

6AL7-GT
Description and Rating
ELECTRON-RAY INDICATOR

GENERAL DESCRIPTION

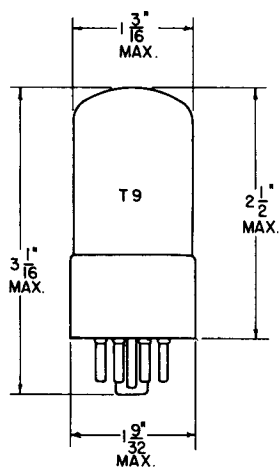
Principal Application: The 6AL7-GT is an electron-ray indicator designed especially for use in AM-FM receivers. Through its use, precise tuning of either

Cathode: Coated Unipotential
Heater Voltage (A-C or D-C) 6.3 Volts
Heater Current 0.15 Ampere
Envelope: T-9, Glass

FM or AM signals is easily accomplished without the use of additional tubes or circuit components.

Base: B8-6, Intermediate Shell Octal 8-Pin
or B8-46, Short Intermediate Shell Octal 8-Pin
Mounting Position: Any

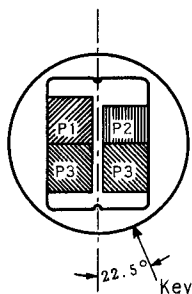
PHYSICAL DIMENSIONS



RTMA 9-7 or 9-39

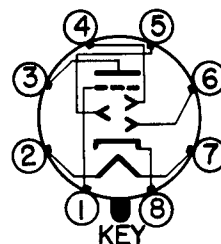
TERMINAL CONNECTIONS

- Pin 1 - Grid
- Pin 2 - Heater
- Pin 3 - Target
- Pin 4 - Deflection Electrode Number 2
- Pin 5 - Deflection Electrode Number 3
- Pin 6 - Deflection Electrode Number 1
- Pin 7 - Heater
- Pin 8 - Cathode



Pattern areas P₁, P₂, and P₃ are produced and controlled by deflection electrodes number 1, 2, and 3 respectively.

BASING DIAGRAM



RTMA 8CH
BOTTOM VIEW

DESIGN CENTER VALUES:

Target Voltage (Maximum)	365	Volts
Target Voltage (Minimum)	220	Volts
Heater-Cathode Voltage	90	Volts

MAXIMUM RATINGS

INDICATOR SERVICE

CHARACTERISTICS AND TYPICAL OPERATION

Target Voltage	315	Volts
Deflection Electrode Number 1 Voltage	0	Volts
Deflection Electrode Number 2 Voltage	0	Volts
Deflection Electrode Number 3 Voltage	0	Volts
Grid Voltage *	0	Volts
Cathode Bias Resistor	3300	Ohms
Deflection Sensitivity (Approx) for First Millimeter Deflection #	1.0	mm/Volt
Grid Voltage (Approx) for Fluorescence Cutoff	-7.0	Volts

* The grid should be connected to the cathode when not used for fluorescence control.

For deflection electrodes number 1 and 2

PATTERN SEQUENCE DURING TUNING

CONTROL VOLTAGE SOURCE	SIGNAL	CIRCUIT (SEE FIGURE)	OFF CHANNEL (-)	ON CHANNEL OFF TUNE (-)	ON TUNE	ON CHANNEL OFF TUNE (+)	OFF CHANNEL (+)
DISCRIMINATOR	FM	1 AND 2					
DISCRIMINATOR AND SQUELCH	FM	3					
DISCRIMINATOR AND LIMITER	FM	4					
AVC	AM	5					

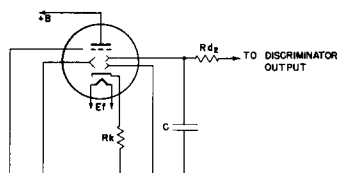


FIGURE 1
 $E_f = 6.3$ VOLTS
 $+B = 250-350$ VOLTS D-C
 $R_k = 3300$ OHMS
 $R_{d2} = 1.0$ MEGOHM
 $C = 0.05$ MICROFARAD

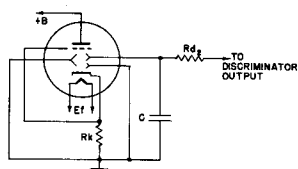


FIGURE 2
 $E_f = 6.3$ VOLTS
 $+B = 250-350$ VOLTS D-C
 $R_k = 3300$ OHMS
 $R_{d2} = 1.0$ MEGOHM
 $C = 0.05$ MICROFARAD

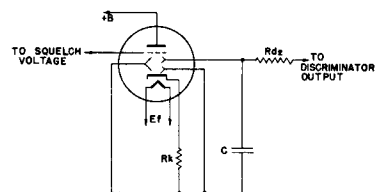


FIGURE 3
 $E_f = 6.3$ VOLTS
 $+B = 250-350$ VOLTS D-C
 $R_k = 3300$ OHMS
 $R_{d2} = 1.0$ MEGOHM
 $C = 0.05$ MICROFARAD
 SQUELCH VOLTAGE:
 0 VOLTS - "ON TUNE"
 -6 VOLTS (APPROX) - "OFF CHANNEL"

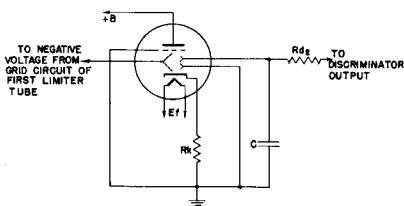


FIGURE 4
 $E_f = 6.3$ VOLTS
 $+B = 250-350$ VOLTS D-C
 $R_k = 3300$ OHMS
 $R_{d2} = 1.0$ MEGOHM
 $C = 0.05$ MICROFARAD

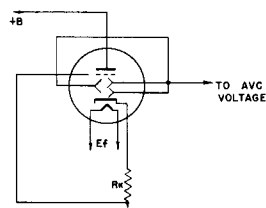


FIGURE 5
 $E_f = 6.3$ VOLTS
 $+B = 250-350$ VOLTS D-C
 $R_k = 3300$ OHMS

TUBE DEPARTMENT

GENERAL  ELECTRIC

Schenectady 5, N. Y.