

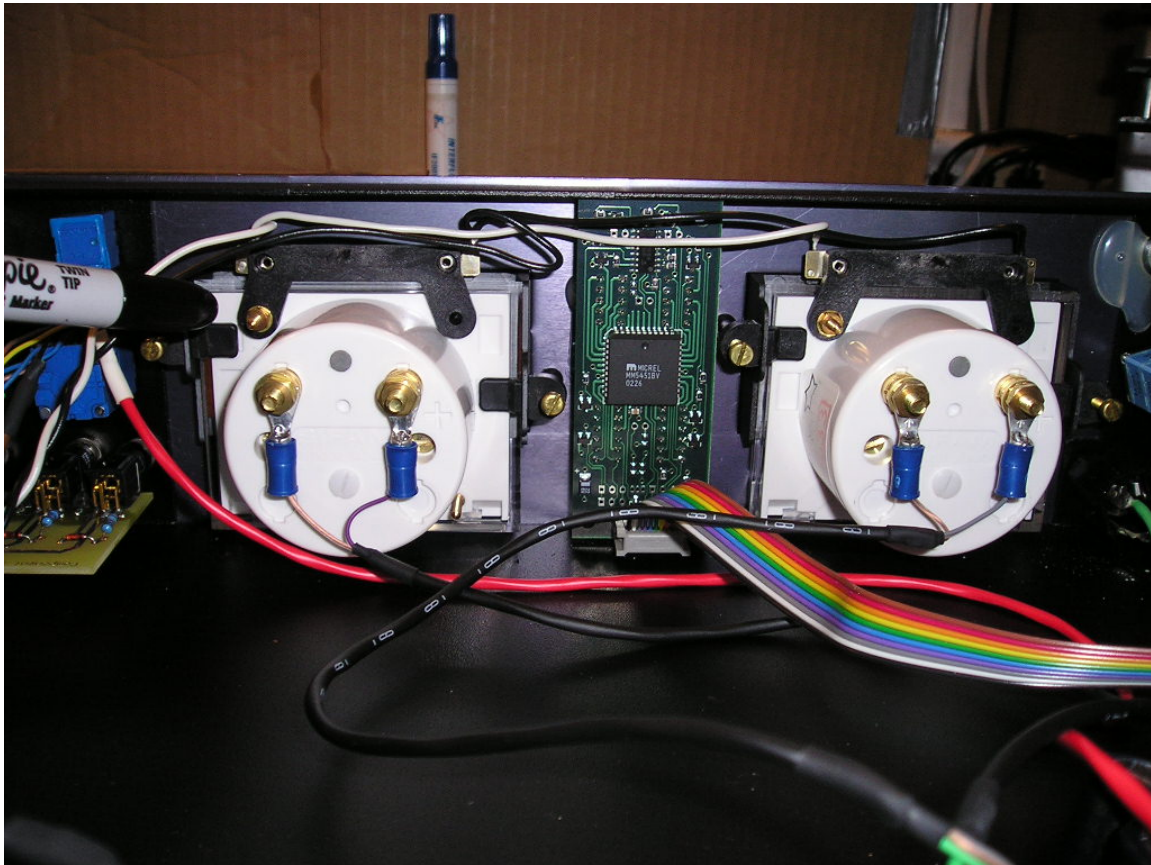
MQ meter bulb replacement:

MQ bulbs are incandescent auto lamps. This means two things. Firstly, they look good and have a diffuse, color balanced look as opposed to LED lamps which are a horrible bluish white that grates on the eyes. Secondly, this means that the little suckers occasionally blow out and need to be replaced. This is easy to do but needs to be done carefully as to not damage the little parts that make up the holder assembly.

Tools needed:

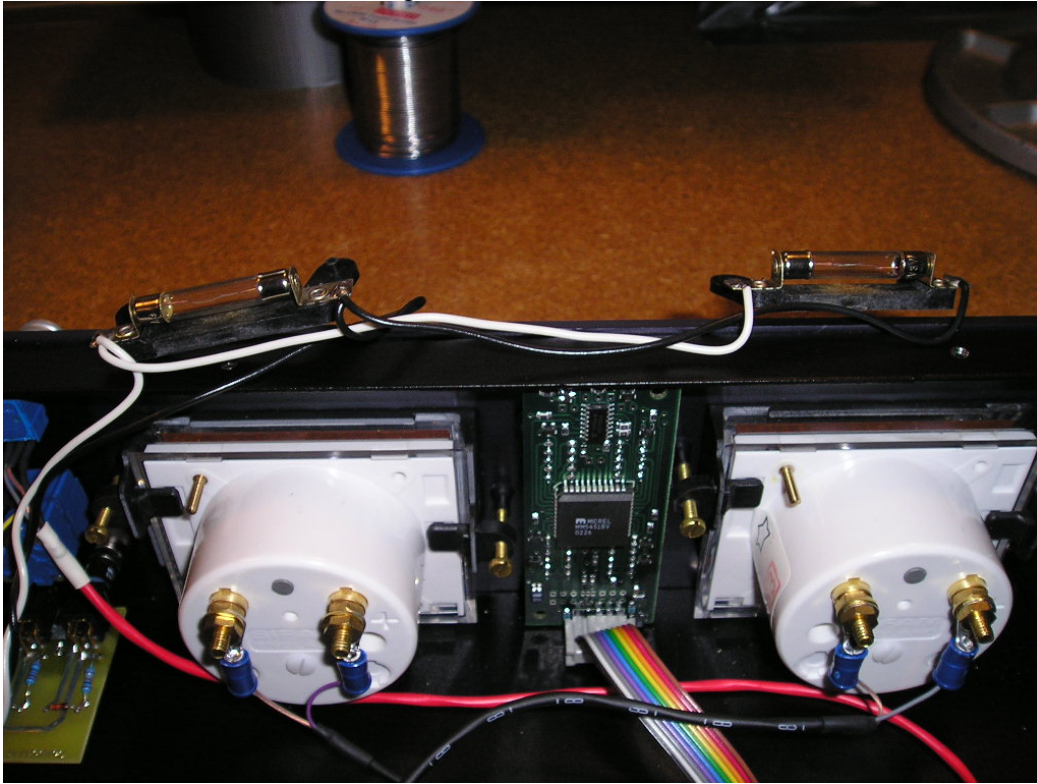
Find a #2 Philips (#1 for old MQs) to take the lid off, and a needle nose pliers to remove the lamp holder fastening nut.

Place the MQ on a clean and well lighted table to work on it to avoid losing small screws and nuts. Remove the top and locate the lamp holder nuts. It's a good idea to change both bulbs when one goes out because the other one is not far behind. Keep it as a spare.



Loosen the nut with a needle nose pliers. Use care as the nut is made of brass and is soft. Remove the lamp holder to expose the bulb. Gently remove the old bulb and replace with a new one.

Rotate the new bulb to check tightness in the holder.



It may be necessary to gently bend the contact springs towards the new bulb to make good contact. To do this, put the new bulb in place and rock the springs towards the center of the holder until the springs grab the bulb tightly.

Newer MQ's run the bulbs at a lower light level by using a 2 ohm dropping resistor in series with the lamp holder. This mod can be done at the factory or by a technician on site who is good with a soldering gun in about 15 minutes. To figure out if your MQ has this resistor, follow the light wires back to the main circuit board. Newer boards have large 3 watt 2.2 ohm resistors where the wires attach. Older boards do not, but there may be a resistor soldered to the bulb wires. If there is not, cut one of the bulb supply wires 3 inches away from the board and solder a resistor in series by stripping $\frac{1}{4}$ " of insulation from the cut wire ends and tinning them. Slide the heat shrink over one side of the wire and tack the resistor on. Solder the other side and then move the shrink over the resistor and solder connections. Apply heat to the shrink to insulate the assembly being careful to not burn anything inside the MQ. This will dim the bulbs a bit prolonging their lives.

