

Model 46, 47 and 53 Receivers**General Description**

Model 46 is similar to Model 43, except that the power unit is enlarged to provide adequate plate supply for the 171A-type tubes used in the 2nd A.F. stage. Also, the voltage regulator is not used, and the condensers in the power unit are contained in a separate replaceable section. Model 53 is a Model 46 with a type F-2C electro dynamic speaker mounted in a twenty six inch high metal cabinet.

Model 47 is similar to Model 46, but has four stages of R. F. amplification, with double R.F. transformers, thus providing greater sensitivity and selectivity.

The continuity tests given on page 103 may be applied to the receiver chassis of Models 46 and 53. The same tests may be applied to Model 47, with additional tests for the 4th R.F. socket contacts, which should give the same readings as the 2nd and 3rd R.F. sockets.

Special instructions for servicing the power unit in these three models are given below

Power Units in Models 46, 47 and 53

Apply the continuity test given in the table on page 104. If any one of the condensers is shorted or leaky, replace the condenser assembly. If the power transformer, filter-choke or output transformer is defective, replace the main sealed container, salvaging all other parts.

Replacing Condenser Assembly

Release panel assembly from power unit and remove panel-mounting strip by taking out the machine screw at each end. Unscrew two bolts holding the condenser assembly retaining-spring and take out the spring and supporting strip. Cut the three leads (white, blue, and green-yellow tracer), which connect between the condenser assembly and the transformer-choke assembly, at about the mid-point of each lead. Unsolder black lead from ground lug. Unsolder yellow lead and two black-red tracer leads from panel terminals. Unsolder leads at contacts of speaker-plug socket and socket 2Aa. Pull these leads up an inch or so through the hole in the socket-mounting angle and push the cable to one side

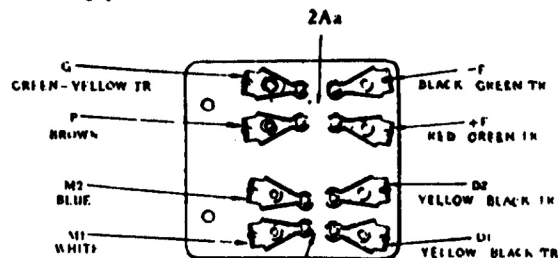
of the unit to allow room for removal of the condenser assembly. Take-out the assembly, pulling the blue M2 lead up through the cable covering.

Insert a new condenser assembly, reversing above procedure. Insulate the joints on the blue, white, and green-yellow tracer leads which connect the condenser assembly to the transformer-choke assembly

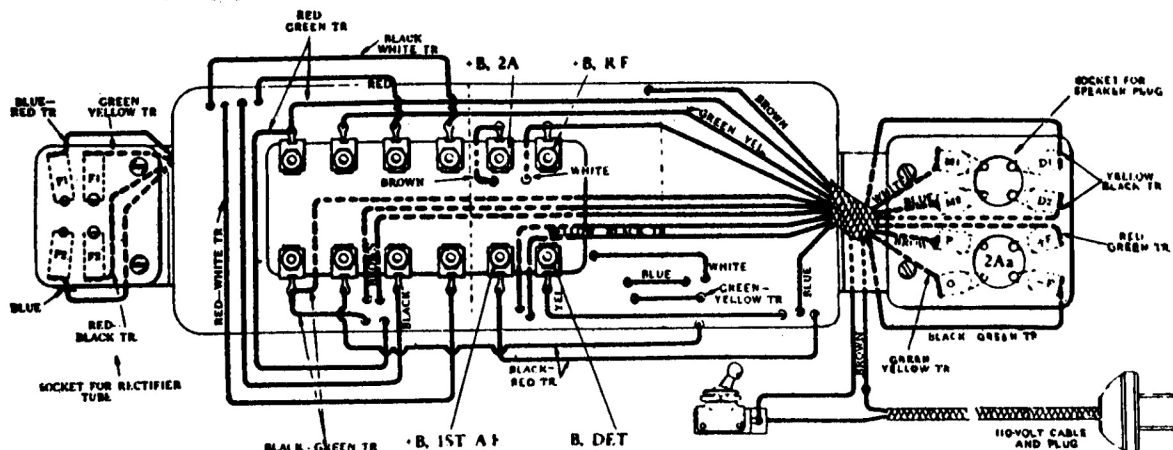
Replacing Transformer-Choke Assembly

Unsolder leads from socket plates at both ends of container and remove these sockets. Unsolder primary winding leads at points where they connect to the toggle switch and to one side of the 110-volt cable respectively. Release panel assembly from unit. Unscrew panel-mounting strip and condenser-retaining spring. Pull the primary leads, the yellow-black tracer output leads and the brown P2Aa lead (No. 18 wire) up through the cable covering. Cut the three leads (white, blue, and green-yellow tracer) which connect the transformer-choke assembly and the condenser assembly. Cut each lead at about the mid-point. Unsolder the six filament winding leads, the brown +B, 2A lead, and the white +B, R.F. lead from terminals on panel assembly. Unsolder black lead from ground lug. Remove the condenser and panel assemblies.

Substitute a new transformer-choke assembly, mount the salvaged parts and connect exactly like the original, reversing procedure outlined above



VIEW OF UNDER-SIDE OF SPEAKER-PLUG SOCKET AND SOCKET 2Aa ON MODELS 43, 46, 47 AND EARLY 53.



SHOWING CONNECTIONS AND APPROXIMATE POSITION OF LEADS FROM SEALED CONTAINER IN POWER UNIT FOR MODELS 46, 47 AND 53

This view shows the panel assembly moved to the left of its normal position. The replaceable condenser assembly is in the right hand end of the container. A black lead from the condenser assembly and a green lead from the transformer assembly are connected to a ground lug under the left hand panel mounting angle. In some units of this type the two leads to D1 and D2 are red (No. 18 wire) instead of yellow-with-black-tracer