

YUSYNTH MINIMOOG FILTER FOR 4U

Resistors		
270K	2	FOR 12v supply use 220K
150K	1	
120K	3	
100K	4	
56K	2	
47K	2	
10K	1	
1K8	1	
1K2	1	FOR 12v supply use 1.0K
1.0K	3	
680R	1	
470R	2	
330R	2	
220R	1	
180R	1	
150R	4	
22R	1	
Ferrite Bead	2	Use Ferrite bead of 10R resistor
Capacitors		
100pfd	1	
47nf	4	Filter capacitors (matched to 1%)
220nf	2	
10uf	3	electrolytic
220uf	1	
100nf	4	ceramic bypass capacitor (marked BP on pcb)
47uf electrolytic	2	Power bybpassing 10-50 ufd
Semiconductors		
CA3046	2	Transistor Array
TL071	2	Single op amp
BC557	1	
BC547	6	3 MATCHED PAIR
TRIMMERS		cermet multiturn trimmer pots
10k Multiturn trim	1	
1K Multiturn trim	1	
500R Multiturn trim	1	
Hardware		
10K Linear	1	Panel mount potentiometer (Frequency)
50K Log	2	Panel mount potentiometer (Audio IN)
50K Reverse LOG	1	Panel mount potentiometer (Emphasis)
50K LIN	1	Panel mount potentiometer (CV IN)
MISC		Jacks, Knobs, panel and mounting hardware

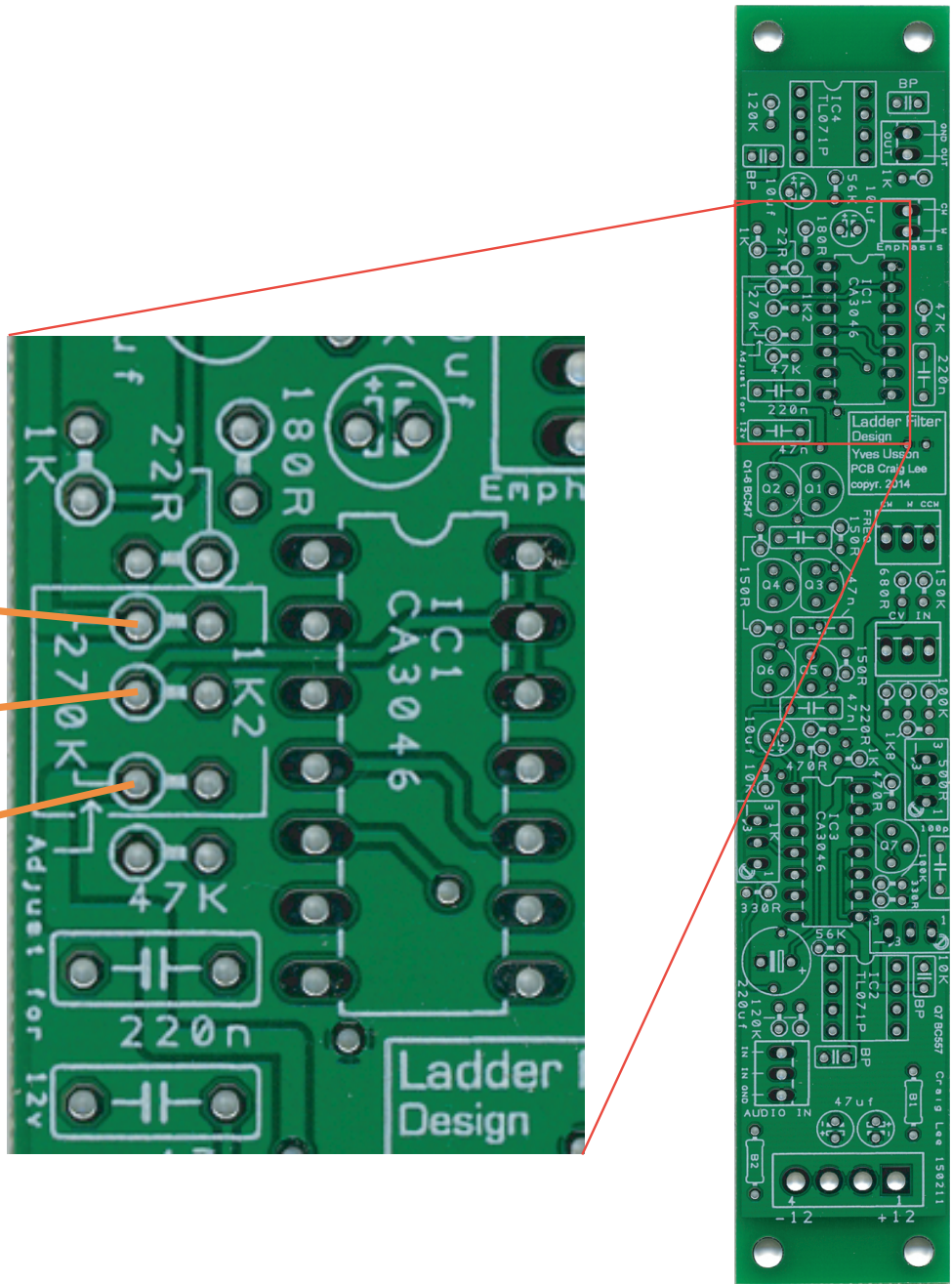
Craig Lee - Yusynth Minimoog Filter for 4U

3 resistor substitutions are needed for 12v supplies

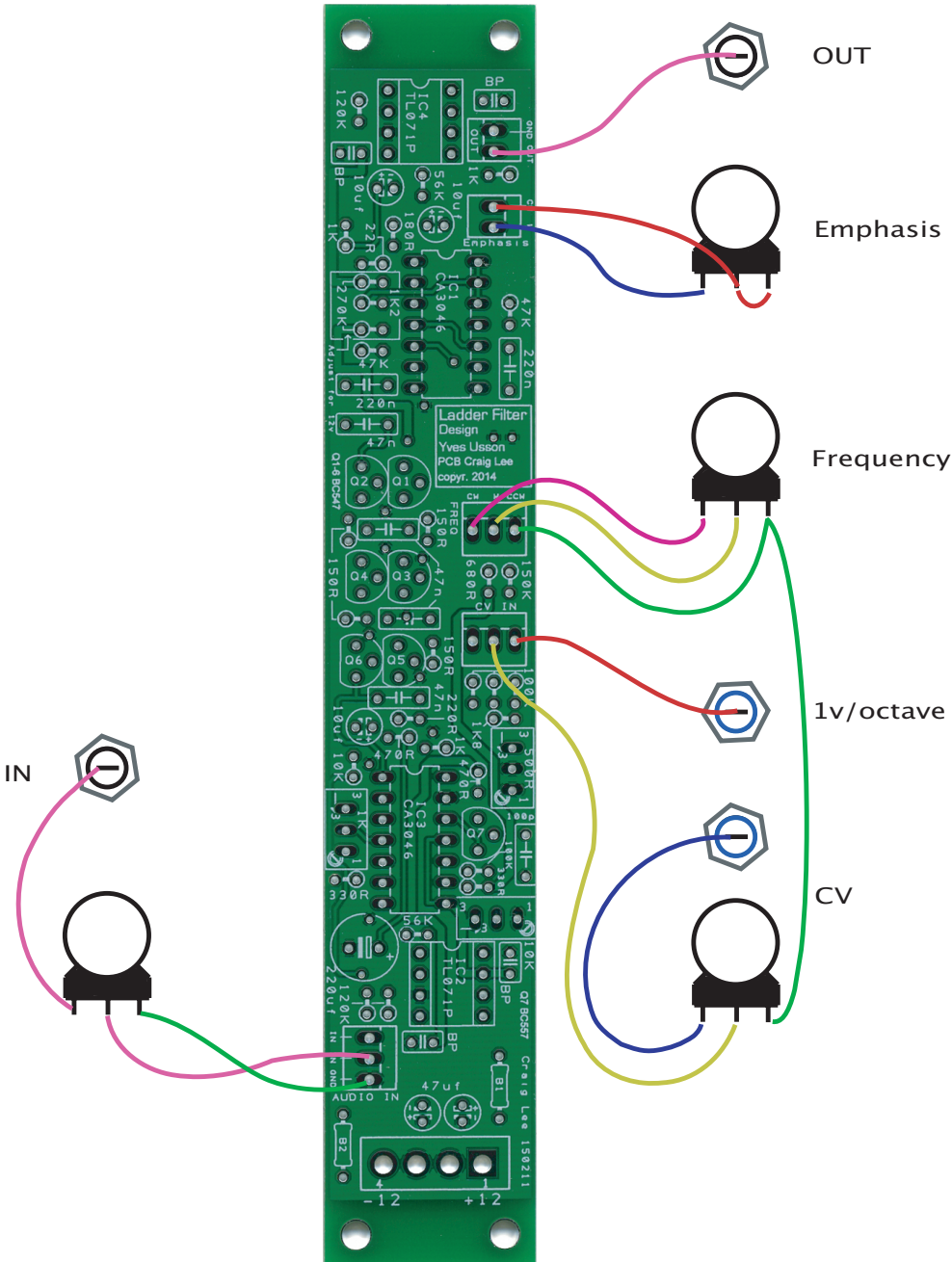
use 220K for 12V

use 1.0K for 12V

use 220K for 12V

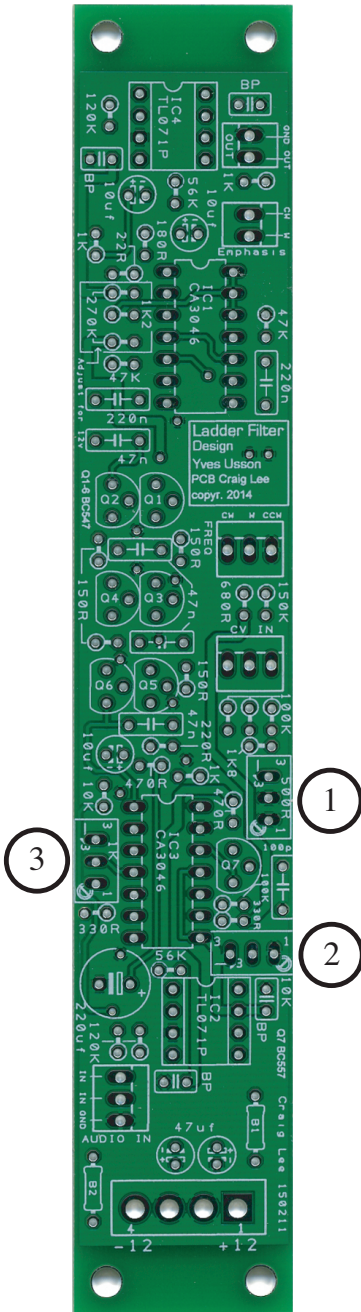


Craig Lee - Yussyth Minimoog Filter for 4U
Connection diagram - components viewed from back



Craig Lee - Yusynth Minimoog Filter for 4U

TRIMMING NOTES FROM YVES WEB SITE (edited to match my schematic)



1 Trimming V/Octave tracking :

Apply 0.000V to the V/Oct input.

Turn the frequency knob fully counter-clockwise in order to measure 0mV at the base of Q7 (BC557) (node between R14 to R21)

Apply 1.000V to the V/Oct input Adjust TR1 (500R) in order to measure 18.2mV at the base of Q1

Apply 5.000V to the V/Oct input Check that you have 91.0mV at the base of Q1. If not adjust TR1

Apply 0.000V to the V/Oct input Set the filter to auto-oscillation (EMPHASIS turned fully clockwise)

Connect a keyboard (CV/GATE) to the V/Oct input Play a tune and check the goodness of the tracking. Slightly adjust TR1 to achieve a good chromatic tracking.

2 Frequency range :

Apply a sinewave with frequency 32Hz to the audio input

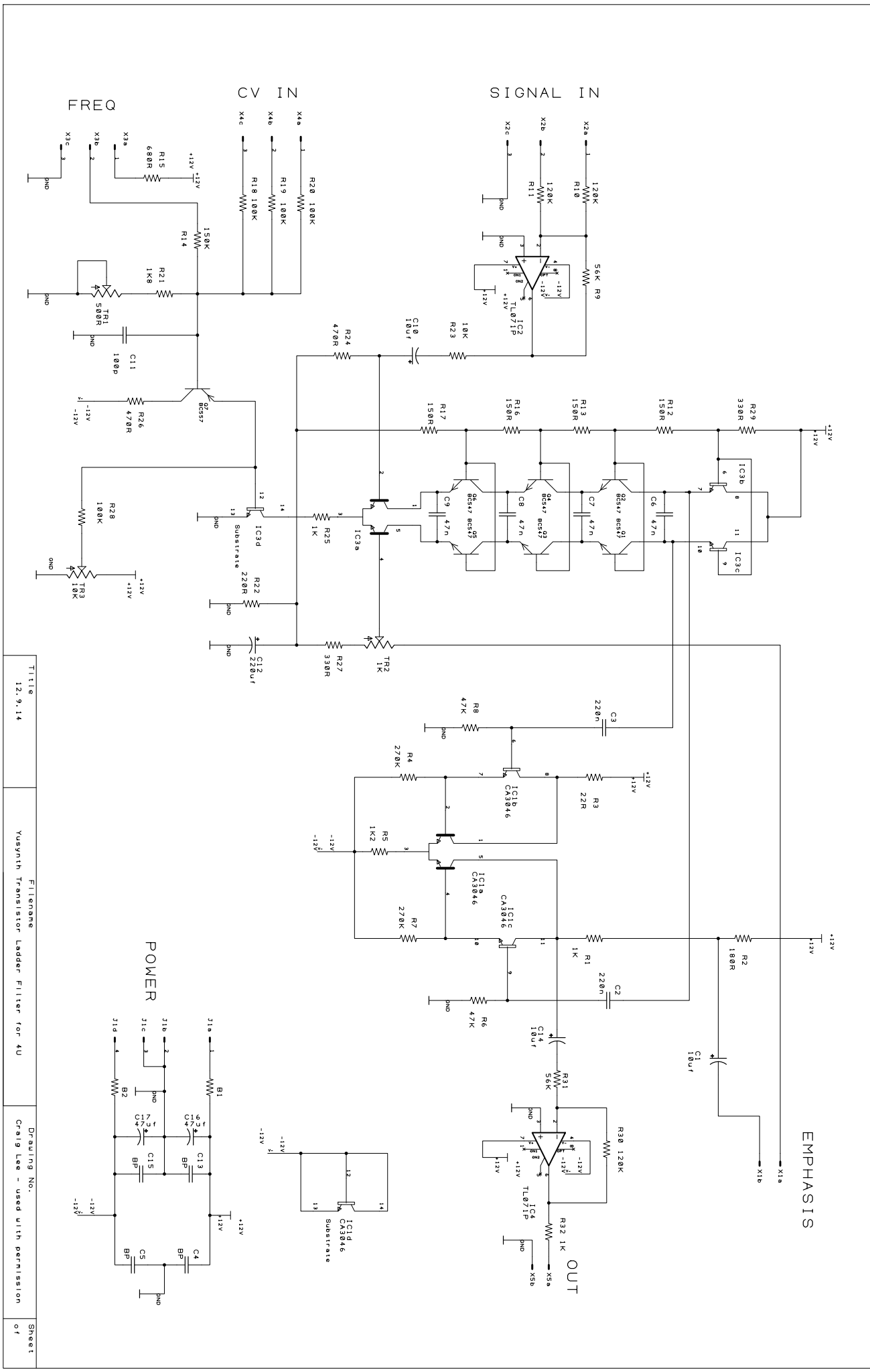
Emphasis potentiometer to minimum resonance (fully counter-clockwise)

Turn the frequency knob fully counter-clockwise

Adjust TR3 (10K), in order to mute the 32Hz signal.

3 Emphasis :

Adjust TR2 (1K) in order to reach auto-oscillation near 95% of the full range of the EMPHASIS pot.



Title
12.9.14

Filaments
Yusaynth Transistor Ladder Filter for 4U

Drawing No.
Craig Lee - used with permission

Sheet
of