



















Blues Express Plus Version A8a

Smooth Switch

22M

B+5

100k

Sovtek 12AX7WB

0.22u

.022uF 418P

Bass 250kB

1004

B+5

.0068uF .0016uF 715P 715P

100k

.047uF

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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 to toggle the grid load of the 3rd stage from 56k to 82k in the two "blues" modes, while dropping to 45k to cut the gain a bit in the "Fat" mode.

EL84

0.022uF

10k 10W

Conjunctive

Filter Switch

8 ohm

Speaker

Jensen

P10-Q

2

9

 \sim

130/5w

B+3

.022uF 418P

.022uF 418P

Bias

-12 5

Fixed Bias Switch

MV

1MA

≥ 150k

≥ 150k

Sovtek 12AX7LPS

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5 100k

.022uF 418P

Sovtek

12AX7LPS



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.

EL84

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.



Revisions from Versions 2 & 5 shown in RED

B+5

0.22uF

poly

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.



Rev.07-04-01

Trainwrecked Expresso



Design inspired by Ken Fischer

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.