MD RECEIVER

KMD-673R

SERVICE MANUAL

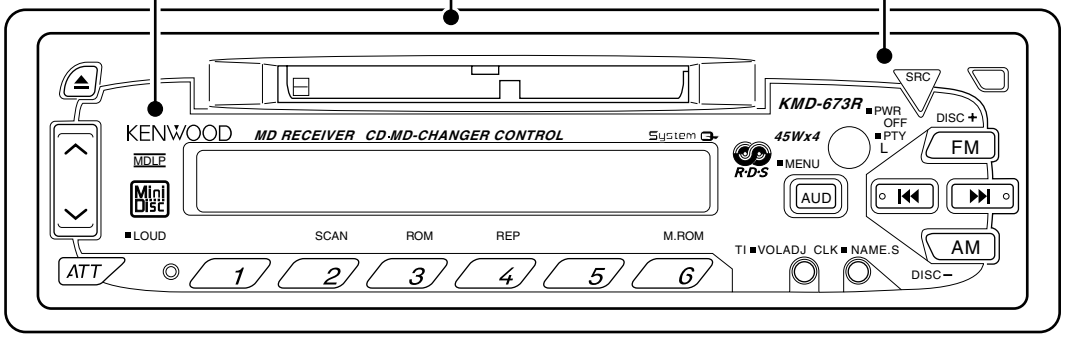
KENWOOD

B51-7736-00 (N) 2168

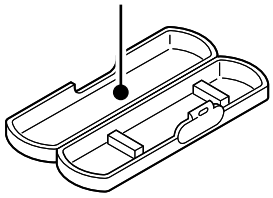
Front glass
(B10-4031-01)

Escutcheon
(B07-2181-02)

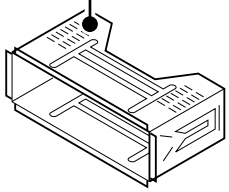
Panel assy
(A64-2262-02)



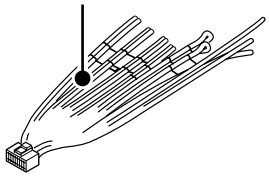
Plastic cabinet assy
(A02-1486-13)



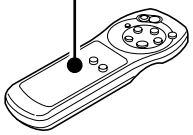
Mounting hardware assy
(J21-9491-13)



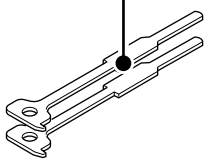
DC cord
(E30-4785-05): M type
(E30-4790-05):E type



Remote controller assy
(A70-0883-05)
:M type only

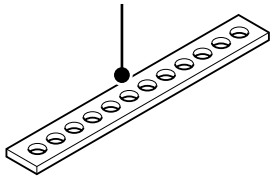


Lever
(D10-3031-04)x2

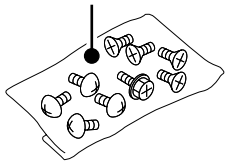


Screw set
(N99-1610-15)
:M type only

Stay
(J54-0606-04)
:M type only



Screw set
(N99-1632-05)
:M type only

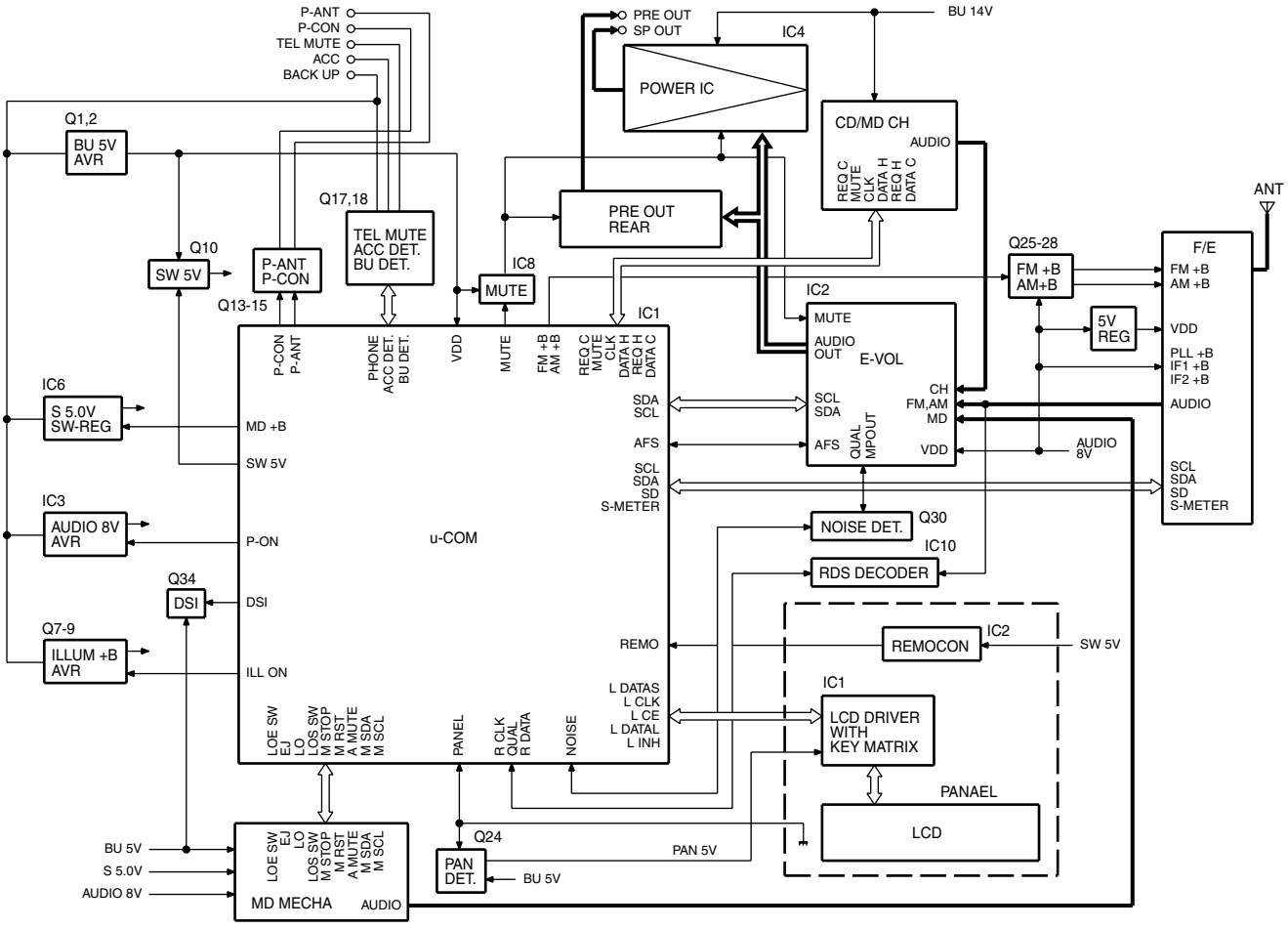


SIZE AAA Battery
*Not supplied as
service parts

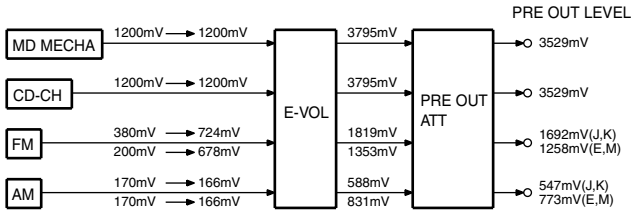
Antenna adaptor
(T90-0523-05)
:E type only

BLOCK LEVEL DIAGRAM

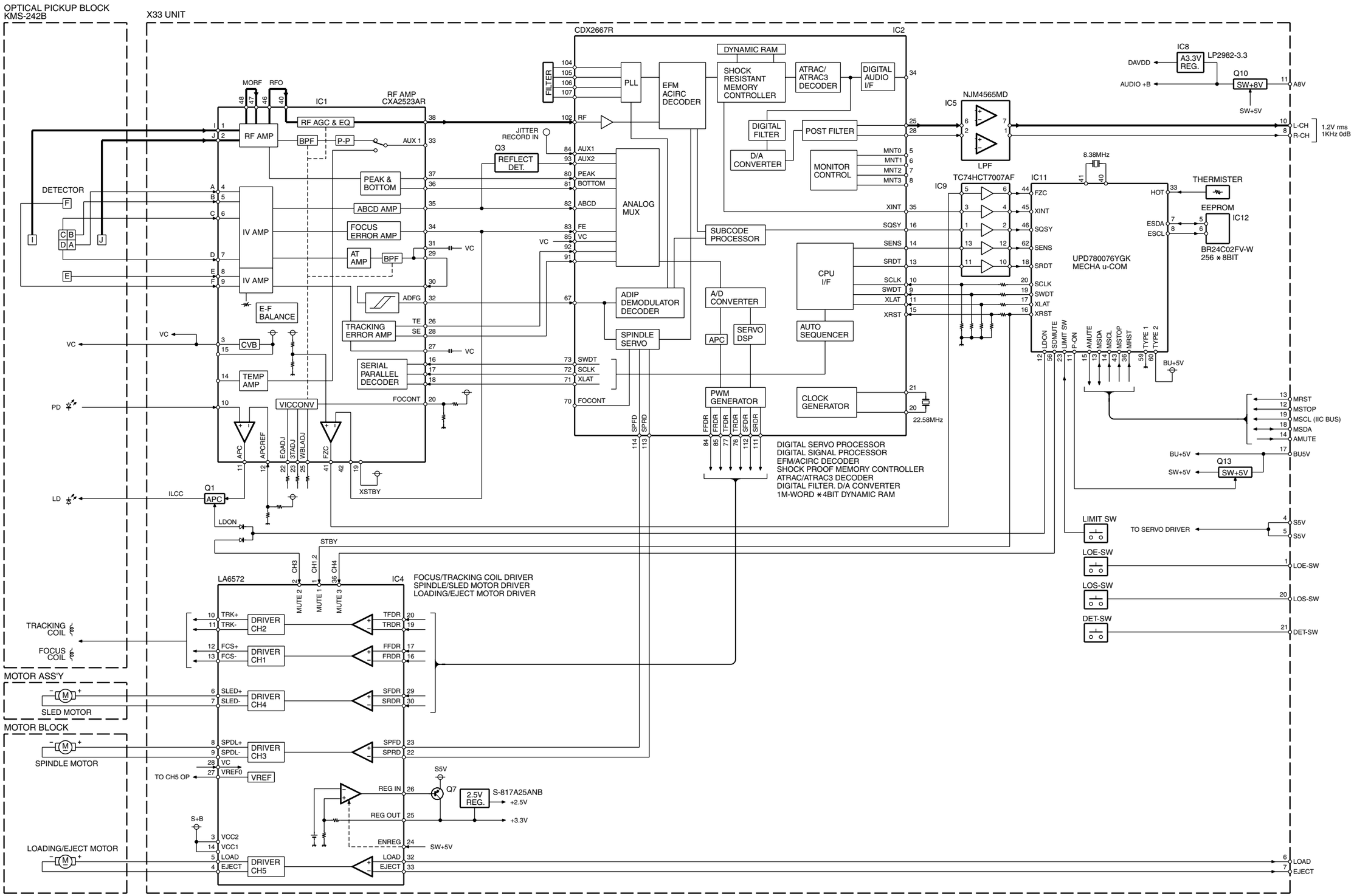
BLOCK DIAGRAM



LEVEL DIAGRAM



BLOCK DIAGRAM (MD)



COMPONENTS DESCRIPTION

●SWITCH UNIT (X13-9702-71)

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 (X25-884X-XX)

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 On during BU applied.
Q2	2SB1548(P)or 2SB1655(E, F)		
Q3	DTA124EUA or UN5112	Audio 8V AVR ON/OFF SW	Audio 8V AVR ON/OFF control Q3 is turned ON when Q4's base goes "Hi".
Q4	DTC144EK or UN2213 or KRC104S		
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". ON during FM reception
Q26	2SB1277(Q,R)		
Q27	DTC124EK or UN2212 or KRC103S	AM+B SW	Q28 is turned ON when Q27's base goes "Hi". ON during AM reception
Q28	2SB1277(Q,R)		
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

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	$\overline{\text{PANEL}}$	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	$\overline{\text{AFC}}$	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 relese 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**

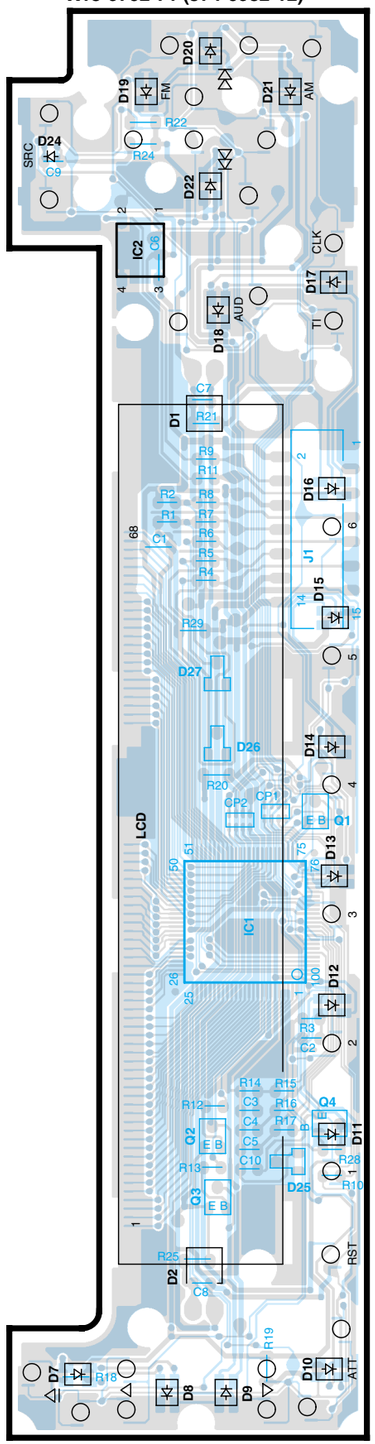
Adjustment condition : Restart after setting LADJ1 terminal to high
Adjustment Key : Track UP/DOWN key
Confirmation Key: Manual UP/DOWN key
(Depending on a set, press on adjustment key)

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 contract 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)

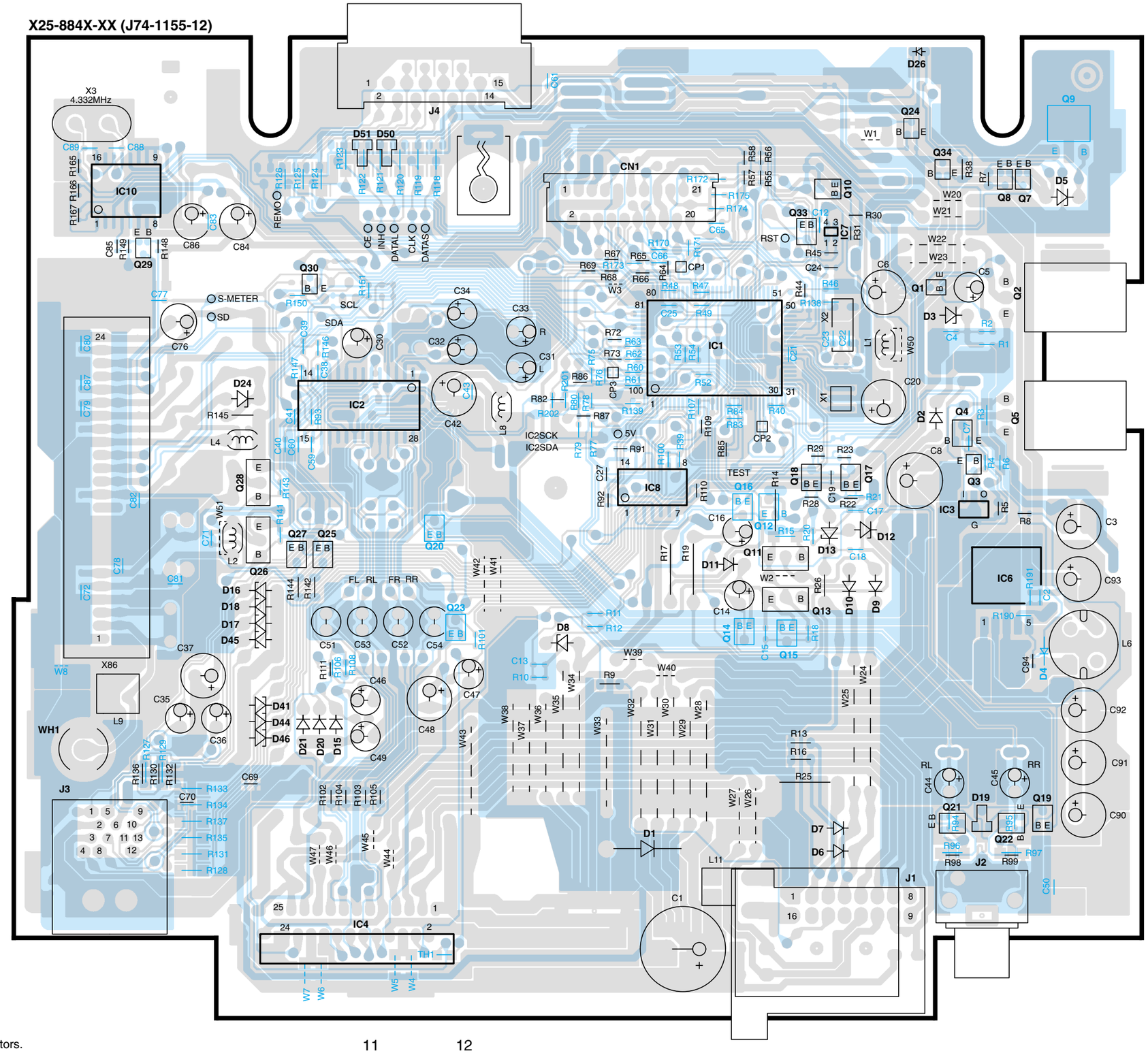
X13-9702-71 (J74-0982-12)



X25-884X-XX

IC	Q	
1		3G
2		3E
3		4I
4		7E
6		4I
7		2H
8		4G
10		2D
	1	3I
	2	3I
	3	4I
	4	4I
	5	4I
	7	2I
	8	2I
	9	2I
	10	2H
	13	5H
	14	5G
	15	5H
	16	4G
	17	4H
	19	6I
	20	4F
	21	6I
	23	5F
	24	2H
	25	4E
	26	4E
	27	4E
	28	4E
	29	3D
	33	2H
	34	2I

X25-884X-XX (J74-1155-12)



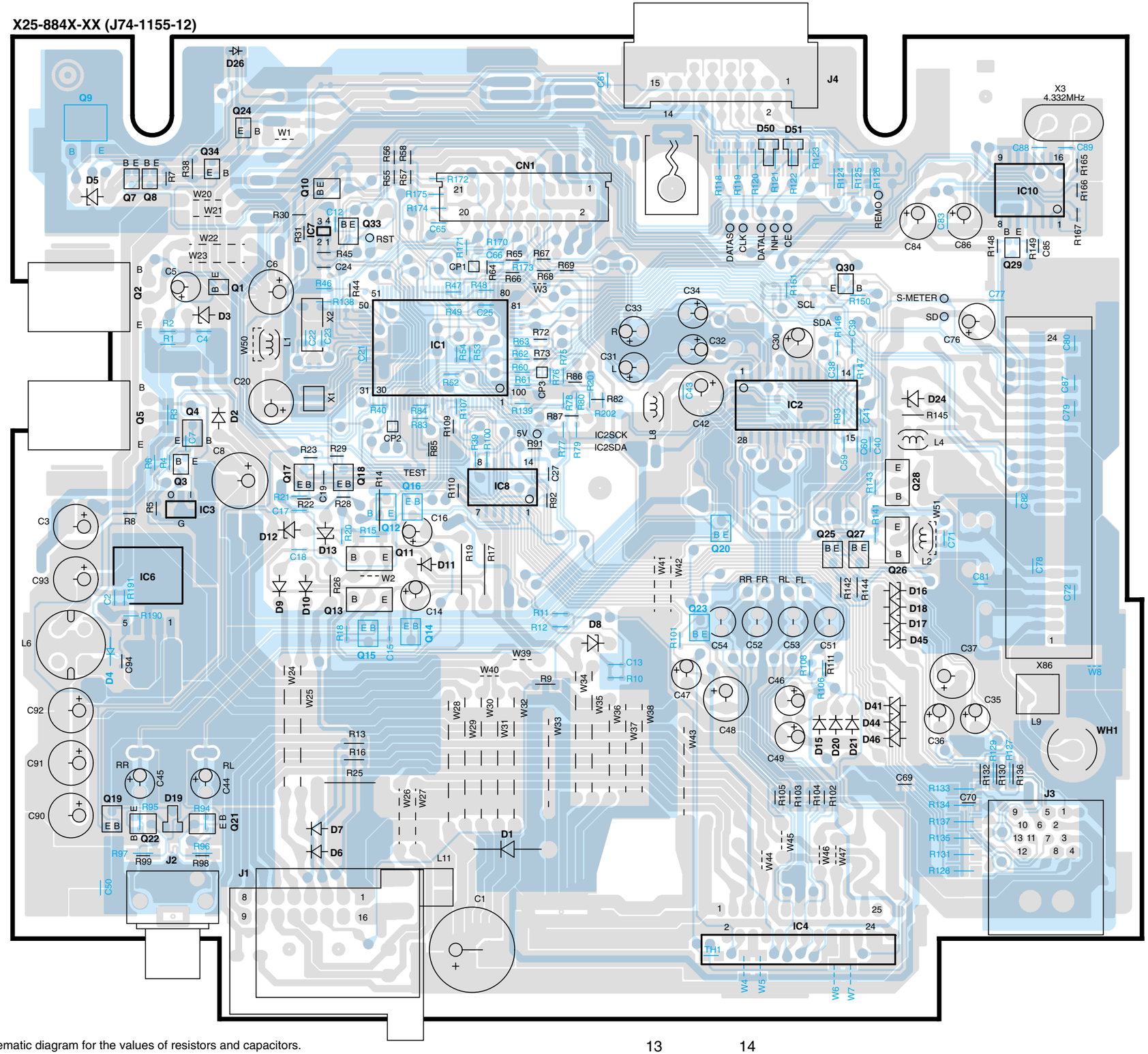
X13-9702-71

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

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

PC BOARD (FOIL SIDE VIEW)

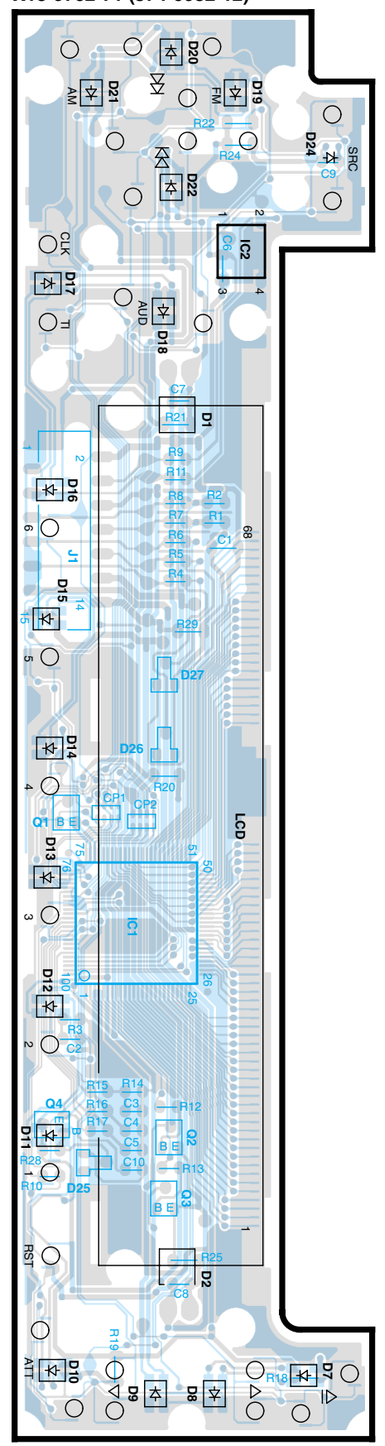
X25-884X-XX (J74-1155-12)



X25-884X-XX

IC	Q	
1		3N
2		3P
3		4L
4		7P
6		4L
7		2M
8		4N
10		2Q
	1	3M
	2	3L
	3	4L
	4	4L
	5	4L
	7	2L
	8	2L
	9	2L
	10	2M
	13	5M
	14	5N
	15	5M
	16	4N
	17	4M
	19	6L
	20	4P
	21	6L
	23	5O
	24	2M
	25	4P
	26	4Q
	27	4P
	28	4Q
	29	3Q
	33	2M
	34	2M

X13-9702-71 (J74-0982-12)



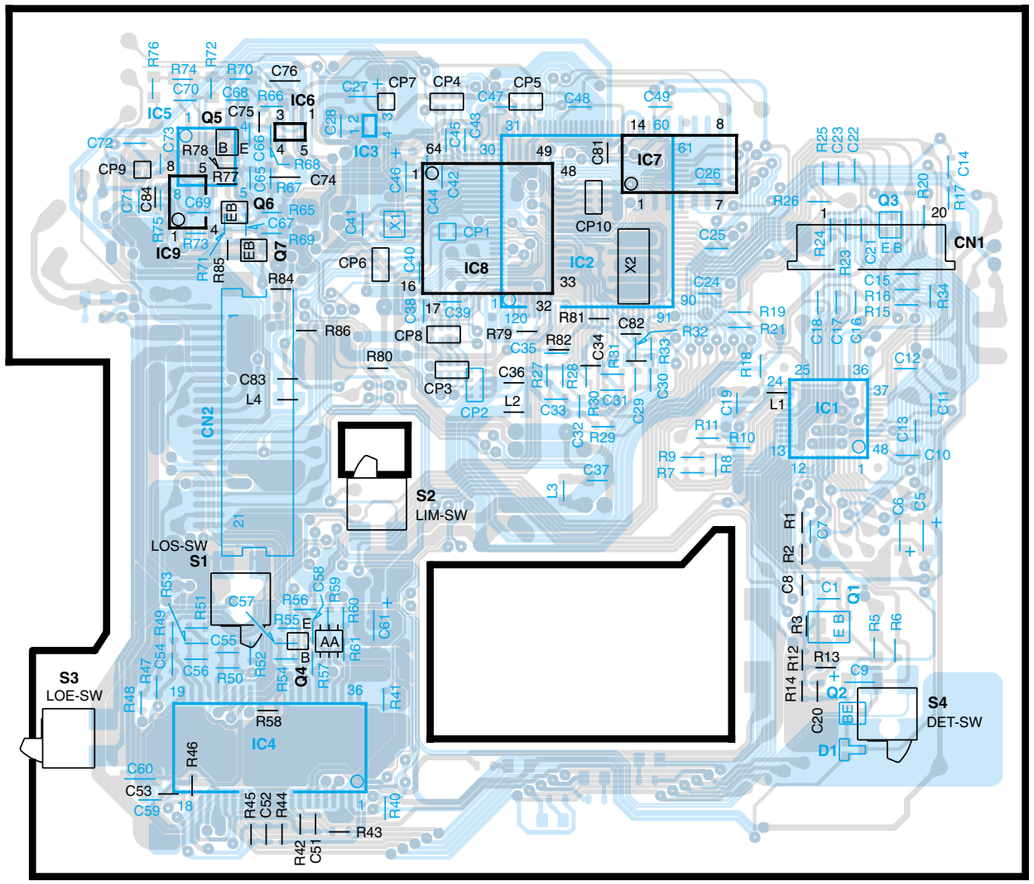
X13-9702-71

IC	Q	
1		5B
2		2T
	1	5S
	2	6T
	3	6T
	4	6S

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

PC BOARD (COMPONENT SIDE VIEW)

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

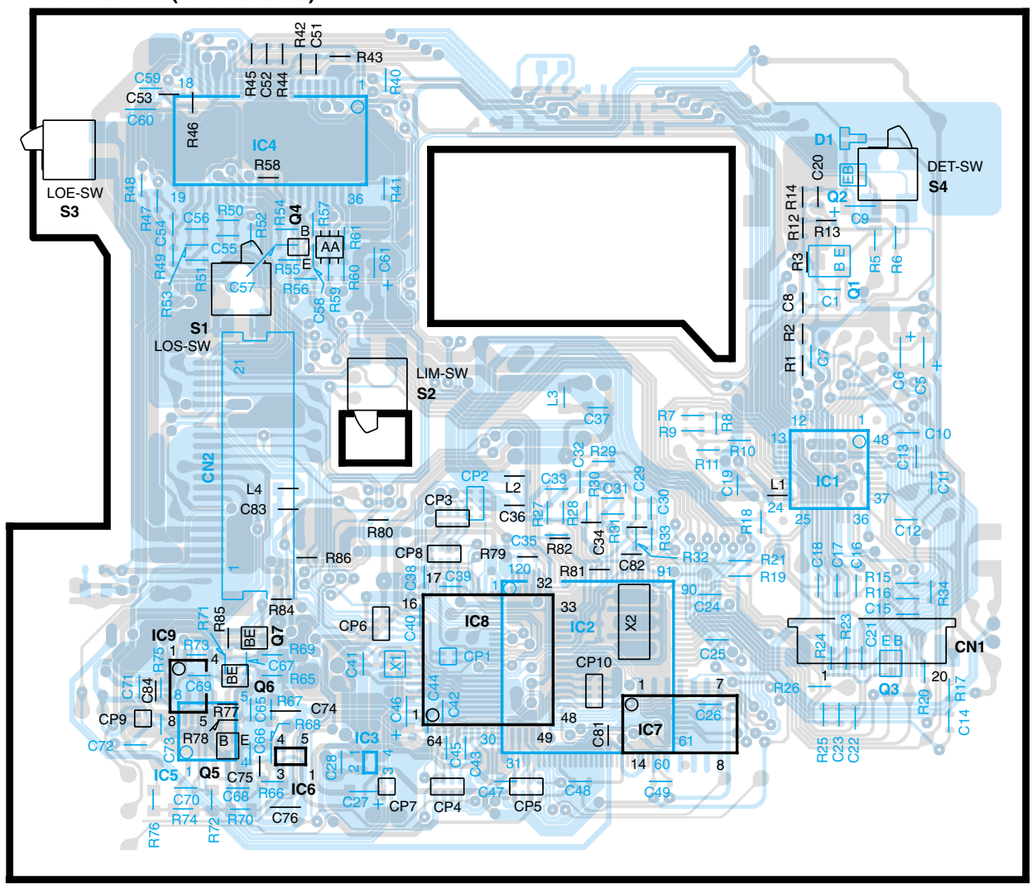


X33-3120-00

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

(FOIL SIDE VIEW)

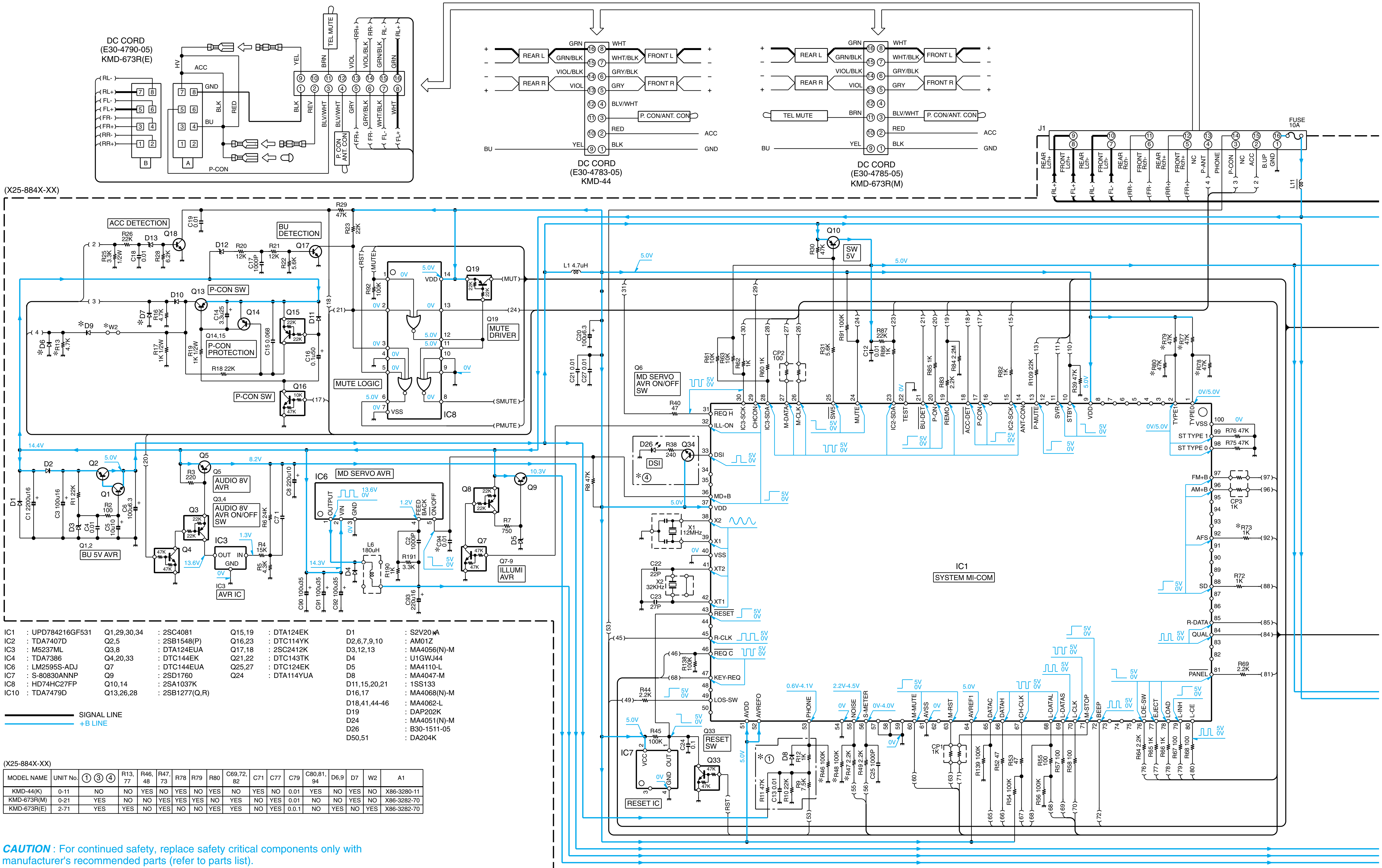
X33-3120-00 (J74-1202-02)



X33-3120-00

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

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



IC1 : UPD784216GF531	Q1,29,30,34 : 2SC4081	Q15,19 : DTA124EK	D1 : S2V20 ✕A
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 : DTC143TK	D4 : U1GWJ44
IC6 : LM2595S-ADJ	Q7 : DTC144EUA	Q25,27 : DTC124EK	D5 : MA4110-L
IC7 : S-80830ANNP	Q9 : 2SD1760	Q24 : DTA114YUA	D8 : MA4047-M
IC8 : HD74HC27FP	Q10,14 : 2SA1037K		D11,15,20,21 : 1SS133
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

SIGNAL LINE
+B LINE

(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	0.01	YES	NO	YES	NO	X86-3280-11
KMD-673R(M)	0-21	YES	NO	NO	YES	YES	YES	NO	YES	NO	YES	0.01	NO	NO	YES	NO	X86-3282-70
KMD-673R(E)	2-71	YES	YES	NO	YES	NO	NO	YES	YES	NO	YES	0.0.1	NO	YES	NO	YES	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.

(E63-0852-05)
PRE OUT
REAR
J2
IC4
POWER IC
SVR SW
Q23
IC2
E-VOL. & N.C. MPX
AUDIO MUTE SW
Q21,22
D19
E-VOL. MUTE SW
Q20
J3
MUTE REQ C
REQ H
GND
AGND
DATA C
CLK
B.U.
RST
DATA H
CH-CON
Rch
Lch
WH1
ANT IN
*A1
RF GND
GND
FM ANT
AM ANT
OSC GND
FM +B
AM +B
OSC GND
OSC GND
OSC GND
N.C. (VT)
PLL +B
AM IFOUT
SDA
SCL
DIG GND
VDD 5V
IF2 GND
IF2 +B
AUDIO OUT
SD
S-METER
IF1 +B
IF1 GND
FM +B SW
AM +B SW
Q25
Q26
Q27
Q28
Q29
Q30
IC10
PANEL DETECTION SW
D50
D51
Q24
CN1
J4
To MD MECHANISM
FLAT CABLE (E39-0338)
X13-J1
2/2

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
F

CXA2523AR

M5237ML

TDA7479D

X25-J4 1/2 A

(X13-9702-71)

(X13-970X-XX)

MOEDL NAME	UNIT No.	①	②	R12, 13	Q2, 3
KMD-44(K)	0-11	NO	YES	NO	NO
KMD-673R(M) KMD-673R(E)	2-71	YES	NO	YES	YES

IC1 : LC75808W
IC2 : RS-171

Q1 : DTA114EK or UN2111
Q2,3 : 2SD2114K
Q4 : 2SC2412K or 2SD601A

D1,2 : B30-1572-05
D7-22 : B30-1569-05(*①)
D7-22 : B30-1533-05(*②)
D24 : B30-1564-05
D25 : MA3100-L
D26,27 : DA204K or KDS226

+B LINE

IC1
LCD DRIVER WITH KEY-MATRIX

IC2
REMOTE CONTROL LIGHT SENSOR

Q1
KEY-MATRIX PERMISSION SW

LCD AVR

RESET

J1
15 D-GND
14 PAN 5V
13 ILL-GND
12 LED +B
11 L-DATAS
10 L-CLK
9 L-CE
8 L-DATAL
7 L-INH
6 RST
5 REMO
4 SW5V
3 N.C.
2 PANEL
1 ESD-G

ED1

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

SIGNAL LINE
+B LINE

IC1 : CXA2523AR
IC2 : CXD2667R
IC3 : S-817A25ANB
IC4 : LA6572
IC5 : NJM4565MD
IC6 : LP2982-3.3
IC7 : TC47HCT7007AF
IC8 : 780076YGK-R01
IC9 : BR24C02FV-W

Q1 : 2SB1295 or 2SA1362(Y)
Q2 : DTA114EUA or KRA302
Q3 : 2SC4116(Y)
Q4 : MCH6101
Q5,7 : 2SA1576A or KTA2014(Y,GR)
Q6 : DTC143EUA or KRC401

D1 : KDS121 or DAN202U

(X33-3120-00)

PU1 (X92-)

IC1 RF AMP

IC2 MD DIGITAL SIGNAL PROCESSOR

IC3 +2.5V AVR

IC4 5chBTL SERVO DRIVER

IC5 (2/2) L.P.F.

IC6 +3.3V AVR

IC7 CMOS BUFFER

IC8 MECHA u-COM

IC9 EEPROM

Q3 DISC REFLECT LEVEL DETECTOR

Q4 +3.3V AVR

Q5 A+8V SW

Q6 SW+8V SW

Q7 P-ON

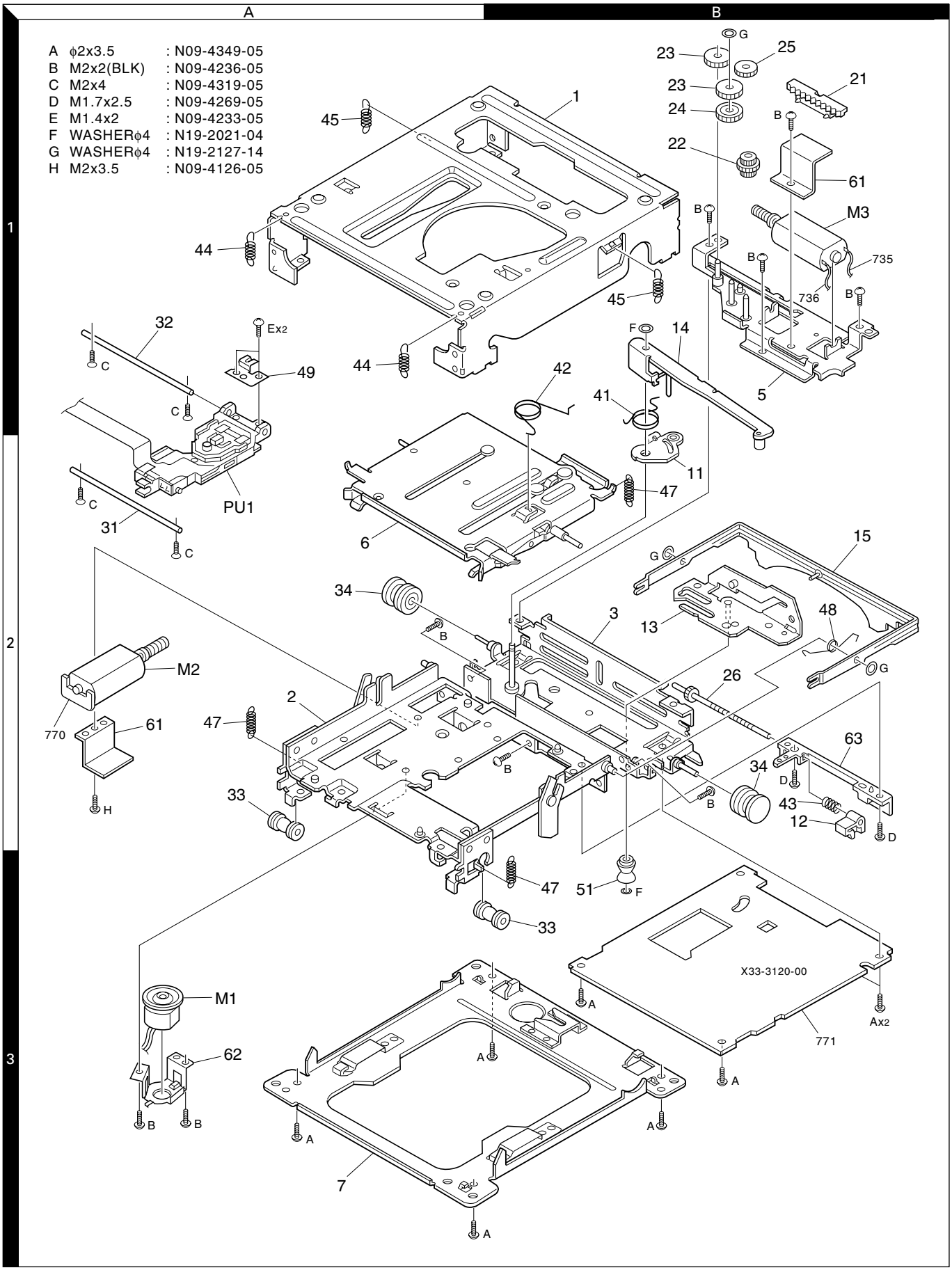
LD SW

M1 SPINDLE MOTOR
M2 SLED MOTOR
M3 LOADING MOTOR

DET-SW
LOS-SW
LIM-SW
LOE-SW
A+8V SW
AMUTE
MRST
MSTOP
A8V
LCH
AGND
RCH
EJECT
LOAD
S5V
S5V
SGND
SGND
LOE-SW

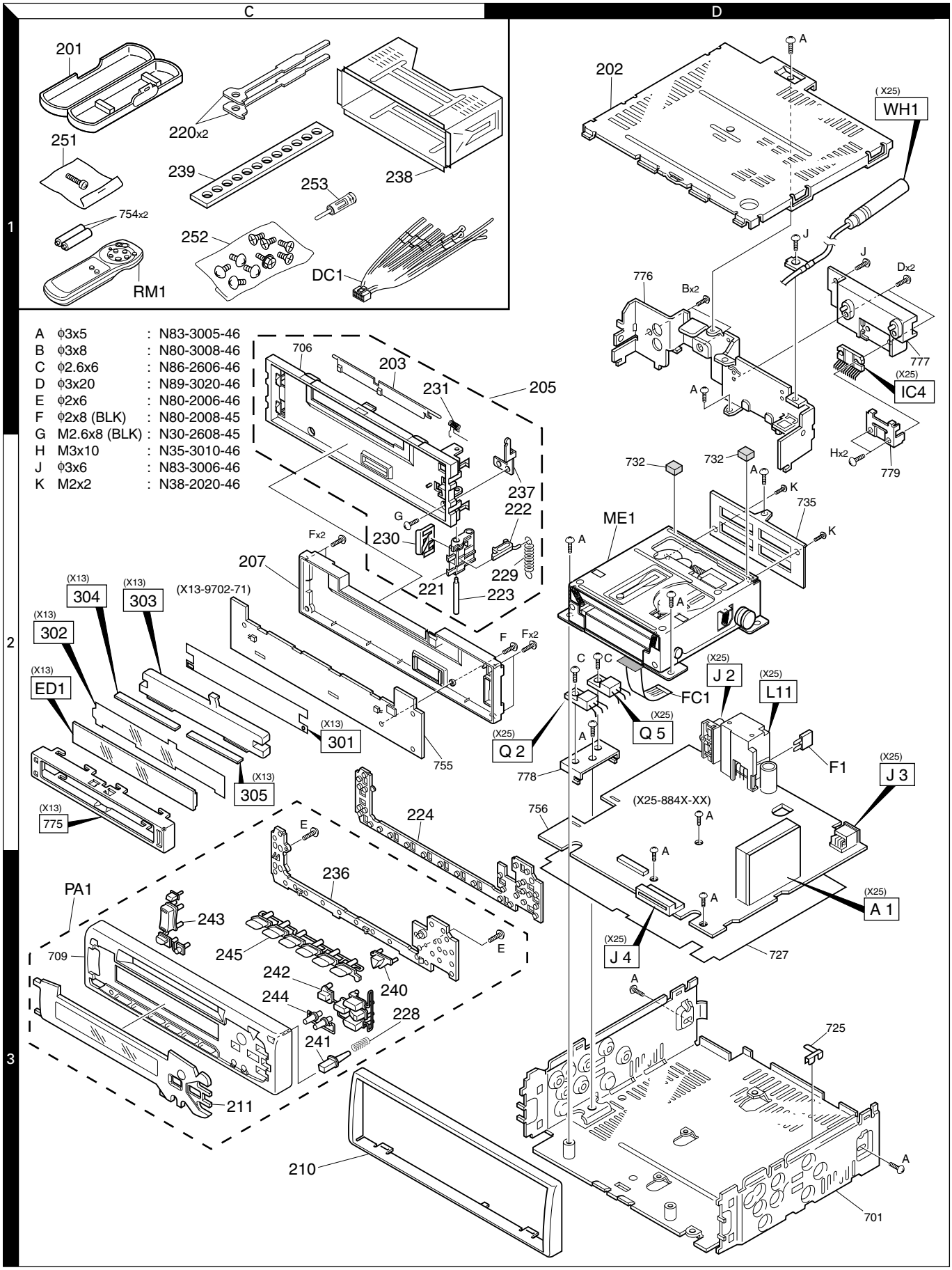
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).
⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably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



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

EXPLODED VIEW (UNIT)



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

PARTS LIST

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

Ref. No.	Add	New	Parts No.	Description		Destina
			KMD-673R			
201	1C		A02-1486-13	PLASTIC CABINET ASSY		
202	1D		A52-0739-12	TOP PLATE		
203	1C		A53-1673-03	LID		
205	1C		A22-2380-03	SUB PANEL ASSY		
207	2C		A46-1653-01	REAR COVER		
PA1	3C	＊	A64-2262-02	PANEL ASSY		
RM1	1C		A70-0883-05	REMOTE CONTROLLER ASSY	M1	
210	3C		B07-2181-02	ESCUTCHEON		
211	3C		B10-4031-01	FRONT GLASS		
-			B46-0100-50	WARRANTY CARD		
-			B46-0182-14	ID CARD		E1
-			B46-0606-04	ID CARD		M1
-			B58-1365-04	CAUTION CARD		
-		＊	B64-1757-00	INSTRUCTION MANUAL	E,F	E1
-		＊	B64-1758-00	INSTRUCTION MANUAL	G,D	E1
-		＊	B64-1759-00	INSTRUCTION MANUAL	I,S,P	E1
-		＊	B64-1760-00	INSTRUCTION MANUAL	E,T	M1
220	1C		D10-3031-04	LEVER		
221	2C		D10-4051-33	LEVER		
222	2C		D10-4052-03	LEVER		
223	2C		D21-2250-04	SHAFT		
224	2C		E29-1571-02	CONDUCTIVE RUBBER		
⚠ DC1	1C		E30-4785-05	DC CORD		M1
⚠ DC1	1C		E30-4790-05	DC CORD		E1
FC1	2D		E39-0338-05	FLAT CABLE		
⚠ F1	2D		F52-0006-05	FUSE (MINI BLADE TYPE)		
⚠ F1	2D		F52-0011-05	FUSE (MINI BLADE TYPE)		
228	3C		G01-2738-04	COMPRESSION SPRING		
229	2D		G01-2792-04	EXTENSION SPRING		
230	2C		G02-1244-03	FLAT SPRING		
231	1C		G01-2985-04	TORSION COIL SPRING		
-			H10-4711-02	POLYSTYRENE FOAMED FIXTURE		
-			H25-0329-04	PROTECTION BAG (280X450X0.03)		M1
-			H25-0337-04	PROTECTION BAG (180X300X0.03)		
-			H25-1111-04	PROTECTION BAG (280X450X0.03)		E1
-		＊	H54-1840-03	ITEM CARTON CASE		M1
-		＊	H54-1841-03	ITEM CARTON CASE		E1
236	3C		J19-4878-32	HOLDER		
237	2D		J21-7726-04	MOUNTING HARDWARE		
238	1C		J21-9491-13	MOUNTING HARDWARE ASSY		
239	1C		J54-0606-04	STAY		M1
240	3C		K24-1924-14	KNOB	SRC	
241	3C		K24-1948-14	KNOB	RELEASE	
242	3C		K25-0965-03	KNOB	FM,AM	
243	3C		K25-0967-03	KNOB	VOL	
244	3C		K25-1036-03	KNOB	CLK	
245	3C		K25-1037-03	KNOB	1-6	
251	1C		N99-1610-15	SCREW SET		M1
252	1C		N99-1632-05	SCREW SET		M1
A	1D		N83-3005-46	PAN HEAD TAPTITE SCREW		
E	2C		N80-2006-46	PAN HEAD TAPTITE SCREW		
F	2C		N80-2008-45	PAN HEAD TAPTITE SCREW		
G	2C		N30-2608-45	PAN HEAD MACHINE SCREW		
K	2D		N38-2020-46	PAN HEAD MACHIN SCREW		
253	1C		T90-0523-05	ANTENNA ADAPTOR		E1
253	1C		T90-0534-05	ANTENNA ADAPTOR		E1
ME1	2D		X92-4250-00	MECHANISM ASSY		
			SWITCH UNIT (X13-9702-71)			
301	2C		B11-0974-04	REFLECTION SHEET		
302	2C		B11-0975-04	OPTICAL DIFFUSER		
303	2C		B19-2018-03	LIGHTING BOARD		
D1,2			B30-1572-05	LED (WHITE)		
D7-22			B30-1569-05	LED (2COLOR PG/RED)		
D24			B30-1564-05	LED (1608,BLUE)		
ED1	2C		B38-1025-05	LIQUID CRYSTAL		
C1			CK73EB1C225K	CHIP C	2.2UF K	
C2			CK73FB1H681K	CHIP C	680PF K	
C3-5			CK73FB1C224K	CHIP C	0.22UF K	
C6			CK73EB1C225K	CHIP C	2.2UF K	
C7-9			CK73FB1C104K	CHIP C	0.10UF K	
C10			CK73FB1H103K	CHIP C	0.010UF K	
304	2C		E29-1597-04	CONDUCTIVE RUBBER		
305	2C		E29-1598-04	CONDUCTIVE RUBBER		
J1			E59-0828-05	RECTANGULAR PLUG		
CP1,2			R90-0724-05	MULTI-COMP	1K X4	
R1			RK73FB2A102J	CHIP R	1.0K J 1/10W	
R2			RK73FB2A473J	CHIP R	47K J 1/10W	
R3			RK73FB2A433J	CHIP R	43K J 1/10W	
R4,5			RK73FB2A471J	CHIP R	470 J 1/10W	
R6			RK73FB2A102J	CHIP R	1.0K J 1/10W	
R7			RK73FB2A471J	CHIP R	470 J 1/10W	
R8			RK73FB2A102J	CHIP R	1.0K J 1/10W	
R9			RK73FB2A470J	CHIP R	47 J 1/10W	
R10,11			RK73FB2A102J	CHIP R	1.0K J 1/10W	
R12,13			RK73FB2A103J	CHIP R	10K J 1/10W	
R14-17			RK73FB2A472J	CHIP R	4.7K J 1/10W	
R18-22			RK73EB2B331J	CHIP R	330 J 1/8W	
R24			RK73EB2B391J	CHIP R	390 J 1/8W	
R25			RK73EB2B271J	CHIP R	270 J 1/8W	
R28			RK73FB2A751J	CHIP R	750 J 1/10W	
R29			RK73EB2B4R7J	CHIP R	4.7 J 1/8W	
D25			MA3100-L	ZENER DIODE		
D26,27			DA204K	DIODE		
D26,27			KDS226	DIODE		
IC1			LC75808W	MOS-IC		
IC2			RS-171	ANALOGUE IC		
Q1			DTA114EK	DIGITAL TRANSISTOR		
Q1			UN2111	DIGITAL TRANSISTOR		
Q2,3			2SD2114K	TRANSISTOR		
Q4			2SC2412K	TRANSISTOR		
Q4			2SD601A	TRANSISTOR		

E1: Europe **M1:** Other Areas

⚠ indicates safety critical

KMD-673R

PARTS LIST

＊New Parts
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Ref. No.	Add	New	Parts No.	Description			Destina
ELECTRIC UNIT (X25-884X-XX)							
D26			B30-1511-05	LED (1, RED)			
C1			C90-5235-05	ELECTRO	2200UF	16WV	
C2			CK73GB1H102K	CHIP C	1000PF	K	
C3			CE04DW1C101M	ELECTRO	100UF	16WV	
C4			CK73GB1H103K	CHIP C	0.010UF	K	
C5			C90-2594-05	ELECTRO	10UF	10WV	
C6			CE04CW0J101M	ELECTRO	100UF	6.3WV	
C7			CK73FB1C105K	CHIP C	1.0UF	K	
C8			CE04CW1A221M	ELECTRO	220UF	10WV	
C12,13			CK73GB1H103K	CHIP C	0.010UF	K	
C14			C90-2598-05	ELECTRO	3.3UF	25WV	
C15			CK73GB1C683K	CHIP C	0.068UF	K	
C16			C90-2602-05	ELECTRO	0.10UF	50WV	
C17			CK73GB1H102K	CHIP C	1000PF	K	
C18,19			CK73GB1H103K	CHIP C	0.010UF	K	
C20			CE04CW0J101M	ELECTRO	100UF	6.3WV	
C21			CK73GB1H103K	CHIP C	0.010UF	K	
C22			CC73GCH1H220J	CHIP C	22PF	J	
C23			CC73GCH1H270J	CHIP C	27PF	J	
C24			CK73GB1C104K	CHIP C	0.10UF	K	
C25			CK73GB1H102K	CHIP C	1000PF	K	
C27			CK73GB1H103K	CHIP C	0.010UF	K	
C30			C90-2610-05	ELECTRO	2.2UF	50WV	
C31-34			C90-2595-05	ELECTRO	4.7UF	16WV	
C35,36			C90-2608-05	ELECTRO	1.0UF	50WV	
C37			CE04CW1A101M	ELECTRO	100UF	10WV	
C38			CK73GB1H153K	CHIP C	0.015UF	K	
C39			CK73GB1A474K	CHIP C	0.47UF	K	
C40,41			CK73GB1C104K	CHIP C	0.10UF	K	
C42			CE04CW1A101M	ELECTRO	100UF	10WV	
C43			CK73GB1H103K	CHIP C	0.010UF	K	
C44,45			C90-2597-05	ELECTRO	10UF	16WV	
C46			C90-2935-05	ELECTRO	1.0UF	50WV	
C47			C90-2608-05	ELECTRO	1.0UF	50WV	
C48			CE04CW1A101M	ELECTRO	100UF	10WV	
C49			C90-2608-05	ELECTRO	1.0UF	50WV	
C50			CK73GB1H103K	CHIP C	0.010UF	K	
C51-54			C90-5296-05	NP-ELECT	0.22UF	50WV	
C59			CK73GB1H333K	CHIP C	0.033UF	K	
C60			CC73GCH1H151J	CHIP C	150PF	J	
C61			CK73GB1H103K	CHIP C	0.010UF	K	
C65			CK73GB1H103K	CHIP C	0.010UF	K	
C66			CK73GB1H102K	CHIP C	1000PF	K	
C69,70			CK73GB1H103K	CHIP C	0.010UF	K	
C72			CK73GB1H103K	CHIP C	0.010UF	K	
C76			CE04DW1A101M	ELECTRO	100UF	10WV	
C77			CK73GB1H103K	CHIP C	0.010UF	K	
C79			CK73GB1H103K	CHIP C	0.010UF	K	
C82,83			CK73GB1H103K	CHIP C	0.010UF	K	
C84			CE04DW1C100M	ELECTRO	10UF	16WV	
C85			CC73GCH1H271J	CHIP C	270PF	J	
C86			CE04DW1C100M	ELECTRO	10UF	16WV	

Ref. No.	Add	New	Parts No.	Description			Destina
C88,89			CC73GCH1H100D	CHIP C	10PF	D	
C90-92			C90-2983-05	ELECTRO	100UF	35WV	
C93			C90-2980-05	ELECTRO	220UF	16WV	
CN1			E40-9287-05	PIN ASSY			
Â£J1			E58-0863-15	RECTANGULAR RECEPTACLE			
J2			E63-0852-05	PIN JACK			
J3			E56-0809-05	CYLINDRICAL RECEPTACLE			
J4			E58-0879-05	RECTANGULAR RECEPTACLE			
WH1			E30-4804-05	CORD WITH PLUG			
WH1			E30-4932-05	CORD WITH PLUG			
L1,2			L40-4795-91	SMALL FIXED INDUCTOR (4.7UH,J)			
L4			L40-4795-91	SMALL FIXED INDUCTOR (4.7UH,J)			
L6			L33-1098-05	CHOKE COIL			
L8			L40-4795-91	SMALL FIXED INDUCTOR (4.7UH,J)			
L9			L33-1123-05	LINE FILTER COIL			
L11			L33-1119-05	CHOKE COIL ASSY			
X1			L78-0683-05	RESONATOR			
X2			L77-2738-05	CRYSTAL RESONATOR			
X3			L77-2002-05	CRYSTAL RESONATOR			
A	2D		N83-3006-46	PAN HEAD TAPTITE SCREW			
B	2D		N80-3008-46	PAN HEAD TAPTITE SCREW			
C	2D		N86-2606-46	BINDING HEAD TAPTITE SCREW			
D	2D		N89-3020-46	BINDING HEAD TAPTITE SCREW			
H	2D		N35-3010-46	BINDING HEAD MACHINE SCREW			
CP1			R90-0725-05	MULTI-COMP	1K	X2	
CP2			R90-1019-05	MULTI-COMP	100	X2	
CP3			R90-0725-05	MULTI-COMP	1K	X2	
R1			RK73GB1J223J	CHIP R	22K	J 1/16W	
R2			RK73GB1J101J	CHIP R	100	J 1/16W	
R3			RK73EB2B221J	CHIP R	220	J 1/8W	
R4			RK73GB1J153J	CHIP R	15K	J 1/16W	
R5			R92-3032-05	CHIP R	4.3K	D 1/10W	
R6			R92-3047-05	CHIP R	24K	D 1/10W	
R7			RK73FB2A751J	CHIP R	750	J 1/10W	
R8			RK73GB1J473J	CHIP R	47K	J 1/16W	
R9			RK73EB2B752J	CHIP R	7.5K	J 1/8W	
R10			RK73GB1J223J	CHIP R	22K	J 1/16W	
R11			RK73GB1J473J	CHIP R	47K	J 1/16W	
R12			RK73GB1J102J	CHIP R	1.0K	J 1/16W	
R13			RK73EB2B472J	CHIP R	4.7K	J 1/8W	
E1							
R16			RK73EB2B472J	CHIP R	4.7K	J 1/8W	
R17			RD14DB2H102J	SMALL-RD	1.0K	J 1/2W	
R18			RK73GB1J223J	CHIP R	22K	J 1/16W	
R19			RD14DB2H102J	SMALL-RD	1.0K	J 1/2W	
R20,21			RK73GB1J123J	CHIP R	12K	J 1/16W	
R22			RK73GB1J562J	CHIP R	5.6K	J 1/16W	
R23			RK73GB1J223J	CHIP R	22K	J 1/16W	
R25			RD14DB2H332J	SMALL-RD	3.3K	J 1/2W	
R28			RK73GB1J622J	CHIP R	6.2K	J 1/16W	
R29,30			RK73GB1J473J	CHIP R	47K	J 1/16W	
R31			RK73GB1J562J	CHIP R	5.6K	J 1/16W	
R38			RK73EB2B241J	CHIP R	240	J 1/8W	
R39			RK73GB1J473J	CHIP R	47K	J 1/16W	
R40			RK73GB1J470J	CHIP R	47	J 1/16W	

⚠ indicates safety critical components.

PARTS LIST

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ELECTRIC UNIT (X25-884X-XX)

Ref. No.	Add	New	Parts No.	Description	Destina
R44			RK73GB1J222J	CHIP R 2.2K J 1/16W	
R45			RK73GB1J104J	CHIP R 100K J 1/16W	
R47			RK73GB1J222J	CHIP R 2.2K J 1/16W	
R49			RK73GB1J222J	CHIP R 2.2K J 1/16W	
R52,53			RK73GB1J470J	CHIP R 47 J 1/16W	
R54			RK73GB1J104J	CHIP R 100K J 1/16W	
R55			RK73GB1J101J	CHIP R 100 J 1/16W	
R56			RK73GB1J104J	CHIP R 100K J 1/16W	
R57,58			RK73GB1J101J	CHIP R 100 J 1/16W	
R60			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R61			RK73GB1J103J	CHIP R 10K J 1/16W	
R62			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R63			RK73GB1J103J	CHIP R 10K J 1/16W	
R64			RK73GB1J222J	CHIP R 2.2K J 1/16W	
R65,66			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R67,68			RK73GB1J101J	CHIP R 100 J 1/16W	
R69			RK73GB1J222J	CHIP R 2.2K J 1/16W	
R72,73			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R75-77			RK73GB1J473J	CHIP R 47K J 1/16W	E1
R75,76			RK73GB1J473J	CHIP R 47K J 1/16W	M1
R78,79			RK73GB1J473J	CHIP R 47K J 1/16W	M1
R80			RK73GB1J473J	CHIP R 47K J 1/16W	E1
R82			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R83			RK73GB1J222J	CHIP R 2.2K J 1/16W	
R84			RK73GB1J225J	CHIP R 2.2M J 1/16W	
R85,86			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R87			RK73GB1J223J	CHIP R 22K J 1/16W	
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	
R148			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R149			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R150			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R151			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R165-167			RK73GB1J222J	CHIP R 2.2K 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	
D6			AM01Z	DIODE	E1
D6			DSM1SD2	DIODE	E1
D6			ERA15-01	DIODE	E1
D7			AM01Z	DIODE	
M1					
D7			DSM1SD2	DIODE	
M1					
D7			ERA15-01	DIODE	
M1					
D8			MA4047-M	ZENER DIODE	
D9,10			AM01Z	DIODE	E1
D9,10			DSM1SD2	DIODE	E1
D9,10			ERA15-01	DIODE	E1
D10			AM01Z	DIODE	
M1					
D10			DSM1SD2	DIODE	
M1					
D10			ERA15-01	DIODE	
M1					
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	

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KMD-673R

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ELECTRIC UNIT (X25-884X-XX)

Ref. No.	Add	New	Parts No.	Description	Destina
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	
IC10			TDA7479D	ANALOGUE 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	
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	
Q29,30			2SC4081	TRANSISTOR	
Q29,30			2SD1819A	TRANSISTOR	
Q33			DTC144EK	DIGITAL TRANSISTOR	
Q33			KRC104S	DIGITAL TRANSISTOR	
Q33			UN2213	DIGITAL TRANSISTOR	
Q34			2SC4081	TRANSISTOR	
Q34			2SD1819A	TRANSISTOR	
TH1			PTH9C42BD471Q	POSITIVE RESISTOR	
A1	3D		X86-3282-70	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	
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	

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MD UNIT (X33-3120-00)

Ref. No.	Add	New	Parts No.	Description	Destination
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	
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	

Ref. No.	Add	New	Parts No.	Description	Destination
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	
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	

E1: Europe **M1:** Other Areas

⚠ indicates safety critical components.

KMD-673R

PARTS LIST / SPECIFICATIONS

＊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.

MECHANISM ASSY (X92-4250-00)

Ref. No.	Add	New	Parts No.	Description	Destination
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 2 0)	
C	1A		N09-4319-05	MACHINE SCREW (M2X4)	
D	2B		N09-4269-05	MACHINE SCREW (M1.7X2.5 2)	
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 TITE, 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	

FM
Frequency Range(MHz)(Frequency step) 87.5MHz-108.0MHz (50kHz)
Usable Sensitivity(S/N 26dB) 0.7μV/75Ω
Quieting Sensitivity(S/N 46dB).....1.6μV/75Ω
Frequency Response(±3.0dB) 30Hz-15kHz
S/N(dB).....65dB(MONO)
Selectivity(DIN)(dB).....≧80dB(±400kHz)
Stereo Separation .....35dB(1kHz)

MW
Frequency Range(kHz)(Frequency step) .....531kHz-1611kHz(9kHz)
Usable Sensitivity(S/N 20dB).....25μV

LW
Frequency Range(kHz).....153Khz-281kHz
Usable Sensitivity(S/N 20dB).....45μV

MD
Laser Diode .....GaAlAs(λ=780±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(±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/10kΩ(MD/CD-CH)
Preout Impedance(Ω) .....≦600Ω
PWR(MAX) 45wx4
PWR DIN45324, +B=14.4V 28wx4

TONE
Bass.....100HZ±10dB
Mid.....1kHz±10dB
Treble .....12.5kHz±10dB

GENE
Operating voltage(11~16v allowable) 14.4V
Current Consumption.....10A
Installtion Size(W)x(H)x(D).....182x53x160(mm)
Weight 1300g

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

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