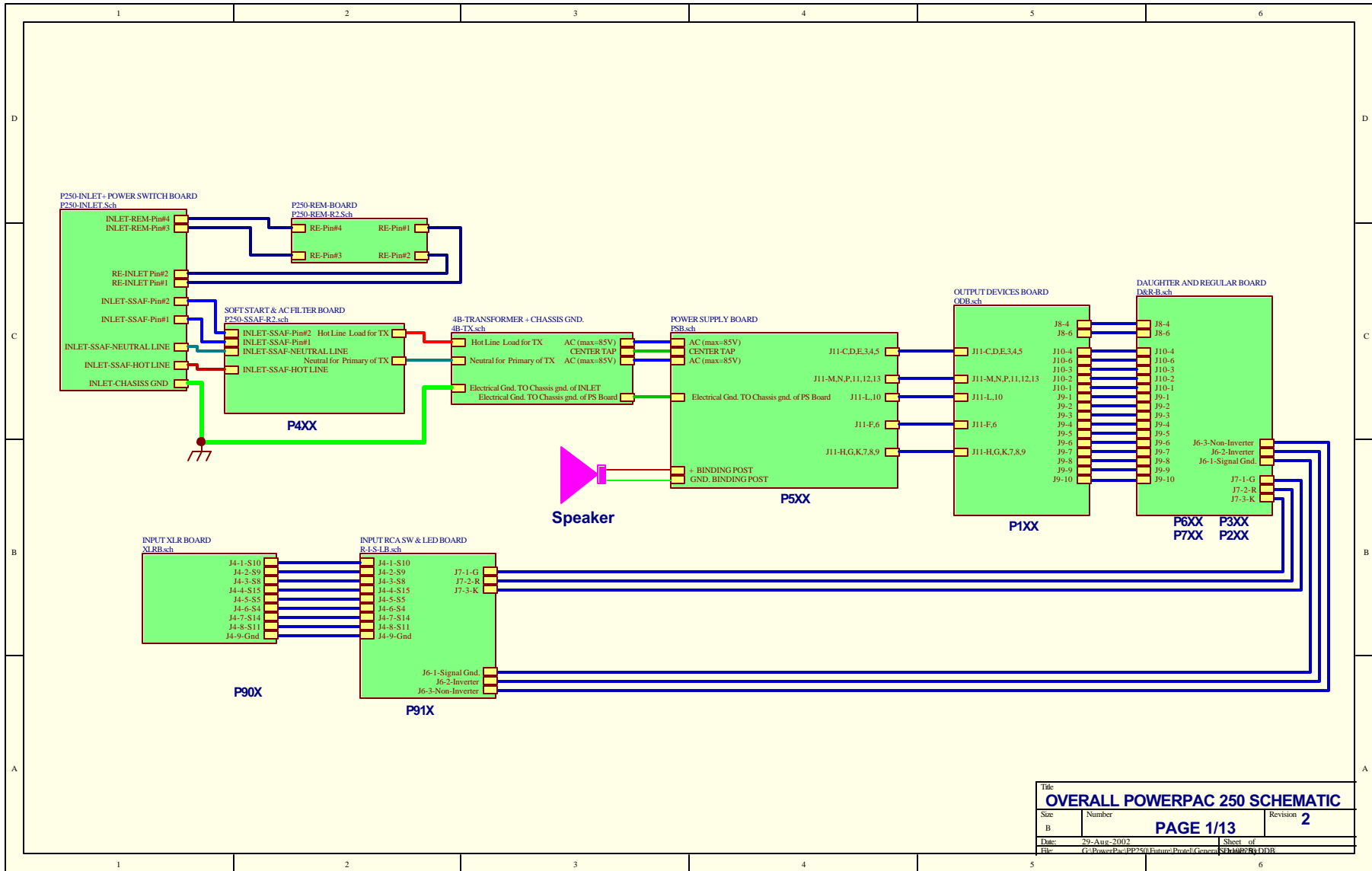
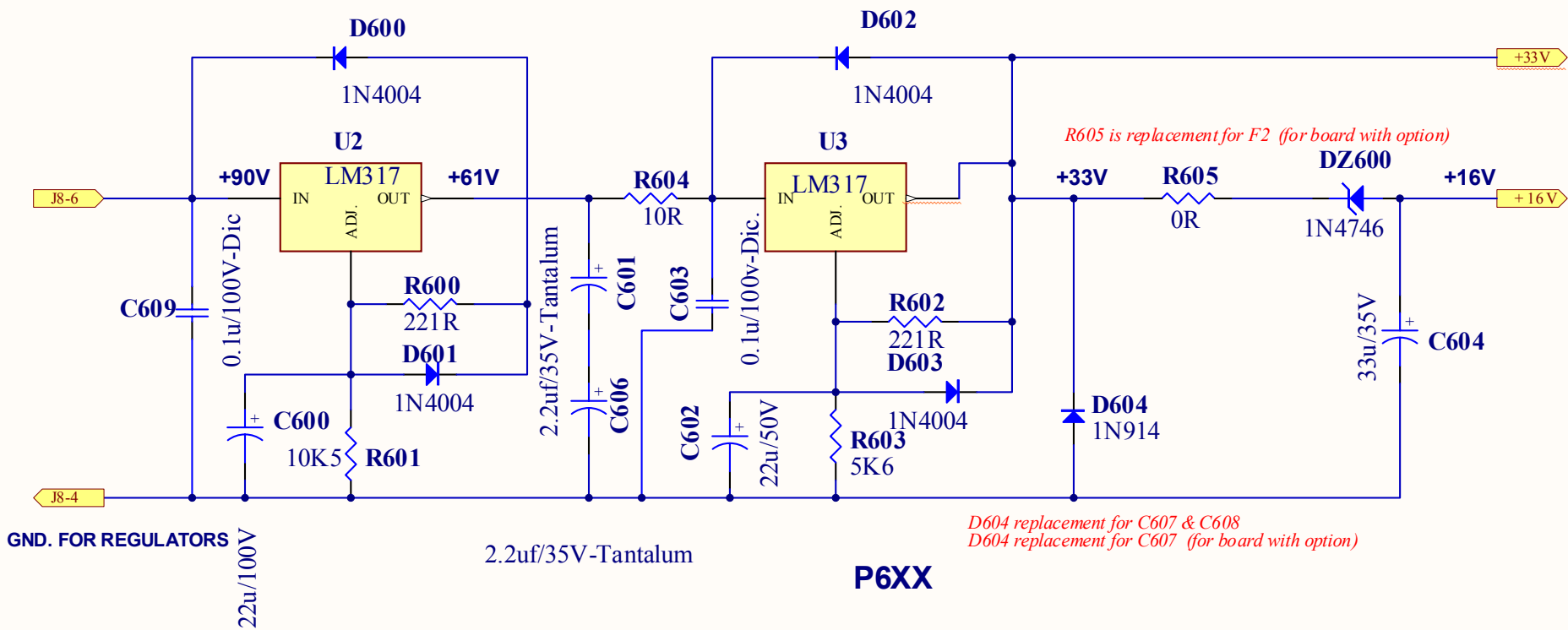
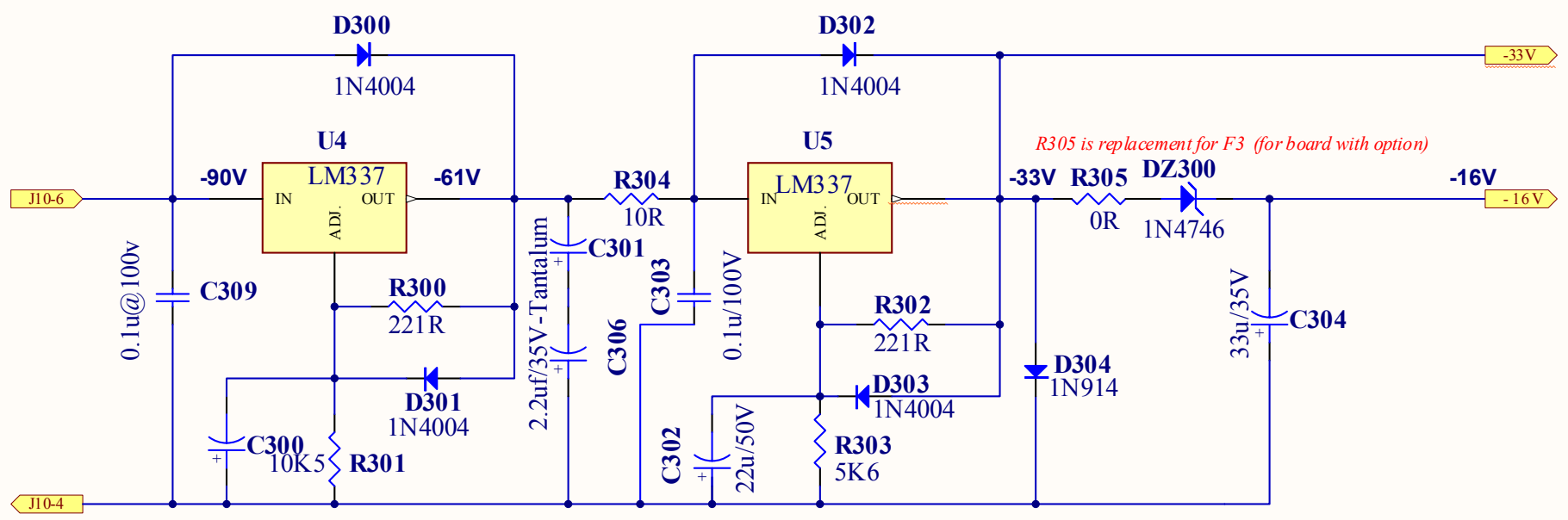


**PowerPac 300**  
Overall Schematic





|                                    |                                |                   |                      |
|------------------------------------|--------------------------------|-------------------|----------------------|
| Title                              |                                |                   |                      |
| <b>POSITIVE REGULATOR FOR P300</b> |                                |                   |                      |
| Size                               | Number                         | <b>PAGE 13/14</b> | Revision             |
| A                                  |                                |                   | <b>2</b>             |
| Date:                              | 2004-08-26                     | Sheet of          |                      |
| File:                              | G:\PowerPac\...\PR+33V+16V.sch | Drawn By:         | <i>JFL</i> <b>xq</b> |

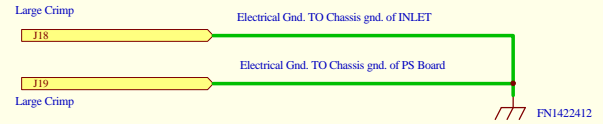
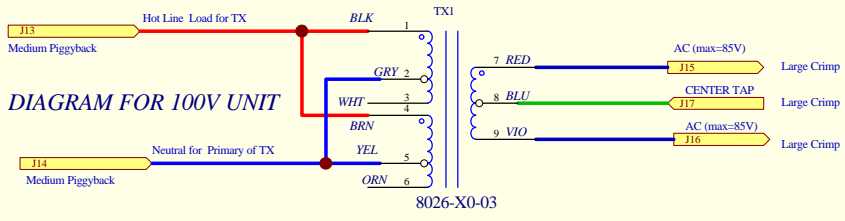
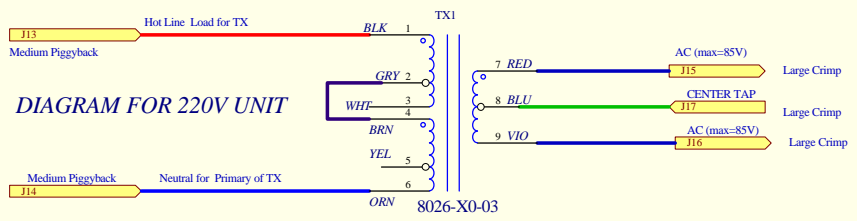
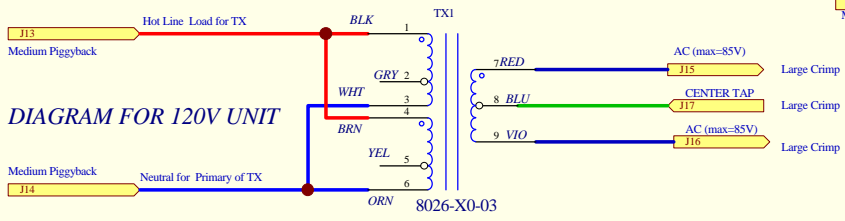
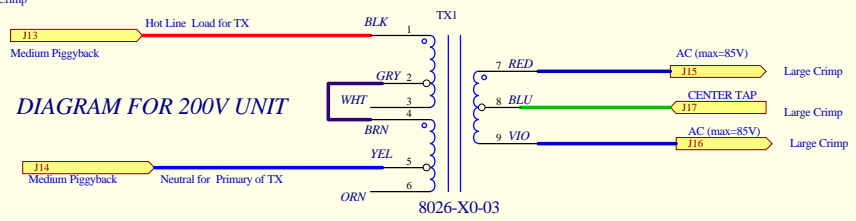
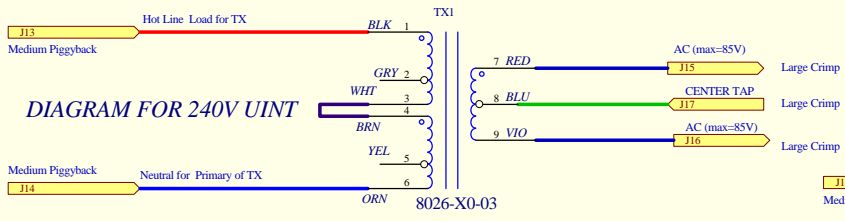


*R305 is replacement for F3 (for board with option)*

*D304 replacement for C307 & C308  
D304 replacement for C307 (for board with option)*

**P3XX**

|                                    |                                |           |           |
|------------------------------------|--------------------------------|-----------|-----------|
| Title                              |                                |           |           |
| <b>NEGATIVE REGULATOR FOR P300</b> |                                |           |           |
| Size                               | Number                         | Revision  |           |
| A                                  | <b>PAGE 14/14</b>              | <b>2</b>  |           |
| Date:                              | 2004-08-26                     | Sheet of  |           |
| File:                              | G:\PowerPac\...\PR-33V-16V.sch | Drawn By: | <b>xq</b> |



|  |  |                  |   |
|--|--|------------------|---|
| Title  |  |                  |   |
| <b>Transformer &amp; Chassis Gnd. for P300</b> |  |                  |   |
| Size   | Number   | Revision         | 1 |
| B  |  | <b>PAGE 2/13</b> |   |
| Date:  | 8-May-2003   | Sheet of         |   |
| File:  | G:\PowerPac\Prj250 or 300\Present\Protel\chassisgnd.p300.dtb |                  |   |

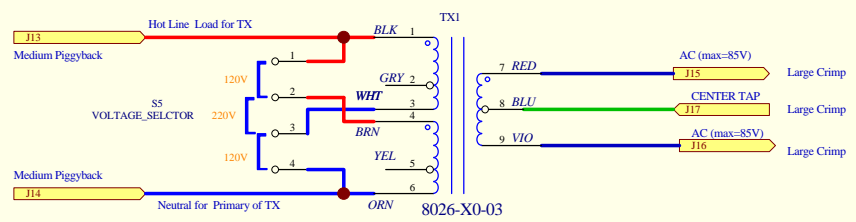
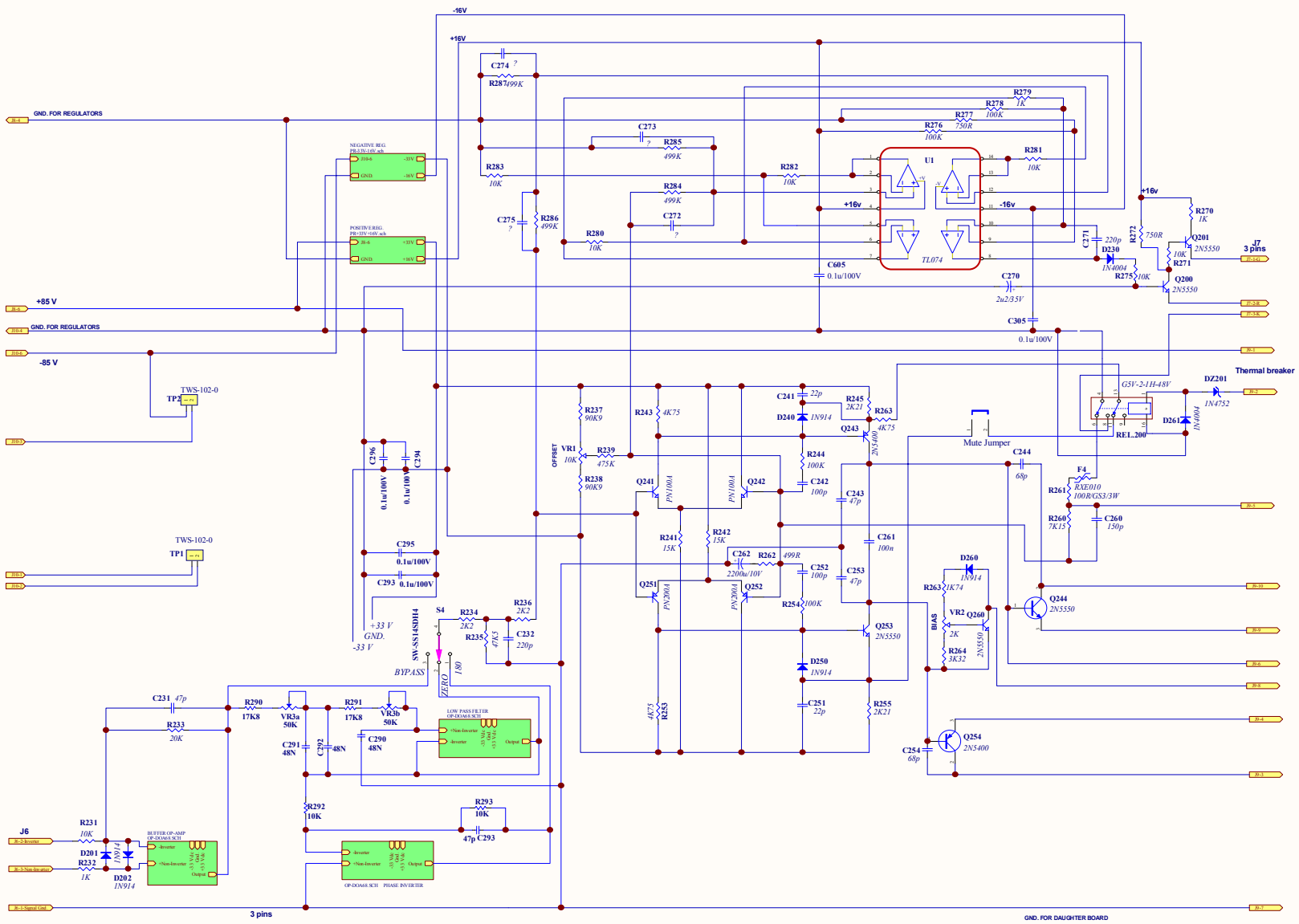
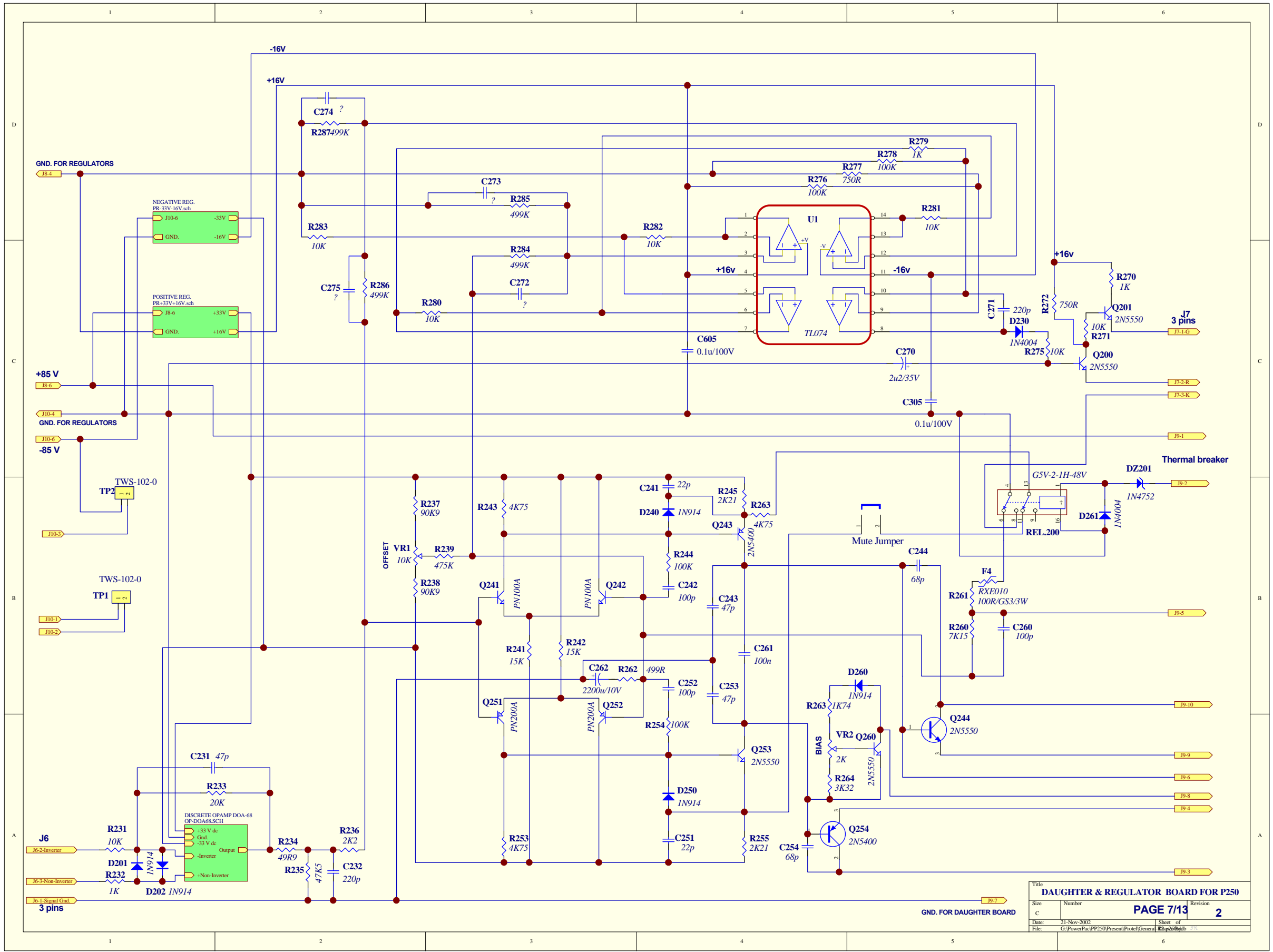


DIAGRAM FOR 240V OR 120V UINT

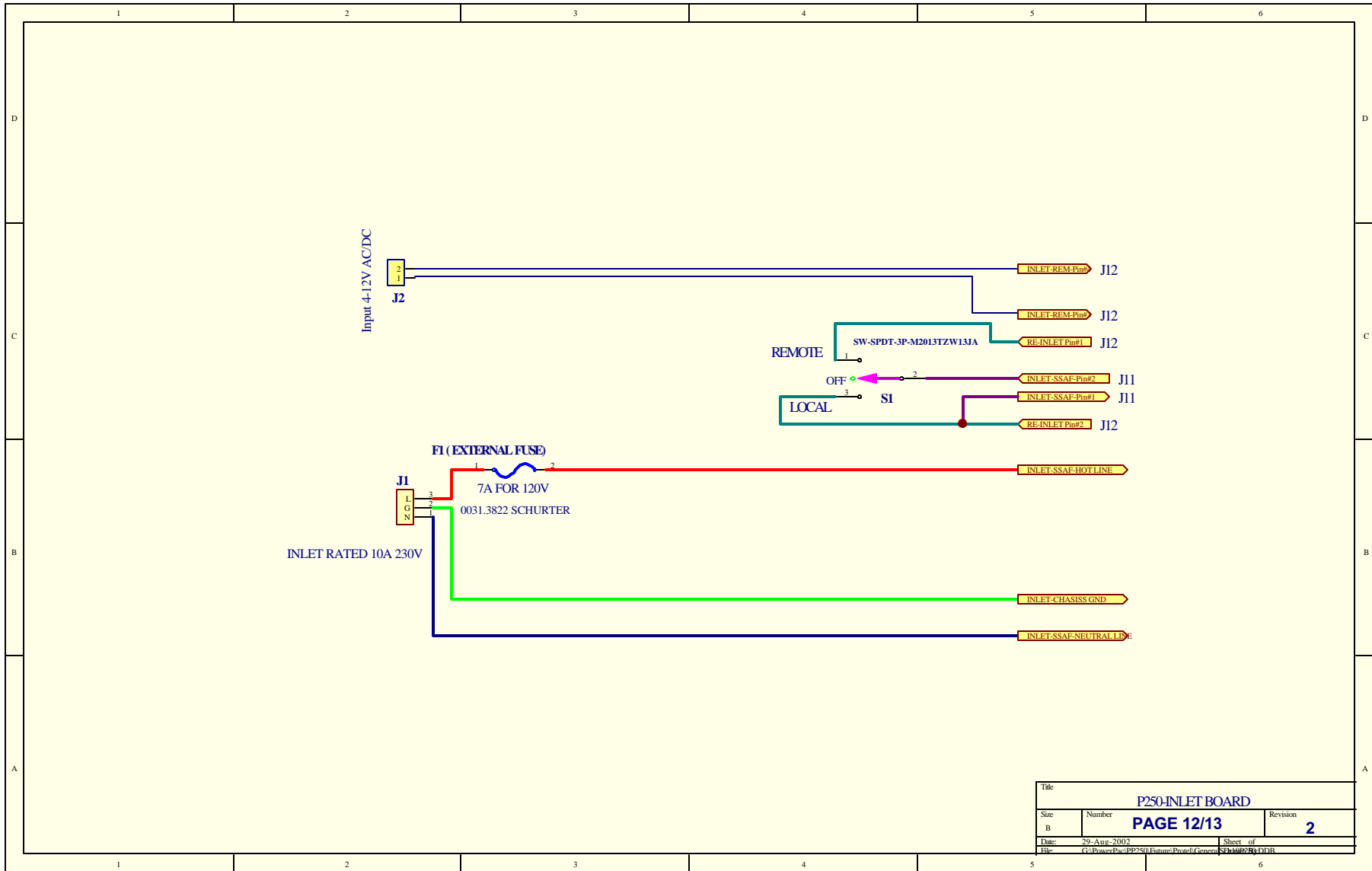
|                                    |  |          |
|------------------------------------|--|----------|
| Title                              |  |          |
| POWERPAC 300 WITH VOLTAGE SELECTOR |  |          |
| Size                               | Number   | Revision |
| B                                  |  | 1        |
| Date:                              | 19-Aug-2003  | Sheet of |
| File:                              | G:\PowerPac\Prj250 or 300\Present\Protel 99 SE\PowerPac300.ddb |          |



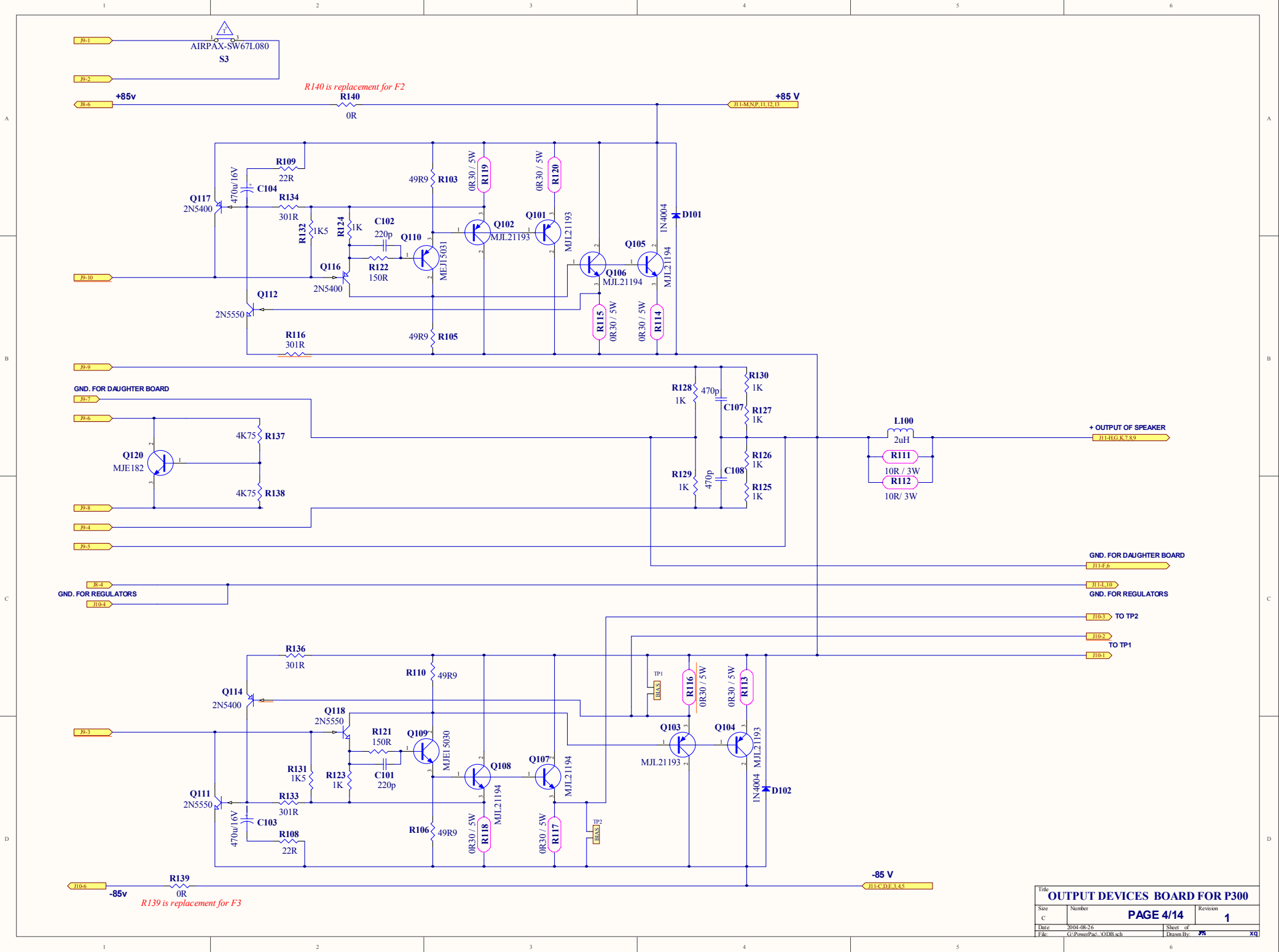


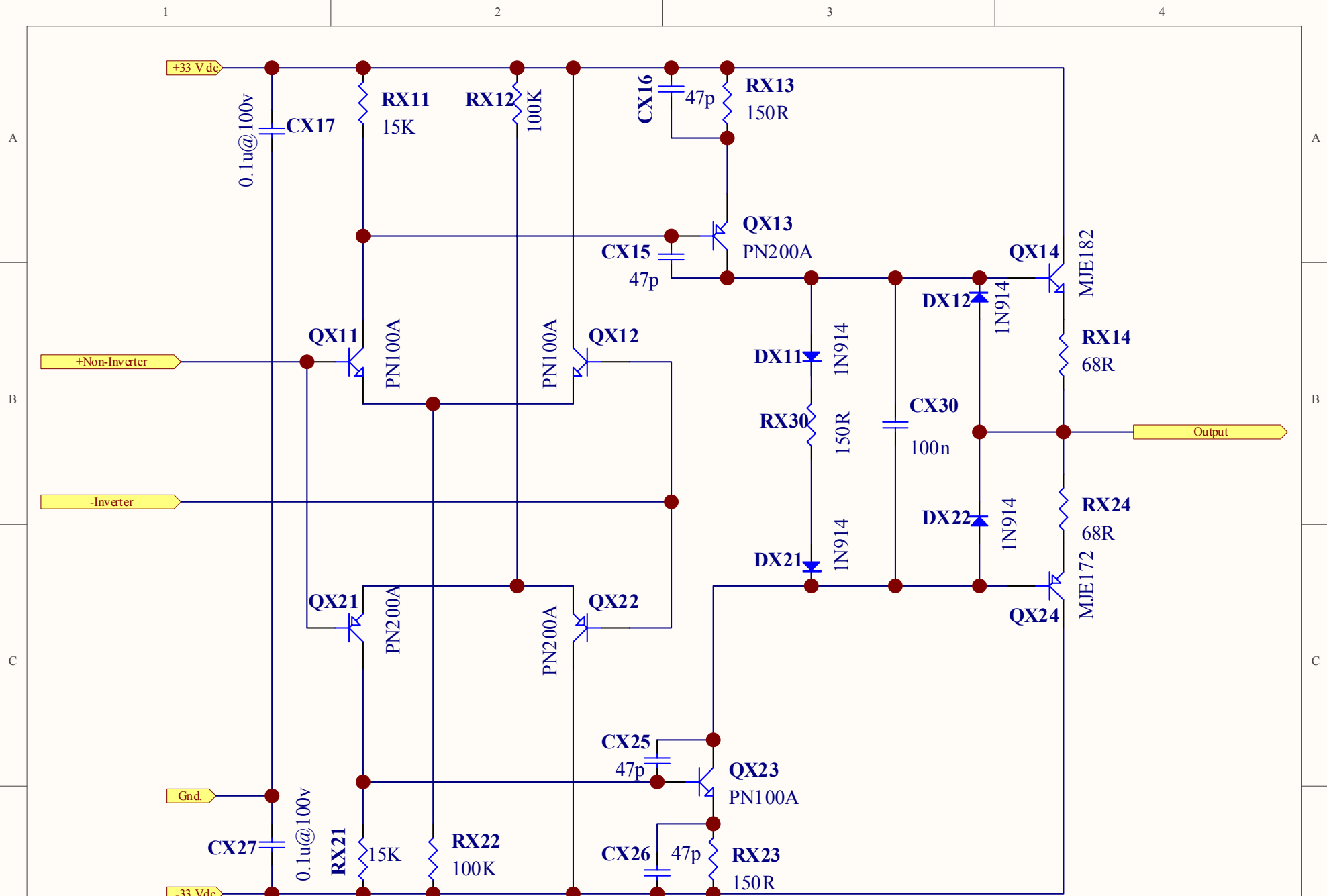
|  |                   |                  |  |
|--|-------------------|------------------|--|
| Title: DAUGHTER & REGULATOR BOARD FOR P250                 |                   |                  |  |
| Size: C  | Number: PAGE 7/13 | Revision: 2      |  |
| Date: 21-Nov-2002  | Sheet of: 13      | Drawn by: [Name] |  |
| File: G:\PowerPac\PP250\Present\Protel\General\Knapold\Brd |                   |                  |  |





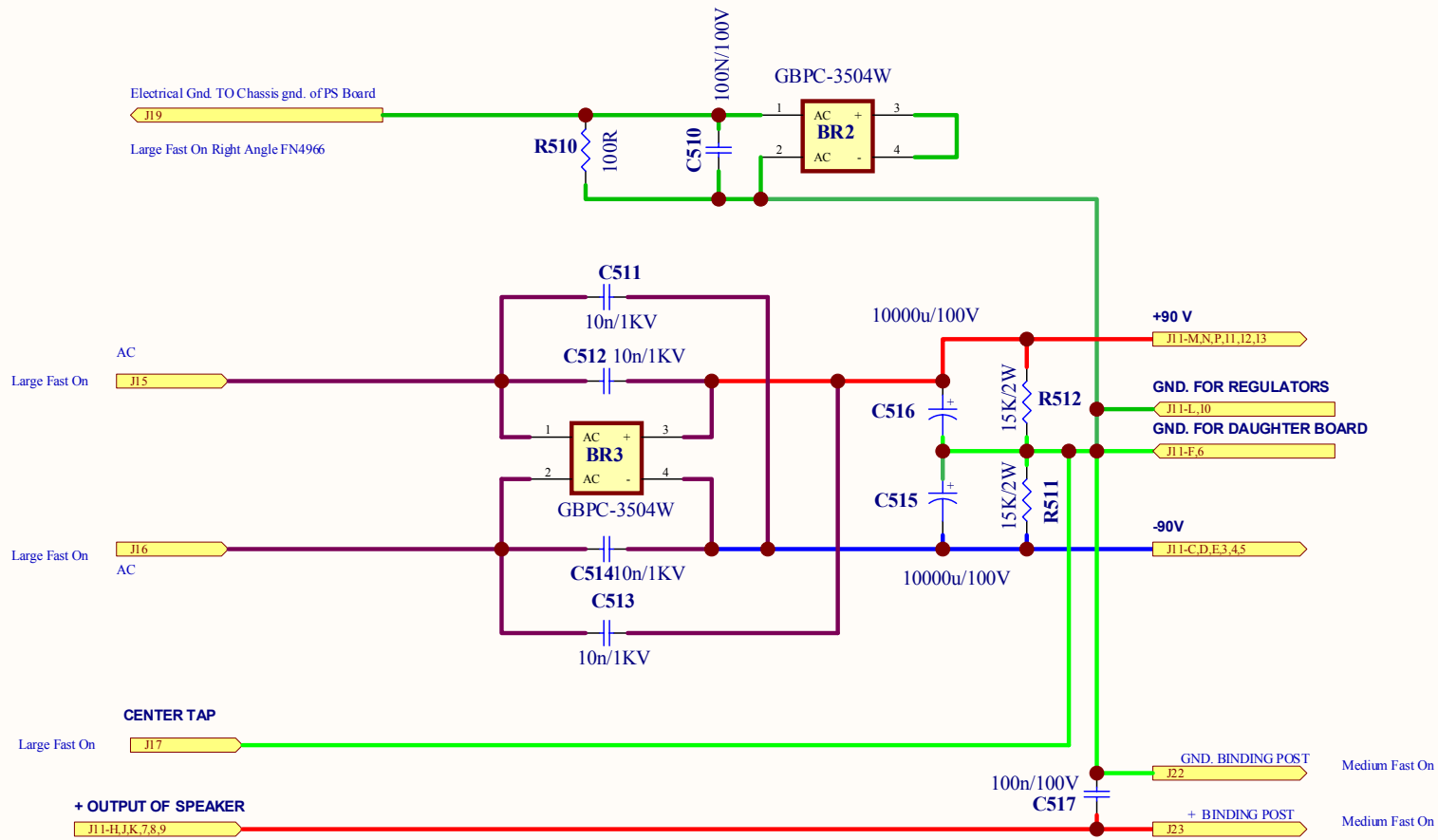
|                         |  |          |  |
|-------------------------|--|----------|--|
| Title                   |  |          |  |
| <b>P250-INLET BOARD</b> |  |          |  |
| Size                    | Number   | Revision |  |
| B                       | <b>PAGE 12/13</b>  | <b>2</b> |  |
| Date:                   | 29-Aug-2002  | Sheet of |  |
| File:                   | C:\PowerPac\PP250\Entire\Private\General\STR400-PP12.DWG |          |  |



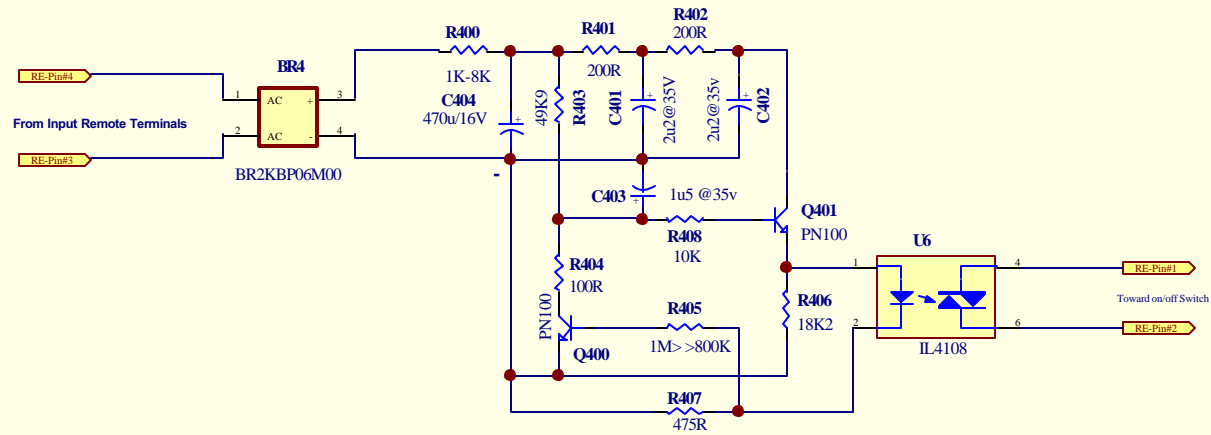


P 3/7/8 XX

|                               |                              |           |               |
|-------------------------------|------------------------------|-----------|---------------|
| Title DISCRETE OPAMP PP300-M2 |                              |           |               |
| Size<br>A                     | Number                       | PAGE 7/14 | Revision<br>1 |
| Date:                         | 2004-06-10                   | Sheet of  |               |
| File:                         | G:\PowerPac\...\OP-DOA68.SCH | Drawn By: | xq            |

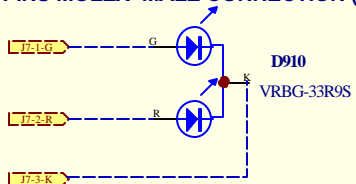


|                                |                     |           |           |
|--------------------------------|---------------------|-----------|-----------|
| Title                          |                     |           |           |
| <b>POWER SUPPLY BOARD P300</b> |                     |           |           |
| Size                           | Number              | Revision  |           |
| B                              | <b>PAGE 12/14</b>   | <b>1</b>  |           |
| Date:                          | 2004-06-10          | Sheet of  |           |
| File:                          | G:\PowerPac\PSB.sch | Drawn By: | <b>xy</b> |

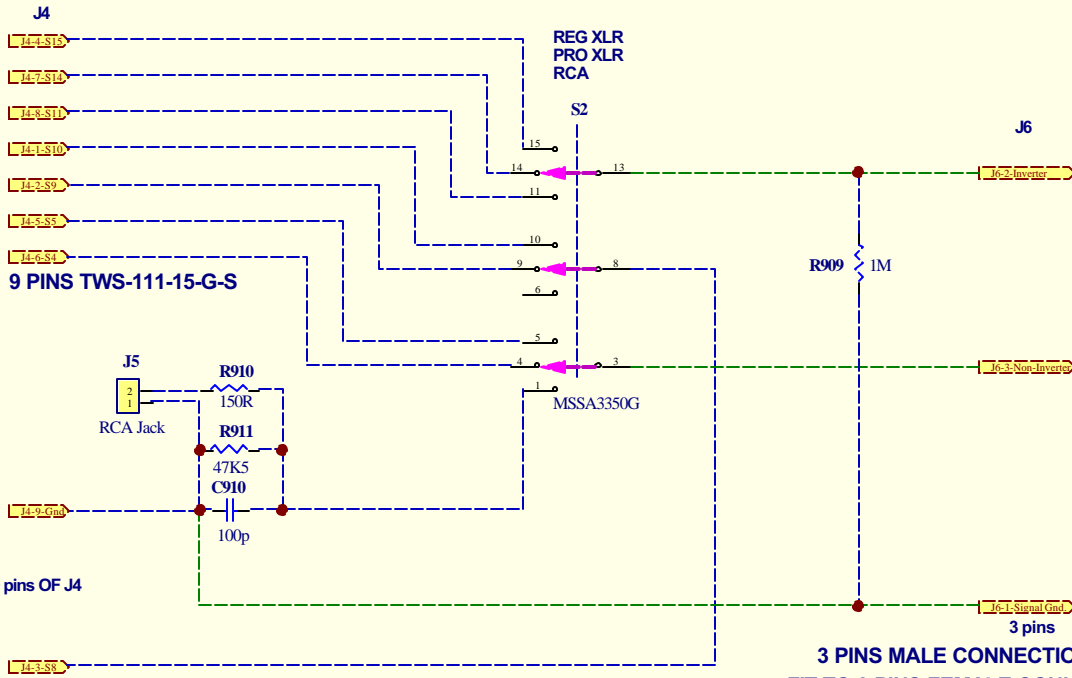


|                |   |          |  |
|----------------|---|----------|--|
| Title          |   |          |  |
| P250-REM BOARD |   |          |  |
| Size           | Number  | Revision |  |
| B              | PAGE 11/13  | 2        |  |
| Date:          | 29-AUG-2002   | Sheet of |  |
| File:          | C:\Proces\Pa\PP250\Estim\Private\General\Str4002R411.DR |          |  |

**3 PINS MOLEX MALE CONNECTION (70543-0107)**



J7 3 pins

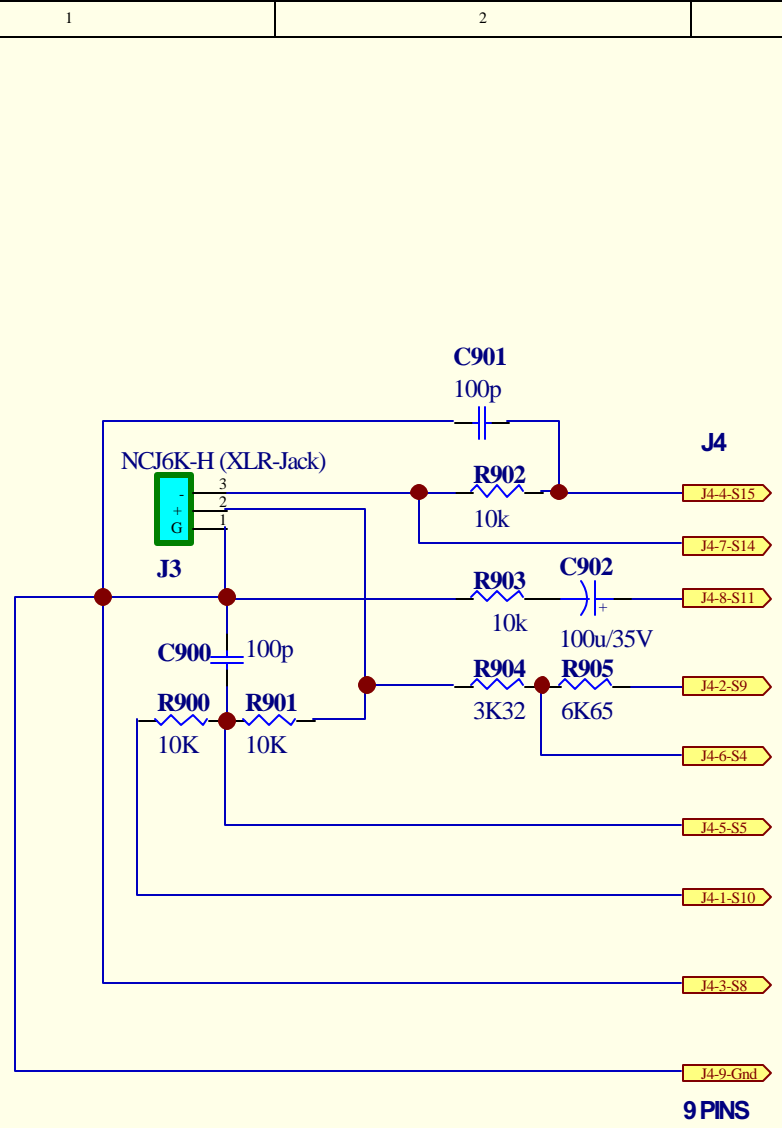


9 PINS TWS-111-15-G-S

9 pins OF J4

**3 PINS MALE CONNECTION (70543-0107)  
FIT TO 3 PINS FEMALE CONNECTION (50-57-9403)**

|   |                          |                             |
|---|--------------------------|-----------------------------|
| Title: <b>RCA-INPUT-SW-LED BOARD FOR P250</b>                     |                          |                             |
| Size: B   | Number: <b>PAGE 4/13</b> | Revision: <b>5 &amp; 10</b> |
| Date: 29-AUG-2002   | Sheet of                 |                             |
| File: C:\PowerPac\PP250\Estimate\Private\General\SR1400-REG-LED.B |                          |                             |

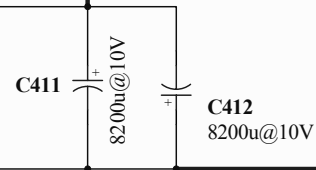
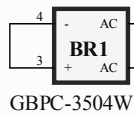


|                                 |   |          |
|---------------------------------|---|----------|
| Title                           |   |          |
| <b>INPUT XLR BOARD FOR P250</b> |   |          |
| Size                            | Number  | Revision |
| A                               | <b>PAGE 5/13</b>  | <b>2</b> |
| Date:                           | 29-Aug-2002   | Sheet of |
| File:                           | G:\PowerPac\PP250\Future\Protel\GeneralSch\106550R1.DDB |          |

INLET-SSAF-NEUTRAL LINE

J21  
Medium Fast on

AC GERMAN FILTER



INLET-SSAF J11#2  
Molex Double Pins Connector 705430001  
INLET-SSAF J11#1

D400 1N4004

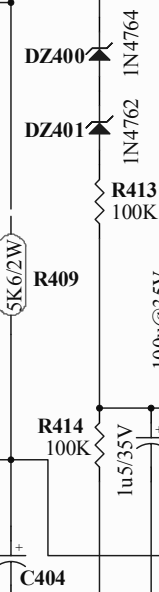
DZ400=0R FOR 120v  
DZ401=1N4764 FOR 230v

R409 & R410 & R411 ARE ONLY FOR 230V

R410 3K6/2W  
R411 3K6/2W  
R412 3K6/2W

R412 3K6/2W

DZ402 1N4752



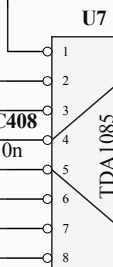
C406 100u@35V

C407 100u@35V

R417 267R

R418 200K

R416 1K5 for 120V or 3K for 240V /2W



C408 10n

C409 100u@35V

DZ403 1N4741

D403 1N914

R420 301K

R421 267K

R422 475K

R423 475R

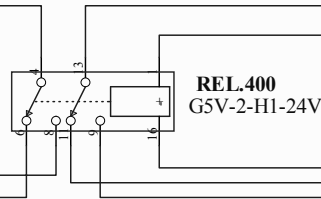
R424 49R9

D404 1N4004

DZ404 1N4733

Q402 PN100A

C410 50n

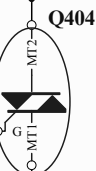


D406 1N4004

R427 5K6/2W  
R428 3K6/2W

JUMPER FOR 120V ONLY

MAC223A10



100R-GS3-3W

R417 100R-GS3-3W

C407 0.22u/250V

D405 1N4004

R430 12K/2W

R429 12K/2W

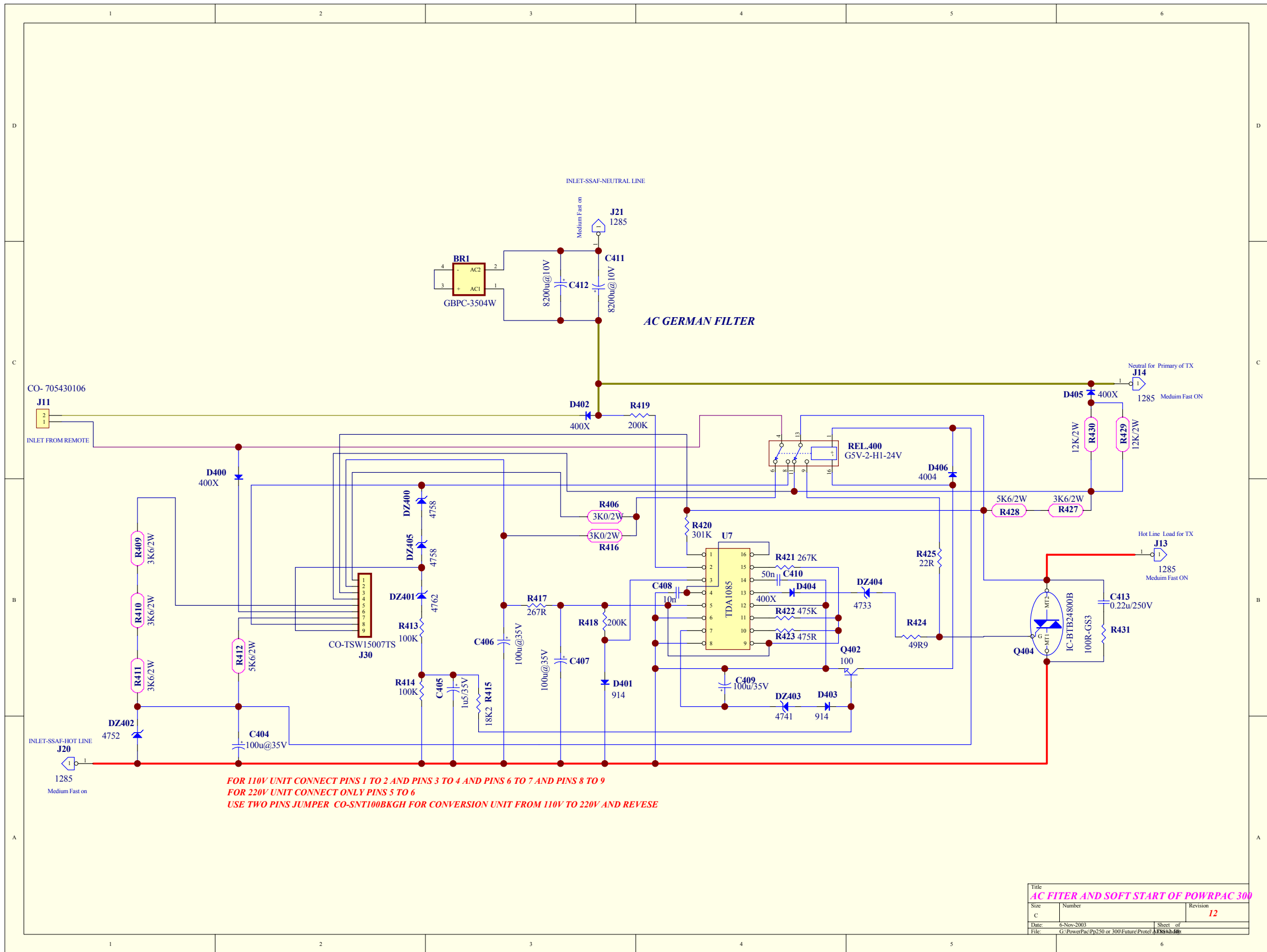
J13  
Hot Line Load for TX  
Medium Fast ON

J14  
Neutral for Primary of TX  
Medium Fast ON

INLET-SSAF-HOT LINE  
J20  
Medium Fast on

|  |  |                            |                      |
|--|--|----------------------------|----------------------|
| Title <b>P250- SOFT START AC FITER BOARD</b> |  |                            |                      |
| Size<br>B                                    | Number<br><b>DESIGNED BY: ETHAN PAGE 13/13</b> | Revision <b>2 &amp; 11</b> |                      |
| Date:<br>2004-07-30                          | Sheet of                                       |                            | DEVELOPED BY: FARZAD |
| File:<br>G:\PowerPac\..P250-SSAF-R2.sch      | Sheet of                                       | Drawn By: <b>FR</b>        | xq                   |





**FOR 110V UNIT CONNECT PINS 1 TO 2 AND PINS 3 TO 4 AND PINS 6 TO 7 AND PINS 8 TO 9  
 FOR 220V UNIT CONNECT ONLY PINS 5 TO 6  
 USE TWO PINS JUMPER CO-SNT100BKGH FOR CONVERSION UNIT FROM 110V TO 220V AND REVERSE**

|   |  |           |
|---|--|-----------|
| Title   |  |           |
| <b>AC FILTER AND SOFT START OF POWPAC 300</b> |  |           |
| Size  | Number                                 | Revision  |
| C   |  | <b>12</b> |
| Date  | 6-Nov-2003                             | Sheet of  |
| File  | G:\PowerPac\Pr250 or 300\Future\Protel | 12        |