

# "KIT LIST -" P65A

[BASIC DESIGN BY ARP-AL Pearlman, some modifications by RAP]

- This is the definition for the transistors in a P65-type Device

Written from MEMORY RAPear  
Nov 2006

Q1 & Q2, Matched Pair SM1010 (2N930-type)

high Beta.  $V_{be}$  matched  $< 1mV$  in BWS  
 $\beta$  matched  $< 1dB$  in BWS

P65A, PP65A,  $\beta = 100 \text{ min}$   
P55A, PP55A,  $\beta = 50 \text{ min}$

SELECT HIGH MEGOHM RESISTORS included in envelope with Transistors per BETA  
EXAMPLE,  $\beta = 100, R = 43M$

Q103 & Q104, Matched Pair SM0387 (2N760-type)

$\beta$  matched  $\pm 1dB$   
- the "SELECT" resistor in series with Q103 is kitted in the envelope

P65A, PP65A,  $\beta = 100 \text{ min}$  [Better gain hold up vs. temp.]  
P55A, PP55A,  $\beta = 50 \text{ min}$

Q5 - 2N2907-type (SM1016)  
 $\beta = 50 \text{ min}$  (P65)  
 $\beta = 30 \text{ min}$  (P55)

Q5 - SM0387 (2N760 type)  $\beta = 100 \text{ min}$  (P65)  
 $\beta = 50 \text{ min}$  (P55) OR - ANY!!

# TRANSISTOR KITS & SELECTION

## — OTHER MODELS

— P65 (NOT A) — ORIGINAL ARP DESIGN

Q101, 102, 103, 104, same as P65A

Q5, 2N1132-type  $\beta < 20$

DESIGN BY ARP change  $R = 750\Omega$  at Q6E to 1.5K, (Rated output  $\pm 1.1mA$ )

P, PP65AH — change 270pf at Q5B to 27pf,

— R-C damper at Q103/104 bases .001  
43.3K  $\mu$ F

DESIGN BY RAPESE

PP65Q — change Q103, 104  $R_E$  to 220K to B Q6,

change 4.3K  $R_B$  to 30K (to -V<sub>S</sub>)

change 750 $\Omega$   $R_{EQ6}$  to 6.2K?

change Q5  $R_B$  to 12K

change Q5C to 27pF

DESIGN BY RAPESE

"U" versions of P65 use TI Silicone Plastic

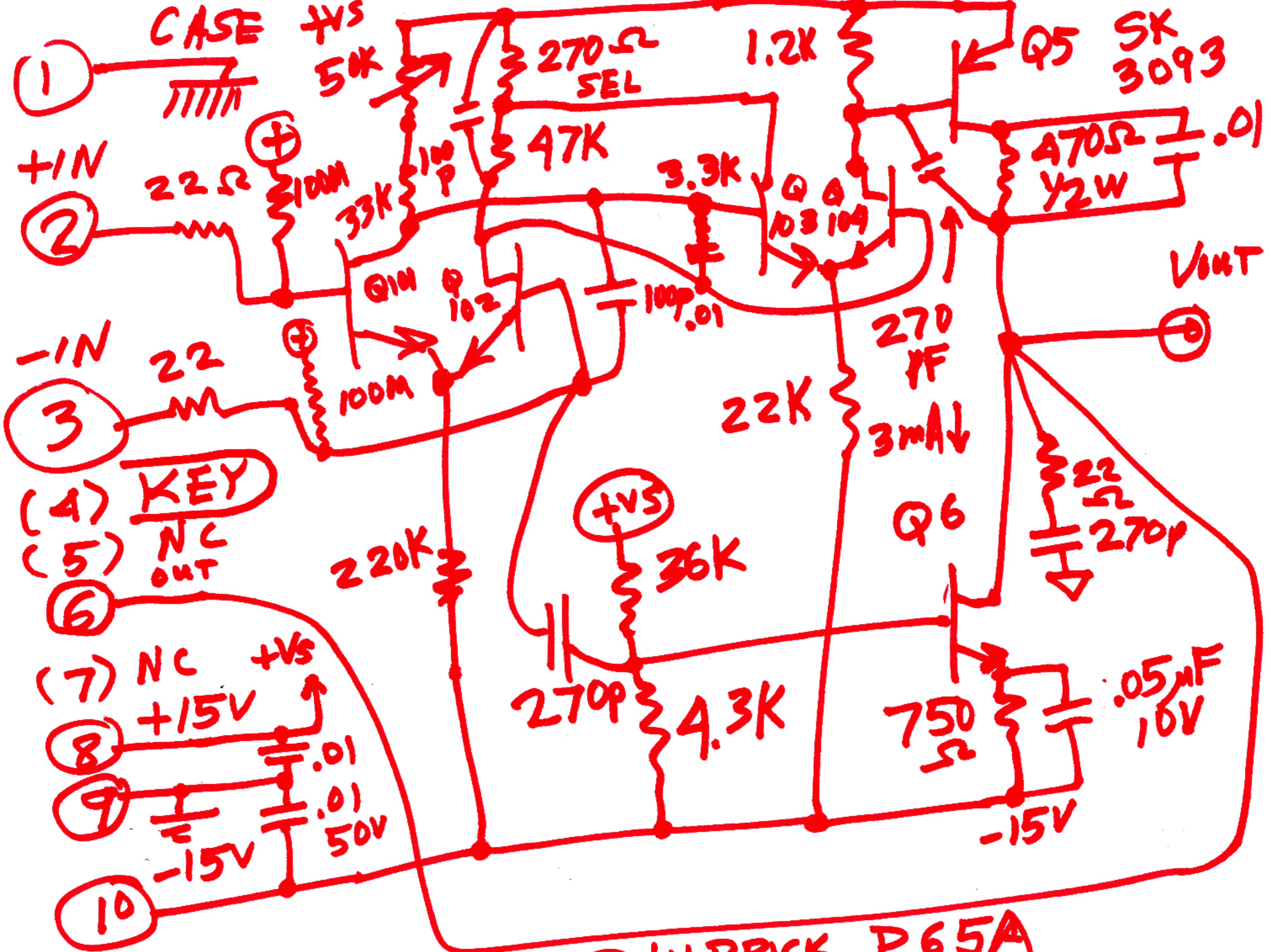
versions of the same chips, SM1016  $\rightarrow$  SK3093 PNP

SM1010  $\rightarrow$  2N3707 PLANAR

SM0387  $\rightarrow$  2N3707 planar

FOR P75, Q101 = Darlington  
Q102 = " "

Matched Pair  
Design by ARP



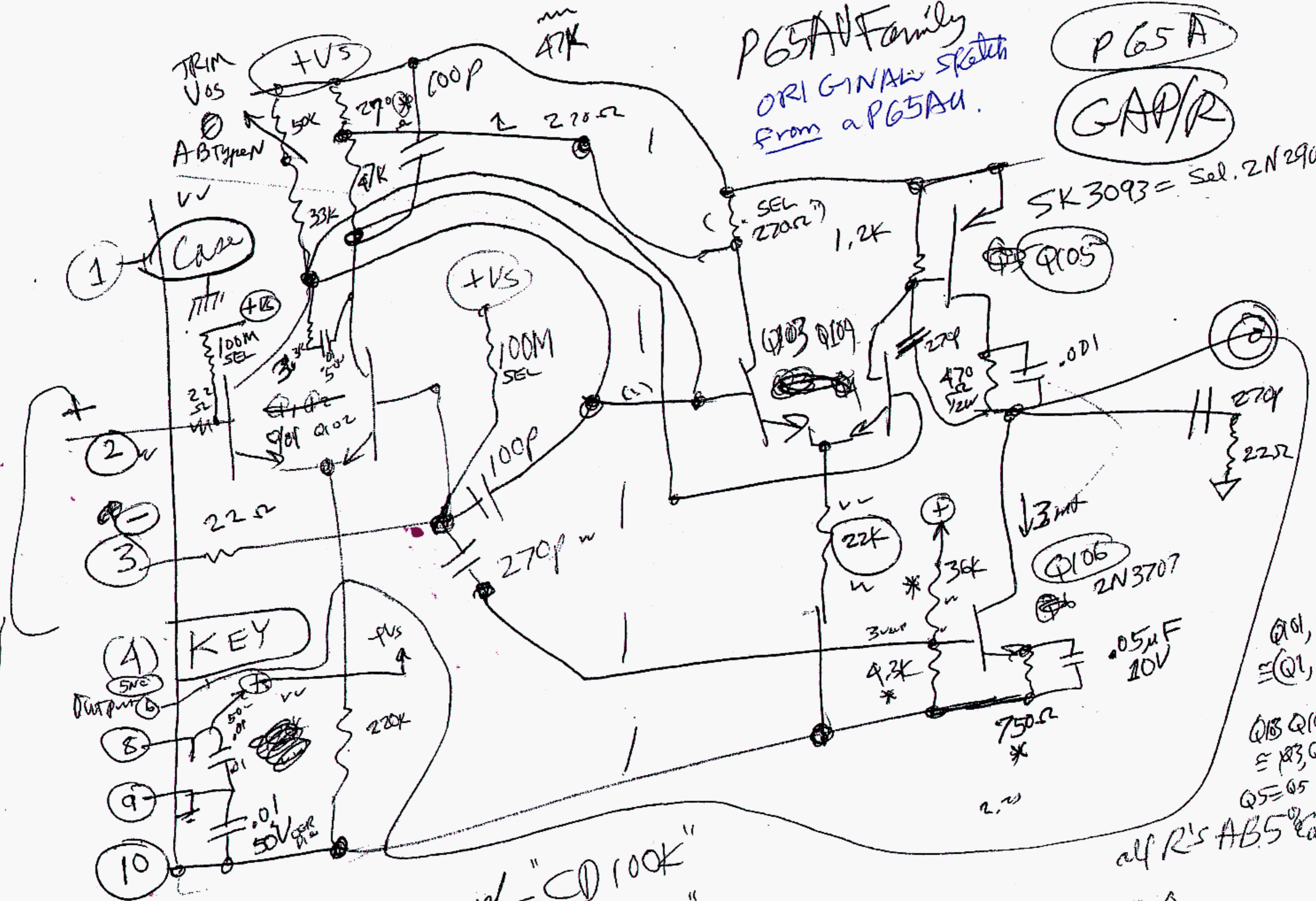
PHILBRICK P65A

Drawn RA Pease Nov. 2006 ALL R'S ±5% 1/4W A-B Carbon

P65A Family  
ORIGINAL sketch  
From a P65AU.

P65A  
GAP/R

SK 3093 = sel. 2N2907 chip



1 Case

2 v

3

4 KEY

5 v

6

7

8

9

10

100 pF = "CD 100K"  
270 pF = "CD 270K"  
.01 = (2) = Sprague .01M/50V \* KIT

Q3, Q4, 2N3707 NPB = SEL MP  
AP 0 0.1 IT 1960

Q1, Q2  
T1SM1010 = 2N2484 MP 1m  
(4, 2N3707) selected \* R2700 = KITTED WITH Q3, Q4

Q1, Q2 = (Q1, Q2)  
Q3, Q4 = (Q3, Q4)  
Q5 = Q5 Q6 = Q6

all R's AB5 Carls Y

P65A/P65A  
SLM was good