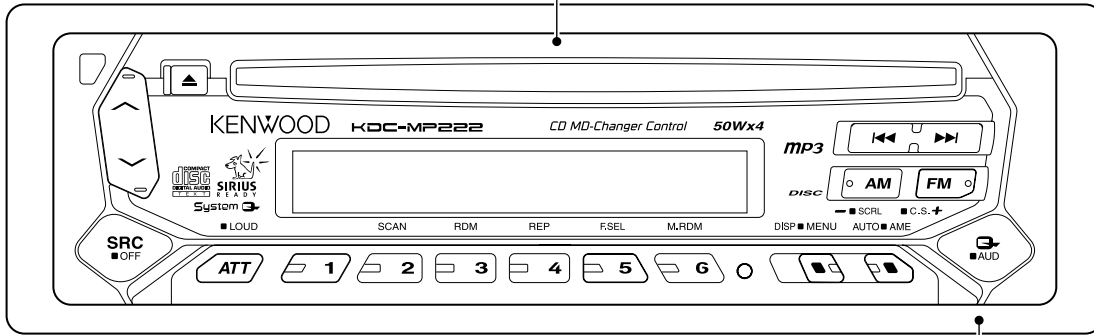


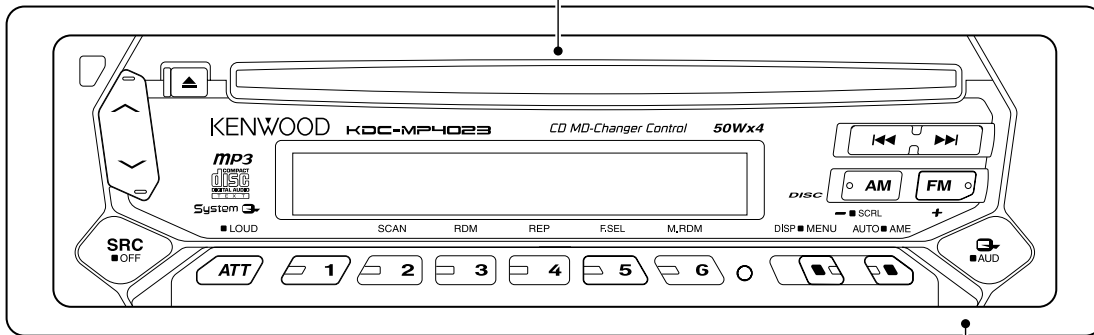
KDC-MP222 KDC-MP4023/G

SERVICE MANUAL

Panel assy
(A64-2863-02): KDC-MP222



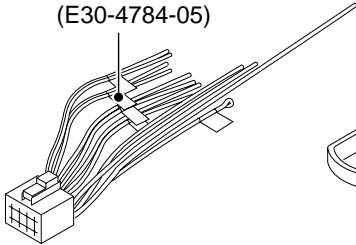
Panel assy
(A64-2874-02): KDC-MP4023
(A64-2881-02): KDC-MP4023G



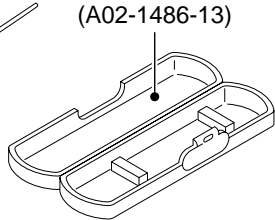
Escutcheon
(B07-3022-02): KDC-MP222

Escutcheon
(B07-3003-02): KDC-MP4023G
(B07-3022-02): KDC-MP4023

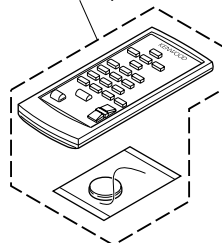
DC cord
(E30-4784-05)



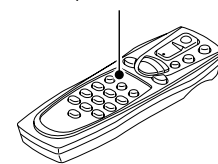
Plastic cabinet assy
(A02-1486-13)



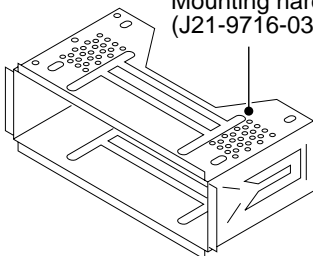
Remote controller assy
(RC-410)
(A70-2025-05): KDC-MP4023/G



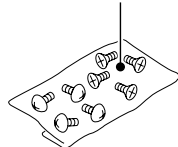
Remote controller assy
(RC-505)
(A70-2040-05): KDC-MP222



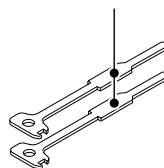
Mounting hardware assy
(J21-9716-03)



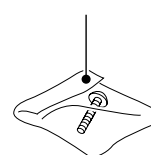
Screw set
(N99-1719-05)



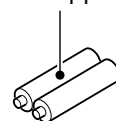
Lever
(D10-4589-04)



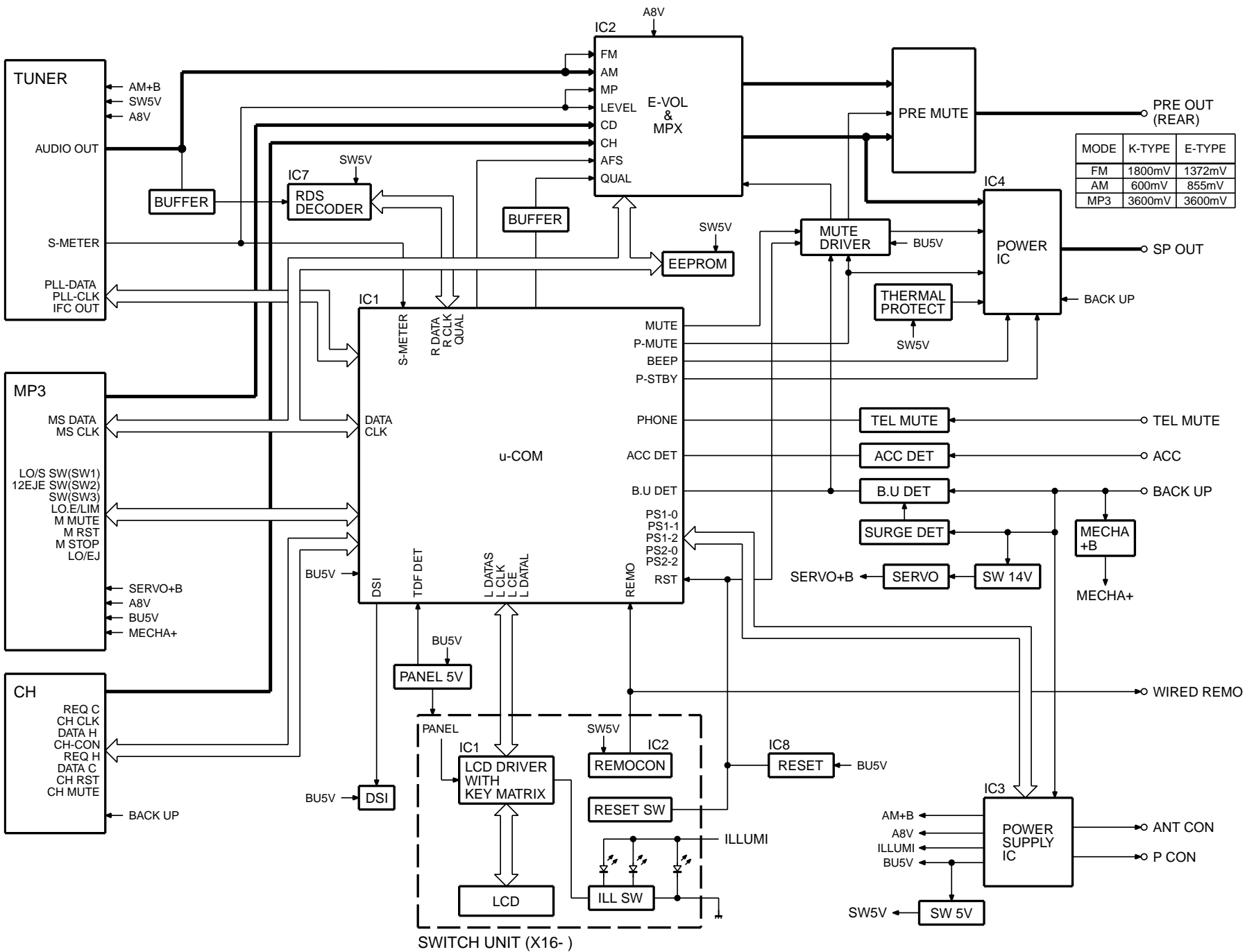
Screw set
(N99-1610-15)



Size AA battery
(Not supplied)



BLOCK DIAGRAM



COMPONENTS DESCRIPTION

● SWITCH UNIT (X16-2050-1x)

Ref. No.	Function	Operation
IC1	LCD Driver	
IC2	Remote-control sensor IC	
Q1	Key-scan Start SW	"ON" when the base goes "L".

● ELECTRIC UNIT (X25-9620-xx)

Ref. No.	Function	Operation
IC1	System MI-COM	
IC2	E-VOL. & N.C. MPX	
IC3	Power Supply IC	
IC4	Power IC	
IC6	Analog SW (Mute logic)	
IC8	Reset IC	"L" : detection voltage below 3.6V
IC9	CD mechanism 5V AVR	
Q1	SERGE Det.	ON when the base goes "Hi".
Q2	B.U. Det.	ON when the base goes "Hi" during BU applied.
Q3	ACC Det.	ON when the base goes "Hi" during ACC applied.
Q4	SW 5V	ON when the base goes "Lo".
Q21	SERVO +B AVR	Output voltage 7.4V
Q22	SW 14V	ON when the base goes "Hi".
Q23	SW for power supply IC	SW1 terminal of a power supply IC is controlled.
Q41	MECHA 5V AVR SW	ON when the base goes "Lo".
Q151	Panel 5V SW	ON when the base goes "Lo".
Q201	Noise buffer	
Q350	Mute driver for Audio mute SW	ON when the base goes "Lo".
Q351	Pre mute SW	Audio Pre-output is muted when the base goes "Hi".
Q352	Pre mute SW	
Q401	DSI ILLUMI SW	ON when the base goes "Lo".

MICROCOMPUTER'S TERMINAL DESCRIPTION

● SYSTEM MICROCOMPUTER UPD703030GC011 (IC1 : X25)

pin	pin name	I/O	Description	truth table	Processing Operation
1	PLL CLK	I/O	Clock output to F/E		
2	AFS	O	Noise detection time constant switching terminal		FM seek/during/AF search : L, receiving : H
3	TDF DET	I	TDF panel detection terminal		Panel detached : H, panel attached : L
4	IC2 SDA	I/O	Data input and output terminal with E-VOL		
4	IC2 SDA	I/O	Data input and output terminal with CD mechanism		
4	IC2 SDA	I/O	Data input and output terminal with E2PROM		
5	IC2 SCL	I/O	Clock output to E-VOL		
5	IC2 SCL	I/O	Clock output to CD mechanism		
5	IC2 SCL	I/O	Clock output to E2PROM		
6	VDD	-			
7	VSS	-			
8	-	O	Not used		
9	BEEP	O	Beep output terminal		
10	REMO	I	Remote control input		
11	R QUAL	I	RDS decoder quality input terminal		
11	-	O	Not used		With no RDS and destination is output L
12	R DATA	I	RDS decoder data input terminal		
12	-	O	Not used		With no RDS and destination is output L
13	L CE	O	CE output to LCD driver		
14	-	O	Not used		
15	L INH	O	Reset output to LCD driver		Display light off, KEY reset : L Display light on, KEY scan : H
16	DSI	O	DSI control terminal		DSI light on : H, Light off : L
17	-	O	Not used		
18	TEST	-			
19-21	-	O	Not used		
22	MOSW	O	CD mechanism motor IC switch	③	Loading/Eject/Break : H
23	LO/EJ	I/O	CD mechanism Loading/Eject switch	③	Stop/Break : Hi-Z Loading : L Eject : H
24	M STOP	O	Stop request to CD mechanism		
25	M RST	O	Reset output to CD mechanism		Usually : H, Reset : L
26	MUTE	I/O	Mute terminal		L : MUTE OFF, H : MUTE ON
27	LO.E/LIM SW (SW3)	I	CD Down Switch detection terminal		H : chucking
28	M MUTE L	I	MUTE request from CD mechanism		L : MUTE request
29	M MUTE R	I	MUTE request from CD mechanism		L : MUTE request
30	-	O	Not used		
31	RESET	I			Usually : H, Reset : L
32	XT1	I	Sub clock 32.765kHz		
33	XT2	I	Sub clock 32.765kHz		
34	REGC	-			Ceramic capacitor connected to the pair grounds
35	X2	I	Main clock 20MHz		
36	X1	I	Main clock 20MHz		
37	VSS	-			
38	VDD	-			
39	CLKOUT	-			
40	IC2 TYPE1	I	E-VOL setting switching terminal		
41	IC2 TYPE0	I	E-VOL setting switching terminal		
42	-	O	Not used		
43	TYPE1	I	Destination switching terminal	④	
44	TYPE0	I	Destination switching terminal	④	

MICROCOMPUTER'S TERMINAL DESCRIPTION

pin	pin name	I/O	Description	truth table	Processing Operation
45	CD MECHA+B	I/O	Power supply control terminal for MP3		ON : L, OFF : Hi-Z
46	SW5V	I/O	Control terminal for switch5V		ON : L, OFF : Hi-Z
47	PS2-0	O	Control terminal for power supply IC	②	
48	PS2-1	O	Control terminal for power supply IC	②	
49	PS1-0	O	Control terminal for power supply IC	①	
50	PS1-1	O	Control terminal for power supply IC	①	
51	PS1-2	O	Control terminal for power supply IC	①	
52	BU DET	I	BU detection terminal		BU detection : L, with no BU : H
53	ACC DET	I	ACC detection terminal		ACC detection : L, with no ACC : H
54	-	O	Not used		
55	BVDD	-			
56	BVSS	-			
57,58	-	O	Not used		
59	P-MUTE	O	POWER IC MUTE output terminal		POWER OFF : L, ALLOFF : L, TEL MUTE : L
60	P-STBY	O	POWER IC STBY output terminal		POWER IC ON : H, OFF : L
61,62	-	O	Not used		
63	PRE MUTE	O	PREOUT MUTE output		during momentary power down L, When M-MUTEL : L
64-67	-	O	Not used		
68	LX-RST	O	Reset output to external unit		Usually, L after system RST returned, after more than 400m sec H, and L
69	LX-CON	O	Control output to external unit		ON : H, OFF : L
70	AVCONT	O	AD reference voltage control output		during motion : H
71	AVDD	-			
72	AVSS	-			
73	AVREF	-			Connection with 70pin
74	PHONE	I	PHONE detection terminal		TEL MUTE : 1V orless, NAVI MUTE : more than 2.5V
74	-	I	Not used (with no PHONE destination)		
75-81	-	I	Not used		
82	S-METER	I	S-meter detection terminal		Dependant for control use of tuner
83	NOISE	I	FM noise detection terminal		Dependant for control use of tuner
84	IFC-OUT	I	F/E IFC OUT input terminal		Dependant for control use of tuner
85	LX-MUTE	I	MUTE request to external unit		H : MUTE ON, L : MUTE OFF
86	LX-REQM	O	Request output to external unit		Request detection : L
87	R CLK	I	RDS decoder Clock input terminal		
87	-	O	Not used		Destination with no RDS : output L fixed
88	LX-REQS	I	Request input to external unit		Request detection : L
89	KEY-REQ	I	Request of communication from LCD driver		L : KEY input
90	LO.S SW (SW1)	I	Loading start switch detection terminal		Loading start : L
91	12EJE SW (SW2)	I	12cmDISK EJECT position detection switch terminal		12cmDISC : L
92	-	O	Not used		
93	-	O	Not used		
94	LX-DATAS	I	Data input from external unit		
95	LX-DATAM	O	Data output to external unit		Holding the last
96	LX-CLK	I/O	Clock output and input terminal with external unit		
97	L DATAL	I	Data input from LCD driver		
98	L DATAS	O	Data output to LCD driver		
99	L-CLK	I/O	Clock output to LCD driver		
100	PLL DATA	I/O	Data output and input terminal with F/E		

MICROCOMPUTER'S TERMINAL DESCRIPTION

Truth table 1

PS1-0	PS1-1	PS1-2	AUDIO	P-CON	P-ANT
L	L	L	OFF	OFF	OFF
H(L)	L(H)	L	ON	OFF	OFF
H	H	L	ON	ON	OFF
H	H	H	ON	ON	ON

Truth table 2

PS2-0	PS2-1	ILLUMI	FM+B	AM+B
L	L	OFF	OFF	OFF
H (L)	L (H)	ON	ON	OFF
H	H	ON	OFF	ON

Truth table 3

MOSW	LO/EJ	CD mechanism operation
L	H	Load
H	H	Eject
-	L	Lo/Ej invalid truth
Hi-Z	H	Brake

Truth table 4 (destination setting)

model	destination	destination ports		
		TYPE2	TYPE1	TYPE0
KDC-MP222	K	-	0	0
KDC-MP4023	M (E)	-	0	1
KDC-M4524/G/Y/GY	E/E2	-	1	0

TEST MODE

1. How to enter the test mode

While holding the Preset 1 and Preset 3 keys, reset the unit.

2. How to exit from the test mode

Reset the unit, ACC OFF, power OFF and Panel detached.
(Note) The test mode cannot be terminated by momentary power down.

3. Initial status in the test mode

- Sources : ALL OFF
- Display : All segments are lit.
- Volume : -10 dB (displayed as "30")
- Loudness : OFF

- CRSC : OFF regardless of the presence of switching function.
- SYSTEM Q : Flat
- BEEP : When pressing any keys, the buzzer generates a beep at any time.
- SYSTEM Q MENU : OFF

4. Special display in Tuner mode

When any of the following messages is displayed in Tuner mode, the F/E may be abnormal.

- "TNE2P NG" : The EEPROM is set to the default (unstable values) because the F/E was shipped without passing through the adjustment process, etc.
- "TNCON NG" : Communication with the F/E is not possible.

TEST MODE

5. Forced switching of K3I

Each press of the Preset 6 key in Tuner mode should switch K3I from AUTO → Forced Wide → Forced Middle → Forced Narrow → AUTO.

The initial status is AUTO and the display shows these modes as follows.

- AUTO : FMA
- Forced Wide : FMW
- Forced Middle : FMM
- Forced Narrow : FMN

6. Test mode specifications of the CD receiver

- Forced ejection is inhibited in the reset start operation. When the unit is reset while a CD is loaded in it, the CD is not recognized by resetting.
- Each press of the Track Up key jumps to the following track numbers:
No. 9 → No. 15 → No. 10 → No. 11 → No. 12 → No. 13 → No. 14 → No. 9 (The cycle restarts from here.)
- Each press of the Track Down key jumps to the previous track number to the track being played.
- When the number of total tracks of the MP3 disc is less than 9, 1st track is played.
- When the disc media is CD, a short press of the Preset 1 key jumps to the track number 28.

7. Audio-related specifications

- A short press of the Q key initiates the audio adjustment mode.
- Pressing the * key on the remote initiates the audio adjustment mode.
- Fader is selected to the initial item.
- Continuous holding of a remote control key is inhibited.
- Bass, Middle and Treble are adjusted in 3 steps of Min/Center/Max with the Track Up/Down keys.
- Balance is adjusted in 3 steps of Left Max/Center/Right Max with the Track Up/Down keys.
- Fader is adjusted in 3 steps of Rear Max/Center/Front Max with the Track Up/Down keys.
- Bass f/Bass Q/Bass EXT/Middle f/Middle Q/Treble f are not death with by the audio adjust.

8. Menu-related specifications

- A short press of the PLAY/PAUSE key initiates the Menu mode.
- Pressing the DNPP/SBF key on the remote initiates the Menu mode.
- Continuous holding of a remote control key is inhibited, a short press initiates the Menu mode.
- Contrast is adjusted in 3 steps of 0/5/10, with the trackup/down keys.

9. Backup current measurement

When the unit is reset while ACC is OFF (i.e. by turning Backup ON), the MUTE terminal goes OFF in 2 seconds in place of 15 second. (The CD mechanism is not activated at this time.)

10. Special display when the display is all on

Pressing the Preset keys while the power is ALL OFF displays the following information.

PRESET 1	Version display (8 digits, Month/Day/Hour/Minute) (Display) SYSxxxxx : System microcomputer
PRESET 3	Short press : View power ON time. (The All OFF period is not counted.) Long press/hold : Clear power ON time at the power ON time displaying. (Display) PonTim xxxxx Max. 60000 (hours)
PRESET 4	Short press : Display CD operation time. Long press/hold : Clear CD operation time at the CD operation time displaying. (Display) CDTimxxxxx Max. 60000 (hours)
PRESET 5	Short press : Display CD ejection count. Long press/hold : Clear CD ejection count at the CD ejection count displaying. (Display) EjeCnt xxxxx Max. 60000 (times)
PRESET 6	Short press : Display Panel open/close count. Long press/hold : Clear Panel open/close count at the Panel open/close count. (Display) PnCnt xxxxx Max. 600000 (times)

11. Other specifications

LINE MUTE inhibit time is 1 second from 10 second when start up the test mode.

12. Switching the frequency span (K/M type)

While holding the preset ① key and preset ⑤ keys, reset the unit.

13. Response to OEM setting (destination of electronic volume setting)

S03F/E models are response to OEM models option at put in μ -com 2 pin.

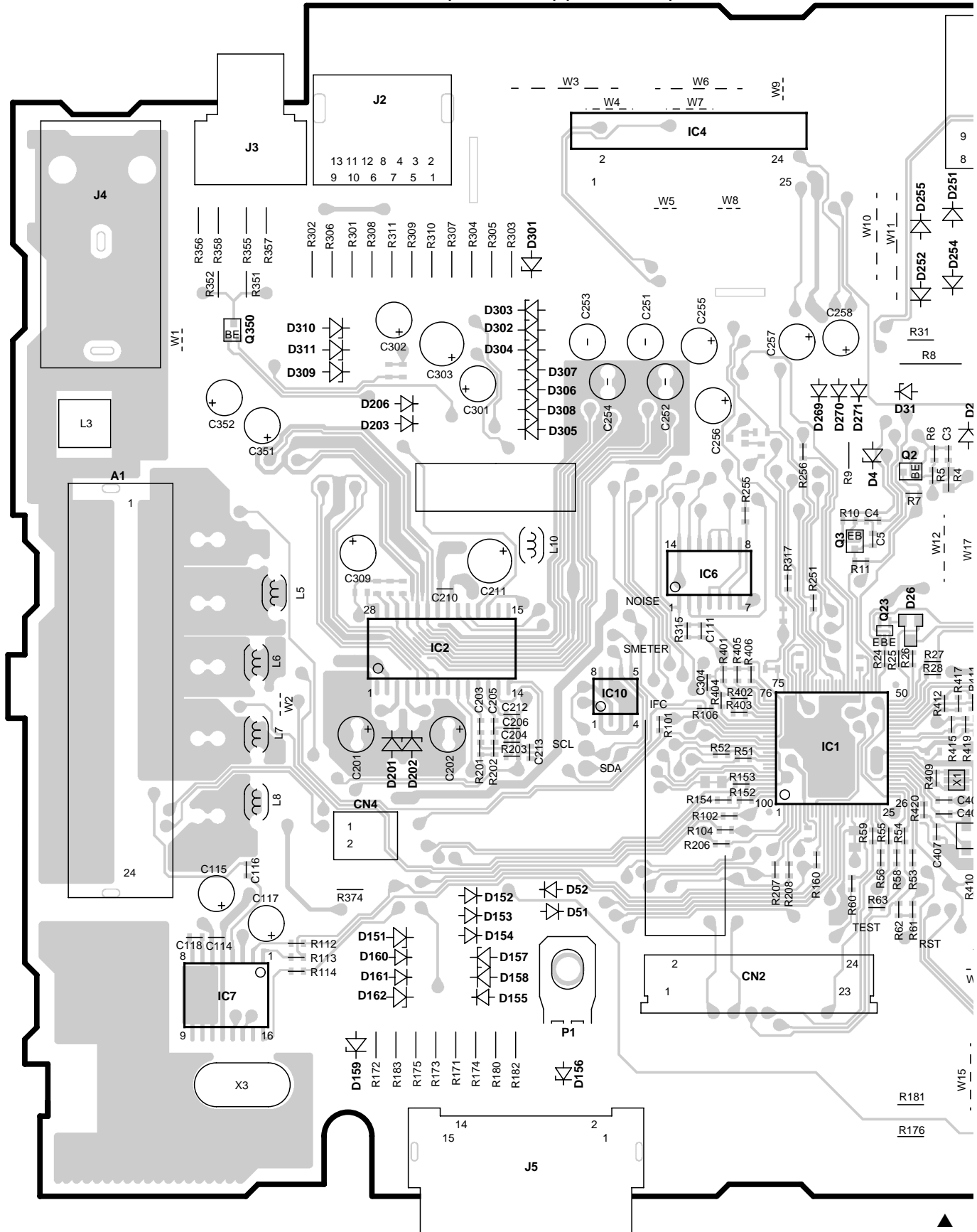
Its setting re following steps.

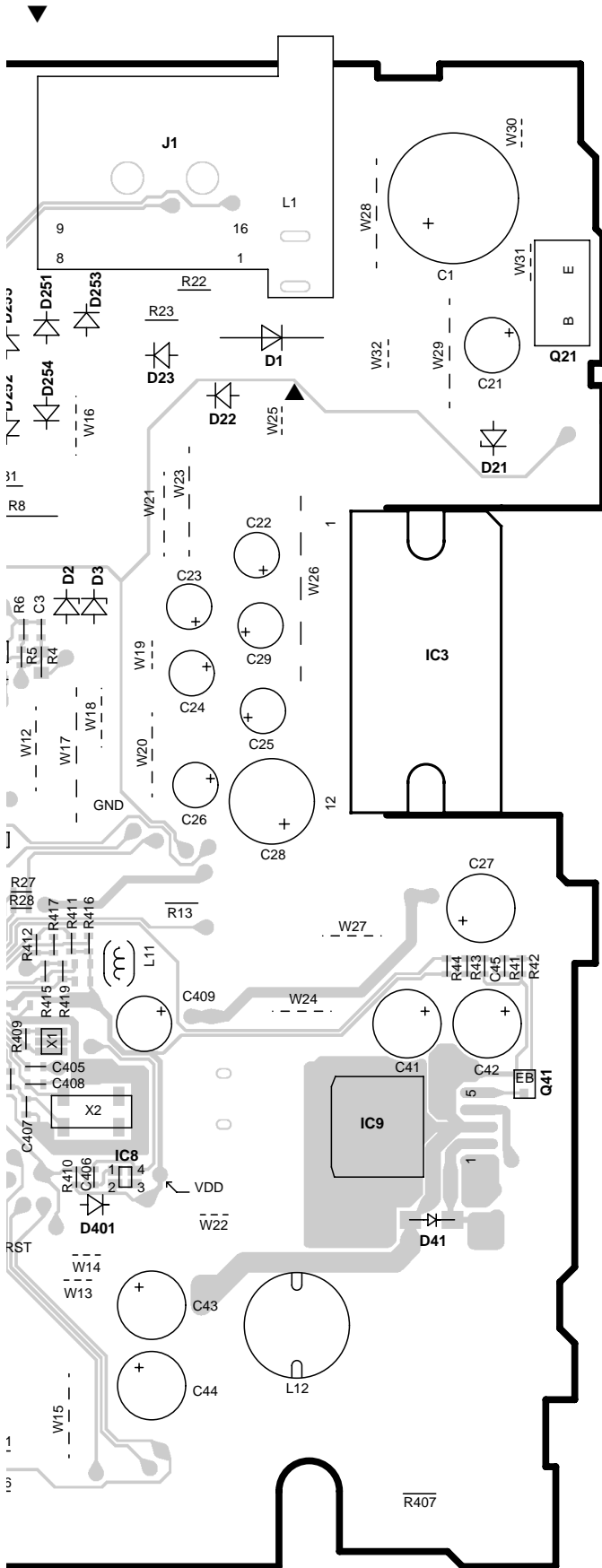
IC2-TYPE0 (41pin)	IC2-TYPE1 (40pin)	Description
Low	Low	① Trade model (initial quantif)
Low	High	② Trade model (CRSC Change)
High	Low	③ OEM model-ready CRSC change
High	High	④ OEM model-ready CRSC & de-emphasis

KDC-MP222
KDC-MP4023/G

PC BOARD (COMPONENT SIDE VIEW)

ELECTRIC UNIT (X25-9620-xx) (J74-1466-12)

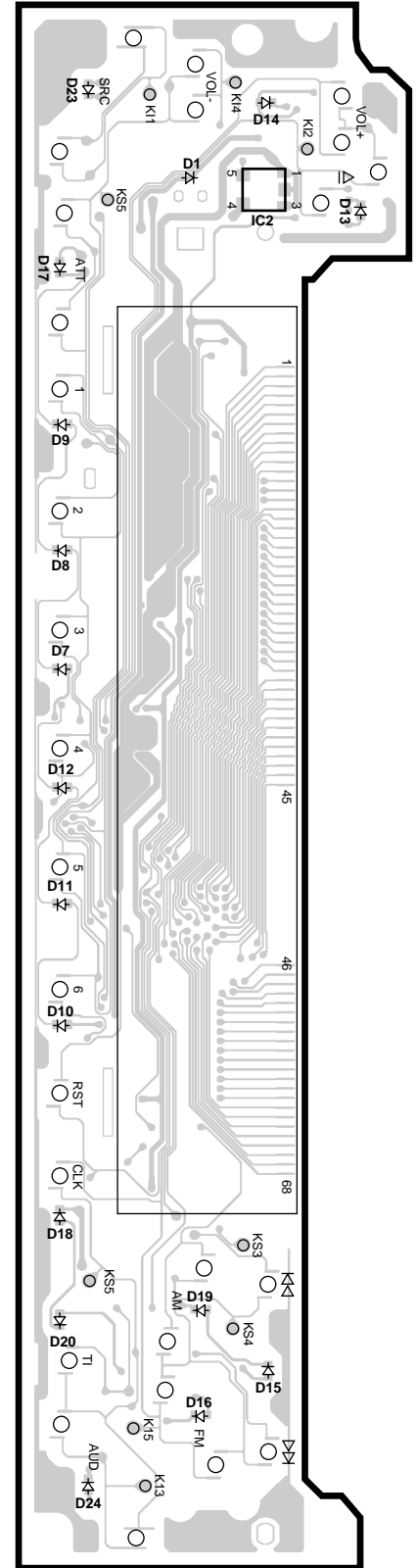




**ELECTRIC UNIT
(X25-9620-xx)**

IC	Q	Address
1		5E
2		4C
3		4G
4		2D
6		4D
8		5F
9		5G
	2	4E
	3	4E
	21	2H
	23	4E
	41	5G
	350	3B

**SWITCH UNIT
X16-2050-1x (J74-1463-02)**



**SWITCH UNIT
(X16-2050-1x)**

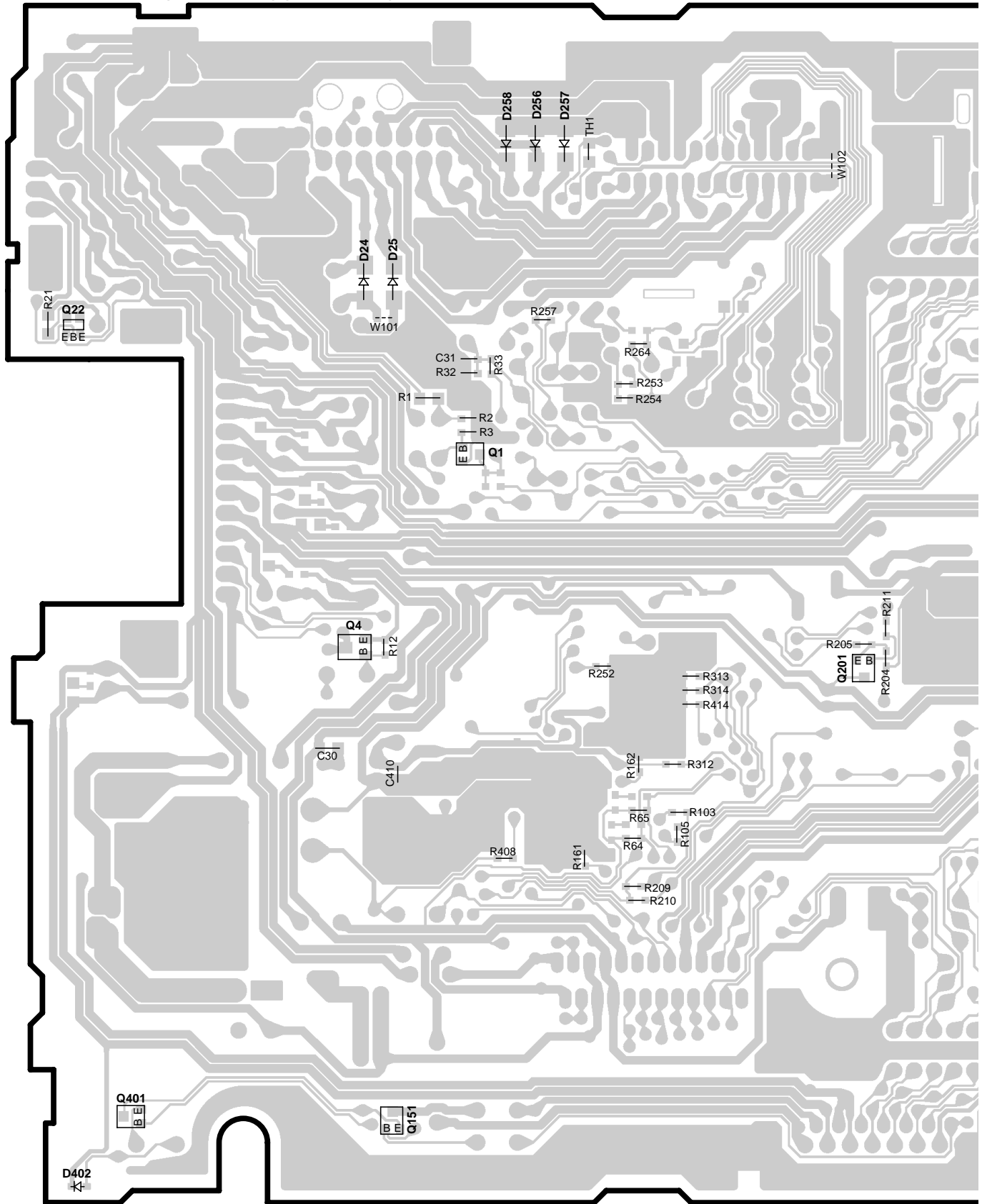
IC	Address
2	2J

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

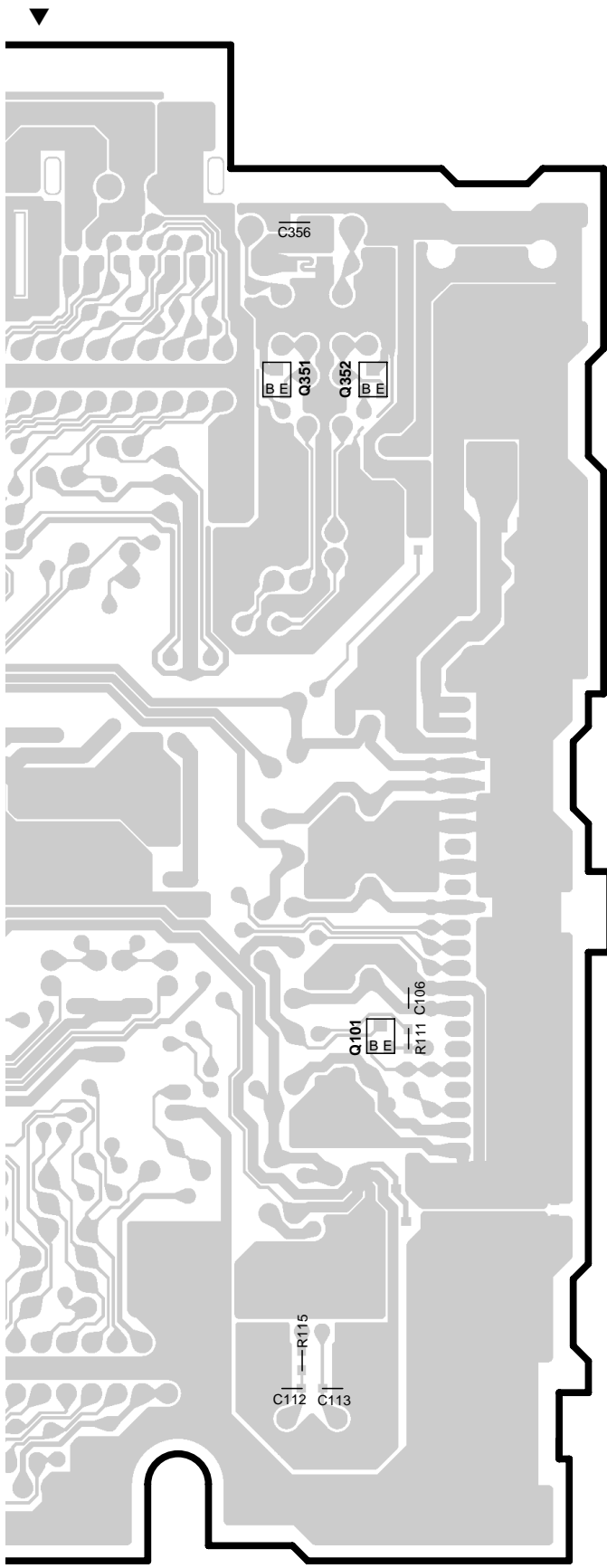
KDC-MP222 KDC-MP4023/G

PC BOARD (FOIL SIDE VIEW)

ELECTRIC UNIT (X25-9620-xx) (J74-1466-12)



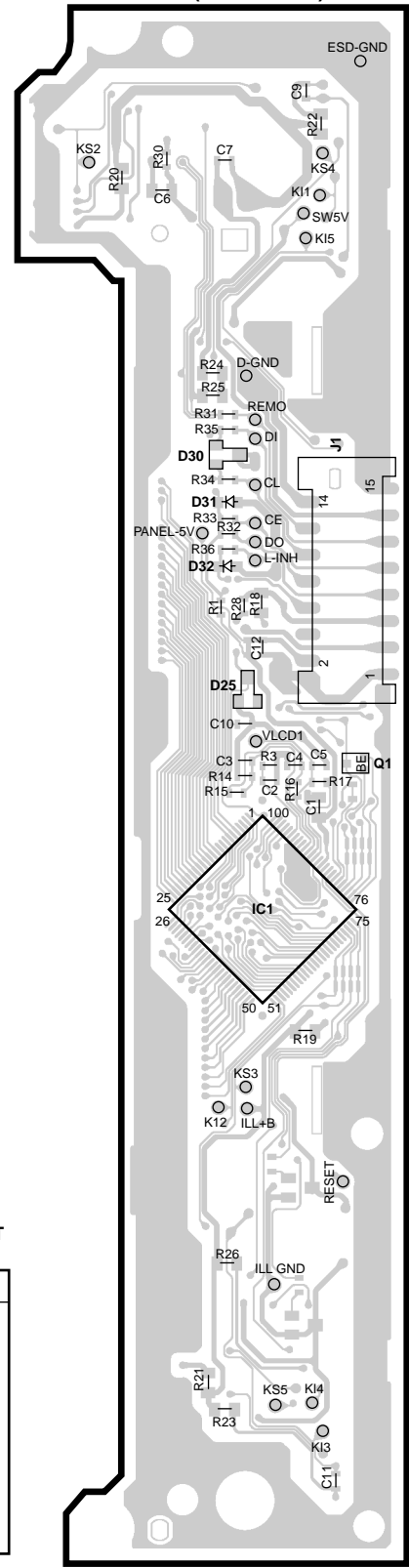
KDC-MP222 KDC-MP4023/G



ELECTRIC UNIT (X25-9620-xx)

Q	Address
1	3M
4	4M
22	3K
151	7M
201	4O
351	3Q
352	3Q
401	7K

SWITCH UNIT X16-2050-1x (J74-1463-02)



SWITCH UNIT (X16-2050-1x)

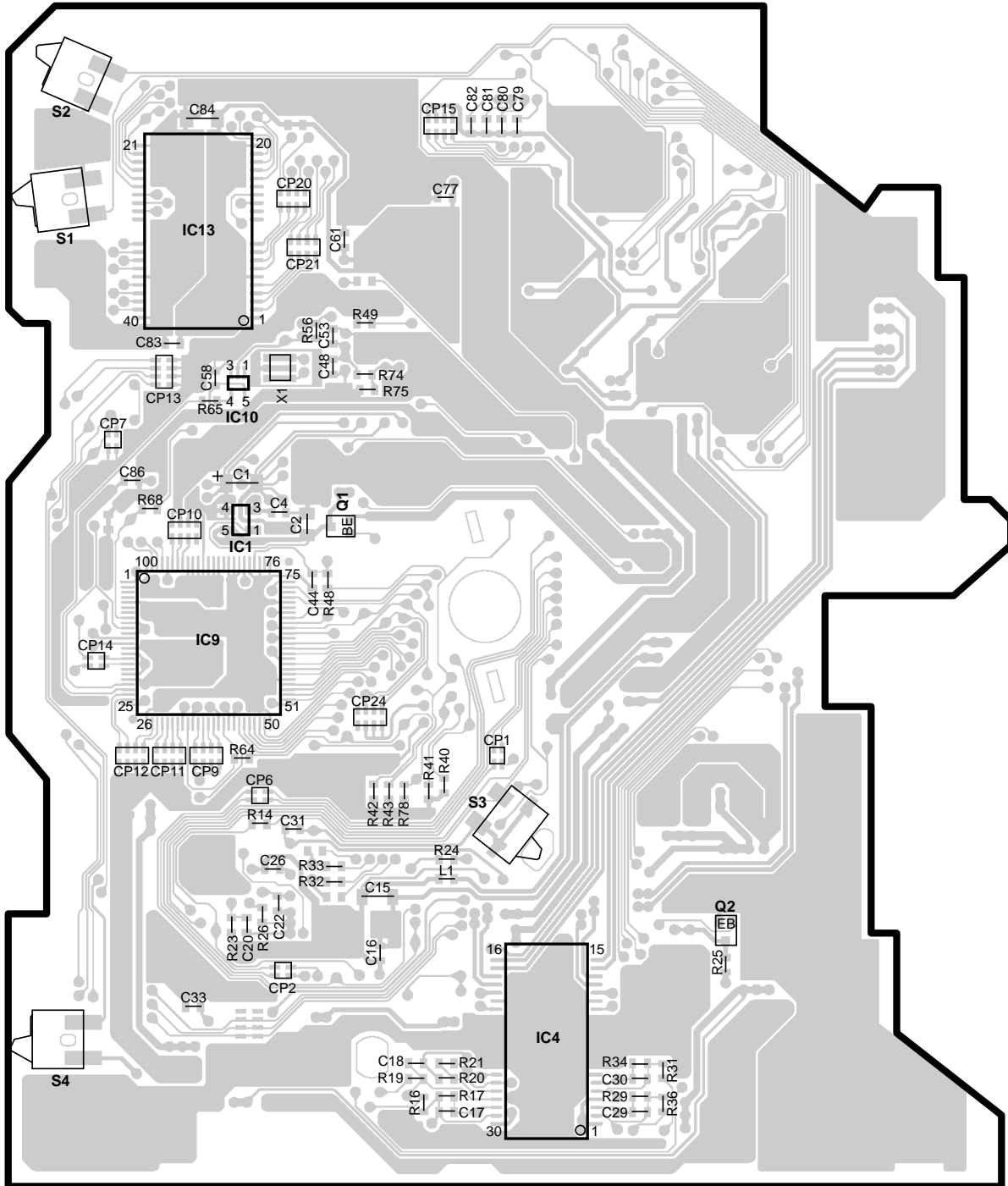
IC	Q	Address
1		4S
	1	4T

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

KDC-MP222
KDC-MP4023/G

PC BOARD (COMPONENT SIDE VIEW)

CD PLAYER UNIT
X32-5410-00 (J74-1487-12)

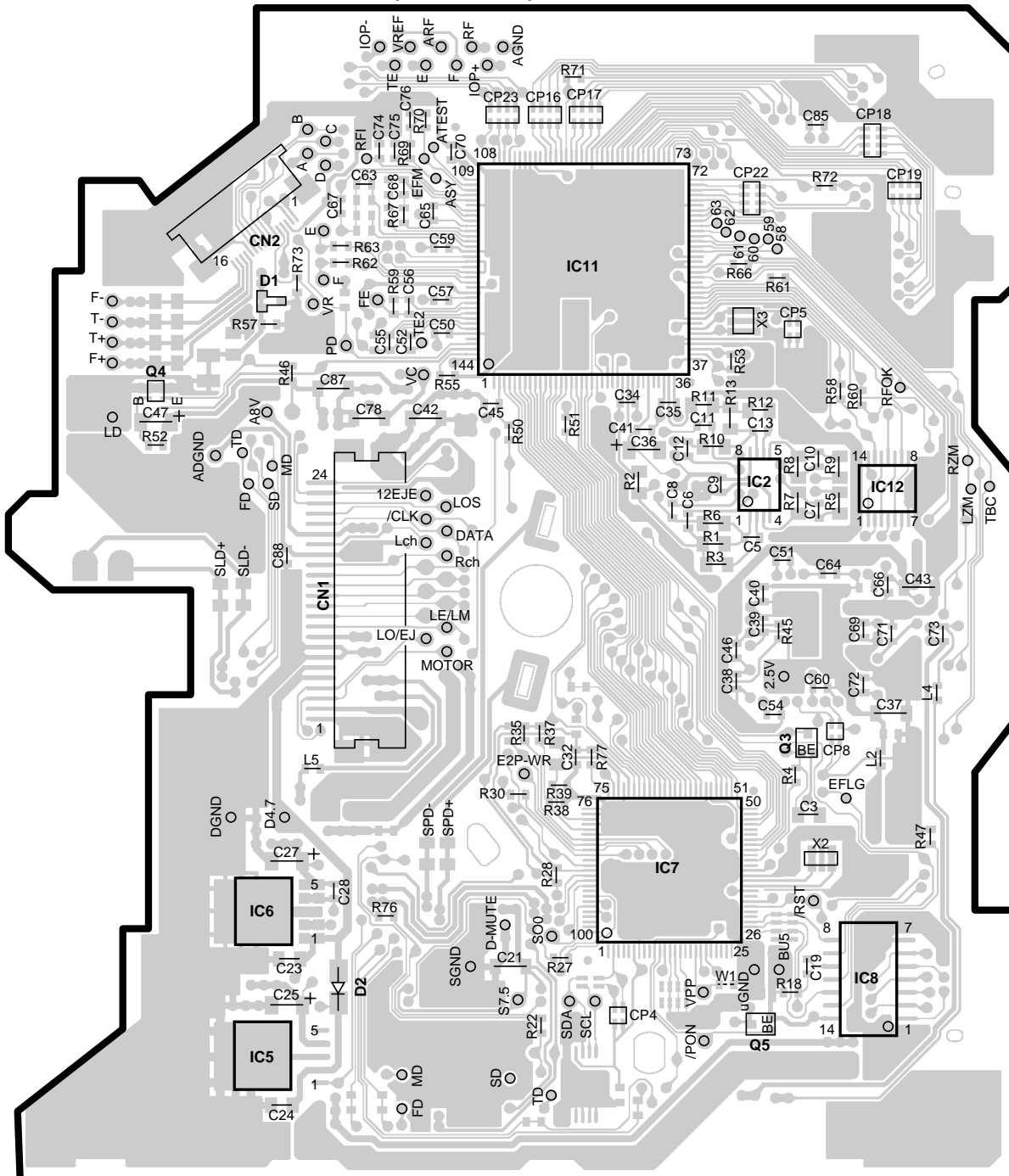


CD PLAYER UNIT (X32-5410-00)

IC	Q	Address	IC	Q	Address
1		3V	1		4W
4		6W	2		5X
13		2V			

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

PC BOARD (FOIL SIDE VIEW)

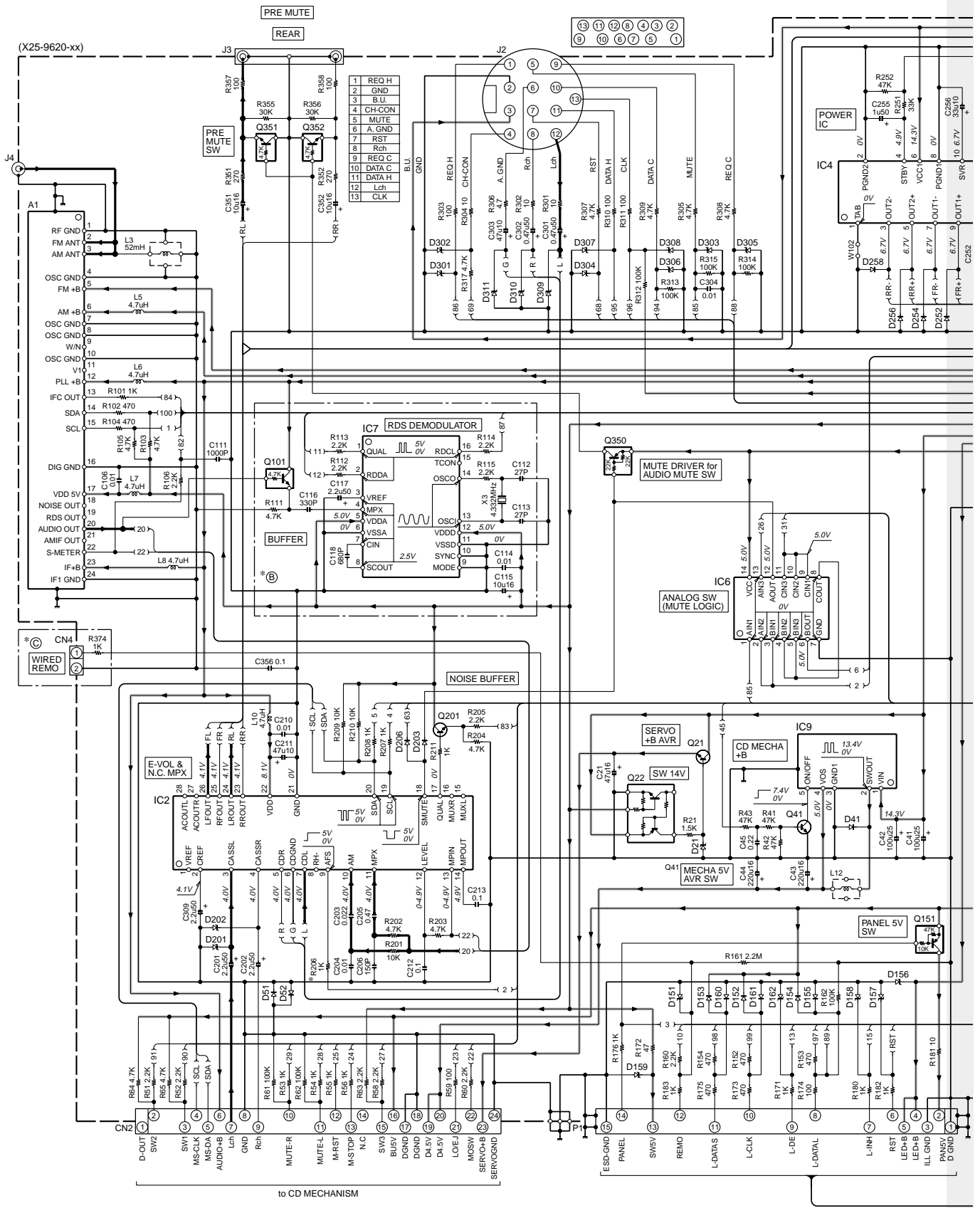
CD PLAYER UNIT
X32-5410-00 (J74-1487-12)

CD PLAYER UNIT (X32-5410-00)

IC	Q	Address	IC	Q	Address
2		4AC	11		3AB
6		5AA	3		5AC
7		5AB	4		3Z
8		5AC	5		6AC

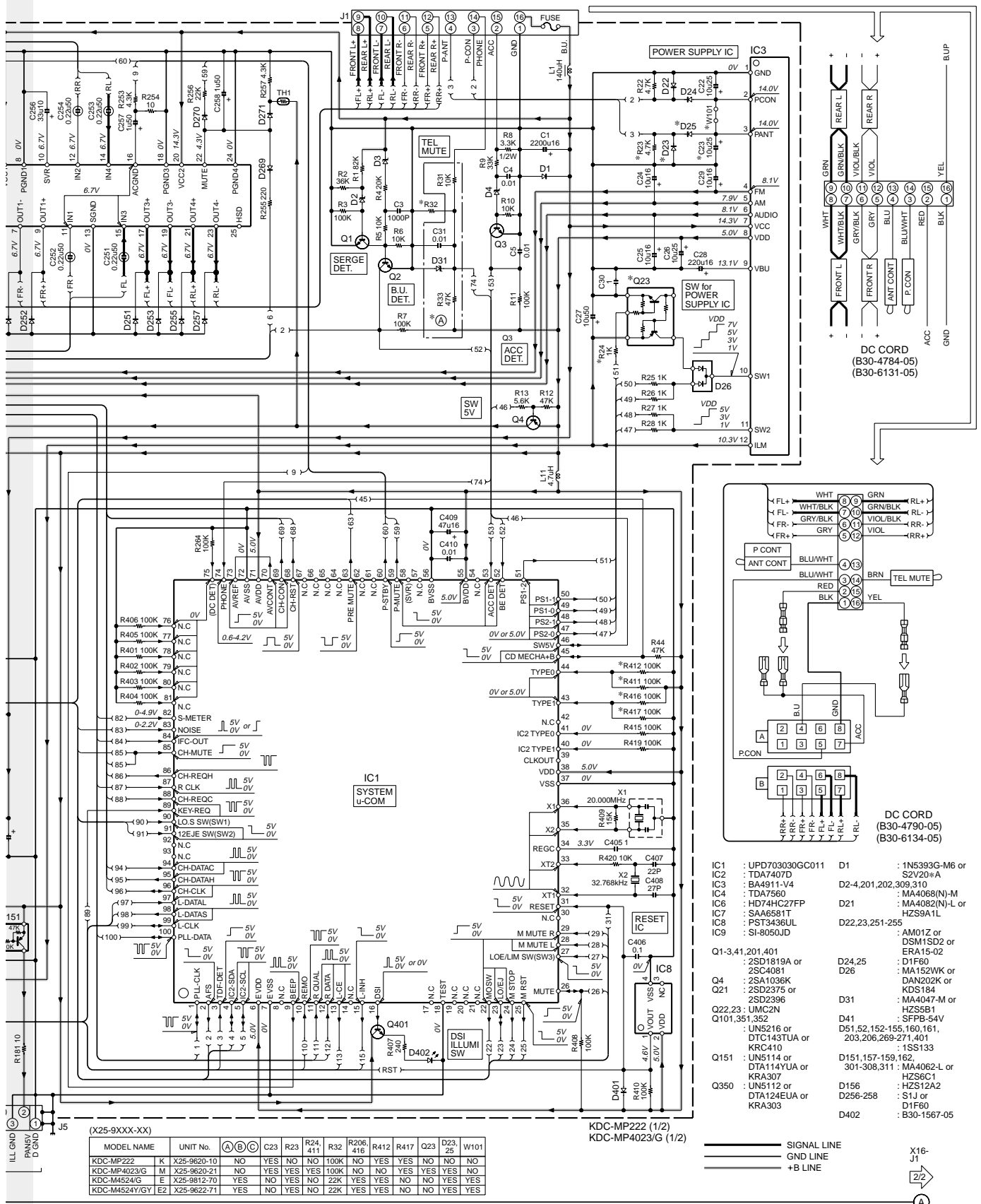
Refer to the schematic diagram for the values of resistors and capacitors.

KDC-MP222 KDC-MP4023/G



to CD MECHANISM

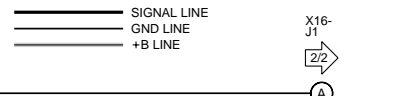
KDC-MP222 KDC-MP4023/G



(X25-9XXX-XX)

MODEL NAME	UNIT No.	Ⓐ	Ⓑ	Ⓒ	C23	R23	R24, 411	R32	R206, 416	R412	R417	Q23	D23, 25	W101
KDC-MP222	K X25-9620-10	NO	YES	NO	100K	NO	NO	NO	NO	NO	NO	NO	NO	NO
KDC-MP4023/G	M X25-9620-21	NO	YES	YES	100K	NO	NO	NO	NO	NO	NO	NO	NO	NO
KDC-M4524/G	E X25-9812-70	YES	NO	NO	22K	NO	NO	NO	NO	NO	NO	NO	NO	NO
KDC-M4524Y/G	E2 X25-9622-71	YES	NO	YES	NO	NO	22K	YES	YES	NO	NO	NO	NO	YES

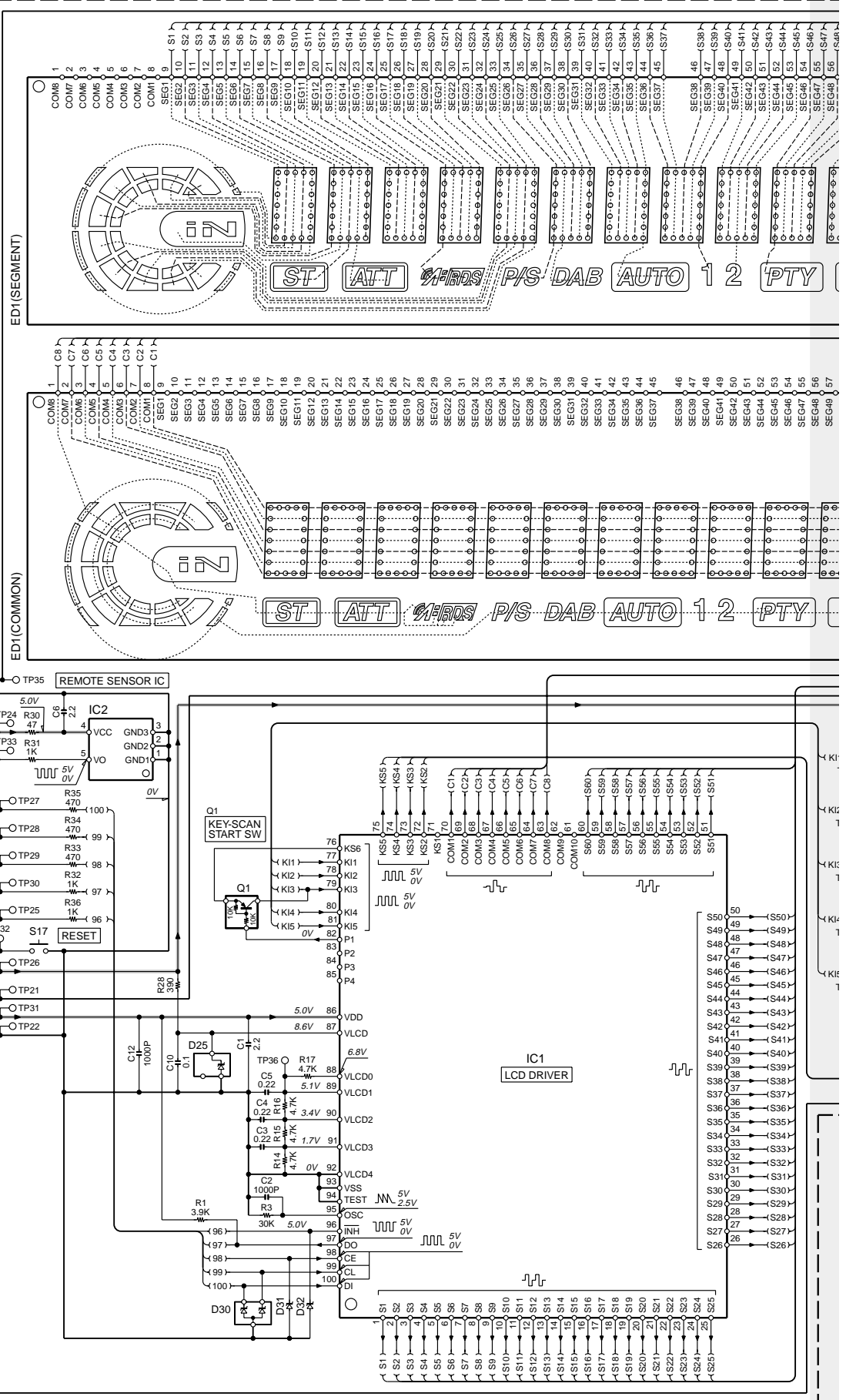
- IC1 : UPD703030GC011
- IC2 : TDA7407D
- IC3 : BA4911-V4
- IC4 : TDA7560
- IC6 : HD74HC27FP
- IC7 : SA6581T
- IC8 : PST3436UL
- IC9 : SI-8050J
- D1 : 1N5393G-M6 or S2V20*A
- D24,25 : D1F60
- D26 : MA152WK or DAN202K or KDS184
- D31 : MA4047-M or HZS5B1
- Q1-3,41,201,401 : 2SD1819A or 2SC4081
- Q4 : 2SA1036K
- Q21 : 2SD2375 or 2SD2396
- Q22,23 : UMC2N
- Q101,351,352 : UN5216 or DTC143TUA or KRC410
- Q151 : UN5114 or DTA114YUA or KRA307
- Q350 : UN5112 or DTA124EUA or KRA303
- D41 : SFFB-54V
- D51,52,152,155,160,161, 203,206,269-271,401 : 1SS133
- D151,157-159,162, 301-308,311 : MA4062-L or HZS6C1
- D156 : HZS12A2
- D256-258 : S11 or D1F60
- D402 : B30-1567-05



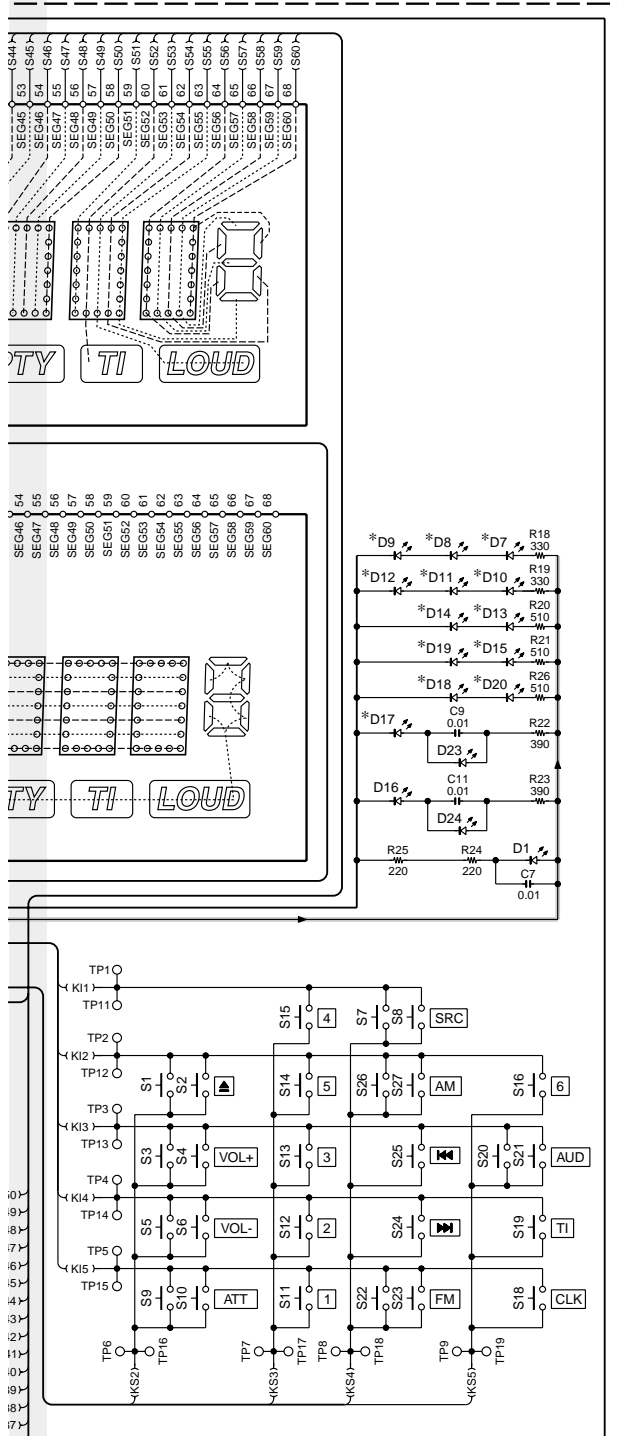
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).
 ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.
 • Voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

KDC-MP222 KDC-MP4023/G

SWITCH UNIT (X16-2050-1X)



KDC-MP222 KDC-MP4023/G



IC1 : LC75808W
IC2 : PNA4S22M

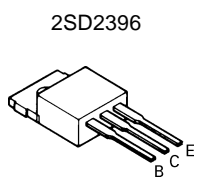
Q1 : DTA114EUA or UN5111

D1 : B38-1633-05
D7-20 : *
D23,24 : B30-1564-05
D25 : MA3082-H
D30 : MA3062WA
D31,32 : MA8062

MODEL NAME	UNIT No.	D7-20
KDC-MP4023	M	X16-2050-10 B30-1533-05
KDC-MP4023G	MG	X16-2050-10 B30-1533-05
KDC-MP222	K	X16-2050-11 B30-1567-05

— GND LINE
— +B LINE

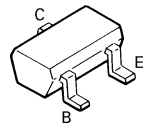
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).
 ▲ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably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



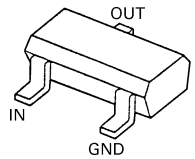
DTC143TUA
UN5111
UN5114
UN5216
2SA1036K
2SD1819A



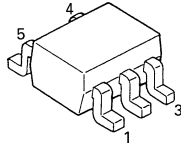
2SC4081



DTA114EUA
DTA124EUA
DTA143EUA
DTC124EUA



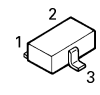
UMC2N



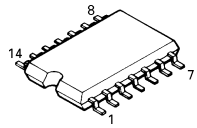
DAN202K



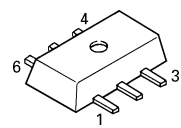
DAP202U
DTA114YUA



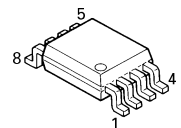
TC74HCT7007AF



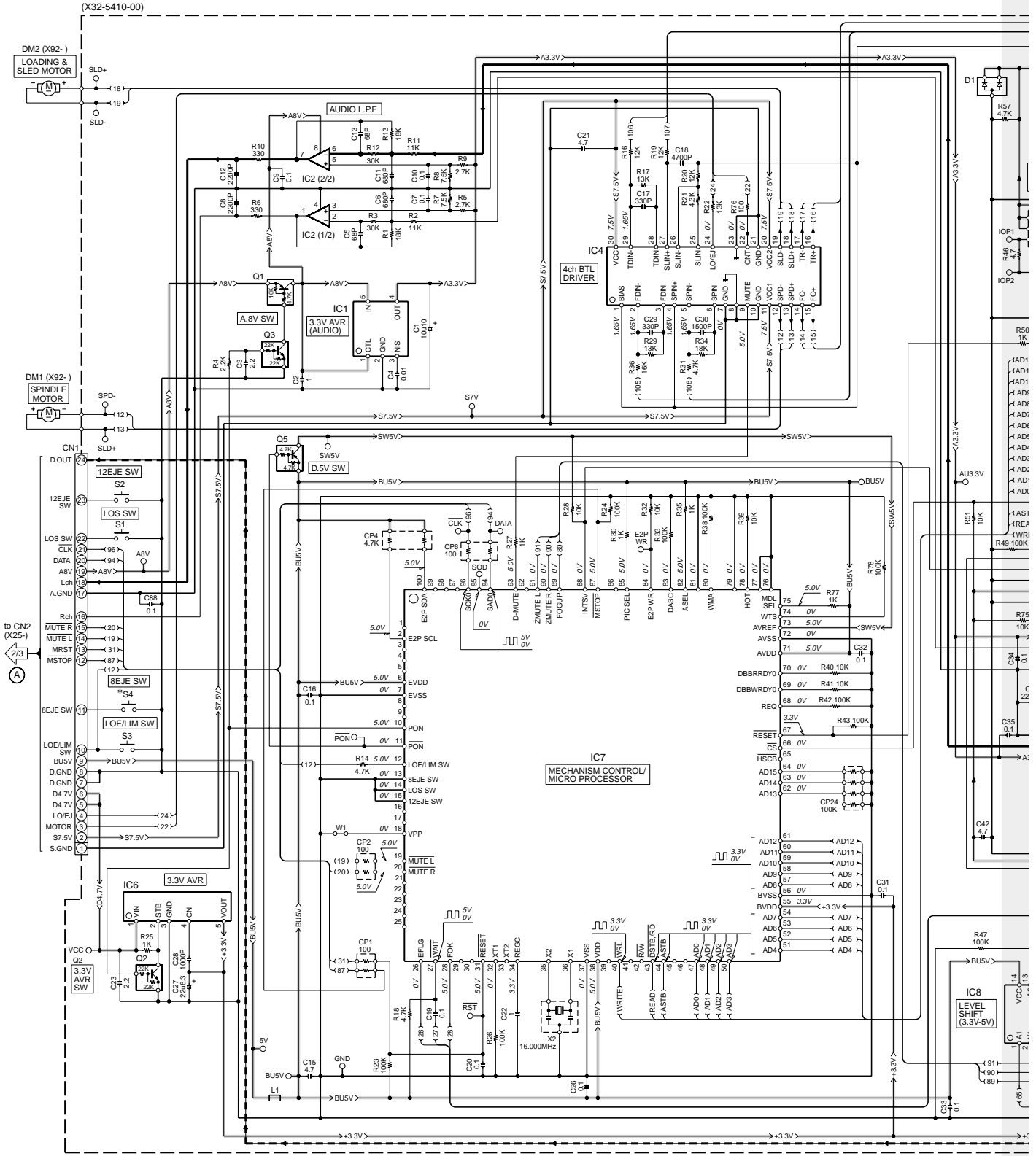
MCH6101



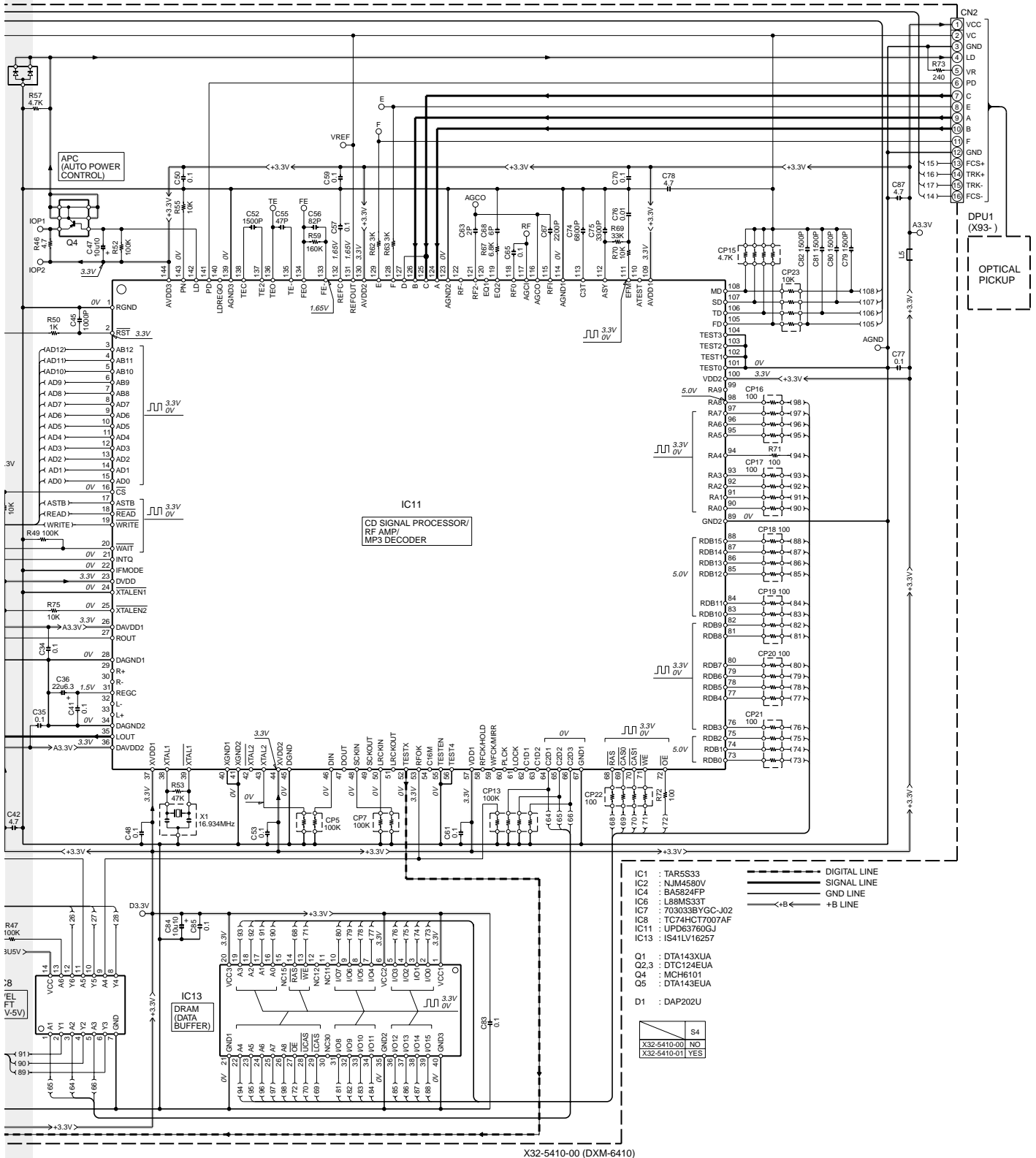
NJM4580V



KDC-MP222 KDC-MP4023/G

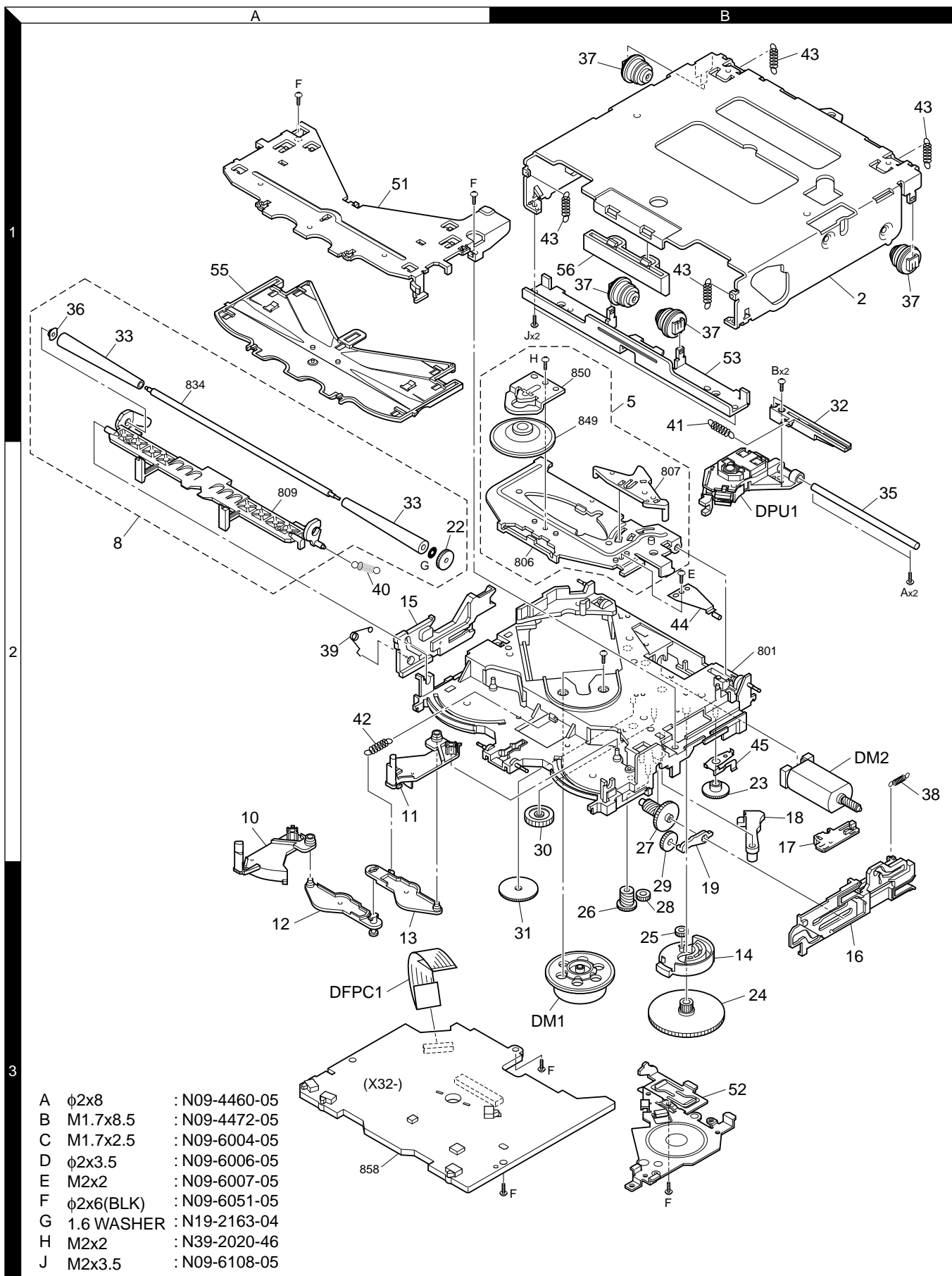


KDC-MP222 KDC-MP4023/G



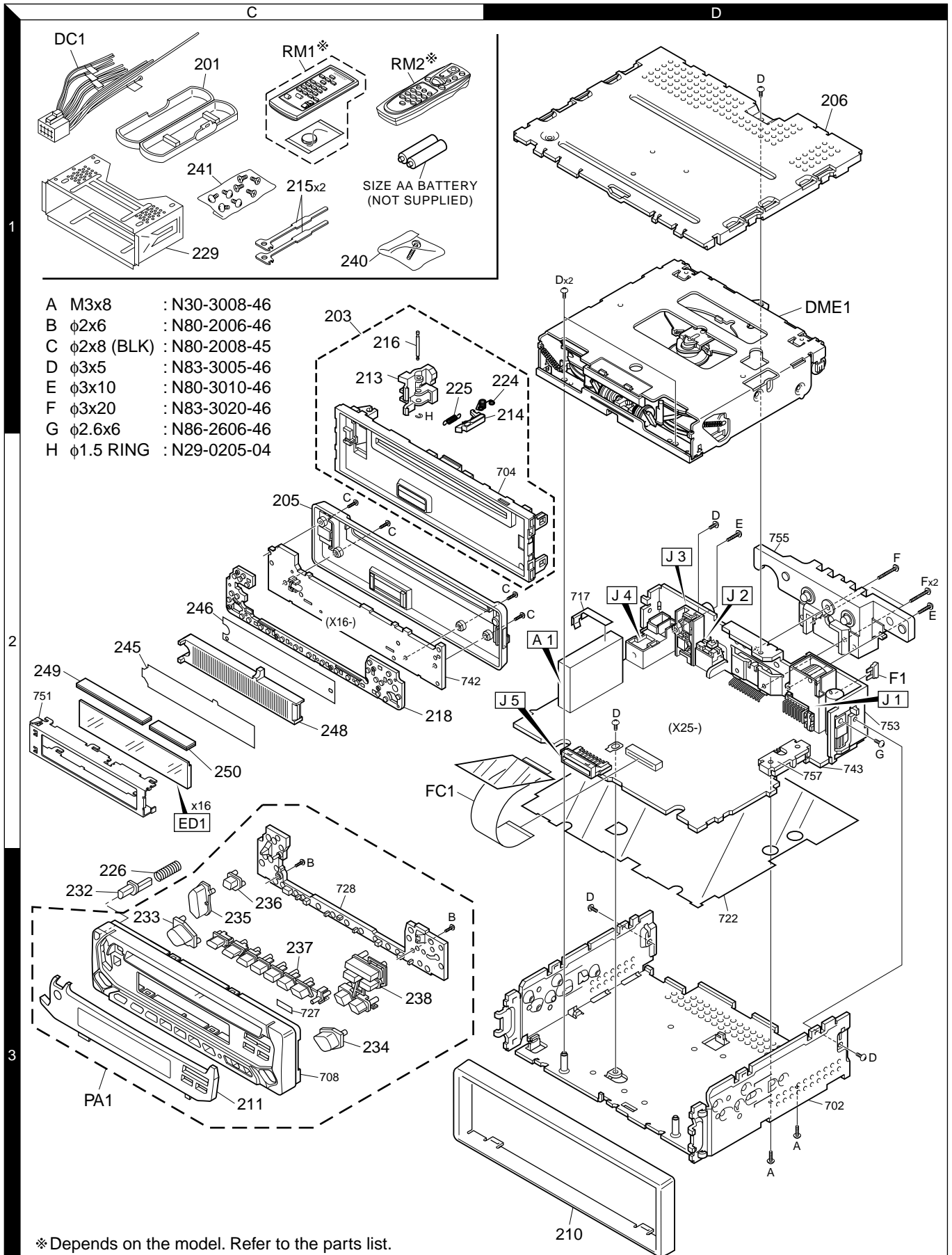
X32-5410-00 (DXM-6410)

EXPLODED VIEW (MECHANISM)



A	φ2x8	: N09-4460-05
B	M1.7x8.5	: N09-4472-05
C	M1.7x2.5	: N09-6004-05
D	φ2x3.5	: N09-6006-05
E	M2x2	: N09-6007-05
F	φ2x6(BLK)	: N09-6051-05
G	1.6 WASHER	: N19-2163-04
H	M2x2	: N39-2020-46
J	M2x3.5	: N09-6108-05

EXPLODED VIEW (UNIT)



PARTS LIST

* New parts

Parts without **Parts No.** are not supplied.

Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.

Teile ohne **Parts No.** werden nicht geliefert.

Ref. No.	Ad	New	Parts No.	Description	Destination
KDC-MP222/MP4023/MP4023G					
201	1C		A02-1486-13	PLASTIC CABINET ASSY	
203	1C		A22-2863-03	SUB PANEL ASSY	
205	2C		A46-1750-01	REAR COVER	
206	1D		A52-0804-02	TOP PLATE	
PA1	3C	*	A64-2863-02	PANEL ASSY	K
PA1	3C	*	A64-2874-02	PANEL ASSY	M1
PA1	3C	*	A64-2881-02	PANEL ASSY	M2
RM1	1C		A70-2025-05	REMOTE CONTROLLER ASSY (RC-410)	M1M2
RM2	1C		A70-2040-05	REMOTE CONTROLLER ASSY (RC-505)	K
-			B46-0100-50	WARRANTY CARD	
-			B46-0606-04	ID CARD	
-		*	B46-0653-03	USER CARD	K
-			B58-1365-04	CAUTION CARD	
-		*	B64-2493-00	INSTR.MANUAL (ENG.FRE.SPA.POR.)	K
-		*	B64-2494-00	INSTRUCTION MANUAL (ENG.T-CHI.)	M1M2
-		*	B64-2495-00	INSTRUCTION MANUAL (ARABIC)	M1M2
210	3D		B07-3003-02	ESCUTCHEON	M2
210	3D		B07-3022-02	ESCUTCHEON	KM1
211	3C	*	B10-4333-01	FRONT GLASS	K
211	3C	*	B10-4343-01	FRONT GLASS	M1
211	3C	*	B10-4349-01	FRONT GLASS	M2
213	1C		D10-4446-03	LEVER	
214	2C		D10-4447-03	LEVER	
215	1C		D10-4589-04	LEVER	
216	1C		D21-2329-04	SHAFT	
218	2C		E29-1872-02	CONDUCTIVE RUBBER	
△ DC1	1C		E30-4784-05	DC CORD	
FC1	2C		E39-0438-05	FLAT CABLE	
△ F1	2D		F52-0006-05	FUSE (MINI BLADE TYPE)10A	
224	1C		G01-2987-04	TORSION COIL SPRING	
225	1C		G01-3096-04	EXTENSION SPRING	
226	3C		G01-3149-04	COMPRESSION SPRING	
-			H10-4856-02	POLYSTYRENE FOAMED FIXTURE	
-			H25-0329-04	PROTECTION BAG (280X450X0.03)	
-			H25-0337-04	PROTECTION BAG (180X300X0.03)	
-		*	H54-2766-03	ITEM CARTON CASE	K
-		*	H54-2767-03	ITEM CARTON CASE	M1
-		*	H54-2768-03	ITEM CARTON CASE	M2
229	1C		J21-9716-03	MOUNTING HARDWARE ASSY	
232	3C		K24-3822-04	KNOB (RELEASE)	
233	3C		K24-3823-04	KNOB (SRC)	
234	3C		K24-3824-04	KNOB (AUD)	
235	3C		K24-3825-03	KNOB (VOL)	
236	3C		K24-3826-04	KNOB (EJECT)	
237	3C		K25-1396-03	KNOB (PRE1-6,ATT,RESET)	
238	3C		K25-1397-03	KNOB (SEEK,AM/FM)	
240	1C		N99-1610-15	SCREW SET	

Ref. No.	Ad	New	Parts No.	Description	Destination
241	1C		N99-1719-05	SCREW SET	
A	3D		N30-3008-46	PAN HEAD MACHINE SCREW	
B	3C		N80-2006-46	PAN HEAD TAPTITE SCREW	
C	2C		N80-2008-45	PAN HEAD TAPTITE SCREW	
D	1D		N83-3005-46	PAN HEAD TAPTITE SCREW	
H	1C		N29-0205-04	RETAINING RING (1.5)	
DME1	1D		X92-4670-00	CD MECHANISM ASSY	
SWITCH UNIT (X16-2050-1x)					
245	2C		B11-1358-04	OPTICAL DIFFUSER	
246	2C		B11-1359-04	REFLECTION SHEET	
248	2C		B19-2130-03	LIGHTING BOARD	
D1			B30-1633-05	LED (WHITE)	
D7-20			B30-1533-05	LED (1608,PG)	M1M2
D7-20			B30-1567-05	LED (1608,RED)	K
D23,24			B30-1564-05	LED (1608,BLUE)	
ED1		*	B38-1110-05	LIQUID CRYSTAL	
C1			CK73FB1A225K	CHIP C 2.2UF K	
C2			CK73GB1H102K	CHIP C 1000PF K	
C3-5			CK73GB1A224K	CHIP C 0.22UF K	
C6			CK73FB1A225K	CHIP C 2.2UF K	
C7			CK73GB1H103K	CHIP C 0.010UF K	
C9			CK73GB1H103K	CHIP C 0.010UF K	
C10			CK73GB1C104K	CHIP C 0.10UF K	
C11			CK73GB1H103K	CHIP C 0.010UF K	
C12			CK73GB1H102K	CHIP C 1000PF K	
249	2C		E29-1887-04	CONDUCTIVE RUBBER	
250	2C		E29-1888-04	CONDUCTIVE RUBBER	
J1			E59-0828-05	RECTANGULAR PLUG	
-			J19-5130-04	HOLDER (LED)	
R1			RK73GB2A392J	CHIP R 3.9K J 1/10W	
R3			RK73GB2A303J	CHIP R 30K J 1/10W	
R14-17			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R18,19			RK73FB2B331J	CHIP R 330 J 1/8W	
R20,21			RK73FB2B511J	CHIP R 510 J 1/8W	
R22,23			RK73FB2B391J	CHIP R 390 J 1/8W	
R24,25			RK73FB2B221J	CHIP R 220 J 1/8W	
R26			RK73FB2B511J	CHIP R 510 J 1/8W	
R28			RK73GB2A391J	CHIP R 390 J 1/10W	
R30			RK73GB2A470J	CHIP R 47 J 1/10W	
R31,32			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R33-35			RK73GB2A471J	CHIP R 470 J 1/10W	
R36			RK73GB2A102J	CHIP R 1.0K J 1/10W	
D25			MA3082-H	ZENER DIODE	
D30			MA3062WA	ZENER DIODE	
D31,32			MA8062	ZENER DIODE	
IC1			LC75808W	MOS-IC	
IC2			PNA4S22M	ANALOGUE IC	
Q1			DTA114EUA	DIGITAL TRANSISTOR	
Q1			UN5111	DIGITAL TRANSISTOR	
ELECTRIC UNIT (X25-9620-xx)					
D402			B30-1567-05	LED (1608,RED)	

E : Europe K : North America
M : Other Areas W : Without Europe

K : KDC-MP222 M1 : KDC-MP4023
M2 : KDC-MP4023G

△ Indicates safety critical components.

PARTS LIST

* New parts

Parts without **Parts No.** are not supplied.

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Teile ohne **Parts No.** werden nicht geliefert.

ELECTRIC UNIT (X25-9620-xx)

Ref. No.	Add	New	Parts No.	Description	Destination	Ref. No.	Add	New	Parts No.	Description	Destination
C1			C90-5235-05	ELECTRO 2200UF 16WV		X1			L78-0821-05	RESONATOR	
C3			CK73GB1H102K	CHIP C 1000PF K		X2			L77-2738-05	CRYSTAL RESONATOR	
C4,5			CK73GB1H103K	CHIP C 0.010UF K		D	2D		N83-3005-46	PAN HEAD TAPTITE SCREW	
C21			CE04NW1C470M	ELECTRO 47UF 16WV		E	2D		N80-3010-46	PAN HEAD TAPTITE SCREW	
C22,23			CE04NW1E100M	ELECTRO 10UF 25WV		F	2D		N83-3020-46	PAN HEAD TAPTITE SCREW	
C24,25			CE04NW1C100M	ELECTRO 10UF 16WV		G	2D		N86-2606-46	BINDING HEAD TAPTITE SCREW	
C26			CE04NW1E100M	ELECTRO 10UF 25WV		R1		*	RK73FB2B823J	CHIP R 82K J 1/8W	
C27			CE04CW1H100M	ELECTRO 10UF 50WV		R2			RK73GB2A363J	CHIP R 36K J 1/10W	
C28			C90-2926-05	ELECTRO 220UF 16WV		R3			RK73GB2A104J	CHIP R 100K J 1/10W	
C29			CE04NW1C100M	ELECTRO 10UF 16WV		R4			RK73FB2B203J	CHIP R 20K J 1/8W	
C30			CK73FB1C105K	CHIP C 1.0UF K		R5,6			RK73GB2A103J	CHIP R 10K J 1/10W	
C41,42			C90-2963-05	ELECTRO 100UF 25WV		R7			RK73GB2A104J	CHIP R 100K J 1/10W	
C43,44			C90-5418-05	ELECTRO 220UF 16WV		R8			RD14DB2H332J	SMALL-RD 3.3K J 1/2W	
C45			CK73GB1A224K	CHIP C 0.22UF K		R9			RD14BB2C333J	RD 33K J 1/6W	
C106			CK73GB1H103K	CHIP C 0.010UF K		R10			RK73GB2A103J	CHIP R 10K J 1/10W	
C111			CK73GB1H102K	CHIP C 1000PF K		R11			RK73GB2A104J	CHIP R 100K J 1/10W	
C201,202			CE04NW1H2R2M	ELECTRO 2.2UF 50WV		R12			RK73GB2A473J	CHIP R 47K J 1/10W	
C203			CK73GB1E223K	CHIP C 0.022UF K		R13			RD14BB2C562J	RD 5.6K J 1/6W	
C203			CK73GB1H223K	CHIP C 0.022UF K		R21			RK73FB2B152J	CHIP R 1.5K J 1/8W	
C204			CK73GB1H103K	CHIP C 0.010UF K		R22			RD14BB2C472J	RD 4.7K J 1/6W	K
C205			CK73GB1A474K	CHIP C 0.47UF K		R22,23			RD14BB2C472J	RD 4.7K J 1/6W	M1M2
C206			CC73GCH1H151J	CHIP C 150PF J		R24-28			RK73GB2A102J	CHIP R 1.0K J 1/10W	M1M2
C210			CK73GB1H103K	CHIP C 0.010UF K		R25-28			RK73GB2A102J	CHIP R 1.0K J 1/10W	K
C211			CE04NW1A470M	ELECTRO 47UF 10WV		R32			RK73GB2A104J	CHIP R 100K J 1/10W	
C212,213			CK73GB1C104K	CHIP C 0.10UF K		R41-44			RK73GB2A473J	CHIP R 47K J 1/10W	
C212,213			CK73GB1H104K	CHIP C 0.10UF K		R51,52			RK73GB2A222J	CHIP R 2.2K J 1/10W	
C251-254			C90-5296-05	NP-ELECT 0.22UF 50WV		R53-56			RK73GB2A102J	CHIP R 1.0K J 1/10W	
C255			CE04NW1H010M	ELECTRO 1.0UF 50WV		R58			RK73GB2A222J	CHIP R 2.2K J 1/10W	
C256			CE04NW1A330M	ELECTRO 33UF 10WV		R59			RK73GB2A101J	CHIP R 100 J 1/10W	
C257			C90-2935-05	ELECTRO 1.0UF 50WV		R60			RK73GB2A222J	CHIP R 2.2K J 1/10W	
C258			CE04NW1H010M	ELECTRO 1.0UF 50WV		R61,62			RK73GB2A104J	CHIP R 100K J 1/10W	
C301,302			CE04NW1HR47M	ELECTRO 0.47UF 50WV		R63			RK73GB2A222J	CHIP R 2.2K J 1/10W	
C303			CE04NW1A470M	ELECTRO 47UF 10WV		R64,65			RK73GB2A472J	CHIP R 4.7K J 1/10W	
C304			CK73GB1H103K	CHIP C 0.010UF K		R101			RK73GB2A102J	CHIP R 1.0K J 1/10W	
C309			CE04NW1H2R2M	ELECTRO 2.2UF 50WV		R102			RK73GB2A471J	CHIP R 470 J 1/10W	
C351,352			CE04NW1C100M	ELECTRO 10UF 16WV		R103			RK73GB2A472J	CHIP R 4.7K J 1/10W	
C356			CK73FB1H104K	CHIP C 0.10UF K		R104			RK73GB2A471J	CHIP R 470 J 1/10W	
C405			CK73GB0J105K	CHIP C 1.0UF K		R105			RK73GB2A472J	CHIP R 4.7K J 1/10W	
C406			CK73GB1H103K	CHIP C 0.010UF K		R106			RK73GB2A222J	CHIP R 2.2K J 1/10W	
C407			CC73GCH1H220J	CHIP C 22PF J		R152-154			RK73GB2A471J	CHIP R 470 J 1/10W	
C408			CC73GCH1H270J	CHIP C 27PF J		R160			RK73GB2A222J	CHIP R 2.2K J 1/10W	
C409			CE04NW1C470M	ELECTRO 47UF 16WV		R161			RK73GB2A225J	CHIP R 2.2M J 1/10W	
C410			CK73GB1H103K	CHIP C 0.010UF K		R162			RK73GB2A104J	CHIP R 100K J 1/10W	
CN2			E41-0168-05	FLAT CABLE CONNECTOR		R171			RD14BB2C102J	RD 1.0K J 1/6W	
J1			E58-0863-15	RECTANGULAR RECEPTACLE		R172			RD14BB2C470J	RD 47 J 1/6W	
J2			E56-0834-05	CYLINDRICAL RECEPTACLE		R173			RD14BB2C471J	RD 470 J 1/6W	
J3			E63-0852-05	PIN JACK		R174			RD14BB2C101J	RD 100 J 1/6W	
J4			E04-0312-05	RF COAXIAL CABLE RECEPTACLE		R175			RD14BB2C471J	RD 470 J 1/6W	
J5			E58-0879-05	RECTANGULAR RECEPTACLE		R176			RD14BB2C102J	RD 1.0K J 1/6W	
L1			L33-1170-05	CHOKE COIL ASSY		R180			RD14BB2C102J	RD 1.0K J 1/6W	
L3			L33-1123-05	LINE FILTER COIL		R181			RD14BB2C100J	RD 10 J 1/6W	
L5-8			L40-4795-91	SMALL FIXED INDUCTOR (4.7UH,J)		R182,183			RD14BB2C102J	RD 1.0K J 1/6W	
L10,11			L40-4795-91	SMALL FIXED INDUCTOR (4.7UH,J)		R201			RK73GB2A103J	CHIP R 10K J 1/10W	
L12			L33-1820-05	CHOKE COIL		R202-204			RK73GB2A472J	CHIP R 4.7K J 1/10W	

E : Europe K : North America
M : Other Areas W : Without Europe

K : KDC-MP222 M1 : KDC-MP4023
M2 : KDC-MP4023G

△ Indicates safety critical components.

PARTS LIST

* New parts

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Teile ohne **Parts No.** werden nicht geliefert.

ELECTRIC UNIT (X25-9620-xx)

Ref. No.	A d	N e w	Parts No.	Description	Desti- nation	Ref. No.	A d	N e w	Parts No.	Description	Desti- nation
R205			RK73GB2A222J	CHIP R 2.2K J 1/10W		D151			HZS6C1	ZENER DIODE	
R206-208			RK73GB2A102J	CHIP R 1.0K J 1/10W		D151			MA4062-L	ZENER DIODE	
R209,210			RK73GB2A103J	CHIP R 10K J 1/10W		D152-155			1SS133	DIODE	
R211			RK73GB2A102J	CHIP R 1.0K J 1/10W		D156			HZS12A2	ZENER DIODE	
R251			RK73GB2A333J	CHIP R 33K J 1/10W		D157-159			HZS6C1	ZENER DIODE	
R252			RK73GB2A473J	CHIP R 47K J 1/10W		D157-159			MA4062-L	ZENER DIODE	
R253			RK73GB2A432J	CHIP R 4.3K J 1/10W		D160,161			1SS133	DIODE	
R254			RK73GB2A100J	CHIP R 10 J 1/10W		D162			HZS6C1	ZENER DIODE	
R255			RK73GB2A221J	CHIP R 220 J 1/10W		D162			MA4062-L	ZENER DIODE	
R256			RK73GB2A223J	CHIP R 22K J 1/10W		D201,202			MA4068 (N)-M	ZENER DIODE	
R257			RK73GB2A432J	CHIP R 4.3K J 1/10W		D203			1SS133	DIODE	
R264			RK73GB2A104J	CHIP R 100K J 1/10W		D206			1SS133	DIODE	
R301,302			RD14BB2C100J	RD 10 J 1/6W		D251-255			AM01Z	DIODE	
R303			RD14BB2C101J	RD 100 J 1/6W		D251-255			DSM1SD2	DIODE	
R304			RD14BB2C100J	RD 10 J 1/6W		D251-255			ERA15-02	DIODE	
R305			RD14BB2C472J	RD 4.7K J 1/6W		D256-258			D1F60	DIODE	
R306			RD14BB2C4R7J	RD 4.7 J 1/6W		D256-258			S1J	DIODE	
R307-309			RD14BB2C472J	RD 4.7K J 1/6W		D269-271			1SS133	DIODE	
R310,311			RD14BB2C101J	RD 100 J 1/6W		D301-308			HZS6C1	ZENER DIODE	
R312-315			RK73GB2A104J	CHIP R 100K J 1/10W		D301-308			MA4062-L	ZENER DIODE	
R317			RK73GB2A472J	CHIP R 4.7K J 1/10W		D309,310			MA4068 (N)-M	ZENER DIODE	
R351,352			RD14BB2C271J	RD 270 J 1/6W		D311			HZS6C1	ZENER DIODE	
R355,356			RD14BB2C303J	RD 30K J 1/6W		D311			MA4062-L	ZENER DIODE	
R357,358			RD14BB2C101J	RD 100 J 1/6W		D401			1SS133	DIODE	
R401-406			RK73GB2A104J	CHIP R 100K J 1/10W		IC1	*		UPD703030GC011	MI-COM IC	
R407			RD14BB2C241J	RD 240 J 1/6W		IC2			TDA7407D	ANALOGUE IC	
R408			RK73GB2A104J	CHIP R 100K J 1/10W		IC3			BA4911-V4	ANALOGUE IC	
R409			RK73GB2A153J	CHIP R 15K J 1/10W		IC4			TDA7560	ANALOGUE IC	
R410			RK73GB2A104J	CHIP R 100K J 1/10W	K	IC6			HD74HC27FP	MOS-IC	
R410,411			RK73GB2A104J	CHIP R 100K J 1/10W	M1M2	IC8			PST3436UL	MOS-IC	
R412			RK73GB2A104J	CHIP R 100K J 1/10W	K	IC9			SI-8050JD	ANALOGUE IC	
R414,415			RK73GB2A104J	CHIP R 100K J 1/10W		Q1-3			2SC4081	TRANSISTOR	
R417			RK73GB2A104J	CHIP R 100K J 1/10W		Q1-3			2SD1819A	TRANSISTOR	
R419			RK73GB2A104J	CHIP R 100K J 1/10W		Q4			2SA1036K	TRANSISTOR	
R420			RK73GB2A103J	CHIP R 10K J 1/10W		Q21			2SD2375	TRANSISTOR	
W102			R92-2053-05	CHIP R 0 J 1/8W		Q21			2SD2396	TRANSISTOR	
D1			S2V20*A	DIODE		Q22			UMC2N	TRANSISTOR	K
D1			1N5393G-M6	DIODE		Q22,23			UMC2N	TRANSISTOR	M1M2
D2-4			MA4068 (N)-M	ZENER DIODE		Q41			2SC4081	TRANSISTOR	
D21			HZS9A1L	ZENER DIODE		Q41			2SD1819A	TRANSISTOR	
D21			MA4082 (N)-L	ZENER DIODE		Q151			DTA114YUA	DIGITAL TRANSISTOR	
D22			AM01Z	DIODE	K	Q151			KRA307	DIGITAL TRANSISTOR	
D22			DSM1SD2	DIODE	K	Q151			UN5114	DIGITAL TRANSISTOR	
D22			ERA15-02	DIODE	K	Q201			2SC4081	TRANSISTOR	
D22,23			AM01Z	DIODE	M1M2	Q201			2SD1819A	TRANSISTOR	
D22,23			DSM1SD2	DIODE	M1M2	Q350			DTA124EUA	DIGITAL TRANSISTOR	
D22,23			ERA15-02	DIODE	M1M2	Q350			KRA303	DIGITAL TRANSISTOR	
D24			D1F60	DIODE	K	Q350			UN5112	DIGITAL TRANSISTOR	
D24,25			D1F60	DIODE	M1M2	Q351,352			DTC143TUA	DIGITAL TRANSISTOR	
D26			DAN202K	DIODE		Q351,352			KRC410	DIGITAL TRANSISTOR	
D26			KDS184	DIODE		Q351,352			UN5216	DIGITAL TRANSISTOR	
D26			MA152WK	DIODE		Q401			2SC4081	TRANSISTOR	
D41			SFPB-54V	DIODE		Q401			2SD1819A	TRANSISTOR	
D51,52			1SS133	DIODE		TH1			PTH9C42BE471Q	POSITIVE RESISTOR	

E : Europe K : North America
M : Other Areas W : Without Europe

K : KDC-MP222 M1 : KDC-MP4023
M2 : KDC-MP4023G

△ Indicates safety critical components.

PARTS LIST

* New parts

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ELECTRIC UNIT (X25-9620-xx)

Ref. No.	Add	New	Parts No.	Description	Destination	Ref. No.	Add	New	Parts No.	Description	Destination
A1		*	X86-3720-11	FRONT-END UNIT		C84			C92-0628-05	CHIP-TAN 10UF 10WV	
CD PLAYER UNIT (X32-5410-00)						C85			CK73GB1H104K	CHIP C 0.10UF K	
C1			C92-0628-05	CHIP-TAN 10UF 10WV		C87			CK73EB1A475K	CHIP C 4.7UF K	
C2			CK73FB1A105K	CHIP C 1.0UF K		C88			CK73GB1H104K	CHIP C 0.10UF K	
C3			CK73FB1A225K	CHIP C 2.2UF K		CN1			E40-9527-05	FLAT CABLE CONNECTOR	
C4			CK73GB1H103K	CHIP C 0.010UF K		CN1			E41-0213-05	FLAT CABLE CONNECTOR	
C5			CC73GCH1H680J	CHIP C 68PF J		CN2			E40-9536-05	FLAT CABLE CONNECTOR	
C6			CC73GCH1H681J	CHIP C 680PF J		CN2			E41-0193-05	FLAT CABLE CONNECTOR	
C7			CK73GB1H104K	CHIP C 0.10UF K		L1			L92-0329-05	CHIP FERRITE	
C8			CK73GB1H222K	CHIP C 2200PF K		L5			L92-0329-05	CHIP FERRITE	
C9,10			CK73GB1H104K	CHIP C 0.10UF K		X1			L78-0851-05	RESONATOR (16.93MHZ)	
C11			CC73GCH1H681J	CHIP C 680PF J		X2			L78-0862-05	RESONATOR (16.00MHZ)	
C12			CK73GB1H222K	CHIP C 2200PF K		CP1,2			R90-1019-05	MULTI-COMP 100 X2	
C13			CC73GCH1H680J	CHIP C 68PF J		CP4			R90-0719-05	MULTI-COMP 4.7K X2	
C15			CK73EB1A475K	CHIP C 4.7UF K		CP5			R90-0737-05	MULTI-COMP 100K X2	
C16			CK73GB1H104K	CHIP C 0.10UF K		CP6			R90-1019-05	MULTI-COMP 100 X2	
C17			CK73GB1H331K	CHIP C 330PF K		CP7			R90-0737-05	MULTI-COMP 100K X2	
C18			CK73GB1H472K	CHIP C 4700PF K		CP13			R90-0720-05	MULTI-COMP 100K X4	
C19,20			CK73GB1H104K	CHIP C 0.10UF K		CP15			R90-0718-05	MULTI-COMP 4.7K X4	
C21			CK73EB1A475K	CHIP C 4.7UF K		CP16-22			R90-1014-05	MULTI-COMP 100 X4	
C22			CK73GB0J105K	CHIP C 1.0UF K		CP23			R90-0714-05	MULTI-COMP 10K X4	
C23			CK73FB1A225K	CHIP C 2.2UF K		CP24			R90-0720-05	MULTI-COMP 100K X4	
C26			CK73GB1H104K	CHIP C 0.10UF K		R1			R92-3044-05	CHIP R 18K D 1/10W	
C27			C92-0712-05	CHIP-TAN 22UF 6.3WV		R2			R92-3041-05	CHIP R 11K D 1/10W	
C28			CK73GB1H102K	CHIP C 1000PF K		R3			RK73FB2B303J	CHIP R 30K J 1/8W	
C29			CK73GB1H331K	CHIP C 330PF K		R4			RK73GB2A222J	CHIP R 2.2K J 1/10W	
C30			CK73GB1H152K	CHIP C 1500PF K		R5			RK73FB2B272J	CHIP R 2.7K J 1/8W	
C31-35			CK73GB1H104K	CHIP C 0.10UF K		R6			RK73FB2B331J	CHIP R 330 J 1/8W	
C36			C92-0712-05	CHIP-TAN 22UF 6.3WV		R7,8			RK73FB2B752J	CHIP R 7.5K J 1/8W	
C41			CK73GB1H104K	CHIP C 0.10UF K		R9			RK73FB2B272J	CHIP R 2.7K J 1/8W	
C42			CK73EB1A475K	CHIP C 4.7UF K		R10			RK73FB2B331J	CHIP R 330 J 1/8W	
C45			CK73GB1H102K	CHIP C 1000PF K		R11			R92-3041-05	CHIP R 11K D 1/10W	
C47			C92-0628-05	CHIP-TAN 10UF 10WV		R12			RK73FB2B303J	CHIP R 30K J 1/8W	
C48			CK73GB1H104K	CHIP C 0.10UF K		R13			R92-3044-05	CHIP R 18K D 1/10W	
C50			CK73GB1H104K	CHIP C 0.10UF K		R14			RK73GB2A472J	CHIP R 4.7K J 1/10W	
C52			CK73GB1H152K	CHIP C 1500PF K		R16			RK73GB2A123J	CHIP R 12K J 1/10W	
C53			CK73GB1H104K	CHIP C 0.10UF K		R17			RK73GB2A133J	CHIP R 13K J 1/10W	
C55			CC73GCH1H470J	CHIP C 47PF J		R18			RK73GB2A472J	CHIP R 4.7K J 1/10W	
C56			CC73GCH1H680J	CHIP C 68PF J		R19,20			RK73GB2A123J	CHIP R 12K J 1/10W	
C57			CK73GB1H104K	CHIP C 0.10UF K		R21			RK73GB2A432J	CHIP R 4.3K J 1/10W	
C59			CK73GB1H104K	CHIP C 0.10UF K		R22			RK73GB2A133J	CHIP R 13K J 1/10W	
C61			CK73GB1H104K	CHIP C 0.10UF K		R23,24			RK73GB2A104J	CHIP R 100K J 1/10W	
C63			CC73GCH1H020C	CHIP C 2.0PF C		R25			RK73GB2A102J	CHIP R 1.0K J 1/10W	
C65			CK73GB1H104K	CHIP C 0.10UF K		R26			RK73GB2A104J	CHIP R 100K J 1/10W	
C67			CK73GB1H222K	CHIP C 2200PF K		R27			RK73GB2A102J	CHIP R 1.0K J 1/10W	
C68			CC73GCH1H060D	CHIP C 6.0PF D		R28			RK73GB2A103J	CHIP R 10K J 1/10W	
C70			CK73GB1H104K	CHIP C 0.10UF K		R29			RK73GB2A133J	CHIP R 13K J 1/10W	
C74			CK73GB1H682K	CHIP C 6800PF K		R30			RK73GB2A102J	CHIP R 1.0K J 1/10W	
C75			CK73GB1H332K	CHIP C 3300PF K		R31			RK73GB2A472J	CHIP R 4.7K J 1/10W	
C76			CK73GB1H103K	CHIP C 0.010UF K		R32			RK73GB2A103J	CHIP R 10K J 1/10W	
C77			CK73GB1H104K	CHIP C 0.10UF K		R33			RK73GB2A104J	CHIP R 100K J 1/10W	
C78			CK73EB1A475K	CHIP C 4.7UF K		R34			RK73GB2A183J	CHIP R 18K J 1/10W	
C79-82			CK73GB1H152K	CHIP C 1500PF K		R35			RK73GB2A102J	CHIP R 1.0K J 1/10W	
C83			CK73GB1H104K	CHIP C 0.10UF K		R36			RK73GB2A163J	CHIP R 16K J 1/10W	

E : Europe K : North America
M : Other Areas W : Without Europe

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M2 : KDC-MP4023G

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CD PLAYER UNIT (X32-5410-00)

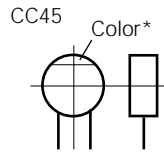
Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation	Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
R38			RK73GB2A104J	CHIP R 100K J 1/10W		19	3B		D10-4596-14	ARM	
R39-41			RK73GB2A103J	CHIP R 10K J 1/10W		22	2A		D13-2151-04	GEAR	
R42,43			RK73GB2A104J	CHIP R 100K J 1/10W		23	2B		D13-2152-04	GEAR	
R46			RK73GB2A4R7J	CHIP R 4.7 J 1/10W		24	3B		D13-2153-04	GEAR	
R47			RK73GB2A104J	CHIP R 100K J 1/10W		25	3B		D13-2154-04	GEAR	
R49			RK73GB2A104J	CHIP R 100K J 1/10W		26	3B		D13-2155-04	WORM	
R50			RK73GB2A102J	CHIP R 1.0K J 1/10W		27	3B		D13-2156-14	GEAR	
R51			RK73GB2A103J	CHIP R 10K J 1/10W		28	3B		D13-2157-04	GEAR	
R52			RK73GB2A104J	CHIP R 100K J 1/10W		29	3B		D13-2158-04	GEAR	
R53			RK73GB2A473J	CHIP R 47K J 1/10W		30	3B		D13-2168-04	GEAR	
R55			RK73GB2A103J	CHIP R 10K J 1/10W		31	3B		D13-2171-04	GEAR	
R57			RK73GB2A472J	CHIP R 4.7K J 1/10W		32	2B		D13-2172-03	RACK (GEAR)	
R59			RK73GB2A274J	CHIP R 270K J 1/10W		33	2A		D14-0759-04	ROLLER	
R62,63			RK73GB2A302J	CHIP R 3.0K J 1/10W		35	2B		D21-2382-04	SHAFT	
R67			RK73GB2A682J	CHIP R 6.8K J 1/10W		36	1A		D23-0954-04	RETAINER	
R69			RK73GB2A333J	CHIP R 33K J 1/10W		37	1B		D39-0246-05	DAMPER	
R70			RK73GB2A103J	CHIP R 10K J 1/10W		38	2B		G01-3072-04	EXTENSION SPRING	
R71,72			RK73GB2A101J	CHIP R 100 J 1/10W		39	2A		G01-3073-04	TORSION COIL SPRING	
R73			RK73GB2A241J	CHIP R 240 J 1/10W		40	2A		G01-3074-04	EXTENSION SPRING	
R75			RK73GB2A103J	CHIP R 10K J 1/10W		41	1B		G01-3075-04	EXTENSION SPRING	
R76			RK73GB2A101J	CHIP R 100 J 1/10W		42	2A		G01-3076-04	EXTENSION SPRING	
R77			RK73GB2A102J	CHIP R 1.0K J 1/10W		43	1B		G01-3077-04	EXTENSION SPRING	
R78			RK73GB2A104J	CHIP R 100K J 1/10W		44	2B		G02-1399-04	FLAT SPRING	
W1			R92-1252-05	CHIP R 0 OHM J 1/16W		45	2B		G02-1408-04	FLAT SPRING	
S1,2			S68-0863-05	PUSH SWITCH		51	1A		J21-9676-22	MOUNTING HARDWARE	
S3			S68-0862-05	PUSH SWITCH		52	3B		J21-9677-02	MOUNTING HARDWARE	
D1			DAP202U	DIODE		53	1B		J21-9678-03	MOUNTING HARDWARE	
IC1			TAR5S33	ANALOGUE IC		55	1A		J90-1001-11	GUIDE	
IC2			NJM4580V	ANALOGUE IC		56	1B		J90-1023-03	GUIDE	
IC4			BA5824FP	ANALOGUE IC		A	2B		N09-4460-05	TAPTITE SCREW (OVAL P TAPTIT)	
IC6			L88MS33T	ANALOGUE IC		B	1B		N09-4472-05	MACHINE SCREW (M1.7X8.5)	
IC7			703033BYGC-J02	MI-COM IC		C	2B		N09-6004-05	MACHINE SCREW (M1.7X2.5 IB-L)	
IC8			TC74HCT7007AF	MOS-IC		E	2B		N09-6007-05	MACHINE SCREW (PAN M2X2)	
IC11			UPD63760GJ	MOS-IC		F	1A		N09-6051-05	TAPTITE SCREW (BIND P 2X5)	
IC13			IS41LV16257	MEMORY IC		G	2A		N19-2163-04	FLAT WASHER	
IC13			M5M51V4265EP70	MOS-IC		H	1B		N39-2020-46	PAN HEAD MACHIN SCREW	
Q1			DTA143XUA	DIGITAL TRANSISTOR		J	1B		N09-6108-05	MACHINE SCREW (M2*3.5TYPE3)	
Q2,3			DTC124EUA	DIGITAL TRANSISTOR		DM1	3B		T42-1066-04	DC MOTOR ASSY (SP)	
Q4			MCH6101	TRANSISTOR		DM2	2B		T42-1067-04	DC MOTOR ASSY (LO)	
Q5			DTA143EUA	DIGITAL TRANSISTOR		DPU1	2D		X93-2010-00	OPTICAL PICKUP ASSY	
CD MECHANISM ASSY (X92-4670-00)											
2	1B		A10-4827-12	CHASSIS							
5	1B		D10-4576-33	ARM ASSY							
8	2A		D10-4579-03	LEVER 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		D10-4587-22	SLIDER							
17	3B		D10-4588-03	SLIDER							
18	3B		D10-4595-04	ARM							

PARTS LIST

CAPACITORS

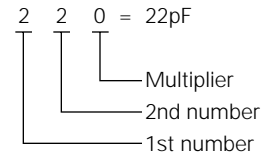
C C 4 5 T H 1 H 2 2 0 J
1 2 3 4 5 6

- 1 = Type ... ceramic, electrolytic, etc.
- 2 = Shape ... round, square, etc.
- 3 = Temp. coefficient
- 4 = Voltage rating
- 5 = Value
- 6 = Tolerance



• Capacitor value

- 010 = 1pF
- 100 = 10pF
- 101 = 100pF
- 102 = 1000pF = 0.001μF
- 103 = 0.01μF



• Temperature coefficient

1st Word	C	L	P	R	S	T	U
Color*	Black	Red	Orange	Yellow	Green	Blue	Violet
ppm/°C	0	-80	-150	-220	-330	-470	-750

2nd Word	G	H	J	K	L
ppm/°C	±30	±60	±120	±250	±500

Example : CC45TH = -470±60ppm/°C

• Tolerance (More than 10pF)

Code	C	D	G	J	K	M	X	Z	P	No code
(%)	±0.25	±0.5	±2	±5	±10	±20	+40 -20	+80 -20	+100 -0	More than 10μF : -10~+50 Less than 4.7μF : -10~+75

(Less than 10pF)

Code	B	C	D	F	G
(pF)	±0.1	±0.25	±0.5	±1	±2

• Voltage rating

2nd word \ 1st word	A	B	C	D	E	F	G	H	J	K	V
0	1.0	1.25	1.6	2.0	2.5	3.15	4.0	5.0	6.3	8.0	-
1	10	12.5	16	20	25	31.5	40	50	63	80	35
2	100	125	160	200	250	315	400	500	630	800	-
3	1000	1250	1600	2000	2500	2150	4000	5000	6300	8000	-

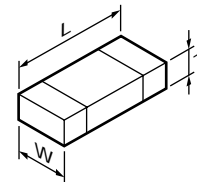
CHIP CAPACITORS

(EX) C C 7 3 F S L 1 H 0 0 0 J
1 2 3 4 5 6 7
(Chip) (CH, RH, UJ, SL)

(EX) C K 7 3 F F 1 H 0 0 0 Z
1 2 3 4 5 6 7
(Chip) (B, F)

- Refer to the table above.
- 1 = Type
 - 2 = Shape
 - 3 = Dimension
 - 4 = Temp. coefficient
 - 5 = Voltage rating
 - 6 = Value
 - 7 = Tolerance

• Dimension



Chip capacitor

Code	L	W	T
Empty	5.6±0.5	5.0±0.5	Less than 2.0
A	4.5±0.5	3.2±0.4	Less than 2.0
B	4.5±0.5	2.0±0.3	Less than 2.0
C	4.5±0.5	1.25±0.2	Less than 1.25
D	3.2±0.4	2.5±0.3	Less than 1.5
E	3.2±0.2	1.6±0.2	Less than 1.25
F	2.0±0.3	1.25±0.2	Less than 1.25
G	1.6±0.2	0.8±0.2	Less than 1.0
H	1.0±0.05	0.5±0.05	0.5±0.05

Chip resistor

Code	L	W	T
E	3.2±0.2	1.6±0.2	1.0
F	2.0±0.3	1.25±0.2	1.0
G	1.6±0.2	0.8±0.2	0.5±0.1
H	1.0±0.05	0.5±0.05	0.35±0.05

• Rating wattage

Code	Wattage	Code	Wattage	Code	Wattage
1J	1/16W	2C	1/6W	3A	1W
2A	1/10W	2E	1/4W	3D	2W
2B	1/8W	2H	1/2W		

RESISTORS

• Chip resistor (Carbon)

(EX) R D 7 3 E B 2 B 0 0 0 J
1 2 3 4 5 6 7
(Chip) (B, F)

• Carbon resistor (Normal type)

(EX) R D 1 4 B B 2 C 0 0 0 J
1 2 3 4 5 6 7
(Chip) (B, F)

- 1 = Type ... ceramic, electrolytic, etc.
- 2 = Shape ... round, square, etc.
- 3 = Dimension
- 4 = Temp. coefficient
- 5 = Voltage rating
- 6 = Value
- 7 = Tolerance

SPECIFICATIONS

KDC-MP4023/MP4023G

FM

Frequency Range	87.5MHz~108.0MHz
(Frequency step)	(50kHz)
Frequency Range	87.9MHz~107.9MHz
(Frequency step)	(200kHz)
Channel Space Slection	50k/200kHz
Usable Sensitivity (S/N : 30dB)	9.3dBf (0.8 μ V/75 Ω)
Quieting Sensitivity (S/N 50dB)	15.2dBf (1.6 μ V/75 Ω)
Frequency Response (\pm 3.0dB)	30Hz~15kHz
S/N (dB)	70dB (MONO)
Selectivity	\geq 80dB (\pm 400kHz)
Stereo Separation	40dB (1kHz)

AM

Frequency Range	531kHz~1611kHz
(Frequency step)	(9kHz)
Frequency Range	530kHz~1700kHz
(Frequency step)	(10kHz)
Channel Space Selection	9k/10kHz
Usable Sensitivity (S/N : 20dB)	28dB μ (25 μ v)

CD

Laser Diode	GaAlAs (λ =780nm)
Digital Filter (D/A)	8 times Over Sampling
D/A Converter	1 Bit
Spindle Speed	1000~400 (CLV)
Wow & Flutter	Below Mesurable Limit
Frequency Respons	10~20kHz
THD	0.01% (1kHz)
S/N Ratio (dB)	105dB (1kHz)
Dynamic Range	93dB
Channel Speparation	85dB
MP3 Decode ...	Compliant with MPEG-1.0/2.0/2.5 Audio Layer-3

Preout Level (mV)/Load	2000mV/10k Ω (CD/CD-CH)
Preout Impedance (Ω)	\leq 600 Ω

AMP

Maximum Power	50wx4
Full Bandwidth Power (at Less than 1%THD)	22wx4

TONE

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

GENERAL

Operating voltage (11~16v allowable)	14.4V
Current Consumption	10A
Installation Size (Width)	182mm (7-3/16 inch)
(Height)	53mm (2-1/16 inch)
(Depth)	157mm (6-3/16 inch)
Weight	3.1 lbs (1.4kg)

KDC-MP222

FM

Frequency Range	87.9MHz~107.9MHz
(Frequency step)	(200kHz)
Channel Space Selection	50k/200kHz
Usable Sensitivity (S/N : 30dB)	9.3dBf (0.8 μ V/75 Ω)
Quieting Sensitivity (S/N 50dB)	15.2dBf (1.6 μ V/75 Ω)
Frequency Response (\pm 3.0dB)	30Hz~15kHz
S/N	70dB (MONO)
Selectivity	\geq 80dB (\pm 400kHz)
Stereo Separation	40dB (1kHz)

AM

Frequency Range	530kHz~1700kHz
(Frequency step)	(10kHz)
Channel Space Selection	9k/10kHz
Usable Sensitivity (S/N : 20dB)	28dB μ (25 μ v)

CD

Laser Diode	GaAlAs (λ =780nm)
Digital Filter (D/A)	8 times Over Sampling
D/A Converter	1 Bit
Spindle Speed	1000~400 (CLV)
Wow & Flutter	Below Mesurable Limit
Frequency Respons	10~20kHz
THD	0.01% (1kHz)
S/N Ratio (dB)	105dB (1kHz)
Dynamic Range	93dB
Channel Speparation	85dB
MP3 Dedoce ...	Compliant with MPEG-1.0/2.0/2.5 Audio Layer-3

Preout Level (mV)/Load	2000mV/10k Ω (CD/CD-CH)
Preout Impedance (Ω)	\leq 600 Ω

AMP

Maximum Power	50wx4
Full Bandwidth Power (at Less than 1%THD)	22wx4

TONE

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

GENERAL

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

KENWOOD CORPORATION

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