

"You Can't Work Them, If You Can't Hear Them!"



MFJ-784B \$229.95

Requires +12 V DC or MFJ-1315 (\$15)

After you've got a rock crusher signal and you're working on knock-your-socks-off transmitted audio, you've got to be able to hear the stations calling you. There's nothing like a good external DSP to help pull out signals covered up in the noise or QRM. Sure, most rigs have built-in DSP, both of my main rigs do, but the extra flexibility and functionality of the external DSP makes all the difference in hearing a faint whisper of a signal or just make a quiet QSO a bit more comfortable. If you're not using DSP, you've just got to try it. When was the last time you copied a CW signal below the noise level? With DSP, you can.

There are many DSP units on the market, but I believe that the MFJ-248B represents the best value. You get every conceivable feature. Even computer sound-card models can't keep up with this.

- ✓ Tunable Spotting Tone - accurately tunes even when using the narrow bandwidths.
- ✓ Adaptive Tuning - tuning slows down as bandwidth narrows
- ✓ Improved automatic notch- variable aggressiveness
- ✓ Speaker On/Off - phones always active
- ✓ FilterTalk - send exact filter settings in CW
- ✓ Filter automatically bypasses during transmit for monitoring side- tone, voice or data by sensing PTT line.
- ✓ Improved manual notch for CW
- ✓ Manual and automatic notch can be used together.

As far as I'm concerned, these are MUST HAVE accessories. My personal endorsement is that I use three of them. One each on the main and sub receivers of my FT-1000MP Field with a full complement of INRAD filters on SSB and CW. I use a third unit to follow my IC-756 Pro. It really does make a difference even with the '756 PRO which already has the best DSP system around. I just had one of the best tests of an external DSP, last night. I was on a net at 3805 and there was terrible QRM a couple of kHz away. It was impossible to copy the net on all of the receivers in the shack except for the MP and the PRO. Using the best filters in the MP, a pair of 1.8 kHz INRADs, I was able to eliminate enough of the QRM to copy the net. But, what a difference when I turned on my MFJ-784B. A quick adjustment of the SSB filter in the MFJ DSP and the QRM was gone. Sure, the fellows didn't sound natural, but I could copy every word without the unpleasant garbage trashing the net. It's true that these units help even the best rigs!



MFJ-616 \$159.95

MFJ-1316 12 VDC @ 1.5 A power supply \$19.95.

Features

There are four overlapping bands at 300, 600, 1200, 2400 Hz. Cut or boost is 20 dB. The unit is immune to RFI. There's a front panel phone jack, speaker on/off switch, two selectable transceiver inputs and a bypass switch.

The mono input is split into two output channels with a balance control. Each output channel has its own 2.5 watt amplifier. If you hear better in one ear than the other, you can compensate for the difference and thus further improve intelligibility. You'll be surprised with the level of improvement this equalizer can provide. The results are simply amazing.

You can use this unit in combination with the MFJ-259B DSP and a Heil ProSet.

Don't you wish you could tailor your receiver's audio to your personal taste? Wouldn't it be nice to add a little more lower midrange or cut the treble a bit to reduce hiss or other noise? Well, that's what an audio equalizer does, and this unit is a quality audio equalizer that covers the voice frequencies.

Years ago I did a lot of research in the area of speech intelligibility and speech processing. In fact, I built several split-band processors and speech energy concentration devices. It was about that time that nearly every quality rig started featuring RF speech processing, so there was no advantage to continuing my project. You simply can't beat RF speech processing following properly equalized, quality microphones. Most of today's great rigs do a terrific job of producing quality audio or audio with lots of punch. It all depends on how you set up your rig. Now, it time to improve things on the receiver end of a QSO.

Let's consider sound energy verses intelligibility. From MFJ's literature we see that frequencies from 500 to 4000 Hz contribute 83% to word intelligibility. Frequencies from 500 to 1000 Hz contribute 35% to word intelligibility and require 35% of the sound energy. Frequencies from 1000 Hz to 4000 Hz contribute 48% if intelligibility but has only 4% of the sound energy! In contrast, frequencies from 125 Hz to 500 Hz requires 55% of the sound energy and contribute only 4% to word intelligibility.

The importance of this is that the frequencies from 1000 Hz to 4000 Hz provide 48% of intelligibility but requires only 4% of the sound energy. On the other hand, frequencies below 500 Hz consume most of the sound energy but contribute very little to intelligibility.

Thus, devices like this equalizer and the '784 DSP let us take advantage of this information and translate it into more enjoyable QSO's. Put both of these units in your shack today.

Prices and specifications are subject to change without notice.