

CITIZEN

## Service Manual

Model : iDP-3530

Japan CBM Corporation  
Information Systems Div.

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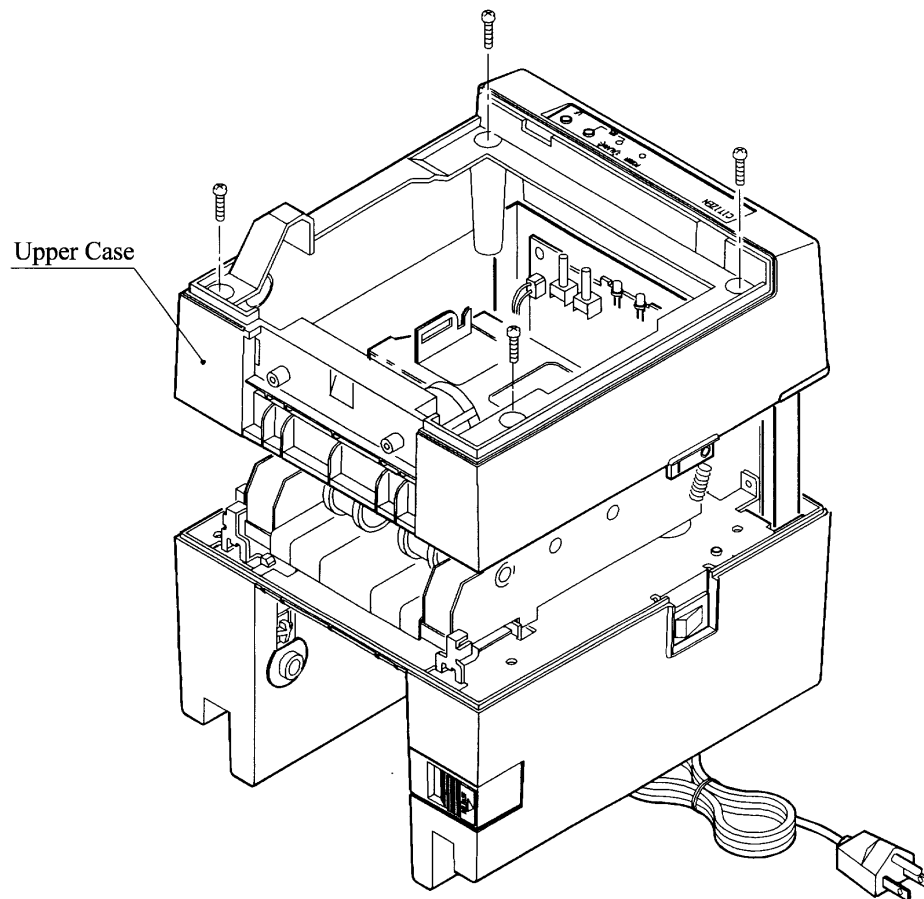
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## 1. Disassembly and Assembly

## 1. How to remove the Upper Cover

- 1) Remove the Printer Cover
- 2) Unfasten 4 screws as shown in the figure and lift the Upper Cover



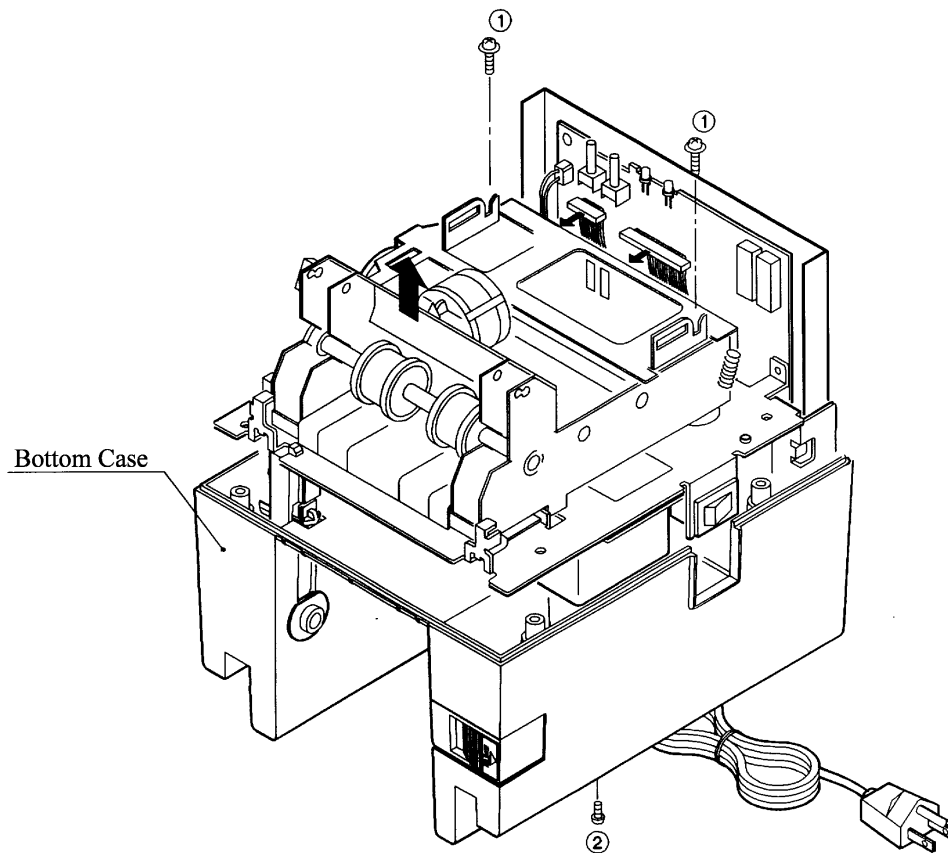
## 2. How to remove the Printer Mechanism and the Printer Unit

### 2-1. How to remove the Printer Mechanism

- 1) Remove the Printer Cover
- 2) Remove the Upper Cover
- 3) Disconnect each connector
- 4) Unfasten 2 screws as shown in the figure
- 5) Lift the Printer Mechanism in the position of the arrow for removal

### 2-2. How to remove the Printer Unit

- 1) Remove the Printer Cover
- 2) Remove the Upper Cover
- 3) Disconnect each connector
- 4) Remove the AC Cord from the Bottom Case
- 5) Unfasten a screw as shown in the figure
- 6) Lift the Printer Unit in the arrow position removal



### 3. How to remove the Control Board

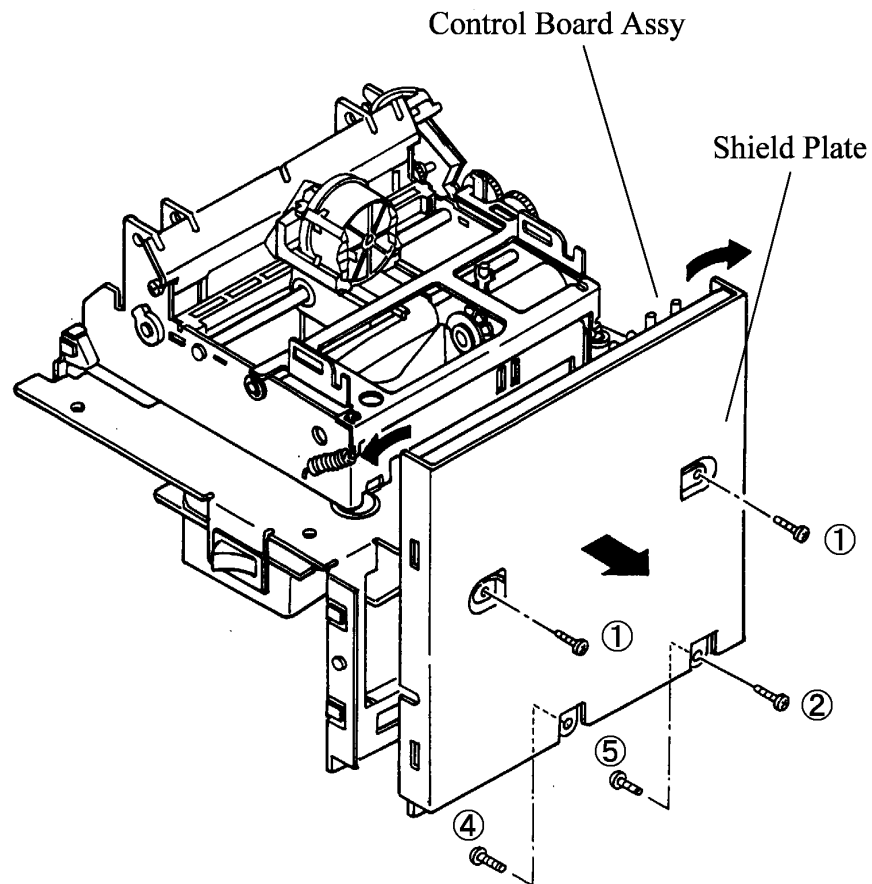
- 1) Remove the Printer Cover
- 2) Disconnect each connectors
- 3) Unfasten 2 screws in the Shield Plate mounting screw to remove the Shield Plate

- Serial Interface Board

- 1) Unfasten 2 screws to remove interface board

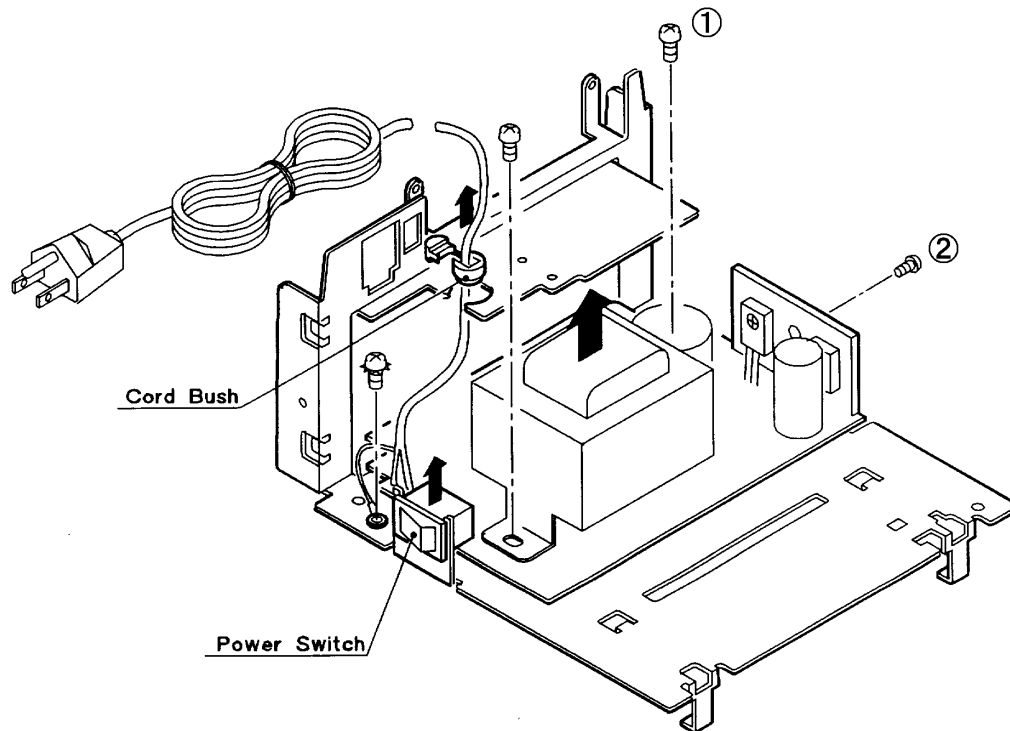
- Parallel Interface Board

- 1) Unfasten 2 screws to remove interface board



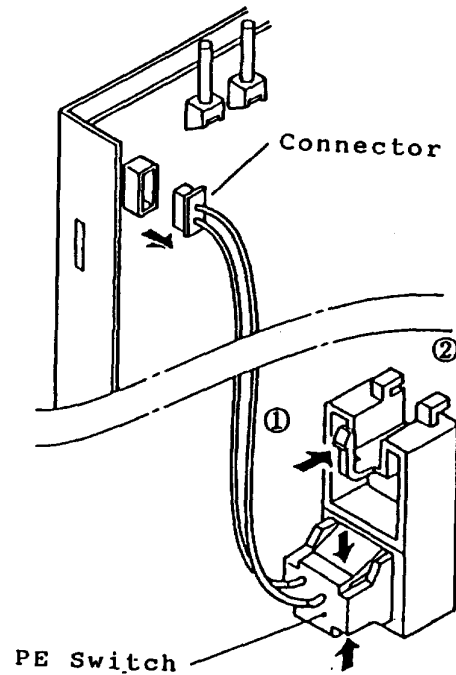
#### 4. How to remove the Power Supply Unit

- 1) Remove the Printer Unit and the Control Board
- 2) Remove the AC Cord from the Chassis
- 3) Unfasten 2 screws called the Power Supply mounting screws
- 4) Unfasten a screw called the Head Sink mounting screw
- 5) Lift up the Power Switch during lifting up the Power Supply Unit above, then you can remove the Power Supply Unit



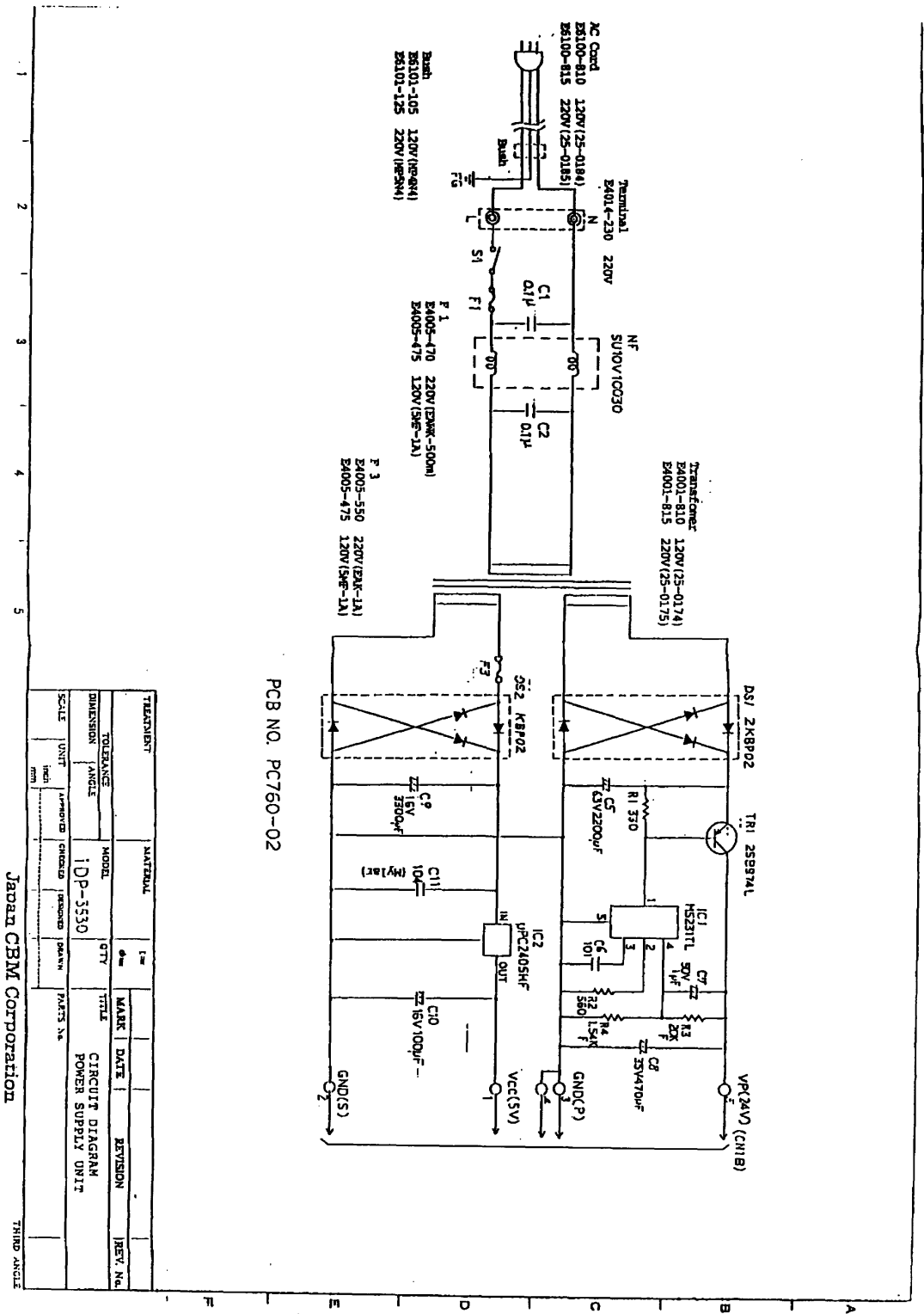
## 5. How to remove the PE Switch

- 1) Remove the Printer Unit and the Printer Mechanism
- 2) Remove the connector from the Control Board
- 3) Push the jointing parts the direction of the arrow and remove the jointing parts from the Chassis.
- 4) Push the upper side and lower side of jointing parts to the arrow direction, then you can remove PE Switch

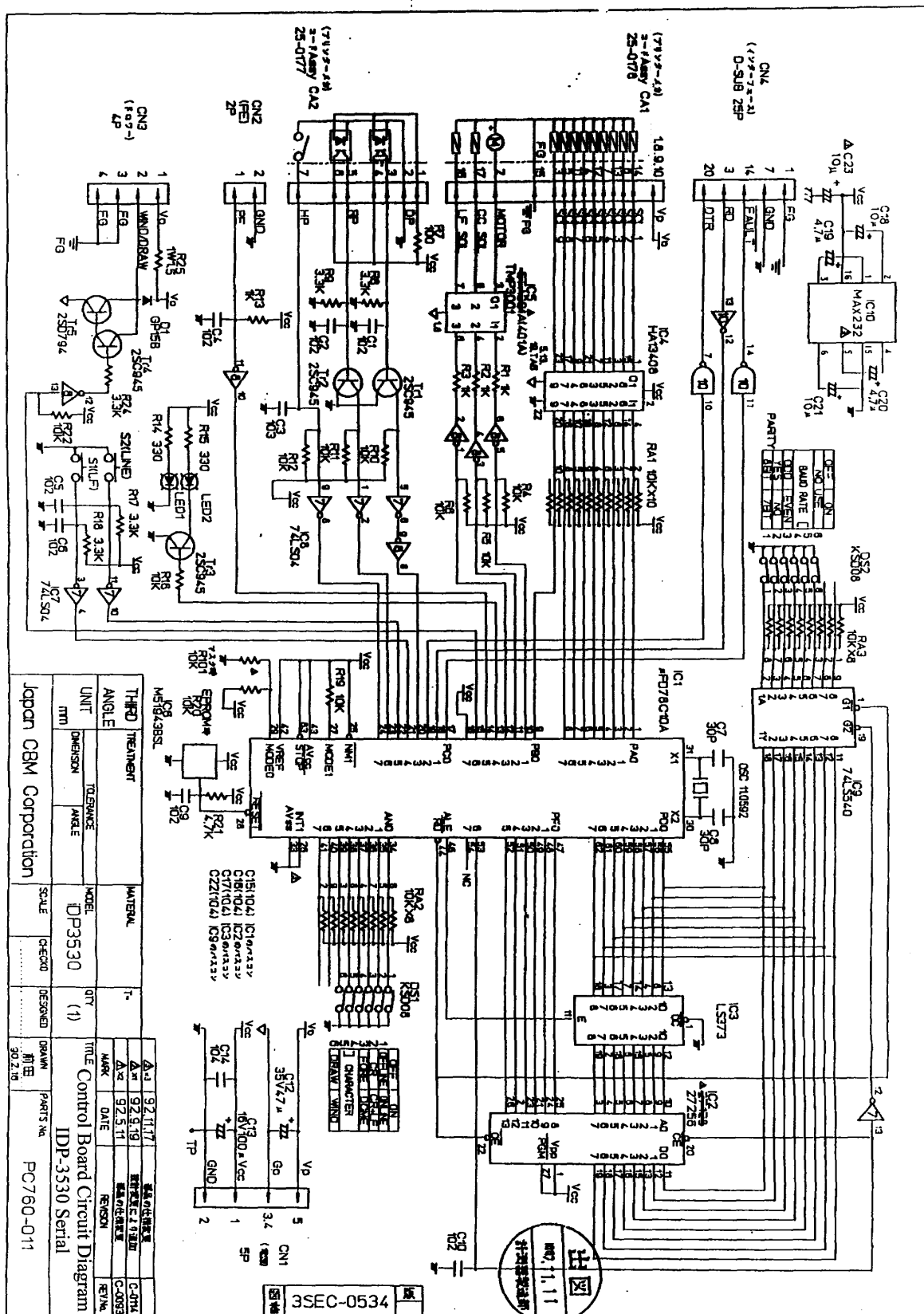


## 2. Circuit Diagram

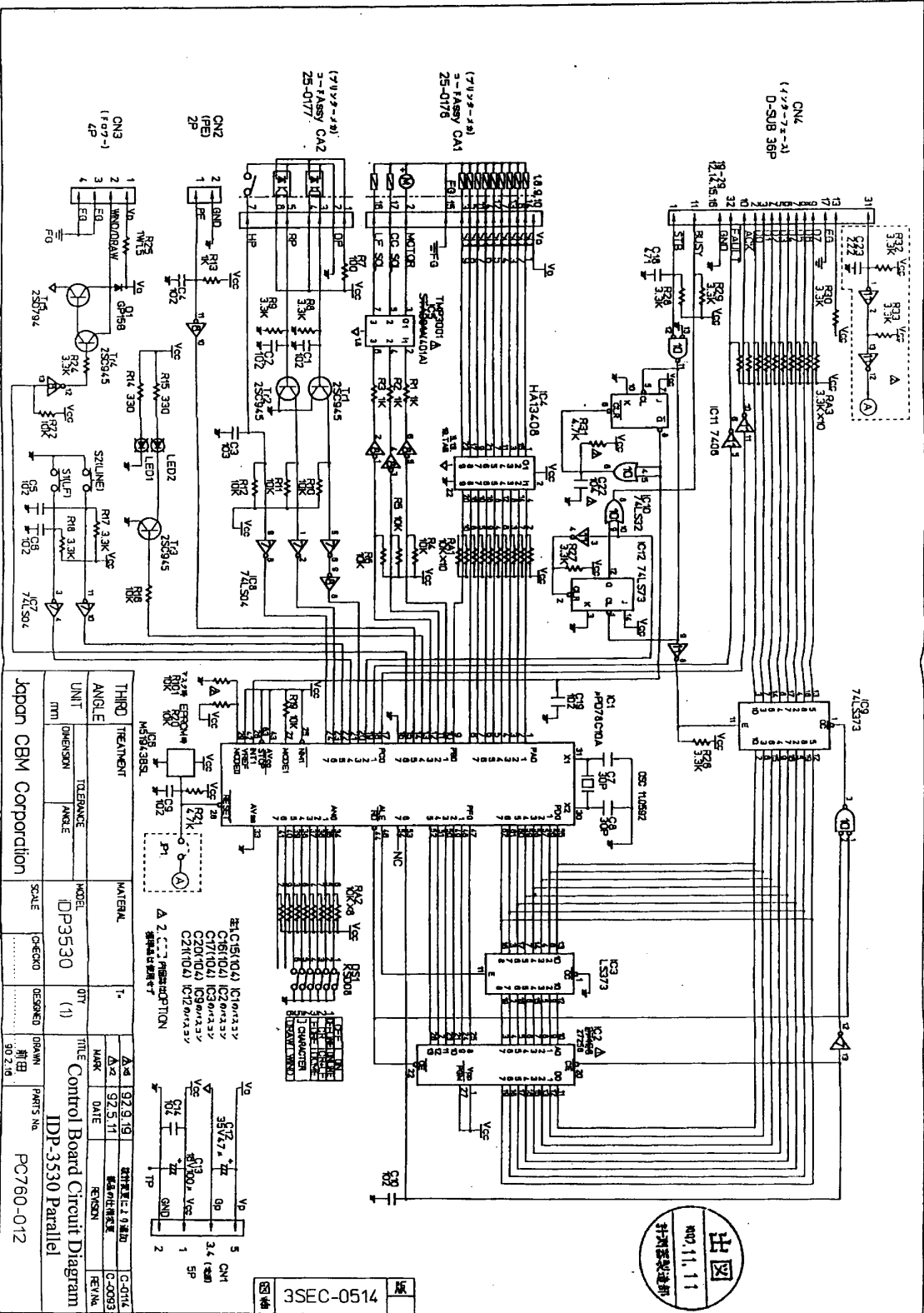
(1) Power Supply Unit



## (2) Control Board : Serial

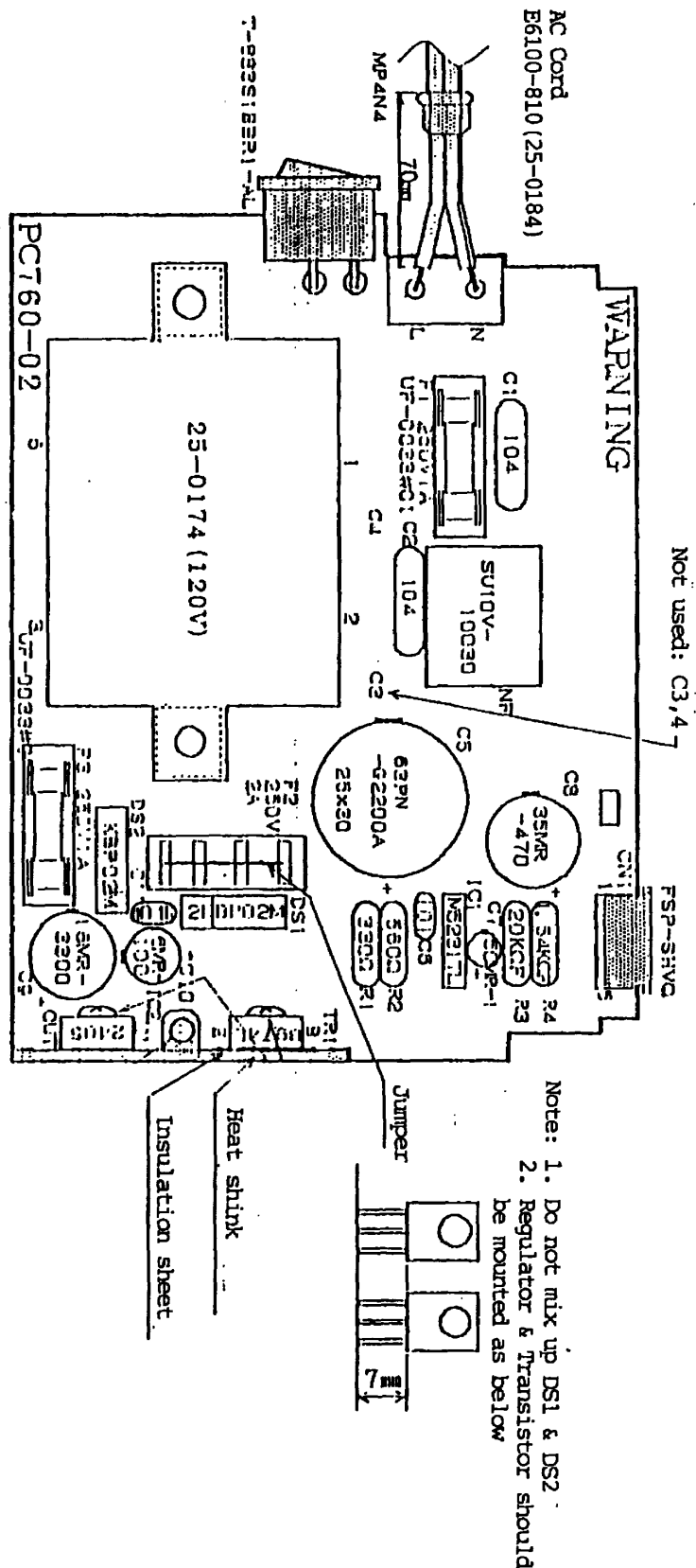


(3) Control Board : Parallel



### 3. Parts Position

(1) Power supply Unit : 120V



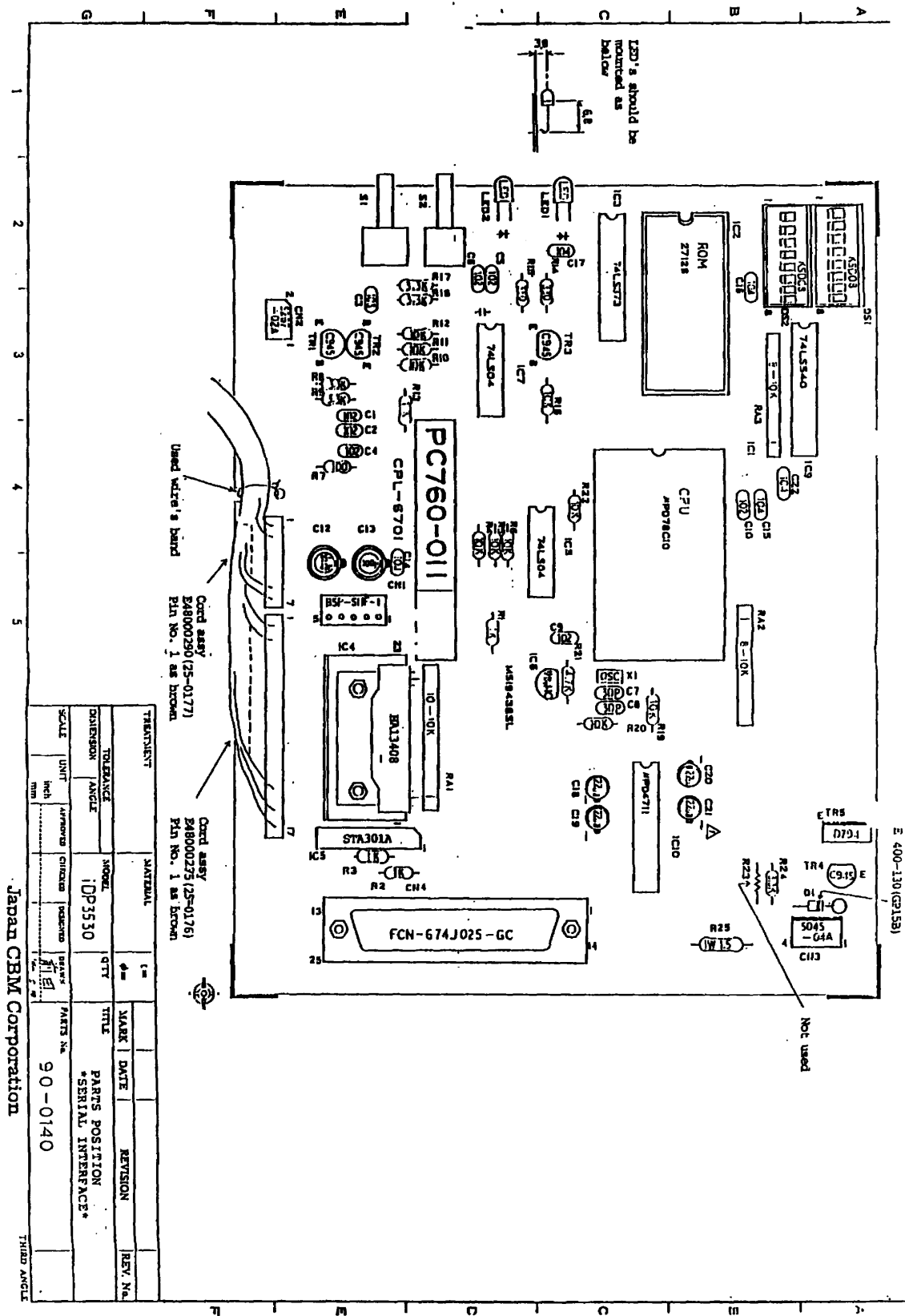
|           |  |            |  |          |  |         |  |              |  |       |  |                                              |  |          |  |
|-----------|--|------------|--|----------|--|---------|--|--------------|--|-------|--|----------------------------------------------|--|----------|--|
| TREATMENT |  | MATERIAL   |  | t =      |  | φ =     |  | MARK         |  | DATE  |  | REVISION                                     |  | REV. No. |  |
| TOLERANCE |  |            |  | MODEL    |  |         |  | QTY          |  |       |  | TITLE                                        |  |          |  |
| DIMENSION |  |            |  | ANGLE    |  |         |  | 1P3550, 3540 |  |       |  | PARTS POSITION<br>POWER SUPPLY UNIT FOR 120V |  |          |  |
| SCALE.    |  | UNIT       |  | APPROVED |  | CHECKED |  | DESIGNED     |  | DRAWN |  | PARTS No.                                    |  |          |  |
|           |  | inch<br>mm |  |          |  |         |  |              |  |       |  | 90-0143                                      |  |          |  |

**Japan CBM Corporation**

### THIRD ANGLE



(3) Control Board : Serial





#### 4. Parts List

PARTS LIST  
EXPLODED VIEW

IDP3530

| Ref.No. | Parts No.  | Description            | Q'ty | 3530F | 3530P |
|---------|------------|------------------------|------|-------|-------|
| 1       | E 4002-300 | Chassis                | 1    | ←     | ←     |
| 2       | E 4002-320 | Stand, Transformer     | 1    | ←     | ←     |
| 3       | E 6601-220 | Printer Stand          | 2    | ←     | ←     |
| 4       | E 4035-640 | Plate, Ground          | 1    | ←     | ←     |
| 7       |            | PCB Assy, Power        | <1>  | ←     | ←     |
| 13      | E 4002-310 | Plate, Shield          | 1    | ←     | ←     |
| 14      |            | PCB Assy, Main         | <1>  | ←     | ←     |
| 17      | E 5117-020 | Holder, PE Switch      | 1    | ←     | ←     |
| 18      | E 4000-580 | Assy, PE Switch        | 1    | ←     | ←     |
| 18-1    | E 5071-070 | Key Top, PE Switch     | 1    | ←     | ←     |
| -2      | E 5102-440 | Switch, PE Swnsor      | 1    | ←     | ←     |
| -3      | E 48000300 | Harness, PE Sensor     | 1    | ←     | ←     |
| 20      | E 62010360 | Case, Top              | 1    | ←     | ←     |
| 21      | E 5200-100 | OP Sheet               | 1    | ←     | ←     |
| 24      | E 6202-870 | Case, Bottom           | 1    | ←     | ←     |
| -2      | E 6611-330 | Paper Holder           | 1    | ←     | ←     |
| -3      | E 6612-040 | Spring, Paper Holder   | 1    | ←     | ←     |
| -4      | E 6302-240 | Foot                   | 2    | ←     | ←     |
| 32      | E 6204-730 | Printer Cover          | 1    | ←     | ←     |
| 33      | E 6220-130 | Paper Cutter           | 1    | ←     | ←     |
| 35      | E 6310-030 | Writing Table (Option) | <1>  | ←     | ←     |
| 40      | E 6101-115 | Bush, AC Cord SR4N4    | 1    | ←*    | ←*    |
|         | E 6101-120 | Bush, AC Cord SR4N4    | 1    | ←**   | ←**   |

Paper feed : 3530F Friction Type, 3530P Pin Feed Type

\* 120V only, \*\* 220V only

PARTS LIST  
EXPLODED VIEW

IDP3530

| Ref.No. | Parts No.    | Description       | Q'ty | 3530F | 3530P |
|---------|--------------|-------------------|------|-------|-------|
| 43      | E 6600-880   | Printer DP-610MFC | <1>  | ←     |       |
|         | E 6600-780   | Printer DP-610DFC | <1>  | ←     |       |
|         | E 6600-890   | Printer DP-612MFC | <1>  | ←     |       |
|         | E 6600-790   | Printer DP-612DFC | <1>  | ←     |       |
|         | E 6600-900   | Printer DP-614MFC | <1>  | ←     |       |
|         | E 6600-810   | Printer DP-614DFC | <1>  | ←     |       |
|         | E 6600-910   | Printer DP-610MPC | <1>  |       | ←     |
|         | E 6600-920   | Printer DP-610DPC | <1>  |       | ←     |
|         | E 6600-930   | Printer DP-612MPC | <1>  |       | ←     |
|         | E 6600-940   | Printer DP-612DPC | <1>  |       | ←     |
|         | E 6600-950   | Printer DP-614MPC | <1>  |       | ←     |
|         | E 6600-960   | Printer DP-614DPC | <1>  |       | ←     |
| 44      | T 6192-01*   | Knob              | <1>  |       | ←     |
| 45      | E 6310-010   | Rear Cover        | 1    | ←     |       |
| 46      | E 6310-020   | Stacker           | 1    |       | ←     |
| 66      | ST3 M3 x 6   | Screw M3 x 6      | 5    | ←     | ←     |
| 67      | ST2 M3 x 8   | Screw M3 x 8      | 1    | ←     | ←     |
| 68      | ST3M3 x 14PW | Screw M3 x 14 -PW | 2    | ←     | ←     |
| 69      | ST3M4 x 20   | Screw M4 x 20     | 2    | ←     | ←     |
| 70      | SWT4 x 6     | Screw M4 x 6 TW   | 2    | ←     | ←     |
| 71      | ST2M3 x 14   | Screw M3 x 14     | 4    | ←     | ←     |
| 72      | ST3M3 x 12PW | Screw M3 x 12 -PW | 2    | ←*    | ←*    |

Paper feed : 3530F Friction Type, 3530P Pin Feed Type

Note: \* Parallel only

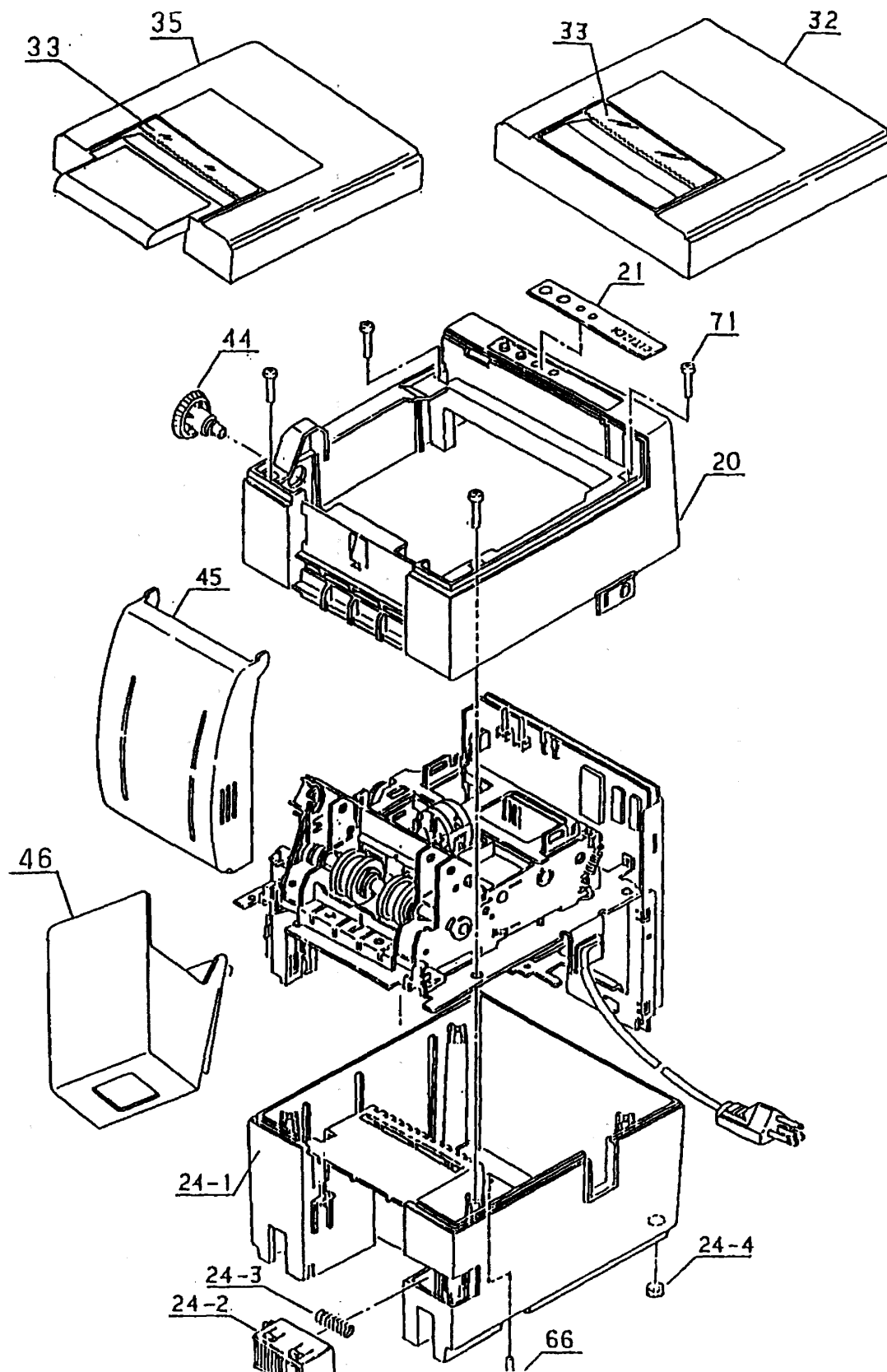
## PARTS LIST

## POWER SUPPLY UNIT

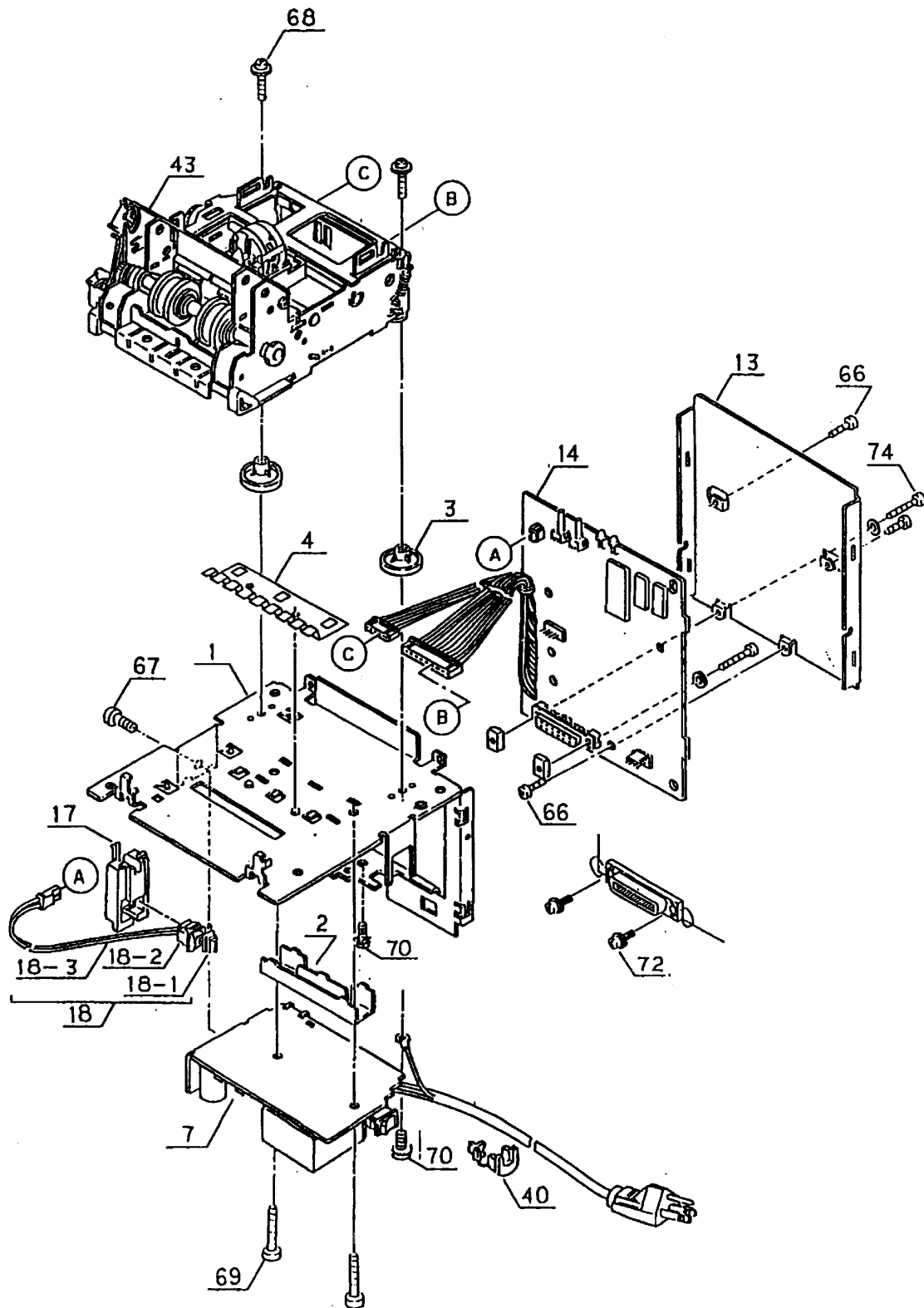
IDP3530

| Ref. No. | Parts No.  | Description              | Q'ty | 120V | 220V |
|----------|------------|--------------------------|------|------|------|
| CN 5     | E 4014-230 | Terminal GSK801          | 1    |      | ←    |
| S 1      | E 4003-540 | P. Switch T883S1BBR1-U   | 1    | ←    | ←    |
| F 1      | E 4006-220 | Fuse Holder UF-0033#01   | 2    | ←    | ←    |
|          | E 4005-470 | Fuse EAWK - 500mA        | 1    |      | ←    |
|          | E 4005-475 | Fuse 5MF-1A              | 1    | ←    |      |
| F 3      | E 4006-220 | Fuse Holder UF-0033#01   | 2    | ←    | ←    |
|          | E 4005-550 | Fuse EAK-1A              | 1    |      | ←    |
|          | E 4005-475 | Fuse 5MF-1A              | 1    | ←    |      |
| NF       | E 4009-340 | Noise Filter SU10V-10030 | 1    | ←    | ←    |
| IC 1     | E 390-150  | Regulator M5231TL        | 1    | ←    | ←    |
| 2        | E 390-160  | Regulator uPC2405HF      | 1    | ←    | ←    |
| TR 1     | E 324-010  | Transistor 2SB974L       | 1    | ←    | ←    |
| DS 1     | E 450-320  | Diode 2KBP02             | 1    | ←    | ←    |
| 2        | E 450-330  | Diode KBP02              | 1    | ←    | ←    |
| C 1, 2   | E 2310-010 | F. Cap. CFX22E104M       | 2    | ←    | ←    |
| 5        | E 2022-790 | El. Cap. 63PNG2200A      | 1    | ←    | ←    |
| 6        | E 2110-140 | C. Cap. DD804B101K50     | 1    | ←    | ←    |
| 7        | E 2010-080 | El. Cap. 50MR-1          | 1    | ←    | ←    |
| 8        | E 2047-725 | El. Cap. 35MR-470        | 1    | ←    | ←    |
| 9        | E 2033-740 | El. Cap. 16MR-3300       | 1    | ←    | ←    |
| 10       | E 2010-010 | El. Cap. 16MR-100        | 1    | ←    | ←    |
| 11       | E 2310-210 | M. Cap. DYM21H104K       | 1    | ←    | ←    |
| R 1      | E 3331-041 | Resistor 1 / 4W 330 J    | 1    | ←    | ←    |
| 2        | E 4561-041 | Resistor 1 / 4W 560 J    | 1    | ←    | ←    |
| 3        | E 3203-041 | Resistor 1 / 4W 20K F    | 1    | ←    | ←    |
| 4        | E 3152-110 | Resistor 1 / 4W 1.54K F  | 1    | ←    | ←    |
| CN 1B    | E 48000295 | Connector FSP-SHVQ       | 1    | ←    | ←    |

## Exploded View : IDP-3530 (1)



## Exploded View : IDP-3530 (2)



PARTS LIST  
MAIN BOARD UNIT

IDP3530

| Ref.No.    | Parts No.      | Description            | Q'ty | 3530F<br>-P | 3530P<br>-R |
|------------|----------------|------------------------|------|-------------|-------------|
| IC         | 1 E 107-150    | IC uPD78C10AGQ-36      | 1    | ←           | ←           |
|            | 2 E 107-16*    | IC M5L27128K           | 1    | ←           | ←           |
|            | 3 E 201-581    | IC SN74LS373N          | 1    | ←           | ←           |
|            | 4 E 390-100    | Tr. Array HA13408      | 1    | ←           | ←           |
|            | 5 E 390-140    | Tr. Array STA301A      | 1    | ←           | ←           |
|            | 6 E 202-670    | Reset IC M51943BSL     | 1    | ←           | ←           |
|            | 7, 8 E 2010250 | IC SN74LS04N           | 2    | ←           | ←           |
|            | 9 E 201-581    | IC SN74LS373N          | 1    | ←           |             |
|            | E 2010310      | IC SN74LS540N          | 1    |             | ←           |
|            | 10 E 201-671   | IC SN74LS32N           | 1    | ←           |             |
|            | E 202-680      | IC uPD4711ACX          | 1    |             | ←           |
|            | 11 E 202-710   | IC SN7406N             | 1    | ←           |             |
|            | 12 E 201-591   | IC SN74LS73N           | 1    | ←           |             |
| TR         | 1-4 E 359-045  | Transistor 2SC945      | 4    | ←           | ←           |
|            | 5 E 379-035    | Transistor 2SD794AQP   | 1    | ←           | ←           |
| D          | 1 E 400-130    | Diode GP15B            | 1    | ←           | ←           |
| LED1, 2    | E 480-290      | LED SEL2310E           | 2    | ←           | ←           |
| R 1-3, 13  | E 3102-041     | Resistor 1 / 4W 1K F   | 5    | ←           |             |
| 28         |                |                        |      |             |             |
|            |                |                        |      |             |             |
| R 1-3, 13  | E 3102-041     | Resistor 1 / 4W 1K F   | 4    |             | ←           |
| 4-6        | E 3103-041     | Resistor 1 / 4W 10K F  | 10   | ←           | ←           |
|            |                |                        |      |             |             |
| 10-12      |                |                        |      |             |             |
|            |                |                        |      |             |             |
| 16, 19     |                |                        |      |             |             |
| 20, 22     |                |                        |      |             |             |
| 7          | E 3101-041     | Resistor 1 / 4W 100 F  | 1    | ←           | ←           |
| 8, 9, 17   | E 3332-041     | Resistor 1 / 4W 3.3K F | 9    | ←           |             |
| 18, 24, 26 |                |                        |      |             |             |
| 27, 29, 30 |                |                        |      |             |             |
| 8, 9, 17   | E 3332-041     | Resistor 1 / 4W 3.3K F | 5    |             | ←           |
| 18, 24     |                |                        |      |             |             |

Interface : -P : Parallel, -R : Serial

PARTS LIST  
MAIN BOARD UNIT

IDP3530

| Ref. No. | Parts No.  | Description             | Q'ty | 3530F<br>-P | 3530P<br>-R |
|----------|------------|-------------------------|------|-------------|-------------|
| R 14, 15 | E 3331-041 | Resistor 1 / 4W 100 F   | 2    | ←           | ←           |
| 21       | E 3472-041 | Resistor 1 / 4W 4.7K F  | 1    | ←           | ←           |
| 25       | E 3159-011 | Resistor 1 / 4W 1.5 F   | 1    | ←           | ←           |
| C 1, 2   | E 2110-110 | C. Cap. DD804-63B102K50 | 8    | ←           |             |
| 4-6, 9   |            |                         |      |             |             |
| 10, 19   |            |                         |      |             |             |
| 1, 2     | E 2110-110 | C. Cap. DD804-63B102K50 | 7    |             | ←           |
| 4-6, 9   |            |                         |      |             |             |
| 10       |            |                         |      |             |             |
| 3        | E 2110-123 | C. Cap. DD806-63F103Z12 | 1    | ←           | ←           |
| 7, 8     | E 2133-020 | C. Cap. DD105-63CH300J5 | 2    | ←           | ←           |
| 12       | E 2047-640 | El. Cap. 35MR-47        | 1    | ←           | ←           |
| 13       | E 2010-010 | El. Cap. 16MR-100       | 1    | ←           | ←           |
| 14-17    | E 2110-300 | C. Cap. DD306-63F104Z12 | 6    | ←           |             |
| 20, 21   |            |                         |      |             |             |
| 14-17    | E 2110-300 | C. Cap. DD306-63F104Z12 | 5    |             | ←           |
| 22       |            |                         |      |             |             |
| 18       | E 2147-080 | C. Cap. DD804-63B102K50 | 1    | ←           |             |
| 18-21    | E 2022-500 | El. Cap. 16MR-22        | 4    |             | ←           |
| RA 1     | E 3101-110 | Re. Array SR-10RA-10K   | 1    | ←           | ←           |
| 2        | E 3103-140 | Re. Array SR-8RA-10K    | 1    | ←           |             |
| 2, 3     | E 3103-140 | Re. Array SR-8RA-10K    | 2    |             | ←           |
| 3        | E 3332-110 | Re. Array 10X3.3KJ      | 1    | ←           |             |
| OSC      | E 501-220  | Crystal CAS11.0MT020    | 1    | ←           | ←           |
| S 1,2    | E 5102-450 | Push Switch SKHHNH      | 2    | ←           | ←           |

Interface : -P : Parallel, -R : Serial

PARTS LIST  
MAIN BOARD UNIT

IDP3530

| Ref. No. | Parts No.      | Description           | Q'ty | 3530F<br>-P | 3530P<br>-R |
|----------|----------------|-----------------------|------|-------------|-------------|
| CN 1     | E 48000260     | Connector B5P-SHF-1   | 1    | ←           | ←           |
|          | 2 E 4800-690   | Connector 5267-02A    | 1    | ←           | ←           |
|          | 3 E 48000265   | Connector 5045-04A    | 1    | ←           | ←           |
|          | 4 E 48000270   | Connector FCN-684J036 | 1    | ←           |             |
|          | E 48000280     | Connector FCN-674J025 | 1    |             | ←           |
|          | E 48000285     | Holder FCN-770A68     | 1    |             | ←           |
| DS 1     | E 5103-230     | Dip Switch KSD08      | 1    | ←           |             |
|          | 1,2 E 5103-230 | Dip Switch KSD08      | 2    |             | ←           |
|          | E 4010-350     | Heat Sink             | 1    | ←           | ←           |
|          | S 3 x 8        | Screw M3 x 8          | 2    | ←           | ←           |
|          | N 3-1          | Nut M3                | 2    | ←           | ←           |
|          |                |                       |      |             |             |
| CA 1     | E 48000275     | Card Assy 25-0176     | 1    | ←           | ←           |
|          | 2 E 48000290   | Card Assy 25-0177     | 1    | ←           | ←           |

Interface : -P : Parallel, -R : Serial

## PARTS LIST

## POWER SUPPLY UNIT

IDP3530

| Ref. No. | Parts No.  | Description       | Q'ty | 120V | 220V |
|----------|------------|-------------------|------|------|------|
|          | E 4010-340 | Heat Sink         | 1    | ←    | ←    |
|          | E 6101-105 | Heyco MP4N4       | 1    | ←    |      |
|          | E 6101-125 | Heyco MP5N4       | 1    |      | ←    |
|          | E 4001-810 | P. Trans. 25-0174 | 1    | ←    |      |
|          | E 4001-815 | P. Trans. 25-0175 | 1    |      | ←    |
|          | E 6100-580 | AC Cord 25-0184   | 1    | ←    |      |
|          | E 6100-585 | AC Cord 25-0185   | 1    |      | ←    |