

CD RECEIVER

KDC-2029/228/3029/3029R
/MP2028/MP228/MP3029
/MP4029/MP4029G

SERVICE MANUAL

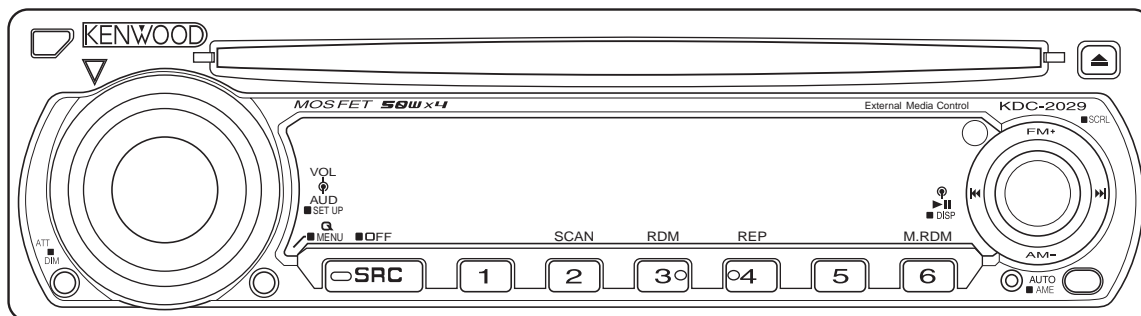
KENWOOD

Kenwood Corporation

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SWITCH UNIT (X16) TYPE 2

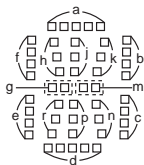
Illustration is KDC-2029



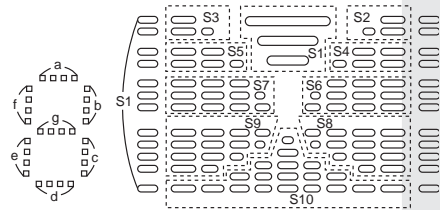
This service manual handles only switch unit (X16) for type 2.
Besides, please refer to the service manual of each model.
Switch unit (X16) has been changed from the following serial number to type 2.
Following system microcomputer (IC1: X34) also changes at the same time as changing switch unit (X16).

MODEL	SERIAL No.	SWITCH UNIT (TYPE2 UNIT)	ELECTRIC UNIT	MCU IC (IC1:X34)	TDF NAME	TDF PANEL No.
KDC-2029	T0200001~	X16-3260-23	X34-3650-22	784225GC282A	TDF-3029/O	Y33-2270-64
KDC-228	40900014~	X16-3260-22	X34-3410-10	784225GC282A	TDF-52D/O	Y33-2260-62
KDC-3029	T0200001~	X16-3260-22	X34-3650-23	784225GC282A	TDF-3029/O	Y33-2270-64
KDC-3029R	S1100101~	X16-3260-22	X34-3650-21	784225GC282A	TDF-3029R/O	Y33-2270-63
KDC-MP2028	50103701~	X16-3260-10	X34-3400-10	784225GC281A	TDF-MP52DB/O	Y33-2260-60
KDC-MP228	50110501~	X16-3260-10	X34-3400-10	784225GC281A	TDF-MP52D/O	Y33-2260-61
KDC-MP3029	50200001~	X16-3260-23	X34-3400-22	784225GC281A	TDF-MP3029/O	Y33-2270-62
KDC-MP4029	T0101865~	X16-3260-21	X34-3400-21	784225GC281A	TDF-MP4029O	Y33-2310-60
KDC-MP4029G	T0200001~	X16-3260-21	X34-3400-21	784225GC281A	TDF-MP4029GO	Y33-2310-61

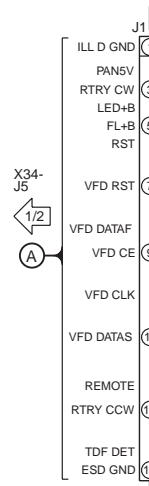
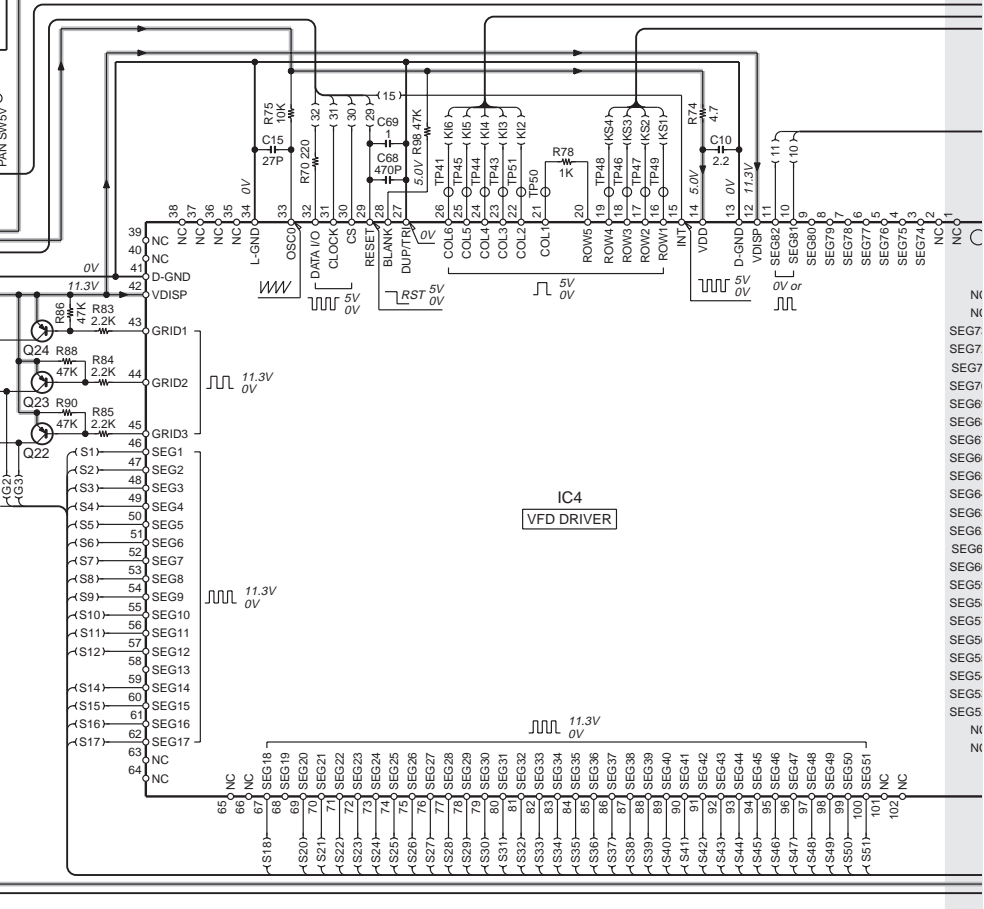
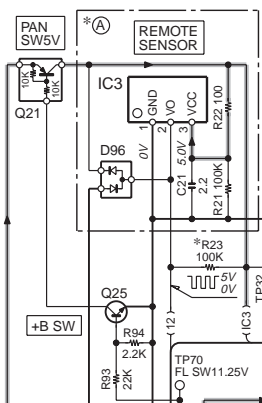
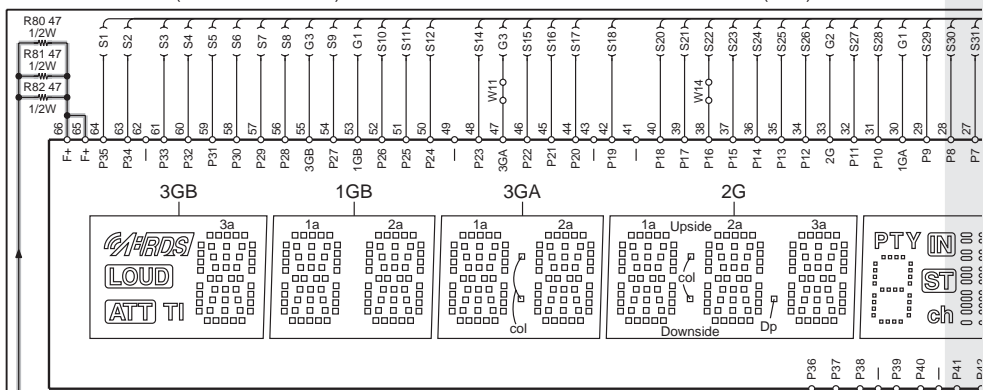
(X16-3xxx-xx)

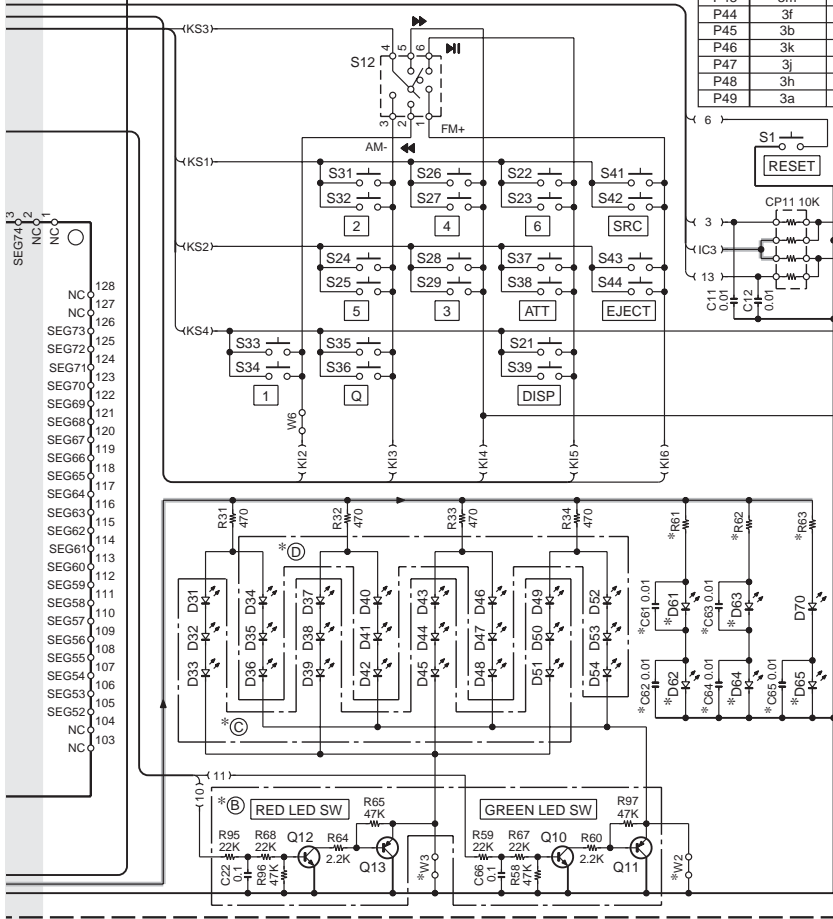
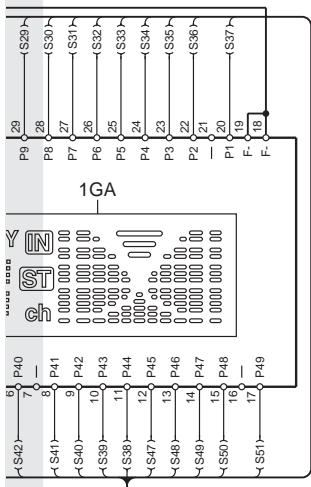
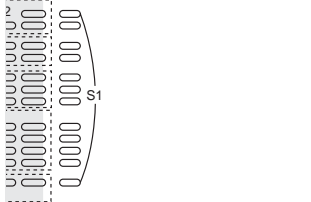


(3GB/1GB/3GA/2G)



(1GA)





ANODE CONNECTION

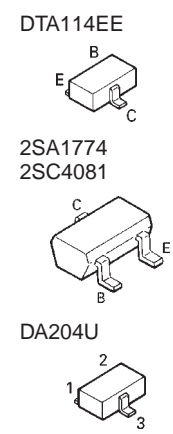
PIN NAME	3GA,3GB	2G	1GA,1GB
P1	—	col (Downside)	S1
P2	2d	2d	2d
P3	1d	1d	1d
P4	2n	2n	2n
P5	1n	1n	1n
P6	2p	2p	2p
P7	1p	1p	1p
P8	2r	2r	2r
P9	1r	1r	1r
P10	2e	2e	2e
P11	1e	1e	1e
P12	2c	2c	2c
P13	1c	1c	1c
P14	2g	2g	2g
P15	1g	1g	1g
P16	2m	2m	2m
P17	1m	1m	1m
P18	2f	2f	2f
P19	1f	1f	1f
P20	2a	2a	2a
P21	1a	1a	1a
P22	2h	2h	2h
P23	1h	1h	1h
P24	2j	2j	2j
P25	1j	1j	1j
P26	2k	2k	2k
P27	1k	1k	1k
P28	2b	2b	2b
P29	1b	1b	1b
P30	col (Upside)	S2	
P31	—	S3	
P32	—	S4	
P33	—	S5	
P34	—	S6	
P35	col	Dp	S7
P36	3d	3d	S8
P37	3n	3n	S9
P38	3p	3p	S10
P39	3r	3r	PTY
P40	3e	3e	ST
P41	3c	3c	ST
P42	3g	3g	ch
P43	3m	3m	d
P44	3f	3f	e
P45	3b	3b	e
P46	3k	3k	e
P47	3j	3j	f
P48	3h	3h	b
P49	3a	3a	a

MODEL NAME	UNIT No.	C61-65	D61-65	R18	R23	R61	R62	R63	W2	W3				
KDC-MP2028	X16-3260-10	YES	—	—	—	—	—	—	300	300	470	—	—	—
KDC-MP228	X16-3260-21	YES	—	—	—	—	—	—	300	300	470	YES	—	—
KDC-MP4029G	X16-3312-10	YES	—	—	—	—	—	—	1K	680	680	—	—	—
KDC-228	X16-3260-22	YES	—	—	—	—	—	—	620	560	560	YES	—	—
KDC-3029R	X16-3312-21	YES	—	—	—	—	—	—	—	—	—	—	—	—
KDC-3029	X16-3312-12	YES	—	—	—	—	—	—	—	—	—	—	—	—
KDC-W4531Y	X16-3262-71	YES	YES	YES	YES	YES	YES	YES	300	300	470	—	—	—
KDC-W4031Y	X16-3302-70	—	—	—	—	—	—	—	—	—	—	—	—	—
KDC-W4091Y	X16-3282-71	—	—	—	—	—	—	—	—	—	—	—	—	—
KDC-3031A/Y	X16-3302-73	—	—	—	—	—	—	—	—	—	—	—	—	—
KDC-309A	X16-3262-73	—	—	—	—	—	—	—	—	—	—	—	—	—
KDC-3331A	X16-3282-72	—	—	—	—	—	—	—	—	—	—	—	—	—
KDC-F331A	X16-3262-72	—	—	—	—	—	—	—	—	—	—	—	—	—
KDC-F331GY	X16-3262-72	—	—	—	—	—	—	—	—	—	—	—	—	—
KDC-309G	X16-3262-73	—	—	—	—	—	—	—	—	—	—	—	—	—
KDC-F331GY	X16-3262-73	—	—	—	—	—	—	—	—	—	—	—	—	—
KDC-WF431A	X16-3262-75	—	—	—	—	—	—	—	—	—	—	—	—	—
E302/S	X16-3260-01	YES	—	—	—	—	—	—	—	—	—	—	—	—
E303MD	X16-3260-02	—	—	—	—	—	—	—	—	—	—	—	—	—

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.

- ED1 : 3-BT-224N
- IC3 : PNA4S22M
- IC4 : ML9228GAZ-A
- Q10,12 : 2SC4617
- Q11,13,22-24 : 2SA1774
- Q21 : DTA114EE
- Q25 : 2SC4081
- D31-33,37-39,43-45,49-51,70 : B30-1567-05 (COLOR:RED)
- D34-36,40-42,46-48,52-54 : *
- D61-65 : *
- D71-77 : UDZS5.6B
- D96 : DA204U



KDC-2029/228/3029/3029R/MP2028/MP228/MP3029/MP4029/MP4029G(OKI) (2/2)

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 (X16-3260-xx)					
D31-33			B30-1567-05	LED (1608, RED)	KM2
D34-36			B30-1533-05	LED (1608, PG)	M1M3
D37-39			B30-1567-05	LED (1608, RED)	KM2
D40-42			B30-1533-05	LED (1608, PG)	M1M3
D43-45			B30-1567-05	LED (1608, RED)	KM2
D46-48			B30-1533-05	LED (1608, PG)	M1M3
D49-51			B30-1567-05	LED (1608, RED)	KM2
D52-54			B30-1533-05	LED (1608, PG)	M1M3
D61-65			B30-1533-05	LED (1608, PG)	M3
D61-65			B30-1567-05	LED (1608, RED)	M2
D61-65			B30-1729-05	LED (1608, BLUE)	KM1
D70			B30-1567-05	LED (1608, RED)	
C10			CK73GB0J225K	CHIP C 2.2UF K	
C11,12			CK73GB1H103K	CHIP C 0.010UF K	
C15			CC73GCH1H270J	CHIP C 27PF J	
C21			CK73FB1A225K	CHIP C 2.2UF K	
C61-65			CK73GB1H103K	CHIP C 0.010UF K	KM1
C68			CK73GB1H471K	CHIP C 470PF K	
C69			CK73FB1C105K	CHIP C 1.0UF K	
J1			E59-0840-05	RECTANGULAR PLUG (15PIN)	
CP11			RK74HB1J103J	CHIP-COM 10K J 1/16W	
R11			RK73GB2A471J	CHIP R 470 J 1/10W	
R13			RK73GB2A471J	CHIP R 470 J 1/10W	
R14			RK73GB2A221J	CHIP R 220 J 1/10W	
R15-17			RK73GB2A471J	CHIP R 470 J 1/10W	
R18			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R19			RK73GB2A471J	CHIP R 470 J 1/10W	
R21			RK73GB2A104J	CHIP R 100K J 1/10W	
R22			RK73GB2A101J	CHIP R 100 J 1/10W	
R31-34			RK73FB2B471J	CHIP R 470 J 1/8W	
R61			RK73EB2E102J	CHIP R 1.0K J 1/4W	M2
R61			RK73EB2E621J	CHIP R 620 J 1/4W	M3
R61,62			RK73EB2E301J	CHIP R 300 J 1/4W	KM1
R62,63			RK73EB2E561J	CHIP R 560 J 1/4W	M3
R62,63			RK73EB2E681J	CHIP R 680 J 1/4W	M2
R63			RK73EB2E471J	CHIP R 470 J 1/4W	KM1
R70			RK73GB2A221J	CHIP R 220 J 1/10W	
R74			RK73GB2A4R7J	CHIP R 4.7 J 1/10W	
R75			RK73GB2A103J	CHIP R 10K J 1/10W	
R78			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R80-82			R92-1245-05	CHIP R 47 J 1/2W	
R83-85			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R86-91			RK73GB2A473J	CHIP R 47K J 1/10W	
R93			RK73GB2A223J	CHIP R 22K J 1/10W	
R94			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R98			RK73GB2A473J	CHIP R 47K J 1/10W	
W2			R92-1252-05	CHIP R 0 OHM J 1/16W	M1M3
W3			R92-1252-05	CHIP R 0 OHM J 1/16W	KM1
W6			R92-1252-05	CHIP R 0 OHM J 1/16W	
W11			R92-1252-05	CHIP R 0 OHM J 1/16W	
W14			R92-1252-05	CHIP R 0 OHM J 1/16W	

Ref. No.	Add	New	Parts No.	Description	Destination
S12			S70-0106-05	TACT SWITCH	
S11			T99-0457-15	ROTARY ENCODER	
D71-77			UDZS5.6B	ZENER DIODE	
D96			DA204U	DIODE	
ED1			3-BT-224N	FLUORESCENT INDICATOR TUBE	
IC3			PNA4S22M	ANALOGUE IC	
IC4		*	ML9228GAZ-A	MOS-IC	
Q21			DTA114EE	DIGITAL TRANSISTOR	
Q22-24			2SA1774	TRANSISTOR	
Q25			2SC4081	TRANSISTOR	
ELECTRIC UNIT (X34-3400-xx)					
IC1		*	784225GC281A	MCU IC	#
ELECTRIC UNIT (X34-3410-xx, X34-3650-2x)					
IC1		*	784225GC282A	MCU IC	#

K : KDC-MP2028/MP228 M1 : KDC-MP4029/MP4029G
M2 : KDC-228/3029/3029R M3 : KDC-2029/MP3029 # : Refer to cover page

△ Indicates safety critical components.

KDC-2029/228/3029/3029R/MP2028
/MP228/MP3029/MP4029/MP4029G

MEMO

