

# Power Supply

## FP-2000

(Accessory of FT-2000D)

### Technical Supplement

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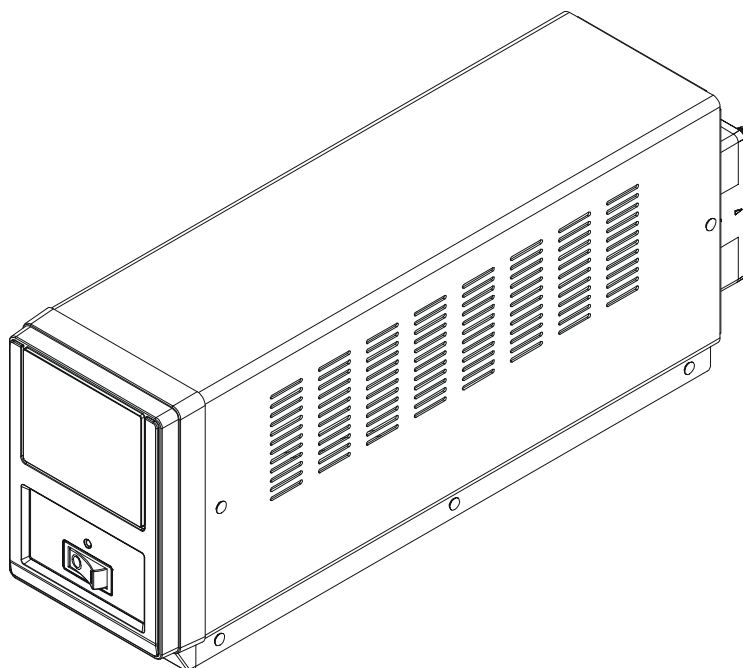
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## Specifications

**Input Voltage:** 90 VAC - 264 VAC, 50-60 Hz (Universal)

**Output Voltage:** 50 VDC, 13.8 VAC

**Maximum Power Consumption (approx):** 720 VA

**Maximum Output Current:** 50: 12 A, 13.8 V: 6A

**Case Size:** 3.9" x 5.3" x 13.8" (100 x 135 x 350 mm)

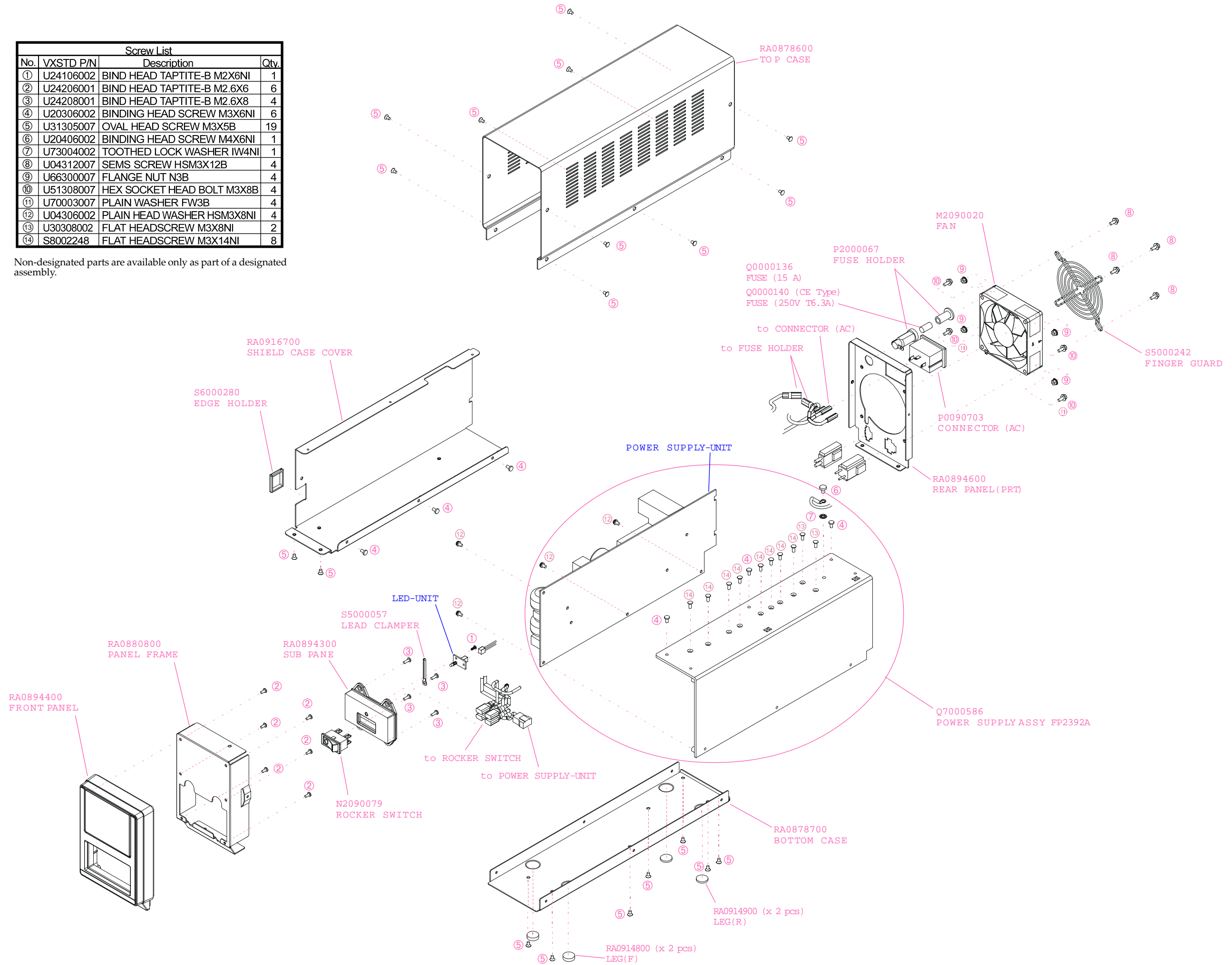
**Weight (approx):** 7.9 lb (3.6 kg)

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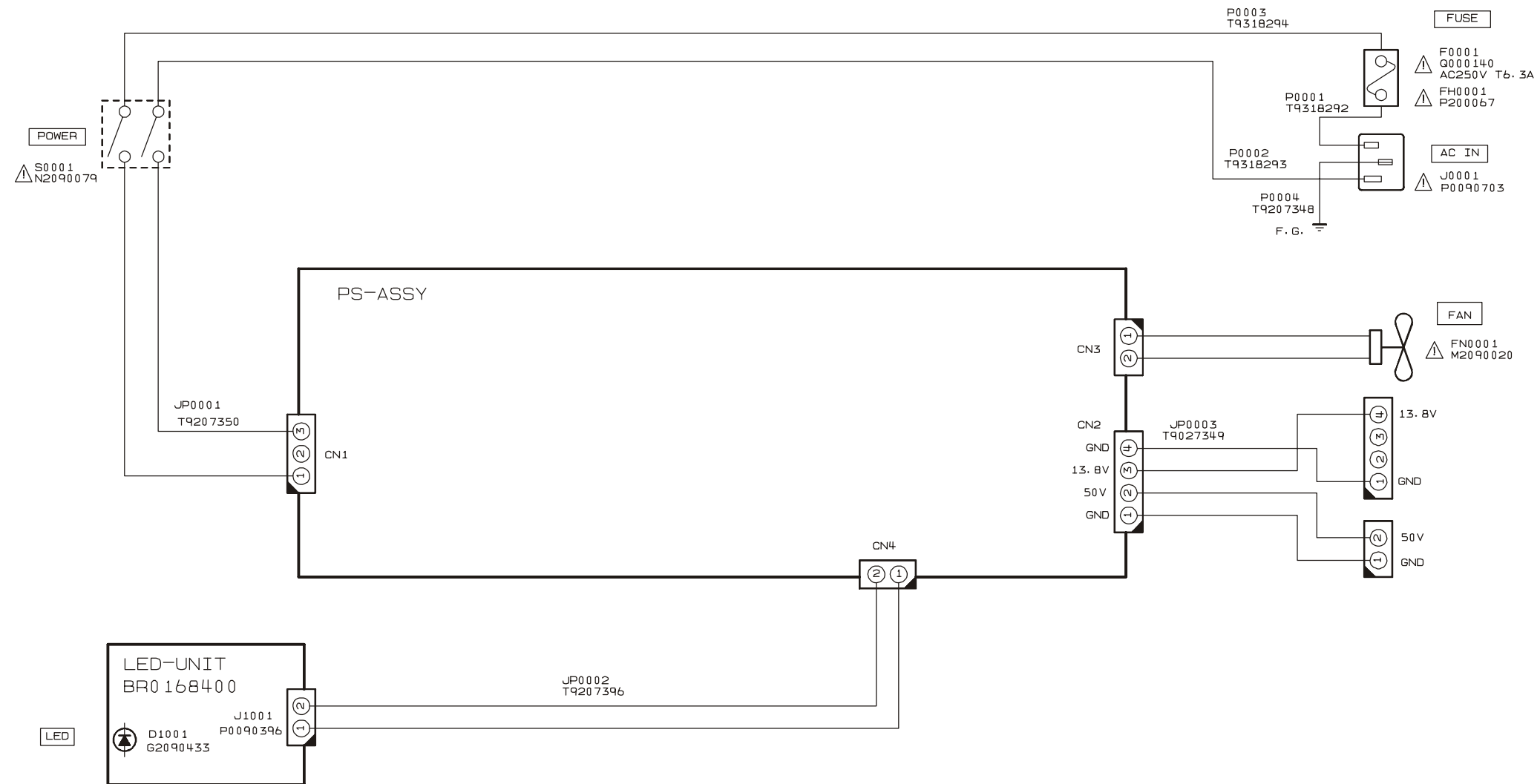
# Exploded Views & Mechanical Parts

| Screw List |           |                            |      |
|------------|-----------|----------------------------|------|
| No.        | VXSTD P/N | Description                | Qty. |
| ①          | U24106002 | BIND HEAD TAPTITE-B M2X6NI | 1    |
| ②          | U24206001 | BIND HEAD TAPTITE-B M2.6X6 | 6    |
| ③          | U24208001 | BIND HEAD TAPTITE-B M2.6X8 | 4    |
| ④          | U20306002 | BINDING HEAD SCREW M3X6NI  | 6    |
| ⑤          | U31305007 | OVAL HEAD SCREW M3X5B      | 19   |
| ⑥          | U20406002 | BINDING HEAD SCREW M4X6NI  | 1    |
| ⑦          | U73004002 | TOOTHED LOCK WASHER IW4NI  | 1    |
| ⑧          | U04312007 | SEMS SCREW HSM3X12B        | 4    |
| ⑨          | U66300007 | FLANGE NUT N3B             | 4    |
| ⑩          | U51308007 | HEX SOCKET HEAD BOLT M3X8B | 4    |
| ⑪          | U70003007 | PLAIN WASHER FW3B          | 4    |
| ⑫          | U04306002 | PLAIN HEAD WASHER HSM3X8NI | 4    |
| ⑬          | U30308002 | FLAT HEADSCREW M3X8NI      | 2    |
| ⑭          | S8002248  | FLAT HEADSCREW M3X14NI     | 8    |

Non-designated parts are available only as part of a designated assembly.

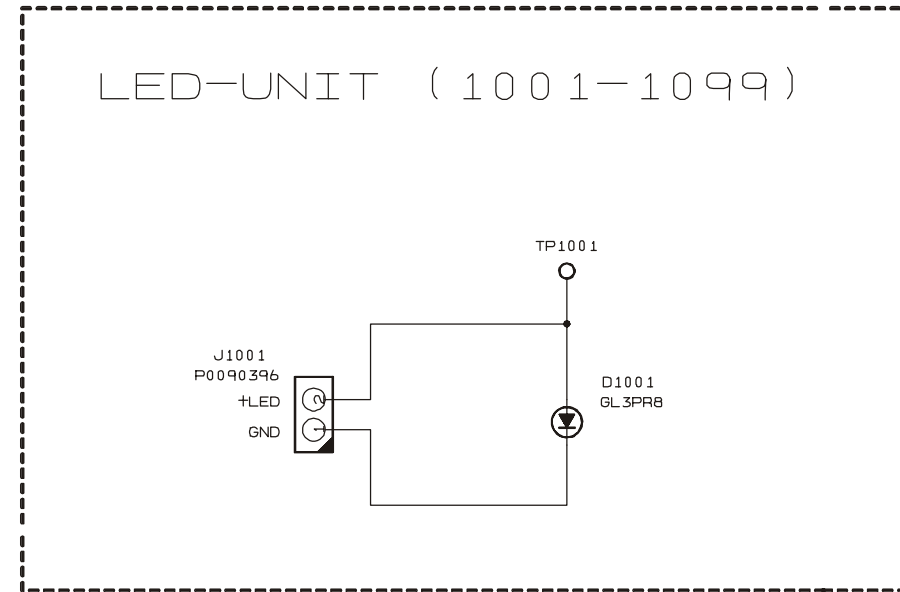


# Connection Diagram

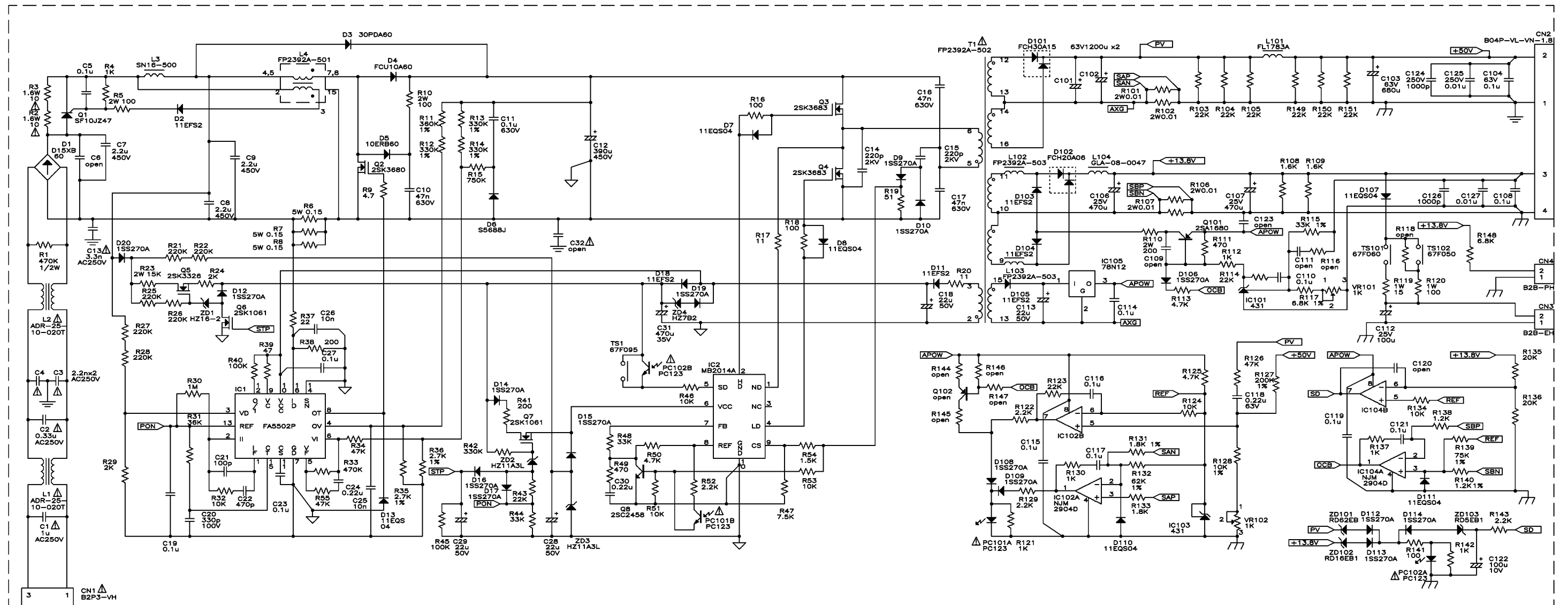


# Circuit Diagram

## LED-UNIT

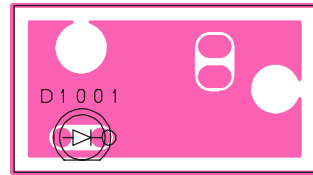


## POWER SUPPLY-UNIT

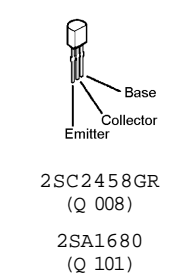
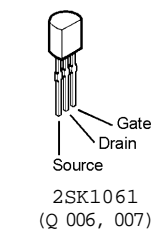
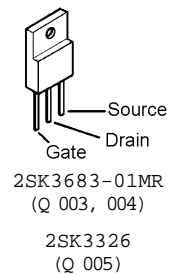
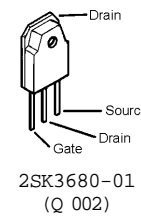
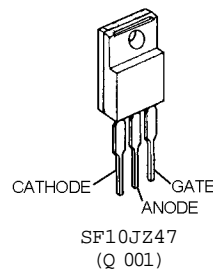
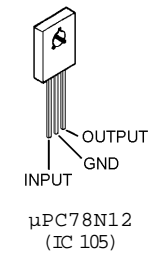
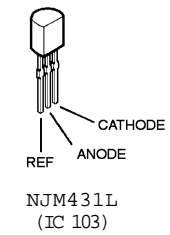
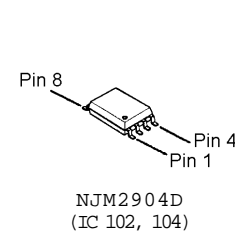
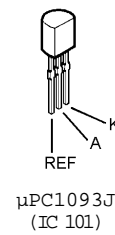
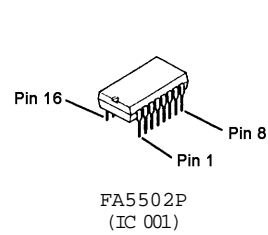
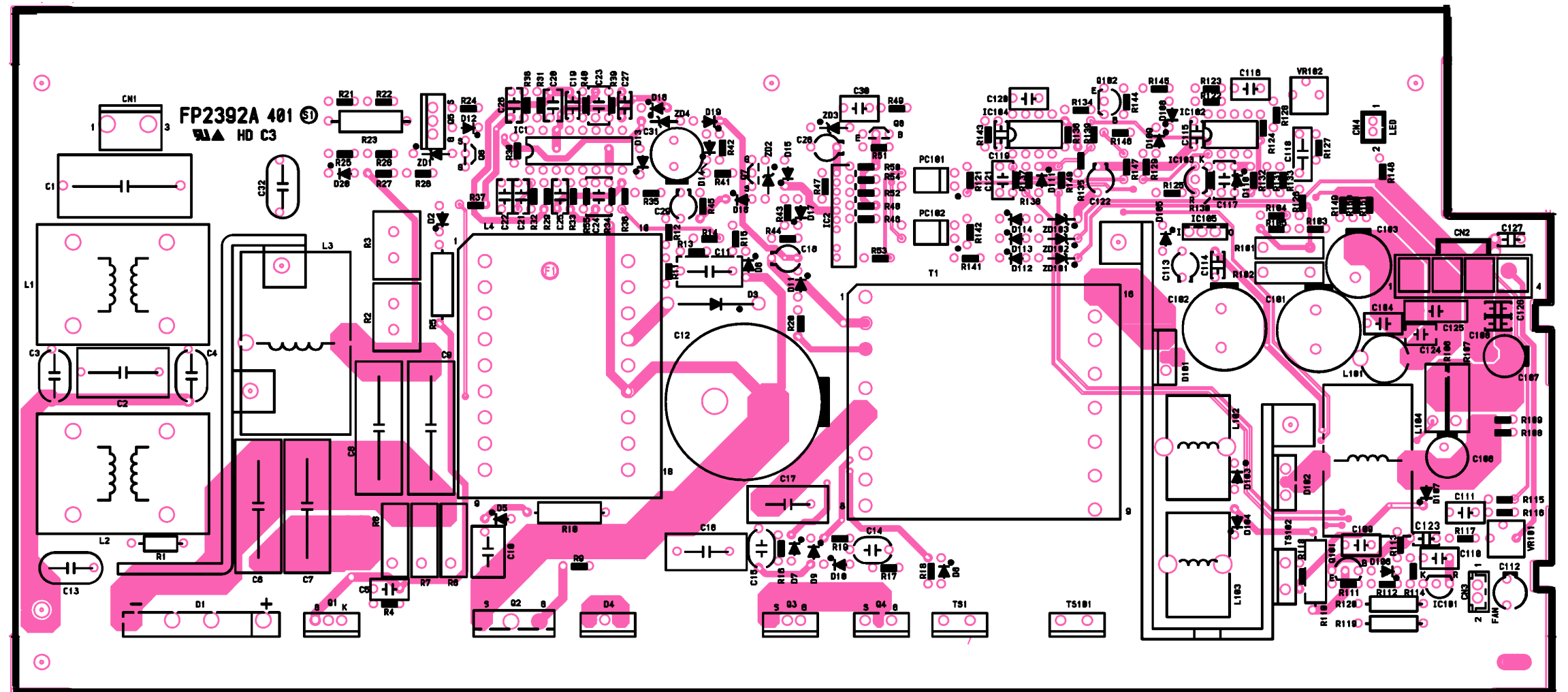


# Parts Layout

## LED-UNIT (Component side)

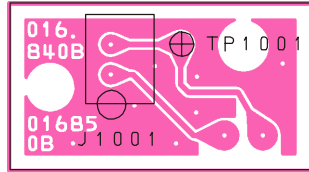


## POWER SUPPLY -UNIT (Component side)

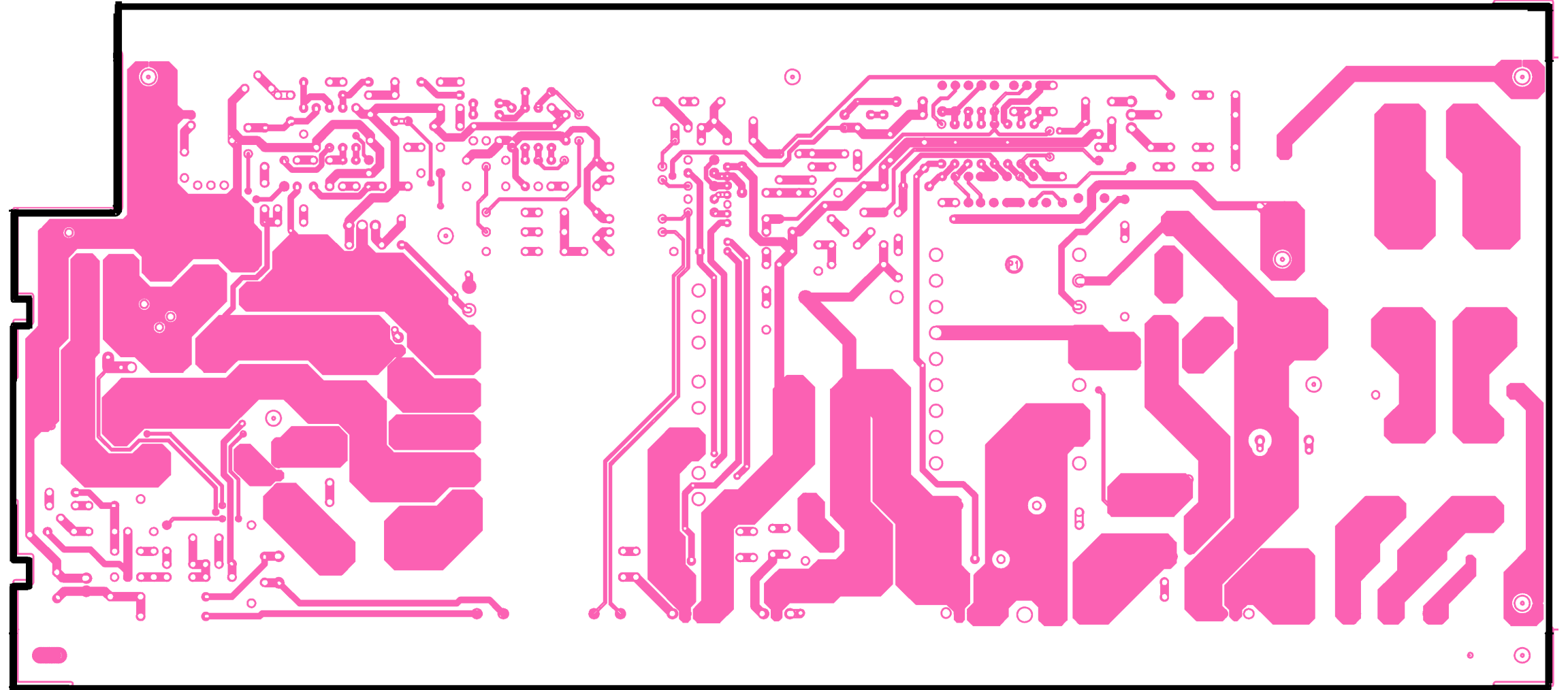


# Parts Layout

## LED-UNIT (Solder side)



## POWER SUPPLY -UNIT (Solder side)



# Parts List

| REF                       | DESCRIPTION           | VALUE    | V/W  | TOL. | MFR'S DESIG          | VXSTD P/N | VERS. | LOT | SIDE | LAY ADR |
|---------------------------|-----------------------|----------|------|------|----------------------|-----------|-------|-----|------|---------|
| *** LED-UNIT ***          |                       |          |      |      |                      |           |       |     |      |         |
|                           | Printed Circuit Board |          |      |      |                      | FR0168400 |       | 1-  |      |         |
| D 1001                    | LED                   |          |      |      | GL3PR8               | G2090433  |       | 1-  |      |         |
| J 1001                    | CONNECTOR             |          |      |      | B2B-PH-K-S(LF)(SN)   | P0090396  |       | 1-  |      |         |
|                           | LED SPACER            |          |      |      | LH-3-5               | S6000342  |       | 1-  |      |         |
| *** POWER SUPPLY-UNIT *** |                       |          |      |      |                      |           |       |     |      |         |
|                           | PCB with Components   |          |      |      |                      | Q7000586  |       |     |      |         |
|                           | Printed Circuit Board |          |      |      |                      | FP2392A   |       | 1-  |      |         |
| C1                        | FILM CAP.             | 1uF      | 250V |      | ECQU2A105ML          | S8101725  |       |     |      |         |
| C2                        | FILM CAP.             | 0.33uF   | 250V |      | ECQU2A334ML          | S8101726  |       |     |      |         |
| C3                        | CERAMIC CAP.          | 0.0022uF | 250V |      | DE1E3KX222MA5BA01    | S8101727  |       |     |      |         |
| C4                        | CERAMIC CAP.          | 0.0022uF | 250V |      | DE1E3KX222MA5BA01    | S8101727  |       |     |      |         |
| C5                        | FILM CAP.             | 0.1uF    | 50V  |      | ECQV1H104JLW         | S8101728  |       |     |      |         |
| C7                        | FILM CAP.             | 2.2uF    | 450V |      | MMXF0450K22500000225 | S8101729  |       |     |      |         |
| C8                        | FILM CAP.             | 2.2uF    | 450V |      | MMXF0450K22500000225 | S8101729  |       |     |      |         |
| C9                        | FILM CAP.             | 2.2uF    | 450V |      | MMXF0450K22500000225 | S8101729  |       |     |      |         |
| C10                       | FILM CAP.             | 0.047uF  | 630V |      | MMXF0630K47300000075 | S8101730  |       |     |      |         |
| C11                       | FILM CAP.             | 0.1uF    | 630V |      | MMXF0630K10400000100 | S8101731  |       |     |      |         |
| C12                       | AL. ELECTRO. CAP.     | 390uF    | 450V |      | EKMR451VSN391MR40S   | S8101732  |       |     |      |         |
| C13                       | CERAMIC CAP.          | 0.0033uF | 250V |      | DE1E3KX332MA5BA01    | S8101733  |       |     |      |         |
| C14                       | CERAMIC CAP.          | 220pF    | 2kV  |      | DEHR33D221KC3B       | S8101734  |       |     |      |         |
| C15                       | CERAMIC CAP.          | 220pF    | 2kV  |      | DEHR33D221KC3B       | S8101734  |       |     |      |         |
| C16                       | FILM CAP.             | 0.047uF  | 630V |      | MPEF0630J47300000100 | S8101735  |       |     |      |         |
| C17                       | FILM CAP.             | 0.047uF  | 630V |      | MPEF0630J47300000100 | S8101735  |       |     |      |         |
| C18                       | AL. ELECTRO. CAP.     | 22uF     | 50V  |      | EKY500E220ME11D      | S8101736  |       |     |      |         |
| C19                       | CERAMIC CAP.          | 0.1uF    | 50V  |      | RPEF11H104Z2K1A01    | S8101737  |       |     |      |         |
| C20                       | FILM CAP.             | 330pF    | 100V |      | APSF331J100          | S8101738  |       |     |      |         |
| C21                       | FILM CAP.             | 100pF    | 50V  |      | ECQB1H101KFW         | S8101739  |       |     |      |         |
| C22                       | FILM CAP.             | 470pF    | 50V  |      | ECQB1H471KFW         | S8101740  |       |     |      |         |
| C23                       | FILM CAP.             | 0.1uF    | 50V  |      | ECQV1H104JLW         | S8101728  |       |     |      |         |
| C24                       | FILM CAP.             | 0.22uF   | 50V  |      | ECQV1H224JLW         | S8101741  |       |     |      |         |
| C25                       | FILM CAP.             | 0.01uF   | 50V  |      | ECQB1H103KFW         | S8101742  |       |     |      |         |
| C26                       | FILM CAP.             | 0.01uF   | 50V  |      | ECQB1H103KFW         | S8101742  |       |     |      |         |
| C27                       | CERAMIC CAP.          | 0.1uF    | 50V  |      | RPEF11H104Z2K1A01    | S8101737  |       |     |      |         |
| C28                       | AL. ELECTRO. CAP.     | 22uF     | 50V  |      | EKY500E220ME11D      | S8101736  |       |     |      |         |
| C29                       | AL. ELECTRO. CAP.     | 22uF     | 50V  |      | EKY500E220ME11D      | S8101736  |       |     |      |         |
| C30                       | FILM CAP.             | 0.22uF   | 50V  |      | ECQV1H224JLW         | S8101741  |       |     |      |         |
| C31                       | AL. ELECTRO. CAP.     | 470uF    | 35V  |      | EKY350E471MJ20S      | S8101743  |       |     |      |         |
| C101                      | AL. ELECTRO. CAP.     | 1200uF   | 63V  |      | EKZE630E122ML40S     | S8101744  |       |     |      |         |
| C102                      | AL. ELECTRO. CAP.     | 1200uF   | 63V  |      | EKZE630E122ML40S     | S8101744  |       |     |      |         |
| C103                      | AL. ELECTRO. CAP.     | 680uF    | 63V  |      | EKZE630E681MK40S     | S8101745  |       |     |      |         |
| C104                      | FILM CAP.             | 0.1uF    | 63V  |      | ECQV1J104JMW         | S8101746  |       |     |      |         |
| C106                      | AL. ELECTRO. CAP.     | 470uF    | 25V  |      | EKZE250E471MH20D     | S8101747  |       |     |      |         |
| C107                      | AL. ELECTRO. CAP.     | 470uF    | 25V  |      | EKZE250E471MH20D     | S8101747  |       |     |      |         |
| C108                      | CERAMIC CAP.          | 0.1uF    | 50V  |      | RPEF11H104Z2K1A01    | S8101737  |       |     |      |         |
| C110                      | FILM CAP.             | 0.1uF    | 50V  |      | ECQV1H104JLW         | S8101728  |       |     |      |         |
| C112                      | AL. ELECTRO. CAP.     | 100uF    | 25V  |      | EKY250E101MF11D      | S8101748  |       |     |      |         |
| C113                      | AL. ELECTRO. CAP.     | 22uF     | 50V  |      | EKY500E220ME11D      | S8101736  |       |     |      |         |
| C114                      | CERAMIC CAP.          | 0.1uF    | 50V  |      | RPEF11H104Z2K1A01    | S8101737  |       |     |      |         |
| C115                      | CERAMIC CAP.          | 0.1uF    | 50V  |      | RPEF11H104Z2K1A01    | S8101737  |       |     |      |         |
| C116                      | FILM CAP.             | 0.1uF    | 50V  |      | ECQV1H104JLW         | S8101728  |       |     |      |         |
| C117                      | FILM CAP.             | 0.1uF    | 50V  |      | ECQV1H104JLW         | S8101728  |       |     |      |         |
| C118                      | FILM CAP.             | 0.22uF   | 63V  |      | ECQV1J224JMW         | S8101749  |       |     |      |         |
| C119                      | CERAMIC CAP.          | 0.1uF    | 50V  |      | RPEF11H104Z2K1A01    | S8101737  |       |     |      |         |
| C121                      | FILM CAP.             | 0.1uF    | 50V  |      | ECQV1H104JLW         | S8101728  |       |     |      |         |
| C122                      | AL. ELECTRO. CAP.     | 100uF    | 10V  |      | EKY100E101ME11D      | S8101750  |       |     |      |         |
| C124                      | CERAMIC CAP.          | 0.001uF  | 250V |      | DEHR32E102KA2B       | S8101751  |       |     |      |         |
| C125                      | CERAMIC CAP.          | 0.01uF   | 250V |      | DEHR32E103KA2B       | S8101752  |       |     |      |         |
| C126                      | CERAMIC CAP.          | 0.001uF  | 50V  |      | RPER11H102K2K1A01B   | S8101753  |       |     |      |         |
| C127                      | CERAMIC CAP.          | 0.01uF   | 50V  |      | RPER11H103K2K1A01B   | S8101754  |       |     |      |         |
| CN1                       | CONNECTOR             |          |      |      | B2P3-VH(LF)(SN)      | P0090866  |       |     |      |         |
| CN2                       | CONNECTOR             |          |      |      | B04P-VL-VN-1.8       | S8101695  |       |     |      |         |
| CN3                       | CONNECTOR             |          |      |      | B2B-EH(LF)(SN)       | P0090666  |       |     |      |         |
| CN4                       | CONNECTOR             |          |      |      | B2B-PH-K-S(LF)(SN)   | P0090396  |       |     |      |         |
| D1                        | DIODE                 |          |      |      | D15XB60              | S8101705  |       |     |      |         |
| D2                        | DIODE                 |          |      |      | 11EFS2               | S8101706  |       |     |      |         |
| D3                        | DIODE                 |          |      |      | 30PDA60              | S8101707  |       |     |      |         |
| D4                        | DIODE                 |          |      |      | FCU10A60             | S8101708  |       |     |      |         |
| D5                        | DIODE                 |          |      |      | 10ERB60              | S8101709  |       |     |      |         |
| D6                        | DIODE                 |          |      |      | S5688J               | S8101710  |       |     |      |         |
| D7                        | DIODE                 |          |      |      | 11EQS04              | S8101711  |       |     |      |         |
| D8                        | DIODE                 |          |      |      | 11EQS04              | S8101711  |       |     |      |         |

# Parts List

| REF   | DESCRIPTION     | VALUE | V/W  | TOL. | MFR'S DESIG       | VXSTD P/N | VERS. | LOT | SIDE | LAY ADR |
|-------|-----------------|-------|------|------|-------------------|-----------|-------|-----|------|---------|
| D9    | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D10   | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D11   | DIODE           |       |      |      | 11EFS2            | S8101706  |       |     |      |         |
| D12   | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D13   | DIODE           |       |      |      | 11EQS04           | S8101711  |       |     |      |         |
| D14   | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D15   | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D16   | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D17   | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D18   | DIODE           |       |      |      | 11EFS2            | S8101706  |       |     |      |         |
| D19   | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D20   | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D101  | DIODE           |       |      |      | FCH30A15          | S8101712  |       |     |      |         |
| D102  | DIODE           |       |      |      | FCH20A06          | S8101713  |       |     |      |         |
| D103  | DIODE           |       |      |      | 11EFS2            | S8101706  |       |     |      |         |
| D104  | DIODE           |       |      |      | 11EFS2            | S8101706  |       |     |      |         |
| D105  | DIODE           |       |      |      | 11EFS2            | S8101706  |       |     |      |         |
| D106  | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D107  | DIODE           |       |      |      | 11EQS04           | S8101711  |       |     |      |         |
| D108  | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D109  | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D110  | DIODE           |       |      |      | 11EQS04           | S8101711  |       |     |      |         |
| D111  | DIODE           |       |      |      | 11EQS04           | S8101711  |       |     |      |         |
| D112  | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D113  | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| D114  | DIODE           |       |      |      | 1SS270A           | G2090754  |       |     |      |         |
| ZD1   | ZENER DIODE     |       |      |      | HZ16-2            | S8101714  |       |     |      |         |
| ZD2   | ZENER DIODE     |       |      |      | HZ11A3L           | S8101715  |       |     |      |         |
| ZD3   | ZENER DIODE     |       |      |      | HZ11A3L           | S8101715  |       |     |      |         |
| ZD4   | ZENER DIODE     |       |      |      | HZ7B2             | G2090274  |       |     |      |         |
| ZD101 | ZENER DIODE     |       |      |      | RD62EB            | S8101716  |       |     |      |         |
| ZD102 | ZENER DIODE     |       |      |      | RD16EB1           | S8101717  |       |     |      |         |
| ZD103 | ZENER DIODE     |       |      |      | RD5.1EB1          | G2090463  |       |     |      |         |
| L1    | LINE FILTER     |       |      |      | ADR-25-10-020T    | S8101719  |       |     |      |         |
| L2    | LINE FILTER     |       |      |      | ADR-25-10-020T    | S8101719  |       |     |      |         |
| L3    | COIL            |       |      |      | SN16-500          | S8101720  |       |     |      |         |
| L4    | COIL            |       |      |      | FP2392A-501       | S8101721  |       |     |      |         |
| L101  | COIL            |       |      |      | FL1783A           | S8101722  |       |     |      |         |
| L102  | COIL            |       |      |      | FP2392A-503       | S8101723  |       |     |      |         |
| L103  | COIL            |       |      |      | FP2392A-503       | S8101723  |       |     |      |         |
| L104  | COIL            |       |      |      | GLA-08-0047       | S8101724  |       |     |      |         |
| T1    | TRANSFORMER     |       |      |      | FP2392A-502       | S8101718  |       |     |      |         |
| IC1   | IC              |       |      |      | FA5502P           | S8101696  |       |     |      |         |
| IC2   | IC              |       |      |      | MB2014A           | S8101806  |       |     |      |         |
| IC101 | IC              |       |      |      | NJM431L           | G1091276  |       |     |      |         |
| IC102 | IC              |       |      |      | NJM2904D          | G1090539  |       |     |      |         |
| IC103 | IC              |       |      |      | NJM431L           | G1091276  |       |     |      |         |
| IC104 | IC              |       |      |      | NJM2904D          | G1090539  |       |     |      |         |
| IC105 | IC              |       |      |      | UPC78N12          | S8101697  |       |     |      |         |
| PC101 | PHOTO COUPLER   |       |      |      | PC123FY2          | G0090036  |       |     |      |         |
| PC102 | PHOTO COUPLER   |       |      |      | PC123FY2          | G0090036  |       |     |      |         |
| Q1    | SCR             |       |      |      | SF10JZ47          | S8101698  |       |     |      |         |
| Q2    | FET             |       |      |      | 2SK3680-01        | S8101699  |       |     |      |         |
| Q3    | FET             |       |      |      | 2SK3683-01MR      | S8101700  |       |     |      |         |
| Q4    | FET             |       |      |      | 2SK3683-01MR      | S8101700  |       |     |      |         |
| Q5    | FET             |       |      |      | 2SK3326           | S8101701  |       |     |      |         |
| Q6    | FET             |       |      |      | 2SK1061           | S8101702  |       |     |      |         |
| Q7    | FET             |       |      |      | 2SK1061           | S8101702  |       |     |      |         |
| Q8    | TRANSISTOR      |       |      |      | 2SC2458GR         | S8101703  |       |     |      |         |
| Q101  | TRANSISTOR      |       |      |      | 2SA1680           | S8101704  |       |     |      |         |
| R1    | CARBON RES.     | 47k   | 1/2W | 5%   | CFS1/2C474J       | S8101755  |       |     |      |         |
| R2    | FUSE RES.       | 10    | 1.6W | 5%   | ERU5TBJ100        | S8101756  |       |     |      |         |
| R3    | FUSE RES.       | 10    | 1.6W | 5%   | ERU5TBJ100        | S8101756  |       |     |      |         |
| R4    | CARBON RES.     | 1k    | 1/4W | 5%   | CFS1/4C102J       | S8101757  |       |     |      |         |
| R5    | METAL FILM RES. | 100   | 2W   | 5%   | ERG-2SJ101P       | J22339006 |       |     |      |         |
| R6    | CEMENT RES.     | 0.15  | 5W   | 10%  | MPC71 0.15-OHM KS | S8101758  |       |     |      |         |
| R7    | CEMENT RES.     | 0.15  | 5W   | 10%  | MPC71 0.15-OHM KS | S8101758  |       |     |      |         |
| R8    | CEMENT RES.     | 0.15  | 5W   | 10%  | MPC71 0.15-OHM KS | S8101758  |       |     |      |         |
| R9    | CARBON RES.     | 4.7   | 1/4W | 5%   | CFS1/4C4R7J       | S8101759  |       |     |      |         |
| R10   | METAL FILM RES. | 100   | 2W   | 5%   | ERG-2SJ101P       | J22339006 |       |     |      |         |
| R11   | METAL FILM RES. | 360k  | 1/4W | 1%   | MFS1/4CC3603F     | S8101760  |       |     |      |         |
| R12   | METAL FILM RES. | 330k  | 1/4W | 1%   | MFS1/4CC3303F     | S8101761  |       |     |      |         |



# Parts List

| REF  | DESCRIPTION     | VALUE | V/W  | TOL. | MFR'S DESIG       | VXSTD P/N | VERS. | LOT | SIDE | LAY ADR |
|------|-----------------|-------|------|------|-------------------|-----------|-------|-----|------|---------|
| R13  | METAL FILM RES. | 330k  | 1/4W | 1%   | MFS1/4CC3303F     | S8101761  |       |     |      |         |
| R14  | METAL FILM RES. | 330k  | 1/4W | 1%   | MFS1/4CC3303F     | S8101761  |       |     |      |         |
| R15  | CARBON RES.     | 750k  | 1/4W | 5%   | CFS1/4C754J       | S8101762  |       |     |      |         |
| R16  | CARBON RES.     | 100   | 1/4W | 5%   | CFS1/4C101J       | S8101763  |       |     |      |         |
| R17  | CARBON RES.     | 11    | 1/4W | 5%   | CFS1/4C110J       | S8101764  |       |     |      |         |
| R18  | CARBON RES.     | 100   | 1/4W | 5%   | CFS1/4C101J       | S8101763  |       |     |      |         |
| R19  | CARBON RES.     | 51    | 1/4W | 5%   | CFS1/4C510J       | S8101765  |       |     |      |         |
| R20  | CARBON RES.     | 11    | 1/4W | 5%   | CFS1/4C110J       | S8101764  |       |     |      |         |
| R21  | CARBON RES.     | 220k  | 1/4W | 5%   | CFS1/4C224J       | S8101766  |       |     |      |         |
| R22  | CARBON RES.     | 220k  | 1/4W | 5%   | CFS1/4C224J       | S8101766  |       |     |      |         |
| R23  | METAL FILM RES. | 15k   | 2W   | 5%   | ERG-2SJ153P       | S8101767  |       |     |      |         |
| R24  | CARBON RES.     | 2k    | 1/4W | 5%   | CFS1/4C202J       | S8101768  |       |     |      |         |
| R25  | CARBON RES.     | 220k  | 1/4W | 5%   | CFS1/4C224J       | S8101766  |       |     |      |         |
| R26  | CARBON RES.     | 220k  | 1/4W | 5%   | CFS1/4C224J       | S8101766  |       |     |      |         |
| R27  | CARBON RES.     | 220k  | 1/4W | 5%   | CFS1/4C224J       | S8101766  |       |     |      |         |
| R28  | CARBON RES.     | 220k  | 1/4W | 5%   | CFS1/4C224J       | S8101766  |       |     |      |         |
| R29  | CARBON RES.     | 2k    | 1/4W | 5%   | CFS1/4C202J       | S8101768  |       |     |      |         |
| R30  | CARBON RES.     | 1M    | 1/4W | 5%   | CFS1/4C105J       | S8101769  |       |     |      |         |
| R31  | CARBON RES.     | 36k   | 1/4W | 5%   | CFS1/4C363J       | S8101770  |       |     |      |         |
| R32  | CARBON RES.     | 10k   | 1/4W | 5%   | CFS1/4C103J       | S8101771  |       |     |      |         |
| R33  | CARBON RES.     | 470k  | 1/4W | 5%   | CFS1/4C474J       | S8101772  |       |     |      |         |
| R34  | CARBON RES.     | 47k   | 1/4W | 5%   | CFS1/4C473J       | S8101773  |       |     |      |         |
| R35  | METAL FILM RES. | 2.7k  | 1/4W | 1%   | MFS1/4CC2701F     | S8101774  |       |     |      |         |
| R36  | METAL FILM RES. | 2.7k  | 1/4W | 1%   | MFS1/4CC2701F     | S8101774  |       |     |      |         |
| R37  | CARBON RES.     | 22    | 1/4W | 5%   | CFS1/4C220J       | S8101775  |       |     |      |         |
| R38  | CARBON RES.     | 200   | 1/4W | 5%   | CFS1/4C201J       | S8101776  |       |     |      |         |
| R39  | CARBON RES.     | 47    | 1/4W | 5%   | CFS1/4C470J       | S8101777  |       |     |      |         |
| R40  | CARBON RES.     | 100k  | 1/4W | 5%   | CFS1/4C104J       | S8101778  |       |     |      |         |
| R41  | CARBON RES.     | 200   | 1/4W | 5%   | CFS1/4C201J       | S8101776  |       |     |      |         |
| R42  | CARBON RES.     | 330k  | 1/4W | 5%   | CFS1/4C334J       | S8101779  |       |     |      |         |
| R43  | CARBON RES.     | 22k   | 1/4W | 5%   | CFS1/4C223J       | S8101780  |       |     |      |         |
| R44  | CARBON RES.     | 33k   | 1/4W | 5%   | CFS1/4C333J       | S8101781  |       |     |      |         |
| R45  | CARBON RES.     | 100k  | 1/4W | 5%   | CFS1/4C104J       | S8101778  |       |     |      |         |
| R46  | CARBON RES.     | 10k   | 1/4W | 5%   | CFS1/4C103J       | S8101771  |       |     |      |         |
| R47  | CARBON RES.     | 7.5k  | 1/4W | 5%   | CFS1/4C752J       | S8101782  |       |     |      |         |
| R48  | CARBON RES.     | 33k   | 1/4W | 5%   | CFS1/4C333J       | S8101781  |       |     |      |         |
| R49  | CARBON RES.     | 470   | 1/4W | 5%   | CFS1/4C471J       | S8101783  |       |     |      |         |
| R50  | CARBON RES.     | 4.7k  | 1/4W | 5%   | CFS1/4C472J       | S8101784  |       |     |      |         |
| R51  | CARBON RES.     | 10k   | 1/4W | 5%   | CFS1/4C103J       | S8101771  |       |     |      |         |
| R52  | CARBON RES.     | 2.2k  | 1/4W | 5%   | CFS1/4C222J       | S8101785  |       |     |      |         |
| R53  | CARBON RES.     | 10k   | 1/4W | 5%   | CFS1/4C103J       | S8101771  |       |     |      |         |
| R54  | CARBON RES.     | 1.5k  | 1/4W | 5%   | CFS1/4C152J       | S8101786  |       |     |      |         |
| R55  | CARBON RES.     | 47k   | 1/4W | 5%   | CFS1/4C473J       | S8101773  |       |     |      |         |
| R101 | CEMENT RES.     | 0.01  | 2W   | 10%  | MPC76 0.01-OHM KS | S8101787  |       |     |      |         |
| R102 | CEMENT RES.     | 0.01  | 2W   | 10%  | MPC76 0.01-OHM KS | S8101787  |       |     |      |         |
| R103 | CARBON RES.     | 22k   | 1/4W | 5%   | CFS1/4C223J       | S8101780  |       |     |      |         |
| R104 | CARBON RES.     | 22k   | 1/4W | 5%   | CFS1/4C223J       | S8101780  |       |     |      |         |
| R105 | CARBON RES.     | 22k   | 1/4W | 5%   | CFS1/4C223J       | S8101780  |       |     |      |         |
| R106 | CEMENT RES.     | 0.01  | 2W   | 10%  | MPC76 0.01-OHM KS | S8101787  |       |     |      |         |
| R107 | CEMENT RES.     | 0.01  | 2W   | 10%  | MPC76 0.01-OHM KS | S8101787  |       |     |      |         |
| R108 | CARBON RES.     | 1.6k  | 1/4W | 5%   | CFS1/4C162J       | S8101788  |       |     |      |         |
| R109 | CARBON RES.     | 1.6k  | 1/4W | 5%   | CFS1/4C162J       | S8101788  |       |     |      |         |
| R110 | METAL FILM RES. | 200   | 2W   | 5%   | ERG-2SJ201P       | S8101789  |       |     |      |         |
| R111 | CARBON RES.     | 470   | 1/4W | 5%   | CFS1/4C471J       | S8101783  |       |     |      |         |
| R112 | CARBON RES.     | 1k    | 1/4W | 5%   | CFS1/4C102J       | S8101757  |       |     |      |         |
| R113 | CARBON RES.     | 4.7k  | 1/4W | 5%   | CFS1/4C472J       | S8101784  |       |     |      |         |
| R114 | CARBON RES.     | 22k   | 1/4W | 5%   | CFS1/4C223J       | S8101780  |       |     |      |         |
| R115 | METAL FILM RES. | 33k   | 1/4W | 1%   | MFS1/4CC3302F     | S8101790  |       |     |      |         |
| R117 | METAL FILM RES. | 6.8k  | 1/4W | 1%   | MFS1/4CC6801F     | S8101791  |       |     |      |         |
| R119 | METAL FILM RES. | 15    | 1W   | 5%   | ERG-1SJ150        | J22305150 |       |     |      |         |
| R120 | METAL FILM RES. | 100   | 1W   | 5%   | ERG-1SJ101        | J22305101 |       |     |      |         |
| R121 | CARBON RES.     | 1k    | 1/4W | 5%   | CFS1/4C102J       | S8101757  |       |     |      |         |
| R122 | CARBON RES.     | 2.2k  | 1/4W | 5%   | CFS1/4C222J       | S8101785  |       |     |      |         |
| R123 | CARBON RES.     | 22k   | 1/4W | 5%   | CFS1/4C223J       | S8101780  |       |     |      |         |
| R124 | CARBON RES.     | 10k   | 1/4W | 5%   | CFS1/4C103J       | S8101771  |       |     |      |         |
| R125 | CARBON RES.     | 4.7k  | 1/4W | 5%   | CFS1/4C472J       | S8101784  |       |     |      |         |
| R126 | CARBON RES.     | 47k   | 1/4W | 5%   | CFS1/4C473J       | S8101773  |       |     |      |         |
| R127 | METAL FILM RES. | 200k  | 1/4W | 1%   | MFS1/4CC2003F     | S8101792  |       |     |      |         |
| R128 | METAL FILM RES. | 10k   | 1/4W | 1%   | MFS1/4CC1002F     | S8101793  |       |     |      |         |
| R129 | CARBON RES.     | 2.2k  | 1/4W | 5%   | CFS1/4C222J       | S8101785  |       |     |      |         |
| R130 | CARBON RES.     | 1k    | 1/4W | 5%   | CFS1/4C102J       | S8101757  |       |     |      |         |
| R131 | METAL FILM RES. | 1.8k  | 1/4W | 1%   | MFS1/4CC1801F     | S8101794  |       |     |      |         |

# Parts List

| REF               | DESCRIPTION     | VALUE | V/W  | TOL. | MFR'S DESIG        | VXSTD P/N | VERS.          | LOT | SIDE | LAY ADR |
|-------------------|-----------------|-------|------|------|--------------------|-----------|----------------|-----|------|---------|
| R132              | METAL FILM RES. | 62k   | 1/4W | 1%   | MFS1/4CC6202F      | S8101795  |                |     |      |         |
| R133              | CARBON RES.     | 1.8k  | 1/4W | 5%   | CFS1/4C182J        | S8101796  |                |     |      |         |
| R134              | CARBON RES.     | 10k   | 1/4W | 5%   | CFS1/4C103J        | S8101771  |                |     |      |         |
| R135              | CARBON RES.     | 20k   | 1/4W | 5%   | CFS1/4C203J        | S8101797  |                |     |      |         |
| R136              | CARBON RES.     | 20k   | 1/4W | 5%   | CFS1/4C203J        | S8101797  |                |     |      |         |
| R137              | CARBON RES.     | 1k    | 1/4W | 5%   | CFS1/4C102J        | S8101757  |                |     |      |         |
| R138              | CARBON RES.     | 1.2k  | 1/4W | 5%   | CFS1/4C122J        | S8101798  |                |     |      |         |
| R139              | METAL FILM RES. | 75k   | 1/4W | 1%   | MFS1/4CC7502F      | S8101799  |                |     |      |         |
| R140              | METAL FILM RES. | 1.2k  | 1/4W | 1%   | MFS1/4CC1201F      | S8101800  |                |     |      |         |
| R141              | CARBON RES.     | 100   | 1/4W | 5%   | CFS1/4C101J        | S8101763  |                |     |      |         |
| R142              | CARBON RES.     | 1k    | 1/4W | 5%   | CFS1/4C102J        | S8101757  |                |     |      |         |
| R143              | CARBON RES.     | 2.2k  | 1/4W | 5%   | CFS1/4C222J        | S8101785  |                |     |      |         |
| R148              | CARBON RES.     | 6.8k  | 1/4W | 5%   | CFS1/4C682J        | S8101801  |                |     |      |         |
| R149              | CARBON RES.     | 22k   | 1/4W | 5%   | CFS1/4C223J        | S8101780  |                |     |      |         |
| R150              | CARBON RES.     | 22k   | 1/4W | 5%   | CFS1/4C223J        | S8101780  |                |     |      |         |
| R151              | CARBON RES.     | 22k   | 1/4W | 5%   | CFS1/4C223J        | S8101780  |                |     |      |         |
| VR101             | POT.            | 1k    |      |      | FT-63EP1K-OHM(102) | S8101802  |                |     |      |         |
| VR102             | POT.            | 1k    |      |      | FT-63EP1K-OHM(102) | S8101802  |                |     |      |         |
| TS1               | THERMAL SWITCH  |       |      |      | 67F095             | S8101803  |                |     |      |         |
| TS101             | THERMAL SWITCH  |       |      |      | 67F060             | S8101804  |                |     |      |         |
| TS102             | THERMAL SWITCH  |       |      |      | 67F050             | S8101805  |                |     |      |         |
| *** MAIN ASSY *** |                 |       |      |      |                    |           |                |     |      |         |
| F 0001            | FUSE            | 15A   |      |      | 0218 015MXP        | Q0000136  |                | 1-  |      |         |
| FH0001            | FUSE HOLDER     |       |      |      | MF500              | P2000067  |                | 1-  |      |         |
| FN0001            | FAN             |       |      |      | JF0825S1M DC12V    | M2090020  |                | 1-  |      |         |
| J 0001            | CONNECTOR       |       |      |      | WCF1061B23         | P0090703  |                | 1-  |      |         |
| JP0001            | WIRE ASSY       |       |      |      | AH025H 100MM2P2PFA | T9207395  |                | 1-  |      |         |
| JP0002            | WIRE ASSY       |       |      |      | AH025H 550MM2P     | T9207396  |                | 1-  |      |         |
| JP0003            | WIRE ASSY       |       |      |      | AH025H 180MM4P6P   | T9207397  |                | 1-  |      |         |
| P 0001            | WIRE ASSY       |       |      |      | BLK 160 #187/<30>  | T9318292  |                | 1-  |      |         |
| P 0002            | WIRE ASSY       |       |      |      | WHT 520 #250/<30>  | T9318293  |                | 1-  |      |         |
| P 0003            | WIRE ASSY       |       |      |      | BLK 480 #187/#250  | T9318294  |                | 1-  |      |         |
| P 0004            | WIRE ASSY       |       |      |      | AAE96X 180MM       | T9207348  |                | 1-  |      |         |
| J 0951            | CONNECTOR       |       |      |      |                    | P0091086  | 234V-3K(UK)(D) | 1-  |      |         |
|                   | WIRE ASSY       |       |      |      | AH025H 800MM6P     | T9207392  | 200W           | 10- |      |         |
|                   | AC CABLE        |       |      |      | 100V 2WP YFC-17K   | T9017780  | 100V-2W(D)     | 1-  |      |         |
|                   | AC CABLE        |       |      |      | 117V3WP YFC-18K    | T9017882  | 117V-3W(UL)(D) | 1-  |      |         |
|                   | AC CABLE        |       |      |      | 220V 3W YFC-14K    | T9013285  | 220V-3W(EU)(D) | 1-  |      |         |
|                   | AC CABLE        |       |      |      | 220V 3W YFC-14K    | T9013285  | 234V-3K(UK)(D) | 1-  |      |         |
|                   | AC CABLE        |       |      |      | 234V 3WP           | T9013283A | 234V-3WP(D)    | 1-  |      |         |