

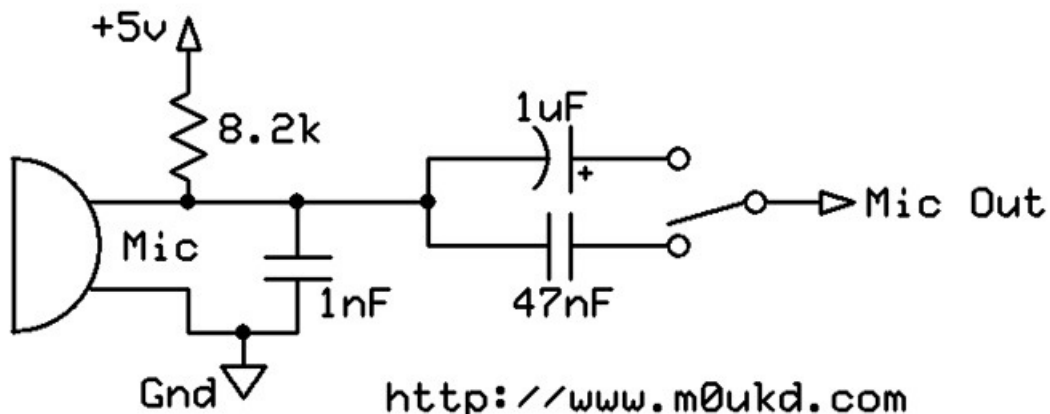
# MØUKD

## Yaesu MH-31 Electret Condenser Mic Mod

When they built the FT-817, I think its such a shame they did not include a speech compressor. A good speech compressor makes such a huge difference to talk power and average RF power and is very helpful when using only 5w SSB. I did try a 'One Big Punch' speech compressor board that fits inside the MH-31 but I wasnt impressed with its performance, especially the noise gate. I found that with the MH-31 microphone, I have to have the mic gain set to 100 when using SSB and even then talk quite strongly within a few inches of the microphone. Even then I dont think the standard dynamic mic element sounds that good.

One great thing with the MH-31 is that there is an unused 5v supply connection. This allows an electret condenser microphone element to be used. I decided to experiment with this, and after some testing I came up with the circuit below.

### Yaesu MH-31 Dynamic to Electret Mic Conversion



As you can see, I'm still using the tone selector switch as a high pass filter to provide some tone adjustment. I find that the 47nF setting works great for SSB by reducing the low frequency and putting more of the midrange into useful talk power. For FM I use the 1uF setting which provides more full range audio suited to FM 'Rag chewing'.

This setup also provides much more mic gain options. With the stronger gain of the electret mic element, I now use between 30 and 40 mic gain on the FT-817 on SSB as well as now being able to talk further away from the mic. I find talking ~6 inches away from the mic much improves voice clarity. Something I found I just couldnt do with the standard dynamic element.

Some photo's are below. I have stuck the electret element onto the front of the mic with some hot glue, then padded it with some foam before placing the PCB back in.

If you seem to share the same issues with the MH-31 microphone, I suggest giving this a go. Please let me know how you think it performs!

