

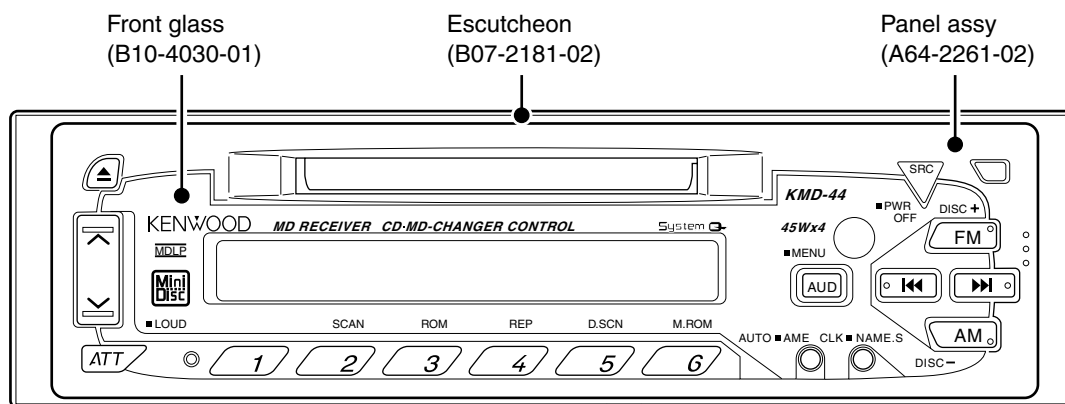
MD RECEIVER

KMD-44

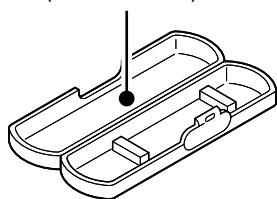
SERVICE MANUAL

KENWOOD

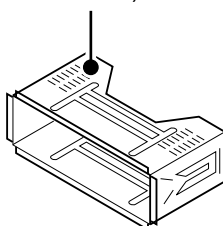
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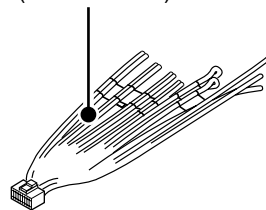
Plastic cabinet assy
(A02-1486-13)



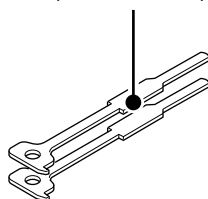
Mounting hardware assy
(J21-9491-13)



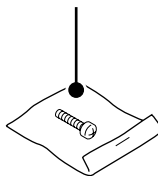
DC cord
(E30-4783-05)



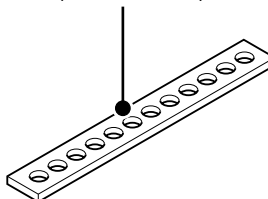
Lever
(D10-3031-04)x2



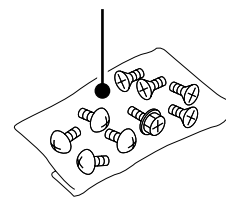
Screw set
(N99-1610-15)



Stay
(J54-0606-04)

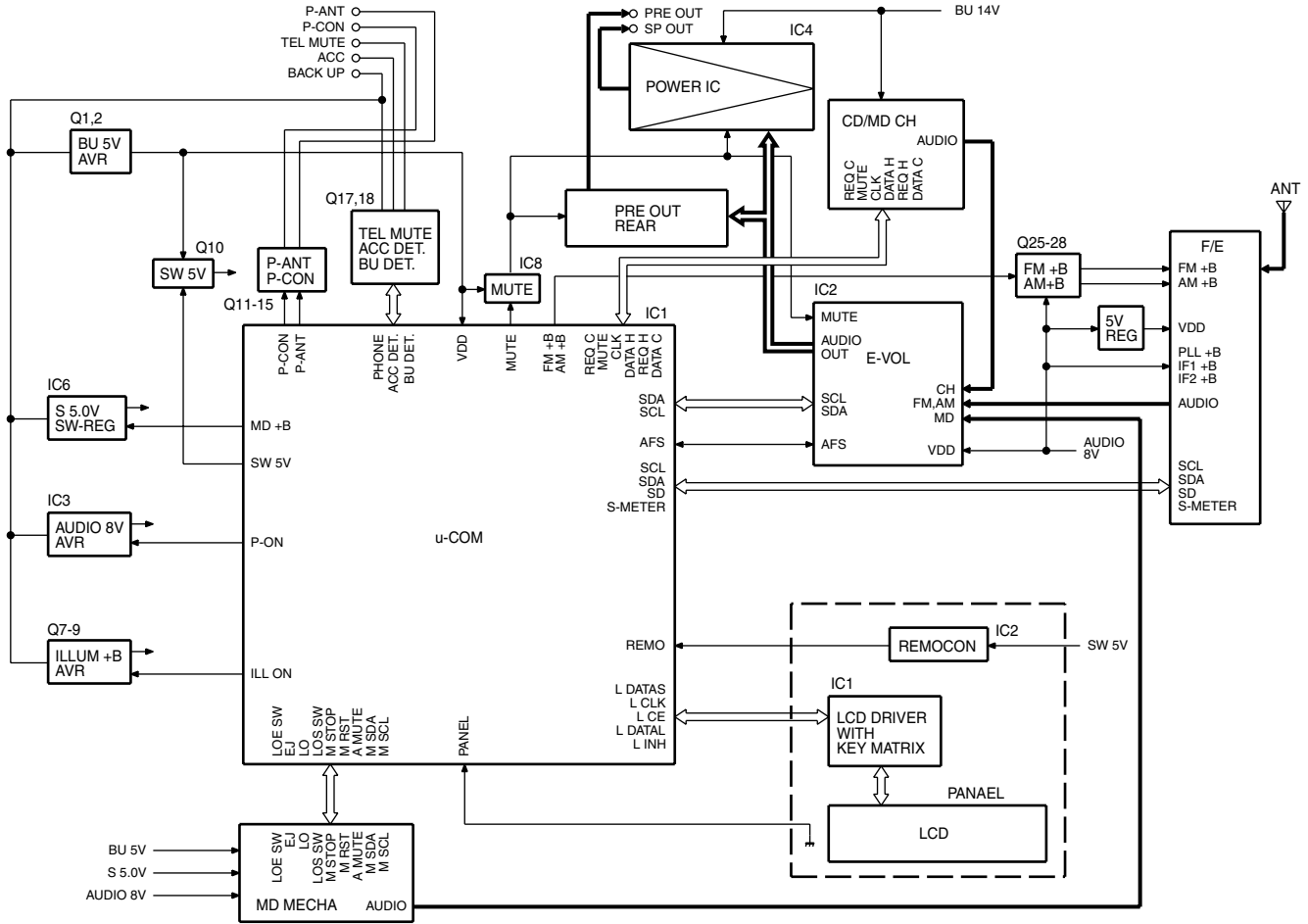


Screw set
(N99-1632-05)

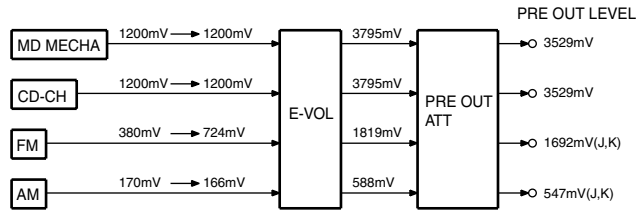


BLOCK LEVEL DIAGRAM

BLOCK DIAGRAM

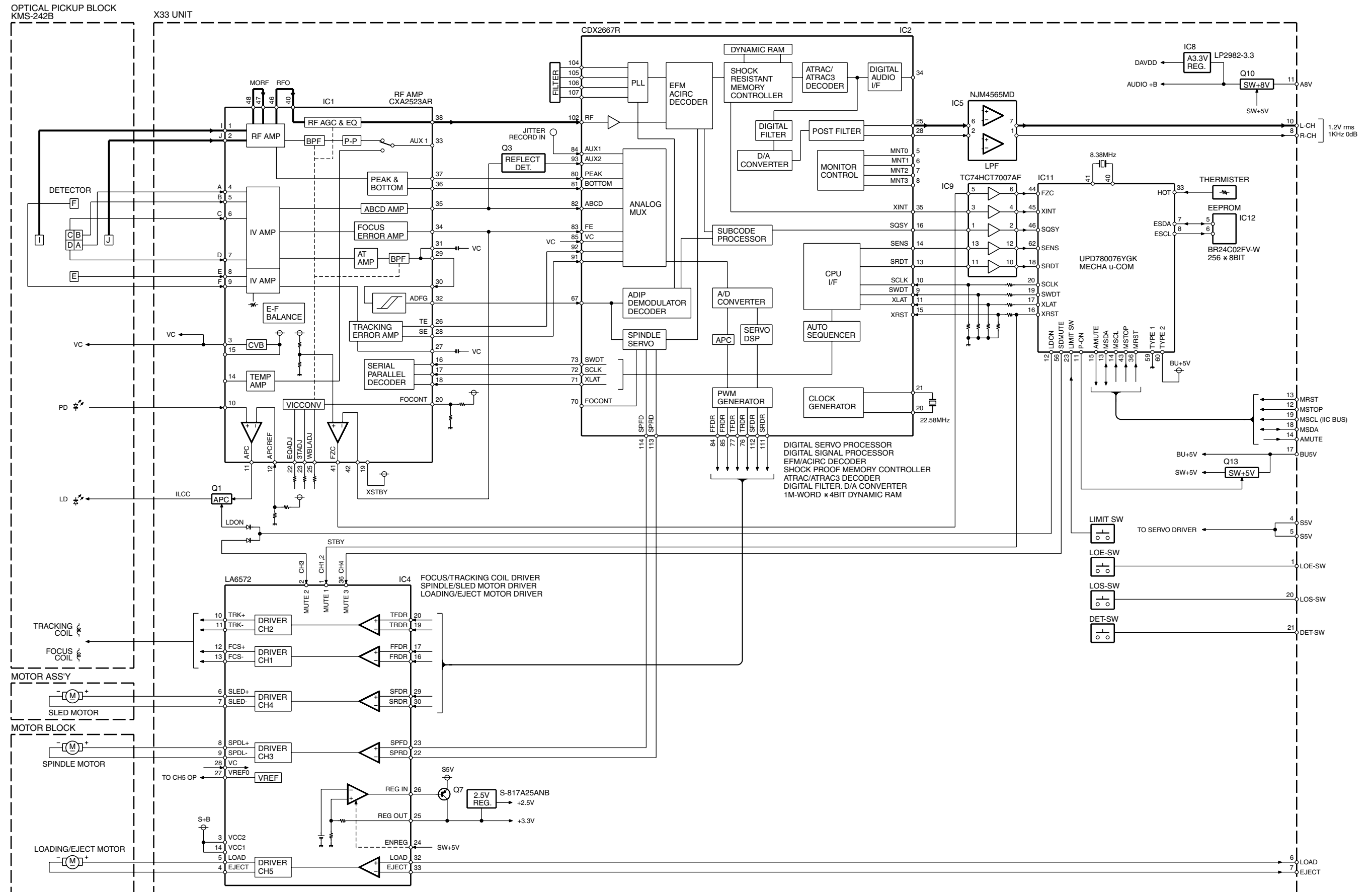


LEVEL DIAGRAM



KMD-44 KMD-44

BLOCK DIAGRAM (MD)



COMPONENTS DESCRIPTION

●SWITCH UNIT (X13-9700-11)

Ref. No.	Component name	Application/Function	Operation/Condition/Compatibility
IC1	LC75808W	LCD driver with key-matrix	
IC2	RS-171	Remote control light sensor	
Q1	DTA114EK or UN2111	Key-matrix permission SW	Ready on key-matrix, ON when the base goes "Lo".
Q2	2SD2114K	Illumination SW(Red)	ON when the base goes "Hi".
Q3	2SD2114K	Illumination SW(Green)	On when the base goes "Hi".
Q4	2SC2412K or 2SD601A	LCD AVR	

●ELECTRIC UNIT (X25-8840-11)

Ref. No.	Component name	Application/Function	Operation/Condition/Compatibility
IC1	UPD784216GF531	System MI-COM.	
IC2	TDA7407D	E-VOL. & N.C. MPX	
IC3	M5237ML	AVR IC	AVR IC is combined with Q5, and it works as the error detection, the driver.
IC4	TDA7386	Power IC	
IC6	LM2595S-ADJ	MD SERVO AVR	A DC/DC Converter wiht the ON/OFF function.
IC7	S-80830ANNP	Reset IC	"L" : detection voltage below 3.0V
IC8	HD74HC27FP	Mute logic	3 input NOR gate x3
IC10	TDA7479D	RDS decoder	
Q1	2SC4081 or 2SD1819A	BU 5V AVR	Inverted darlington connection
Q2	2SB1548(P)or 2SB1655(E, F)		On during BU applied.
Q3	DTA124EUA or UN5112	Audio 8V AVR ON/OFF SW	Audio 8V AVR ON/OFF control
Q4	DTC144EK or UN2213 or KRC104S		Q3 is turned ON when Q4's base goes "Hi".
Q5	2SB1548(P)or 2SB1655(E, F)	Audio 8V AVR	Output voltage 8.3V
Q7	DTC144EUA or UN5213	Illumination AVR	AVR output is ON when Q7's base goes "Hi".
Q8	DTA124EUA or UN5112		
Q9	2SD1760		
Q10	2SA1037K	SW 5V	ON when the base goes "Lo".
Q13	2SB1277(Q, R)	P-CON SW	Q13 is turned ON when Q16's base goes "Hi".
Q16	DTC114YK or UN2214 or KRC107S		
Q14	2SA1037K	P-CON protection	Protect Q13 by turning ON when P-CON output is grounded.
Q15	DTA124EK or UN2112 or KRA103S		Prevents Q14 turning ON during start-up after power ON.
Q17	2SC2412K or 2SD601A	BU detection (Momentary power down detection)	ON when the base goes "Hi" during BU applied.
Q18	2SC2412K or 2SD601A	ACC detection	ON when the base goes "Hi"during ACC applied.
Q19	DTA124EK or UN2112 or KRA103S	Mute driver for Audio mute SW	ON when the base goes "Lo".
Q20	DTC144EK or UN2213 or KRC104S	E-VOL. mute SW	E-VOL. is muted when the base goes "Hi".
Q21, 22	DTC143TK or UN2216	Audio mute SW	Audio pre-outs are muted when the base goes "Hi".
Q23	DTC114YK or UN2214	SVR SW	POWER IC RESET is activated when the base goes "Hi".
Q24	DTA114YUAor UN5114	Panel detection SW	ON when the base goes "Lo" during the panel closed.
Q25	DTC124EK or UN2212 or KRC103S	FM+B SW	Q26 is turned ON when Q25's base goes "Hi".
Q26	2SB1277(Q,R)		ON during FM reception
Q27	DTC124EK or UN2212 or KRC103S	AM+B SW	Q28 is turned ON when Q27's base goes "Hi".
Q28	2SB1277(Q,R)		ON during AM reception
Q29	2SC4081 or 2SD1819A	Composite signal output buffer	
Q30	2SC4081 or 2SD1819A	Noise buffer	
Q33	DTC144EK or UN2213 or KRC104S	RESET SW	System RESET is activated when the panel reset SW is pushed
Q34	2SC4081 or 2SD1819A	DSI driver	ON when the base goes "Hi".

COMPONENTS DESCRIPTION

●MD Unit (X33-3120-00)

Ref. No.	Application/Function	Operation/Condition/Compatibility
IC1	RF Matrix Amplifier for MD	RF amplifier (Pit-groove switching, AGC, EQ Gain switching, I-V Amp, light amount signal output, Peak-hold output, Bottom-hold output, FE output, TE output, SE output, ADIP dual-value output, Vref output, APC PD amplifier, FZC generation comparator
IC2	Digital signal processor for MD	EFM decoding, EFM digital PLL, ACIRC decoding, Automatic LINK processing ADIP decoder, Memory control, Digital servo, (focus, tracking thread, spindle CLV), 1 bit D/A, ATRAC/ATRAC3 decoding, 4M(1Mx4) DRAM Analog post filter
IC3	+2.5V regulator	Power supply for 2.5V system of IC2
IC4	5chBTL servo driver	Various actuator, Motor drive, Disk loading, Eject motor driver, +3.3V regulatore
IC5	low-pass filter	3-times active filter
IC6	3.3v regulator	D/A audio+B
IC7	CMOS buffer	3.3V→5.0V level shift
IC8	Mechanism micon	Servo control, Memory, control, System control, Various interfaces
IC9	E2PROM	Servo coefficient, Servo adjustment data backup memory
Q1	APC	IC1, IC2 APC ON and ON while Q2 is OFF
Q2	LD SW	ON when laser is OFF (when micro com LDON "L")
Q3	Detection of disk reflection amount	ON when focus is passed during UP search
Q4	+3.3V regular	ON when SW+5V "H" (when Q7 is ON)
Q5	A+8V SW	ON when Q6 is ON
Q6	SW for SW+8V	ON when SW+5V "H" (When Q7 is ON)
Q7	PON (SW+5V)	ON when Pin 11 of IC8 is "L"

MICROCOMPUTER'S TERMINAL DESCRIPTION

System μ -com: (X25 : IC1)

● Terminal Description

Pin	Name	I/O	Function	Description of Processing
1	TYPE 0	I	Destination type input terminal 0	Pull down to GND
2	TYPE 1	I	Destination type input terminal 1	Pull down to GND
3~8	N.C.	O	Not used	
9	VDD	-	VDD connection terminal	Connected to BU 5V lines
10	STBY	O	Power IC standby control output	"Hi":POWER ON mode
11	SVR	O	Power IC reset terminal	When the momentary power down, after ACC OFF is detected and after POWER OFF, the output goes "Hi" temporarily.
12	N.C.	O	Not used	
13	P-MUTE	O	Power IC mute control	"Lo":Mute
14	ANT-CON	O	Antenna control	"Hi":during FM/AM reception
15	IC2-SCK	O	Clock output to the E-VOL. IC	
16	N.C.	O	Not used	
17	P-CON	O	Power control	"Hi":POWER ON mode except ALL OFF mode
18	ACC-DET	I	ACC detection input	"Hi":ACC OFF, "Lo":ACC ON
19	REMO	I	Data input from the remote control light sensor	
20	P-ON	O	A.8V AVR ON/OFF control terminal	"Hi":POWER ON mode or during MD Loading/Eject
21	BU-DET	I	Momentary power down detection input	"Hi":When momentary power down detected or BU OFF, "Lo":BU ON
22	TSET	-	Not used	Connected to GND
23	IC2-SDA	I/O	Data input/output with the E-VOL. IC	
24	MUTE	O	Mute control output	"Hi":Mute ON, "Lo":Mute OFF
25	SW5	O	SW 5V control	"Lo":POWER ON mode or during MD Loading/Eject
26	M-CLK	I/O	Clock input/output with the MI-COM. of MD mecha.	
27	M-DATA	I/O	Data input/output with the MI-COM. of MD mecha.	
28	IC3-SDA	I/O	Data input/output with the F/E(tuner)	
29	CHCON	O	Changer control	"Lo":Standby, "Hi":during the movement
30	IC3-SCK	O	Clock output to the F/E(tuner)	
31	REQH	O	Request output to changers	"Lo":Request
32	ILL-ON	O	Illumination AVR ON/OFF control terminal	"Hi":POWER ON mode
33	DSI	O	DSI output terminal	Not used
34, 35	N.C.	O	Not used	
36	MD+B	O	MD servo +B ON/OFF control terminal	"Hi":MD source is selected or during MD Loading/Eject
37	VDD	-	VDD connection terminal	Connected to BU 5V lines
38	X2	-	Main clock resonator connection terminal	
39	X1	I	Main clock resonator connection terminal	
40	VSS	-	Ground connection terminal	Connected to GND
41	XT2	-	Sub clock resonator connection terminal	
42	XT1	I	Sub clock resonator connection terminal	
43	RESET	I	Reset input terminal	"Lo":System reset
44	N.C.	O	Not used	
45	R-CLK	I	Clock input from RDS decoder	Not used
46	REQ C	I	Request input from changers	"Hi":Request
47	KEY-REQ	I	Key request terminal	"Lo":Request
48	N.C.	O	Not used	
49	LOS-SW	I	MD insertion detection terminal	"Lo":MD insertion detected

KMD-44

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin	Name	I/O	Function	Description of Processing
50	N.C.	O	Not used	
51	AVDD	-	VDD connection terminal	Connected to BU 5V lines
52	AVREF 0	-	VDD connection terminal (A/D converter reference voltage input)	Connected to BU 5V lines
53	PHONE	I	PHONE detection input	Not used
54	N.C.	I	Not used	Connected to GND
55	NIOSE	I	Noise detection input	
56	S-METER	I	S-meter input from the F/E(tuner)	
57~59	N.C.	I	Not used	Connected to GND
60	M-MUTE	I	Mute request from the MI-COM. of MD mecha.	"Lo":Mute requested
61	AVSS	-	Ground connection terminal(A/D, D/A converter)	Connected to GND
62	N.C.	O	Not used	
63	M-RST	O	Reset output to the MI-COM. of MD mecha.	"Lo":Reset
64	AVREF 1	-	VDD connection terminal (D/A converter reference voltage input)	Connected to BU 5V lines
65	DATA C	I	Data input from changers	
66	DATA H	O	Data output to changers	
67	CH-CLK	I/O	Clock input/output with changers	
68	L-DATAL	I	Data input from the LCD driver IC	
69	L-DATAS	O	Data output to the LCD driver IC	
70	L-CLK	O	Clock output to the LCD driver IC	
71	M-STOP	O	Stop request to the MI-COM. of MD mecha.	"Lo":Stop, "Hi":during the movement
72	BEEP	O	Beep sound output	
73~75	N.C.	O	Not used	
76	LOE-SW	I	MD loading complete detection SW input terminal	"Lo":MD loading completion
77	EJECT	O	MD mecha. Loading/Eject switching output terminal	Standby : (EJECT, LOAD)=(Lo, Lo) Eject : (EJECT, LOAD)=(Hi, Lo)
78	LOAD	O	MD mecha. Loading/Eject switching output terminal	Loading : (EJECT, LOAD)=(Lo, Hi) Brake : (EJECT, LOAD)=(Hi, Hi)
79	L-INH	O	INH output to the LCD driver IC	"Hi":Active, "Lo":LCD indication OFF
80	L-CE	O	CE output to the LCD driver IC	"Hi":Active
81	PANEL	I	Panel detaching detection input	"Lo":Panel not detached
82, 83	N.C.	O	Not used	
84	QUAL	I	Quality input from RDS decoder	
85	R-DATA	I	Data input from RDS decoder	
86, 87	N.C.	O	Not used	
88	SD	I	SD input from the F/E(tuner)	"Hi":Station detected, "Lo":Not detected
89~91	N.C.	O	Not used	
92	AFC	O	Noise detection time constant switching terminal	Not used
93~95	N.C.	O	Not used	
96	AM+B	O	AM+B control	"Hi":during AM reception
97	FM+B	O	FM+B control	"Hi":during FM reception
98	ST TYPE 0	I	IC2 stereo data setting terminal	"Lo":Initial value
99	ST TYPE 1	I	IC2 stereo data setting terminal	"Lo":Initial value
100	VSS	-	Ground connection terminal	Connected to GND

ADJUSTMENT

TEST MODE

1. To enter test mode

While holding the "FM" key and preset "6" key, reset the unit. All indication segments are ON at the beginning of test mode.

2. To release test mode

Simply reset the unit.

(NOTE) The test mode is not canceled by ACC OFF, power OFF, momentary power down.

3. MD receiver test mode specification

Pressing the "Track Up" key jumps between tracks in the following order.

No.7 → No.2 → No.13 → No.23 → No.30 → No.34 → No.7

(Same as the beginning)

Pressing the "Track Down" key jumps to the previous track to the being played.

Pressing the preset "1" key jumps to No.28 track. Again pressing the preset "1" key jumps to No.22 track.

4. Audio adjustment

The volume is set to -10dB (which is shown as 30).

Loudness is OFF. CRSC becomes OFF regardless of the functional excuse, too.

The BASS/TREBLE and BALANCE/FADER controls can be set to the full boost/full cut and full front/full rear and full right/full left respectively by pressing the "Track Up" / "Track Down" keys.

Sound coordination (system Q) doesn't appear for the Audio mode feed.

MDS-2500 Service Test Mode (Manual Adjustment Mode)

In order to adjust the focus bias (balance) of MDS-2500, automatic adjustment is conducted at factory and bias value is written on the E2PROM. When conducting adjustment on the set, the data in the E2PROM is read. Therefore, when changing the pickup for servicing, it is necessary to conduct focus bias adjustment again. If you are equipped with MDS-2000 AT3 Commander and jitter meter, it is possible to use automatic adjustment. We have prepared the service test mode (manual adjustment mode) in case MDS-2000 AT3 Commander and jitter meter are not available.

● Adjustment Procedure

(Note: During the adjustment procedure, be sure to turn off the power supply to the set.)

1. Pull up the IC11 50pin (LADJ1 (Check Land L1)) of the X33 Unit to BU5V (Check Land BU 5).
 2. Pull out the Check Land ARF of X33 Unit and Check Land SAG (Servo GND) using wires so these can be monitored with an oscilloscope.
 3. Turn the power on the set while resetting the set.
- * Adjustment should be conducted on total of three places: low-reflection pit and groove of the recordable disk and high-reflection pit of the pre-mastered disk.
4. When the disk is loaded, the set enters the adjustment mode.

● For Recordable Disk

5. With the "TNo. 1" display, low-reflection pit beta play mode is entered. The display section of the time code shows "50."
 6. While monitoring ARF with an oscilloscope, vary the focus bias with track up and track down key.
 7. In order to calculate the optimum values, vary UP's and DOWN's and change the values at which the ARF waves are disturbed or 3T waveform levels goes down and calculate the center values for these. For example, if values are 58 for the UP-side and 46 for the DOWN-side, the center value 52 would be the optimum value.
 8. After obtaining the optimum value, set it to the value and press manual UP/DOWN key, which will confirm the value. (Normally, setting will be made by pressing on the track UP/DOWN key.)
 9. After adjusting the low-reflection pit in 8, the pickup is automatically sent to the groove area.
 10. With the "TNo. 2" display, the groove beta play mode is entered.
 11. From this point on, it is the same as the above 6, 7, and 8.
 12. After adjustment on the groove area, the set stops. Eject the disk and the adjustment is complete.
- * Since there is only TOC area for low-reflection pit, the play time is about 40 seconds. After the pit area, the set will enter retry movement, during which adjustments are not effective.

ADJUSTMENT

● For Pre-Mastered Disk

13. The set will enter high-reflection pit beta play mode and adjustments in items 5,6,7, and 8 should be conducted.
14. After adjustments, the set stops. Eject the disk and the adjustment is complete.
 - * During the test mode, rough adjustments of the EF balance is conducted at the same time. However, the adjustments are conducted automatically and there is no need for outside operation.

● Service test mode display (Display on the set)

PIT adjustment mode start [01-_:_]]
PIT adjustment permission [01-_:50]
PIT adjustment in progress
(**=adjustment data) [01-_:**]
PIT confirmation
(Groove adjustment mode start) [02-_:_]]
Groove adjustment permission [02-_:50]
Groove adjustment in progress
(**=adjustment data) [02-_:**]
Groove confirmation
(normal completion) [02-_:_]]

● Error display (**= Error status)

- **=03 : An error occurred while adjusting low reflection pit EF balance adjustment
- **=04 : An error occurred while adjusting low reflection pit focus bias
- **=05 : An error occurred while adjusting low reflection pit E2PROM write
- **=19 : An error occurred while adjusting groove EF balance
- **=20 : An error occurred while adjusting groove focus bias
- **=21 : An error occurred while adjusting groove E2PROM write
- **=35 : An error occurred while adjusting high reflection EF balance
- **=36 : An error occurred while adjusting high reflection focus bias
- **=37 : An error occurred while adjusting high reflection E2PROM write

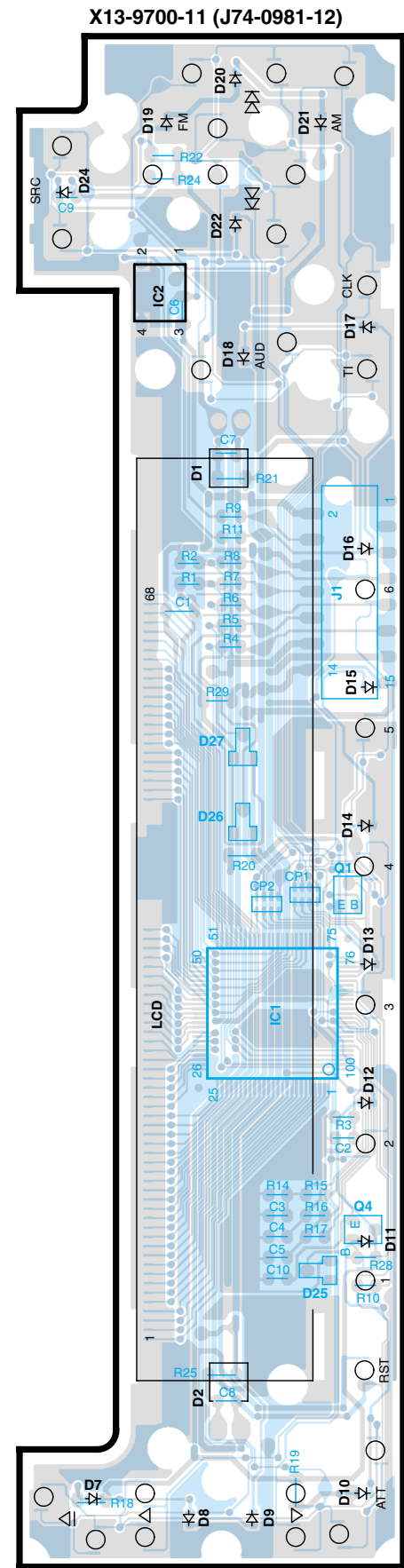
● Adjustment Parameter

Adjustment condition : Restart after setting LADJ1 terminal to high
Adjustment Key : Track UP/DOWN key
Confirmation Key: Manual UP/DOWN key
(Depending on a set, press on adjustment key)

Notes

1. After adjusting for a media, it must be always confirmed. When another media is adjusted without confirming it, E2PROM data will be damaged.
2. When focus bias values are set to extreme UP or DOWN, focus will come down. It could be recovered by re-try, but there is a possibility for errors and key may become ineffective. When this happens, reset and start again.
(The same will happen when data is confirmed with an extreme value.)
3. E-99
E-99 is a mechanical error but E-99 is also display when E2PROM data is damaged. There is a possibility for destroying E2PROM data when power supply is on (BU UP) when installing or removing wires. Therefore, this must be done while power supply is off (BU UP off).
The same applies for pulling or inserting card cords (flexible cords) that come in contact with the mechanism. (Normal operation cannot be expected by setting TO terminal to high, as with MDS-100.)
4. About E2PROM
E2PROM contains various initial data for MD and DSP. Adjustment data re-writes part of the data while making adjustments. Therefore, it must be noted that, for those with no initial data, an error could occur. Also, as MD mechanism is made to accommodate LP, the E2PROM capacity is changed from 1k to 2k. Since internal tables are different, it must be noted that those used with MDS-2000, MDS-2100, and MDS-2200 systems are not usable.

PC BOARD (COMPONENT SIDE VIEW)

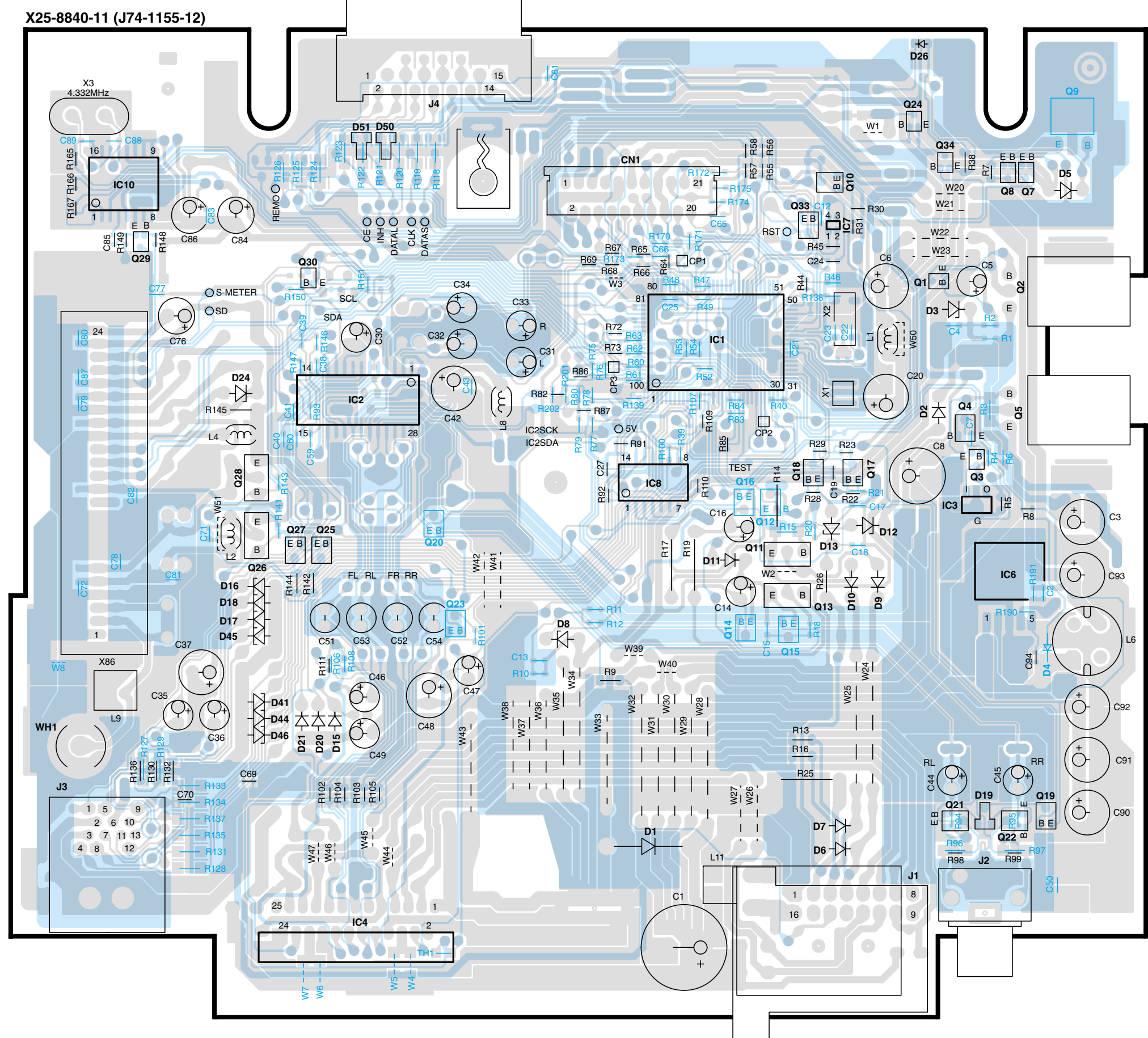


X25-8840-11

IC	Q
1	3G
2	3E
3	4I
4	7E
5	4I
6	2H
7	4G
8	3I
9	3I
10	4I
11	4I
12	4I
13	2I
14	2I
15	2H
16	5H
17	5H
18	4G
19	4H
20	6I
21	6I
22	6I
23	5F
24	2H
25	4E
26	4E
27	4E
28	4E
29	2H

X13-9700-11

IC	Q
1	5B
2	2A
3	4B
4	6B

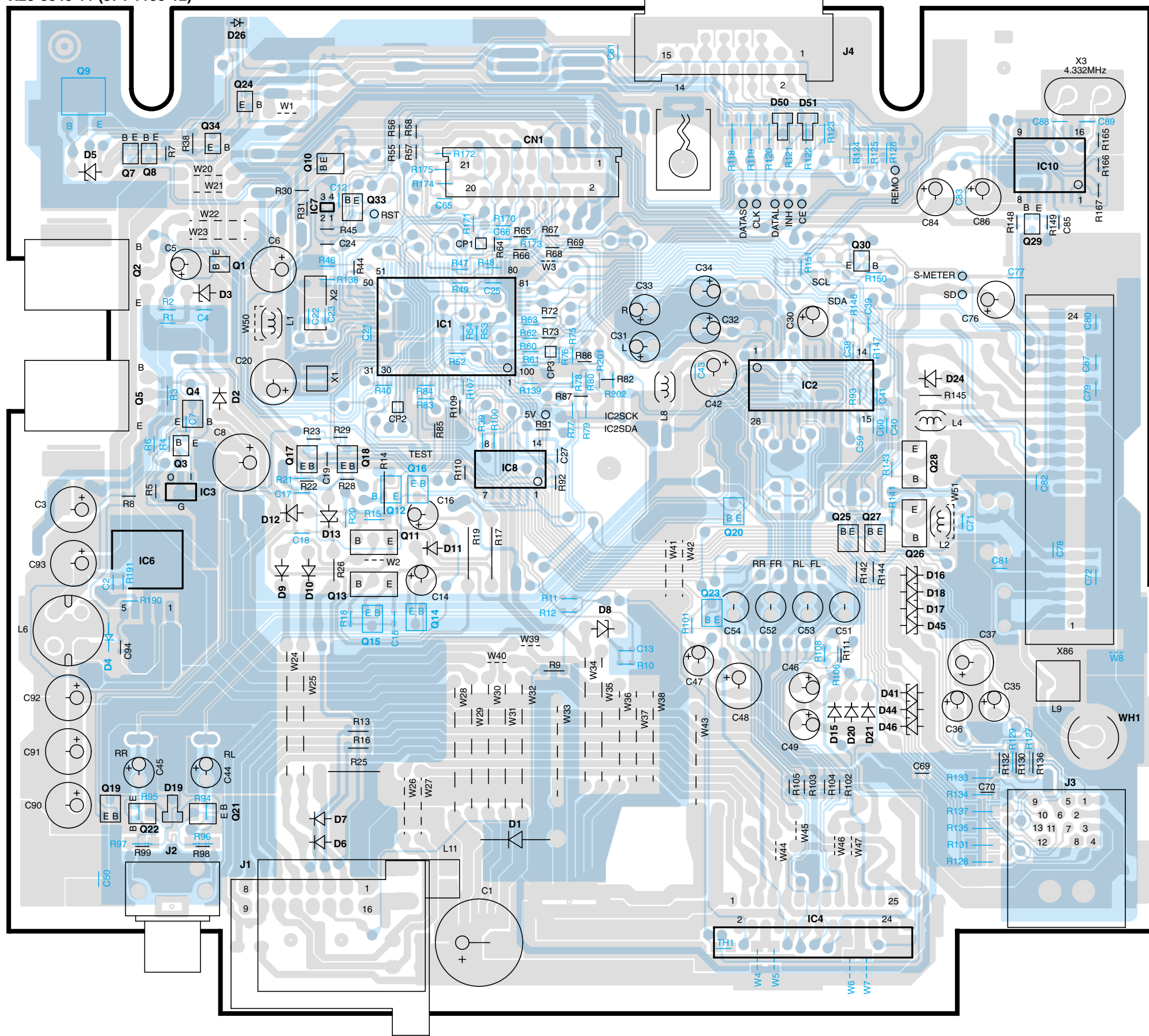


Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (FOIL SIDE VIEW)

X25-8840-11 (J74-1155-12)

X13-9700-11 (J74-0981-12)

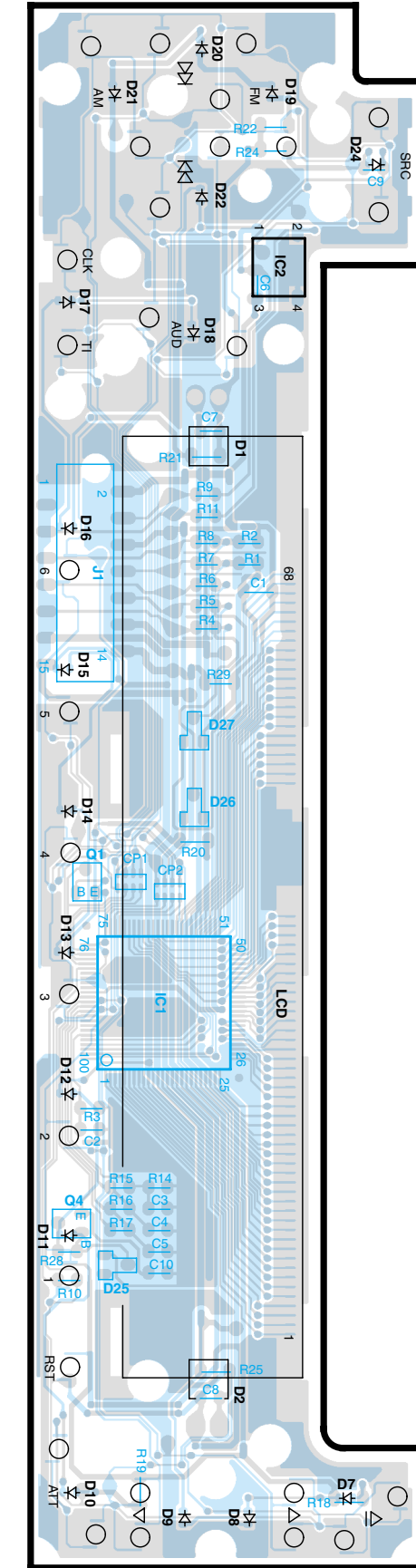


X25-8840-11

IC	Q
1	3N
2	4L
3	7P
4	4L
5	2M
6	4N
7	3M
8	3L
9	4L
10	2L
11	2L
12	2M
13	5M
14	5N
15	5M
16	4N
17	4M
18	6L
19	4P
20	6L
21	6L
22	5O
23	6L
24	2M
25	4P
26	4Q
27	4P
28	
29	
30	
31	
32	
33	2M

X13-9700-11

IC	Q
1	5S
2	2T
	4S
	6S

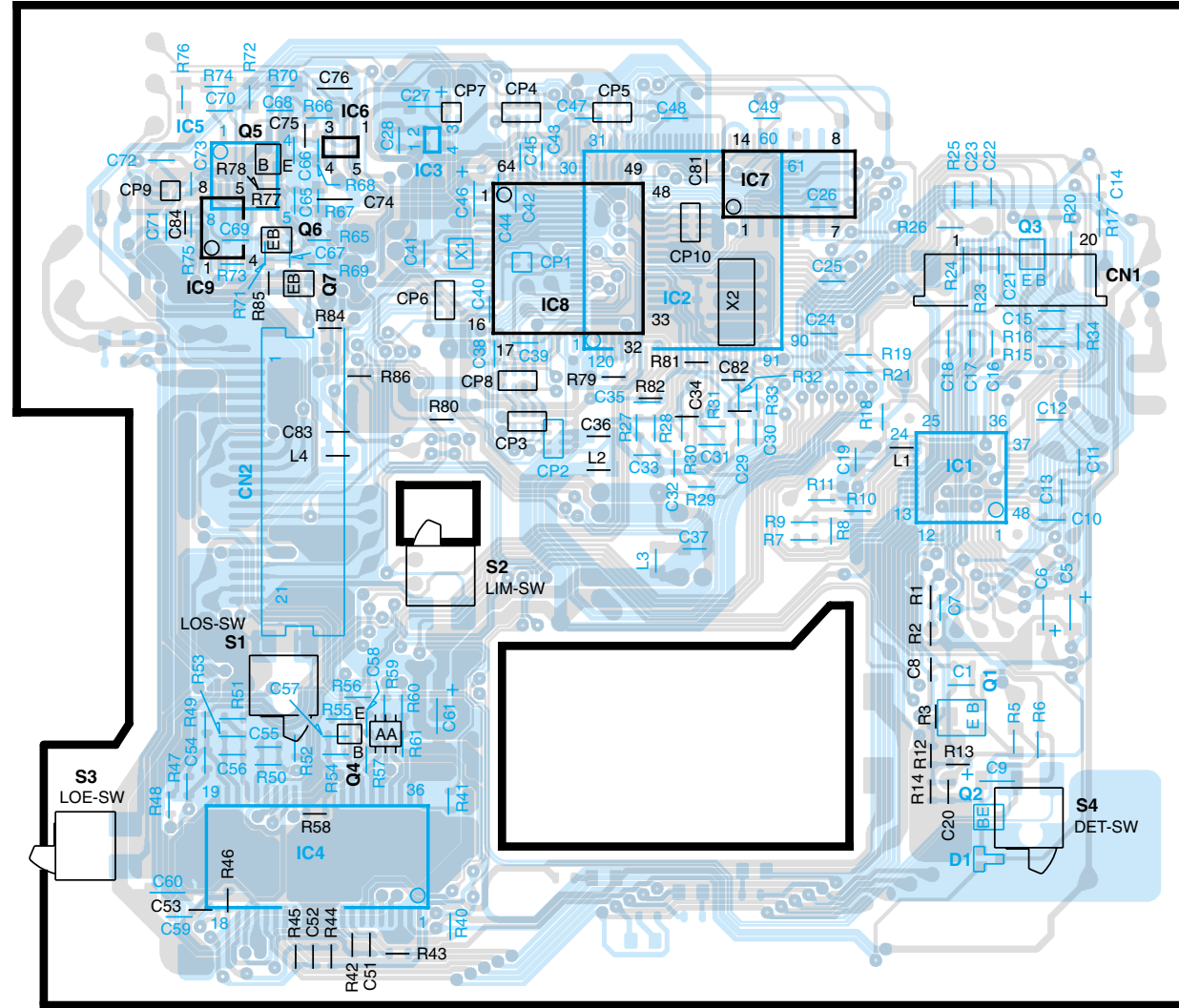


Refer to the schematic diagram for the values of resistors and capacitors.

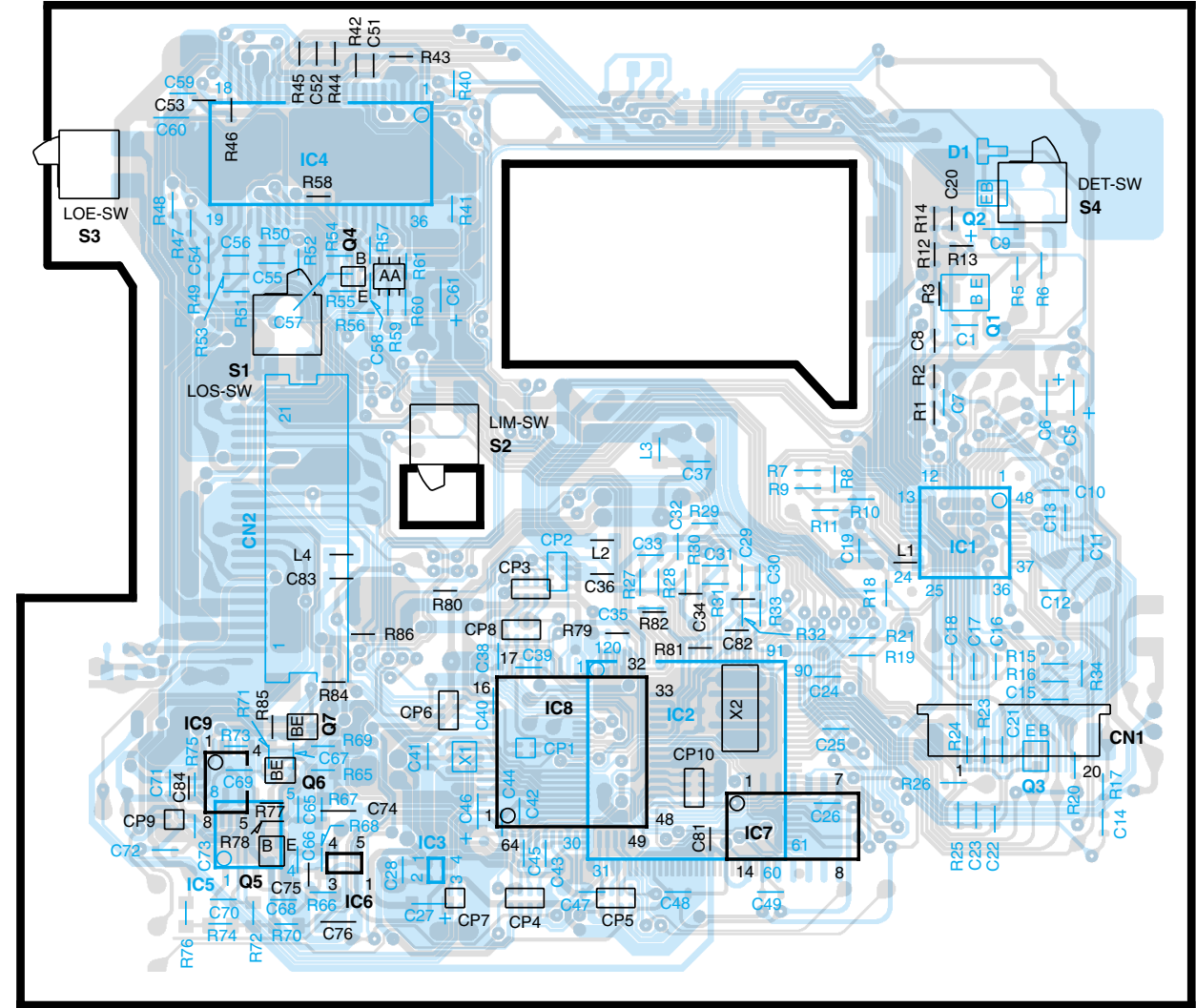
PC BOARD (COMPONENT SIDE VIEW)

(FOIL SIDE VIEW)

X33-3120-00 (J74-1202-02)



X33-3120-00 (J74-1202-02)

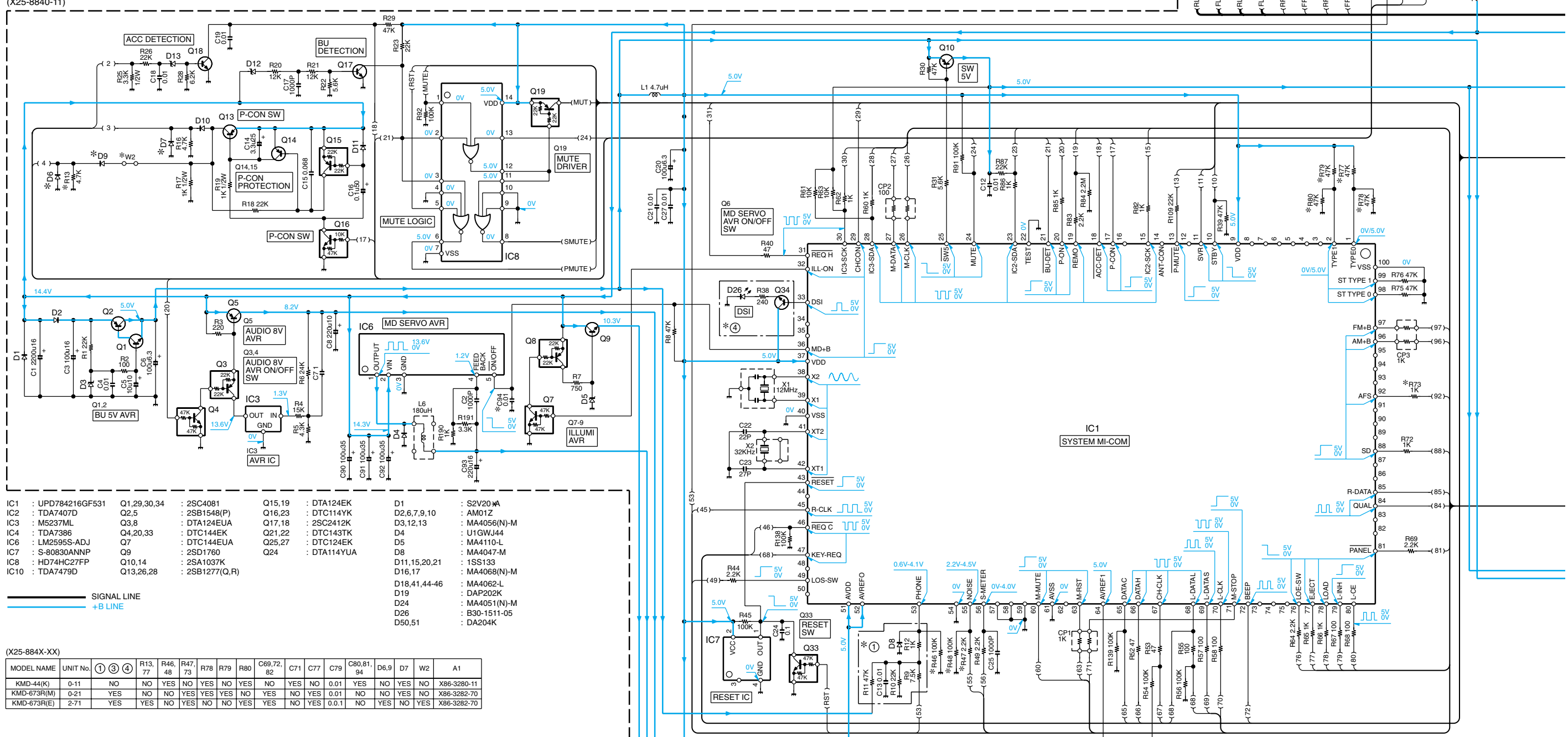
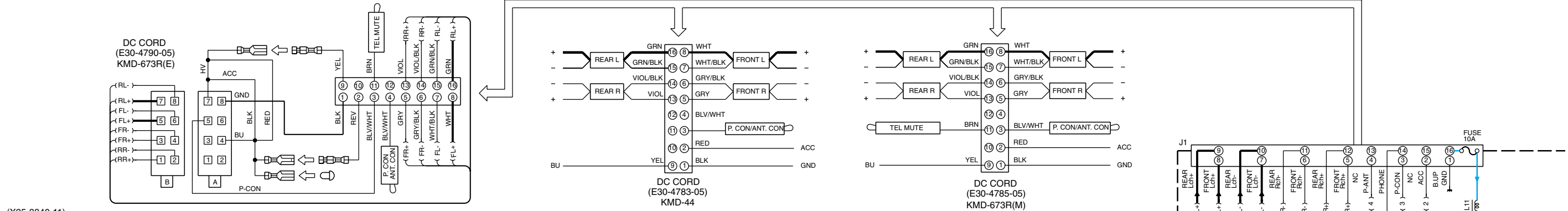


X33-3120-00

IC	1	2	3	4	5	6	7	8	9										
Q										1	2	3	4	5	6	7			
address	4X	3	3V	5V	3V	3V	3X	3	3V	4X	5X	3Y	5V	3V	3V	3V			

X33-3120-00

IC	1	2	3	4	5	6	7	8	9										
Q										1	2	3	4	5	6	7			
address	4AC	5AB	5AA	3AA	5AA	5AA	5AC	5AB	5AA	3AC	3AC	5AC	3AA	5AA	5AA	5AA			

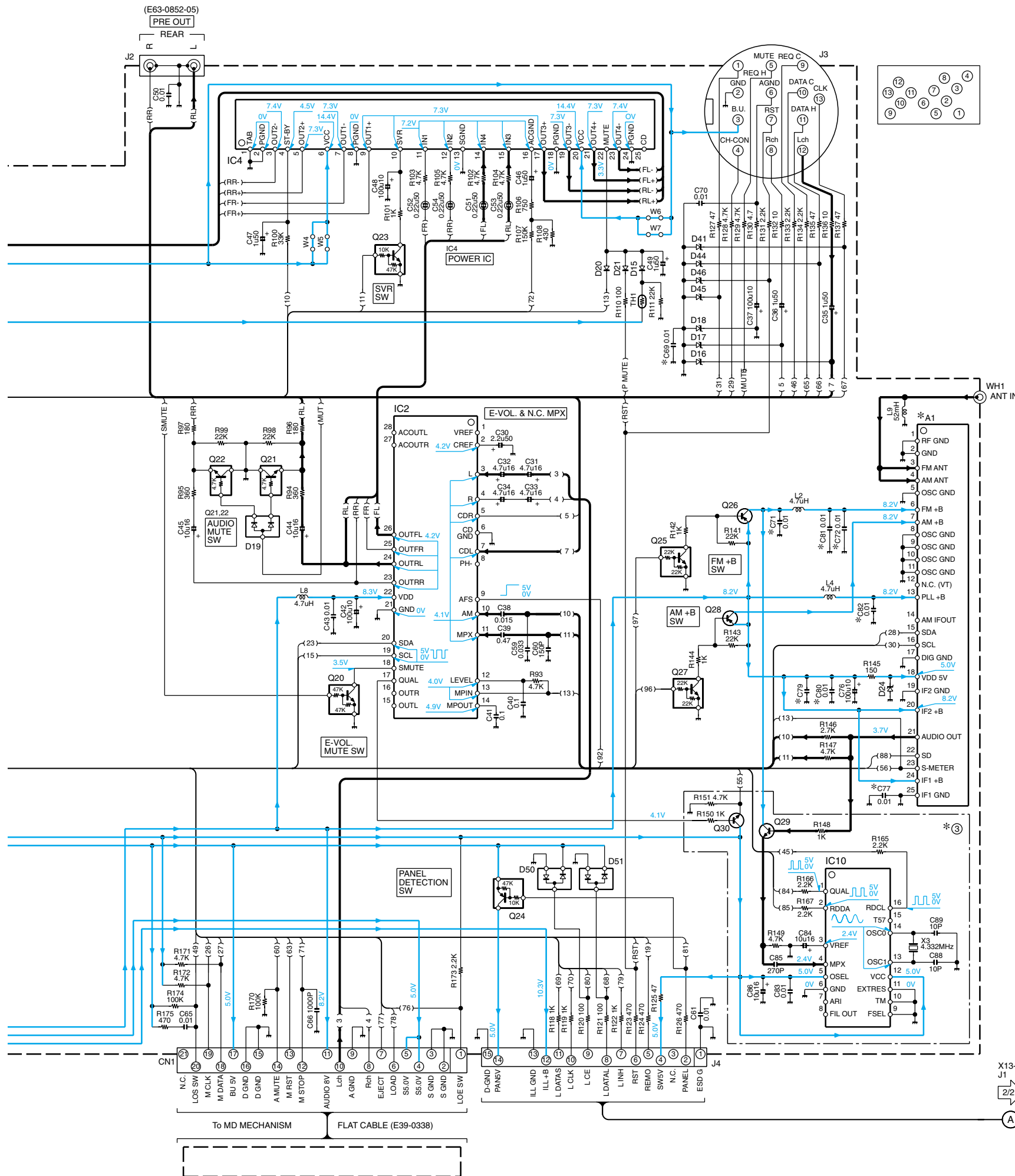


IC1 : UPD784216GF531 Q1,29,30,34 : 2SC4081 Q15,19 : DTA124EK D1 : S2V20A
 IC2 : TDA7407D Q2,5 : 2SB1548(P) Q16,23 : DTC114YK D2,6,7,9,10 : AM01Z
 IC3 : M5237ML Q3,8 : DTA124EUA Q17,18 : 2SC2412K D3,12,13 : MA4056(N)-M
 IC4 : TDA7386 Q4,20,33 : DTC144EK Q21,22 : DTC1437K D4 : U1GWJ44
 IC6 : LM2595S-ADJ Q7 : DTC144EUA Q25,27 : DTC124EK D5 : MA4110-L
 IC7 : S-80830ANPP Q9 : 2SD1760 D8 : MA4047-M
 IC8 : HD74HC27FP Q10,14 : 2SA1037K D11,15,20,21 : 1S133
 IC10 : TDA7479D Q13,26,28 : 2SB1277(Q,R) D16,17 : MA4068(N)-M
 D18,41,44-46 : MA4062-L
 D19 : DAP202K
 D24 : MA4051(N)-M
 D26 : B30-1511-05
 D50,51 : DA204K

(X25-884X-XX)

MODEL NAME	UNIT No.	①	③	④	R13, 77	R46, 48	R47, 73	R78	R79	R80	C69,72, 82	C71	C77	C79	C80,81, 94	D6,9	D7	W2	A1
KMD-44(K)	0-11	NO	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	0.01	YES	NO	NO	NO	X86-3280-11
KMD-673R(M)	0-21	YES	NO	NO	YES	YES	YES	NO	NO	YES	YES	NO	YES	0.01	NO	NO	YES	NO	X86-3282-70
KMD-673R(E)	2-71	YES	YES	NO	YES	NO	NO	NO	NO	YES	YES	NO	YES	0.01	NO	NO	YES	NO	X86-3282-70

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.



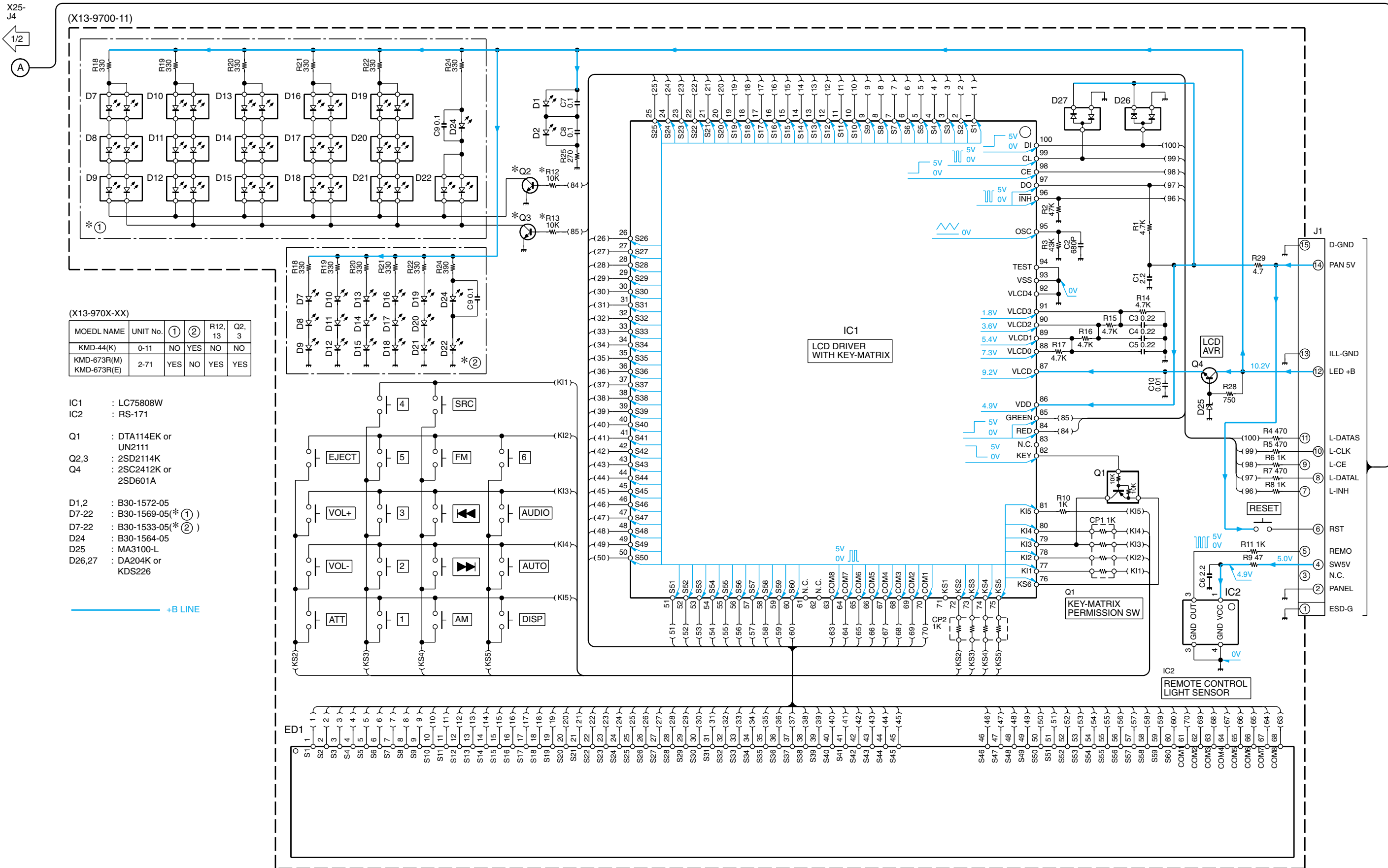
- DTA114EK
- DTA124EK
- DTC114YK
- DTC124EK
- DTC143TK
- DTC144EK
- KRC103S
- UN5114
- UN5213
- 2SA1362
- 2SA1576A
- 2SB1295
- 2SC2412K
- 2SC4116
- 2SD1819A
- 2SD2114K
- 2SD1760
- 2SB1548
- 2SB1277

- 2SA1037K
- 2SC4081
- DTA114EUA
- DTA124EUA
- DTC143EUA
- DTC144EUA
- KRC104S
- NJM4565MD
- DAP202K
- DA204K
- DTA114YUA

- TC74HCT7007A
- CXA2523AR
- M5237ML
- TDA7479D

To MD MECHANISM
FLAT CABLE (E39-0338)

X13-
J1
2/2
A



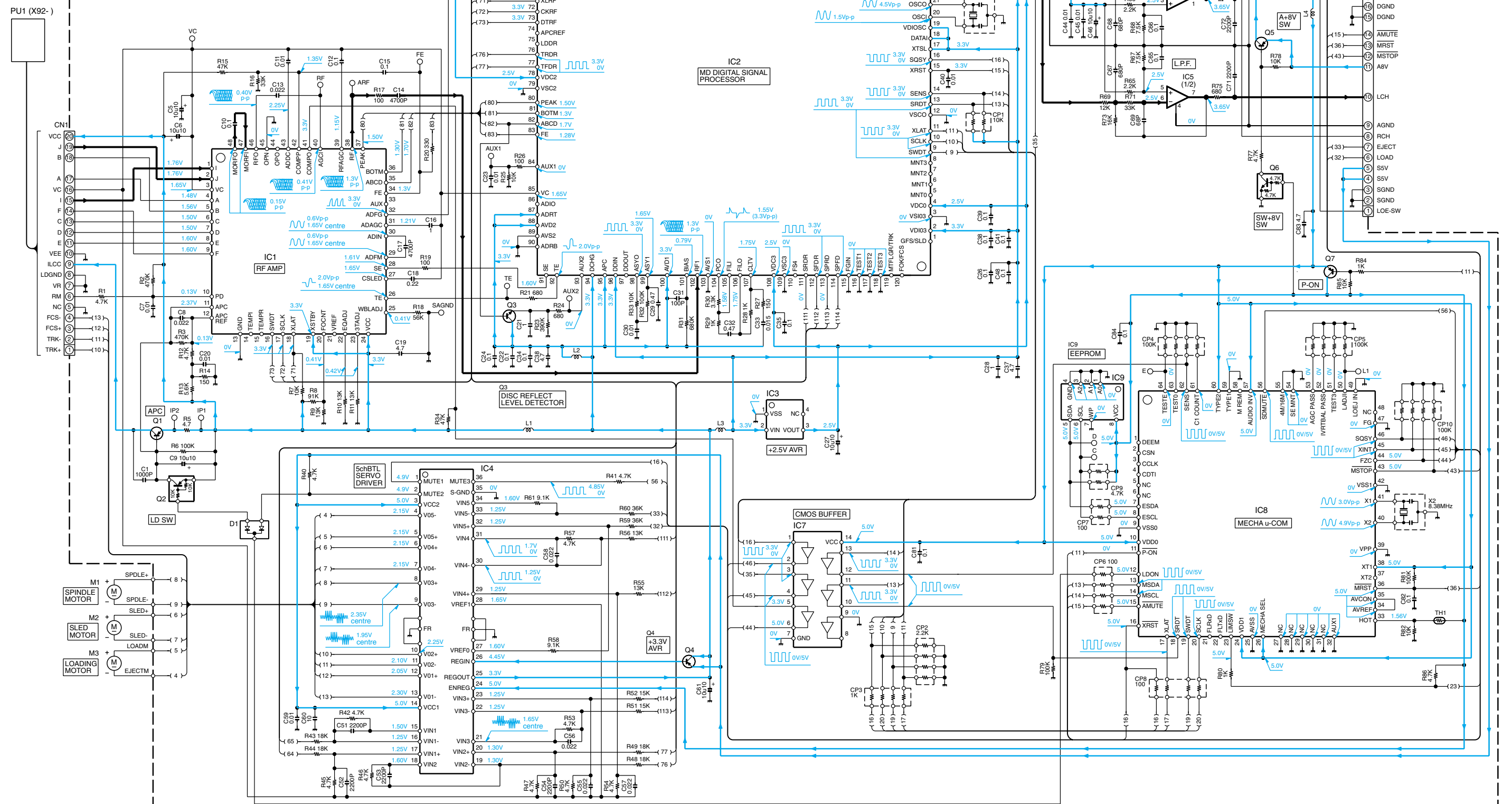
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).

△ 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

MODEL NAME	DESTINATION	S4	MODEL No.
MDS-2500	0-00	NO	X92-4250-00
MDS-2501			X92-4250-01
MDS-2510	0-01	YES	X92-4260-00
MDS-2511			X92-4260-01

IC1 : CXA2523AR Q1 : 2SB1295 or 2SA1362(Y)
 IC2 : CXD2667R Q2 : DTA114EUA or KRA302
 IC3 : S-817A25ANB Q3 : 2SC4116(Y)
 IC4 : LA6572 Q4 : MCH6101
 IC5 : NJM4565MD Q5,7 : 2SA1576A or KTA2014(Y,GR)
 IC6 : LP2982-3.3 Q6 : DTC143EUA or KRC401
 IC7 : TC47HCT7007AF
 IC8 : 780076YGK-R01 D1 : KDS121 or DAN202U
 IC9 : BR24C02FV-W

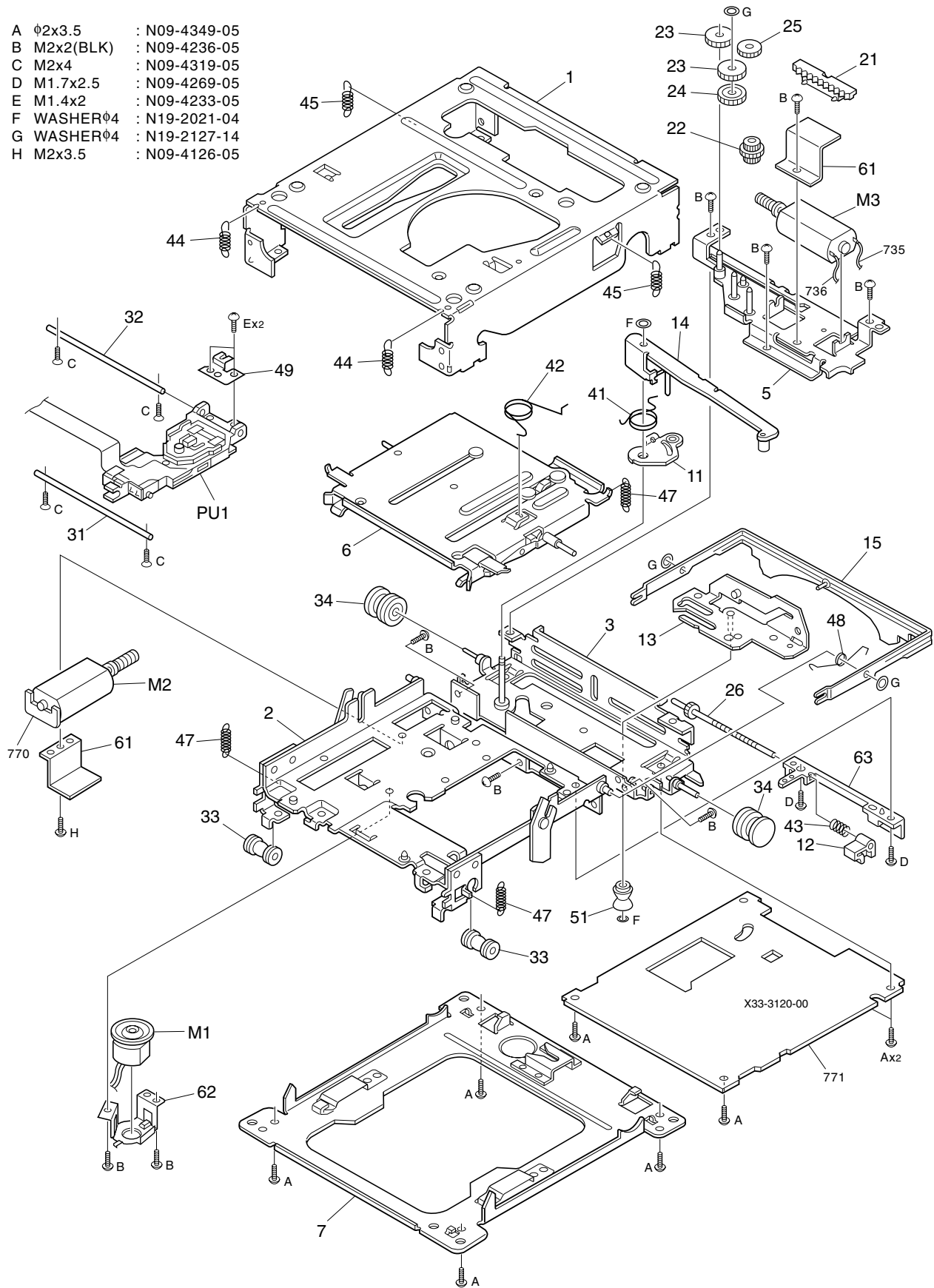


CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).
 ▲ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be

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 (MECHANISM)

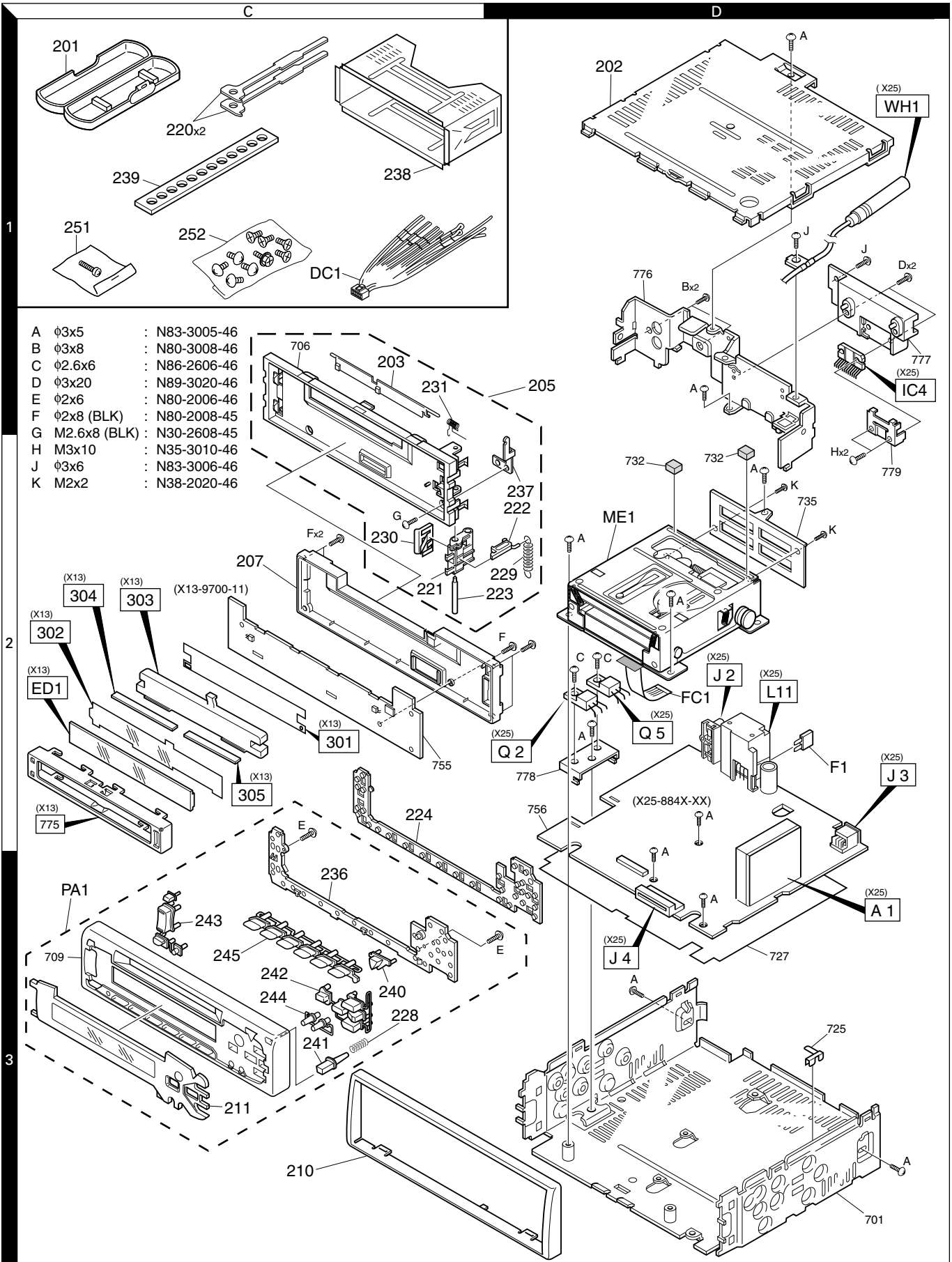
- | | | |
|---|-----------|---------------|
| A | Φ2x3.5 | : N09-4349-05 |
| B | M2x2(BLK) | : N09-4236-05 |
| C | M2x4 | : N09-4319-05 |
| D | M1.7x2.5 | : N09-4269-05 |
| E | M1.4x2 | : N09-4233-05 |
| F | WASHERΦ4 | : N19-2021-04 |
| G | WASHERΦ4 | : N19-2127-14 |
| H | M2x3.5 | : N09-4126-05 |



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

KMD-44

EXPLODED VIEW (UNIT)



- | | | | |
|---|--------------|---|-------------|
| A | φ3x5 | : | N83-3005-46 |
| B | φ3x8 | : | N80-3008-46 |
| C | φ2.6x6 | : | N86-2606-46 |
| D | φ3x20 | : | N89-3020-46 |
| E | φ2x6 | : | N80-2006-46 |
| F | φ2x8 (BLK) | : | N80-2008-45 |
| G | M2.6x8 (BLK) | : | N30-2608-45 |
| H | M3x10 | : | N35-3010-46 |
| J | φ3x6 | : | N83-3006-46 |
| K | M2x2 | : | N38-2020-46 |

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 mentionnes 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	De s t i n a	Ref. No.	A d d	N e w	Parts No.	Description	De s t i n a
KMD-44						SWITCH UNIT (X13-9700-11)					
201	1C		A02-1486-13	PLASTIC CABINET ASSY		301	2C		B11-0974-04	REFLECTION SHEET	
202	1D		A52-0739-12	TOP PLATE		302	2C		B11-0975-04	OPTICAL DIFFUSER	
203	1C		A53-1673-03	LID		303	2C		B19-2018-03	LIGHTING BOARD	
205	1C		A22-2392-03	SUB PANEL ASSY		D1,2			B30-1572-05	LED (WHITE)	
207	2C		A46-1653-01	REAR COVER		D7-22			B30-1533-05	LED (1608,PG)	
PA1	3C	*	A64-2261-02	PANEL ASSY		D24			B30-1564-05	LED (1608,BLUE)	
210	3C		B07-2181-02	ESCUTCHEON		ED1	2C		B38-1025-05	LIQUID CRYSTAL	
211	3C	*	B10-4030-01	FRONT GLASS		G1			CK73EB1C225K	CHIP C 2.2UF	K
-			B46-0100-50	WARRANTY CARD		G2			CK73FB1H681K	CHIP C 680PF	K
-			B46-0606-04	ID CARD		G3-5			CK73FB1C224K	CHIP C 0.22UF	K
-			B58-1365-04	CAUTION CARD		G6			CK73EB1C225K	CHIP C 2.2UF	K
-		*	B64-1755-00	INSTRUCTION MANUAL	E,F	G7-9			CK73FB1C104K	CHIP C 0.10UF	K
-		*	B64-1756-00	INSTRUCTION MANUAL	S,P	G10			CK73FB1H103K	CHIP C 0.010UF	K
220	1C		D10-3031-04	LEVER		304	2C		E29-1597-04	CONDUCTIVE RUBBER	
221	2C		D10-4051-33	LEVER		305	2C		E29-1598-04	CONDUCTIVE RUBBER	
222	2C		D10-4052-03	LEVER		J1			E59-0828-05	RECTANGULAR PLUG	
223	2C		D21-2250-04	SHAFT		GP1,2			R90-0724-05	MULTI-COMP	1K X4
224	2C		E29-1571-02	CONDUCTIVE RUBBER		R1			RK73FB2A102J	CHIP R 1.0K	J 1/10W
△ DC1	1C		E30-4783-05	DC CORD		R2			RK73FB2A473J	CHIP R 47K	J 1/10W
FC1	2D		E39-0338-05	FLAT CABLE		R3			RK73FB2A433J	CHIP R 43K	J 1/10W
△ F1	2D		F52-0006-05	FUSE (MINI BLADE TYPE)		R4,5			RK73FB2A471J	CHIP R 470	J 1/10W
△ F1	2D		F52-0011-05	FUSE (MINI BLADE TYPE)		R6			RK73FB2A102J	CHIP R 1.0K	J 1/10W
228	3C		G01-2738-04	COMPRESSION SPRING		R7			RK73FB2A471J	CHIP R 470	J 1/10W
229	2D		G01-2792-04	EXTENSION SPRING		R8			RK73FB2A102J	CHIP R 1.0K	J 1/10W
230	2C		G02-1244-03	FLAT SPRING		R9			RK73FB2A470J	CHIP R 47	J 1/10W
231	1C		G01-2985-04	TORSION COIL SPRING		R10,11			RK73FB2A102J	CHIP R 1.0K	J 1/10W
-			H10-4711-02	POLYSTYRENE FOAMED FIXTURE		R14-17			RK73FB2A472J	CHIP R 4.7K	J 1/10W
-			H25-0329-04	PROTECTION BAG (280X450X0.03)		R18-22			RK73EB2B331J	CHIP R 330	J 1/8W
-			H25-0337-04	PROTECTION BAG (180X300X0.03)		R24			RK73EB2B391J	CHIP R 390	J 1/8W
-		*	H54-1839-03	ITEM CARTON CASE		R25			RK73EB2B271J	CHIP R 270	J 1/8W
236	3C		J19-4878-32	HOLDER		R28			RK73FB2A751J	CHIP R 750	J 1/10W
237	2D		J21-7726-04	MOUNTING HARDWARE		R29			RK73EB2B4R7J	CHIP R 4.7	J 1/8W
238	1C		J21-9491-13	MOUNTING HARDWARE ASSY		D25			MA3100-L	ZENER DIODE	
239	1C		J54-0606-04	STAY		D26,27			DA204K	DIODE	
240	3C		K24-1924-14	KNOB	SRC	D26,27			KDS226	DIODE	
241	3C		K24-1948-14	KNOB	RELEASE	IC1			LC75808W	MOS-IC	
242	3C		K25-0965-03	KNOB	FM,AM	IC2			RS-171	ANALOGUE IC	
243	3C		K25-0967-03	KNOB	VOL	Q1			DTA114EK	DIGITAL TRANSISTOR	
244	3C		K25-1036-03	KNOB	CLK	Q1			UN2111	DIGITAL TRANSISTOR	
245	3C		K25-1037-03	KNOB	1-6	Q4			2SC2412K	TRANSISTOR	
251	1C		N99-1610-15	SCREW SET		Q4			2SD601A	TRANSISTOR	
252	1C		N99-1632-05	SCREW SET		ELECTRIC UNIT (X25-8840-11)					
A	1D		N83-3005-46	PAN HEAD TAPTITE SCREW		G1			C90-5235-05	ELECTRO	2200UF 16WV
E	2C		N80-2006-46	PAN HEAD TAPTITE SCREW		G2			CK73GB1H102K	CHIP C 1000PF	K
F	2C		N80-2008-45	PAN HEAD TAPTITE SCREW		G3			CE04DW1C101M	ELECTRO	100UF 16WV
G	2C		N30-2608-45	PAN HEAD MACHINE SCREW		G4			CK73GB1H103K	CHIP C 0.010UF	K
K	2D		N38-2020-46	PAN HEAD MACHIN SCREW		G5			C90-2594-05	ELECTRO	10UF 10WV
ME1	2D		X92-4250-00	MECHANISM ASSY		G6			CE04CW0J101M	ELECTRO	100UF 6.3WV
						G7			CK73FB1C105K	CHIP C 1.0UF	K
						G8			CE04CW1A221M	ELECTRO	220UF 10WV
						C12			CK73GB1H103K	CHIP C 0.010UF	K

△ indicates safety critical

PARTS LIST

*New Parts

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ELECTRIC UNIT (X25-8840-11)

Ref. No.	A d d	N e w	Parts No.	Description	De s t i n a	Ref. No.	A d d	N e w	Parts No.	Description	De s t i n a
C14			C90-2598-05	ELECTRO 3.3UF 25WV		A	2D		N83-3006-46	PAN HEAD TAPTITE SCREW	
C15			CK73GB1C683K	CHIP C 0.068UF K		B	2D		N80-3008-46	PAN HEAD TAPTITE SCREW	
C16			C90-2602-05	ELECTRO 0.10UF 50WV		C	2D		N86-2606-46	BINDING HEAD TAPTITE SCREW	
C17			CK73GB1H102K	CHIP C 1000PF K		D	2D		N89-3020-46	BINDING HEAD TAPTITE SCREW	
C18,19			CK73GB1H103K	CHIP C 0.010UF K		H	2D		N35-3010-46	BINDING HEAD MACHINE SCREW	
C20			CE04CW0J101M	ELECTRO 100UF 6.3WV		CP1			R90-0725-05	MULTI-COMP 1K X2	
C21			CK73GB1H103K	CHIP C 0.010U K		CP2			R90-1019-05	MULTI-COMP 100 X2	
C22			CC73GCH1H220J	CHIP C 22PF J		CP3			R90-0725-05	MULTI-COMP 1K X2	
C23			CC73GCH1H270J	CHIP C 27PF J		R1			RK73GB1J223J	CHIP R 22K J 1/16W	
C24			CK73GB1C104K	CHIP C 0.10UF K		R2			RK73GB1J101J	CHIP R 100 J 1/16W	
C25			CK73GB1H102K	CHIP C 1000PF K		R3			RK73EB2B221J	CHIP R 220 J 1/8W	
C27			CK73GB1H103K	CHIP C 0.010UF K		R4			RK73GB1J153J	CHIP R 15K J 1/16W	
C30			C90-2610-05	ELECTRO 2.2UF 50WV		R5			R92-3032-05	CHIP R 4.3K D 1/10W	
C31-34			C90-2595-05	ELECTRO 4.7UF 16WV		R6			R92-3047-05	CHIP R 24K D 1/10W	
C35,36			C90-2608-05	ELECTRO 1.0UF 50WV		R7			RK73FB2A751J	CHIP R 750 J 1/10W	
C37			CE04CW1A101M	ELECTRO 100UF 10WV		R8			RK73GB1J473J	CHIP R 47K J 1/16W	
C38			CK73GB1H153K	CHIP C 0.015UF K		R16			RK73EB2B472J	CHIP R 4.7K J 1/8W	
C39			CK73GB1A474K	CHIP C 0.47UF K		R17			RD14DB2H102J	SMALL-RD 1.0K J 1/2W	
C40,41			CK73GB1C104K	CHIP C 0.10UF K		R18			RK73GB1J223J	CHIP R 22K J 1/16W	
C42			CE04CW1A101M	ELECTRO 100UF 10WV		R19			RD14DB2H102J	SMALL-RD 1.0K J 1/2W	
C43			CK73GB1H103K	CHIP C 0.010UF K		R20,21			RK73GB1J123J	CHIP R 12K J 1/16W	
C44,45			C90-2597-05	ELECTRO 10UF 16WV		R22			RK73GB1J562J	CHIP R 5.6K J 1/16W	
C46			C90-2935-05	ELECTRO 1.0UF 50WV		R23			RK73GB1J223J	CHIP R 22K J 1/16W	
C47			C90-2608-05	ELECTRO 1.0UF 50WV		R25			RD14DB2H332J	SMALL-RD 3.3K J 1/2W	
C48			CE04CW1A101M	ELECTRO 100UF 10WV		R28			RK73GB1J622J	CHIP R 6.2K J 1/16W	
C49			C90-2608-05	ELECTRO 1.0UF 50WV		R29,30			RK73GB1J473J	CHIP R 47K J 1/16W	
C50			CK73GB1H103K	CHIP C 0.010UF K		R31			RK73GB1J562J	CHIP R 5.6K J 1/16W	
C51-54			C90-5296-05	NP-ELECT 0.22UF 50WV		R39			RK73GB1J473J	CHIP R 47K J 1/16W	
C59			CK73GB1H333K	CHIP C 0.033UF K		R40			RK73GB1J470J	CHIP R 47 J 1/16W	
C60			CC73GCH1H151J	CHIP C 150PF J		R44			RK73GB1J222J	CHIP R 2.2K J 1/16W	
C61			CK73GB1H103K	CHIP C 0.010UF K		R45,46			RK73GB1J104J	CHIP R 100K J 1/16W	
C65			CK73GB1H103K	CHIP C 0.010UF K		R48			RK73GB1J104J	CHIP R 100K J 1/16W	
C66			CK73GB1H102K	CHIP C 1000PF K		R49			RK73GB1J222J	CHIP R 2.2K J 1/16W	
C70,71			CK73GB1H103K	CHIP C 0.010UF K		R52,53			RK73GB1J470J	CHIP R 47 J 1/16W	
C76			CE04DW1A101M	ELECTRO 100UF 10WV		R54			RK73GB1J104J	CHIP R 100K J 1/16W	
C79-81			CK73GB1H103K	CHIP C 0.010UF K		R55			RK73GB1J101J	CHIP R 100 J 1/16W	
C90-92			C90-2983-05	ELECTRO 100UF 35WV		R56			RK73GB1J104J	CHIP R 100K J 1/16W	
C93			C90-2980-05	ELECTRO 220UF 16WV		R57,58			RK73GB1J101J	CHIP R 100 J 1/16W	
C94			CK73GB1H103K	CHIP C 0.010UF K		R60			RK73GB1J102J	CHIP R 1.0K J 1/16W	
						R61			RK73GB1J103J	CHIP R 10K J 1/16W	
CN1			E40-9287-05	PIN ASSY		R62			RK73GB1J102J	CHIP R 1.0K J 1/16W	
J1			E58-0863-15	RECTANGULAR RECEPTACLE		R63			RK73GB1J103J	CHIP R 10K J 1/16W	
J2			E63-0852-05	PIN JACK		R64			RK73GB1J222J	CHIP R 2.2K J 1/16W	
J3			E56-0809-05	CYLINDRICAL RECEPTACLE		R65,66			RK73GB1J102J	CHIP R 1.0K J 1/16W	
J4			E58-0879-05	RECTANGULAR RECEPTACLE		R67,68			RK73GB1J101J	CHIP R 100 J 1/16W	
WH1			E30-4804-05	CORD WITH PLUG		R69			RK73GB1J222J	CHIP R 2.2K J 1/16W	
WH1			E30-4932-05	CORD WITH PLUG		R72			RK73GB1J102J	CHIP R 1.0K J 1/16W	
L1,2			L40-4795-91	SMALL FIXED INDUCTOR (4.7UH,J)		R75,76			RK73GB1J473J	CHIP R 47K J 1/16W	
L4			L40-4795-91	SMALL FIXED INDUCTOR (4.7UH,J)		R78			RK73GB1J473J	CHIP R 47K J 1/16W	
L6			L33-1098-05	CHOKE COIL		R80			RK73GB1J473J	CHIP R 47K J 1/16W	
L8			L40-4795-91	SMALL FIXED INDUCTOR (4.7UH,J)							
L9			L33-1123-05	LINE FILTER COIL		R82			RK73GB1J102J	CHIP R 1.0K J 1/16W	
L11			L33-1119-05	CHOKE COIL ASSY		R83			RK73GB1J222J	CHIP R 2.2K J 1/16W	
X1			L78-0683-05	RESONATOR		R84			RK73GB1J225J	CHIP R 2.2M J 1/16W	
X2			L77-2738-05	CRYSTAL RESONATOR		R85,86			RK73GB1J102J	CHIP R 1.0K J 1/16W	
						R87			RK73GB1J223J	CHIP R 22K J 1/16W	

△

PARTS LIST

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ELECTRIC UNIT (X25-8840-11)

Ref. No.	A d d	N e w	Parts No.	Description	De s t i n a
R91,92			RK73GB1J104J	CHIP R 100K J 1/16W	
R93			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R94,95			RK73GB1J361J	CHIP R 360 J 1/16W	
R96,97			RK73EB2B181J	CHIP R 180 J 1/8W	
R98,99			RK73GB1J223J	CHIP R 22K J 1/16W	
R100			RK73GB1J333J	CHIP R 33K J 1/16W	
R101			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R102-105			RK73FB2A472J	CHIP R 4.7K J 1/10W	
R106			RK73GB1J751J	CHIP R 750 J 1/16W	
R107			RK73GB1J154J	CHIP R 150K J 1/16W	
R108			RK73GB1J431J	CHIP R 430 J 1/16W	
R109			RK73GB1J223J	CHIP R 22K J 1/16W	
R110			RK73GB1J101J	CHIP R 100 J 1/16W	
R111			RK73GB1J223J	CHIP R 22K J 1/16W	
R118,119			RK73EB2B102J	CHIP R 1.0K J 1/8W	
R120,121			RK73EB2B101J	CHIP R 100 J 1/8W	
R122			RK73EB2B102J	CHIP R 1.0K J 1/8W	
R123,124			RK73EB2B471J	CHIP R 470 J 1/8W	
R125			RK73EB2B470J	CHIP R 47 J 1/8W	
R126			RK73EB2B471J	CHIP R 470 J 1/8W	
R127			RK73EB2B470J	CHIP R 47 J 1/8W	
R128,129			RK73EB2B472J	CHIP R 4.7K J 1/8W	
R130			RK73EB2B4R7J	CHIP R 4.7 J 1/8W	
R131			RK73EB2B222J	CHIP R 2.2K J 1/8W	
R132			RK73EB2B100J	CHIP R 10 J 1/8W	
R133,134			RK73EB2B222J	CHIP R 2.2K J 1/8W	
R135			RK73EB2B470J	CHIP R 47 J 1/8W	
R136			RK73EB2B100J	CHIP R 10 J 1/8W	
R137			RK73EB2B470J	CHIP R 47 J 1/8W	
R138,139			RK73GB1J104J	CHIP R 100K J 1/16W	
R141			RK73GB1J223J	CHIP R 22K J 1/16W	
R142			RK73EB2B102J	CHIP R 1.0K J 1/8W	
R143			RK73GB1J223J	CHIP R 22K J 1/16W	
R144			RK73EB2B102J	CHIP R 1.0K J 1/8W	
R146			RK73GB1J272J	CHIP R 2.7K J 1/16W	
R147			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R170			RK73GB1J104J	CHIP R 100K J 1/16W	
R171,172			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R173			RK73GB1J222J	CHIP R 2.2K J 1/16W	
R174			RK73GB1J104J	CHIP R 100K J 1/16W	
R175			RK73GB1J471J	CHIP R 470 J 1/16W	
R190			RK73GH1J102D	CHIP R 1K D 1/16W	
R191			RK73GH1J332D	METAL GLAZE RESISTOR	
W4-7			R92-2053-05	CHIP R 0 J 1/8W	
D1			S2V20*A	DIODE	
D2			AM01Z	DIODE	
D2			DSM1SD2	DIODE	
D2			ERA15-01	DIODE	
D3			MA4056 (N) -M	ZENER DIODE	
D4			U1GWJ44	DIODE	
D5			MA4110-L	ZENER DIODE	
D7			AM01Z	DIODE	
D7			DSM1SD2	DIODE	
D7			ERA15-01	DIODE	

Ref. No.	A d d	N e w	Parts No.	Description	De s t i n a
D10			AM01Z	DIODE	
D10			DSM1SD2	DIODE	
D10			ERA15-01	DIODE	
D11			1SS133	DIODE	
D12,13			MA4056 (N) -M	ZENER DIODE	
D15			1SS133	DIODE	
D16,17			MA4068 (N) -M	ZENER DIODE	
D18			MA4062-L	ZENER DIODE	
D19			DAP202K	DIODE	
D19			KDS181	DIODE	
D19			MA152WA	DIODE	
D20,21			1SS133	DIODE	
D24			MA4051 (N) -M	ZENER DIODE	
D41			MA4062-L	ZENER DIODE	
D44 -46			MA4062-L	ZENER DIODE	
D50,51			DA204K	DIODE	
D50,51			KDS226	DIODE	
IC1			UPD784216GF531	MI-COM IC	
IC2			TDA7407D	ANALOGUE IC	
IC3			M5237ML	IC (VOLTAGE REGULATOR)	
IC4			TDA7386	ANALOGUE IC	
IC6			LM2595S-ADJ	ANALOGUE IC	
IC7			S-80830ANNP	MOS-IC	
IC8			HD74HC27FP	MOS-IC	
Q1			2SC4081	TRANSISTOR	
Q1			2SD1819A	TRANSISTOR	
Q2			2SB1548 (P)	TRANSISTOR	
Q2			2SB1655 (E,F)	TRANSISTOR	
Q3			DTA124EUA	DIGITAL TRANSISTOR	
Q3			UN5112	DIGITAL TRANSISTOR	
Q4			DTC144EK	DIGITAL TRANSISTOR	
Q4			KRC104S	DIGITAL TRANSISTOR	
Q4			UN2213	DIGITAL TRANSISTOR	
Q5			2SB1548 (P)	TRANSISTOR	
Q5			2SB1655 (E,F)	TRANSISTOR	
Q7			DTC144EUA	DIGITAL TRANSISTOR	
Q7			UN5213	DIGITAL TRANSISTOR	
Q8			DTA124EUA	DIGITAL TRANSISTOR	
Q8			UN5112	DIGITAL TRANSISTOR	
Q9			2SD1760	TRANSISTOR	
Q10			2SA1037K	TRANSISTOR	
Q13			2SB1277 (Q,R)	TRANSISTOR	
Q14			2SA1037K	TRANSISTOR	
Q15			DTA124EK	DIGITAL TRANSISTOR	
Q15			KRA103S	DIGITAL TRANSISTOR	
Q15			UN2112	DIGITAL TRANSISTOR	
Q16			DTC114YK	DIGITAL TRANSISTOR	
Q16			KRC107S	DIGITAL TRANSISTOR	
Q16			UN2214	DIGITAL TRANSISTOR	
Q17,18			2SC2412K	TRANSISTOR	
Q17,18			2SD601A	TRANSISTOR	
Q19			DTA124EK	DIGITAL TRANSISTOR	
Q19			KRA103S	DIGITAL TRANSISTOR	
Q19			UN2112	DIGITAL TRANSISTOR	
Q20			DTC144EK	DIGITAL TRANSISTOR	

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.

ELECTRIC UNIT (X25-8840-11)

Ref. No.	A d d	N e w	Parts No.	Description	De s t i n a
Q20			KRC104S	DIGITAL TRANSISTOR	
Q20			UN2213	DIGITAL TRANSISTOR	
Q21,22			DTC143TK	DIGITAL TRANSISTOR	
Q21,22			UN2216	DIGITAL TRANSISTOR	
Q23			DTC114YK	DIGITAL TRANSISTOR	
Q23			KRC107S	DIGITAL TRANSISTOR	
Q23			UN2214	DIGITAL TRANSISTOR	
Q24			DTA114YUA	DIGITAL TRANSISTOR	
Q24			UN5114	DIGITAL TRANSISTOR	
Q25			DTC124EK	DIGITAL TRANSISTOR	
Q25			KRC103S	DIGITAL TRANSISTOR	
Q25			UN2212	DIGITAL TRANSISTOR	
Q26			2SB1277 (Q,R)	TRANSISTOR	
Q27			DTC124EK	DIGITAL TRANSISTOR	
Q27			KRC103S	DIGITAL TRANSISTOR	
Q27			UN2212	DIGITAL TRANSISTOR	
Q28			2SB1277 (Q,R)	TRANSISTOR	
Q33			DTC144EK	DIGITAL TRANSISTOR	
Q33			KRC104S	DIGITAL TRANSISTOR	
Q33			UN2213	DIGITAL TRANSISTOR	
TH1			PTH9C42BD471Q	POSITIVE RESISTOR	
A1	3D		X86-3280-11	TUNER UNIT	
MD UNIT (X33-3120-00)					
C1			CK73GB1H102K	CHIP C 1000PF K	
C5,6			C92-0628-05	CHIP-TAN 10UF 10WV	
C7			CK73GB1H103K	CHIP C 0.010UF K	
C8			CK73GB1E223K	CHIP C 0.022UF K	
C9			C92-0628-05	CHIP-TAN 10UF 10WV	
C10			CK73GB1C104K	CHIP C 0.10UF K	
C11			CK73GB1H103K	CHIP C 0.010UF K	
C12			CK73GB1C104K	CHIP C 0.10UF K	
C13			CK73GB1E223K	CHIP C 0.022UF K	
C14			CK73GB1H472K	CHIP C 4700PF K	
C15			CK73GB1C104K	CHIP C 0.10UF K	
C16			CK73GB0J105K	CHIP C 1.0UF K	
C17			CK73GB1H472K	CHIP C 4700PF K	
C18			CK73GB1A224K	CHIP C 0.22UF K	
C19			CK73FB0J475K	CHIP C 4.7UF K	
C20			CK73GB1H103K	CHIP C 0.010UF K	
C21			CK73GB0J105K	CHIP C 1.0UF K	
C22			CK73GB1C104K	CHIP C 0.10UF K	
C23			CK73GB1H103K	CHIP C 0.010UF K	
C24-26			CK73GB1C104K	CHIP C 0.10UF K	
C27			C92-0628-05	CHIP-TAN 10UF 10WV	
C28			CK73GB0J105K	CHIP C 1.0UF K	
C29			CK73GB1A474K	CHIP C 0.47UF K	
C30			CK73GB1H103K	CHIP C 0.010UF K	
C31			CC73GCH1H101J	CHIP C 100PF J	
C32			CK73GB1A474K	CHIP C 0.47UF K	
C33			CK73GB1H153K	CHIP C 0.015UF K	
C34,35			CK73GB1C104K	CHIP C 0.10UF K	
C36,37			CK73FB0J475K	CHIP C 4.7UF K	
C38,39			CK73GB1C104K	CHIP C 0.10UF K	

Ref. No.	A d d	N e w	Parts No.	Description	De s t i n a
C40			CK73GB1H103K	CHIP C 0.010UF K	
C41			CK73GB1C104K	CHIP C 0.10UF K	
C42,43			CK73GB0J105K	CHIP C 1.0UF K	
C44,45			CK73GB1H103K	CHIP C 0.010UF K	
C46			C92-0628-05	CHIP-TAN 10UF 10WV	
C47-49			CK73GB1C104K	CHIP C 0.10UF K	
C51-54			CK73GB1H222K	CHIP C 2200PF K	
C55-58			CK73GB1E223K	CHIP C 0.022UF K	
C59			CK73GB1H103K	CHIP C 0.010UF K	
C60			CK73EB0J106K	CHIP C 10UF K	
C61			C92-0628-05	CHIP-TAN 10UF 10WV	
C65,66			CK73GB1C104K	CHIP C 0.10UF K	
C67,68			CC73GCH1H681J	CHIP C 680PF J	
C69,70			CC73GCH1H680J	CHIP C 68PF J	
C71,72			C93-1141-05	CERAMIC CAPACITOR (TYPE 2)	
C73			CK73FB1A105K	CHIP C 1.0UF K	
C74			C92-0628-05	CHIP-TAN 10UF 10WV	
C75			CK73GB1H103K	CHIP C 0.010UF K	
C76			CK73EB1E105K	CHIP C 1.0UF K	
C81,82			CK73GB1C104K	CHIP C 0.10UF K	
C83			CK73FB0J475K	CHIP C 4.7UF K	
C84			CK73GB1C104K	CHIP C 0.10UF K	
CN1			E40-9521-05	FLAT CABLE CONNECTOR	
CN2			E40-5499-05	FLAT CABLE CONNECTOR	
L1-4			L92-0322-05	CHIP FERRITE	
X1			L78-0839-05	RESONATOR	
X2			L78-0571-05	RESONATOR	
CP1			R90-0726-05	MULTI-COMP 10K X2	
CP2			R90-0722-05	MULTI-COMP 2.2K X4	
CP3			R90-0724-05	MULTI-COMP 1K X4	
CP4,5			R90-0720-05	MULTI-COMP 100K X4	
CP6			R90-1014-05	MULTI-COMP 100 X4	
CP7			R90-1019-05	MULTI-COMP 100 X2	
CP8			R90-1014-05	MULTI-COMP 100 X4	
CP9			R90-0719-05	MULTI-COMP 4.7K X2	
CP10			R90-0720-05	MULTI-COMP 100K X4	
R1			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R2,3			RK73GB1J474J	CHIP R 470K J 1/16W	
R5			RK73FB2A4R7J	CHIP R 4.7 J 1/10W	
R6			RK73GB1J104J	CHIP R 100K J 1/16W	
R7			RK73GB1J103J	CHIP R 10K J 1/16W	
R8			RK73GB1J913J	CHIP R 91K J 1/16W	
R9-11			RK73GB1J133J	CHIP R 13K J 1/16W	
R12			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R13			RK73GB1J562J	CHIP R 5.6K J 1/16W	
R14			RK73GB1J151J	CHIP R 150 J 1/16W	
R15			RK73GB1J473J	CHIP R 47K J 1/16W	
R16			RK73GB1J333J	CHIP R 33K J 1/16W	
R17			RK73GB1J101J	CHIP R 100 J 1/16W	
R18			RK73GB1J563J	CHIP R 56K J 1/16W	
R19			RK73GB1J101J	CHIP R 100 J 1/16W	
R20			RK73GB1J331J	CHIP R 330 J 1/16W	
R21			RK73GB1J681J	CHIP R 680 J 1/16W	

PARTS LIST

* New Parts

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

MD UNIT (X33-3120-00)

Ref. No.	A d d	N e w	Parts No.	Description	Dest inati on
R23			RK73GB1J394J	CHIP R 390K J 1/16W	
R24			RK73GB1J681J	CHIP R 680 J 1/16W	
R25			RK73GB1J103J	CHIP R 10K J 1/16W	
R26			RK73GB1J101J	CHIP R 100 J 1/16W	
R27			RK73GB1J151J	CHIP R 150 J 1/16W	
R28,29			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R30			RK73GB1J332J	CHIP R 3.3K J 1/16W	
R31			RK73GB1J684J	CHIP R 680K J 1/16W	
R32			RK73GB1J104J	CHIP R 100K J 1/16W	
R33			RK73GB1J103J	CHIP R 10K J 1/16W	
R34			RK73GB1J473J	CHIP R 47K J 1/16W	
R40-42			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R43,44			RK73GB1J183J	CHIP R 18K J 1/16W	
R45-47			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R48,49			RK73GB1J183J	CHIP R 18K J 1/16W	
R50			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R51,52			RK73GB1J153J	CHIP R 15K J 1/16W	
R53,54			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R55,56			RK73GB1J133J	CHIP R 13K J 1/16W	
R57			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R58			RK73GB1J912J	CHIP R 9.1K J 1/16W	
R59,60			RK73GB1J363J	CHIP R 36K J 1/16W	
R61			RK73GB1J912J	CHIP R 9.1K J 1/16W	
R65,66			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R67,68			RK73FB2A752J	CHIP R 7.5K J 1/10W	
R69,70			RK73FB2A123J	CHIP R 12K J 1/10W	
R71,72			RK73FB2A333J	CHIP R 33K J 1/10W	
R73,74			RK73FB2A163J	CHIP R 16K J 1/10W	
R75,76			RK73FB2A681J	CHIP R 680 J 1/10W	
R77			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R78			RK73GB1J103J	CHIP R 10K J 1/16W	
R79			RK73GB1J104J	CHIP R 100K J 1/16W	
R80			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R81			RK73GB1J104J	CHIP R 100K J 1/16W	
R82			RK73GB1J103J	CHIP R 10K J 1/16W	
R84			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R85			RK73GB1J103J	CHIP R 10K J 1/16W	
R86			RK73GB1J472J	CHIP R 4.7K J 1/16W	
S1-3			S68-0838-05	PUSH SWITCH	
D1			KDS121	DIODE	
IC1			CXA2523AR	ANALOGUE IC	
IC2			CXD2667R	MOS-IC	
IC3			S-817A25ANB	MOS-IC	
IC4			LA6572	ANALOGUE IC	
IC5			NJM4565MD	IC (OP AMP X2)	
IC6			LP2982-3.3	ANALOGUE IC	
IC7			TC74HCT7007AF	MOS-IC	
IC8			780076YGK-R01	MI-COM IC	
IC9			BR24C02FV-W	MEMORY IC	
IC9			CAT24WC02UI	MEMORY IC	
IC9			M24C02WDW6T	MEMORY IC	
Q1			2SA1362 (Y)	TRANSISTOR	
Q1			2SB1295	TRANSISTOR	
Q2			DTA114EUA	DIGITAL TRANSISTOR	

Ref. No.	A d d	N e w	Parts No.	Description	Dest inati on
Q2			KRA302	DIGITAL TRANSISTOR	
Q3			2SC4116 (Y)	TRANSISTOR	
Q4			MCH6101	TRANSISTOR	
Q5			KTA2014 (Y,GR)	TRANSISTOR	
Q5			2SA1576A	TRANSISTOR	
Q6			DTC143EUA	DIGITAL TRANSISTOR	
Q6			KRC401	DIGITAL TRANSISTOR	
Q7			KTA2014 (Y,GR)	TRANSISTOR	
Q7			2SA1576A	TRANSISTOR	
TH1			NT732ATD33KJ	THERMISTOR	
MECHANISM ASSY (X92-4250-00)					
1		1B *	A10-4870-01	CHASSIS	
2		2A	A10-4485-23	CHASSIS CALKING ASSY	
3		2B	A10-4486-23	CHASSIS ASSY	
5		1B	A10-4488-14	CHASSIS CALKING ASSY	
6		2A	A10-4869-03	CHASSIS ASSY	
7		3A	A10-4871-03	CHASSIS CALKING ASSY	
11		2B	D10-4278-14	LEVER	
12		2B	D10-4601-04	LEVER	
13		2B	D10-4288-24	SLIDER ASSY	
14		1B	D10-4290-14	ARM ASSY	
21		1B	D13-1433-03	RACK (GEAR)	
22		1B	D13-1434-04	GEAR	
23		1B	D13-1435-04	GEAR	
24		1B	D13-1436-04	GEAR	
25		1B	D13-1437-04	GEAR	
26		2B	D13-2170-04	GEAR ASSY	
31		2A	D21-2296-04	SHAFT	
32		1A	D21-2297-04	SHAFT	
33		2A	D39-0235-04	DAMPER	
34		2A	D39-0236-04	DAMPER	
41		1B	G01-2914-04	TORSION COIL SPRING	
42		1B	G01-2915-04	TORSION COIL SPRING	
43		2B	G01-2917-04	COMPRESSION SPRING	
44		1A	G01-2918-04	EXTENSION SPRING	
45		1A	G01-2919-04	EXTENSION SPRING	
47		2A	G01-2948-14	EXTENSION SPRING	
48		2B	G01-2964-04	TORSION COIL SPRING	
49		1A	G02-1298-03	FLAT SPRING	
51		3B	J12-1022-04	PIN	
61		1B	J19-4866-04	HOLDER	
62		3A	J19-4867-03	HOLDER	
A		3A	N09-4349-05	TAPTITE SCREW	
B		1B	N09-4236-05	MACHINE SCREW (M2X 2.5SHU 0BAR)	
C		1A	N09-4319-05	MACHINE SCREW (M2X4)	
D		2B	N09-4269-05	MACHINE SCREW (M1.7X2.5 2SHU)	
E		1A	N09-4233-05	MACHINE SCREW (M1.4X 2)	
F		1B	N19-2029-04	FLAT WASHER	
G		1B	N19-2127-14	FLAT WASHER	
H		3A	N09-4126-05	MACHINE SCREW (2X3.5,C TYTE,BLACK)	
M1		3A	T42-0791-14	MOTOR ASSY	
M2		2A	T42-1046-04	MOTOR ASSY	
M3		1B	T42-0790-14	MOTOR ASSY	
PU1		2A	T25-0219-05	OPTICAL PICKUP HEAD	

△ indicates safety critical components.

SPECIFICATIONS

FM

Frequency Range (MHz)(Frequency step)	87.9MHz-107.9MHz (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 (dB)	70dB (MONO)
Selectivity (dB)	\geq 80dB (\pm 400kHz)
Stereo Separation	40dB (1kHz)

AM

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

MD

Laser Diode	GaAlAs (λ =780 \pm 20nm)
Digital Filter (D/A)	8 Times Over Sampling
D/A Converter	1 Bit
Spindle Speed	400~900 (rpm)
Wow & Flutter	Below Mesurable Limit
Frequency Response.....	20-20kHz (\pm 2dB)
Total Harmonic Distortion.....	0.03% (1kHz)
S/N Ratio (dB)	90dB (1kHz)
Dynamic Range	90dB
Channel Separation	85dB

AMP

Preout Level (mV) / Load-Unbalanced	1800mV/10k Ω (MD/CD-CH)
Preout Impedance (Ω)	\leq 600 Ω
Maximum Power	45wx4
Full Bandwidth Power (at less than 1% THD)	22wx4

STONE

Bass	100HZ \pm 10dB
Mid.....	1kHz \pm 10dB
Treble	12.5kHz \pm 10dB

GENE

Operating voltage (11~16v allowable)	14.4V
Current Consumption.....	10A
Installation Size (W)x(H)x(D)	182x53x160 (mm) / 7-3/16x2-1/16x6-3/8 (in)
Weight	1300g (2.9lbs)

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

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