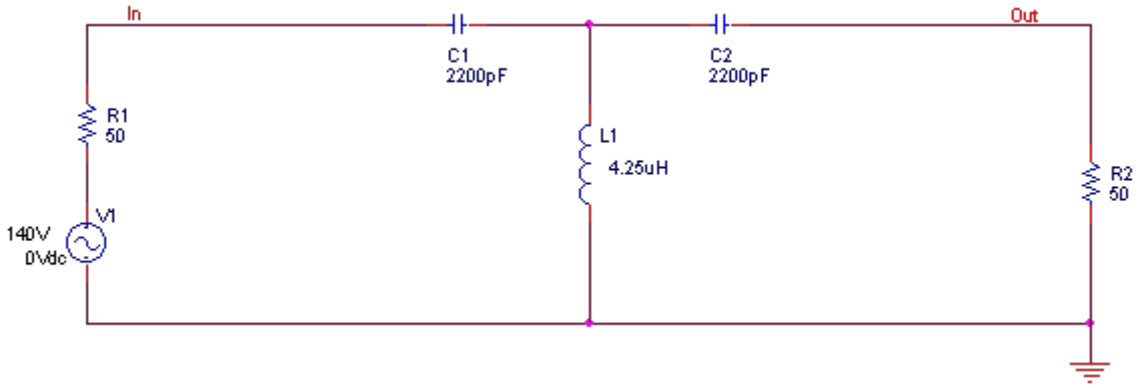
Orion I / ACOM: Fix for ARC FAULT Problem



Insert this filter between the RF output of
the Orion And the ACOM linear amplifier.

Please look at the schematic diagram of a HPF filter (above). Two capacitors of 2.2nF each are connected between the input and output, and a shunt inductor of 4.25uH from center connection to the ground. The filter SWR is below 1.2:1 above 1.7MHz. The attenuation below 1MHz is 6dB, below 600kHz it is above 20dB and it exceeds 40dB at 300kHz. This should be more than enough since measurements have shown that we need about 10dB to overcome it.

The 4.25uH coil may have a 12.7mm internal diameter and 25 turns of enameled wire 0.5mm (AWG #24), spaced to 19.5mm total length. Ceramic disc capacitors for 500Vdc should be used for C1 and C2. It should be installed in a screened case.

To the best of my memory, this is what we did back in 2005.
I am not 100% sure, but it is worth a try.

DISCLAIMER:

Do this at your own risk.
I do not take personal liability if anything goes wrong.

DJ0IP