

THANK YOU FOR PURCHASING ERICA SYNTHS POLIVOKS VCF CLONE KIT!

This is the most authentic sounding Polivoks VCF emulation available. The original Russian ICs K140UD12 are used in the sound circuit. We did several updates to adapt the VCF for contemporary modular synth demands. Independently buffered inputs with gain adjustment option, extended Cutoff knob range and optional resistors to adjust the pot curve, eliminated clicks, when switching filter modes, and output stage added to eliminate signal inversion as in the original VCF. Result - much more bassy sound, smoother controls.

TECHNICAL CHARACTERISTICS:

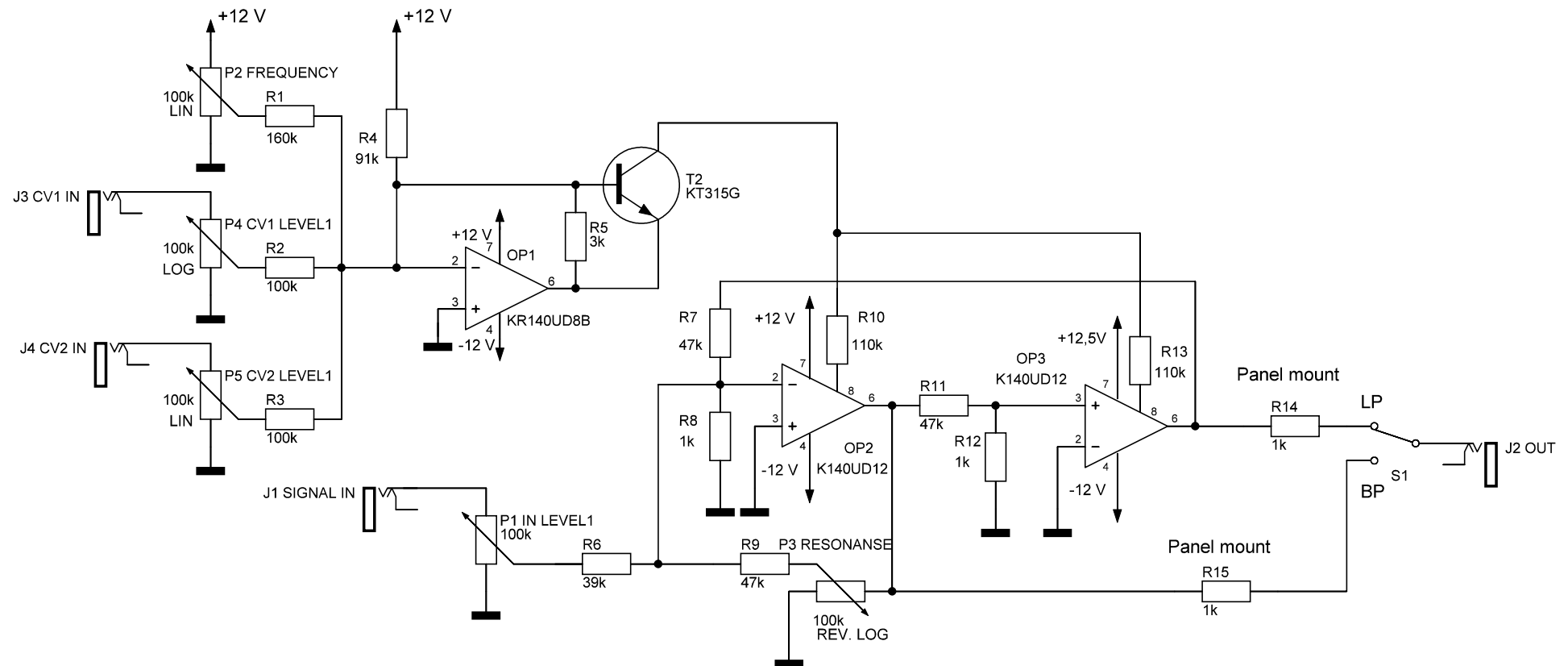
Filter Mode: LP/BP

Input Level: 10V ptp

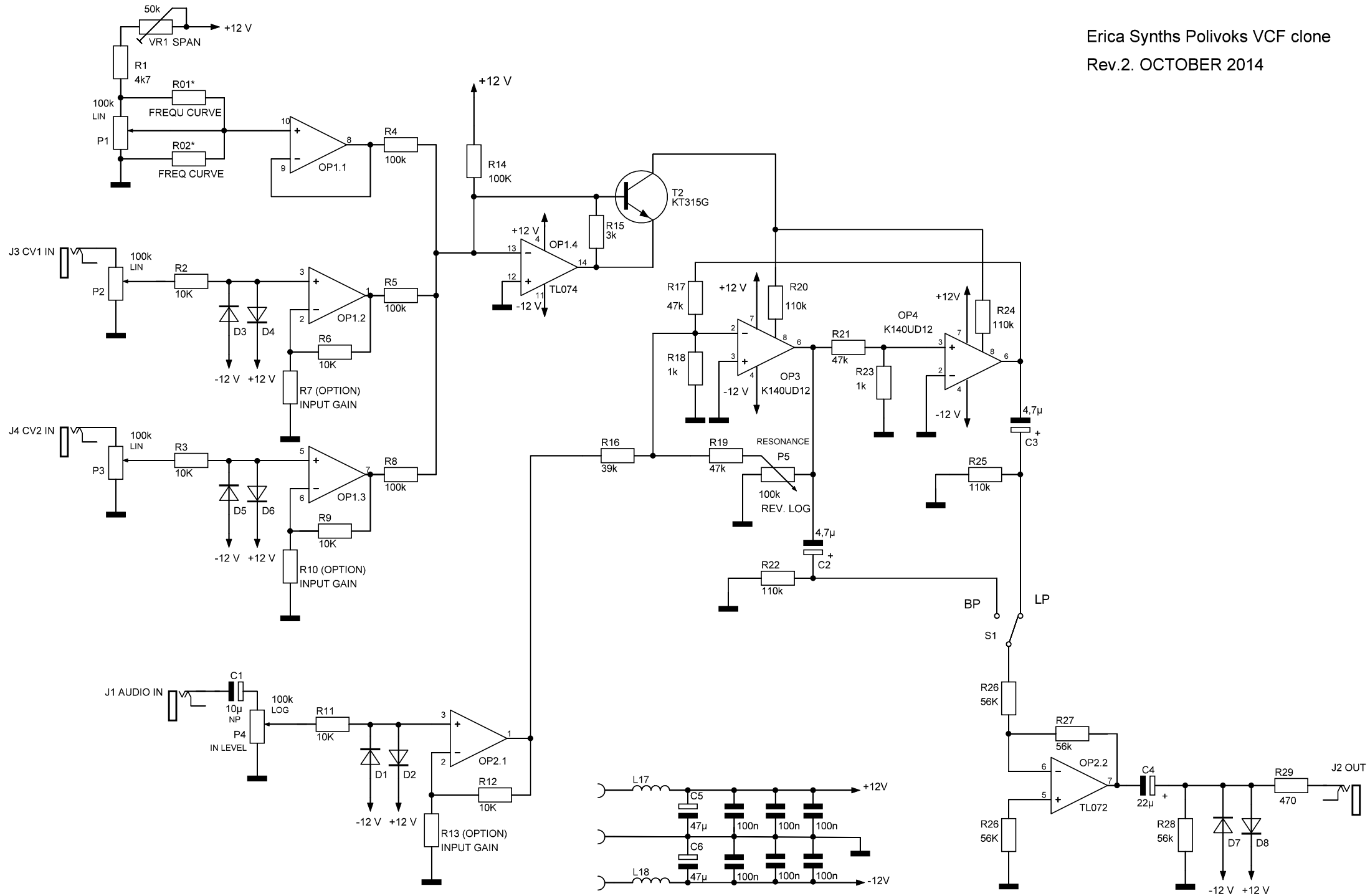
CV Level: 10V ptp

Power consumption: 10mA (+12V), 10mA (-12





Erica Synth's Polivoks VCF clone
Rev.2. OCTOBER 2014



RESISTORS

| | | |
|--------------------------|--------|---|
| R1 | 4k7 | 1 |
| R2, R3, R6, R9, R11, R12 | 10k | 6 |
| R4, R5, R8, R14 | 100k | 4 |
| R7, R10, R13 | OPTION | 3 |
| R15 | 3k | 1 |
| R16 | 39k | 1 |
| R17, R19 | 47k | 2 |
| R18, R23 | 1k | 2 |
| R20, R22, R24, R25 | 110k | 4 |
| R26, R27, R28 | 56k | 3 |
| R29 | 470ohm | 1 |

CAPACITORS

| | | |
|--------|------|------|
| C1 | 10μ | 1 NP |
| C2, C3 | 4,7μ | 2 |
| C4 | 22μ | 1 |
| C5, C6 | 47μ | 2 |
| C7, C8 | 100n | 6 |

SEMICONDUCTORS

| | | |
|----------|----------|---|
| D1 - D8 | IN4148 | 8 |
| T2 | KT315G | 1 |
| OP1 | TL074 | 1 |
| OP2 | TL072 | 1 |
| OP3, OP4 | K140UD12 | 2 |

TRIMPOTS

| | | |
|-----|-----|---|
| VR1 | 50k | 1 |
|-----|-----|---|

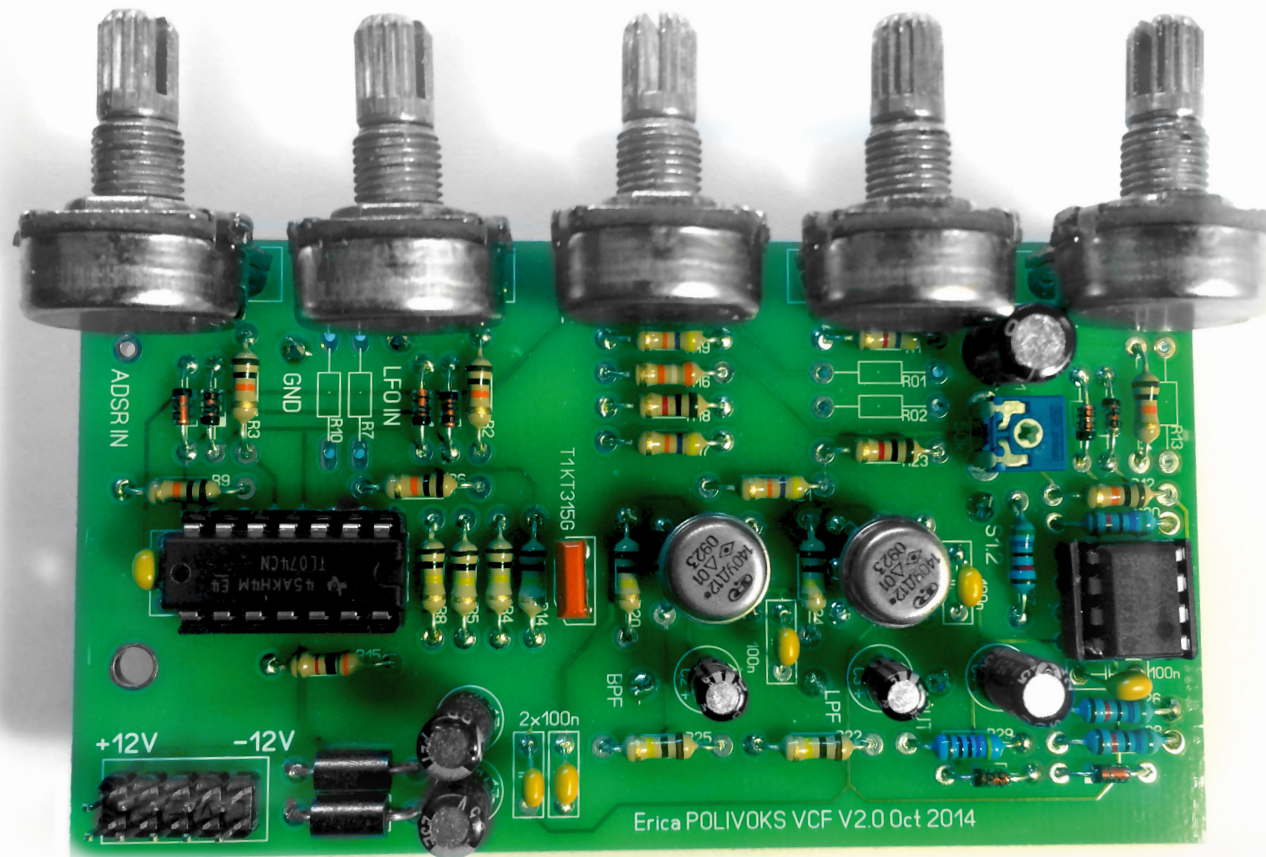
POTS

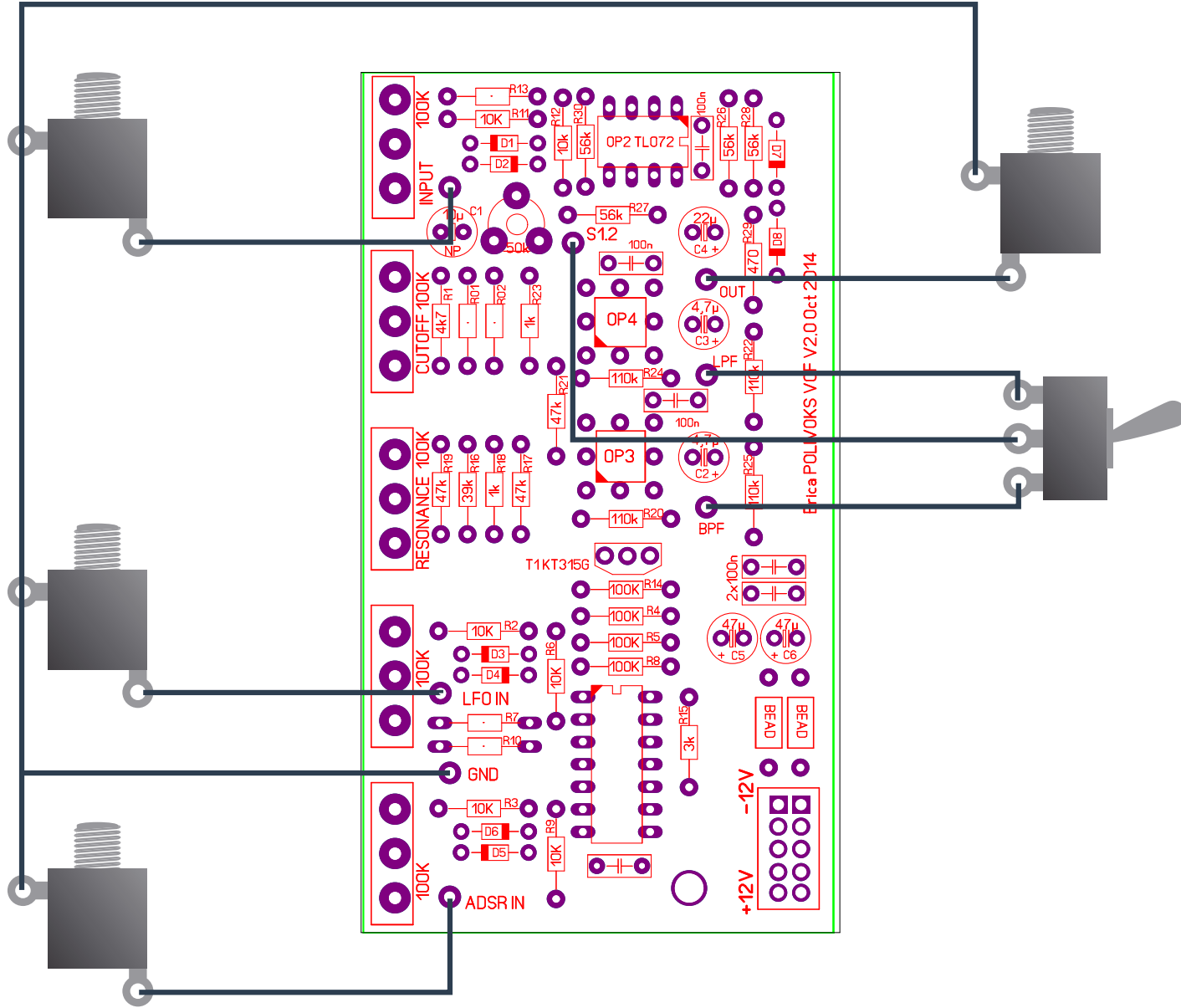
| | | |
|---------|------|---|
| P1 - P5 | 100k | 5 |
|---------|------|---|

OTHERS

| | | |
|-----------------|---------------|---------------------------------------|
| J1 - J4 | 3,5mm | 4 |
| S1 | | 1 Toggle switch |
| L17, L18 | Ferrite beads | 2 May be replaced by 20 ohm resistors |
| Pot knobs | | 5 1 red, 1 yellow, 3 grey |
| Power connector | 2x5 | 1 |
| IC sockets | 8pin | 1 |
| IC sockets | 14 pin | 1 |

Construction of Erica Synths Polivoks VCF clone is straight-forward – just follow the silkscreen with part values and designators!





The VCF works without calibration. Adjust Cutoff trimpot to achieve cutoff range of your taste.

You may want to adjust the gain of audio or CV inputs by adding resistors to the opamps.