

5.27.20

The schematic is excellent, prints on one sheet. On the computer I enlarged the PDF file and used Windows Magnifier.

My list start in the upper left corner working to the right.

L5 3300uh This is on the Volume Board only.

R25 220 ohms The Pot-4 1K is too much range.

MPSA42 Added new version to Mouser list

R9 is 470 ohm fixed resistor to match Pot-3 1K set half way.

Terminal T7 Pot-1b is a jumper wire on Volume Board only

C15 10uf gives a slight improvement of Volume control response.

R11 33k was 47k, changed for a little more gain.

R12 470k This was changed so 50k Pots already on the EWS can be used.

C24 47pf Removed from the board

D3 & D4 Needed on Volume board only, seen how to do in pictures

R23 1K on Volume board only

Switch S3 Volume board only, not necessary but makes snappier response

C34 1uf New to board, this allows volume to quiet completely, not sure why, maybe slows pulse rise

U2b pin 6 should have a 100K resistor to the positive rail.

R29 change from 10K to 22 ohm, I noticed a slight better response in series with C5

C5 1uf Better response

The short jump wire next to R3 now extends up to the left side of switch U2a 1 & 2 pins.

This is a signal buffer fed to the transformer.

C26 is 10uf

The jumper wire by the 7805 was change so Oscillator gets 9 volts directly.

I need to repost all those revised circuit board pictures to show what is going on.

R37 1k New to board, was added to keep one side of the Vactrol input audio line at a low impedance. Without R37 I could hear audio or 555 noise, still do but minimal, going to positive rail seemed better. I think the transformer inductive field causes this which should not be on the Volume board.

R7 already on Old board layout reduces impedance on the other side of the Vactrol.

Basically the Transformer, Opto and Pot-1b are not needed on the Volume Board. All the other component changes should be in harmony on both Pitch and Volume board.