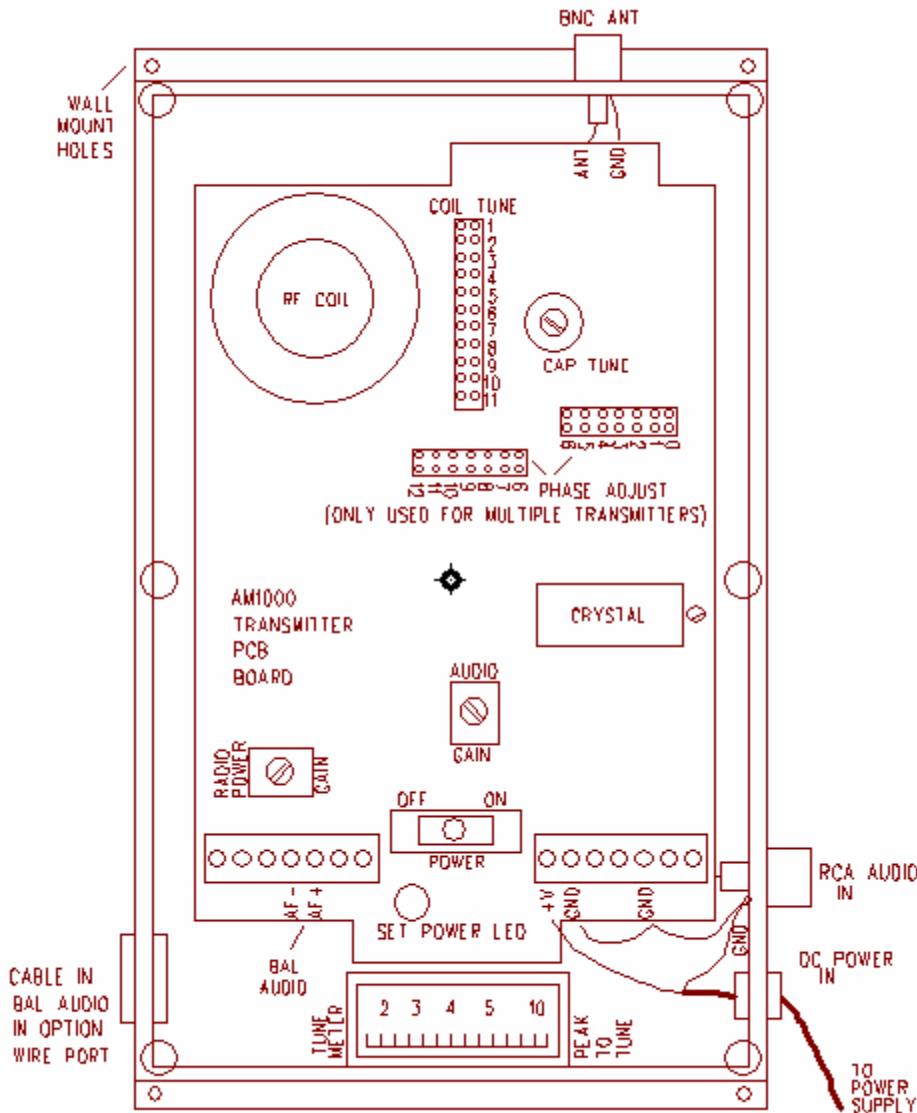


AM1000 INDOOR INSTALL INSTRUCTIONS



Unpack

You should have the transmitter and power supply, Antenna, two crystals if you ordered the AM1000C model, a tuning tool, and a spare shunt.

First

Find a place to put the transmitter, higher up in the building is better, you may want to try several locations to find the best place. Try to find an low traffic location.

Mount

Mount the transmitter to a wall, the unit should be used indoors only. See the diagrams for suggested mounted ideas. Keep in mind you need to plug in the power supply.

Connect

Connect your Audio and antenna. See the diagrams for guidelines to mount the antenna. Keep the antenna away from metal. The antenna wire should be attached so it will not move. You can use staples, tape, ect, to attach the antenna wire. Connect your audio to the RCA jack. You may need an adapter cable if you device has a 1/8" jack for example. If you want to drive the audio balanced bring the twisted pair cable into the hole, connect the two wires to the AF+ and AF- connections on the terminal block.

Crystal

Be sure to install the crystal if you have the AM1000C crystal model.

Tuning

Plug in the power, the Set Power LED should come on. (Refer to the above diagram) Turn the Audio Gain all the way down counter clockwise. Turn the Cap Tune so it is near the middle of it's range, 5 turns from either end, it is a 10 turn device. Place the shunt on the Coil Tune bank near the middle, position 5 or 6. Then turn Radio Power Gain up until the Tune Meter shows about "4". Now move the Coil Tune shunt up and down the bank, you are looking for the position that gives the highest reading on the meter. You will need to look at the reading, move the shunt, remove your hand then recheck the reading. Having your hand on the shunt will effect the meter reading. Once this is done take the tuning tool, and adjust the Cap Tune.

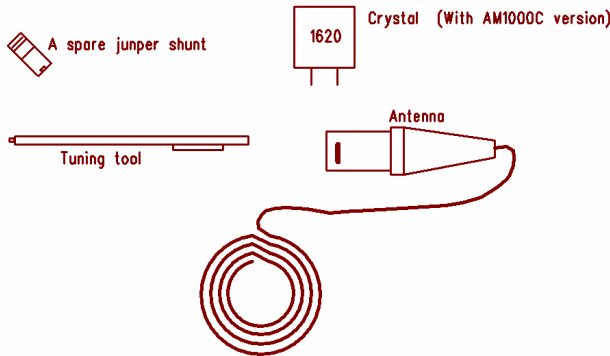
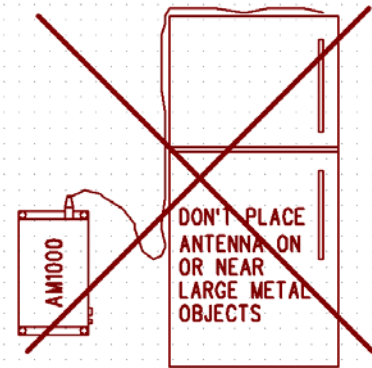
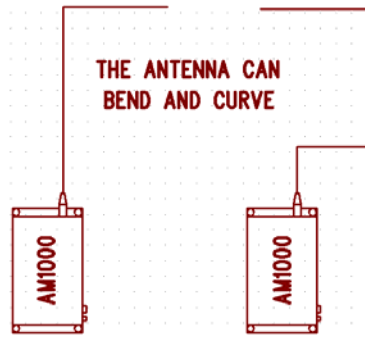
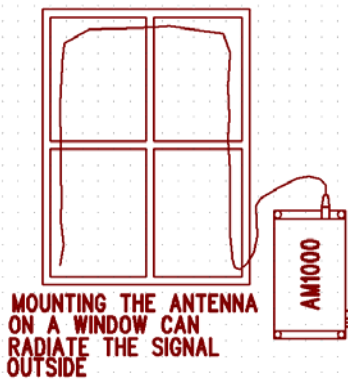


You are trying to peak the meter. As you as rotating the Cap Tune you should see the meter peak. If the meter goes down when you rotate the Cap Tune either way then you are tuned. The goal is to have the meter at the most peak voltage possible you can obtain by moving the shunt and Cap Tune. Adjust the Radio Power Gain if it is helpful. If two shunt positions seem to work use the one that peaks with the Cap Tune in the most counter clockwise position.

Power

Setting the power is easy, simply rotate Radio Power Gain until Set Power LED turns Green, rotate very slowly. Now turn the Audio Gain back all the way up. Once the Audio Gain is turned up the LED will flash red and green.





Antenna

Placement of the antenna is important for good range. Radio waves will go through wood, rockwall, ect, but will be slowed by brick, masonry, shingles, walls with metal studs. Try to have nothing be space (air) between the antenna and the radios you want to receive the signal if possible. If you are trying to get your signal outside it may be possible to feed the antenna outside for better outside radiation. It is important to try different locations.

Digital Volt Meter



Getting good Range

You can use audio equalization/ compression limiting equipment to improve your audio signal. It is also possible to use audio processors designed only for AM transmitters, to boost your range (see website). Get your audio level as loud as you can, your station should sound as loud as others. Mostly range is about the antenna placement. Be sure the wires to the transmitter are not moving around and are clamped down before you tune, if wires or the transmitter are moved the transmitter needs to be retuned. It is possible to use multiple transmitters for more range, also the unit has a digital link, see the website

<http://www.am1000rangemaster.com>

”Section 15.219 Operation in the band 510 - 1705 kHz.
(a) The total input power to the final radio frequency stage (exclusive of filament or heaterpower) shall not exceed 100 milliwatts.
(b) The total length of the transmission line, antenna and ground lead (if used) shall not exceed 3meters.
(c) All emissions below 510 kHz or above 1705 kHz shall be attenuated at least 20 dB below the level of the unmodulated carrier. Determination of compliance with the 20 dB attenuation specification may be based on measurements at the intentional radiator's antenna output terminal unless the intentional radiator uses a permanently attached antenna, in which case compliance shall be demonstrated by measuring the radiated emissions.”

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If you have trouble feel free to call, but check a few common problem first:

- Is your audio level high enough? Is it on? Audio is a gate on the power, if there isn't enough audio the range will suffer
- Check the voltage at the terminal block with a voltmeter, is there at least 12 volts there?
- Low range is often a bad ground, it could be poor soil conductivity in you area, a broken ground wire, This is common when using an electrical ground. It is possible to improve the electrical ground, consult an electrician if you don't feel qualified. Another ground rod can be added at the main building ground location.
- Be sure you set the power properly
- Be sure the "Audio Gain" is turned up
- Be sure the crystal is in
- Here is a way to check transmitter operation: temporarily turn power up, you can draw a small spark from one of the round red coil leads or the antenna with a lead pencil if the unit is working correctly. If it is to bright in the room you may not see the spark

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