

### Example 5: Radio Circuit

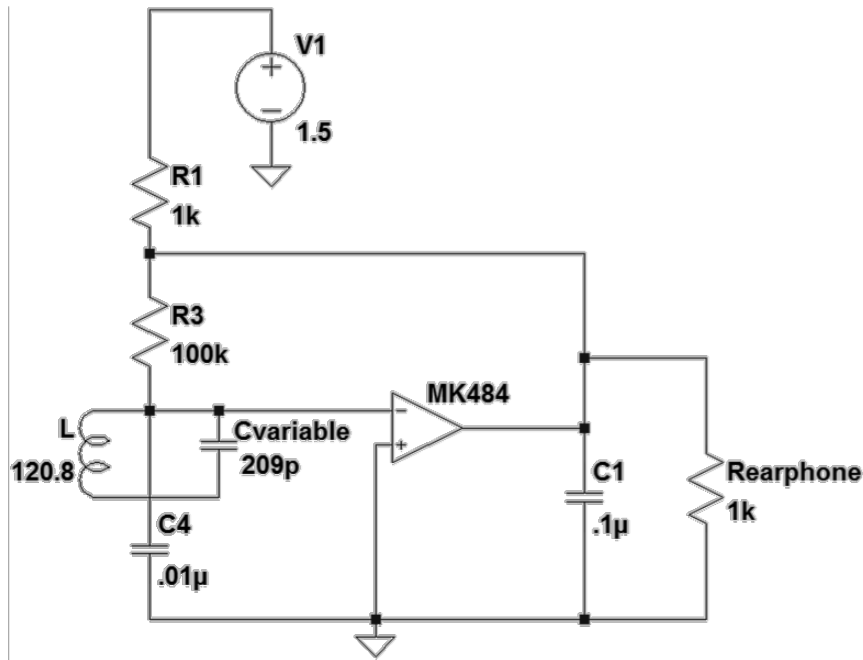


Figure 1: RF Amplifier Circuit to receive an AM radio station, using an MK484 IC

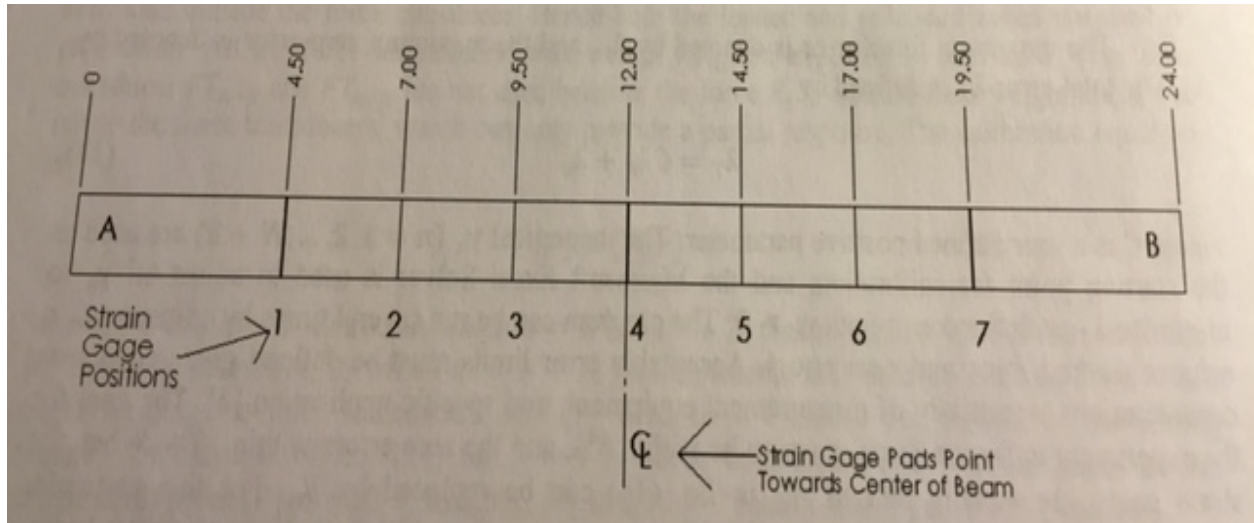
At first glance this figure looks pretty good. However, the placement of R1 and the power supply above it consumes a lot of space on the page. A power connection would look better. A connection is missing from the intersection of the L to C wire just above C4. As shown, this node should connect to something. Aha! The negative input of the amplifier should come from this node, not AC ground at the top of C4. Indeed, why are the amplifier terminals labeled that way? The “-“ input should simply be the input, and the “+” input should be ground. (To understand this, refer to data for the MK484 device.)

Aside from that, the label “R<sub>earphone</sub>” is unfortunate. It can be read to indicate something that suggests an unexpected usage for this device.

Finally, why is there a “C1”, a “C4”, but no “C2” or “C3”? Component numbering should normally be sequential, following the signal flow. Similarly, where is “R2”?

The Figure number and text, at 16 points, are too large unless this is intended for the children’s edition of the report.

**Example 6: Diagram showing mechanical placement of Strain Gauges:**



*Figure 1: Strain Gauge Locations from A-End of Beam*

Here the student used a camera photograph from some source rather than a carefully prepared figure. It was haphazardly aligned, and nothing was done to edit the photograph to make the background white or to align the diagram. This can be taken as evidence that the student just doesn't care enough to do a good job. Simply scanning the source diagram instead of photographing it would produce a much better graphic, shown below. (Higher resolution would help a bit more.) Notice that below it is aligned, and the background is white. The image below could benefit from being manipulated using Word's picture editing to make the lines darker. A drawn diagram produced using PowerPoint or some other application producing line art would be an even better solution. (The numbers shown should have units, or units need to be indicated somewhere else within the figure. Note that "gauge" can also be legitimately spelled "Gage".)

