CUNNINGHAM
CX-380
FULL WAVE RECTIFIER

RATING

Filament - - - - 5 Volts A-C - - - - 2 Amperes
Plate, Maximum - - - - - 300 Volts A-C per plate
Output, Maximum - - - - - 125 Milliamperes D-C
For approximate D-C Output Voltage to filter see curves below.

USE

Cunningham CX-380 is a Full Wave Rectifying Tube for use in Battery Eliminators operating from alternating current. This tube will operate satisfactorily in devices designed for the CX-313, and will have approximately the same output when used in such devices. The CX-380 will give considerably greater output, when used in devices particularly designed to take advantage of its maximum rating.

MOUNTING

The Large Standard CX Base of this tube will fit both the Navy and Push Type Sockets. It is recommended that, before inserting or removing the tube, the Eliminator be turned off or completely disconnected from the house lighting circuit.

The tube should preferably be mounted in a vertical position. Free circulation of air around it is of great importance and should be considered in Eliminator design, as this factor affects the life of the tube.

FILAMENT

The improved ribbon filament of this Cunningham tube is of the oxide coated type which operates at a red heat. It is usually supplied direct from one of the windings of a power transformer.

D-C OUTPUT VOLTAGE

For a given A-C plate voltage the D-C output voltage of a Rectifier depends largely, but not entirely, upon the current supplied. In order to give an idea, however, of the output of the CX-380 the attached curves have been prepared for as near average conditions encountered in a good eliminator as possible. D-C voltage shown by the curves at V in the accompanying circuit can only be regarded as approximate, since it will be partly governed by many factors which are not always known, such as transformer regulation, wave form, etc. In making the curves it was furthermore assumed that the rectifier was used with a filter having a 4 microfarad condenser where indicated on its input side. An increase in the capacity of this condenser would cause an increase in D-C voltage, but this increase would become smaller as the condenser capacity became large. The effect is so small for usual values of the condenser in question, that it may be disregarded in rough calculation. In determining the maximum smoothed D-C voltage available, the voltage drop (IR) across the filter must be subtracted from the value secured from the curves.

TECHNICAL NOTE

All A-C voltages above are "Root Mean Square" values such as would be shown by most A-C meters. It will be noted that the D-C Voltage Output as shown by the curves approaches for zero current the instantaneous peak voltage which is about 1.4 times the RMS value.

CUNNINGHAM QUALITY AND SERVICE

Every Cunningham Tube is subjected to rigid tests and inspections throughout its various stages of manufacture to insure the highest quality. If, however, any Cunningham Tube is believed not to function properly it should be returned to the dealer from whom it was purchased. The dealer has complete information regarding the proper disposition of such cases.

LICENSE NOTICE

The sale of this device carries a license under patent claims on the device itself but only for (1) talking machine uses, (2) radio amateur uses, (3) radio experimental uses and (4) radio broadcast reception; and only where no business features are involved.

The sale does not carry a license under patent claims on combinations of the device with other devices or elements, as for example in various circuits and hook-ups, except only (1) for legitimate renewals and repairs in apparatus and systems already licensed for use under such patent claims on combinations, (2) for assembling by amateurs and experimenters, and not by others, with other licensed parts or devices, or with parts or devices made by themselves, but only for their own amateur and experimental radio uses where no business features are involved, and not for sale to or for use by others, and (3) for use with licensed talking machines and licensed radio broadcast receiving devices; and only where no business features are involved.

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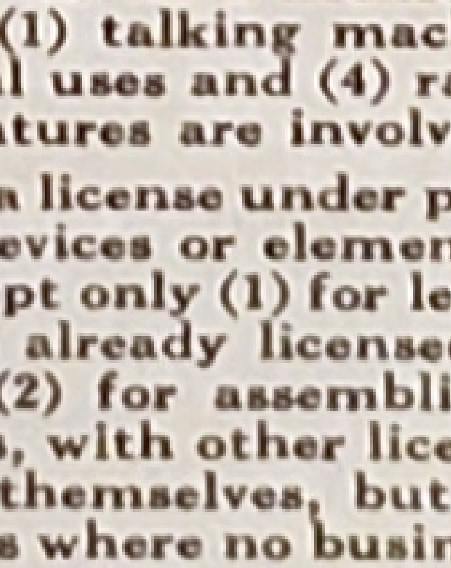
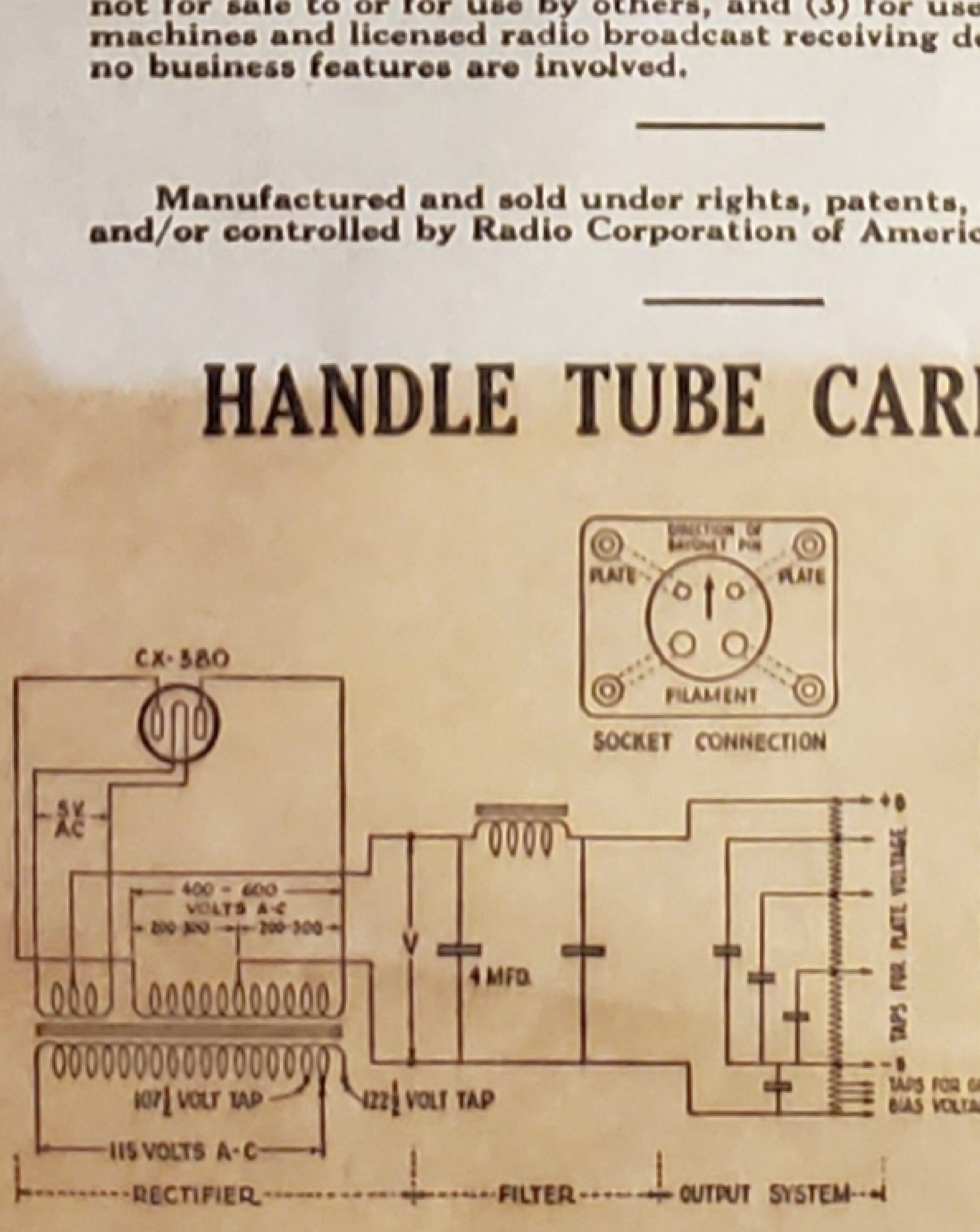
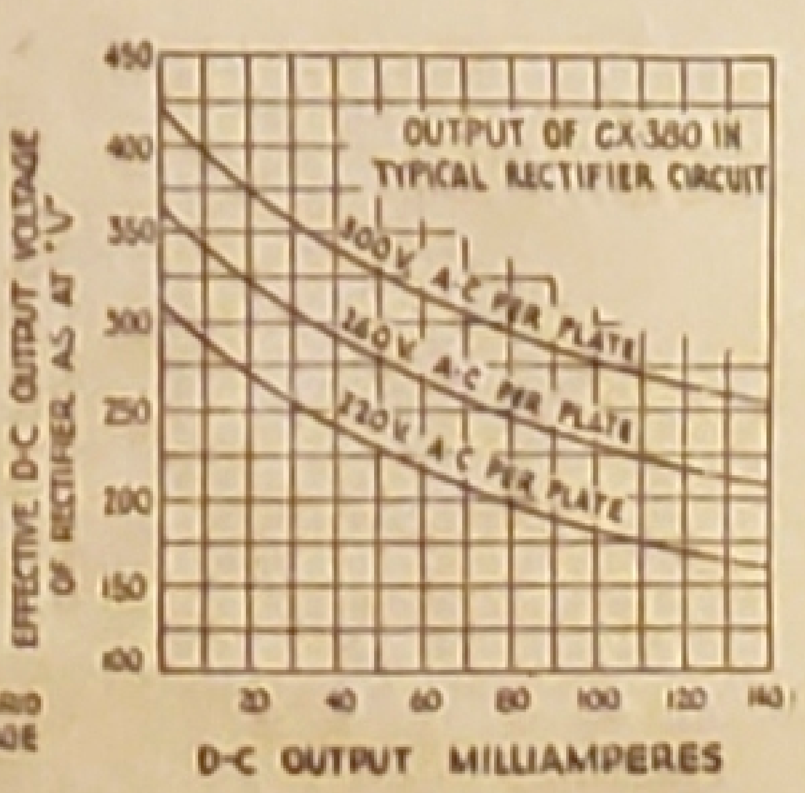
HANDLE TUBE CAREFULLY



SOCKET CONNECTION





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