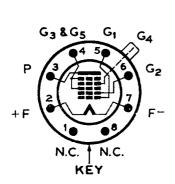
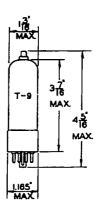


GENERAL DESCRIPTION

Application: The Ken-Rad 1B7G is a filament type pentagrid converter tube especially designed for service in low drain battery operated receivers. The 1B7G is a glass tube equipped with an octal base.

Physical Characteristics:





Bottom View

RATING AND CHARACTERISTICS

Filament:

Voltage Current 1.4 Volts .100 Ampere

CONVERTER OPERATION

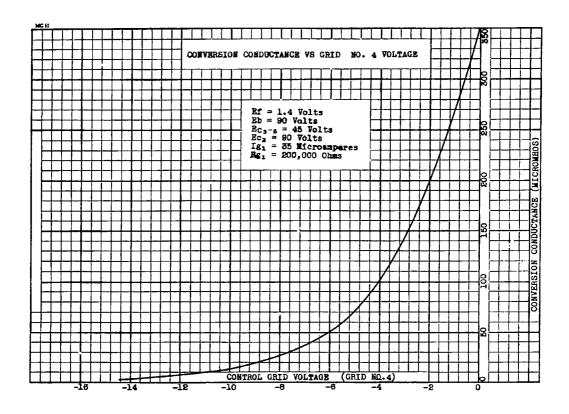
| Plate Voltage | 90 | Volts | | |
|---|------------|-------------------|--|--|
| Screen Grid Voltage (Grids No. 3 and 5) | 45 | Volts | | |
| Anode Grid Voltage (Grid No. 2) | 90 | Volts | | |
| Control Grid Voltage (Grid No. 4) | 0 | Volts | | |
| Oscillator Grid Resistor (Grid No. 1) | 200,000 | Ohms | | |
| Plate Current | 1.5 | Milliamperes | | |
| Screen Current | 1.3 | Milliamperes | | |
| Oscillator Grid Current | 3 5 | Microamperes | | |
| Anode Grid Current | 1.6 | Milliamperes | | |
| Plate Resistance | .350 | Megohm | | |
| Conversion Conductance | 350 | Micromhos | | |
| Conversion Conductance at -14.5 Volts | 2 | Micromhos Approx. | | |
| Oscillator Sm at Ec, = 0 | 900 | Micromhos | | |

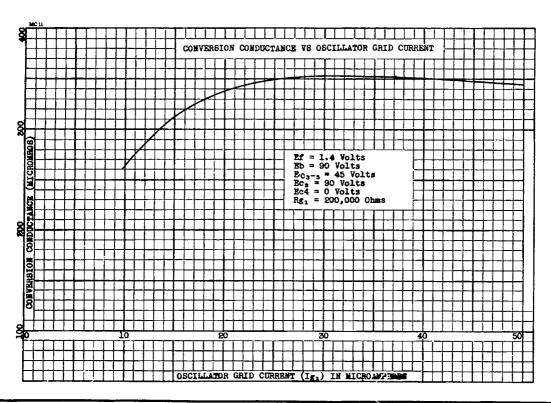
Direct Interelectrode Capacitances: (With tube shield connected to negative filament)

| Signal Grid to Mixer Plate (G4-P) Signal Grid to Oscillator Plate (G4-G2) Signal Grid to Oscillator Grid (G4-G1) | .26 | μμ ſ. μμ ſ. μμ ſ. |
|--|-----|--|
| Oscillator Grid to Oscillator Plate (G1-G2) Signal Input: G4 to (F+G ₁ +G ₂ +G ₃ +P5hHeld) Oscillator Output: G2 to (F+G ₃ +G4+G5+P+Shield) Oscillator Input: G1 to (F+G ₃ +G4+G5+P+Shield) Mixer Output: P to (F+G ₁ +G ₂ +G ₃ +G4+G5+Shield) | | μμτ. μμτ. μμτ. μμτ. |

from RMA release #169, March 28, 1939







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