

The SOLX 452 part 2

The LFO

This is a standard triangle / square design with variable rate.

The sample and hold is also standard using a JFET as an electronic switch, and is triggered from the LFO

Noise Generator

This uses a reverse biased NPN transistor as a noise source followed by a filter network based on the EMS design.

The meter circuit is based on the EMS design but using an opamp.

The Joystick

These are just buffers to the joystick and range pots.

The Input Amplifiers

These are opamp based circuits similar to the EMS discreet design.

The Output Amplifiers

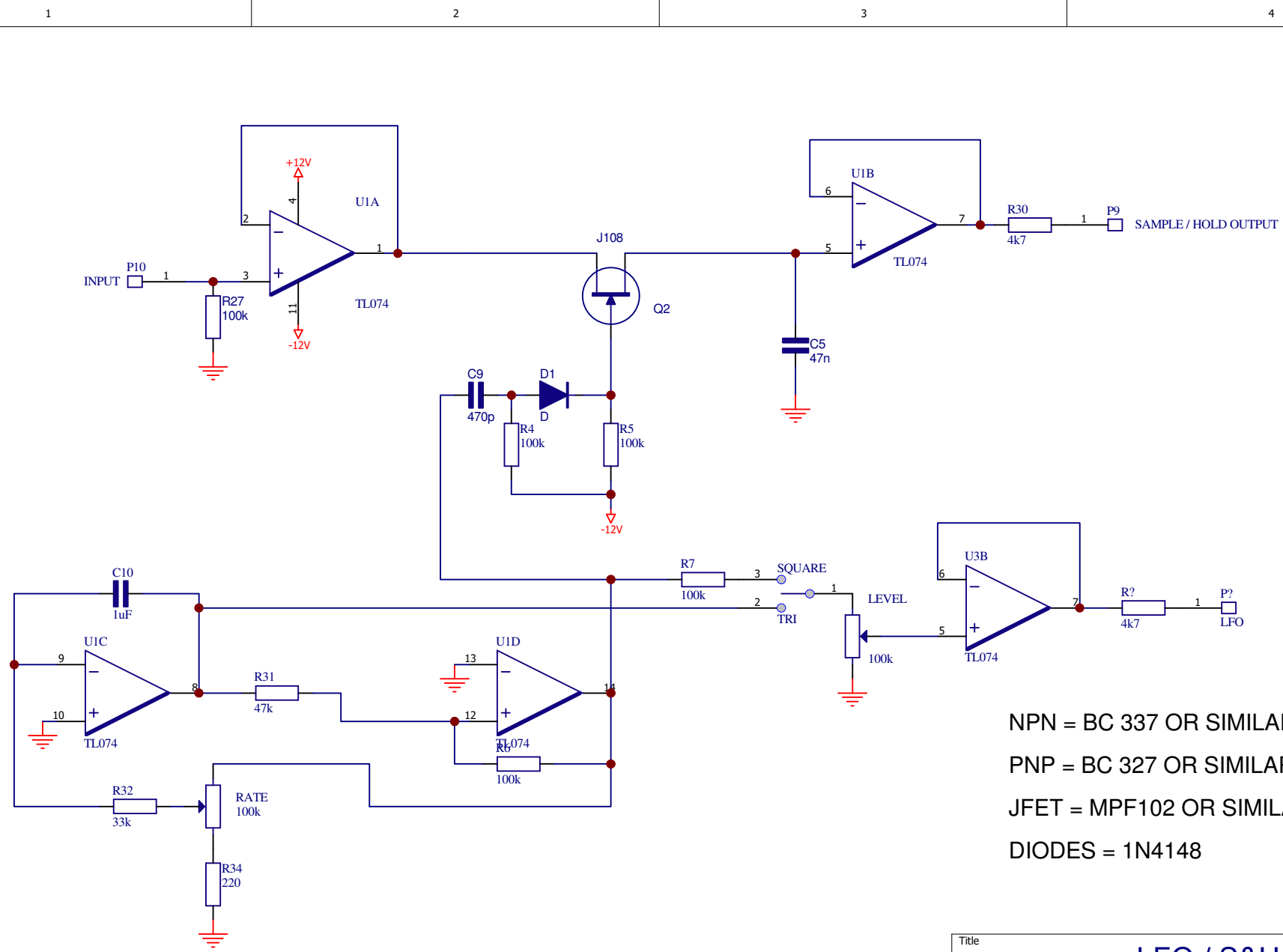
These are based on the EMS design. They are voltage controlled gain stages using 741 opamps as in the AKS synth. Other opamps could be used if they allow the non-inverting inputs to go to the negative supply.

MIDI

This is based on a PIC and has pitch, velocity and gate outputs.

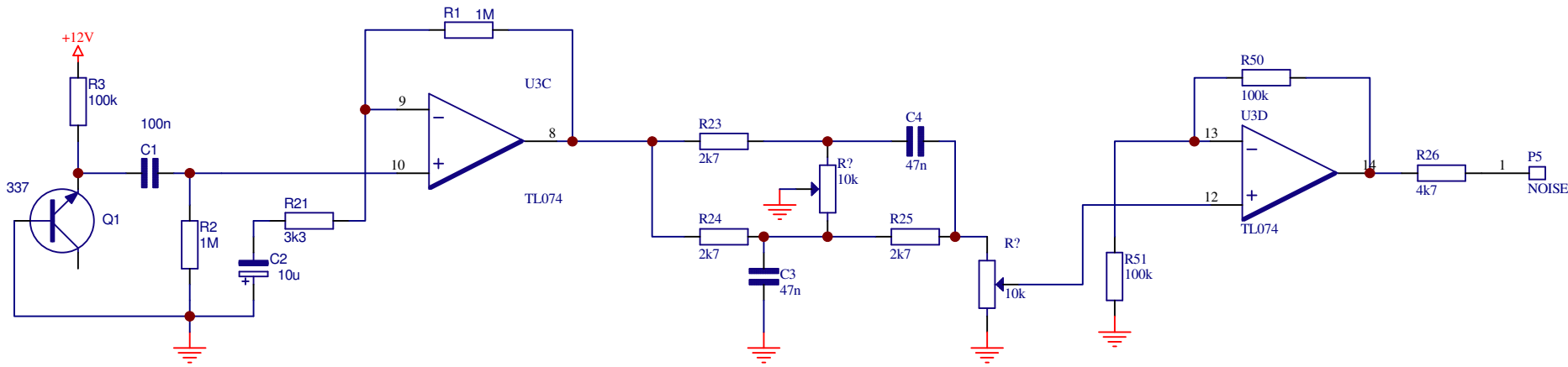
Power Supply

This is a standard regulated design with +12V, -12V and +5V outputs. It is powered from a 12V AC 1A wall wart.

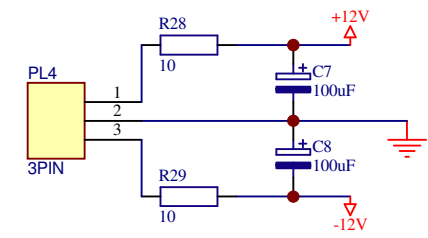
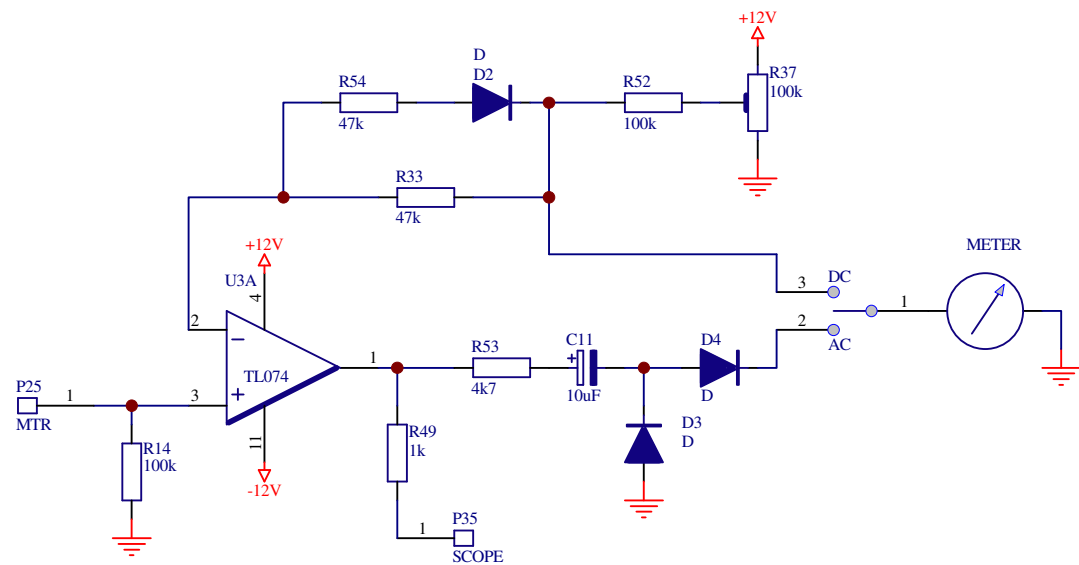


NPN = BC 337 OR SIMILAR
 PNP = BC 327 OR SIMILAR
 JFET = MPF102 OR SIMILAR
 DIODES = 1N4148

Title		
LFO / S&H		
Size	Number	Revision
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Date:	16-Sep-2023	Sheet of
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 JFET = MPF102 OR SIMILAR
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Title		
NOISE / METER		
Size	Number	Revision
A4		
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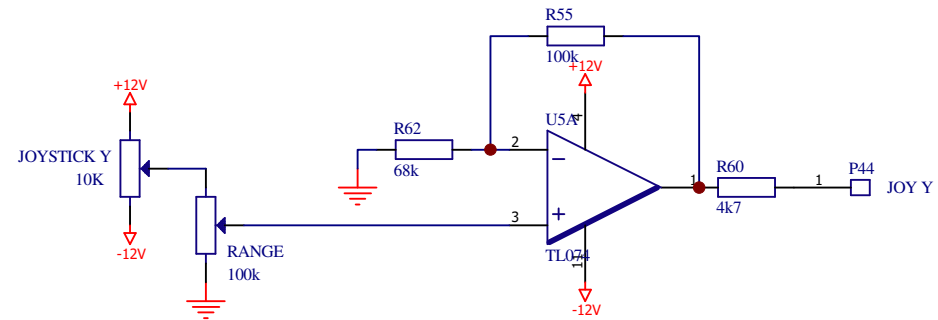
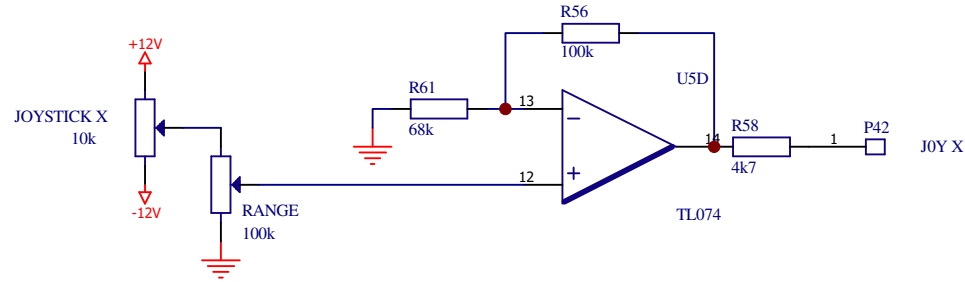
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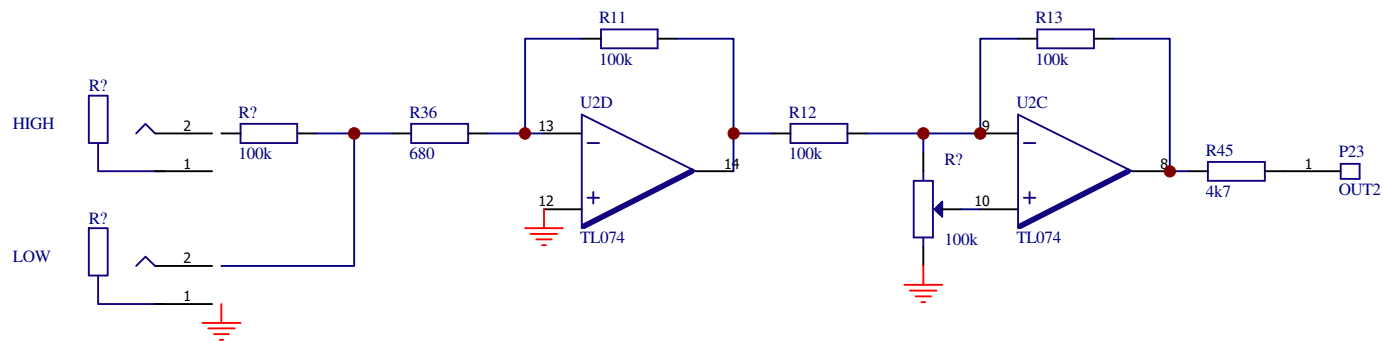
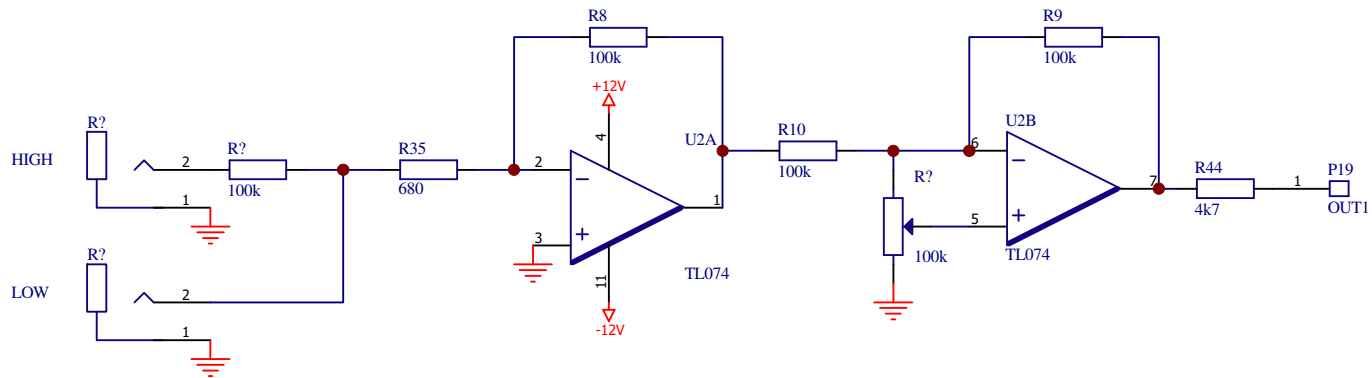
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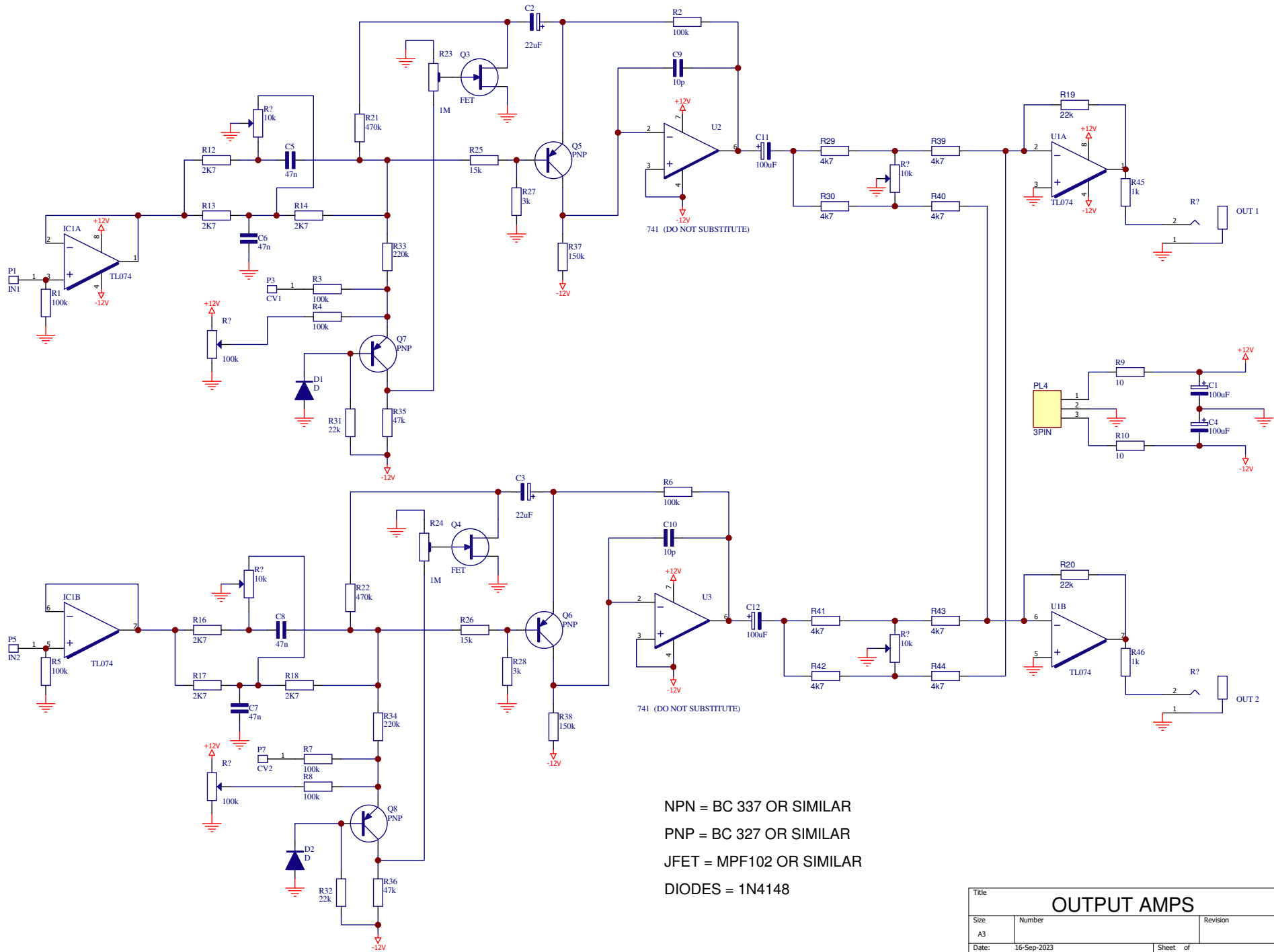
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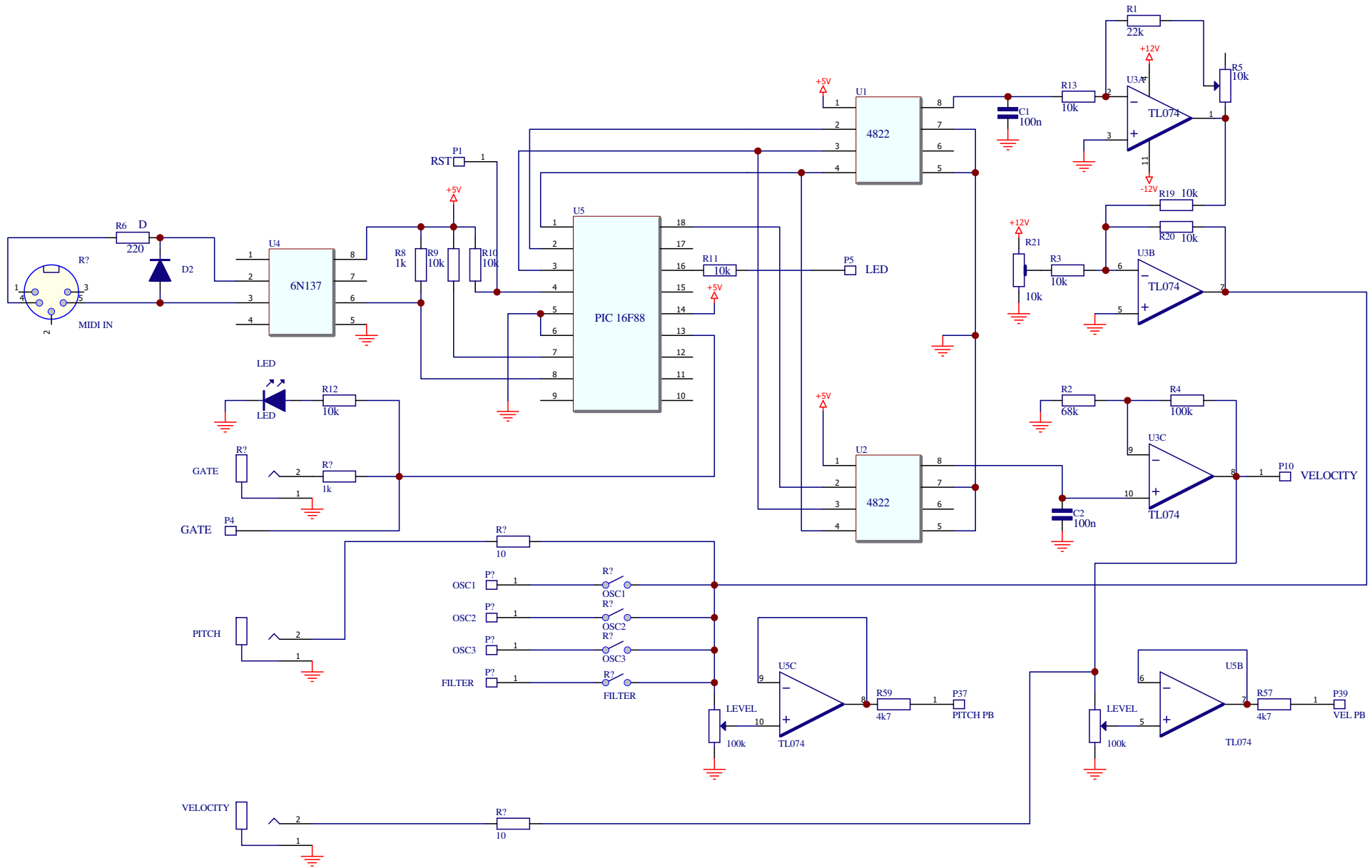
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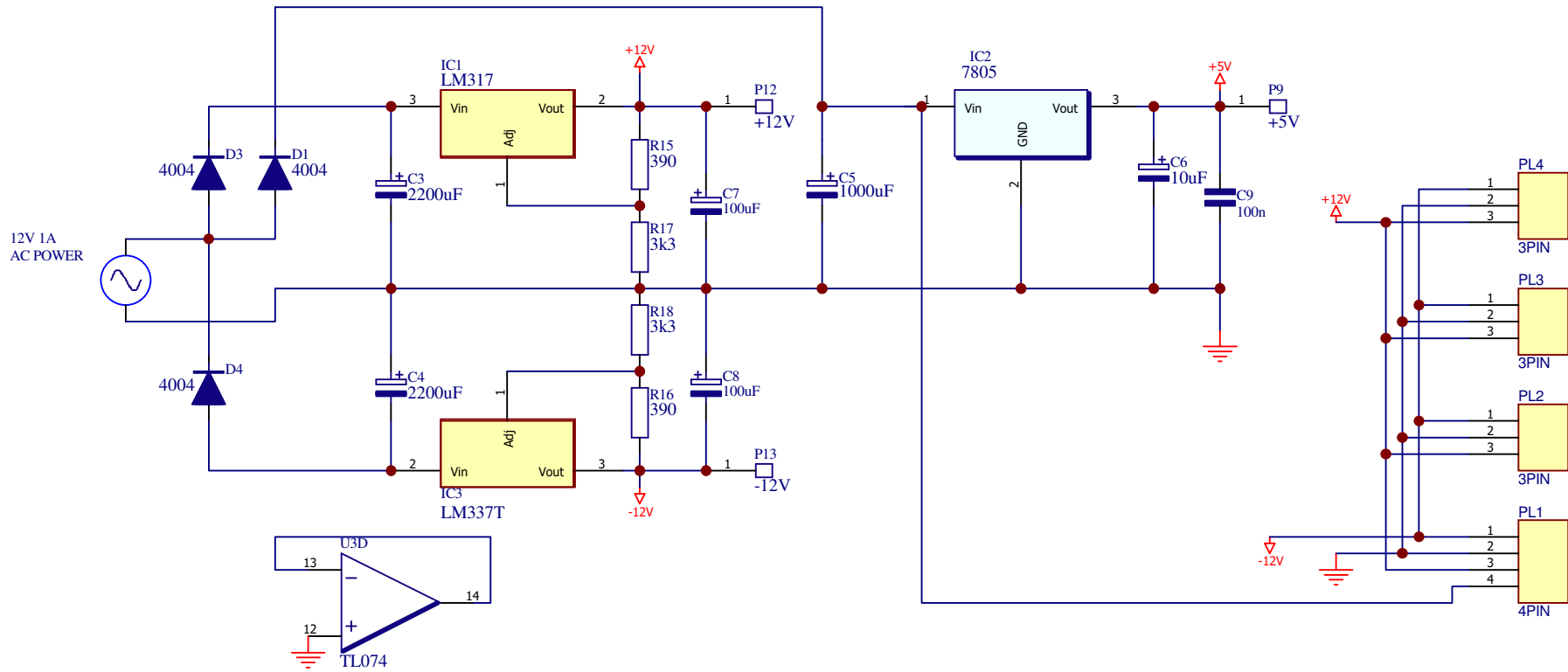
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OUTPUT AMPS



Title			MIDI		
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Title			PSU		
Size	Number		Revision		
A4					
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