

Service Manual

Battery Backup Adaptor

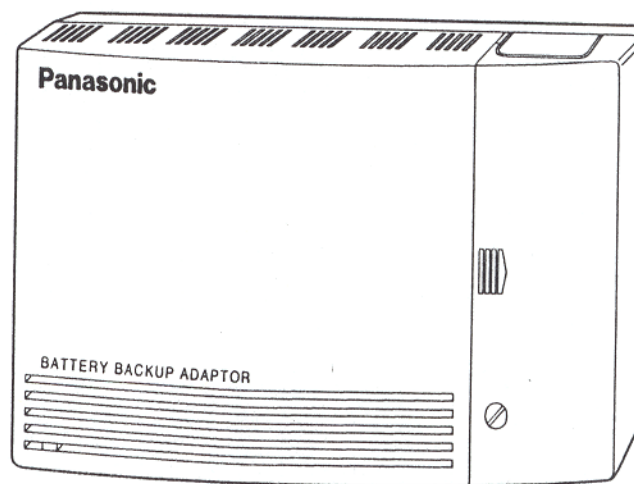
KX-A46DX

ที อี เอ็น พีเอบีเอ็กซ์ / TeN PABX

51/500 หมู่บ้านเสนา 88 ซอย 9 ซอยนวลจันทร์ 17 แขวงนวลจันทร์
เขตบึงกุ่ม กรุงเทพฯ 10240

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WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

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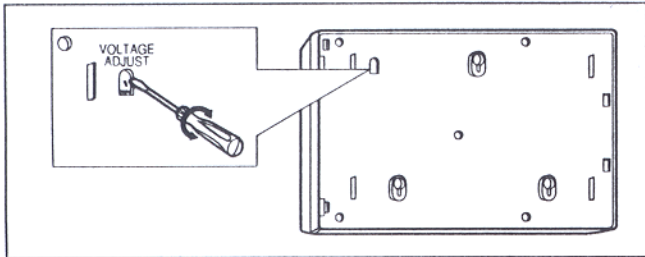
Installation

Installation Location

- Should not be exposed to direct sunlight.
- Keep the unit and car batteries away from heating appliances and fire.
- Place car batteries in a well ventilated place.

Precaution for Power Supply:

Check the voltage selector to confirm that it is set to your household AC voltage. (The voltage selector is set to 240 V at the factory.) If not, set the voltage selector on the back of the main unit to the correct position with a screwdriver.

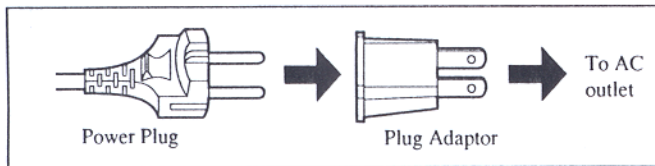


Starting the System:

Plug the AC Cord into the Battery Adaptor and an AC outlet.

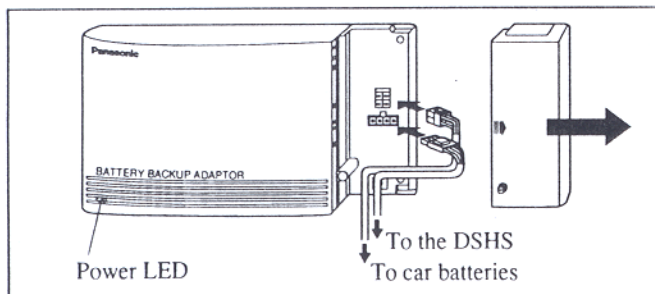
Note:

The Plug Adaptor is to be used if the Power Plug will not fit your socket. Assemble as shown in the illustration below, using the plug which fits your socket. In this case, be sure to connect the Ground Wire to the Ground Terminal on the Battery Adaptor because the ground line in the AC Cord cannot be used. (See the illustration ② for connection.)



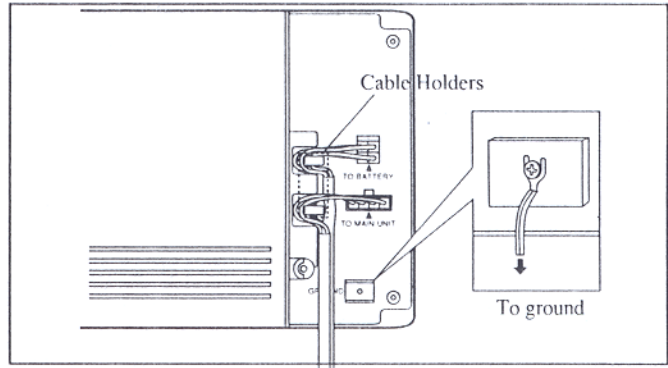
Connection

- ① Slide the cover to the right. Connect the Battery Cord and the To DSHS Cord to the Battery Adaptor as shown.



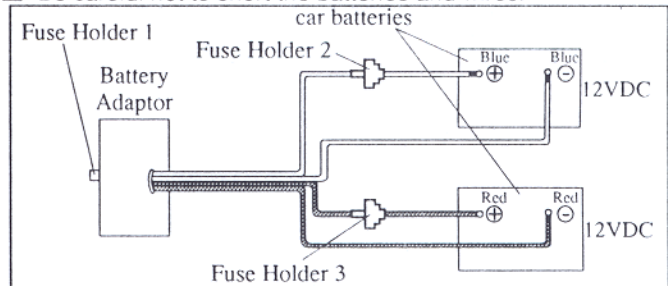
Then slide in the cover.

- ② Wind and fix the Battery Cord and the To DSHS Cord round the Cable Holders.

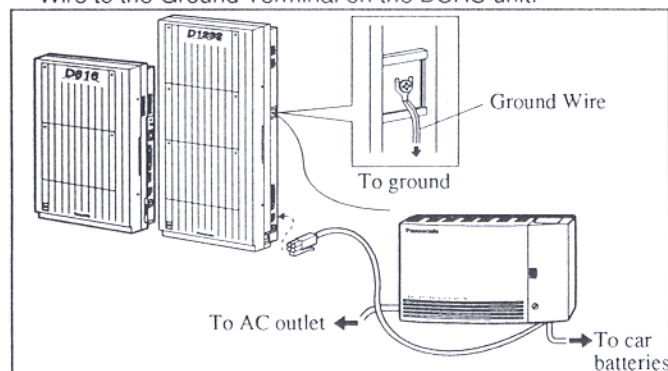


- ③ Assemble the Battery Cord and two car batteries (12VDC each) as shown.

- Check the polarities of batteries and wires.
- Be careful not to short the batteries and wires.



- ④ Insert the Plug of the Battery Adaptor into the Battery Adaptor Connector on the DSHS unit. Connect the Ground Wire to the Ground Terminal on the DSHS unit.



- ⑤ Insert the AC plug of the Battery Adaptor into the AC outlet.

- ⑥ In case of a power failure, the batteries automatically maintain power to the DSHS unit.

- While the Batteries are charged, the Power LED lights red.
- While backup power is full, the Power LED lights green.
- If the Power LED does not go on, check the DSHS, Battery Adaptor, car batteries and wiring connection.
- After connecting the Battery Adaptor, keep the AC plug of the Battery Adaptor in the AC outlet unless the DSHS is turned OFF. (Batteries will discharge.)

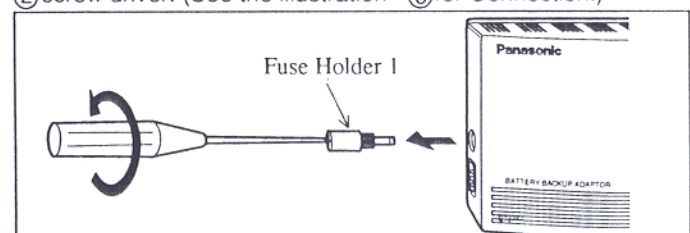
Power Fuses (Inside the Fuse Holders):

- Inside Fuse Holder 1 (1A, 250 V) × 1
- Inside Fuse Holder 2, 3 (8A, 32 V) × 2

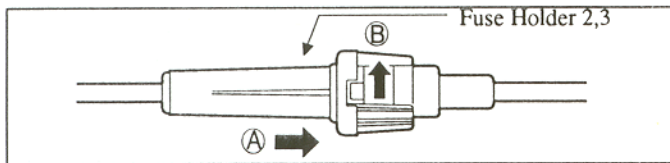
If the Power LED light goes off during a power failure, the Power Fuses may have been blown.

To change the Fuses, pull out the AC Cord.

- ① Turn Fuse Holder 1 in the direction of the arrow with a
- ② screw driver. (See the illustration ③ for Connection.)



- ③ Turn Fuse Holder 2, 3 in the direction of the arrow ② while pushing it in the direction of the arrow ①.



- ④ Fasten the Fuse Holders after replacing the Fuses with new ones. Then insert the AC plug of the Battery Adaptor into the AC outlet.

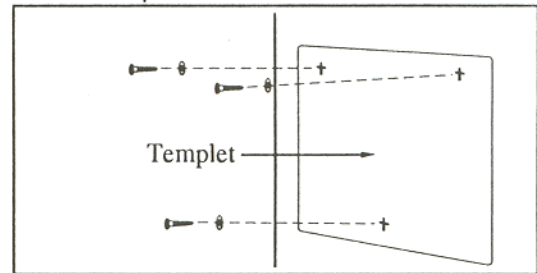
- Back-up Duration: depends on the amp/hour of the batteries used.
e.g. When using two 12VDC 20 amp/hour, maintenance-free, car batteries, the power is maintained for about three hours.

Note:

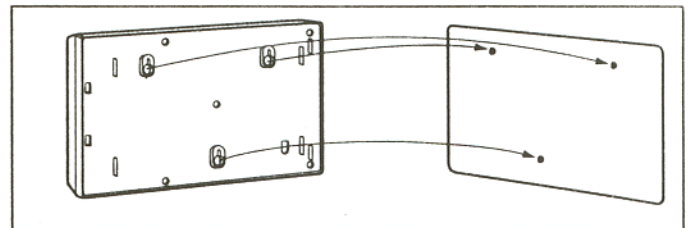
Some telephones connected to the DSHS unit with a long cord may not be activated. The long cord may decrease the voltage from the Battery Adaptor.

Wall Mounting

- ① Copy the templet (this page) and place it on the wall to mark the three screw positions.



- ② Install the three screws and washers (included) into the wall.
③ Hook the main unit onto the screw heads.

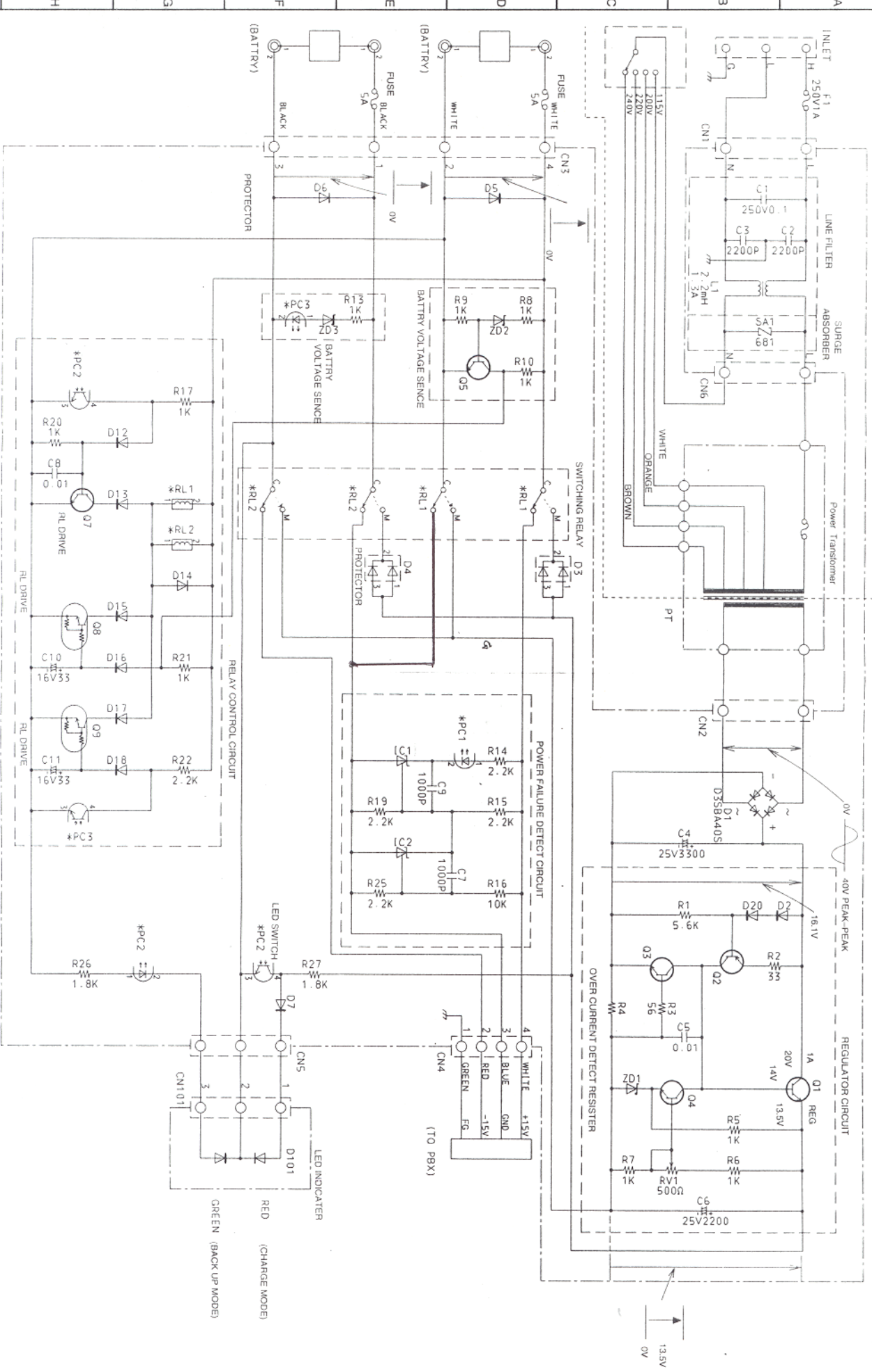


WARNING:
TO PREVENT FIRE OR SHOCK HAZARD,
DO NOT EXPOSE THIS PRODUCT TO
RAIN OR ANY TYPE OF MOISTURE.

KX-A46DX

KX-A46DX

SCHEMATIC DIAGRAM

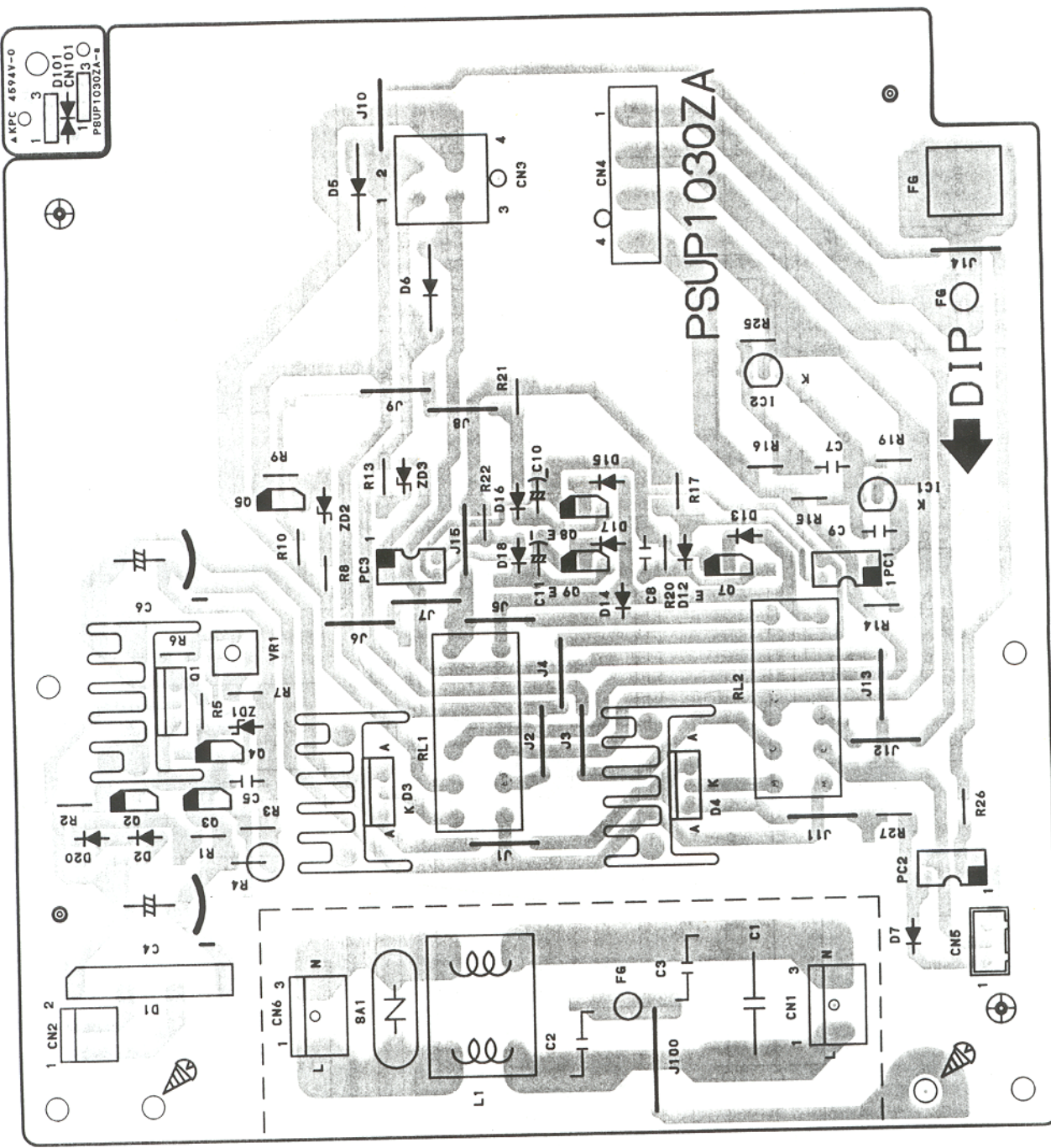


KX-A46DX

KX-A46DX

PRINTED CIRCUIT BOARD

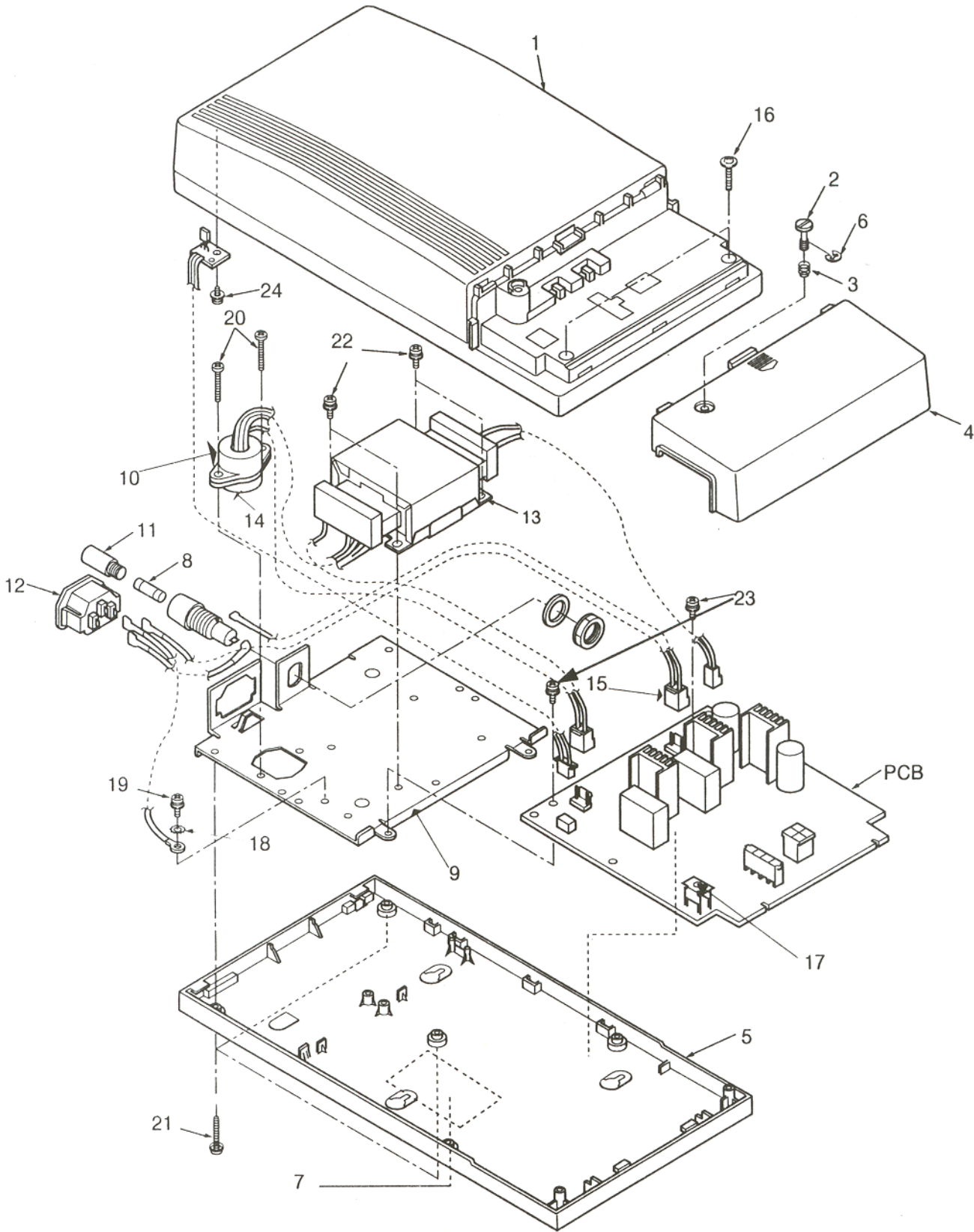
1 2 3 4 5 6 7 8 9 10 11 12



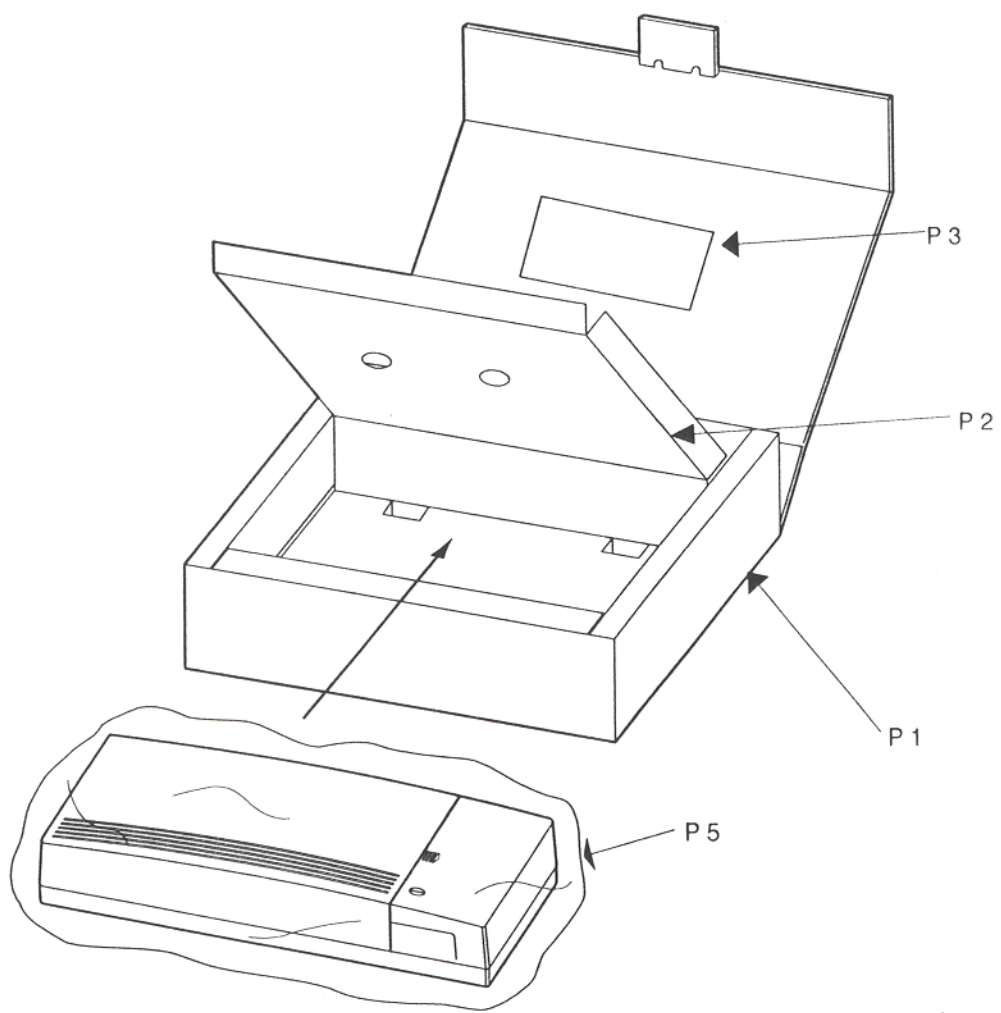
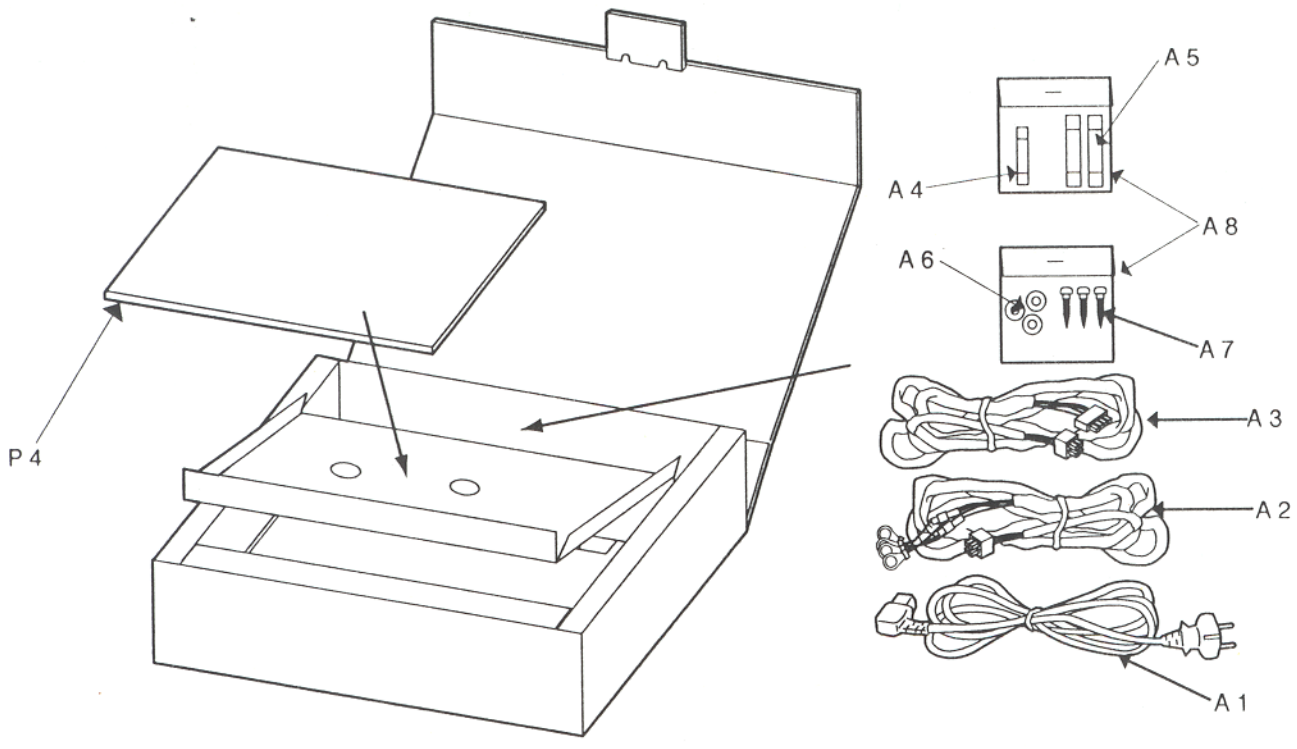
A KPC 4694V-0

D101
CN101
PSUP1030ZA-8

CABINET AND ELECTRICAL PARTS LOCATION



ACCESSORIES AND PACKING MATERIALS



This replacement parts list is for KX-A46DX version Refer to the simplified manual (cover) for other areas.

REPLACEMENT PARTS LIST

Model KX-A46DX

Note:

- The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
- Important safety notice.
Components identified by a Δ mark special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

2. The S mark indicates service standard parts and may differ from production parts.

3. RESISTORS & CAPACITORS

Unless otherwise specified.

All resistors are in ohms (Ω) k=1000 Ω , M=1000k Ω

All capacitors are in MICRO FARADS (μ F) P= μ μ F

*Type & Wattage of Resistor

Type

ERC:Solid	ERX:Metal Film	PQRD:Carbon
ERD:Carbon	ERG:Metal Oxide	PQRQ:Fuse
PQ4R:Chip	ERO:Metal Film	ERF:Wire Wound

Wattage

10,16,18:1/8W	14,25,S2:1/4W	12,50,S1:1/2W	1:1W	2:2W	5:5W
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*Type & Voltage of Capacitor

Type

ECFD:Semi-Conductor	ECCD,ECKD,PQCBC,PQVP : Ceramic
ECQS:Styrol	ECQM,ECQV,ECQE,ECQU,ECQB : Polyester
PQCBX,ECUV:Chip	ECEA,ECSZ,ECOS : Electrolytic
ECMS:Mica	ECQP : Polypropylene

Voltage

ECQ Type	ECQG ECQV Type	ECSZ Type	Others		
1H: 50V	05: 50V	OF:3.15V	OJ :6.3V	1V :35V	
2A:100V	1:100V	1A:10V	1A :10V	50,1H:50V	
2E:250V	2:200V	1V:35V	1C :16V	1J :63V	
2H:500V		OJ:6.3V	1E,25:25V	2A :100V	

Ref. No.	Part No.	Part Name & Description	Pcs
CABINET & ELECTRICAL PARTS			
1	PSKM1017X1	CABINET BODY	1
2	PQHD10011Z	SCF (IC's)	1
3	PQUS141Z	SPRING	1
4	PQKV10007Z1	PANEL	1
5	PSKF10026H1	CABINET PLATE	1
6	XUC3VW	RETAINING RING	1
7	PSGT1060Z	NAME PLATE	1
8	XBA2C10TB0L	FUSE Δ	1
9	PSMH1040Z	ANGLE	1
10	RUV184Z	COVER,SWITCH	1
11	PQJV5Z	HOLDER	1
12	PQJP3A3Z	CONNECTOR	1
13	PQLT5Z9X3A	POWER TRANSFORMER Δ	1
14	PQSR4A03Z	ROTARY SWITCH	1
15	PSJS02R25Z	CONNECTOR, 2P	1
16	XTW3+S14P	TAPPING SCREW,STEEL	1
17	XSN4D8FN	SMALL SCREW,STEEL	1
18	XWC4B	WASHER	1
19	XYN4+C8	SCREW WITH WASHER,STEEL	1

Ref. No.	Part No.	Value, Part Name & Description	Pcs
20	XYC3+CF10	SCREW WITH WASHER,STEEL	2
21	XYC4+CF12	SCREW WITH WASHER,STEEL	3
22	XYC4+FF8	SCREW WITH WASHER,STEEL	4
23	XYN3+F6	SCREW WITH WASHER,STEEL	2
24	XTN3+10C	SCREW WITH WASHER,STEEL	1
ACCESSORIES AND PACKING MATERIALS			
P1	PSPK1050Z	GIFT BOX	1
P2	PQPN10427Z	CUSHION	1
P3	PSQA1060Z	INDICATION PLATE-LABEL	1
P4	PSQX1031Z	LEAFLET	1
P5	XZB26X45A01	BAG,POLYETHYLENE (FOR SET)	1
A1	PQJA223X	Power Cord	1
A2	RJP16Z	PLUG Δ	1
A3	PSJS04R23Z	CONNECTOR	1
A4	XBA2C10TB0L	FUSE	1
A5	PQBAFF80NMX	FUSE Δ	2
A6	XWG35FY	WASHER Δ	3
A7	PQHE5004Z	TAPPING SCREW,STEEL	3
A8	XZB05X08A03	BAG,POLYETHYLENE (FOR ACCESSORIES)	2
A9	PQBAFF80NMX	FUSE	2
MAIN BOARD PARTS			
PCB1	PSWPA46DX	PC BOARD W/COMPONENT Δ (IC's)	1
IC1	PQVIL5431	IC	1
IC2	PQVIL5431	IC	1
Q 1	2SD1897	(TRANSISTORS) TRANSISTOR(SI)	1
Q 2	2SA933	TRANSISTOR(SI)	1
Q 3	2SC1740S	TRANSISTOR(SI)	1
Q 4	2SC1740S	TRANSISTOR(SI)	1
Q 5	2SC1740S	TRANSISTOR(SI)	1
Q 7	2SC1740S	TRANSISTOR(SI)	1
Q 8	PQVTDTC144ES	TRANSISTOR(SI)	1
Q 9	PQVTDTC144ES	TRANSISTOR(SI)	1
D 1	PQVDD3SBA40S	(DIODES) DIODE(SI)	1
D 2	1SS131	DIODE(SI)	1
D 3	PQVDD10SC4M	DIODE(SI)	1
D 4	PQVDD10SC4M	DIODE(SI)	1
D 5	PQVDDS3V60	DIODE(SI)	1
D 6	PQVDDS3V60	DIODE(SI)	1
D 7	1SS131	DIODE(SI)	1
D12	1SS131	DIODE(SI)	1
D13	1SS131	DIODE(SI)	1
D14	1SS131	DIODE(SI)	1
D15	1SS131	DIODE(SI)	1
D16	1SS131	DIODE(SI)	1
D17	1SS131	DIODE(SI)	1
D18	1SS131	DIODE(SI)	1
D20	1SS131	DIODE(SI)	1
D101	LN142WP38	DIODE(SI)	1
ZD1	MA4051	DIODE(SI)	1
ZD2	MA4091	DIODE(SI)	1
ZD3	MA4082	DIODE(SI)	1
(RESISTORS)			
R 1	ERDS2TJ562	5.6K	1
R 2	ERDS2TJ330	33	1
R 3	ERDS2TJ560	56	1

This replacement parts list is for KX-A46DX version only. Refer to the simplified manual (cover) for other areas.

Ref. No.	Part No.	Value, Part Name & Description	Pcs
R 4	ERX3SJR47	0.47	1
R 5	ERDS2TJ102	1K	1
R 6	ERDS2TJ102	1K	1
R 7	ERDS2TJ102	1K	1
R 8	ERDS2TJ102	1K	1
R 9	ERDS2TJ102	1K	1
R10	ERDS2TJ102	1K	1
R13	ERDS2TJ102	1K	1
R14	ERDS2TJ222	2.2K	1
R15	ERDS2TJ222	2.2K	1
R16	ERDS2TJ123	12K	1
R17	ERDS2TJ102	1K	1
R19	ERDS2TJ222	2.2K	1
R20	ERDS2TJ471	470	1
R21	ERDS2TJ102	1K	1
R22	ERDS2TJ222	2.2K	1
R25	ERDS2TJ222	2.2K	1
R26	ERDS2TJ182	1.8K	1
R27	ERDS2TJ182	1.8K	1
(CAPACITORS)			
C 1	ECQU2A103MX	0.01	△ 1
C 2	ECKDKD222MF	0.0022	△ S 1
C 3	ECKDKD222MF	0.0022	△ S 1
C 4	ECEA1EGE222	2200	1
C 5	ECQM1H103JV	0.01	1
C 6	ECEA1EGE222	2200	1
C 7	ECQM1H102JV	0.001	1
C 8	ECQM1H103JV	0.01	1
C 9	ECQM1H102JV	0.001	1
C10	ECEA1EKA330	33	1
C11	ECEA1EKA330	33	1
(CONNECTORS)			
CN1	PQJP2D98Z	CONNECTOR	1
CN2	PQJP2D30Z	CONNECTOR	1
CN3	PSJP04A19Z	CONNECTOR	1
CN4	PQJP04A30Z	CONNECTOR	1
CN6	PQJP2D98Z	CONNECTOR	1
(COIL)			
L1	ELF18D290	COIL	△ 1
(PHOTO ELECTRIC TRANSDUCERS)			
PC1	PQVIPC817CD	PHOTO ELECTRIC TRANSDUCER	1
PC2	PQVIPC817CD	PHOTO ELECTRIC TRANSDUCER	1
PC3	PQVIPC817CD	PHOTO ELECTRIC TRANSDUCER	1
(RELAYS)			
RL1	PQSL43Z	RELAY	1
RL2	PQSL43Z	RELAY	1
(VARIABLE RESISTOR)			
RV1	EVNDXAA03B52	VARIABLE RESISTOR	1