

Mat-Matics # 122 - Yaesu MH-48 Mic Repair

M. Breton, N8TW

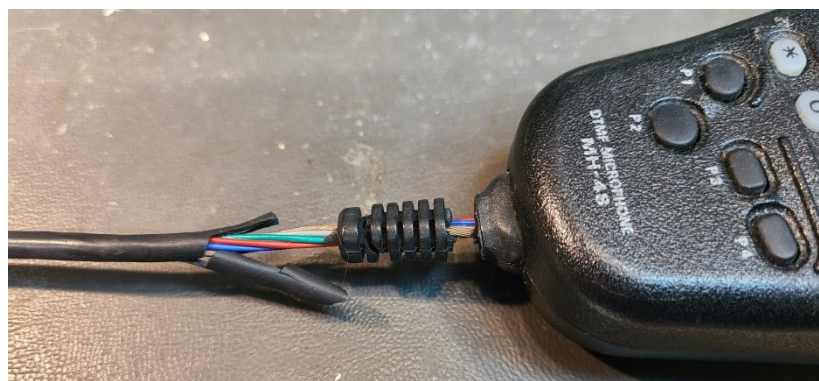
I purchased a used Yaesu FT-7800 as my mobile VHF/UHF rig several years ago. It is an analog dual band (144/440MHz) radio with a detachable face and 50W out (40W on 440MHz).



The “matched” microphone is a MH-48 ... a handheld DTMF (Dual-Tone Multi-Frequency) microphone that encodes the many buttons into DTMF signals to send to the radio. It is a decent mic with a built-in lighting for the buttons, and a good feel in the hand. Although the microphone is described on several sales sites as dynamic, a look at the schematic shows that it is likely a powered electret (condenser) as the 6V supply to the microphone is used to bias the element.



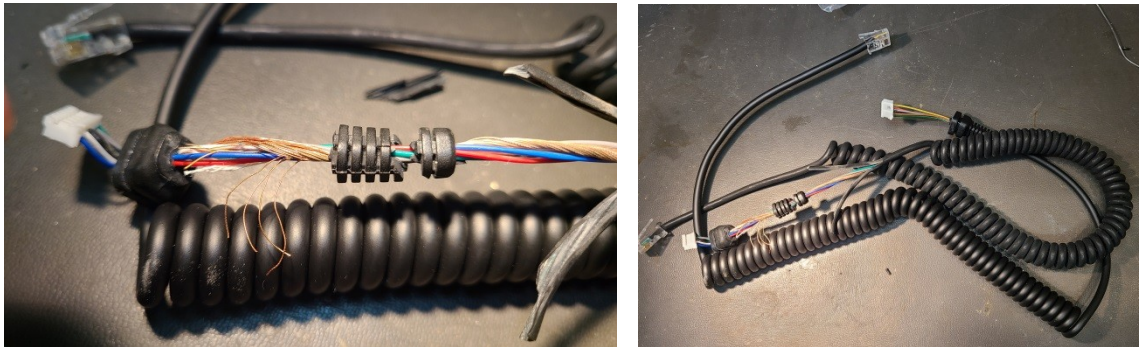
Recently I picked up the mic to use it and found that the protective sheath was starting to disintegrate. The mic still functioned fine, but I figured it was only a matter of time before the exposed wires were damaged. Time to fix ...



I found a very low-cost replacement microphone on eBay® for \$14.44 (including S&H from China). This was a knockoff product, and there are anecdotal writings on the web that these knockoffs have numerous PTT key and pushbutton issues. A genuine replacement mic runs \$70 (plus S&H). Since I didn't want to spend \$60, and I didn't trust the performance of a very low-cost knockoff, I decided to repair my existing microphone.

I found a low-cost replacement microphone cable with the correct plugs on both ends (an RJ45 plug on one end, and an 6-pin plug on the other). This cord will also work with the MH-32 and MH-42 mics. The cost was \$10.99 (including S&H).

When the cable arrived I examined and compared to the original mic cable. The one notable difference was the original cable had partial shielding around the microphone wire, while the new cable had no shielding. The possible result of this could be injected audio noise in a high-RF environment.



Original shielded mic wire (left), old and new cables (right)

I replaced the cable and tested the microphone. It worked perfectly. I could detect no additional noise in the receive audio. It could be that my vehicle is “quiet” enough electrically for this not to be an issue, and others might not be so lucky.

One other additional change I did was to slightly enlarge the microphone holes in the front of the mic. The small holes provide significant attenuation of my voice. There is already a “spit” shield behind the holes so the slightly larger holes won’t affect robustness. This mod is documented several places on the web.



Do you know what this is, and why does it appear at the end of Mat’s articles? Send your answers and best guesses to me at gcarc.wireless@gmail.com, and I’ll publish the correct answers, best guesses and the story behind it in next month’s Wireless.

GENERAL LICENSE CLASS on ZOOM!

Hazel Park Amateur Radio Club is having a GENERAL License Class on ZOOM beginning Monday September 8th.

Could you please let your members who are Technician licensees know of this opportunity to upgrade their licenses?

There is no charge for the class but the students should have the current ARRL manual.

Thank you for your consideration.

Bob Lauer N8REL

Education Coord, HPARC

(Editor’s note: It looks like they’ve already held their first class, but if you’re interested, contact Bob, N8REL at rlau6@aol.com. It should be relatively easy to catch up.)



The Livonia ARC has approved February 21, 2026 as the date for the next LARC Swap 'n Shop. It will be held at the same location as this year – Ward Church at Six Mile Rd. and Haggerty in Northville, MI. It's early days yet, but that is our current plan.
73,
Sandy Allen, AK8KA
Newsletter Editor, Livonia Amateur Radio Club

Adrian Amateur Radio Club

Invites you to attend our:

50th Annual Hamfest

Sunday, September 14, 2025
8:00am until event ends?



Lenawee County Airport
2651 W. Cadmus Rd. Adrian, Mi

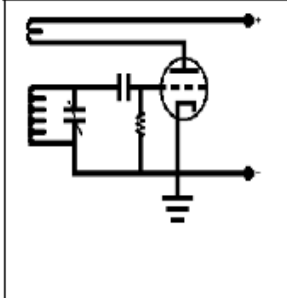
TICKETS \$6.00
INDOOR TABLES \$10 (ea)
TRUNK SALES SPOT \$5.00(ea)

FOOD & REFRESHMENTS
HANDICAP PARKING
VE TESTING



Be sure to visit and use our repeater:

- KK8GC
- 146.860 MHz
- 600Hz offset (input on 146.260)
- 100 Hz PL tone



For Additional Information Email cqnu8z@comcast.net

For Table forms and other information see www.w8tqe.com

