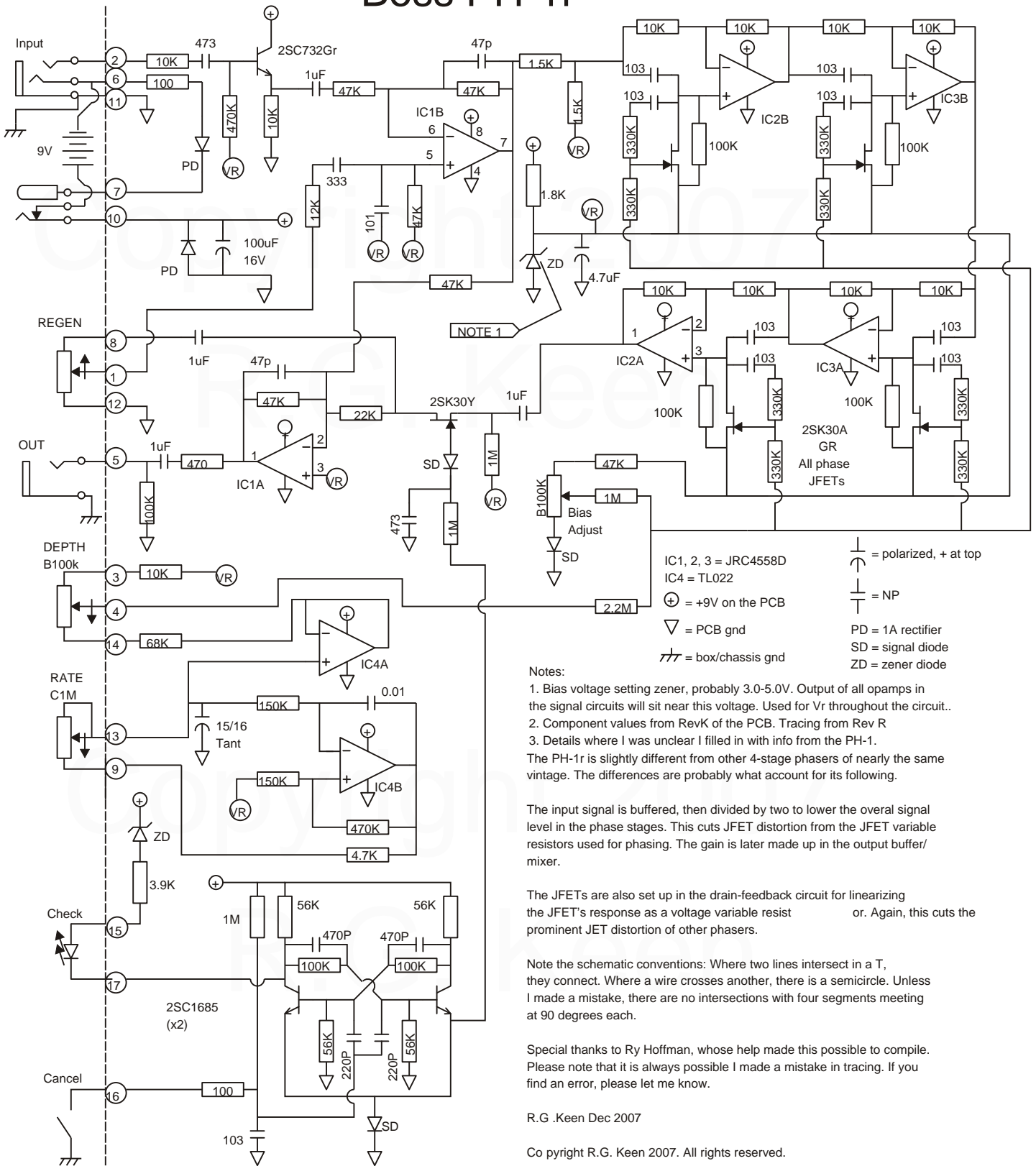


Boss PH-1r



IC1, 2, 3 = JRC4558D
 IC4 = TL022
 ⊕ = +9V on the PCB
 ▽ = PCB gnd
 ⏏ = box/chassis gnd
 ⊕ = polarized, + at top
 ⊖ = NP
 PD = 1A rectifier
 SD = signal diode
 ZD = zener diode

Notes:
 1. Bias voltage setting zener, probably 3.0-5.0V. Output of all opamps in the signal circuits will sit near this voltage. Used for Vr throughout the circuit.
 2. Component values from RevK of the PCB. Tracing from Rev R
 3. Details where I was unclear I filled in with info from the PH-1.
 The PH-1r is slightly different from other 4-stage phasers of nearly the same vintage. The differences are probably what account for its following.

The input signal is buffered, then divided by two to lower the overall signal level in the phase stages. This cuts JFET distortion from the JFET variable resistors used for phasing. The gain is later made up in the output buffer/mixer.

The JFETs are also set up in the drain-feedback circuit for linearizing the JFET's response as a voltage variable resist or. Again, this cuts the prominent JET distortion of other phasers.

Note the schematic conventions: Where two lines intersect in a T, they connect. Where a wire crosses another, there is a semicircle. Unless I made a mistake, there are no intersections with four segments meeting at 90 degrees each.

Special thanks to Ry Hoffman, whose help made this possible to compile. Please note that it is always possible I made a mistake in tracing. If you find an error, please let me know.

R.G .Keen Dec 2007

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