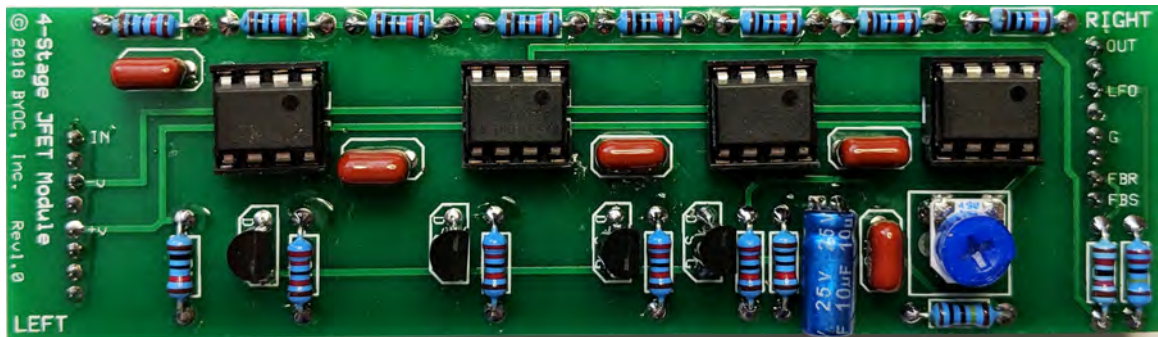


# Build Your Own Clone Phase Royal 4-Stage JFET Phaser Module Instructions



## **Parts list for the Phase Royal 4-Stage JFET Phaser Module Pack**

### **Resistors:**

- 10 - 10k** (Brown/Black/Black/Red/Brown)
- 1 - 12k** (Brown/Red/Black/Red/Brown)
- 4 - 22k** (Red/Red/Black/Orange/Brown)
- 1 - 1M** (Brown/Black/Black/Orange/Brown)
- 1 - 2M2** (Red/Red/Black/Yellow/Brown) OR (Red/Red/Green/Gold)

### **Capacitors:**

- 5 - .047uF/473 Film Cap** (May say "473" on the body)
- 1 - 10uF Electrolytic**

### **IC:**

- 4 - 741 or TL071 or similar single opamp**

### **Transistors:**

- 4 - Your kit will include 2N5952 OR 2N5458 JFETs**

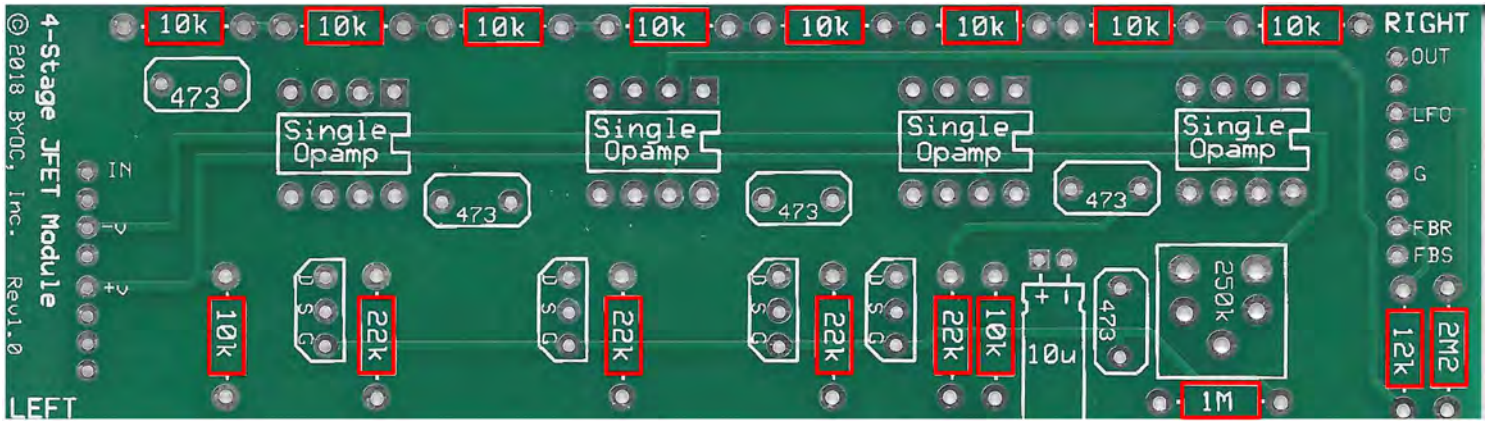
### **Potentiometers:**

- 1 - 250k Trimpot**

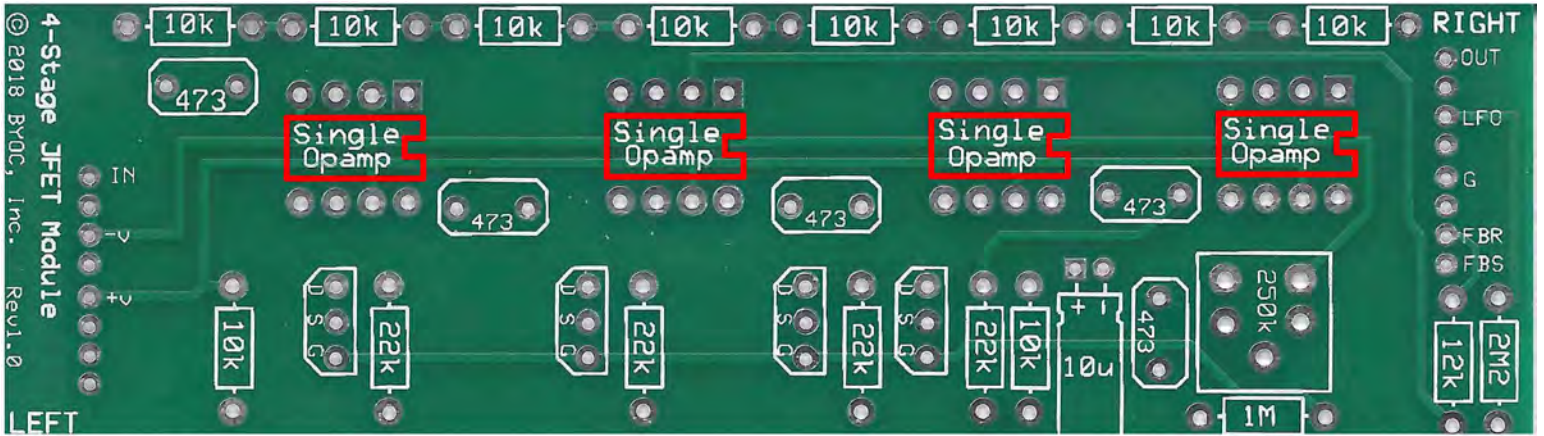
### **Hardware:**

- 4 - DIP-8 Socket**
- 4 - 1X4 pins**

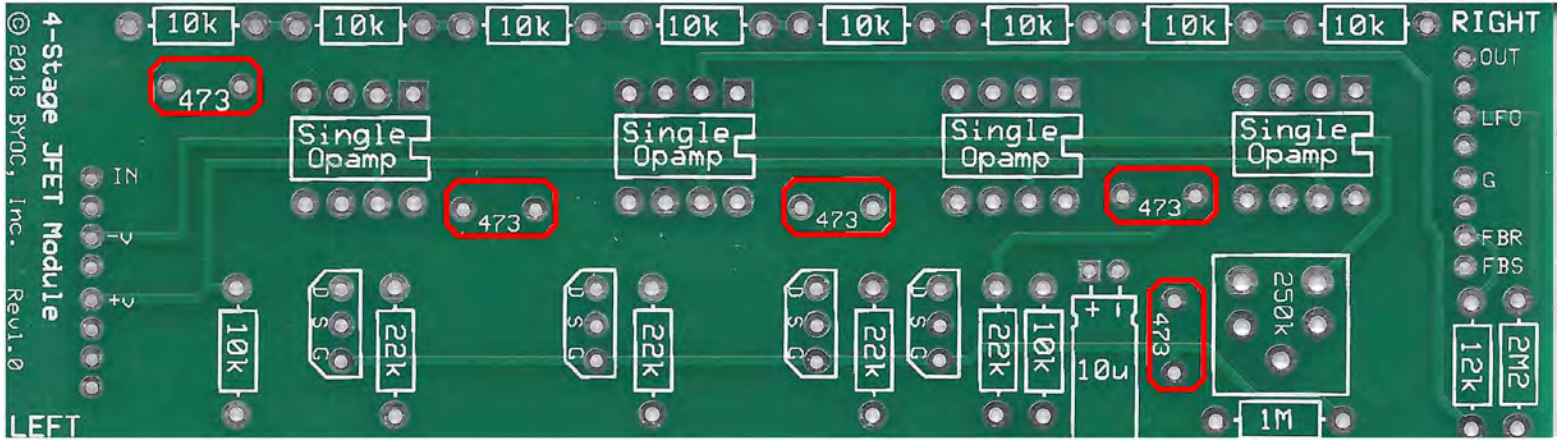
**Step 1:** Add the resistors. These are not polarized and can go in either direction.



**Step 2:** Add the IC socket. Be sure to match the notch on the socket with the notch outline on the PCB screenprint.

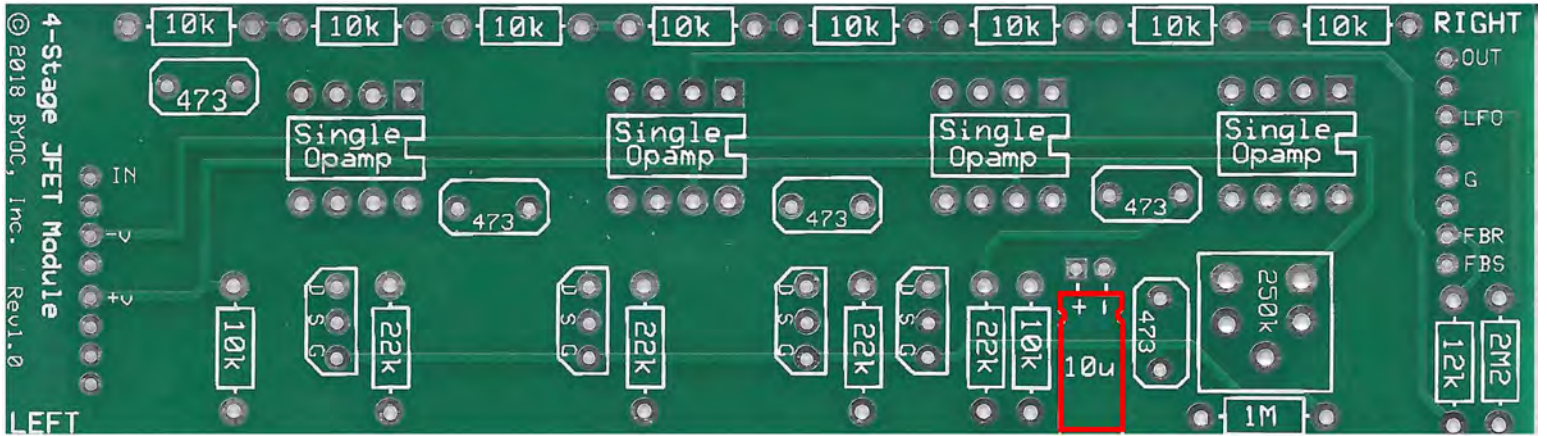


**Step 4:** Add the Film caps. These are not polarized and can be placed in either direction. The capacitor highlighted in yellow is the ceramic disc capacitor.

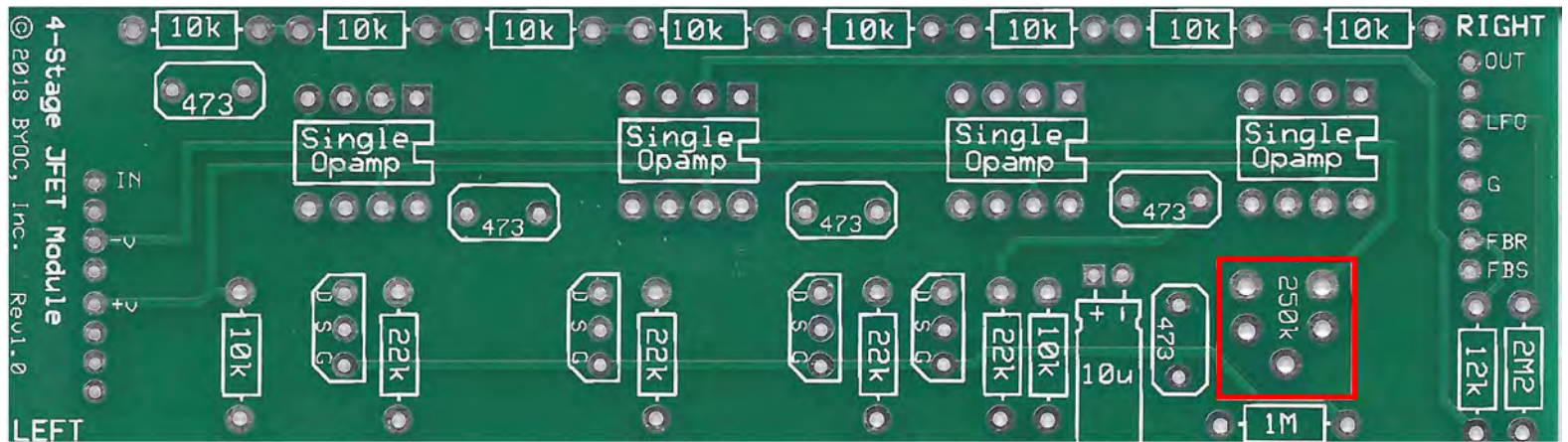




**Step 5:** Add the electrolytic capacitor. Before soldering, bend the capacitor so it lays flat along the screenprint outline.



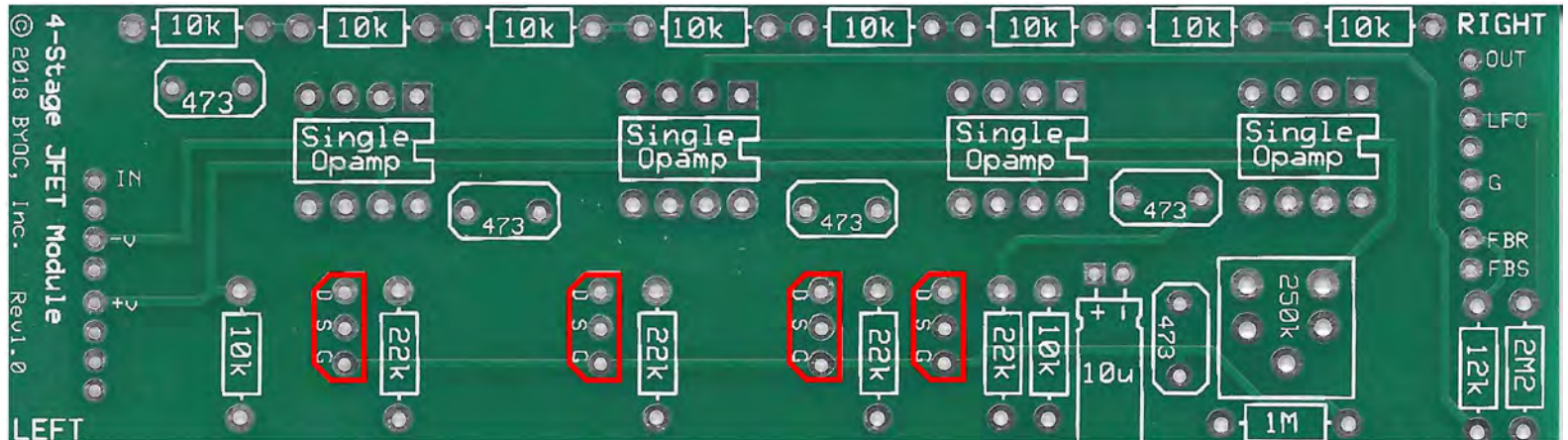
**Step 6:** Add the trimpot. There are 5 holes on the PCB for the trimpot, but only three on the trimpot itself. This is normal; your trimpot will only go into three of the holes. This is to accommodate various sizes of trimpots.



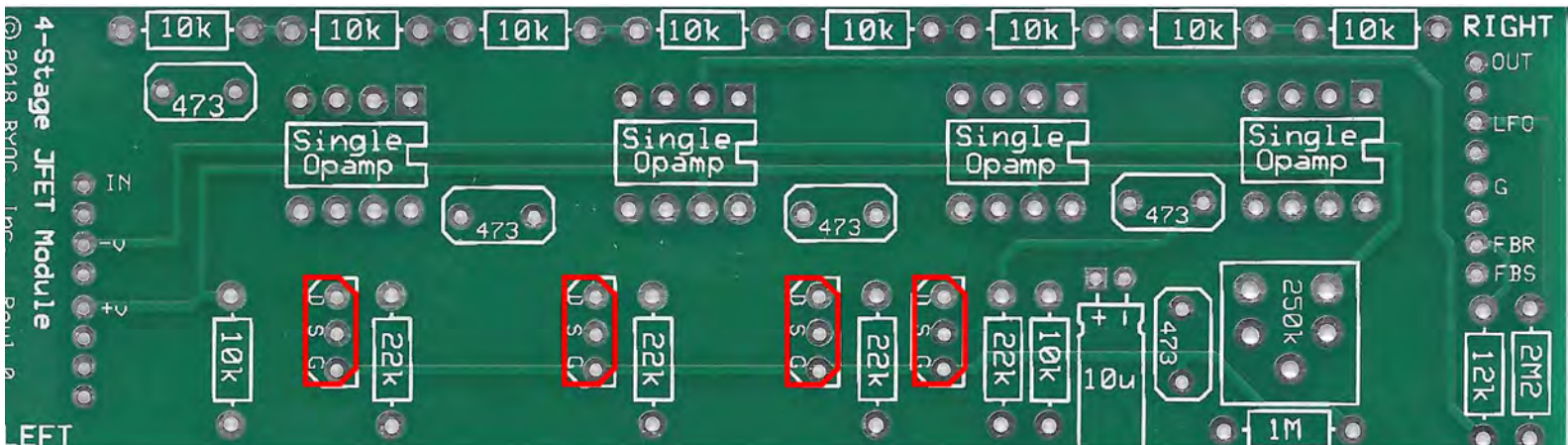
### Setting the trimpot:

When setting the trimpot, you want to start in the middle of the sweep, then tweak it slightly in either direction until you get the best sounding phase. It's mostly tuned by ear.

**Step 7: Add the JFET transistors. Make note of the JFETs you have. This is important for the orientation!**



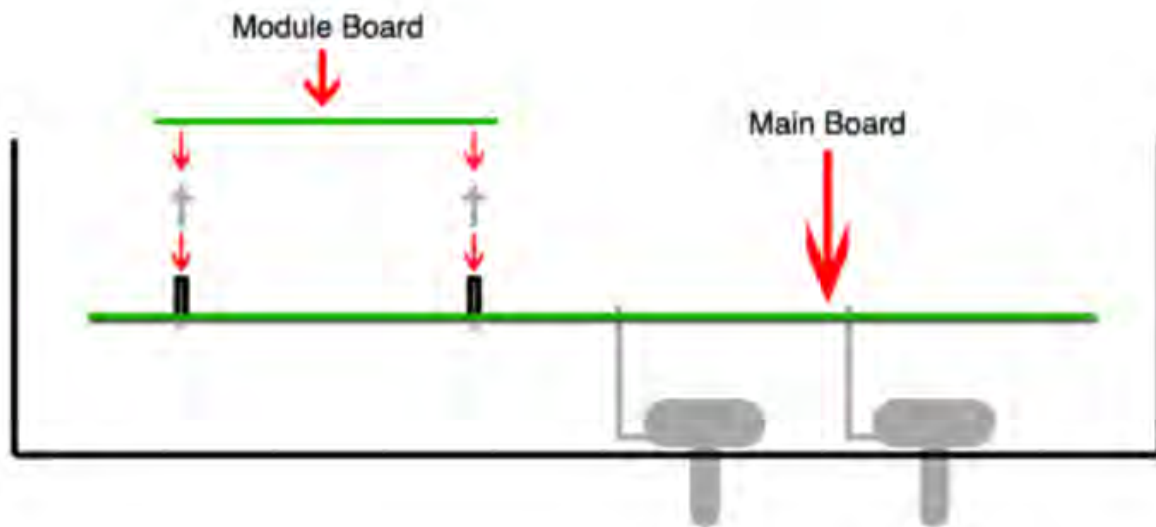
**2N5952 Orientation**

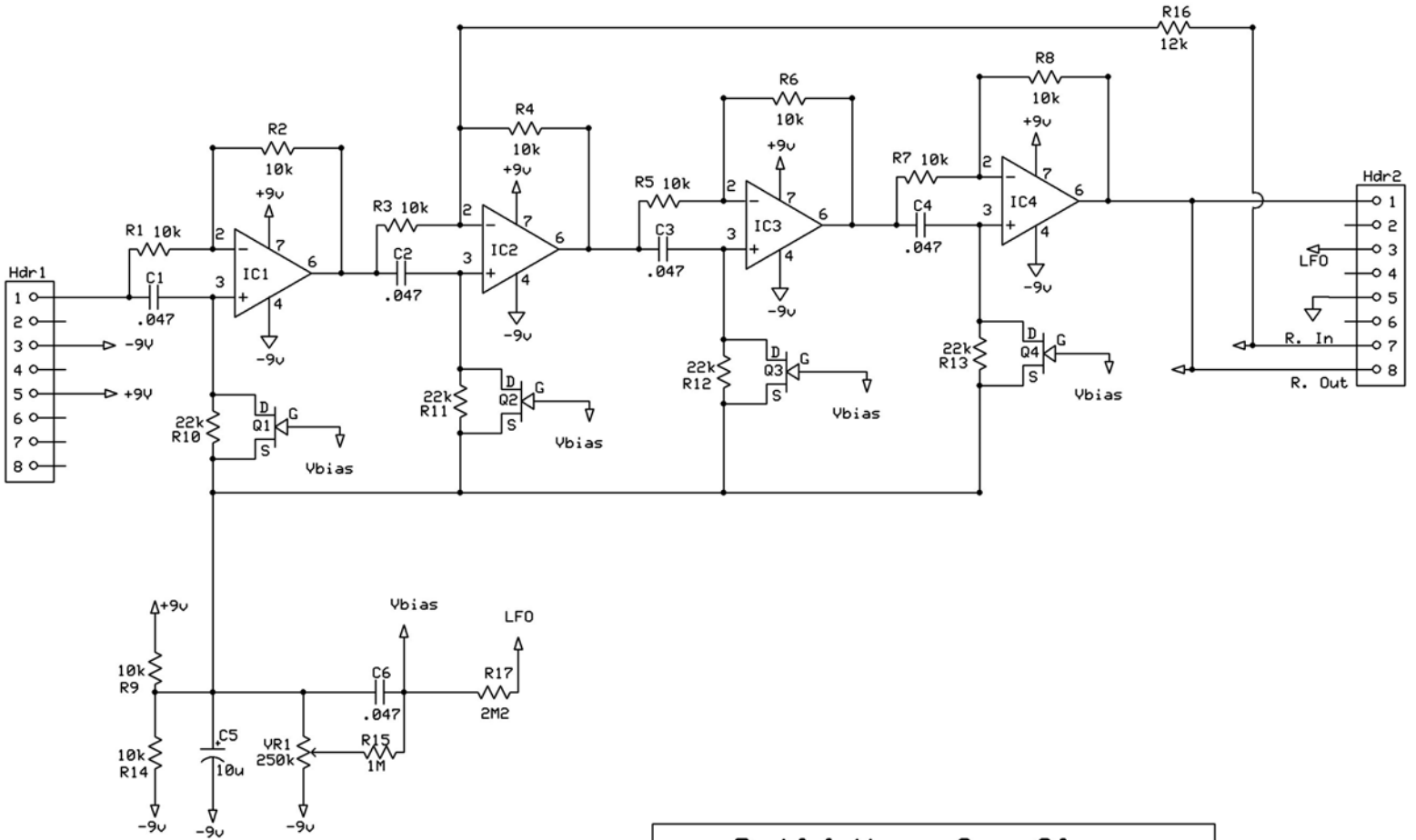


**2N5458 Orientation**



**Step 8:** Insert the pins into the Phase Royal header spots as shown below be sure to place the longer end of the pins into the headers. Once the pins are placed, guide the module board onto the pins and press down slightly so the module is sitting flush on the pins. Solder the top-side of the module at the pins. This helps align the pins and headers to the module board.





<b>Build Your Own Clone</b>		
<b>PhaseRoyal Script Phaser module</b>		
Designed by:	Rev 1.0	Copyright 2018
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