

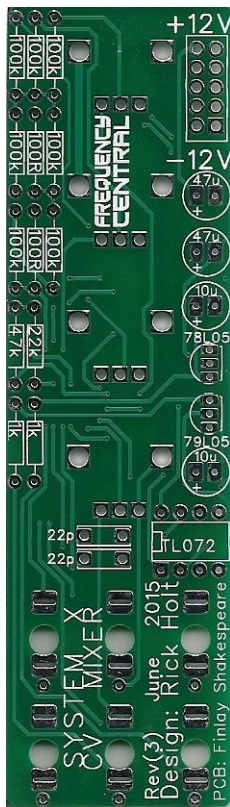
# FREQUENCY CENTRAL

Build documentation for:

## SYSTEM X CV MIXER

Rev(3) June 2015

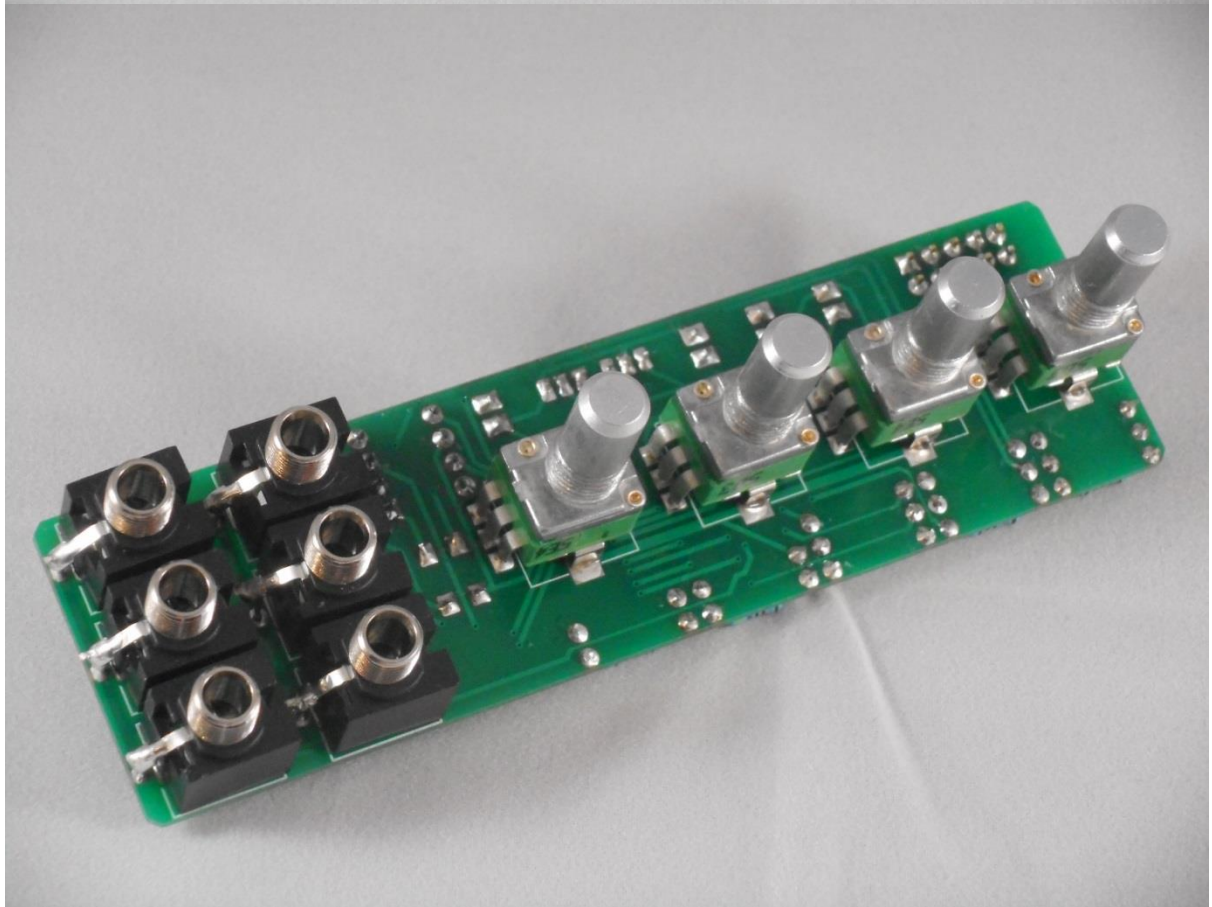
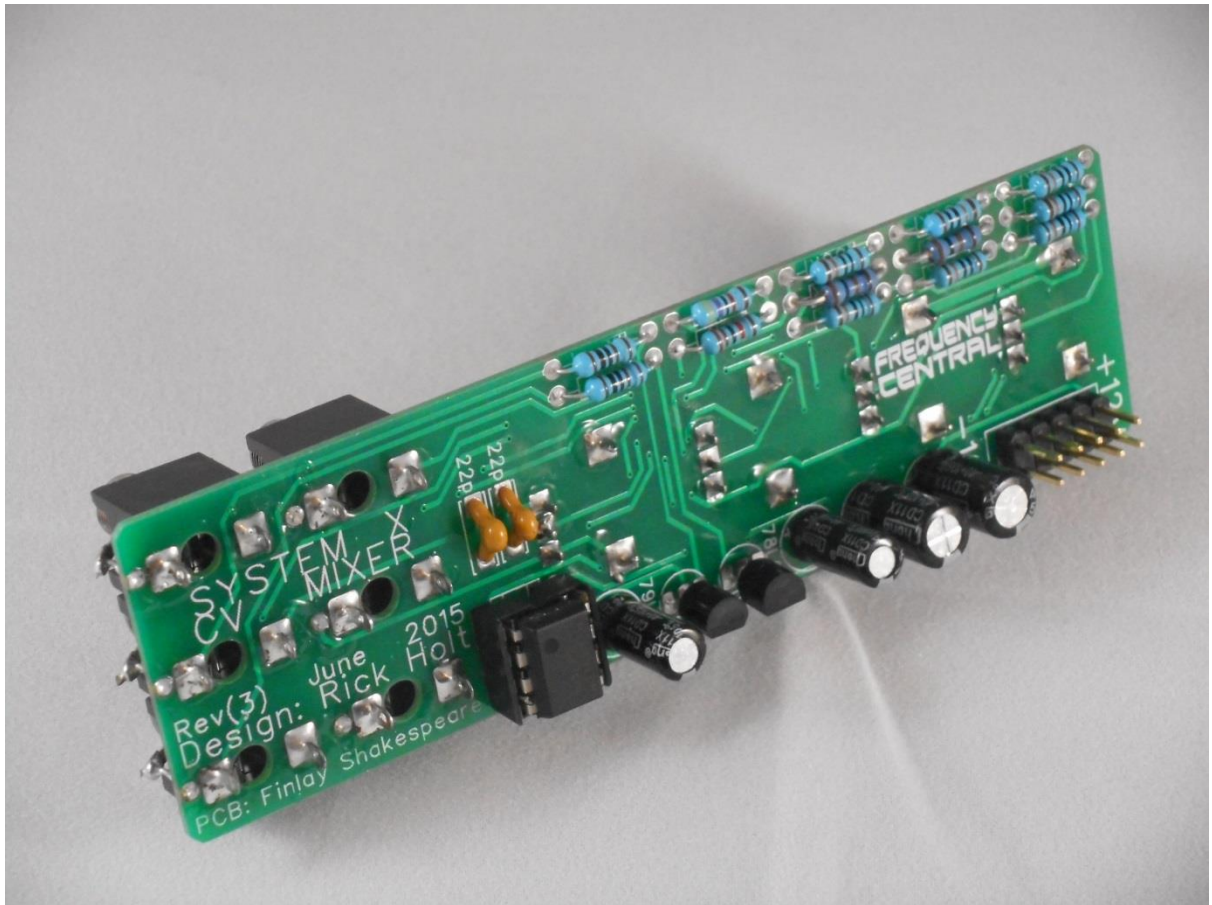
- Based on the Roland System 100M 132 module.
- 4 inputs, 2 outputs – normal and inverted.
- +5V normalled to input 3, -5V normalled to input 4.
- Although named a CV mixer, it performs equally well as an audio mixer. If you intend to use it primarily as an audio mixer, replace the pots with A100K.



Please observe the correct polarity for the dual opamp, 2 voltage regulators and 2 electrolytic capacitors. Don't mix up the 100R resistors with the 100K resistors!

### Bill of materials

100R x 2	<a href="#">22pF x 2</a>	TL072 x 1	<a href="#">B100K x 4 (9mm Alpha)</a>
1K x 2	<a href="#">10uF x 2</a>	78L05 x 1	<a href="#">3.5mm Socket x 6</a>
22K x 1	<a href="#">47uF x 2</a>	79L05 x 1	<a href="#">Power header x 1</a>
47K x 1			
100K x 7			
All resistors ¼ watt			



Assemble in this order:

- Resistors
- 22pF capacitors
- IC socket
- 78L05 and 79L05 (don't mix them up!)
- Power header
- Electrolytic capacitors

The pots and sockets need to be soldered to the 'other side' of the PCB, like this:

- Insert all pots, make sure that they all sit flush with the PCB, put the panel over them, turn the panel face down and solder the pots in place.
- Insert the top 3 sockets (In 1, In 2, Norm), make sure that they all sit flush with the PCB, put the panel over them, turn the panel face down and solder the pots in place.
- Ground the sockets to the PCB using the ground pads, there's one for each socket, use a resistor leg to connect them. You'll want to bend the socket ground tabs towards the PCB by 45 degrees first, so they don't foul on the next lot of sockets.
- Insert the bottom 3 sockets (In 3, In 4, Inv), make sure that they all sit flush with the PCB, put the panel over them, turn the panel face down and solder the pots in place.
- Ground the sockets to the PCB using the ground pads, there's one for each socket, use a resistor leg to connect them. You'll want to bend the socket ground tabs towards the PCB by 45 degrees first, so they don't protrude past the bottom of the PCB.
- Put the panel in place, tighten all nuts, add knobs.
- Plug it in, test it, use it, love it.

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