VACUUM-GAUGE TUBE
HARD-GLASS BULB, IONIZATION TYPE

**DATA**

**General:**
- Filament, Tungsten:*
  - Voltage (Approx.) . . . . 5 . . . . . . . . . . . . ac or dc volts
  - Current (Approx.) . . . . 3.5 . . . . . . . . . . . . amp
  - Maximum Tube Length (including tubulation) . . . . 11-1/2"
  - Maximum Tube Radius . . . . . . . . . . . . . . . 2-3/16"
  - Maximum Bulb Length . . . . . . . . . . . . . . . 5-1/8"
  - Maximum Bulb Diameter . . . . . . . . . . . . . . . 2-1/16"
  - Bulb . . . . . . . . . . . . . . . . . . . . . . . . . . T-16
  - Tubulation . . . . . . . . . . . . . . . . . . . . 1/2" Diameter Hard Glass, Corning Code 772 Nonex

- Operating Position . . . . Vertical with tubulation up or down; Horizontal, with stem press in vertical plane

- Terminal Arrangement . . . . See Outline Drawing

- Terminal Lead Connections:
  - Lead 1 - Common
    - Lead to Filaments
  - Lead 2 - Filament
  - Lead 3 - Filament (Spare)
  - Lead 4 - Grid
  - Top Lead - Plate

**Maximum Ratings, Absolute Values:**
- PLATE VOLTAGE . . . . . . . . . . . . . . . . . . . . . . . -100 max. . . volts
- GRID VOLTAGE . . . . . . . . . . . . . . . . . . . . . . . +200 max. . . volts
- AMBIENT TEMPERATURE . . . . . . . . . . . . . 100 max. . . °C
- GAS PRESSURE . . . . . . . . . . . . . . . . . . . . . . . 0.001 max. mm of Hg.

**Typical Operation:**
- Plate Voltage . . . . . . . . . . . . . . . . . . . . . . . -22.5 -22.5 -22.5 . . . volts
- Grid Voltage . . . . . . . . . . . . . . . . . . . . . +80 +110 +160 . . . volts
- Grid Current . . . . . . . . . . . . . . . . . . . . . . . 10 10 10 . . . . ma.
- Sensitivity . . . . . . . . . . . . . . . . . . . . . . . . 80 110 140 . . . μamp/micron²

**Calibration:**
- See curve on following sheet.

* The 1949 contains two filaments, one of which is a spare. Values shown are for either filament operated alone.

² 1 micron = 0.001 mm of mercury.
CALIBRATION CURVES

GAS = DRY AIR
GRID MILLIAMPERES (I_C) = 10
PLATE VOLTS (E_b) = -22.5
TO CONVERT MM TO MICRONS,
MULTIPLY VALUES BY 1000

GAS PRESSURE - MM OF Hg

PLATE MICROAMPERES (I_b)

MAR. 11, 1947
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-6851
1949

VACUUM-GAUGE TUBE
HARD-GLASS BULB, IONIZATION TYPE

DATA

General:
Filament, Tungsten:
Voltage (Approx.) .... 5 .... ac or dc volts
Current (Approx.) ... 3.5 .... amp
Maximum Tube Length (Including tubulation) .... 11-1/2"
Maximum Tube Radius .... 2-3/16"
Maximum Bulb Length .... 5-1/8"
Maximum Bulb Diameter .... 2-1/16"
Bulb .... T-16
Tubulation .... 1/2" Diameter Hard Glass, Corning Code 772 Nonex
Operating Position .... Vertical with tubulation up or down; Horizontal, with stem press in vertical plane
Terminal Arrangement .... See Outline Drawing
Terminal Lead Connections:
Lead 1 - Common Lead to Filaments
Lead 2 - Filament
Lead 3 - Filament (Spare)
Lead 4 - Grid
Top Lead - Plate

Maximum Ratings, Absolute Values:
FILAMENT VOLTAGE .... 6.5 max. volts
DC PLATE VOLTAGE DURING OPERATION .... -100 max. volts
DC GRID VOLTAGE DURING OPERATION .... +200 max. volts
VOLTAGE ON GRID & PLATE TIED TOGETHER DURING DEGASSING (DC OR PEAK AC) .... 650 max. volts
GRID & PLATE DISSIPATION (TOTAL) DURING DEGASSING .... 150 max. watts
AMBIENT TEMPERATURE DURING OPERATION .... 100 max. °C
GAS PRESSURE .... 0.001 max. mm of Hg

Typical Degassing Conditions:
Grid Connected to Plate
Filament Voltage (AC or DC) .... 6 .... 6 volts
Grid & Plate Voltage .... 350 rms 500 dc volts
Grid & Plate Current (Average) .... 100 150 mA

Typical Operation:
DC Plate Voltage .... -22.5 -22.5 -22.5 volts

* The 1949 contains two filaments, one of which is a spare. Values shown are for either filament operated alone. The filament voltage should be kept as low as possible during degassing because use of a low filament voltage materially increases filament life.

MARCH 1, 1954
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

** indicates a change
VACUUM-GAUGE TUBE

DC Grid Voltage ....... +80  +110  +160 volts
Grid Current .......... 10   10   10 ma
Sensitivity .......... 80   110  140 μa/micron

Calibration:
See curve on following sheet.

1 micron = 0.001 mm of mercury.