AA1164 PRINCETON REVERB "BLACKFACE" AMP

Pilot Light

6.3V Center Tap

To All 6.3V Fil

100Ω 100Ω

100K 1W 5%

Bias Rectifier 1N4007

Bias Board

Note Polarity

25uF 100v

Filter

22K

Bias Voltage Divider
Lower Value = Hotter Bias

470Ω Carbon Composition

470Ω Metal Oxide

Power Transformer 125P1B

340-0-340VAC

Twist

6.3v

HV Center Tap

5v Heater

Twist HV Twist

Primary
Twist

DC B+ Out

V7 5U4GB
Rectifier

Power Amp Ground

Dropping 2W 18K

D 240V B+4

20/20/20/20 Cap Can

GND C B A

Grid Screen Plate Cathode Fil 1 Fil 2

V6 6V6GT

OT

V5 6V6GT

Safety Ground Bolt

Green = Ground

White = Neutral

Black = Hot

Power Cord

Chassis Ground

.001uF Class Y Death Cap

Death Cap (delete)

Twist

AC Receptacle
(Hot Black On Narrow Slot)

Ground Switch (Delete)
SPDT ON-OFF-ON

1A Slow Blow Fuse

Power
DPST

Max Speed 100K
Smaller = Faster

Tremolo Intensity 250K Lin

Tremolo Speed 3M Rev log

Reverb 100K Lin

Bass 250K Log

Treble 250K Log

Volume 1M Log

Bundle Tremolo Yellow, Brown & Blue Wires Together
Keep Away From Other Control Wires

Bias -34V

6.8K Mid

Input

2 Low 1 High

Ground

Switch Tip

Input 1M

Tip Switch

68K 68K

Grid Stoppers

Preamp Chassis Ground

C 320V B+3

B 400V B+2

A 420V B+1

Dropping 3W 1K

Preamp Ground Bus

Power Tube Grid Leak 120K 5% 220K 5%

.1uF 630v Coupling

PI Plate Load 56K

PI Cathode 1K

PI Grid Leak 1M

PI Tail Load 56K

Oscillator Filter .02uF 630v

.1uF 630v Coupling

220K

V4A Plate Load 220K

1M

Tremolo Oscillator

.01uF .01uF .02uF

1M

V4A Grid Leak 1M

NFB Tail 47Ω

NFB 2.7K

V4A Cathode 3.3K

V3A Cathode 1.5K

Bypass 25uF 25v

V3B Cathode 1.5K

Reverb Attenuation 470K

Reverb Mix 3.3M

10pF Bright

.003uF 630v

V3A Coupling

.02uF 630v Coupling

100K

V3 Plate Load 100K

V2 Grid Leak 1M

V2 Cathode 2.2K

V1B Cathode 1.5K

Bypass 22uF 25v

Bypass 47uF 25v

.02uF 630v Coupling

100K

V1 Plate Load 100K

500pF Reverb Filter

250pF Treble

100K Slope

Tone Stack

.047uF 630v Mid

.1uF 630v Bass

V1A Cathode 1.5K

Bypass 25uF 25v

OT 125A10B 8.5k:8 Ohm

V4 12AX7
A Tremolo Oscillator
B Phase Inverter

Do Not Twist

Ground Switch Tip

10" 8 Ohm Speaker

Ground Tip

Aux Speaker

Vibrato Pedal

V3 12AX7
A Reverb Recovery
B Preamp 3

Reverb Transformer
125A20B 25k:8 Ohm

V2 12AT7
Reverb Driver

V3A Grid Leak 220K

Chassis Ground

Reverb Pedal

Reverb Pan Output

Chassis Ground

Reverb Pan Input

V1 12AX7
Preamp 1 & 2

Fender cap specification was 400V unless specified
All resistors 1/2 watt 10% unless specified
O on caps indicates outer foil
See https://robrobinette.com/AA1164_Princeton_Reverb.htm for more info

By RobRobinette.com V1.8