

An MC-80 and MC-85 Microphone Modification

Why use batteries to power the microphone?
A dc source is readily available!



Any proud owner of a Kenwood MC-80 or MC-85 microphone will—sooner or later—forget to turn off the microphone's power after an enjoyable operating session. Your next operating session likely will not start off well because you're liable to discover that you have just traded a new DX contact for a trip to the corner store. Why? Because the microphone's battery is dead! And—of course—you don't have a spare set of four AA cells handy!

The situation can be even worse for infrequent operators. If the microphone is exposed to a cold environment—during moving or a long period of storage—and you've failed to remove the cells, they will leak and destruction begins. If you are unfortunate enough to have the microphone sitting atop an expensive piece of gear, the cost of the error increases drastically! Well, here is the answer to those problems—and a money-saving one at that.

This easy and inexpensive modification

is worth taking the time to perform. If cost or time to acquire the components is prohibitive, components and completed units are available from me. An SASE to me will provide you with the information.

The need for batteries in MC-80/85 microphones is open to question because each of these microphones contains a green wire that has +8 V available on it when connected to the rig. When you remove the screws from the base plate, you can see the wire—suspended in air just waiting for you to use it! This wire can supply the voltage to run the microphone's preamplifier once an appropriate step-down voltage-regulator circuit is installed. The circuit is so simple that no PC board is needed.

Construction and Installation

Refer to the pictorial schematic of [Figure 1](#). First, remove the four AA cells from the microphone base, then disconnect the 9 V battery connector from the battery holder. Assemble the components as shown

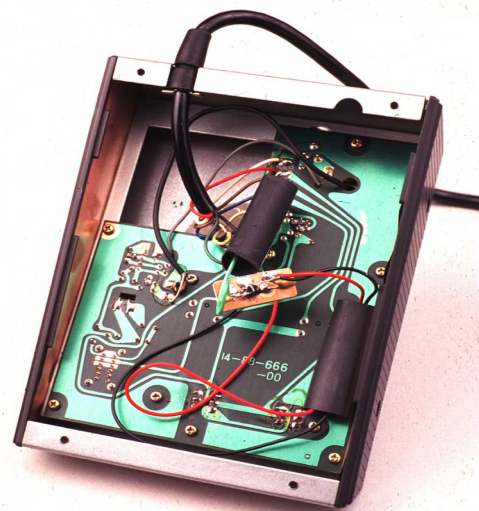


Figure 2—This is another way of assembling the components, using a scrap piece of PC board. The board is slipped into a piece of heat-shrink tubing and taped to the inside wall of the case. Another length of heat-shrink tubing covers the joined battery snap connectors.

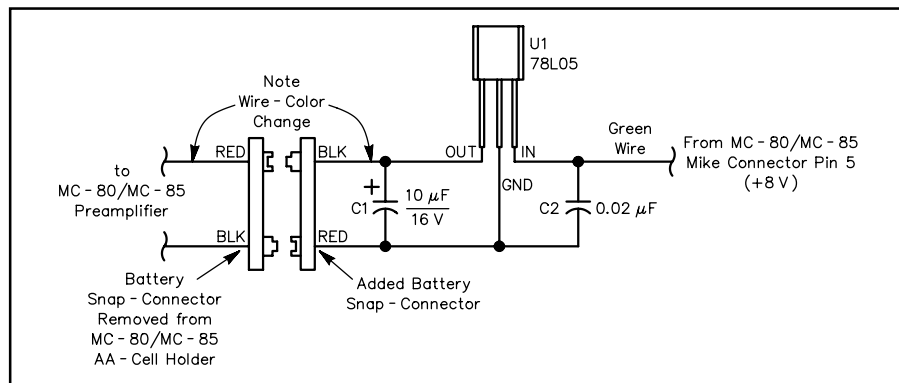


Figure 1—Pictorial schematic of the Kenwood MC-80/85 microphone modification. RS part numbers in parentheses are RadioShack

C1—10 μ F, 16 V electrolytic capacitor (RS 272-1636)
C2—0.02 μ F, 25 V monolithic capacitor (RS 272-1066)

U1—78L05, 5 V, 100 mA, positive-voltage regulator (RSU 11392008)
Misc: 9-V battery snap connector (RS 270-325); length of shrink tubing (2x2 1/2 inch used here).

in [Figure 1](#), and slip a length of heat-shrink tubing over the completed assembly. (Note: The wire color of the battery snaps is not continuous from one to the other.) Connect the two battery snaps and you're done (see [Figure 2](#)). If you haven't realized it by now, here's the money-saving part of this modification: You needn't worry about buying batteries for the microphone any more!

Carl Markle, K8IHQ, has been continually licensed since 1956 and holds an Extra license as well as a commercial Radiotelegraph license. Carl is a retired military Warrant Officer and an electronic engineer. You can contact him at 11570 Taylor Wells Rd, Claridon, OH 44024-8910.