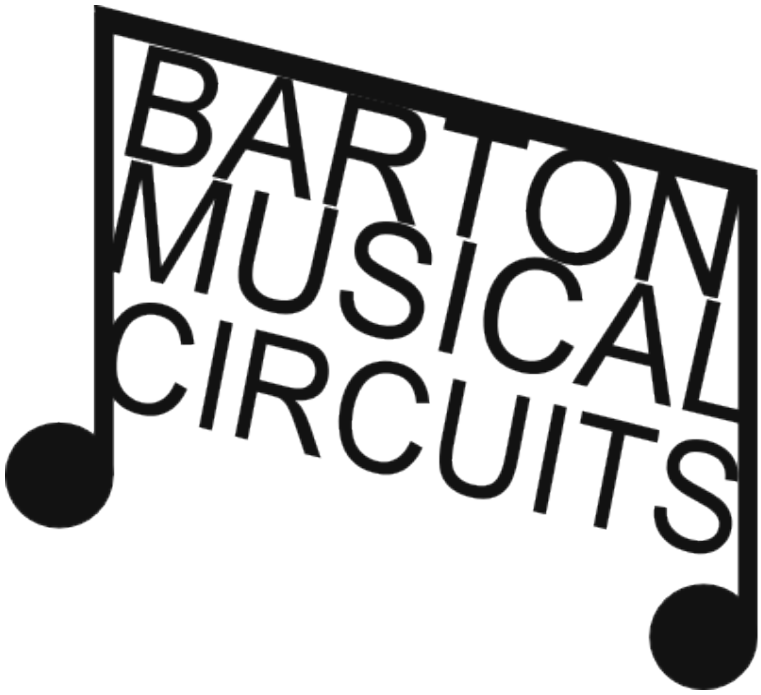

BMC066. 4HP 2X3 Buffer

If you have any questions, or need help trouble shooting, please e-mail
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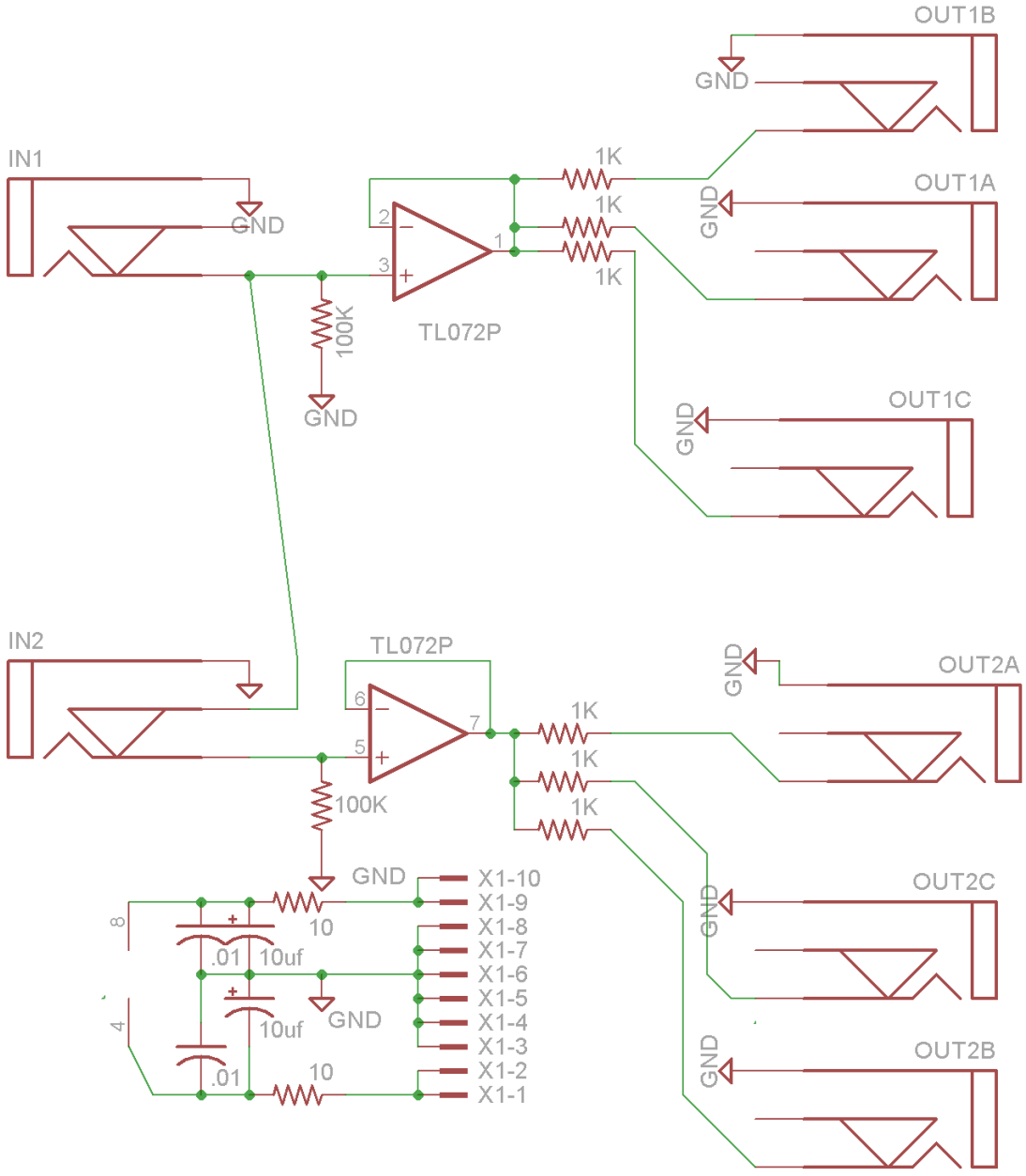
I. What it Does

This is a buffer module with two channels, each with three outputs. The second channel's input is normalized to the first channels so it can be used as a single channel buffer with six outputs. This buffer can be used with any sort of modular synth signal (audio, CV, gate/trigger).

II. Schematic



Above is the schematic for this project. The first input jack's tip is connected to the switch of the second input jack so that when nothing is plugged into the second jack the first jack's signal will go to all six outputs.

Each input jack is connected to a 100K resistor to ground to set the input impedance at 100K and provide ground reference, then connected to an op-amp wired as a unity gain buffer. The output of the op-amp connects to three 1K resistors that are in series with the output jacks.

At the bottom are the power connections. A 10 ohm resistor and 10 uf capacitor form a low pass filter and additional .01uf capacitors are present at the power pin for additional high frequency filtering.

III Construction
A.PARTS LIST

SEMICONDUCTORS

Name/Value	QTY	Notes
TL072	1	8 pin DIP package

RESISTORS

Name/Value	QTY	Notes
10 ohms	2	All resistors 1/4W metal film except potentiometers
1K	6	
100K	2	

CAPACITORS

Name/Value	QTY	Notes
.1uf	2	cheap ceramic disc. Value not critical.
10uf	2	Electrolytic, 16V or higher rating.

OTHER

Name/Value	QTY	Notes
8 pin DIP socket	2	
Power connecter	1	Right angle 2x5 2.54mm, like this.
Jacks	8	PCB is designed around these jacks: PJ-323M

B. THE BOARD

The PCB is 97mm x 29mm. The jacks are spaced 12.7mm apart (.5 inch). Below are images of the PCB with and without traces present and a photograph of a completed module. The image of the PCB with traces does not show connections to ground.