

# E370 DIY Version

www.synthtech.com/euroack/e370

## What the E370 DIY Kit is

The E370 DIY version includes the main pc board with all pots soldered, the encoder/knob, the LCD screen mounted and the latest firmware installed. It does not include the knobs, front panel, a power cable, or the jacks. You can use the standard 16-pin Euro cable (+-12V) or the 4-pin MTA-156 MOTM cable (+-15V).

The CAD drawing for the Euro version is at the link above under the DOCS tab. You should also download the User Guide there because the Calibration will need to be run once the module is wired to the jacks.

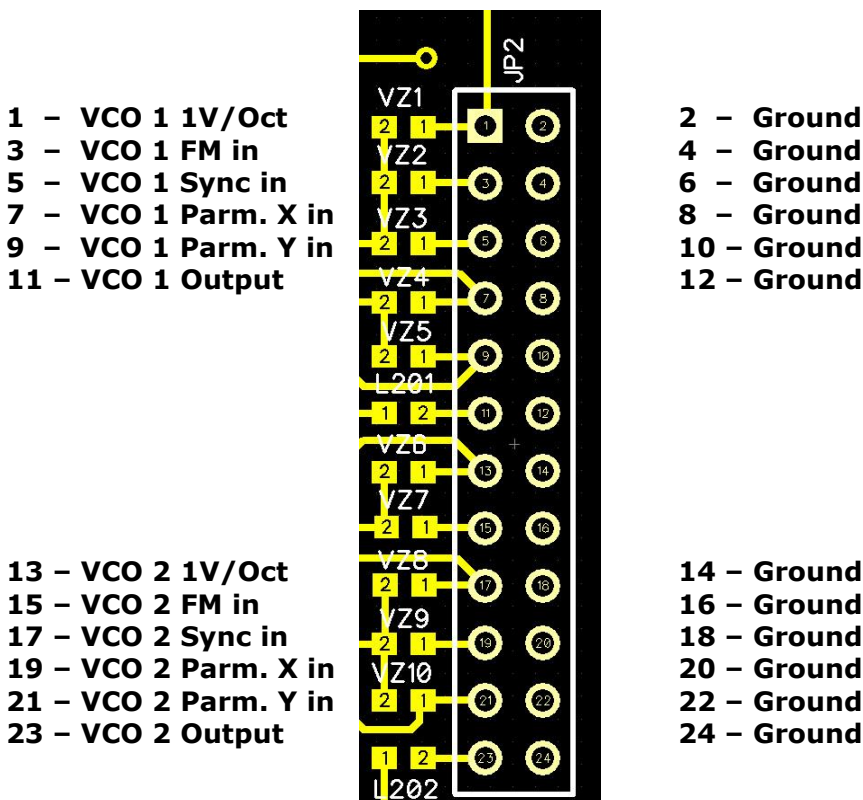
After panel assembly, check the link above to see if newer firmware is needed.

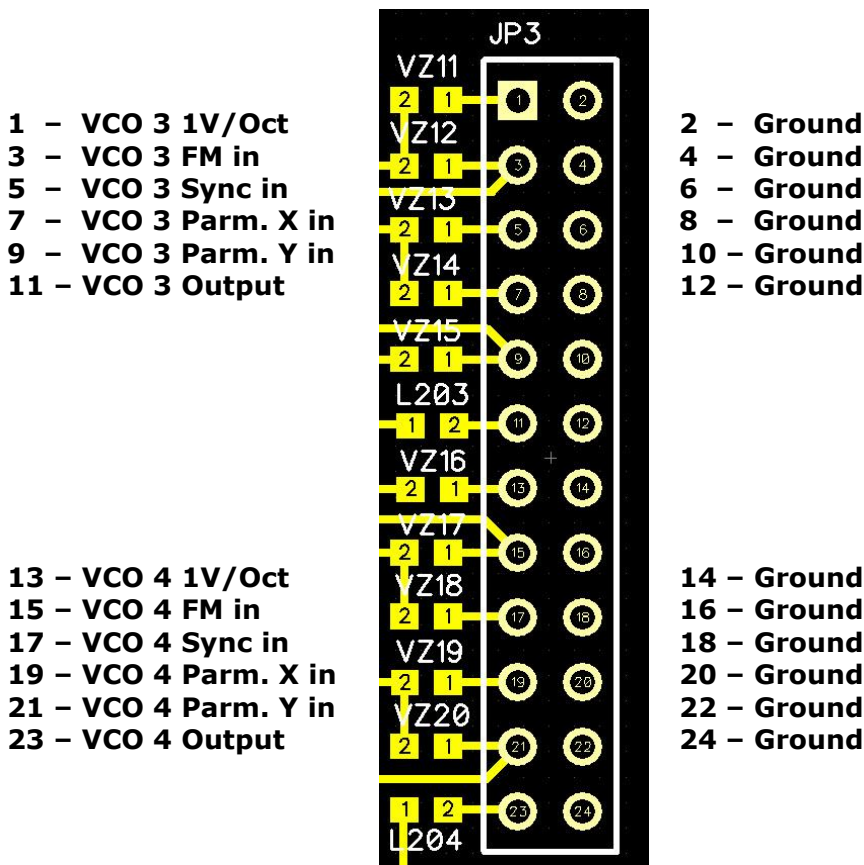
## Jack Connections

The jack connections use a pair of 2x12 header spacing (on 2.54mm/0.1in grid). When viewed from the ‘top’ side of the pc board (where the pots are), the left column has the signals and the right column is ground. This allows stranded twisted pair wire (24 or 26ga) to be used to easily wire to jacks. The signals are repeated for each VCO: 1V/Oct, FM, Sync, Param X, Param Y, and Output.

It is HIGHLY RECOMMENDED to use twisted pairs from the E370 board to each jack, as opposed to “daisy chaining” the grounds on the jacks, then running 1 wire back to a ground on the pc board. You can make twisted pairs using a drill and a doorknob (I’m sure there are YouTube videos).

Note that Pin 1 is the square pad, and all the pins in that column are ‘odd’ and the grounds in the other column are ‘even’ numbered.





## Mounting to the front panel

The pots have 2 nuts + a flat washer. Remove the top nut and washer, but keep the bottom nut on the pot. The panel will rest on these pot nuts. The flat washer and nut attach to the front side of the panel. Do not over-tighten the pot nuts, as this may ‘squeeze’ the internal O-ring seal and cause the pot to exhibit ‘backlash’ (the pot position will move slightly when you turn and let go of the knob).

The LCD may need “squaring up” with the panel cutout. The 2 screw holes for the LCD standoffs are oversized so that if you loosen the 2 bottom screws, you can ‘wiggle’ the LCD a bit to align with the opening. Retighten the screws.

The encoder knob pulls off, it is a spring-loaded D-shaft and you can use another knob if desired. The encoder ribbon is ‘black stripe down’ if you need to remove it from the red connector (as this connector grips pretty tight, be careful pulling it out).

## Power Requirement

+12V @ 105ma, -12V @32ma. +15V @ 100ma, -15V @ 30ma