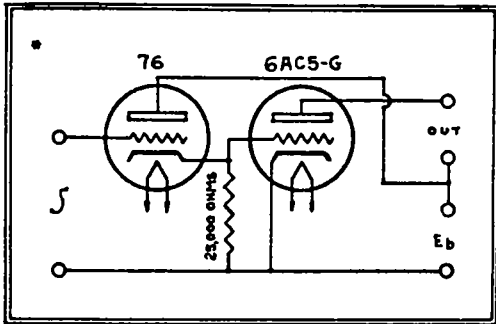


# TRIADYNE 6AC5 G

TECHNICAL BULLETIN 112

TRIAD MANUFACTURING COMPANY, INC., PAWTUCKET, R.I.

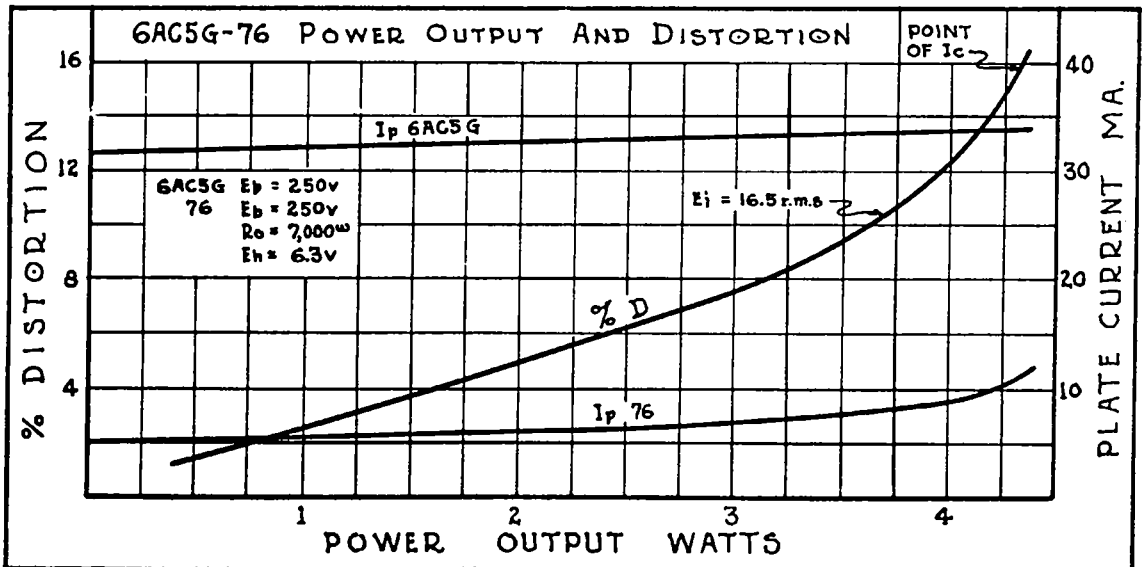


The Triadyne 6AC5 G is a positive grid Class A Power Amplifier Triode which is similar to the output section of the well known type 6B5, and requires a type 76 driver tube to be connected with it in the usual "Dynamic Coupling" type of circuit. The type 76 tube performs the same function as the input section of the 6B5 Triadyne. While the positive grid characteristic of the 6AC5 G suggests typical Class B service, the tube has been designed to give optimum performance in Class A service with the 76 driver. In particular, the plate and grid current and

grid voltage of the 6AC5 G have been designed to match the type 76 tube.

Triad has designed the 6AC5 G for set manufacturers to use in A-C models nominally employing the type 41 power tube. The 6AC5 G offers a low cost method of increasing the number of tubes in the set while definitely improving the quality and performance. Many set manufacturers have increased the number of tubes in certain models to secure greater sales appeal, but have resorted to using separate diode detector and voltage amplifier tubes instead of using a type 75, or have operated two tubes at reduced efficiencies. These manufacturers have felt that the cost of improving the set while increasing the number of tubes was prohibitive. The cost of the 6AC5 G-76 combination is less than other methods of increasing the number of tubes because of its simplicity. In a typical set with a 41 output tube this combination simply requires the addition of a 76 tube and socket and it eliminates the 41 grid bias resistors and filter condensers. The exact net cost of this combination will vary with each model receiver because of the differences in design. The Engineering Department of the Triad Manufacturing Company will be glad to assist set manufacturers with design and cost problems in connection with the use of the 6AC5 G.

As mentioned previously, the 6AC5 G characteristics have been designed to match a type 76 driver tube. Other similar types of triode tubes will not operate efficiently as drivers because of the differences in amplification factor and plate current.



\*We believe that the circuit shown above for Dynamic Coupled operation is covered by patents controlled by Revelation Patents Holding Company.

# TRIADYNE 6AC5 G

## AVERAGE ELECTRICAL CHARACTERISTICS

Heater	Coated uni-potential cathode
Voltage	6.3 a-c or d-c
Current	0.4 amperes

### CLASS "A" POWER AMPLIFIER

Plate Voltage	250 max. volts
Grid Voltage	+13 volts
Plate Current	32 ma.
Grid Current	5.0 ma.
Amplification Factor	125
Plate Resistance	36,700 ohms
Transconductance	3,400 umhos
Plate Dissipation	10 max. watts

## TYPICAL OPERATION

### CLASS "A" DYNAMIC COUPLED AMPLIFIER EMPLOYING A TYPE 76 DRIVER

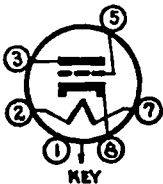
Plate Supply	250 volts
Driver Plate Current	5.5 ma.
Power Section Plate Current	32 ma.
External Grid Bias*	0 volts
Load Resistance	7,000 ohms
Rated Power Output	3.7 watts
Harmonic Distortion	10%
Signal Volts For Rated Output	16.5 r.m.s.
Max. Power Output (start of driver grid current)	4.3 watts

\*Bias voltage for both the driver and power sections is automatically developed by the Dynamic Coupled connection and driver grid current does not flow during any part of the cycle up to 4.3 watts output.

A 25,000 ohm resistor should be connected between grid and cathode of the power tube to prevent a current surge occurring while the tube is warming up.

The total resistance in the type 76 grid circuit should not exceed 1 megohm.

### BASE CONNECTIONS



### PIN ARRANGEMENT

- Pin 1 - No Connection
- Pin 2 - Heater
- Pin 3 - Plate
- Pin 5 - Grid
- Pin 7 - Heater
- Pin 8 - Cathode

### PHYSICAL DIMENSIONS

Max. Overall Length	4-1/8"
Max. Diameter	1-9/16"
Bulb	ST12
Base	Small Octal 6 Pin