CP3 Mixer - Quad CP3 Mixer in MOTM

Project
Projecttitel: CP3 Mixer - Quad CP3 Mixer in MOTM
Status: FINISHED
Startdate: October 2014
Duedate: December 2014
Manufacture link: --

Here comes a Quad CP3 Mixer with 16 Mixer Channels in MOTM Format.

Pcb design from Manhatten analog, designed for Eurorack for 12V and 15V

Pcbs : Fullkit from synthcube

Panel: custom Panel, ordered by Schaeffer

FPD File: quad_cp3_october.fpd

BOM/building guide:

Resistors:
[2] 100R
[1] 200R
[1] 240R
[2] 560R
[1] 6.8k
[2] 15k
[3] 22k
[1] 47k

Capacitors:
[2] 10/22/47uF electrolytic (i used for power 22uF, for others 10uF)
[2] 0.1uF ceramic
[1] 3.3nF poly
[1] 10uF electrolytic
[1] 10uF electro; optional for +12V regulator

Pots:
[3] 10-50k audio, 9mm Alpha or similar
[1] 25-50k linear, 9mm Alpha or similar
[1] 2k multiturn trim
[1] 100R multiturn trim

Transistors/ICs:
[1] LM78L12; optional for +/-15V supplies ONLY
[1] LM337LZ - be sure to get the one in the TO-92 package
[2] 2N3904 (or similar NPN) - Matched pair
[2] 2N3906 (or similar PNP) - Matched pair

Misc:
[1] 10-pin .100 header, male (Euro power) OR 4-pin MTA-156 header (MOTM power)
[2] Ferrite bead (can substitute 10R resistor)
[2] PTC resettable fuse (.050 hold, .100 trip) - can replace with wire link
[2] 1N4001 diode
[4] 3.5mm jack, 16PJ138 or Erthenvar/Thonk style
[4] Davies 1900H-style knob, or any other ~12.5mm-diameter knobs you prefer.

TRIMMING
1) For use with +/-12V supplies, jumper pins 1 and 3 of the 78L12 and omit the adjacent cap.
2) Adjust the 2k trimpot until the output of the LM337 is -6.0V.
3) Adjust the 100R trimpot until the output has no DC offset.

Building note: for 15V use a additional LM337