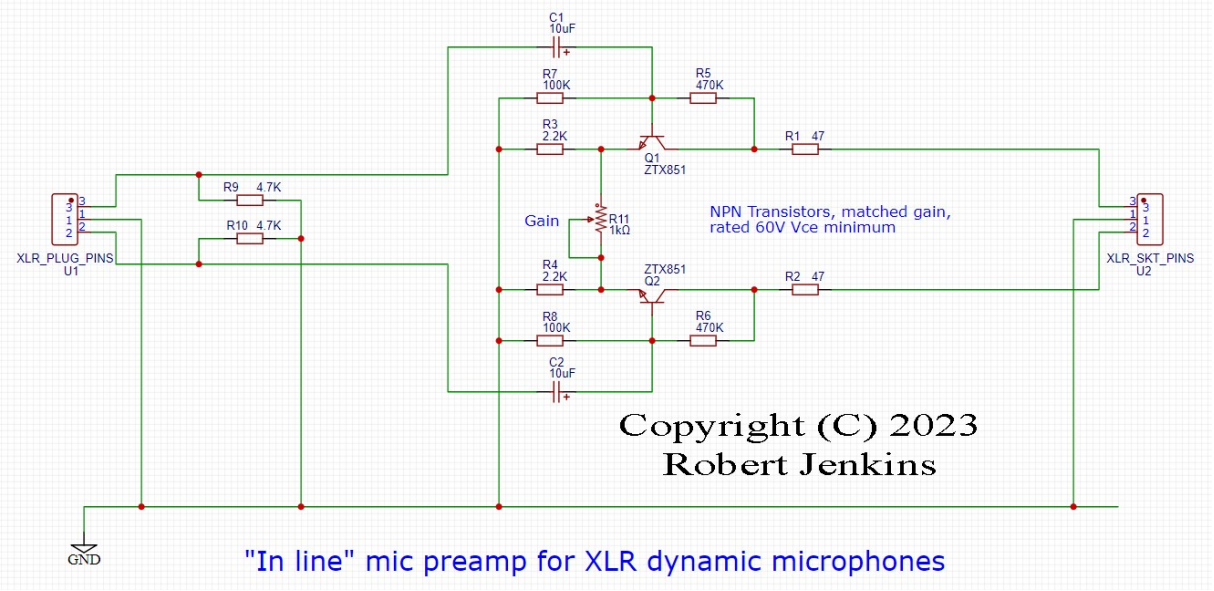
Robert Jenkins Dynamic mic preamp PCB module

The PCB is supplied with all passive components installed; the schematic is identical to the prototype and stripboard build versions shown on my web site and youtube channel:

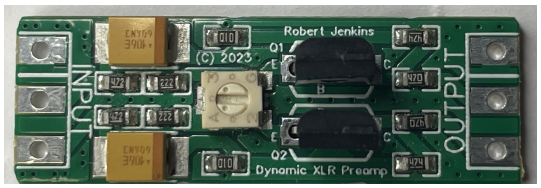


The PCB just requires two suitable low noise 60V or greater NPN transistors fitting, then wiring to connectors, cables or installing in a mic or equipment, as preferred.

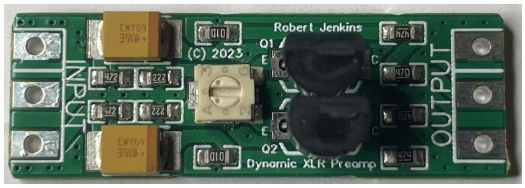
There are markings for transistor EBC - Emitter, Base & Collector - on the PCB, though these are rather small due to the limited space. Transistor connections vary from type to type, so please check with the makers data, for anything other than the ZTX851 transistors I use.

Ensure the transistors are pushed well down, if using the inline casing or any other close fitting enclosure. Rock them side to side slightly while applying pressure to help the leads take the correct shape, if needed – then lift them and re-seat them gently so the leads are not under stress once soldered.

ZTX851 Orientation; flat face down



Typical for BC series – but check first!



Wiring: The upper pad in the pictures above, separated by the white line, is the ground / screen (XLR pin 1) connection. The other two pads are the balanced line signal pins (XLR pins 2 & 3); orientation is only important if you wish to retain the mic phasing – if so, swap pins 2 & 3 at the output end, relative to the input +/- connections.

The PCB can either be mounted in an enclosure with connectors, fitted inline in a cable or used within equipment to create a dedicated dynamic (or ribbon?) mic input. Ensure it is screened & the screen is grounded to pad 1.

It can only work with mics that do not need power; the PCB requires 48V phantom power but does not pass that through to its input.

With the gain preset pot in its mid position (as in the photos), the gain should be somewhere around 15db. Gain increases as it is turned ANTIClockwise; I'd advise only using the gain needed, as the preamp will be more prone to overload and distortion at or near its maximum gain setting. The pot cause noise while being adjusted.

For assembly in to an inline XLR attenuator case as I've used or supply as a kit option, please see my Youtube video here: https://youtu.be/_-fgi9NKWuo for further details, or the instruction sheet (also on my website).