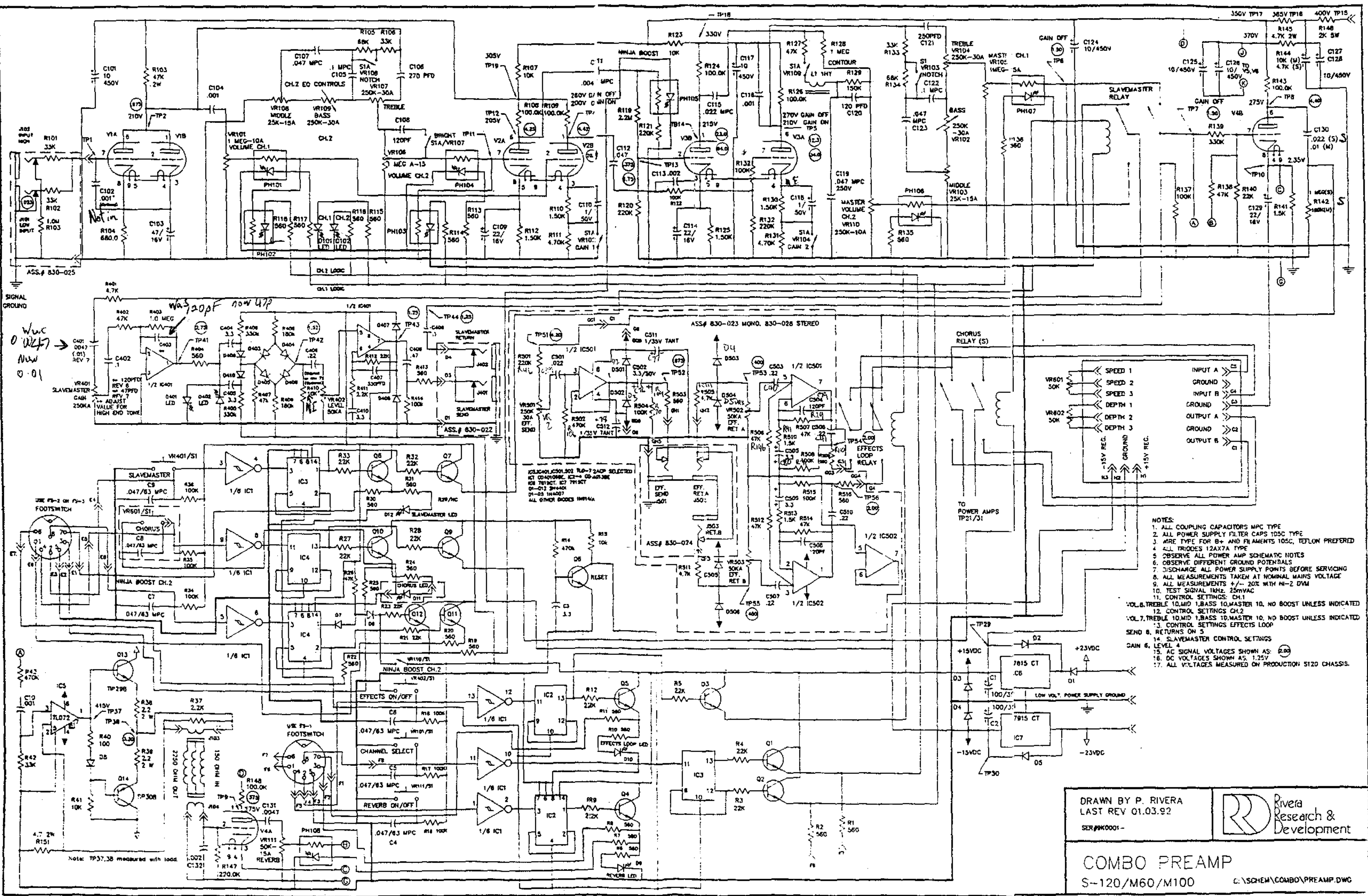


See Combo Preamp.

- © NEMKO/CB VERSIONS
- NOTES:
1. ALL COUPLING CAPACITORS MPC TYPE
  2. ALL POWER SUPPLY FILTER CAPS 105C TYPE
  3. WIRE TYPE FOR B+ AND FILAMENTS 105C, TEFLON PREFERRED
  4. ALL TRIODES 12AX7A TYPE
  5. ALL POWER TUBES SHOULD BE REPLACED IN TESTED PAIR:
  6. OBSERVE DIFFERENT GROUND POTENTIALS
  7. DISCHARGE ALL POWER SUPPLY POINTS BEFORE SERVICING
  8. ALL MEASUREMENTS TAKEN AT NOMINAL MAINS VOLTAGE
  9. ALL MEASUREMENTS +10% -20%
  10. TEST SIGNAL 1kHz, 25 mVAC AT PREAMP INPUT  
SET GAIN-10, TRE-10, MID-1, BASS-10, MAS-1
  11. ADJUST PREAMP FOR 2 VOLTS AC AT TP31/21
  12. SET PRESENCE CONTROL AT 1
  13. TP41 BIAS ADJUST -37VDC EL-34, -47 6L6CC, -52 6550A
  14. NEVER USE CHINESE OUTPUT TUBES, MECHANICALLY UNSTABLE

DRAWN BY YUKI  
 LAST REV: 11.18.93  
 REV: 3

KNUCKLEHEAD  
 GUITAR AMPLIFIER

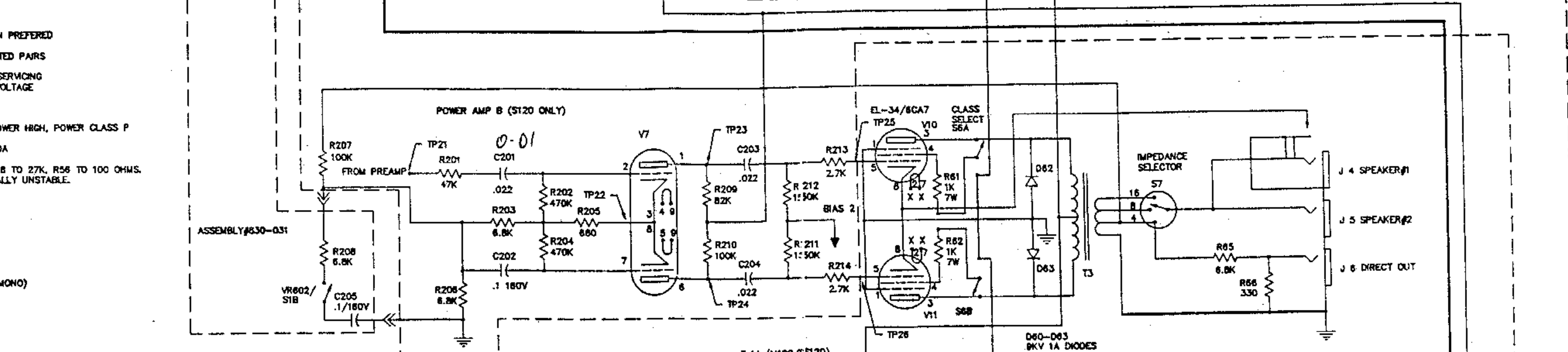
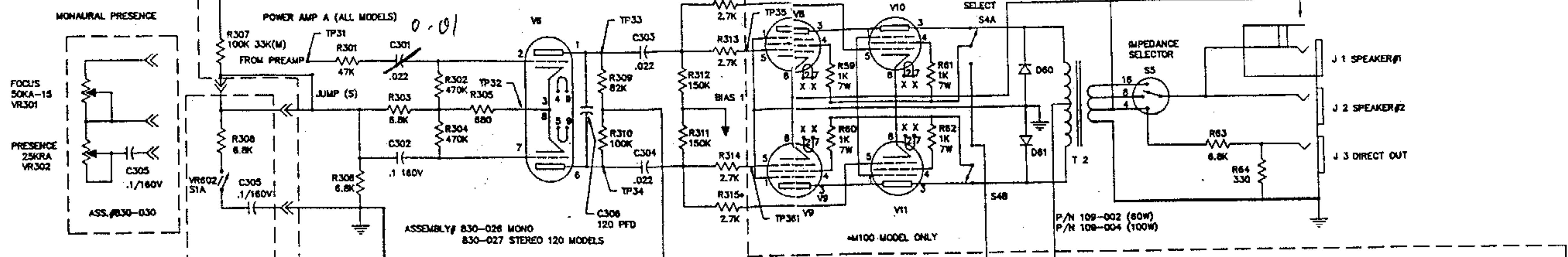


- NOTES:
1. ALL COUPLING CAPACITORS MPC TYPE
  2. ALL POWER SUPPLY FILTER CAPS 10SC TYPE
  3. WRE TYPE FOR B+ AND FILAMENTS 10SC, TEFLOX PREFERRED
  4. ALL TRIODES 12AX7A TYPE
  5. OBSERVE ALL POWER AMP SCHEMATIC NOTES
  6. OBSERVE DIFFERENT GROUND POTENTIALS
  7. DISCHARGE ALL POWER SUPPLY POINTS BEFORE SERVICING
  8. ALL MEASUREMENTS TAKEN AT NOMINAL MAINS VOLTAGE
  9. ALL MEASUREMENTS +/- 20K WITH HI-Z DVM
  10. TEST SIGNAL 1KHZ, 25mVAC
  11. CONTROL SETTINGS: CH.1
  12. CONTROL SETTINGS CH.2
  13. CONTROL SETTINGS EFFECTS LOOP
  14. SLAVEMASTER CONTROL SETTINGS
  15. AC SIGNAL VOLTAGES SHOWN AS: E.00
  16. DC VOLTAGES SHOWN AS: 1.25V
  17. ALL VOLTAGES MEASURED ON PRODUCTION 5120 CHASSIS.

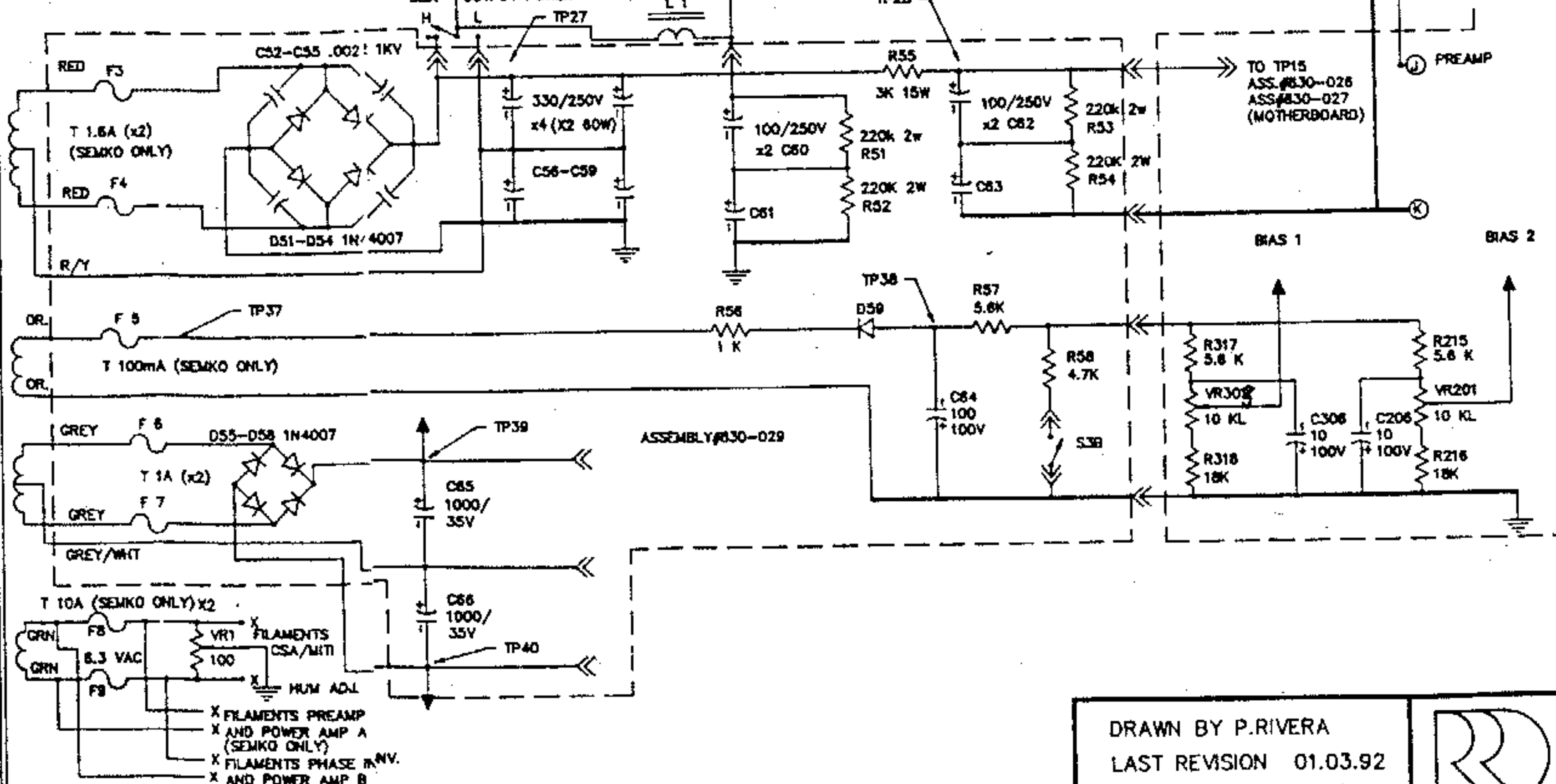
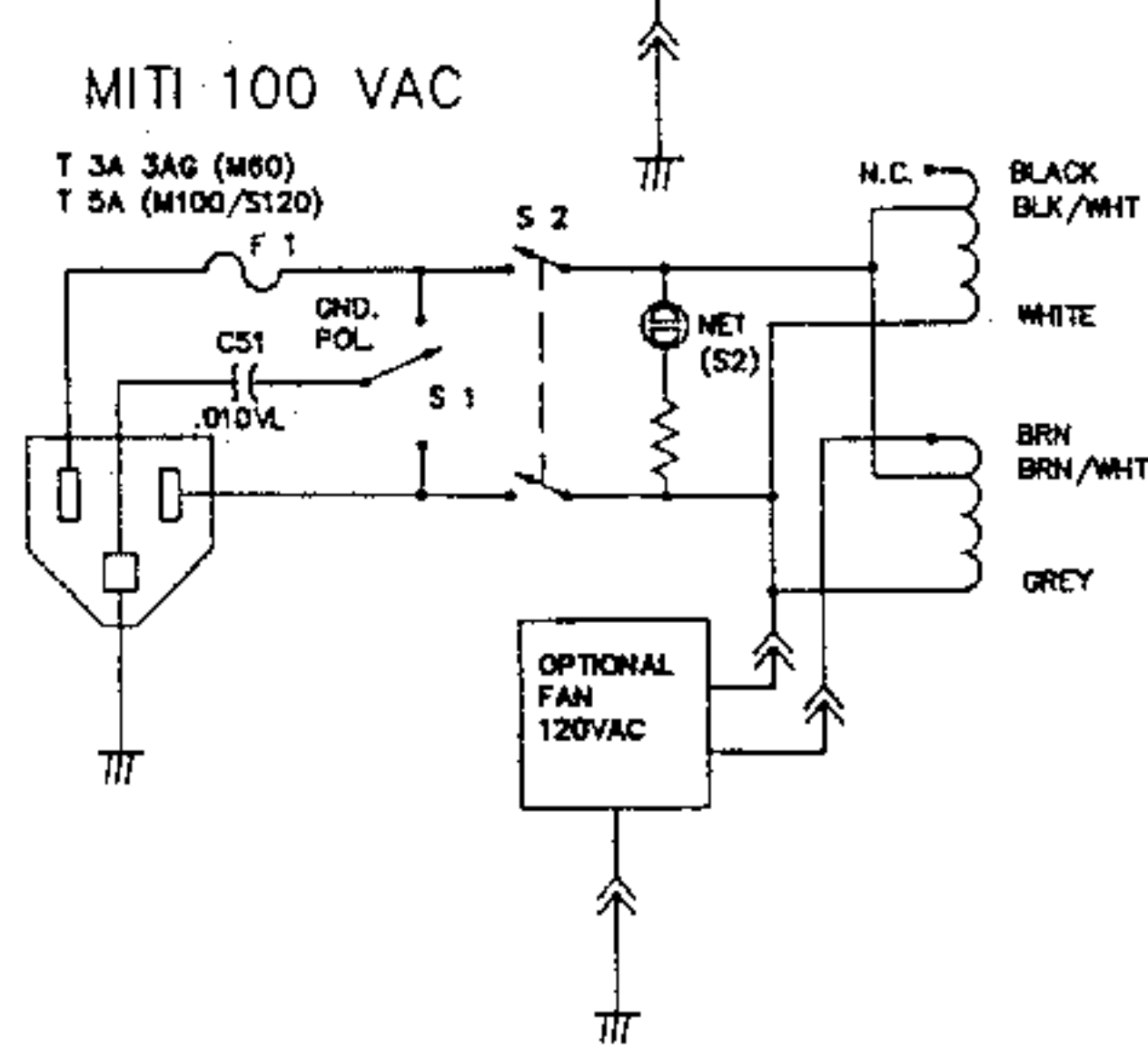
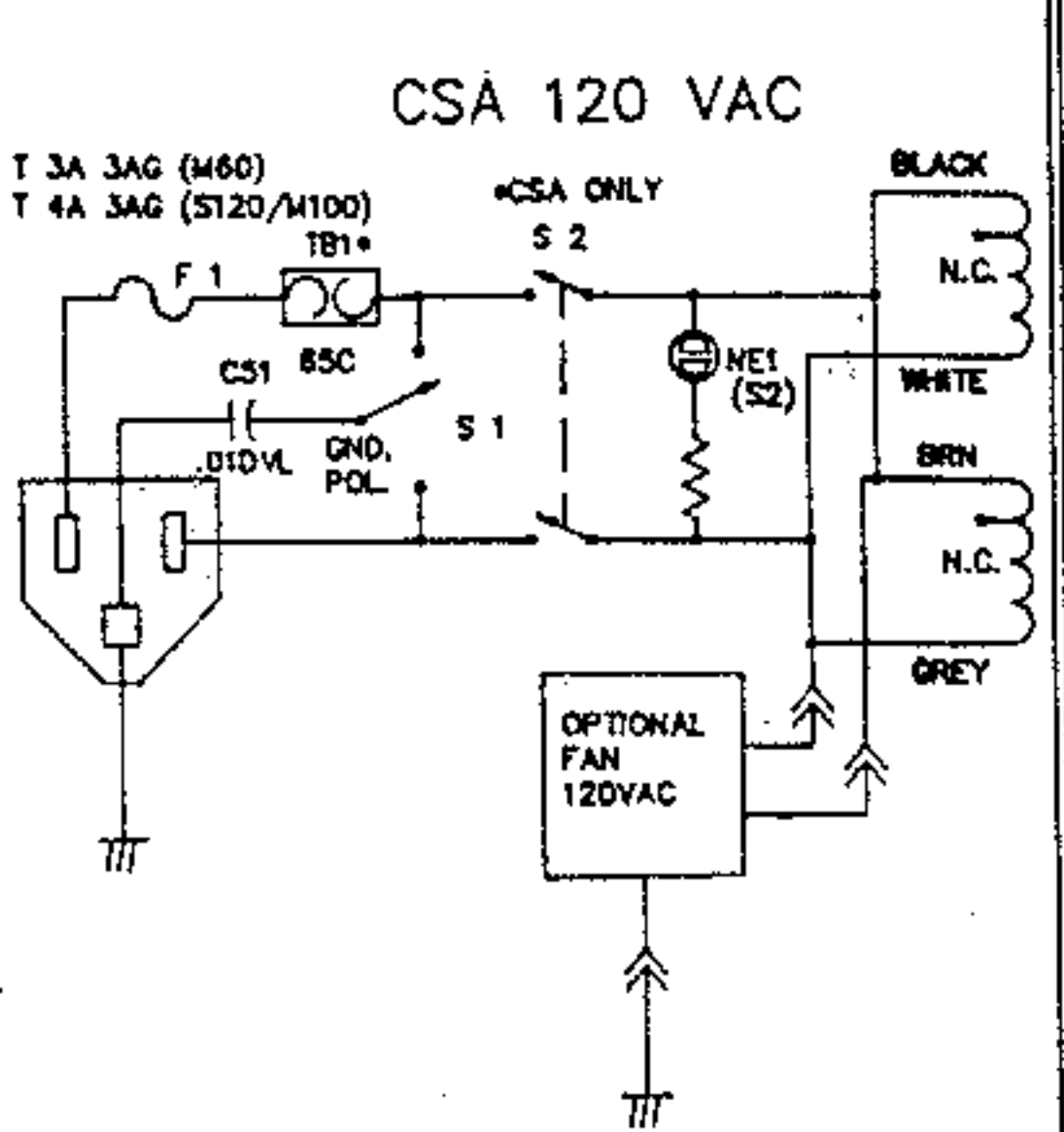
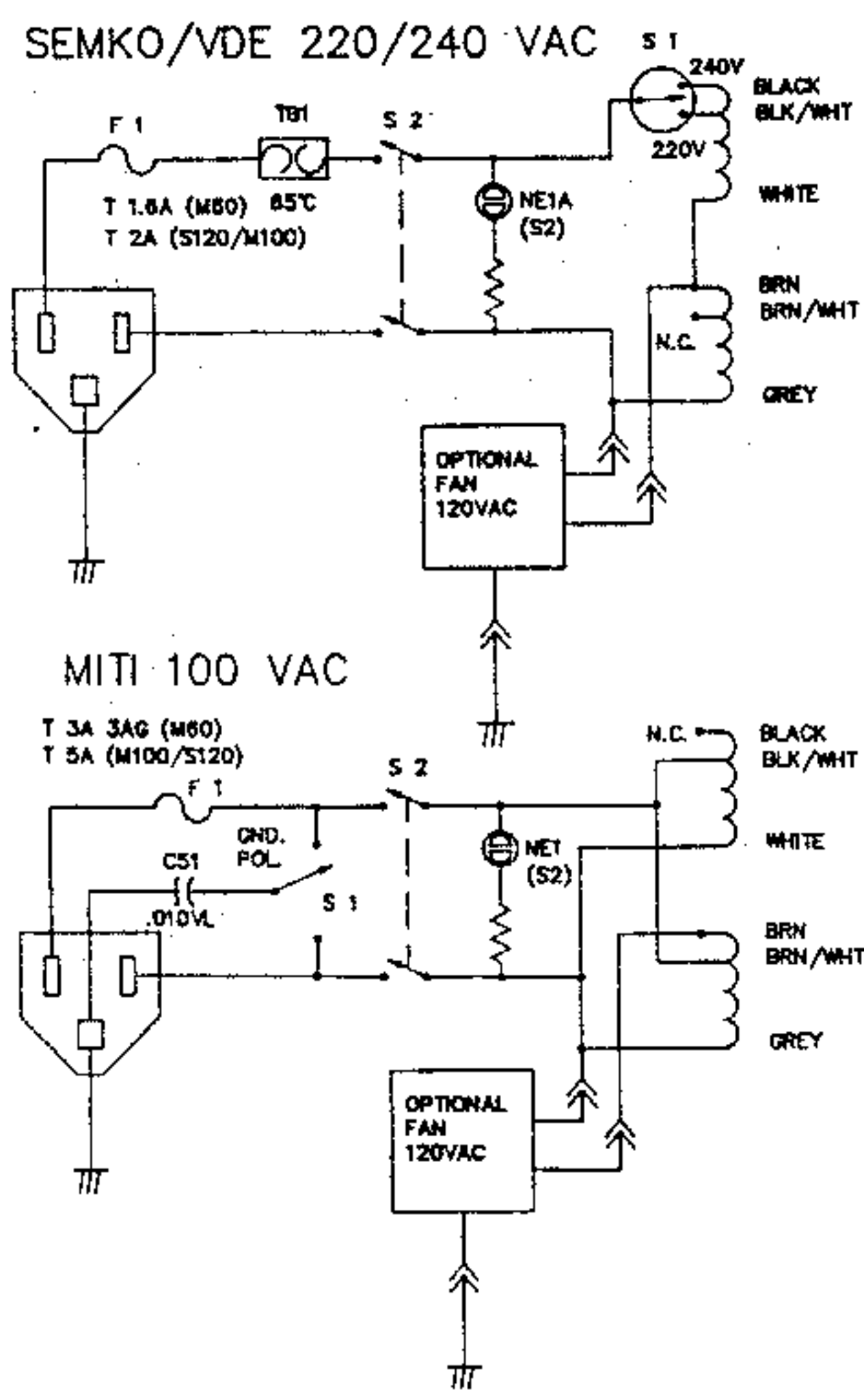
DRAWN BY P. RIVERA  
 LAST REV 01.03.92  
 SER#9K0001-



COMBO PREAMP  
 S-120/M60/M100  
 C:\SCHEM\COMBO\PREAMP.DWG



- NOTES:
1. ALL COUPLING CAPACITORS MPC TYPE
  2. ALL POWER SUPPLY FILTER CAPS 105C TYPE
  3. WIRE TYPE FOR B+ AND FILAMENTS 105C, TEFLON PREFERRED
  4. ALL TRIODES 12AX7A TYPE
  5. ALL POWER TUBES SHOULD BE REPLACED IN TESTED PAIRS
  6. OBSERVE DIFFERENT GROUND POTENTIALS
  7. DISCHARGE ALL POWER SUPPLY POINTS BEFORE SERVICING
  8. ALL MEASUREMENTS TAKEN AT NOMINAL MAINS VOLTAGE
  9. ALL MEASUREMENTS  $\pm$  20%
  10. TEST SIGNAL 1KHZ, 25 mVAC AT PREAMP INPUT
  11. ADJUST PREAMP FOR 2 VOLTS AC AT TP31/21
  12. SET IMPEDANCE 8 OHM (OR CORRECT LOAD), POWER HIGH, POWER CLASS P
  13. SET FOCUS AND PRESENCE CONTROLS AT 1
  14. BIAS: -37VDC EL-34, -47 8L6GC, -52VDC 6550A
  15. TO USE 6550A IN MONO, CHANGE R318 TO 27K
  16. TO USE 6550A OR 6L6GC IN S120, CHANGE R318 TO 27K, R56 TO 100 OHMS.
  17. NEVER USE CHINESE OUTPUT TUBES, MECHANICALLY UNSTABLE.
- TEST POINT AC SIG.VOLT. DC VOLT.
- |           |      |                         |
|-----------|------|-------------------------|
| TP21/TP31 | 2.0V | 0                       |
| TP22/TP32 | 1.5V | 28V                     |
| TP23/TP33 | 21V  | 240V                    |
| TP24/TP34 | 21V  | 240V                    |
| TP25/TP35 | 21V  | -BIAS                   |
| TP26/TP36 | 21V  | -BIAS                   |
| TP27      | 0    | 400V (430V RDL)         |
| TP28      | 0    | 370V (S120) 365V (MONO) |
| TP37      | 60   | 0                       |
| TP38      | 0    | -63V                    |
| TP39      | 0    | 23V                     |
| TP40      | 0    | -23V                    |



T1 109-001 (CSA/VDE/MITI), 109-006 (SEMKO)

DRAWN BY P.RIVERA  
 LAST REVISION 01.03.92  
 FROM SER#0A0001M/S

POWER SUPPLY/POWER AMP  
 M60/M100/S120 MODELS