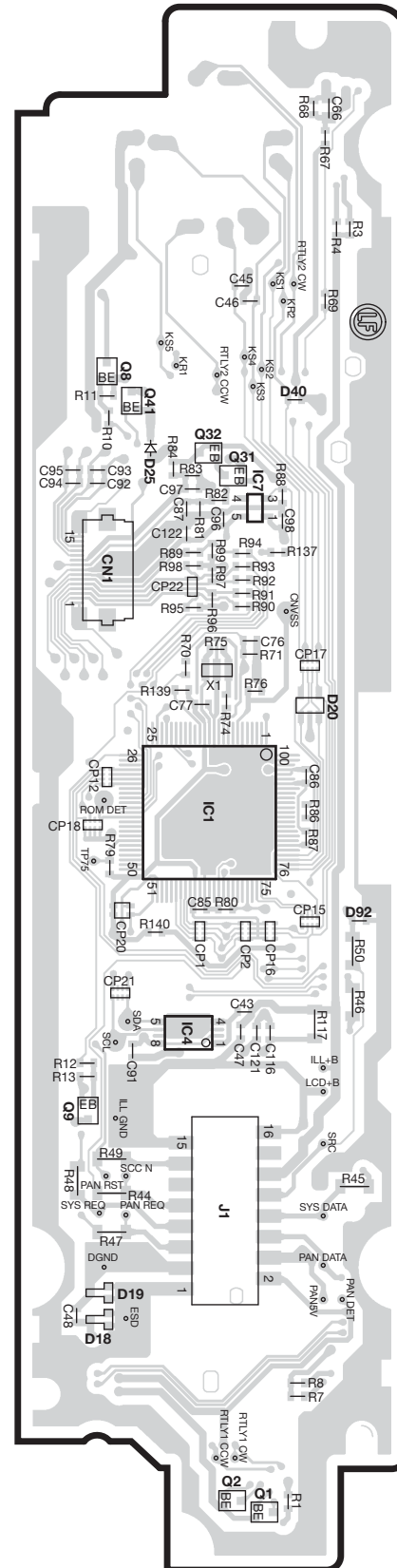


X16-6520-10

Ref. No.	Address
IC3	2F

PC BOARD (FOIL SIDE VIEW)

SWITCH UNIT (BLUE ILLUMI.)
X16-6520-10 (J76-0577-02)



X16-6520-10

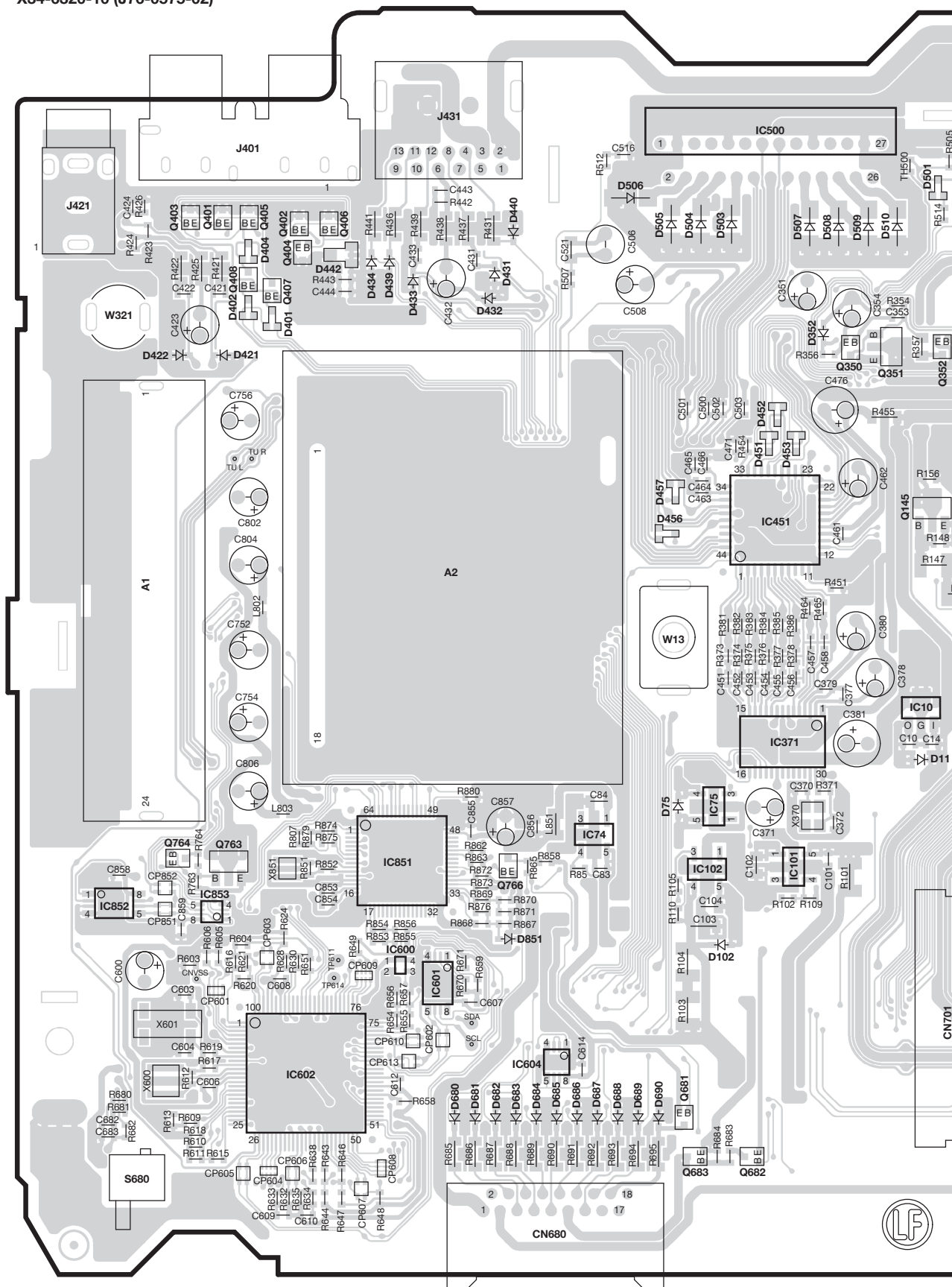
Ref. No.	Address
IC1	4I
IC7	3I
Q1	7I
Q8	3H
Q9	5H
Q41	3H

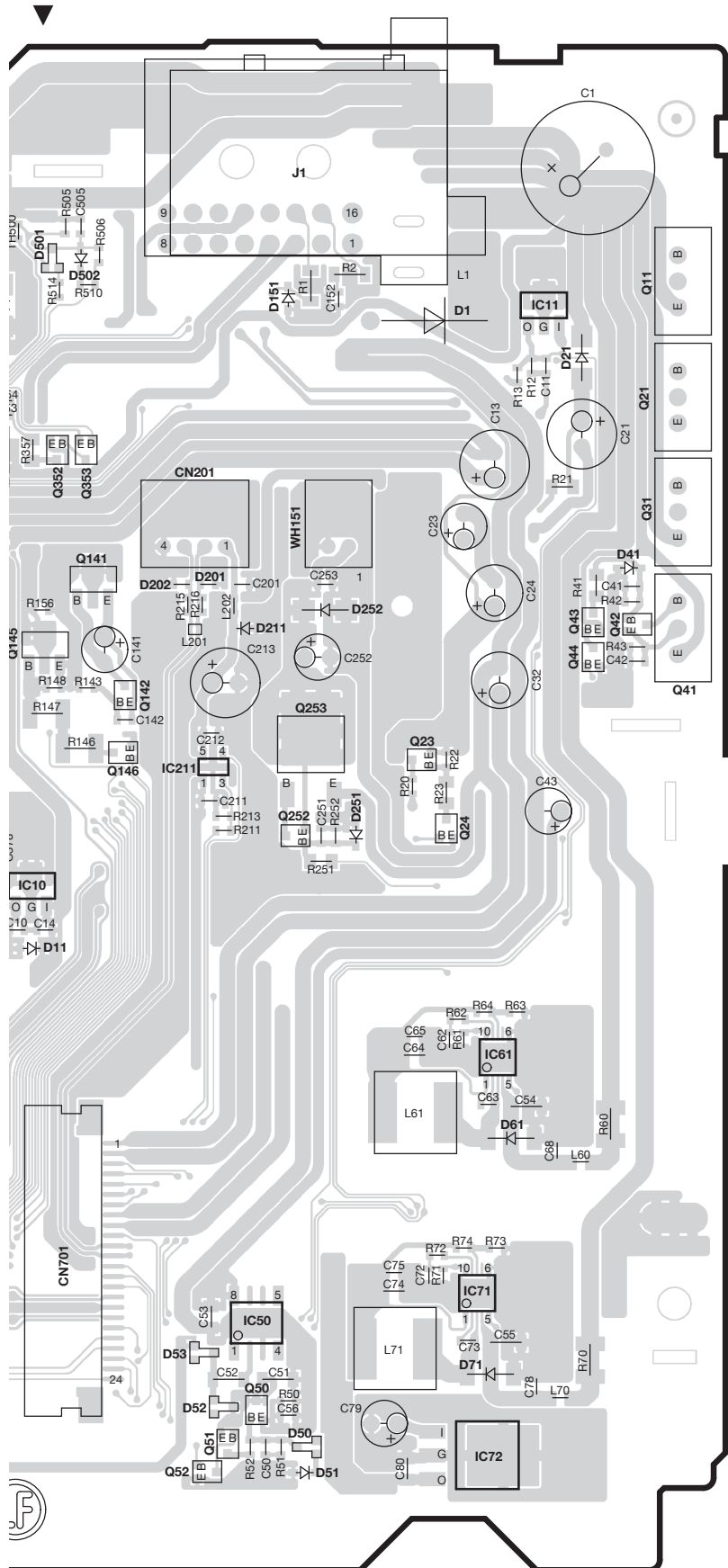
Refer to the schematic diagram for the values of resistors and capacitors.

KDC-HD942U

PC BOARD (COMPONENT SIDE VIEW)

ELECTRIC UNIT
X34-6320-10 (J76-0575-02)





X34-6320-10

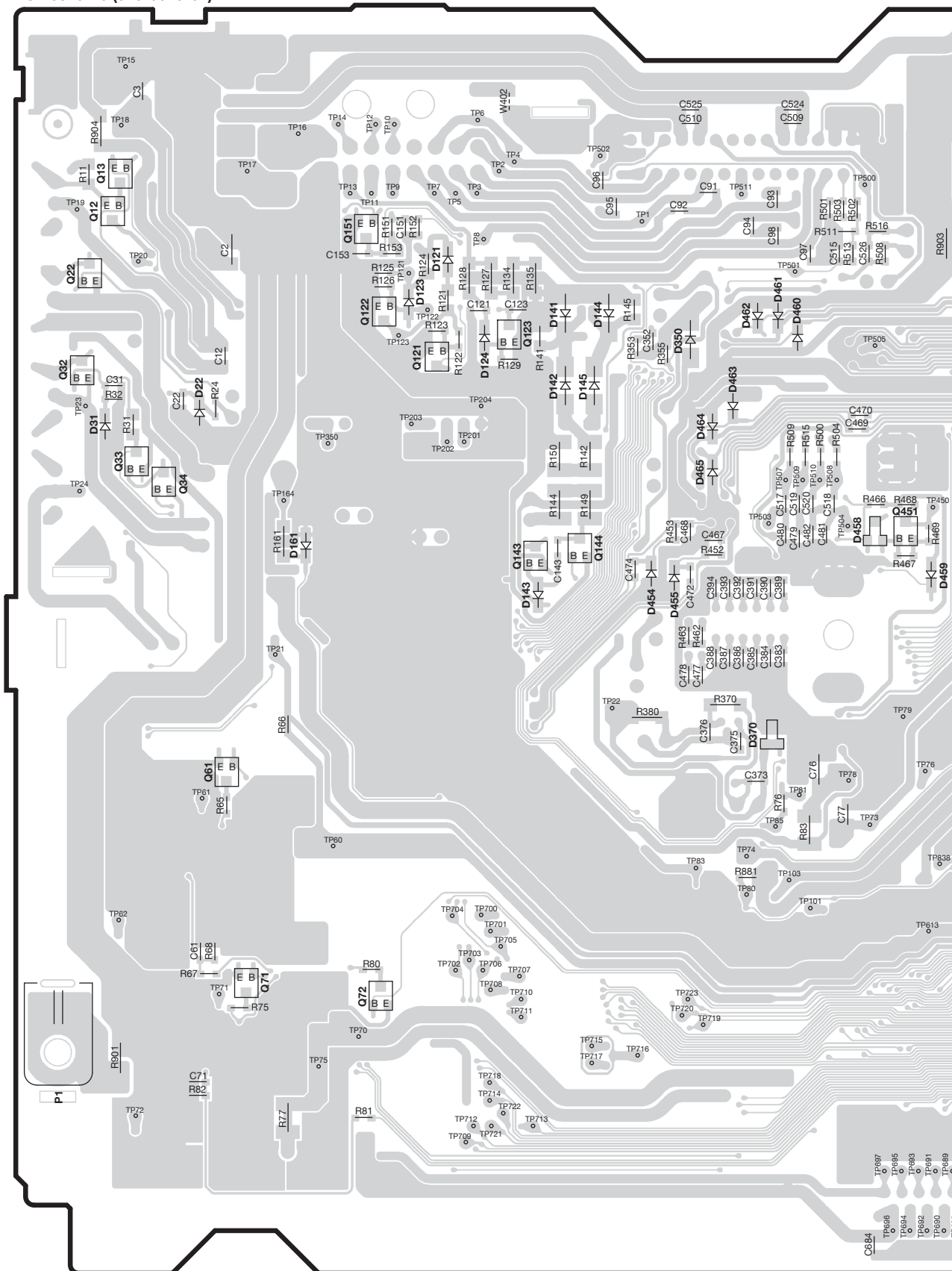
Ref. No.	Address
IC10	50
IC11	2R
IC61	5Q
IC71	6Q
IC74	5N
IC75	5N
IC101	50
IC102	5N
IC211	4P
IC371	50
IC451	40
IC500	20
IC600	6M
IC601	6M
IC602	6M
IC604	6N
IC851	5M
IC852	5L
Q11	2R
Q21	3R
Q31	3R
Q41	4R
Q42	4R
Q43	4R
Q44	4R
Q141	3P
Q142	4P
Q145	40
Q146	4P
Q350	30
Q351	30
Q352	3P
Q353	3P
Q401	2L
Q402	2L
Q403	2L
Q404	3L
Q405	2L
Q406	2M
Q407	3L
Q408	3L
Q681	6N
Q682	70
Q683	7N
Q766	5M

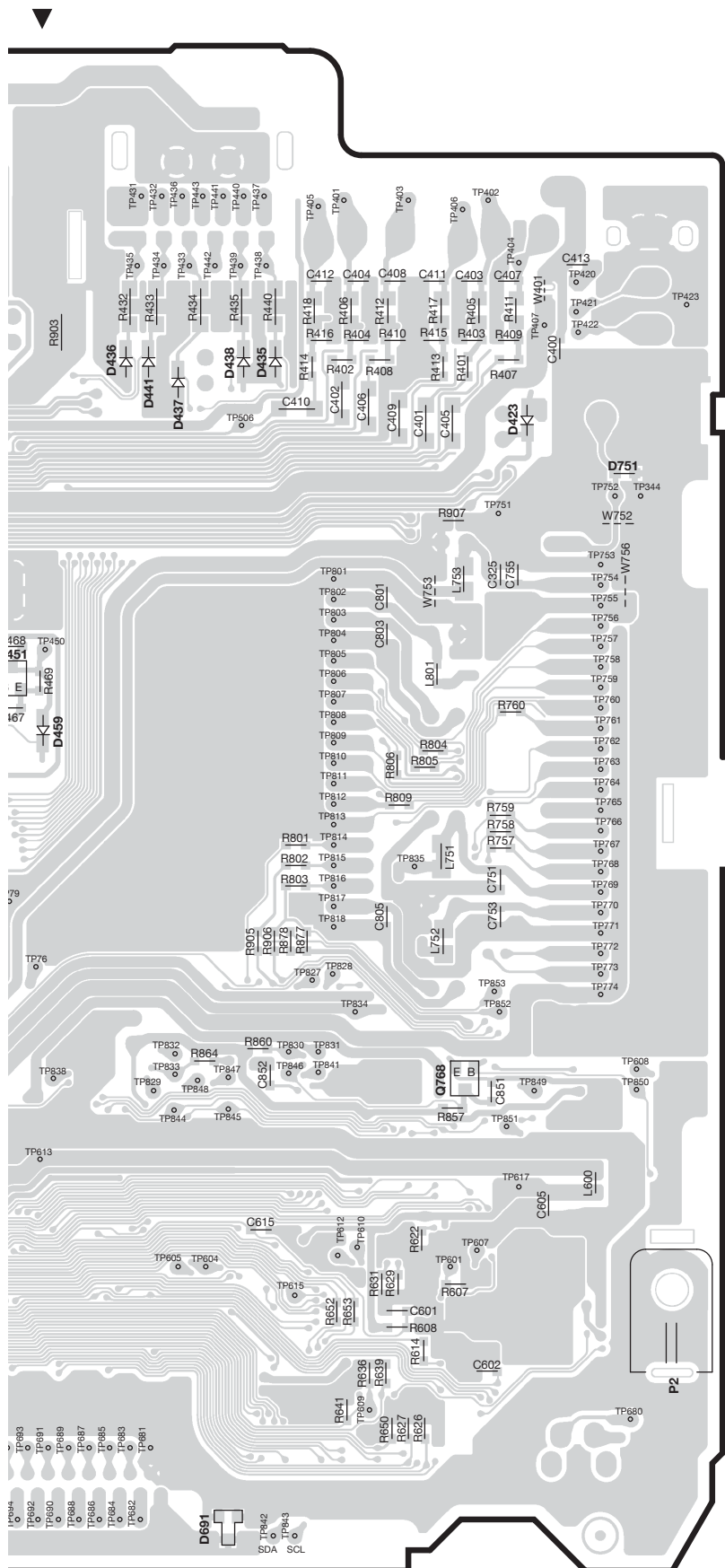
Refer to the schematic diagram for the values of resistors and capacitors.

KDC-HD942U

PC BOARD (FOIL SIDE VIEW)

ELECTRIC UNIT
X34-6320-10 (J76-0575-02)



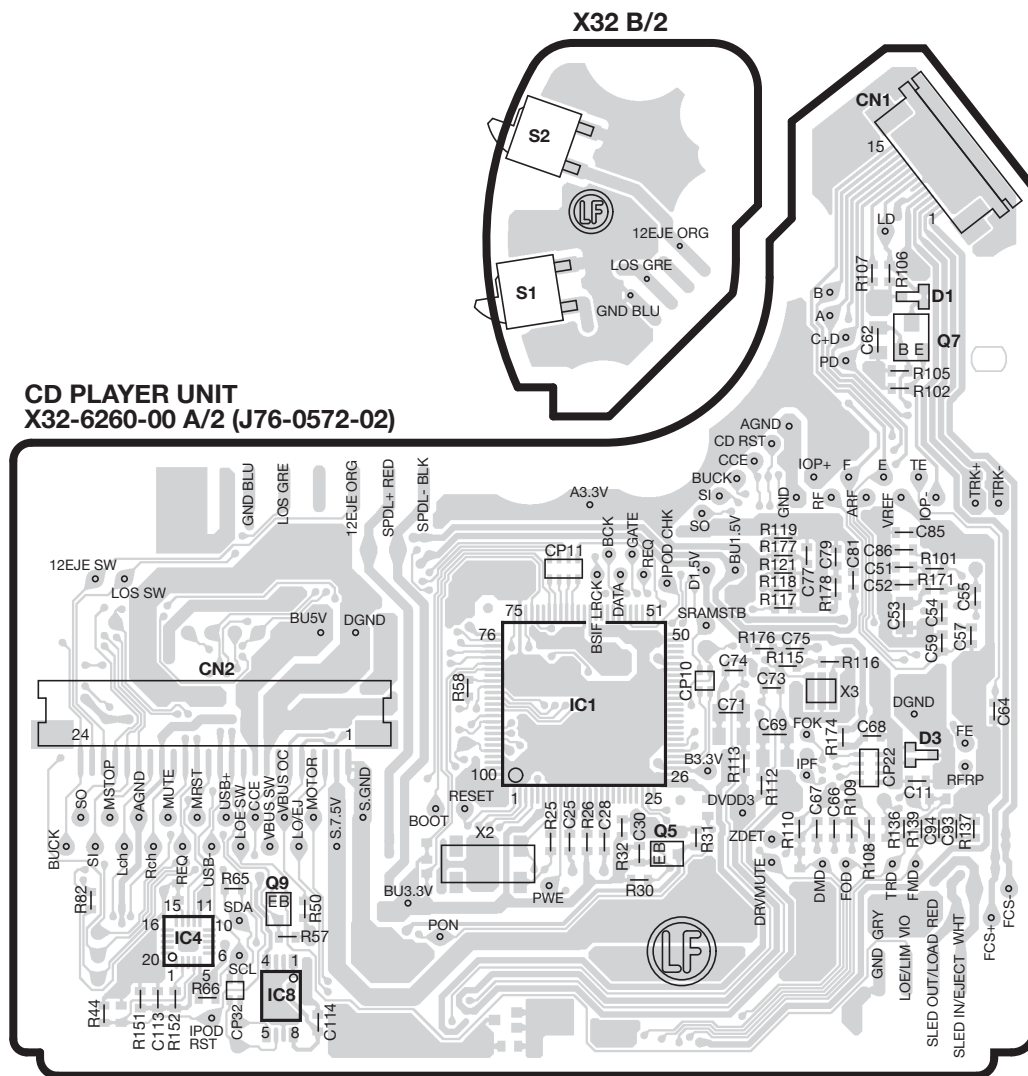


X34-6320-10

Ref. No.	Address
Q12	2V
Q13	2V
Q22	3U
Q32	3U
Q33	3V
Q34	4V
Q61	5V
Q72	6W
Q121	3W
Q122	3W
Q123	3X
Q143	4X
Q144	4X
Q151	2W
Q451	4Y
Q768	5AA

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

PC BOARD (COMPONENT SIDE VIEW)

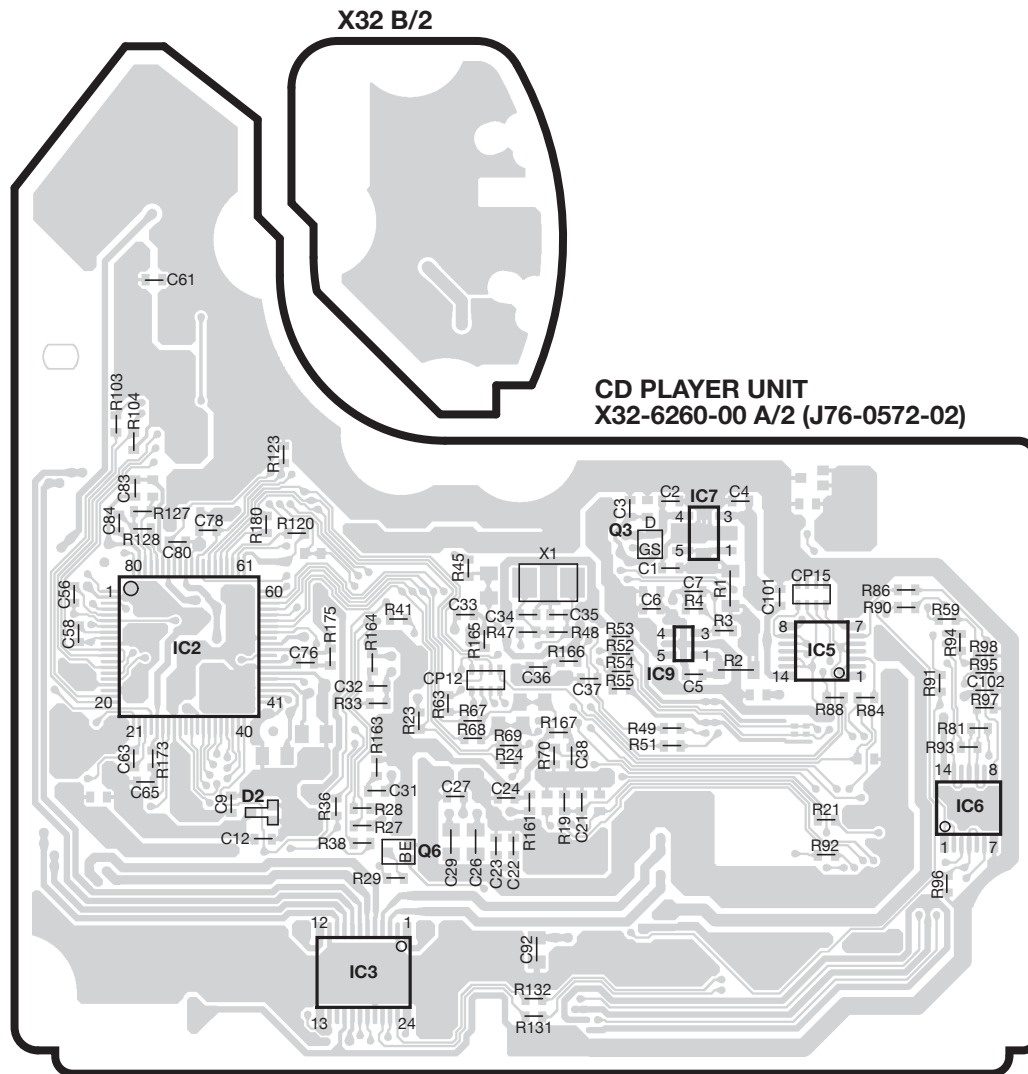


X32-6260-00

Ref. No.	Address
IC1	4AG
IC4	4AF
IC8	5AF
Q5	4AH
Q7	2AI
Q9	4AF

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

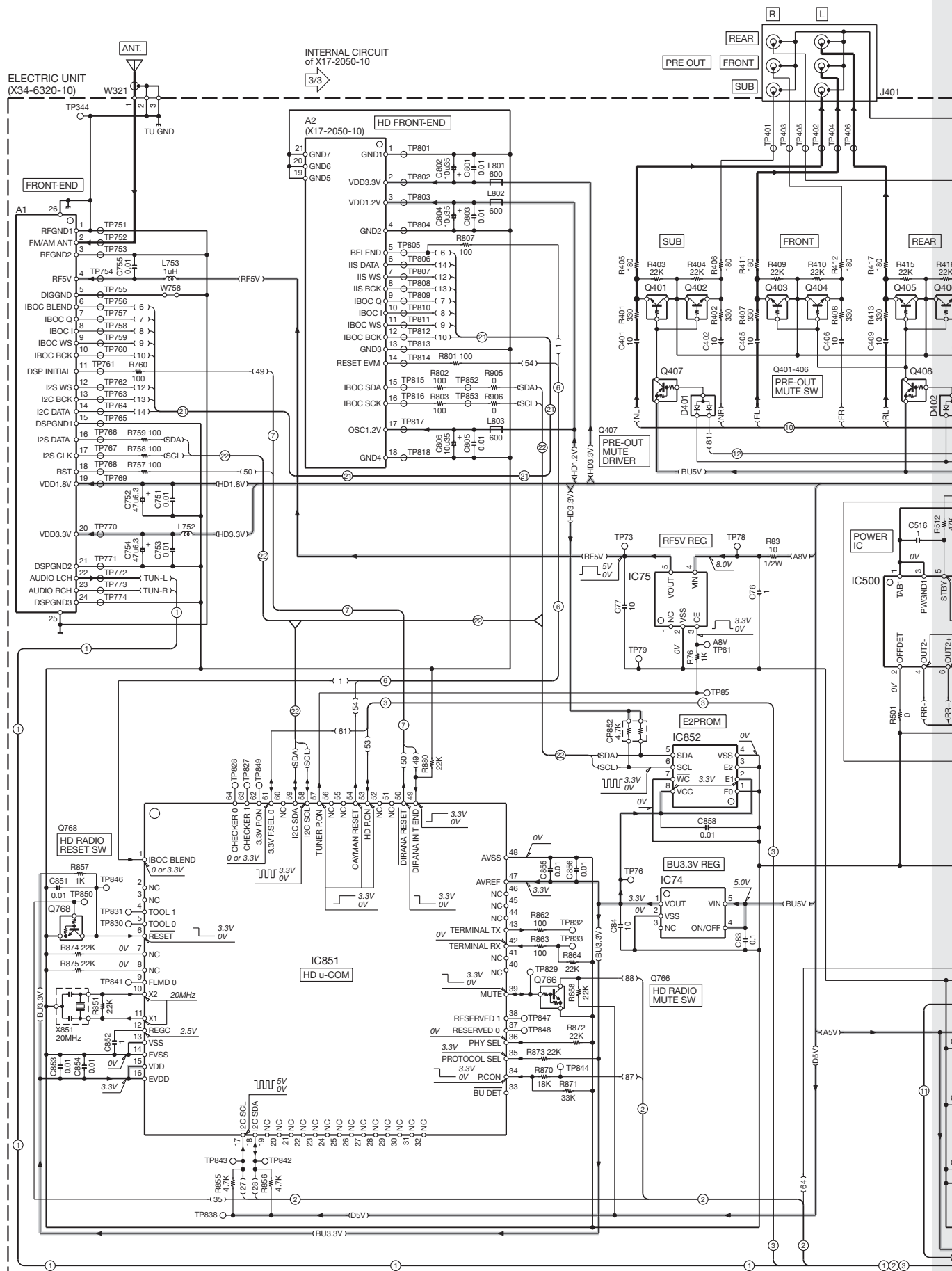
PC BOARD (FOIL SIDE VIEW)

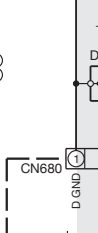
**X32-6260-00**

Ref. No.	Address
IC2	3AK
IC3	4AK
IC5	3AM
IC6	4AM
IC7	3AL
IC9	3AL
Q3	3AL
Q6	4AK

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

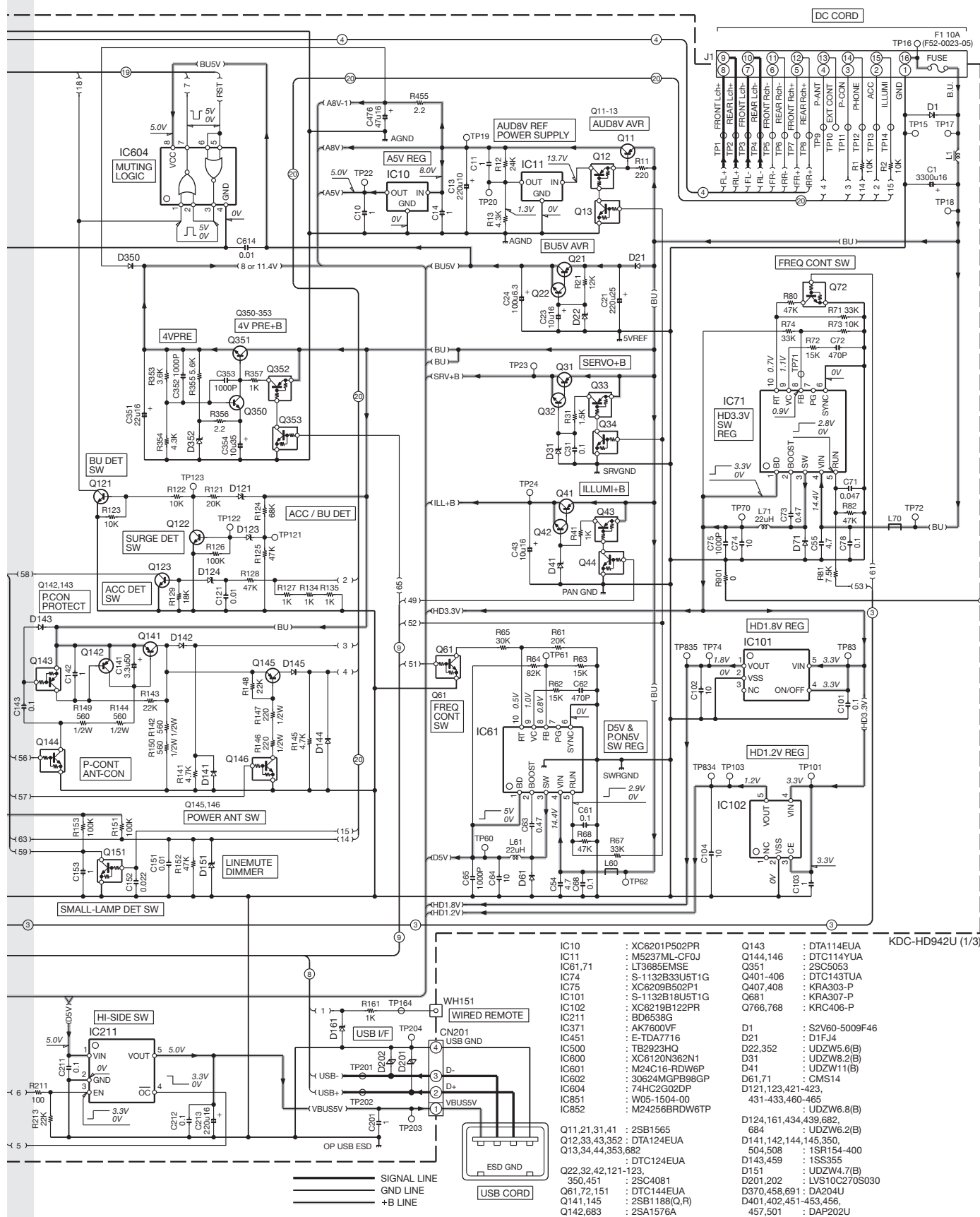
KDC-HD942U







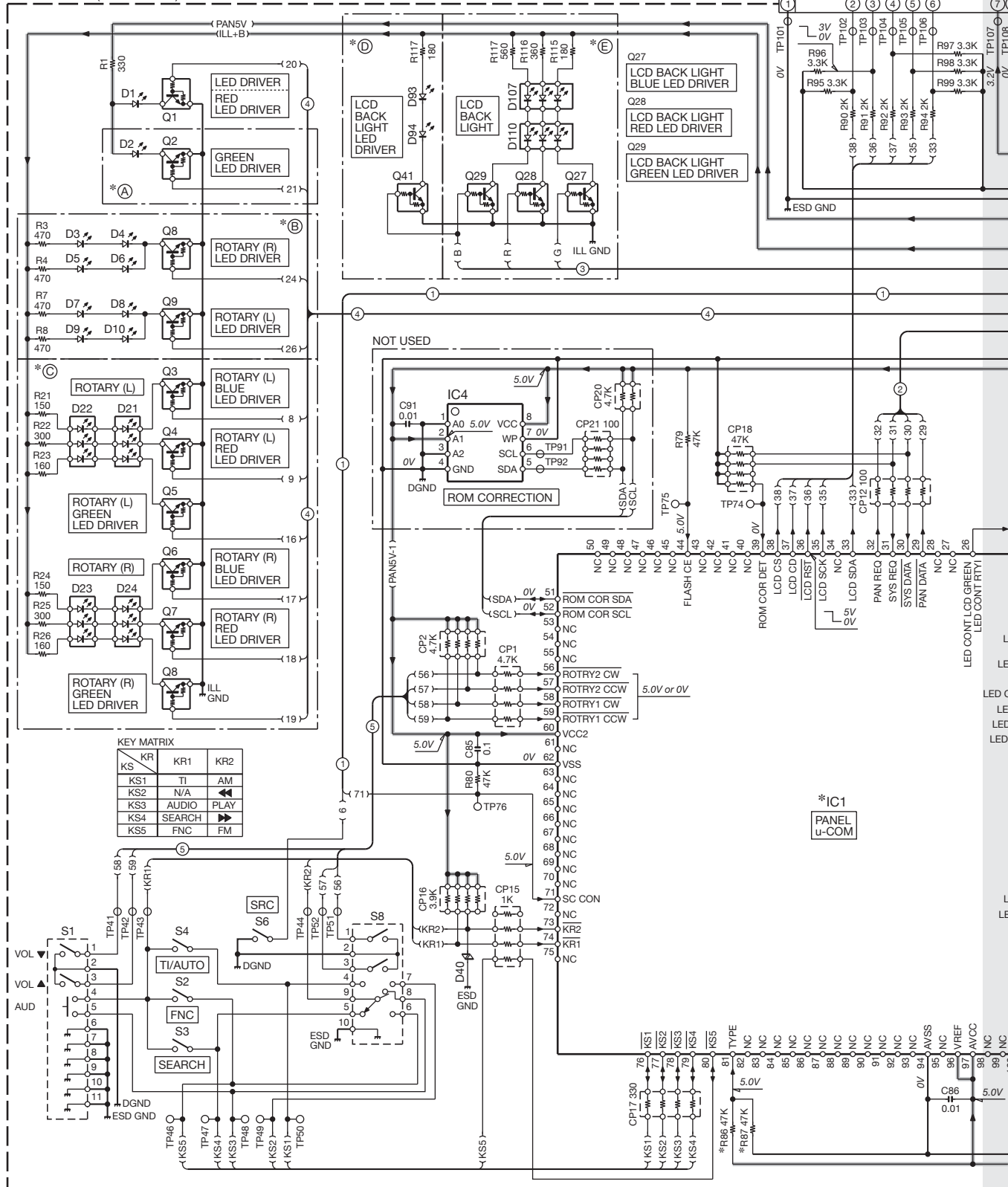
KDC-HD942U

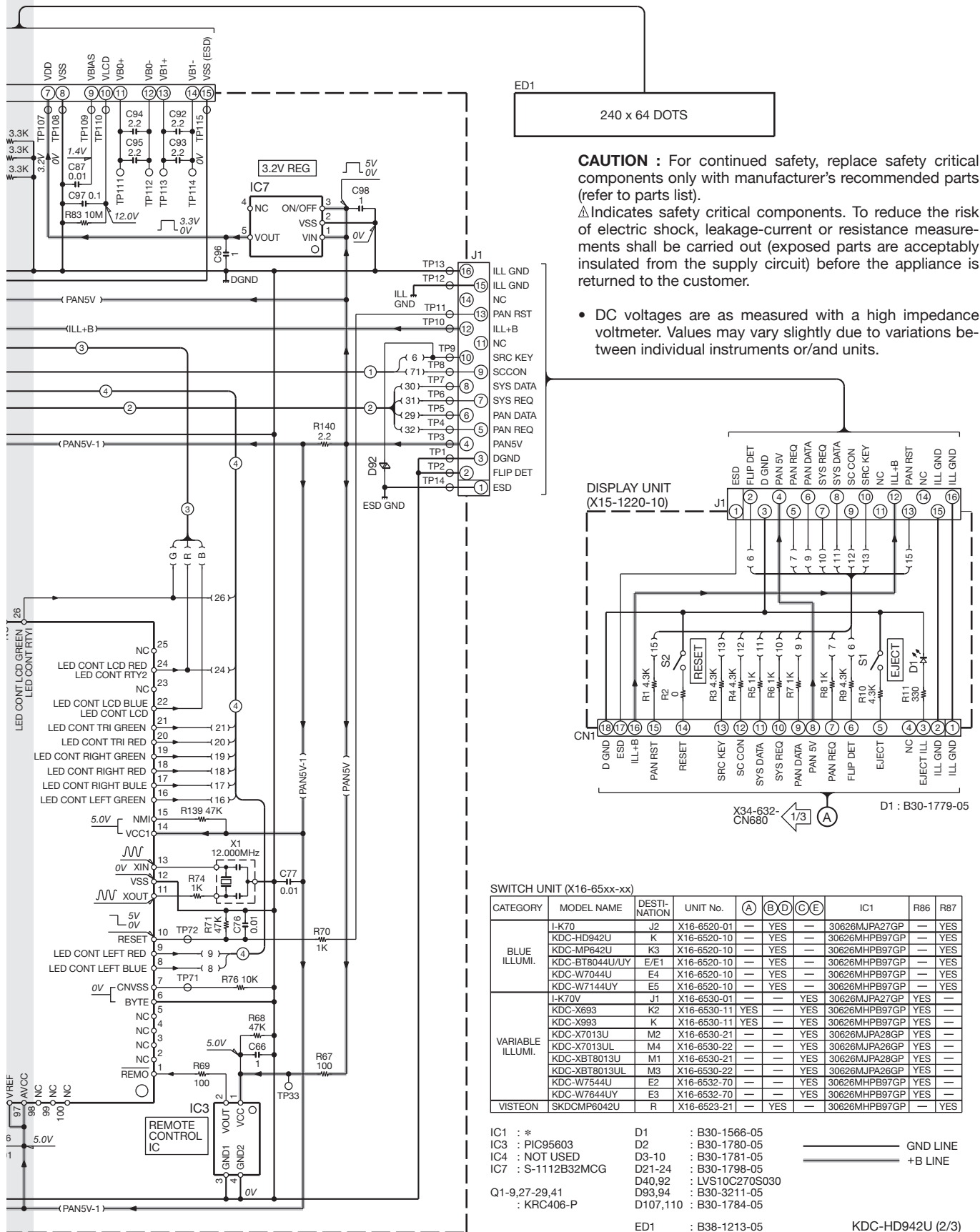


CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).
 ▲Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably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

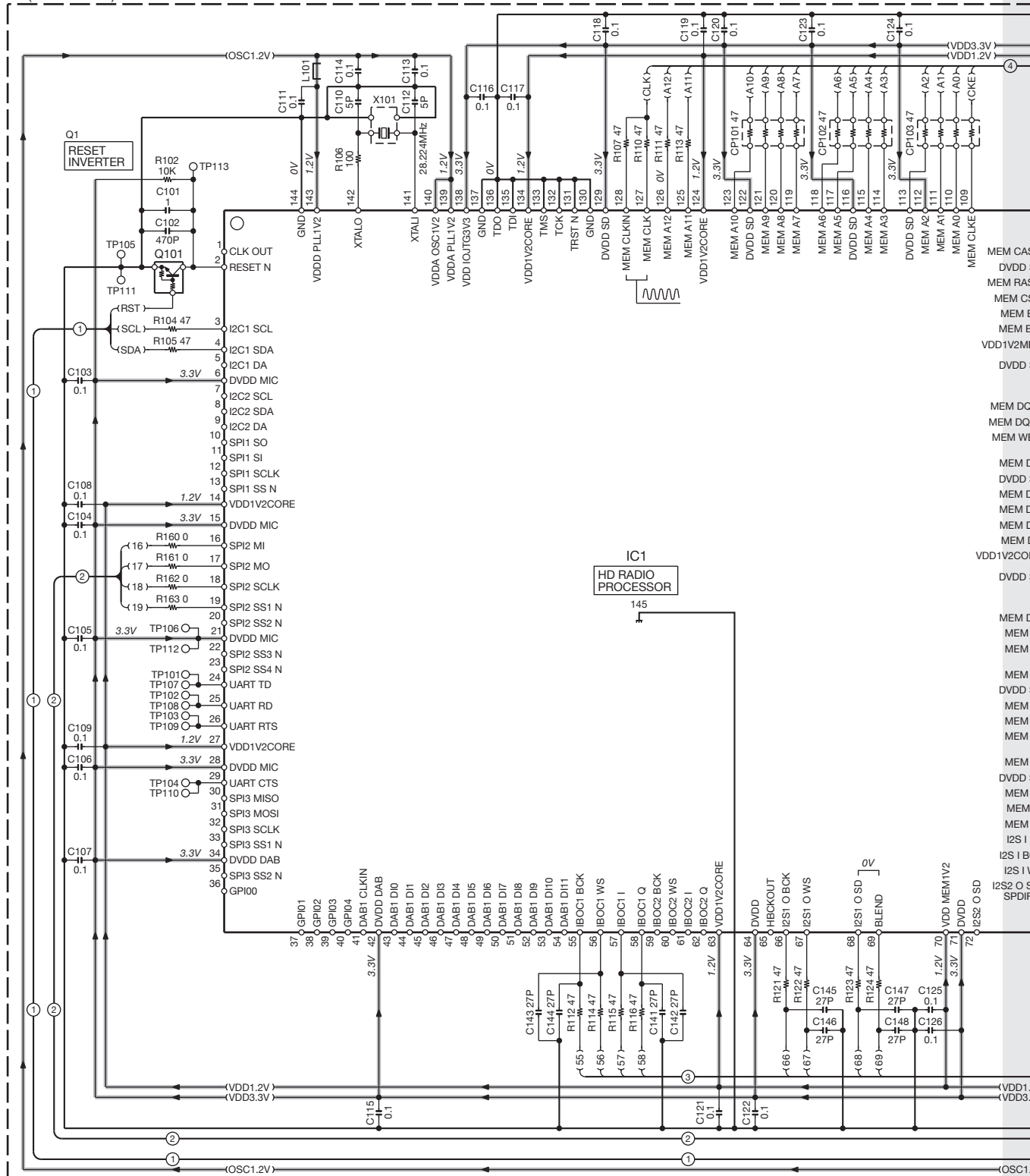
- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

SWITCH UNIT (X16-65xx-xx)





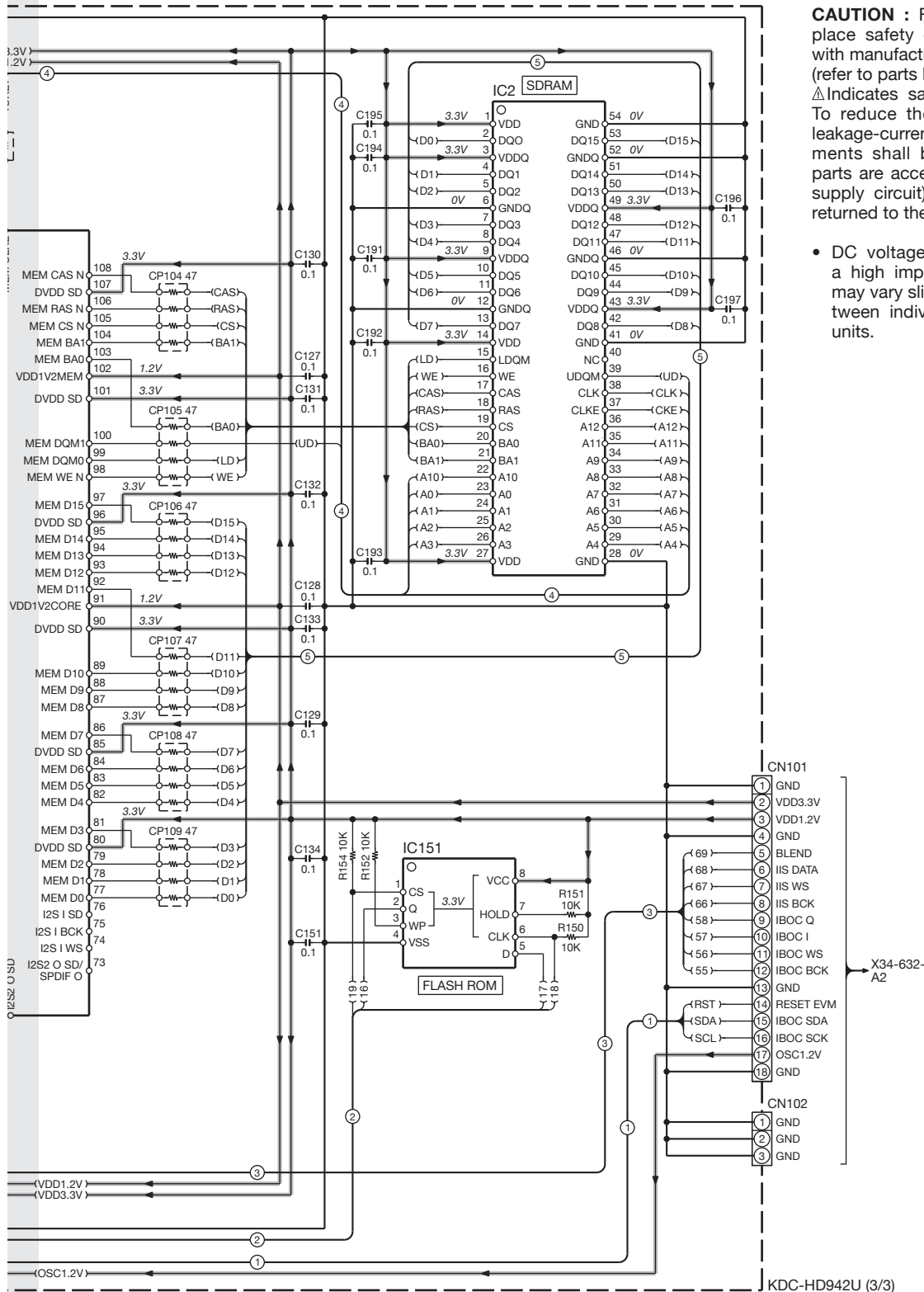
PROCESSOR UNIT
A2 (X17-2050-10)



IC1 : SAF3560HV
 IC2 : V543128164C17
 IC151 : EN25F801008B7

Q101 : DTC114EKA

— GND LINE
 — +B LINE



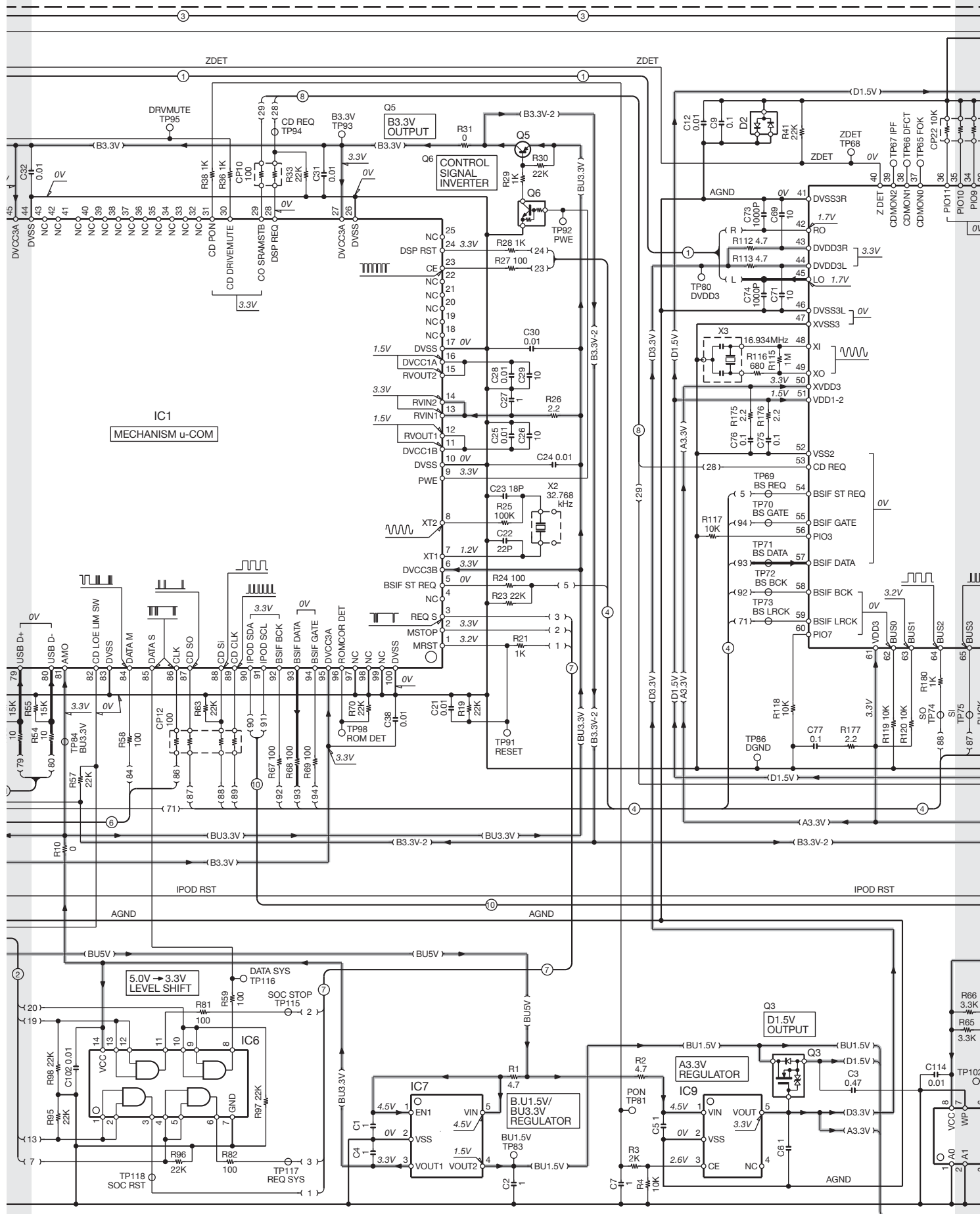
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).

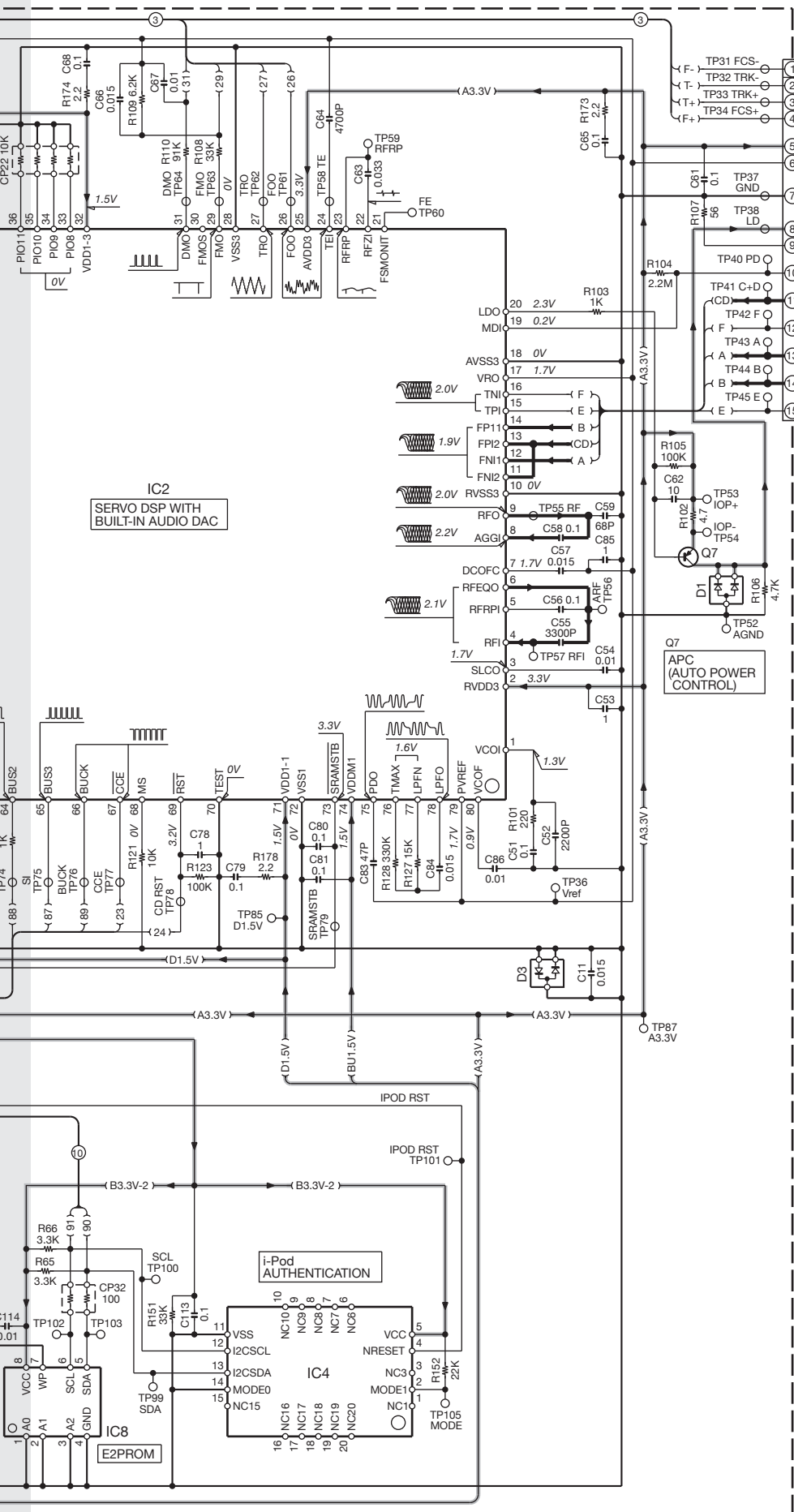
△Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

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

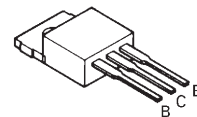
36 X32-6260-00 (1/3)

KDC-HD942U





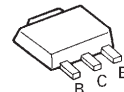
2SB1565



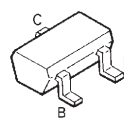
DTC114YUA
DTC143TUA
2SA1576A



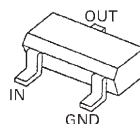
2SB1188



2SC4081



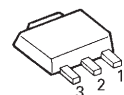
DTA114EUA
DTA124EUA
DTC114EKA
DTC124EUA
DTC144EUA



DAP202U
DA204U



M5237ML-CF0J



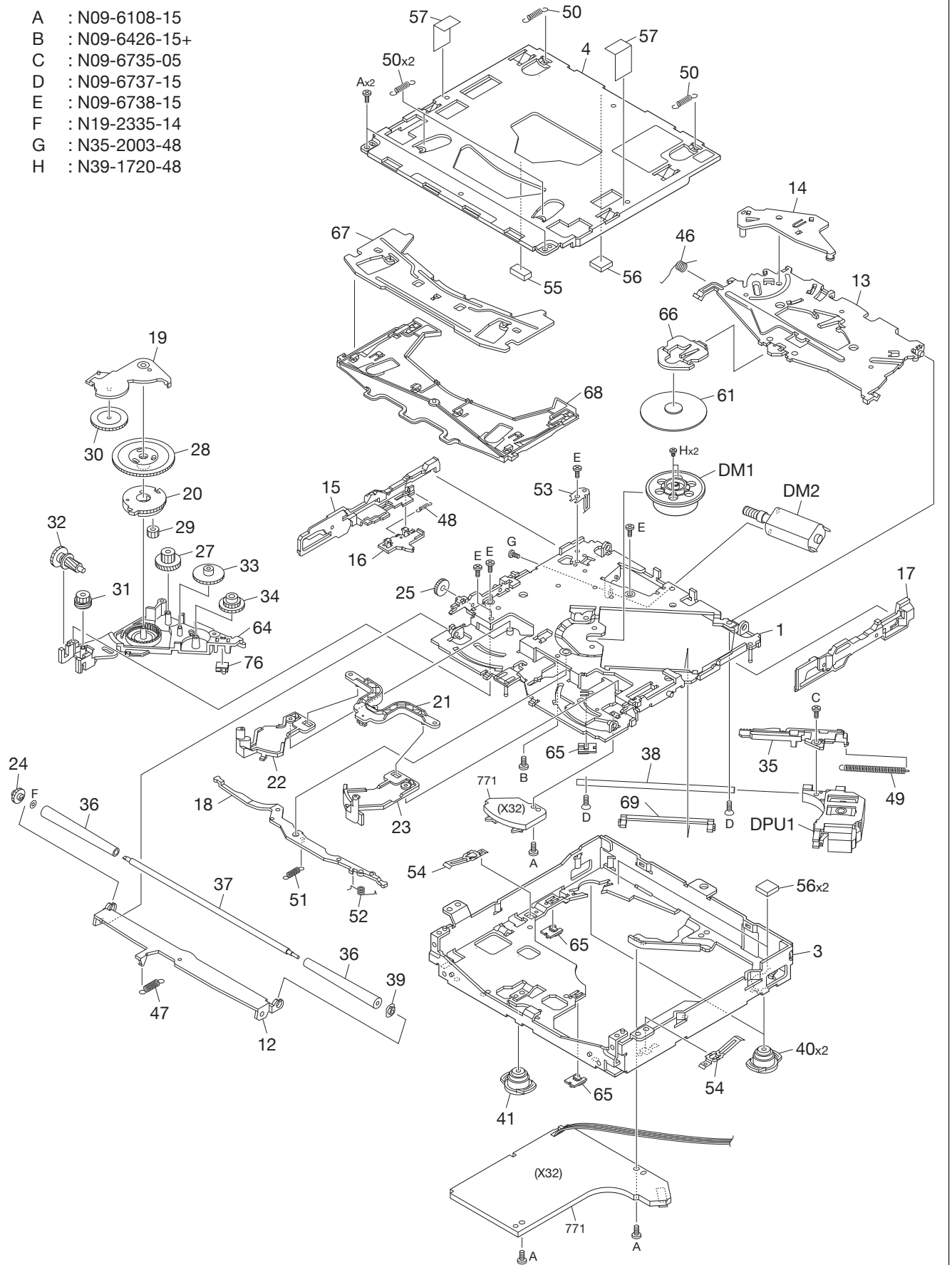
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).

⚠ 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.

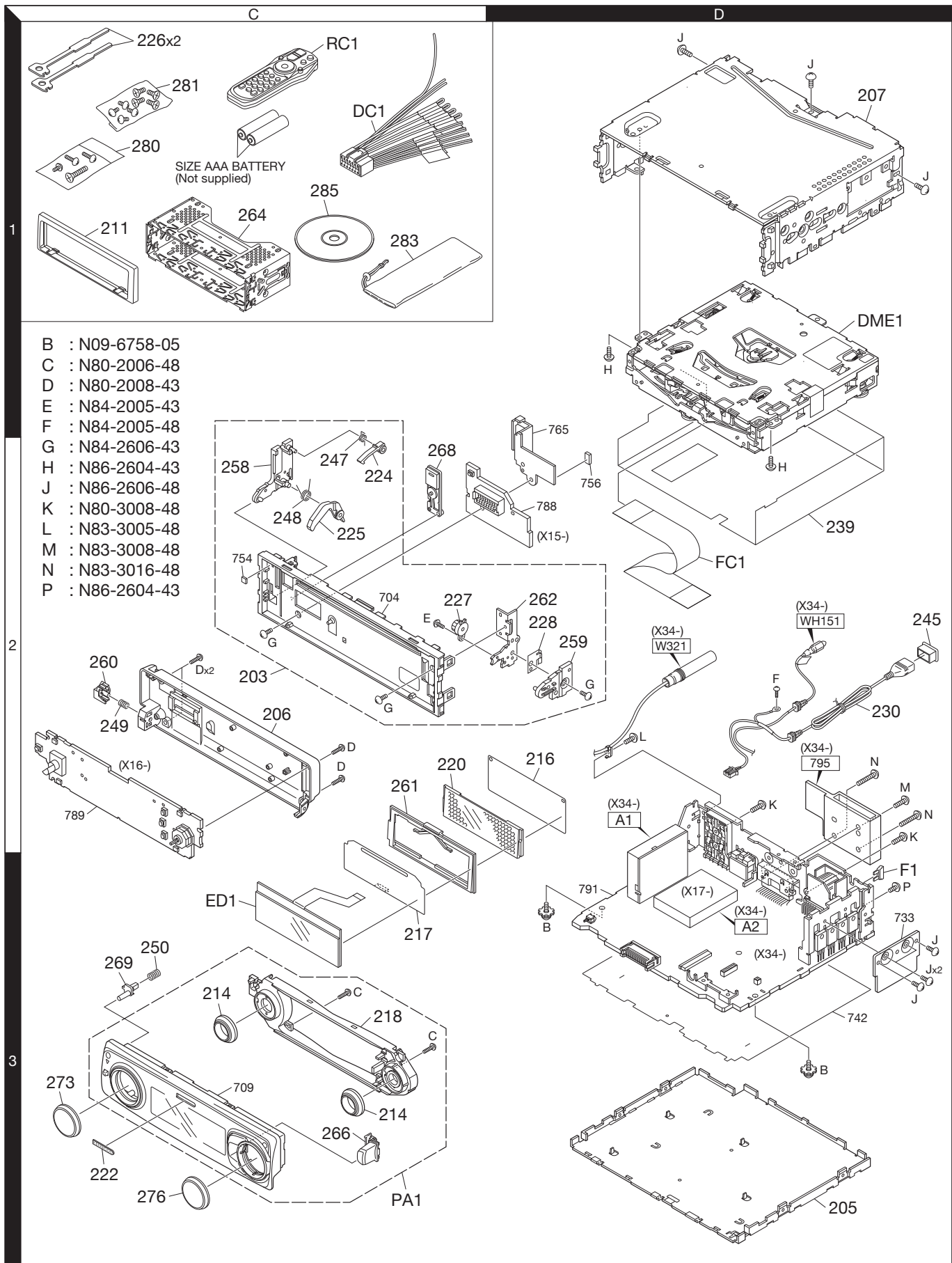
EXPLODED VIEW (CD MECHANISM)

- A : N09-6108-15
 B : N09-6426-15+
 C : N09-6735-05
 D : N09-6737-15
 E : N09-6738-15
 F : N19-2335-14
 G : N35-2003-48
 H : N39-1720-48



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.

PARTS LIST

* New parts

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

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
KDC-HD942U					
203	2C	*	A22-3218-02	SUB PANEL ASSY	
205	3D	*	A40-1365-02	BOTTOM PLATE	
206	2C	*	A46-1890-01	REAR COVER	
207	1D	*	A52-1111-01	TOP COVER	
PA1	3C	*	A64-4777-01	PANEL ASSY	
RC1	1C		A70-2085-15	REMOTE CONTROLLER ASSY (RC-547)	
-		*	B64-4416-00	INST. MANUAL (ENGLISH)	
-		*	B64-4417-00	INST. MANUAL (FRE.SPA.)	
211	1C		B07-3235-03	ESCUTCHEON (POLISH)	
214	3C	*	B07-3287-03	ESCUTCHEON (KNOB)	
216	2D	*	B11-2027-04	REFLECTION SHEET (LCD)	
217	3C	*	B11-2028-04	OPTICAL DIFFUSER (LCD)	
218	3C	*	B19-2532-02	LIGHTING BOARD	
220	2C	*	B19-2535-03	LIGHTING BOARD (LCD)	
222	3C		B43-1518-04	BADGE	
ED1	3C	*	B38-1213-05	LCD (240X64DOTS)	
224	2C		D10-4730-03	LEVER (LOCK)	
225	2C		D10-4731-03	LEVER (PUSH)	
226	1C		D10-7049-04	LEVER (ACCESSORY)	
227	2C		D39-0255-05	DAMPER	
228	2D	*	E29-2136-04	LEAD PLATE	
230	2D	*	E30-6905-05	CORD WITH CONNECTOR (USB)	
△ DC1	1C		E30-6428-05	DC CORD	
FC1	2D		E39-1055-05	FLAT CABLE (MECHA)	
239	2D	*	F11-1870-23	SHIELDING COVER (MECHA)	
245	2D		F29-0637-04	INSULATING COVER (USB CAP)	
△ F1	3D		F52-0023-05	FUSE (MINI BLADE TYPE) (10A)	
247	2C		G01-3171-04	TORSION COIL SPRING (LOCK)	
248	2C		G01-3172-04	TORSION COIL SPRING (PUSH)	
249	2C		G01-3173-04	COMPRESSION SPRING (REAR COVER)	
250	3C		G01-3203-04	COMPRESSION SPRING (REL)	
-		*	H54-4585-03	ITEM CARTON CASE	
258	2C		J19-5203-03	HOLDER (LEFT)	
259	2D		J19-5204-03	HOLDER (RIGHT)	
260	2C		J19-5205-03	HOLDER (REAR COVER)	
261	2C	*	J19-7252-03	HOLDER (LCD)	
262	2D		J21-9977-03	MOUNTING HARDWARE (DUMPER)	
264	1C		J22-0789-03	MOUNTING HARDWARE ASSY	
266	3C	*	K24-4991-03	PUSH KNOB (SEARCH)	
268	2C	*	K24-4995-03	PUSH KNOB (EJECT)	
269	3C	*	K24-4996-03	PUSH KNOB (RELEASE)	
273	3C	*	K28-0381-04	KNOB ASSY (VOL)	
276	3C	*	K28-0383-04	KNOB ASSY (FM/AM)	
280	1C		N99-1730-35	SCREW SET (DISPLAY)	
281	1C		N99-1757-15	SCREW SET	
B	3D		N09-6758-05	TAPTITE SCREW (X34)	
C	3C		N80-2006-48	PAN HEAD TAPTITE SCREW	
D	2C		N80-2008-43	PAN HEAD TAPTITE SCREW	
E	2C		N84-2005-43	PAN HEAD TAPTITE SCREW	
F	2D		N84-2005-48	PAN HEAD TAPTITE SCREW	

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
G	2C		N84-2606-43	PAN HEAD TAPTITE SCREW	
H	1D		N86-2604-43	BINDING HEAD TAPTITE SCREW	
J	1D		N86-2606-48	BINDING HEAD TAPTITE SCREW	
283	1C		W01-1710-05	CARRYING CASE	
285	1C		W01-1723-15	COMPACT DISC	
DME1	1D	*	X92-6360-02	MECHANISM ASSY (DXM-9B32W)	
DISPLAY UNIT (X15-1220-10)					
D1			B30-1779-05	LED (1608,SR)	
CN1			E41-2984-05	PIN ASSY	
J1			E58-1008-05	RECTANGULAR RECEPTACLE	
R1			RK73EB2E432J	CHIP R 4.3K J 1/4W	
R2			RK73EB2E000J	CHIP R 0.0 J 1/4W	
R3 ,4			RK73EB2E432J	CHIP R 4.3K J 1/4W	
R5 -8			RK73EB2E102J	CHIP R 1.0K J 1/4W	
R9 ,10			RK73EB2E432J	CHIP R 4.3K J 1/4W	
R11			RK73FB2B331J	CHIP R 330 J 1/8W	
S1			S70-0901-05	TACT SWITCH	
S2			S70-0948-05	TACT SWITCH	
SWITCH UNIT (X16-6520-10)					
D1			B30-1566-05	LED (1608,RED)	
D3 -10			B30-1781-05	LED (1608,BLUE)	
D93 ,94		*	B30-3211-05	LED	
C66			CK73FB1C105K	CHIP C 1.0UF K	
C76 ,77			CK73GB1H103K	CHIP C 0.010UF K	
C85			CK73GB1H104K	CHIP C 0.10UF K	
C86 ,87			CK73GB1H103K	CHIP C 0.010UF K	
C92 -95			CK73GB1C225K	CHIP C 2.2UF K	
C96			CK73GB1A105K	CHIP C 1.0UF K	
C97			CK73GB1H104K	CHIP C 0.10UF K	
C98			CK73GB1A105K	CHIP C 1.0UF K	
CN1		*	E41-3094-05	FLAT CABLE CONNECTOR	
J1			E59-0850-05	RECTANGULAR PLUG	
X1			L78-0872-05	RESONATOR (12MHZ)	
CP1 ,2			RK74HB1J472J	CHIP-COM 4.7K J 1/16W	
CP12			RK74HB1J101J	CHIP-COM 100 J 1/16W	
CP15			RK74HB1J102J	CHIP-COM 1.0K J 1/16W	
CP16			RK74HB1J392J	CHIP-COM 3.9K J 1/16W	
CP17			RK74HB1J331J	CHIP-COM 330 J 1/16W	
CP18			RK74HB1J473J	CHIP-COM 47K J 1/16W	
R1			RK73GB2A331J	CHIP R 330 J 1/10W	
R3 ,4			RK73GB2A471J	CHIP R 470 J 1/10W	
R7 ,8			RK73GB2A471J	CHIP R 470 J 1/10W	
R67			RK73GB2A101J	CHIP R 100 J 1/10W	
R68			RK73GB2A473J	CHIP R 47K J 1/10W	
R69			RK73GB2A101J	CHIP R 100 J 1/10W	
R70			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R71			RK73GB2A473J	CHIP R 47K J 1/10W	
R74			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R76			RK73GB2A103J	CHIP R 10K J 1/10W	

△ Indicates safety critical components.

PARTS LIST

SWITCH UNIT (X16-6520-10)

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
R79 ,80 R83 R87 R90 -94 R95 -99			RK73GB2A473J RK73GB2A106J RK73GB2A473J RK73GB2A202J RK73GB2A332J	CHIP R 47K J 1/10W CHIP R 10M J 1/10W CHIP R 47K J 1/10W CHIP R 2.0K J 1/10W CHIP R 3.3K J 1/10W	
R117 R139 R140			RK73EB2E181J RK73GB2A473J RK73GB2A2R2J	CHIP R 180 J 1/4W CHIP R 47K J 1/10W CHIP R 2.2 J 1/10W	
S1 S2 -4 S6 S8			T99-0456-15 S70-0901-05 S70-0901-05 S70-0951-05	ROTARY ENCODER TACT SWITCH TACT SWITCH TACT SWITCH	
D40 D92 IC1 IC3 IC7		*	LVS10C270S030 LVS10C270S030 30626MHPB97GP PIC95603 S-1112B32MCG	VARISTOR VARISTOR MICROCONTROLLER IC ANALOGUE IC ANALOGUE IC	
Q1 Q8 ,9 Q41			KRC406-P KRC406-P KRC406-P	DIGITAL TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR	

PROCESSOR UNIT (X17-2050-10)

C101 C102 C103-109 C110 C111			CK73GB1A105K CC73GCH1H471J CK73GB1H104K CC73GCH1H050C CK73GB1H104K	CHIP C 1.0UF K CHIP C 470PF J CHIP C 0.10UF K CHIP C 5.0PF C CHIP C 0.10UF K	
C112 C113-134 C141-148 C151 C191-197			CC73GCH1H050C CK73GB1H104K CC73GCH1H270J CK73GB1H104K CK73GB1H104K	CHIP C 5.0PF C CHIP C 0.10UF K CHIP C 27PF J CHIP C 0.10UF K CHIP C 0.10UF K	
CN101 CN102		*	E41-3127-05 E41-3099-05	PIN ASSY PIN ASSY	
L101 X101		*	L92-0178-05 L77-3812-05	CHIP FERRITE CRYSTAL RESONATOR (28.224MHZ)	
CP101-109 R102 R104,105 R106 R107			RK74GB1J470J RK73GB2A103J RK73GB2A470J RK73GB2A101J RK73GB2A470J	CHIP-COM 47 J 1/16W CHIP R 10K J 1/10W CHIP R 47 J 1/10W CHIP R 100 J 1/10W CHIP R 47 J 1/10W	
R110-116 R121-124 R150-152 R154 R160-163			RK73GB2A470J RK73GB2A470J RK73GB2A103J RK73GB2A103J RK73GB2A000J	CHIP R 47 J 1/10W CHIP R 47 J 1/10W CHIP R 10K J 1/10W CHIP R 10K J 1/10W CHIP R 0.0 J 1/10W	
IC1 IC2 IC151 Q101		*	SAF3560HV V543128164CI7 EN25F801008B7 DTC114EKA	MOS-IC SRAM IC ROM IC DIGITAL TRANSISTOR	

CD PLAYER UNIT (X32-6260-00) IN CD MECHA

C1 ,2 C3 C4 -7			CK73GB1A105K CK73GB1A474K CK73GB1A105K	CHIP C 1.0UF K CHIP C 0.47UF K CHIP C 1.0UF K	
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Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
C9 C11 C12 C21 C22			CK73GB1C104K CK73GB1H153K CK73GB1H103K CK73GB1H103K CC73GCH1H220J	CHIP C 0.10UF K CHIP C 0.015UF K CHIP C 0.010UF K CHIP C 0.010UF K CHIP C 22PF J	
C23 C24 ,25 C26 C27 C28			CC73GCH1H180J CK73GB1H103K CK73FB0J106K CK73GB1A105K CK73GB1H103K	CHIP C 18PF J CHIP C 0.010UF K CHIP C 10UF K CHIP C 1.0UF K CHIP C 0.010UF K	
C29 C30 -33 C34 ,35 C36 C37			CK73FB0J106K CK73GB1H103K CC73GCH1H150J CK73GB1H103K CK73GB1A105K	CHIP C 10UF K CHIP C 0.010UF K CHIP C 15PF J CHIP C 0.010UF K CHIP C 1.0UF K	
C38 C51 C52 C53 C54			CK73GB1H103K CK73GB1C104K CK73GB1H222K CK73FB1C105K CK73GB1H103K	CHIP C 0.010UF K CHIP C 0.10UF K CHIP C 2200PF K CHIP C 1.0UF K CHIP C 0.010UF K	
C55 C56 C57 C58 C59			CK73GB1H332K CK73GB1C104K CK73GB1H153K CK73GB1C104K CC73GCH1H680J	CHIP C 3300PF K CHIP C 0.10UF K CHIP C 0.015UF K CHIP C 0.10UF K CHIP C 68PF J	
C61 C62 C63 C64 C65			CK73GB1C104K CK73FB0J106K CK73GB1H333K CK73GB1H472K CK73GB1C104K	CHIP C 0.10UF K CHIP C 10UF K CHIP C 0.033UF K CHIP C 4700PF K CHIP C 0.10UF K	
C66 C67 C68 C69 C71			CK73GB1H153K CK73GB1H103K CK73GB1C104K CK73FB0J106K CK73FB0J106K	CHIP C 0.015UF K CHIP C 0.010UF K CHIP C 0.10UF K CHIP C 10UF K CHIP C 10UF K	
C73 ,74 C75 -77 C78 C79 -81 C83			CK73GB1H102K CK73GB1C104K CK73GB1A105K CK73GB1C104K CC73GCH1H470J	CHIP C 1000PF K CHIP C 0.10UF K CHIP C 1.0UF K CHIP C 0.10UF K CHIP C 47PF J	
C84 C85 C86 C92 C93			CK73GB1H153K CK73GB1A105K CK73GB1H103K CK73FB1A225K CC73GCH1H101J	CHIP C 0.015UF K CHIP C 1.0UF K CHIP C 0.010UF K CHIP C 2.2UF K CHIP C 100PF J	
C94 C101,102 C113 C114			CC73GCH1H560J CK73GB1H103K CK73GB1C104K CK73GB1H103K	CHIP C 56PF J CHIP C 0.010UF K CHIP C 0.10UF K CHIP C 0.010UF K	
CN1 CN2			E41-2954-05 E41-2083-15	FLAT CABLE CONNECTOR FLAT CABLE CONNECTOR	
X1 X2 X3			L77-2964-05 L77-2921-15 L78-1221-05	CRYSTAL RESONATOR (9.00MHZ) CRYSTAL RESONATOR (32.768KHZ) RESONATOR (16.93MHZ)	

△Indicates safety critical components.

PARTS LIST

CD PLAYER UNIT (X32-6260-00) IN CD MECHA

Ref. No.	Add	New	Parts No.	Description	Destination
CP10			RK74GA1J101J	CHIP-COM 100 J 1/16W	
CP11,12			RK74GB1J101J	CHIP-COM 100 J 1/16W	
CP15			RK74GB1J103J	CHIP-COM 10K J 1/16W	
CP22			RK74GB1J103J	CHIP-COM 10K J 1/16W	
CP32			RK74GA1J101J	CHIP-COM 100 J 1/16W	
R1 ,2			RK73EB2E4R7J	CHIP R 4.7 J 1/4W	
R3			RK73GB2A202J	CHIP R 2.0K J 1/10W	
R4			RK73GB2A103J	CHIP R 10K J 1/10W	
R10			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R19			RK73GB2A223J	CHIP R 22K J 1/10W	
R21			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R23			RK73GB2A223J	CHIP R 22K J 1/10W	
R24			RK73GB2A101J	CHIP R 100 J 1/10W	
R25			RK73GB2A104J	CHIP R 100K J 1/10W	
R26			RK73GB2A2R2J	CHIP R 2.2 J 1/10W	
R27			RK73GB2A101J	CHIP R 100 J 1/10W	
R28 ,29			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R30			RK73GB2A223J	CHIP R 22K J 1/10W	
R31			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R33			RK73GB2A223J	CHIP R 22K J 1/10W	
R36			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R38			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R41			RK73GB2A223J	CHIP R 22K J 1/10W	
R44			RK73GB2A223J	CHIP R 22K J 1/10W	
R45			RK73GB2A101J	CHIP R 100 J 1/10W	
R47			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R48			RK73GB2A105J	CHIP R 1.0M J 1/10W	
R49			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R50			RK73GB2A223J	CHIP R 22K J 1/10W	
R51			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R52			RK73GB2A100J	CHIP R 10 J 1/10W	
R53			RK73GB2A153J	CHIP R 15K J 1/10W	
R54			RK73GB2A100J	CHIP R 10 J 1/10W	
R55			RK73GB2A153J	CHIP R 15K J 1/10W	
R57			RK73GB2A223J	CHIP R 22K J 1/10W	
R58 ,59			RK73GB2A101J	CHIP R 100 J 1/10W	
R63			RK73GB2A223J	CHIP R 22K J 1/10W	
R65 ,66			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R67 -69			RK73GB2A101J	CHIP R 100 J 1/10W	
R70			RK73GB2A223J	CHIP R 22K J 1/10W	
R81 ,82			RK73GB2A101J	CHIP R 100 J 1/10W	
R84			RK73GB2A101J	CHIP R 100 J 1/10W	
R86			RK73GB2A101J	CHIP R 100 J 1/10W	
R88			RK73GB2A101J	CHIP R 100 J 1/10W	
R90 -94			RK73GB2A101J	CHIP R 100 J 1/10W	
R95 -98			RK73GB2A223J	CHIP R 22K J 1/10W	
R101			RK73GB2A221J	CHIP R 220 J 1/10W	
R102			RK73GB2A4R7J	CHIP R 4.7 J 1/10W	
R103			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R104			RK73GB2A225J	CHIP R 2.2M J 1/10W	
R105			RK73GB2A104J	CHIP R 100K J 1/10W	
R106			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R107			RK73GB2A560J	CHIP R 56 J 1/10W	
R108			RK73GB2A333J	CHIP R 33K J 1/10W	
R109			RK73GB2A622J	CHIP R 6.2K J 1/10W	
Ref. No.	Add	New	Parts No.	Description	Destination
R110			RK73GB2A913J	CHIP R 91K J 1/10W	
R112,113			RK73GB2A4R7J	CHIP R 4.7 J 1/10W	
R115			RK73GB2A105J	CHIP R 1.0M J 1/10W	
R116			RK73GB2A681J	CHIP R 680 J 1/10W	
R117-121			RK73GB2A103J	CHIP R 10K J 1/10W	
R123			RK73GB2A104J	CHIP R 100K J 1/10W	
R127			RK73GB2A153J	CHIP R 15K J 1/10W	
R128			RK73GB2A334J	CHIP R 330K J 1/10W	
R131			RK73GB2A204J	CHIP R 200K J 1/10W	
R132			RK73GB2A101J	CHIP R 100 J 1/10W	
R136			RK73GB2A363J	CHIP R 36K J 1/10W	
R137			RK73GB2A223J	CHIP R 22K J 1/10W	
R139			RK73GB2A393J	CHIP R 39K J 1/10W	
R151			RK73GB2A333J	CHIP R 33K J 1/10W	
R152			RK73GB2A223J	CHIP R 22K J 1/10W	
R173-178			RK73GB2A2R2J	CHIP R 2.2 J 1/10W	
R180			RK73GB2A102J	CHIP R 1.0K J 1/10W	
S1 ,2			S68-0924-05	PUSH SWITCH	
D1			DAP202U	DIODE	
D2 ,3			DA204U	DIODE	
IC1			92CD28AFG7C32	MICROCONTROLLER IC	
IC2			TC94A92FG-301	MOS-IC	
IC3			BD8222EFV	ANALOGUE IC	
IC4			MFI341S2162	MICROPROCESSOR IC	
IC5			74AHCT08PW	MOS-IC	
IC6			74LVCO8APW	MOS-IC	
IC7			XC6415S001P1	MOS-IC	
IC8			BR24L04FV-W	ROM IC	
IC9			XC6219B332MR	ANALOGUE IC	
Q3			RUE003N02	FET	
Q5			2SA1577	TRANSISTOR	
Q6			DTC114YUA	DIGITAL TRANSISTOR	
Q7			2SB0970	TRANSISTOR	
Q9			DTC114YUA	DIGITAL TRANSISTOR	
ELECTRIC UNIT (X34-6320-10)					
C1			CD04AZ1C332M2	ELECTRO 3300UF	16WV
C10 ,11			CK73GB1A105K	CHIP C 1.0UF	K
C13			CD04AY1A221M	ELECTRO 220UF	10WV
C14			CK73GB1A105K	CHIP C 1.0UF	K
C21			C90-6851-05	ELECTRO 220UF	25WV
C23			CD04BA1C100M	ELECTRO 10UF	16WV
C24			CD04BA0J101M	ELECTRO 100UF	6.3WV
C31			CK73GB1H104K	CHIP C 0.10UF	K
C43			CD04AT1C100M	ELECTRO 10UF	16WV
C54 ,55			CK73EB1H475K	CHIP C 4.7UF	K
C61			CK73GB1H104K	CHIP C 0.10UF	K
C62			CC73GCH1H471J	CHIP C 470PF	J
C63			CK73GB1A474K	CHIP C 0.47UF	K
C64			CK73FB0J106K	CHIP C 10UF	K
C65			CK73GB1H102K	CHIP C 1000PF	K
C68			CK73GB1H104K	CHIP C 0.10UF	K
C71			CK73GB1H473K	CHIP C 0.047UF	K
C72			CC73GCH1H471J	CHIP C 470PF	J

△ Indicates safety critical components.

PARTS LIST

ELECTRIC UNIT (X34-6320-10)

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
C73			CK73GB1A474K	CHIP C 0.47UF K	
C74			CK73FB0J106K	CHIP C 10UF K	
C75			CK73GB1H102K	CHIP C 1000PF K	
C76			CK73EB1E105K	CHIP C 1.0UF K	
C77			CK73FB0J106K	CHIP C 10UF K	
C78			CK73GB1H104K	CHIP C 0.10UF K	
C83			CK73GB1H104K	CHIP C 0.10UF K	
C84			CK73FB0J106K	CHIP C 10UF K	
C101			CK73GB1H104K	CHIP C 0.10UF K	
C102			CK73FB0J106K	CHIP C 10UF K	
C103			CK73EB1E105K	CHIP C 1.0UF K	
C104			CK73FB0J106K	CHIP C 10UF K	
C121			CK73GB1H103K	CHIP C 0.010UF K	
C141			CD04AS1H3R3M	ELECTRO 3.3UF 50WV	
C142			CK73GB1A105K	CHIP C 1.0UF K	
C143			CK73GB1H104K	CHIP C 0.10UF K	
C151			CK73GB1H103K	CHIP C 0.010UF K	
C152			CK73GB1H223K	CHIP C 0.022UF K	
C153			CK73GB1A105K	CHIP C 1.0UF K	
C201			CK73GB1A105K	CHIP C 1.0UF K	
C211,212			CK73GB1H104K	CHIP C 0.10UF K	
C213			CD04BF1C221M	ELECTRO 220UF 16WV	
C351			CD04AS1C220M	ELECTRO 22UF 16WV	
C352,353			CK73GB1H102K	CHIP C 1000PF K	
C354			CD04AS1V100M	ELECTRO 10UF 35WV	
C370			CC73GCH1H120J	CHIP C 12PF J	
C372			CC73GCH1H120J	CHIP C 12PF J	
C373			CK73GB1H103K	CHIP C 0.010UF K	
C375-377			CK73GB1H103K	CHIP C 0.010UF K	
C378			CD04AS1V100M	ELECTRO 10UF 35WV	
C379			CK73GB0J225K	CHIP C 2.2UF K	
C381			CD04AS1C470M	ELECTRO 47UF 16WV	
C383-388			CK73GB1H222K	CHIP C 2200PF K	
C401,402			CK73EB1A106K	CHIP C 10UF K	
C405,406			CK73EB1A106K	CHIP C 10UF K	
C409,410			CK73EB1A106K	CHIP C 10UF K	
C421,422			CK73GB1A105K	CHIP C 1.0UF K	
C423			CD04AS0J470M	ELECTRO 47UF 6.3WV	
C431			CK73GB1A105K	CHIP C 1.0UF K	
C432			CD04AS0J470M	ELECTRO 47UF 6.3WV	
C433			CK73GB1A105K	CHIP C 1.0UF K	
C451-458			CK73GB1A105K	CHIP C 1.0UF K	
C461			CK73GB1H103K	CHIP C 0.010UF K	
C462			CD04AS1H2R2M	ELECTRO 2.2UF 50WV	
C463			CK73GB1A474K	CHIP C 0.47UF K	
C464			CK73GB1A105K	CHIP C 1.0UF K	
C465			CK73GB1A474K	CHIP C 0.47UF K	
C466			CK73GB1A105K	CHIP C 1.0UF K	
C469-472			CK73GB1A105K	CHIP C 1.0UF K	
C474			CK73GB1A105K	CHIP C 1.0UF K	
C476			CD04AS1C470M	ELECTRO 47UF 16WV	
C479-482			CC73GCH1H330J	CHIP C 33PF J	
C500-503			CC73GCH1H330J	CHIP C 33PF J	
C505			CK73GB1A105K	CHIP C 1.0UF K	
C508			CD04BA1C100M	ELECTRO 10UF 16WV	
Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
C516			CK73GB1A105K	CHIP C 1.0UF K	
C517-520			CK73GB1C224K	CHIP C 0.22UF K	
C521			CK73FB1C105K	CHIP C 1.0UF K	
C601			CK73GB1H104K	CHIP C 0.10UF K	
C602			CK73GB1H103K	CHIP C 0.010UF K	
C603,604			CC73GCH1H180J	CHIP C 18PF J	
C605,606			CK73GB1H103K	CHIP C 0.010UF K	
C608-610			CK73GB1H103K	CHIP C 0.010UF K	
C612			CK73GB1H103K	CHIP C 0.010UF K	
C614			CK73GB1H103K	CHIP C 0.010UF K	
C615			CK73GB1H104K	CHIP C 0.10UF K	
C682			CK73GB1H103K	CHIP C 0.010UF K	
C751			CK73GB1H103K	CHIP C 0.010UF K	
C752			CD04AS0J470M	ELECTRO 47UF 6.3WV	
C753			CK73GB1H103K	CHIP C 0.010UF K	
C754			CD04AS0J470M	ELECTRO 47UF 6.3WV	
C755			CK73GB1H103K	CHIP C 0.010UF K	
C801			CK73GB1H103K	CHIP C 0.010UF K	
C802			CD04AS1V100M	ELECTRO 10UF 35WV	
C803			CK73GB1H103K	CHIP C 0.010UF K	
C804			CD04AS1V100M	ELECTRO 10UF 35WV	
C805			CK73GB1H103K	CHIP C 0.010UF K	
C806			CD04AS1V100M	ELECTRO 10UF 35WV	
C851			CK73GB1H103K	CHIP C 0.010UF K	
C852			CK73GB1A105K	CHIP C 1.0UF K	
C853-856			CK73GB1H103K	CHIP C 0.010UF K	
C858			CK73GB1H103K	CHIP C 0.010UF K	
CN201			E41-1701-05	PIN ASSY	
CN680			E40-9747-05	PIN ASSY	
CN701			E41-2352-05	FLAT CABLE CONNECTOR	
J1			E58-0991-05	RECTANGULAR RECEPTACLE	
J401			E63-0960-05	PIN JACK (3-PRE)	
J421			E11-0625-05	PHONE JACK (LGY6502-0900)	
J431			E56-0855-05	CYLINDRICAL RECEPTACLE	
W321	2D		E30-6438-05	CORD WITH PLUG (ANT)	
WH151	2D		E30-6822-15	WIRING HARNESS (REMOTE)	
L1			L33-2365-05	CHOKE COIL ASSY	
L60			L92-0639-05	CHIP FERRITE (100MHZ)	
L61			L33-2453-05	SMALL FIXED INDUCTOR	
L70			L92-0639-05	CHIP FERRITE (100MHZ)	
L71			L33-2453-05	SMALL FIXED INDUCTOR	
L600			L92-0378-05	CHIP FERRITE	
L752			L41-4795-33	SMALL FIXED INDUCTOR (4.7UH)	
L753			L41-1095-33	SMALL FIXED INDUCTOR (1UH)	
L801-803			L92-0642-05	CHIP FERRITE	
X370			L77-3810-05	CRYSTAL RESONATOR (11.2896MHZ)	
X600		*	L78-1231-05	RESONATOR (12MHZ)	
X601			L77-2921-15	CRYSTAL RESONATOR (32.768KHZ)	
X851			L78-0889-05	RESONATOR	
K	2D		N80-3008-48	PAN HEAD TAPTITE SCREW	
L	2D		N83-3005-48	PAN HEAD TAPTITE SCREW	
M	2D		N83-3008-48	PAN HEAD TAPTITE SCREW	
N	2D		N83-3016-48	PAN HEAD TAPTITE SCREW	
P	3D		N86-2604-43	BINDING HEAD TAPTITE SCREW	

△Indicates safety critical components.

PARTS LIST

ELECTRIC UNIT (X34-6320-10)

Ref. No.	Add	New	Parts No.	Description	Destination	Ref. No.	Add	New	Parts No.	Description	Destination
CP603			RK74GA1J101J	CHIP-COM 100 J 1/16W		R356			RK73GB2A2R2J	CHIP R 2.2 J 1/10W	
CP604			RK74HB1J101J	CHIP-COM 100 J 1/16W		R357			RK73FB2B102J	CHIP R 1.0K J 1/8W	
CP607			RK74GA1J101J	CHIP-COM 100 J 1/16W		R370			RK73EB2E2R2J	CHIP R 2.2 J 1/4W	
CP609			RK74HB1J101J	CHIP-COM 100 J 1/16W		R371			RK73GB2A152J	CHIP R 1.5K J 1/10W	
CP613			RK74GA1J472J	CHIP-COM 4.7K J 1/16W		R373-378			RK73GB2A471J	CHIP R 470 J 1/10W	
CP852			RK74GA1J472J	CHIP-COM 4.7K J 1/16W		R401,402			RK73GB2A331J	CHIP R 330 J 1/10W	
R1 ,2			RK73EB2E103J	CHIP R 10K J 1/4W		R403,404			RK73GB2A223J	CHIP R 22K J 1/10W	
R11			RK73FB2B221J	CHIP R 220 J 1/8W		R405,406			RK73FB2B181J	CHIP R 180 J 1/8W	
R12			RK73GH2A243D	CHIP R 24K D 1/10W		R407,408			RK73GB2A331J	CHIP R 330 J 1/10W	
R13			RK73GH2A432D	CHIP R 4.3K D 1/10W		R409,410			RK73GB2A223J	CHIP R 22K J 1/10W	
R21			RK73FB2B123J	CHIP R 12K J 1/8W		R411,412			RK73FB2B181J	CHIP R 180 J 1/8W	
R31			RK73FB2B152J	CHIP R 1.5K J 1/8W		R413,414			RK73GB2A331J	CHIP R 330 J 1/10W	
R41			RK73FB2B102J	CHIP R 1.0K J 1/8W		R415,416			RK73GB2A223J	CHIP R 22K J 1/10W	
R61			RK73GH2A203D	CHIP R 20K D 1/10W		R417,418			RK73FB2B181J	CHIP R 180 J 1/8W	
R62			RK73GB2A153J	CHIP R 15K J 1/10W		R421,422			RK73EB2E101J	CHIP R 100 J 1/4W	
R63			RK73GH2A153D	CHIP R 15K D 1/10W		R423,424			RK73GB2A123J	CHIP R 12K J 1/10W	
R64			RK73GH2A823D	CHIP R 82K D 1/10W		R425			RK73EB2E470J	CHIP R 47 J 1/4W	
R65			RK73GH2A303D	CHIP R 30K D 1/10W		R426			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R67			RK73GB2A333J	CHIP R 33K J 1/10W		R431-435			RK73EB2E432J	CHIP R 4.3K J 1/4W	
R68			RK73GB2A473J	CHIP R 47K J 1/10W		R436			RK73EB2E101J	CHIP R 100 J 1/4W	
R71			RK73GH2A333D	CHIP R 33K D 1/10W		R437			RK73EB2E100J	CHIP R 10 J 1/4W	
R72			RK73GB2A153J	CHIP R 15K J 1/10W		R438			RK73EB2E4R7J	CHIP R 4.7 J 1/4W	
R73			RK73GH2A103D	CHIP R 10K D 1/10W		R439			RK73EB2E100J	CHIP R 10 J 1/4W	
R74			RK73GH2A333D	CHIP R 33K D 1/10W		R440			RK73EB2E432J	CHIP R 4.3K J 1/4W	
R76			RK73GB2A102J	CHIP R 1.0K J 1/10W		R441			RK73EB2E101J	CHIP R 100 J 1/4W	
R80			RK73GH2A473D	CHIP R 47K D 1/10W		R442			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R81			RK73GB2A752J	CHIP R 7.5K J 1/10W		R454			RK73GB2A103J	CHIP R 10K J 1/10W	
R82			RK73GB2A473J	CHIP R 47K J 1/10W		R455			RK73EB2E2R2J	CHIP R 2.2 J 1/4W	
R83			RK73PB2H100J	CHIP R 10 J 1/2W		R462,463			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R121			RK73FB2B203J	CHIP R 20K J 1/8W		R464,465			RK73GB2A182J	CHIP R 1.8K J 1/10W	
R122,123			RK73GB2A103J	CHIP R 10K J 1/10W		R466			RK73GB2A683J	CHIP R 68K J 1/10W	
R124			RK73FB2B683J	CHIP R 68K J 1/8W		R467			RK73GB2A223J	CHIP R 22K J 1/10W	
R125			RK73GB2A473J	CHIP R 47K J 1/10W		R468			RK73GB2A103J	CHIP R 10K J 1/10W	
R126			RK73GB2A104J	CHIP R 100K J 1/10W		R469			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R127			RK73EB2E102J	CHIP R 1.0K J 1/4W		R500			RK73GB2A470J	CHIP R 47 J 1/10W	
R128			RK73EB2E473J	CHIP R 47K J 1/4W		R501,502			RK73GB2A000J	CHIP R 0.0 J 1/10W	
R129			RK73GB2A183J	CHIP R 18K J 1/10W		R504			RK73GB2A470J	CHIP R 47 J 1/10W	
R134,135			RK73EB2E102J	CHIP R 1.0K J 1/4W		R505			RK73GB2A153J	CHIP R 15K J 1/10W	
R141			RK73FB2B472J	CHIP R 4.7K J 1/8W		R506			RK73GB2A473J	CHIP R 47K J 1/10W	
R142			RK73PB2H561J	CHIP R 560 J 1/2W		R507			RK73GB2A432J	CHIP R 4.3K J 1/10W	
R143			RK73GB2A223J	CHIP R 22K J 1/10W		R508			RK73GB2A100J	CHIP R 10 J 1/10W	
R144			RK73PB2H561J	CHIP R 560 J 1/2W		R509			RK73GB2A470J	CHIP R 47 J 1/10W	
R145			RK73FB2B472J	CHIP R 4.7K J 1/8W		R512			RK73GB2A473J	CHIP R 47K J 1/10W	
R146,147			RK73PB2H221J	CHIP R 220 J 1/2W		R514			RK73GB2A331J	CHIP R 330 J 1/10W	
R148			RK73GB2A223J	CHIP R 22K J 1/10W		R515			RK73GB2A470J	CHIP R 47 J 1/10W	
R149,150			RK73PB2H561J	CHIP R 560 J 1/2W		R603,604			RK73GB2A473J	CHIP R 47K J 1/10W	
R151			RK73GB2A104J	CHIP R 100K J 1/10W		R606			RK73GB2A473J	CHIP R 47K J 1/10W	
R152			RK73GB2A473J	CHIP R 47K J 1/10W		R607			RK73GB2A103J	CHIP R 10K J 1/10W	
R153			RK73GB2A104J	CHIP R 100K J 1/10W		R608,609			RK73GB2A104J	CHIP R 100K J 1/10W	
R161			RK73EB2E102J	CHIP R 1.0K J 1/4W		R610,611			RK73GB2A473J	CHIP R 47K J 1/10W	
R211			RK73GB2A101J	CHIP R 100 J 1/10W		R613			RK73GB2A473J	CHIP R 47K J 1/10W	
R213			RK73GB2A223J	CHIP R 22K J 1/10W		R614			RK73GB2A101J	CHIP R 100 J 1/10W	
R353			RK73GB2A362J	CHIP R 3.6K J 1/10W		R615			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R354			RK73GB2A432J	CHIP R 4.3K J 1/10W		R616			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R355			RK73GB2A562J	CHIP R 5.6K J 1/10W		R617			RK73GB2A102J	CHIP R 1.0K J 1/10W	

△ Indicates safety critical components.

PARTS LIST

ELECTRIC UNIT (X34-6320-10)

Ref. No.	Added	New	Parts No.	Description	Destination
R618			RK73GB2A223J	CHIP R 22K J 1/10W	
R619			RK73GB2A103J	CHIP R 10K J 1/10W	
R620			RK73GB2A473J	CHIP R 47K J 1/10W	
R621			RK73GB2A101J	CHIP R 100 J 1/10W	
R622			RK73GB2A473J	CHIP R 47K J 1/10W	
R624			RK73GB2A104J	CHIP R 100K J 1/10W	
R626,627			RK73GB2A104J	CHIP R 100K J 1/10W	
R632			RK73GB2A104J	CHIP R 100K J 1/10W	
R633,634			RK73GB2A471J	CHIP R 470 J 1/10W	
R635,636			RK73GB2A104J	CHIP R 100K J 1/10W	
R638			RK73GB2A471J	CHIP R 470 J 1/10W	
R641			RK73GB2A473J	CHIP R 47K J 1/10W	
R643			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R646			RK73GB2A101J	CHIP R 100 J 1/10W	
R647			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R649			RK73GB2A104J	CHIP R 100K J 1/10W	
R650			RK73GB2A473J	CHIP R 47K J 1/10W	
R653			RK73GB2A101J	CHIP R 100 J 1/10W	
R654			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R655			RK73GB2A101J	CHIP R 100 J 1/10W	
R657,658			RK73GB2A104J	CHIP R 100K J 1/10W	
R680			RK73GB2A471J	CHIP R 470 J 1/10W	
R681			RK73GB2A104J	CHIP R 100K J 1/10W	
R682			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R683			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R684			RK73GB2A223J	CHIP R 22K J 1/10W	
R686			RK73EB2E432J	CHIP R 4.3K J 1/4W	
R757-760			RK73GB2A101J	CHIP R 100 J 1/10W	
R801-803			RK73GB2A101J	CHIP R 100 J 1/10W	
R807			RK73GB2A101J	CHIP R 100 J 1/10W	
R851			RK73GB2A223J	CHIP R 22K J 1/10W	
R855,856			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R857			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R858			RK73GB2A223J	CHIP R 22K J 1/10W	
R862,863			RK73GB2A101J	CHIP R 100 J 1/10W	
R864			RK73GB2A223J	CHIP R 22K J 1/10W	
R870			RK73GB2A183J	CHIP R 18K J 1/10W	
R871			RK73GB2A333J	CHIP R 33K J 1/10W	
R872-875			RK73GB2A223J	CHIP R 22K J 1/10W	
R880			RK73GB2A223J	CHIP R 22K J 1/10W	
R901			RK73EB2E000J	CHIP R 0.0 J 1/4W	
R905,906			RK73GB2A000J	CHIP R 0.0 J 1/10W	
W756			R92-2053-05	CHIP R 0 OHM J 1/8W	
S680			S74-0809-05	MICRO SWITCH	
D1			S2V60-5009F46	DIODE	
D21			D1FJ4	DIODE	
D22			UDZW5.6(B)	ZENER DIODE	
D31			UDZW8.2(B)	ZENER DIODE	
D41			UDZW11(B)	ZENER DIODE	
D61			CMS14	DIODE	
D71			CMS14	DIODE	
D121			UDZW6.8(B)	ZENER DIODE	
D123			UDZW6.8(B)	ZENER DIODE	
D124			UDZW6.2(B)	ZENER DIODE	

Ref. No.	Added	New	Parts No.	Description	Destination
D141,142			1SR154-400	DIODE	
D143			1SS355	DIODE	
D144,145			1SR154-400	DIODE	
D151			UDZW4.7(B)	ZENER DIODE	
D161			UDZW6.2(B)	ZENER DIODE	
D201,202		*	LVS10C270S030	VARISTOR	
D350			1SR154-400	DIODE	
D352			UDZW5.6(B)	ZENER DIODE	
D370			DA204U	DIODE	
D401,402			DAP202U	DIODE	
D421-423			UDZW6.8(B)	ZENER DIODE	
D431-433			UDZW6.8(B)	ZENER DIODE	
D434			UDZW6.2(B)	ZENER DIODE	
D439			UDZW6.2(B)	ZENER DIODE	
D451-453			DAP202U	DIODE	
D456,457			DAP202U	DIODE	
D458			DA204U	DIODE	
D459			1SS355	DIODE	
D460-465			UDZW6.8(B)	ZENER DIODE	
D501			DAP202U	DIODE	
D504			1SR154-400	DIODE	
D508			1SR154-400	DIODE	
D682			UDZW6.2(B)	ZENER DIODE	
D684			UDZW6.2(B)	ZENER DIODE	
D691			DA204U	DIODE	
IC10			XC6201P502PR	ANALOGUE IC	
IC11			M5237ML-CF0J	ANALOGUE IC	
IC61			LT3685EMSE	ANALOGUE IC	
IC71			LT3685EMSE	ANALOGUE IC	
IC74			S-1132B33U5T1G	ANALOGUE IC	
IC75		*	XC6209B502P1	ANALOGUE IC	
IC101			S-1132B18U5T1G	ANALOGUE IC	
IC102			XC6219B122PR	ANALOGUE IC	
IC211			BD6538G	MOS-IC	
IC371			AK7600VF	MOS-IC	
IC451		*	E-TDA7716	ANALOGUE IC	
IC500			TB2923HQ	ANALOGUE IC	
IC600			XC6120N362N1	MOS-IC	
IC601			M24C16-RDW6P	ROM IC	
IC602		*	30624MGPB98GP	MICROCONTROLLER IC	
IC604			74HC2G02DP	MOS-IC	
IC851		*	W05-1504-00	MICROCONTROLLER IC	
IC852		*	M24256BRDW6TP	ROM IC	
Q11			2SB1565	TRANSISTOR	
Q12			DTA124EUA	DIGITAL TRANSISTOR	
Q13			DTC124EUA	DIGITAL TRANSISTOR	
Q21			2SB1565	TRANSISTOR	
Q22			2SC4081	TRANSISTOR	
Q31			2SB1565	TRANSISTOR	
Q32			2SC4081	TRANSISTOR	
Q33			DTA124EUA	DIGITAL TRANSISTOR	
Q34			DTC124EUA	DIGITAL TRANSISTOR	
Q41			2SB1565	TRANSISTOR	
Q42			2SC4081	TRANSISTOR	
Q43			DTA124EUA	DIGITAL TRANSISTOR	

△Indicates safety critical components.

PARTS LIST

ELECTRIC UNIT (X34-6320-10)

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
Q44			DTC124EUA	DIGITAL TRANSISTOR	
Q61			DTC144EUA	DIGITAL TRANSISTOR	
Q72			DTC144EUA	DIGITAL TRANSISTOR	
Q121-123			2SC4081	TRANSISTOR	
Q141			2SB1188(Q,R)	TRANSISTOR	
Q142			2SA1576A	TRANSISTOR	
Q143			DTA114EUA	DIGITAL TRANSISTOR	
Q144			DTC114YUA	DIGITAL TRANSISTOR	
Q145			2SB1188(Q,R)	TRANSISTOR	
Q146			DTC114YUA	DIGITAL TRANSISTOR	
Q151			DTC144EUA	DIGITAL TRANSISTOR	
Q350			2SC4081	TRANSISTOR	
Q351			2SC5053	TRANSISTOR	
Q352			DTA124EUA	DIGITAL TRANSISTOR	
Q353			DTC124EUA	DIGITAL TRANSISTOR	
Q401-406			DTC143TUA	DIGITAL TRANSISTOR	
Q407,408			KRA303-P	DIGITAL TRANSISTOR	
Q451			2SC4081	TRANSISTOR	
Q681			KRA307-P	DIGITAL TRANSISTOR	
Q682			DTC124EUA	DIGITAL TRANSISTOR	
Q683			2SA1576A	TRANSISTOR	
Q766			KRC406-P	DIGITAL TRANSISTOR	
Q768			KRC406-P	DIGITAL TRANSISTOR	
TH500			PRF18BE471QS2	POSITIVE RESISTOR	
A1	2D	*	X86-4220-10	TUNER UNIT	
A2	2D	*	X17-2050-10	PROCESSOR UNIT	

MECHANISM ASSY (X92-6360-02) DXM-9B32W

1	2B		A10-5450-53	CHASSIS ASSY	
3	3B		A10-5452-41	CHASSIS	
4	1B		A10-5453-32	CHASSIS	
12	3A		D10-4993-52	LEVER	
13	1B		D10-4991-22	ARM	
14	1B		D10-4992-13	ARM	
15	2A		D10-4994-02	SLIDER	
16	2A		D10-4995-03	SLIDER	
17	2B		D10-4996-02	SLIDER	
18	2A		D10-4997-03	LEVER	
19	1A		D10-4998-03	ARM	
20	2A		D10-4999-03	ARM	
21	2A		D10-7001-03	ARM	
22	2A		D10-7002-03	ARM	
23	2A		D10-7003-03	ARM	
24	2A		D13-2445-04	GEAR	
25	2A		D13-2446-04	GEAR	
27	2A		D13-2448-04	GEAR	
28	2A		D13-2449-04	GEAR	
29	2A		D13-2450-04	GEAR	
30	2A		D13-2451-04	GEAR	
31	2A		D13-2452-04	GEAR	
32	2A		D13-2453-04	GEAR	
33	2A		D13-2454-04	GEAR	
34	2A		D13-2455-04	GEAR	
35	2B		D13-2456-03	RACK (GEAR)	
36	2A		D14-1028-04	ROLLER	

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
37	3A		D21-2507-04	SHAFT	
38	2B		D21-2508-04	SHAFT	
39	3A		D23-0963-04	RETAINER	
40	3B		D39-0277-15	DAMPER	
41	3B		D39-0278-15	DAMPER	
46	1B		G01-4682-34	TORSION COIL SPRING	
47	3A		G01-4683-24	EXTENSION SPRING	
48	2A		G01-4684-04	EXTENSION SPRING	
49	2B		G01-4685-04	EXTENSION SPRING	
50	1B		G01-4686-14	EXTENSION SPRING	
51	3A		G01-4688-14	EXTENSION SPRING	
52	3A		G01-4692-24	TORSION COIL SPRING	
53	2B		G02-1587-04	FLAT SPRING	
54	3A		G02-1588-04	FLAT SPRING	
55	1B		G13-1297-04	CUSHION	
56	1B		G13-1299-14	CUSHION	
57	1A		G16-1715-04	SHEET	
61	1B		J11-0675-03	CLAMPER	
64	2A		J19-7210-21	HOLDER	
65	2B		J19-7225-04	HOLDER	
66	1B		J22-0706-03	MOUNTING HARDWARE	
67	1A		J22-0707-12	MOUNTING HARDWARE	
68	1B		J90-1166-11	GUIDE	
69	2B		J90-1168-03	RAIL	
A	1A		N09-6108-15	TAPTITE SCREW (M2X3.5)	
B	2B		N09-6426-15+	MACHINE SCREW	
C	2B		N09-6735-05	TAPTITE SCREW	
D	2B		N09-6737-15	MACHINE SCREW	
E	2B		N09-6738-15	TAPTITE SCREW	
F	2A		N19-2335-14	FLAT WASHER	
G	2B		N35-2003-48	BINDING HEAD MACHINE SCREW	
H	2B		N39-1720-48	PAN HEAD MACHINE SCREW	
76	2A		S68-0921-05	PUSH SWITCH	
DM1	2B		X94-2090-00	SPINDLE MOTOR ASSY	
DM2	2B		X94-2100-00	FEED MOTOR ASSY (LOAD/SLED)	
DPU1	2B		X93-2260-01	OPTICAL PICKUP ASSY	

△ Indicates safety critical components.

SPECIFICATIONS

FM tuner section

Frequency range (200kHz space)..... 87.9MHz~107.9MHz
 Usable sensitivity (S/N=30dB).....9.3dBf (0.8μV/75Ω)
 Quieting Sensitivity (S/N=50dB).....15.2dBf (1.6μV/75Ω)
 Frequency response (±3.0dB)30Hz~15kHz
 Signal to Noise ratio (MONO) 70dB
 Selectivity (±400kHz).....≥80dB
 Stereo separation (1kHz)40dB

Digital FM tuner section

Frequency range (200kHz space)..... 87.5MHz~107.9MHz
 Frequency response20Hz~20kHz
 Signal to Noise ratio (STEREO) 70dB

AM tuner section

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

Digital AM tuner section

Frequency range (10kHz space).....530kHz~1700kHz
 Frequency response40Hz~15kHz
 Signal to Noise ratio (STEREO) 70dB

CD player section

Laser diode.....GaAlAs
 Digital filter (D/A)..... 8 Times Over Sampling
 D/A Converter..... 24Bit
 Spindle speed500~200rpm (CLV)
 Wow & FlutterBelow Measurable Limit
 Frequency response (±1dB) 10Hz~20kHz
 Total harmonic distortion (1kHz).....0.010%
 Signal to Noise ratio (1kHz)..... 105dB
 Dynamic range93dB
 MP3 decode..... Compliant with MPEG-1/2 Audio Layer-3
 WMA decode..... Compliant with Windows Media Audio
 AAC decodeAAC-LC “.m4a” files

USB Interface

USB standard USB1.1/2.0 (Full speed)
 File system FAT16/32
 MP3 decode Compliant with MPEG-1/2 Audio Layer-3
 WMA decode..... Compliant with Windows Media Audio
 AAC decodeAAC-LC “.m4a” files

Audio section

Maximum output power 50W x 4
 Full Bandwidth Power (at less than 1% THD) 22W x 4
 Speaker Impedance4~8Ω
 Tone action
 BAND160Hz~400Hz ±9dB
 BAND2 630Hz~2.5kHz ±9dB
 BAND3 4.0kHz~16kHz ±9dB
 Preout level/Load (CD) 4000mV/10kΩ
 Preout impedance≤600Ω

Auxiliary input

Frequency response (±1dB)20Hz~20kHz
 Input Maximum Voltage..... 1200mV
 Input Impedance 10kΩ

General

Operating voltage (10.5~16V allowable)..... 14.4V
 Maximum current consumption 10A
 Installation Size (W x H x D) 182 x 53 x 158mm
 7-3/16 x 2-1/16 x 6-1/4inch
 Weight3.08lbs (1.4kg)

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.

