

## SERVICE MANUAL

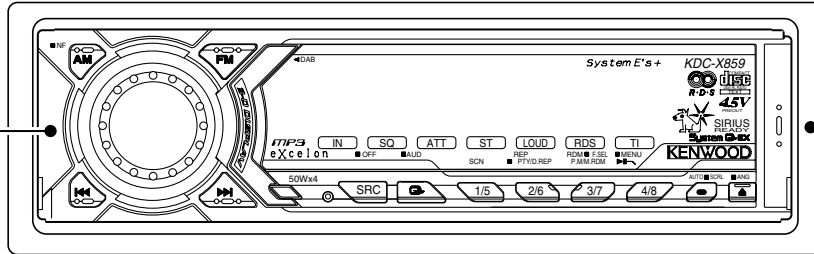
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The CD mechanism information is not in this service manual.  
Please, refer to service manual.

KDC-M9021/X859 : X92-4460-0x(B51-7891-00)  
KDC-8021 : X92-4450-01(B51-7889-00)

### KDC-X859

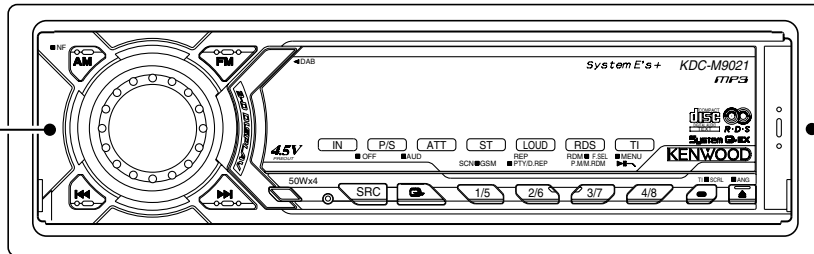
Panel assy  
(A64-2567-02)



Escutcheon assy  
(B07-3007-03)

### KDC-M9021

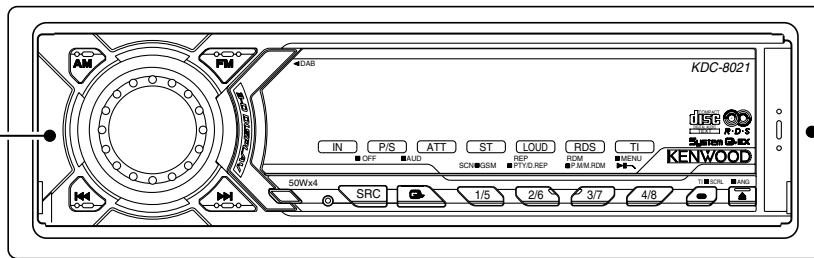
Panel assy  
(A64-2587-02)



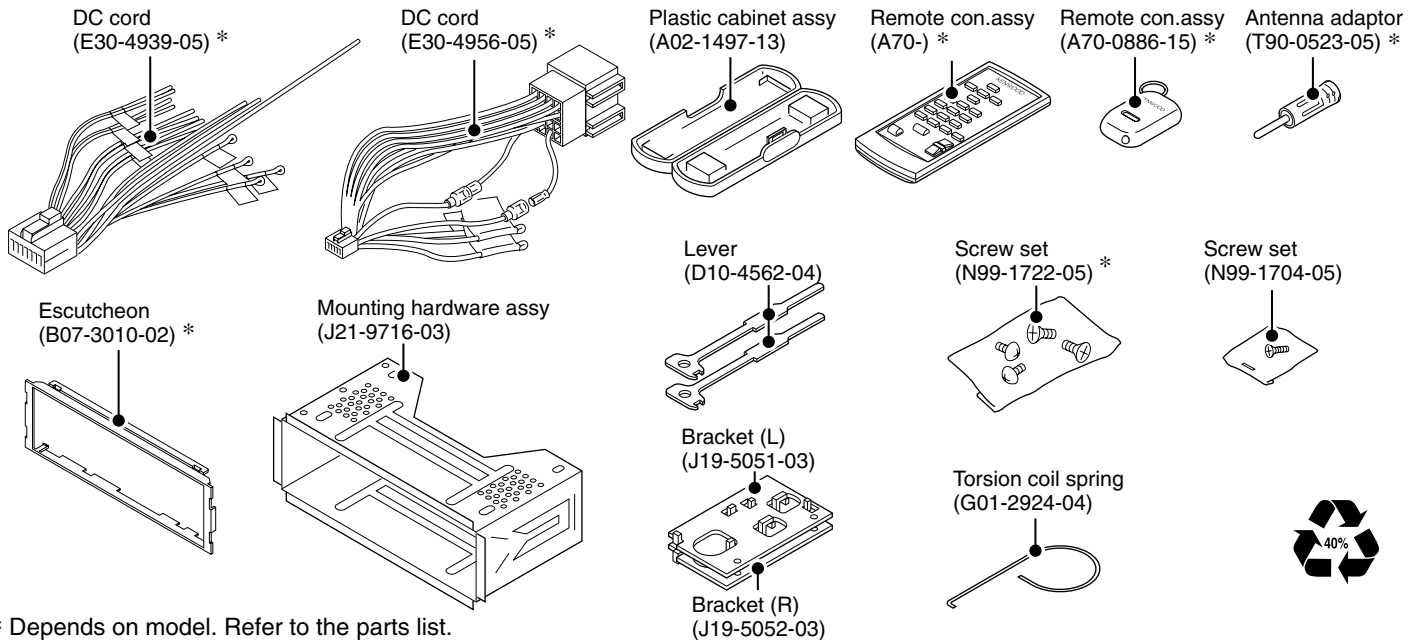
Escutcheon assy  
(B07-3007-03)

### KDC-8021

Panel assy  
(A64-2588-02)

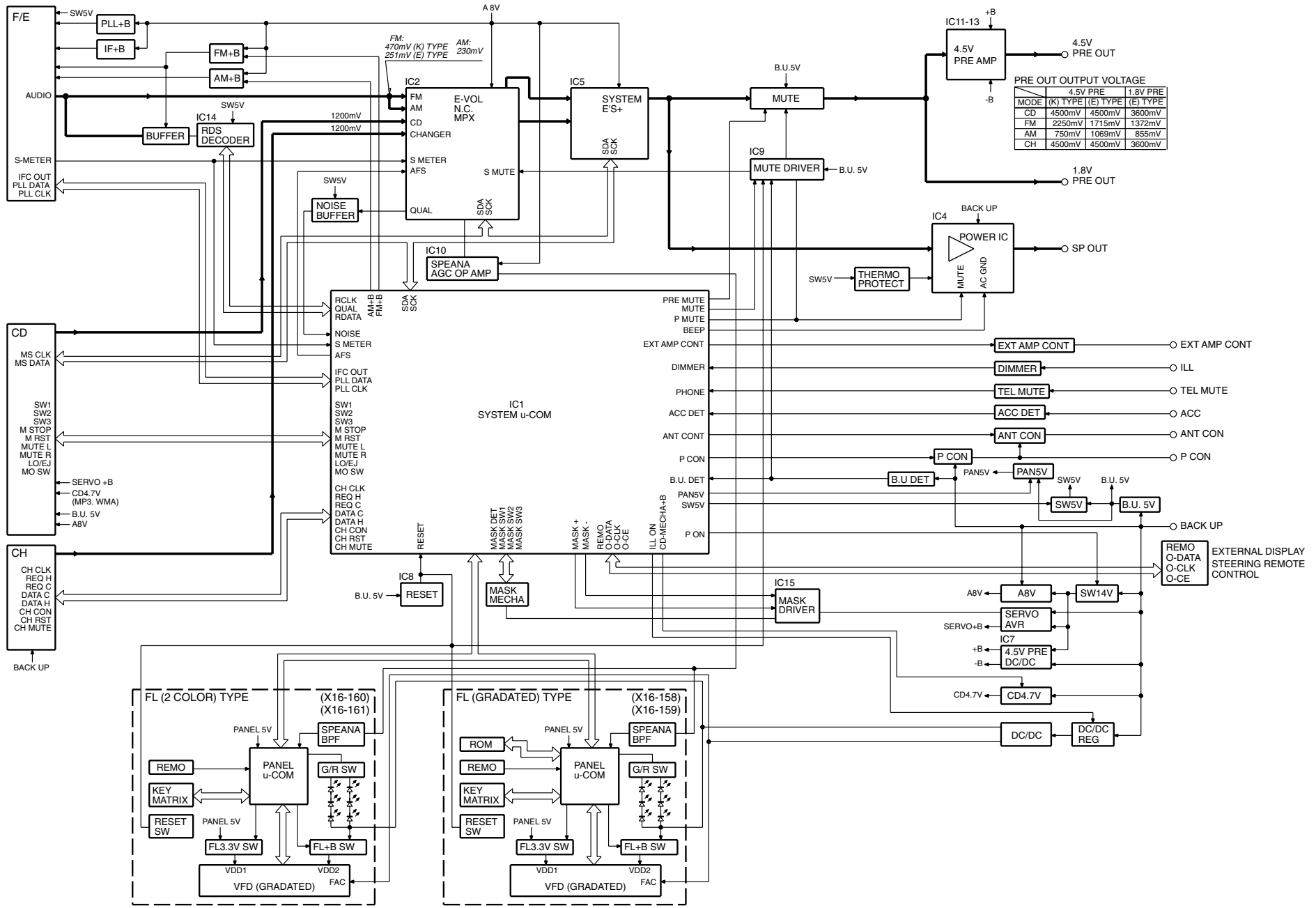


Escutcheon assy  
(B07-3007-03)



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





**BLOCK DIAGRAM**

**KDC-8021/M9021/X859**

## COMPONENT DESCRIPTION

### ELECTRIC UNIT (X25-91xx-xx)

Element	Purpose & Function	Operation, Condition, Compatibility
IC1	System uCOM	
IC2	E.Vol & N.C. MPX	
IC3	Power Supply IC	Error detection in combination with Q8. Audio 8 V AVR drive.
IC4	POWER IC	50Wx4ch
IC5	HPF & LPF & NON-FAD SW	
IC6	CD mechanism 4.7 V power SW-Reg.	
IC7	4.5 V PRE-OUT DC/DC	
IC8	RESET IC	"L" when Mask uCOM detection voltage is 3.7 V or less or when Flash uCOM detection voltage is 4.2 V or less.
IC9	Muting logic IC	4 inputs. NOR gate x 4.
IC10	Spectrum analyzer opamp	
IC11	4.5 V PRE-OUT opamp	Front output.
IC12	4.5 V PRE-OUT opamp	Rear output
IC13	4.5 V PRE-OUT opamp	Non-Fad. output
IC14	RDS decoder	
IC15	Motor Dr. IC	For storage mechanism
IC16	E2PROM	
Q1,2	BU 5V AVR	Darlington connected.
Q3	SW 5V	ON when the base is "L".
Q4,5	SW 14V	Turns Q7 ON when the base of Q5 is "H".
Q6,7	AUDIO 8V AVR ON/OFF SW	8 V ON/OFF SW. Q7 turns ON when the base of Q6 is "H".
Q8	AUDIO 8V AVR	
Q9	Servo power AVR	
Q10	CD 4.7V SW-Reg ON/OFF SW	CD 4.7 V SW-Reg ON/OFF SW. ON when the base is "H".
Q11,12	FL & ILLUM AVR ON/OFF SW	FL & ILLUM AVR ON/OFF SW. Q12 turns ON when the base of Q11 is "H".
Q13,14	FL & ILLUM AVR ON/OFF SW	
Q15,16	4.5 V PRE-OUT DC/DC converter AVR	Darlington connected.
Q17~22	Regulated power supply Tr.	
Q23,24	POWER-ANT SW	Q24 turns ON when the base of Q23 is "H".
Q25,28	POWER-CONT SW	Q25 turns ON when the base of Q28 is "H".
Q26,27	POWER-CONT circuit output protection	Upon detection of drop in the output voltage, these transistors turn Q25 OFF to protect the output. This prevents malfunction of Q26 when the POWER-CONT SW turns ON.
Q29	External amp control SW	Turns ON when a pulse is input to the base.
Q30	Dimmer control SW	Small In is detected when the base is "H".
Q31	B-U detection	"L" when B-U is present. "H" when B-U is absent or momentary power down is detected."
Q32	Acc detection	"L" when Acc is present.
Q33	Lch MUTE Dr	L-ch audio muting SW drive. ON when the base is "L".
Q34	Rch MUTE Dr	R-ch audio muting SW drive. ON when the base is "L".
Q35	Spectrum analyzer AGC Tr.	
Q36	E-Vol muting SW	When the base is "L", turns ON to mute E-Vol.
Q37	Noise buffer	
Q38	AUDIO MUTE SW	Mutes the Front R CH hen the base is "H".
Q39	AUDIO MUTE SW	Mutes the Front L CH hen the base is "H".
Q40	AUDIO MUTE SW	Mutes the Rear R CH hen the base is "H".
Q41	AUDIO MUTE SW	Mutes the Rear L CH hen the base is "H".
Q42	AUDIO MUTE SW	Mutes the Non-FAD R CH hen the base is "H".
Q43	AUDIO MUTE SW	Mutes the Non-FAD L CH hen the base is "H".
Q45,46	FM+B SW	Q46 turns ON when the base of Q45 is "H".
Q47,48	AM+B SW	Q48 turns ON when the base of Q47 is "H".
Q49	Composite signal buffer	
Q50	PANEL 5V SW	When the panel is attached, the base goes "L", turning the transistor ON to supply 5 V to the panel.

# KDC-8021/M9021/X859

## COMPONENT DESCRIPTION

### SWITCH UNIT (X16-16xx-xx)

Element	Purpose & Function	Operation, Condition, Compatibility
IC1	PANEL u-com	
IC2	SPECTRUM ANALYZER IC	
IC3	REMOTE CONTROL IC	
IC4	BUFFER IC	It is changed into 3.3V from 5V
IC5	3.3V REGULATER	The power supply of IC and UFD(Logic) which are driver by 3.3V
Q1	REMO ON SW	The power supply of IC2 and IC3 is turned on when the base level goes "L".
Q2	SC-CON SW	ON when the base level goes "H".
Q3,4	FL+B SW	FL+B(VDD2) is turned on when Q3's base level goes "H".
Q5	FL BLK SW	ON when the base level goes "H".
Q6,7	KEY ILLUMINATION SW	Lights green key-illumination when Q6's base level goes "H". Lights red key -illumination when Q7's base level goes "H".

## MICROCOMPUTER'S TERMINAL DESCRIPTION

## PANEL MICROCOMPUTER UPD703032GFA03 (X16)

Pin	Name	I/O	Processing Operation
1	SC DATA	I/O	Data communication with System Controller.
2	MC CLK	I	Clock input from System Controller.
3	NC	O	
4	DATA1	O	Data communication with FL driver.
5	CLK	O	Clock communication with FL driver (rise data shifting).
6	NC	O	
7	DATA 2	O	Data communication with FL driver
8	CLK IN	I	Data communication with FL driver (fall data shifting)
9	EVDD	-	PAN.5V
10	EVSS	-	GND
11	RED LED	O	ILL Red switching. "H": ON. "L": OFF.
12	GREEN LED	O	ILL Green switching. "H": ON. "L": OFF.
13	REMO	I	Input from Remote Control IC.
14	LATCH	O	Latch for FL driver. "H": Through. "L": Latch.
15	GCP	O	Brightness gradation control.
16	REMO ON	I/O	Remote Control IC power ON/OFF. "Hi-Z": OFF. "L": ON.
17-19	NC	O	
20	BLK	O	Display for FL driver. Blanking display. "H": Display ON. "L": Display OFF.
21	TEST	I	INTERNALLY CONNECTED
22-33	NC	O	
34	RESET	I	RESET
35	XT1	-	GND
36	XT2	-	
37	REGC	-	Regulator capacitance connection.
38	X2	-	MAIN CLOCK
39	X1	-	MAIN CLOCK
40	VSS	-	GND
41	VDD	-	PAN.5V
42-47	NC	O	
48	FL +3.3V	O	FL +3.3V ON/OFF "H":ON "L":OFF
49	FL +B	I/O	FL+B ON/OFF "H":FL+B ON "Hi-Z":FL+B OFF
50-57	NC	O	
58	BVDD	-	PAN.5V
59	BVSS	-	GND
60-73	NC	O	
74	AVDD	-	PAN.5V
75	AVSS	-	GND
76	AVREF	-	
77	F01	I	BPF(63Hz)
78	F02	I	BPF(150Hz)
79	F03	I	BPF(330Hz)
80	F04	I	BPF(1kHz)
81	F05	I	BPF(3.3kHz)
82	F06	I	BPF(10kHz)
83	WAVE IN	I	Voice input.
84	KR3	I	KEY RETURN
85	KR2	I	KEY RETURN
86	KR1	I	KEY RETURN
87	VOLUME B	I	VOLUME CONTROL
88	VOLUME A	I	VOLUME CONTROL
89	SC REQ	O	Request communication with System Controller. "H": Requested. "L": Standby.
90	NC(FAC IN)	O	(FAC data input) (Flicker prevention circuit input)
91	SC CON	I	Panel uCOM control. During operation: "L".
92	OPEN KEY	I	OPEN KEY "H":ON "L":OFF

# KDC-8021/M9021/X859

## MICROCOMPUTER'S TERMINAL DESCRIPTION

### PANEL MICROCOMPUTER UPD703032GFA03 (X16)

Pin	Name	I/O	Processing Operation
93	SRC KEY	I	SOURCE KEY "H":ON "L":OFF
94	VREF CON	O	Vref control. During operation: "H"
95	MC REQ	I	Request from System uCOM. "H": Requested.
96	KS4	I/O	Key scan. (Hi-Z/L scan)
97	KS3	I/O	Key scan (Hi-Z/L scan). (Flash uCOM write port) (DI)
98	KS2	I/O	Key scan (Hi-Z/L scan). (Flash uCOM write port) (DO)
99	KS1	I/O	Key scan (Hi-Z/L scan). (Flash uCOM write port) (CLK)
100	MC DATA	I	Data communication with System uCOM.

## MICROCOMPUTER'S TERMINAL DESCRIPTION

## SYSTEM MICROCOMPUTER uPD703033AGF-\*\*\*-3BA (X25)

Pin	Name	I/O	Purpose	Processing Operation	Processing During Non-Operation	Processing During STBY
1	MC-DATA	I/O	DATA line to Panel uCOM.		Hi-Z	Hi-Z
2	MC-CLK	O	CLK line to Panel uCOM.		Panel attached: "H". Detached: "Hi-Z".	H
3	PLL-DATA	I/O	DATA I/O to/from F/E.		Hi-Z	Hi-Z
4	PLL-CLK	I/O	CLK I/O to/from F/E.		Hi-Z	Hi-Z
5	AM+B	I/O	AM power supply terminal.	During AM operation: "H".	Hi-Z	Hi-Z
6	FM+B	I/O	FM power supply terminal.	During FM operation: "H". With RDS and RBDS only, last FM: "H".	Hi-Z	Hi-Z
7	CH-CON	O	CH control output.	ON:H OFF: L	L	L
8	CH-RST	O	CH reset output.	Normally "H". In recovery after system RST, remains H for 400 ms then goes L"	L	L
9	Evdd	-	Positive power supply terminal.			
10	Evss	-	GND terminal.			
11	AFS	O	Time constant switching upon noise detection.	During FM seek and AM search: L. During reception; H.	Last FM with RDS and RBDS: "H". Without RDS and RBDS: "L".	L
12	BEEP	O	Beep output terminal.		L	L
13	REMO	I	Wired remote input terminal.	Since there is no wired remote control, connected to GND.		
14	N.C	O	Output Open. Not used.			L
15	N.C	O	Output Open. Not used.			L
16	IC2-SDA	I/O	IC2, IC5 and CD mechanism DATA line.		Hi-Z	Hi-Z
17	IC2-SCL	I/O	IC2, IC5 and CD mechanism CLOCK line.		Hi-Z	Hi-Z
18	PRE-MUTE R	O	PREOUT(Rch)MUTE	"L" when M MUTE R is L (during CD playback). "L" during momentary power down. "H" only in 2-zone operation.	"H" (other sources than CD)	H
19	PRE-MUTE L	O	PREOUT(Lch)MUTE	"L" when M MUTE R is L (during CD playback). "L" during momentary power down. "H" only in 2-zone operation.	H (other sources than CD)	H
20	N.C	O	Output Open. Not used.	L		
21	TEST	-	Test pin.	Normal: "L". During power OFF: "H" in 5 sec. Power OFF: H		"H" ("L" in 5 sec. after Power OFF).
22	N.C(SVR)	O		Power OFF: L All OFF: "L". Tel muting: "L"	H	"L" ("H" in 5 sec. after P-ON OFF).
23	P-MUTE	O	Power IC MUTE terminal.	POWER IC ON: H POWER IC OFF : L ALL OFF: H	L	L
24	P-STBY	O	Power IC STBY terminal.	ON: Open. OFF: "L". Time constant: 0.48 ms (with both ON/OFF)	L	Open ("H" in 5 sec. after P-ON OFF).

## MICROCOMPUTER'S TERMINAL DESCRIPTION

### SYSTEM MICROCOMPUTER uPD703033AGF-\*\*\*-3BA (X25)

Pin	Name	I/O	Purpose	Processing Operation	Processing During Non-Operation	Processing During STBY
26	SW5V	I/O	5V power supply terminal.	ON: L OFF: Hi-Z	Hi-Z	"L ("Hi-Z" in 10 sec. after Power OFF).
27	BU-DET	I	Momentary power down detection terminal.	B-U present: "L". B-U absent (momentary power down): "H".		
28	ACC-DET	I	Acc detection terminal.	Acc present: "L". Acc absent: "H".		
29	N.C	O	Output Open. Not used.			L
30	DIMMER	I	Small detection terminal.	ON: L OFF: H		
31	EXT-AMP-CONT	O	External amp control terminal (200 ms).	"L" for 40 ms: Bass Boost Off. "L" for 70 ms: Bass Boost Low. "L" for 100 ms: Bass Boost High.	H	H
32	P-CON	I/O	Power control terminal.	POWER ON: H POWER OFF: Hi-Z ALL OFF: Hi-Z	Hi-Z	Hi-Z
33	ANT-CON	O	Antenna control terminal.	TUNER, TI ON: H Other sources in last FM with RDS: "H". Other sources in last FM with RBDS, TI ON: "H".	L	L
34	RESET	I	Reset input terminal.	Normal: "H". Reset: "L".		
35	XT1	I	Sub-clock connection terminal.	Clock count. Working while power is OFF.		
36	XT2	-	Sub-clock connection terminal.			
37	REGC	-	Output terminal for capacitor of Reg. in uCOM.			
38	X2	-	Main clock connection terminal.	During power ON: Oscillating. During power OFF and momentary power down: Oscillation stopped.		
39	X1	I	Main clock connection terminal.			
40	Vss	-	GND terminal.			
41	Vdd	-	Positive power supply terminal.			
42	CLKOUT	O	Internal system clock terminal.			
43	CD MECHA+B	I/O	CD 4.7 V output terminal.	With CD source: "L". Other sources than CD: "Hi-Z". Models without MP3 or WMA: Output "L". ON: 50 ms faster than M-STOP. OFF: 50 ms slower.	Hi-Z	Hi-Z
44	P-ON	I/O	SW 14 V control terminal.	POWER ON: H POWER OFF: Hi-Z	Hi-Z	"H ("Hi-Z" in 10 sec. after power OFF).
45	O-DATA	I/O	External display DATA terminal.	Models without external display: Output "L".	L	L



## MICROCOMPUTER'S TERMINAL DESCRIPTION

## SYSTEM MICROCOMPUTER uPD703033AGF-\*\*\*-3BA (X25)

Pin	Name	I/O	Purpose	Processing Operation	Processing During Non-Operation	Processing During STBY
46	O-CLK	I/O	External display CLK terminal.	Models without external display: Output "L".	L	L
47	O-CE	I/O	External display CE terminal.	Models without external display: Output "L".	L	L
48	ILL-ON	I/O	FL and ILLUM output terminal.	ON:H OFF: Hi-Z	Hi-Z	Hi-Z
49	TYPE0	I	Destination type switching port.			
50	TYPE1	I	Destination type switching port.			
51	TYPE2	I	Destination type switching port.			
52	IC2TYPE0	I	IC2 destination type terminal.	Default: "L".		
53	IC2TYPE1	I	IC2 destination type terminal.	Default: "L".		
54	N.C	O	Output Open. Not used.			
55	N.C	O	Output Open. Not used.			
56	M-MUTE R	I	Muting request from CD mechanism. (R CH)	ON:L		
57	M-MUTE L	I	Muting request from CD mechanism. (L CH)	ON:L		
58	BVdd	-	Positive power supply terminal.			
59	BVss	-	GND terminal.			
60	M-RST	O	Reset output to CD mechanism.	Normal: "H". Reset: "L". According to the mechanism control specification.	H	H
61	M-STOP	O	Stop request to CD mechanism.	STOP: L CD: H	L	L
62	N.C	O	Output Open. Not used.			L
63	CD-SW3	I	CD Down SW detection terminal.	Chucking: "H".	L	
64	LO/EJ	I/O	CD mechanism Loading/Ejection switching.	Stop, braking: "Hi-Z". Loading: "L". Ejection: "H".	Hi-z	Hi-Z
65	MOSW	O	CD mechanism motor power supply SW.	Loading, ejection, braking: "H".	L	L
66	N.C	O	Output Open. Not used.			L
67	PAN-RESET	O	Reset output to Panel uCOM.	Normal: "H". Reset & momentary power down: "L".	Panel attached: "H". Panel detached: "L".	Panel attached: "H". Panel detached: "L".
68	MC-REQ/ PANEL	I/O	REQ terminal to Panel uCOM/Panel detection.	Panel attached: "L".	Hi-z	Hi-Z
69	N.C	O	Output Open. Not used.			L
70	PAN5V	I/O	Panel 5 V control terminal.	Panel attached: "L". Panel detached: "Hi-Z".		Panel attached: "L". Detached: "Hi-Z".
71	MASK+B	O	Mask mechanism sub-motor output terminal.		L	
72	MASK-B	O	Mask mechanism sub-motor output terminal.		L	
73	AVCONT	O	AD reference voltage control output.	Same timing as P-ON. During operation: "H"	L	L

## MICROCOMPUTER'S TERMINAL DESCRIPTION

### SYSTEM MICROCOMPUTER uPD703033AGF-\*\*\*-3BA (X25)

Pin	Name	I/O	Purpose	Processing Operation	Processing During Non-Operation	Processing During STBY
74	Avdd	-	Positive power supply terminal.			
75	Avss	-	GND terminal.			
76	Avref	I	A/D converter reference voltage supply terminal.			
77	PHONE	I	Phone detection terminal.	TEL muting: 1 V or less. NAVI muting: 2.5 V or more.		
78	E2PROMDET	I	E2PROM detection terminal.	E2PROM present: "H". E2PROM absent: "L".		
79	MASK-SW1	I	Mask mechanism position detection.	Refer to the 01MASK mechanism position detection chart		
80	MASK-SW2	I	Mask mechanism position detection.	Refer to the 01MASK mechanism position detection chart		
81	MASK-SW3	I	Mask mechanism position detection.	Refer to the 01MASK mechanism position detection chart		
82	MASK-DET	I	Mask mechanism detection.	Mechanism present: "L". Mechanism absent: "H".		
83	NOISE	I	FM noise detection terminal.			
84	S-METER	I	S-meter detection terminal.			
85	R-DATA	I	RDS decoder DATA input terminal.	Models without RDS and RBDS: Connected to GND.		
86	R-QUAL	I	RDS decoder OUAL input terminal.	Models without RDS and RBDS: Connected to GND.		
87	IFC-OUT	I	F/E IFC OUT input terminal.	Station detected: 2.5 V or more.		
88	CH-MUTE	I	Muting request from CH.			
89	CH-REQH	O	Request output to CH.	Request: "L".	H	H
90	R-CLK	I	RDS decoder CLK input terminal.	Models without RDS and RBDS: Connected to GND.		
91	CH-REQC	I	Request input from CH.	Requested: "L".		
92	SC-REQ	I	Communication request from Panel uCOM.			
93	CD-SW1	I	Loading SW detection terminal.	Loading start: "L". Take care that the logic in power OFF is different from Flip.		
94	CD-SW2	I	12 cm disc detection SW terminal.	12 cm disc: "L". Take care that the logic in power OFF is different from Flip.		
95	N.C	O	Output Open. Not used.			L
96	N.C	O	Output Open. Not used.			L
97	CH-DATAC	I	DATA input terminal from CH.			
98	CH-DATAH	O	DATA output terminal to CH.		Last state held.	L
99	CH-CLK	I/O	CLK input/terminal from/to CH.			Hi-Z
100	SC-DATA	I	DATA line from Panel uCOM.			Hi-Z

## TEST MODE

### Test Mode

#### 1. How to enter test mode

While holding the [1/5] key and the [3/7] key, reset the unit.

#### 2. How to exit from test mode.

While holding down the [4/8] key, reset the unit.

Note: Does not exit from test mode ACC OFF, Power OFF or momentary power down

#### 3. Test mode reset status

- Sources are all OFF
- All display segment lit up
- Volume at -10dB (shows 30 on display)
- LOUD is OFF.
- CRSC is OFF regardless of whether switching function is provided.
- SYSTEM Q is in FLAT
- BEEP sounds at momentarily pressing at any time.

#### 4. Special displays in Tuner

When the following displays appear in tuner mode it shows a problem with the front end.

- "TNE2P NG" : F/E is not aligned and EEPROM is in reset (no settings) such as when shipped.
- "TNCON NG" : Cannot communicate with F/E (front end).

#### 5. K3I switching

Each time the Preset 6 key is pressed in Tuner mode, switches one at a time through the following sequence: AUTO → Forced Wide → Forced Middle → Forced Narrow → AUTO.

When reset, displays the following in AUTO.

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

#### 6. CD receiver test mode specifications

- No automatic ejection during reset-start. Does not make a CD check in reset with a CD loaded.
- Using the Track up key jumps to the following tracks. No. 9 → No. 15 → No. 10 → No. 11 → No. 12 → No. 13 → No. 14 → and back to No. 9
- Using the Track down key moves 1 track downwards from the track being played.
- When the total number of MP3 or WMA disc tracks is 9 or less, playback starts from the first track.
- With the model equipped with the MP3 or MP3/WMP mechanism, the mechanism model name and version number are displayed at the bottom line.

#### 7. Audio items

- Momentarily pressing the Q key calls up audio adjustment mode.
- Pressing the \* key on the remote control calls up audio alignment mode.
- An initial item is set to Feder.
- Continuous forward is disabled on the remote control.
- Bass/Middle/Treble/NF are settable in 3 steps of MIN / Center / MAX with the Track up/down keys.

- Balance is settable in 3 steps of Left MAX / Center / Right MAX with the Track up/down keys.
- Fader is settable in 3 steps of Rear MAX / Center / Front MAX with the Track up/down keys.
- HPF is settable in 2 steps of THRU/220Hz with the Track up/down keys.
- LPF is settable in 2 steps of THRU/120Hz with the Track up/down keys.
- Bass f / Bass Q / Bass EXT / Middle f / Middle Q / Treble f do not appear in the audio alignment.

#### 8. Menu items

- The DNPP/SBF keys on the remote control calls up Menu mode.
- Continuous forward is disabled on the remote control.

#### 9. Backup current measurement

The MUTE terminal turns off 2 seconds (not 15 seconds) after being reset in ACC off (backup on). (The panel and CD mechanisms are disabled during this time.)

#### 10. Special displays during All-Off with all lamps on

The following displays appear when the preset keys are pressed with all display segment lit up.

[1/5]key	<ul style="list-style-type: none"> <li>• Version display (8 digits; Mo. Dy. Hr. Mn.) (Display) SYS XXXXXXXX system microprocessor PAN XXXXXXXX panel microprocessor</li> <li>• Serial No. display (8 digits) (Display) SNo XXXXXXXX</li> </ul>
[2/6]key	<ul style="list-style-type: none"> <li>• Press once: Power on time display (Does not count during All-Off) Press long: Clears the time display during power-on. (Display) PonTim XXXXX MAX 65535(time)</li> <li>• Press once: CD operating time display. Press long: Clears CD operating time. (Display) CDTime XXXXX MAX 65535(time)</li> </ul>
[3/7]key	<ul style="list-style-type: none"> <li>• Press once: CD eject count display. Press long: Clears CD eject count display. (Display) EjeTim XXXXX MAX 65535(count)</li> </ul>
[4/8]key	<ul style="list-style-type: none"> <li>• Press once: PANEL open/shut count display. Press long: Clears PANEL open/shut count display. (Display) PnCt XXXXX MAX 655350(count)</li> </ul>

#### 11. Channel space switching (K/M type)

While holding the [1/5] key and the [4/8] key, reset the unit.

#### 12. Others

- Automatic panel close is disabled when CD is inserted.
- Panel operation is disabled at Power-ON or Power-OFF.
- Panel open and closes with press long the Q key.
- No displays such as "CODE OFF" during Power-ON.
- Pressing the TI (AUTO) key during changer operation turns on 2zone. Cancel by pressing the TI (AUTO) key again. The P/S dot is lit during 2zone.
- Pressing the [4/8] key for 1 second or more during All OFF, calls up the Mask Key (security) write mode.

## TEST MODE

### Security items

1. Forced power-ON mode (all models)

Even when writing is permitted by the security function (mask key), Power-on can be set for a 30 minute period each time the reset key is pressed while holding down the Q key and [4/8] keys. After 30 minutes elapses, can only be restored by using reset.
2. How to register the security code for EEPROM (F/E) replacement (coded security models)
  - (1) Enter the test mode. (See "1. How to enter the test mode")
  - (2) Press the [4/8] key to enter the MENU MODE.
  - (3) While "Security" is displayed, press and hold the Track up or down key for a second to enter the security registration mode.
  - (4) Enter the code using the FM/AM/Track up/Track down keys.

FM key: Increments the number.  
AM key: Decrements the number.  
Track up key: Moves the cursor to the right.  
Track down key: Moves the cursor to the left.
  - (5) Hold down the Track up key for at least 3 seconds and the message, "RE-ENTER" appears, so once again enter the code according to Step 4 above.
  - (6) Hold down the Track up key for at least 3 seconds, and the message, "APPROVED" appears.
  - (7) Cancel test mode. (See, 2. How to cancel the test mode.)

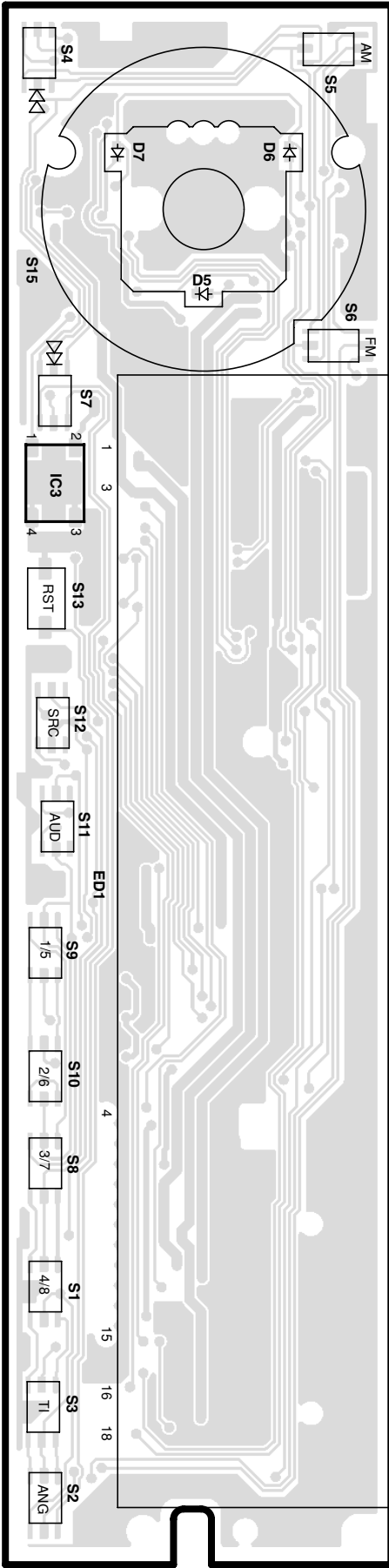
Note: All clear cannot be performed on the security code for this model.
3. Simple way to clear the security code (K type only)
  - (1) During code request mode, press the Track Up key for at least 3 seconds while holding down the AUTO key. (---- will disappear)
  - (2) Enter, "KCAR" with the remote controller as described below. (Same as on 01 model.)
    - Press the remote controller 5 key twice, and press the Track Up key. (Enters a "K")
    - Press the remote controller 2 key three times, and press the Track Up key. (Enters a "C")
    - Press the remote controller 2 key once, and press the Track Up key. (Enters an "A")
    - Press the remote controller 7 key twice, and press the Track Up key. (Enters an "R")
  - (3) Security function is canceled and unit sets to All-Off mode.
  - (4) Code request mode appears if a mistake was made in entering the numbers.
4. Method of writing the Mask key while the EEPROM is in the initial status
  - (1) Enter the test mode. (See "1. How to enter the test mode")
  - (2) Press the [4/8] key to enter the Mask key registration mode. "TRANSMIT1" should be displayed now.

The display at this time should show "< >" in place of "[ ]".
  - (3) Point the Mask key remote toward the light sensor, and press and hold its key for more than 0.5 second.
  - (4) When "TRANSMIT2" is displayed, press and hold the key on the Mask key remote for more than 0.5 second again. The first and second counter codes are not compared at this time.
  - (5) When "APPROVED" is displayed, the write operation is complete. Now the demonstration mode is initiated and the test mode is terminated.

(Note) In the same way as previous models, if 30 minutes have elapsed with no code written, an error occurs and the power is turned OFF.
5. Method of initializing the Mask key  
(How to reset the unit from the Mask key approved condition to the factory condition)
  - (1) Enter the test mode. (See "1. How to enter the test mode")
  - (2) "TRANSMIT1" is displayed and the Mask key entry request mode is initiated. The display at this time should show "\* \*" in place of "[ ]".
  - (3) Press and hold the key on the Master key remote for more than 3 seconds.
  - (4) When "TRANSMIT2" is displayed, press and hold the key on the Master key remote for more than 3 seconds again.
  - (5) When "APPROVED" is displayed, the Mask key is cleared, the demonstration mode is initiated, the test mode is terminated and the unit returns to the factory condition.
6. Method of clearing all Mask key-related data
  - (1) Enter the test mode. (See "1. How to enter the test mode")
  - (2) Press the [4/8] key to enter the Mask key registration mode. "TRANSMIT1" should be displayed now.
  - (3) Point the Master key remote toward the light sensor, and press and hold its key for more than 3 seconds (until the level display shows the full condition).
  - (4) When "TRANSMIT2" is displayed, hold the key on the Mask key remote for more than 3 seconds again. If "TRANSMIT1" is displayed in place of "TRANSMIT2", restart the procedure from step 3.
  - (5) When "APPROVED" is displayed, all security data is cleared and the unit returns to the condition before Mask key writing with the EEPROM in the initial status

# PC BOARD(Component side view)

X16-1600-10/1612-70 (J74-1311-12)



X16-1600-10/1612-70

Ref.No.	Address
IC3	3A

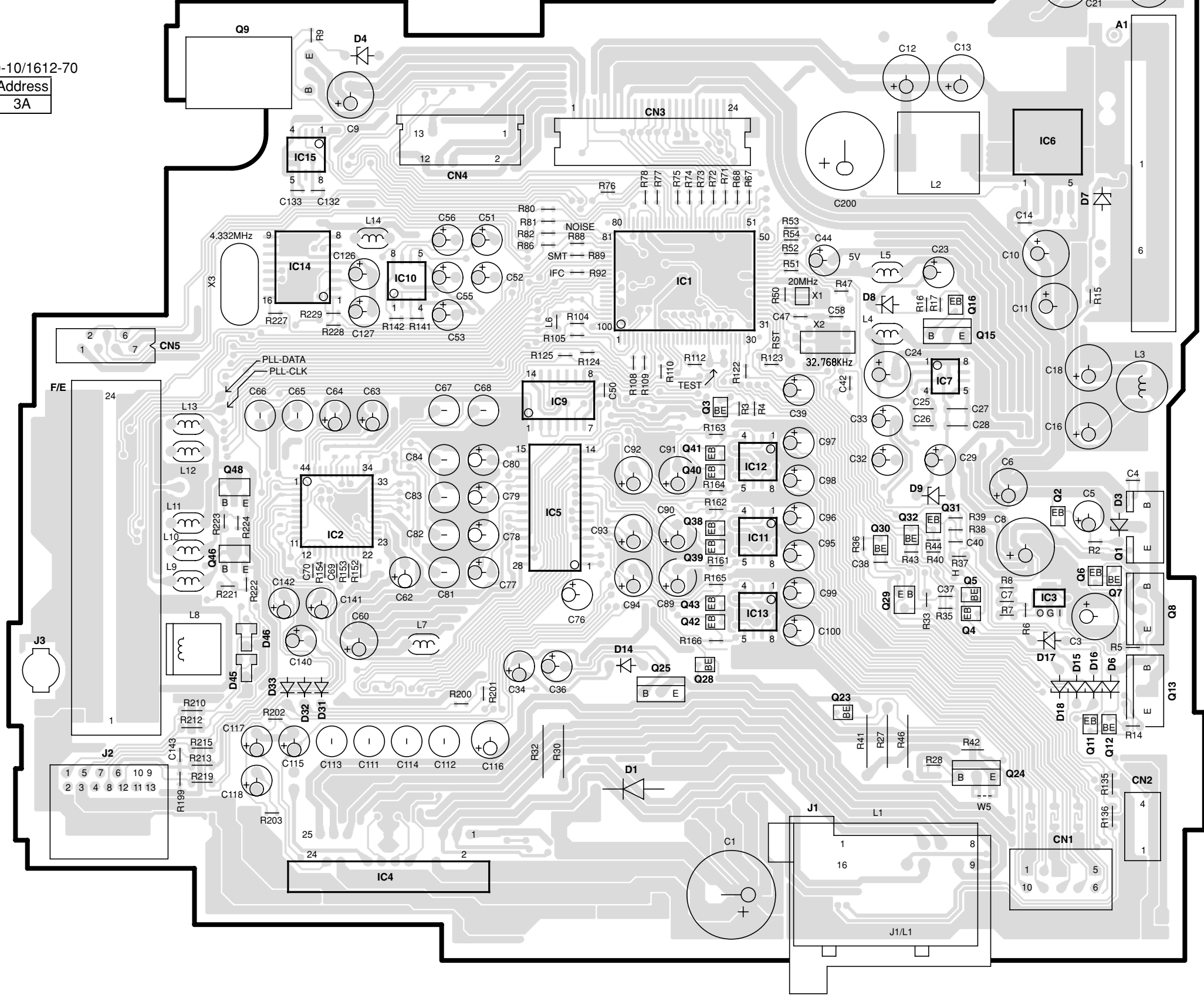
X25-9170-10/9182-70

Ref. No.	IC1	IC2	IC3	IC4	IC5	IC6	IC7	IC9	IC10	IC11	IC12	IC13	IC14	IC15	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Address	3G	4E	5I	6E	4F	2I	3H	4F	3E	4G	4G	5G	3E	2E	4I	4I	4G	5I	5I	5I	5I	5J

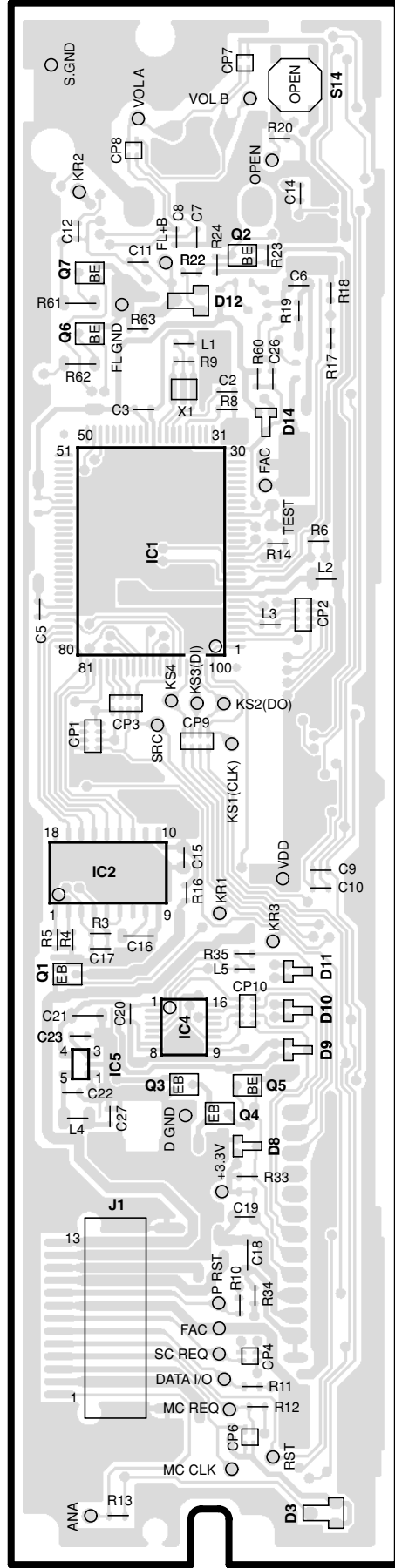
Ref. No.	Q9	Q11	Q12	Q13	Q15	Q16	Q23	Q24	Q25	Q28	Q29	Q30	Q31	Q32	Q38	Q39	Q40	Q41	Q42	Q43	Q46	Q48
Address	2D	5I	5I	5J	3I	3I	5H	6I	5G	5G	5H	4H	4H	4H	4G	4G	4G	4G	5G	5G	4D	4D

X25-9170-10/9182-70 (J74-1309-12)



# PC BOARD(Foil side view)

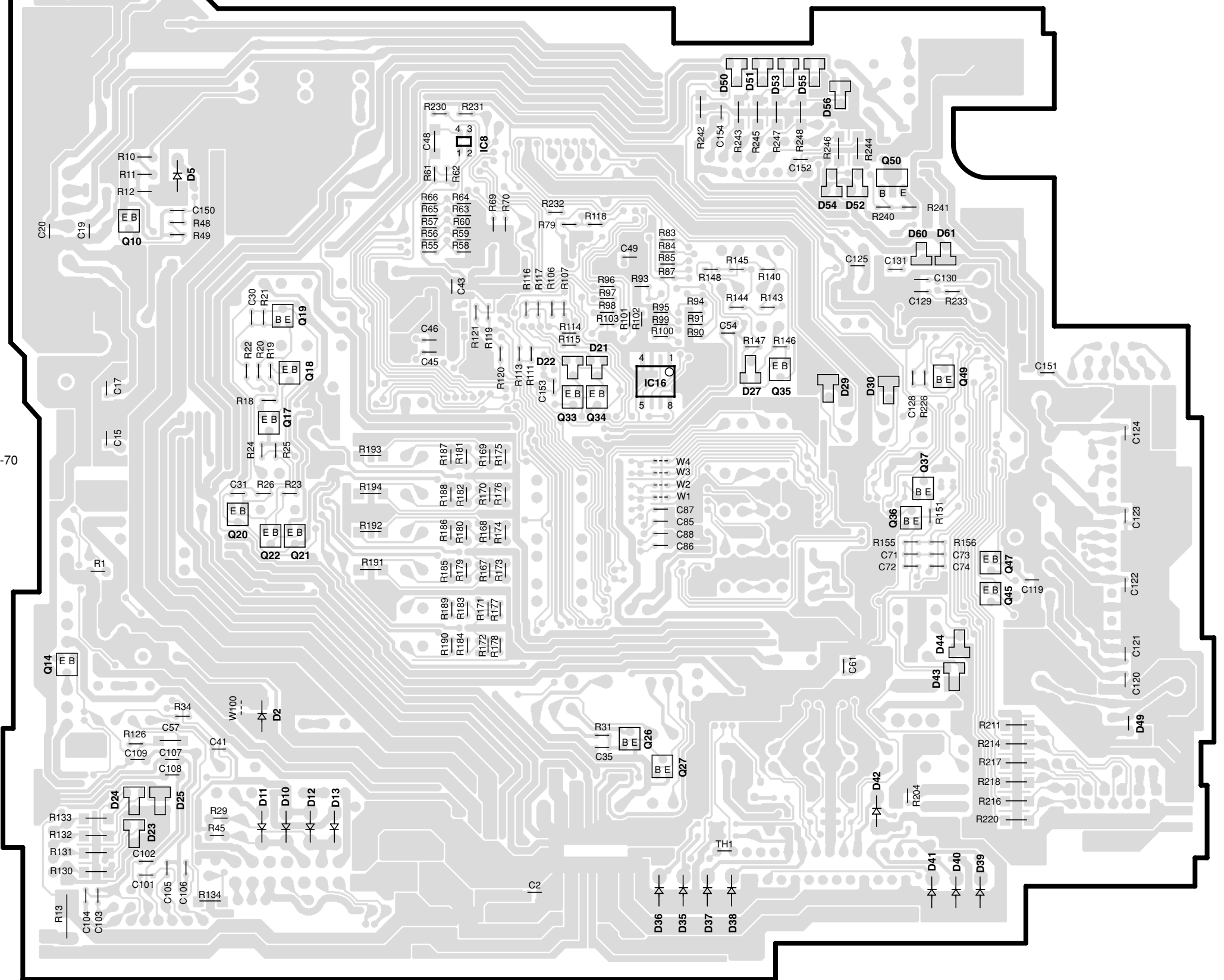
X16-1600-10/1612-70 (J74-1311-12)



X16-1600-10/1612-70

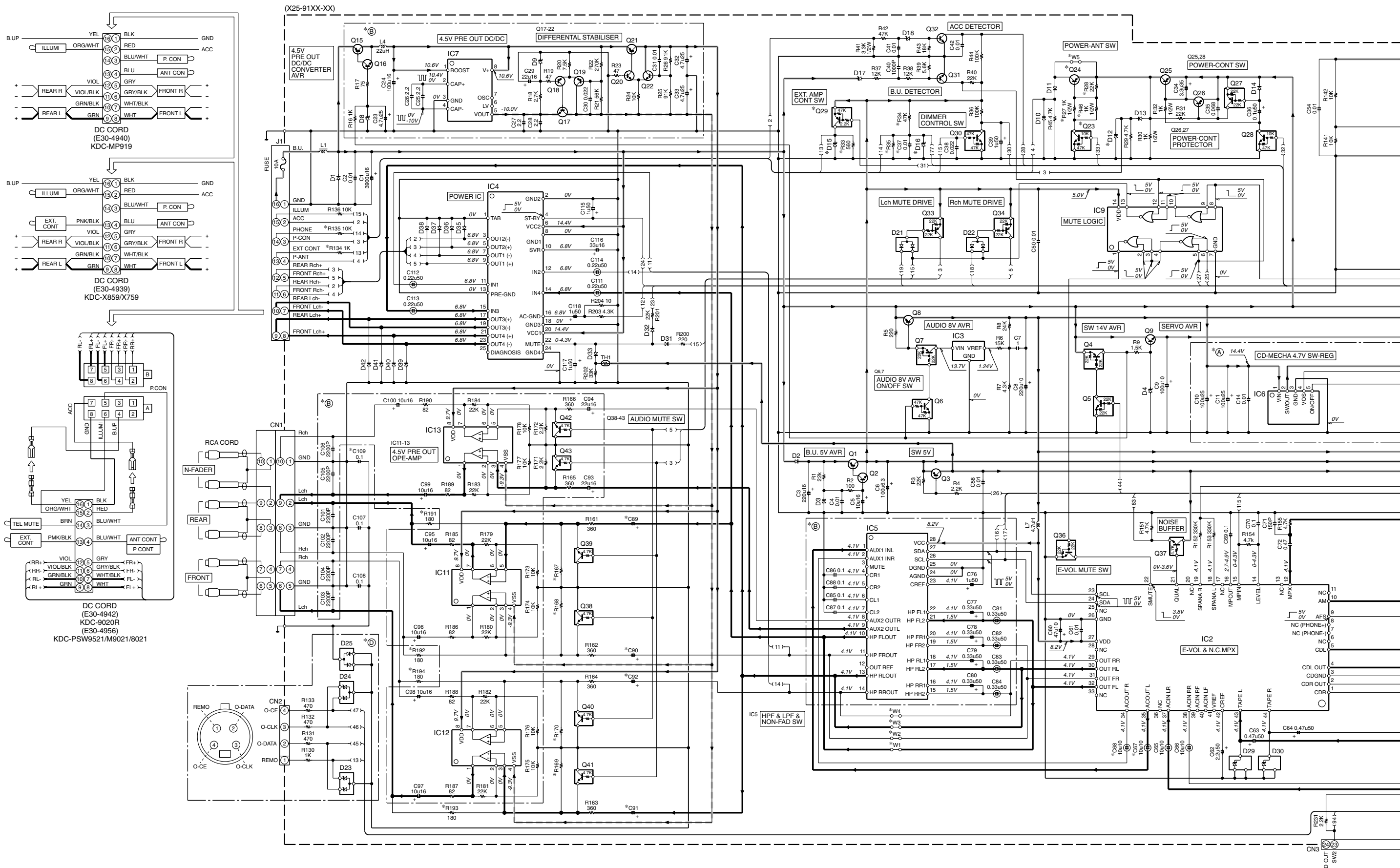
Ref. No.	Address
IC1	3L
IC2	4K
IC4	5L

X25-9170-10/9182-70 (J74-1309-12)

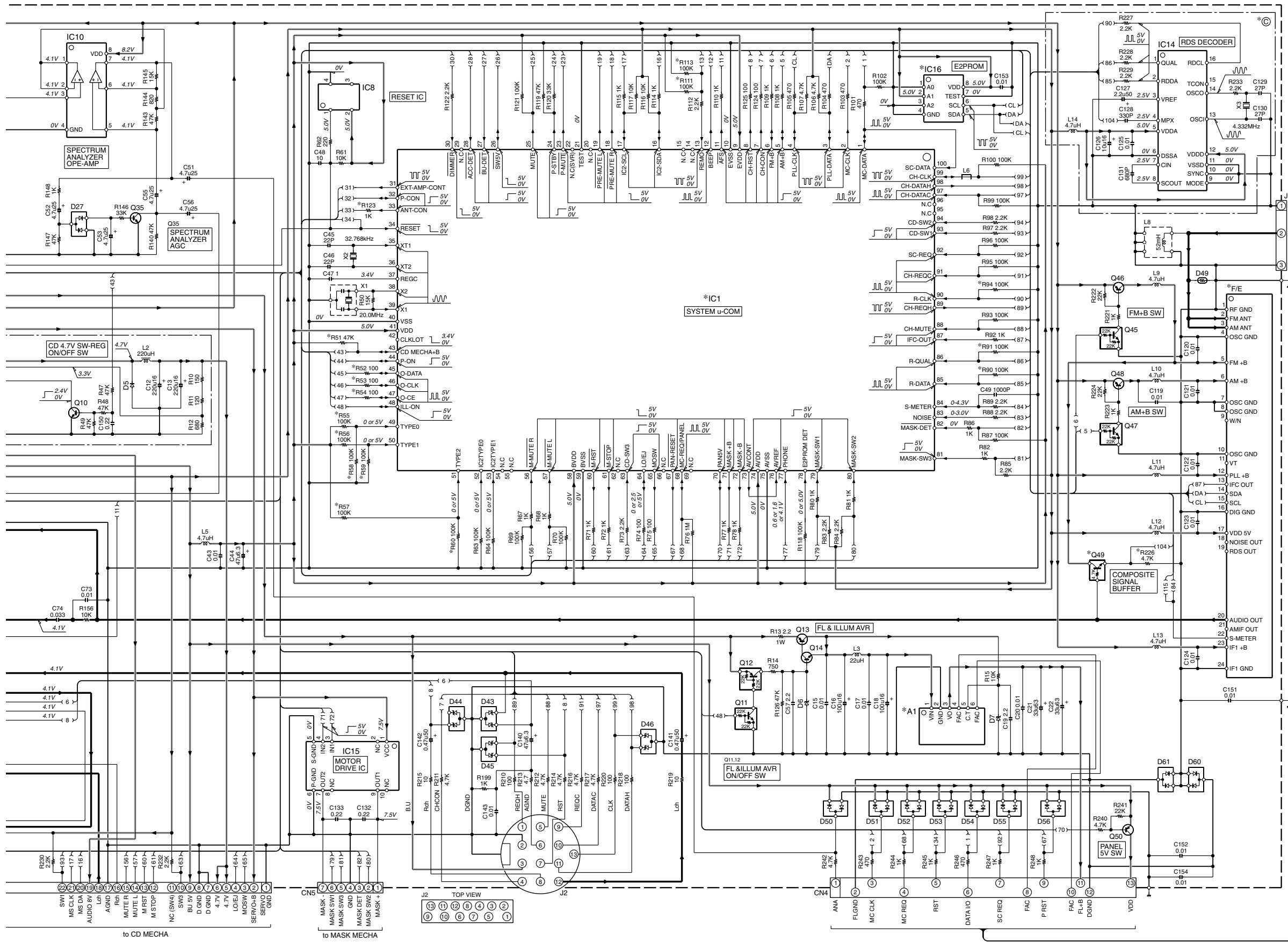


X25-9170-10/918

Ref. No.	IC8	IC16	Q10	Q14	Q17	Q18	Q19	Q20	Q21	Q22	Q26	Q27	Q33	Q34	Q35	Q36	Q37	Q45	Q47	Q49	Q50
Address	2P	3Q	3N	5M	4O	3O	3O	4N	4O	4O	5Q	6Q	4D	4P	3Q	4R	4R	5S	4S	3S	2R

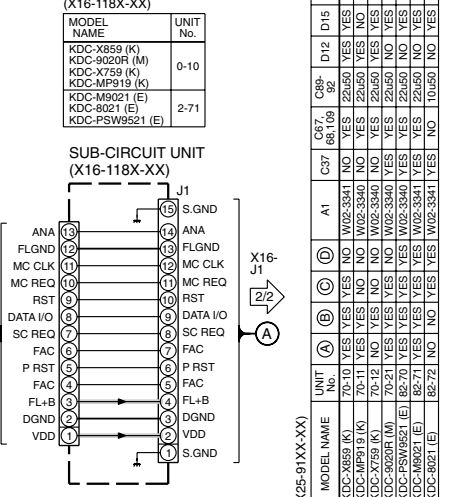


**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  $\Delta$  indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of 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.



- IC1 : \*
- IC2 : TDA7407
- IC3 : M5237ML
- IC4 : TDA7560
- IC5 : TDA7401
- IC6 : SI-8033JD
- IC7 : ICL7660SIBA
- IC8 : S-80837ANNP
- IC9 : TC74HC02FP or HD74HC02FP
- IC10-13 : NJM4565M-TE2
- IC14 : SAA6581T
- IC15 : LB1930M
- IC16 : \*
- Q1,8,13 : KTA1046
- Q2,10,14,16,17,20,22,31,32,35 : 2SC4081
- Q3,18,19,21,26 : 2SA1576A
- Q4,7,12,27,33,34 : DTA124EUA or KRA303
- Q5,11,36,45,47 : DTC124EUA or KRC403
- Q6,30 : DTC144EUA or KRC404
- Q9 : 2SD2375
- Q15 : 2SB1443
- Q23,28 : DTC114YUA or KRC407
- Q24,25 : 2SB1277 (Q,R)
- Q29 : DTA123JK or KRA105S
- Q37-43,49 : DTC143TUA or KRC410
- Q46,48 : 2SB1188(Q,R)
- Q50 : 2SB1427
- D1 : 1N5393G-M5
- D2 : RB160L-40
- D3,9,17 : MA4056(N)-M
- D4 : MA4082(N)-L or HZS9A2L
- D5 : SFPB-54V
- D6 : MA4100-L
- D7 : MA4051(N)-M
- D8 : MA4110(N)-M
- D10-13,35-42 : 1S154-400
- D14,31-33 : 1SS133
- D15 : MA4056-M
- D16 : MA4047-M or HZS5B1
- D18 : MA4062(N)-M or HZS6C2L
- D21,22 : DAP202U
- D23,24,45,46 : MA3062WA
- D25,27,50-56 : DA204K or KDS226
- D29,30,44 : RD6.8M(B2)
- D43 : RD6.8MW
- D49 : IMSA-8801
- D60,61 : DA204U

UNIT	MODEL NAME	IC1	IC16	F/E	D16	D15	D12	D11	D10	D9	D8	D7	D6	D5	D4	D3	D2	D1
KDC-X859 (K)	KDC-9020R (M)	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-M919 (K)	KDC-X759 (K)	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-X759 (K)	KDC-M919 (K)	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-9020R (M)	KDC-X759 (K)	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-PSW921 (E)	KDC-8021 (E)	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-M9021 (E)	KDC-PSW921 (E)	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
KDC-8021 (E)	KDC-PSW921 (E)	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

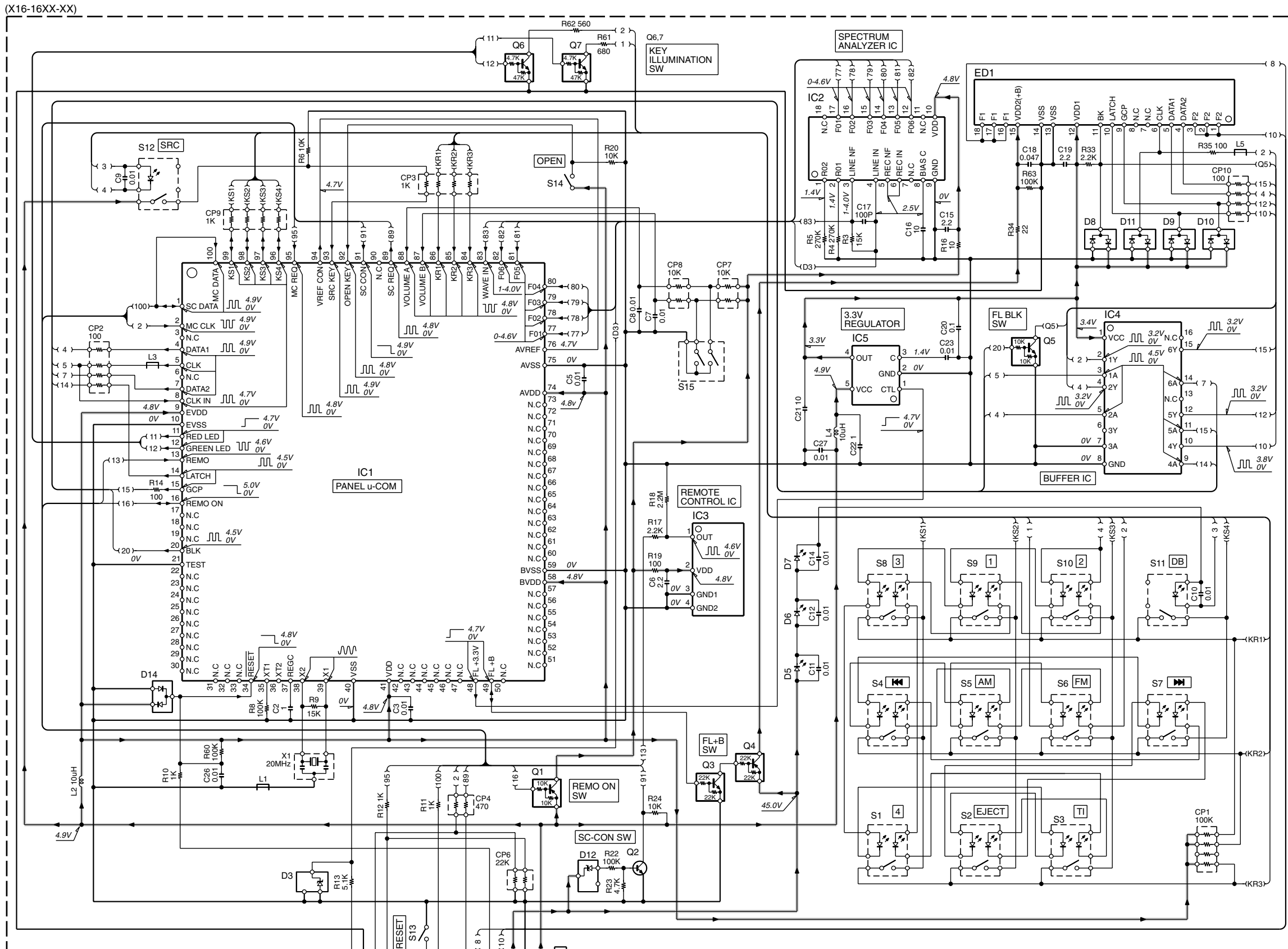


KDC-M9021/8021/X859 (1/2)  
KDC-PSW921/9020R/X759/MP919 (1/2)

# KDC-8021/M9021/X859

KENWOOD





**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  $\Delta$  indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). 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.

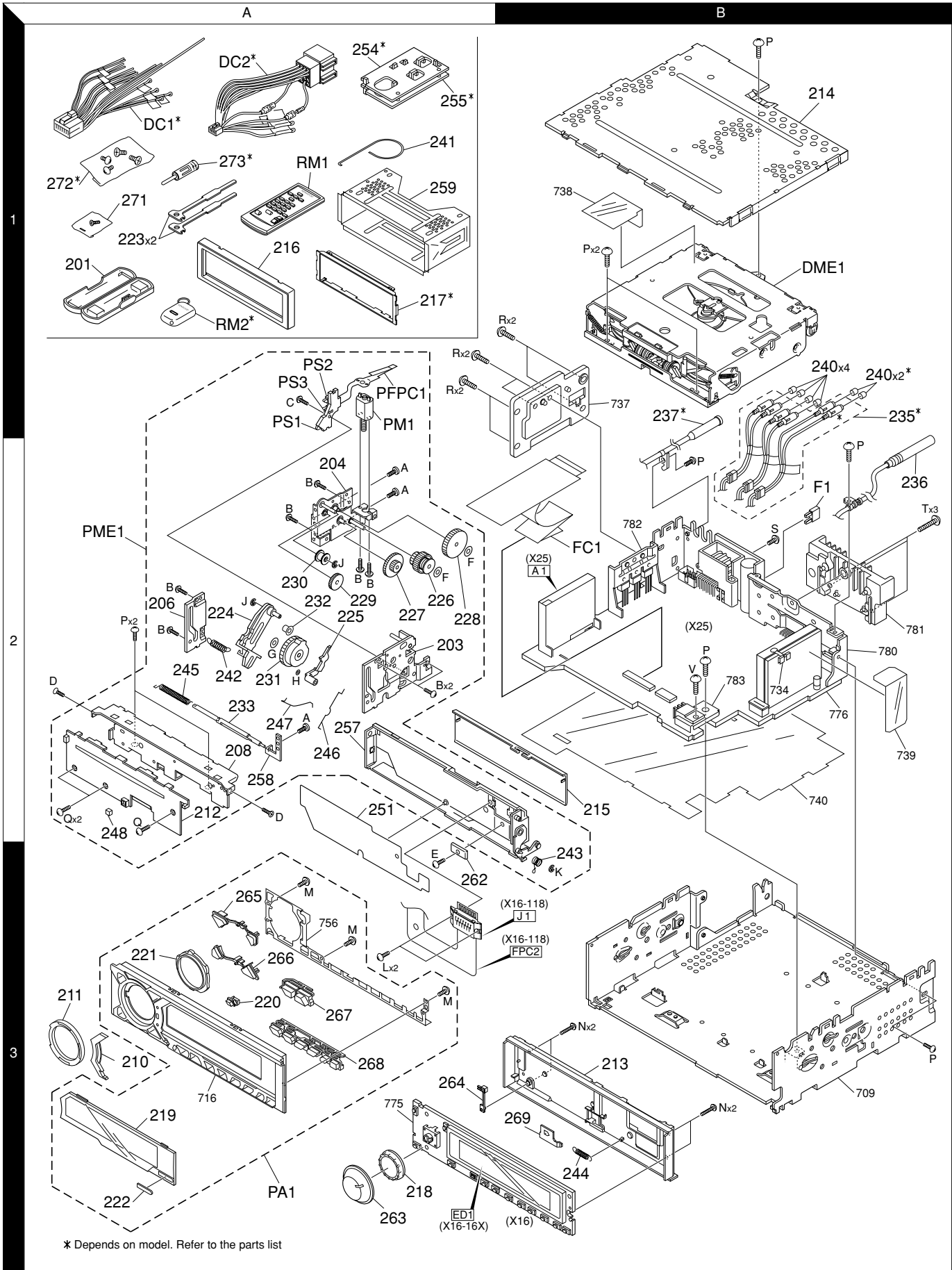
- |           |               |         |
|-----------|---------------|---------|
| DTA123JK  | 2SA1576A      | 2SB1188 |
| DTC114YUA |               |         |
| DTC143TUA |               |         |
| 2SB1277   | 2SC4081       |         |
| 2SB1443   |               |         |
| DTA114EUA | NJM4565M-TE2  |         |
| DTA124EUA |               |         |
| DTC114EUA |               |         |
| DTC124EUA |               |         |
| DTC144EUA |               |         |
| KTA1046   | DAP202U       |         |
|           | DA204K        |         |
|           | DA204U        |         |
|           |               |         |
| RD6.8M    | TC74HC02AF    |         |
|           |               |         |
| BA3830F   | M5237ML       |         |
|           |               |         |
| LB1930M   | TC74HC4050AFT |         |
|           |               |         |

IC1 : UPD703032GFA03	Q1 : DTA114EUA	D3 : MA3056-M	(X16-16XX-XX)	KDC-X859(K) (2/2)
IC2 : BA3830F	Q2 : 2SC4081	D5-7 : B30-1564-05	MODEL NAME	KDC-8021(E) (2/2)
IC3 : RS-171	Q3 : DTC124EUA	D8-11,14 : DA204U	UNIT No.	KDC-M9021(E) (2/2)
IC4 : TC74HC4050AFT	Q4 : DTA124EUA	D12 : MA3240-M	KDC-X859	K 00-10
IC5 : TAR5S33	Q5 : DTC114EUA		KDC-8021	E 12-70
	Q6,7 : DTC143ZUA		KDC-M9021	E 12-70

# KDC-8021/M9021/X859

## KENWOOD

## EXPLODED VIEW



Parts with exploded numbers larger than 700 are not supplied.

# KDC-8021/M9021/X859

## 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	Dest inati on
<b>KDC-8021/M9021/X859</b>					
201	1A		A02-1497-13	PLASTIC CABINET ASSY	
203	2A		A10-4807-13	CHASSIS CALKING ASSY	
204	2A		A10-4810-13	CHASSIS CALKING ASSY	
206	2A		A10-4893-04	CHASSIS CALKING ASSY	
208	2A		A10-4924-02	CHASSIS	
210	3A	*	A21-4169-03	DRESSING PANEL	
211	3A	*	A21-4170-03	DRESSING PANEL	
212	2A		A22-2865-03	SUB PANEL ASSY	
213	3B	*	A46-1752-01	REAR COVER	
214	1B	*	A52-0805-02	TOP PLATE	
PA1	3A	*	A64-2567-02	PANEL ASSY	K
PA1	3A	*	A64-2587-02	PANEL ASSY	E1
PA1	3A	*	A64-2588-02	PANEL ASSY	E2
PME1	2A		A10-4921-02	CHASSIS ASSY	
RM1	1A		A70-2025-05	REMOTE CONTROLLER ASSY(RC-410)	K
RM1	1A		A70-2026-05	REMOTE CONTROLLER ASSY(RC-420)	E1E2
RM2	1A		A70-0886-15	REMOTE CONTROLLER ASSY(MASK)	E1E2
215	2B		B03-3073-12	DRESSING PLATE	
216	1A		B07-3007-03	ESCUTCHEON ASSY	
217	1C		B07-3010-02	ESCUTCHEON	K
218	3A	*	B09-0527-03	CAP (VOL)	
219	3A	*	B10-4148-01	FRONT GLASS	K
219	3A	*	B10-4165-01	FRONT GLASS	E1
219	3A	*	B10-4166-01	FRONT GLASS	E2
220	3A	*	B10-4152-04	FRONT GLASS	
221	3A	*	B19-2133-03	LIGHTING BOARD	
222	3A		B43-1284-04	BADGE	
-			B46-0100-50	WARRANTY CARD	
-			B46-0606-04	ID CARD	K
-			B46-0632-04	ID CARD	E1E2
-			B46-0645-03	USER CARD	K
-		*	B46-0648-03	USER CARD	K
-			B58-1309-04	CAUTION CARD	E1E2
-		*	B64-2215-00	INSTRUCTION MANUAL (ENGLISH)	K
-		*	B64-2216-00	INSTRUCTION MANUAL (FRE.SPA.)	K
-		*	B64-2218-00	INSTRUCTION MANUAL (ENGLISH)	E1E2
-		*	B64-2219-00	INSTRUCTION MANUAL (FRE.GER.)	E1E2
-		*	B64-2220-00	INSTRUCTION MANUAL (DUT.ITA.)	E1E2
-		*	B64-2221-00	INSTRUCTION MANUAL (SPA.POR.)	E1E2
223	1A		D10-4562-04	LEVER	
224	2A		D10-4563-04	ARM ASSY	
225	2A		D10-4590-04	ARM	
226	2A		D13-2135-04	GEAR ASSY	
227	2A		D13-2138-04	GEAR	
228	2A		D13-2139-04	GEAR	
229	2A		D13-2140-04	GEAR	
230	2A		D13-2141-14	GEAR ASSY	
231	2A		D13-2165-03	GEAR ASSY	
232	2A		D14-0754-04	ROLLER	
233	2A		D14-0760-03	ROLLER	
235	1B	*	E30-6054-05	CORD WITH PINPLUG (3PRE)	K

Ref.No.	A d d	N e w	Parts No.	Description	Dest inati on
235	1B	*	E30-6101-05	CORD WITH PINPLUG (3PRE)	E1
235	1B	*	E30-6104-05	CORD WITH PINPLUG (2PRE)	E2
236	1B	*	E30-6056-05	CORD WITH PLUG (ANT)	
237	2B	*	E30-6057-05	CORD WITH DIN CONNECTOR (DISP)	E1E2
DC1	1A		E30-4939-05	DC CORD	K
DC2	1A		E30-4956-05	DC CORD (ISO)	E1E2
FC1	2B	*	E39-0437-05	FLAT CABLE	
240	2B		F29-0049-05	INSULATING COVER	
F1	2B		F52-0006-05	FUSE(MINI BLADE TYPE) 10A	
241	1A		G01-2924-04	TORSION COIL SPRING	
242	2A		G01-3065-04	EXTENSION SPRING	
243	2B		G01-3066-14	TORSION COIL SPRING	
244	3B		G01-3069-04	EXTENSION SPRING	
245	2A		G01-3080-04	TORSION COIL SPRING	
246	2A		G09-2038-04	FORMED WIRE	
247	2A		G09-2042-04	FORMED WIRE	
248	2A		G11-1927-04	CUSHION	
251	2A		G16-1177-04	SHEET	
-			H10-4762-12	POLYSTYRENE FOAMED FIXTURE	E1E2
-			H10-4764-12	POLYSTYRENE FOAMED FIXTURE	K
-			H25-0329-04	PROTECTION BAG (280X450X0.03)	K
-			H25-0337-04	PROTECTION BAG (180X300X0.03)	
-			H25-1108-04	PROTECTION BAG (100X300X0.03)	
-			H25-1111-04	PROTECTION BAG (280X450X0.03)	E1E2
-		*	H54-2336-03	ITEM CARTON CASE	K
-		*	H54-2337-03	ITEM CARTON CASE	E1
-		*	H54-2344-03	ITEM CARTON CASE	E2
254	1A		J19-5051-03	BRACKET (L)	K
255	1A		J19-5052-03	BRACKET (R)	K
257	2A		J21-9651-13	MOUNTING HARDWARE ASSY	
258	2A		J21-9699-04	MOUNTING HARDWARE	
259	1A		J21-9716-03	MOUNTING HARDWARE ASSY	
262	3B		J90-0999-04	GUIDE	
PFFC1	1A		J84-0122-04	FLEXIBLE PRINTED WIRING BOARD	
263	3A	*	K23-1062-03	KNOB (VOL)	
264	3A		K24-3646-04	KNOB (RESET)	
265	3A	*	K25-1400-03	KNOB (FM/AM)	
266	3A	*	K25-1401-03	KNOB (UP/DOWN)	
267	3A	*	K25-1402-03	KNOB (SRC)	
268	3A	*	K25-1403-03	KNOB (PRESET)	
269	3B		K29-7017-03	KNOB (LOCK)	
271	1A		N99-1704-05	SCREW SET	
272	1A		N99-1722-05	SCREW SET	K
A	2A		N09-4400-05	MACHINE SCREW	
B	2A		N09-4401-05	MACHINE SCREW	
C	1A		N09-4427-05	TAPTITE SCREW	
D	2A		N09-4448-05	MACHINE SCREW	
E	3A		N09-4449-05	MACHINE SCREW	
F	2A		N19-2154-04	FLAT WASHER	
G	2A		N19-2155-04	FLAT WASHER	
H	2A		N19-2156-04	FLAT WASHER	
J	2A		N29-0522-05	RETAINING RING	

K : KDC-X859

E1 : KDC-M9021

E2 : KDC-8021

△ indicates safety critical components.

## 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	Dest inati on
K	3B		N29-0523-05	RETAINING RING	
L	3A		N38-2025-46	PAN HEAD MACHIN SCREW	
M	3A		N80-2005-46	PAN HEAD TAPTITE SCREW	
N	3B		N09-4473-05	MACHINE SCREW	
P	1B		N83-3005-46	PAN HEAD TAPTITE SCREW	
Q	2A		N86-2004-45	BINDING HEAD TAPTITE SCREW	
R	1A		N83-3008-46	PAN HEAD TAPTITE SCREW	
PS1 -3	1A		S68-0856-05	PUSH SWITCH	
273	1A		T90-0523-05	ANTENNA ADAPTOR	E1E2
273	1A		T90-0534-05	ANTENNA ADAPTOR	E1E2
PM1	1A		T42-1034-04	MOTOR ASSY	
DME1	1B		X92-4450-01	MECHANISM ASSY (DXM-6111W)	E2
DME1	1B		X92-4460-00	MECHANISM ASSY (DXM-6400W)	K
DME1	1B		X92-4460-01	MECHANISM ASSY (DXM-6401W)	E1
<b>SUB-CIRCUIT UNIT (X16-118x-xx)</b>					
J1	3B		E58-0903-05	RECTANGULAR RECEPTACLE	
FPC2	3B	*	J84-0121-12	FLEXIBLE PRINTED WIRING BOARD	
<b>SWITCH UNIT (X16-16xx-xx)</b>					
D5 -7			B30-1564-05	LED(1608,BLUE)	
C2			CK73GB0J105K	CHIP C 1.0UF K	
C3			CK73GB1H103K	CHIP C 0.010UF K	
C5			CK73GB1H103K	CHIP C 0.010UF K	
C6			CK73FB1A225K	CHIP C 2.2UF K	
C7 -12			CK73GB1H103K	CHIP C 0.010UF K	
C14			CK73GB1H103K	CHIP C 0.010UF K	
C15			CK73FB1A225K	CHIP C 2.2UF K	
C16			CK73EB0J106K	CHIP C 10UF K	
C17			CC73GCH1H101J	CHIP C 100PF J	
C18		*	C93-1217-05	CHIP C 0.047UF K	
C19			CK73FB1A225K	CHIP C 2.2UF K	
C20			CK73GB1C104K	CHIP C 0.10UF K	
C20			CK73GB1H104K	CHIP C 0.10UF K	
C21			CK73EB0J106K	CHIP C 10UF K	
C22			CK73GB0J105K	CHIP C 1.0UF K	
C23			CK73GB1H103K	CHIP C 0.010UF K	
C26 ,27			CK73GB1H103K	CHIP C 0.010UF K	
J1			E59-0835-05	RECTANGULAR PLUG	
L1			L92-0332-05	CHIP FERRITE	
L2			L40-1005-34	SMALL FIXED INDUCTOR	
L2			L40-1005-68	SMALL FIXED INDUCTOR	
L3			L92-0332-05	CHIP FERRITE	
L4			L40-1005-34	SMALL FIXED INDUCTOR	
L4			L40-1005-68	SMALL FIXED INDUCTOR	
L5			L92-0332-05	CHIP FERRITE	
X1			L78-0821-05	RESONATOR	
CP1			R90-0720-05	MULTI-COMP 100K X4	
CP2			R90-1014-05	MULTI-COMP 100 X4	
CP3			R90-0724-05	MULTI-COMP 1K X4	
CP4			R90-1022-05	MULTI-COMP 470 X2	
CP6			R90-1020-05	MULTI-COMP 22K X2	

Ref.No.	A d d	N e w	Parts No.	Description	Dest inati on
CP7 ,8			R90-0726-05	MULTI-COMP 10K X2	
CP9			R90-0724-05	MULTI-COMP 1K X4	
CP10			R90-1014-05	MULTI-COMP 100 X4	
R3			RK73GB2A153J	CHIP R 15K J 1/10W	
R4 ,5			RK73GB2A274J	CHIP R 270K J 1/10W	
R6			RK73GB2A103J	CHIP R 10K J 1/10W	
R8			RK73GB2A104J	CHIP R 100K J 1/10W	
R9			RK73GB2A153J	CHIP R 15K J 1/10W	
R10 -12			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R13			RK73GB2A512J	CHIP R 5.1K J 1/10W	
R14			RK73GB2A101J	CHIP R 100 J 1/10W	
R16			RK73GB2A100J	CHIP R 10 J 1/10W	
R17			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R18			RK73GB2A225J	CHIP R 2.2M J 1/10W	
R19			RK73GB2A101J	CHIP R 100 J 1/10W	
R20			RK73GB2A103J	CHIP R 10K J 1/10W	
R22			RK73GB2A104J	CHIP R 100K J 1/10W	
R23			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R24			RK73GB2A103J	CHIP R 10K J 1/10W	
R33			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R34		*	RK73GB2A220J	CHIP R 22 J 1/10W	
R35			RK73GB2A101J	CHIP R 100 J 1/10W	
R60			RK73GB2A104J	CHIP R 100K J 1/10W	
R61		*	RK73EB2E681J	CHIP R 680 J 1/4W	
R62			RK73EB2E561J	CHIP R 560 J 1/4W	
S1 -10			S70-0856-05	TACT SWITCH	
S11 ,12			S70-0857-05	TACT SWITCH	
S13			S70-0851-05	TACT SWITCH	
S14			S70-0864-05	TACT SWITCH	
S15		*	T99-0431-05	ROTARY ENCODER	
D3			HZM5.6N(B2)	ZENER DIODE	K
D3			MA3056-M	ZENER DIODE	
D3			O2CZ5.6-Y	ZENER DIODE	K
D8 -11			DA204U	DIODE	
D12		*	MA3240-M	ZENER DIODE	
D14			DA204U	DIODE	
ED1		*	CN2033M	FLUORESCENT INDICATOR TUBE	
IC1		*	UPD703032GFA03	MI-COM IC	
IC2			BA3830F	ANALOGUE IC	
IC3			RS-171	ANALOGUE IC	
IC4			TC74HC4050AFT	MOS-IC	
IC5		*	TAR5S33	ANALOGUE IC	
Q1			DTA114EUA	DIGITAL TRANSISTOR	
Q1			KRA302	DIGITAL TRANSISTOR	K
Q2			2SC4081	TRANSISTOR	
Q3			DTC124EUA	DIGITAL TRANSISTOR	
Q3		*	KRC403	DIGITAL TRANSISTOR	K
Q4			DTA124EUA	DIGITAL TRANSISTOR	
Q4			KRA303	DIGITAL TRANSISTOR	K
Q5			DTC114EUA	DIGITAL TRANSISTOR	
Q5			KRC402	DIGITAL TRANSISTOR	K
Q6 ,7			DTC143ZUA	DIGITAL TRANSISTOR	

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

K : KDC-X859  
E1 : KDC-M9021  
E2 : KDC-8021

△ indicates safety critical components.

## PARTS LIST

\* New Parts

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Ref.No.	A d d	N e w	Parts No.	Description	Dest inati on
<b>ELECTRIC UNIT (X25-91xx-xx)</b>					
C1			C90-5377-05	ELECTRO 3900UF 16WV	
C2			CK73GB1H103K	CHIP C 0.010UF K	
C3			C90-2866-05	ELECTRO 220UF 16WV	
C4			CK73GB1H103K	CHIP C 0.010UF K	
C5			CE04NW1C100M	ELECTRO 10UF 16WV	
C6			CE04NW0J101M	ELECTRO 100UF 6.3WV	
C7			CK73FB1C105K	CHIP C 1.0UF K	
C8			CE04CW1A221M	ELECTRO 220UF 10WV	
C9			CE04CW1A101M	ELECTRO 100UF 10WV	
C10 ,11			C90-2963-05	ELECTRO 100UF 25WV	E1K
C12 ,13			C90-5418-05	ELECTRO 220UF 16WV	E1K
C14 ,15			CK73GB1H103K	CHIP C 0.010UF K	E1K
C15			CK73GB1H103K	CHIP C 0.010UF K	E2
C16			C90-2962-05	ELECTRO 100UF 16WV	
C17			CK73GB1H103K	CHIP C 0.010UF K	
C18			C90-2962-05	ELECTRO 100UF 16WV	
C19			CK73FB1A225K	CHIP C 2.2UF K	
C20		*	C93-1218-05	CHIP C 0.010UF K	
C21 ,22			C90-5375-05	ELECTRO 33UF 63WV	
C23			CE04NW1E4R7M	ELECTRO 4.7UF 25WV	E1K
C24			C90-2962-05	ELECTRO 100UF 16WV	E1K
C25 -28			CK73EB1C225K	CHIP C 2.2UF K	E1K
C29			CE04NW1C220M	ELECTRO 22UF 16WV	E1K
C30			CK73GB1E223K	CHIP C 0.022UF K	E1K
C30			CK73GB1H223K	CHIP C 0.022UF K	E1K
C31			CK73GB1H103K	CHIP C 0.010UF K	E1K
C32 ,33			CE04NW1E4R7M	ELECTRO 4.7UF 25WV	E1K
C34			CE04NW1V3R3M	ELECTRO 3.3UF 35WV	
C35			CK73GB1C683K	CHIP C 0.068UF K	
C36			CE04NW1H0R1M	ELECTRO 0.1UF 50WV	
C37			CK73GB1H103K	CHIP C 0.010UF K	E1E2
C38			CK73GB1E223K	CHIP C 0.022UF K	
C38			CK73GB1H223K	CHIP C 0.022UF K	
C39			CE04NW1H010M	ELECTRO 1.0UF 50WV	
C40			CK73GB1H102K	CHIP C 1000PF K	
C41 -43			CK73GB1H103K	CHIP C 0.010UF K	
C44			CE04NW0J470M	ELECTRO 47UF 6.3WV	
C45 ,46			CC73GCH1H220J	CHIP C 22PF J	
C47			CK73GB0J105K	CHIP C 1.0UF K	△
C48			CK73EB0J106K	CHIP C 10UF K	
C49			CK73GB1H102K	CHIP C 1000PF K	
C50			CK73GB1H103K	CHIP C 0.010UF K	
C51 -53			CE04NW1E4R7M	ELECTRO 4.7UF 25WV	
C54			CK73GB1H103K	CHIP C 0.010UF K	
C55 ,56			CE04NW1E4R7M	ELECTRO 4.7UF 25WV	
C60			CE04NW1C470M	ELECTRO 47UF 16WV	
C61			CK73GB1H103K	CHIP C 0.010UF K	
C62			CE04NW1H2R2M	ELECTRO 2.2UF 50WV	
C63 ,64			CE04NW1HR47M	ELECTRO 0.47UF 50WV	
C65 -68			C90-2850-05	ELECTRO 10UF 10WV	E1K
C65 ,66			C90-2850-05	ELECTRO 10UF 10WV	E2
C69 ,70			CK73GB1C104K	CHIP C 0.10UF K	
C69 ,70			CK73GB1H104K	CHIP C 0.10UF K	
C71			CC73GCH1H151J	CHIP C 150PF J	
C72			CK73GB1A474K	CHIP C 0.47UF K	
C73			CK73GB1H103K	CHIP C 0.010UF K	
C74			CK73GB1E333K	CHIP C 0.033UF K	
C74			CK73GB1H333K	CHIP C 0.033UF K	
C76			CE04NW1H010M	ELECTRO 1.0UF 50WV	E1K
C77 -80			CE04NW1HR33M	ELECTRO 0.33UF 50WV	E1K
C81 -84		*	C90-5429-05	ELECTRO 0.33UF 50WV	E1K
C85 -88			CK73GB1C104K	CHIP C 0.10UF K	E1K
C85 -88			CK73GB1H104K	CHIP C 0.10UF K	E1K
C89 -92			C90-2597-05	ELECTRO 10UF 16WV	E2
C89 -94			CE04CW1C220M	ELECTRO 22UF 16WV	E1K
C95 -100			CE04NW1C100M	ELECTRO 10UF 16WV	E1K
C101-106			CK73GB1H222K	CHIP C 2200PF K	E1K
C107-109			CK73FB1H104K	CHIP C 0.10UF K	E1K
C107,108			CK73FB1H104K	CHIP C 0.10UF K	E2
C111-114			C90-5296-05	NP-ELECT 0.22UF 50WV	
C115			CE04NW1H010M	ELECTRO 1.0UF 50WV	
C116			CE04NW1C330M	ELECTRO 33UF 16WV	
C117			CE04NW1H010M	ELECTRO 1.0UF 50WV	
C118			C90-2935-05	ELECTRO 1.0UF 50WV	
C120-125			CK73GB1H103K	CHIP C 0.010UF K	
C126			CE04NW1C100M	ELECTRO 10UF 16WV	
C127			CE04NW1H2R2M	ELECTRO 2.2UF 50WV	
C128			CC73GCH1H331J	CHIP C 330PF J	
C129,130			CC73GCH1H270J	CHIP C 27PF J	
C131			CC73GCH1H681J	CHIP C 680PF J	
C132,133			CK73GB1A224K	CHIP C 0.22UF K	
C140			CE04NW0J470M	ELECTRO 47UF 6.3WV	
C141,142			CE04NW1HR47M	ELECTRO 0.47UF 50WV	
C143			CK73GB1H103K	CHIP C 0.010UF K	
C150			CK73GB1A224K	CHIP C 0.22UF K	E1K
C151-153			CK73GB1H103K	CHIP C 0.010UF K	
CN1		*	E41-0174-05	PIN ASSY	
CN2			E40-3248-05	PIN ASSY	E1E2
CN3			E40-9527-05	FLAT CABLE CONNECTOR	
CN3		*	E41-0213-05	FLAT CABLE CONNECTOR	
CN4			E40-9557-05	FLAT CABLE CONNECTOR	
CN5			E40-5031-05	FLAT CABLE CONNECTOR	
J1			E58-0863-15	RECTANGULAR RECEPTACLE	
J2			E56-0834-05	CYLINDRICAL RECEPTACLE	
J3			E04-0154-05	RF COAXIAL CABLE RECEPTACLE	
L1			L33-1170-05	CHOKE COIL ASSY	
L2		*	L33-1819-05	CHOKE COIL	E1K
L3			L33-1029-05	SMALL FIXED INDUCTOR	
L4			L40-2205-91	SMALL FIXED INDUCTOR(22UH,J)	E1K
L5			L40-4795-91	SMALL FIXED INDUCTOR(4.7UH,J)	
L6			L92-0075-05	CHIP FERRITE	
L7			L40-4795-91	SMALL FIXED INDUCTOR(4.7UH,J)	
L8			L33-1039-05	LINE FILTER COIL	
L9 -14			L40-4795-91	SMALL FIXED INDUCTOR(4.7UH,J)	
X1			L78-0821-05	RESONATOR	
X2			L77-2738-05	CRYSTAL RESONATOR	
X3			L77-2002-05	CRYSTAL RESONATOR	

K : KDC-X859

E1 : KDC-M9021

E2 : KDC-8021

E: Europe K: North America M: Other Areas

W: Without Europe

△ indicates safety critical components.

## PARTS LIST

\* New Parts

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Teile ohne Parts No. werden nicht geliefert.

### ELECTRIC UNIT (X25-91xx-xx)

Ref.No.	A d d	N e w	Parts No.	Description	Dest inati on	Ref.No.	A d d	N e w	Parts No.	Description	Dest inati on
S	2B		N80-3008-46	PAN HEAD TAPTITE SCREW		R57 -59			RK73GB2A104J	CHIP R 100K J 1/10W	E1
T	2B		N83-3016-46	PAN HEAD TAPTITE SCREW		R58			RK73GB2A104J	CHIP R 100K J 1/10W	K
V	2B		N86-2606-46	BINDING HEAD TAPTITE SCREW		R60			RK73GB2A104J	CHIP R 100K J 1/10W	K
R1			RK73FB2B223J	CHIP R 22K J 1/8W		R61			RK73GB2A103J	CHIP R 10K J 1/10W	
R2			RK73GB2A101J	CHIP R 100 J 1/10W		R62			RK73GB2A221J	CHIP R 220 J 1/10W	
R3			RK73GB2A223J	CHIP R 22K J 1/10W		R63,64			RK73GB2A104J	CHIP R 100K J 1/10W	
R4			RK73GB2A222J	CHIP R 2.2K J 1/10W		R67,68			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R5			RK73FB2B221J	CHIP R 220 J 1/8W		R69,70			RK73GB2A104J	CHIP R 100K J 1/10W	
R6			RK73GB2A153J	CHIP R 15K J 1/10W		R71,72			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R7			R92-3032-05	CHIP R 4.3K D 1/10W		R73			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R8			R92-3047-05	CHIP R 24K D 1/10W		R74,75			RK73GB2A101J	CHIP R 100 J 1/10W	
R9			RK73GB2A152J	CHIP R 1.5K J 1/10W		R76			RK73GB2A105J	CHIP R 1.0M J 1/10W	
R10		*	R92-3018-05	CHIP R 150 D 1/10W	E1K	R77,78			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R11		*	R92-3017-05	CHIP R 120 D 1/10W	E1K	R79			RK73GB2A104J	CHIP R 100K J 1/10W	
R12		*	R92-3021-05	CHIP R 680 D 1/10W	E1K	R80-82			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R13			R92-2104-05	CHIP R 2.2 J 1W		R83-85			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R14			RK73GB2A152J	CHIP R 1.5K J 1/10W		R86			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R15			RK73FB2B103J	CHIP R 10K J 1/8W		R87			RK73GB2A104J	CHIP R 100K J 1/10W	
R16			RK73GB2A102J	CHIP R 1.0K J 1/10W	E1K	R88,89			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R17			RK73GB2A750J	CHIP R 75 J 1/10W	E1K	R92			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R18			RK73GB2A272J	CHIP R 2.7K J 1/10W	E1K	R93			RK73GB2A104J	CHIP R 100K J 1/10W	
R19			RK73GB2A470J	CHIP R 47 J 1/10W	E1K	R95,96			RK73GB2A104J	CHIP R 100K J 1/10W	
R20			RK73GB2A752J	CHIP R 7.5K J 1/10W	E1K	R97,98			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R21			RK73GB2A563J	CHIP R 56K J 1/10W	E1K	R99,100			RK73GB2A104J	CHIP R 100K J 1/10W	
R22			RK73GB2A274J	CHIP R 270K J 1/10W	E1K	R101			RK73GB2A471J	CHIP R 470 J 1/10W	
R23			RK73GB2A470J	CHIP R 47 J 1/10W	E1K	R102			RK73GB2A104J	CHIP R 100K J 1/10W	
R24			RK73GB2A103J	CHIP R 10K J 1/10W	E1K	R103-105			RK73GB2A471J	CHIP R 470 J 1/10W	
R25,26			RK73GB2A913J	CHIP R 91K J 1/10W	E1K	R106,107			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R27			RD14DB2H102J	SMALL-RD 1.0K J 1/2W	K	R108-110			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R28			RK73GB2A223J	CHIP R 22K J 1/10W	K	R111			RK73GB2A104J	CHIP R 100K J 1/10W	E1E2
R29			RK73FB2B472J	CHIP R 4.7K J 1/8W		R112			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R30			RD14DB2H102J	SMALL-RD 1.0K J 1/2W		R113			RK73GB2A104J	CHIP R 100K J 1/10W	K
R31			RK73GB2A223J	CHIP R 22K J 1/10W		R114,115			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R32			RD14DB2H102J	SMALL-RD 1.0K J 1/2W		R116,117			RK73GB2A103J	CHIP R 10K J 1/10W	
R33			RK73FB2B561J	CHIP R 560 J 1/8W		R119			RK73GB2A473J	CHIP R 47K J 1/10W	
R34			RK73GB2A473J	CHIP R 47K J 1/10W	E1E2	R120			RK73GB2A333J	CHIP R 33K J 1/10W	
R35			RK73GB2A223J	CHIP R 22K J 1/10W	E1E2	R121			RK73GB2A104J	CHIP R 100K J 1/10W	
R35,36			RK73GB2A104J	CHIP R 100K J 1/10W	K	R122			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R36			RK73GB2A104J	CHIP R 100K J 1/10W	E1E2	R130			RK73EB2E102J	CHIP R 1.0K J 1/4W	E1E2
R37			RK73FB2B123J	CHIP R 12K J 1/8W		R131-133			RK73EB2E471J	CHIP R 470 J 1/4W	E1E2
R38			RK73GB2A123J	CHIP R 12K J 1/10W		R134			RK73EB2E102J	CHIP R 1.0K J 1/4W	
R39			RK73GB2A562J	CHIP R 5.6K J 1/10W		R135,136			RK73EB2E103J	CHIP R 10K J 1/4W	E1E2
R40			RK73GB2A223J	CHIP R 22K J 1/10W		R136			RK73EB2E103J	CHIP R 10K J 1/4W	K
R41			RD14DB2H332J	SMALL-RD 3.3K J 1/2W		R140			RK73GB2A473J	CHIP R 47K J 1/10W	
R43			RK73GB2A183J	CHIP R 18K J 1/10W		R141,142			RK73GB2A103J	CHIP R 10K J 1/10W	
R44			RK73GB2A104J	CHIP R 100K J 1/10W		R143			RK73GB2A473J	CHIP R 47K J 1/10W	
R45			RK73FB2B472J	CHIP R 4.7K J 1/8W		R144			RK73GB2A821J	CHIP R 820 J 1/10W	
R46			RD14DB2H102J	SMALL-RD 1.0K J 1/2W	K	R145			RK73GB2A153J	CHIP R 15K J 1/10W	
R47-49			RK73GB2A473J	CHIP R 47K J 1/10W	E1K	R146			RK73GB2A333J	CHIP R 33K J 1/10W	
R50			RK73GB2A153J	CHIP R 15K J 1/10W		R147			RK73GB2A473J	CHIP R 47K J 1/10W	
R51			RK73GB2A473J	CHIP R 47K J 1/10W	E1K	R148			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R52-54			RK73GB2A101J	CHIP R 100 J 1/10W	E1E2	R151			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R56			RK73GB2A104J	CHIP R 100K J 1/10W	K	R152,153			RK73GB2A334J	CHIP R 330K J 1/10W	
R56-58			RK73GB2A104J	CHIP R 100K J 1/10W	E2	R154,155			RK73GB2A472J	CHIP R 4.7K J 1/10W	
						R156			RK73GB2A103J	CHIP R 10K J 1/10W	

K : KDC-X859

E1 : KDC-M9021

E2 : KDC-8021

E: Europe K: North America M: Other Areas

W: Without Europe

△ indicates safety critical components.

# KDC-8021/M9021/X859

## PARTS LIST

\* New Parts

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

Teile ohne Parts No. werden nicht geliefert.

### ELECTRIC UNIT (X25-91xx-xx)

Ref.No.	A d d	N e w	Parts No.	Description	Dest inati on	Ref.No.	A d d	N e w	Parts No.	Description	Dest inati on
R161-164			RK73FB2B361J	CHIP R 360 J 1/8W		D14			1SS133	DIODE	
R165,166			RK73GB2A361J	CHIP R 360 J 1/10W	E1K	D15			MA4056-M	ZENER DIODE	
R167-170			RK73FB2B222J	CHIP R 2.2K J 1/8W	E1K	D16			MA4047-M	ZENER DIODE	E1E2
R167-170			RK73FB2B223J	CHIP R 22K J 1/8W	E2	D17			MA4056(N)-M	ZENER DIODE	
R171,172			RK73GB2A222J	CHIP R 2.2K J 1/10W	E1K	D18			HZS6C2L	ZENER DIODE	K
R173-176			RK73FB2B103J	CHIP R 10K J 1/8W	E1K	D18			MA4062(N)-M	ZENER DIODE	
R177,178			RK73GB2A103J	CHIP R 10K J 1/10W	E1K	D21 ,22			DAP202U	DIODE	
R179-182			RK73FB2B223J	CHIP R 22K J 1/8W	E1K	D23 ,24			MA3062WA	ZENER DIODE	E1E2
R183,184			RK73GB2A223J	CHIP R 22K J 1/10W	E1K	D25			DA204K	DIODE	E1E2
R185-188		*	RK73FB2B820J	CHIP R 82 J 1/8W	E1K	D27			DA204K	DIODE	
R189,190		*	RK73GB2A820J	CHIP R 82 J 1/10W	E1K	D27			KDS226	DIODE	K
R191-194			RK73EB2E181J	CHIP R 180 J 1/4W	E2	D29 ,30			RD6.8M(B2)	ZENER DIODE	
R199			RK73GB2A102J	CHIP R 1.0K J 1/10W		D31 -33			1SS133	DIODE	
R200			RK73GB2A221J	CHIP R 220 J 1/10W		D35 -42			1SR154-400	DIODE	
R201			RK73GB2A223J	CHIP R 22K J 1/10W		D43			RD6.8MW	ZENER DIODE	
R202			RK73GB2A333J	CHIP R 33K J 1/10W		D44			RD6.8M(B2)	ZENER DIODE	
R203			RK73GB2A432J	CHIP R 4.3K J 1/10W		D45 ,46			MA3062WA	ZENER DIODE	
R204			RK73GB2A100J	CHIP R 10 J 1/10W		D49			IMS-A-6801	SURGE ABSORBER	
R210			RK73EB2E101J	CHIP R 100 J 1/4W		D50 -56			DA204K	DIODE	
R211,212			RK73EB2E472J	CHIP R 4.7K J 1/4W		D50 -56			KDS226	DIODE	K
R213			RK73EB2E4R7J	CHIP R 4.7 J 1/4W		D60 ,61			DA204U	DIODE	
R214			RK73EB2E472J	CHIP R 4.7K J 1/4W		IC1		*	UPD703033GFA03	MI-COM IC	E1K
R215			RK73EB2E100J	CHIP R 10 J 1/4W		IC1		*	UPD703033GFA04	MI-COM IC	E2
R216,217			RK73EB2E472J	CHIP R 4.7K J 1/4W		IC2			TDA7407	ANALOGUE IC	
R218			RK73EB2E101J	CHIP R 100 J 1/4W		IC3			M5237ML	IC(VOLTAGE REGULATOR)	
R219			RK73EB2E100J	CHIP R 10 J 1/4W		IC4			TDA7560	ANALOGUE IC	
R220			RK73EB2E101J	CHIP R 100 J 1/4W		IC5			TDA7401	ANALOGUE IC	E1K
R221			RK73FB2B102J	CHIP R 1.0K J 1/8W		IC6		*	SI-8033JD	ANALOGUE IC	E1K
R222			RK73GB2A223J	CHIP R 22K J 1/10W		IC7			ICL7660SIBA	ANALOGUE IC	E1K
R223			RK73FB2B102J	CHIP R 1.0K J 1/8W		IC8			S-80837ANNP	MOS-IC	
R224			RK73GB2A223J	CHIP R 22K J 1/10W		IC9			HD74HC02FP	MOS-IC	K
R226			RK73GB2A472J	CHIP R 4.7K J 1/10W		IC9			TC74HC02AF	MOS-IC	
R227-233			RK73GB2A222J	CHIP R 2.2K J 1/10W		IC10			NJM4565M-TE2	ANALOGUE IC	E2
R240			RK73GB2A472J	CHIP R 4.7K J 1/10W		IC10-13			NJM4565M-TE2	ANALOGUE IC	E1K
R241			RK73GB2A223J	CHIP R 22K J 1/10W		IC14			SAA6581T	ANALOGUE IC	
R242			RK73EB2E472J	CHIP R 4.7K J 1/4W		IC15			LB1930M	ANALOGUE IC	
R243			RK73EB2E471J	CHIP R 470 J 1/4W		Q1			KTA1046	TRANSISTOR	
R244,245			RK73EB2E102J	CHIP R 1.0K J 1/4W		Q2			2SC4081	TRANSISTOR	
R246			RK73EB2E471J	CHIP R 470 J 1/4W		Q3			2SA1576A	TRANSISTOR	
R247,248			RK73EB2E102J	CHIP R 1.0K J 1/4W		Q4			DTA124EUA	DIGITAL TRANSISTOR	
W1 -5			R92-1252-05	CHIP R 0 OHM J 1/16W	E2	Q4			KRA303	DIGITAL TRANSISTOR	K
W5			R92-1252-05	CHIP R 0 OHM J 1/16W	E1	Q5			DTC124EUA	DIGITAL TRANSISTOR	
D1			1N5393G-M5	DIODE		Q5		*	KRC403	DIGITAL TRANSISTOR	K
D2			RB160L-40	DIODE		Q6		*	DTC144EUA	DIGITAL TRANSISTOR	K
D3			MA4056(N)-M	ZENER DIODE		Q6		*	KRC404	DIGITAL TRANSISTOR	K
D4			HZS9A2L	ZENER DIODE	K	Q7			DTA124EUA	DIGITAL TRANSISTOR	
D4			MA4082(N)-L	ZENER DIODE		Q7			KRA303	DIGITAL TRANSISTOR	K
D5			SFPB-54V	DIODE	E1K	Q8			KTA1046	TRANSISTOR	
D6			MA4100-L	ZENER DIODE		Q9			2SD2375	TRANSISTOR	
D7			MA4051(N)-M	ZENER DIODE		Q10			2SC4081	TRANSISTOR	E1K
D8			MA4110(N)-M	ZENER DIODE	E1K	Q11			DTC124EUA	DIGITAL TRANSISTOR	
D9			MA4056(N)-M	ZENER DIODE	E1K	Q11		*	KRC403	DIGITAL TRANSISTOR	K
D10 ,11			1SR154-400	DIODE		Q12			DTA124EUA	DIGITAL TRANSISTOR	
D13			1SR154-400	DIODE		Q13			KRA303	DIGITAL TRANSISTOR	K
						Q13			KTA1046	TRANSISTOR	

K : KDC-X859

E1 : KDC-M9021

E2 : KDC-8021

E: Europe K: North America M: Other Areas

W: Without Europe

△ indicates safety critical components.

# KDC-8021/M9021/X859

## 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 (X25-91xx-xx)

Ref.No.	A d d	N e w	Parts No.	Description	Dest inati on	Ref.No.	A d d	N e w	Parts No.	Description	Dest inati on
Q14			2SC4081	TRANSISTOR							
Q15			2SB1443	TRANSISTOR	E1K						
Q16 ,17			2SC4081	TRANSISTOR	E1K						
Q18 ,19			2SA1576A	TRANSISTOR	E1K						
Q20			2SC4081	TRANSISTOR	E1K						
Q21			2SA1576A	TRANSISTOR	E1K						
Q22			2SC4081	TRANSISTOR	E1K						
Q23			DTC114YUA	DIGITAL TRANSISTOR	K						
Q23		*	KRC407	DIGITAL TRANSISTOR	K						
Q24 ,25			2SB1277(Q,R)	TRANSISTOR	K						
Q25			2SB1277(Q,R)	TRANSISTOR	E1E2						
Q26			2SA1576A	TRANSISTOR							
Q27			DTA124EUA	DIGITAL TRANSISTOR							
Q27			KRA303	DIGITAL TRANSISTOR	K						
Q28			DTC114YUA	DIGITAL TRANSISTOR							
Q28		*	KRC407	DIGITAL TRANSISTOR	K						
Q29			DTA123JK	DIGITAL TRANSISTOR							
Q29			KRA105S	DIGITAL TRANSISTOR	K						
Q30			DTC144EUA	DIGITAL TRANSISTOR							
Q30		*	KRC404	DIGITAL TRANSISTOR	K						
Q31 ,32			2SC4081	TRANSISTOR							
Q33 ,34			DTA124EUA	DIGITAL TRANSISTOR							
Q33 ,34			KRA303	DIGITAL TRANSISTOR	K						
Q35			2SC4081	TRANSISTOR							
Q36			DTC124EUA	DIGITAL TRANSISTOR							
Q36		*	KRC403	DIGITAL TRANSISTOR	K						
Q37 -41			DTC143TUA	DIGITAL TRANSISTOR	E2						
Q37 -43			DTC143TUA	DIGITAL TRANSISTOR	E1K						
Q37 -43			KRC410	DIGITAL TRANSISTOR	K						
Q45			DTC124EUA	DIGITAL TRANSISTOR							
Q45		*	KRC403	DIGITAL TRANSISTOR	K						
Q46			2SB1188(Q,R)	TRANSISTOR							
Q47			DTC124EUA	DIGITAL TRANSISTOR							
Q47		*	KRC403	DIGITAL TRANSISTOR	K						
Q48			2SB1188(Q,R)	TRANSISTOR							
Q49			DTC143TUA	DIGITAL TRANSISTOR							
Q49			KRC410	DIGITAL TRANSISTOR	K						
Q50			2SB1427	TRANSISTOR							
TH1			PTH9C42BD471Q	POSITIVE RESISTOR							
A1		*	W02-3341-05	ELECTRIC CIRCUIT MODULE							
A2			X86-3240-11	TUNER UNIT	K						
A2			X86-3342-71	TUNER UNIT	E1E2						

K : KDC-X859

E1 : KDC-M9021

E2 : KDC-8021

E: Europe K: North America M: Other Areas

W: Without Europe

△ indicates safety critical components.



# KDC-8021/M9021/X859

## SPECIFICATIONS

		KDC-8021	KDC-M9021
FM	Frequency Range(MHz) (Frequency step)	87.5MHz-108.0MHz (50kHz)	87.5MHz-108.0MHz (50kHz)
	Usable Sensitivity (S/N 26dB)	0.7 $\mu$ V/75 $\Omega$	0.7 $\mu$ V/75 $\Omega$
	Quieting Sensitivity (S/N 46dB)	1.6 $\mu$ v/75 $\Omega$	1.6 $\mu$ v/75 $\Omega$
	Frequency Response ( $\pm$ 3.0dB)	30Hz-15kHz	30Hz-15kHz
	S/N(dB)	65dB(MONO)	65dB(MONO)
	Selectivity(DIN)(dB)	$\geq$ 80dB( $\pm$ 400kHz)	$\geq$ 80dB( $\pm$ 400kHz)
	Stereo Separation	35dB(1kHz)	35dB(1kHz)
MW (AM)	Frequency Range(KHz) (Frequency step)	531kHz-1611kHz (9kHz)	531kHz-1611kHz (9kHz)
	Usable Sensitivity (S/N 20dB)	25 $\mu$ v	25 $\mu$ v
LW	Frequency Range(KHz)	153kHz-281kHz	153kHz-281kHz
	Usable Sensitivity (S/N 20dB)	45 $\mu$ v	45 $\mu$ v
CD	Laser Diode	GaAlAs( $\lambda$ =780nm)	GaAlAs( $\lambda$ =780nm)
	Digital Filter(D/A)	8 Times OverSampling	8 Times OverSampling
	D/A Converter	1 Bit	1 Bit
	Spindle Speed	500~200(CLV)	1000~400(CLV • 2times)
	Wow & Flutter	Below Mesurable Limit	Below Mesurable Limit
	Frequency Response	10-20kHz( $\pm$ 1dB)	10-20kHz( $\pm$ 1dB)
	Total Harmonic Distortion	0.01%(1kHz)	0.01%(1kHz)
	S/N Ratio (dB)	105dB(1kHz)	105dB(1kHz)
	Dynamic Range	93dB	93dB
	Channel Separation	95dB	95dB
	MP3 decord		MPEG1.0 Audio Layer3
	WMA decord		
Preout Level(mV)/Load -Unbalanced		1800mV/10k $\Omega$ (CD/CD-CH)	4500mV/10k $\Omega$ (CD/CD-CH)
Preout Impedance( $\Omega$ )		$\leq$ 600 $\Omega$	80 $\Omega$
AMP	PWR(MAX)	50wx4	50wx4
	PWR DIN45324,+B=14.4V	30wx4	30wx4
TONE	Bass	100Hz $\pm$ 10dB	100Hz $\pm$ 10dB
	Middle	1kHz $\pm$ 10dB	1kHz $\pm$ 10dB
	Treble	10kHz $\pm$ 10dB	10kHz $\pm$ 10dB
GENE	Operating voltage (11~16v allowable)	14.4v	14.4v
	Current Consumption	10A	10A
	Installation Size (W)	182(mm)	182(mm)
	(H)	53(mm)	53(mm)
	(D)	162(mm)	162(mm)
Weight		1.5Kg	1.5Kg

# KDC-8021/M9021/X859

## SPECIFICATIONS

		KDC-X859
FM	Frequency Range (Frequency step)	87.9MHz - 107.9MHz (200kHz)
	Channel Space Selection	50k/200kHz
	Usable Sensitivity S/N:30dB	9.3dBf (0.8 $\mu$ V/75 $\Omega$ )
	Quieting Sensitivity S/N 50dB	15.2dBf (1.6 $\mu$ V/75 $\Omega$ )
	Frequency Response ( $\pm$ 3.0dB)	30Hz-15kHz
	S/N	70dB(MONO)
	Selectivity	$\geq$ 80dB( $\pm$ 400kHz)
	Stereo Separation	40dB(1kHz)
AM	Frequency Range (Frequency step)	530kHz - 1700kHz (10kHz)
	Channel Space Selection	9k/10kHz
	Usable Sensitivity S/N:20dB	28dB $\mu$ (25 $\mu$ v)
CD	Laser Diode	GaAlAs( $\lambda$ =780nm)
	Digital Filter(D/A)	8 Times OverSampling
	D/A Converter	1 Bit
	Spindle Speed	1000~400(CLV • 2times)
	Wow & Flutter	Below Mesurable Limit
	Frequency Response	10-20kHz( $\pm$ 1dB)
	Total Harmonic Distortion	0.01%(1kHz)
	S/N Ratio (dB)	105dB(1kHz)
	Dynamic Range	93dB
	Channel Separation	95dB
	MP3 decord	MPEG1.0 Audio Layer3
	WMA decord	
Preout Level(mV)/Load     -Unbalanced		4500mV/10k $\Omega$ (CD/CD-CH)
Preout Impedance( $\Omega$ )		80 $\Omega$
AMP	Maximum Power	50wx4
	Full Bandwidth Power (at less than 1%THD)	22wx4
TONE	Bass	100Hz $\pm$ 10dB
	Middle	1kHz $\pm$ 10dB
	Treble	10kHz $\pm$ 10dB
GENE	Operating voltage (11~16v allowable)	14.4v
	Current Consumption	10A
	Installation Size (W)	182(mm) 7-3/16(in)
	(H)	53(mm) 2-1/16(in)
	(D)	162(mm) 6-3/8 (in)
Weight		3.3 lbs(1.5kg)

# KDC-8021/M9021/X859

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

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