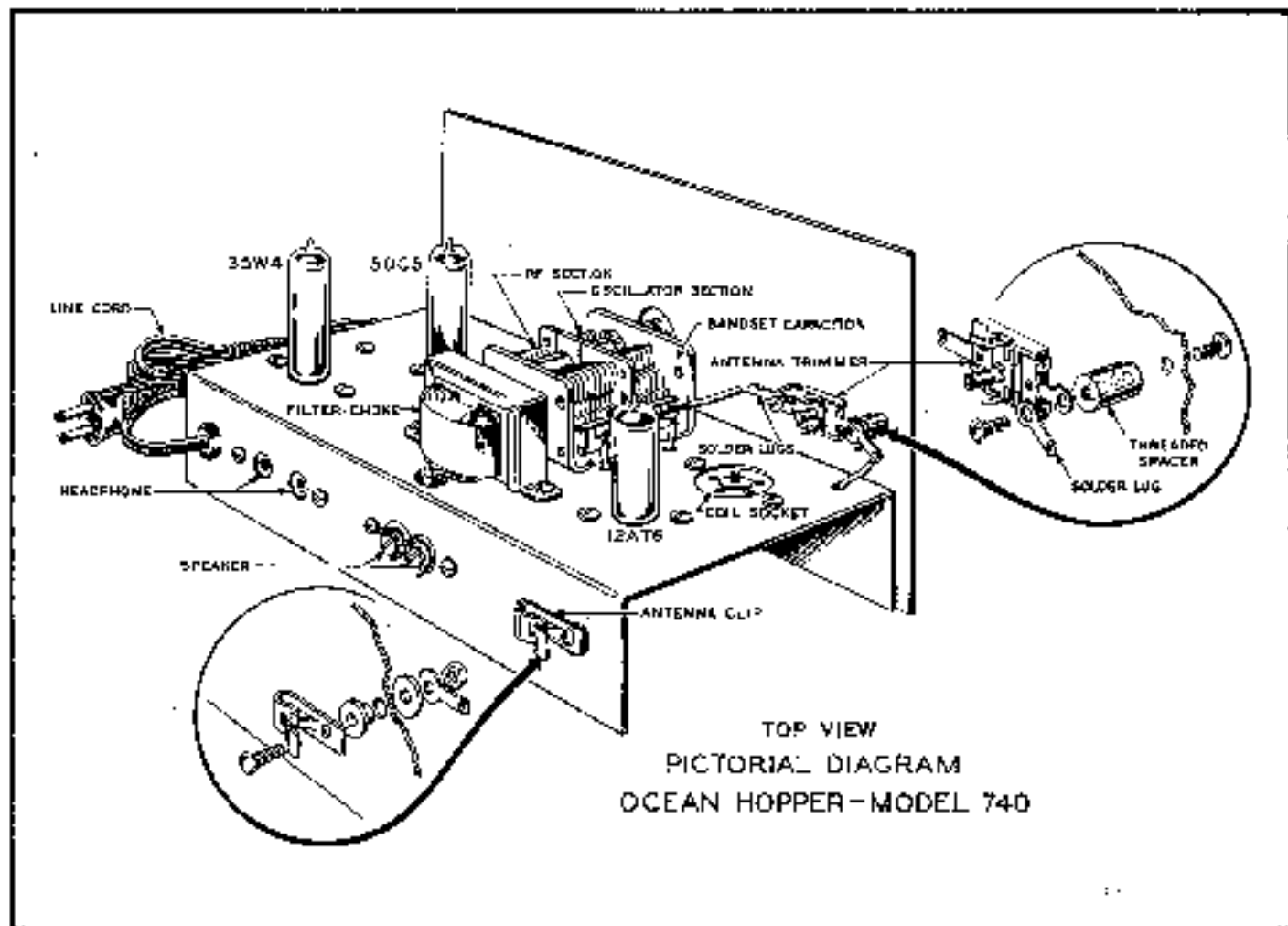




ANTENNA REQUIREMENTS

The importance of a good antenna, for satisfactory short wave reception, can not be overemphasized. (A "ground" is not needed because the power line itself serves as a ground.) With the broadcast band coil, a few feet of wire strung around the room will probably suffice for satisfactory results. For the short wave bands however, a good outside antenna should be used if long distance reception is expected. Such an antenna should be between 50 and 100 feet in length, and should be mounted as high off the ground as possible. An excellent, inexpensive antenna kit (supplied with instructions) is listed under ACCESSORIES at the end of the LIST OF MATERIAL.

OPERATION

A regenerative receiver, while not difficult to operate, requires some practice before peak performance, particularly on short wave, can be obtained. This unit is supplied with a coil covering the entire broadcast band, from 530 to 1900 KC. Even if you have purchased additional coils, it is suggested that you experiment first with the broadcast band coil, where tuning is less critical. Plug the tubes into the proper sockets and insert the BC coil into the coil socket. Connect a speaker or headphones to the proper connections, and attach your antenna to the antenna clip. Insert the line cord plug into the wall outlet, and turn the set on. Allow a minute or two for the set to warm up. You will notice a red glow in the

tubes if the filament circuit has been connected correctly. If the tubes do not light up, check the filament circuit for a wiring error.

After the set has warmed up, advance the regeneration control to about midway and turn the band-set capacitor over its full range. As this capacitor is rotated slowly you will hear a series of whistles or "howls". These indicate that the receiver is oscillating properly and that a radio station is being passed. Each whistle is in effect, a "beat" between the oscillations in the receiver and the signal from a station.

As you tune very slowly across one of these whistles you will notice that it starts with a very high pitch which becomes lower and lower in frequency until a "null" point is reached where no whistle is heard. On the other side of this "null" point the whistle will first be low in pitch and become higher as the station is passed. The "null" point indicates that you are tuned exactly to the station.

Once you have tuned to a "null" point you will probably be able to hear the station, but you must adjust the set properly in order to obtain best volume and clarity. This is done by turning down the regeneration control until the set no longer oscillates and no more whistles are heard. As the regeneration control is being turned, you will have to retune the band set capacitor slightly in order to maintain the "null" point. Best volume will be obtained at that critical point of the regeneration control where the set just stops oscillating. This is also the point