



Introduction

Back in 2012 Thomas Henry published this circuit as a kind of apprentice piece. One might think that this is a rather large module for being just a crossfader, however, it gives you a lot of control. A lot.

You can find a detailed description of this design at the Thomas Henry sub-forum at electro-music.com, where he publishes most of his newer designs.

Features

- Voltage controlled crossfade (2-in-1),
- DC/AC selector for each input,
- All CV inputs with attenuator,
- VCA with two VC inputs and gain control

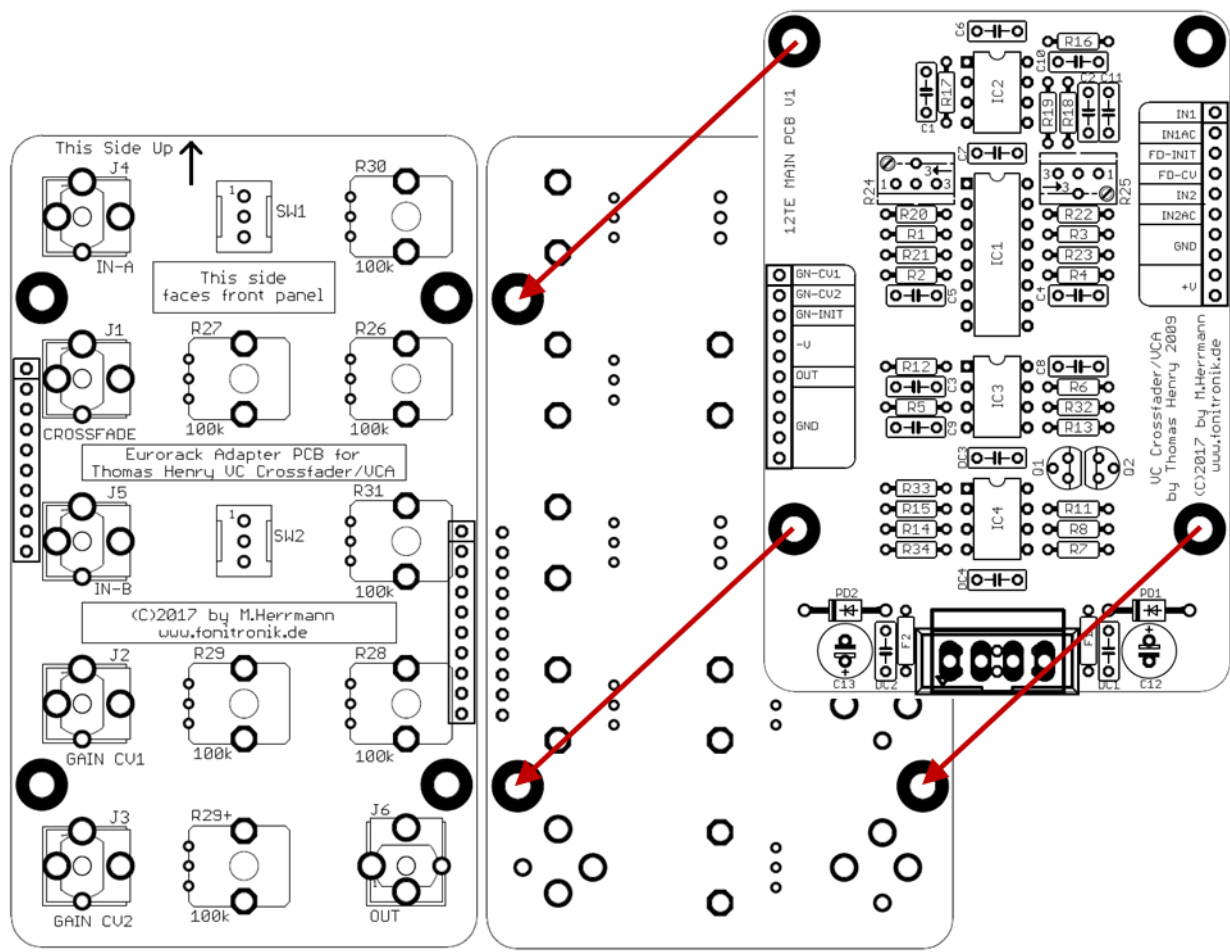
Specifications

- The frontpanel measures: 12HP (Eurorack)
- Mounting depth behind frontpanel incl. power plug: 40mm
- Power consumption: TBA

BTW this is not meant as a beginners project. I do not provide step-by-step building instructions. I just assume that you already build quite a few projects and know how to read the BOM and schematics.

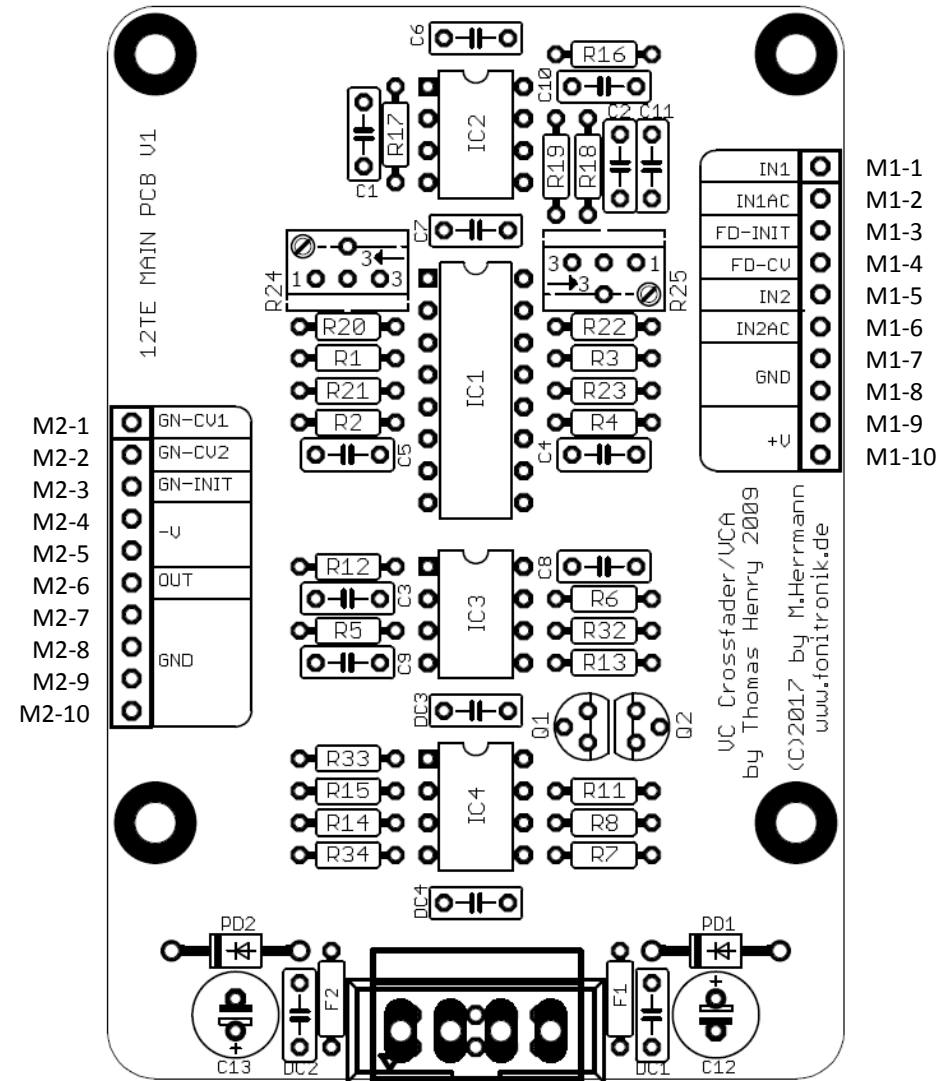
General mounting instructions

This project uses two PCBs, one board with the actual circuitry and an additional adapter PCB carrying the front panel components. The adapter PCB is used to mount the PCBs to the front panel. The PCBs are connected using two 1x10 SIL headers/receptables with 2,54mm pitch (.1in). Additionally you can use stand-offs. When these stand-offs are made from metal they will provide an additional GND path from main PCB to adapter PCB. Look out for something like this:



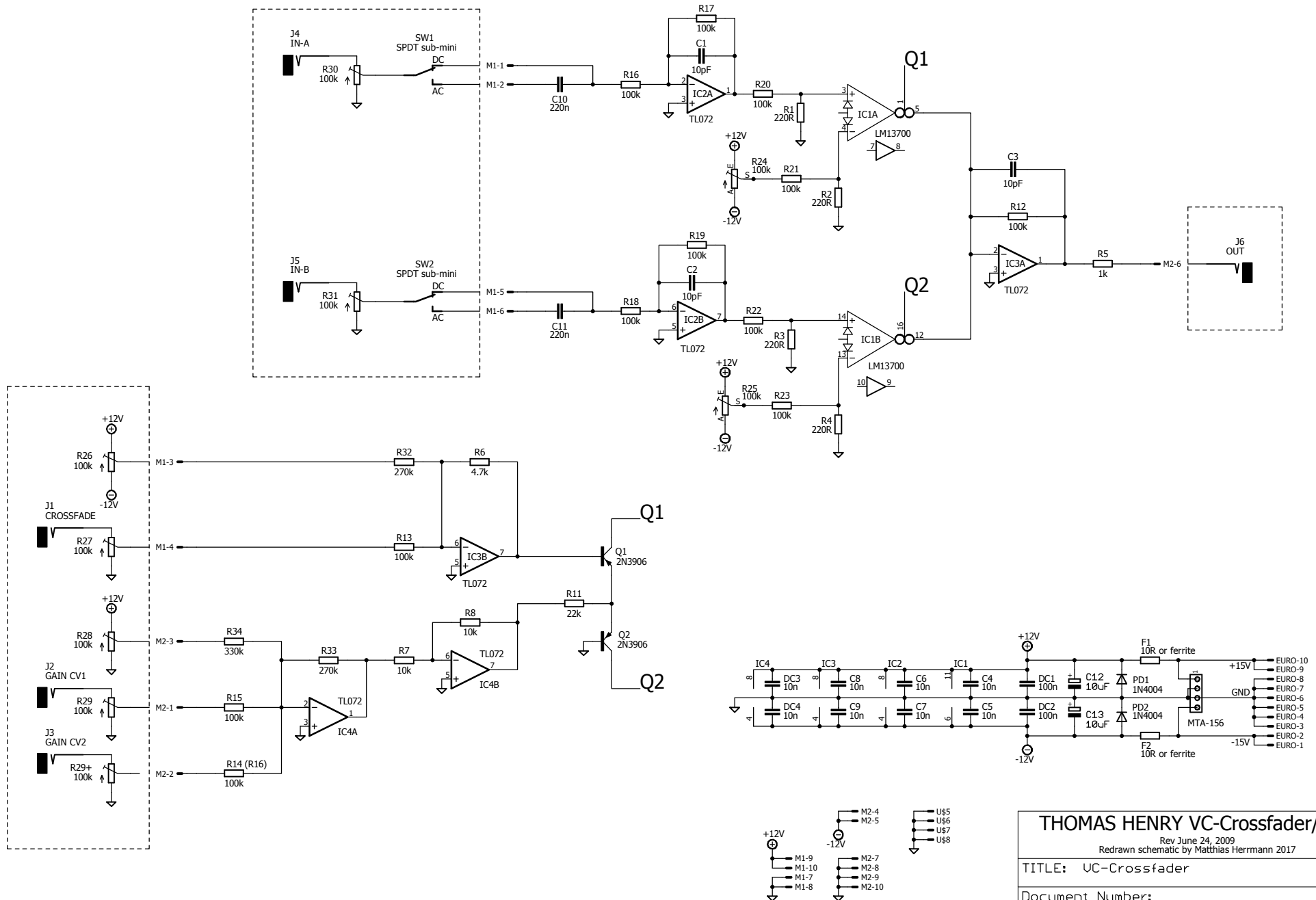
Manual Wiring

Refer to the schematics (last page in this document) for off-board components.



Qty	Value	Parts
Resistors		
2	10R or ferrite	F1, F2
4	220R	R1 - R4
1	1k	R5
1	4.7k	R6
2	10k	R7, R8
1	22k	R11
12	100k	R12 - R23
2	100k (trimmer)	R24, R25
2	270k	R32, R33
1	330k	R34
Capacitors		
3	10pF (C0G/NP0)	C1 - C3
2	220n (film)	C10, C11
2	10uF	C12, C13
8	10n	C4 - C9, DC3, DC4
2	100n	DC1, DC2
Semi's		
2	1N4004	PD1, PD2
2	2N3906	Q1, Q2
1	LM13700	IC1
3	TL072	IC2 - IC4
Adapter PCB & Misc		
7	100k (9mm potentiometer)	R26 - R29, R29+, R30, R31
1	Socket PJ-301B	J1 - J6
2	SPDT sub-mini	SW1, SW2
2	1x10 SIL header female	
2	1x10 DIL header male	
4	M3 Stand-off + Screws	

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THOMAS HENRY VC-Crossfader/VCA

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