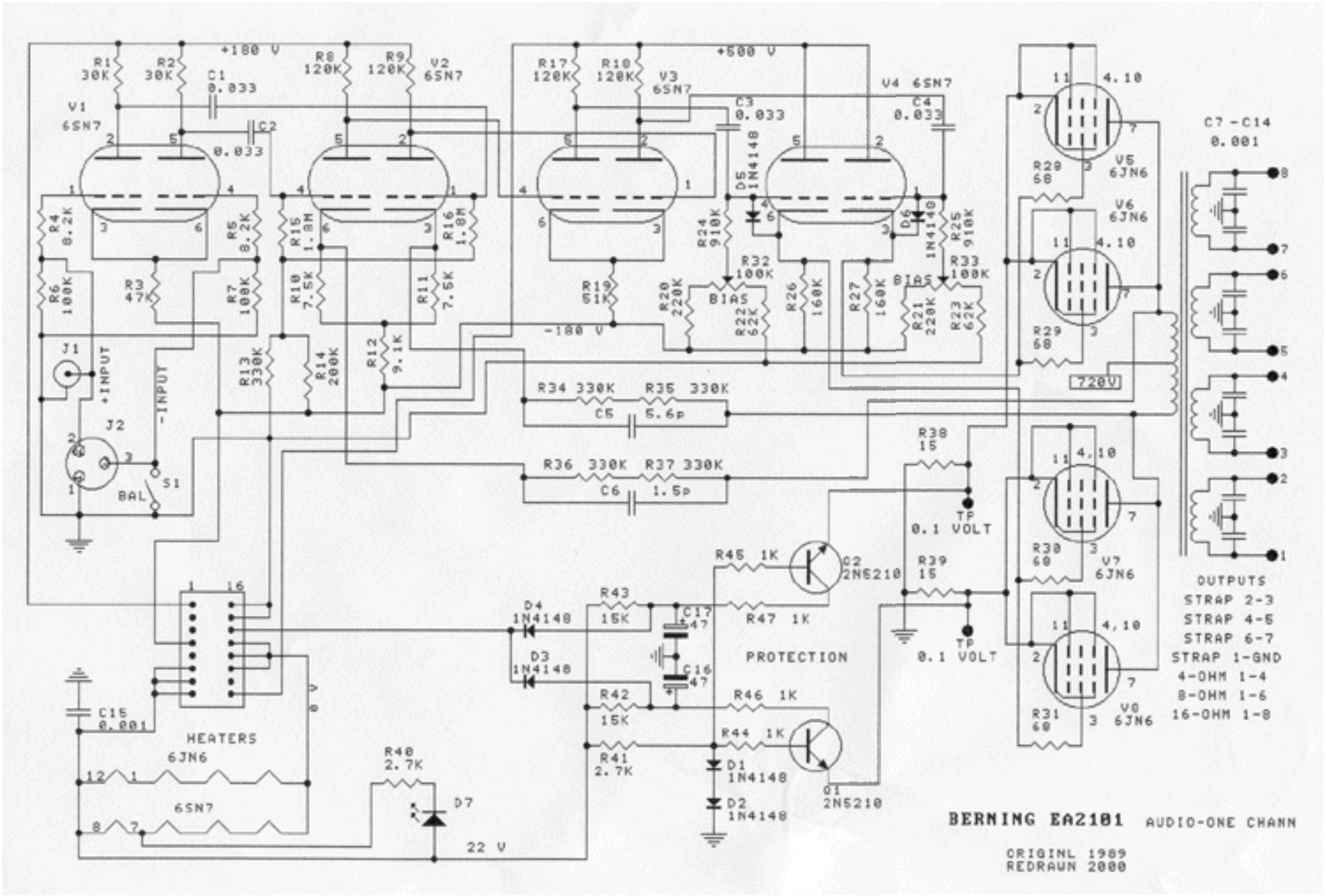
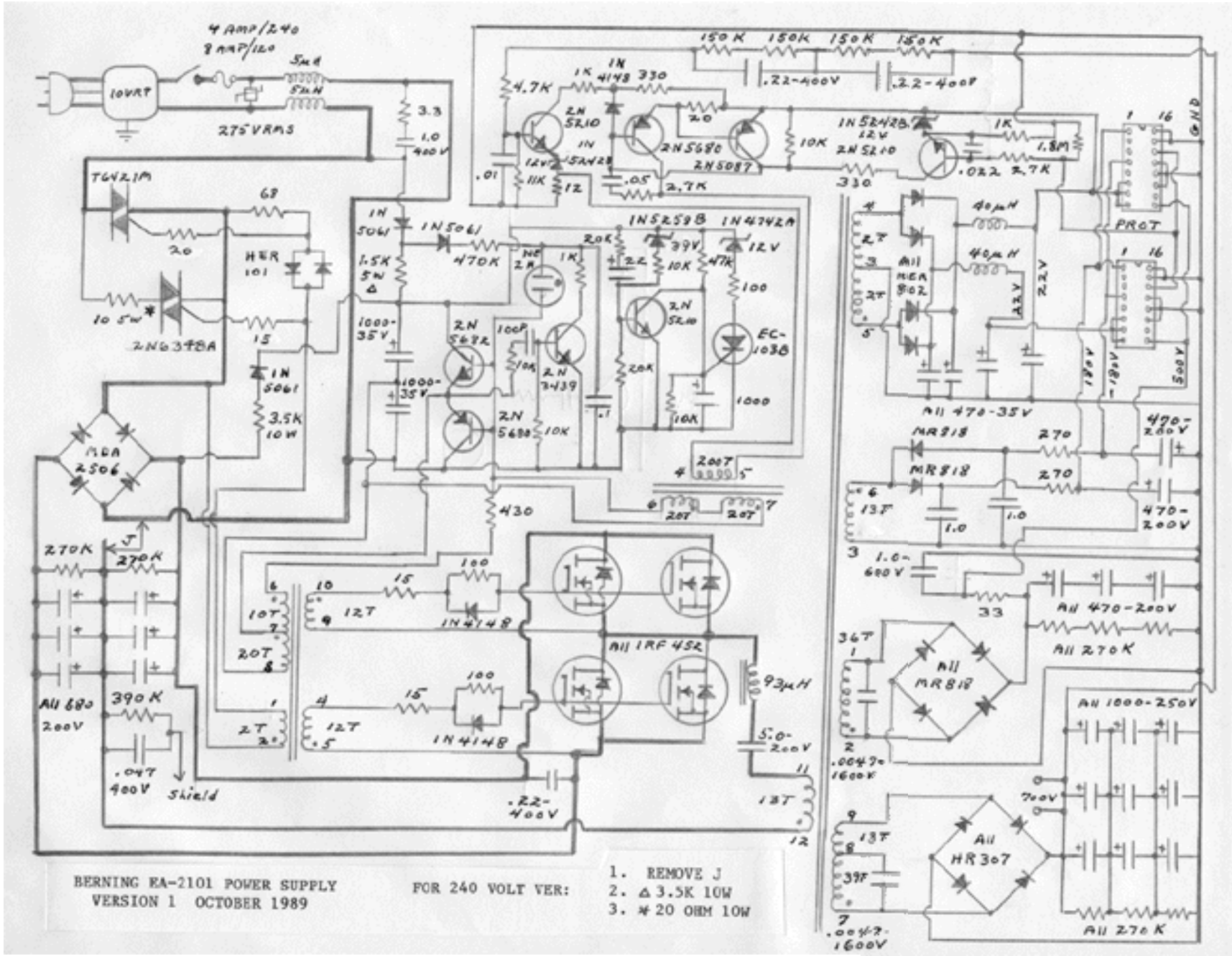
EA-2101

The failure prone parts in the EA-2101 are the four 150K resistors in the feedback sensing. Early versions used carbon film resistors that tended to increase in value, or go open completely, causing the output voltage of the power supply to increase until something else failed. Later versions of the amp used 1 W metal film resistors which have not shown failures. Any amps that have been returned to Berning for any kind of service have had these resistors changed. When this amp is serviced, the 700 volt output of the power supply should be checked. If it is high, more than 720 volts, these resistors should be checked.

Related failures caused by over voltage are the capacitor bank, voltage-equalizing resistors, and the HR307 diodes.

Bias measurements can be made by measuring across the 15 ohm resistors that are mounted along the front edge of the audio boards. These can be accessed via holes in the bottom of the chassis, and the correct voltage is 100mV. This amplifier should be able to deliver at least 100 watts per channel.


+180 V
+500 V
-180 V
V1 6SN7
V2 6SN7
V3 6SN7
V4 6SN7
V5 6JN6
V6 6JN6
V7 6JN6
V8 6JN6
R1 30K
R2 30K
C1 0.033
C2 0.033
R8 120K
R9 120K
R17 120K
R10 120K
C3 0.033
C4 0.033
R4 8.2K
R5 8.2K
R6 100K
R3 47K
R7 100K
R15 1.8M
R16 1.8M
R10 7.5K
R11 7.5K
R12 9.1K
R13 330K
R14 200K
R19 51K
R24 910K
R25 910K
D5 1N4148
D6 1N4148
R32 100K
R33 100K
BIAS
R20 220K
R22 62K
R26 160K
R27 160K
R21 220K
R23 62K
R28 68
R29 68
R30 68
R31 68
720V
J1
+INPUT
-INPUT
J2
S1
BAL
R34 330K
R35 330K
C5 5.6p
R36 330K
R37 330K
C6 1.5p
R38 15
R39 15
TP 0.1 VOLT
TP 0.1 VOLT
R45 1K
Q2 2N5210
R43 15K
R47 1K
D4 1N4148
D3 1N4148
C17 47
C16 47
PROTECTION
R42 15K
R46 1K
R44 1K
R41 2.7K
D1 1N4148
D2 1N4148
Q1 2N5210
C15 0.001
HEATERS
6JN6
6SN7
R40 2.7K
D7
22 V
0 V
C7 - C14 0.001
OUTPUTS
STRAP 2-3
STRAP 4-5
STRAP 6-7
STRAP 1-GND
4-OHM 1-4
8-OHM 1-6
16-OHM 1-8
BERNING EA2101 AUDIO-ONE CHANN
ORIGINL 1989
REDRAWN 2000



BERNING EA-2101 POWER SUPPLY
VERSION 1 OCTOBER 1989

FOR 240 VOLT VER:

1. REMOVE J
2. Δ 3.5K 10W
3. * 20 OHM 10W