

CD RECEIVER

**KDC-MP5028/MP528/W6031
/W6031Y/W6531/W6531Y
/X589/X7529**

SERVICE MANUAL

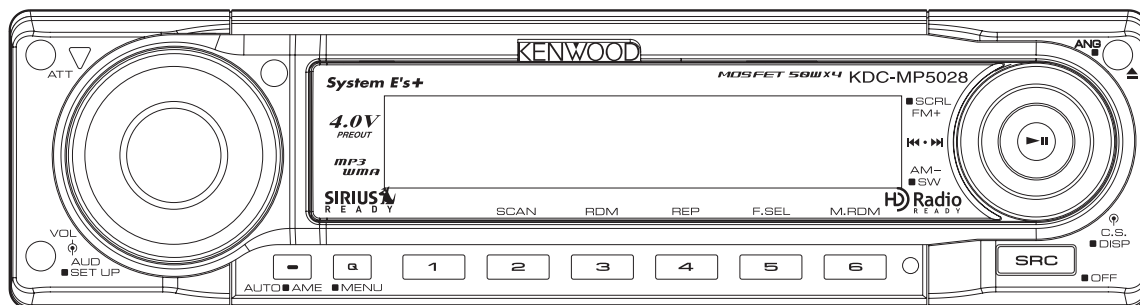
KENWOOD

Kenwood Corporation

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B53-0274-00 (N) 1708

SWITCH UNIT (X16) TYPE 2

Illustration is KDC-MP5028

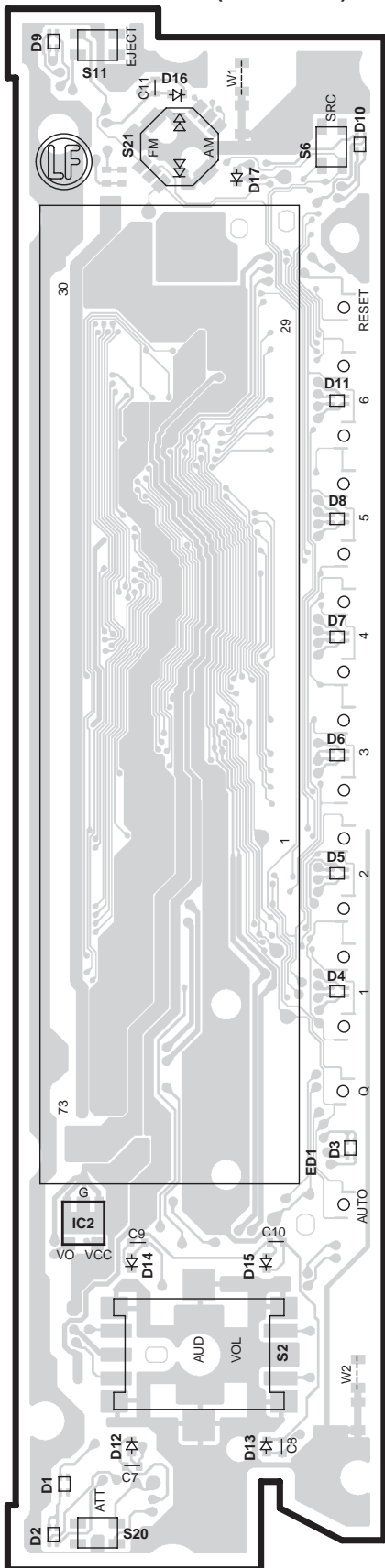


This service manual handles only switch unit (X16) for type 2.
Besides, please refer to the service manual of each model.
Switch unit (X16) has been changed from the following serial number to type 2.
Following system microcomputer (IC1: X34) also changes at the same time as changing switch unit (X16).

MODEL	SERIAL No.	SWITCH UNIT (TYPE2 UNIT)	ELECTRIC UNIT	MCU IC (IC1:X34)	TDF NAME	TDF PANEL No.
KDC-X589	50200001~	X16-3350-10	X34-3420-10	30624MWPA43GP	TDF-55DX/O	Y33-2290-60
KDC-X7529	T0200001~	X16-3350-10	X34-3420-21	30624MWPA43GP	TDF-X7529/O	Y33-2290-65
KDC-MP5028	50200001~	X16-3350-11	X34-3420-11	30624MWPA43GP	TDF-MP55DB/O	Y33-2290-61
KDC-MP528	50200001~	X16-3350-11	X34-3420-12	30624MWPA43GP	TDF-MP55D/O	Y33-2290-62
KDC-W6531Y	T0200001~	X16-3350-11	X34-3422-71	30624MWPA43GP	TDF-W6531/O	Y33-2290-63
KDC-W6031Y	T0200001~	X16-3350-11	X34-3422-72	30624MWPA43GP	TDF-W6031/O	Y33-2290-64
KDC-W6531	T0201201~	X16-3362-70	X34-3762-70	30624MWPA43GP	TDF-W6531/O	Y33-2290-63
KDC-W6031	T0202001~	X16-3362-70	X34-3762-71	30624MWPA43GP	TDF-W6031/O	Y33-2290-64

PC BOARD (COMPONENT SIDE VIEW)

SWITCH UNIT
X16-3350-1x/3362-70 (J76-0143-02)

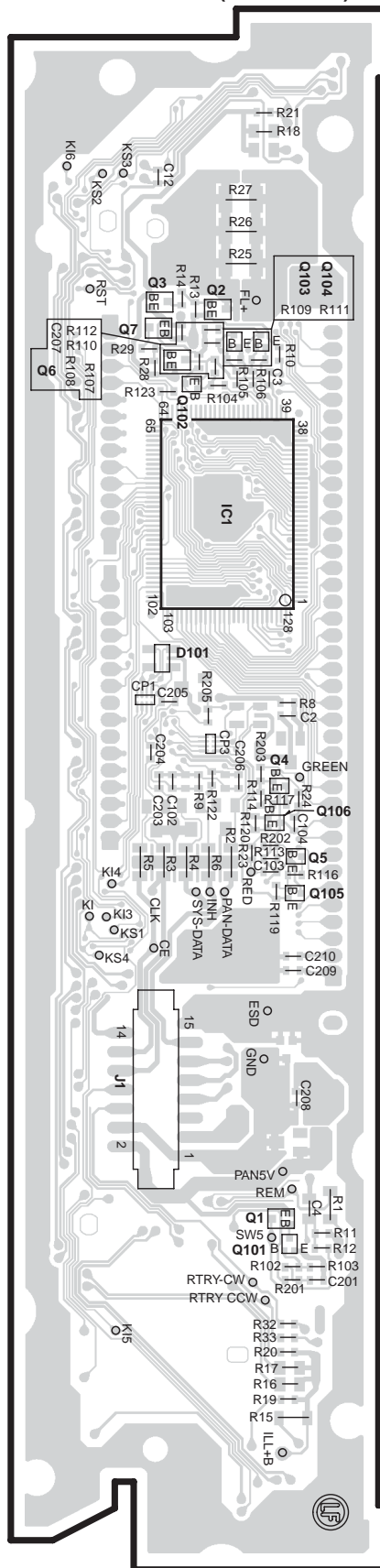


X16-3350-1x
X16-3362-70

Ref. No.	Address
IC2	6A

(FOIL SIDE VIEW)

SWITCH UNIT
X16-3350-1x/3362-70 (J76-0143-02)



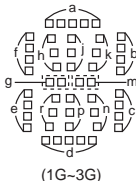
X16-3350-1x
X16-3362-70

Ref. No.	Address
IC1	3E
Q1	6E
Q2	2E
Q3	2E
Q4	4E
Q5	5E
Q6	3D
Q7	3E
Q101	6E
Q102	3E
Q103	2E
Q104	2E
Q105	5E
Q106	4E

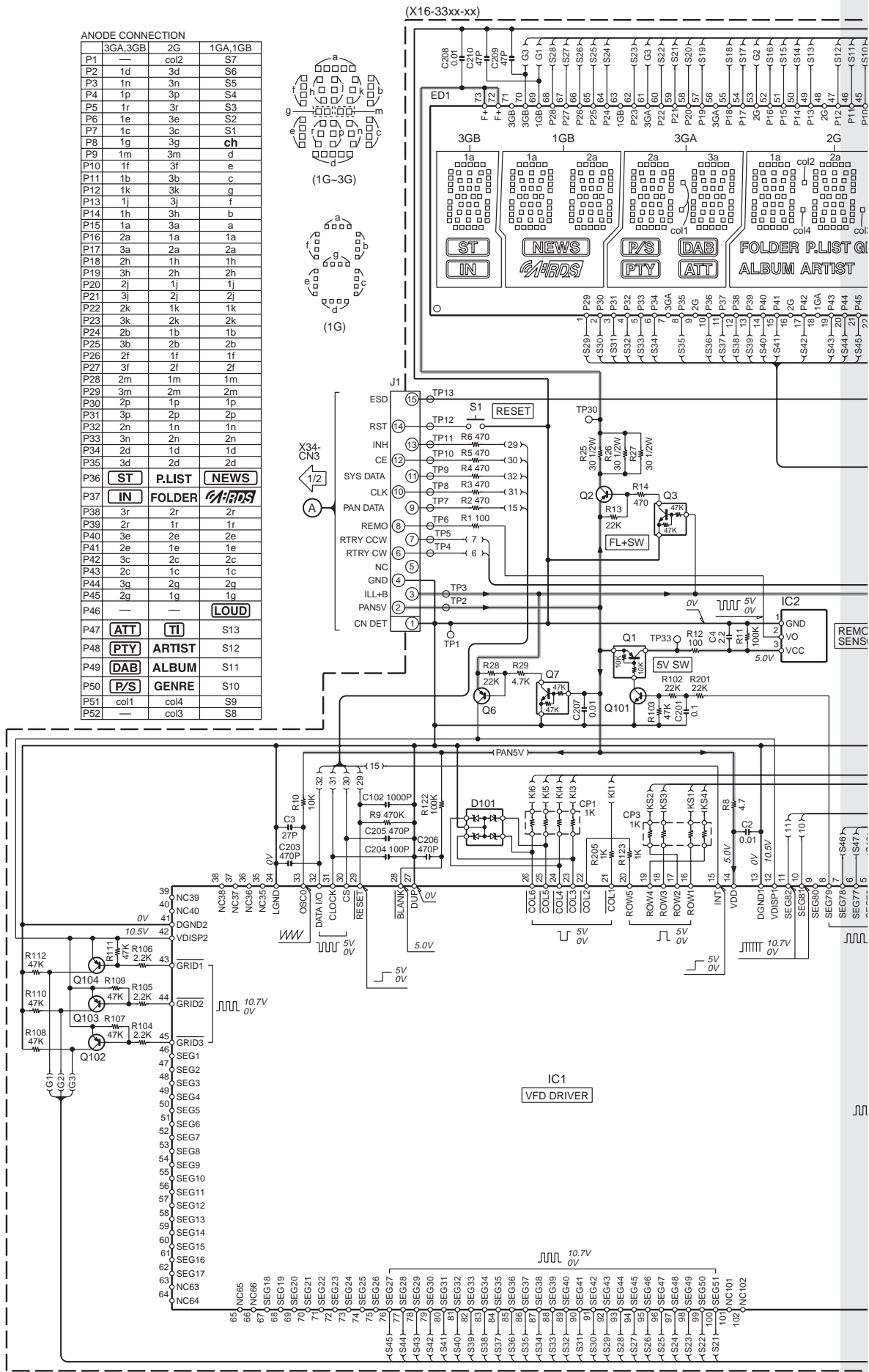
Refer to the schematic diagram for the values of resistors and capacitors.

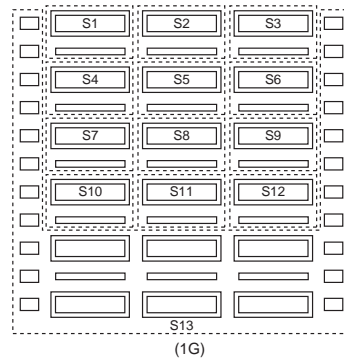
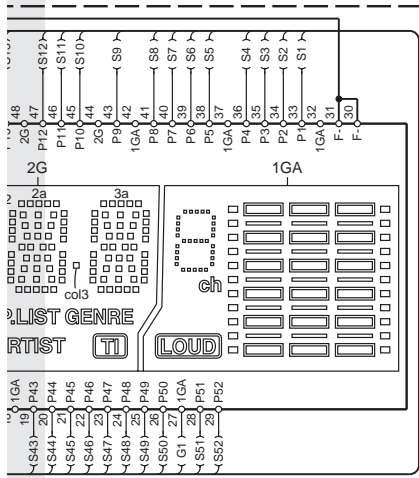
ANODE CONNECTION

	3GA,3GB	2G	1GA,1GB
P1	col2	col2	S7
P2	1d	3d	S6
P3	1n	3n	S5
P4	1p	3p	S4
P5	1r	3r	S3
P6	1e	3e	S2
P7	1c	3c	S1
P8	1g	3g	ch
P9	1m	3m	d
P10	1f	3f	e
P11	1b	3b	c
P12	1k	3k	g
P13	1j	3j	f
P14	1h	3h	b
P15	1a	3a	a
P16	2a	1a	1a
P17	3a	2a	2a
P18	2h	1h	1h
P19	3h	2h	2h
P20	2j	1j	1j
P21	3j	2j	2j
P22	2k	1k	1k
P23	3k	2k	2k
P24	2b	1b	1b
P25	3b	2b	2b
P26	2f	1f	1f
P27	3f	2f	2f
P28	2m	1m	1m
P29	3m	2m	2m
P30	2p	1p	1p
P31	3p	2p	2p
P32	2n	1n	1n
P33	3n	2n	2n
P34	2d	1d	1d
P35	3d	2d	2d
P36	ST	P.LIST	NEWS
P37	IN	FOLDER	NEWS
P38	3r	2r	2r
P39	2r	1r	1r
P40	3e	2e	2e
P41	2e	1e	1e
P42	3c	2c	2c
P43	2c	1c	1c
P44	3g	2g	2g
P45	2g	1g	1g
P46	—	—	LOUD
P47	ATT	TI	S13
P48	PTY	ARTIST	S12
P49	DAB	ALBUM	S11
P50	P/S	GENRE	S10
P51	col1	col4	S9
P52	—	col3	S8



(X16-33xx-xx)

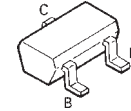




2SA1576A
2SC4617



2SA1774



(X16-33xx-xx)

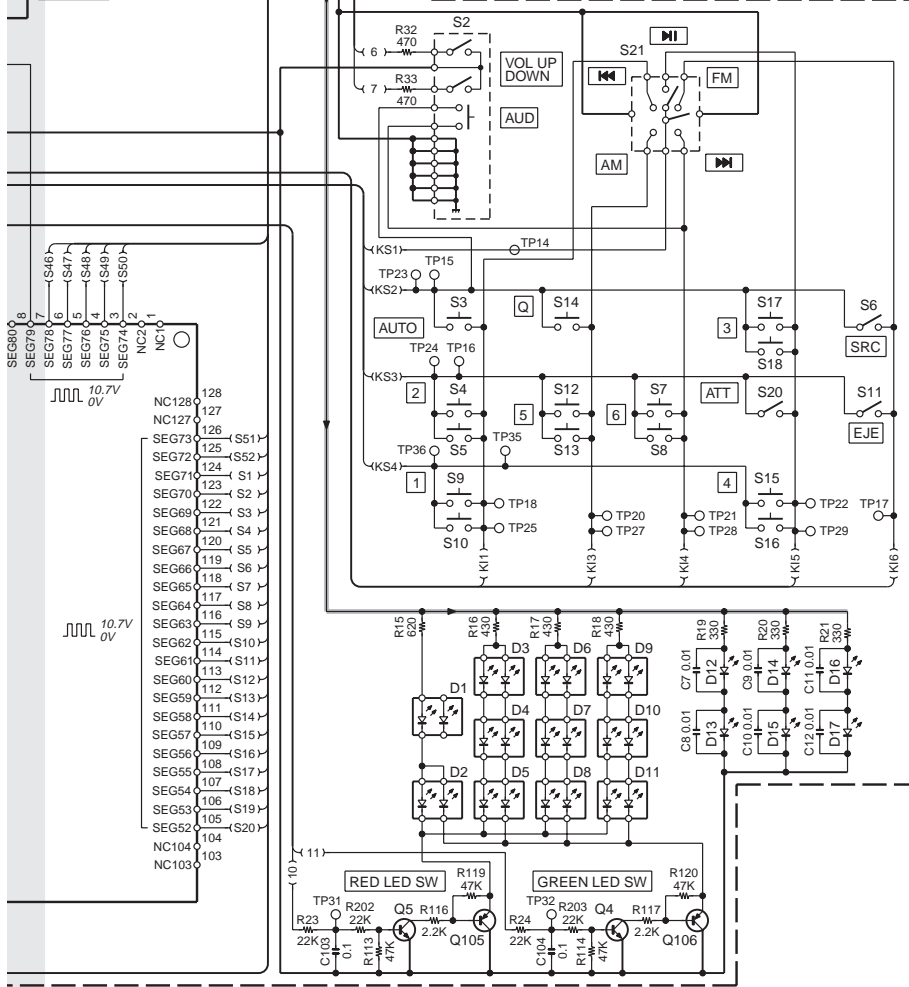
MODEL NAME	UNIT No.
KDC-X589	X16-3350-10
KDC-X7529	
KDC-MP5028	X16-3350-11
KDC-MP528	
KDC-W6531Y	
KDC-W6031Y	
KDC-W6531	X16-3362-70
KDC-W6031	

IC1 : ML9228GAZ-A
IC2 : PNA4S22M

Q1 : KRA302-P
Q2 : 2SA1577
Q3,7 : KRC404-P
Q4,5,101 : 2SC4617
Q6 : 2SA1576A
Q102-106 : 2SA1774

D1 : B30-1692
D2-11 : B30-1605
D12-17 : B30-1729
D101 : FTZ6.8E
ED1 : 3-BT-226N

REMOTE SENSOR



— GND LINE
— +B LINE

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

⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

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.

Ref. No.	Add New	Parts No.	Description	Destination
SWITCH UNIT (X16-3350-1x, X16-3362-70)				
D1		B30-1692-05	LED (HR/YG)	
D2-11		B30-1605-05	LED (2COLOR PG/RED)	
D12-17		B30-1729-05	LED (1608, BLUE)	
C2		CK73GB1H103K	CHIP C 0.010UF K	
C3		CC73GCH1H270J	CHIP C 27PF J	
C4		CK73FB1A225K	CHIP C 2.2UF K	
C7-12		CK73GB1H103K	CHIP C 0.010UF K	
C102		CK73GB1H102K	CHIP C 1000PF K	
C103,104		CK73GB1H104K	CHIP C 0.10UF K	
C201		CK73GB1H104K	CHIP C 0.10UF K	
C203		CC73GCH1H471J	CHIP C 470PF J	
C204		CC73GCH1H101J	CHIP C 100PF J	
C205,206		CC73GCH1H471J	CHIP C 470PF J	
C207,208		CK73GB1H103K	CHIP C 0.010UF K	
C209,210		CC73GCH1H470J	CHIP C 47PF J	
J1		E59-0839-05	RECTANGULAR PLUG	
CP1		RK74HB1J102J	CHIP-COM 1.0K J 1/16W	
CP3		RK74HB1J102J	CHIP-COM 1.0K J 1/16W	
R1		RK73EB2E101J	CHIP R 100 J 1/4W	
R2-6		RK73EB2E471J	CHIP R 470 J 1/4W	
R8		RK73GB2A4R7J	CHIP R 4.7 J 1/10W	
R9		RK73GB2A474J	CHIP R 470K J 1/10W	
R10		RK73GB2A103J	CHIP R 10K J 1/10W	
R11		RK73GB2A104J	CHIP R 100K J 1/10W	
R12		RK73GB2A101J	CHIP R 100 J 1/10W	
R13		RK73GB2A223J	CHIP R 22K J 1/10W	
R14		RK73GB2A471J	CHIP R 470 J 1/10W	
R15		RK73EB2E621J	CHIP R 620 J 1/4W	
R16-18		RK73FB2B431J	CHIP R 430 J 1/8W	
R19-21		RK73GB2A331J	CHIP R 330 J 1/10W	
R23,24		RK73GB2A223J	CHIP R 22K J 1/10W	
R25-27	*	RK73PB2H300J	CHIP R 30 J 1/2W	
R28		RK73GB2A223J	CHIP R 22K J 1/10W	
R29		RK73GB2A472J	CHIP R 4.7K J 1/10W	
R32,33		RK73GB2A471J	CHIP R 470 J 1/10W	
R102		RK73GB2A223J	CHIP R 22K J 1/10W	
R103		RK73GB2A473J	CHIP R 47K J 1/10W	
R104-106		RK73GB2A222J	CHIP R 2.2K J 1/10W	
R107-114		RK73GB2A473J	CHIP R 47K J 1/10W	
R116,117		RK73GB2A222J	CHIP R 2.2K J 1/10W	
R119,120		RK73GB2A473J	CHIP R 47K J 1/10W	
R122		RK73GB2A104J	CHIP R 100K J 1/10W	
R123		RK73GB2A102J	CHIP R 1.0K J 1/10W	
R201-203		RK73GB2A223J	CHIP R 22K J 1/10W	
R205		RK73GB2A102J	CHIP R 1.0K J 1/10W	
W1,2		R92-2053-05	CHIP R 0 OHM J 1/8W	
S6		S70-0901-05	TACT SWITCH	
S11		S70-0901-05	TACT SWITCH	
S20		S70-0901-05	TACT SWITCH	
S21		S70-0926-25	TACT SWITCH	
S2		T99-0456-15	ROTARY ENCODER	

Ref. No.	Add New	Parts No.	Description	Destination
D101		FTZ6.8E	ZENER DIODE	
ED1		3-BT-226N	FLUORESCENT INDICATOR TUBE	
IC1	*	ML9228GAZ-A	MOS-IC	
IC2		PNA4S22M	ANALOGUE IC	
Q1		KRA302-P	TRANSISTOR	
Q2		2SA1577	TRANSISTOR	
Q3		KRC404-P	TRANSISTOR	
Q4,5		2SC4617	TRANSISTOR	
Q6		2SA1576A	TRANSISTOR	
Q7		KRC404-P	TRANSISTOR	
Q101		2SC4617	TRANSISTOR	
Q102-106		2SA1774	TRANSISTOR	
ELECTRIC UNIT (X34-342x-xx, X34-3762-7x)				
IC1	*	30624MWWPA43GP	MCU IC	

△ Indicates safety critical components.

KDC-MP5028/MP528/W6031/W6031Y
/W6531/W6531Y/X589/X7529

MEMO

