

CD RECEIVER

# KDC-MP5028/MP528 /W6031/W6031Y SERVICE MANUAL

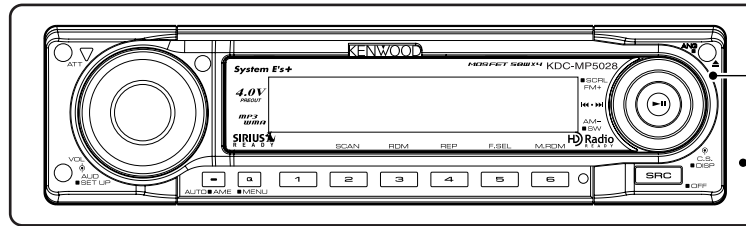
# KENWOOD

Kenwood Corporation

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B53-0241-00 (N) 1553

CD MECHANISM EXTENSION  
CORD (24P) : **W05-0934-00**

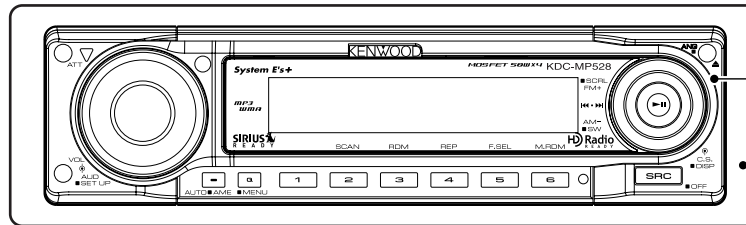
KDC-MP5028



Panel assy  
(A64-3509-12)

Escutcheon  
(B07-3125-01)

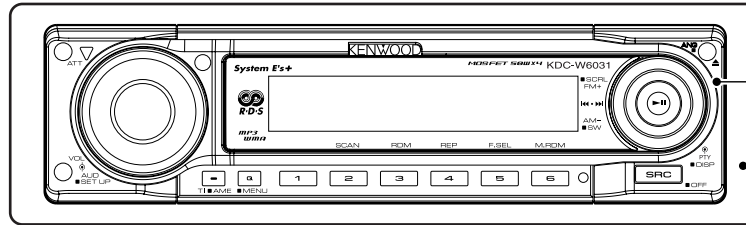
KDC-MP528



Panel assy  
(A64-3510-12)

Escutcheon  
(B07-3126-01)

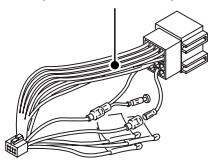
KDC-W6031  
KDC-W6031Y



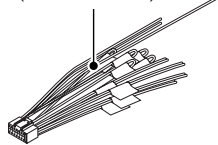
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Escutcheon  
(B07-3126-01)

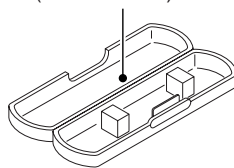
DC cord  
(E30-6412-05)



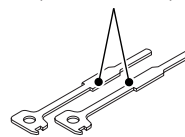
DC cord  
(E30-6414-05)



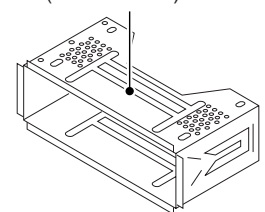
Plastic cabinet assy  
(A02-2732-03)



Lever  
(D10-4589-04) x2



Mounting hardware assy  
(J21-9716-03)

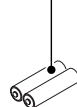


Remote controller assy  
(A70-2067-05) \*

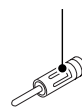


RC-527

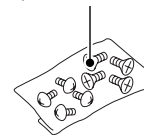
Size AA battery  
(Not supplied)



Antenna adaptor  
(T90-0523-05) \*



Screw set  
(N99-1723-05)



Screw set  
KDC-MP5028/MP528:  
(N09-6212-05)  
KDC-W6031/W6031Y:  
(N09-6280-05)



## TDF PANEL INFORMATION

MODEL	TDF PANEL No.	TDF NAME
KDC-MP5028	Y33-2180-61	TDF-MP55DB
KDC-MP528	Y33-2180-62	TDF-MP55D
KDC-W6031/W6031Y	Y33-2180-64	TDF-W6031

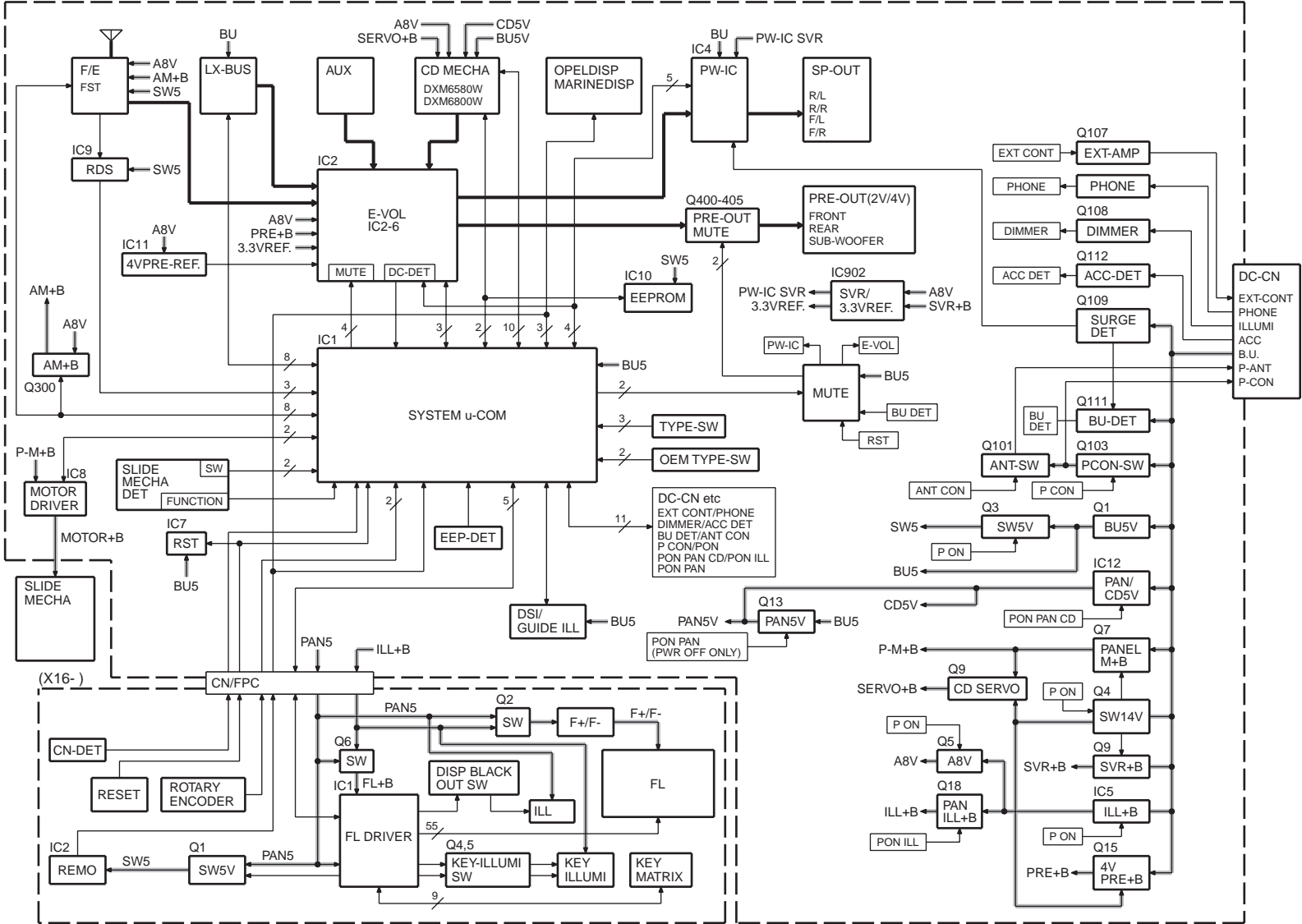
\* Depends on the model.  
Refer to the parts list.

This product uses Lead Free solder.

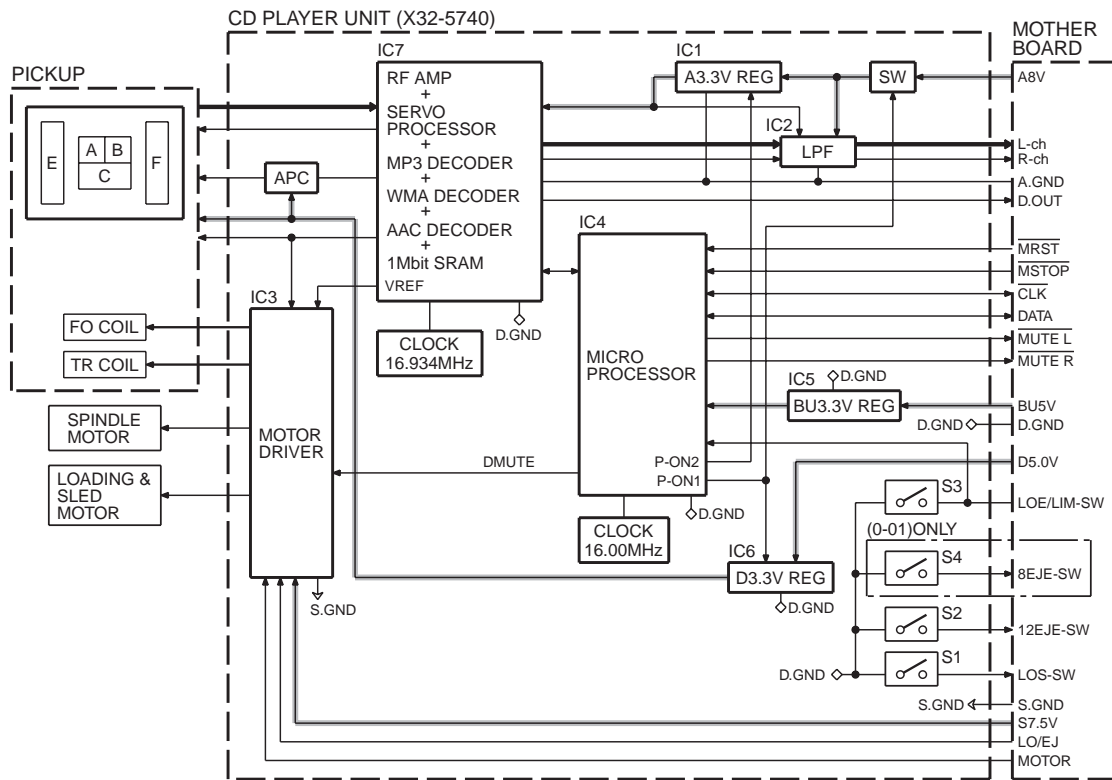


**BLOCK DIAGRAM**

ELECTRIC UNIT (X34-342x-xx/3762-71)



# BLOCK DIAGRAM



## COMPONENTS DESCRIPTION

### ● SWITCH UNIT (X16-2920-11/3142-70)

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC1	VFD Driver	
IC2	Remote Control IC	
Q1	SW5	The power supply for IC2 is turned on when Q1's base level goes "L".
Q2,Q3	FL+ SW	The power supply for filament is turned on when Q3's base level goes "H".
Q4	GREEN LED SW	GREEN LED is turned on when Q4's base level goes "H".
Q5	RED LED SW	RED LED is turned on when Q5's base level goes "H".
Q6,Q7	VFL SW	The power supply for IC1's VFL is turned on when Q7's base level goes "H".
Q8	GREEN LED SW (TRIANGLE LED)	GREEN LED (TRIANGLE LED) is turned on when Q8's base level goes "H".

### ● CD PLAYER UNIT (X32-5740-0x)

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC1	A3.3V regulator	Power supply for audio 3.3V
IC2	Ope amp for low-pass filter	
IC3	4ch BTL driver	Driving spindle motor and loading/ejection operation
IC4	μ-com	
IC5	Bu 3.3V regulator	Power supply for backup 3.3V
IC6	D3.3V regulator	Digital 3.3V power supply
IC7	Audio DAC built-in servo DSP	MP3, WMA, and AAC compatible
IC8	Memory IC	Used only for 0-02 destination
IC11	Buffer IC	Level shift
Q1	A3.3V discharge circuit	
Q4	Electric AMP	Adjusts current to be sent to laser
Q5,6	SW 5V	
Q7,8	SW 8V	
D1	For electric AMP	

### ● ELECTRIC UNIT (X34-342x-xx/3762-71)

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC1	System μ-com	
IC2	E-vol IC	
IC3	Regulator IC for A8V	
IC4	Power IC	
IC5	Regulator IC for ILL+B (10.65V)	
IC6	Logic IC for muting	
IC7	Reset IC	
IC8	Motor Driver IC for Slide panel mecha	
IC9	RDS Decoder IC	
IC10	Rom IC for Installer-Memory and Rom-Correction	

## COMPONENTS DESCRIPTION

Ref. No.	Application / Function	Operation / Condition / Compatibility
IC11	AMP for 4V Pre-Out Ref.	
IC12	Switching regulator IC for CD mecha D5V and FL filament	
IC902	AMP for Power IC SVR and E-vol IC 3.3V Ref.	
Q1,2	B.U.5V AVR	While BU is applied, BU5V AVR outputs 5V.
Q3,11	SW5V	When Q11'base goes Hi, SW5V outputs 5V.
Q4,906	SW14V	When Q4'base goes Hi, SW14V outputs 14V.
Q5,6	AUDIO8V AVR	When Q6'base goes Hi, A8V AVR outputs 8.3V.
Q7,8	MOTOR+B AVR	When Q8'base goes Hi, M+B AVR outputs 8.3V.
Q9,10	SERVO+B AVR	When Q10'base goes Hi, S+B AVR outputs 7.7V.
Q12	SW for IC12	When Q12'base goes Lo, IC12 is turned on.
Q13	PAN5V	When Q13'base goes Lo, PAN5V outputs 5V.
Q14	4V PRE+B Short Protection	If Q15'Emitter short to GND, between Q14'Base to Emitter more than 0.6V, Q14 ON and Q15 is turned off.
Q15,16	4V PRE+B	When Q15'base goes Hi, 4V PRE+B outputs 12V.
Q17,18	ILL+B SW	When Q17'base goes Hi, ILL+B SW outputs 10.65V.
Q101,102	P-ANT SW	When Q102'base goes Hi, P-ANT SW outputs 14V.
Q103,106	P-CON SW	When Q106'base goes Hi, P-CON SW outputs 14V.
Q104,105	P-CON Protection	Protects Q104 from being triggered erroneously. This is achieved by turning on output protection when P-CON output grounding is detected.
Q107	Ext Amp Control Buffer	
Q108	Small lamp det SW	When Q108'base goes Hi, Q108 is turned on.
Q109,110	Surge det	When Q109'base goes Hi, Q109, Q110 are turned on.
Q111	BU det	When Q111'base goes Hi, Q111 is turned on.
Q112	ACC det	When Q112'base goes Hi, Q112 is turned on.
Q113	Mute driver	When Q113'base goes Lo, mute driver is turned on.
Q114	Mute driver	When Q114'base goes Lo, mute driver is turned on.
Q115,116	Mute driver	When a base goes Lo, mute driver is turned on.
Q300,301	AM+B SW	When Q301'base goes Hi, AM+B is out.
Q304	DSI (Disabled System Indicator)	DSI blinks when Q304'base goes "H/L"
Q400-405	Pre-out mute SW	When a base goes Hi, Pre-out is muted.
Q905	SVR+B AVR	When Q905'base goes Hi, SVR+B AVR outputs 14V.

# MICROCOMPUTER'S TERMINAL DESCRIPTION

● MECHANISM MICROCOMPUTER 703030BYGCJ09A (X32-574 : IC4)

Pin No.	Pin Name	I/O	Application	Processing Operation Description	Remarks
1	NC	O	Not used.	Low-fixed	
2	E2P_SCL	I/O	Rom correction E2P I2C clock		
3~5	NC	O	Not used.	Low-fixed	
6	VDD	-	5V electric potential		
7	GND	-	GND electric potential		
8,9	NC	O	Not used.	Low-fixed	
10,11	PON1,PON2	O	Power ON/OFF control	H : ON, L : OFF	
12	LOE/LIM_SW	I	Down-limit SW detection	L : Lim detection	
13	DAC_MUTE	O	DAC MUTE control	H : MUTE ON, L : MUTE OFF	Used only with DXM-6590W. With DXM-6580W, open and L-fixed.
14	DAC_RST	O	DAC RESET	H : NORMAL, L : RESET	Used only with DXM-6590W. With DXM-6580W, open and L-fixed.
15	EMPH	O	External DAC Emphasis control	H : Emphasis ON, L : Emphasis OFF	Used only with DXM-6590W. With DXM-6580W, open and L-fixed.
16,17	NC	O	Not used.	Low-fixed	
18	IC/Vpp	-	Write voltage (FLASH)	L : Normal operation, H : In writing.	
19	MUTE_L	O	Lch audio MUTE control	L : MUTE ON, H : MUTE OFF	
20	MUTE_R	O	Rch audio MUTE control	L : MUTE ON, H : MUTE OFF	
21	TYPE	I	DAC switching terminal	H : DSP built-in DAC used, L : DSP built-in DAC Not used.	H : DXM-6580W, L : DXM-6590W
22	TEST_O 1	O	TEST MODE O 1	(Not used.)	
23	TEST_O 2	O	TEST MODE O 2	(Not used.)	
24	TEST_O 3	O	TEST MODE O 3	(Not used.)	
25	TEST_O 4	O	TEST MODE O 4	(Not used.)	
26	NC	O	Not used.	Low-fixed	
27	WAIT	I	Wait control signal detection		
28~30	NC	O	Not used.	Low-fixed	
31	RESET	I	Reset detection	H : NORMAL, L : RESET	
32	XT1	I	Not used.		
33	XT2	-	Not used.		
34	REGC	-			
35	X2	-			
36	X1	I			
37	Vss	-	GND electric potential		
38	VDD	-	5V electric potential		
39	NC	O	NC	Output stopped in standby	3.3V driven
40	WRL	I	Multiplex WRITE signal		3.3V driven
41,42	NC	O	Not used.	Low-fixed	3.3V driven

\* DXM-6580W : X92-5080-00, DXM-6590W : X92-5190-00

## MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Application	Processing Operation Description	Remarks
43	RD	O	Multiplex RD signal		3.3V driven
44	ASTB	O	Multiplex ASTB signal		3.3V driven
45	NC	O	Not used.	Low-fixed	3.3V driven
46	NC	O	Not used.	Low-fixed	3.3V driven
47~54	AD0~AD7	I/O	Multiplex address/data		3.3V driven
55	BVdd	-	Bus interface power supply		
56	BVss	-	Bus interface GND		
57~61	AB8~AB12	I/O	Multiplex data/address		3.3V driven
62~65	NC	O	Not used.	Low-fixed	3.3V driven
66	CS	O	Chip select control	H : OFF, L : ON	3.3V driven
67	DSP RESET	O	DSP reset control	H : NORMAL, L : RESET	3.3V driven
68~70	NC	O	Not used.	Low-fixed	3.3V driven
71	Avdd	-			
72	Avss	-			
73	Avref	I	A/D port reference voltage input		
74	NC	I	Not used.	Low-fixed	
75	RAMSEL	I	With DRAM/No DRAM switching for different models	H : With DRAM, L : No DRAM	
76	RZM	I	Obit MUTE detection	H : $\geq 1.7V$ , L : $< 1.7V$	
77	LZM	I	Obit MUTE detection	H : $\geq 1.7V$ , L : $< 1.7V$	
78	AAC	I	AAC compatibility switching	H : AAC non-compatible, L : AAC compatible	AAC non-compatible mode has priority for both hardware and software.
79	ASEL	I	Audio output polarity switching	H : Reverse output, L : Non-reverse output	
80	E2P_WR	I	E2PROM write switching	H : E2PROM WRITE, L : NORMAL	
81	TEST_I 0	I	TEST MODE I 0	(Not used.)	
82	TEST_I 1	I	TEST MODE I 1	(Not used.)	
83	TEST_I 2	I	TEST MODE I 2	(Not used.)	
84	TEST_I 3	I	TEST MODE I 3	(Not used.)	
85	NC	I	Not used.	Low-fixed	
86	NC	O	Not used.	Low-fixed	
87	MSTOP	I	Standby restart interruption	H : STOP release, L : STOP	
88	INTSV	I	Interruption from servo IC	H : Interruption	
89~92	NC	O	Not used.	Low-fixed	
93	D-MUTE	O	Driver MUTE	H : OFF, L : ON	
94	SYS_SDA	I/O	System $\mu$ -com I2C data		Flash write port (SI0)
95	NC	O	Not used.	Low-fixed	Flash write port (SO0)
96	SYS_SCL	I/O	System $\mu$ -com I2C clock		Flash write port (SCK0)
97~99	NC	O	Not used.	Low-fixed	
100	E2P_SDA	I/O	ROM correction E2P I2C data		

# MICROCOMPUTER'S TERMINAL DESCRIPTION

● MAIN MICROCOMPUTER 30624MHPA35GP (X34 : IC1)

Pin No.	Pin Name	Module (functional)	I/O	Application	Truth Value Table	Processing Operation Description
1	REMO	EXTRA	I	Remote controller signal input		Pulse width is detected.
2	LX_MUTE	LX_M	I	Mute request from slave unit		H : Mute ON, L : Mute OFF
3	AUD_SDA	AUDIO	I/O	E-VOL data output terminal		
4	AUD_SEL	AUDIO	O	E-VOL control terminal		
5	AUD_SCL	AUDIO	O	E-VOL clock output terminal		
6	BYTE	μCOM	-			
7	CNVSS	μCOM	-			
8	XCIN	μCOM	I			
9	XCOUT	μCOM	I			
10	RESET	μCOM	-			
11	XOUT	μCOM	-			
12	VSS	μCOM	-			
13	XIN	μCOM	-	12.0MHz		
14	VCC1	μCOM	-			
15	NMI	μCOM	I	Not used.		
16	CN_DET	EXTRA	I	Panel communication detection		H : No PANEL, L : With PANEL
17	RDS_CLK	TUNER	I	RDS decoder CLK input terminal (RDS Model only)		
17	NC		O	Not used. (Other than RDS Model)		Output L-fixed
18	LX_REQ_S	LX_M	I	Communication request from slave unit		
19	PON_AM	Power supply	I/O	AM power supply control		AM in operation : H, AM not in operation : Hi-z
20	LX_REQ_M	LX_M	O	Communication request to slave unit		
21	TUN_IFC_OUT	TUNER	I	F/E IFC OUT input terminal		H : With station, L : No station
22	RDS_AFS_L	TUNER	I/O	Constant switching at noise detection	④	Refer to truth value table.
23	RDS_AFS_M	TUNER	I/O	Constant switching at noise detection	④	Refer to truth value table.
24	RDS_QUAL	TUNER	I	RDS decoder QUAL input terminal (RDS Model only)		
24	NC		O	Not used. (Other than RDS Model)		Output L-fixed
25	RDS_DATA	TUNER	I	RDS decoder DATA input terminal (RDS Model only)		
25	NC		O	Not used. (Other than RDS Model)		Output L-fixed
26	PWIC_BEEP	PWIC	O	Beep output		
27	TUN_SCL	TUNER	I/O	F/E I2C clock input/output terminal		(MAX400kHz)
28	TUN_SDA	TUNER	I/O	F/E I2C data input/output terminal		
29	VFD_SYS_DATA	toPANEL	O	VFD data output terminal		Data output
30	VFD_PAN_DATA	toPANEL	I	VFD data input terminal		Data input
31	VFD_CL	toPANEL	O	VFD clock output terminal		125kHz
32	VFD_INH	toPANEL	O	VFD data blanking output		H : Light ON, L : Light OFF
33	SDA/CD_SDA	CD	I/O	CD mechanism I2C data input/output terminal		
33	SDA/ROMCOR_SDA	EXTRA	I/O	ROM correction E2PROM I2C data input/output terminal		
34	SCL/CD_SCL	CD	I/O	CD mechanism I2C clock output terminal		



## MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	Module (functional)	I/O	Application	Truth Value Table	Processing Operation Description
34	SCL/ROMCOR_SCL	EXTRA	I/O	ROM correction E2PROM I2C clock output terminal		
35	PON_PANEL	Power supply	I/O	Panel 5V control terminal		POWER ON : Hi-Z, POWER OFF : L, 50Ms before PON_PANEL/CD turns H : L
36	DSI	EXTRA	I/O	DSI control terminal		OFF : Hi-z No PANEL : Pulse driven ILL_ON, OPEN (When Power_ON) : H
37	PM_MOT1	P-MECHA	O	Panel motor control 1	②	Refer to truth value table.
38	PM_MOT2	P-MECHA	O	Panel motor control 2	②	Refer to truth value table.
39	ELM	μCOM	I	FLASH EPM input terminal		
40	PM_OPEN	P-MECHA	I	Panel full open detection	③	Refer to truth value table.
41	PM_CLOSE	P-MECHA	I	Panel mechanism close detection	③	Refer to truth value table.
42	ROMCOR_DET	EXTRA	I	E2PROM write request		H : Writing
43	PM_DET	P-MECHA	I	Panel mechanism detection		H : Function check in progress
44	VFD_CE	toPANEL	O	VFD_control request		
45	ROTARY_CW	toPANEL	I	VOL key input		Pulse width is detected.
46	ROTARY_CCW	toPANEL	I	VOL key input		Pulse width is detected.
47	CD_DISC12_SW	CD	I	CD disc detection terminal (12cm)		
48	CD_LOS_SW	CD	I	CD loading detection terminal		
49	CD_MUTE_R	CD	I	CD MUTE(Rch) request terminal		H : Normal, L : Rch mute request Effective only for CD
50	CD_MUTE_L	CD	I	CD MUTE(Lch) request terminal		H : Normal, L : Lch mute request Effective only for CD
51	CD_MRST	CD	O	CD mechanism μ-com RST terminal		H : Normal, L : Reset
52	CD_MSTOP	CD	O	CD mechanism μ-com stop terminal		H : CD mechanism μ-com in operation L : CD mechanism μ-com stop
53	NC	CD	O	Not used.		Output L-fixed
54	CD_LOE_LIM_SW	CD	I	CD detection terminal (Chucking SW)		H : Loading complete, L : No disc
55	CD_LOEJ	CD	I/O	CD motor control terminal	①	Refer to truth value table.
56	CD_MOTOR	CD	O	CD motor control terminal	①	Refer to truth value table.
57	PON_ILLUMI	Power supply	I/O	Key Illumi power supply control		ON : H, OFF : Hi-Z
58	PON_PANEL_CD	Power supply	O	Panel 5V/CD WMA Power supply control terminal		POWER ON : L POWER OFF : H, when RESET, L before M-STOP. Refer to timing chart
59	PON	Power supply	O	Power supply control		POWER ON : H, POWER OFF : L
60	VCC2	μCOM	-			
61	EXT_AMP_CON	EXTRA	I/O	External AMP control		
61	NC		O	Not used. (Destination with no external AMP control)		Output L-fixed
62	VSS	μCOM	-			
63~65	TYPE_1~TYPE_3	TYPE	I	Destination switching	⑥	Refer to truth value table.
66	TUN_TYPE1	TYPE	I	Destination setting 1	⑤	Refer to truth value table.
67	TUN_TYPE2	TYPE	I	Destination setting 2	⑤	Refer to truth value table.
68	OEM_DISP_DATA	EXTRA	I/O	External display data		External display
68	NC		O	Not used. (M-destination only)		Output L-fixed
69	OEM_DISP_CLK	EXTRA	I/O	External display CLK		External display
69	NC		O	Not used. (M-destination only)		Output L-fixed

## MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	Module (functional)	I/O	Application	Truth Value Table	Processing Operation Description
70	OEM_DISP_CE	EXTRA	I/O	External display control request		External display
70	NC		O	Not used. (M-destination only)		Output L-fixed
71	NC	EXTRA	O	Not used.		Output L-fixed
72	P_CON	Power supply	O	External AMP control terminal		POWER ON : H, POWER OFF : L, STANDBY source : L
73	KEY_REQ	toPANEL	I	Communication request from VFD driver		Connect to VFD_PAN_DATA
74	ANT_CON	EXTRA	O	Power antenna control		TUNER ON : H
75	ILLUMI_DET	EXTRA	I	Dimmer Illumi control		L : ON, H : OFF
76	BU_DET	EXTRA	I	Momentary power down detection		With BU : L, No BU, Momentary power down : H
77	ACC_DET	EXTRA	I	ACC Power supply detection		With ACC : L, No ACC : H
78	(PWIC_SVR)	PWIC	O	SVR discharge circuit		When POWER OFF and momentary power down, for 5 sec. : H, Then, : L
79	PWIC_MUTE	PWIC	O	Power IC MUTE terminal		When STANDBY source and momentary power down : L, When TEL MUTE : L
80	PWIC_STBY	PWIC	O	Power IC standby control		POWER ON : H, POWER OFF : L
81	LX_CON	LX_M	O	Boot up request to slave unit		H : Slave unit ON, L : Slave unit OFF
82	MUTE_PRE_R	AUDIO	O	PRE_OUT MUTE Rch		When CD MUTE R is L : H (When CD) At momentary power down : H Refer to timing chart. Only with 2-zone and NAVI interruption : L-fixed
83	MUTE_PRE_L	AUDIO	O	PRE_OUT MUTE Lch		When CD MUTE L is L : H (When CD) At momentary power down : H Only with 2-zone and NAVI interruption : L-fixed
84	MUTE_0	AUDIO	I/O	E-VOL FRONT MUTE terminal		L : MUTE ON, Hi-Z : MUTE OFF
85	MUTE_1	AUDIO	I/O	E-VOL REAR MUTE terminal		L : MUTE ON, Hi-Z : MUTE OFF
86	MUTE_2	AUDIO	I/O	E-VOL OTHER MUTE terminal		L : MUTE ON, Hi-Z : MUTE OFF
87	LINE_MUTE	EXTRA	I	Line mute detection		TEL MUTE : 1V or less NAVI MUTE : 2.5V or more
88	NC		O	Not used.		Output L-fixed
89	PWIC_DC_DET	PWIC	I	DC Offset detection terminal		
90	LX_RST	LX_M	O	Hard resetting to slave unit		H : Reset, L : Normal
91	MUTE_C	AUDIO	I/O	E-VOL MUTE terminal (For AFS)		L : MUTE ON, Hi-Z : MUTE OFF
92	NC		O	Not used.		Output L-fixed
93	RDS_NOISE	TUNER	I	FM noise detection terminal		
94	AVSS	μCOM	-			
95	TUN_SMETER	TUNER	I	S-meter output		
96	VREF	μCOM	-			Connect to P_ON
97	AVCC	μCOM	-			Connect to VCC
98	LX_DATA_S	LX_M	I	Data from slave unit		
99	LX_DATA_M	LX_M	I/O	Data to slave unit		
100	LX_CLK	LX_M	I/O	LX BUS clock		

# MICROCOMPUTER'S TERMINAL DESCRIPTION

## PANEL General Purpose Port Functional Allocation

Pin No.	Active (H/L)	Pin Name	I/O	Application	Processing Operation Description
68	H	RED	O	RED LED control terminal	RED : H GREEN : L
69	H	GREEN	O	GREEN LED control terminal	RED : L GREEN : H
70	L	PON	O	Panel SW5V control terminal	SW5V ON : L SW5V OFF : H
71	H	DBO	O	Triangle LED control terminal (eXcelon only)	DISPLAY BLACKOUT ON : H DISPLAY BLACKOUT OFF : L
71		NC	O	Not used. (Other than eXcelon)	Output L-fixed

## Truth Value Table

### ① CD\_MOTOR, CD\_LOEJ

	CD_MOTOR	CD_LOEJ
Stop	L	L
Load	H	L
Eject	H	H
Brake	H	Hi-z

### ② PANEL MOTOR CONTROL

	OPEN	CLOSE	STOP	WAIT
PM_MOT1	L	H	H	L
PM_MOT2	H	L	H	L

### ③ PANEL MECHANISM CONTROL

	FULL_OPEN	FULL_CLOSE	OTHER
PM_OPEN	H	L	L
PM_CLOSE	H	L	H

### ④ AFS CONTROL

	RDS_AFS_M	RDS_AFS_L	Condition
AFS LOW	L	L	No sound output with AF search
AFS MID	L	Hi-Z	Sound output with AF search
AFS HIGH	Hi-Z	Hi-Z	Normal reception

### ⑤ TUNER TYPE

	TUN_TYPE1 (66PIN)	TUN_TYPE2 (67PIN)
Third party model	L	L
OEM Model 1	L	H
OEM Model 2	H	L
OEM Model 3	H	H

### ⑥ Destination

TYPE3	TYPE2	TYPE1	Destination
0	0	0	KDC-X589
0	0	1	KDC-MP5028
0	1	0	KDC-MP528
0	1	1	KDC-W6531
1	0	0	KDC-W6031
1	0	1	KDC-X7529

## TEST MODE

### ● How to enter the test mode

In order to enter the test mode, reset the unit while simultaneously pressing down [1] and [3] keys.

### ● How to clear the test mode

The test mode is cleared in case of any of the following events: resetting, momentary power down, Acc OFF, Power OFF and removal of the panel.

### ● Initial conditions of the test mode

- Source is STANDBY.
- Displays lights are all turned on.
- The volume is at -10dB (The display is 30).
- Loudness (LOUD) is OFF.
- CRSC is OFF, regardless of whether there are switching functions or not.
- SYSTEM Q is NATURAL (=FLAT).
- BEEP will sound anytime with a short push.
- Auxiliary (AUX) is ON.
- SWPRE is SUB WOOFER (2 PREOUT models).

### ● RDS automatic measurement

Conventionally, the PS display has been visually checked on the production line. This will be replaced by a new processing. The PS data will be received and the PS contents is to be verified as "RDS\_TEST" When this is verified, the P-CON terminal is forced to go OFF. ( In this case, "\_" means blank. )

→ This will be a dedicated test mode processing.

On the P-CON, when power is turned off once and, then, turned on again, (Power OFF → ON ) the unit will be restarted.

### ● Special display when set to TUNER

When in TUNER mode, if any of the following displays appear, there is an abnormality with the front end.

- "TNE2P\_NG" : The E2PROM is still with the default (unspecified) value, due to the fact that the front-end being shipped without going through the adjustment process.
- "TNCON\_NG" : In this condition, the communication with the front end is not possible.

### ● Forced switching of K3I

In TUNER FM mode, each time [6] key is pressed, the functions move in the following cycle : AUTO → forced WIDE → forced MIDDLE → force NARROW → AUTO. The initial condition is AUTO and the displays below will appear.

- AUTO : FM1\_98.1A
- Forced WIDE : FM1\_98.1W
- Forced MIDDLE : FM1\_98.1M
- Forced NARROW : FM1\_98.1N

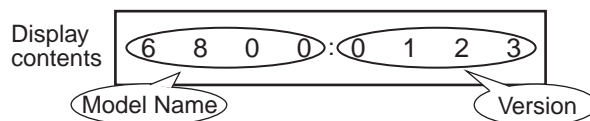
### ● CD receiver test mode specifications

- In the display mode, the initial setting is P-TIME.
- Jumps are made 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 (Returns to the beginning)

It must be noted, however, that when playing MP3 / WMA / AAC disk, which contain 8 files or less, the first track and the following tracks are played in order.

- When I◀◀ key is pressed, it goes down by one track.
- When playing MP3 / WMA / AAC disks, the file format is displayed immediately before playing each file. ("MP3", "WMA", "AAC")
- When a CD is used as a source, by short-pressing [1] key, a jump to the Track No.28 is made.
- When a CD is used as a source, by short-pressing [2] key, a jump to the Track No.14 is made.
- When a CD is used as a source, by short-pressing [3] key, a display of CD mechanism model name and its version is made. When the short-pressing of [3] key is made for the second time, the normal display is resumed. (Time code display)



- When a CD is used as a source, by short-pressing [6] key, a jump to the Track No.15 is made. At the same time, the volume value is set to 25 (2V PRE) and 27 (4V PRE).

### ● Audio Adjust mode

- By short-pressing [AUD] key, the Audio Adjust mode is entered.
- As with the [AUD] key, [\*] key on the remote controller can be used to enter the Audio Adjust mode.
- As for the adjustment items, items for both the AUDIO FUNCTION MODE and SETUP MODE are included.
- The first item is the Fader which is followed by : Balance → Bass Level → Middle Level → Treble Level → ( Sub Woofer Level ) → HPF Front → HPF Rear → LPF Sub Woofer. (Af-

# TEST MODE

ter this, any of the item can be selected)

\* Normally, Sub Woofer Level is not included. In this version, however, the Sub Woofer Level is included, and this has been already arranged.

- With the remote controller, continuous forwarding is prohibited.
- Using the VOL knob, the Fader is to be adjusted to the following three levels : R15 ↔ 0 ↔ F15. (The default value : 0)
- Using the VOL knob, the Balance is to be adjusted to the following three levels : L15 ↔ 0 ↔ R15. (The default value : 0)
- Using the VOL knob, the Sub Woofer Level is to be adjusted to the following three levels : -15 ↔ 0 ↔ +15 . (The default value : 0)
- Using the VOL knob, Bass / Middle / Treble Level is to be adjusted to the following three levels : -8 ↔ 0 ↔ +8 . (The default value : 0)
- Using the VOL knob, the HPF Front / Rear is to be adjusted to the following two levels : Through ↔ 180Hz (or 220Hz). (The default value : Through)
- Using the VOL knob, the LPF Sub Woofer is to be adjusted to the following two levels : 60Hz (or 50Hz) ↔ Through. (The default value : Through)
- Using the VOL knob, the Sub Woofer Phase is to be adjusted to the following two levels : Reverse ↔ Normal . (The default value : Normal)
- Using the VOL knob, the Volume Offset is to be adjusted to the following two levels : -8 ↔ 0. (The default value : 0)
- Using the VOL knob, the Loudness ON / OFF is to be adjusted to the following two levels : OFF ↔ ON. (The default value : OFF)
- Using the VOL knob, the 2 Zone ON / OFF is to be adjusted to the following two levels : OFF ↔ ON. (The default value : OFF)
- Items of Bass f / Bass Q / Bass EXT / Middle f / Middle Q / Treble f are not included in the audio adjustment.

## ● MENU Items

- By short-pressing [Q] key, MENU can be entered.
- The [DNPP/SBF] and [DIRECT] keys on the remote controller can also be used to enter the MENU.
- With the remote controller, continuous forwarding is prohibited.
- When a CD is used as a source, the default item will be the F/W Version. (DXM-6800 mechanism installed models.)

\* DXM-6800 : X92-5100-00

## ● 2-ZONE Items

- When using sources other than the STANDBY source, using a short-press on [AUTO] / [TI] key, 2-ZONE ON / OFF is achieved.  
(Since built-in AUX function is not available with KDC-X589 / KDC-X7529, this is effective only when CA-C1AX is connected.)

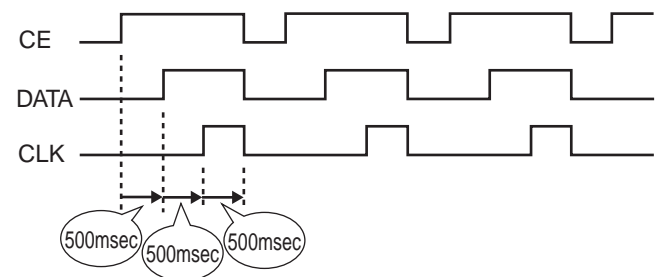
## ● Backup Current Measurement

When reset in Acc OFF (Back Up ON) condition, MUTE terminal goes off after 2 seconds, instead of 15 seconds. (During this time, the CD mechanism does not function.)

## ● OPEL Communication Items

During the test mode, OPEL communication line outputs the following.

(At every 500msec, the output condition of the communication line will be switched.)



## ● Special display when all lights are on

When all lights are on with the STANDBY source, the following displays are made when the keys shown below are pressed.

[1] Key	Version display (Display) 413K-1.02 ["Development Name" - "Version"]
[2] Key	Serial number display (8 digits) (Display) xxxxxxxx
[3] Key	Short-press : Power ON hours is displayed. During Power On hours display, by long-pressing for 2 seconds, the Power ON hours is cleared. (Display) PON xxxxx MAX 65535 (Hours)
[4] Key	Short-press : CD operation hours is displayed. During CD operation hours display, by long-pressing for 2 seconds, CD operation hours is cleared. (Display) CDT xxxxx MAX 65535 (Hours)

## TEST MODE

[5] Key	Short-press : CD EJECT number of times is displayed. During CD EJECT number of times display, by long-pressing for 2 seconds, CD EJECT number of times display is cleared. (Display) EJC xxxxx      MAX 65535 (Times)
[6] Key	Short-press : PANEL Open/close number of times is displayed. (*1) During PANEL Open/close number of times display, by long-pressing for 2 seconds, PANEL Open/close number of times is cleared. (Display) PC xxxxxx      MAX 65535 (Times)
[FM] Key	ROM correction version display When E2PROM is not installed : ROM_ERR_ When un-written : ROM_R - - - When data is incompatible : ROM_R*** (Display) ROM_R123
▶▶ Key	AUDIO data default value setting (Display) AUD_INIT
◀◀ Key	Short-press : CD mechanism error log display (Forward) During CD mechanism error log display : by long-pressing for 2 seconds, all error log information is cleared. (Display) I2C_OK__ → ERR_1-xx → ERR_2-xx → ERR_3-xx → All lights turn on NG ("xx" displays "--" or error codes)

(\*1) One count is made when the panel opens to full or when a disc is loaded.

### ● Initializing AUDIO-related value setting

During STANDBY sourcing, by short-pressing ▶▶ key, AUDIO setting values are returned to the default values.

### ● Check on FL-tube short-circuit

During STANDBY sourcing, each time [ATT] key is short-pressed, the processing is switched in the following order.:

1. All lights off.
2. At every 125msec, the odd and even number terminals of the grid with the largest numbers are lighted.
3. Only odd number terminals are lighted.
4. Only even number terminals are lighted.
5. All lights are lighted.

\* After No 5, the processing goes back to No. 1 and this is repeated.

### ● Other

- At Power ON, "CODE\_OFF", "CODE\_ON" displays will not be made.
- During STANDBY sourcing, by short-pressing [AUTO] / [TI] key, GREEN/RED of the key illumination is switched.  
With KDC-X589 / KDC-X7529 models, which are installed with Display Blackout function, switching will be made in the following order :

KDC-X589	Key Illumi		Triangle Illumi	
	GREEN	RED	GREEN	RED
①	OFF	ON	OFF	ON
②	OFF	OFF	ON	OFF
③	ON	OFF	OFF	ON
④	OFF	ON	OFF	OFF

KDC-X7529	Key Illumi		Triangle Illumi	
	GREEN	RED	GREEN	RED
①	ON	OFF	OFF	ON
②	OFF	OFF	ON	OFF
③	OFF	ON	OFF	ON
④	OFF	OFF	ON	OFF

\* With the hardware configuration, when either GREEN/RED of the key illumination could lights up, the RED of the triangle illumination is to be lighted.

When desiring to light up GREEN of the triangle illumination, turn off both GREEN and RED of the key illumination.

- When starting up in the test mode, LINE MUTE prohibition time is set to 1 second instead of 10 seconds.
- While in the test mode, security jig should not be used to write the security code.
- While in the test mode, serial writing jig should not be used to write the serial number.
- While in the test mode, even when a DC error is detected, the detection information will not be written to the E2PROM.
- While in the test mode, even after an elapse of pre-set time, the backup memory items will not be written to the E2PROM.
- Information Clear mode for Test Mode, backup/installer memory, and CD mechanism error log, In the DC error detection information clear mode, DEMO mode operation will not be conducted.  
Also, in the above mode, the menu of the STANDBY source will not display DEMO ON/OFF switching items.
- While in the test mode, and at the same time, PM\_DET terminal is H, the following will apply to the EJECT key, re-

# TEST MODE

ardless of whether a disc is in the unit or not.

Panel full OPEN/CLOSE is conducted with a short-push.  
(Protection time : 3 seconds)

As far as this item is concerned, eject will be achieved by 1 second long-push on the EJECT key.

## ● Clearing Backup/Installer memory and CD mechanism error log information (E2PROM data clear)

1. While pressing [Q] and [ATT] keys simultaneously, reset to restart. This will initiate the initializing processes of backup/installer memory and CD mechanism error log information.
2. When the initialization process is completed, the following displays will be made.
  - Normal completion : "CD\_O : AU\_O\_"
  - Abnormal completion1 : "CD\_O : AU\_X\_" --- backup/installer memory, initialization NG
  - Abnormal completion2 : "CD\_X : AU\_O\_" --- CD mechanism error log information, initialization NG
  - Abnormal completion3 : "CD\_X : AU\_X\_" --- All initialization processes NG
3. While in this mode, even after an elapse of a pre-set time, no backup memory items will be written to the E2PROM.
4. This mode is released by resetting. (What was on the last screen will not be retained.)

## ● Clearing DC error detection information (E2PROM data clear)

1. While simultaneously pressing down on [3] and [6] keys, reset the unit to enter the DC error display mode.
2. During STANDBY sourcing, the current DC error conditions will be displayed.
  - When error detected : "DC\_ERR\_\_"
  - When error not detected : "DC\_OK\_\_"
3. While the error conditions are being displayed, short-press [AUTO] / [TI] keys to clear the detection information. (E2PROM clear)
4. DC Error Display mode is released by resetting. (What was on the last screen will not be retained.)

## ● Frequency spun switching (K / M type)

From the Power OFF condition, while pressing [1] and [5] keys down simultaneously, press the [SRC] key and turn power ON.

## ● Security

### ● Forced Power ON mode (All models)

Even in the case where security is in effect, by simultaneously pressing down on [Q] and [4] keys and resetting, it is possible to turn the power on for 30 minutes only. After an elapses of 30 minutes, restart is possible only by resetting.

### ● How to register the security code after replacement of the E2PROM (F/E) (Code security models)

1. Enter the test mode. (Refer to the section on "How to Enter the Test Mode.")
2. Enter the MENU. While "SECURITY" is being displayed, long-press ►► key for 1 second and enter the Security Registration mode.
3. Using [FM] / [AM] / ◀◀ / ▶▶ keys, enter the code.
  - [FM] key : Number up / [AM] key : Number down
  - ▶▶ key : Cursor Right / ◀◀ key : Cursor Left
4. Press ►► key for 3 seconds to display "RE-ENTER." Then, re-enter the code using the method in above 4.
5. Press ►► key for 3 seconds to display "APPROVED."
6. Release the test mode. (Refer to the section on "How to Release the Test Mode.")

**Note** : The security code for this model cannot be deleted by "all clear" command.

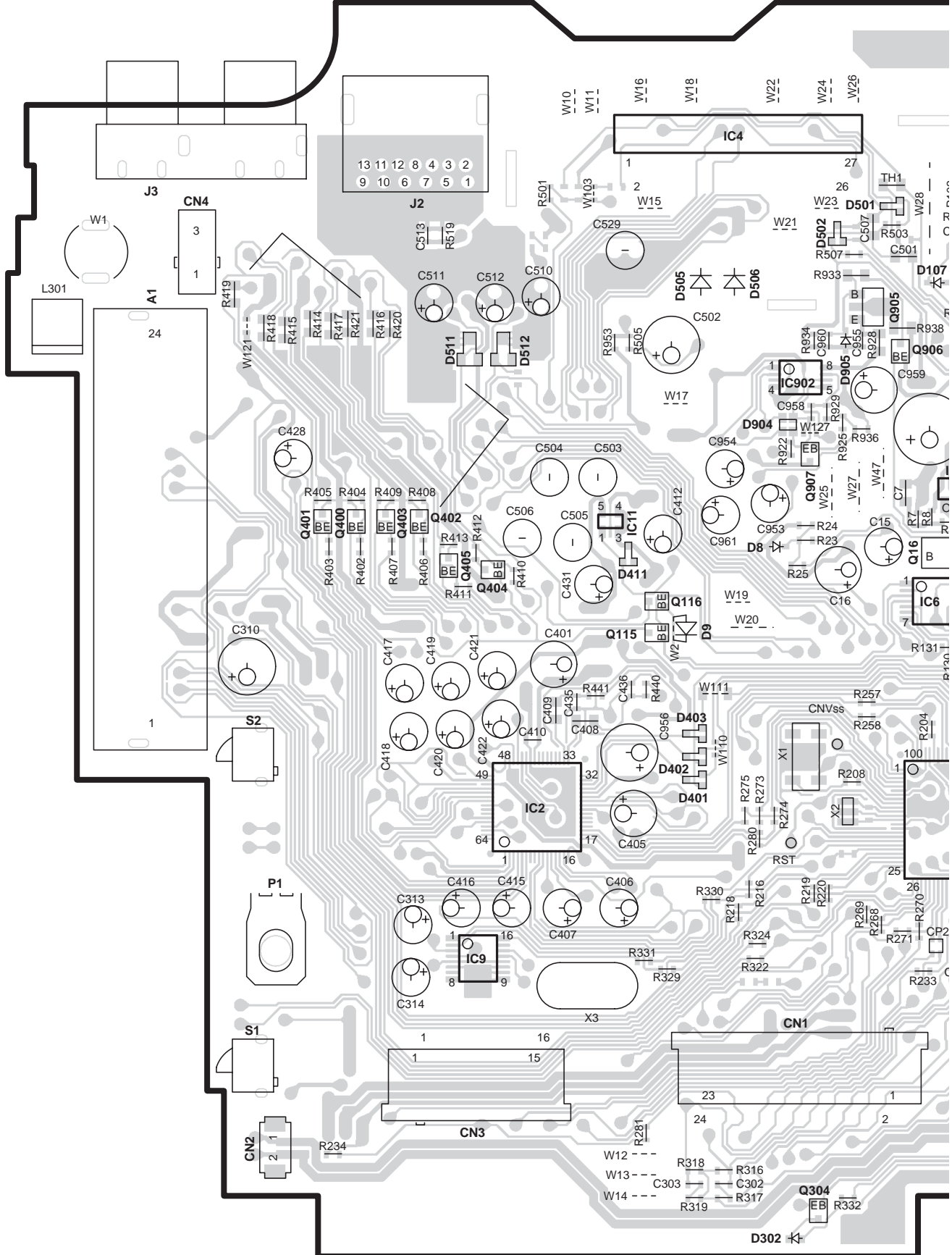
### ● Simplified method of clearing security code

1. When you are requested to enter the security code, while pressing down on [AUTO] key, use a long-press on ►► key for 3 seconds. (---disappears.)
2. Using the remote controller, input "KCAR."
  - Press remote controller [5] key 2 times and then press ►► key. (Input for "K.")
  - Press remote controller [2] key 3 times and then press ►► key. (Input for "C.")
  - Press remote controller [2] key once and then press ►► key. (Input for "A.")
  - Press remote controller [7] key 2 times and then press ►► key. (Input for "R.")
3. The security is released and the unit enters the STANDBY sourcing mode.
4. If a wrong code is input, the unit goes into the Code Request mode.

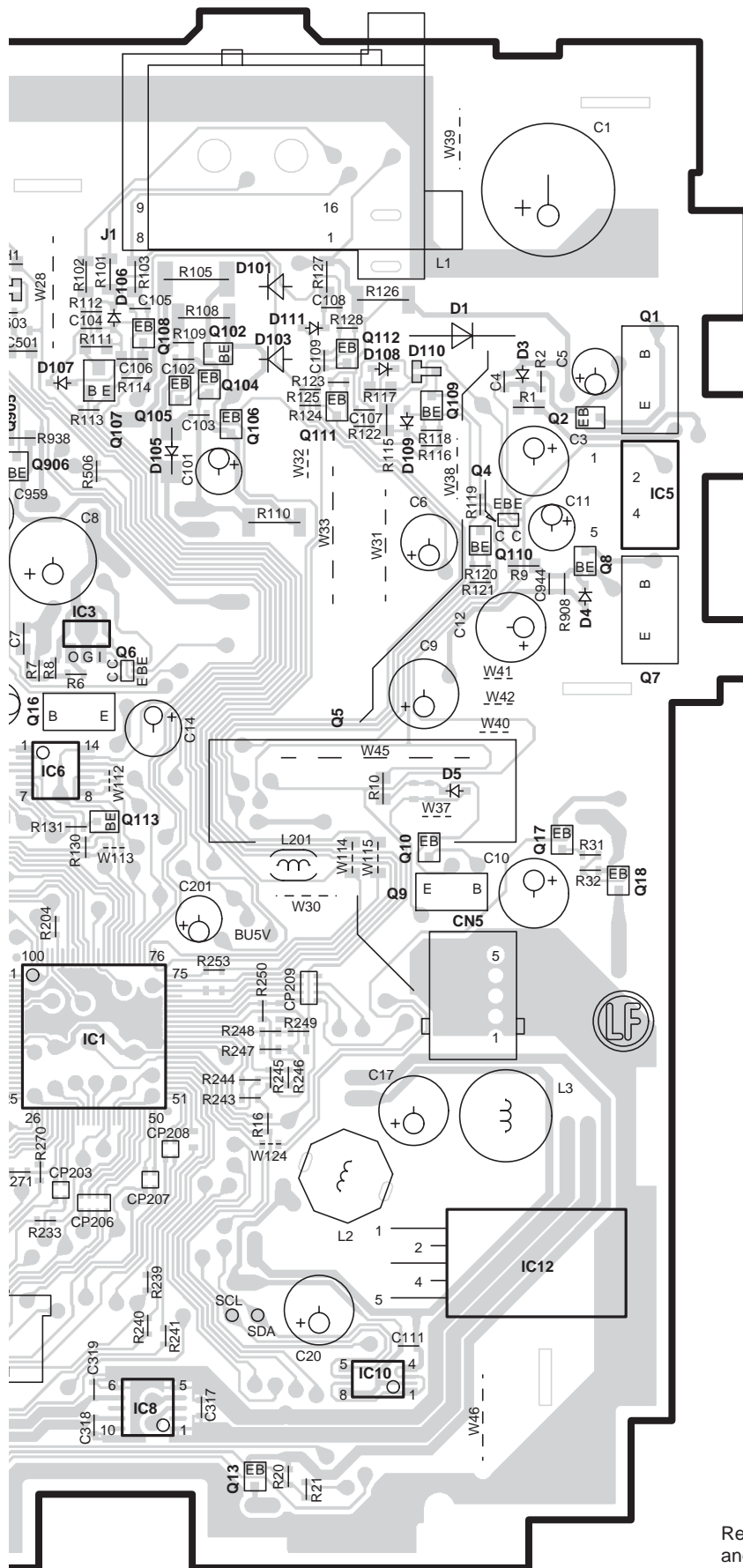
KDC-MP5028/MP528  
/W6031/W6031Y

# PC BOARD (COMPONENT SIDE VIEW)

ELECTRIC UNIT X34-342x-xx/3762-71 (J76-0049-12)







X34-342x-xx/3762-71

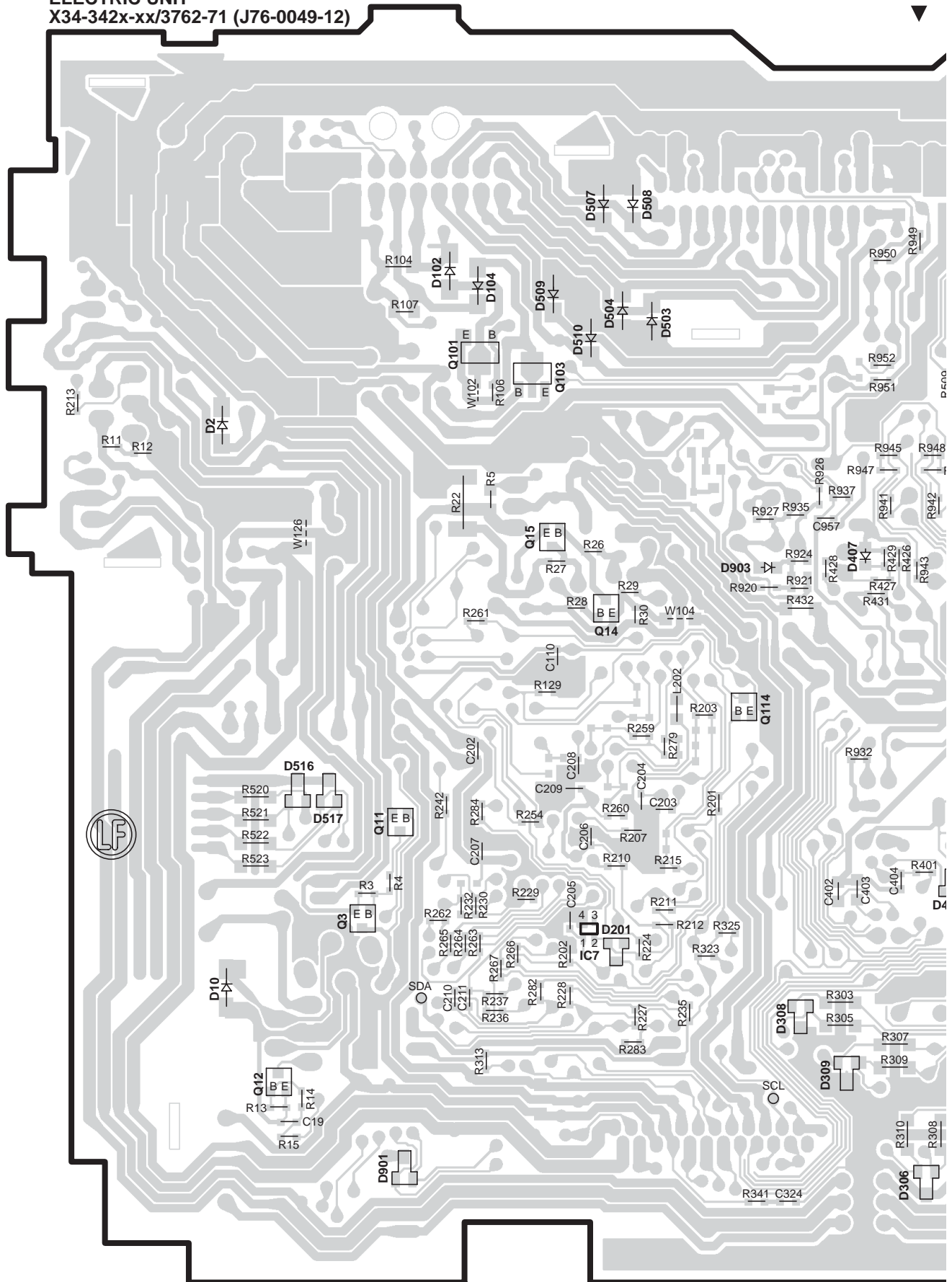
Ref. No.	Address	Ref. No.	Address
IC1	5F	Q17	4H
IC2	5D	Q18	5H
IC3	4F	Q102	2F
IC4	2D	Q104	3F
IC5	3H	Q105	3F
IC6	4F	Q106	3F
IC8	7F	Q107	3F
IC9	6C	Q108	2F
IC10	6G	Q109	3G
IC11	4D	Q110	3G
IC12	6H	Q111	3G
IC902	3E	Q112	2G
Q1	2H	Q113	4F
Q2	3H	Q115	4D
Q4	3G	Q116	4D
Q5	4G	Q304	7E
Q6	4F	Q400	4C
Q7	4H	Q401	4B
Q8	3H	Q402	4C
Q9	5G	Q403	4C
Q10	4G	Q905	3E
Q13	7F	Q906	3F
Q16	4E	Q907	4E

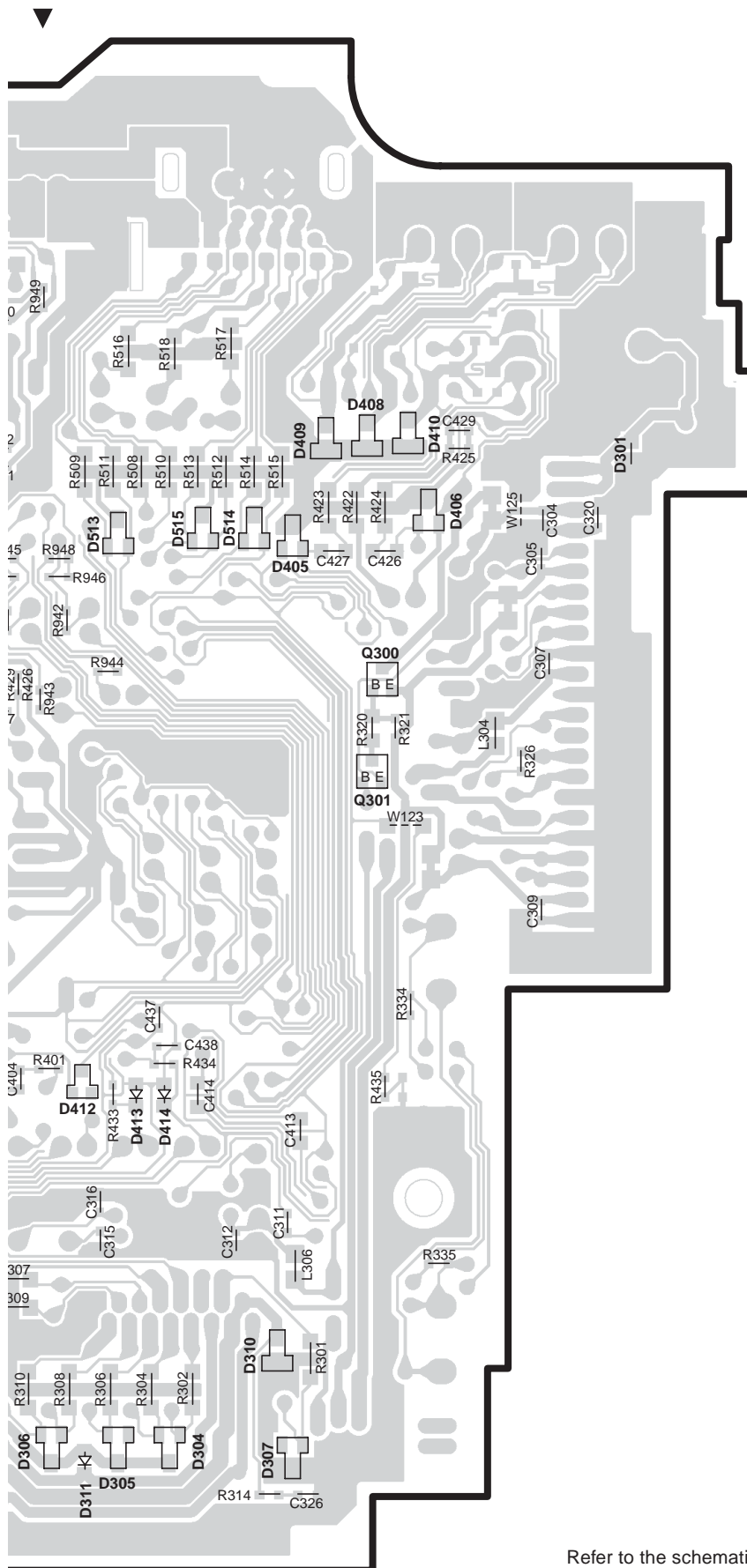
Refer to the schematic diagram for the values of resistors and capacitors.

KDC-MP5028/MP528  
/W6031/W6031Y

# PC BOARD (FOIL SIDE VIEW)

ELECTRIC UNIT  
X34-342x-xx/3762-71 (J76-0049-12)





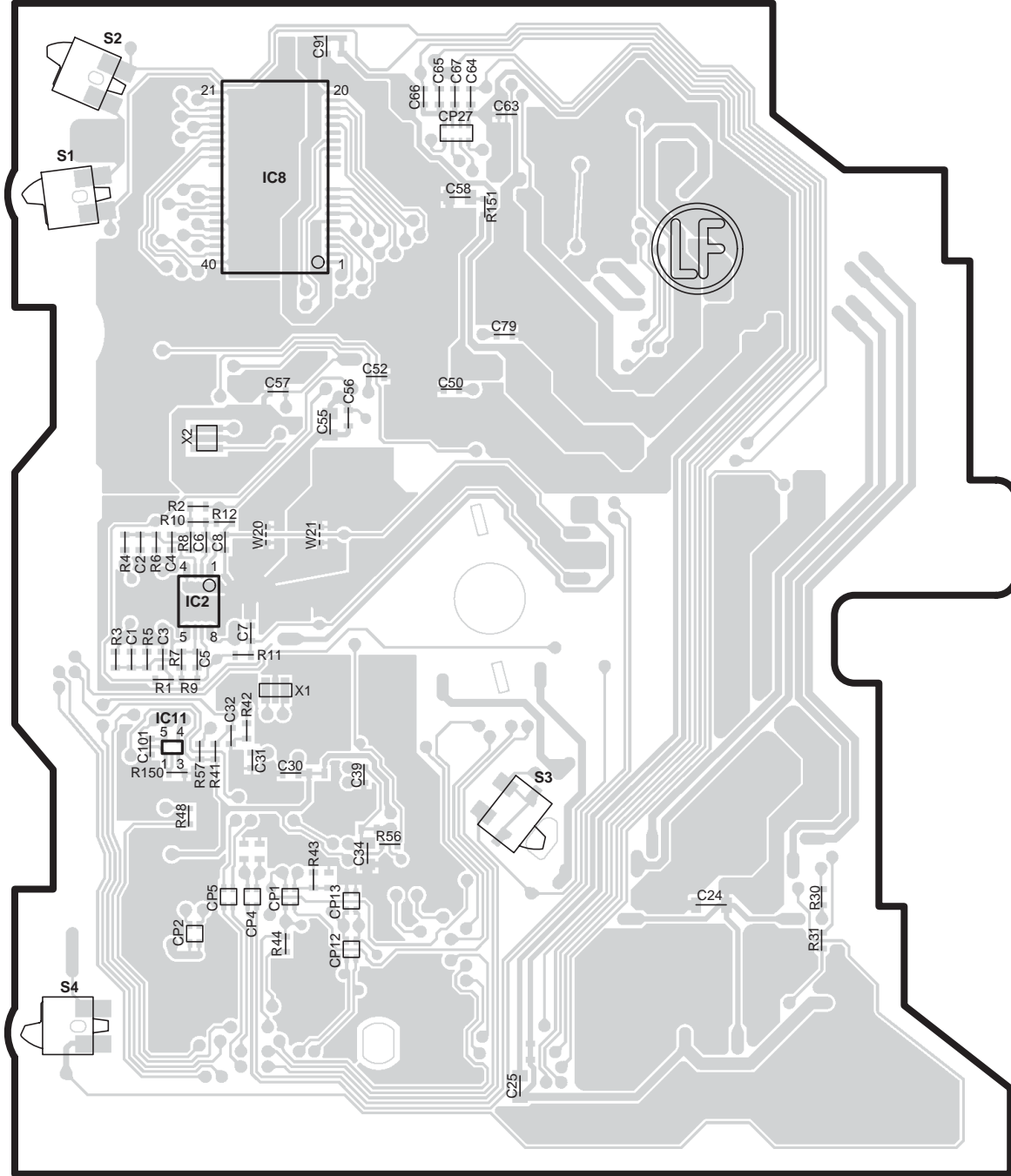
## X34-342x-xx/3762-71

Ref. No.	Address
IC7	6N
Q3	5M
Q11	5M
Q12	6L
Q14	4N
Q15	4N
Q101	3M
Q103	3N
Q114	4O
Q300	4Q
Q301	4Q

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

# PC BOARD (COMPONENT SIDE VIEW)

## CD PLAYER UNIT X32-5740-0x (J76-0065-12)



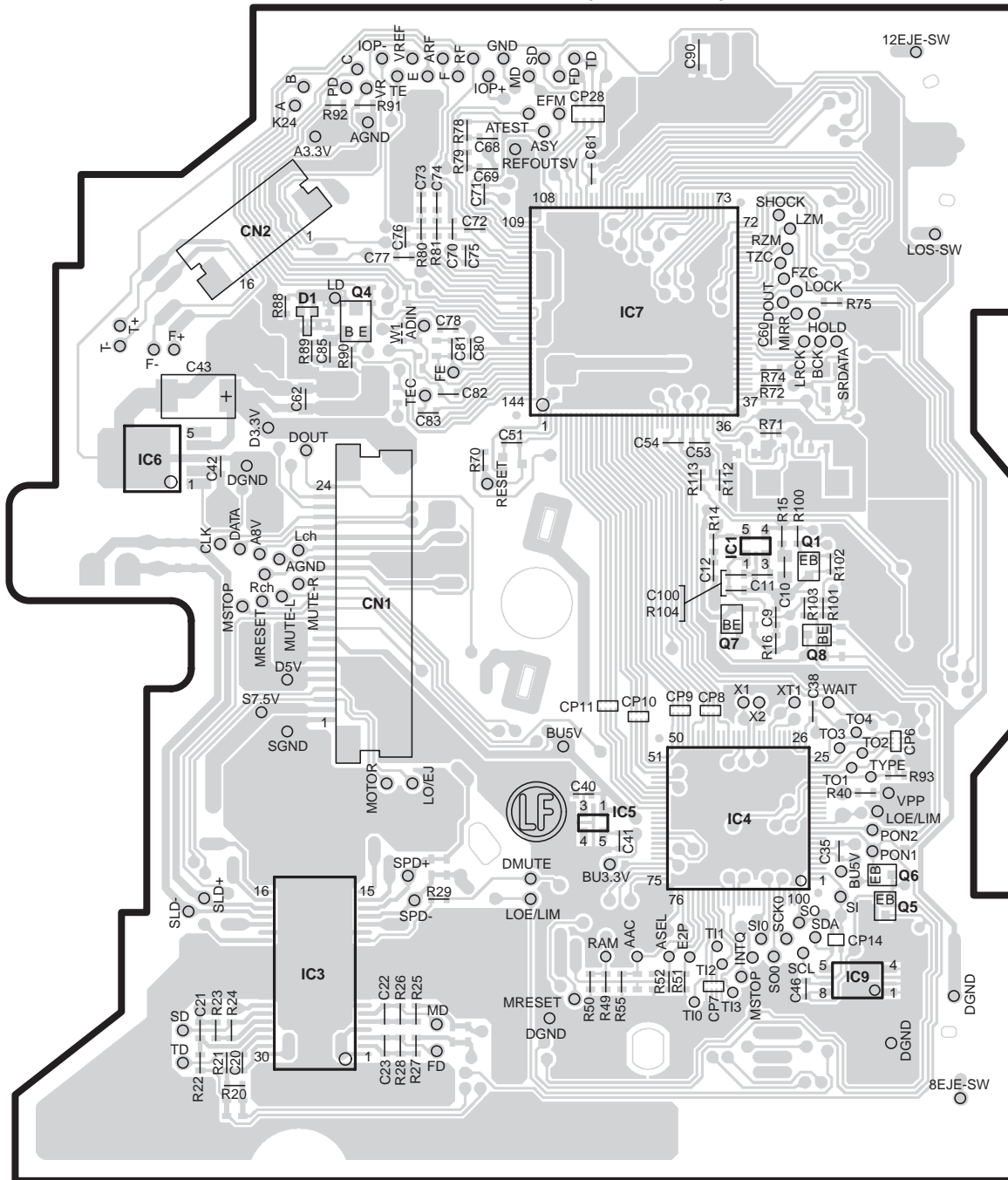
### X32-5740-0x

Ref. No.	Address
IC2	4V
IC8	2V
IC11	4V

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

## PC BOARD (FOIL SIDE VIEW)

## CD PLAYER UNIT X32-5740-0x (J76-0065-12)



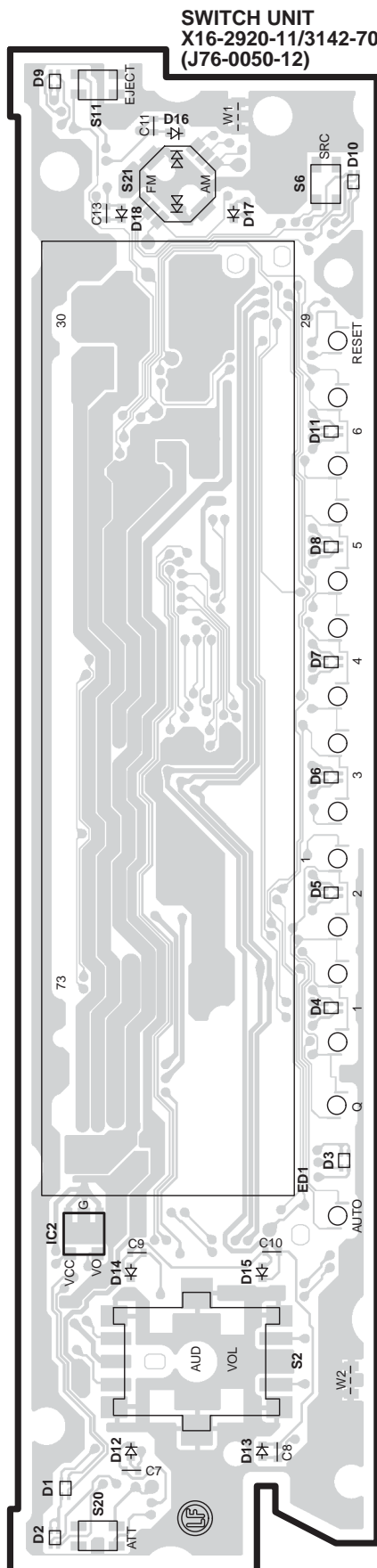
## X32-5740-0x

Ref. No.	Address	Ref. No.	Address
IC1	3AC	Q1	3AC
IC3	5AA	Q4	2AA
IC4	4AC	Q5	5AC
IC5	4AB	Q6	5AC
IC6	3Z	Q7	4AC
IC7	3AB	Q8	4AC
IC9	5AC		

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

KDC-MP5028/MP528  
/W6031/W6031Y

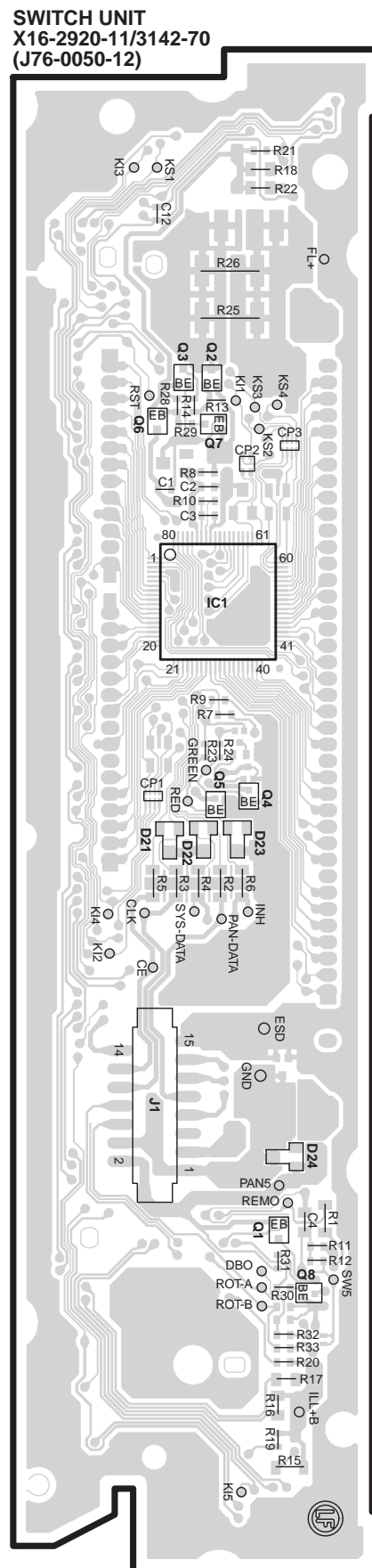
**PC BOARD  
(COMPONENT SIDE VIEW)**



X16-2920-11/3142-70

Ref. No.	Address
IC2	6AE

**(FOIL SIDE VIEW)**

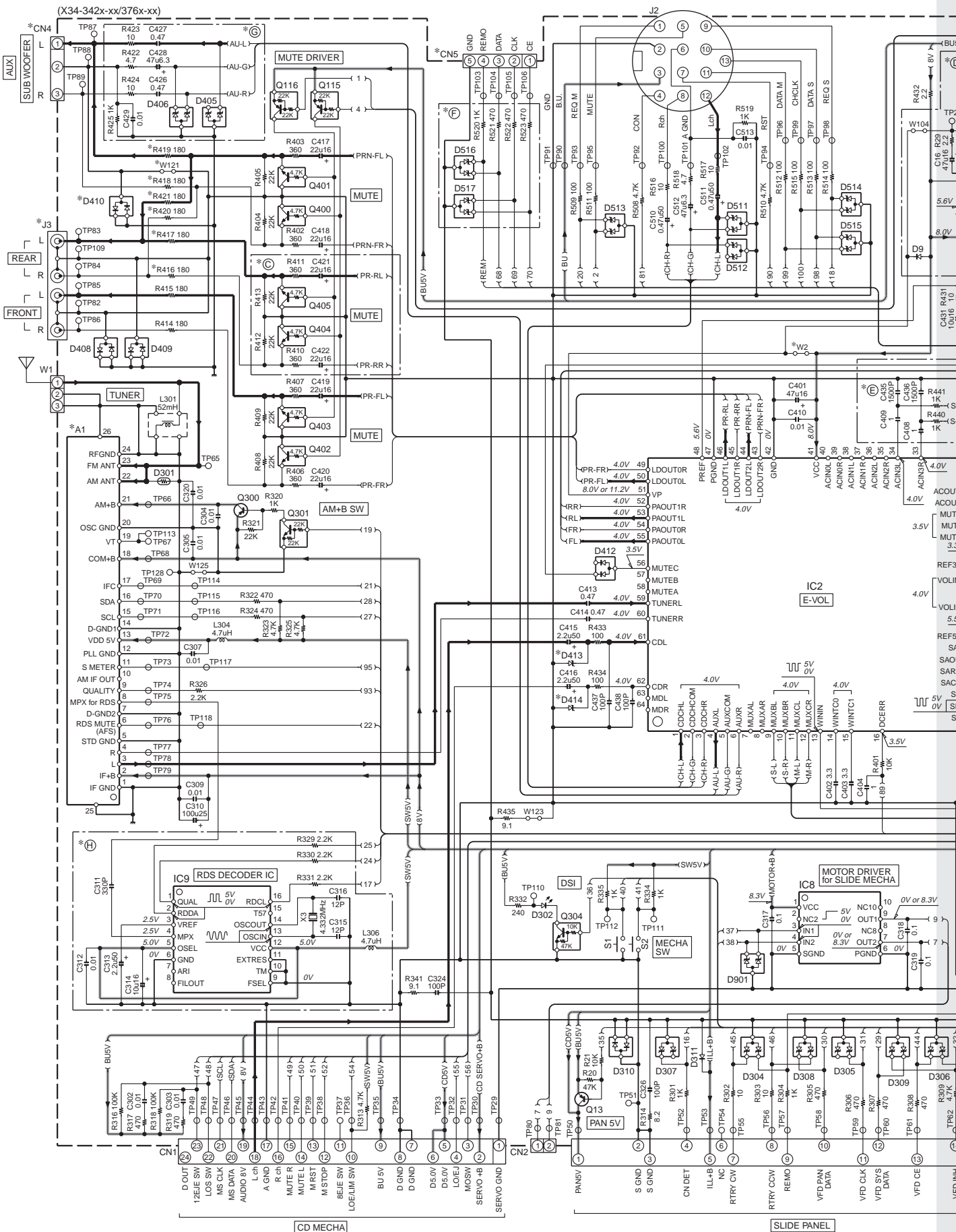


X16-2920-11/3142-70

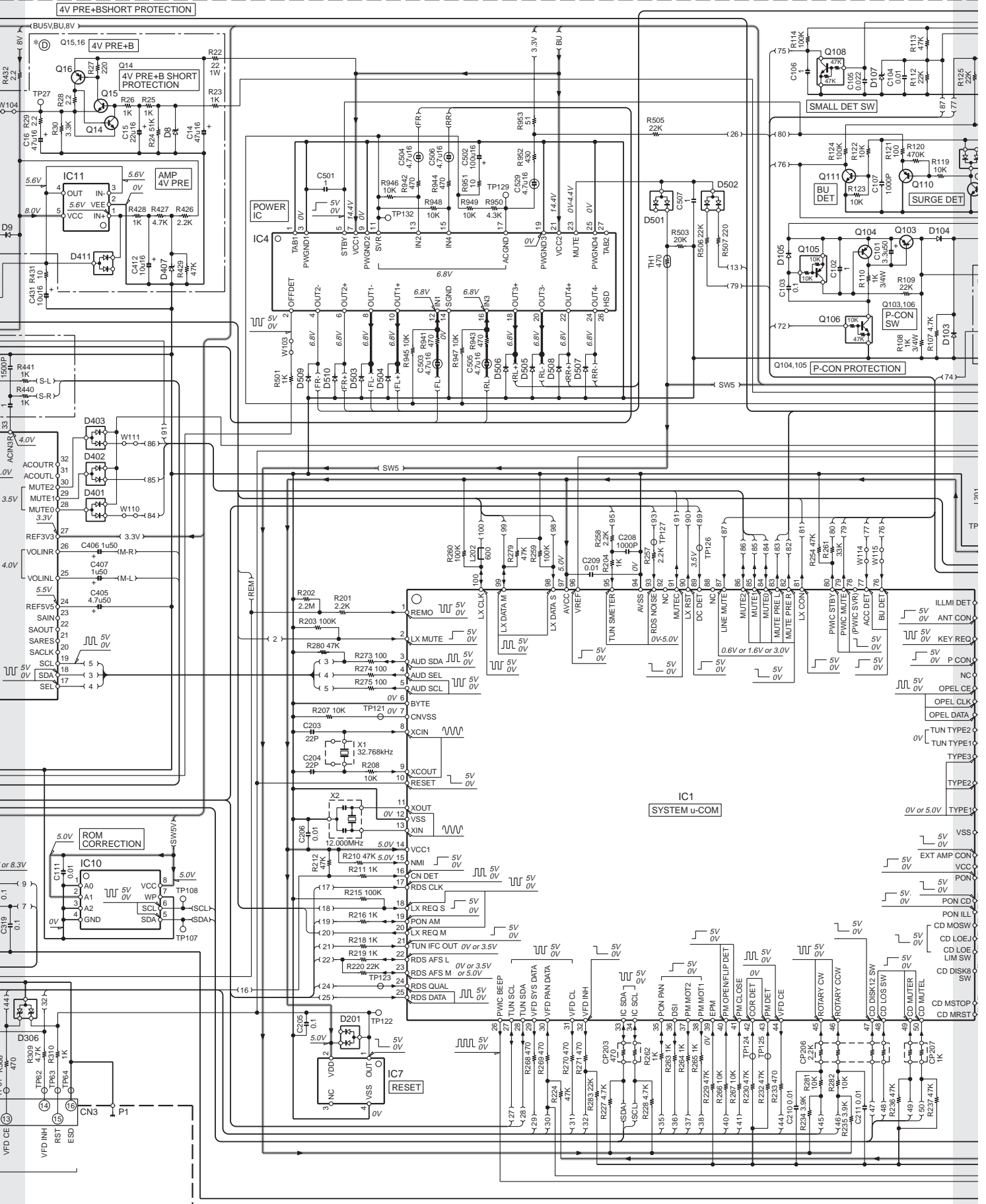
Ref. No.	Address
IC1	3AH
Q1	6AH
Q2	3AH
Q3	3AH
Q4	4AH
Q5	4AH
Q6	3AH
Q7	3AH

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

1  
2  
3  
4  
5  
6  
7

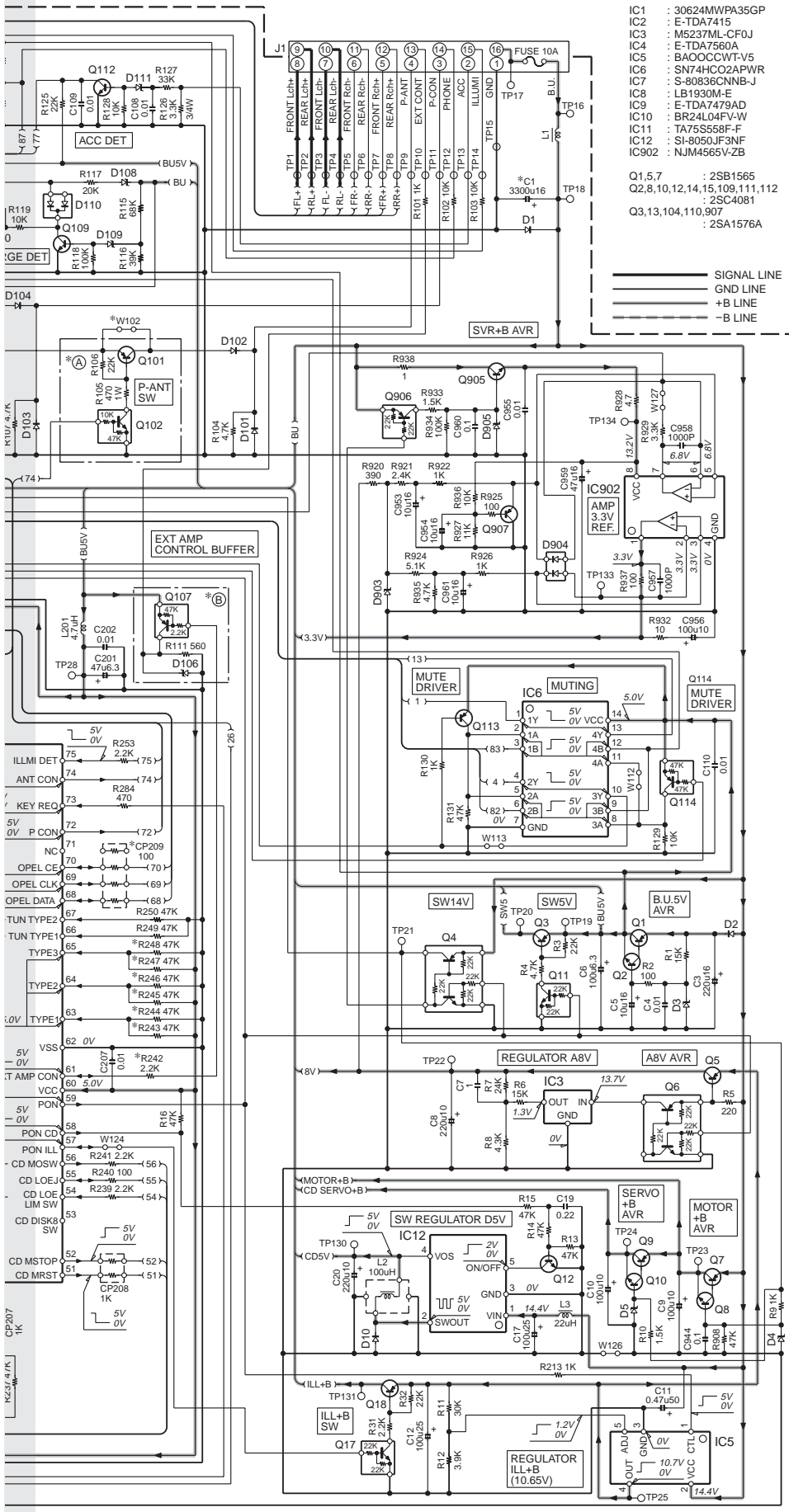


KDC-MP5028/MP528  
/W6031/W6031Y



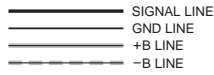


# KDC-MP5028/MP528 /W6031/W6031Y



- IC1 : 30624MMPA35GP  
 IC2 : E-TDA7415  
 IC3 : M5237ML-CF0J  
 IC4 : E-TDA7560A  
 IC5 : BA00CCVT-5  
 IC6 : SN74HC02APWR  
 IC7 : S-80836CNNB-J  
 IC8 : LB1930M-E  
 IC9 : E-TDA7479AD  
 IC10 : BR24L04F-VW  
 IC11 : TA75585F-F  
 IC12 : SI-8050JF3NF  
 IC902 : NJM4565V-ZB
- Q1,5,7 : 2SB1565  
 Q2,8,10,12,14,15,109,111,112 : 2SC4081  
 Q3,13,104,110,907 : 2SA1576A

- Q4,6 : UMC2N  
 Q9,16 : 2SB1443  
 Q11,17,301 : DTC124EUA  
 Q18 : 2SA1577  
 Q101,103 : 2SB1188(Q,R)  
 Q102,106,304 : DTC114YUA  
 Q105 : DTA114EUA  
 Q107 : DTA123JK  
 Q108 : DTC144EUA  
 Q113 : 2SA1774  
 Q114 : DTA144EUA  
 Q115,116,906 : DTA124EUA  
 Q300 : 2SB1689  
 Q400-405 : DTC143TUA  
 Q905 : 2SC2873-F
- D1 : S2V60\*A  
 D2 : RB160L-40  
 D3,106,407,413,414 : UDZS5.6B  
 D4 : HZU9.1(B1)-E  
 D5 : UDZS8.2B  
 D8 : 02DZ12F-X  
 D9,101,103 : AM01ZNF  
 D10 : SFPB-54VNF  
 D102,104,105,503,504,507-510 : 1SR154-400  
 D107 : UDZS4.7B  
 D108,109,903 : UDZS6.6B  
 D110 : DA2820U  
 D111 : UDZS6.2B  
 D201,401-403,411,412,501,502 : DAP202U  
 D301 : IMSA-6801-E  
 D302 : B30-1566-05  
 D304-309,513,517 : STZ6.2N  
 D310,408-410 : DA204K  
 D311,905 : UDZS16B  
 D405,406,511,512,901 : STZ8.8N  
 D505,506 : AM01ZNF  
 D904 : DA227



MODEL NAME	UNIT	NATION	A1	C1	C4	C5	CP209	D410	D414	J3	R242	R243	R244	R416	W2	W121
KDC-X589	K	0-10	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-MP5028	K	0-11	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-MP528	K	0-12	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-W6031Y	E	2-71	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-W6031Y	E	2-72	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-X7529	M	0-21	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

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

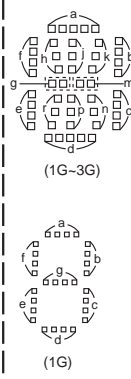
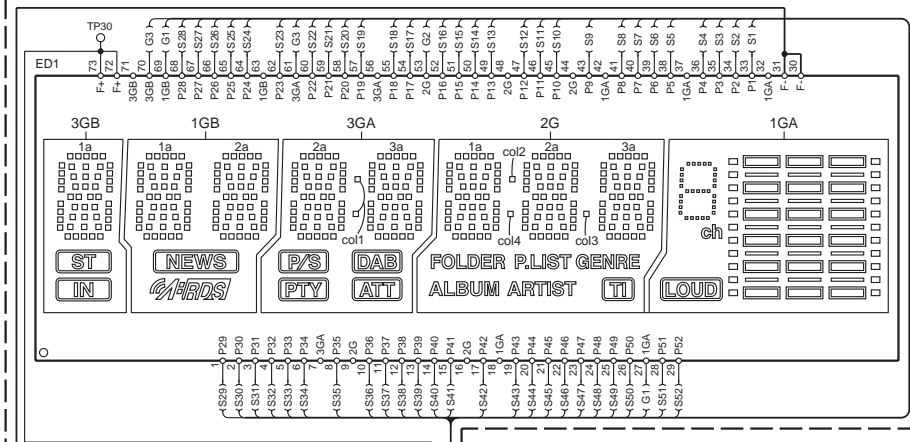
⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

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

(X34-342x-xx)  
 KDC-MP5028/MP528  
 /W6031/W6031Y (1/2)

# KDC-MP5028/MP528 /W6031/W6031Y

(X16-292x-xx/3142-70)



ANODE CONNECTION

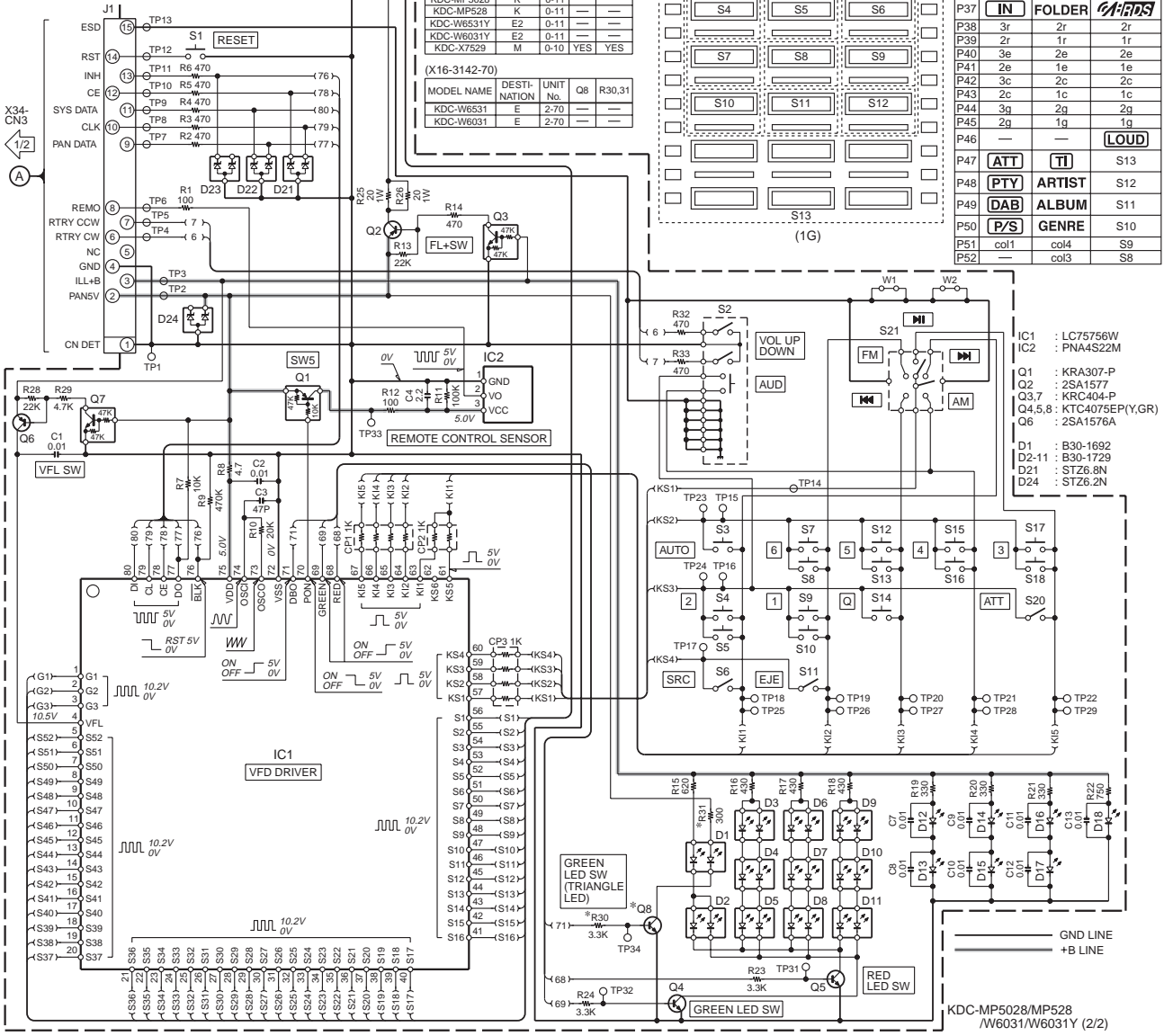
	3GA,3GB	2G	1GA,1GB
P1	—	col2	S7
P2	1d	3d	S6
P3	1n	3n	S5
P4	1p	3p	S4
P5	1r	3r	S3
P6	1e	3e	S2
P7	1c	3c	S1
P8	1g	3g	ch
P9	1m	3m	d
P10	1f	3f	e
P11	1b	3b	c
P12	1k	3k	g
P13	1j	3j	f
P14	1h	3h	b
P15	1a	3a	a
P16	2a	1a	1a
P17	3a	2a	2a
P18	2h	1h	1h
P19	3h	2h	2h
P20	2j	1j	1j
P21	3j	2j	2j
P22	2k	1k	1k
P23	3k	2k	2k
P24	2b	1b	1b
P25	3b	2b	2b
P26	2f	1f	1f
P27	3f	2f	2f
P28	2m	1m	1m
P29	3m	2m	2m
P30	2p	1p	1p
P31	3p	2p	2p
P32	2n	1n	1n
P33	3n	2n	2n
P34	2d	1d	1d
P35	3d	2d	2d
P36	ST	P.LIST	NEWS
P37	IN	FOLDER	NEWS
P38	3r	2r	2r
P39	2r	1r	1r
P40	3e	2e	2e
P41	2e	1e	1e
P42	3c	2c	2c
P43	2c	1c	1c
P44	3g	2g	2g
P45	2g	1g	1g
P46	—	—	LOUD
P47	ATT	TI	S13
P48	PTY	ARTIST	S12
P49	DAB	ALBUM	S11
P50	P/S	GENRE	S10
P51	col1	col4	S9
P52	—	col3	S8

(X16-292x-xx)

MODEL NAME	DESTI-NATION	UNIT No.	Q8	R30,31
KDC-X589	K	0-10	YES	YES
KDC-MP5028	K	0-11	—	—
KDC-MP528	K	0-11	—	—
KDC-W6531Y	EZ	0-11	—	—
KDC-W6031Y	E2	0-11	—	—
KDC-X7529	M	0-10	YES	YES

(X16-3142-70)

MODEL NAME	DESTI-NATION	UNIT No.	Q8	R30,31
KDC-W6531Y	E	2-70	—	—
KDC-W6031Y	E	2-70	—	—

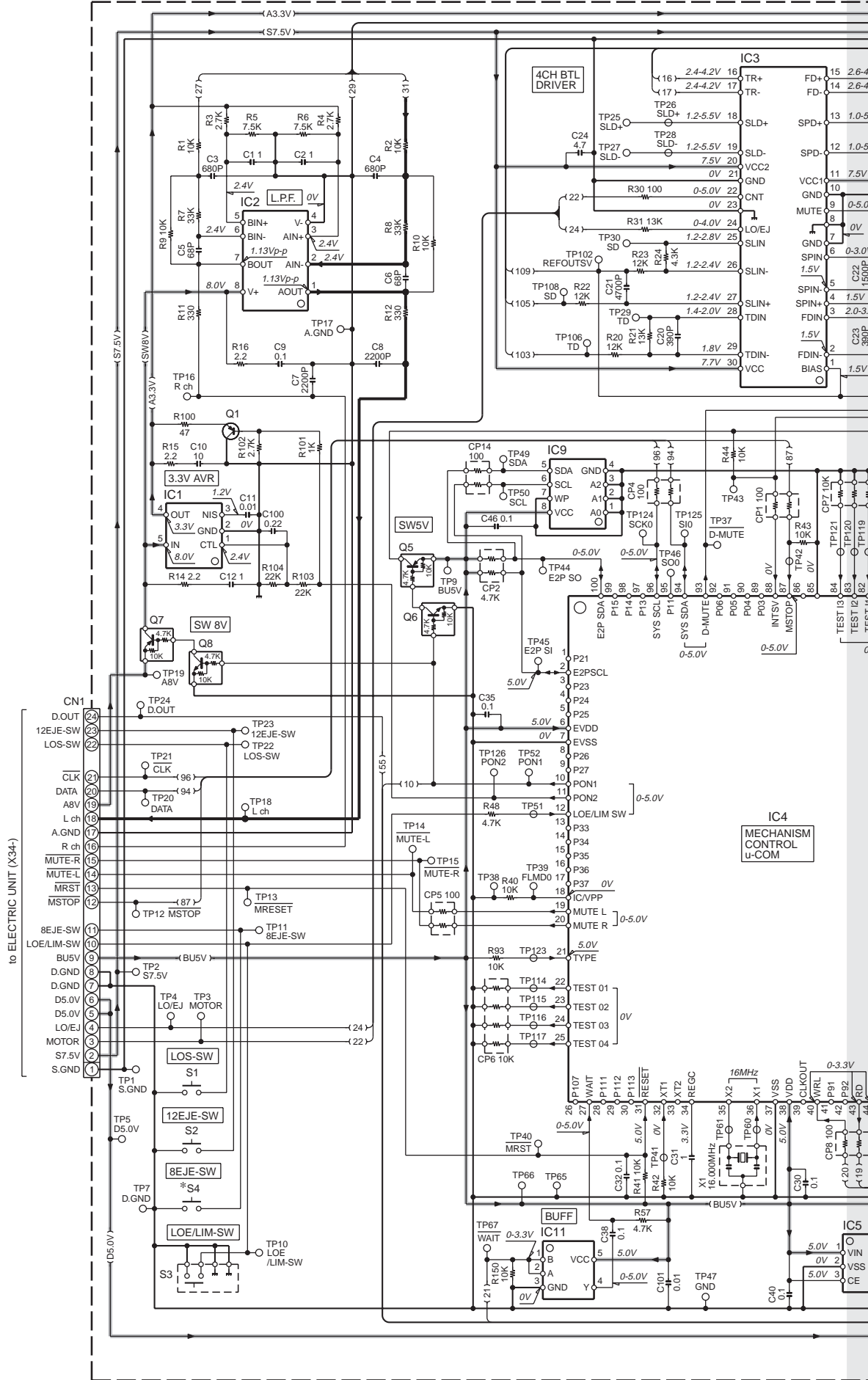


- IC1 : LC75756W
- IC2 : PNA4S22M
- Q1 : KRA307-P
- Q2 : 2SA1577
- Q3,7 : KRC404.P
- Q4,5,8 : KTC4075EP(Y,GR)
- Q6 : 2SA1576A
- D1 : B30-1692
- D2-11 : B30-1729
- D21 : ST26.8N
- D24 : ST26.2N

**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-MP5028/MP528 /W6031/W6031Y

## CD PLAYER UNIT (X32-574x-xx)



1

2

3

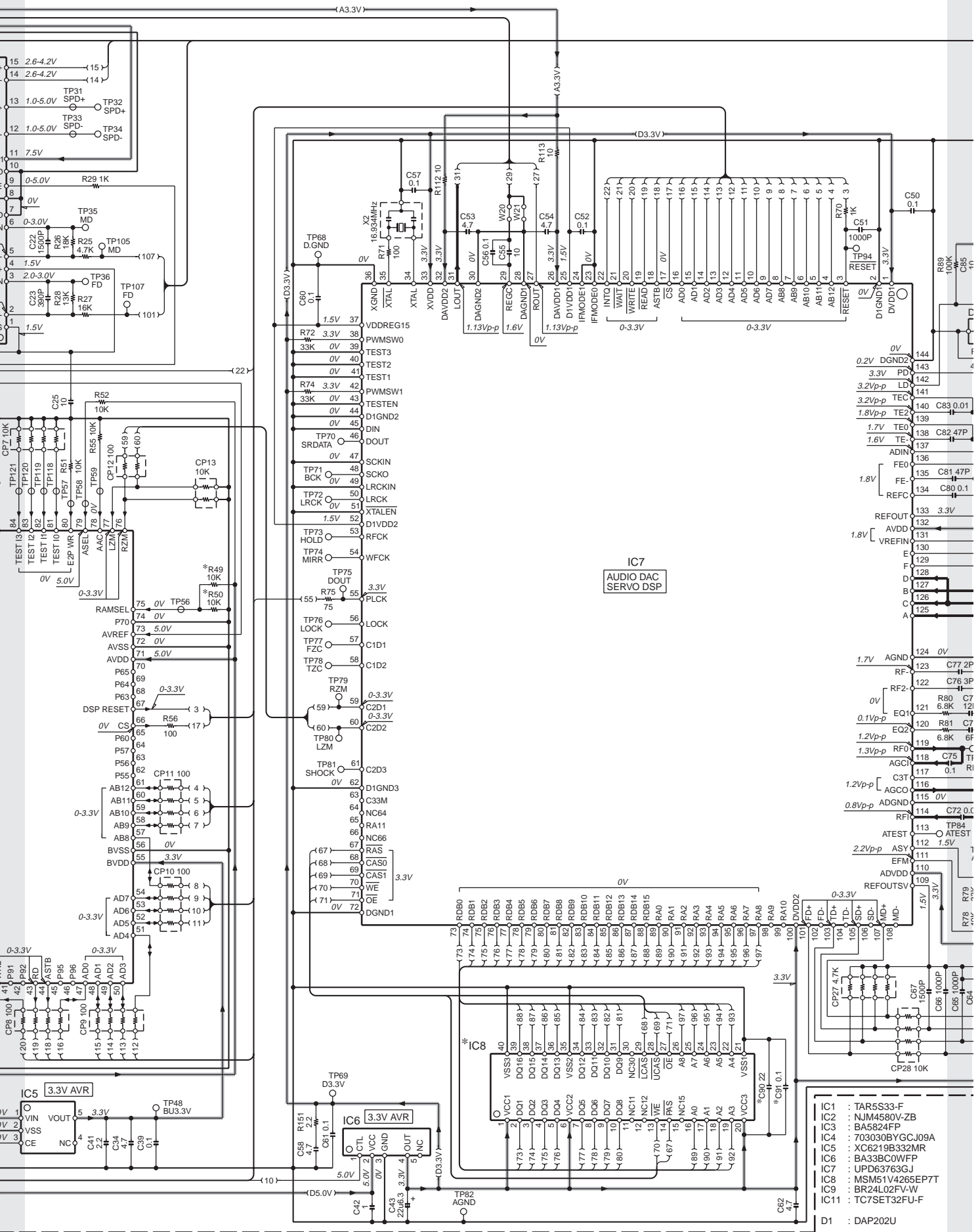
4

5

6

7

# KDC-MP5028/MP528 /W6031/W6031Y

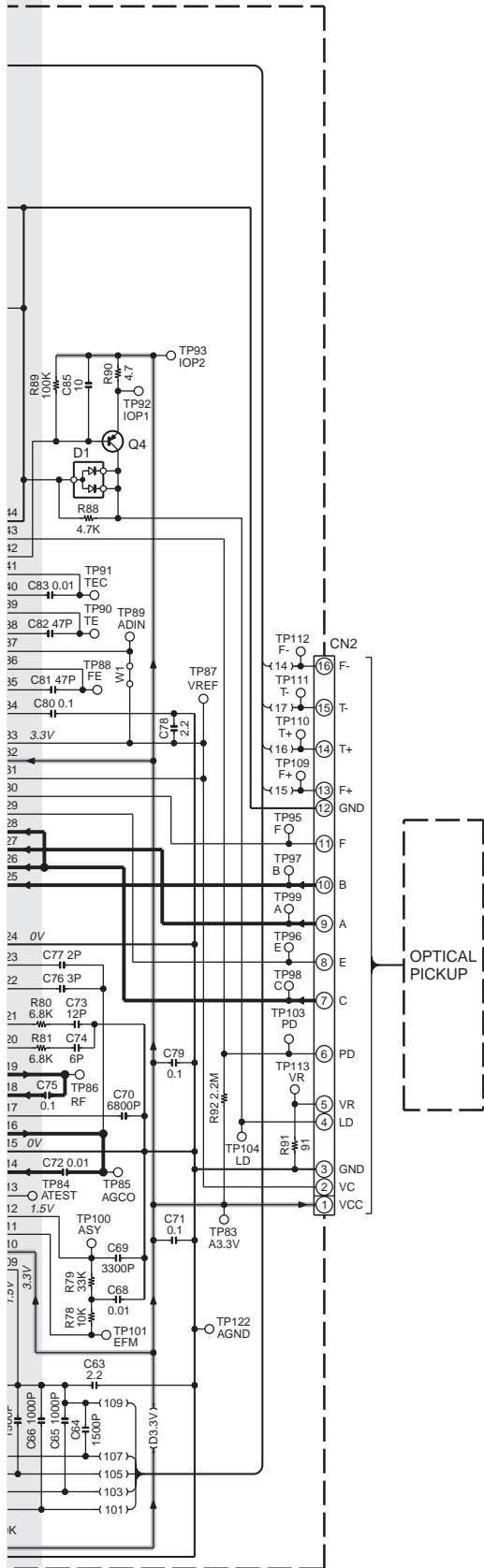


IC7  
AUDIO DAC  
SERVO DSP

\*IC8

- IC1 : TAR5S33-F
- IC2 : NUM4580V-ZB
- IC3 : BA5824FP
- IC4 : 703030BYGCJ09A
- IC5 : XC6219B332MR
- IC6 : BA33BCOWFP
- IC7 : UPD63763GJ
- IC8 : MSM51V4265EP7T
- IC9 : BR24L02F-W
- IC11 : TC7SET32FU-F

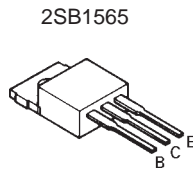
D1 : DAP202U



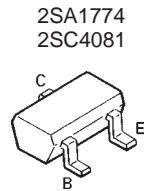
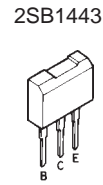
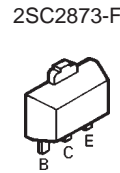
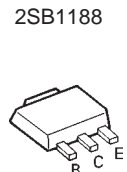
Q1 : 2SA1576A  
Q4 : 2SB0970  
Q5,7 : DTA143XUA  
Q6,8 : DTC143XUA

— SIGNAL LINE  
— GND LINE  
— +B LINE

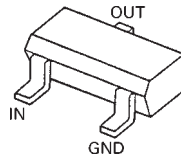
X92-508,520	X32-574	C90, 91	IC8	R49	R50	S4
0-00,0-01	0-00	—	—	—	YES	—
0-02,0-03	0-01	—	—	—	YES	YES
0-04,0-05	0-02	YES	YES	YES	—	—



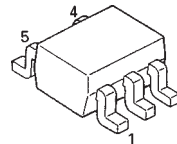
DTA123JK  
DTA144EUA  
DTC114YUA  
DTC143TUA  
2SA1576A



DTA114EUA  
DTA124EUA  
DTC124EUA  
DTC144EUA



UMC2N



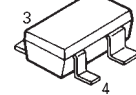
DAN202U



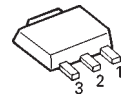
DAP202U  
DA204K



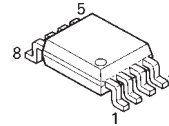
DA227



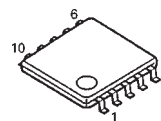
M5237ML-CF0J



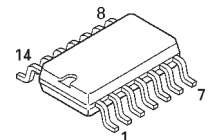
NJM4580V-ZB



LB1930M-E



HD74HC02T-E

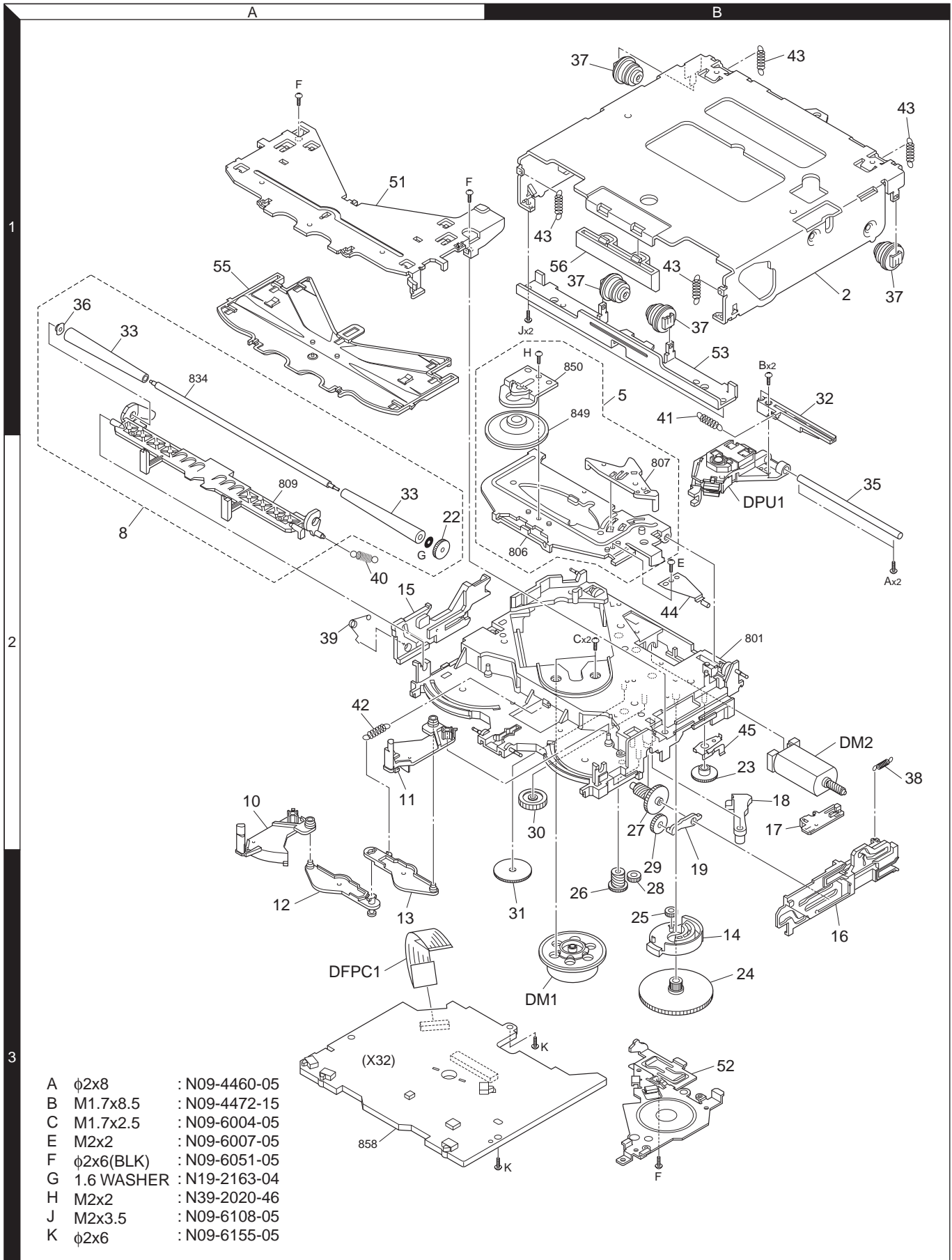


**CAUTION :** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).

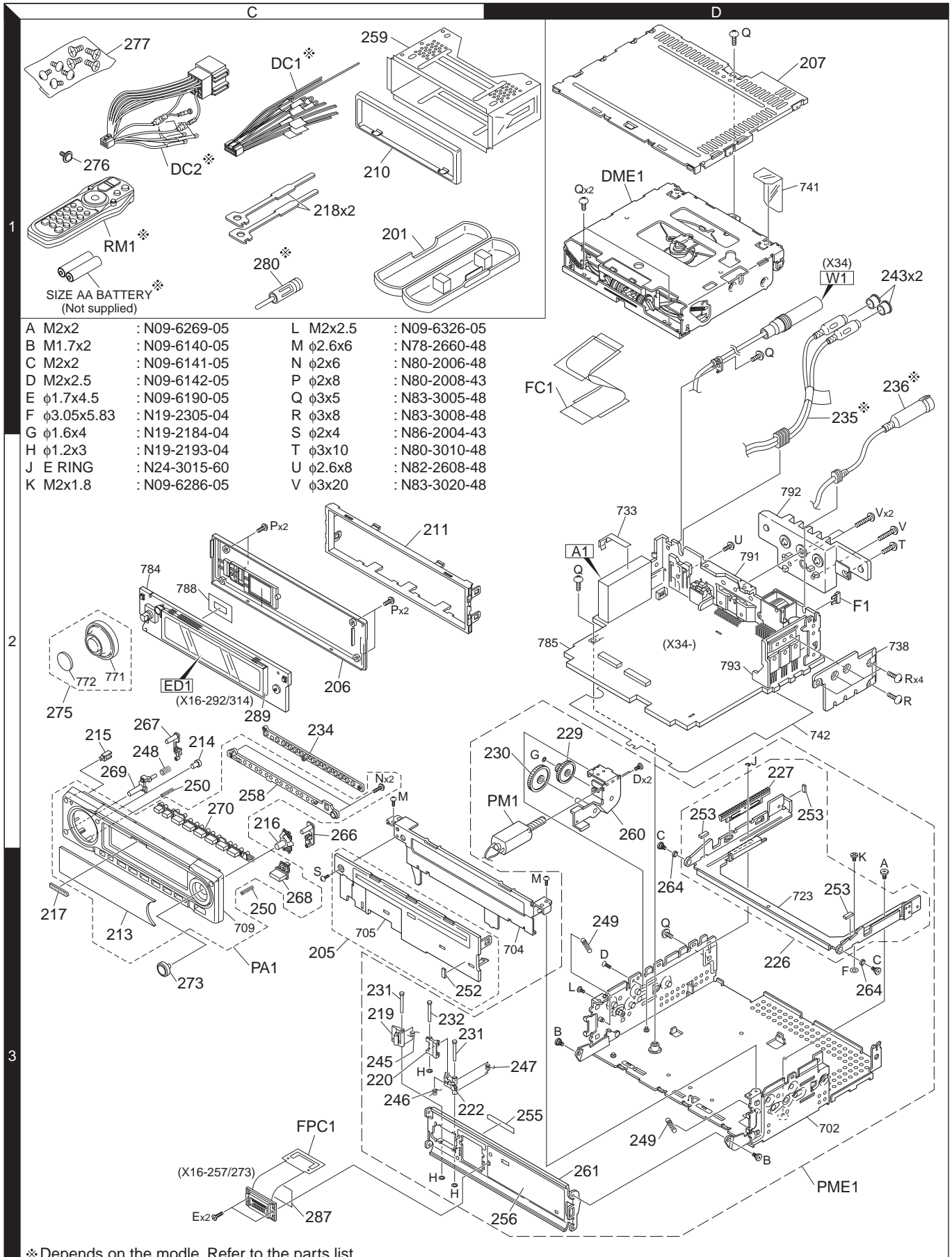
⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- 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)



# EXPLODED VIEW (UNIT)



\* Depends on the mode. Refer to the parts list.

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
<b>KDC-MP5028/MP528/W6031/W6031Y</b>					
201	1C		A02-2732-03	PLASTIC CABINET ASSY	
205	3C		A22-3023-12	SUB PANEL ASSY	
206	2C	*	A46-1817-01	REAR COVER	
207	1D		A52-0845-12	TOP PLATE	
PA1	3C	*	A64-3509-12	PANEL ASSY	K1
PA1	3C	*	A64-3510-12	PANEL ASSY	K2
PA1	3C	*	A64-3512-12	PANEL ASSY	E2E1
PME1	3D	*	A10-5205-22	CHASSIS ASSY	K1K2E2
PME1	3D	*	A10-5224-22	CHASSIS ASSY	E1
RM1	1C	*	A70-2067-05	REMOTE CONTROLLER ASSY (RC-527)	K1K2
-			B46-0100-50	WARRANTY CARD	K1K2E1
-			B46-0606-04	ID CARD	K1K2
-			B46-0612-14	ID CARD	E2E1
-			B58-1426-04	CAUTION CARD	K1K2
-		*	B64-2975-00	INSTRUCTION MANUAL (ENGLISH)	K1K2
-		*	B64-2976-00	INSTRUCTION MANUAL (FRE.SPA.)	K1K2
-		*	B64-2977-00	INSTRUCTION MANUAL (ENG.RUS.)	E2
-		*	B64-2995-00	INSTRUCTION MANUAL (ENGLISH)	E1
-		*	B64-2996-00	INSTRUCTION MANUAL (FRE.GER.)	E1
-		*	B64-2997-00	INSTRUCTION MANUAL (DUT.ITA.)	E1
-		*	B64-2998-00	INSTRUCTION MANUAL (SPA.POR.)	E1
210	1C	*	B07-3125-01	ESCUTCHEON	K1
210	1C		B07-3126-01	ESCUTCHEON	K2E2E1
211	2C		B07-3095-02	ESCUTCHEON	
213	3C	*	B10-4656-11	FRONT GLASS	K1
213	3C	*	B10-4657-11	FRONT GLASS	K2
213	3C	*	B10-4659-11	FRONT GLASS	E2E1
214	2C	*	B10-4662-04	FRONT GLASS	
215	2C	*	B19-2309-03	LIGHTING BOARD	
216	2C	*	B19-2310-03	LIGHTING BOARD	
217	3C		B43-1518-04	BADGE	
218	1C		D10-4589-04	LEVER	
219	3C		D10-4805-03	LEVER	
220	3C		D10-4806-03	LEVER	
222	3C		D10-4807-13	LEVER	
226	3D	*	D10-4875-13	SLIDER ASSY	
227	2D		D13-2318-13	RACK (GEAR)	
229	2D		D13-2320-04	GEAR	
230	2D		D13-2321-04	GEAR	
231	3D		D21-2442-04	SHAFT	
232	3C		D21-2443-04	SHAFT	
234	2C	*	E29-2026-03	CONDUCTIVE RUBBER	
235	1D		E30-6291-15	CORD WITH PINPLUG	K1K2
236	1D	*	E30-6420-05	CORD WITH DIN CONNECTOR	E2E1
DC1	1C		E30-6414-05	DC CORD	K1K2
DC2	1C	*	E30-6412-05	DC CORD	E2E1
FC1	1D		E39-0736-05	FLAT CABLE 24PIN 1MM	
243	1D		F29-0626-04	INSULATING COVER	K1K2
999			F52-0023-05	FUSE (MINI BLADE TYPE) 10A	
F1	2D		F52-0006-05	FUSE (MINI BLADE TYPE) 10A	
245	3C		G01-3210-04	TORSION COIL SPRING	

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
246	3C		G01-3211-04	TORSION COIL SPRING	
247	3D		G01-3212-04	TORSION COIL SPRING	
248	2C		G01-3213-04	COMPRESSION SPRING	
249	3D		G01-3215-04	EXTENSION SPRING	
250	2C	*	G01-3261-04	COMPRESSION SPRING	
252	3C		G11-3594-04	CUSHION	
253	2D	*	G11-3646-04	CUSHION	
255	3D		G16-1482-14	SHEET	
256	3D		G16-1483-04	SHEET	
-		*	H10-4925-02	POLYSTYRENE FOAMED FIXTURE	K1K2E2
-		*	H10-4933-02	POLYSTYRENE FOAMED FIXTURE	E1
-			H25-0329-04	PROTECTION BAG (280X450X0.03)	K1K2E2
-			H25-0337-04	PROTECTION BAG (180X300X0.03)	
-			H25-1111-04	PROTECTION BAG (280X450X0.03)	E1
-		*	H54-3349-03	ITEM CARTON CASE	K1
-		*	H54-3350-03	ITEM CARTON CASE	K2
-		*	H54-3354-03	ITEM CARTON CASE	E2
-		*	H54-3397-03	ITEM CARTON CASE	E1
258	2C	*	J19-7053-02	HOLDER	
259	1C		J21-9716-03	MOUNTING HARDWARE ASSY	
260	2D		J22-0114-03	MOUNTING HARDWARE ASSY M BR C	
261	3D	*	J22-0263-02	MOUNTING HARDWARE	
264	3D		J31-1062-04	COLLAR	
266	2C	*	K24-4287-03	PUSH KNOB (EJECT)	K1
266	2C	*	K24-4288-03	PUSH KNOB (EJECT)	K2E2E1
267	2C	*	K24-4290-03	PUSH KNOB (ATT)	K1
267	2C	*	K24-4291-03	PUSH KNOB (ATT)	K2E2E1
268	3C	*	K24-4293-03	PUSH KNOB (SRC)	K1
268	3C	*	K24-4294-03	PUSH KNOB (SRC)	K2E2E1
269	2C	*	K24-4296-03	PUSH KNOB (RELEASE)	K1
269	2C	*	K24-4297-03	PUSH KNOB (RELEASE)	K2E2E1
270	2C	*	K25-1712-02	PUSH KNOB (PRESET)	
273	3C	*	K29-7144-03	KEY TOP (CONTROL)	
275	2C	*	K29-7150-04	KNOB ASSY (VOL)	
276	1C		N09-6212-05	TAPPING SCREW (2X5)	K1K2
276	1C	*	N09-6280-05	TAPPING SCREW (2X5)	E2E1
277	1C		N99-1723-05	SCREW SET	K1K2
A	3D	*	N09-6269-05	STEPPED SCREW (M2X2)	
B	3D		N09-6140-05	STEPPED SCREW (M1.7X2)	
C	3D		N09-6141-05	STEPPED SCREW (M2X2)	
D	3D		N09-6142-05	MACHINE SCREW (M2X2.5)	
E	3C		N09-6190-05	TAPPING SCREW (1.7X4.5)	
F	3D	*	N19-2305-04	FLAT WASHER (3.05X5.83X0.5)	
G	2D		N19-2184-04	FLAT WASHER (1.6X4.0X0.25)	
H	3C		N19-2193-04	FLAT WASHER (1.2X3.0X0.25)	
J	2D		N24-3015-60	E TYPE RETAINING RING	
K	2D	*	N09-6286-05	STEPPED SCREW (M2X1.8)	
L	3D	*	N09-6326-05	MACHINE SCREW (M2X2.5)	
M	2C	*	N78-2660-48	PAN HEAD TAPTITE SCREW	
N	2C		N80-2006-48	PAN HEAD TAPTITE SCREW	
P	2C		N80-2008-43	PAN HEAD TAPTITE SCREW	
Q	1D		N83-3005-48	PAN HEAD TAPTITE SCREW	
R	2D		N83-3008-48	PAN HEAD TAPTITE SCREW	
S	3C	*	N86-2004-43	BINDING HEAD TAPTITE SCREW	

E1 : KDC-W6031 E2 : KDC-W6031Y K1 : KDC-MP5028 K2 : KDC-MP528

△ Indicates safety critical components.



# PARTS LIST

## KDC-MP5028/MP528/W6031/W6031Y

Ref. No.	Ad	New	Parts No.	Description	Destination
280	1C		T90-0523-05	ANTENNA ADAPTOR	E2E1
PM1	2D		T42-1086-14	MOTOR ASSY	
DME1	1D		X92-5080-00	CD MECHANISM ASSY	K1K2
DME1	1D	*	X92-5080-04	CD MECHANISM ASSY	E2
DME1	1D	*	X92-5080-05	CD MECHANISM ASSY	E1
<b>SUB-CIRCUIT UNIT (X16-2570-10/2732-70)</b>					
287	3C		F20-2284-14	INSULATING SHEET	
FPC1	3C		J86-0003-05	FPC (LEAD FREE)	
<b>SWITCH UNIT (X16-2920-11/3142-70)</b>					
D1			B30-1692-05	LED HR/YG	
D2-11			B30-1605-05	LED 2COLOR PG/RED	
D12-18			B30-1729-05	LED 1608, BLUE	
C1,2			CK73GB1H103K	CHIP C 0.010UF K	
C3			CC73GCH1H470J	CHIP C 47PF J	
C4			CK73FB1A225K	CHIP C 2.2UF K	
C7-13			CK73GB1H103K	CHIP C 0.010UF K	
J1			E59-0839-05	RECTANGULAR PLUG	
289	2C	*	J19-7055-03	HOLDER	
CP1			RK74HB1J102J	CHIP-COM 1.0K J 1/16W	
CP2			RK74GA1J102J	CHIP-COM 1.0K J 1/16W	
CP3			RK74HB1J102J	CHIP-COM 1.0K J 1/16W	
R1			RK73EB2E101J	CHIP R 100 J 1/4W	
R2-6			RK73EB2E471J	CHIP R 470 J 1/4W	
R7			RK73GB2A103J	CHIP R 10K J 1/10W	
R8			RK73GB2A4R7J	CHIP R 4.7 J 1/10W	
R9			RK73GB2A474J	CHIP R 470K J 1/10W	
R10			RK73GB2A203J	CHIP R 20K J 1/10W	
R11			RK73GB2A104J	CHIP R 100K J 1/10W	
R12			RK73GB2A101J	CHIP R 100 J 1/10W	
R13			RK73GB2A223J	CHIP R 22K J 1/10W	
R14			RK73GB2A471J	CHIP R 470 J 1/10W	
R15			RK73EB2E621J	CHIP R 620 J 1/4W	
R16-18			RK73FB2B431J	CHIP R 430 J 1/8W	
R19-21			RK73GB2A331J	CHIP R 330 J 1/10W	
R22			RK73FB2B751J	CHIP R 750 J 1/8W	
R23,24			RK73GB2A332J	CHIP R 3.3K J 1/10W	
R25,26		*	RK73SB3A200J	CHIP R 20 J 1W	
R28			RK73GB2A223J	CHIP R 22K J 1/10W	
R29			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R32,33			RK73GB2A471J	CHIP R 470 J 1/10W	
W1,2			R92-2053-05	CHIP R 0 OHM J 1/8W	
S6			S70-0901-05	TACT SWITCH	
S11			S70-0901-05	TACT SWITCH	
S20			S70-0901-05	TACT SWITCH	
S21		*	S70-0926-15	TACT SWITCH	
S2		*	T99-0456-15	ROTARY ENCODER	
D21-23			STZ6.8N	ZENER DIODE	
D24			STZ6.2N	ZENER DIODE	
ED1		*	3-BT-226N	FLUORESCENT INDICATOR TUBE	
IC1			LC75756W	MOS-IC	

Ref. No.	Ad	New	Parts No.	Description	Destination
IC2			PNA4S22M	ANALOGUE IC	
Q1			KRA307-P	TRANSISTOR	
Q2			2SA1577	TRANSISTOR	
Q3			KRC404-P	TRANSISTOR	
Q4,5			KTC4075EP (Y,GR)	TRANSISTOR Y,GR	
Q6			2SA1576A	TRANSISTOR Q,R,S	
Q7			KRC404-P	TRANSISTOR	
<b>CD PLAYER UNIT (X32-5740-0x)</b>					
C1,2			CK73GB1A105K	CHIP C 1.0UF K	
C3,4			CC73GCH1H681J	CHIP C 680PF J	
C5,6			CC73GCH1H680J	CHIP C 68PF J	
C7,8			CK73GB1H222K	CHIP C 2200PF K	
C9			CK73GB1H104K	CHIP C 0.10UF K	
C10			CK73FB0J106K	CHIP C 10UF K	
C11			CK73GB1H103K	CHIP C 0.010UF K	
C12			CK73GB1A105K	CHIP C 1.0UF K	
C20			CC73GCH1H391J	CHIP C 390PF J	
C21			CK73GB1H472K	CHIP C 4700PF K	
C22			CK73GB1H152K	CHIP C 1500PF K	
C23			CC73GCH1H391J	CHIP C 390PF J	
C24			CK73EB1A475K	CHIP C 4.7UF K	
C25			CK73FB0J106K	CHIP C 10UF K	
C30			CK73GB1H104K	CHIP C 0.10UF K	
C31			CK73GB0J105K	CHIP C 1.0UF K	
C32			CK73GB1H104K	CHIP C 0.10UF K	
C34			CK73FB0J475K	CHIP C 4.7UF K	
C35			CK73GB1H104K	CHIP C 0.10UF K	
C38-40			CK73GB1H104K	CHIP C 0.10UF K	
C41			CK73GB0J225K	CHIP C 2.2UF K	
C42			CK73GB1A105K	CHIP C 1.0UF K	
C43			C92-1792-05	ELECTRO 22UF 6.3WV	
C46			CK73GB1H104K	CHIP C 0.10UF K	
C50			CK73GB1H104K	CHIP C 0.10UF K	
C51			CK73GB1H102K	CHIP C 1000PF K	
C52			CK73GB1H104K	CHIP C 0.10UF K	
C53,54			CK73GB0J475K	CHIP C 4.7UF K	
C55			CK73FB0J106K	CHIP C 10UF K	
C56,57			CK73GB1H104K	CHIP C 0.10UF K	
C58			CK73FB0J475K	CHIP C 4.7UF K	
C60,61			CK73GB1H104K	CHIP C 0.10UF K	
C62			CK73FB0J475K	CHIP C 4.7UF K	
C63			CK73GB0J225K	CHIP C 2.2UF K	
C64			CK73GB1H152K	CHIP C 1500PF K	
C65,66			CK73GB1H102K	CHIP C 1000PF K	
C67			CK73GB1H152K	CHIP C 1500PF K	
C68			CK73GB1H103K	CHIP C 0.010UF K	
C69			CK73GB1H332K	CHIP C 3300PF K	
C70			CK73GB1H682K	CHIP C 6800PF K	
C71			CK73GB1H104K	CHIP C 0.10UF K	
C72			CK73GB1H103K	CHIP C 0.010UF K	
C73			CC73GCH1H120J	CHIP C 12PF J	
C74			CC73GCH1H060D	CHIP C 6.0PF D	
C75			CK73GB1H104K	CHIP C 0.10UF K	
C76			CC73GCH1H030C	CHIP C 3.0PF C	

E1 : KDC-W6031 E2 : KDC-W6031Y K1 : KDC-MP5028 K2 : KDC-MP528

△ Indicates safety critical components.

# PARTS LIST

## CD PLAYER UNIT (X32-5740-0x)

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
C77			CC73GCH1H020C	CHIP C 2.0PF C	
C78			CK73GB0J225K	CHIP C 2.2UF K	
C79,80			CK73GB1H104K	CHIP C 0.10UF K	
C81,82			CC73GCH1H470J	CHIP C 47PF J	
C83			CK73GB1H103K	CHIP C 0.010UF K	
C85			CK73FB0J106K	CHIP C 10UF K	
C90			CK73EB0J226K	CHIP C 22UF K	E2E1
C91			CK73GB1H104K	CHIP C 0.10UF K	E2E1
C100		*	CK73GB1A224K	CHIP C 0.22UF K	
C101			CK73GB1H103K	CHIP C 0.010UF K	
CN1			E41-2083-05	FLAT CABLE CONNECTOR	
CN2		*	E41-2297-05	FLAT CABLE CONNECTOR	
X1			L78-0862-05	RESONATOR (16.00MHZ)	
X2			L78-0851-05	RESONATOR (16.93MHZ)	
CP1			RK74GA1J101J	CHIP-COM 100 J 1/16W	
CP2			RK74GA1J472J	CHIP-COM 4.7K J 1/16W	
CP4,5			RK74GA1J101J	CHIP-COM 100 J 1/16W	
CP6,7			RK74HB1J103J	CHIP-COM 10K J 1/16W	
CP8-11			RK74HB1J101J	CHIP-COM 100 J 1/16W	
CP12			RK74GA1J101J	CHIP-COM 100 J 1/16W	
CP13			RK74GA1J103J	CHIP-COM 10K J 1/16W	
CP14			RK74GA1J101J	CHIP-COM 100 J 1/16W	
CP27			RK74GB1J472J	CHIP-COM 4.7K J 1/16W	
CP28			RK74GB1J103J	CHIP-COM 10K J 1/16W	
R1,2			RK73GH2A103D	CHIP R 10K D 1/10W	
R3,4			RK73GB2A272J	CHIP R 2.7K J 1/10W	
R5,6			RK73GB2A752J	CHIP R 7.5K J 1/10W	
R7,8			RK73GB2A333J	CHIP R 33K J 1/10W	
R9,10			RK73GH2A103D	CHIP R 10K D 1/10W	
R11,12			RK73GB2A331J	CHIP R 330 J 1/10W	
R14-16			RK73GB2A2R2J	CHIP R 2.2 J 1/10W	
R20			RK73GB2A123J	CHIP R 12K J 1/10W	
R21			RK73GB2A133J	CHIP R 13K J 1/10W	
R22,23			RK73GB2A123J	CHIP R 12K J 1/10W	
R24			RK73GB2A432J	CHIP R 4.3K J 1/10W	
R25			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R26			RK73GB2A183J	CHIP R 18K J 1/10W	
R27			RK73GB2A163J	CHIP R 16K J 1/10W	
R28			RK73GB2A133J	CHIP R 13K J 1/10W	
R29			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R30			RK73GB2A101J	CHIP R 100 J 1/10W	
R31			RK73GB2A133J	CHIP R 13K J 1/10W	
R40-44			RK73GB2A103J	CHIP R 10K J 1/10W	
R48			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R49			RK73GB2A103J	CHIP R 10K J 1/10W	E2E1
R50-52			RK73GB2A103J	CHIP R 10K J 1/10W	K1K2
R51,52			RK73GB2A103J	CHIP R 10K J 1/10W	E2E1
R55			RK73GB2A103J	CHIP R 10K J 1/10W	
R56			RK73GB2A101J	CHIP R 100 J 1/10W	
R57			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R70			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R71			RK73GB2A101J	CHIP R 100 J 1/10W	
R72			RK73GB2A333J	CHIP R 33K J 1/10W	
R74			RK73GB2A333J	CHIP R 33K J 1/10W	

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
R75			RK73GB2A750J	CHIP R 75 J 1/10W	
R78			RK73GB2A103J	CHIP R 10K J 1/10W	
R79			RK73GB2A333J	CHIP R 33K J 1/10W	
R80,81			RK73GB2A682J	CHIP R 6.8K J 1/10W	
R88			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R89			RK73GB2A104J	CHIP R 100K J 1/10W	
R90			RK73GB2A4R7J	CHIP R 4.7 J 1/10W	
R91			RK73GB2A910J	CHIP R 91 J 1/10W	
R92			RK73GB2A225J	CHIP R 2.2M J 1/10W	
R93			RK73GB2A103J	CHIP R 10K J 1/10W	
R100			RK73GB2A470J	CHIP R 47 J 1/10W	
R101			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R102			RK73GB2A272J	CHIP R 2.7K J 1/10W	
R103,104			RK73GB2A223J	CHIP R 22K J 1/10W	
R112,113			RK73GB2A100J	CHIP R 10 J 1/10W	
R150			RK73GB2A103J	CHIP R 10K J 1/10W	
R151			RK73GB2A2R2J	CHIP R 2.2 J 1/10W	
W1			R92-1252-05	CHIP R 0 OHM J 1/16W	
W20,21			R92-1252-05	CHIP R 0 OHM J 1/16W	
S1,2			S68-0863-05	PUSH SWITCH	
S3			S68-0862-05	PUSH SWITCH	
D1			DAP202U	DIODE	
IC1			TAR5S33-F	ANALOGUE IC	
IC2			NJM4580V-ZB	ANALOGUE IC	
IC3			BA5824FP	ANALOGUE IC	
IC4			703030BYGCJ09A	MICROCONTROLLER IC	
IC5			XC6219B332MR	ANALOGUE IC	
IC6			BA33BCOWFP	ANALOGUE IC	
IC7			UPD63763GJ	MOS-IC	
IC8		*	MSM51V4265EP7T	DRAM IC	E2E1
IC9		*	BR24L02FV-W	ROM IC	
IC11			TC7SET32FU-F	MOS-IC	
Q1			2SA1576A	TRANSISTOR	
Q4			2SB0970	TRANSISTOR	
Q5			DTA143XUA	DIGITAL TRANSISTOR	
Q6			DTC143XUA	DIGITAL TRANSISTOR	
Q7			DTA143XUA	DIGITAL TRANSISTOR	
Q8			DTC143XUA	DIGITAL TRANSISTOR	
<b>ELECTRIC UNIT (X34-342x-xx/3762-71)</b>					
D302			B30-1566-05	LED (1608,RED)	
C1			C90-6746-05	ELECTRO 3300UF 16WV	
C3			C90-5692-05	ELECTRO 220UF 16WV	
C4			CK73GB1H103K	CHIP C 0.010UF K	
C5			CD04AS1C100M	ELECTRO 10UF 16WV	
C6			CD04AS0J101M	ELECTRO 100UF 6.3WV	
C7			CK73FB1C105K	CHIP C 1.0UF K	
C8			CD04AT1A221M	ELECTRO 220UF 10WV	
C9,10			CD04AS1A101M	ELECTRO 100UF 10WV	
C11			CD04AS1HR47M	ELECTRO 0.47UF 50WV	
C12		*	CD04BK1E101M	ELECTRO 100UF 25WV	
C14			CD04AS1C470M	ELECTRO 47UF 16WV	K1
C15			CD04AS1C220M	ELECTRO 22UF 16WV	K1
C16			CD04AS1C470M	ELECTRO 47UF 16WV	K1

# PARTS LIST

## ELECTRIC UNIT (X34-342x-xx/3762-71)

Ref. No.	Add	New	Parts No.	Description	Destination	Ref. No.	Add	New	Parts No.	Description	Destination
C17		*	CD04BK1E101M	ELECTRO 100UF 25WV		C529		*	C90-6742-05	ELECTRO 4.7UF 16WV	
C19		*	CK73GB1A224K	CHIP C 0.22UF K		C944			CK73GB1H104K	CHIP C 0.10UF K	
C20		*	CD04BK1A221M	ELECTRO 220UF 10WV		C953,954			CD04AS1C100M	ELECTRO 10UF 16WV	
C101			CD04AS1H3R3M	ELECTRO 3.3UF 50WV		C955			CK73GB1H103K	CHIP C 0.010UF K	
C102			CK73GB0J105K	CHIP C 1.0UF K		C956			CD04AT1A101M	ELECTRO 100UF 10WV	
C103			CK73GB1H104K	CHIP C 0.10UF K		C957,958			CK73GB1H102K	CHIP C 1000PF K	
C104			CK73GB1H103K	CHIP C 0.010UF K		C959			CD04AS1C470M	ELECTRO 47UF 16WV	
C105			CK73GB1E223K	CHIP C 0.022UF K		C960			CK73GB1H104K	CHIP C 0.10UF K	
C106			CK73FB1C105K	CHIP C 1.0UF K		C961			CD04AS1C100M	ELECTRO 10UF 16WV	
C107			CK73GB1H102K	CHIP C 1000PF K		CN1			E41-2244-05	FLAT CABLE CONNECTOR	
C108-111			CK73GB1H103K	CHIP C 0.010UF K		CN2	*		E41-2259-05	PIN ASSY	
C201			CD04AS0J470M	ELECTRO 47UF 6.3WV		CN3	*		E41-2245-05	FLAT CABLE CONNECTOR	
C202			CK73GB1H103K	CHIP C 0.010UF K		CN4			E41-2446-05	PIN ASSY	K1K2
C203,204			CC73GCH1H220J	CHIP C 22PF J		CN5			E41-0944-05	PIN ASSY	E2E1
C205			CK73GB1H104K	CHIP C 0.10UF K		△ J1			E58-0991-05	RECTANGULAR RECEPTACLE	
C206,207			CK73GB1H103K	CHIP C 0.010UF K		J2			E56-0855-05	CYLINDRICAL RECEPTACLE	
C208			CK73GB1H102K	CHIP C 1000PF K		J3			E63-0896-05	PIN JACK	
C209-211			CK73GB1H103K	CHIP C 0.010UF K		W1			E30-6218-15	CORD WITH PLUG	
C302-305			CK73GB1H103K	CHIP C 0.010UF K		L1			L33-1988-05	CHOKE COIL ASSY	
C307			CK73GB1H103K	CHIP C 0.010UF K		L2			L33-2262-05	CHOKE COIL	
C309			CK73GB1H103K	CHIP C 0.010UF K		L3			L33-1978-05	CHOKE COIL	
C310		*	CD04BK1E101M	ELECTRO 100UF 25WV	E2E1	L201			L40-4795-91	SMALL FIXED INDUCTOR (4.7UH,J)	
C311			CC73GCH1H331J	CHIP C 330PF J	E2E1	L202			L92-0075-05	CHIP FERRITE	
C312			CK73GB1H103K	CHIP C 0.010UF K	E2E1	L301			L33-2260-05	CHOKE COIL	
C313			CD04AS1H2R2M	ELECTRO 2.2UF 50WV	E2E1	L304			L41-4795-33	SMALL FIXED INDUCTOR (4.7U)	E2E1
C314			CD04AS1C100M	ELECTRO 10UF 16WV	E2E1	L306			L41-4795-33	SMALL FIXED INDUCTOR (4.7U)	E2E1
C315,316			CC73GCH1H120J	CHIP C 12PF J	E2E1	X1			L77-2880-05	CRYSTAL RESONATOR	
C317-319			CK73GB1C104K	CHIP C 0.10UF K		X2			L78-0872-05	RESONATOR (12MHZ)	
C320			CK73GB1H103K	CHIP C 0.010UF K		X3			L77-2002-05	CRYSTAL RESONATOR	E2E1
C324			CC73GCH1H101J	CHIP C 100PF J		Q	1D		N83-3005-48	PAN HEAD TAPTITE SCREW	
C326			CC73GCH1H101J	CHIP C 100PF J		T	2D		N80-3010-48	PAN HEAD TAPTITE SCREW	
C401			CD04AS1C470M	ELECTRO 47UF 16WV		U	2D		N82-2608-48	BINDING HEAD TAPTITE SCREW	
C402,403			CK73FB1A335K	CHIP C 3.3UF K		V	2D		N83-3020-48	PAN HEAD TAPTITE SCREW	
C404			CK73GB1A105K	CHIP C 1.0UF K		CP203			RK74GA1J471J	CHIP-COM 470 J 1/16W	
C405			CD04AT1H4R7M	ELECTRO 4.7UF 50WV		CP206			RK74GB1J222J	CHIP-COM 2.2K J 1/16W	
C406,407			CD04AS1H010M	ELECTRO 1UF 50WV		CP207,208			RK74GA1J102J	CHIP-COM 1.0K J 1/16W	
C408,409			CK73FB1C105K	CHIP C 1.0UF K	K1K2	CP209			RK74GB1J101J	CHIP-COM 100 J 1/16W	
C410			CK73GB1H103K	CHIP C 0.010UF K		R1			RK73FB2B153J	CHIP R 15K J 1/8W	
C412			CD04AS1C100M	ELECTRO 10UF 16WV	K1	R2			RK73GB2A101J	CHIP R 100 J 1/10W	
C413,414			CK73FB1C474K	CHIP C 0.47UF K		R3			RK73GB2A223J	CHIP R 22K J 1/10W	
C415,416			CD04AS1H2R2M	ELECTRO 2.2UF 50WV		R4			RK73GB2A472J	CHIP R 4.7K J 1/10W	
C417-420			CD04AS1C220M	ELECTRO 22UF 16WV		R5			RK73FB2B221J	CHIP R 220 J 1/8W	
C426,427			CK73FB1C474K	CHIP C 0.47UF K	K1K2	R6			RK73GB2A153J	CHIP R 15K J 1/10W	
C428			CD04AS0J470M	ELECTRO 47UF 6.3WV	K1K2	R7			RK73GH2A243D	CHIP R 24K D 1/10W	
C429			CK73GB1H103K	CHIP C 0.010UF K	K1K2	R8			RK73GH2A432D	CHIP R 4.3K D 1/10W	
C431			CD04AS1C100M	ELECTRO 10UF 16WV		R9			RK73FB2B102J	CHIP R 1.0K J 1/8W	
C435,436			CK73GB1H152K	CHIP C 1500PF K	K1K2	R10			RK73FB2B152J	CHIP R 1.5K J 1/8W	
C437,438			CC73GCH1H101J	CHIP C 100PF J		R11			RK73GH2A303D	CHIP R 30K D 1/10W	
C501			CK73FB1C105K	CHIP C 1.0UF K		R12			RK73GH2A392D	CHIP R 3.9K D 1/10W	
C502			CD04AS1C101M	ELECTRO 100UF 16WV		R13-16			RK73GB2A473J	CHIP R 47K J 1/10W	
C503-506			C90-5700-05	NP-ELEC 4.7UF 16WV		R20			RK73GB2A473J	CHIP R 47K J 1/10W	
C507			CK73FB1C105K	CHIP C 1.0UF K		R21			RK73GB2A103J	CHIP R 10K J 1/10W	
C510,511			CD04AS1HR47M	ELECTRO 0.47UF 50WV		R22			RK73SB3A220J	CHIP R 22 J 1W	K1
C512			CD04AS0J470M	ELECTRO 47UF 6.3WV							
C513			CK73GB1H103K	CHIP C 0.010UF K							

E1 : KDC-W6031 E2 : KDC-W6031Y K1 : KDC-MP5028 K2 : KDC-MP528

△ Indicates safety critical components.

# PARTS LIST

## ELECTRIC UNIT (X34-342x-xx/3762-71)

Ref. No.	A d	N e w	Parts No.	Description	Desti- nation	Ref. No.	A d	N e w	Parts No.	Description	Desti- nation
R23			RK73GB2A102J	CHIP R 1.0K J 1/10W	K1	R236,237			RK73GB2A473J	CHIP R 47K J 1/10W	
R24			RK73GB2A513J	CHIP R 51K J 1/10W	K1	R239			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R25,26			RK73GB2A102J	CHIP R 1.0K J 1/10W	K1	R240			RK73GB2A101J	CHIP R 100 J 1/10W	
R27			RK73GB2A221J	CHIP R 220 J 1/10W	K1	R241			RK73GB2A222J	CHIP R 2.2K J 1/10W	K1K2
R28,29			RK73GB2A2R2J	CHIP R 2.2 J 1/10W	K1	R241,242			RK73GB2A222J	CHIP R 2.2K J 1/10W	E2E1
R30			RK73GB2A332J	CHIP R 3.3K J 1/10W	K1	R243			RK73GB2A473J	CHIP R 47K J 1/10W	K1
R31			RK73GB2A222J	CHIP R 2.2K J 1/10W		R244			RK73GB2A473J	CHIP R 47K J 1/10W	E2E1
R32			RK73GB2A223J	CHIP R 22K J 1/10W		R244,245			RK73GB2A473J	CHIP R 47K J 1/10W	K2
R101			RK73EB2E102J	CHIP R 1.0K J 1/4W		R246			RK73GB2A473J	CHIP R 47K J 1/10W	K1
R102,103			RK73EB2E103J	CHIP R 10K J 1/4W		R246,247			RK73GB2A473J	CHIP R 47K J 1/10W	E2E1
R104			RK73EB2E472J	CHIP R 4.7K J 1/4W		R248-250			RK73GB2A473J	CHIP R 47K J 1/10W	K1K2
R105			RK73SB3A471J	CHIP R 470 J 1W	K1K2	R249,250			RK73GB2A473J	CHIP R 47K J 1/10W	E2E1
R106			RK73GB2A223J	CHIP R 22K J 1/10W	K1K2	R253			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R107			RK73FB2B472J	CHIP R 4.7K J 1/8W		R254			RK73GB2A473J	CHIP R 47K J 1/10W	
R108			R92-5024-05	CHIP R 1K J 3/4W		R257,258			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R109			RK73GB2A223J	CHIP R 22K J 1/10W		R259,260			RK73GB2A104J	CHIP R 100K J 1/10W	
R110			R92-5024-05	CHIP R 1K J 3/4W		R261			RK73GB2A333J	CHIP R 33K J 1/10W	
R111			RK73FB2B561J	CHIP R 560 J 1/8W	E2E1	R262-265			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R112			RK73GB2A223J	CHIP R 22K J 1/10W		R266,267			RK73GB2A103J	CHIP R 10K J 1/10W	
R113			RK73GB2A473J	CHIP R 47K J 1/10W		R268-271			RK73GB2A471J	CHIP R 470 J 1/10W	
R114			RK73GB2A104J	CHIP R 100K J 1/10W		R273-275			RK73GB2A101J	CHIP R 100 J 1/10W	
R115			RK73FB2B683J	CHIP R 68K J 1/8W		R279,280			RK73GB2A473J	CHIP R 47K J 1/10W	
R116			RK73GB2A393J	CHIP R 39K J 1/10W		R281,282			RK73GB2A103J	CHIP R 10K J 1/10W	
R117			RK73FB2B203J	CHIP R 20K J 1/8W		R283			RK73GB2A223J	CHIP R 22K J 1/10W	
R118			RK73GB2A104J	CHIP R 100K J 1/10W		R284			RK73GB2A471J	CHIP R 470 J 1/10W	
R119			RK73GB2A103J	CHIP R 10K J 1/10W		R301			RK73EB2E102J	CHIP R 1.0K J 1/4W	
R120			RK73GB2A474J	CHIP R 470K J 1/10W		R302,303			RK73EB2E100J	CHIP R 10 J 1/4W	
R121			RK73GB2A101J	CHIP R 100 J 1/10W		R304			RK73EB2E102J	CHIP R 1.0K J 1/4W	
R122,123			RK73GB2A103J	CHIP R 10K J 1/10W		R305-308			RK73EB2E471J	CHIP R 470 J 1/4W	
R124			RK73GB2A104J	CHIP R 100K J 1/10W		R309			RK73EB2E472J	CHIP R 4.7K J 1/4W	
R125			RK73GB2A223J	CHIP R 22K J 1/10W		R310			RK73EB2E102J	CHIP R 1.0K J 1/4W	
R126		*	R92-5088-05	CHIP R 3.3K J 3/4W		R313			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R127			RK73EB2E333J	CHIP R 33K J 1/4W		R314			RK73GB2A8R2J	CHIP R 8.2 J 1/10W	
R128,129			RK73GB2A103J	CHIP R 10K J 1/10W		R316			RK73GB2A104J	CHIP R 100K J 1/10W	
R130			RK73GB2A102J	CHIP R 1.0K J 1/10W		R317			RK73GB2A471J	CHIP R 470 J 1/10W	
R131			RK73GB2A473J	CHIP R 47K J 1/10W		R318			RK73GB2A104J	CHIP R 100K J 1/10W	
R201			RK73GB2A222J	CHIP R 2.2K J 1/10W		R319			RK73GB2A471J	CHIP R 470 J 1/10W	
R202			RK73GB2A225J	CHIP R 2.2M J 1/10W		R320			RK73FB2B102J	CHIP R 1.0K J 1/8W	
R203			RK73GB2A104J	CHIP R 100K J 1/10W		R321			RK73GB2A223J	CHIP R 22K J 1/10W	
R204			RK73GB2A102J	CHIP R 1.0K J 1/10W		R322			RK73GB2A471J	CHIP R 470 J 1/10W	
R207,208			RK73GB2A103J	CHIP R 10K J 1/10W		R323			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R210			RK73GB2A473J	CHIP R 47K J 1/10W		R324			RK73GB2A471J	CHIP R 470 J 1/10W	
R211			RK73GB2A102J	CHIP R 1.0K J 1/10W		R325			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R212			RK73GB2A473J	CHIP R 47K J 1/10W		R326			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R213			RK73GB2A102J	CHIP R 1.0K J 1/10W		R329-331			RK73GB2A222J	CHIP R 2.2K J 1/10W	E2E1
R215			RK73GB2A104J	CHIP R 100K J 1/10W		R332			RK73GB2A241J	CHIP R 240 J 1/10W	
R216			RK73GB2A102J	CHIP R 1.0K J 1/10W		R334,335			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R218,219			RK73GB2A102J	CHIP R 1.0K J 1/10W		R341		*	RK73GB2A9R1J	CHIP R 9.1 J 1/10W	
R220			RK73GB2A223J	CHIP R 22K J 1/10W		R401			RK73GB2A103J	CHIP R 10K J 1/10W	
R224			RK73GB2A473J	CHIP R 47K J 1/10W		R402,403			RK73GB2A361J	CHIP R 360 J 1/10W	
R227,228			RK73GB2A472J	CHIP R 4.7K J 1/10W		R404,405			RK73GB2A223J	CHIP R 22K J 1/10W	
R229,230			RK73GB2A473J	CHIP R 47K J 1/10W		R406,407			RK73GB2A361J	CHIP R 360 J 1/10W	
R232			RK73GB2A473J	CHIP R 47K J 1/10W		R408,409			RK73GB2A223J	CHIP R 22K J 1/10W	
R233			RK73GB2A471J	CHIP R 470 J 1/10W		R414,415			RK73FB2B181J	CHIP R 180 J 1/8W	
R234,235			RK73GB2A392J	CHIP R 3.9K J 1/10W		R420,421			RK73FB2B181J	CHIP R 180 J 1/8W	

E1 : KDC-W6031 E2 : KDC-W6031Y K1 : KDC-MP5028 K2 : KDC-MP528

△ Indicates safety critical components.

# PARTS LIST

## ELECTRIC UNIT (X34-342x-xx/3762-71)

Ref. No.	Add	New	Parts No.	Description	Destination	Ref. No.	Add	New	Parts No.	Description	Destination
R422			RK73EB2E4R7J	CHIP R 4.7 J 1/4W	K1K2	W123			R92-2053-05	CHIP R 0 OHM J 1/8W	
R423,424			RK73EB2E100J	CHIP R 10 J 1/4W	K1K2	W124			R92-1252-05	CHIP R 0 OHM J 1/16W	
R425			RK73GB2A102J	CHIP R 1.0K J 1/10W	K1K2	W125,126			R92-2053-05	CHIP R 0 OHM J 1/8W	
R426			RK73GB2A222J	CHIP R 2.2K J 1/10W	K1	W127			R92-1252-05	CHIP R 0 OHM J 1/16W	
R427			RK73GB2A472J	CHIP R 4.7K J 1/10W	K1						
R428			RK73GB2A102J	CHIP R 1.0K J 1/10W	K1	S1,2			S68-0886-05	PUSH SWITCH	
R429			RK73GB2A473J	CHIP R 47K J 1/10W	K1	D1			S2V60*A	DIODE	
R431			RK73GB2A100J	CHIP R 10 J 1/10W		D2			RB160L-40	DIODE	
R432			RK73EB2E2R2J	CHIP R 2.2 J 1/4W		D3			UDZS5.6B	ZENER DIODE	
R433,434			RK73GB2A101J	CHIP R 100 J 1/10W		D3			02DZ5.6F-Y	ZENER DIODE	
						D4			HZU9.1 (B1)-E	ZENER DIODE	
R435		*	RK73GB2A9R1J	CHIP R 9.1 J 1/10W		D4		*	02DZ9.1F-X	ZENER DIODE	
R440,441			RK73GB2A102J	CHIP R 1.0K J 1/10W	K1K2	D5			UDZS8.2B	ZENER DIODE	
R501			RK73GB2A102J	CHIP R 1.0K J 1/10W		D5			02DZ8.2F-Y	ZENER DIODE	
R503			RK73GB2A203J	CHIP R 20K J 1/10W		D8			02DZ12F-X	ZENER DIODE	K1
R505,506			RK73GB2A223J	CHIP R 22K J 1/10W		D9			AM01ZNF	DIODE	K1
R507			RK73GB2A221J	CHIP R 220 J 1/10W		D9			10EDA20	DIODE	K1
R508			RK73EB2E472J	CHIP R 4.7K J 1/4W		D10			SFPB-54VNF	DIODE	
R509			RK73EB2E101J	CHIP R 100 J 1/4W		D101			AM01ZNF	DIODE	
R510			RK73EB2E472J	CHIP R 4.7K J 1/4W		D101			10EDA20	DIODE	
R511-515			RK73EB2E101J	CHIP R 100 J 1/4W		D102			D1F60-5063	DIODE	
R516,517			RK73EB2E100J	CHIP R 10 J 1/4W		D102			1SR154-400	DIODE	
R518			RK73EB2E4R7J	CHIP R 4.7 J 1/4W		D103			AM01ZNF	DIODE	
R519			RK73GB2A102J	CHIP R 1.0K J 1/10W		D103			10EDA20	DIODE	
R520			RK73EB2E102J	CHIP R 1.0K J 1/4W		D104,105			D1F60-5063	DIODE	
R521-523			RK73EB2E471J	CHIP R 470 J 1/4W		D104,105			1SR154-400	DIODE	
R908			RK73GB2A473J	CHIP R 47K J 1/10W		D106			UDZS5.6B	ZENER DIODE	E2E1
R920			RK73GB2A391J	CHIP R 390 J 1/10W		D106			02DZ5.6F-Y	ZENER DIODE	E2E1
R921			RK73GB2A242J	CHIP R 2.4K J 1/10W		D107			UDZS4.7B	ZENER DIODE	
R922			RK73GB2A102J	CHIP R 1.0K J 1/10W		D107			02DZ4.7F-Y	ZENER DIODE	
R924			RK73GB2A512J	CHIP R 5.1K J 1/10W		D108,109			UDZS6.8B	ZENER DIODE	
R925			RK73GB2A101J	CHIP R 100 J 1/10W		D108,109			02DZ6.8F-Y	ZENER DIODE	
R926			RK73GB2A102J	CHIP R 1.0K J 1/10W		D110			DAN202U	DIODE	
R927			RK73GB2A113J	CHIP R 11K J 1/10W		D110			KDS121-P	DIODE	
R928			RK73FB2B4R7J	CHIP R 4.7 J 1/8W		D110			MC2848	DIODE	
R929			RK73GB2A332J	CHIP R 3.3K J 1/10W		D111			UDZS6.2B	ZENER DIODE	
R932			RK73GB2A100J	CHIP R 10 J 1/10W		D111			02DZ6.2F-Y	ZENER DIODE	
R933			RK73FB2B152J	CHIP R 1.5K J 1/8W		D201			DAP202U	DIODE	
R934			RK73GB2A104J	CHIP R 100K J 1/10W		D201			KDS120-P	DIODE	
R935			RK73GB2A472J	CHIP R 4.7K J 1/10W		D201			MC2846	DIODE	
R936			RK73GB2A103J	CHIP R 10K J 1/10W		D301			IMS A-6801-E	SURGE ABSORBER	
R937			RK73GB2A101J	CHIP R 100 J 1/10W		D304-309			STZ6.2N	ZENER DIODE	
R938			RK73FB2B1R0J	CHIP R 1.0 J 1/8W		D310			DA204K	DIODE	
R941-944			RK73GB2A471J	CHIP R 470 J 1/10W		D311			UDZS16B	ZENER DIODE	
R945-949			RK73GB2A103J	CHIP R 10K J 1/10W		D311			02DZ16F-Y	ZENER DIODE	
R950			RK73GB2A432J	CHIP R 4.3K J 1/10W		D401-403			DAP202U	DIODE	
R951			RK73GB2A100J	CHIP R 10 J 1/10W		D401-403			KDS120-P	DIODE	
R952			RK73GB2A431J	CHIP R 430 J 1/10W		D401-403			MC2846	DIODE	
R953			RK73GB2A510J	CHIP R 51 J 1/10W		D405,406			STZ6.8N	ZENER DIODE	K1K2
W102,103			R92-1252-05	CHIP R 0 OHM J 1/16W	E2E1	D407			UDZS5.6B	ZENER DIODE	K1
W103			R92-1252-05	CHIP R 0 OHM J 1/16W	K1K2	D407			02DZ5.6F-Y	ZENER DIODE	K1
W104			R92-2053-05	CHIP R 0 OHM J 1/8W	K1	D408,409			DA204K	DIODE	
W110			R92-1252-05	CHIP R 0 OHM J 1/16W		D411,412			DAP202U	DIODE	K1
W111			R92-2053-05	CHIP R 0 OHM J 1/8W		D411,412			KDS120-P	DIODE	K1
W112,113			R92-1252-05	CHIP R 0 OHM J 1/16W		D411,412			MC2846	DIODE	K1
W114,115			R92-2053-05	CHIP R 0 OHM J 1/8W							

E1 : KDC-W6031 E2 : KDC-W6031Y K1 : KDC-MP5028 K2 : KDC-MP528

△ Indicates safety critical components.

# PARTS LIST

## ELECTRIC UNIT (X34-342x-xx/3762-71)

Ref. No.	A d	N e w	Parts No.	Description	Desti- nation	Ref. No.	A d	N e w	Parts No.	Description	Desti- nation
D412			DAP202U	DIODE	K2E2E1	Q13			2SA1603A	TRANSISTOR	
D412			KDS120-P	DIODE	K2E2E1	Q14,15			2SC4081	TRANSISTOR	K1
D412			MC2846	DIODE	K2E2E1	Q14,15			2SC4155A (Q,R,S)	TRANSISTOR	K1
D413,414			UDZS5.6B	ZENER DIODE	K1K2	Q16			2SB1443	TRANSISTOR	K1
D501,502			DAP202U	DIODE		Q17			DTC124EUA	DIGITAL TRANSISTOR	
D501,502			KDS120-P	DIODE		Q17			KRC403-P	DIGITAL TRANSISTOR	
D501,502			MC2846	DIODE		Q17			RT1N241M	TRANSISTOR	
D503,504			D1F60-5063	DIODE		Q18			2SA1577	TRANSISTOR	
D503,504			1SR154-400	DIODE		Q101			2SB1188 (Q,R)	TRANSISTOR	K1K2
D505,506			AM01ZNF	DIODE		Q102			DTC114YUA	DIGITAL TRANSISTOR	K1K2
D505,506			10EDA20	DIODE		Q102			KRC407-P	DIGITAL TRANSISTOR	K1K2
D507-510			D1F60-5063	DIODE		Q102			RT1N144M	TRANSISTOR	K1K2
D507-510			1SR154-400	DIODE		Q103			2SB1188 (Q,R)	TRANSISTOR	
D511,512			STZ6.8N	ZENER DIODE		Q104			2SA1576A	TRANSISTOR	
D513-517			STZ6.2N	ZENER DIODE		Q104			2SA1603A	TRANSISTOR	
D901			STZ6.8N	ZENER DIODE		Q105			DTA114EUA	DIGITAL TRANSISTOR	
D903			UDZS6.8B	ZENER DIODE		Q105			KRA302-P	DIGITAL TRANSISTOR	
D903			02DZ6.8F-Y	ZENER DIODE		Q105			RT1P141M	TRANSISTOR	
D904			DA227	DIODE		Q106			DTC114YUA	DIGITAL TRANSISTOR	
D905			UDZS16B	ZENER DIODE		Q106			KRC407-P	DIGITAL TRANSISTOR	
D905			02DZ16F-Y	ZENER DIODE		Q106			RT1N144M	TRANSISTOR	
IC1		*	30624MMPA35GP	MICROCONTROLLER IC		Q107			DTA123JK	DIGITAL TRANSISTOR	E2E1
IC2			E-TDA7415	ANALOGUE IC		Q108			DTC144EUA	DIGITAL TRANSISTOR	
IC3			M5237ML-CF0J	ANALOGUE IC		Q108			KRC404-P	DIGITAL TRANSISTOR	
IC4			E-TDA7560A	ANALOGUE IC		Q108			RT1N441M	TRANSISTOR	
IC5			BA00CCWT-V5	ANALOGUE IC		Q109			2SC4081	TRANSISTOR	
IC6			HD74HC02T-E	MOS-IC		Q109			2SC4155A (Q,R,S)	TRANSISTOR	
IC6			SN74HC02APWR	MOS-IC		Q110			2SA1576A	TRANSISTOR	
IC7			S-80836CNNB-J	MOS-IC		Q110			2SA1603A	TRANSISTOR	
IC8			LB1930M-E	ANALOGUE IC		Q111,112			2SC4081	TRANSISTOR	
IC9			E-TDA7479AD	ANALOGUE IC	E2E1	Q111,112			2SC4155A (Q,R,S)	TRANSISTOR	
IC10			BR24L04FV-W	ROM IC		Q113		*	KTA2014EP (Y,GR)	TRANSISTOR	
IC11			TA75S558F-F	ANALOGUE IC	K1	Q113		*	2SA1774	TRANSISTOR	
IC12			SI-8050JF3NF	ANALOGUE IC		Q113		*	2SA1989 (Q,R,S)	TRANSISTOR	
IC902			NJM4565V-ZB	ANALOGUE IC		Q114			DTA144EUA	DIGITAL TRANSISTOR	
Q1			2SB1565	TRANSISTOR		Q114		*	KRA304-P	DIGITAL TRANSISTOR	
Q2			2SC4081	TRANSISTOR		Q114		*	RT1P441M	TRANSISTOR	
Q2			2SC4155A (Q,R,S)	TRANSISTOR		Q115,116			DTA124EUA	DIGITAL TRANSISTOR	
Q3			2SA1576A	TRANSISTOR		Q115,116			KRA303-P	DIGITAL TRANSISTOR	
Q3			2SA1603A	TRANSISTOR		Q115,116			RT1P241M	TRANSISTOR	
Q4			UMC2N	TRANSISTOR		Q300			2SB1689	TRANSISTOR	
Q5			2SB1565	TRANSISTOR		Q301			DTC124EUA	DIGITAL TRANSISTOR	
Q6			UMC2N	TRANSISTOR		Q301			KRC403-P	DIGITAL TRANSISTOR	
Q7			2SB1565	TRANSISTOR		Q301			RT1N241M	TRANSISTOR	
Q8			2SC4081	TRANSISTOR		Q304			DTC114YUA	DIGITAL TRANSISTOR	
Q8			2SC4155A (Q,R,S)	TRANSISTOR		Q304			KRC407-P	DIGITAL TRANSISTOR	
Q9			2SB1443	TRANSISTOR		Q304			RT1N144M	TRANSISTOR	
Q10			2SC4081	TRANSISTOR		Q400-403			DTC143TUA	DIGITAL TRANSISTOR	
Q10			2SC4155A (Q,R,S)	TRANSISTOR		Q400-403			KRC410-P	DIGITAL TRANSISTOR	
Q11			DTC124EUA	DIGITAL TRANSISTOR		Q400-403			RT1N430M	TRANSISTOR	
Q11			KRC403-P	DIGITAL TRANSISTOR		Q905			2SC2873-F	TRANSISTOR	
Q11			RT1N241M	TRANSISTOR		Q906			DTA124EUA	DIGITAL TRANSISTOR	
Q12			2SC4081	TRANSISTOR		Q906			KRA303-P	DIGITAL TRANSISTOR	
Q12			2SC4155A (Q,R,S)	TRANSISTOR		Q906			RT1P241M	TRANSISTOR	
Q13			2SA1576A	TRANSISTOR		Q907			2SA1576A	TRANSISTOR	

E1 : KDC-W6031 E2 : KDC-W6031Y K1 : KDC-MP5028 K2 : KDC-MP528

△ Indicates safety critical components.

# PARTS LIST

## ELECTRIC UNIT (X34-342x-xx/3762-71)

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation	Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
Q907			2SA1603A	TRANSISTOR		F	1A		N09-6051-05	TAPTITE SCREW (BIND P 2X5)	
TH1			PRF21BE471QB2	POSITIVE RESISTOR		G	2A		N19-2163-04	FLAT WASHER	
A1	2D		X86-3840-11	FRONT-END UNIT	K1K2	H	1B		N39-2020-46	PAN HEAD MACHINE SCREW	
A1	2D	*	X86-3842-70	FRONT-END UNIT	E2	J	1B		N09-6108-05	MACHINE SCREW (M2X3.5TYPE3)	
A1	2D	*	X86-3842-71	FRONT-END UNIT	E1	K	3B		N09-6155-05	SEMS (TAPTITE SCREW)(PT2X6)	
<b>CD MECHANISM ASSY (X92-5080-0x)</b>											
2	1B		A10-4827-32	CHASSIS		DM1	3B		T42-1066-04	DC MOTOR ASSY (SP)	
5	1B		D10-4576-83	ARM ASSY		DM2	2B		T42-1067-04	DC MOTOR ASSY (LO)	
8	2A		D10-4579-23	LEVER ASSY		DPU1	2B		X93-2010-00	OPTICAL PICKUP ASSY	
10	3A		D10-4581-13	ARM							
11	2A		D10-4582-13	ARM							
12	3A		D10-4583-03	ARM							
13	3A		D10-4584-03	ARM							
14	3B		D10-4585-03	ARM							
15	2A		D10-4586-13	SLIDER							
16	3B		D10-4587-52	SLIDER							
17	3B		D10-4588-13	SLIDER							
18	3B		D10-4595-04	ARM							
19	3B		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	3B		D13-2156-14	GEAR							
28	3B		D13-2157-04	GEAR							
29	3B		D13-2158-04	GEAR							
30	3B		D13-2168-04	GEAR							
31	3B		D13-2171-04	GEAR							
32	2B		D13-2172-13	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		G01-3075-14	EXTENSION SPRING							
42	2A		G01-3076-04	EXTENSION SPRING							
43	1B		G01-3077-14	EXTENSION SPRING							
44	2B		G02-1399-04	FLAT SPRING							
45	2B		G02-1408-04	FLAT SPRING							
51	1A		J21-9676-32	MOUNTING HARDWARE							
52	3B		J21-9677-22	MOUNTING HARDWARE							
53	1B		J21-9678-13	MOUNTING HARDWARE							
55	1A		J90-1001-11	GUIDE							
56	1B		J90-1023-03	GUIDE							
DFPC1	3A		J84-0141-05	FLEXIBLE PRINTED WIRING BOARD							
A	2B		N09-4460-05	TAPTITE SCREW (OVAL P TAPTIT)							
B	1B		N09-4472-15	MACHINE SCREW (M1.7X8.0)							
C	2B		N09-6004-05	MACHINE SCREW (M1.7X2.5 IB-L)							
E	2B		N09-6007-05	MACHINE SCREW (PAN M2X2)							

E1 : KDC-W6031 E2 : KDC-W6031Y K1 : KDC-MP5028 K2 : KDC-MP528

△ Indicates safety critical components.

# SPECIFICATIONS

## KDC-MP5028/MP528

### FM tuner section

Frequency range (200kHz space) ..... 87.9MHz~107.9MHz  
Usable sensitivity (S/N=30dB) ..... 9.3dBf (0.8 $\mu$ V/75 $\Omega$ )  
Quieting Sensitivity (S/N=50dB) ..... 15.2dBf (1.6 $\mu$ V/75 $\Omega$ )  
Frequency response ( $\pm$ 3dB) ..... 30Hz~15kHz  
Signal to Noise ratio (MONO) ..... 70dB  
Selectivity ( $\pm$ 400kHz) .....  $\geq$ 80dB  
Stereo separation (1kHz) ..... 40dB

### AM tuner section

Frequency range (10kHz space) ..... 530kHz~1700kHz  
Usable sensitivity (S/N=20dB) ..... 28dB $\mu$  (25 $\mu$ V)

### CD player section

Laser diode ..... GaAlAs  
Digital filter (D/A) ..... 8 Times Over Sampling  
D/A Converter ..... 1Bit  
Spindle speed (Audio file) ..... 1000~400 rpm (CLV 2times)  
Wow & Flutter ..... Below Measurable Limit  
Frequency response ( $\pm$ 1dB) ..... 10 Hz~20kHz  
Total harmonic distortion (1kHz) ..... 0.01%  
Signal to Noise ratio (1kHz) ..... 105dB  
Dynamic range ..... 93dB  
Channel separation ..... 96dB  
MP3 decode ..... Compliant with MPEG-1/2 Audio Layer-3  
WMA decode ..... Compliant with Windows Media Audio  
AAC decode ..... AAC-LC “.m4a” files

### Audio section

Maximum output power ..... 50W x 4  
Full Bandwidth Power (at less than 1% THD) ..... 22W x 4  
Tone action

Bass ..... 100Hz $\pm$ 10dB  
Middle ..... 1kHz $\pm$ 10dB  
Treble ..... 10kHz $\pm$ 10dB

### Preout level / Load (during disc play)

KDC-MP5028 ..... 4000mV/10k $\Omega$   
KDC-MP528 ..... 2500mV/10k $\Omega$

Preout impedance .....  $\leq$ 600 $\Omega$

### Auxiliary input

Frequency response ( $\pm$ 1dB) ..... 20Hz~20kHz  
Input Maximum Voltage ..... 1200mV  
Input Impedance ..... 100k $\Omega$

### 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 6-1/10inch  
Weight ..... 3.09lbs (1.4kg)

## KDC-W6031/W6031Y

### FM tuner section

Frequency range (50kHz space) ..... 87.5MHz~108.0MHz  
Usable sensitivity (S/N=26dB) ..... 0.7 $\mu$ V/75 $\Omega$   
Quieting Sensitivity (S/N=46dB) ..... 1.6 $\mu$ V/75 $\Omega$   
Frequency response ( $\pm$ 3.0dB) ..... 30Hz~15kHz  
Signal to Noise ratio (MONO) ..... 65dB  
Selectivity (DIN) ( $\pm$ 400kHz) .....  $\geq$ 80dB  
Stereo separation (1kHz) ..... 35dB

### MW tuner section

Frequency range (9kHz space) ..... 531kHz~1611kHz  
Usable sensitivity (S/N=20dB) ..... 25 $\mu$ V

### LW tuner section

Frequency range ..... 153kHz~281kHz  
Usable sensitivity (S/N=20dB) ..... 45 $\mu$ V

### CD player section

Laser diode ..... GaAlAs  
Digital filter (D/A) ..... 8Times Over Sampling  
D/A Converter ..... 1Bit  
Spindle speed (Audio file) ..... 1000~400rpm (CLV 2times)  
Wow & Flutter ..... Below Measurable Limit  
Frequency response ( $\pm$ 1dB) ..... 10Hz~20kHz  
Total harmonic distortion (1kHz) ..... 0.01%  
Signal to Noise ratio (1kHz) ..... 105dB  
Dynamic range ..... 93dB  
Channel separation ..... 85dB  
MP3 decode ..... Compliant with MPEG-1/2 Audio Layer-3  
WMA decode ..... Compliant with Windows Media Audio  
AAC decode ..... AAC-LC “.m4a” files

### Audio section

Maximum output power ..... 50W x 4  
Output power (DIN45324, +B=14.4V) ..... 30W x 4  
Tone action

Bass ..... 100Hz $\pm$ 10dB  
Middle ..... 1kHz $\pm$ 10dB  
Treble ..... 10kHz $\pm$ 10dB

### Preout level / Load (during disc play)

Preout impedance .....  $\leq$ 600 $\Omega$

### General

Operating voltage (11~16V allowable) ..... 14.4V  
Current consumption ..... 10A  
Installation Size (W x H x D) ..... 182 x 53 x 155mm  
Weight ..... 1.4kg

KENWOOD follows a policy of continuous advancements in development.

For this reason specifications may be changed without notice.

