CD RECEIVER

KDC-2023
KDC-2024SA/SG/SYA/SYG
KDC-2094YA/YG
KDC-222/S
KDC-3023

SERVICE MANUAL

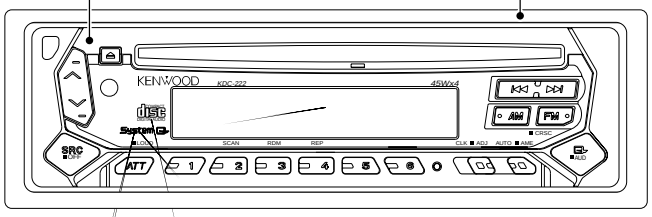
KENWOOD

B53-0004-00 (N) 3379

CD mechanism operation description is not in this sarvice manual.
Please, refer to sarvice manual X92-4030-0x (B51-7867-00).

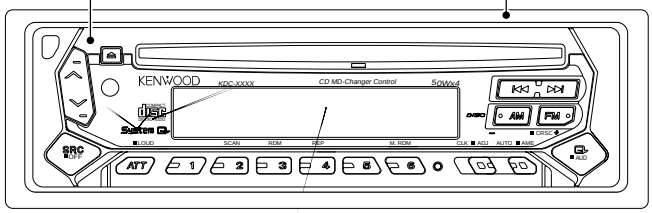
CD mechanism extension cord : WO5-0618-00

Panel assy
(A64-2867-02): KDC-222
(A64-2868-02): KDC-222S



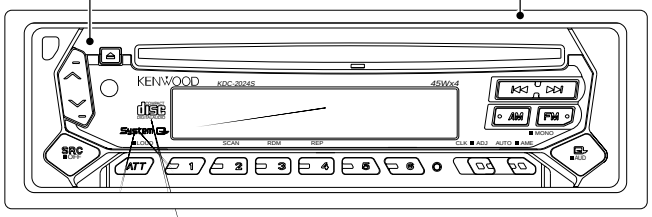
Escutcheon
(B07-3060-02): KDC-222
(B07-3022-02): KDC-222S

Panel assy
(A64-2870-02): KDC-2023
(A64-2873-02): KDC-3023



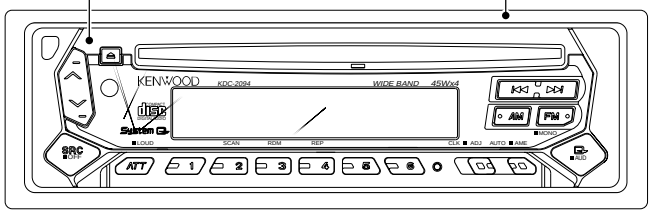
Escutcheon
(B07-3001-02): KDC-2023
(B07-3022-02): KDC-3023

Panel assy
(A64-2878-02): KDC-2024SA/SG/SYA/SYG



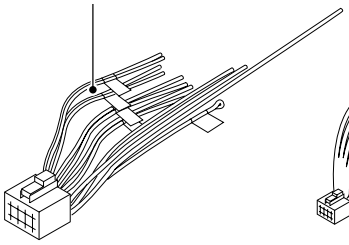
Escutcheon
(B07-3001-02): KDC-2024SA/SG/SYA/SYG

Panel assy
(A64-2884-02): KDC-2094YA/YG

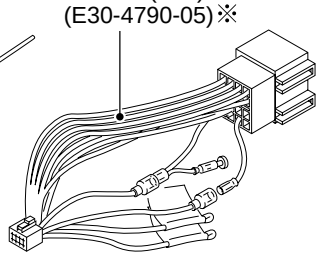


Escutcheon
(B07-3001-02): KDC-2094YA/YG

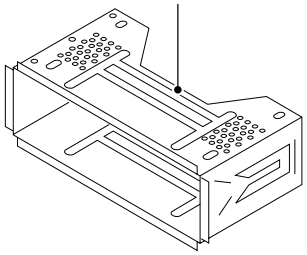
DC cord
(E30-4784-05)※



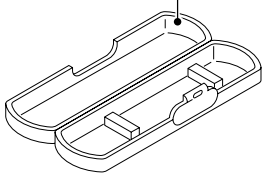
DC cord(ISO)
(E30-4790-05)※



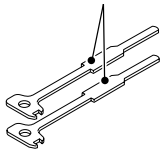
Mounting hardware assy
(J21-9716-03)



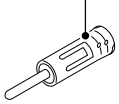
Plastic cabinet assy
(A02-1486-13)



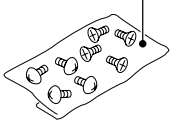
Lever
(D10-4589-04)x2



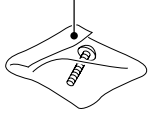
Antenna adaptor
(T90-0523-05)※



Screw set
(N99-1719-05)

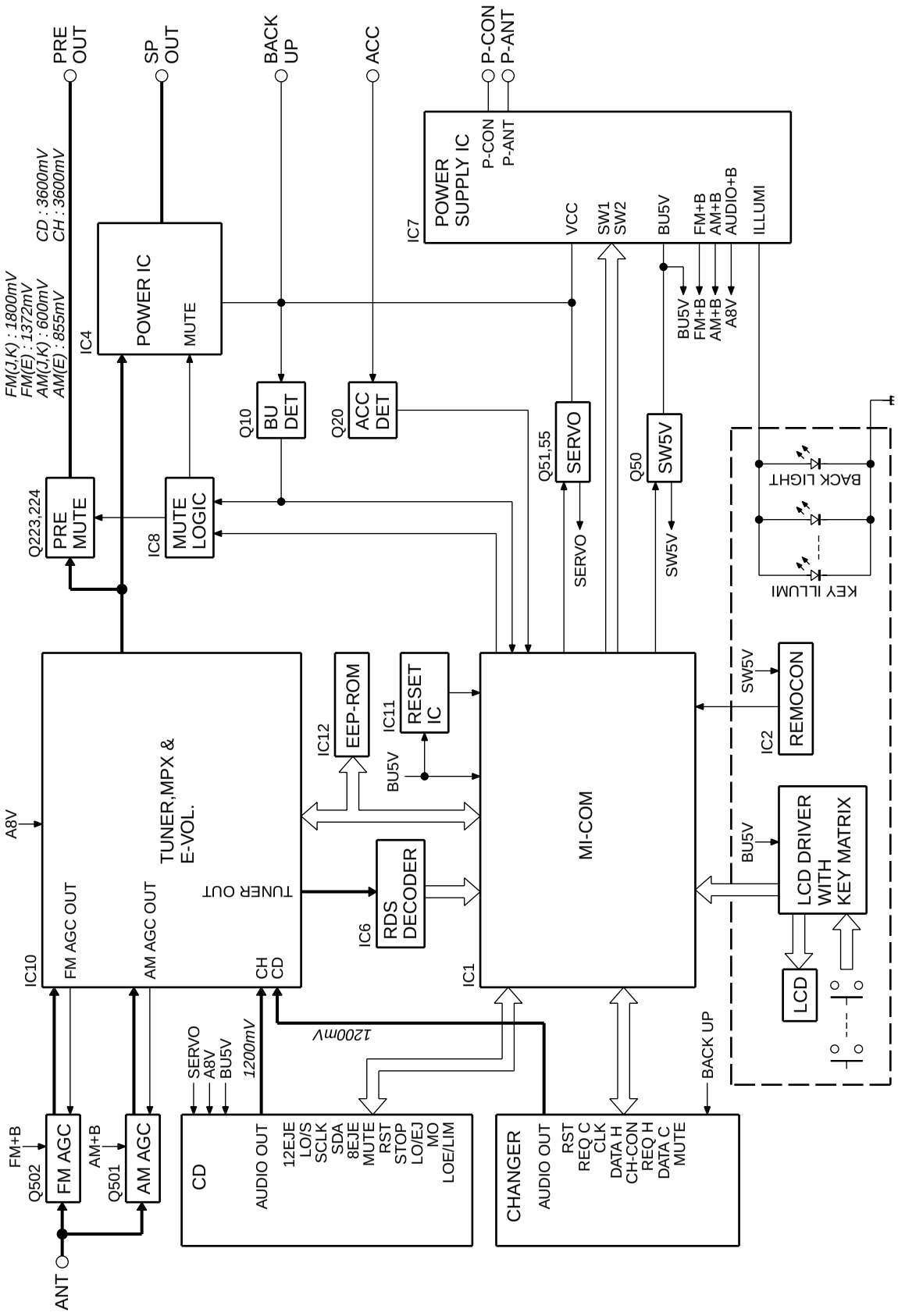


Screw set
(N99-1610-15)



※ Depends on model. Refer to the parts list

BLOCK DIAGRAM



COMPONENTS DESCRIPTION

● SWITCH UNIT (X16-1460-xx/2370-12)

Ref.No.	Application/Functions	Operation/Condition/Compatibility
IC1	LCD driver & key matrix	
IC2	Remote Sencer	
Q1	Key scan start	When Q1 base goes Lo, key scan start.

● ELECTRIC UNIT (X25-9600-xx/9612-7x)

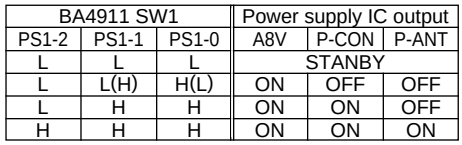
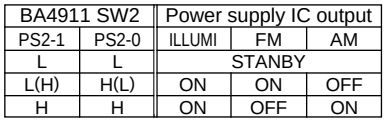
Ref.No.	Application/Functions	Operation/Condition/Compatibility
IC1	System control µ-com	System µ-com
IC4	Power amplifire	E-Vol output encoder power amplification for speaker.
IC7	Power supply (Multi AVR)	-
IC8	MUTE Logic	When a pin 1, 2, or 13 is "H", MUTE turns on When a pin 3, 4, or 5 is "H", P-AMP mute turns ON. Changer is RESET when a pin 9, 10, or 11 is "L".
IC10	Tuner & E-Vol.	FM/AM tuner & stereo decoder & E-Vol.
IC11	Power on reset	When B.U. 5V voltage is less than 3.5V, power reset.
IC12	E2P-ROM	Writing and read-out of adjustment data for a tuner
Q10	B.U. detector	BU on (base "H") : Collector "H"
Q20	A.C.C detector	ACC ON (base : "H") : Collector "L"
Q40	MUTE driver	Base "L" : Mute on (collector "L")
Q50	SW 5V	Base "L" : SW5V on
Q51	SERBO AVR control	Pin 2 "H" : Serbo on (pin 4 "H")
Q55	SERBO AVR	Base "H" : Serbo on
Q70	Surge detector	Base "H" : Surge detect
Q101	DSI driver	Base "H" : DSI on
Q102	PANEL 5V SW	Panel attch : PAN5V on
Q223,224	MUTE	Base "H" : Mute on
Q501	AM RF amplifire	Base "H" : Gain UP
Q502	FM RF amplifire	Gate "H" :Gain UP

MICROCOMPUTER'S TERMINAL DESCRIPTION

● **SYSTEM MICROCOMPUTER uPD780058GCxxx (X25 : IC1)**

Pin No.	Name	I/O	Description	Processing Operation
1	TDF DET	I	Panel detection	H:Panel detached L:Panel attached
2	8EJE SW	I		H:Eject is completed Except 8cm CD model:always output L
3	NC	O	Not used (out put L)	
4	Avss			
5	L-RST	O	LCD driver RESET	H:Panel detached L:RESET △3 normal H , Power off L When 7seg model,output L
6	L-CE	O	LCD driver selection	H:Select (panel communication) When panel attached,output L
7	AVREF1			
8	NC		Not used (connected to 9pin)	
9	IC10-DATA	I/O	IC10,E2PROM data communication	△3 non communication : H
10	IC10-CLK	O	IC10,E2PROM clock communication	△3 non communication : H
11	L-DATAL	I	Data input from the LCD driver	Non communication : H When panel detached : L △3 Pull down on X25 unit,Pull up on X16 unit
12	L-DATAS	O	Data output to the LCD driver	When panel detached , output L
13	L-CLK	O	Clock output to the LCD driver	When panel detached , output L
14	R-DATA	I	Data input from the RDS	Except RDS model : output L
15	R-QUAL	I	Quality input from the RDS	Except RDS model : output L
16	CH-DATAC	I	Data input from the changer (new 5L)	Except changer model : output L
17	CH-DATAH	O	Data output to the changer (new 5L)	When non communication ,last data keeping Except changer model : output L
18	CH-CLK	I/O	Clock input/output with the Changer (new 5L)	Check the old and new Except changer model : output L
19	CH-REQH	O	Request output to the changer (new 5L)	L:Requset Except changer model : output L
20	NC	O	Not used (output L)	
21	AFS	O	Noise detection time constant switching terminal	H:Normal L:FM/AM seek and AF search △3 (When tuner SRC auto zero , L)
22-24	NC	O	Not used (output L)	
25	CH-CONT	O	Changer control	H:Changer on L:Changer off Except changer model : output L
26	TYPE REF	O	5V lines output for destination setting	H:During destination reading
27	SD	I	Tuner SD input	H:Station detected
28	NC	O	Not used (output L)	
29	TYPE2	I	Destination type selection terminal 2	Refer to destination type list.
30	TYPE1	I	Destination type selection terminal 1	Refer to destination type list.
31	TYPE0	I	Destination type selection terminal 0	Refer to destination type list.
32	TUNER-TYPE1	I	Destination available/genuine model rool off	H:genuine model 1 L:available model
33	Vss1			
34	TUNER-TYPE0	I	Destination available/genuine model noise cancel	H:genuine model 0 L:available model
35	MUTE	O	Mute (E.Vol,Preset) control	H:mute on L:mute off Power off after that 15 second L
36	M-DATA	I/O	Data input/output with the CD mechanism	△3 non communication : H
37	M-CLK	O	Clock output to the CD mechanism	△3 non communication : H
38	ADJ	O	Tuner lines adjustment	When adjustment = H PS1-0,1=L PS1-2,2-0,1=Hi-z IC10-DATA,CLK=Hi-z
39	P-MUTE	O	Power IC mute control	H:mute off L:mute on Power off after that 15 second H
40	SVR	O	Power IC servo control	H:When momentary power down detected L:Nomal
41	P-STBY	O	Power IC standby control	H:Power IC ON L:Power IC OFF
42	SW5V	O	SW 5V control	H:SW5V OFF L:SW5V ON Power off after that 10 second H

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Name	I/O	Description	Processing Operation
43	B.U-DET	I	Back up detection terminal	H:power down L:B.U. on
44	ACC-DET	I	ACC detection terminal	H:ACC OFF L:ACC ON
45	PS1-0	O	Power supply IC SW1 control 0 Audio 8V,P-CON	
46	PS1-1	O	Power supply IC SW1 control 1 Audio 8V,P-CON	
47	PS1-2	O	Power supply IC SW1 control 2 P-ANT	
48	PS2-0	O	Power supply IC SW2 control 0 ILL,FM,AM	
49	PS2-1	O	Power supply IC SW2 control 1 ILL,FM,AM	
50	BEEP		BEEP	
51	DSI	O	DSI control	H:Light on L:Light off When panel attached,output L When panel detached,flashing at the panel (H/L) FIX model is output L
52	NC	O	Not used (out put L)	
53	NC	O	Not used (out put L)	
54	LOE/LIM SW	I	CD mechanism down&limit detection	H:Chucking detection L:Normal
55	MO SW	O	CD mechanism loading motor control output	H:Loading,Eject,Break L:Play
56	LO/EJ	I/O	CD mechanism loading/Eject switching terminal	H:Eject L:Loading
57	M-STOP	O	Stop output to the CD mechanism	H:Play L:Stop
58	M-RST	O	Reset output to the CD mechanism	H:Normal L:CD mechanism reset
59	M-MUTE	I	Mute input from the CD mechanism	H:mute off L:mute on
60	RESET		Reset input from the System microcomputer	
61	REMO	I	Remote control input	
62	R-CLK	I	RDS clock input	Except RDS model : output L
63	CH-REQC	I	Request input from the changer (new 5L)	H:Changer detection L:Request Except Changer model : output L
64	LOS SW	I	CD mechanism loading's switch detected	H:No disc L:DISK IN(Loading Start)
65	KEY-REQ	I	Key input detected (11pin L connected to the DATA L)	H:Key no input L:Key input (edge key data reading start)
66	12EJE SW	I	12cm disc detected	L:12cm disc
67	Vss0			
68	VDD1			
69	X2		△3 MAIN X'tal oscillating circuit	△3 4.19MHz X'tal connection
70	X1		△3 MAIN X'tal oscillating circuit	△3 4.19MHz X'tal connection
71	IC		TEST	
72	XT2		Not used	OPEN
73	XT1			
74	VDD0		VDD	Connected to VDD
75	AVREF0		A/D converter reference voltage control output, connection to the 80pin AVCONT	
76	S-METER	I	S-meter input	
77	NOISE	I	FM noise detection input	△3
78	PHONE	I	2way mute	2.5V or greater:NAVI MUTE 1.0V or less:TEL MUTE Except phone mute model : output L
79	NC	O	Not used (out put L)	
80	AVCONT	O	A/D converter standard voltage control output	H:During A/D converter active same timing with PON

BA4911 SW1			Power supply IC output		
PS1-2	PS1-1	PS1-0	A8V	P-CON	P-ANT
L	L	L	STANBY		
L	L(H)	H(L)	ON	OFF	OFF
L	H	H	ON	ON	OFF
H	H	H	ON	ON	ON

BA4911 SW2		Power supply IC output		
PS2-1	PS2-0	ILLUMI	FM	AM
L	L	STANBY		
L(H)	H(L)	ON	ON	OFF
H	H	ON	OFF	ON

MICROCOMPUTER'S TERMINAL DESCRIPTION

● **MECHANISM MICROCOMPUTER MN6627771KP (X32 : IC2)**

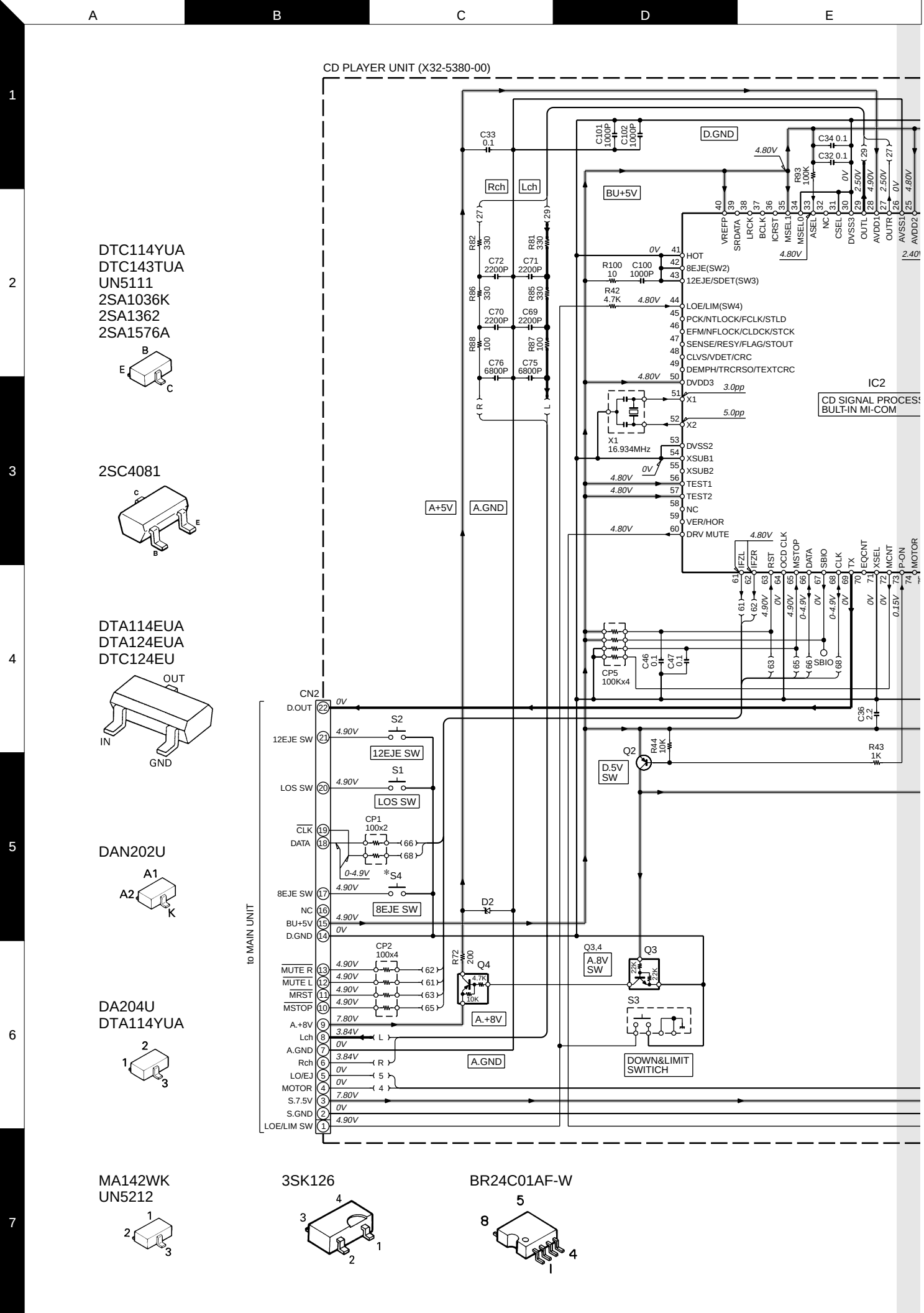
Pin No.	Name	I/O	Description	Processing Operation
1	TVD	O	Traverse driver output (PWM output)	
2	SPL	O	Spindle motor drive output (PWM output)	
3	PC	O	Spindle motor ON output	L:ON H:OFF (default)
4	PWM	O	multi-purpose PWM output	It's possible to setup the TOSF2
5	TBAL	O	Tracking balance adjust output (PWM output)	
6	FBAL	O	Focus balance adjust output (PWM output)	
7	NRFDET	I	RF detection signal input	L:detected
8	OFT	I	Off-track signal input	H:detected
9	BDO	I	Drop out signal input	H:detected
10	LDON	O	Laser on signal output H:ON	When command FO on,LDON is H
11	DSLB	O	DSL balance output	
12	DVDD1	-	Power supply for digital circuit	
13	DVSS1	-	Ground lines for digital circuit	
14	AVSS2	-	Ground lines for analog circuit	For DSL,PLL and AD
15	DSLF	I/O	Loop filter terminal for DSL	The bias of ARF output terminal in one
16	ARF	I	RF signal input	
17	RFSW	I	When DSL circuit,constant switch terminal	
18	PLLF	I/O	Loop filter terminal for PLL	
19	PLLF2	I/O	Loop filter characteristic switching terminal for PLL	
20	IREF	I	Standard voltage input terminal	
21	RFENV	I	RF envelope signal input	Analog input
22	TRCRS	I	Track cross signal input	Analog input
23	TE	I	Tracking error signal input	Analog input
24	FE	I	Focusing error signal input	Analog input
25	AVDD2	-	Power supply for analog circuit	For DSL,PLL and AD
26	AVSS1	-	Ground lines for analog circuit	For audio output (Lch and Rch in one)
27	OUTR	O	Rch audio output	
28	AVDD1	-	Power supply for analog circuit	For audio output (Lch and Rch in one)
29	OUTL	O	Lch audio output	
30	DVSS3	-	Ground lines for digital circuit	
31	CSEL	I	Oscillation frequency specification terminal	H:33.8488MHz L:16.9344MHz
32	NC	O	Not used	
33	ASEL	I	Audio output polarity switching terminal	L:Reverse H:Non reverse
34	MSEL0	I	Destination type selection port (set 2bit)	Order "MSEL 0" and "MSEL 1" Set up
35	MSEL1	I	Destination type selection port (set 2bit)	Order "MSEL 0" and "MSEL 1" Set up
36	ICRST	O	Reset control terminal for external DAC	
37	BCLK	O	Bit clock output for serial data	
38	LRCK	O	L/R identification signal output	
39	SRDATA	O	Sirial data output	
40	VREFP	I	A/D converter standard power supply input	
41	HOT	I	Temperature protection detection terminal (AD input)	Over C5(h):on
42	8EJE_SW	I	8cm disc eject stop detection terminal	H:Stop
43	12EJE/SDET_SW	I	Judge the 8cm or 12cm disc	12cm disc stop detection terminal
44	LOE/LIM_SW	I	Pick-up inside detected	Loading end detection terminal
45	PCK	O	PLL extracted clock output,etc	
46	EFM	O	EFM signal output,etc	
47	SENSE	O	Optics servo status signal output,etc	
48	CLVS	O	Spindle servo phase synchronous signal output,etc	L:Normal operation H:Luff servo
49	DEMPH	O	Dephase detection signal output,etc	H:on
50	DVDD2	-	Power supply for digital circuit	
51	X1	I	Main clock input terminal	

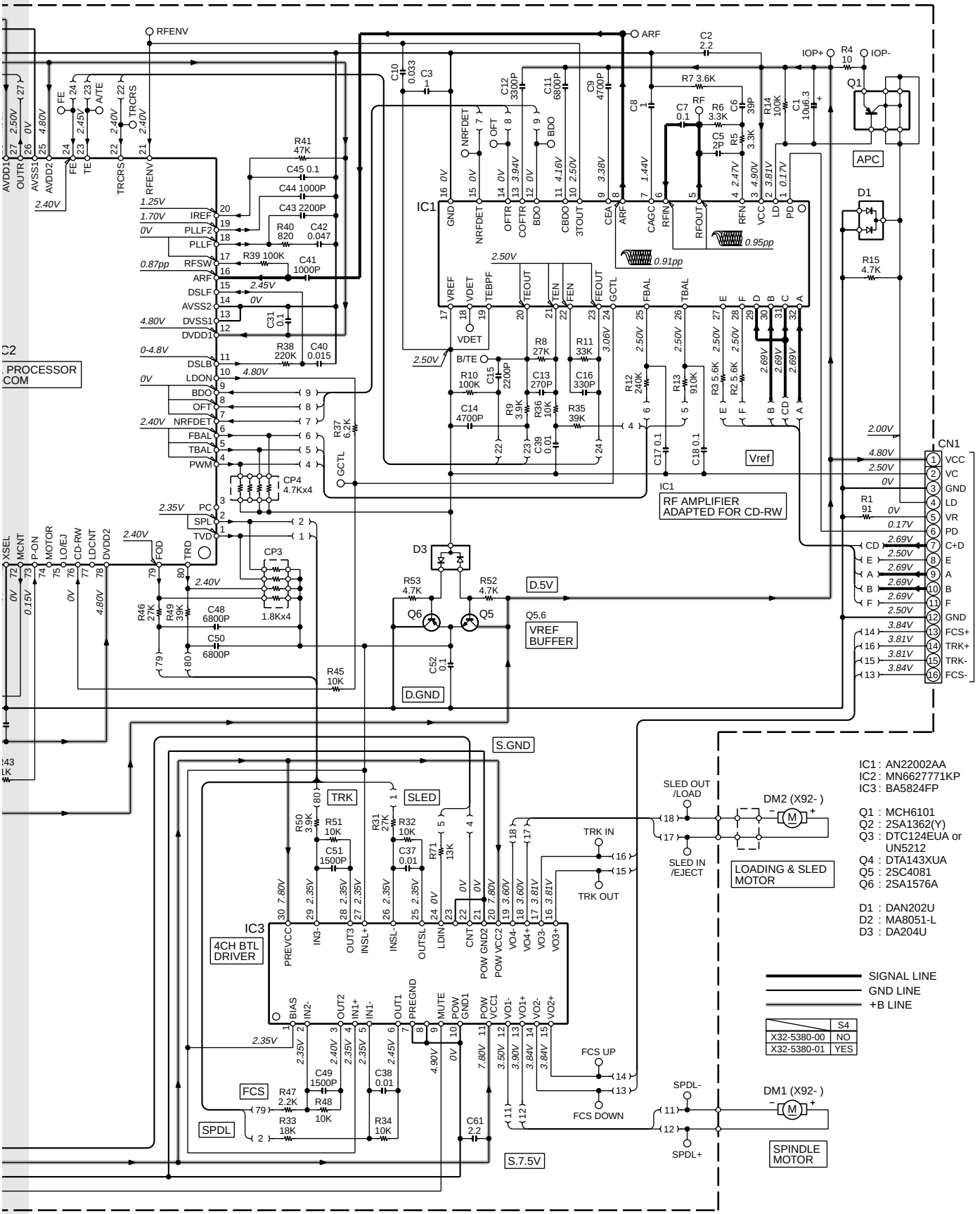
MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Name	I/O	Description	Processing Operation
52	X2	O	Main clock output terminal	
53	DVSS2	-	Ground lines for digital circuit	
54	XSUB1	I	When external DAC,external clock input terminal	
55	XSUB2	O		
56	TEST1	I	Test port 1	Normal operation is H fixed
57	TEST2	I	Test port 2	Normal operation is H fixed
58	NC	O	Not used	
59	VER/HOR	O	Put length or breadth switching motor terminal	H:Put length L:Put breadth
60	DRV_MUTE	O	Driver mute control terminal	L:MUTE ON H:MUTE OFF
61	/MUTE_L	O	Audio Lch MUTE output	L:MUTE
62	/MUTE_R	O	Audio Rch MUTE output	L:MUTE
63	/RST	I	LSI reset input terminal	H:Normal L:Reset
64	OCD_CLK	I	When OCD connected, clock input	
65	/MSTOP	I	Standby detection terminal	H:Normal L:Mecha stop
66	DATA	I/O	I2C bus data line (communication line with system computer)	At that time serial writer connected
67	SBIO	I	When connected to serial writer,data input terminal	
68	/CLK	I/O	I2C bus clock line (communication line with system computer)	At that time serial writer connected
69	TX	O	Digital audio interface signal output	
70	EQCNT	O	RF EQ switching terminal	L:x2 times H:x1 times
71	XSEL	I	During the external DAC connection	MCLK external input (H:input)
72	MCNT	I	CD mecha Loading/Eject control ON/OFF	L:OFF (HOST control) H:mechanism control
73	P-ON	O	Audio and servo origin power control terminal	L:power on H:power off
74	MOTOR	O	Loading/Eject control switching terminal	At that time LO/EJ is "H"
75	LO/EJ	O	Loading/Eject control terminal or output L	When 72pin (P82) is "L",output "L"
76	CD-RW	O	CD-RW control terminal	H:CD-RW L:normal
77	LDCNT	O	LD control terminal	Operation is same LDON as timing
78	DVDD3	-	Power supply for digital circuit	
79	FOD	O	Focus driver output (PWM output)	
80	TRD	O	Tracking driver output (PWM output)	

System mi-com Destination type list

	TYPE2	TYPE1	TYPE0	MODEL NAME
uPD780058GC499	L	L	L	KDC-2024SA/SYA, 2024SG/SYG
	L	L	H	KDC-2022, 2022V,202MR
	L	H	L	RY-391CD, RX-491CD
	L	H	H	KDC-4023, 2023, 3023
uPD780058GC501	L	L	H	KDC-122, 122S
	L	H	H	KDC-1023, 1023S
	H	L	H	KDC-222, 222S
uPD780058GC502	L	L	L	KDC-3024G/YG, 307G/YG
	L	H	H	KDC-3023R
	H	L	L	KDC-3024A/YA, 307A/YA
	H	L	H	KDC-4024/Y/V/YV
uPD780058GC503	L	L	L	KDC-2094YA/YG
H:	R135	R137	R139	
L:	R136	R138	R140	


CD PLAYER UNIT (X32-5380-00)
DTC114YUA
DTC143TUA
UN5111
2SA1036K
2SA1362
2SA1576A
2SC4081
DTA114EUA
DTA124EUA
DTC124EU
DAN202U
DA204U
DTA114YUA
MA142WK
UN5212
3SK126
BR24C01AF-W
IC2
CD SIGNAL PROCESS
BULT-IN MI-COM
X1
16.934MHz
CN2
to MAIN UNIT
D.GND
BU+5V
A+5V
A.GND
A.+8V
D.5V SW
A.8V SW
12EJE SW
LOS SW
8EJE SW
DOWN&LIMIT SWITICH
CP1 100x2
CP2 100x4
CP5 100Kx4
D.OUT
LOE/LIM SW
MOTOR
S.7.5V
S.GND
Lch
Rch
LO/EJ
MUTE R
MUTE L
MRST
MSTOP
HOT
8EJE(SW2)
12EJE/SDET(SW3)
LOE/LIM(SW4)
PCK/NTLOCK/FCLK/STLD
EFM/NFLOCK/CLDCK/STCK
SENSE/RESY/FLAG/STOUT
CLVS/VDET/CRC
DEMPH/TRCRSO/TEXTCRC
DVDD3
X1
X2
DVSS2
XSUB1
XSUB2
TEST1
TEST2
NC
VER/HOR
DRV MUTE
VREFP
SRDATA
LRCK
BCLK
ICRST
MSEL1
MSEL0
ASEL
NC
CSEL
DVSS3
OUTL
AVDD1
OUTR
AVSS1
AVDD2
IFZL
IFZR
RST
OCD CLK
MSTOP
DATA
SBIO
CLK
TX
EQCNT
XSEL
MCNT
P-ON
MOTOR



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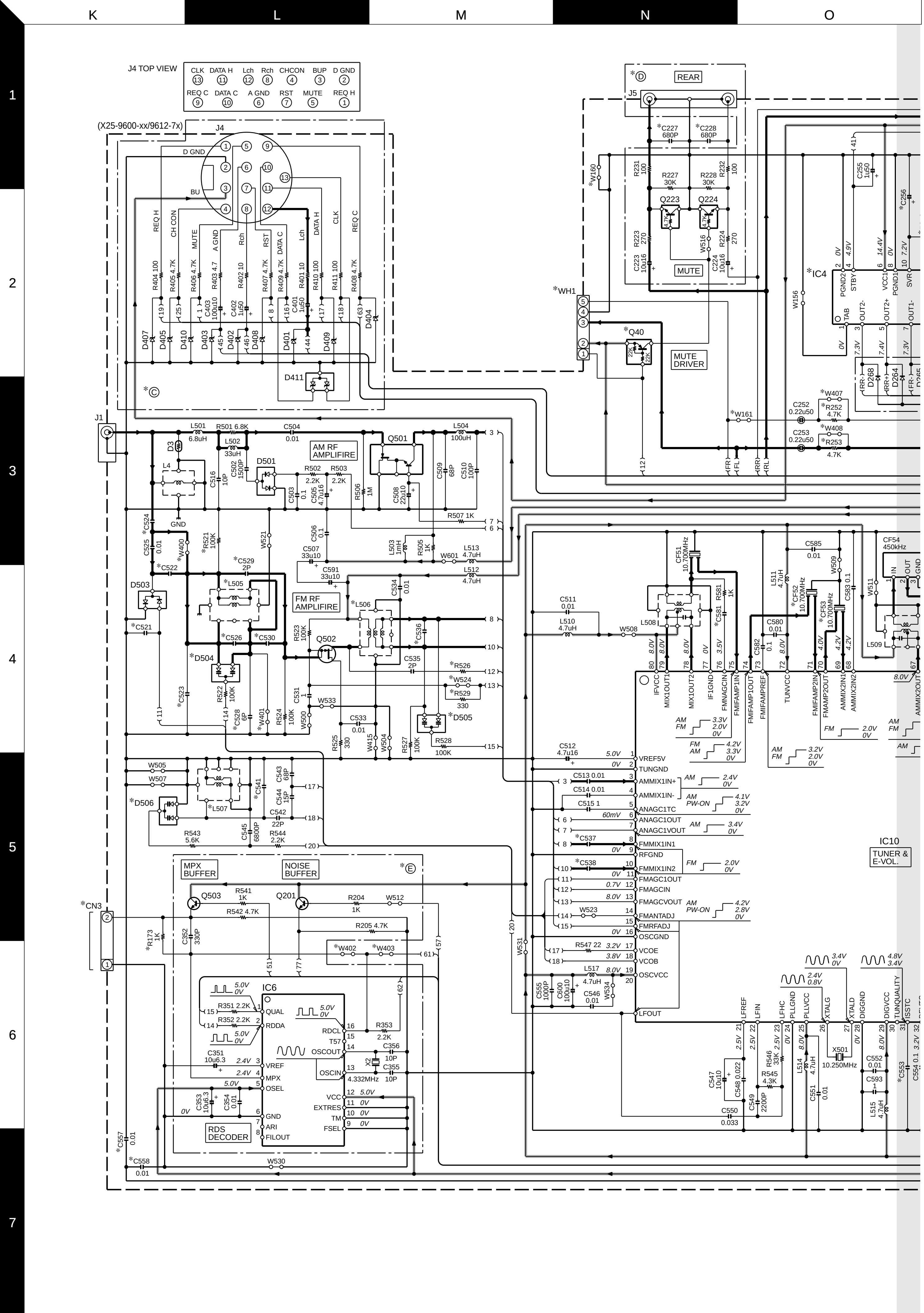
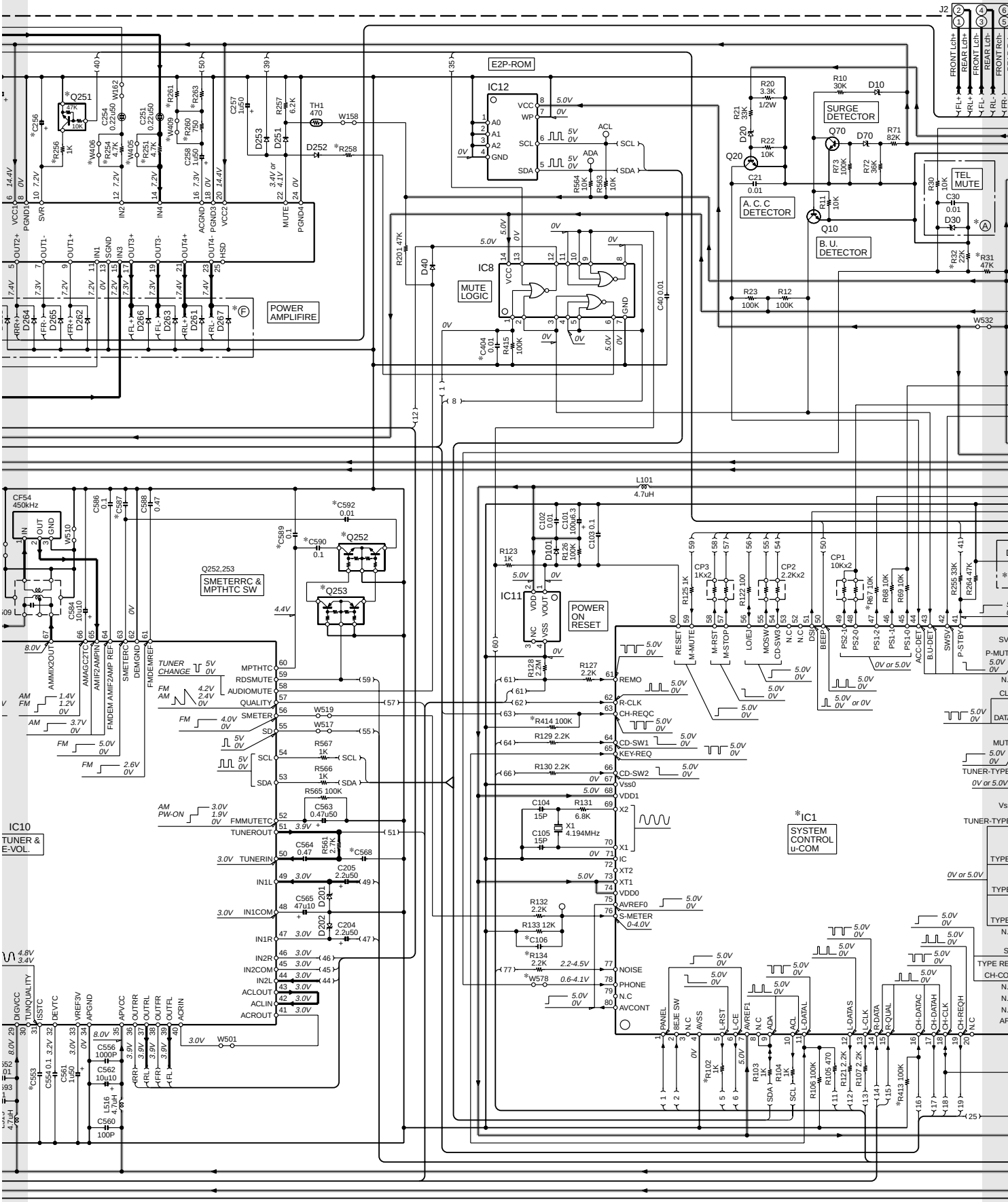
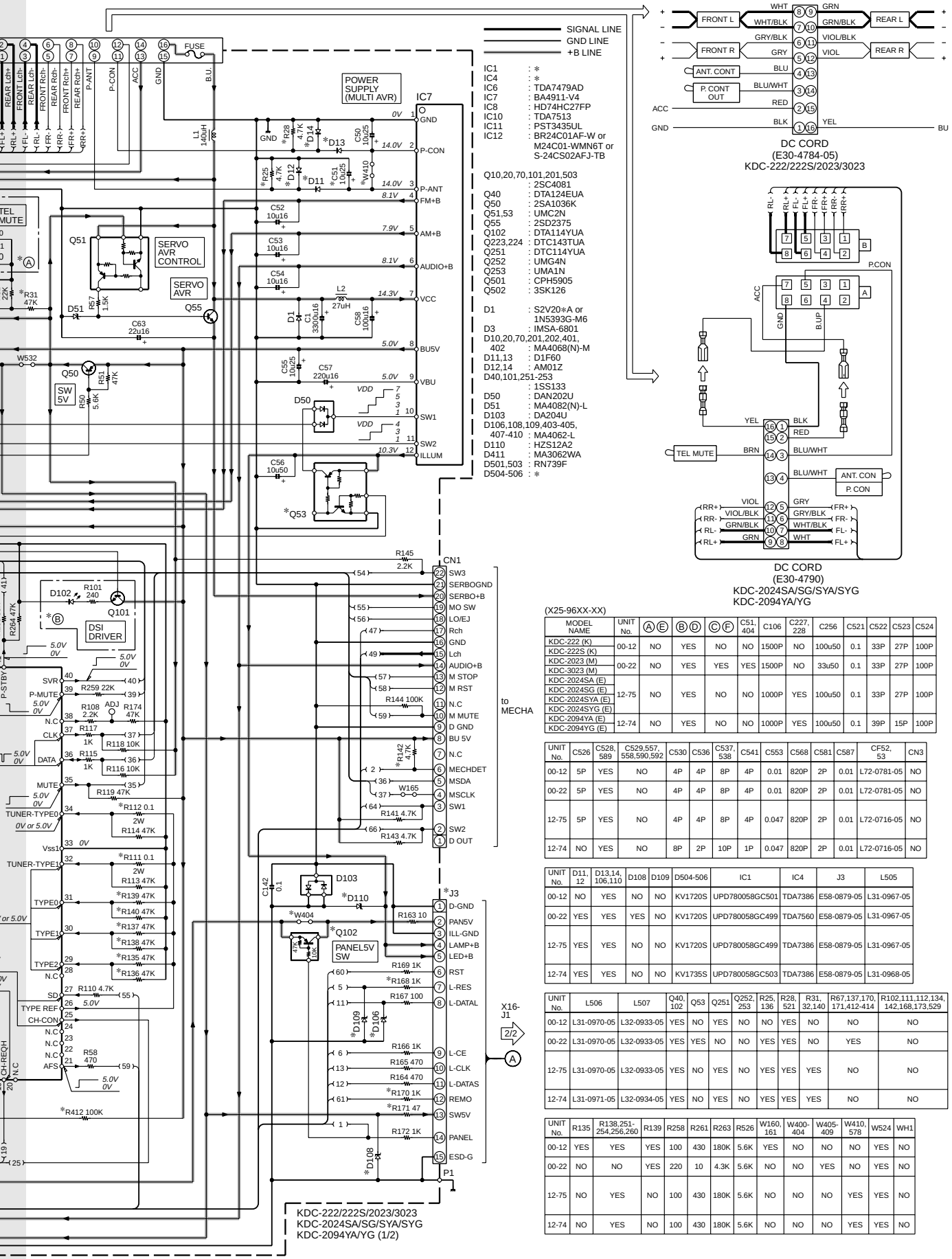


K
L
M
N
O
1
2
3
4
5
6
7
J4 TOP VIEW
CLK 13
DATA H 11
Lch 12
Rch 8
CHCON 4
BUP 3
D GND 2
REQ C 9
DATA C 10
A GND 6
RST 7
MUTE 5
REQ H 1
(X25-9600-xx/9612-7x)
J4
D GND
BU
REQ H
CH CON
MUTE
A GND
Rch
RST
DATA C
Lch
DATA H
CLK
REQ C
D411
*C
J1
*D
REAR
J5
Q223
Q224
MUTE
*WH1
*Q40
MUTE DRIVER
*IC4
AM RF AMPLIFIRE
Q501
D501
D503
FM RF AMPLIFIRE
*L505
*L506
Q502
*D504
*D505
*D506
*L507
MPX BUFFER
NOISE BUFFER
*E
Q503
Q201
*CN3
IC6
QUAL
RDDA
VREF
MPX
OSEL
GND
ARI
FILOUT
RDCL
T57
OSCOUT
OSCIN
VCC
EXTRES
TM
FSEL
X2
4.332MHz
RDS DECODER
IC10
TUNER & E-VOL.
VREF5V
TUNGND
AMMIX1IN+
AMMIX1IN-
ANAGC1TC
ANAGC1OUT
ANAGC1VOUT
FMMIX1IN1
RFGND
FMMIX1IN2
FMAGC1OUT
FMAGCIN
FMAGCVOUT
FMANTADJ
FMRFADJ
OSCGND
VCOE
VCOB
OSCVCC
LFOUT
IFVCC
MIX1OUT1
MIX1OUT2
IF1GND
FMAGCIN
FMIFAMP1IN
FMIFAMP1OUT
FMIFAMPREF
TUNVCC
FMIFAMP2IN
FMAMP2OUT
AMMIX2IN1
AMMIX2IN2
AMMIX2OUT
LFREF
LFIN
LFHC
PLLGND
PLLVCC
XTALG
XTALD
DIGGND
DIGVCC
TUNQUALITY
CF51 10.700MHz
CF52 10.700MHz
CF53 10.700MHz
CF54 450kHz
X501 10.250MHz

P Q R S T


POWER AMPLIFIRE
E2P-ROM
IC12
MUTE LOGIC
IC8
SURGE DETECTOR
A. C. C DETECTOR
B. U. DETECTOR
TEL MUTE
POWER ON RESET
IC11
SMETERRC & MPTHTC SW
IC10 TUNER & E-VOL.
*IC1 SYSTEM CONTROL u-COM
FRONT Lch+
REAR Lch+
FRONT Lch-
REAR Lch-
FRONT Rch+
REAR Rch-



(X25-96XX-XX)

MODEL NAME	UNIT No.	Ⓐ Ⓔ	Ⓑ Ⓓ	Ⓒ Ⓕ	C51, 404	C106	C227, 228	C256	C521	C522	C523	C524
KDC-222 (K)	00-12	NO	YES	NO	NO	1500P	NO	100u50	0.1	33P	27P	100P
KDC-222S (K)												
KDC-2023 (M)	00-22	NO	YES	YES	YES	1500P	NO	33u50	0.1	33P	27P	100P
KDC-3023 (M)												
KDC-2024SA (E)	12-75	NO	YES	NO	NO	1000P	YES	100u50	0.1	33P	27P	100P
KDC-2024SG (E)												
KDC-2024SYA (E)												
KDC-2024SYG (E)												
KDC-2094YA (E)	12-74	NO	YES	NO	NO	1000P	YES	100u50	0.1	39P	15P	100P
KDC-2094YG (E)												

UNIT No.	C526	C528, 589	C529,557, 558,590,592	C530	C536	C537, 538	C541	C553	C568	C581	C587	CF52, 53	CN3
00-12	5P	YES	NO	4P	4P	8P	4P	0.01	820P	2P	0.01	L72-0781-05	NO
00-22	5P	YES	NO	4P	4P	8P	4P	0.01	820P	2P	0.01	L72-0781-05	NO
12-75	5P	YES	NO	4P	4P	8P	4P	0.047	820P	2P	0.01	L72-0716-05	NO
12-74	NO	YES	NO	8P	2P	10P	1P	0.047	820P	2P	0.01	L72-0716-05	NO

UNIT No.	D11, 12	D13,14, 106,110	D108	D109	D504-506	IC1	IC4	J3	L505
00-12	NO	YES	NO	NO	KV1720S	UPD780058GC501	TDA7386	E58-0879-05	L31-0967-05
00-22	YES	YES	YES	NO	KV1720S	UPD780058GC499	TDA7560	E58-0879-05	L31-0967-05
12-75	YES	YES	NO	NO	KV1720S	UPD780058GC499	TDA7386	E58-0879-05	L31-0967-05
12-74	YES	YES	NO	NO	KV1735S	UPD780058GC503	TDA7386	E58-0879-05	L31-0968-05

UNIT No.	L506	L507	Q40, 102	Q53	Q251	Q252, 253	R25, 136	R28, 521	R31, 32,140	R67,137,170, 171,412-414	R102,111,112,134, 142,168,173,529
00-12	L31-0970-05	L32-0933-05	YES	NO	YES	NO	NO	YES	NO	NO	NO
00-22	L31-0970-05	L32-0933-05	YES	YES	NO	NO	YES	YES	NO	YES	NO
12-75	L31-0970-05	L32-0933-05	YES	NO	YES	NO	YES	YES	YES	NO	NO
12-74	L31-0971-05	L32-0934-05	YES	NO	YES	NO	YES	YES	YES	NO	NO

UNIT No.	R135	R138,251-254,256,260	R139	R258	R261	R263	R526	W160, 161	W400-404	W405-409	W410, 578	W524	WH1
00-12	YES	YES	YES	100	430	180K	5.6K	YES	NO	NO	NO	YES	NO
00-22	NO	NO	YES	220	10	4.3K	5.6K	NO	NO	YES	NO	YES	NO
12-75	NO	YES	NO	100	430	180K	5.6K	NO	NO	NO	YES	YES	NO
12-74	NO	YES	NO	100	430	180K	5.6K	NO	NO	NO	YES	YES	NO

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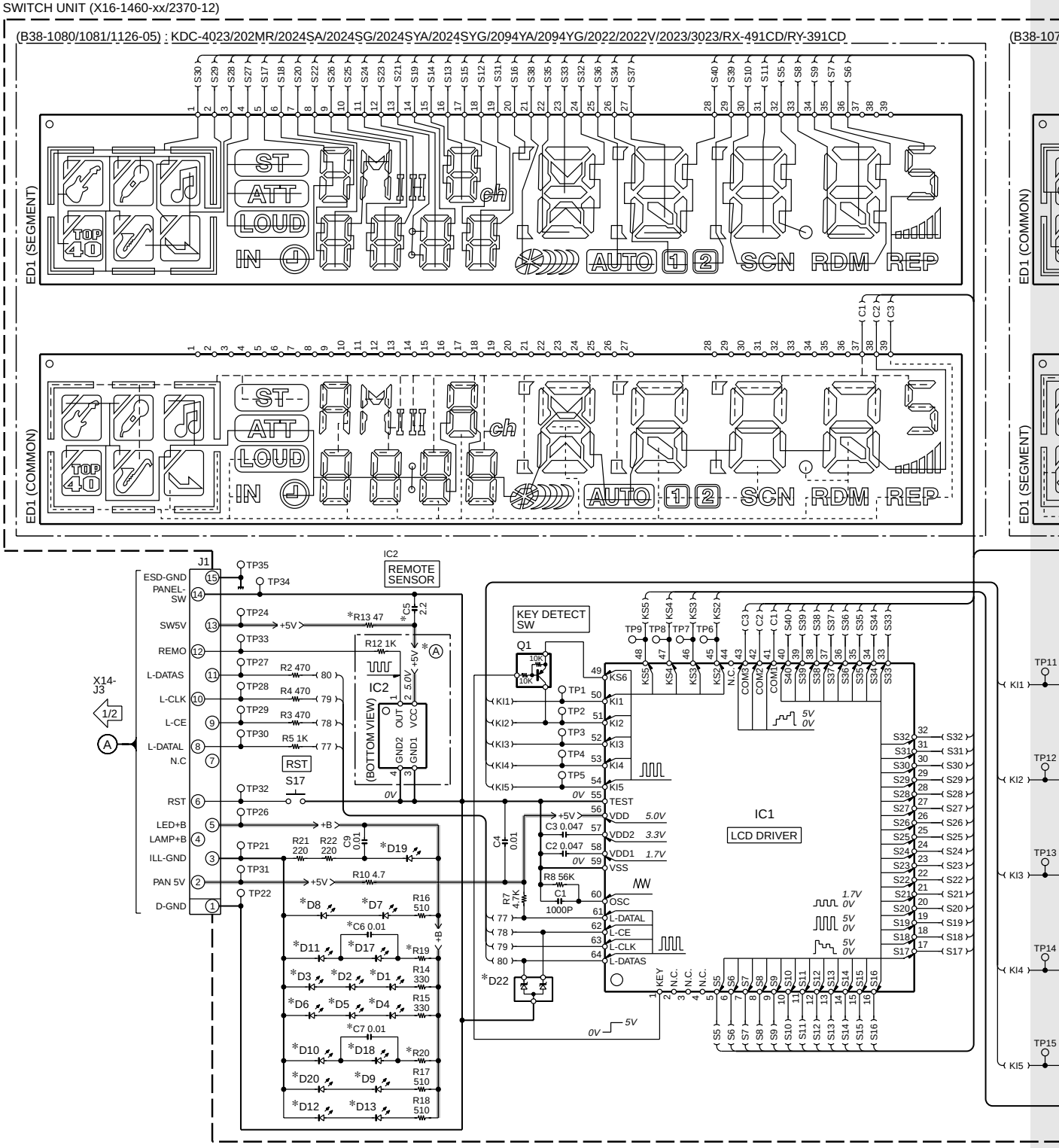
SWITCH UNIT (X16-1460-xx/2370-12)



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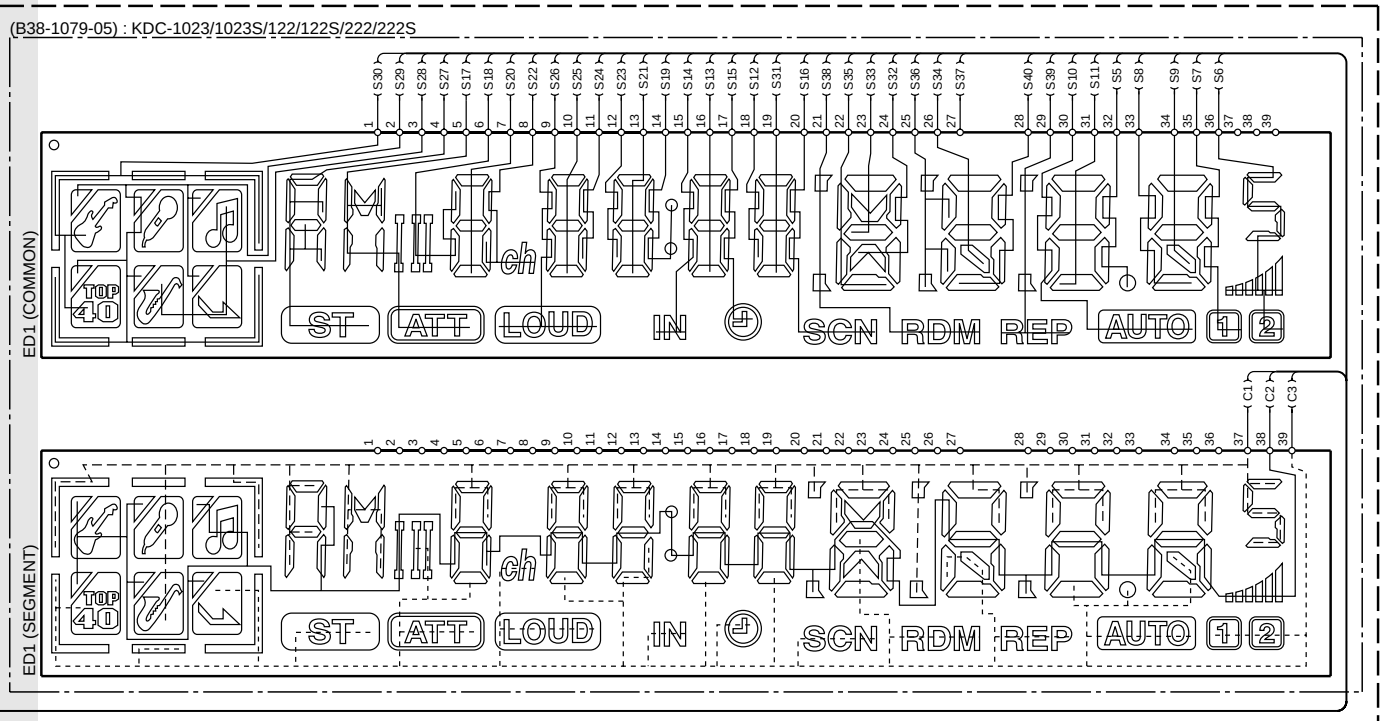
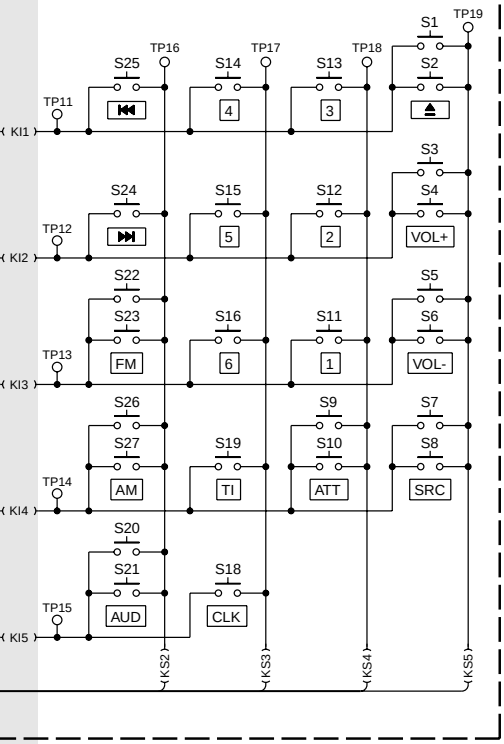
(B38-1079-05) : KDC-1023/1023S/122/122S/222/222S





IC1 : LC75853NE
IC2 : RS-171
Q1 : DTA114EUA

D1-13,20 : ∗
D17,18 : ∗
D19 : ∗
D22 : MA3062WA

ED1 : ∗

GND LINE
+B LINE

MODEL NAME	UNIT No.	Ⓐ	C5	C6, 7	D1-13,20	D17,18	D19	D22	R13	R19, 20
RX-491CD (J)	X16-1460-01	YES	YES	YES	B30-1533-05 (GREEN)	B30-1564-05 or B30-1642-05 (BLUE)	B30-1633-05	NO	YES	390
RY-391CD (J)	X16-1460-03	NO	NO	NO	B30-1533-05 (GREEN)	B30-1533-05 (GREEN)	B30-1633-05	NO	NO	510
KDC-4023 (M)	X16-1460-11	YES	YES	YES	B30-1533-05 (GREEN)	B30-1564-05 or B30-1642-05 (BLUE)	B30-1633-05	YES	YES	390
KDC-202MR (K)	X16-1460-12	YES	YES	NO	B30-1533-05 (GREEN)	B30-1533-05 (GREEN)	B30-1633-05	YES	YES	510
KDC-1023 (M) KDC-1023S (M)	X16-1460-13	NO	NO	NO	B30-1533-05 (GREEN)	B30-1533-05 (GREEN)	B30-1633-05	YES	NO	510
KDC-2024SG (E) KDC-2024SYG (E) KDC-2094YG (E)	X16-1460-14	NO	YES	NO	B30-1533-05 (GREEN)	B30-1533-05 (GREEN)	B30-1633-05	YES	YES	510
KDC-2022V (K)	X16-1460-15	YES	YES	YES	B30-1567-05 (RED)	B30-1564-05 or B30-1642-05 (BLUE)	B30-1633-05	YES	YES	390
KDC-2024SA (E) KDC-2024SYA (E) KDC-2094YA (E)	X16-1460-16	NO	YES	NO	B30-1567-05 (RED)	B30-1567-05 (RED)	B30-1633-05	YES	YES	510
KDC-2023 (M)	X16-1460-20	YES	YES	NO	B30-1533-05 (GREEN)	B30-1533-05 (GREEN)	B30-1633-05	YES	YES	510
KDC-3023 (M)	X16-1460-21	YES	YES	NO	B30-1567-05 (RED)	B30-1567-05 (RED)	B30-1641-05	YES	YES	510
KDC-2022 (K)	X16-2370-10	YES	YES	YES	B30-1567-05 (RED)	B30-1564-05 (BLUE)	B30-1633-05	YES	YES	390
KDC-122 (K) KDC-122S (K)	X16-2370-11	NO	NO	NO	B30-1567-05 (RED)	B30-1567-05 (RED)	B30-1633-05	NO	NO	510
KDC-222 (K) KDC-222S (K)	X16-2370-12	NO	YES	NO	B30-1567-05 (RED)	B30-1564-05 (BLUE)	B30-1633-05	YES	YES	510

KDC-2022/V/202MR/4023 (2/2)
KDC-122/S/1023/S (2/2)
KDC-222/S/2023/3023/2024SA/SG/SYA/SYG/2094YA/YG (2/2)
RX-491CD/RY-391CD (2/2)