



5FP7-A

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OSCILLOGRAPH TUBE

MAGNETIC FOCUS

MAGNETIC DEFLECTION

DATA

General:

Heater, for Unipotential Cathode:

Voltage. 6.3 ac or dc volts

Current. 0.6 amp

Direct Interelectrode Capacitances:

Grid No.1 to All Other Electrodes. 8 μf ←Cathode to All Other Electrodes. 5 μf

Phosphor (For Curves, see front of this Section) P7

Fluorescence Blue

Phosphorescence. Greenish-Yellow

Persistence of Phosphorescence Long

Focusing Method. Magnetic

Deflection Method. Magnetic

Deflection Angle (Approx.) 53° Overall Length $11\frac{1}{8} \pm \frac{3}{8}$ "Greatest Diameter of Bulb. $4\frac{15}{16} \pm \frac{3}{32}$ "Minimum Useful Screen Diameter $4\frac{1}{4}$ "

Mounting Position. Any

Cap. Recessed Small Ball (JETEC No.J1-22)

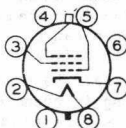
Base Long Medium-Shell Octal 8-Pin (JETEC No.B8-65)

BOTTOM VIEW

Pin 1-No
Connection

Pin 2-Heater

Pin 3-Grid No.2

Pin 4-No
Connection

Pin 5-Grid No.1

Pin 6-No
Connection

Pin 7-Cathode

Pin 8-Heater

Cap - Anode

Maximum Ratings, Design-Center Values:

ANODE VOLTAGE. 8000 max. volts

GRID-No.2 VOLTAGE. 700 max. volts

GRID-No.1 VOLTAGE:

Negative bias value. 180 max. volts ←

Positive bias value* 0 max. volts

Positive peak value. 2 max. volts

PEAK GRID-No.1 DRIVE FROM CUTOFF 65 max. volts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode. 125 max. volts

Heater positive with respect to cathode. 125 max. volts

Typical Operation:

Anode Voltage**. 4000 7000 volts

Grid-No.2 Voltage. 250 250 volts

* At or near this rating, the effective resistance of the anode supply should be adequate to limit the anode input power to 6 watts.

** Brilliance and definition decrease with decreasing anode voltage. In general, the anode voltage should not be less than 4000 volts.

← Indicates a change.

AUG. 1, 1951

TUBE DEPARTMENT

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RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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Grid-No.1 Voltage ^o	-25 to -70	-25 to -70	volts
→ Grid-No.2 Current.	-15 to +15	-15 to +15	μamp
Focusing-Coil Current (DC, approx.)#	96 ± 15%	128 ± 15%	ma
Spot Position.	##	—	

Maximum Circuit Values:

Grid-No.1-Circuit Resistance 1.5 max. megohms

^o For visual extinction of undeflected focused spot.

For specimen focusing coil similar to JETEC Focusing Coil No.106 positioned with air gap toward face plate, and center line of airgap 2-3/4 inches from Reference Line (see Outline Drawing), and total anode current of 200 microamperes.

The center of the undeflected, unfocused spot will fall within a circle having 9-mm radius concentric with center of tube face.

OPERATING NOTES

The 5FP7-A utilizes a long-persistence, cascade (two-layer) screen which exhibits bluish fluorescence of short persistence and greenish-yellow phosphorescence.

Because of its long persistence, the 5FP7-A is particularly useful where either low-speed non-recurring phenomena or high-speed recurring phenomena are to be observed. Furthermore, two or more phenomena can be observed simultaneously on the screen by means of a suitable switching arrangement.

The persistence is such that the 5FP7-A without filter can be operated with scanning frequencies as low as 30 cycles per second without excessive flicker. When used with yellow filter, such as Wratten No.15 (G), the 5FP7-A can be operated with much lower scanning frequencies.

In general, operation of the 5FP7-A at an anode voltage below 4000 volts will not give persistence of useable brightness.

OUTLINE DIMENSIONS for Type 5FP7-A
are the same as those for Type 5FP4-A

AVERAGE CHARACTERISTIC CURVE
for Type 5FP7-A is the same as that shown for
Type 7BP7-A

→ Indicates a change.

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