

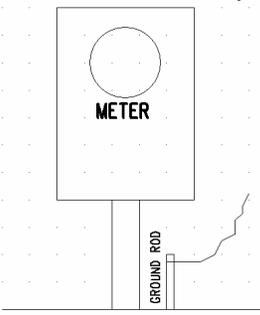
AM1000 QUICK INSTALL INSTRUCTIONS



Get Started!
Pick three locations 1) a place for the transmitter 2) place for your studio or inside connection (can just be under a desk) and 3) a ground. Once you have planned these locations so they will all work together you are ready!



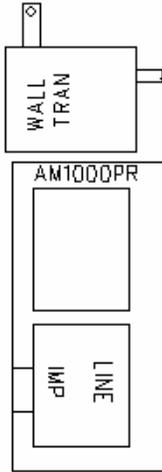
#15-530 Ground Rod



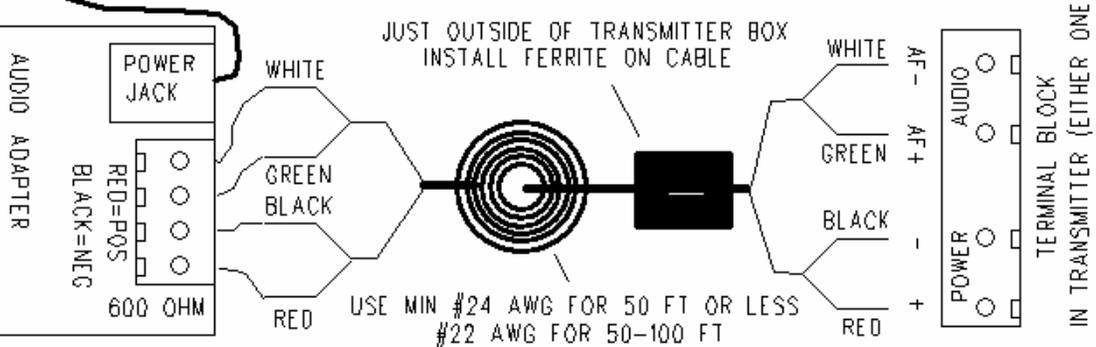
First, put your transmitter mount in, you can use standard 1 1/4 antenna mast mount from Radio Shack or an TV store. Be safe! Stay away from electrical wires and do not climb anything unsafe! Remember the antenna needs to be in the free air, not up against anything.



In Studio



Next do your cabling; if you have a balanced audio source you can connect the audio pair directly to the transmitter, if you have an unbalanced (like a RCA jack) audio source then use the AM1000PR adapter as shown. Plug in your audio to the 1/8 jack on the adapter. Secure the control cable to the building or pole. Ground the control wire shield at one end only.



Ground Rod



Now connect the ground connection. Connect the ground binding post at the bottom of the transmitter to an acceptable ground. A good ground is important so the lightning protection circuitry in the unit will function. Be sure to follow any NEC or local codes, ground any mounting mast and/or mounts. The routing of the control cable is not important, it can just be tie wrapped to the mast, or clamped to a wall. All connections need to be tight, so they won't later corrode from weathering.





Now mount the transmitter to the mast using the bracket (see bracket instructions). If you are not using a bracket, install transmitter to wall or acceptable configuration. Install 102" Antenna (Radio Shack # 21-903) to the transmitter, it screws into the top.

Connect the audio/power wire as shown on first page diagram, the ground connects to the post at bottom of transmitter. Go ahead and connect power/audio and turn on. Be sure the power switch in the transmitter is ON. If your unit is crystal - controlled be sure the crystal is installed (socket to the middle right). If you are using the agile module, using the supplied chart, check your frequency.



It is possible to tune using the computer circuit, see the manual. Using a meter (available from RangeMaster) place the red lead in the bottom of the three test holes, the black lead in the top test hole, the middle hole is unused. The power control (bottom left of board) should be up about 1/3-1/2 turn. (The control near the middle of the board is the audio gain, turn it all the way down now for tuning). Set the meter to a low DC voltage, 10VDC, 20VDC is fine. This is the meter setup to take the VOLTAGE.

There is a 11 position header to the right of the large round red coil. Keeping your hands away from the antenna and coil best you can move the shunt up and down the header, try to find the position that gives the highest reading on the meter. This position should be near the middle of the range of the header. If there are two places where the voltage goes up, select the one near the middle.

Digital Volt Meter



Then using the provided tuning tool, turn the 10 turn device (capacitor) screw just to the right of the shunt, try to increase the voltage further. The goal is to find a peak voltage. You should be able to see the voltage go up, then down, as you rotate the tool. If not, if you go all the way to the end of the travel of the 10 turns, try another shunt position. You need to find the peak voltage in this step or you are not tuned and will not get good range. This tuning needs to be done when the transmitter is in it's final position, and with all connections stable. You can not tune the transmitter first on the ground, & then install it. Find the peak voltage, & then leave it there. Now be sure to turn to audio level adjust pot back up.

Setting the power is easy, with the AM1000T "green light" simply rotate the power control until the LED at the bottom of the transmitter turns green. If you don't have the AM1000T, just refer to the "power chart" at the back of the manual for the proper readings of VOLTAGE and CURRENT combinations possible. VOLTAGE is read the same way as when you were tuning, to take the CURRENT reading just place the black lead in the bottom test hole and the red lead in the middle test hole, read the voltage on the digital meter. Rotate the power control until the readings are in line with the chart.

It's best to leave the audio adjust in the transmitter at 3/4 level, or all the way up, and adjust audio level from the ground. There is also a gain adjust in the AM1000PR audio adapter module. Adjust the audio level for good sound on a test radio. Your signal should sound as loud as other stations in the area. Get the audio level as high as you can without distortion. Try not to have the test radio too close to the transmitter, it can get overloaded.

RangeMaster Transmitters
(919)367-0607

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 your meter, 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, or your ground rod could be in sand or gravel instead of dirt. This is common when using an electrical meter rod, and/or if the rod is too close to a building foundation. If you can just push your rod in the ground it is probably just sand, and it won't work. Connections can't just be wrapped and taped, they need to be clamped. Clamps can be found at the hardware store. The copper needs to be bright and shiny and the tightly clamped or soldered. Use an 8 foot rod if possible. Isolate the ground wire from metal on the way down.
- Be sure you set the power properly
- Be sure the audio pot 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 too bright you may not see the spark