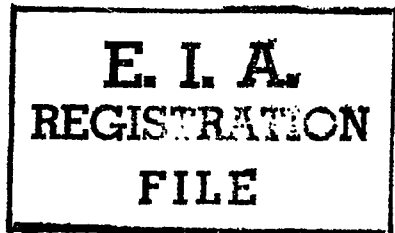


TENTATIVE DATA
 RAYTHEON TYPE CK-100E
 (Formerly Type QMG-159)



The Raytheon type CK-100E (formerly type QMG-159) is a full wave gas fill rectifier with an ionic heated cathode designed to work on storage batteries with the vibrator supplying the filament power. The tube may also be used as a cold cathode rectifier on ac-dc lines having 100 to 130 volts provided that the filament is heated to start the tube. Typical operating circuits are shown on attached sheet.

BULB: MT-8

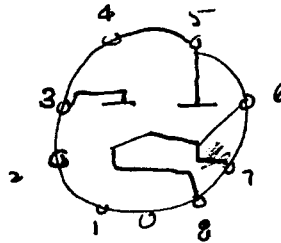
BASE: Small Wafer Octal 8-Pin

DIMENSIONS

Maximum Overall Length	2 5/8	inches
Maximum Seated Height	2 1/16	inches
Maximum Diameter	1 5/16	inches

BASING

- Pin 1 - Shield
- Pin 2 - No Connection
- Pin 3 - Plate - Right
- Pin 4 - No Connection



- Pin 5 - Plate - Left
- Pin 6 - Filament - Left
- Pin 7 - No Connection
- Pin 8 - Filament - Right

RATINGS *

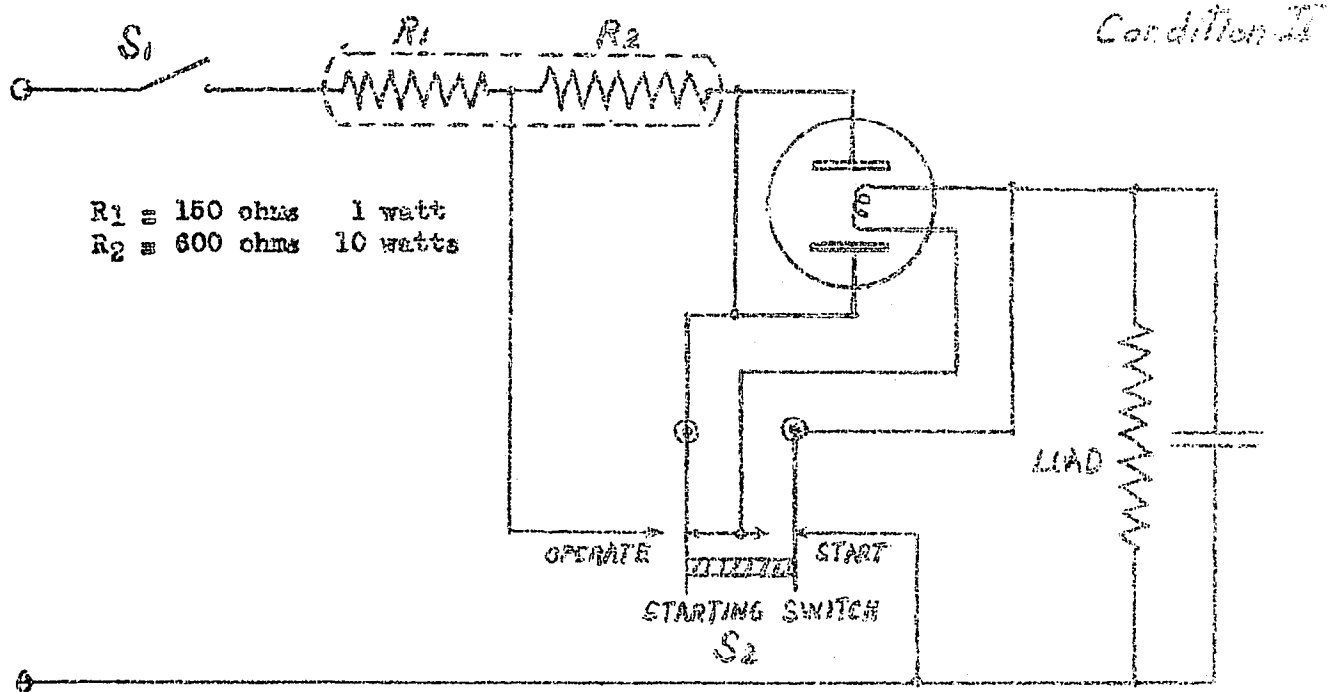
FULL WAVE RECTIFIER (Condenser Input)

	Cond. I ††		Cond. II ‡	
Filament Voltage (RMS or D-C)**	4.0	6.3	11.0	volts
Nominal Heater Current	0.08	0.1	0.125	amp
Maximum Peak Voltage Per Anode	285	225	225	volts
Maximum Peak Inverse Voltage	450	450	450	volts
Average Dynamic Voltage Drop	20	20	20	volts
Maximum D-C Output Current	70	70	70	ma
Minimum D-C Output Current	15	0	30	ma
Minimum Starting Peak Voltage	175	125	100	volts
Maximum Steady State Peak Anode Current Per Anode	210	210	210	ma

* For interpretation of ratings, see RMA Standards for storage battery operation.
 † Cond. I applies when filament is heated during operation.
 ‡ Cond. II applies when filament is heated only for starting.
 ** When used in full wave vibrator operation with the filament heated from the transformer, the filament should be poled so that the end next to the corresponding anode should be in phase with the anode voltage when a center tap is used.

from EIA registration # 309 Nov. 2, 1942

CR-1005
TYPICAL OPERATING CIRCUITS



To start, S_2 is depressed or thrown to the start position long enough to start, and released or thrown back to the run position. For quick starting R_1 and R_2 should be ballast resistors.

