

RECEPTION FAQ

How do I connect an indoor antenna to my radio or tuner?

There are two different types of connections, those designed for 75 ohm cables (typically a round cable with a connector on the end) and for 300 ohm cables (typically a wire with two flat prongs at the end that connect to screws on the radio). Inexpensive transformers are available if you need to connect a 300 ohm antenna to a 75 ohm jack, and vice versa.

My FM radio has an antenna — what's the best way to use it?

- Portable radios: It's best to fully extend the whip antenna. Then rotate it around for best reception (try it both horizontally and vertically), or try moving the radio to a different location in the room.
- Clock or tabletop radios: If the radio does not appear to have an external antenna, it's actually using the power cord for one. (That's not an efficient antenna, but it looks neater.) It's best to fully extend the power cord. If possible, try moving it around in different directions.
- Dipole antenna: This is the "t-type" antenna often packed with a radio. It works best when fully extended into a "t" shape and hung flat on a wall. Try rotating it around horizontally to find the best spot, then mount it as close to that as you can. Experimentation matters, for these are "directional" antennas that work best in one orientation and will "null out" in another.
- Amplified antennas: These are small indoor antennas that have built-in amplifiers. They can be better than a power cord antenna, but can also amplify the background noise along with the desired signal. Outdoor antennas and indoor dipole antennas are usually more effective, but small amplified antennas can be more discrete in appearance.

Are there outdoor FM antennas?

There are. We recommend that a professional installer be hired for putting them up, because they will be familiar with proper construction techniques, safety considerations (such as power lines near the house, grounding, etc.) and electrical codes. Experience also helps in finding the best way to mount the antenna and run its cable to your receiver. Any outdoor antenna should be mounted high and as far away from power lines, trees or other obstacles as possible.

Outdoor antennas are less commonly found than in years past, but there are still several good manufacturers and dealers.

- Stark Electronics, Worcester, (508) 756-7136

- Charlemont TV, Shelburne Falls, (413) 625-6040
- Schilling Television Service, Pittsfield, (413) 443-9235
- Menard's TV Antenna Services, Sturbridge, (508) 347-3100
- New England Antenna Service, CT, NH, ME & MA, (800) 339-5507
- Don's TV & Satellite, Worcester, (508) 755-5583
- A-1 Antenna TV Service, Worcester, (508) 756-5758
- Miskinis Television, Turners Falls, (413) 863-2166

Also, some home stereo dealers may stock indoor and outdoor antennas from Magnum Dynalab, a company that specializes in FM tuners:

- <http://www.magnumdynalab.com/fmantennas-overview.htm>
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What makes it so hard to get a good FM signal?

FM radio signals are line-of-sight transmissions, and one common problem is that a hill or building can block them, creating an electronic shadow.

Another problem is "multipath," which can occur when a radio picks up more than one signal from a station, one coming directly from the transmitter and at least one other having bounced off a hill or building. These secondary signals come in slightly later than the direct one and can interact with it in ways that degrade reception.

Can NEPR increase its power?

Unfortunately, it can't. The power levels for all stations are set by the Federal Communications Commission (FCC) and fixed in place so that stations do not interfere with each other.

WFCR transmits with 13,000 watts from Pelham, Massachusetts (about 5.5 miles east of Amherst). Our five stations in the Berkshires (which are in a special category called "translator stations") are limited by regulation to low power, and use from 10 to 250 watts depending on their location. Our station in Deerfield, WNNZ-FM, has 100 watts.

Can AM 640, the NEPR News Network increase its power – especially at night?

The power level of WNNZ, and the shape or "directionality" of its signal, are also fixed by the FCC. WNNZ runs with 50,000 watts in the daytime, pointing northwest from Westfield, Massachusetts – that's a very powerful AM signal. But when the sun is down, it transmits with only 1000 watts. Most AM stations reduce power or go off the air at sunset — this was set by the FCC early in the history of AM radio because signals in that band travel through the atmosphere differently when the sun is down than when it's up.



How can I improve reception of AM 640 the NEPR News Network?

As with FM, a good antenna helps. The online catalogue company C. Crane has some AM antennas on its list.

What about using an Internet radio?

This is growing in importance all the time, and you can link to the streams of NEPR through a computer or Internet radio [here](#). Once connected, you can use WiFi links in your home to distribute the signal. The NPR Shop has some Internet radios [at http://shop.npr.org/radios/](http://shop.npr.org/radios/) as does C. Crane.