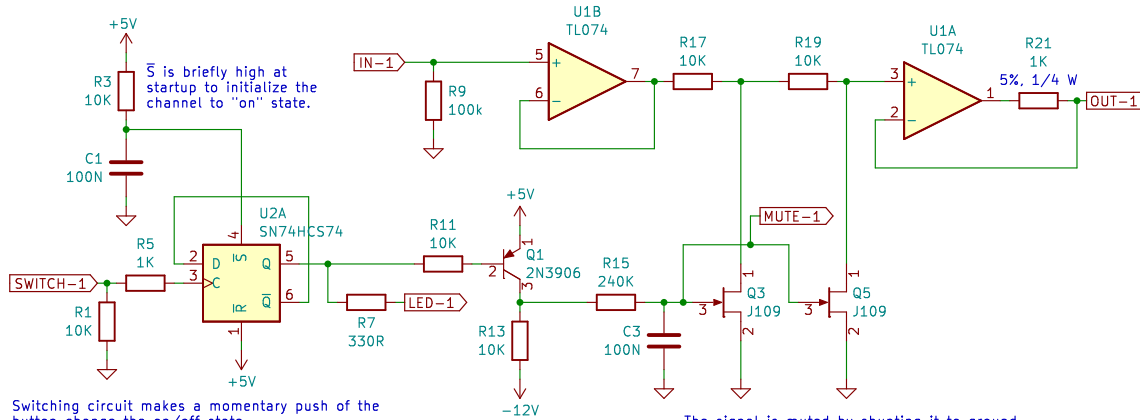


### Channel 1

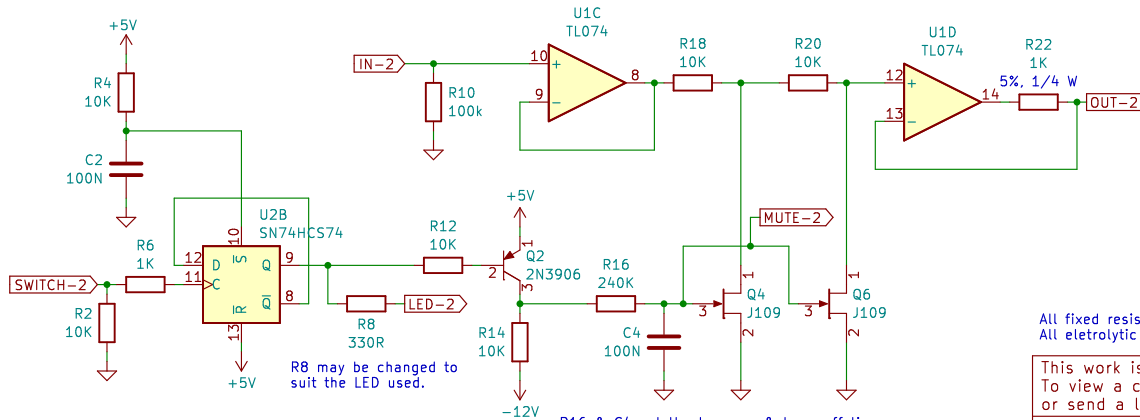


Switching circuit makes a momentary push of the button change the on/off state. It's important that the flip-flop has Schmitt-trigger inputs to prevent multiple transitions due to switch bouncing (even with a capacitor for de-bouncing).

Q1 converts the "on" state from +5 V to -12 V to turn off the JFETs.

The signal is muted by shunting it to ground. The JFET's on resistance prevents it from completely muting the signal, so two JFETs are used in parallel to give  $\geq 60$  dB of muting.

### Channel 2



R8 may be changed to suit the LED used.

R16 & C4 set the turn-on & turn-off time. They can be changed to adjust the "soft switching" behaviour. They also may need to be changed if different JFETs are used.

All fixed resistors are 1% tolerance unless otherwise specified.  
All electrolytic capacitors are rated for 25VDC unless otherwise specified.

This work is licensed under the Creative Commons Attribution 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

Eurorack muting module module - 8HP

Copyright © 2023 Len Popp CC BY

Len Popp

Sheet: /

File: Switches.kicad\_sch

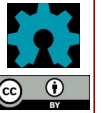
**Title: Switches - Channels 1 & 2**

Size: A4 Date: 2023-10-17

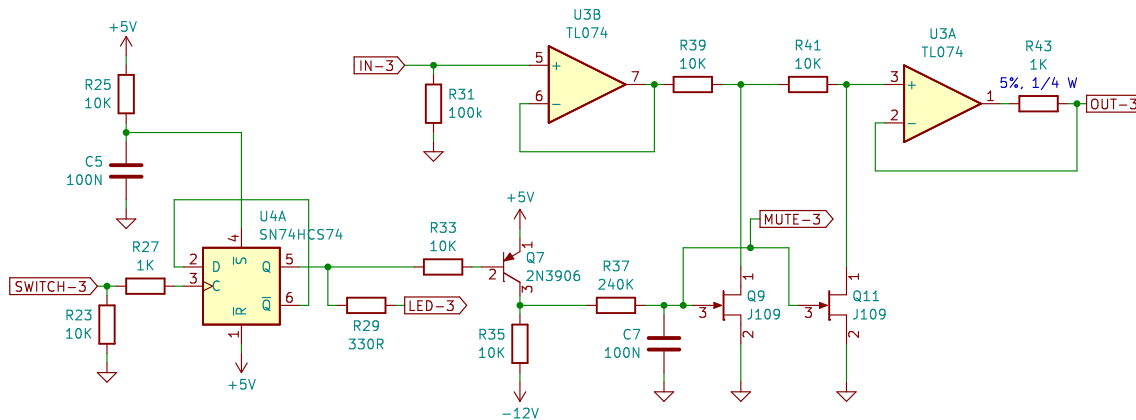
KiCad E.D.A. kicad 7.0.8

Rev: 1.0

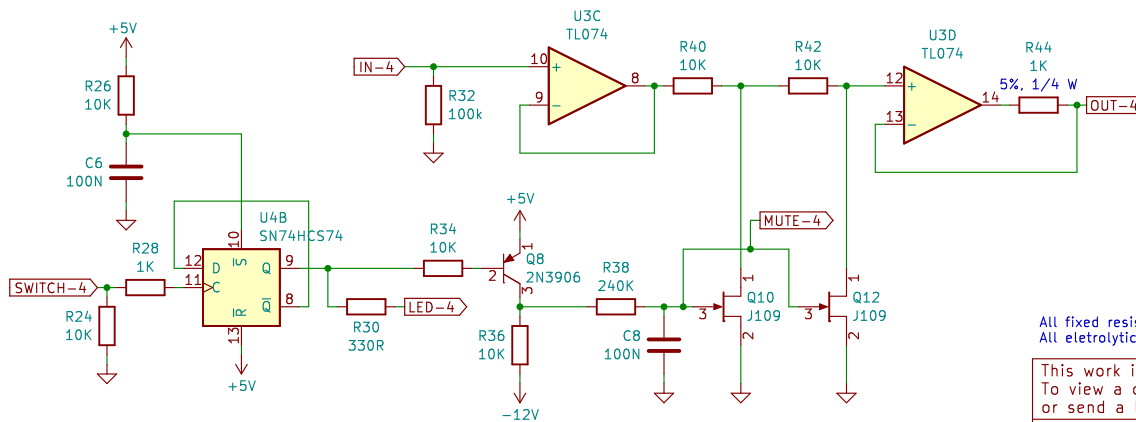
Id: 1/3



Channel 3



Channel 4



All fixed resistors are 1% tolerance unless otherwise specified.  
All electrolytic capacitors are rated for 25VDC unless otherwise specified.

This work is licensed under the Creative Commons Attribution 4.0 International License.  
To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>  
or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

Eurorack muting module module – 8HP

Copyright © 2023 Len Popp CC BY

Len Popp

Sheet: /Channels34/

File: Channels34.kicad\_sch

**Title: Switches – Channels 3 & 4**

Size: A4 Date: 2023-10-17

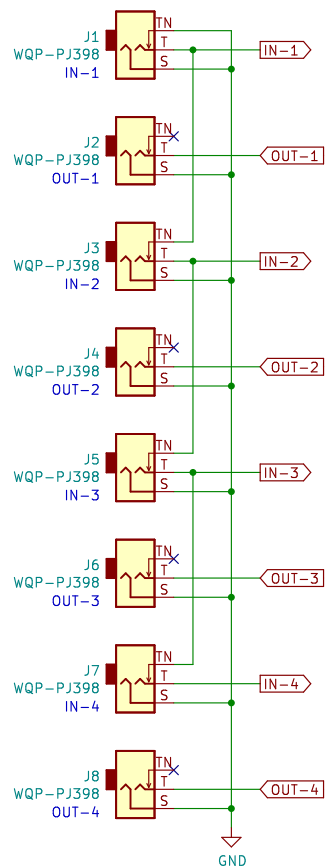
KiCad E.D.A. kicad 7.0.8

Rev: 1.0

Id: 2/3

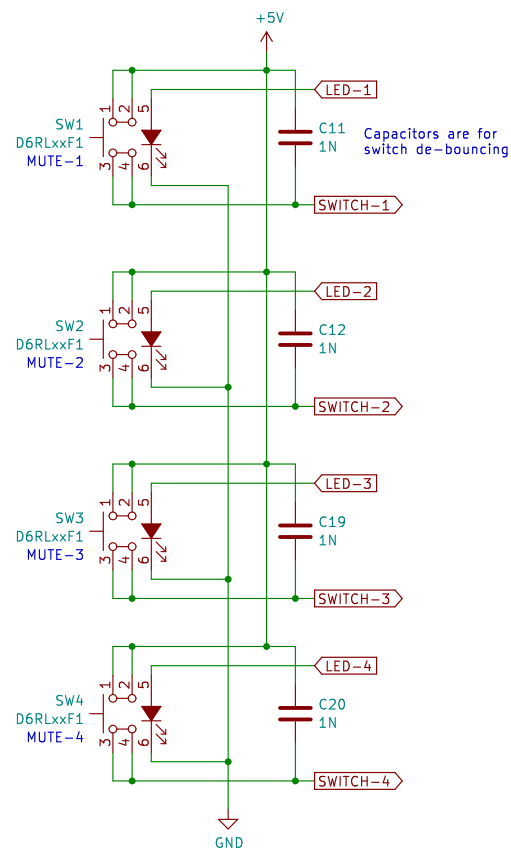


## In/Out Jacks

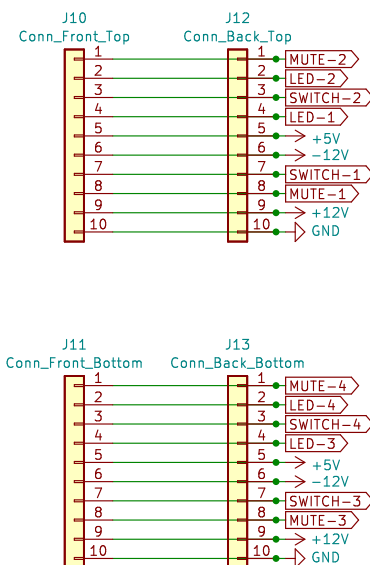


## Mute Switches

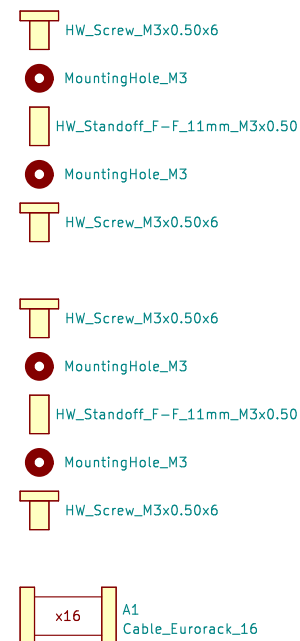
Illuminated momentary pushbuttons



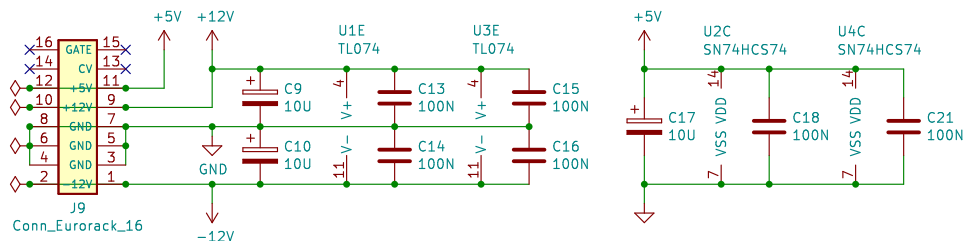
## Board Connectors



## Hardware



## Eurack Bus & Power



All fixed resistors are 1% tolerance unless otherwise specified.  
All electrolytic capacitors are rated for 25VDC unless otherwise specified.

This work is licensed under the Creative Commons Attribution 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

Eurack muting module module - 8HP  
Copyright © 2023 Len Popp CC BY

Len Popp

Sheet: /PanelPower/  
File: PanelPower.kicad\_sch

**Title: Switches - Front Panel & Power**

Size: A4 Date: 2023-10-17

KiCad E.D.A. kicad 7.0.8

Rev: 1.0

Id: 3/3