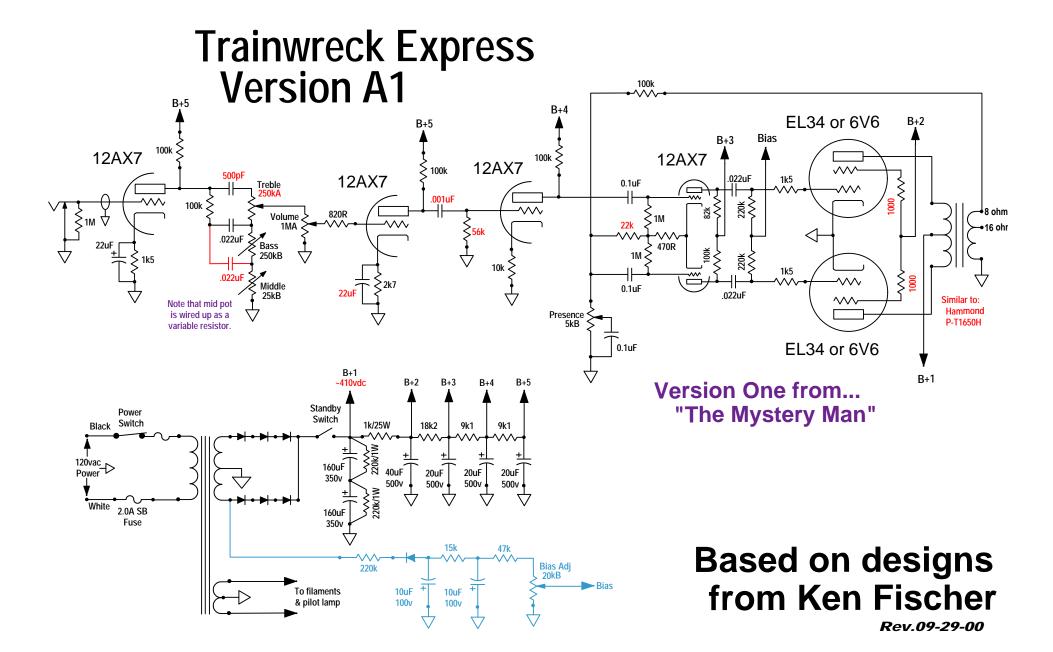
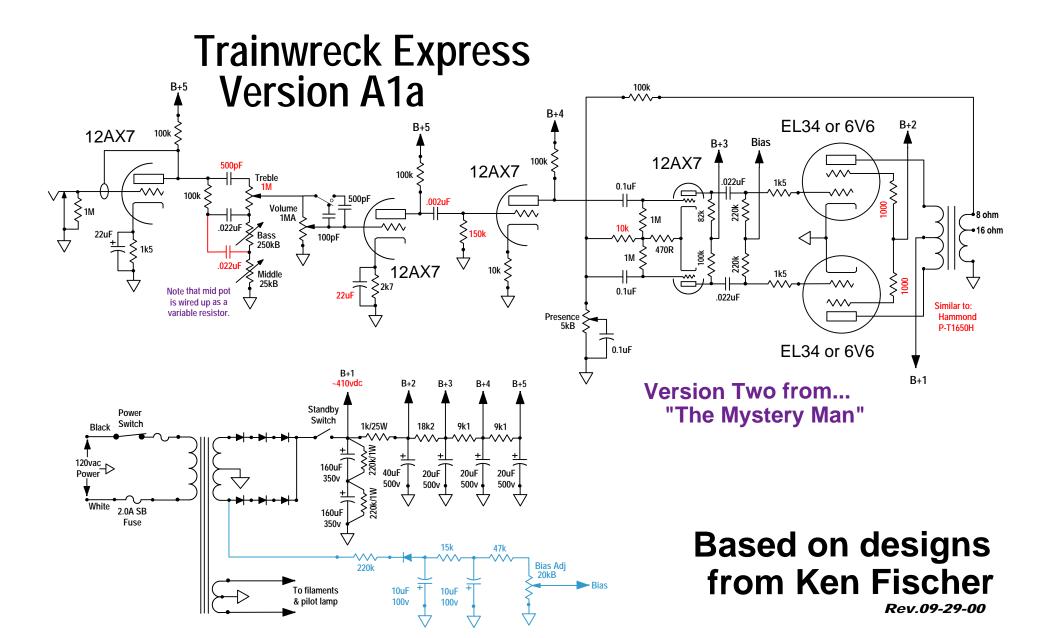
Trainwreck Express **Version A0** B+4 EL34 or 6V6 B+2 Bias B+3 12AX7 12AX7 12AX7 12AX7 1k5 0.1uF √8 ohm Volume 22k 1MA 16 ohr .001uF ceramic .022uF 1k5 25kB 0.1uF .022uF 0.1uF  $\sim$ Presence 5kB Note that mid cap is connected to mid pot wiper. 0.1uF EL34 or 6V6 B+1 B+1 B+3 B+4 Standby Power Switch Switch 1k/25W Black 18k2 9k1 120vac Power 20uF 20uF 20uF 500v 500v White 2.0A SB **Fuse** 350v **Based on designs** Bias Adj 470R / 1W from Ken Fischer To filaments 100uF

Rev. 09-29-00

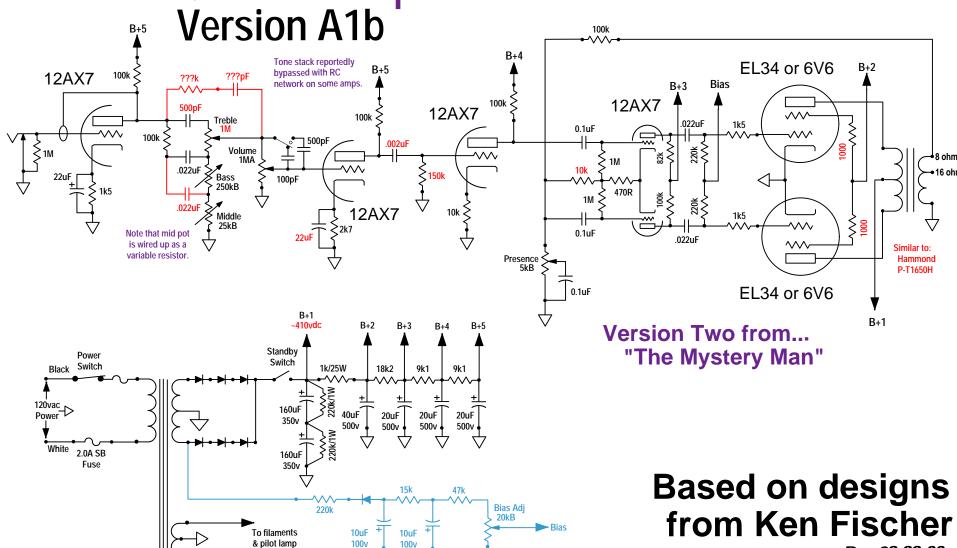
& pilot lamp

100v



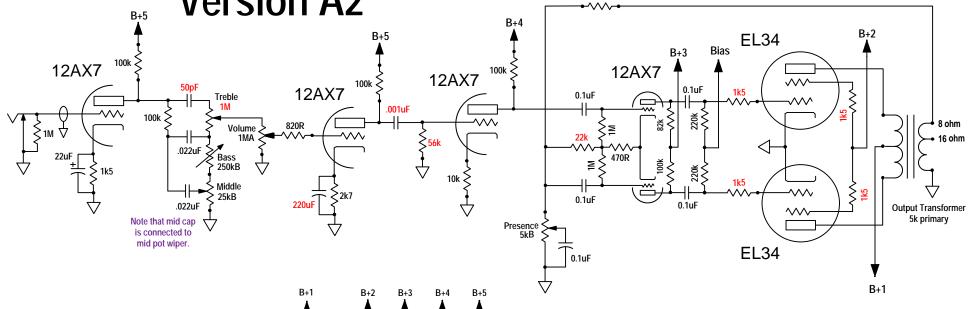


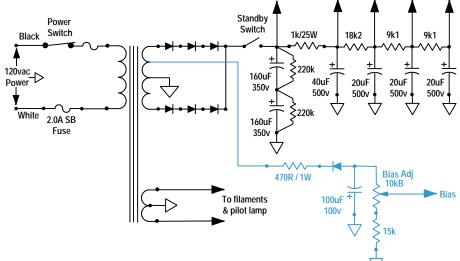
**Trainwreck Express** 



Rev.09-29-00

Trainwreck Express Version A2





### Inspired by designs from Ken Fischer

Rev.09-29-00

Trainwreck Express Version A3

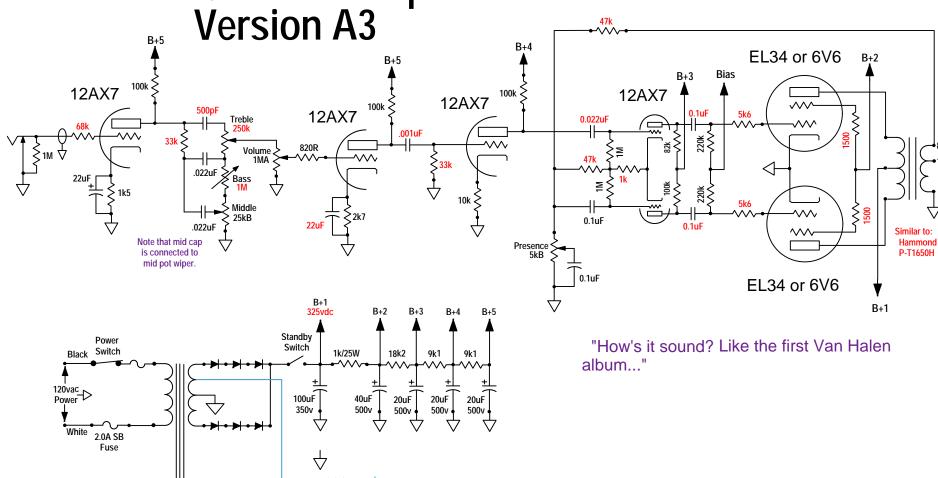
470R / 1W

100uF

100v

To filaments

& pilot lamp



Bias Adj 10kB

A DIY clone inspired by designs from Ken Fischer

Rev.09-29-00

16 ohm

Trainwreck Express Version A4 100k EL34 or 6V6 Bias B+3 12AX7 12AX7 100k < 12AX7  $\sim$ 12AX7 1k5 0.1uF 820R Volume .022uF 22uF Bass 1k5 Middle 0.1uF .022uF **^** Hammond Note that mid cap Presence P-T1650H 5kB is connected to mid pot wiper. 0.1uF EL34 or 6V6 B+1 390vdc (EL34) "When the guitar volume is on 10, this is 410vdc (6V6) Standby the meanest amp I own; feedback swells Power Switch Black Switch 1k/25W 18k2 into higher harmonics above the note, the low end doesn't mush out, thick mids yet clear top end. 120vac Power 80uF 20uF 20uF When the guitar volume is rolled off, 350v 500v 500v it becomes one of the sweetest and White jangliest amps I've got." 2.0A SB 80uF Fuse 350v Bias Adj 470R / 1W A DIY clone inspired by To filaments 100uF

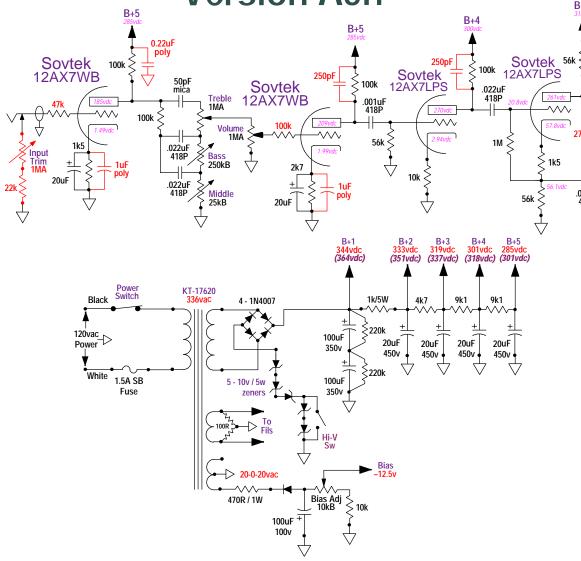
designs from Ken Fischer

Rev.09-29-00

& pilot lamp

100v

# The Blues Express Version A5h



This is the final version of the Blues Express amp. The zener limiting circuit was removed and a modified cross-line MV was installed in its place. The bias/grid load resistors were returned to their original value of 220k. The 2nd stage supply was rewired to B+5 instead of B+4 and the 0.22uF/630v poly cap from B+5 to ground was drawn in.

.022uF

0.22ul

**Fixed Bias** 

.022uF 418P **EL84** 

**EL84** 

8 ohm

Speaker: Jensen

P10-Q

"This amp was fine-tuned for blues tones, with a sparkling clean sound that gets more aggressive when you crank up the volume. It sounds like an old BF amp on Viagra..."

3

220k

≥ 220k

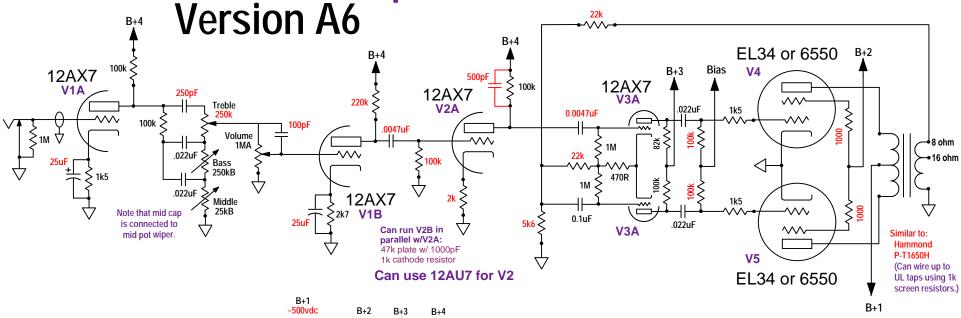
130/5w

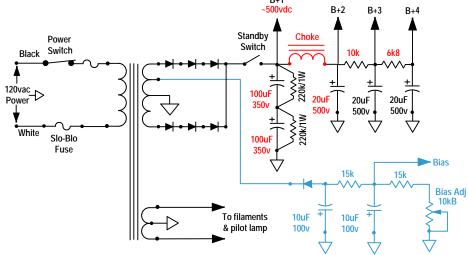
Revisions from Versions 2 & 5 shown in RED

### Inspired by designs from Ken Fischer

Rev.11-13-00

**Trainwreck Express** 



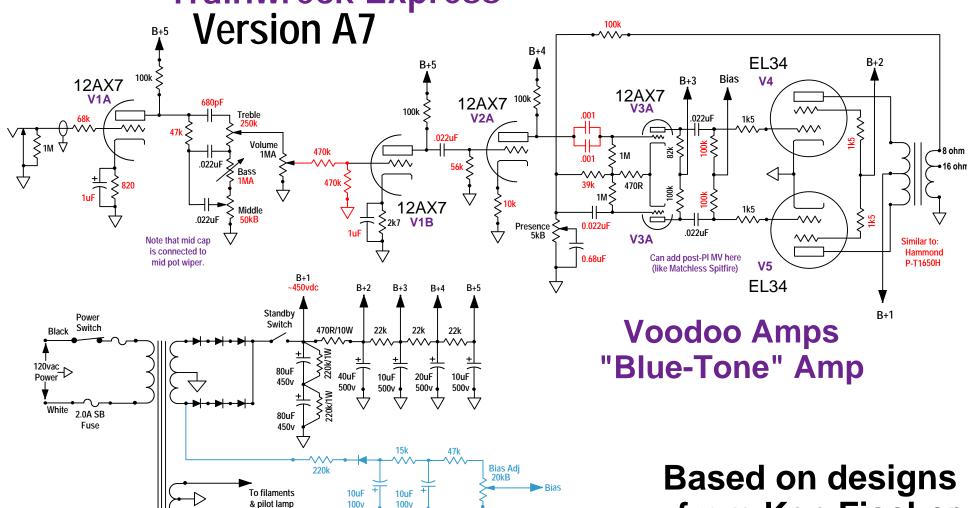


One cloner's take on the Express design.

### Based on designs from Ken Fischer

Rev.09-29-00

Trainwreck Express



from Ken Fischer

Rev.09-30-00

#### Blues Express Plus Version A8a

1k/5W

Hi-V Switch

Bias Adj \$ 10kB

4 - 1N4007

5 - 10v / 5w

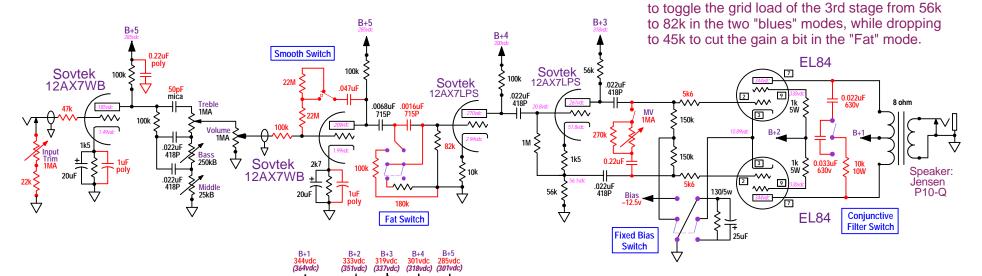
4k7

Black

120vac

1.5A SB

Fuse



The switchable conjunctive filter was used to smooth out the response of the amp, making the 250pF caps across the 2nd and 3rd plate resistors unnecessary. With the .022uF and .033uF caps in series the net capacitance is .0132uF.

The Blues Express Plus adds a "Fat" switch to allow

for more Marshall-ish sounds by using a switchable .0068uF coupling cap after the second stage. In

the other modes this cap is run in series through a .0016uF cap which results in a net capacitance of 1295pF. A center-off DPDT switch was used

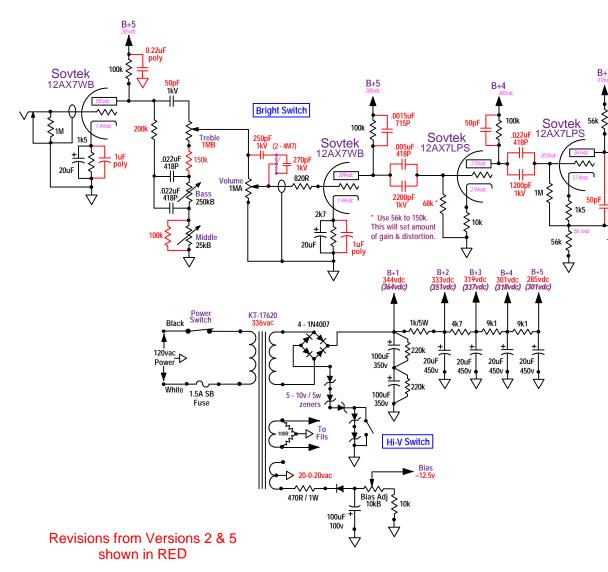
The Smooth switch is a local feedback loop between the plate and grid of the 2nd stage. The traditional value of 22M allows for a compressed sound while the alternate value of 44M has a more subtle effect.

Revisions from Versions 2 & 5 shown in RED

### Inspired by designs from Ken Fischer

Rev.05-03-01

#### Blues Express Plus Version A9h



The Blues Express Plus is a radical reworking of the Blues Express chassis along the lines of more traditional Trainwreck designs. The conjunctive filter is the key to getting a smooth response from this preamp with the output section using the stock Electar Tube 30 OT; without the conjunctive filter the sound would be extremely brittle and harsh.

**EL84** 

**EL84** 

0.033uF

Conjunctive

Filter Switch

8 ohm

Speaker:

Jensen

P10-Q

The 3 position Bright Switch is an important control as it allows for chimey and clear sounds at lower settings of the volume control. Because of the series linkage the low capacitance setting works out to 129pF. I like to turn up all of the controls to 10 (going through a Marshall Power Brake when necessary) and then fiddle with the controls on the guitar to get clean, crunchy or downright distorted tones.

₩-

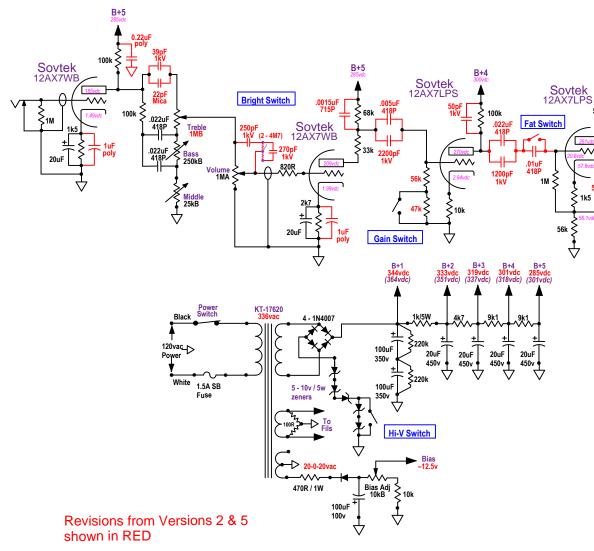
₹ 150k

Fixed Bias Switch

## Inspired by designs from Ken Fischer

Rev.05-20-01

#### Blues Express Plus Version A9k



The Blues Express Plus is a radical reworking of the Blues Express chassis along the lines of more traditional Trainwreck designs. The conjunctive filter is the key to getting a smooth response from this output section (which doesn't use NFB). Without the conjunctive filter the sound would be extremely brittle and harsh. In this revision a split load is used on the 2nd stage and a switch was added to lower the PI input capacitance.

**EL84** 

**New Sensor** 

NSC041318

Speaker: Jensen P10-Q

Conjunctive Filter Switch

In this version the stock OT has been replaced with a New Sensor Deluxe OT, stock # NSC041318 This OT does not have as much problem with oscillations as the stock OT, and the low end is much fuller.

Fixed Bias Switch

Inspired by designs from Ken Fischer

Rev.07-04-01

Notes on WRECKXPR.PDF

Version Number: Notes

A0: This is supposed to be pretty close to a real Express. Certain rumors were added in like the parallel coupling caps between the 2nd and 3rd stage

Al and Ala: These came from someone who has seen the inside of a real Express... and lived to tell about it. I suspect that Ala is more accurate than Al

Alb: Similar to Ala, but I drew in a possible RC network bypassing the tone stack that was reportedly seen on at least one Express.

A2: This is probably based on Callaham clone and not a real Wreck. The 50pF treble cap, 1M treble cap and .001uF/56k cap/resistor after the 2nd stage all contribute to a brighter, less gainy sound than is produced by a real Express. (It was this schematic that was originally distributed as the Trainwrecked Expresso.)

A3: This schematic is based on a DIY clone.

A4: This schematic is based on a different DIY clone.

A5h: This is the final version of the original lower gain Blues Express amp (which was based on the Callaham schematic in version A2). Chimey like a Vox or BF Fender at lower gain settings, but when cranked up it was more like the Vox.

A6: This was reportedly based on one of Allesandro's amps.

A7: This was a clone built by Voodoo Amps.

A8a: This was an early rebuild of the Blues Express after I added a conjunctive filter to version A5h.

A9h: This is the final version of the Blues Express Plus. Note that the 47k grid stopper on the 1st stage and the 100k grid stopper on the 2nd stage have been eliminated, and except for the various mode switches is closer to version A2 than the earlier incarnations of the Blues Express/Plus.