



SoundWorks® Radio 820HD

High Performance AM/FM Radio With HD Radio™ Technology

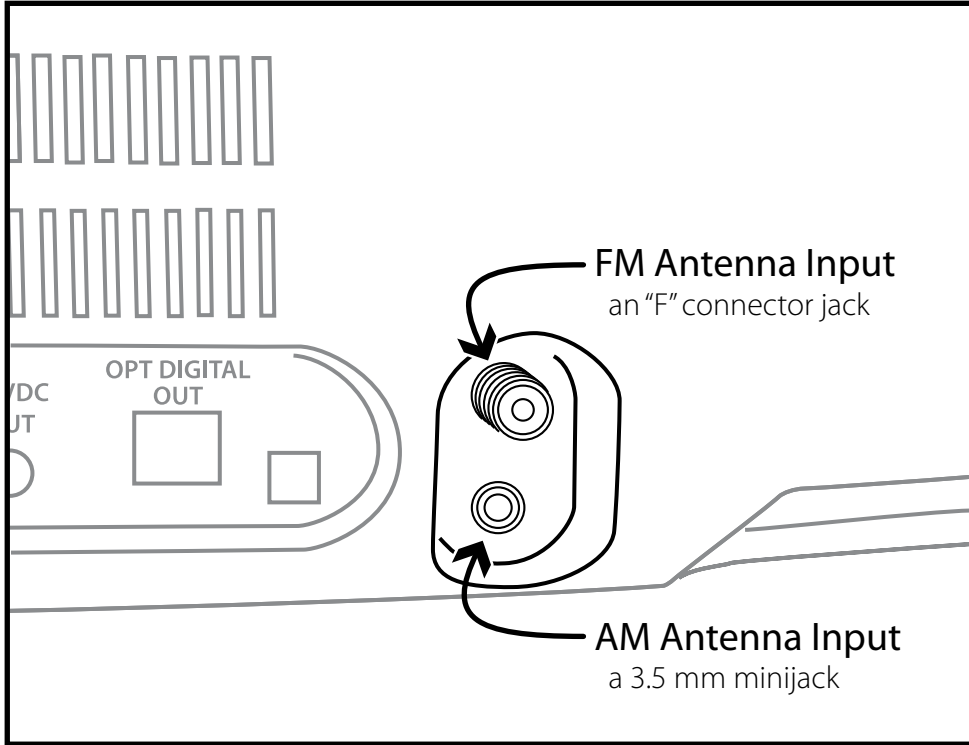
Antenna Connection Guide

 **Radio®**

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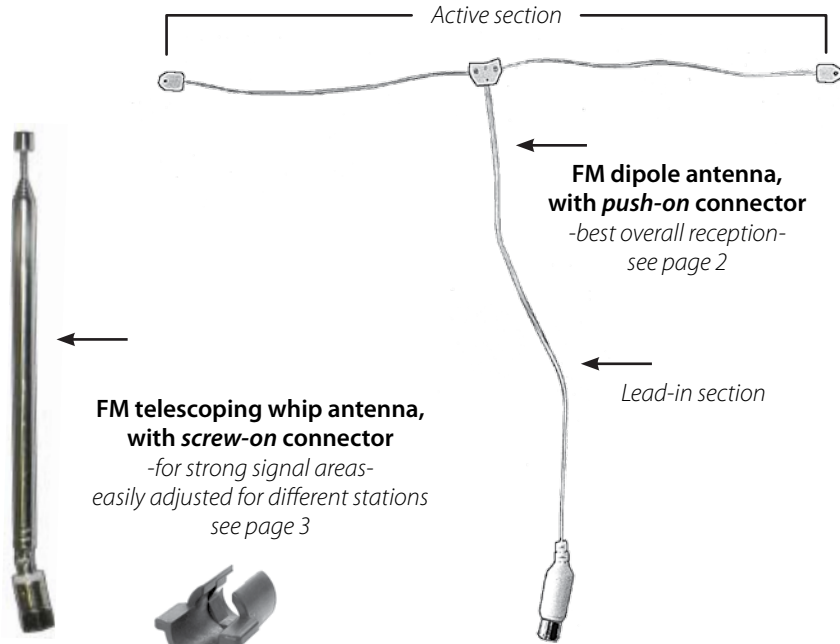
A CREATIVE® Company

Antenna Input Identification



Antennas Provided with the SoundWorks Radio 820HD

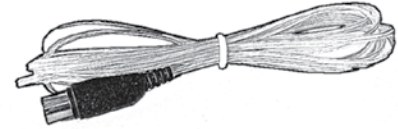
Connect one FM antenna and the AM antenna.



**FM telescoping whip antenna,
with screw-on connector**
*-for strong signal areas-
easily adjusted for different stations
see page 3*



Wrench
*for installing
FM telescoping whip antenna*



**FM wire antenna
with push-on connector**
*-for strong signal areas-
easily to conceal
see page 4*



**AM loop antenna,
with miniplug push-on connector**
*required for AM radio reception
see page 5*

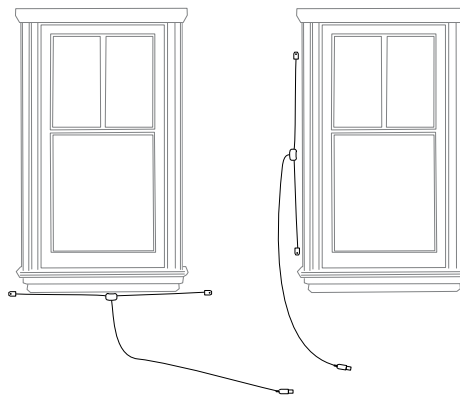
Connect the FM antenna

Dipole Antenna

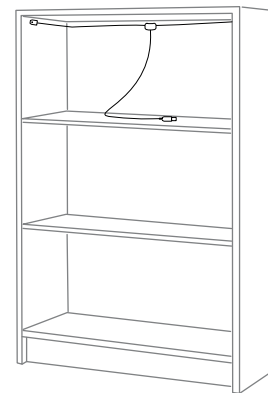
- 1) The dipole antenna provides the best reception of the three antennas when properly positioned. The dipole antenna consists of an *active section* and a *lead-in section* (see illustration on previous page).
- 2) Position the *active section* of the dipole antenna against a wall or along a flat surface of a non-metallic piece of furniture. Keep the *active section* of the dipole as straight as possible. Use thumbtacks or brads to secure the ends and the middle of the *active section*.
- 3) Connect the dipole antenna to the SoundWorks Radio 820HD by pushing the connector plug onto the FM antenna input. You can coil excess length of the *lead-in section*, then secure it with twist ties or tape.

Note:

The *active section* of the dipole antenna can be positioned horizontally or vertically. Placing the dipole antenna on an outside wall improves reception. The *active section* of the dipole antenna can also be positioned along a baseboard. Try a different placements and orientations of the *active section* to determine the best overall reception.



Dipole Antenna Placement



Telescoping Whip Antenna

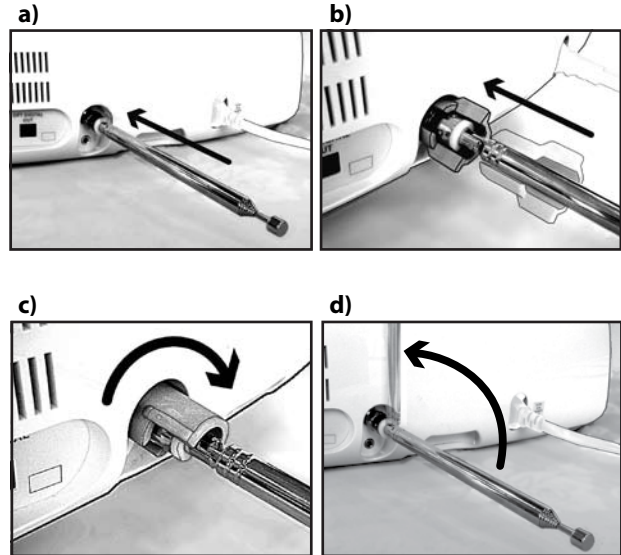
The telescoping whip antenna provides good reception and can be easily adjusted. With adjustment factored in, it may perform the best of the three antennas. Once properly installed, the telescoping whip antenna will remain at any position you place it.

To Install:

- a)** Push the end of the antenna with the nut onto the FM connector.
- b)** Slip the supplied wrench around the antenna and slip it up against the nut end of the whip antenna. The wrench flanges will be close to touching the back of the radio when you have successfully slipped it onto the antenna nut.
- c)** Tighten the antenna nut securely.
- d)** Remove the wrench, then push the antenna upright. Extend the whip antenna, then adjust for best reception on a particular station, as required.

Note:

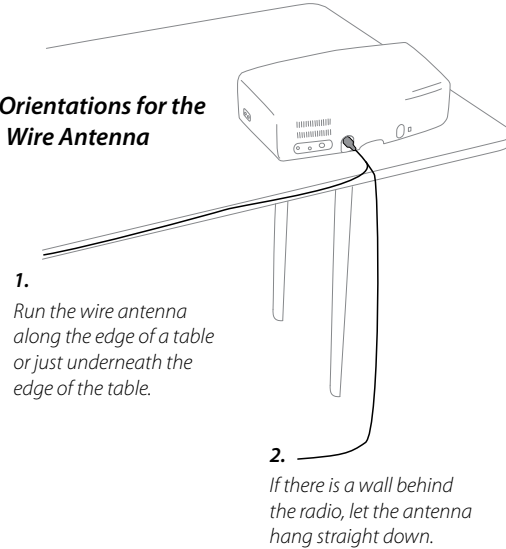
For FM stations below 94 MHz, the antenna will always perform best if fully extended. Stations above 98 MHz may benefit from a reduction in length of up to 2-3 inches.



Wire Antenna

- 1) If all the desired FM stations have strong signal strength, the wire antenna can be used. It is the easiest of the three antennas to install and conceal.
- 2) Connect the wire antenna to the SoundWorks Radio 820HD by pushing the connector plug onto the FM antenna input.
- 3) The wire antenna can work well simply hanging down from the back of a desk or bookcase. Experiment with the position of the antenna wire, keeping it as straight and extended as possible.
If you find a single position for the antenna that receives all stations well, tape it in place. Reposition the antenna as required to get the best signal for the desired station.

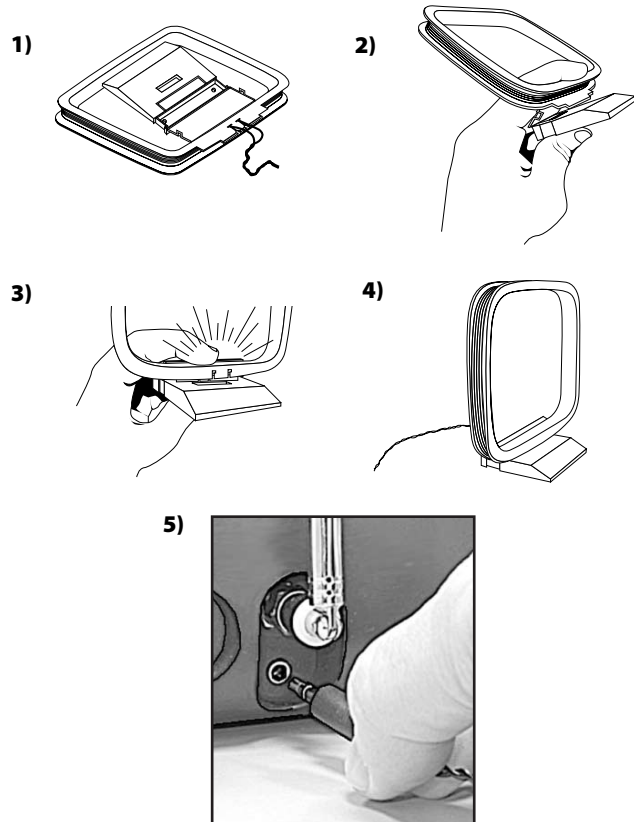
Two Orientations for the Wire Antenna



AM Antenna

- 1) Identify the AM Antenna.
- 2) Fold the base as shown.
- 3) Snap the tab on the loop into the slot in the base to complete the AM Antenna assembly. Be careful not to pinch the connecting wire.
- 4) The finished antenna will stand upright, as shown.
- 5) Insert the AM Antenna plug into the AM antenna input, which is directly underneath the FM antenna input.
- 6) Position the AM antenna 8 inches away from AC power lines or equipment to minimize AM interference.

The AM Antenna is mildly directional, so rotate it to find the best signal for each AM station. A single position can often be found that works well with all AM stations of interest.



Other Antenna Options

The FM antennas and the AM antenna provided with the SoundWorks Radio 820HD will work well in most locations that get adequate FM and AM reception on conventional radio receivers. But there may be an FM or AM station of interest where reception is marginal. To improve reception in marginal cases, re-positioning the antenna or using a larger antenna (or both) are the only reliable ways of improving reception.

In this section, some suggestions for improved, user-supplied FM and AM antennas are made.

A Note About Connecting A User-Supplied FM Antenna

The SoundWorks Radio FM antenna input is an "F" connector socket. For easy connection, a user-supplied FM antenna or coax cable should have a *push-on* "F" connector plug. Most retail FM and TV antenna products come with a *screw-on* "F" connector plug. To use one of these products, obtain a *"screw-on to push-on"* adapter plug for an "F" connector. This part is available at many Radio Shack and Walmart retail stores.

Part numbers for this adapter:

Radio Shack **278-218** and **278-291**

Philips USA **PH61026**

RCA **VH68**

Some antennas or coax cables will have a screw-on "F" connector plug that is small enough to slip through the plastic antenna wrench supplied with the SoundWorks Radio 820HD. In this case, use the wrench to attach the antenna.



Screw On "F" plug on the end of an antenna cable and a Screw On to Push On adapter.



Screw On to Push On adapter installed.

Other Antenna Options (continued)

The following suggestions must be supplied by the owner of the SoundWorks Radio 820HD.

FM Reception:

INDOOR FM ANTENNA OPTIONS: The common “rabbit ears” antenna (normally associated with TV reception) is a superb FM antenna. Placed on top of or behind a shelf or other large piece of furniture, this antenna provides great FM reception at a very low price.

The advantages this antenna has compared to the supplied FM dipole are:

- An increase in signal strength when both arms are fully extended.

- Easier repositioning for different FM stations, especially if the antenna is used in the "one ear vertical" mode.

The disadvantage of this antenna is its large size when both ears are fully extended.

Look for a simple model with no extraneous loops, knobs or switches. These features don't help FM reception and increase the price. Insist on an antenna with a “shielded” lead-in wire terminated by an “F” style connector plug. Do not choose a model with a flat lead wire terminated by two spade lugs. There is no reasonable way to attach spade lugs to a SoundWorks Radio 820HD. Good examples of the desired style antenna are the **RCA ANT-110** and **RCA ANT-111**.



A typical “rabbit ear” style antenna, with “F” connector and User-Supplied Screw On to Push On adapter.



“Rabbit Ears” in the more convenient, one-ear vertical configuration. This arrangement will receive most stations well. Some experimentation will be required to find a single location that works on your favorite stations.



“Rabbit Ears” fully extended. This configuration will provide the best reception when rotated or repositioned for peak signal strength on a specific station.

Additional Antenna Options

If you live more than 20 miles from an FM transmitter of interest and you live in a wood frame building, consider placing or mounting an FM antenna in the top of the building (attic or crawl space). Run additional coax lead-in wire to the radio. "Rabbit Ears" could be used for this purpose. It is also possible to use an FM antenna designed for outdoor use in an attic or crawl space. The performance will not be as good as outdoor mounting but it will still be much better than lower down in the residence.

The best overall radio reception can be obtained from an FM antenna designed for outdoor use mounted on a rooftop. Some examples follow:

Winegard PR-6000 (length 33", width 65"),
an directional antenna, good if all stations are in roughly the same direction.

Antennacraft FMSS (max width 54"),
an omnidirectional antenna, better if the stations of interest are located in widely different directions.

Am Antenna Options

The Wire Loop AM antenna included with the SoundWorks Radio 820HD is a precise match for the AM tuner. The only reliable way to boost AM signal strength is to place a tunable, sympathetic booster antenna next to the Wire Loop AM antenna. This type of booster antenna is passive. No wire connection is needed. The dial on the booster antenna should be adjusted for peak signal strength after tuning in an AM station.

Two models of this kind of antenna are:

Terk AM Advantage

C. Crane Select-A-Tenna Regular Model

Rev 1_8
English