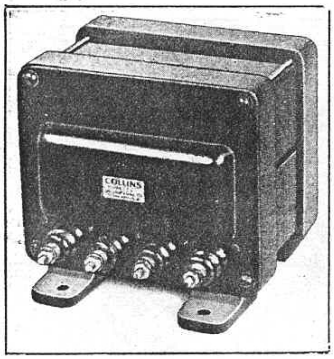
Collins Transformers

For some time, the Collins Radio Company has made a practice of selling separately the various transformers which are used in the construction of COLLINS transmitters and speech equipment. These transformers have been widely used by broadcasting stations, sound equipment engineers and others. Rapid developments in tubes and circuits within the last few months have made it desirable to add many new items to the list of standard COLLINS transformers and this complete list has been prepared showing all of the new items. A few comments on the different classes of transformers are of interest.

Collins transformers are manufactured in the plant of the Chicago Transformer Corporation. Special patented winding machinery is used in making coils with exeremely small mechanical and electrical tolerance to assure absolute uniformity. The coils of all transformers are impregnated under a high vacuum.



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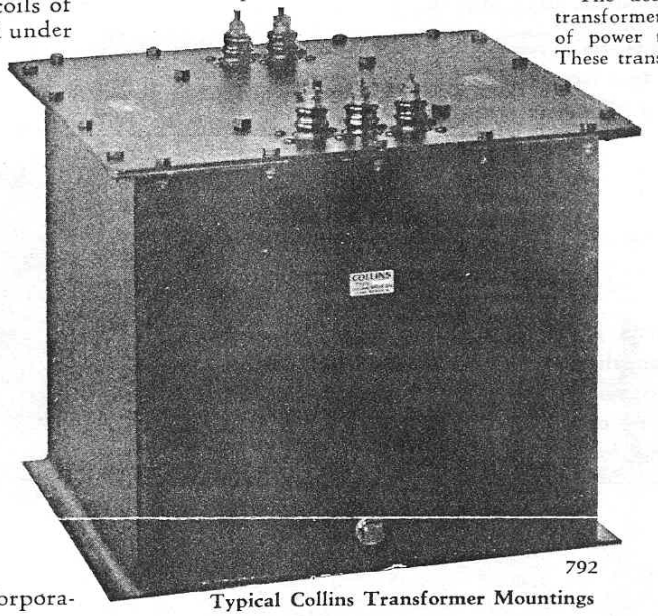

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Typical Collins Transformer Mountings

The Chicago Transformer Corporation makes transformers only to manufacturer's specifications and offers this complete line of audio and power transformers under the COLLINS name and built to Collins' specifications. Unequalled engineering and production facilities make it possible to offer a superior product at a fair price.

Broadcast Series of Audio Transformers

The Broadcast series of transformers has been designed to accomplish the most faithful reproduction which modern transformer construction can provide.

Skillful use of interspaced windings in certain models is used to increase the flux linkage, lower the distributed capacity and increase efficiency. Great care has been taken to preserve perfect electrical balance on all pushpull class B transformers. An astonishingly wide frequency range is obtained by the use of high primary inductance, low distributed capacity and elimination of resonant peaks within the transmitted range. Special attention has been directed toward faithful transmission of the very high frequencies which are now recognized as playing a very important part in achieving **naturalness.** Another feature which is given careful consideration in design is the working of the cores at low flux density in order to avoid amplitude distortion. A special silicon alloy core having the highest permeability consistent with permanence of characteristics is used in preference to other high permeability alloys which are subject to damage by temporary overloads.

Collins Tinytrans

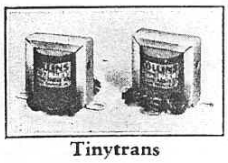
A special group of COLLINS transformers, classified as Tinytrans, are offered for certain uses. It is found that for many purposes, the extreme fidelity of the Broadcast series of transformers is not required and accordingly a line of smaller transformers with a slightly restricted frequency range was developed. The saving in cost is made in a large degree by using an inexpensive, yet serviceable, mou ing rather than by reducing the qua ity of the core or winding. The frequency range of all models of Tinytrans is approximately 80 to 10,000 CPS and their fidelity is equal or superior to that of many higher priced transformers on the market. Tinytrans are ideal for use in 5-meter equipment, receivers, public address amplifiers, loud speakers and amateur transmitters.

Tinytrans have been available, although not advertised, for several months and a surprisingly large number of them have been sold. New models are constantly being brought out for use with new tubes and for special purposes. It seems likely that this group of transformers will continue to have a very wide acceptance.

Power Transformers and Filter Chokes

The accompanying list of COLLINS transformers also shows a very wide variety of power transformers and filter chokes. These transformers are all types which have been developed specially for COLLINS transmitters. The primary consideration in design has been to make transformers which will have good regulation and efficiency and which will stand up under the severe variations in temperature and humidity which COLLINS transmitters encounter in tropical countries. The prices on COLLINS power transformers in some instances are slightly higher than the prices of competitive transformers bearing the same rating. It should be borne in mind, however, that there is not a complete agreement among transformer manufacturers as to the method of rating transformers. The slight additional cost of COLLINS power transformers is amply justified by increased performance and reliability.

450B



Tinytrans