

This BOM was created as I spec'd and procured parts for Harmless. Information here is deemed best-available, but not necessary 100% accurate. -MDG 2010.10.09

As-Built

R1 - 500, 5W {
R2 - 11K, 5W { Power supply, no sub
R3 - 270K, 1W {
R4 - 100K, 1W {
R37 - 510, 2W { measured .691 W }
R39 - 10, 2W { measured 13 mW }
R38 - 510, 2W { measured .691 W }
R40 - 10, 2W { measured 13 mW }
R41 - 10, 2W { .06 mW (screen shunt) }
R42 - 10, 2W { .06 mW (screen shunt) }
R19 - 100K, 1W { .103 W (plate) }
R20 - 100K, 1W { .103 W (plate) }
R33 - 1M, 1W { negligible (grid reference) }
R34 - 1M, 1W { negligible (grid reference) }
R35 - 2.4K, 1W { negligible (grid stopper) }
R36 - 2.4K, 1W { negligible (grid stopper) }
R21 - 100K { measured .361 W peak }
R22 - 100K { measured .361 W peak }
R23 - 470K {
R25 - 100K {
R27 - 100K {
R29 - 470K { Tone circuit, 1W for noise abatement
R24 - 470K {
R26 - 100K {
R28 - 100K {
R30 - 470K {
R17 - 1.5K, 1W { measured 1.6 mW }
R18 - 1.5K, 1W { measured 1.6 mW }
R47 - 220, 3W { safety resistor, no sub }
R48 - 220, 3W { safety resistor, no sub }
R15 - 22.1K, 1W for noise abatement purposes only (input resistor) {negligible power}
R16 - 22.1K, 1W for noise abatement purposes only (input resistor) {negligible power}

[] physical information
 () ordering information

Capacitors

NOTE: Per Triode Elex, Sprague Atoms are made in USA.

	Diam.	Len.
C1 - 100 uF, 450 VDC, Rubycon MXC axial	1	x 1-5/8
C2 - 100 uF, 450 VDC, Rubycon MXC axial		
C3 - 100 uF, 350 VDC, IC TTAM	3/4	x 1-5/8
C4 - 10 uF, 100 VDC [68 uF, 160 VDC, Nichican]	3/8	x 3/4
C11 - 1 uF, non-polarized	5/8	x 1-1/4
C13 - 10 uF, 35V	5/16	x 9/16
C15 - .1 uF, 400V, 10%	3/8	x 3/4
C17/C19 - 470 pF, Metal Polypropylene	3/16	x 1/2
C21 - 100 uF, 35V [Shoei CE 85C]	1/2	x 1

Resistors

R1 - 470, 5 W (expected 2.76 W; adjust for 316 B+)	[NTE]	1/2	x	1
R2 - 11K, 2 W (adjust for 300 B1+)	[NTE]			
R3 - 270K, 1 W	[NTE]			
R4, R19, R21,				
R25, R27 - 100K, 1 W, 2%	[NTE]			
R13a/b - 100K, Potentiometer, Log, Dual-ganged, 1/2 W	[a:NeOhm R-V100KD-N; b:RadioShack 271-1732, or equiv; c:PEC KKA1041S28 \$33]			
R15 - 22.1K, 3/4 W, 2%	[a:Vishay Dale CCF60 Metal Film; b:22K,1/2W,NTE]			
R17 - 1.5K, 1 W, 2%	[a:NTE 1W,2%; b:1W,5%]			
R23,R29 - 470K, 1 W, 2%	[a:470K,1/2W; b:464K,1W,1%]			
R31 - 1M, Potentiometer, Linear, Dual-ganged, 1/2 W	[a:NeOhm R-V1MD-N2; b:PEC KKA1051S28]			
R33 - 1M, 1W, 2%	[NTE]			
R35 - 2.4K, 1W, 2%	[Dale 2.5K,1%]			
R39 to R42 - 10, 2 W, 2%	[NTE]			
R37, R38 - 510, 2 W, 2%				
R47 - 220, 5 W, 20%	[NTE]			

All resistors are unless otherwise noted	Diam.	Len.
1/2 W are	1/8	x 3/8
3/4 W are	1/8	x 3/8
1 W are	3/16	x 1/2
2 W are	1/4	x 5/8

Diodes

D1/D2 - RCA SK3081 or ECG-125

| 1/8 x 1/4 |

Tubes

V1/V2 - 6SL7

V3/V4 - 6L6

Transformers

T1 - Edcor XPWR013; Pri: 120VAC/60Hz; Sec: 510 CT @ 125 mA, 6.3 CT @ 4A

or Hammond 370JX; Pri: Universal, Sec: 500 CT @ 161 mA, 50 VAC bias tap, 6.3 CT @ 6A, 5 CT @ 3A

T3/T4 - Magnetic Components, Inc. TF103-48ULH (upgraded Champ)

Inductors

L1 - Hammond 158Q [open-frame, 5 H, 150 mA, 105 Ohms]

or 193G [enclosed, 10 H, 150 mA, 102 Ohms, this is a large choke, mucho-overkill-o]

Jacks

J1 - IEC C14 power jack

J3 - Switchcraft stereo DPST

J5-J8 - Switchcraft N112A (Mouser 502-N112AX \$3.95)

NOTE: Can use Switchcraft grounded-sleeve jacks if also use shoulder-washer/washer insulators: Mouser 534-3222 (\$.08) & 534-3069 (\$.16)

Switches

S1 - SPDT [Honeywell 6AT102]

Misc

PL1 - Pilot Lamp Holder, Panel Mount

Wire

PC1 - Powercord, 3 conductor to C13

HW1 - Hookup Wire, 22 Ga, PTFE [Belden 83006-6]

Chassis

FH1 - Fuseholder
SK1-4 - Octal tube socket, Belton Micallex
CB1 - G10/FR4 Garolite, Blue
T1-73 - Turret, Keystone 1514-4, Quantity per board: 73, verified count: 2010.07.23
TS1/2 - Terminal strip, 1 connection
TS3 - Terminal strip, 2 connections
KN1 - Knob, Volume control
KN2 - Knob, Tone control

standoffs - 6 needed, 1" x 5/16" x #8 screw