

SENSOR UNIT

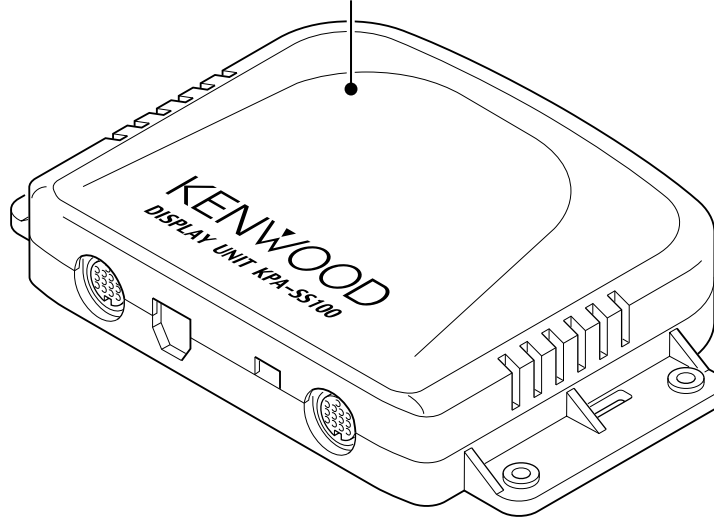
KPA-SS100

SERVICE MANUAL

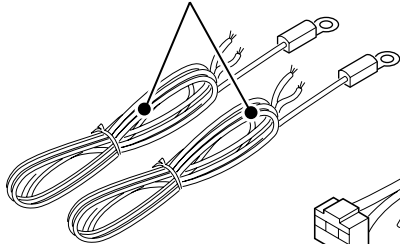
KENWOOD

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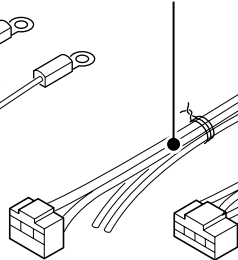
Plastic cabinet
(A02-2702-08)



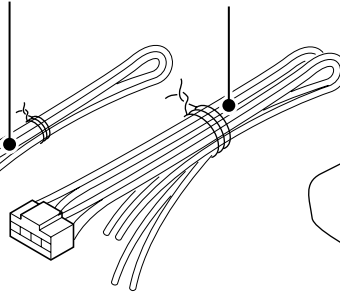
Thermal sensor
(A70-2011-08)



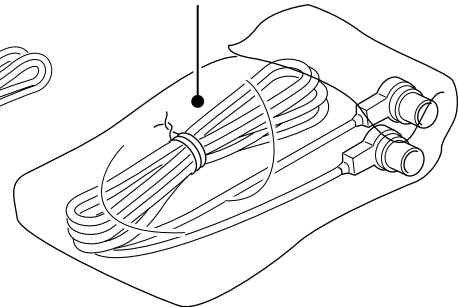
Cord with plug(3P)
(E30-4916-08)



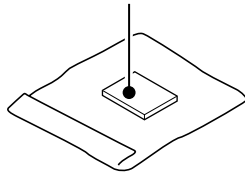
Cord with plug(4P)
(E30-4917-08)



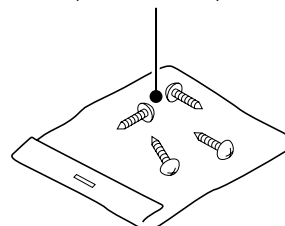
Cord with plug(13P DIN)
(E30-4276-05)



Adhesive double-coated tape
(H30-0537-08)



Screw set
(N99-1696-08)

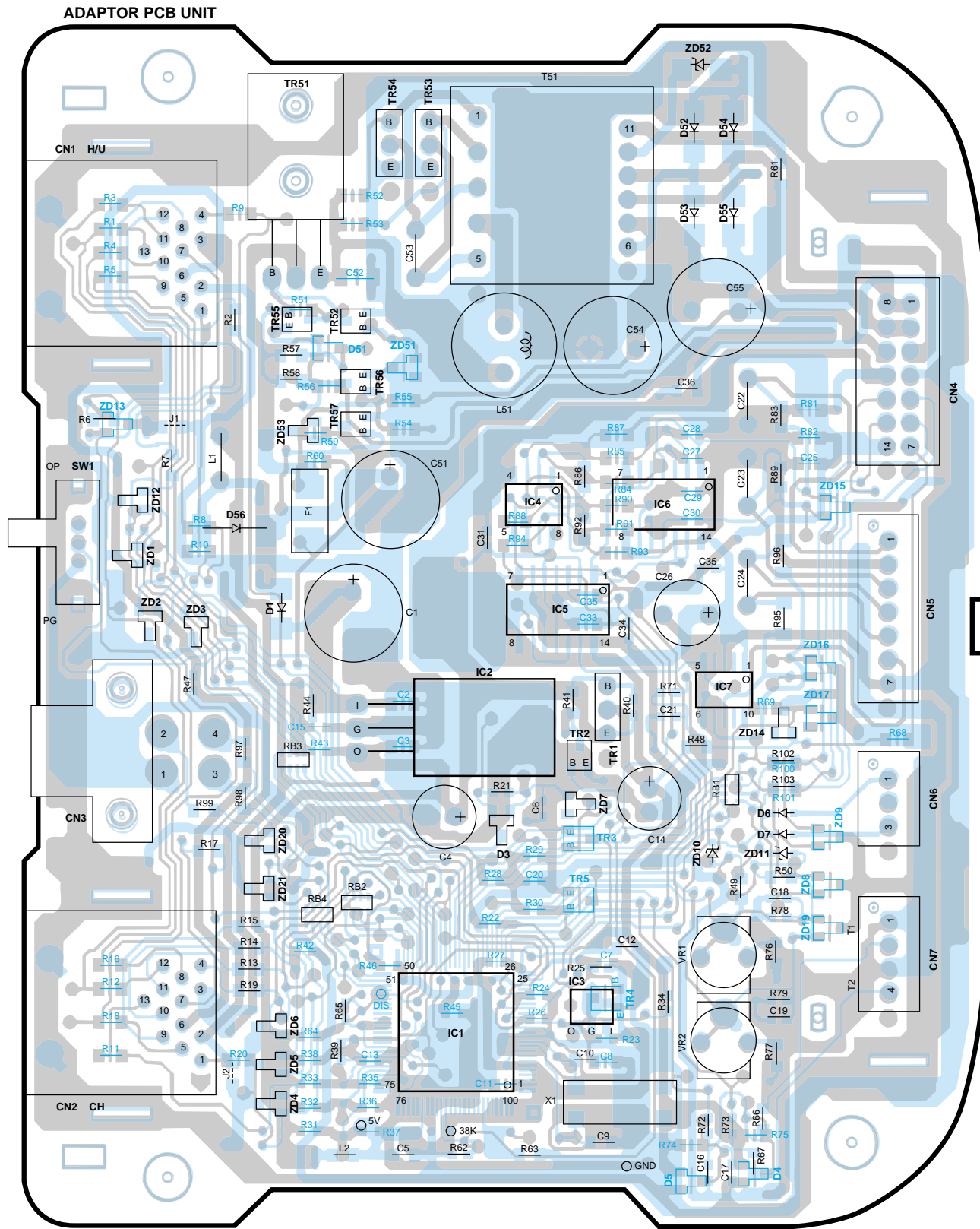


KPA-SS100

ADJUSTMENT

No	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	Initial measurement	—	Connect a DC voltmeter to TR1 : collector	—	Record the voltage of TR1 : collector as V_x .	
2	Voltage detection	DC14.4V CN6(1P) input	Connect a DC voltmeter to IC1:29PIN(AN4)	VR1	$V_x \times \frac{200}{255}$	
3	Voltage detection	DC14.4V CN6(3P) input	Connect a DC voltmeter to IC1:30PIN(AN5)	VR2	$V_x \times \frac{200}{255}$	

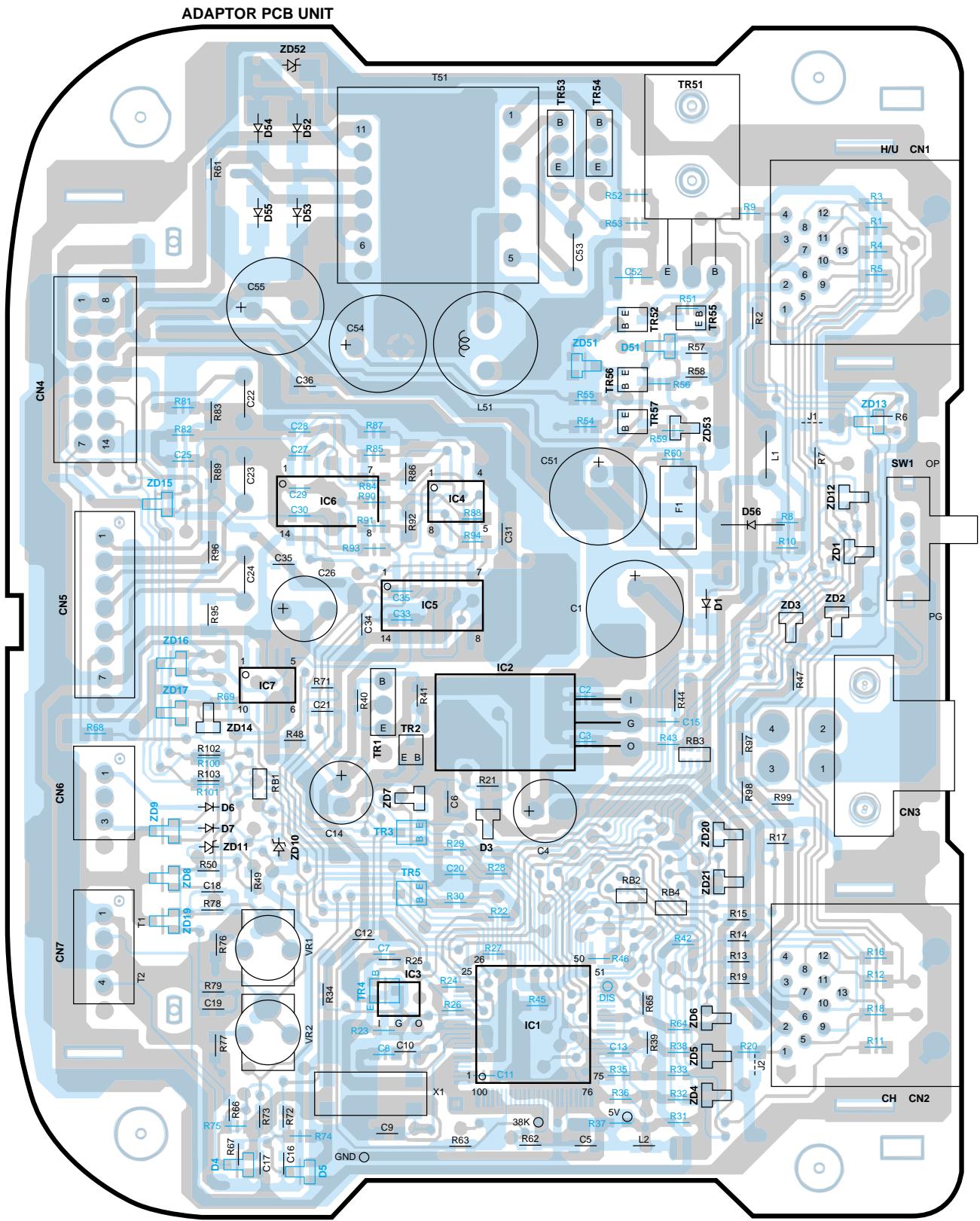
PC BORD (COMPONENT SIDE VIEW)



IC	address
1	6C
2	4C
3	5C
4	3C
5	4C
6	3D
7	4D

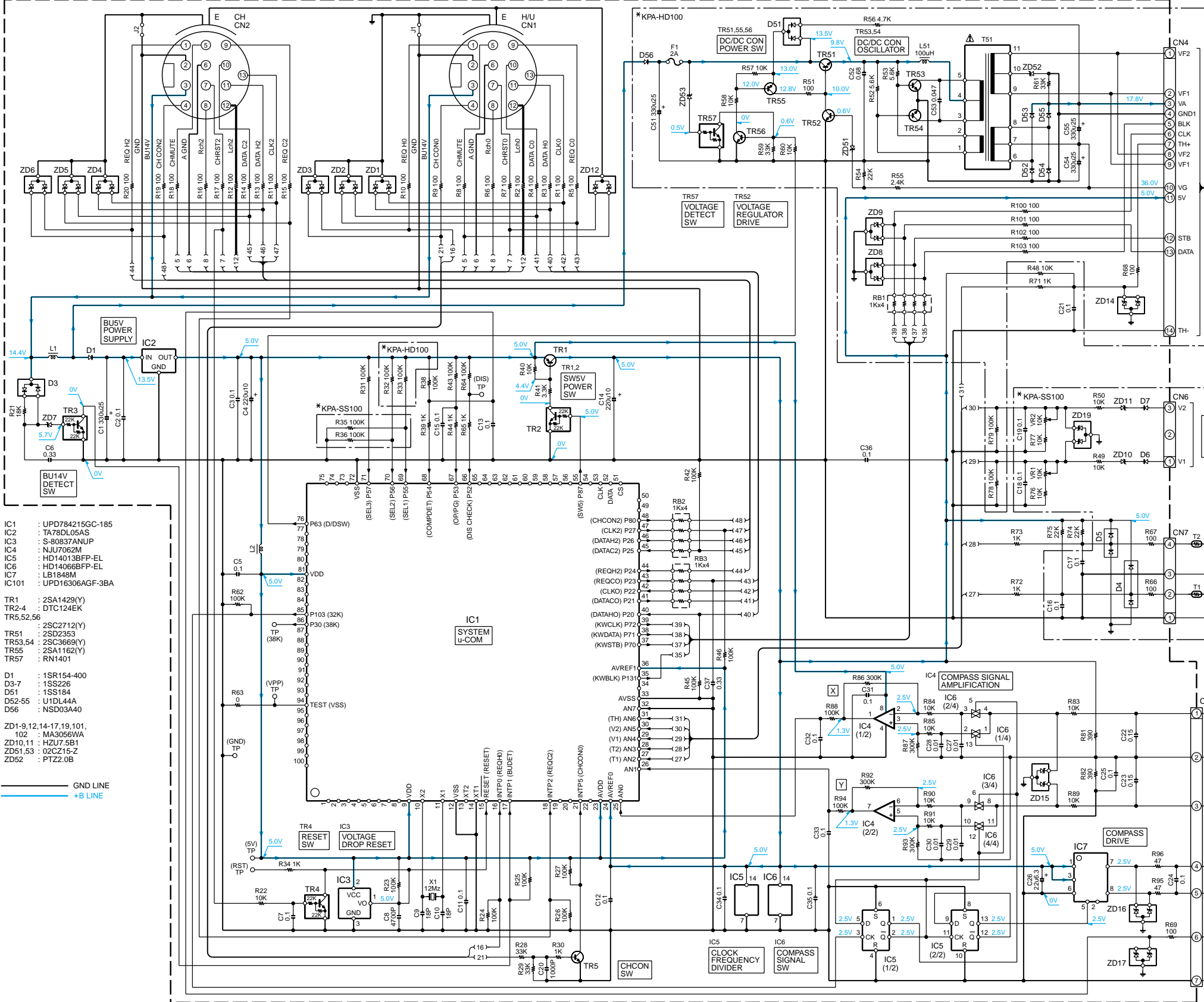
Refer to the schematic diagram for the values of resistors and capacitors.

PC BORD (FOIL SIDE VIEW)



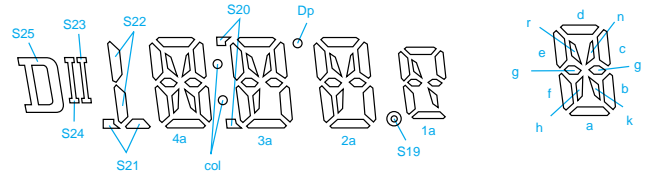
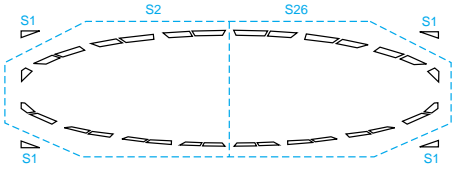
IC	address
1	6H
2	4H
3	5H
4	3H
5	4H
6	3G
7	4G

ADAPTOR PCB UNIT

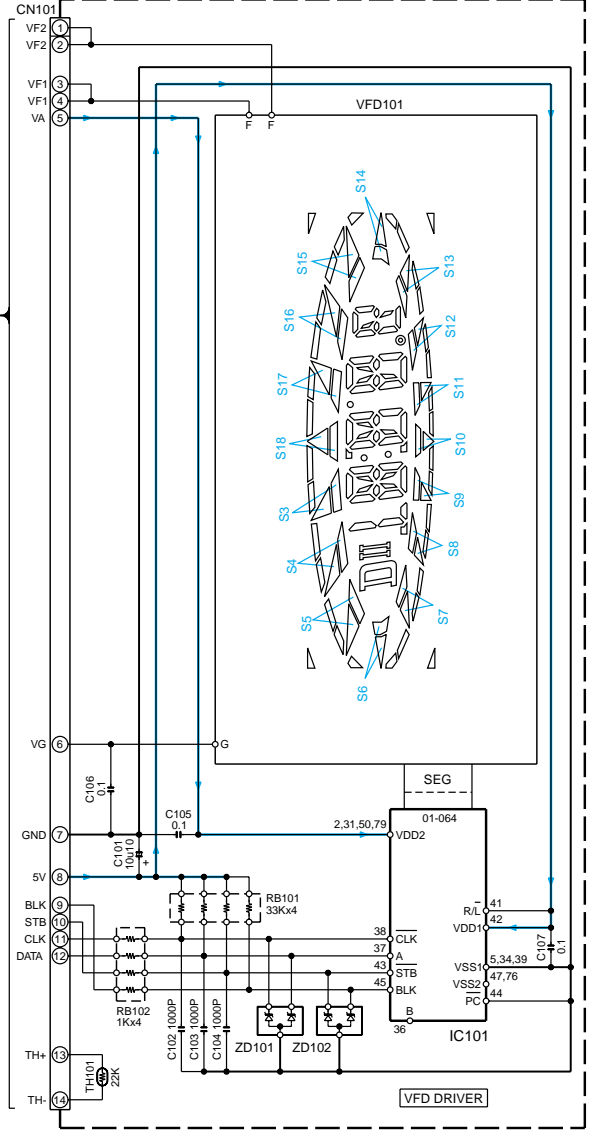


- IC1 : UPD784215GC-185
 IC2 : TA78DL05AS
 IC3 : S-80837ANUP
 IC4 : NJU7062M
 IC5 : HD14013BFP-EL
 IC6 : HD14066BFP-EL
 IC7 : LB1848M
 IC101 : UPD16306AGF-3BA
- TR1 : 2SA1429(Y)
 TR2-4 : DTC124EK
 TR5,52,56 : 2SC2712(Y)
 TR51 : 2SD2353
 TR53,54 : 2SC3669(Y)
 TR55 : 2SA1162(Y)
 TR57 : RN1401
- D1 : 1SR154-400
 D3-7 : 1SS226
 D51 : 1SS184
 D52-55 : U1DL44A
 D56 : NSD03A40
- ZD1-9,12,14-17,19,101, 102 : MA3056WA
 ZD10,11 : HZU7.5B1
 ZD51,53 : 02C215-Z
 ZD52 : PTZ2.0B

— GND LINE
 — +B LINE

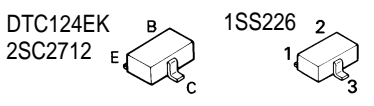


DISPLAY PCB UNIT (KPA-HD100 ONLY)



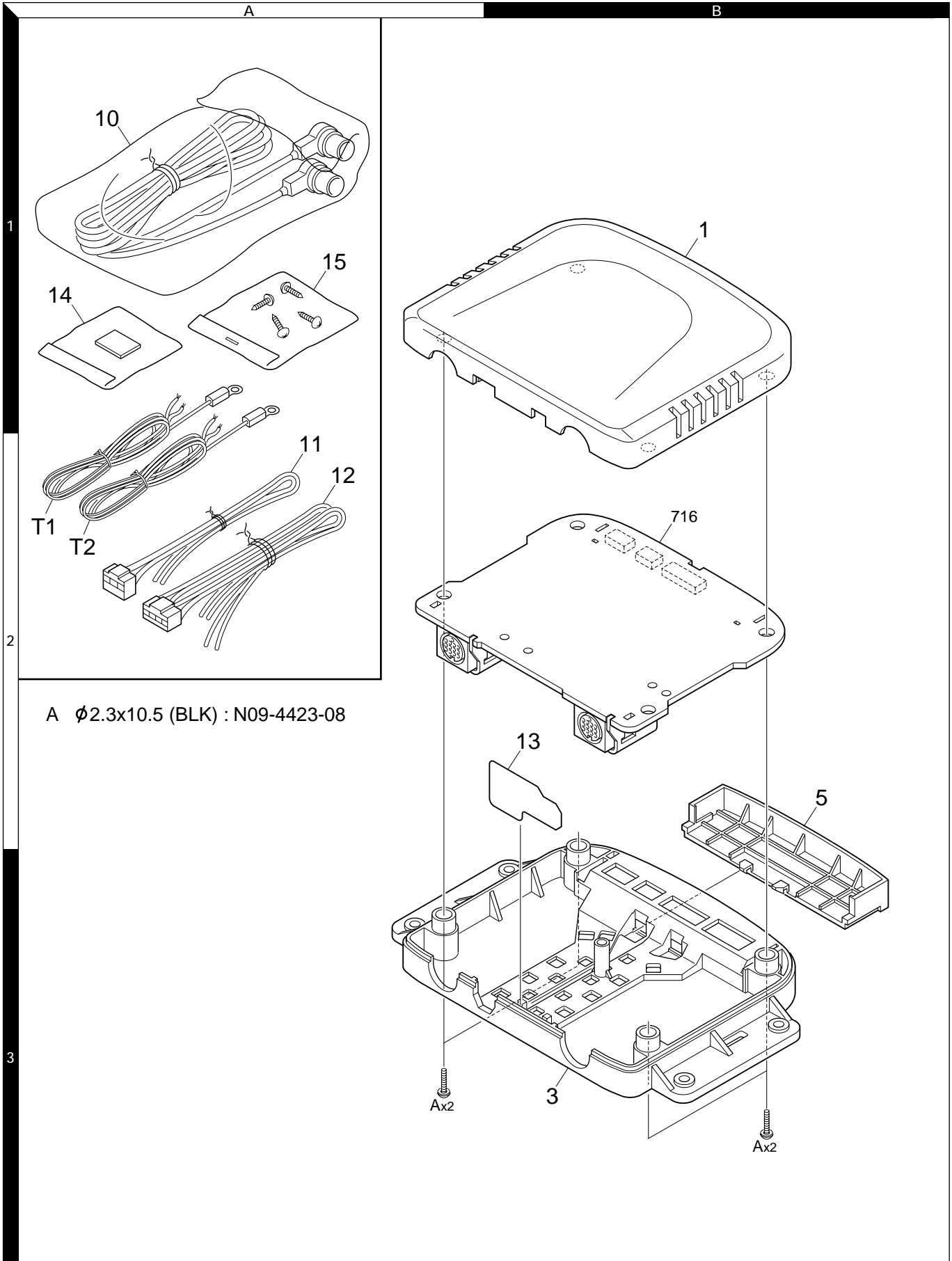
DRIVER IC				VFD(LED)			
PIN No.	PIN NAME	PIN No.	SEGMENT	PIN No.	PIN NAME	PIN No.	SEGMENT
51	01	36	S11	91	033	74	S1
52	02	35	S12	92	034	73	S2
53	03	34	S13	93	035	72	S5
54	04	33	S14	94	036	71	S4
55	05	32	3a	95	037	70	S3
56	06	31	3f	96	038	69	S25
57	07	30	3e	97	039	68	S24
58	08	29	3b	98	040	67	S23
59	09	28	3g	99	041	66	S22
60	10	27	3e	8	042	65	S21
61	11	26	3r	9	043	64	S18
62	12	25	3n	10	044	63	Dp
63	13	24	3c	11	045	62	2a
64	14	23	3d	12	046	61	2d
65	15	22	S20	20	054	53	S17
66	16	21	S10	21	055	52	S19
67	17	20	col.	15	049	58	2g
68	18	19	4a	16	050	57	2e
69	19	18	4f	17	051	56	2r
70	20	17	4h	18	052	55	2n
71	21	16	4k	19	053	54	2c
72	22	15	4b	20	054	53	S17
73	23	14	4g	21	055	52	S19
74	24	13	4e	22	056	51	1d
75	25	12	4r	23	057	50	1k,1r
76	26	11	4n	24	058	49	1g
77	27	10	4c	25	059	48	1e,1f
78	28	9	4d	26	060	47	1a
79	29	8	3s	27	061	46	S17
80	30	7	S7	28	062	45	S16
81	31	6	S8	29	063	44	S15
82	32	5	S6	30	064	43	S26

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.



KPA-SS100

EXPLODED VIEW



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

KPA-SS100

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	De s t i n a	Ref. No.	A d d	N e w	Parts No.	Description	De s t i n a
KPA-SS100						R23 -27			RK73GB1J104J	CHIP R 100K	J 1/16W
1	1B	*	A02-2702-08	PLASTIC CABINET		R28 ,29			RK73GB1J333J	CHIP R 33K	J 1/16W
3	3B	*	A46-1699-08	REAR COVER		R30			RK73GB1J102J	CHIP R 1.0K	J 1/16W
5	2B	*	A53-1691-08	DUST COVER		R31			RK73GB1J104J	CHIP R 100K	J 1/16W
T1,2	2A	*	A70-2011-08	THERMAL SENSOR		R34			RK73GB1J102J	CHIP R 1.0K	J 1/16W
-			B46-0100-50	WARRANTY CARD		R35 -38			RK73GB1J104J	CHIP R 100K	J 1/16W
-		*	B64-1749-00	INSTRUCTION MANUAL		R39			RK73GB1J102J	CHIP R 1.0K	J 1/16W
10	1A		E30-4276-05	CORD WITH PLUG (13P DIN)		R40			RK73GB1J103J	CHIP R 10K	J 1/16W
11	2A	*	E30-4916-08	CORD WITH PLUG (3P)		R41			RK73FB2A332J	CHIP R 3.3K	J 1/10W
12	2A	*	E30-4917-08	CORD WITH PLUG (4P)		R42 ,43			RK73GB1J104J	CHIP R 100K	J 1/16W
13	2B	*	F19-1376-08	BLIND PLATE		R44			RK73GB1J102J	CHIP R 1.0K	J 1/16W
14	1A	*	H30-0537-08	ADHESIVE DOUBLE-COATED TAPE		R45 ,46			RK73GB1J104J	CHIP R 100K	J 1/16W
-		*	H25-1145-08	PROTECTION BAG (120X200X.05)		R48 -50		*	R92-3223-08	CHIP R 10K	F 1/10W
-		*	H25-1146-08	PROTECTION BAG (150X260X.05)		R62 ,64			RK73GB1J104J	CHIP R 100K	J 1/16W
-		*	H54-1849-08	ITEM CARTON CASE		R65			RK73GB1J102J	CHIP R 1.0K	J 1/16W
15	1A	*	N99-1696-08	SCREW SET		R66 ,67			RK73FB2A101J	CHIP R 100	J 1/10W
A	3B	*	N09-4423-08	TAPTITE SCREW (2.3X10.5)		R69			RK73FB2A101J	CHIP R 100	J 1/10W
ELECTRONIC UNIT						R71 -73			RK73GB1J102J	CHIP R 1.0K	J 1/16W
C1			C90-2695-05	ELECTRO 330UF 25WV		R74 ,75	*		R92-3224-08	CHIP R 22K	F 1/10W
C2,3			CK73FB1E104K	CHIP C 0.10UF K		R76 ,77	*		R92-3223-08	CHIP R 10K	F 1/10W
C4			C90-2673-05	ELECTRO 220UF 10WV		R81 ,82	*		R92-3222-08	CHIP R 390	F 1/10W
C5			CK73FB1E104K	CHIP C 0.10UF K		R83			RK73FB2A103J	CHIP R 10K	J 1/10W
C6,7	*		C93-1155-08	CHIP C 0.1UF Z		R84 ,85	*		R92-3223-08	CHIP R 10K	F 1/10W
C8	*		C93-1154-08	CHIP C 4700PF K		R86 ,87	*		R92-3225-08	CHIP R 300K	F 1/10W
C9,10	*		C93-1153-08	CHIP C 18PF J		R88			RK73FB2A104J	CHIP R 100K	J 1/10W
C11,12			CK73FB1E104K	CHIP C 0.10UF K		R89			RK73FB2A103J	CHIP R 10K	J 1/10W
C13	*		C93-1155-08	CHIP C 0.1UF Z		R90 ,91	*		R92-3223-08	CHIP R 10K	F 1/10W
C14			C90-2673-05	ELECTRO 220UF 10WV		R92 ,93	*		R92-3225-08	CHIP R 300K	F 1/10W
C15-19	*		C93-1155-08	CHIP C 0.1UF Z		R94			RK73FB2A104J	CHIP R 100K	J 1/10W
C20			CK73GB1H102K	CHIP C 1000PF K		R95 ,96			RK73EB2B470J	CHIP R 47	J 1/8W
C21	*		C93-1155-08	CHIP C 0.1UF Z		RB2 ,3			R90-0724-05	MULTI-COMP 1K	X4
C22,23			C91-2054-05	MF 0.15UF J		VR1 ,2	*		R32-0257-08	SFR 10K	
C24			C91-2052-05	MF 0.10UF J		D1			1SR154-400	DIODE	
C25			CK73FB1E104K	CHIP C 0.10UF K		D3-7			1SS226	DIODE	
C26			C90-2549-05	ELECTRO 22UF 6.3WV		IC1	*		UPD784215GC185	MI-COM IC	
C27-30			CK73GB1H103K	CHIP C 0.010UF K		IC2			TA78DL05AS	IC	
C31	*		C93-1155-08	CHIP C 0.1UF Z		IC3	*		S-80837ANUP	IC	
C32,33			CK73FB1E104K	CHIP C 0.10UF K		IC4	*		NJU7062M	IC	
C34 ,35	*		C93-1155-08	CHIP C 0.1UF Z		IC5	*		HD14013BFP-EL	MOS-IC	
C36			CK73FB1E104K	CHIP C 0.10UF K		IC6	*		HD14066BFP-EL	MOS-IC	
CN1,2	*		E41-0094-08	PIN ASSY		IC7	*		LB1848M	IC	
CN5	*		E41-0092-08	PIN ASSY		TR1	*		2SA1429(Y)	TRANSISTOR	
CN6	*		E41-0096-08	PIN ASSY		TR2 -4			DTC124EK	DIGITAL TRANSISTOR	
CN7	*		E41-0095-08	PIN ASSY		TR5			2SC2712(Y)	TRANSISTOR	
L1	*		L33-1167-08	SMALL FIXED INDUCTOR		ZD1			MA3056WA	ZENER DIODE	
L2	*		L33-1169-08	SMALL FIXED INDUCTOR		ZD2			MA3056WA	ZENER DIODE	
X1	*		L78-0822-08	RESONATOR		ZD3 -7			MA3056WA	ZENER DIODE	
J1-3			R92-2052-05	CHIP R 0 J 1/10W		ZD10,11	*		HZU7.5B1	ZENER DIODE	
R1-20			RK73FB2A101J	CHIP R 100 J 1/10W		ZD12			MA3056WA	ZENER DIODE	
R21			RK73GB1J183J	CHIP R 18K J 1/16W		ZD15-17			MA3056WA	ZENER DIODE	
R22			RK73GB1J103J	CHIP R 10K J 1/16W		ZD19			MA3056WA	ZENER DIODE	

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

⚠ indicates safety critical