FM Reception Tips

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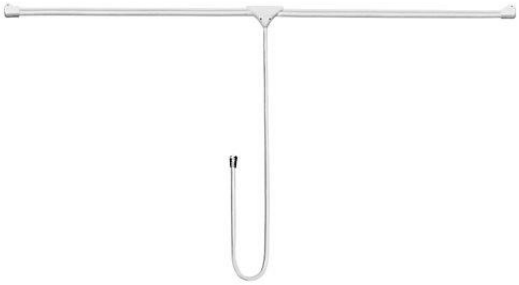
Tuning in an FM station isn't the same as tuning in an AM station. That's why, when you have a reception issue, the first thing you're usually asked is "which band or station are you trying to receive?" FM transmissions are line-of-sight. That means that obstacles between you and the transmission you're trying to receive can block the signal and leave you with poor reception on your radio. A hill, a coliseum, big buildings – all these things can get in the way of your FM reception and even leave you hearing the effects of multipath interference. You get multipath interference when a signal meets an obstacle of some sort, such as a mountain. Depending on the broadcast strength, the signal might get absorbed or reflected by the mountain. Due to these issues your radio will end up with poor reception as the different paths taken by the reflected signal arrive at your receiver at different intervals.

Fortunately, multipath interference usually happens when you're in your car, so it tends to be pretty easy to overcome by finishing your drive around a city loop or the base of a mountain. Still, some people might experience all kinds of radio interference at home as well. That's where a better antenna might do the trick.

Most portable radios have a whip or telescoping antenna that works fairly well when the radio is set close to a window and away from sources of significant interference. However, if you always have the whip antenna fully extended, you may not be getting the reception you're expecting. Sometimes you'll get better reception for a certain station when the whip antenna isn't fully extended.

Occasionally, pulling in the cleanest signal is accomplished by trial and error. You can experiment by extending the antenna to different lengths and also pointing it in different directions (if the radio's antenna is designed to rotate, of course).

If playing around with the antenna or moving the radio around doesn't improve your reception as much as you like, you may need to move toward a more powerful indoor or outdoor antenna. An outdoor unidirectional antenna, also known as a Yagi, is a powerful option. A Yagi looks like a rooftop TV antenna and is ideal for tuning in distant stations and for reducing multipath interference. By aiming the Yagi at the signal you want to capture, you can tune out most types of interference – be it from competing signals, buildings or a weak signal.



Another alternative in outdoor antennas is an omnidirectional FM antenna. Though omnidirectional antennas might not reduce interference as much as unidirectional antennas, their ability to pick up stations cleanly from all directions make them a good choice for overall reception.

If you don't have access to the outside of your building, you might want to go for a good dipole antenna. T-shaped, these antennas offer pretty decent reception indoors, and are also easy to hide if necessary. C. Crane carries the FM Reflect antenna. The instruction manual is available here.

There's often confusion around how to connect an external FM antenna to a radio that doesn't have external FM antenna jacks. We've created this diagram to give you an idea of what these jacks might look like.

Whichever antenna you choose, be sure you've tried some basic things first. Sometimes just switching to mono rather than stereo, or putting a portable radio in a different location, can

improve reception. You might also be lucky enough to improve your reception by just attaching a simple wire to the external FM antenna jacks. If these quick and easy solutions don't work for you, or if you can hear a signal in your car but not indoors, you may want to consider one of the antennas mentioned above.

As always, please contact us with any comments or article suggestions you might have.