



TIPS ON IMPROVING YOUR FM RECEPTION

From time to time, WIHS receives a request from a listener asking what can be done to improve his or her reception of our signal on 104.9 FM.

Understand the System and its Limitations

First, please remember that the process of delivering sound from a radio studio to your ears involves a complete system. This includes:

- (1) WIHS' transmitter and antenna
- (2) Your receiver and antenna
- (3) The transmission path between the two

This last item is important, because if there's a mountain between the transmitter and the receiver, there's nothing that can be done to improve your reception.

At FM frequencies, reliable reception does not extend far beyond the horizon line as viewed from the transmitter. That's why FM (and TV) transmitters have very tall towers or are located on mountaintops. That's also why FM receiving antennas are best situated on tall masts.

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Steps to improving your reception should start with your antenna.

- * If your receiver is a stereo component or console, there should be a pair of screw terminals on the back marked "FM antenna" or something similar. If nothing is connected to these terminals, you need an antenna.

- * An antenna may be as simple as an inexpensive "twin-lead dipole" which can be purchased online or at most electronic or building supply stores. This will only be effective in the primary coverage area of the station, about 20 miles or so from the transmitter.

- * Ordinary TV "rabbit ears" should work reasonably well, too.

- * For fringe-area reception, an outside antenna similar to a TV antenna is required. In fact, some TV antennas can be used for FM reception. If your VHF TV antenna is equipped with a rotator, you may experiment by connecting it to the antenna input of the FM receiver and aiming it at the WIHS transmitter in Middletown, CT. If this experiment works satisfactorily, a splitter can be purchased to connect both the TV and FM receivers. If your trial does not produce improvement, it may be that the TV antenna is one of those designed to reject signals in the FM band.

- * For simultaneous reception of TV and FM, a good outside FM antenna can be purchased at most consumer electronic stores. This should be mounted on a mast, as high as practical. If there is an existing TV antenna, the FM antenna may be mounted on the same mast, a few feet away from the TV antenna.

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* In extreme fringe areas, it may be necessary to use more than one antenna, vertically or horizontally stacked, for more signal pickup.

* Apartment dwellers who cannot erect a mast and antenna may wish to purchase an indoor amplified antenna. Also, if stereo reception is not essential, sensitive portables are available which can be surprisingly effective.

* Before purchasing any antenna or receiver, it would be a good idea to make sure that it can be returned to the dealer if it doesn't perform well at your particular location.

* In any case, it is also possible to improve a scratchy signal by switching to monophonic reception if a "stereo/mono" switch is provided on the receiver.

Of course, you can listen to WIHS from anywhere in the world if you have internet access at WIHSradio.org.

God Bless You!