



Early iCOM (everything before the PRO series) and their mic elements

Early ICOM - that's every ICOM before the great PRO series - had very low level microphone preamplifiers. Traditionally they are 20 dB down in gain from the standards set by Collins, Kenwood, Yaesu, etc. years ago. ICOM came to America in the early 70's with their "zero" models (720, 730 and 740) all which had NO mic preamps built in. The microphone preamplifiers were in the microphone! How stupid. This did not allow you to use any other microphone but THAT mating microphone since half of the audio circuits were in the mic.

A very cost effective method to bringing those ole 'zero' transceivers to life is to use a small Behringer UB 502 mixer or W2IHY two band EQ plugged into the mic input. NOW you can use a Heil GM-5, HM-10, PR 20 or any of our dynamic microphones and have 2 band EQ besides.

With enough outrage and complaints, ICOM finally moved the preamp section into the radio starting with the 735, 745, 751, etc.; however, those "new" front ends were still 15 dB down in gain from everyone else, still making it difficult to use anything but the ICOM SM-6, SM-8, etc. preamplifier microphones - mics with WAY too much sensitivity that picked up everything. Cardioid pattern dynamic mics are the only thing to use in an amateur radio shack, as they will reject from the rear and only pick up your voice. Talk no more than 2" away from the element.

Our dynamic elements will work with some of those early ICOM models (not the "zero" models) by using the compression - all the time- at a low level. A compressor at low levels actually acts as a low level preamplifier. Adjust the mic gain to about 3/4 open and set the compression about 4 to 6 dB and those great little 735, 751, etc. usually will work with our dynamic elements such as the HC-4 and HC-5. Of course, using the outboard mixer or EQ will provide ample input gain and is really the way to solve the low gain iCOM problem.

ICOM AMERICA knew of this problem and a few years ago invited Heil Sound to help solve the problem and solve it we did by developing our high-performance Heil "iC" condenser. Not the usual 15-cent import electret but a very high quality condenser electret as used in many studio microphones. The electret, by its design, has LOTS of output and will drive the early ICOM rigs (not the "zero" models) to full output, and it sounds terrific. Your 775, 781, 761, 751, 745, etc. NEVER, and we do mean NEVER, sounded better than when using the Heil iC product. This also applies to the iC910 and the great little iC718

All of the Heil "iC" products work well with the great little IC-706. You need the AD-1 iCM modular adapter and one of the new high performance Heil "iC" products such as the "iCM," Traveler, etc. This will make a new transceiver out of the little jewel. The IC-706 (before the MkiIG) will NOT work well with our HC or GM elements, as the 706 is short on mic preamp gain, so you need to solve the low audio problem with one of the new Heil "iC" products or



use an outboard mixer or EQ. Be sure to adjust the carrier balance control (Q4 or Q6) for the desired transmit tone. This is VERY important.

So, the bottom line for those wonderful old 735, 745, 761, 765, 756, 781, 775, 751, etc., is to use any of our products using our new high performance Heil IC electret elements: the HM-iC, PRO-SET iC, PRO-SET PLUS iC, BM-10 iC, or the wonderful "iCM" microphone. These are the products that should all be called the "ICOM FIX!"

The original 746 (Not the 746 PRO or 7400) was in-between the very low level inputs of the early models and the higher input levels of the great PRO series. The IC-746 works well with our dynamic microphones - BUT you have to adjust the 746 correctly. Set the Mic gain at 3/4 open, Compression at 50% (back panel control), and TCN (tone control network) at + 12dB for the GM and +6dB for the HC-5. The "iCM" has plenty of drive for the 746, and it sounds beautiful also.

ICOM finally got it right with their fabulous PRO and 7800 series. These have righteous microphone preamplifiers that will support any of our low-level high performance dynamic microphones. The best combination in amateur audio today is the Heil PR 781, PR 40, the Classic, the GM microphone, the PRO-Set, or PRO-SET PLUS headsets into one of the PRO or 7800 models. It just doesn't get any better. Properly adjusted, spoken into at the right distance, this combination is THE overall winner. Use the CC-1-i microphone connecting cable or the AD-1-i headphone adapter for iCOM. Any of the "iC" products also will work with the PRO or 7800 series; just be careful to adjust the mic gain for proper ALC action, as the Heil "iC" products have lots of output.

Always keep in mind that the ONLY way to adjust the Microphone Gain control is by watching the ALC meter. Only your voice peaks will send it to the red. You watch the ALC meter to adjust the microphone input gain.