TUBE REFERENCE BOOK

1943

RCA
RADIO TUBE REFERENCE BOOK

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"NEW" RADIOS, WAR-TIME STYLE OF 1943

Radio service dealers are doing a triple-duty job these days!

Thousands of them have entered the nation's armed services where their knowledge of things electronic is proving invaluable. Thousands more have entered industry to supply highly-specialized skills that could be obtained from no other source.

This means that those who remain to keep radios working on the "home front" face a big task, and one that looms essential to the morale and welfare of the nation during these critical times.

Even replacement parts may prove difficult to obtain — and yet the job of keeping at least a fair percentage of the nation's old radios in good working order is one that *must* be done and *will* be done. Few professions can boast of a higher order of technical ingenuity among its members. Certainly none will show a better record of surpassing any obstacles the war may impose — and doing it with whatever materials may be at hand!

Thus, this new edition of the famous RCA Reference Book is particularly timely. We sincerely trust that it will play an important part in helping you make your customers' old radios serve as their "new" models, War-Time Style of 1943!

Technical Definitions*

"A" Power Supply A power supply device providing heating current for the cathode of a vacuum tube.

Alternating Current A current, the direction of which reverses at regularly recurring intervals, the algebraic average value being zero.

Amplification Factor A measure of the effectiveness of the grid voltage relative to that of the plate voltage in affecting the plate current.

Amplifier A device for increasing the amplitude of electric current, voltage or power, through the control by the input power of a larger amount of power supplied by a local source to the output circuit.

Anode An electrode to which an electron stream flows.

Antenna A conductor or a system of conductors for radiating or receiving radio waves.

Atmospherics Strays produced by atmospheric conditions.

Attenuation The reduction in power of a wave or a current with increasing distance from the source of transmission.

Audio Frequency A frequency corresponding to a normally audible sound wave. The upper limit ordinarily lies between 10,000 and 20,000 cycles.

Audio-Frequency Transformer A transformer for use with audio-frequency currents.

Autodyne Reception A system of heterodyne reception through the use of a device which is both an oscillator and a detector.

Automatic Volume Control A self-acting device which maintains the output constant within relatively narrow limits while the input voltage varies over a wide range.

"B" Power Supply A power supply device connected in the plate circuit of a vacuum tube.

Baffle A partition which may be used with an acoustic radiator to impede circulation between front and back.

Band-Pass Filter A filter designed to pass currents of frequencies within a continuous band limited by an upper and a lower critical or cut-off frequency and substantially reduce the amplitude of currents of all frequencies outside of that band.

Beat A complete cycle of pulsations in the phenomenon of beating.

Beat Frequency The number of beats per second. This frequency is equal to the difference between the frequencies of the combining waves.

Beating A phenomenon in which two or more periodic quantities of different frequencies react to produce a resultant having pulsations of amplitude.

Broadcasting Radio transmission intended for general reception.

By-Pass Condenser A condenser used to provide an alternating-current path of comparatively low impedance around some circuit element.

*Most of these definitions are based on I.R.E Standards.

"C" Power Supply A power supply device connected in the circuit between the cathode and grid of a vacuum tube so as to apply a grid bias.

Capacitive Coupling The association of one circuit with another by means of capacitance common or mutual to both.

Carbon Microphone A microphone which depends for its operation upon the variation in resistance of carbon contacts.

Carrier A term broadly used to designate carrier wave, carrier current, or carrier voltage.

Carrier Frequency The frequency of a carrier wave.

Carrier Suppression That method of operation in which the carrier wave is not transmitted.

Carrier Wave A wave which is modulated by a signal and which enables the signal to be transmitted through a specific physical system.

Cathode The electrode from which the electron stream flows. (See Filament.)

Choke Coil An inductor inserted in a circuit to offer relatively large impedance to alternating current.

Class A Amplifier A class A amplifier is an amplifier in which the grid bias and alternating grid voltages are such that plate current in a specific tube flows at all times.

Class AB Amplifier A class AB amplifier is an amplifier in which the grid bias and alternating grid voltages are such that plate current in a specific tube flows for appreciably more than half but less than the entire electrical cycle.

Class B Amplifier A class B amplifier is an amplifier in which the grid bias is approximately equal to the cut-off value so that the plate current is approximately zero when no exciting grid voltage is applied, and so that plate current in a specific tube flows for approximately one-half of each cycle when an alternating grid voltage is applied.

Class C Amplifier A class C amplifier is an amplifier in which the grid bias is appreciably greater than the cut-off value so that the plate current in each tube is zero when no alternating grid voltage is applied, and so that plate current flows in a specific tube for appreciably less than one-half of each cycle when an alternating grid voltage is applied.

Note:—To denote that grid current does not flow during any part of the input cycle, the suffix 1 may be added to the letter or letters of the class identification. The suffix 2 may be used to denote that grid current flows during some part of the cycle.

Condenser Loud Speaker A loud speaker in which the mechanical forces result from electrostatic reactions.

Condenser Microphone A microphone which depends for its operation upon variations in capacitance.

Continuous Waves Continuous waves are waves in which successive cycles are identical under steady state conditions.

Conversion Transconductance is the ratio of the magnitude of a single beat-frequency component ($f_1 + f_2$) or ($f_1 - f_2$) of the output current to the magnitude of the input voltage of frequency f_1 under the conditions that all direct voltages and the magnitude of the second input alternating voltage f_2 must remain constant. As most precisely used, it refers to an infinitesimal magnitude of the voltage of frequency f_1.

Converter (generally, in superheterodyne receivers.) A converter is a vacuum-tube which performs simultaneously the functions of oscillation and mixing (first detection) in a radio receiver.

Coupling The association of two circuits in such a way that energy may be transferred from one to the other.

Cross Modulation A type of intermodulation due to modulation of the carrier of the desired signal in a radio apparatus by an undesired signal.

Current Amplification The ratio of the alternating current produced in the output circuit of an amplifier to the alternating current supplied to the input circuit for specific circuit conditions.

Cycle One complete set of the recurrent values of a periodic phenomenon.

Damped Waves Waves of which the amplitude of successive cycles, at the source, progressively diminishes.

Decibel The common transmission unit of the decimal system, equal to $^1/_{10}$ bel.

$$1 \text{ bel} = 2 \log_{10} \frac{E_1}{E_2} = 2 \log_{10} \frac{I_1}{I_2}$$

(See Transmission Unit)

Detection is any process of operation on a modulated signal wave to obtain the signal imparted to it in the modulation process.

Detector A detector is a device which is used for operation on a signal wave to obtain the signal imparted to it in the modulation process.

Diaphragm A diaphragm is a vibrating surface which produces sound vibrations.

Diode A type of thermionic tube containing two electrodes which passes current wholly or predominantly in one direction.

Direct Capacitance (C) between two conductors—The ratio of the charge produced on one conductor by the voltage between it and the other conductor, divided by this voltage, all other conductors in the neighborhood being at the potential of the first conductor.

Direct Coupling The association of two circuits by having an inductor, a condenser, or a resistor common to both circuits.

Direct Current A unidirectional current. As ordinarily used, the term designates a practically non-pulsating current.

Distortion A change in wave form occurring in a transducer or transmission medium when the output wave form is not a faithful reproduction of the input wave form.

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Double Modulation The process of modulation in which a carrier wave of one frequency is first modulated by the signal wave and is then made to modulate a second carrier wave of another frequency.

Dynamic Amplifier The RCA Dynamic Amplifier is a variable gain audio amplifier, the gain of which is proportional to the average intensity of the audio signal. Such an amplifier compensates for the contraction of volume range required because of recording or transmission line limitations.

Dynamic Sensitivity of a Phototube The alternating-current response of a phototube to a pulsating light flux at specified values of mean light flux, frequency of pulsation, degree of pulsation, and steady tube voltage.

Electro-Acoustic Transducer A transducer which is actuated by power from an electrical system and supplies power to an acoustic system or vice versa.

Electron Emission The liberation of electrons from an electrode into the surrounding space. In a vacuum tube it is the rate at which the electrons are emitted from a cathode. This is ordinarily measured as the current carried by the electrons under the influence of a voltage sufficient to draw away all the electrons.

Electron Tube A vacuum tube evacuated to such a degree that its electrical characteristics are due essentially to electron emission.

Emission Characteristic A graph plotted between a factor controlling the emission (such as the temperature, voltage, or current of the cathode) as abscissas, and the emission from the cathode as ordinates.

Facsimile Transmission The electrical transmission of a copy or reproduction of a picture, drawing or document. (This is also called picture transmission.)

Fading The variation of the signal intensity received at a given location from a radio transmitting station as a result of changes occurring in the transmission path. (See Distortion.)

Fidelity The degree to which a system, or a portion of a system, accurately reproduces at its output the signal which is impressed upon it.

Filament A cathode in which the heat is supplied by current passing through the cathode.

Filter A selective circuit network, designed to pass currents within a continuous band or bands of frequencies or direct current, and substantially reduce the amplitude of currents of undesired frequencies.

Frequency The number of cycles per second.

Full-Wave Rectifier A double element rectifier arranged so that current is allowed to pass in the same direction to the load circuit during each half cycle of the alternating-current supply, one element functioning during one-half cycle and the other during the next half cycle, and so on.

Fundamental Frequency The lowest component frequency of a periodic wave or quantity.

Fundamental or Natural Frequency (of an antenna). The lowest resonant frequency of an antenna, without added inductance or capacitance.

Gas Phototube A type of phototube in which a quantity of gas has been introduced, usually for the purpose of increasing its sensitivity.

Grid An electrode having openings through which electrons or ions may pass.

Grid Bias The direct component of the grid voltage.

Grid Condenser A series condenser in the grid or control circuit of a vacuum tube.

Grid Leak A resistor in a grid circuit, through which the grid current flows, to affect or determine a grid bias.

Grid-Plate Transconductance The name for the plate current to grid voltage transconductance. (This has also been called mutual conductance.)

Ground System (of an antenna) That portion of the antenna system below the antenna loading devices or generating apparatus most closely associated with the ground and including the ground itself.

Ground Wire A conductive connection to the earth.

Half-Wave Rectifier A rectifier which changes alternating current into pulsating current, utilizing only one-half of each cycle.

Harmonic A component of a periodic quantity having a frequency which is an integral multiple of the fundamental frequency. For example, a component the frequency of which is twice the fundamental frequency is called the second harmonic.

Heater An electrical heating element for supplying heat to an indirectly heated cathode.

Heterodyne Reception The process of receiving radio waves by combining in a detector a received voltage with a locally generated alternating voltage. The frequency of the locally generated voltage is commonly different from that of the received voltage. (Heterodyne reception is sometimes called beat reception.)

Homodyne Reception A system of reception by the aid of a locally generated voltage of carrier frequency. (Homodyne reception is sometimes called zero-beat reception.)

Hot-Wire Ammeter (Expansion Type) An ammeter dependent for its indications on a change in dimensions of an element which is heated by the current to be measured.

Indirectly Heated Cathode A cathode of a thermionic tube, in which heat is supplied from a source other than the cathode itself.

Induction Loud Speaker is a moving coil loud speaker in which the current which reacts with the polarizing field is induced in the moving member.

Inductive Coupling The association of one circuit with another by means of inductance common or mutual to both.

Interelectrode Capacitance The direct capacitance between two electrodes.

Interference Disturbance of reception due to strays, undesired signals, or other causes; also, that which produces the disturbance.

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Intermediate Frequency (in Superheterodyne Reception) A frequency between that of the carrier and the signal, which results from the combination of the carrier frequency and the locally generated frequency.

Intermodulation The production, in a non-linear circuit element, of frequencies corresponding to the sums and differences of the fundamentals and harmonics of two or more frequencies which are transmitted to that element.

Interrupted Continuous Waves Interrupted continuous waves are waves obtained by interruption at audio frequency in a substantially periodic manner of otherwise continuous waves.

Kilocycle When used as a unit of frequency, is a thousand cycles per second.

Lead-In That portion of an antenna system which completes the electrical connection between the elevated outdoor portion and the instruments or disconnecting switches inside the building.

Linear Detection That form of detection in which the audio output voltage under consideration is substantially proportional to the modulation envelope throughout the useful range of the detecting device.

Loading Coil An inductor inserted in a circuit to increase its inductance but not to provide coupling with any other circuit.

Loudspeaker A telephone receiver designed to radiate acoustic power into a room or open air.

Magnetic Loudspeaker One in which the mechanical forces result from magnetic reactions.

Magnetic Microphone A microphone whose electrical output results from the motion of a coil or conductor in a magnetic field.

Master Oscillator An oscillator of comparatively low power so arranged as to establish the carrier frequency of the output of an amplifier.

Megacycle When used as a unit of frequency, is a million cycles per second.

Mercury-Vapor Rectifier. A mercury-vapor rectifier is a two electrode, vacuum-tube rectifier which contains a small amount of mercury. During operation, the mercury is vaporized. A characteristic of mercury-vapor rectifiers is the low-voltage drop in the tube.

Microphone A microphone is an electro-acoustic transducer actuated by power in an acoustic system and delivering power to an electric system, the wave form in the electric system corresponding to the wave form in the acoustic system. This is also called a telephone transmitter.

Mixer Tube (generally, in superheterodyne receivers.) A mixer tube is one in which a locally generated frequency is combined with the carrier-signal frequency to obtain a desired beat frequency.

Modulated Wave A modulated wave is a wave of which either the amplitude, frequency, or phase is varied in accordance with a signal.

Modulation is the process in which the amplitude, frequency, or phase of a wave is varied in accordance with a signal, or the result of that process.

Modulator A device which performs the process of modulation.

Monochromatic Sensitivity The response of a phototube to light of a given color, or narrow frequency range.

Moving-Armature Speaker A magnetic speaker whose operation involves the vibration of a portion of the ferromagnetic circuit. (This is sometimes called an electromagnetic or a magnetic speaker.)

Moving Coil Loudspeaker A moving coil loudspeaker is a magnetic loudspeaker in which the mechanical forces are developed by the interaction of currents in a conductor and the polarizing field in which it is located. This is sometimes called an Electro-Dynamic or a Dynamic Loudspeaker.

Mu-Factor A measure of the relative effect of the voltages on two electrodes upon the current in the circuit of any specified electrode. It is the ratio of the change in one electrode voltage to a change in the other electrode voltage, under the condition that a specified current remains unchanged.

Mutual Conductance (See Grid-Plate Transconductance.)

Oscillator A non-rotating device for producing alternating current, the output frequency of which is determined by the characteristics of the device.

Oscillatory Circuit A circuit containing inductance and capacitance, such that a voltage impulse will produce a current which periodically reverses.

Pentode A type of thermionic tube containing a plate, a cathode, and three additional electrodes. (Ordinarily the three additional electrodes are of the nature of grids.)

Percentage Modulation The ratio of half the difference between the maximum and minimum amplitudes of a modulated wave to the average amplitude, expressed in per cent.

Phonograph Pickup An electromechanical transducer actuated by a phonograph record and delivering power to an electrical system, the wave form in the electrical system corresponding to the wave form in the phonograph record.

Phototube A vacuum tube in which electron emission is produced by the illumination of an electrode. (This has also been called photo-electric tube.)

Plate A common name for the principal anode in a vacuum tube.

Power Amplification (of an amplifier)—The ratio of the alternating-current power produced in the output circuit to the alternating-current power supplied to the input circuit.

[Continued on Next Page]

Power Detection That form of detection in which the power output of the detecting device is used to supply a substantial amount of power directly to a device such as a loud speaker or recorder.

Pulsating Current A periodic current, that is, current passing through successive cycles, the algebraic average value of which is not zero. A pulsating current is equivalent to the sum of an alternating and a direct current.

Push-Pull Microphone One which makes use of two functioning elements 180 degrees out of phase.

Radio Channel A band of frequencies or wavelengths of a width sufficient to permit of its use for radio communication. The width of a channel depends upon the type of transmission. (See Band of Frequencies.)

Radio Compass A direction finder used for navigational purposes.

Radio Frequency A frequency higher than those corresponding to normally audible sound waves. (See Audio Frequency.)

Radio-Frequency Transformer A transformer for use with radio-frequency currents.

Radio Receiver A device for converting radio waves into perceptible signals.

Radio Transmission The transmission of signals by means of radiated electromagnetic waves originating in a constructed circuit.

Radio Transmitter A device for producing radio-frequency power, with means for producing a signal.

Rectifier A device having an asymmetrical conduction characteristic which is used for the conversion of an alternating current into a pulsating current. Such devices include vacuum-tube rectifiers, gas rectifiers, oxide rectifiers, electrolytic rectifiers, etc.

Reflex Circuit Arrangement A circuit arrangement in which the signal is amplified, both before and after detection, in the same amplifier tube or tubes.

Regeneration The process by which a part of the output power of an amplifying device reacts upon the input circuit in such a manner as to reinforce the initial power, thereby increasing the amplification. (Sometimes called "feedback" or "reaction.")

Resistance Coupling The association of one circuit with another by means of resistance common to both.

Resonance Frequency (of a reactive circuit)—The frequency at which the supply current and supply voltage of the circuit are in phase.

Rheostat A resistor which is provided with means for readily adjusting its resistance.

Screen Grid A screen grid is a grid placed between a control grid and an anode, and maintained at a fixed positive potential, for the purpose of reducing the electrostatic influence of the anode in the space between the screen grid and the cathode.

Secondary Emission Electron emission under the influence of electron or ion bombardment.

Selectivity The degree to which a radio receiver is capable of differentiating between signals of different carrier frequencies.

Sensitivity The degree to which a radio receiver responds to signals of the frequency to which it is tuned.

Sensitivity of a Phototube The electrical current response of a phototube, with no impedance in its external circuit, to a specified amount and kind of light. It is usually expressed in terms of the current for a given radiant flux, or for a given luminous flux. In general the sensitivity depends upon the tube voltage, flux intensity, and spectral distribution of the flux.

Service Band A band of frequencies allocated to a given class of radio communication service.

Side Bands The bands of frequencies, one on either side of the carrier frequency, produced by the process of modulation.

Signal The intelligence, message or effect conveyed in communication.

Single-Side-Band Transmission That method of operation in which one side band is transmitted, and the other side band is suppressed. The carrier wave may be either transmitted or suppressed.

Static Strays produced by atmospheric conditions.

Static Sensitivity of a Phototube The direct current response of a phototube to a light flux of specified value.

Stopping Condenser A condenser used to introduce a comparatively high impedance in some branch of a circuit for the purpose of limiting the flow of low-frequency alternating current or direct current without materially affecting the flow of high frequency alternating current.

Strays Electromagnetic disturbances in radio reception other than those produced by radio transmitting systems.

Superheterodyne Reception—Superheterodyne reception is a method of reception in which the received voltage is combined with the voltage from a local oscillator and converted into voltage of an intermediate frequency which is usually amplified and then detected to reproduce the original signal wave. (This is sometimes called double detection or supersonic reception.)

Swinging The momentary variation in frequency of a received wave.

Telephone Receiver An electro-acoustic transducer actuated by power from an electrical system and supplying power to an acoustic system, the wave form in the acoustic system corresponding to the wave form in the electrical system.

Television The electrical transmission of a succession of images and their reception in such a way as to give a substantially continuous reproduction of the object or scene before the eye of a distant observer.

Tetrode A type of thermionic tube containing a plate, a cathode, and two additional electrodes. (Ordinariiy the two additional electrodes are of the nature of grids.)

[Continued on Next Page]

Thermionic Emission Electron or ion emission under the influence of heat.

Thermionic Tube An electron tube in which the electron emission is produced by the heating of an electrode.

Thermocouple Ammeter An ammeter dependent for its indications on the change in thermo-electromotive force set up in a thermo-electric couple which is heated by the current to be measured.

Total Emission The value of the current carried by electrons emitted from a cathode under the influence of a voltage such as will draw away all the electrons emitted.

Transconductance The ratio of the change in the current in the circuit of an electrode to the change in the voltage on another electrode, under the condition that all other voltages remain unchanged.

Transducer A device actuated by power from one system and supplying power to another system. These systems may be electrical, mechanical, or acoustic.

Transmission Unit A unit expressing the logarithmic ratios of powers, voltages, or currents in a transmission system. (See Decibel.)

Triode A type of thermionic tube containing an anode, a cathode, and a third electrode, in which the current flowing between the anode and the cathode may be controlled by the voltage between the third electrode and the cathode.

Tuned Transformer A transformer whose associated circuit elements are adjusted as a whole to be resonant at the frequency of the alternating current supplied to the primary, thereby causing the secondary voltage to build up to higher values than would otherwise be obtained.

Tuning The adjustment of a circuit or system to secure optimum performance in relation to a frequency; commonly, the adjustment of a circuit or circuits to resonance.

Vacuum Phototube A type of phototube which is evacuated to such a degree that the residual gas plays a negligible part in its operation.

Vacuum Tube A device consisting of a number of electrodes contained within an evacuated enclosure.

Vacuum-Tube Transmitter A radio transmitter in which vacuum tubes are utilized to convert the applied electric power into radio-frequency power.

Vacuum-Tube Voltmeter A device utilizing the characteristics of a vacuum tube for measuring alternating voltages.

Voltage Amplification The ratio of the alternating voltage produced at the output terminals of an amplifier to the alternating voltage impressed at the input terminals.

Voltage Divider A resistor provided with fixed or movable contacts and with two fixed terminal contacts.

RCA TYPES
AFFECTED BY W.P.B. LIMITATION ORDER L-76

Limitation Order L-76 issued by W.P.B. and effective April 24, 1942 discontinued the manufacture of certain receiving tube types, except that tube manufacturers may produce these types to fill Government and Lend-Lease orders or orders produced with the assistance of a Preference Rating A-1-J or higher.

Of the 349 types discontinued by this order, 80 are currently listed by RCA and 12 previously discontinued by RCA. The following table shows these 80 types together with 72 additional types either previously discontinued by RCA or associated with RCA types through RMA double-branding programs. Where a direct RCA renewal type is available for a discontinued type, the information is shown in the table, where a direct renewal type is not available, a "possible" renewal type is indicated. This renewal information will be of help when stocks of the types discontinued by Limitation Order L-76 are exhausted. Total present inventories of these types on an average basis have been estimated as sufficient to take care of renewal needs for about two years.

Tube Type Discontinued	*RCA Replacement Direct*	*RCA Replacement Possible**	*Key No.*
00A	—	—	
01A	—	—	
1A5-G	1A5-GT/G	—	
1A5-GT	1A5-GT/G	—	
1A7-G	—	1A7-GT	4
1B4-P	—	1A4-P	4
1B5	1B5/25S	—	
1C5-G	1C5-GT/G	—	
1C5-GT	1C5-GT/G	—	
1D7-G	—	1A6	2
1E5-GP	—	1A4-P	4
1E7-G	—	2-1F5-G	4
1F7-GH	1F7-G	—	
1F7-GV	1F7-G	—	
1G4-H	1G4-GT/G	—	
1G4-GT	1G4-GT/G	—	
1G6-G	1G6-GT/G	—	
1G6-GT	1G6-GT/G	—	
1H5-G	—	1H5-GT	4
1J5-G	—	1G5-G	4
1N5-G	—	1N5-GT	4
1N6-G	—	—	
1Q5-G	1Q5-GT/G	—	
1Q5-GT	1Q5-GT/G	—	
2B7	—	—	
2E5	—	—	
3Q5-G	3Q5-GT/G	—	
3Q5-GT	3Q5-GT/G	—	
5T4	—	5X4-G 5U4-G	4 4
5W4	5W4-GT/G	—	
5W4-G	5W4-GT/G	—	
5W4-GT	5W4-GT/G	—	
5Y3-G	5Y3-GT/G	—	
5Y3-GT	5Y3-GT/G	—	
6A4/LA	—	6K6-GT/G	4
6A7S	—	6A7	3
6AB5	6AB5/6N5	—	
6AB6-G	—	6K6-GT/G	4
6AB7	6AB7/1853	—	
6AC5-G	6AC5-GT/G	—	
6AC5-GT	6AC5-GT/G	—	
6AC7	6AC7/1852	—	
6AD6-G	—	6AF6-G	4
6AE5-G	6AE5-GT/G	—	
6AE5-GT	6AE5-GT/G	—	
6AE6-G	—	—	
6AE7-GT	—	6SN7-GT	4
6B7-S	—	6B7	3
6C5-G	6C5-GT/G	—	
6C5-GT	6C5-GT/G	—	
6C7	—	6R7-G	4
6D7	—	6C6	2
6E6	—	—	
6E7	—	6D6	2
6G5	6U5/6G5	—	
6H6-G	6H6-GT/G	—	
6H6-GT	6H6-GT/G	—	
6J5-G	6J5-GT/G	—	
6J5-GT	6J5-GT/G	—	
6K6-G	6K6-GT/G	—	
6K6-GT	6K6-GT/G	—	
6N5	6AB5/6N5	—	
6N7-G	6N7 6N7-GT/G	—	
6N7-GT	6N7 6N7-GT/G	—	
6P5-G	6P5-GT/G	—	

RCA RADIOTRON DIVISION
RCA Manufacturing Company, Inc.

AUG. 1, 1942

TYPES AFFECTED BY W.P.B.

RCA TYPES
AFFECTED BY W.P.B. LIMITATION ORDER L-76

Tube Type Discontinued	RCA Replacement Direct	RCA Replacement Possible*	Key No.
6P5-GT	6P5-GT/G	—	
6P7-G	—	6F7	2
6SA7-G	6SA7-GT/G	—	
6SA7-GT	6SA7-GT/G	—	
6SK7-GT	6SK7-GT/G	—	
6SQ7-G	6SQ7-GT/G	—	
6SQ7-GT	6SQ7-GT/G	—	
6T7-G/ 6Q6-G	6T7-G	—	
6U5	6U5/6G5	—	
6V6-G	6V6-GT/G	—	
6V6-GT	6V6-GT/G	—	
6V7-G	—	85	2
6X5	6X5-GT/G	—	
6X5-G	6X5-GT/G	—	
6X5-GT	6X5-GT/G	—	
6Y5	—	6X5-GT/G	1
6Y7-G	—	6N7-GT/G	4
6Z4	84/6Z4	—	
6Z5	—	6X5-GT/G	1
		6N7-GT/G	4
6Z7-G	—	6SC7	4
		6SL7-GT	4
7A7-LM	7A7	—	
7B5-LT	7B5	—	
7B6-LM	7B6	—	
7B8-LM	7B8	—	
7C5-LT	7C5	—	
7G7	7G7/1232	—	
11	—	—	
12	—	—	
12A5	—	6K6-GT/G	4
12B7	14A7/12B7	—	
12SA7-G	12SA7-GT/G	—	
12SA7-GT	12SA7-GT/G	—	
12SK7-GT	12SK7-GT/G	—	
12SQ7-GT	12SQ7-GT/G	—	
14A7	14A7/12B7	—	
15	—	—	
20	—	—	
22	—	—	
25A6	25A6-GT/G	—	
25A6-G	25A6-GT/G	—	
25A6-GT	25A6-GT/G	—	
25A7-G	25A7-GT/G	—	

Tube Type Discontinued	RCA Replacement Direct	RCA Replacement Possible*	Key No.
25A7-GT	25A7-GT/G	—	
25AC5-G	25AC5-GT/G	—	
25AC5-GT	25AC5-GT/G	—	
25B5	—	25L6-GT/G	4
25B6-G	—	25L6-GT/G	4
25B8-GT	—	—	
25L6	25L6-GT/G	—	
25L6-G	25L6-GT/G	—	
25L6-GT	25L6-GT/G	—	
25N6-G	—	25L6-GT/G	4
25S	1B5/25S	—	
25Y5	—	25Z6-GT/G	4
25Z6-G	25Z6-GT/G	—	
25Z6-GT	25Z6-GT/G	—	
31	—	1G5-G	4
35A5-LT	35A5	—	
35L6-G	35L6-GT/G	—	
35L6-GT	35L6-GT/G	—	
35Z3-LT	35Z3	—	
35Z5-G	35Z5-GT/G	—	
35Z5-GT	35Z5-GT/G	—	
40	—	—	
48	—	—	
49	—	1J6-G	4
50Y6-G	50Y6-GT/G	—	
50Y6-GT	50Y6-GT/G	—	
50Z7-G	—	50Y6-GT/G	4
55	—	—	
79	—	6N7-GT/G	4
84	84/6Z4	—	
89	—	—	
V-99	—	—	
X-99	—	—	
112-A	—	—	
117L7-GT	117L7/M7-GT	—	
117M7-GT	117L7/M7-GT	—	
117Z6-G	117Z6-GT/G	—	
117Z6-GT	117Z6-GT/G	—	
183/483	—	45	4
485	—	27	4
876	—	—	
886	—	—	
1232	7G7/1232	—	
1852	6AC7/1852	—	
1853	6AB7/1853	—	

* Types in this column may require changes indicated by key numbers.

Key No. 1. Requires wiring change.

Key No. 2. Requires socket change.

Key No. 3. May require shielding.

Key No. 4. May require components or adjustments besides those of Nos. 1, 2, or 3.

NOTE: When other than audio or rectifier types are replaced, realignment of the receiver is recommended.

RCA RADIOTRON DIVISION
RCA Manufacturing Company, Inc.

AUG. 1, 1942

TYPES AFFECTED BY W.P.B.

TYPE NUMBERS OF PLUG-IN RESISTORS AND BALLAST UNITS

The internal connections and voltage characteristics of many plug-in resistors used in AC/DC receivers are indicated by the type number and its arrangement. An example is type BK-36-C.

"B" indicates that a ballast section is provided for one or more pilot lamps.

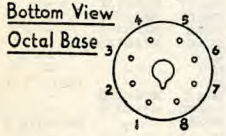
"K" indicates the characteristics of the pilot lamp or lamps in accordance with the table below.

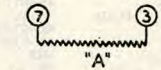
"36" implies that a 36 volt drop occurs across the entire unit in normal operation with pilot lamps connected.

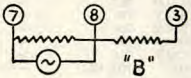
"C" or the final letter refers to the terminal arrangement; arrangements are shown in the diagrams below

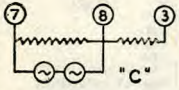
Pilot Lamp Designation

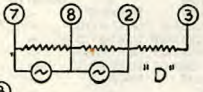
Designating Letter	Mazda No.	Rated Ma.	Rated Volts
K	40	150	6.3
L	46	250	6-8
M	51	200	6-8

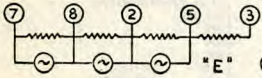


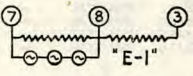


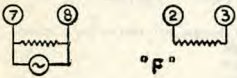


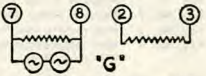


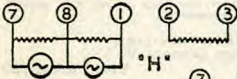


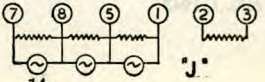












Grid Bias Resistor Calculations

The radio service man often finds it necessary to replace the grid bias resistor in receivers employing a self-biasing arrangement for obtaining the proper grid voltage. When the resistance value is not known, it may be calculated by dividing the grid voltage required at the plate voltage at which the tube is operating, by the plate current in amperes plus the screen current in amperes times the number of tubes passing current through the resistor.

Under the above rule, the grid bias resistor value is given by the following formula:

$$R = \frac{E_{c1} \times 1{,}000}{(I_B + I_{c2})\, n}$$

where: R = Grid bias resistor value in ohms.
E_{c1} = The grid bias required in volts.
I_B = The plate current of a single tube in *milliamperes*.
I_{c2} = The screen-grid current of a single tube in *milliamperes*.
n = The number of tubes passing current through the resistor.

Example:

It is desired to determine the value of bias resistor used to obtain the proper value of grid bias on three type '35 tubes working in the radio frequency stages of a receiver. First determine the plate and screen voltages employed in this set. Suppose, in this case, it is found that the plate supply voltage is 250 and the screen voltage is 90. Looking in the characteristics chart, it is found that the proper grid bias for the '35 under these conditions is —3.0 volts. In addition, the plate current is 6.5 milliamperes and the screen current is 2.5 milliamperes. Substituting in the formula,

$$R = \frac{3.0 \times 1{,}000}{(6.5+2.5)\, 3} = 111 \text{ ohms.}$$

The value of grid bias resistors can be calculated in this manner for any type and any number of tubes. In the case of triodes, the screen current term drops out entirely.

Be sure to determine the plate voltage at which the tubes are working, the number of tubes being supplied from the bias resistor, the screen voltage, (if a tetrode or pentode), the correct value of grid bias voltage required, and the plate and screen current for the given plate voltage.

In the case of resistance-coupled amplifiers which employ high resistance in the plate circuit, it must be remembered that the plate voltage is equal to the plate supply voltage minus the voltage drop in the plate load resistance caused by the plate current. The net plate voltage alone determines the correct value of grid bias.

The foregoing methods of calculations cannot be used in connection with receivers employing a bleeder circuit to obtain grid bias.

DIAMETER, WEIGHTS AND RESISTANCE OF COPPER WIRE

No. AWG	Diameter Mils	Area, Circular Mils	Weight, Bare Wire		Resistance at 25°C. (77°F.)		
			Pounds per 1000 Ft.	Pounds per Mile	Ohms per 1000 Ft.	Ohms per Mile	Feet per Ohm
0000	460.	211,600.	641.	3385.	0.0499	0.2638	20,040.
000	410.	167,800.	508.	2683.	0.0630	0.3325	15,870.
00	364.8	133,100.	403.	2126.	0.0794	0.419	12,590.
0	324.9	105,500.	319.5	1687.	0.1003	0.529	9,980.
1	289.3	83,700.	253.3	1337.	0.1262	0.666	7,930.
2	257.6	66,400.	200.9	1061.	0.1591	0.840	6,290.
3	229.4	52,600.	159.3	841.	0.2008	1.062	4,980.
4	204.3	41,700.	126.4	668.	0.2533	1.338	3,950.
5	181.9	33,100.	100.2	529.	0.3193	1.685	3,134.
6	162.0	26,250.	79.5	419.	0.403	2.127	2,485.
7	144.3	20,820.	63.0	332.6	0.507	2.682	1,971.
8	128.5	16,510.	50.0	264.0	0.640	3.382	1,562.
9	114.4	13,090.	39.63	208.3	0.807	4.26	1,238.
10	101.9	10,380.	31.43	165.9	1.017	5.37	983.
11	90.7	8,230.	24.92	131.6	1.284	6.78	779.
12	80.8	6,530.	19.77	104.3	1.618	8.55	618.
13	72.0	5,180.	15.68	82.8	2.040	10.77	490.
14	64.1	4,110.	12.43	65.6	2.575	13.60	388.2
15	57.1	3,257.	9.86	52.1	3.244	17.13	308.4
16	50.8	2,583.	7.82	41.3	4.09	21.62	244.3
17	45.3	2,048.	6.20	32.73	5.16	27.24	193.9
18	40.3	1,624.	4.92	26.00	6.51	34.34	153.7
19	35.89	1,288.	3.899	20.57	8.20	43.3	121.9
20	31.96	1,022.	3.092	16.33	10.34	54.6	96.6
21	28.46	810.	2.452	12.93	13.04	68.9	76.6
22	25.35	642.	1.945	10.27	16.44	86.9	60.8
23	22.57	509.	1.542	8.14	20.75	109.5	48.2
24	20.10	404.	1.223	6.46	26.15	138.1	38.25
25	17.90	320.4	0.970	5.12	33.00	174.3	30.30
26	15.94	254.1	0.769	4.06	41.6	219.5	24.04
27	14.20	201.5	0.610	3.220	52.4	276.8	19.07
28	12.64	159.8	0.484	2.556	66.01	349.2	15.13

[Continued on Next Page]

DIAMETER, WEIGHTS AND RESISTANCE OF COPPER WIRE

No. AWG	Diameter Mils	Area, Circular Mils	Weight, Bare Wire		Resistance at 25°C. (77°F.)		
			Pounds per 1000 Ft.	Pounds per Mile	Ohms per 1000 Ft.	Ohms per Mile	Feet per Ohm
29	11.26	126.7	0.3836	2.025	83.4	441.	11.98
30	10.03	100.5	0.3042	1.606	105.4	556.	9.48
31	8.93	79.7	0.2413	1.273	132.6	700.	7.55
32	7.95	63.2	0.1913	1.011	167.2	883.	5.98
33	7.08	50.1	0.1517	0.807	210.8	1113.	4.74
34	6.30	39.75	0.1203	0.636	265.8	1403.	3.762
35	5.61	31.52	0.0954	0.504	335.5	1772.	2.980
36	5.00	25.00	0.0757	0.400	423.0	2232.	2.366
37	4.45	19.83	0.0600	0.3168	533.	2814.	1.877
38	3.965	15.72	0.0476	0.2514	673.	3553.	1.487
39	3.531	12.47	0.03774	0.1991	847.	4470.	1.180
40	3.145	9.89	0.02993	0.1579	1068.	5640.	0.936

ALLOWABLE CARRYING CAPACITIES OF COPPER WIRE AND CABLE

(Regulations of the National Board of Fire Underwriters)

No. AWG	Circular Mils	Amperes		Circular Mils	Amperes	
		Rubber Insulation	Other Insulation		Rubber Insulation	Other Insulation
18	1,624	3	5	250,000	250	350
16	2,583	6	10	300,000	275	400
14	4,107	15	20	350,000	300	450
12	6,530	20	25	400,000	325	500
10	10,380	25	30	450,000	362	550
8	16,510	35	50	500,000	400	600
6	26,250	50	70	600,000	450	680
4	41,740	70	90	700,000	500	760
2	66,370	90	125	800,000	550	840
1	83,690	100	150	1,000,000	650	1000
0	105,500	125	200	1,250,000	750	1180
00	133,100	150	225	1,500,000	850	1360
000	167,800	175	275	1,750,000	950	1520
0000	211,600	225	325	2,000,000	1050	1670

TEMPERATURE CORRECTIONS FOR COPPER WIRE

(Based on A.I.E.E. Standards)

Temperature Coefficient of Resistance. At a temperature of 25 degrees Centigrade the "constant mass" temperature coefficient of resistance of standard annealed copper, measured between potential points rigidly fixed to the wire is 0.00393 or 1/254.4 per Centigrade degree.

Resistance values of copper wire given in table on preceding pages may be corrected for any temperature by means of the formula given below.

Correction for Change in Temperature

$R_t = R_{25}\,[1 + 0.00393\,(t - 25)]$, where

R_t = the resistance in ohms at a temperature, t.

R_{25} = the resistance in ohms at 25 degrees, Centigrade

t = the temperature of wire in degrees, Centigrade

Temp. C.=5/9 (Temp. F.−32)

Temp. F.=9/5 (Temp. C.)+32

SPECIFIC RESISTANCE OF METALS AND ALLOYS AT ORDINARY TEMPERATURES

SUBSTANCE	Specific Resistance Microhms per Cm. Cube	Relative Conductance	SUBSTANCE	Specific Resistance Microhms per Cm. Cube	Relative Conductance
Aluminum . .	2.83	60.8	Lead . . .	22.	7.8
Brass	6–9	29–19	Manganin .	44.	4.1
Climax	87.	1.97	Mercury . .	95.7	1.8
Cobalt	9.7	17.7	Molybdenum	5.7	29.7
Constantan . .	49.	3.5	Nickel . .	7.8	22.
Copper, U.S. std.	1.78	96.6	Nichrome .	100.	1.7
Copper, annealed	1.72	100.	Platinum .	10.	17.2
Ger. Silver . .	30–40	5.7–4.3	Silver . . .	1.63	105.5
Iron, pure . .	10.	17.2	Superior 23.	86.	2.
Iron, wrought .	13.9	12.4	Tungsten .	5.5	31.2

USEFUL CONVERSION RATIOS

Multiply	by	to obtain
Diam. Circle	3.1416	Circumference Circle
Diam. Circle	0.886	Side Equal Square
U. S. Gallons	0.8333	Imperial Gallons
U. S. Gallons	0.1337	Cubic Feet
Inches Mercury	0.4912	Pounds per Sq. In.
Feet of Water	0.4335	Pounds per Sq. In.
Cubic Feet	62.4	Pounds of Water
U. S. Gallons	8.343	Pounds of Water
U. S. Gallons	3.785	Liters
Knots	1.152	Miles Per Hour
Inches	2.540	Centimeters
Yards	0.9144	Meters
Miles	1.609	Kilometers
Cubic Inches	16.39	Cubic Centimeters
Ounces	28.35	Grams
Pounds	0.4536	Kilograms

Conversion

Factors for Conversions—alphabetically arranged

Ampere	= 1,000,000,000,000 micromicro-amperes
Ampere	= 1,000,000 microamperes
Ampere	= 1,000 milliamperes
Cycle	= 0.000,001 megacycle
Cycle	= 0.001 kilocycle
Farad	= 1,000,000,000,000 micromicrofarads
Farad	= 1,000,000 microfarads
Farad	= 1,000 millifarads
Henry	= 1,000,000 microhenrys
Henry	= 1,000 millihenrys
Kilocycle	= 1,000 cycles
Kilovolt	= 1,000 volts
Kilowatt	= 1,000 watts
Megacycle	= 1,000,000 cycles
Mho	= 1,000,000 micromhos
Mho	= 1,000 millimhos
Microampere	= 0.000,001 ampere
Microfarad	= 0.000,001 farad
Microhenry	= 0.000,001 henry
Micromho	= 0.000,001 mho
Micro-ohm	= 0.000,001 ohm
Microvolt	= 0.000,001 volt
Microwatt	= 0.000,001 watt
Micromicrofarad	= 0.000,000,000,001 farad
Micromicro-ohm	= 0.000,000,000,001 ohm
Milliampere	= 0.001 ampere
Millihenry	= 0.001 henry
Millimho	= 0.001 mho
Milliohm	= 0.001 ohm
Millivolt	= 0.001 volt
Milliwatt	= 0.001 watt
Ohm	= 1,000,000,000,000 micromicro-ohms
Ohm	= 1,000,000 micro-ohms
Ohm	= 1,000 milliohms
Volt	= 1,000,000 microvolts
Volt	= 1,000 millivolts
Watt	= 1,000,000 microwatts
Watt	= 1,000 milliwatts
Watt	= 0.001 kilowatt

Station	Location	Freq. in Kc.
KABR	Aberdeen, S. D.	1420
KALE	Portland, Ore.	1330
KARK	Little Rock, Ark.	920
KARM	Fresno, Cal.	1430
KCMO	Kansas City, Mo.	1480
KCRC	Enid, Oklahoma	1390
KDAL	Duluth, Minn.	610
KDKA	Pittsburgh, Pa.	1020
KDFN	Casper, Wyoming	1470
KDTH	Dubuque, Ia.	1370
KDYL	Salt Lake City, Utah	1320
KECA	Los Angeles, Cal.	790
KELA	Centralia, Wash.	1470
KERN	Bakersfield, Cal.	1410
KEX	Portland, Ore.	1190
KFAB	Lincoln, Neb.	780
KFAC	Los Angeles, Cal.	1330
KFAR	Fairbanks, Alaska	610
KFBB	Great Falls, Mont.	1310
KFBI	Wichita, Kan.	1070
KFBK	Sacramento, Cal.	1530
KFDM	Beaumont, Tex.	560
KFEL	Denver, Colo.	950
KFH	Wichita, Kan.	1330
KFI	Los Angeles, Cal.	640
KFJ	Fort Worth, Tex.	1270
KFKA	Greeley, Colo.	910
KFKU	Lawrence, Kan.	1250
KFOX	Long Beach, Cal.	1280
KFPY	Spokane, Wash.	920
KFRC	San Francisco, Cal.	610
KFRO	Longview, Tex.	1370
KFSD	San Diego, Cal.	600
KFSG	Los Angeles, Cal.	1150
KFUO	St. Louis, Mo.	850
KFVD	Los Angeles, Cal.	1020
KFWB	Los Angeles, Cal.	980
KFYR	Bismarck, N. D.	550
KGA	Spokane, Wash.	1510
KGB	San Diego, Cal.	1360
KGBX	Springfield, Mo.	1260
KGCX	Wolf Point, Mont.	1480
KGDM	Stockton, Cal.	1130
KGER	Long Beach, Cal.	1390
KGGM	Albuquerque, N. M.	1260
KGHL	Billings, Mont.	790
KGIR	Butte, Mont.	1370
KGKO	Fort Worth, Tex.	570
KGLO	Mason City, Ia.	1300
KGMB	Honolulu, T. H.	590
KGNC	Amarillo, Tex.	1440
KGNF	North Platte, Neb.	1460
KGO	San Francisco, Cal.	810
KGU	Honolulu, T. H.	760
KGVO	Missoula, Mont.	1290

U. S. BROADCASTING STATIONS (Continued)

Station	Location	Freq. in Kc.
KGW	Portland, Ore.	620
KHJ	Los Angeles, Cal.	930
KHQ	Spokane, Wash.	590
KIDO	Boise, Ida.	1380
KINY	Juneau, Alaska	1460
KIRO	Seattle, Wash.	710
KIT	Yakima, Wash.	1280
KJR	Seattle, Wash.	1000
KLCN	Blytheville, Ark.	900
KLO	Ogden, Utah	1430
KLPM	Minot, N. D.	1390
KLRA	Little Rock, Ark.	1420
KLS	Oakland, Cal.	1310
KLX	Oakland, Cal.	910
KLZ	Denver, Colo.	560
KMA	Shenandoah, Ia.	960
KMED	Medford, Oregon	1440
KMBC	Kansas City, Mo.	980
KMJ	Fresno, Cal.	580
KMMJ	Grand Island, Neb.	750
KMO	Tacoma, Wash.	1360
KMOX	St. Louis, Mo.	1120
KMPC	Beverly Hills, Cal.	710
KMTR	Los Angeles, Cal.	570
KNX	Los Angeles, Cal.	1070
KOA	Denver, Colo.	850
KOAC	Corvallis, Ore.	550
KOAM	Pittsburg, Kan.	810
KOB	Albuquerque, N. M.	1030
KOH	Reno, Nev.	630
KOIL	Omaha, Neb.	1290
KOIN	Portland, Ore.	970
KOL	Seattle, Wash.	1300
KOMA	Oklahoma City, Okla.	1520
KOMO	Seattle, Wash.	950
KOY	Phoenix, Ariz.	550
KPAS	Pasadena, Cal.	1110
KPMC	Bakersfield, Cal.	1560
KPO	San Francisco, Cal.	680
KPOF	Denver, Colo.	910
KPRC	Houston, Tex.	950
KPRO	Riverside, Cal.	1440
KQV	Pittsburgh, Pa.	1410
KQW	San Jose, Cal.	740
KRGV	Weslaco, Tex.	1290
KRIS	Corpus Christi, Tex.	1360
KRKD	Los Angeles, Cal.	1150
KRLD	Dallas, Tex.	1080
KRNT	Des Moines, Ia.	1350
KROW	Oakland, Cal.	960
KRRV	Sherman, Tex.	910
KRSC	Seattle, Wash.	1150
KSAL	Salina, Kan.	1150
KSCJ	Sioux City, Ia.	1360
KSD	St. Louis, Mo.	550

U. S. BROADCASTING STATIONS (Continued)

Station	Location	Freq. in Kc.
KSFO	San Francisco, Cal.	560
KSKY	Dallas, Texas	660
KSL	Salt Lake City, Utah	1160
KSLM	Salem, Ore.	1390
KSO	Des Moines, Ia.	1460
KSOO	Sioux Falls, S. D.	1140
KSRO	Santa Rosa, Cal.	1350
KSTP	St. Paul, Minn.	1500
KTAR	Phoenix, Ariz.	620
KTBC	Austin, Tex.	1150
KTBS	Shreveport, La.	1480
KTFI	Twin Falls, Ida.	1270
KTHS	Hot Springs, Ark.	1090
KTKC	Visalia, Cal.	940
KTMS	Santa Barbara, Cal.	1250
KTRB	Modesto, Cal.	860
KTRH	Houston, Tex.	1320
KTSA	San Antonio, Tex.	550
KTUL	Tulsa, Okla.	1430
KTW	Seattle, Wash.	1250
KUJ	Walla Walla, Wash.	1420
KUOA	Siloam Springs, Ark.	1290
KUTA	Salt Lake City, Utah	570
KVI	Tacoma, Wash.	570
KVOA	Tucson, Ariz.	1290
KVOD	Denver, Colo.	630
KVOO	Tulsa, Okla.	1170
KVOR	Colorado Springs, Colo.	1300
KWFT	Wichita Falls, Tex.	620
KWJJ	Portland, Ore	1080
KWK	St. Louis, Mo.	1380
KWKH	Shreveport, La.	1130
KWKW	Pasadena, Cal.	1430
KWSC	Pullman, Wash.	1250
KWTO	Springfield, Mo.	560
KXA	Seattle, Wash.	770
KXEL	Waterloo, Ia.	1540
KXKX	Kansas City, Mo.	1590
KXL	Portland, Ore.	750
KXOK	St. Louis, Mo.	630
KXYZ	Houston, Tex.	1470
KYA	San Francisco, Cal.	1260
KYW	Philadelphia, Pa.	1060
WAAB	Worcester, Mass.	1440
WAAF	Chicago, Ill.	950
WAAT	Jersey City, N. J.	970
WABC	New York, N. Y.	880
WADC	Akron, O.	1350
WAGE	Syracuse, N. Y.	620
WAIT	Chicago, Ill.	820
WAKR	Akron, O.	1590
WALA	Mobile, Ala.	1410
WALB	Albany, Ga.	1590
WAPI	Birmingham, Ala.	1170
WAPO	Chattanooga, Tenn.	1150

U. S. BROADCASTING STATIONS (Continued)

Station	Location	Freq. in Kc.
WATR	Waterbury, Conn.	1320
WAVE	Louisville, Ky.	970
WAWZ	Zarephath, N. J.	1380
WAYS	Charlotte, N. C.	610
WBAA	Lafayette, Ind.	920
WBAL	Baltimore, Md.	1090
WBAP	Fort Worth, Tex.	820
WBBB	Burlington, N. C.	920
WBBM	Chicago, Ill.	780
WBBR	Brooklyn, N. Y.	1330
WBEN	Buffalo, N. Y.	930
WBIG	Greensboro, N. C.	1470
WBNS	Columbus, O.	1460
WBNX	New York City	1380
WBRC	Birmingham, Ala.	960
WBRY	Waterbury, Conn.	1590
WBT	Charlotte, N. C.	1110
WBZ	Boston, Mass.	1030
WBZA	Boston Mass.	1030
WCAE	Pittsburgh, Pa.	1250
WCAL	Northfield, Minn.	770
WCAO	Baltimore, Md.	600
WCAR	Pontiac, Mich.	1130
WCAU	Philadelphia, Pa.	1210
WCAX	Burlington, Vt.	620
WCCO	Minneapolis, Minn.	830
WCFL	Chicago, Ill.	1000
WCHS	Charleston, W. Va.	580
WCKY	Cincinnati, O.	1530
WCOC	Meridian, Miss.	910
WCSH	Portland, Me.	970
WDAE	Tampa, Fla.	1250
WDAF	Kansas City, Mo.	610
WDAY	Fargo, N. D.	970
WDBJ	Roanoke, Va.	960
WDBO	Orlando, Fla.	580
WDEL	Wilmington, Del.	1150
WDEV	Waterbury, Vt.	550
WDOD	Chattanooga, Tenn.	1310
WDRC	Hartford, Conn.	1360
WDSU	New Orleans, La.	1280
WDZ	Tuscola, Ill.	1050
WEAF	New York City	660
WEAN	Providence, R. I.	790
WEAU	Eau Claire, Wis.	1070
WEBC	Duluth, Minn.	1320
WEEI	Boston, Mass.	590
WEEU	Reading, Pa.	850
WENR	Chicago, Ill.	890
WEVD	New York City	1330
WEW	St. Louis, Mo.	770
WFAA	Dallas, Tex.	820
WFBC	Greenville, S. C.	1330
WFBL	Syracuse, N. Y.	1390
WFBM	Indianapolis, Ind.	1260

U. S. BROADCASTING STATIONS (Continued)

Station	Location	Freq. in Kc.
WFBR	Baltimore, Md.	1300
WFCI	Providence, R. I.	1420
WFDF	Flint, Mich.	910
WFEA	Manchester, N. H.	1370
WFIL	Philadelphia, Pa.	560
WFIN	Findlay, Ohio	1330
WFLA	Tampa, Fla.	970
WGAN	Portland, Me.	560
WGAR	Cleveland, O.	1480
WGBF	Evansville, Ind.	1280
WGBG	Greensboro, N. C.	980
WGES	Chicago, Ill.	1390
WGN	Chicago, Ill.	720
WGNY	Newburgh, N. Y.	1220
WGR	Buffalo, N. Y.	550
WGST	Atlanta, Ga.	920
WGY	Schenectady, N. Y.	810
WHA	Madison, Wis.	970
WHAM	Rochester, N. Y.	1180
WHAS	Louisville, Ky.	840
WHAZ	Troy, N. Y.	1330
WHB	Kansas City, Mo.	880
WHBF	Rock Island, Ill.	1270
WHBI	Newark, N. J.	1280
WHCU	Ithaca, N. Y.	870
WHDH	Boston, Mass.	850
WHEB	Portsmouth, N. H.	750
WHIO	Dayton, O.	1290
WHK	Cleveland, O.	1420
WHLD	Niagara Falls, N. Y.	1290
WHN	New York City	1050
WHO	Des Moines, Ia.	1040
WHP	Harrisburg, Pa.	1460
WIBA	Madison, Wis.	1310
WIBC	Indianapolis, Ind.	1070
WIBG	Glenside, Pa.	990
WIBW	Topeka, Kan.	580
WICA	Ashtabula, O.	970
WILL	Urbana, Ill.	580
WIND	Gary, Ind.	560
WING	Dayton, Ohio	1410
WINS	New York City	1000
WIOD	Miami, Fla.	610
WIP	Philadelphia, Pa.	610
WIRE	Indianapolis, Ind.	1430
WIS	Columbia, S. C.	560
WISH	Indianapolis, Ind.	1310
WISN	Milwaukee, Wis.	1150
WJAG	Norfolk, Neb.	1090
WJAR	Providence, R. I.	920
WJAS	Pittsburgh, Pa.	1320
WJAX	Jacksonville, Fla.	930
WJBO	Baton Rouge, La.	1150
WJDX	Jackson, Miss.	1300
WJHL	Johnson City, Tenn.	910

U. S. BROADCASTING STATIONS (Continued)

Station	Location	Freq. in Kc.
WJJD	Chicago, Ill.	1160
WJR	Detroit, Mich.	760
WJSV	Washington, D. C.	1500
WJWZ	Hammond, Ind.	1520
WJZ	New York City	770
WKAQ	San Juan, Puerto Rico	620
WKAR	East Lansing, Mich.	870
WKAT	Miami Beach, Fla.	1360
WKBH	LaCrosse, Wis.	1410
WKBW	Buffalo, N. Y.	1520
WKNE	Keene, N. H.	1290
WKRC	Cincinnati, O.	550
WKST	New Castle, Pa.	1280
WKY	Oklahoma City, Okla.	930
WKZO	Kalamazoo, Mich.	590
WLAC	Nashville, Tenn.	1510
WLAW	Lawrence, Mass.	680
WLB	Minneapolis, Minn.	770
WLBL	Stevens Point, Wis.	930
WLIB	Brooklyn, N. Y.	1190
WLOL	Minneapolis, Minn.	1330
WLS	Chicago, Ill.	890
WLW	Cincinnati, O.	700
WMAL	Washington, D. C.	630
WMAQ	Chicago, Ill.	670
WMAZ	Macon, Ga.	940
WMBD	Peoria, Ill.	1470
WMBG	Richmond, Va.	1380
WMBI	Chicago, Ill.	1110
WMBS	Uniontown, Pa.	590
WMC	Memphis, Tenn.	790
WMCA	New York City	570
WMEX	Boston, Mass.	1510
WMMN	Fairmont, W. Va.	920
WMT	Cedar Rapids, Ia.	600
WMUR	Manchester, N. H.	610
WNAC	Boston, Mass.	1260
WNAD	Norman, Okla.	640
WNAX	Yankton, S. D.	570
WNBC	New Britain, Conn.	1410
WNEL	San Juan, Puerto Rico	1320
WNEW	New York City	1280
WNOX	Knoxville, Tenn.	990
WNYC	New York City	830
WOAI	San Antonio, Tex.	1200
WOI	Ames, Ia.	640
WOL	Washington, D. C.	1260
WOR	New York, N. Y.	710
WORC	Worcester, Mass.	1310
WORK	York, Pa.	1350
WORL	Boston, Mass.	950
WOSU	Columbus, O.	820
WOV	New York City	1280
WOW	Omaha, Neb.	590
WOWO	Ft. Wayne, Ind.	1190

U. S. BROADCASTING STATIONS (Continued)

Station	Location	Freq. in Kc.
WPAB	Ponce, Puerto Rico	1370
WPAT	Paterson, N. J.	930
WPDQ	Jacksonville, Fla.	1270
WPEN	Philadelphia, Pa.	950
WPIC	Sharon, Pa.	790
WPRA	Mayaguez, Puerto Rico	790
WPRO	Providence, R. I.	630
WPRP	Ponce, Puerto Rico	1520
WPTF	Raleigh, N. C.	680
WQAM	Miami, Fla.	560
WQBC	Vicksburg, Miss.	1390
WQXR	New York City	1560
WRC	Washington, D. C.	980
WREC	Memphis, Tenn.	600
WREN	Lawrence, Kan.	1250
WRNL	Richmond, Va.	910
WRR	Dallas, Texas	1310
WRRF	Washington, N. C.	930
WRUF	Gainesville, Fla.	850
WRVA	Richmond, Va.	1140
WSAI	Cincinnati, O.	1360
WSAR	Fall River, Mass.	1480
WSAZ	Huntington, W. Va.	930
WSB	Atlanta, Ga.	750
WSBA	York, Pa.	900
WSBT	South Bend, Ind.	960
WSGN	Birmingham, Ala.	610
WSIX	Nashville, Tenn.	980
WSM	Nashville, Tenn.	650
WSMB	New Orleans, La.	1350
WSPA	Spartanburg, S. C.	950
WSPD	Toledo, O.	1370
WSUI	Iowa City, Ia.	910
WSUN	St. Petersburg, Fla.	620
WSVA	Harrisonburg, Va.	550
WSYR	Syracuse, N. Y.	570
WTAD	Quincy, Ill.	930
WTAG	Worcester, Mass.	580
WTAM	Cleveland, O.	1100
WTAQ	Green Bay, Wis.	1360
WTAR	Norfolk, Va.	790
WTAW	College Station, Texas	1150
WTCN	Minneapolis, Minn.	1280
WTIC	Hartford, Conn.	1080
WTJS	Jackson, Tenn.	1390
WTMJ	Milwaukee, Wis.	620
WTOC	Savannah, Ga.	1290
WTRY	Troy, N. Y.	980
WTTM	Trenton, N. J.	920
WWJ	Detroit, Mich.	950
WWL	New Orleans, La.	870
WWNC	Asheville, N. C.	570
WWNY	Watertown, N. Y.	790
WWSR	St. Albans, Vt.	1420
WWVA	Wheeling, W. Va.	1170
WXYZ	Detroit, Mich.	1270

Principal Short Wave Stations

Reprinted from 1942 Book as present emergency prevents any later and more accurate listing.

Meg.	Call	Place
3.35	YV5RS	Caracas, Venezuela
3.38	YV5RY	Caracas, Venezuela
3.45	YV6RC	Barcelona, Venezuela
4.29	COX-7	Havana, Cuba
4.75	HJEH	Buenaventura, Colombia
4.78	HJAB	Barranquilla, Colombia
4.75	YV3RN	Barquisimeto, Venezuela
4.79	YV6RU	Bolivar, Venezuela
4.81	YV1RL	Maracaibo, Venezuela
4.82	HJED	Cali, Colombia
4.83	HJAE	Cartagena, Colombia
4.84	YV4RX	Maracay, Venezuela
4.92	YV5RN	Caracas, Venezuela
4.97	YV1RJ	Coro, Venezuela
5.56	HUB	San Salvador, El Savador
5.83	TIGPH	San Jose, C. R.
5.87	HRN	Tegucigalpa, Honduras
6.00	CXA-30	Montevideo, Uruguay
6.00	XEBT	Mexico City, Mexico
6.01	PRA-8	Pernambuco, Brazil
6.01	KZIB	Manila, Philippine Islands
6.04	WRUL	Boston, Massachusetts
6.05	GSA	Daventry, England
6.06	WCAB	Philadelphia, Pennsylvania
6.07	HJCF	Bogota, Colombia
6.05	HP5F	Colon, Panama
6.08	OAX4Z	Lima, Peru
6.08	WLWO	Cincinnati, Ohio
6.08	I2RO-1	Rome, Italy
6.10	WNBI	New York, New York
6.11	GSL	Daventry, England
6.12	CXA-4	Montevideo, Uruguay
6.12	OAX6A	Arequipa, Peru
6.12	WCBX	New York, New York
6.13	COCD	Havana, Cuba
6.14	KZRF	Manila, Philippine Islands
6.14	WBOS	Boston, Massachusetts
6.15	HJDE	Medellin, Colombia
6.16	HJCD	Bogota, Colombia
6.17	WCBX	New York, New York
6.18	LRA-2	Buenos Aires, Argentina
6.19	KGEI	San Francisco, California
6.19	WGEA	Schenectady, New York
6.19	WGEO	Schenectady, New York
6.20	CP-5	La Pas, Bolivia
6.28	COHB	Sancti-Spiritus, Cuba
6.28	HI1G	Cuidad Trijuillo, D. R.
6.33	COCW	Havana, Cuba
6.36	HRP1	San Pedro Sula, Honduras
6.39	COX-4	Havana, Cuba

Short Wave Stations (cont.)

Meg.	Call	Place
6.46	COHI	Santa Clara, Cuba
6.49	TGWB	Guatemala City, Guatemala
6.63	HIT	Cuidad Trujillo, D. R.
6.64	HC2RL	Guayaquil, Ecuador
7.66	YNDG	Leon, Nicaragua
8.29	OAX4G	Lima, Peru
8.66	COJK	Camaguey, Cuba
8.70	COCO	Havana, Cuba
8.85	COCQ	Havana, Cuba
8.96	COKG	Santiago, Cuba
9.03	COBZ	Havana, Cuba
9.10	COCA	Havana, Cuba
9.10	HC2CW	Guayaquil, Ecuador
9.15	COBX	Havana, Cuba
9.20	COCX	Havana, Cuba
9.36	COBC	Havana, Cuba
9.36	HCETC	Quito, Ecuador
9.43	COCH	Havana, Cuba
9.50	PRF-5	Rio de Janeiro, Brazil
9.50	XEWW	Mexico City, Mexico
9.51	GSB	Daventry, England
9.53	KGEI	San Francisco, California
9.53	WGEO	Schenectady, New York
9.55	WGEA	Schenectady, New York
9.55	XETA	Monterrey, Mexico
9.57	KZRM	Manila, Philippine Islands
9.57	WBOS	Boston, Massachusetts
9.58	GSC	Daventry, England
9.59	WLWO	Cincinnati, Ohio
9.60	CB-960	Santiago, Chile
9.60	GRY	Daventry, England
9.62	CXA-6	Montevideo, Uruguay
9.64	KZRH	Manila, Philippine Islands
9.65	WCAB	Philadelphia, Pennsylvania
9.65	WCBX	New York, New York
9.67	WRCA	New York, New York
9.68	TGWA	Guatemala City, Guatemala
9.69	LRA-1	Buenos Aires, Argentina
9.70	CB-970	Valpariso, Chile
9.83	COCM	Havana, Cuba
9.89	CPI	Sucre, Bolivia
10.22	PSH	Rio de Janeiro, Brazil
10.35	LRU	Buenos Aires, Argentina
11.62	COK	Havana, Cuba
11.67	PRA-9	Pernambuco, Brazil
11.70	CB-1170	Santiago, Chile
11.70	HP5A	Panama City, Panama
11.71	WLWO	Cincinnati, Ohio
11.72	ZP-14	Villarrica, Paraguay
11.73	WRUL	Boston, Massachusetts
11.73	WRUW	Boston, Massachusetts
11.75	GSD	Daventry, England

Short Wave Stations (cont.)

Meg.	Call	Place
11.79	WRUL	Boston, Massachusetts
11.79	WRUW	Boston, Massachusetts
11.80	CB-1180	Santiago, Chile
11.80	COGF	Mantanzas, Cuba
11.82	GSN	Daventry, England
11.83	WCAB	Philadelphia, Pennsylvania
11.83	WCBX	New York, New York
11.85	ZP-8	Asuncion, Paraguay
11.86	GSE	Daventry, England
11.87	WBOS	Boston, Massachusetts
11.89	WNBI	New York, New York
11.91	CB-1190	Valdivia, Chile
12.46	HCJB	Quito, Ecuador
15.13	WRUL	Boston, Massachusetts
15.13	WRUW	Boston, Massachusetts
15.14	GSF	Daventry, England
15.18	GSO	Daventry, England
15.21	WBOS	Boston, Massachusetts
15.25	WLWO	Cincinnati, Ohio
15.26	GSI	Daventry, England
15.27	WCAB	Philadelphia, Pennsylvania
15.27	WCBX	New York, New York
15.29	LRU	Buenos Aires, Argentina
15.31	GSP	Daventry, England
15.33	KGEI	San Francisco, California
15.33	WGEA	Schenectady, New York
15.33	WGEO	Schenectady, New York
15.35	WRUL	Boston, Massachusetts
15.35	WRUW	Boston, Massachusetts
16.50	COK	Havana, Cuba
17.75	WRUL	Boston, Massachusetts
17.75	WRUW	Boston, Massachusetts
17.78	WBOS	Boston, Massachusetts
17.78	WRCA	New York, New York
17.79	GSG	Daventry, England
17.80	WLWO	Cincinnati, Ohio
17.81	GSV	Daventry, England
17.83	WCBX	New York, New York
21.46	WRUL	Boston, Massachusetts
21.47	GSH	Daventry, England
21.50	WGEA	Schenectady, New York
21.52	WCAB	Philadelphia, Pennsylvania
21.53	GSJ	Daventry, England
21.54	WBOS	Boston, Massachusetts
21.55	GST	Daventry, England
21.57	WCBX	New York, New York
21.59	WGEA	Schenectady, New York
21.63	WRCA	New York, New York
21.65	WLWO	Cincinnati, Ohio
25.60	WRUW	Boston, Massachusetts
25.73	WCAB	Philadelphia, Pennsylvania

RCA RADIO TUBE CHART

CHART I. Receiving Tubes

RCA TYPE	NAME	DIMENSIONS SOCKET CONNECTIONS		CATHODE TYPE AND RATING			USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUPPLY VOLTS	GRID BIAS ■ VOLTS	SCREEN SUPPLY VOLTS	SCREEN CURRENT MA.	PLATE CURRENT MA.	A-C PLATE RESISTANCE OHMS	TRANSCONDUCTANCE (GRID-PLATE) μMHOS	AMPLIFICATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUTPUT WATTS	RCA TYPE
		DIMEN.	S. C.	C. T.	VOLTS	AMP.												
00-A	DETECTOR TRIODE	D12	4D	D.C. F	5.0	0.25	GRIDLEAK DETECTOR	45	Grid Return to (−) Filament			1.5	30000	666	20	——	——	00-A
01-A	DETECTOR★ AMPLIFIER	D12	4D	D.C. F	5.0	0.25	CLASS A AMPLIFIER	90 135	− 4.5 − 9.0	——	——	2.5 3.0	11000 10000	725 800	8.0 8.0	——	——	01-A
0Z4	FULL-WAVE GAS RECTIFIER	B3	4R	Cold	——	——	RECTIFIER	Starting-Supply Voltage per Plate, 300 min. peak volts. Peak Plate Current, 200 max. ma. D-C Output Current, 75 max., 30 min. ma. D-C Output Voltage, 300 max. volts.										0Z4
0Z4-G	FULL-WAVE GAS RECTIFIER	B1	G-4R ◆	Cold	——	——	RECTIFIER											0Z4-G
1A3	H-F DIODE	A2	5AP	H	1.4	0.15	DETECTOR RECTIFIER	Maximum A-C Voltage ..... 117 Volts, RMS Maximum D-C Output Current ..... 0.5 Milliampere Resonant Frequency ..... 1000 Mc, approx.										1A3
1A4-P	SUPER-CONTROL R-F AMPLIFIER PENTODE	D9	4M	D.C. F	2.0	0.06	AMPLIFIER	For other characteristics, refer to Type 1D5-GP.										1A4-P
1A5-GT/G	POWER AMPLIFIER PENTODE	C3	G-6X	D.C. F	1.4	0.05	CLASS A AMPLIFIER	85 90	− 4.5 − 4.5	85 90	0.7 0.8	3.5 4.0	300000 300000	800 850	——	25000 25000	0.100 0.115	1A5-GT/G
1A6	PENTAGRID CONVERTER ■	D9	6L	D.C. F	2.0	0.06	CONVERTER	135 180	(− 3.0 min.)	67.5 67.5	2.5 2.4	1.2 1.3	400000 500000	Anode-Grid (♯2): 180 ★ max. volts, 2.3 ma. Oscillator-Grid (♯1) Resistor ●, Conversion Transcond., 300 micromhos.				1A6
1A7-G	PENTAGRID CONVERTER ■	D8	G-7Z	D.C. F	1.4	0.05	CONVERTER	For other characteristics, refer to Type 1A7-GT										1A7-G
1A7-GT	PENTAGRID CONVERTER ■	C3	GT-7Z ✓	D.C. F	1.4	0.05	CONVERTER	90	0	45 ♣	0.7	0.6	600000	Anode-Grid (♯2): 90 max. volts, 1.2 ma. Oscillator-Grid (♯1) Resistor, 0.2 meg. Conversion Transcond., 250 micromhos.				1A7-GT
1B4-P	R-F AMPLIFIER PENTODE	D9	4M	D.C. F	2.0	0.06	AMPLIFIER	For other characteristics, refer to Type 1E5-GP.										1B4-P
1B5/25S	DUPLEX-DIODE TRIODE	D5	6M	D.C. F	2.0	0.06	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 1H6-G.										1B5/25S

For explanation of types in light face, see end of CHART I.

1B7-GT	PENTAGRID CONVERTER	C3	GT-7Z#	D.C. F	1.4	0.10	CONVERTER	90	0	45♣	1.3	1.5	350000	Anode-Grid (# 2): 90 max. volts, 1.6 ma. Oscillator-Grid (# 1) Resistor, 0.2 meg. Conversion Transcond., 350 micromhos.			1B7-GT
1C5-GT/G	POWER AMPLIFIER PENTODE	C3	G-6X	D.C. F	1.4	0.10	CLASS A AMPLIFIER	83 90	− 7.0 − 7.5	83 90	1.6 1.6	7.0 7.5	110000 115000	1500 1550	——	9000 8000	0.20 0.24	1C5-GT/G
1C6	PENTAGRID CONVERTER¤	D9	8L	D.C. F	2.0	0.12	CONVERTER	For other characteristics, refer to Type 1C7-G.										1C6
1C7-G	PENTAGRID CONVERTER¤	D8	G-7Z	B.C. F	2.0	0.12	CONVERTER	135 180	− 3.0 − 3.0	67.5 67.5	2.5 2.0	1.3 1.5	600000 700000	Anode-Grid (# 2): 180¤ max. volts. 4.0 ma. Oscillator-Grid (# 1) Resistor¤. Conversion Transcond., 325 micromhos.				1C7-G
1D5-GP	SUPER-CONTROL R-F AMPLIFIER PENTODE	D8	G-9Y	D.C. F	2.0	0.06	CLASS A AMPLIFIER	90 180	(− 3.0) min.	67.5 67.5	0.9 0.8	2.2 2.3	600000 1000000	720 750	——	——	——	1D5-GP
1D5-GT	SUPER-CONTROL R-F AMPLIFIER TETRODE	D8	G-9R	D.C. F	2.0	0.06	CLASS A AMPLIFIER	180	− 3.0	67.5	0.7	2.2	600000	650	——	——	——	1D5-GT
1D7-G	PENTAGRID CONVERTER¤	D8	G-7Z	D.C. F	2.0	0.06	CONVERTER	For other characteristics, refer to Type 1A6.										1D7-G
1D8-GT	DIODE-TRIODE-POWER AMPLIFIER PENTODE	C3	G-8AJ	D.C. F	1.4	0.1	PENTODE UNIT AS CLASS A AMPLIFIER	45 90	− 4.5 − 9.0	45 90	0.3 1.0	1.6 5.0	300000 200000	650 925	——	20000 12000	0.035 0.200	1D8-GT
							TRIODE UNIT AS CLASS A AMPLIFIER	45 90	0 0	——	——	0.3 1.1	77000 43500	325 575	25 25	——	——	
1E5-GP	R-F AMPLIFIER PENTODE	D8	G-9Y	D.C. F	2.0	0.06	CLASS A AMPLIFIER	90 180	− 3.0 − 3.0	67.5 67.5	0.7 0.6	1.6 1.7	1000000 1500000	600 650	——	——	——	1E5-GP
1E7-G	TWIN PENTODE POWER AMPLIFIER	D3	G-8C	D.C. F	2.0	0.24	CLASS A AMPLIFIER	135	− 7.5	135	——	Power Output is for one tube at stated plate-to-plate load.				24000	0.575	1E7-G
1F4	POWER AMPLIFIER PENTODE	D12	5K	D.C. F	2.0	0.12	AMPLIFIER	For other characteristics, refer to Type 1F5-G.										1F4
1F5-G	POWER AMPLIFIER PENTODE	D10	G-6X	D.C. F	2.0	0.12	CLASS A AMPLIFIER	90 135	− 3.0 − 4.5	90 135	1.1 2.4	4.0 8.0	240000 200000	1400 1700	——	20000 16000	0.11 0.31	1F5-G
1F6	DUPLEX-DIODE PENTODE	D9	6W	D.C. F	2.0	0.06	PENTODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 1F7-G.										1F6
1F7-G	DUPLEX-DIODE PENTODE	D8	G-7AF	D.C. F	2.0	0.06	PENTODE UNIT AS R-F AMPLIFIER	180	− 1.5	67.5	0.7	2.2	1000000	650	——	——	——	1F7-G
							PENTODE UNIT AS A-F AMPLIFIER	135¤	− 2.0	Screen Supply, 135 volts applied through 0.8-megohm resistor. Grid Resistor,** 1.0 megohm. Voltage Gain, 46.								
1G4-GT/G	DETECTOR AMPLIFIER TRIODE	C3	G-5S†	D.C. F	1.4	0.05	CLASS A AMPLIFIER	90	− 6.0	——	——	2.3	10700	825	8.8	——	——	1G4-GT/G
1G5-G	POWER AMPLIFIER PENTODE	D10	G-6X	D.C. F	2.0	0.12	CLASS A AMPLIFIER	90 135	− 6.0 −13.5	90 135	2.5 2.5	8.5 8.7	133000 160000	1500 1550	——	8500 9000	0.25 0.55	1G5-G
1G6-GT/G	TWIN TRIODE AMPLIFIER	C3	G-7AB	D.C. F	1.4	0.10	CLASS B AMPLIFIER	90	0	——	——	Power Output is for one tube at stated plate-to-plate load.				12000	0.350	1G6-GT/G

RCA TYPE	NAME	DIMENSIONS SOCKET CONNEC-TIONS		CATHODE TYPE AND RATING			USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUP-PLY VOLTS	GRID BIAS ≅ VOLTS	SCREEN SUPPLY VOLTS	SCREEN CUR-RENT MA.	PLATE CUR-RENT MA.	A-C PLATE RESIS-TANCE OHMS	TRANS-CONDUC-TANCE (GRID-PLATE) μMHOS	AMPLIFI-CATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUT-PUT WATTS	RCA TYPE
		DIMEN.	S.C.	C.T.	VOLTS	AMP.												
1H4-G	DETECTOR★ AMPLIFIER	D3	G-8S$_7$	D.C. F	2.0	0.06	CLASS A AMPLIFIER	90	− 4.5	——	——	2.5	11000	850	9.3	——	——	1H4-G
								135	− 9.0			3.0	10300	900	9.3			
								180	−13.5			3.1	10300	900	9.3			
							CLASS B AMPLIFIER	157.5	−15.0	——	——	1.0◆	——	——	——	8000	2.1†	
1H5-G	DIODE HIGH-MU TRIODE	D6	G-5Z	D.C. F	1.4	0.05	TRIODE UNIT AS CLASS A AMPLIFIER	For other characteristics, refer to Type 1H5-GT.										1H5-G
1H5-GT	DIODE HIGH-MU TRIODE	C3	GT-5Z4	D.C. F	1.4	0.05	TRIODE UNIT AS CLASS A AMPLIFIER	90	0	——	——	0.15	240000	275	65	——	——	1H5-GT
1H6-G	DUPLEX-DIODE TRIODE	D3	G-7AA	D.C. F	2.0	0.06	TRIODE UNIT AS CLASS A AMPLIFIER	135	− 3.0	——	——	0.8	35000	575	20	——	——	1H6-G
1J5-G	POWER AMPLIFIER PENTODE	D10	G-6X	D.C. F	2.0	0.12	CLASS A AMPLIFIER	135	−16.5	135	2.0	7.0	105000	950	——	135000	0.45	1J5-G
1J6-G	TWIN TRIODE AMPLIFIER	D3	G-7AB	D.C. F	2.0	0.24	CLASS B AMPLIFIER	135	0	——	——	Power Output is for one tube at stated plate-to-plate load.				10000	2.1	1J6-G
								135	− 3.0							10000	1.9	
1L4	R-F AMPLIFIER PENTODE	B0	6AR	D.C. F	1.4	0.05	CLASS A AMPLIFIER	90	0	67.5	1.2	2.9	600000	925	——	——	——	1L4
								90	0	90	2.0	4.5	350000	1025	——			
1LA4	POWER AMPLIFIER PENTODE	B5	5AD$_1$	D.C. F	1.4	0.05	AMPLIFIER	For other characteristics, refer to Type 1A5-GT/G.										1LA4
1LA6	PENTAGRID CONVERTER	B5	7AK	D.C. F	1.4	0.05	CONVERTER	90	0	45◆	0.6	0.55	750000	Anode-Grid (# 2): 90 max. volts, 1.2 ma. Oscillator Grid (# 1) Resistor, 0.2 meg. Conversion Transcond., 250 micromhos.				1LA6
1LB4	POWER AMPLIFIER PENTODE	B5	5AD$_2$	D.C. F	1.4	0.05	CLASS A AMPLIFIER	For other characteristics, refer to Pentode Unit of Type 1D8-GT.										1LB4
1LH4	DIODE HIGH-MU TRIODE	B5	5AQ	D.C. F	1.4	0.05	TRIODE UNIT AS CLASS A AMPLIFIER	For other characteristics, refer to Type 1H5-GT.										1LH4
1LN5	R-F AMPLIFIER PENTODE	B5	7AO	D.C. F	1.4	0.05	CLASS A AMPLIFIER	90	0	90	0.35	1.6	1.1 meg.	800	——	——	——	1LN5
1N5-G	R-F AMPLIFIER PENTODE	D6	G-5Y	D.C. F	1.4	0.05	AMPLIFIER	For other characteristics, refer to Type 1N5-GT.										1N5-G
1N5-GT	R-F AMPLIFIER PENTODE	C3	GT-5Y4	D.C. F	1.4	0.05	CLASS A AMPLIFIER	90	0	90	0.3	1.2	1500000	750	——	——	——	1N5-GT
1N6-G	DIODE—POWER AMPLIFIER PENTODE	D1	G-7AM	D.C. F	1.4	0.05	PENTODE UNIT AS CLASS A AMPLIFIER	90	− 4.5	90	0.7	3.4	300000	800	——	25000	0.1	1N6-G
1P5-GT	SUPER-CONTROL R-F AMPLIFIER PENTODE	C3	GT-5Y4	D.C. F	1.4	0.05	CLASS A AMPLIFIER	90	0	90	0.7	2.3	800000	750	——	——	——	1P5-GT

1Q5-GT/G	BEAM POWER AMPLIFIER	C3	G-6AF	D.C. F	1.4	0.1	CLASS A AMPLIFIER	90	− 4.5	90	1.3	9.5	75000	2200	——	8000	0.27	1Q5-GT/G
1R5	PENTAGRID CONVERTER	B0	7AT	D.C. F	1.4	0.05	CONVERTER	45 90	0 0	45 67.5	1.9 3.2	0.7 1.6	600000 600000	Grid # 1 Resistor, 100000 ohms. Conversion Transcond., 300 micromhos.				1R5
1S4	POWER AMPLIFIER PENTODE	B0	7AV	D.C. F	1.4	0.1	CLASS A AMPLIFIER	45 90	− 4.5 − 7.0	45 67.5	0.8 1.4	3.8 7.4	100000 100000	1250 1575	——	8000 8000	0.065 0.27	1S4
1S5	DIODE PENTODE	B0	6AU	D.C. F	1.4	0.05	PENTODE UNIT AS A-F AMPLIFIER	Plate Supply, 90 volts applied through 1 meg. resistor. Screen Supply, 90 volts applied through 3 meg. resistor. Grid Bias, 0 volts. Grid Resistor, 10 megohms. Voltage Gain, 50 approx.										1S5
1T4	SUPER-CONTROL R-F AMPLIFIER PENTODE	B0	6AR	D.C. F	1.4	0.05	CLASS A AMPLIFIER	45 90	0 0	45 67.5	0.7 1.4	1.7 3.5	350000 500000	700 900	——	——	——	1T4
1T5-GT	BEAM POWER AMPLIFIER	C3	G-6X	D.C. F	1.4	0.05	CLASS A AMPLIFIER	90	− 6.0	90	1.4	6.5	——	1150	——	14000	0.17	1T5-GT
1-v	HALF-WAVE RECTIFIER	D5	4G	H	6.3	0.3	WITH CONDENSER-INPUT FILTER	Max. A-C Plate Volts (RMS), 325 Max. D-C Output Ma., 45					Min. Total Effective Plate-Supply Impedance: Up to 117 volts, 0 ohms; at 150 volts, 30 ohms; at 325 volts, 75 ohms.					1-v
2A3	POWER AMPLIFIER TRIODE	E3	4D	F	2.5	2.5	CLASS A AMPLIFIER	250	−45.0	——	——	60.0	800	5250	4.2	2500	3.5	2A3
							PUSH-PULL CLASS AB1 AMPLIFIER	300 300	Cath. Bias, 780 ohms −62 volts, fixed bias			80.0 80.0	——	——	——	5000 3000	10.0 15.0	
2A4-G	GAS-TRIODE	D3	G-6S	F	2.5	2.5	RELAY SERVICE	Peak Anode Voltage, 200 max. volts, inverse or forward. Peak Anode Current, 1.25 max. amperes. Average Anode Current, 0.1 max. ampere.										2A4-G
2A5	POWER AMPLIFIER PENTODE	D12	6B	H	2.5	1.75	AMPLIFIER	For other characteristics, refer to Type 6F6-G.										2A5
2A6	DUPLEX-DIODE HIGH-MU TRIODE	D9	6Q	H	2.5	0.8	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6SQ7.										2A6
2A7	PENTAGRID CONVERTER	D9	7C	H	2.5	0.8	CONVERTER	For other characteristics, refer to Type 6A8.										2A7
2B7	DUPLEX-DIODE PENTODE	D9	7D	H	2.5	0.8	PENTODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6B8-G.										2B7
2E5	ELECTRON-RAY TUBE	D5	6R	H	2.5	0.8	VISUAL INDICATOR	For other characteristics, refer to Type 6E5.										2E5
3A4	POWER AMPLIFIER PENTODE	B0	7BB	D.C. F	1.4	0.2	CLASS A AMPLIFIER	135	− 7.5	90	2.6	14.8	90000	1900	——	8000	0.6	3A4
					2.8	0.1		150	− 8.4	90	2.2	13.3	100000	1900	——	8000	0.7	
							R-F POWER AMPLIFIER	150	——	135	6.5	18.3	Grid Resistor, 0.2 megohm. Grid Current, 0.13 ma.		——	——	1.2 at 10 Mc	
3A5	H-F TWIN TRIODE	B0	7BC	D.C. F	1.4	0.22	EACH UNIT AS CLASS A AMPLIFIER	90	− 2.5	——	——	3.7	8300	1800	15	——	——	3A5
					2.8	0.11	PUSH-PULL CLASS C AMPLIFIER	135	−20.0	from grid resistor, 4000 ohms		30.0	Grid Current, 5 ma. Driving Power, 0.2 watt.			——	2.0 at 40 Mc	
3A8-GT	DIODE-TRIODE R-F AMPLIFIER PENTODE	C5a	8A3	D.C. F	1.4	0.1	TRIODE UNIT AS CLASS A AMPLIFIER	90	0	——	——	0.2	200000	325	65	——	——	3A8-GT
					2.8	0.05	PENTODE UNIT AS CLASS A AMPLIFIER	90	0	90	0.5	1.5	800000	750	——	——	——	
3Q4	POWER AMPLIFIER PENTODE	B0	7BA	D.C. F	1.4	0.1	CLASS A AMPLIFIER	90	− 4.5	90	2.1	9.5	100000	2150	——	10000	0.27	3Q4
					2.8	0.05		90	− 4.5	90	1.7	7.7	120000	2000	——	10000	0.24	

RCA TYPE	NAME	DIMENSIONS SOCKET CONNEC-TIONS		CATHODE TYPE AND RATING			USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUP-PLY VOLTS	GRID BIAS ■ VOLTS	SCREEN SUPPLY VOLTS	SCREEN CUR-RENT MA.	PLATE CUR-RENT MA.	A-C PLATE RESIS-TANCE OHMS	TRANS-CONDUC-TANCE (GRID-PLATE) μMHOS	AMPLIFI-CATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUT-PUT WATTS	RCA TYPE
		DIMEN.	S. C.	C. T.	VOLTS	AMP.												
3Q5-GT/G	BEAM POWER AMPLIFIER	C3	G-7AP	D.C. F	1.4 2.8	0.1 0.05	CLASS A AMPLIFIER	110 110	− 6.6 − 6.6	110 110	1.4 1.1	10.0 8.5	100000 110000	2200 2000	——	8000 8000	0.40 0.33	3Q5-GT/G
3S4	POWER AMPLIFIER PENTODE	B0	7BA	D.C. F	1.4 2.8	0.1 0.05	CLASS A AMPLIFIER	90 90	− 7 − 7	67.5 67.5	1.4 1.1	7.4 6.1	100000 100000	1575 1425	——	8000 8000	0.27 0.235	3S4
5T4	FULL-WAVE RECTIFIER	D7	5T	F	5.0	2.0	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550				Max. D-C Output Ma., 225 Max. Peak Plate Ma., 675		Min. Total Effect. Supply Imped. per Plate, 150 ohms				5T4
							WITH CHOKE-INPUT FILTER	Max. A-C Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550				Max. D-C Output Ma., 225 Max. Peak Plate Ma., 675		Min. Value of Input Choke, 3 henries			
5U4-G	FULL-WAVE RECTIFIER	E2	G-5T‡	F	5.0	3.0	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550				Max. D-C Output Ma., 225 Max. Peak Plate Ma., 675		Min. Total Effect. Supply Imped. per Plate, 75 ohms				5U4-G
							WITH CHOKE-INPUT FILTER	Max. A-C Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550				Max. D-C Output Ma., 225 Max. Peak Plate Ma., 675		Min. Value of Input Choke, 3 henries			
5V4-G	FULL-WAVE RECTIFIER	D10	G-5L‡	H	5.0	2.0	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 375 Max. Peak Inverse Volts, 1400				Max. D-C Output Ma., 175 Max. Peak Plate Ma., 525		Min. Total Effect. Supply Imped. per Plate, 100 ohms				5V4-G
							WITH CHOKE-INPUT FILTER	Max. A-C Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. D-C Output Ma., 175 Max. Peak Plate Ma., 525		Min. Value of Input Choke, 4 henries			
5W4	FULL-WAVE RECTIFIER	C2	5T	F	5.0	1.5	For other ratings, refer to Type 5W4-GT/G.											5W4
5W4-GT/G	FULL-WAVE RECTIFIER	C7	G-5T‡	F	5.0	1.5	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 350 Max. Peak Inverse Volts, 1400				Max. D-C Output Ma., 100 Max. Peak Plate Ma., 300		Min. Total Effect. Supply Imped. per Plate, 50 ohms				5W4-GT/G
							WITH CHOKE-INPUT FILTER	Max. A-C Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. D-C Output Ma., 100 Max. Peak Plate Ma., 300		Min. Value of Input Choke, 6 henries			
5X4-G	FULL-WAVE RECTIFIER	E2	G-5Q	F	5.0	3.0	For other ratings, refer to Type 5U4-G.											5X4-G
5Y3-GT/G	FULL-WAVE RECTIFIER	D10	G-5T‡	F	5.0	2.0	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 350 Max. Peak Inverse Volts, 1400				Max. D-C Output Ma., 125 Max. Peak Plate Ma., 375		Min. Total Effect. Supply Imped. per Plate, 50 ohms				5Y3-GT/G
							WITH CHOKE-INPUT FILTER	Max. A-C Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. D-C Output Ma., 125 Max. Peak Plate Ma., 375		Min. Value of Input Choke, 5 henries			
5Y4-G	FULL-WAVE RECTIFIER	D10	G-9Q	F	5.0	2.0	For other ratings, refer to Type 5Y3-GT/G.											5Y4-G
5Z3	FULL-WAVE RECTIFIER	E2	4C	F	5.0	3.0	For other ratings, refer to Type 5U4-G.											5Z3

5Z4	FULL-WAVE RECTIFIER	C2	5L	H	5.0	2.0	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 350. Max. Peak Inverse Volts, 1400				Max. D-C Output Ma., 125. Max. Peak Plate Ma., 375			Min. Total Effect. Supply Imped. per Plate, 50 ohms			5Z4
							WITH CHOKE-INPUT FILTER	Max. A-C Volts per Plate (RMS), 500. Max. Peak Inverse Volts, 1400				Max. D-C Output Ma., 125. Max. Peak Plate Ma., 375			Min. Value of Input Choke, 5 henries			
6A3	POWER AMPLIFIER TRIODE	E3	4D	F	6.3	1.0	CLASS A AMPLIFIER	250	−45.0	—	—	60.0	300	5250	4.2	2500	3.20	6A3
							PUSH-PULL CLASS AB_1 AMPLIFIER	325	Cath. Bias, 850 ohms♣			80.0♣	—	—	—	5000	10.0†	
								325	−68 volts, fixed bias			80.0♣				3000	15.0†	
6A4/LA	POWER AMPLIFIER PENTODE	D12	5B	F	6.3	0.3	CLASS A AMPLIFIER	100	− 6.5	100	1.6	9.0	83250	1200	—	11000	0.31	6A4/LA
								180	−12.0	180	3.9	22.0	45500	2200		8000	1.40	
6A6	TWIN TRIODE AMPLIFIER	D12	7B	H	6.3	0.8	AMPLIFIER	For other characteristics, refer to Type 6N7-GT/G.										6A6
6A7	PENTAGRID CONVERTER ●	D9	7C	H	6.3	0.3	CONVERTER	For other characteristics, refer to Type 6A8.										6A7
6A7S	PENTAGRID CONVERTER ●	D9	7C	H	6.3	0.3	CONVERTER	For other characteristics, refer to Type 6A8.										6A7S
6A8	PENTAGRID CONVERTER ●	C1	8A	H	6.3	0.3	CONVERTER	100	− 1.5	50	1.3	1.1	600000	Anode-Grid (⑧2): 250 ✎ max. volts, 4.0 ma. Oscillator-Grid (⑧1) Resistor ●. Conversion Transcond., 550 micromhos.				6A8
								250	− 3.0	100	2.7	3.5	360000					
6A8-G	PENTAGRID CONVERTER ●	D8	G-8A‡	H	6.3	0.3	CONVERTER	For other characteristics, refer to Type 6A8.										6A8-G
6A8-GT	PENTAGRID CONVERTER ●	C3	GT-8A♣	H	6.3	0.3	CONVERTER	For other characteristics, refer to Type 6A8.										6A8-GT
6AB5/ 6N5	ELECTRON-RAY TUBE	D4	6R	H	6.3	0.15	VISUAL INDICATOR	Plate & Target Supply = 135 volts. Triode Plate Resistor = 0.25 meg. Target Current = 2.0 ma. Grid Bias, − 10.0 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.5 ma.										6AB5/ 6N5
								Plate & Target Supply = 135 volts. Triode Plate Resistor = 1.0 meg. Target Current = 1.9 ma. Grid Bias, −15.5 volts; Shadow Angle, 0°. Bias, 0 volts; Angle 90°; Plate Current, 0.13 ma.								
6AB7/ 1853	TELEVISION AMPLIFIER PENTODE	B3	8N	H	6.3	0.45	CLASS A AMPLIFIER	300	− 3.0	200	3.2	12.5	700000	5000	—	—	—	6AB7/ 1853
6AC5-GT/G	HIGH-MU POWER AMPLIFIER TRIODE	C3	G-8Q‡	H	6.3	0.4	CLASS B AMPLIFIER	250	0	—	—	5.0♣	—	—	—	10000	8.0†	6AC5-GT/G
							DYNAMIC-COUPLED AMPLIFIER WITH 6P3-GT/G DRIVER	250	Bias for both 6AC5-GT/G and 6P5-GT/G is developed in coupling circuit. Average Plate Current of Driver = 5.5 milliamperes. Average Plate Current of 6AC5-GT/G = 32 milliamperes.							7000	3.7	
6AC7/ 1852	TELEVISION AMPLIFIER PENTODE	B3	8N	H	6.3	0.45	CLASS A AMPLIFIER	300	Cath. Bias	150	2.5	10.0	100000	9000	Cathode-Bias Resistor, 160 ohms			6AC7/ 1852
6AD6-G	ELECTRON-RAY TUBE Twin Indicator Type	B5a	7AG	H	6.3	0.15	VISUAL INDICATOR	Target Voltage, 100 volts. Control-Electrode Voltage, −23 volts; Shadow Angle, 135°; Target Current, 0.8 ma. Control-Electrode Voltage, 45 volts; Angle, 0°; Target Current, 3.5 ma.										6AD6-G
								Target Voltage, 150 volts. Control-Electrode Voltage, −50 volts; Shadow Angle, 135°, Target Current, 1.2 ma. Control-Electrode Voltage, 75 volts; Angle, 0°; Target Current, 3 ma.								

RCA TYPE	NAME	DIMENSIONS SOCKET CONNECTIONS		CATHODE TYPE AND RATING			USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUPPLY VOLTS	GRID BIAS VOLTS	SCREEN SUPPLY VOLTS	SCREEN CURRENT MA.	PLATE CURRENT MA.	A-C PLATE RESISTANCE OHMS	TRANSCONDUCTANCE (GRID-PLATE) μMHOS	AMPLIFICATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUTPUT WATTS	RCA TYPE
		DIMEN.	B. C.	C. T.	VOLTS	AMP.												
6AD7-G	TRIODE-POWER AMPLIFIER PENTODE	D10	8AY	H	6.3	0.85	TRIODE UNIT AS CLASS A AMPLIFIER	250	−25.0	——	——	4.0	19000	325	6.0	——	——	6AD7-G
							PENTODE UNIT AS CLASS A AMPLIFIER	250	−16.5	250	6.5	34.0	80000	2500	——	7000	3.2	
							PENTODE UNIT WITH 6F6-G AS PUSH-PULL CLASS AB1 AMPLIFIER	375	Cath. Bias	250	6.7◆	41.0◆	Cathode-Bias Resistor, 470 ohms◆			16000	9.0†	
6AE5-GT/G	AMPLIFIER TRIODE	C3	8-BQ‡	H	6.3	0.3	CLASS A AMPLIFIER	95	−15.0	——	——	7.0	3500	1200	4.2	——	——	6AE5-GT/G
6AE6-G	TWIN-PLATE CONTROL TUBE	D3	7AH	H	6.3	0.15	REMOTE CUT-OFF TRIODE	250	− 1.5	——	——	6.5	25000	1000	25	——	——	6AE6-G
								250	−35.0			0.01						
							SHARP CUT-OFF TRIODE	250	− 1.5	——	——	4.5	35000	950	33	——	——	
								250	− 9.5			0.01						
6AE7-GT	TWIN-INPUT TRIODE AMPLIFIER	C3	G-7AX	H	6.3	0.5	CLASS A AMP.▲▲	250	−13.5	——	——	10.0	4650	3000	14	——	——	6AE7-GT
							DRIVER FOR PUSH-PULL 6AC5-GT/G's IN DYNAMIC-COUPLED AMPLIFIER	250	Bias for both 6AC5-GT/G's and 6AE7-GT is developed in coupling Zero-Signal Plate Current of 6AE7-GT = 10 milliamperes. circuit. Zero-Signal Plate Current of 6AC5-GT/G's = 64 milliamperes. Power Output is for two 6AC5-GT/G's at stated plate-to-plate load.						10000	9.5	
6AF6-G	ELECTRON-RAY TUBE Twin Indicator Type	B2	7AQ	H	6.3	0.15	VISUAL INDICATOR	Target Voltage, 100 volts. Control-Electrode Voltage, 0 volts; Shadow Angle, 100°; Target Current, 0.9 ma. Control-Electrode Voltage, 60 volts; Angle, 0°. Target Voltage, 135 volts. Control-Electrode Voltage, 0 volts; Shadow Angle, 100°; Target Current, 1.5 ma. Control-Electrode Voltage, 81 volts; Angle, 0°.								6AF6-G
6AG5	R-F AMPLIFIER PENTODE	B9	7BD	H	6.3	0.3	CLASS A AMPLIFIER	100	Cath. Bias	100	1.6	5.5	300000	4750	Cath. Bias Res., 100 ohms			6AG5
								250		150	2.0	7.0	800000	5000	Cath. Bias Res., 200 ohms			
6AG7	VIDEO POWER AMPLIFIER PENTODE	C2	8Y	H	6.3	0.65	CLASS A AMPLIFIER	300	Cath. Bias − 2.0	125	7.0	28.0	Cathode-Bias Resistor, 57 ohms. Load Resistance, 3500 ohms. Peak-to-Peak Volts Output, 140 approx.					6AG7
6B4-G	POWER AMPLIFIER TRIODE	E2	G-5S‡	F	6.3	1.0	AMPLIFIER	For other characteristics, refer to Type 6A3.										6B4-G
6B5	DIRECT-COUPLED POWER AMPLIFIER	D12	6AS	H	6.3	0.8	CLASS A AMPLIFIER	For other characteristics, refer to Type 6N6-G.										6B5
6B6-G	DUPLEX-DIODE HIGH-MU TRIODE	D8	G-7V‡	H	6.3	0.3	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6SQ7.										6B6-G
6B7	DUPLEX-DIODE PENTODE	D9	7D	H	6.3	0.3	PENTODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6B8-G.										6B7

6B7S	DUPLEX-DIODE PENTODE	D9	7D	H	6.3	0.3	PENTODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6B8-G.											6B7S
6B8	DUPLEX-DIODE PENTODE	C1	8E	H	6.3	0.3	PENTODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 12C8.											6B8
6B8-G	DUPLEX-DIODE PENTODE	D8	G-8E‡	H	6.3	0.3	PENTODE UNIT AS R-F AMPLIFIER	100	−3.0	100	1.7	5.8	300000	950	—	—	—		6B8-G
								250	−3.0	125	2.3	9.0	600000	1125	—	—	—		
							PENTODE UNIT AS A-F AMPLIFIER	90 × Cath. Bias, 3500 ohms. Screen Resistor = 1.1 meg. Grid Resistor,** 0.5 megohm. Gain per stage = 55										
								300 × Cath. Bias, 1600 ohms. Screen Resistor = 1.2 meg. Gain per stage = 79										
6C4	H-F POWER TRIODE	B0	6BQ	H	6.3	0.15	CLASS A AMPLIFIER	100	0	—	—	11.8	6250	3100	19.5	—	—		6C4
								250	−8.5	—	—	10.5	7700	2200	17	—	—		
							R-F POWER AMPLIFIER	300	−27.0	Grid Current, 7 ma.		25.0	Power Output at moderate frequencies is 5.5 watts, approx.						
6C5	DETECTOR★ AMPLIFIER TRIODE	B3	6Q	H	6.3	0.3	CLASS A AMPLIFIER	250	−8.0	—	—	8.0	10000	2000	20	—	—		6C5
								90▼ Cath. Bias, 6400 ohms. Grid Resistor,** 0.25 megohm. Gain per stage = 11										
								300▼ Cath. Bias, 5300 ohms. Gain per stage = 13										
							BIAS DETECTOR	250	−17.0 approx. Plate current to be adjusted to 0.2 milliampere with no signal.										
6C5-GT/G	DETECTOR★ AMPLIFIER TRIODE	C3	GT-6Q★	H	6.3	0.3	AMPLIFIER DETECTOR	For other characteristics, refer to Type 6C5.											6C5-GT/G
6C6	TRIPLE-GRID DETECTOR AMPLIFIER	D13	6F	H	6.3	0.3	AMPLIFIER DETECTOR	For other characteristics, refer to Type 6J7.											6C6
6C7	DUPLEX-DIODE TRIODE	D9	7Q	H	6.3	0.3	TRIODE UNIT AS CLASS A AMPLIFIER	250	−9.0	—	—	4.5	16000	1250	20	—	—		6C7
6C8-G	TWIN TRIODE AMPLIFIER	D8	G-8Q	H	6.3	0.3	EACH UNIT AS AMPLIFIER	250	−4.5	—	—	3.2	22500	1600	36	—	—		6C8-G
6D6	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	D13	6F	H	6.3	0.3	AMPLIFIER MIXER	For other characteristics, refer to Type 6U7-G.											6D6
6D7	TRIPLE-GRID DETECTOR AMPLIFIER	D13	7H	H	6.3	0.3	AMPLIFIER DETECTOR	For other characteristics, refer to Type 6J7.											6D7
6D8-G	PENTAGRID CONVERTER●	D8	G-8A‡	H	6.3	0.15	CONVERTER	135	−3.0	67.5	1.7	1.5	600000	Anode-Grid (★2): 250 ↘ max. volts, 4.3 ma. Oscillator-Grid (★1) Resistor = .					6D8-G
								250	−3.0	100	2.6	3.5	400000	Conversion Transcond., 550 micromhos.					
6E5	ELECTRON-RAY TUBE	D4	6R	H	6.3	0.3	VISUAL INDICATOR	Plate & Target Supply = 100 volts. Triode Plate Resistor = 0.5 meg. Target Current = 1.0 ma. Grid Bias, −3.3 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.19 ma.											6E5
								Plate & Target Supply = 250 volts. Triode Plate Resistor = 1.0 meg. Target Current = 4.0 ma. Grid Bias, −8.0 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.24 ma.										
6E6	TWIN TRIODE POWER AMPLIFIER	D12	7B	H	6.3	0.6	PUSH-PULL CLASS A AMPLIFIER	180	−20.0	—	—	Power Output is for one tube at stated plate-to-plate load.			15000	0.75			6E6
								250	−27.5	—	—				14000	1.60			
6E7	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	D13	7H	H	6.3	0.3	AMPLIFIER	For other characteristics, refer to Type 6U7-G.											6E7

RCA TYPE	NAME	DIMENSIONS SOCKET CONNEC-TIONS		CATHODE TYPE AND RATING			USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUP-PLY VOLTS	GRID BIAS ▥ VOLTS	SCREEN SUPPLY VOLTS	SCREEN CUR-RENT MA.	PLATE CUR-RENT MA.	A-C PLATE RESIS-TANCE OHMS	TRANS-CONDUC-TANCE (GRID-PLATE) μMHOS	AMPLIFI-CATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUT-PUT WATTS	RCA TYPE
		DIMEN.	S. C.	C. T.	VOLTS	AMP.												
6F5	HIGH-MU TRIODE	C1	8M	H	6.3	0.3	AMPLIFIER	For other characteristics, refer to Type 6SF5.										6F5
6F5-G	HIGH-MU TRIODE	D8	G-5M‡	H	6.3	0.3	AMPLIFIER	For other characteristics, refer to Type 6SF5.										6F5-G
6F5-GT	HIGH-MU TRIODE	C3	G-5M‡	H	6.3	0.3	AMPLIFIER	For other characteristics, refer to Type 6SF5.										6F5-GT
6F6	POWER AMPLIFIER PENTODE	C2	7S	H	6.3	0.7	AMPLIFIER	For other characteristics, refer to Type 6F6-G.										6F6
6F6-G	POWER AMPLIFIER PENTODE	D10	G-7S‡	H	6.3	0.7	PENTODE CLASS A AMPLIFIER	250 285	−16.5 −20.0	250 285	6.5 7.0	34.0 38.0	80000 78000	2500 2550	——	7000 7000	3.2 4.8	6F6-G
							TRIODE□ CLASS A AMPLIFIER	250	−20.0	——	——	31.0	2600	2600	6.8	4000	0.85	
							PENTODE PUSH-PULL CLASS A AMPLIFIER	315 315	Cath. Bias −24.0	285 285	12.0◆ 12.0◆	62.0◆ 62.0◆	Cath. Bias Resistor, 320 ohms◆			10000 10000	10.5† 11.0†	
							PENTODE PUSH-PULL CLASS AB_2 AMPLIFIER	375 375	Cath. Bias −26.0	250 250	8.0◆ 5.0◆	54.0◆ 34.0◆	Cath. Bias Resistor, 340 ohms◆			10000 10000	19.0† 18.5†	
							TRIODE PUSH-PULL□ CLASS AB_2 AMPLIFIER	350 350	Cath. Bias −38.0	——	——	50.0◆ 48.0◆	Cath. Bias Resistor, 730 ohms◆			10000 6000	9.0† 13.0†	
6F7	TRIODE-PENTODE	D9	7E	H	6.3	0.3	TRIODE UNIT AS CLASS A AMPLIFIER	100	(−3.0 min.	——	——	3.5	16000	500	8	——	——	6F7
							PENTODE UNIT AS CLASS A AMPLIFIER	100 250	(−3.0 min.	100 100	1.6 1.5	6.3 6.5	290000 850000	1050 1100	——	——	——	
							PENTODE UNIT AS MIXER	250	−10.0	100	0.6	2.8	Oscillator Peak Volts = 7.0. Conversion Transcond. = 300 micrombos.					
6F8-G	TWIN TRIODE AMPLIFIER	D8	G-8G	H	6.3	0.6	EACH UNIT AS AMPLIFIER	For other characteristics, refer to Type 6J5.										6F8-G
6G6-G	POWER AMPLIFIER PENTODE	D3	G-7S‡	H	6.3	0.15	PENTODE CLASS A AMPLIFIER	135 180	− 6.0 − 9.0	135 180	2.0 2.5	11.5 15.0	170000 175000	2100 2300	——	12000 10000	0.6 1.1	6G6-G
							TRIODE□ CLASS A AMPLIFIER	180	−12.0	——	——	11.0	4750	2000	9.5	12000	0.25	
6H6	TWIN DIODE	A1	7Q	H	6.3	0.3	VOLTAGE DOUBLER	Max. A-C Supply Volts per Plate (RMS), 150 Max. D-C Output Ma., 8. Min. Total Effect. Plate-Supply Imped. per Plate: half-wave, 30 ohms; full-wave, 15 ohms.										6H6
							HALF-WAVE RECTIFIER	Max. A-C Plate Volts (RMS), 150 Min. Total Effective Plate-Supply Impedance: up to 117 volts, 15 ohms; at 150 volts, 40 ohms. Max. D-C Output Ma., 8 per Plate									
6H6-GT/G	TWIN DIODE	C3	G-7Q‡‡	H	6.3	0.3	DETECTOR RECTIFIER	For other ratings, refer to Type 6H6.										6H6-GT/G

6J5	DETECTOR AMPLIFIER TRIODE	B3	8Q	H	6.3	0.3	CLASS A AMPLIFIER	90 250	0 − 8.0	—	—	10.0 9.0	6700 2700	3000 2600	20 20	—	—	6J5
6J5-GT/G	DETECTOR AMPLIFIER TRIODE	C3	GT-40§	H	6.3	0.3	AMPLIFIER	For other characteristics, refer to Type 6J5.										6J5-GT/G
6J6	TWIN TRIODE	B8	7BF	H	6.3	0.45	EACH UNIT AS CLASS A AMPLIFIER	100	Cathode Resistor, for both units, 50 ohms			8.5	6000	5300	32	—	—	6J6
							PUSH-PULL CLASS C AMPLIFIER	150	−10.0		Cath. Res., 220 ohms, both units	30.0	Grid Current, 16 ma. Driving Power, 0.35 watt.			—	3.5	
6J7	TRIPLE-GRID DETECTOR AMPLIFIER	C1	7R	H	6.3	0.3	PENTODE CLASS A R-F AMPLIFIER	100 250	− 3.0 − 3.0	100 100	0.5 0.5	2.0 2.0	1000000 1.0 +1	1185 1225	—	—	—	6J7
			PENTODE CLASS A A-F AMPLIFIER	90 × 300 ×	Cath. Bias, 2600 ohms. Screen Resistor = 1.2 meg. Cath. Bias, 1200 ohms. Screen Resistor = 1.2 meg.					Grid Resistor,** 0.5 megohm.		Gain per stage = 85 Gain per stage = 140					
			PENTODE BIAS DETECTOR	250	− 4.3	100	Cathode Current 0.43 ma.	—			Plate Resistor, 500000 ohms. Grid Resistor,** 250000 ohms.						
			TRIODE ‡ CLASS A AMPLIFIER	180 250	− 5.3 − 8.0	—	—	5.3 6.5	11000 10500	1800 1900	20 20	—	—				
6J7-G	TRIPLE-GRID DETECTOR AMPLIFIER	D8	G-7R‡‡	H	6.3	0.3	AMPLIFIER DETECTOR	For other characteristics, refer to Type 6J7.										6J7-G
6J7-GT	TRIPLE-GRID DETECTOR AMPLIFIER	C3	GT-7R§	H	6.3	0.3	AMPLIFIER	For other characteristics, refer to Type 6J7.										6J7-GT
6J8-G	TRIODE-HEPTODE CONVERTER	D8	G-8H	H	6.3	0.3	TRIODE UNIT AS OSCILLATOR	100 250 ¤	Triode-Grid Resistor ¤			4.0 5.8	Triode-Grid & Heptode-Grid Current, 0.3 ma. Triode-Grid & Heptode-Grid Current, 0.4 ma.					6J8-G
			HEPTODE UNIT AS MIXER	100 250	− 3.0 − 3.0	100 100	3.2 3.5	1.3 1.3	800000 2500000	Conversion Transcond., 260 micromhos. Conversion Transcond., 290 micromhos.						
6K5-G	HIGH-MU TRIODE	D8	G-5U	H	6.3	0.3	CLASS A AMPLIFIER	100 250	− 1.5 − 3.0	—	—	0.35 1.1	78000 50000	900 1400	70 70	—	—	6K5-G
6K6-GT/G	POWER AMPLIFIER PENTODE	C3	G-7S‡	H	6.3	0.4	SINGLE-TUBE CLASS A AMPLIFIER	100 250 315	− 7.0 −18.0 −21.0	100 250 250	1.6 5.5 4.0	9.0 32.0 25.5	104000 68000 75000	1500 2300 2100	— —	12000 7600 9000	0.35 3.40 4.50	6K6-GT/G
			PUSH-PULL CLASS A AMPLIFIER	285 285	− 25.5 Cath. Bias	285 285	9.0♣ 9.0♣	55.0♣ 55.0♣	— Cath. Bias Resistor, 400 ohms. ♣	—	—	—	—	12000 12000	10.5† 9.8†	
6K7	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	C1	7R	H	6.3	0.3	CLASS A AMPLIFIER	100 250	− 1.0 − 3.0	100 125	2.7 2.6	9.5 10.5	150000 600000	1650 1650	—	—	—	6K7
			MIXER IN SUPERHETERODYNE	250	−10.0	100	—	—	Oscillator Peak Volts = 7.0							
6K7-G	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	D8	G-7R‡	H	6.3	0.3	AMPLIFIER MIXER	For other characteristics, refer to Type 6K7.										6K7-G

RCA TYPE	NAME	DIMENSIONS SOCKET CONNECTIONS		CATHODE TYPE AND RATING			USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUPPLY VOLTS	GRID BIAS ■ VOLTS	SCREEN SUPPLY VOLTS	SCREEN CURRENT MA.	PLATE CURRENT MA.	A-C PLATE RESISTANCE OHMS	TRANSCONDUCTANCE (GRID-PLATE) μMHOS	AMPLIFICATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUTPUT WATTS	RCA TYPE
		DIMEN.	S. C.	C. T.	VOLTS	AMP.												
6K7-GT	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	C3	GT-7R▲	H	6.3	0.3	AMPLIFIER	For other characteristics, refer to Type 6K7.										6K7-GT
6K8	TRIODE-HEXODE CONVERTER	C1	8K	H	6.3	0.3	TRIODE UNIT AS OSCILLATOR	100	Triode-Grid Resistor ■			3.8	Triode-Grid & Hexode-Grid Current, 0.15 ma.					6K8
							HEXODE UNIT AS MIXER	100	− 3.0	100	6.2	2.3	400000	Conversion Transcond., 325 micromhos.				
								250	− 3.0	100	6.0	2.5	600000	Conversion Transcond., 350 micromhos.				
6K8-G	TRIODE-HEXODE CONVERTER	D8	G-8K‡	H	6.3	0.3	OSCILLATOR AND MIXER	For other characteristics, refer to Type 6K8.										6K8-G
6K8-GT	TRIODE-HEXODE CONVERTER	C7a	GT-8K▲	H	6.3	0.3	OSCILLATOR AND MIXER	For other characteristics, refer to Type 6K8.										6K8-GT
6L5-G	DETECTOR AMPLIFIER TRIODE	D3	G-6Q‡	H	6.3	0.15	CLASS A AMPLIFIER	135	− 5.0	—	—	3.5	11300	1500	17	—	—	6L5-G
								250	− 9.0	—	—	8.0	9000	1900	17	—	—	
6L6	BEAM POWER AMPLIFIER	D7	7AC	H	6.3	0.9	SINGLE-TUBE CLASS A AMPLIFIER	250	−14.0	250	5.0	72.0	—	—	—	2500	6.5	6L6
								270	Cath. Bias	270	5.4	75.0	Cath. Bias Resistor, 170 ohms.			2500	6.5	
							PUSH-PULL CLASS A AMPLIFIER	270	−17.5	270	11.0▲	134.0▲	—	—	—	5000	17.5†	
								270	Cath. Bias	270	11.0▲	134.0▲	Cath. Bias Resistor, 125 ohms. ▲			5000	18.5†	
							PUSH-PULL CLASS AB_1 AMPLIFIER	360	−22.5	270	5.0▲	88.0▲	—	—	—	6600	26.5†	
								360	Cath. Bias	270	5.0▲	88.0▲	Cath. Bias Resistor, 250 ohms. ▲			9000	24.5†	
							PUSH-PULL CLASS AB_2 AMPLIFIER	360	−18.0	225	3.5▲	78.0▲	—	—	—	6000	31.0†	
								360	−22.5	270	5.0▲	88.0▲	—	—	—	3800	47.0†	
							SINGLE TRIODE CLASS A AMPLIFIER	250	−20.0	—	—	40.0	1700	4700	8.0	5000	1.4	
								250	Cath. Bias			40.0	Cath. Bias Resistor, 490 ohms.			6000	1.3	
6L6-G	BEAM POWER AMPLIFIER	E2	G-7AC‡	H	6.3	0.9	AMPLIFIER	For other characteristics, refer to Type 6L6.										6L6-G
6L7	PENTAGRID MIXER A AMPLIFIER	C1	7T	H	6.3	0.3	MIXER IN SUPERHETERODYNE	250	− 3.0	100	7.1	2.4	Oscillator-Grid (■3) Bias, −10 volts. Grid ■3 Peak Swing, 12 volts minimum. Conversion Transcond., 375 micromhos					6L7
							CLASS A AMPLIFIER	250	− 3.0◆	100	6.5	5.3	600000	1100	—	—	—	
6L7-G	PENTAGRID MIXER A AMPLIFIER	D8	G-7T‡	H	6.3	0.3	MIXER AMPLIFIER	For other characteristics, refer to Type 6L7.										6L7-G
6N6-G	DIRECT-COUPLED POWER AMPLIFIER	D10	G-7AU	H	6.3	0.8	CLASS A AMPLIFIER	Output Triode: Plate Volts, 300; Plate Ma., 45; Load, 7000 ohms. Input Triode: Plate Volts, 300; Grid Volts, 0; A-F Signal Volts (Peak), 21; Plate Ma., 8.									4.0	6N6-G
6N7	TWIN TRIODE AMPLIFIER	C2	8B	H	6.3	0.8	AMPLIFIER	For other characteristics, refer to Type 6N7-GT/G.										6N7

6N7-GT/G	TWIN TRIODE AMPLIFIER	D10	G-8B‡	H	6.3	0.8	CLASS A AMPLIFIER (As Driver)⊙	250 294	− 5.0 − 6.0	—	—	6.0 7.0	11300 11000	3100 3200	35 35	20000 or more	exceeds 0.4	6N7-GT/G
							CLASS B AMPLIFIER	300	0	—	—	Power Output is for one tube at stated plate-to-plate load.				8000	10.0	
6P5-GT/G	DETECTOR AMPLIFIER TRIODE	C3	G-6Q‡	H	6.3	0.3	CLASS A AMPLIFIER	100 250	− 5.0 −13.5	—	—	2.5 5.0	12000 9500	1150 1450	13.8 13.8	—	—	6P5-GT/G
								90♥ 300♥	Cath. Bias, 6500 ohms. Cath. Bias, 6400 ohms.	Grid Resistor,** 0.25 megohm.						Gain per stage = 9 Gain per stage = 10	
							BIAS DETECTOR	250	− 20.0 approx.	—	—	Plate current to be adjusted to 0.2 milliampere with no signal.						
6P7-G	TRIODE-PENTODE	D8	G-7U	H	6.3	0.3	AMPLIFIER AND CONVERTER	For other characteristics, refer to Type 6F7:										6P7-G
6Q7	DUPLEX-DIODE HIGH-MU TRIODE	C1	7V	H	6.3	0.3	TRIODE UNIT AS CLASS A AMPLIFIER	100 250	− 1.0 − 3.0	—	—	0.8 1.0	58000 58000	1200 1200	70 70	—	—	6Q7
								90✖ 300✖	Cath. Bias, 7600 ohms. Cath. Bias, 3000 ohms.	Grid Resistor,** 0.5 megohm.						Gain per stage = 32 Gain per stage = 45	
6Q7-G	DUPLEX-DIODE HIGH-MU TRIODE	D8	G-7V‡	H	6.3	0.3	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6Q7.										6Q7-G
6Q7-GT	DUPLEX-DIODE HIGH-MU TRIODE	C3	GT-7V	H	6.3	0.3	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6Q7.										6Q7-GT
6R7	DUPLEX-DIODE TRIODE	C1	7V	H	6.3	0.3	TRIODE UNIT AS CLASS A AMPLIFIER	250	− 9.0	—	—	9.5	8500	1900	16	—	—	6R7
								90♥ 300♥	Cath. Bias, 4400 ohms. Cath. Bias, 3800 ohms.	Grid Resistor,** 0.25 megohm.						Gain per stage = 10 Gain per stage = 10	
6R7-G	DUPLEX-DIODE TRIODE	D8	G-7V‡	H	6.3	0.3	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6R7.										6R7-G
6R7-GT	DUPLEX-DIODE TRIODE	C3	G-7V‡	H	6.3	0.3	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6R7.										6R7-GT
6S7	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	C1	7R	H	6.3	0.15	CLASS A AMPLIFIER	135 250	− 3.0 − 3.0	67.5 100	0.9 2.0	3.7 8.5	1000000 1000000	1250 1750	—	—	—	6S7
6S7-G	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	D8	G-7R‡	H	6.3	0.15	AMPLIFIER	For other characteristics, refer to Type 6S7.										6S7-G
6SA7	PENTAGRID CONVERTER▲	B3	8R	H	6.3	0.3	MIXER	100 250	Self-Excited	100 100	8.5 8.5	3.3 3.5	500000 1000000	Grid #1 Resistor, 20000 ohms. Conversion Transcond., 450 micromhos.				6SA7
6SA7-GT/G	PENTAGRID CONVERTER▲	C3	GT-8AD	H	6.3	0.3	MIXER	For other characteristics, refer to Type 6SA7.										6SA7-GT/G
6SC7	TWIN TRIODE AMPLIFIER	B3	8S	H	6.3	0.3	EACH UNIT AS AMPLIFIER	250	− 2.0	—	—	2.0	53000	1325	70	—	—	6SC7
6SF5	HIGH-MU TRIODE	B3	6AB	H	6.3	0.3	CLASS A AMPLIFIER	100 250	− 1.0 − 2.0	—	—	0.4 0.9	85000 66000	1150 1500	100 100	—	—	6SF5
								90✖ 300✖	Cath. Bias, 8800 ohms. Cath. Bias, 3200 ohms.	Grid Resistor,** 0.5 megohm.						Gain per stage = 43 Gain per stage = 63	

RCA TYPE	NAME	DIMENSIONS SOCKET CONNECTIONS		CATHODE TYPE AND RATING			USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUPPLY VOLTS	GRID BIAS ■ VOLTS	SCREEN SUPPLY VOLTS	SCREEN CURRENT MA.	PLATE CURRENT MA.	A-C PLATE RESISTANCE OHMS	TRANSCONDUCTANCE (GRID-PLATE) μMHOS	AMPLIFICATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUTPUT WATTS	RCA TYPE
		DIMEN.	S. C.	C. T.	VOLTS	AMP.												
6SF5-GT	HIGH-MU TRIODE	C3	G-6AB‡	H	6.3	0.3	AMPLIFIER	For other characteristics, refer to Type 6SF5.										6SF5-GT
6SF7	DIODE SUPER-CONTROL AMPLIFIER PENTODE	B3	7AZ	H	6.3	0.3	PENTODE UNIT AS CLASS A AMPLIFIER	100 250	− 1.0 − 1.0	100 100	3.4 3.3	12.0 12.4	200000 700000	1975 2050	——	——	——	6SF7
6SG7	H-F AMPLIFIER PENTODE	B3	8BK	H	6.3	0.3	CLASS A AMPLIFIER	100 250 250	− 1.0 − 1.0 − 2.5	100 125 150	3.2 4.4 3.4	8.2 11.8 9.2	250000 900000 1.0+§	4100 4700 4000	——	——	——	6SG7
6SH7	H-F AMPLIFIER PENTODE	B3	8BK	H	6.3	0.3	CLASS A AMPLIFIER	100 250	− 1.0 − 1.0	100 150	2.1 4.1	5.3 10.8	350000 900000	4000 4900	——	——	——	6SH7
6SJ7	TRIPLE-GRID DETECTOR AMPLIFIER	B2	8N	H	6.3	0.3	CLASS A AMPLIFIER	100 250	− 3.0 − 3.0	100 100	0.9 0.8	2.9 3.0	700000 1.0+§	1575 1650	——	——	——	6SJ7
								90 × 300 ×	Cath. Bias, 1700 ohms. Cath. Bias, 860 ohms.	Grid Resistor,** 0.5 megohm.					Gain per stage = 93 Gain per stage = 167			
6SJ7-GT	TRIPLE-GRID DETECTOR AMPLIFIER	C3	GT-8N‡	H	6.3	0.3	AMPLIFIER	For other characteristics, refer to Type 6SJ7.										6SJ7-GT
6SK7	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	B3	8N	H	6.3	0.3	CLASS A AMPLIFIER	100 250	− 1.0 − 3.0	100 100	4.0 2.6	13.0 9.2	120000 800000	2350 2000	——	——	——	6SK7
6SK7-GT/G	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	C3	GT-8N‡	H	6.3	0.3	AMPLIFIER	For other characteristics, refer to Type 6SK7.										6SK7-GT/G
6SL7-GT	TWIN TRIODE AMPLIFIER	C3	8BD	H	6.3	0.3	EACH UNIT AS AMPLIFIER	250	− 2.0	——	——	2.3	44000	1600	70	——	——	6SL7-GT
6SN7-GT	TWIN TRIODE AMPLIFIER	C3	8BD	H	6.3	0.6	EACH UNIT AS AMPLIFIER	For other characteristics, refer to Type 6J5.										6SN7-GT
6SQ7	DUPLEX-DIODE HIGH-MU TRIODE	B3	8Q	H	6.3	0.3	TRIODE UNIT AS CLASS A AMPLIFIER	100 250	− 1.0 − 2.0	——	——	0.4 0.9	110000 91000	900 1100	100 100	——	——	6SQ7
								90 × 300 ×	Cath. Bias, 11000 ohms. Cath. Bias, 3900 ohms.	Grid Resistor,** 0.5 megohm.					Gain per stage = 40 Gain per stage = 53			
6SQ7-GT/G	DUPLEX-DIODE HIGH-MU TRIODE	C3	GT-8Q‡	H	6.3	0.3	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6SQ7.										6SQ7-GT/G
6SR7	DUPLEX-DIODE TRIODE	B3	8Q	H	6.3	0.3	TRIODE UNIT AS CLASS A AMPLIFIER	250	− 9.0	——	——	9.5	8500	1900	16	10000	0.3	6SR7

6S7	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	B3	8N	H	6.3	0.15	CLASS A AMPLIFIER	100 250	−1.0 −3.0	100 100	3.1 2.0	12.2 9.0	120000 1000000	1930 1850	——	——	——	6S7
6S7	DUPLEX-DIODE TRIODE	B3	8Q	H	6.3	0.15	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6SR7.										6S7
6T7-G	DUPLEX-DIODE HIGH-MU TRIODE	D8	G-7V‡	H	6.3	0.15	TRIODE UNIT AS CLASS A AMPLIFIER	135 250	−1.5 −3.0	——	——	0.9 1.2	65000 62000	1000 1050	65 65	——	——	6T7-G
								90 × Cath. Bias, 8300 ohms. 300 × Cath. Bias, 4580 ohms.		Grid Resistor,** 0.5 megohm.				Gain per stage = 30 Gain per stage = 40				
6U5/6G5	ELECTRON-RAY TUBE	D4	6R	H	6.3	0.3	VISUAL INDICATOR	Plate & Target Supply = 100 volts. Triode Plate Resistor = 0.5 meg. Target Current = 1.0 ma. Grid Bias, −8 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.19 ma. Plate & Target Supply = 250 volts. Triode Plate Resistor = 1.0 meg. Target Current = 4.0 ma. Grid Bias, −22 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.24 ma.										6U5/6G5
6U7-G	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	D-12a	G-7R‡	H	6.3	0.3	CLASS A AMPLIFIER	100 250	−3.0 −3.0	100 100	2.2 2.0	8.0 8.2	250000 800000	1500 1600	——	——	——	6U7-G
							MIXER IN SUPERHETERODYNE	100 250	−10.0 −10.0	100 100	——	——	Oscillator Peak Volts = 7.0					
6V6	BEAM POWER AMPLIFIER	C2	7AC	H	6.3	0.45	AMPLIFIER	For other characteristics, refer to Type 6V6-GT/G.										6V6
6V6-GT/G	BEAM POWER AMPLIFIER	C3	G-7AC‡	H	6.3	0.45	SINGLE-TUBE CLASS A AMPLIFIER	180 250 315	−8.5 −12.5 −13.0	180 250 225	3.0 4.5 2.2	29.0 52000 34.0	58000 52000 77000	3700 4100 3750	—— —— ——	5500 5000 8500	2.0 4.5 5.5	6V6-GT/G
							PUSH-PULL CLASS AB1 AMPLIFIER	250 285	−15.0 −19.0	250 285	5.0♣ 4.0♣	70.0♣ 70.0♣	—— ——	—— ——	—— ——	10000 8000	10.0† 14.0†	
6V7-G	DUPLEX-DIODE TRIODE	D8	G-7V‡	H	6.3	0.3	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 85.										6V7-G
6W7-G	TRIPLE-GRID DETECTOR AMPLIFIER	D8	G-7R‡	H	6.3	0.15	CLASS A AMPLIFIER	250	−3.0	100	0.5	2.0	1500000	1225	——	——	——	6W7-G
6X5	FULL-WAVE RECTIFIER	C2	6S	H	6.3	0.6	For other ratings, refer to Type 6X5-GT/G.											6X5
6X5-GT/G	FULL-WAVE RECTIFIER	C3	G-6S‡	H	6.3	0.6	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250				Max. D-C Output Ma., 70 Max. Peak Plate Ma., 210		Min. Total Effect. Supply Imped. per Plate, 150 ohms				6X5-GT/G
							WITH CHOKE-INPUT FILTER	Max. A-C Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250				Max. D-C Output Ma., 70 Max. Peak Plate Ma., 210		Min. Value of Input Choke, 8 henries			
6Y5	FULL-WAVE RECTIFIER	D5	6J	H	6.3	0.8	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 350 Max. D-C Output Ma., 50										6Y5
6Y6-G	BEAM POWER AMPLIFIER	D10	G-7AC‡	H	6.3	1.25	SINGLE-TUBE CLASS A AMPLIFIER	135 200	−13.5 −14.0	135 135	3.5 2.2	58.0 61.0	9300 18300	7000 7100	—— ——	2000 2600	3.6 6.0	6Y6-G
6Y7-G	TWIN TRIODE AMPLIFIER	D3	G-8B‡	H	6.3	0.6	CLASS B AMPLIFIER	180 250	0 0	——	——	Power Output is for one tube at stated plate-to-plate load.				7000 14000	5.5 8.0	6Y7-G
6Z5	FULL-WAVE RECTIFIER	D5	6K	H	6.3 12.6	0.8 0.4	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 230 Max. D-C Output Ma., 60										6Z5

RCA TYPE	NAME	DIMENSIONS SOCKET CONNECTIONS		CATHODE TYPE AND RATING			USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUPPLY VOLTS	GRID BIAS ■ VOLTS	SCREEN SUPPLY VOLTS	SCREEN CURRENT MA.	PLATE CURRENT MA.	A-C PLATE RESISTANCE OHMS	TRANSCONDUCTANCE (GRID-PLATE) μMHOS	AMPLIFICATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUTPUT WATTS	RCA TYPE
		DIMEN.	S. C.	C. T.	VOLTS	AMP.												
6Z7-G	TWIN TRIODE AMPLIFIER	D3	G-8B‡	H	6.3	0.3	CLASS B AMPLIFIER	135 180	0 0	——	——	Power Output is for one tube at stated plate-to-plate load.				9000 12000	2.5 4.2	6Z7-G
6ZY5-G	FULL-WAVE RECTIFIER	D3	G-4S‡	H	6.3	0.3	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 375 Max. Peak Inverse Volts, 1250				Max. D-C Output Ma., 40 Max. Peak Plate Ma., 120			Min. Total Effect. Supply Imped. per Plate, 225 ohms			6ZY5-G
							WITH CHOKE-INPUT FILTER	Max. A-C Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250				Max. D-C Output Ma., 40 Max. Peak Plate Ma., 120			Min. Value of Input Choke, 13.5 henries		
7A4	DETECTOR AMPLIFIER TRIODE	B5	6AC	H	6.3◆	0.3	AMPLIFIER	For other characteristics, refer to Type 6J5.										7A4
7A5	BEAM POWER AMPLIFIER	C6a	6AA	H	6.3◆	0.7	CLASS A AMPLIFIER	110 125	− 7.5 − 9.0	110 125	3.0 3.3	40.0 44.0	14000 17000	5800 6000	——	2500 2700	1.5 2.2	7A5
7A6	TWIN DIODE	B5	7A1	H	6.3⊠	0.15	DETECTOR RECTIFIER	Maximum A-C Voltage per Plate.....150 Volts, RMS Maximum D-C Output Current per plate.....8 Milliamperes										7A6
7A7	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	B6	8V	H	6.3◆	0.3	CLASS A AMPLIFIER	For other characteristics, refer to Type 6SK7.										7A7
7A8	OCTODE CONVERTER	B5	8U	H	6.3⊠	0.15	CONVERTER	100 250	− 3.0 − 3.0	75 100	2.7 3.2	1.8 3.0	650000 700000	Anode-Grid (■2): 250■ max. volts, 4.2 ma. Oscillator-Grid (■1) Resistor■, Conversion Transcond., 550 micromhos.				7A8
7B4	HIGH-MU TRIODE	B5	5AC	H	6.3◆	0.3	AMPLIFIER	For other characteristics, refer to Type 6SF5.										7B4
7B5	POWER AMPLIFIER PENTODE	C8	8AE	H	6.3◆	0.4	CLASS A AMPLIFIER	For other characteristics, refer to Type 6K6-GT/G.										7B5
7B6	DUPLEX-DIODE HIGH-MU TRIODE	B5	8W	H	6.3◆	0.3	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6SQ7.										7B6
7B7	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	B5	8V	H	6.3⊠	0.15	CLASS A AMPLIFIER	100 250	− 3.0 − 3.0	100 100	1.8 1.7	8.2 8.5	300000 750000	1675 1750	——	——	——	7B7
7B8	PENTAGRID CONVERTER	B5	8X	H	6.3◆	0.3	CONVERTER	For other characteristics, refer to Type 6A8.										7B8
7C5	BEAM POWER AMPLIFIER	C6	6AA	H	6.3‡	0.45	CLASS A AMPLIFIER	For other characteristics, refer to Type 6V6-GT/G.										7C5
7C6	DUPLEX-DIODE HIGH-MU TRIODE	B5	8W	H	6.3⊠	0.15	TRIODE UNIT AS CLASS A AMPLIFIER	250	− 1.0	——	——	1.3	100000	1000	100	——	——	7C6
7C7	TRIPLE-GRID DETECTOR AMPLIFIER	B5	8V	H	6.3⊠	0.15	CLASS A AMPLIFIER	100 250	− 3.0 − 3.0	100 100	0.4 0.5	1.8 2.0	1.2§ 2.0§	1225 1300	——	——	——	7C7

7E6	DUPLEX-DIODE TRIODE	B6	8W	H	6.3	0.3	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6R7.												7E6
7E7	DUPLEX-DIODE PENTODE	B5	8AE	H	6.3	0.3	PENTODE UNIT AS CLASS A AMPLIFIER	100 250	−1.0 −3.0	100 100	2.7 1.6	10.0 7.5	150000 700000	1600 1300	——	——	——			7E7
7F7	TWIN TRIODE AMPLIFIER	B5	8AC	H	6.3	0.3	EACH UNIT AS AMPLIFIER	For other characteristics, refer to Type 6SL7-GT.												7F7
7G7/ 1232	TELEVISION AMPLIFIER PENTODE	B5	8V	H	6.3	0.45	CLASS A AMPLIFIER	250	−2.0	100	2.0	6.0	800000	4500	——	——	——			7G7/ 1232
7H7	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	B5	8V	H	6.3	0.3	CLASS A AMPLIFIER	100 250	−1.0 −2.5	100 150	3.3 3.5	8.2 9.5	250000 800000	3800 3800	——	——	——			7H7
7J7	TRIODE-HEPTODE CONVERTER	B6	8AR	H	6.3	0.3	TRIODE UNIT AS OSCILLATOR	100 250	Triode-Grid Resistor =			3.7 5.4	Triode-Grid & Hexode-Grid Current, 0.3 ma. Triode-Grid & Hexode-Grid Current, 0.4 ma.							7J7
							HEXODE UNIT AS MIXER	100 250	−3.0 −3.0	100 100	3.1 2.9	1.1 1.3	300000 1.5§	Conversion Transcond., 260 micromhos. Conversion Transcond., 300 micromhos.					
7Q7	PENTAGRID CONVERTER	B5	8AL	H	6.3	0.3	CONVERTER	100 250	−2.0 −2.0	100 100	8.5 8.5	3.3 3.5	500000 1000000	Grid #1 Resistor, 20000 ohms. Conversion Transcond., 550 micromhos.						7Q7
7Y4	FULL-WAVE RECTIFIER	B5	8AB	H	6.3	0.5	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250				Max. D-C Output Ma., 60 Max. Peak Plate Ma., 180		Min. Total Effect. Supply Imped. per Plate, 150 ohms.						7Y4
							WITH CHOKE-INPUT FILTER	Max. A-C Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250				Max. D-C Output Ma., 60 Max. Peak Plate Ma., 180		Min. Value of Input Choke, 10 henries					
10	POWER AMPLIFIER TRIODE	E3	4D	F	7.5	1.25	CLASS A AMPLIFIER	350 425	−32.0 −40.0	——	——	16.0 18.0	5150 5000	1550 1600	8.0 8.0	11000 10200	0.9 1.6			10
11 12	DETECTOR★ AMPLIFIER TRIODE	D2 D11	4F 4D	D.C. F	1.1	0.25	CLASS A AMPLIFIER	90 135	−4.5 −10.5	——	——	2.5 3.0	15500 15000	425 440	6.6 6.6	——	——			11 12
12A5	POWER AMPLIFIER PENTODE	D6	7F	H	6.3 12.6	0.6 0.3	CLASS A AMPLIFIER	100 250	−15.0 −25.0	100 180	3.0 8.0	17.0 45.0	50000 35000	1700 2400	——	4500 3300	0.8 3.4			12A5
12A7	RECTIFIER-PENTODE	D9	7K	H	12.6	0.3	PENTODE UNIT AS CLASS A AMPLIFIER	135	−13.5	135	2.5	9.0	102000	975	——	13500	0.55			12A7
							HALF-WAVE RECTIFIER	Maximum A-C Plate Voltage ..... 125 Volts, RMS Maximum D-C Output Current ..... 30 Milliamperes										
12A8-GT	PENTAGRID CONVERTER●	C3	GT-8A§	H	12.6	0.15	CONVERTER	For other characteristics, refer to Type 6A8.												12A8-GT
12AH7-GT	TWIN TRIODE	C0	8BE	H	12.6	0.15	EACH UNIT AS CLASS A AMPLIFIER	100 180	−3.6 −6.5	——	——	3.7 7.6	10300 8400	1550 1900	16 16	——	——			12AH7-GT
12B8-GT	TRIODE-PENTODE	C7●	8T	H	12.6	0.3	TRIODE UNIT AS CLASS A AMPLIFIER	90	0	——	——	2.8	37000	2400	90	——	——			12B8-GT
							PENTODE UNIT AS CLASS A AMPLIFIER	90	−3.0	90	2.0	7.0	200000	1800	——	——	——			
12C8	DUPLEX-DIODE PENTODE	C1	8E	H	12.6	0.15	PENTODE UNIT AS R-F AMPLIFIER	250	−3.0	125	2.3	10.0	600000	1325	——	——	——			12C8
							PENTODE UNIT AS A-F AMPLIFIER	90 ✕ Cath. Bias, 3500 ohms. Screen Resistor = 1.1 meg. Grid Resistor,** 0.5 megohm. Gain per stage = 55 300 ✕ Cath. Bias, 1600 ohms. Screen Resistor = 1.2 meg. Gain per stage = 79										

RCA TYPE	NAME	DIMENSIONS SOCKET CONNECTIONS		CATHODE TYPE AND RATING			USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUPPLY VOLTS	GRID BIAS ■ VOLTS	SCREEN SUPPLY VOLTS	SCREEN CURRENT MA.	PLATE CURRENT MA.	A-C PLATE RESISTANCE OHMS	TRANSCONDUCTANCE (GRID-PLATE) μMHOS	AMPLIFICATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUTPUT WATTS	RCA TYPE
		DIMEN.	S.C.	C.T.	VOLTS	AMP.												
12F5-GT	HIGH-MU TRIODE	C3	G-5M‡	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 6SF5.										12F5-GT
12H6	TWIN DIODE	A1	7Q	H	12.6	0.15	DETECTOR RECTIFIER	For other ratings, refer to Type 6H6.										12H6
12J5-GT	DETECTOR AMPLIFIER TRIODE	C3	GT-6Q‡	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 6J5.										12J5-GT
12J7-GT	TRIPLE-GRID DETECTOR AMPLIFIER	C3	GT-7R▲	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 6J7.										12J7-GT
12K7-GT	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	C3	GT-7R▲	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 6K7.										12K7-GT
12K8	TRIODE-HEXODE CONVERTER	C1	8K	H	12.6	0.15	OSCILLATOR MIXER	For other characteristics, refer to Type 6K8.										12K8
12Q7-GT	DUPLEX-DIODE HIGH-MU TRIODE	C3	GT-7V▲	H	12.6	0.15	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6Q7.										12Q7-GT
12SA7	PENTAGRID CONVERTER▲	B3	8R	H	12.6	0.15	MIXER	For other characteristics, refer to Type 6SA7.										12SA7
12SA7-GT/G	PENTAGRID CONVERTER▲	C3	GT-8AD	H	12.6	0.15	MIXER	For other characteristics, refer to Type 6SA7.										12SA7-GT/G
12SC7	TWIN TRIODE AMPLIFIER	B3	8S	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 6SC7.										12SC7
12SF5	HIGH-MU TRIODE	B3	6AB	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 6SF5.										12SF5
12SF5-GT	HIGH-MU TRIODE	C3	G-6AB‡	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 6SF5.										12SF5-GT
12SF7	DIODE SUPER-CONTROL AMPLIFIER PENTODE	B3	7AZ	H	12.6	0.15	PENTODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6SF7.										12SF7
12SG7	H-F AMPLIFIER PENTODE	B3	8BK	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 6SG7.										12SG7
12SH7	H-F AMPLIFIER PENTODE	B3	8BK	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 6SH7.										12SH7
12SJ7	TRIPLE-GRID DETECTOR AMPLIFIER	B3	8N	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 6SJ7.										12SJ7

12SJ7-GT	TRIPLE-GRID DETECTOR AMPLIFIER	C3	GT-8N	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 6SJ7.											12SJ7-GT
12SK7	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	B3	8N	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 6SK7.											12SK7
12SK7-GT/G	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	C3	GT-8N	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 6SK7.											12SK7-GT/G
12SL7-GT	TWIN TRIODE AMPLIFIER	C3	8BD	H	12.6	0.15	EACH UNIT AS AMPLIFIER	For other characteristics, refer to Type 6SL7-GT.											12SL7-GT
12SN7-GT	TWIN TRIODE AMPLIFIER	C3	8BD	H	12.6	0.3	EACH UNIT AS AMPLIFIER	For other characteristics, refer to Type 6J5.											12SN7-GT
12SQ7	DUPLEX-DIODE HIGH-MU TRIODE	B3	8Q	H	12.6	0.15	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6SQ7.											12SQ7
12SQ7-GT/G	DUPLEX-DIODE HIGH-MU TRIODE	C3	GT-8Q	H	12.6	0.15	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6SQ7.											12SQ7-GT/G
12SR7	DUPLEX DIODE TRIODE	B3	8Q	H	12.6	0.15	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 6SR7.											12SR7
12Z3	HALF-WAVE RECTIFIER	D5	4G	H	12.6	0.3	WITH CONDENSER-INPUT FILTER	Max. A-C Plate Volts (RMS), 235 Max. D-C Output Ma., 55					Min. Total Effective Plate-Supply Impedance: Up to 117 volts, 0 ohms, at 150 volts, 30 ohms, at 235 volts, 75 ohms.						12Z3
14A7/12B7	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	B5	8V	H	12.6	0.15	CLASS A AMPLIFIER	100 250	−1.0 −3.0	100 100	4.0 2.6	13.0 9.2	120000 800000	2350 2000	— —	— —	— —		14A7/12B7
15	R-F AMPLIFIER PENTODE	D9	5F	D.C. H	2.0	0.22	CLASS A AMPLIFIER	67.5 135	−1.5 −1.5	67.5 67.5	0.3 0.3	1.85 1.85	630000 800000	710 750	— —	— —	— —		15
19	TWIN TRIODE AMPLIFIER	D5	6C	D.C. F	2.0	0.26	AMPLIFIER	For other characteristics, refer to Type 1J6-G.											19
20	POWER AMPLIFIER TRIODE	D1	4D	D.C. F	3.3	0.132	CLASS A AMPLIFIER	90 135	−16.5 −22.5	— —	— —	3.0 6.5	8000 6300	415 525	3.3 3.3	9600 6500	0.045 0.110		20
22	R-F AMPLIFIER TETRODE	E1	4K	D.C. F	3.3	0.132	SCREEN-GRID R-F AMPLIFIER	135 135	−1.5 −1.5	45 67.5	0.6* 1.3*	1.7 3.7	725000 325000	375 500	— —	— —	— —		22
24-A	R-F AMPLIFIER TETRODE	E1	5E	H	2.5	1.75	SCREEN-GRID R-F AMPLIFIER	180 250	−3.0 −3.0	90 90	1.7* 1.7*	4.0 4.0	400000 600000	1000 1050	— —	— —	— —		24-A
							BIAS DETECTOR	250●	−5.0 approx.	20 to 45	—	Plate current to be adjusted to 0.1 milliampere with no signal.							
25A6	POWER AMPLIFIER PENTODE	C2	7S	H	25.0	0.3	AMPLIFIER	For other characteristics, refer to Type 25A6-GT/G.											25A6
25A6-GT/G	POWER AMPLIFIER PENTODE	C3	G-7S	H	25.0	0.3	CLASS A AMPLIFIER	95 160	−15.0 −18.0	95 120	4.0 6.5	20.0 33.0	45000 42000	2000 2375	— —	4500 5000	0.9 2.2		25A6-GT/G
25A7-GT/G	RECTIFIER PENTODE	C3	8F	H	25.0	0.3	PENTODE UNIT AS CLASS A AMPLIFIER	100	−15.0	100	4.0	20.5	50000	1800	—	4500	0.77		25A7-GT/G
							HALF-WAVE RECTIFIER	Max. A-C Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. D-C Output Ma., 75 Max. Peak Plate Ma., 450		Min. Total Effect. Supply Impedance, 15 ohms.				

RCA TYPE	NAME	DIMENSIONS SOCKET CONNEC- DIMEN.	S.C.	CATHODE TYPE AND RATING C.T.	VOLTS	AMP.	USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUP- PLY VOLTS	GRID BIAS ■ VOLTS	SCREEN SUPPLY VOLTS	SCREEN CUR- RENT MA.	PLATE CUR- RENT MA.	A-C PLATE RESIS- TANCE OHMS	TRANS- CONDUC- TANCE (GRID- PLATE) μ MHOS	AMPLIFI- CATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUT- PUT WATTS	RCA TYPE
25AC5-GT/G	HIGH-MU POWER AMPLIFIER TRIODE	C3	G-6Q‡	H	25.0	0.3	CLASS B AMPLIFIER	180	0	—	—	4.0♣		—	—	4800	6.0	25AC5-GT/G
							DYNAMIC-COUPLED AMP. WITH TYPE 6AE5-GT DRIVER	110	Bias for both 25AC5-GT/G and 6AE5-GT/G developed in circuit. Average Plate Current of Driver = 7 milliamperes. Average Plate Current of 25AC5-GT/G = 45 milliamperes.							2000	2.0	
25B5	DIRECT-COUPLED POWER AMPLIFIER	D9a	6D	H	25.0	0.3	AMPLIFIER	For other characteristics, refer to Type 25N6-G.										25B5
25B6-G	POWER AMPLIFIER PENTODE	D10	G-7S‡	H	25.0	0.3	CLASS A AMPLIFIER	105	−16.0	105	2.0	48.0	15500	4800	—	1700	2.4	25B6-G
								200	−23.0	135	1.8	62.0	18000	5000		2500	7.1	
25B8-GT	TRIODE-PENTODE	C3	8T	H	25.0	0.15	TRIODE UNIT AS CLASS A AMPLIFIER	100	− 1.0	—	—	0.6	75000	1500	112	—	—	25B8-GT
							PENTODE UNIT AS CLASS A AMPLIFIER	100	− 3.0	100	2.0	7.6	135000	2000	—	—	—	
25C6-G	BEAM POWER AMPLIFIER	D10	G-7AC‡	H	25.0	0.3	CLASS A AMPLIFIER	For other characteristics, refer to Type 6Y6-G.										25C6-G
25L6	BEAM POWER AMPLIFIER	C2	7AC	H	25.0	0.3	AMPLIFIER	For other characteristics, refer to Type 50L6-GT.										25L6
25L6-GT/G	BEAM POWER AMPLIFIER	C3	G-7AC‡	H	25.0	0.3	AMPLIFIER	For other characteristics, refer to Type 50L6-GT.										25L6-GT/G
25N6-G	DIRECT-COUPLED POWER AMPLIFIER	D9	G-7W	H	25.0	0.3	CLASS A AMPLIFIER	Output Triode: Plate Volts, 180; Plate Ma., 46; Load, 4000 ohms. Input Triode: Plate Volts, 100; Grid Volts, 0; A-F Signal Volts (Peak), 29.7; Plate Ma., 5.8.									3.8	25N6-G
25Y5	RECTIFIER-DOUBLER	D5	6E	H	25.0	0.3	HALF-WAVE RECTIFIER	Max. A-C Volts per Plate (RMS), 235 Max. D-C Output Ma. per Plate, 75				Min. Total Effective Plate-Supply Impedance per Plate, 0 ohms.						25Y5
25Z5	RECTIFIER-DOUBLER	D5	6E	H	25.0	0.3	RECTIFIER-DOUBLER	For other ratings, refer to Type 25Z6.										25Z5
25Z6	RECTIFIER-DOUBLER	C2	7Q	H	25.0	0.3	VOLTAGE DOUBLER	Max. A-C Volts per Plate (RMS), 117 Max. D-C Output Ma., 75				Min. Total Effective Plate-Supply Impedance: Half-Wave, 30 ohms: Full-Wave, 15 ohms.						25Z6
							HALF-WAVE RECTIFIER	Max. A-C Volts per Plate (RMS), 235 Max. D-C Output Ma. per Plate, 75				Min. Total Effect. Supply Imped. per Plate: Up to 117 volts, 15 ohms; at 150 volts, 40 ohms; at 235 volts, 100 ohms.				
25Z6-GT/G	RECTIFIER-DOUBLER	C3	G-7Q‡	H	25.0	0.3	RECTIFIER-DOUBLER	For other ratings, refer to Type 25Z6.										25Z6-GT/G
26	AMPLIFIER TRIODE	D12	4D	F	1.5	1.05	CLASS A AMPLIFIER	90	−7.0	—	—	2.9	8900	935	8.3	—	—	26
								180	−14.5			6.2	7300	1150	8.3			

27	DETECTOR★ AMPLIFIER TRIODE	D5	5A	H	2.5	1.75	CLASS A AMPLIFIER	135 250	−9.0 −21.0	—	—	4.5 5.2	9000 9250	1000 975	9.0 9.0	—	—	27
							BIAS DETECTOR	250	−30.0 approx.	—	—	Plate current to be adjusted to 0.2 milliampere with no signal.						
30	DETECTOR★ AMPLIFIER TRIODE	D5	4D	D.C. F	2.0	0.06	AMPLIFIER	For other characteristics, refer to Type 1H4-G.										30
31	POWER AMPLIFIER TRIODE	D5	4D	D.C. F	2.0	0.13	CLASS A AMPLIFIER	135 180	−22.5 −30.0	—	—	8.0 12.3	4100 3600	925 1050	3.8 3.8	7000 5700	0.185 0.375	31
32	R-F AMPLIFIER TETRODE	E1	4K	D.C. F	2.0	0.06	SCREEN-GRID R-F AMPLIFIER	135 180	−3.0 −3.0	67.5 67.5	0.4* 0.4*	1.7 1.7	950000 1200000	640 650	—	—	—	32
							BIAS DETECTOR	180▼	−6.0 approx.	67.5	—	Plate current to be adjusted to 0.2 milliampere with no signal.						
32L7-GT	RECTIFIER-BEAM POWER AMPLIFIER	C8	8Z	H	32.5	0.3	AMPLIFIER UNIT AS CLASS A AMPLIFIER	90 90	−5.0 −7.0	90 90	3.0 2.0	38.0 37.0	15000 17000	6000 4800	—	2600 2600	0.8 1.0	32L7-GT
							HALF-WAVE RECTIFIER	Maximum A-C Plate Voltage ..... 125 Volts, RMS Maximum D-C Output Current ..... 60 Milliamperes.										
33	POWER AMPLIFIER PENTODE	D1Z	5K	D.C. F	2.0	0.26	CLASS A AMPLIFIER	180	−18.0	180	5.0	22.0	55000	1700	—	6000	1.5	33
34	SUPER-CONTROL R-F AMPLIFIER PENTODE	E1	4M	D.C. F	2.0	0.06	SCREEN-GRID R-F AMPLIFIER	135 180	−3.0 min.	67.5 67.5	1.0 1.0	2.8 2.8	600000 1000000	600 620	—	—	—	34
35	SUPER-CONTROL R-F AMPLIFIER TETRODE	E1	5E	H	2.5	1.75	SCREEN-GRID R-F AMPLIFIER	180 250	−3.0 min.	90 90	2.5* 2.5*	6.3 6.5	300000 400000	1020 1050	—	—	—	35
35A5	BEAM POWER AMPLIFIER	C8	8AA	H	35.0	0.15	SINGLE-TUBE CLASS A AMPLIFIER	For other characteristics, refer to Type 35L6-GT/G.										35A5
35L6-GT/G	BEAM POWER AMPLIFIER	C3	G-7AC‡	H	35.0	0.15	SINGLE-TUBE CLASS A AMPLIFIER	110 200	−7.5 −8.0	110 110	3.0 2.0	40.0 41.0	14000 40000	5800 5900	—	2500 4500	1.5 3.3	35L6-GT/G
35Z3	HALF-WAVE RECTIFIER	C8	4Z	H	35.0	0.15	WITH CONDENSER-INPUT FILTER	For other ratings, refer to Type 35Z4-GT.										35Z3
35Z4-GT	HALF-WAVE RECTIFIER	C3	G-5AA	H	35.0	0.15	WITH CONDENSER-INPUT FILTER	Max. A-C Plate Volts (RMS), 235 Max. D-C Output Ma., 100				Min. Total Effective Plate-Supply Impedance: Up to 117 volts, 15 ohms; at 235 volts, 100 ohms.						35Z4-GT
35Z5-GT/G	HALF-WAVE RECTIFIER Heater Tap for Pilot	C3	G-6AD	H	35.0	0.15	WITH CONDENSER-INPUT FILTER	Max. A-C Plate Volts (RMS), 235 ohms; at 235 volts, 100 ohms. Max. D-C Output Ma.: With Pilot and No Shunt Res., 60; With Pilot and Shunt Res., 90; Without Pilot, 100.				Min. Total Effect. Plate-Supply Imped.: Up to 117 volts, 15						35Z5-GT/G
36	R-F AMPLIFIER TETRODE	D6	8E	H	6.3	0.3	SCREEN-GRID R-F AMPLIFIER	100 250	−1.5 −3.0	55 90	— 1.7*	1.8 3.2	550000 550000	850 1080	—	—	—	36
							BIAS DETECTOR	100● 250●	−5.0 −8.0	55 90	—	Grid-bias values are approximate. Plate current to be adjusted to 0.1 milliampere with no signal.						

RCA TYPE	NAME	DIMENSIONS SOCKET CONNEC-TIONS		CATHODE TYPE AND RATING			USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUP-PLY VOLTS	GRID BIAS ■ VOLTS	SCREEN SUPPLY VOLTS	SCREEN CUR-RENT MA.	PLATE CUR-RENT MA.	A-C PLATE RESIS-TANCE OHMS	TRANS-CONDUC-TANCE (GRID-PLATE) μMHOS	AMPLIFI-CATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUT-PUT WATTS	RCA TYPE
		DIMEN.	S.C.	C.T.	VOLTS	AMP.												
37	DETECTOR▲ AMPLIFIER TRIODE	D5	5A	H	6.3	0.3	CLASS A AMPLIFIER	90 250	− 6.0 −18.0	——	——	2.5 7.5	11500 8400	800 1100	9.2 9.2	——	——	37
							BIAS DETECTOR	90 250	−10.0 −28.0	——	——	Grid-bias values are approximate. Plate current to be adjusted to 0.2 milliampere with no signal.						
38	POWER AMPLIFIER PENTODE	D9	5F	H	6.3	0.3	CLASS A AMPLIFIER	100 250	− 9.0 −25.0	100 250	1.2 3.8	7.0 22.0	140000 100000	875 1200	•	15000 10000	0.27 2.50	38
39/44	SUPER-CONTROL R-F AMPLIFIER PENTODE	D9	5F	H	6.3	0.3	CLASS A AMPLIFIER	90 250	{ − 3.0 min. }	90 90	1.6 1.4	5.6 5.8	300000 800000	1000 1050	——	——	——	39/44
40	VOLTAGE AMPLIFIER TRIODE	D12	4D	D.C. F	5.0	0.25	CLASS A AMPLIFIER	135✕ 180✕	− 1.5 − 3.0	——	——	0.2 0.2	150000 150000	200 200	30 30	——	——	40
41	POWER AMPLIFIER PENTODE	D5	6B	H	6.3	0.4	AMPLIFIER	For other characteristics, refer to Type 6K6-GT/G.										41
42	POWER AMPLIFIER PENTODE	D12	6B	H	6.3	0.7	AMPLIFIER	For other characteristics, refer to Type 6F6-G.										42
43	POWER AMPLIFIER PENTODE	D12	6B	H	25.0	0.3	AMPLIFIER	For other characteristics, refer to Type 25A6-GT/G.										43
45	POWER AMPLIFIER TRIODE	D12	4D	F	2.5	1.5	CLASS A AMPLIFIER	180 275	−31.5 −56.0	——	——	31.0 36.0	1650 1700	2125 2050	3.5 3.5	2700 4600	0.82 2.00	45
							PUSH-PULL CLASS AB1 AMPLIFIER	275 275	Cath. Bias, 775 ohms◆ −68.0 volts, fixed bias			36.0◆ 28.0◆	——	——	——	5060 3200	12.0† 18.0†	
45Z3	HALF-WAVE RECTIFIER	B0	5AM	H	45.0	0.075	HALF-WAVE RECTIFIER	Max. A-C Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. D-C Output Ma., 65 Max. Peak Plate Ma., 390			Min. Total Effect. Plate-Supply Imped., 15 ohms.			45Z3
45Z5-GT	HALF-WAVE RECTIFIER Heater Tap for Pilot	C3	G-6AD	H	45.0	0.15	WITH CONDENSER-INPUT FILTER	For other ratings, refer to Type 35Z5-GT/G.										45Z5-GT
46	DUAL-GRID POWER AMPLIFIER	E3	5C	F	2.5	1.75	CLASS A AMPLIFIER□	250	−33.0	——	——	22.0	2380	2350	5.6	6400	1.25	46
							CLASS B AMPLIFIER◆	300 400	0 0	——	——	8.0◆ 12.0◆	——	——	——	5200 5800	16.0† 20.0†	
47	POWER AMPLIFIER PENTODE	E3	5B	F	2.5	1.75	CLASS A AMPLIFIER	250	−16.5	250	6.0	31.0	60000	2500	——	7000	2.7	47
48	POWER AMPLIFIER TETRODE	E3	6A	D.C. H	30.0	0.4	TETRODE CLASS A AMPLIFIER	96 125	−19.0 −20.0	96 100	9.0 9.5	52.0 56.0	——	3800 3900	——	1500 1500	2.0 2.5	48
							TETRODE PUSH-PULL CLASS A AMPLIFIER	125	−20.0	100	——	100.0◆	——	——	——	3000	5.0†	

49	DUAL-GRID POWER AMPLIFIER	D12	5C	D.C. F	2.0	0.12	CLASS A AMPLIFIER □	135	−20.0	——	——	6.0	4175	1125	4.7	11000	0.17	49
							CLASS B AMPLIFIER ◆	180	0	——	——	4.0 ♣	——	——	——	12000	3.5†	
50	POWER AMPLIFIER TRIODE	F1	4D	F	7.5	1.25	CLASS A AMPLIFIER	300	−54.0	——	——	35.0	2000	1900	3.8	4600	1.6	50
								400	−70.0	——	——	55.0	1800	2100	3.8	3670	3.4	
								450	−84.0	——	——	55.0	1800	2100	3.8	4350	4.6	
50L6-GT	BEAM POWER AMPLIFIER	C3	G-7AC‡	H	50.0	0.15	SINGLE-TUBE CLASS A AMPLIFIER	110	− 7.5	110	4.0	49.0	13000	9000	——	2000	2.1	50L6-GT
								200	− 8.0	110	2.0	50.0	30000	9500	——	3000	4.3	
50Y6-GT/G	RECTIFIER-DOUBLER	C3	G-7Q‡	H	50.0	0.15	RECTIFIER-DOUBLER	For other ratings, refer to Type 25Z6.										50Y6-GT/G
50Z7-G	RECTIFIER-DOUBLER Heater Tap for Pilot	D3	G-8AN	H	50.0	0.15	VOLTAGE DOUBLER	Max. A-C Volts per Plate (RMS), 117 Max. D-C Output Ma., 65				Min. Total Effective Plate-Supply Impedance: 15 ohms.						50Z7-G
							HALF-WAVE RECTIFIER	Max. A-C Volts per Plate (RMS), 235 Max. D-C Output Ma. per Plate, 65				Min. Total Effective Plate-Supply Impedance per Plate: Up to 117 volts, 15 ohms; at 235 volts, 100 ohms.					
53	TWIN TRIODE AMPLIFIER	D12	7B	H	2.5	2.0	AMPLIFIER	For other characteristics, refer to Type 6N7-GT/G.										53
55	DUPLEX-DIODE TRIODE	D9	6G	H	2.5	1.0	TRIODE UNIT AS AMPLIFIER	For other characteristics, refer to Type 85.										55
56	DETECTOR AMPLIFIER TRIODE★	D5	5A	H	2.5	1.0	AMPLIFIER DETECTOR	For other characteristics, refer to Type 6P5-GT/G.										56
57	TRIPLE-GRID DETECTOR AMPLIFIER	D13	6F	H	2.5	1.0	AMPLIFIER DETECTOR	For other characteristics, refer to Type 6J7.										57
58	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	D13	6F	H	2.5	1.0	AMPLIFIER MIXER	For other characteristics, refer to Type 6U7-G.										58
59	TRIPLE-GRID POWER AMPLIFIER	E3	7A	H	2.5	2.0	TRIODE ¶ CLASS A AMPLIFIER	250	−28.0	——	——	26.0	2300	2600	6.0	5000	1.25	59
							PENTODE★★ CLASS A AMPLIFIER	250	−18.0	250	9.0	35.0	40000	2500	——	6000	3.0	
							TRIODE¶ CLASS B AMPLIFIER	300	0	——	——	20.0 ♣	——	——	——	4600	15.0†	
								400	0	——	——	26.0 ♣	——	——	——	6000	20.0†	
70L7-GT	RECTIFIER-BEAM POWER AMPLIFIER	C5b	8AA	H	70.0	0.15	AMPLIFIER UNIT AS CLASS A AMPLIFIER	110	− 7.5	110	3.0	40.0	15000	7500	——	2000	1.8	70L7-GT
							HALF-WAVE RECTIFIER	Max. A-C Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. D-C Output Ma., 70 Max. Peak Plate Ma., 420			Min. Total Effect. Plate-Supply Imped., 15 ohms			
71-A	POWER AMPLIFIER TRIODE	D12	4D	F	5.0	0.25	CLASS A AMPLIFIER	90	−19.0	——	——	10.0	2170	1400	3.0	3000	0.125	71-A
								180	−43.0	——	——	20.0	1750	1700	3.0	4800	0.799	
75	DUPLEX-DIODE HIGH-MU TRIODE	D9	6Q	H	6.3	0.3	AMPLIFIER	For other characteristics, refer to Type 6SQ7.										75
76	DETECTOR AMPLIFIER TRIODE★	D5	5A	H	6.3	0.3	AMPLIFIER DETECTOR	For other characteristics, refer to Type 6P5-GT/G.										76

RCA TYPE	NAME	DIMENSIONS SOCKET CONNECTIONS		CATHODE TYPE AND RATING			USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUPPLY VOLTS	GRID BIAS ■ VOLTS	SCREEN SUPPLY VOLTS	SCREEN CURRENT MA.	PLATE CURRENT MA.	A-C PLATE RESISTANCE OHMS	TRANSCONDUCTANCE (GRID-PLATE) μ MHOS	AMPLIFICATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUTPUT WATTS	RCA TYPE
		DIMEN.	S. C.	C. T.	VOLTS	AMP.												
77	TRIPLE-GRID DETECTOR AMPLIFIER	D9	6F	H	6.3	0.3	CLASS A AMPLIFIER	100 250	− 1.5 − 3.0	60 100	0.4 0.5	1.7 2.3	600000 1.0+§	1100 1250	——	——	——	77
							BIAS DETECTOR	250	− 1.95	50	Cathode current 0.65 ma.		——	Plate Resistor, 250000 ohms. Grid Resistor,** 250000 ohms.				
78	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	D9	6F	H	6.3	0.3	AMPLIFIER MIXER	For other characteristics, refer to Type 6K7.										78
79	TWIN TRIODE AMPLIFIER	D9	6H	H	6.3	0.6	CLASS B AMPLIFIER	For other characteristics, refer to Type 6Y7-G.										79
80	FULL-WAVE RECTIFIER	D12	4C	F	5.0	2.0	For other ratings, refer to Type 5Y3-GT/G.											80
81	HALF-WAVE RECTIFIER	F1	4B	F	7.5	1.25	WITH CONDENSER-INPUT FILTER	Max. A-C Plate Volts (RMS), 700 Max. Peak Inverse Volts, 2000					Max. D-C Output Ma., 85 Max. Peak Plate Ma., 500					81
82	FULL-WAVE ▶ RECTIFIER	D12	4C	F	2.5	3.0	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550					Max. D-C Output Ma., 115 Max. Peak Plate Ma., 600		Min. Total Effect. Supply Imped. per Plate, 50 ohms.			82
							WITH CHOKE-INPUT FILTER	Max. A-C Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550					Max. D-C Output Ma., 115 Max. Peak Plate Ma., 600		Min. Value of Input Choke, 6 henries			
83	FULL-WAVE ▶ RECTIFIER	E3	4C	F	5.0	3.0	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550					Max. D-C Output Ma., 225 Max. Peak Plate Ma., 1000		Min. Total Effect. Supply Imped. per Plate, 50 ohms.			83
							WITH CHOKE-INPUT FILTER	Max. A-C Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550					Max. D-C Output Ma., 225 Max. Peak Plate Ma., 1000		Min. Value of Input Choke, 3 henries			
83-v	FULL-WAVE RECTIFIER	D12	4AD	H	5.0	2.0	For other ratings, refer to Type 5V4-G.											83-v
84/6Z4	FULL-WAVE RECTIFIER	D8	5D	H	6.3	0.5	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250					Max. D-C Output Ma., 60 Max. Peak Plate Ma., 180		Min. Total Effect. Supply Imped. per Plate, 150 ohms.			84/6Z4
							WITH CHOKE-INPUT FILTER	Max. A-C Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250					Max. D-C Output Ma., 60 Max. Peak Plate Ma., 180		Min. Value of Input Choke, 10 henries			
85	DUPLEX-DIODE TRIODE	D9	6G	H	6.3	0.3	TRIODE UNIT AS CLASS A AMPLIFIER	135 250	−10.5 −20.0	——	——	3.7 8.0	11000 7500	750 1100	8.3 8.3	25000 20000	0.075 0.350	85
89	TRIPLE-GRID POWER AMPLIFIER	D9	6F	H	6.3	0.4	AS TRIODE ¶ CLASS A AMPLIFIER	160 250	−20.0 −31.0	——	——	17.0 32.0	3300 2600	1425 1800	4.7 4.7	7000 5500	0.30 0.90	89
							AS PENTODE ** CLASS A AMPLIFIER	100 250	−10.0 −25.0	100 250	1.6 5.5	9.5 32.0	104000 70000	1200 1800	——	10700 6750	0.33 3.40	
							AS TRIODE ❦ CLASS B AMPLIFIER	180	0	——	——	6.0♣	——	——	——	13600 9400	2.50† 3.50†	

V-99 X-99	DETECTOR★ AMPLIFIER TRIODE	C6 D1	4E 4D	D.C. F	3.3	0.063	CLASS A AMPLIFIER	90	− 4.5	—	—	2.5	15500	425	6.6	—	—	V-99 X-99
112-A	DETECTOR★ AMPLIFIER TRIODE	D12	4D	D.C. F	5.0	0.25	CLASS A AMPLIFIER	90 180	− 4.5 −13.5	— —	— —	5.0 7.7	5400 4700	1575 1800	8.5 8.5	—	—	112-A
117L/M7-GT	RECTIFIER-BEAM POWER AMPLIFIER	C5b	8AO	H	117	0.09	AMPLIFIER UNIT AS CLASS A AMPLIFIER	105	− 5.2	105	4.0	43.0	17000	5300	—	4000	0.85	117L/M7-GT
							HALF-WAVE RECTIFIER	Max. A-C Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. D-C Output Ma., 75 Max. Peak Plate Ma., 450		Min. Total Effect. Plate-Supply Imped., 15 ohms.			
117N7-GT	RECTIFIER-BEAM POWER AMPLIFIER	C5b	8AV	H	117	0.09	AMPLIFIER UNIT AS CLASS A AMPLIFIER	100	− 6.0	100	5.0	51.0	16000	7000	—	3000	1.2	117N7-GT
							HALF-WAVE RECTIFIER	Max. A-C Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. D-C Output Ma., 75 Max. Peak Plate Ma., 450		Min. Total Effect. Plate-Supply Impedance, 15 ohms.			
117P7-GT	RECTIFIER-BEAM POWER AMPLIFIER	C5b	8AV	H	117	0.09	AMPLIFIER UNIT AS CLASS A AMPLIFIER	For other characteristics, refer to Type 117L/M7-GT.										117P7-GT
							HALF-WAVE RECTIFIER	For other ratings, refer to Type 117L/M7-GT.										
1172-GT/G	RECTIFIER-DOUBLER	C3	G-7Q‡	H	117	0.075	VOLTAGE DOUBLER	Max. A-C Volts per Plate (RMS), 117 Max. D-C Output Ma., 60				Min. Total Effective Plate-Supply Impedance per Plate: Half-Wave, 30 ohms; Full-Wave, 15 ohms.						1172-GT/G
							HALF-WAVE RECTIFIER	Max. A-C Volts per Plate (RMS), 235 Max. D-C Output Ma. per Plate, 60				Min. Total Effect. Supply Imped. per Plate: Up to 117 volts, 15 ohms; at 150 volts, 40 ohms; at 235 volts, 100 ohms.					
183/483	POWER AMPLIFIER TRIODE	D12	4D	F	5.0	1.25	CLASS A AMPLIFIER	250	−60.0	—	—	30.0	1750	1700	3.0	5000	1.8	183/483
485	DETECTOR AMPLIFIER TRIODE	D5	5A	H	3.0	1.25	CLASS A AMPLIFIER	180	− 9.0	—	—	5.8	8900	1400	12.5	—	—	485
876	CURRENT REGULATOR	G1	—	F	—	—	Voltage Range	40 to 60 Volts				Operating Current			1.7 Amperes			876
886	CURRENT REGULATOR	G1	—	F	—	—	Voltage Range	40 to 60 Volts				Operating Current			2.05 Amperes			886

The type numbers shown in light face are included in the War Production Board's Limitation Order L-76 discontinuing the manufacture of certain receiving tubes for general civilian use.

★ For Grid-leak Detection—plate volts 45, grid return to + filament or to cathode.

■ Either A. C. or D. C. may be used on filament or heater, except as specifically noted. For use of D.C. on A-C filament types, decrease stated grid volts by $\frac{1}{2}$ (approx.) of filament voltage.

↘ Supply voltage applied through 20000-ohm voltage-dropping resistor.

▶ Mercury-Vapor Type.

■■ Grid #1 is control grid. Grid #2 is screen. Grid #3 tied to cathode.

¶ Grid #1 is control grid. Grids #2 and #3 tied to plate.

◆ Grids #1 and #2 connected together. Grid #3 tied to plate.

🖷 This diagram is like the one having the same designation without the prefix GT, except that the base sleeve is connected to Pin No. 1.

● Applied through plate resistor of 250000 ohms or 500-henry choke shunted by 0.25-megohm resistor.

▼ Applied through plate resistor of 100000 ohms.

✖ Applied through plate resistor of 250000 ohms.

◓ 50000 ohms.

▰ Requires different socket from small 7-pin.

*Maximum.

‡ Megohms.

■ Grids #3 and #5 are screen. Grid #4 is signal-input control grid.
▲ Grids #2 and #4 are screen. Grid #1 is signal-input control grid.
** For grid of following tube.
◇ Both grids connected together; likewise, both plates.
† Power output is for two tubes at stated plate-to-plate load.
♣ For two tubes.
‡ This diagram is like the one having the same designation without the prefix G, except that Pin No. 1 has no connection.
◆ This diagram is like the one having the same designation without the prefix G, except that Pin No. 2 is omitted and Pin No. 1 has no connection.
✠ Obtained preferably by using 70000-ohm voltage-dropping resistor in series with a 90-volt supply.
✕ This diagram is like the one having the same designation with the prefix G, except that base sleeve is connected to Pin No. 1.
‡‡ This diagram is like the one having the same designation without the prefix G, except that Pin No. 1 is connected to internal shield.
‡‡ Grids #2 and #3 tied to plate.
▲▲ Both grids connected together; likewise both cathodes.

□ Grid #2 tied to plate. ◆ Grids #1 and #2 tied together.
† Plate voltages greater than 125 volts RMS require 100-ohm (minimum) series-plate resistor.
◇◇ Applied through plate resistor of 150000 ohms.
◁ For signal-input control-grid (#1); control-grid #3 bias, −3 volts.
■ Applied through 200000-ohm plate resistor.
▲ Grids #2 and #4 are screen. Grid #3 is signal-input control grid.
⊠ Nominal voltage: 7.0 volts; current: 0.16 ampere.
◆ Nominal voltage: 7.0 volts; current: 0.32 ampere.
◆ Nominal voltage: 7.0 volts; current: 0.53 ampere.
◤ Nominal voltage: 7.0 volts; current: 0.75 ampere.
♣ Nominal voltage: 7.0 volts; current: 0.43 ampere.
✠ Nominal voltage: 7.0 volts; current: 0.48 ampere.
◤ Nominal voltage: 14.0 volts; current: 0.16 ampere.

Note 1: Types with octal bases have *Miniature Metal Cap*; all others have *Small Metal Cap*.

Note 2: Subscript 1 on class of amplifier service (as AB_1) indicates that grid current does not flow during any part of input cycle.
Subscript 2 on class of amplifier service (as AB_2) indicates that grid current flows during some part of the input cycle.

KEY TO TUBE DIMENSIONS

Symbol	Maximum Overall Length	Maximum Overall Diameter
A0a	1 3/8"	1 3/8"
A0b	1 9/16"	3/4"
A1	1 3/4"	1 3/8"
A2	1 11/16"	3/4"
A3	1 7/8"	1 3/8"
B0	2 1/16"	3/4"
B1	2 1/16"	1 5/16"
B2	2 5/16"	1 5/16"
B3	2 1/4"	1 7/16"
B4	2 17/32"	1 5/8"
B5	2 25/32"	1 7/8"
B5a	2 7/8"	1 5/8"
C0	3 1/16"	1 3/16"
C1	3 1/8"	1 3/16"
C2	3 1/8"	1 5/16"
C3	3 3/16"	1 5/16"
C4	3 1/8"	1 1/16"
C5a	3 1/2"	1 1/16"
C5b	3 7/16"	1 1/16"
C6	3 5/8"	1 1/16"
C7	3 1/4"	1 1/16"
C7a	3 9/16"	1 1/16"
C8	3 1/8"	1 7/16"
D1	4"	1 3/16"
D2	4 1/8"	1 7/16"
D3	4 1/8"	1 5/16"
D4	4 1/16"	1 1/16"
D5	4 1/16"	1 1/16"
D6	4 1/16"	1 3/16"
D7	4 1/16"	1 1/16"
D8	4 1/32"	1 1/16"
D9	4 1/32"	1 9/16"
D9a	4 1/32"	1 9/16"
D10	4 1/8"	1 11/16"
D11	4 1/16"	1 7/16"
D12	4 1/16"	1 11/16"
D12a	4 1/8"	1 9/16"
D13	4 1/32"	1 1/16"
E1	5 1/16"	1 11/16"
E2	5 1/8"	2 1/16"
E3	5 1/8"	2 1/16"
E4	5 1/8"	2 5/16"
F1	6 1/8"	2 7/16"
G1	8"	2 1/16"

SOCKET CONNECTIONS

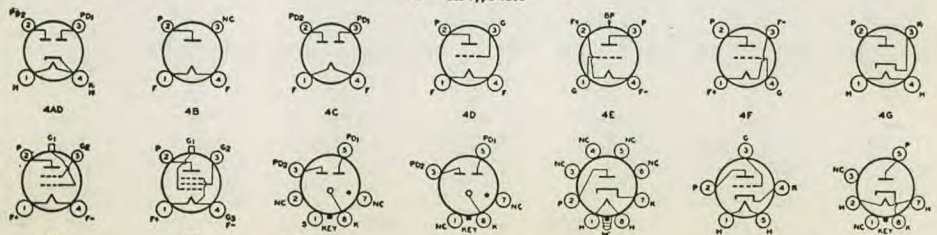
Bottom Views

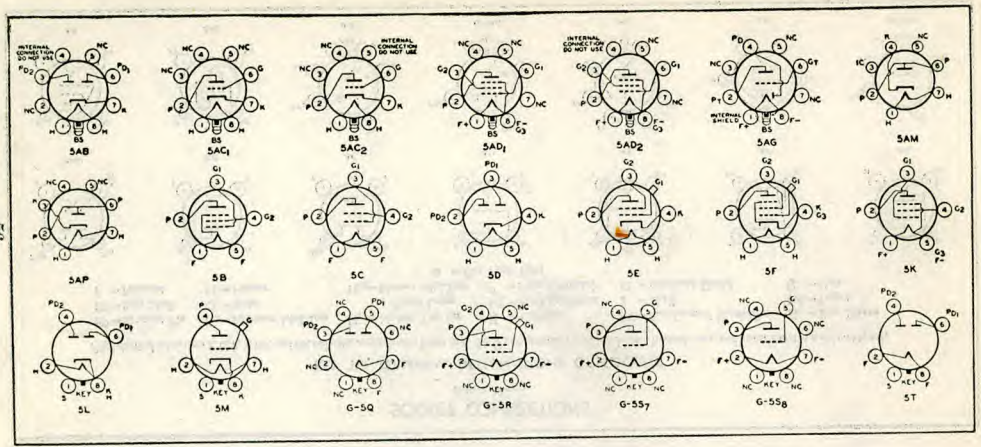
KEY TO TERMINAL DESIGNATIONS OF SOCKETS

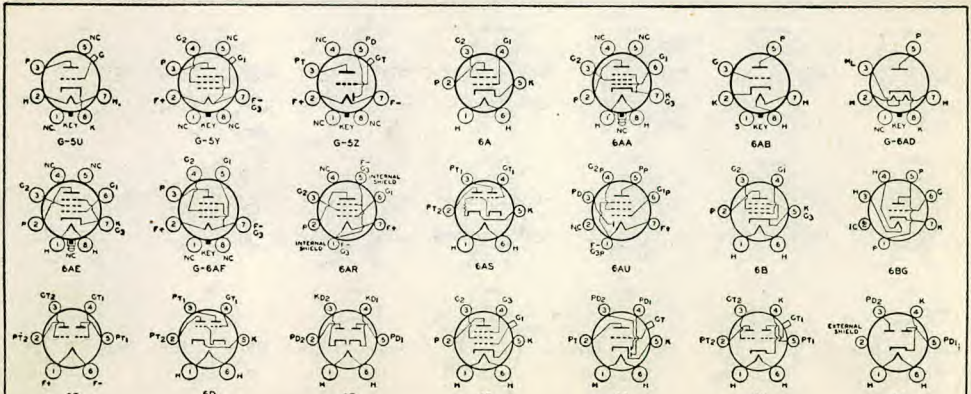
Alphabetical subscripts B, D, P, T, HP, and HX indicate, respectively, beam unit, diode unit, pentode unit, triode unit, heptode unit, and hexode unit in multi-unit types.

BP = Bayonet Pin
BS = Base Shell
F = Filament
F_M = Filament Mid-Tap
G = Grid
H = Heater
H_L = Heater Tap for Panel Lamp
H_M = Heater Mid-Tap
K = Cathode
NC = No Connection
P = Plate (Anode)
RC = Ray-Control Electrode
S = Shell
SI = Interlead Shield
SL = Base Sleeve
TA = Target
U = Unit

● = Gas-Type Tube




INTERNAL CONNECTION DO NOT USE
5AB
5AC1
INTERNAL CONNECTION DO NOT USE
5AC2
INTERNAL CONNECTION DO NOT USE
5AD1
INTERNAL CONNECTION DO NOT USE
5AD2
INTERNAL SHIELD
5AG
5AM
5AP
5B
5C
5D
5E
5F
5K
5L
5M
G-5Q
G-5R
G-557
G-558
5T


G-5U
G-5Y
G-5Z
6A
6AA
6AB
G-6AD
6AE
G-6AF
6AR
6AS
6AU
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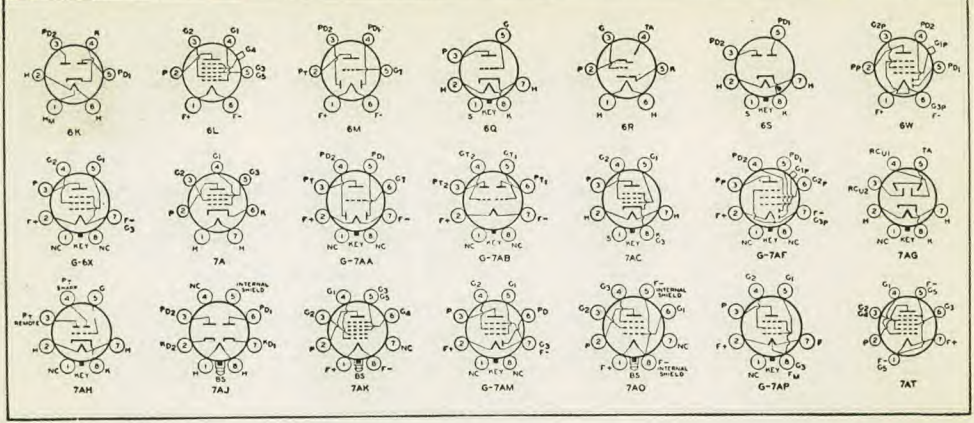
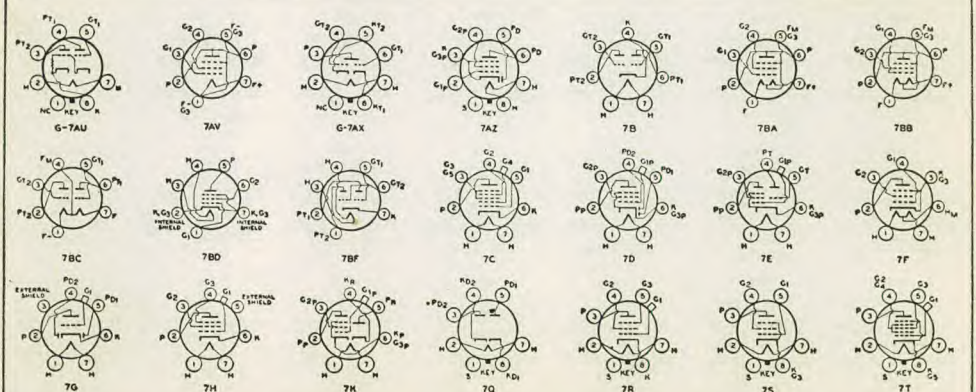
6C
6D
6E
6F
6G
6H
6J


6K
6L
6M
6Q
6R
6S
6W
G-6X
7A
G-7AA
G-7AB
7AC
G-7AF
7AG
7AH
7AJ
7AK
G-7AM
7AO
G-7AP
7AT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7B
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7BB
7BC
7BD
7BF
7C
7D
7E
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7H
7K
7Q
7R
7S
7T

8BK
8BC
8BD
8B
8AY
8AV
8AS
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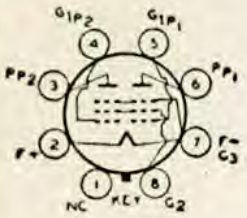
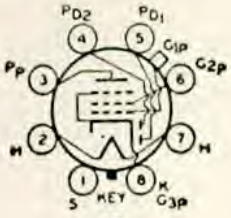
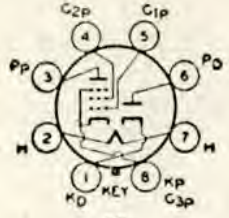
G-7W
7V
G-7U



G-8C

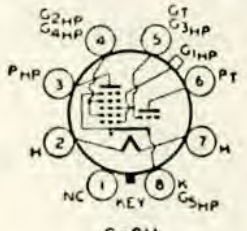


8E

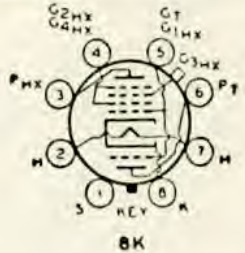


8F

G-8G



G-8H

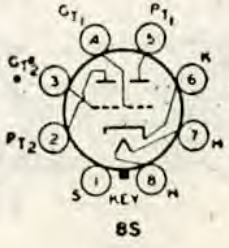


8K

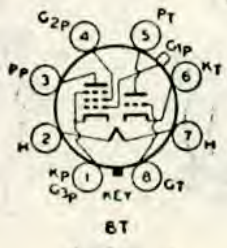
8N

8Q

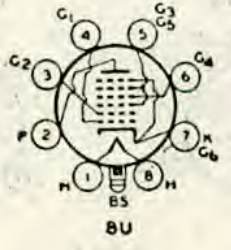
8R



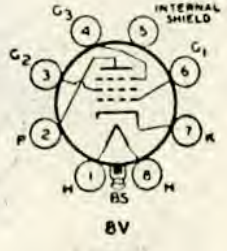
8S



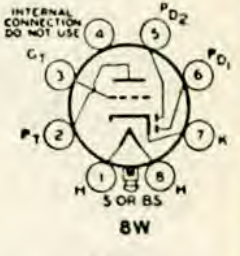
8T



8U



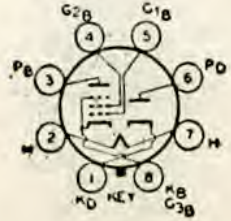
8V



8W

8X

8Y



8Z

P IS ON LONG PART OF BULB(TOP)
G1 IS ON SHORT PART OF BULB

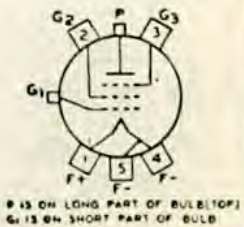
FIG. 1

LONG PART OF BULB TOP

FIG. 2

LONG PART OF BULB: TOP

FIG. 3



P IS ON LONG PART OF BULB(TOP)
G1 IS ON SHORT PART OF BULB

FIG. 4

FIG. 5

FIG. 6

FIG. 7

FIG. 8

FIG. 9

FIG. 10

FIG. 11

FIG. 12

FIG. 13

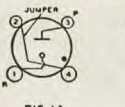


FIG. 14

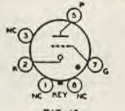


FIG. 15

RCA RADIO TUBE CHART

CHART II. Special-Purpose Tubes

RCA TYPE	NAME	DIMENSIONS SOCKET CONNECTIONS DIMEN.	S. C.	CATHODE TYPE AND RATING C. T.	VOLTS	AMP.	USE (Values to right give operating conditions and characteristics for indicated typical use)	PLATE SUPPLY VOLTS	GRID BIAS VOLTS	SCREEN SUPPLY VOLTS	SCREEN CURRENT MA.	PLATE CURRENT MA.	A-C PLATE RESISTANCE OHMS	TRANSCONDUCTANCE (GRID-PLATE) μMHOS	AMPLIFICATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUTPUT WATTS	RCA TYPE
0A4-G	GAS-TRIODE	D3	FIG. 15	Cold	—	—	RELAY SERVICE	Peak Cathode Current, 100 max. ma. D-C Cathode Current, 25 max. ma. Grid Drop, 60 approx. volts. Anode Drop, 70 approx. volts.										0A4-G
1C21	GAS-TRIODE	B4	FIG. 15	Cold	—	—	RELAY SERVICE	Peak Cathode Current, 100 max. ma. D-C Cathode Current, 25 max. ma Grid Drop, 55 approx. volts. Anode Drop, 73 approx. volts.										1C21
5R4-GY	FULL-WAVE RECTIFIER	E2	G-5T‡	F	5.0	2.0	WITH CONDENSER-INPUT FILTER	Max. A-C Volts per Plate (RMS), 900 Max. Peak Inverse Volts, 2800				Max. D-C Output Ma., 150 Max. Peak Plate Ma., 650			Min. Total Effect. Supply Imped. per Plate, 575 ohms			5R4-GY
							WITH CHOKE-INPUT FILTER	Max. A-C Volts per Plate (RMS), 950 Max. Peak Inverse Volts, 2800				Max. D-C Output Ma., 175 Max. Peak Plate Ma., 650			Min. Value of Input Choke, 10 henries			
12A6	BEAM POWER AMPLIFIER	C2	7AC	H	12.6	0.15	CLASS A AMPLIFIER	250	−12.5	250	3.5	30	70000	3000	—	7500	3.4	12A6
864	AMPLIFIER TRIODE See Note A	C8	4D	F	1.1	0.25	CLASS A AMPLIFIER	135	− 9.0	—	—	3.5	12700	645	8.2	—	—	864
874	VOLTAGE REGULATOR	E4	FIG. 14	Cold	—	—	REGULATOR	Min. D-C Starting Supply Volts, 125. D-C Operating Volts, 90.						D-C Operating Ma., 10-50.				874
884 885	GAS-TRIODES	D3 D5	G-6Q‡ 5A	H H	6.3 2.5	0.6 1.4	AS SWEEP OSCILLATOR	Max. Instantaneous Anode Volts, 300. Max. Peak Anode Ma., 300. Max. Peak Volts between any two electrodes, 350. Max. Average Anode Ma.: below 200 cycles, 3 ma.; above 200 cycles, 2 ma.										884 885
							GRID-CONTROLLED RECTIFIER	Max. Peak Volts between any two electrodes, 350. Max. Peak Anode Ma., 300. Max. Average Anode Ma., 75.										
954	SHARP CUT-OFF PENTODE Acorn Type	A3	FIG. 1	H	6.3	0.15	CLASS A AMPLIFIER	90	− 3.0	90	0.5	1.2	1§	1100	—	—	—	954
								250	− 3.0	100	0.7	2.0	1+§	1400				
							BIAS DETECTOR	250	− 6.0	100	Plate current to be adjusted to 0.1 ma. with no signal.							
955	AMPLIFIER TRIODE Acorn Type	A6a	FIG. 2	H	6.3	0.15	CLASS A AMPLIFIER	90	− 2.5	—	—	2.5	14700	1700	25	—	—	955
								250	− 7.0			6.3	11400	2200	25			
							R-F AMPLIFIER, OSCILLATOR—Class C	D-C Plate Volts, 180; Grid Volts, −35 (approx.); D-C Plate Current, 7 ma.; D-C Grid Current, 1.5 ma.; Power Output at 5 meters, 0.5 watt, (approx.).										

RCA TYPE	NAME	DIMENSIONS SOCKET CONNEC-TIONS		CATHODE TYPE AND RATING			USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUP-PLY VOLTS	GRID BIAS ■ VOLTS	SCREEN SUPPLY VOLTS	SCREEN CUR-RENT MA.	PLATE CUR-RENT MA.	A-C PLATE RESIS-TANCE OHMS	TRANS-CONDUC-TANCE (GRID-PLATE) μMHOS	AMPLIFI-CATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUT-PUT WATTS	RCA TYPE
		DIMEN.	S.C.	C.T.	VOLTS	AMP.												
956	REMOTE CUT-OFF PENTODE Acorn Type	A3	FIG. 1	H	6.3	0.15	CLASS A AMPLIFIER	250	− 3.0	100	2.7	6.7	700000	1800	——	——	——	956
							MIXER IN SUPERHETERODYNE	250	−10.0	100	——	——	Oscillator Peak Volts = 7.0					
957	AMPLIFIER TRIODE Acorn Type	A0a	FIG. 3	F	1.25	0.05	CLASS A AMPLIFIER	135	− 5.0	——	——	2.0	24600	650	16	——	——	957
958	AMPLIFIER TRIODE Acorn Type	A0a	FIG. 3	F	1.25	0.10	CLASS A AMPLIFIER	135	− 7.5	——	——	3.0	10000	1200	12	——	——	958
959	SHARP CUT-OFF PENTODE Acorn Type	A3	FIG. 4	F	1.25	0.05	CLASS A AMPLIFIER	135	− 3.0	67.5	0.4	1.7	800000	600	——	——	——	959
991	VOLTAGE REGULATOR	A0b	—	Cold	—	—	REGULATOR	Min. D-C Starting Supply Volts, 87. D-C Operating Volts, 48-67.						Peak Current, 3 ma., max. Max. Current (Continuous), 2 ma.				991
1603	SHARP CUT-OFF PENTODE See Note A	D13	6F	H	6.3	0.3	AMPLIFIER DETECTOR	For other characteristics, refer to Type 6J7 in Chart I.										1603
1609	AMPLIFIER PENTODE See Note A	D5	5K	F	1.1	0.25	CLASS A AMPLIFIER	135	− 1.5	67.5	0.65	2.5	400000	725	——	——	——	1609
1612	PENTAGRID AMPLIFIER See Note A	C1	7T	H	6.3	0.3	AMPLIFIER	For other characteristics, refer to Type 6L7 in Chart I.										1612
1620	SHARP CUT-OFF PENTODE See Note A	C1	7R	H	6.3	0.3	AMPLIFIER	For other characteristics, refer to Type 6J7 in Chart I.										1620
1621	POWER AMPLIFIER PENTODE See Note B	C2	7S	H	6.3	0.7	PUSH-PULL TRIODE□ CLASS A AMPLIFIER	327.5	Cath. Resistor, 500 Ohms			55.0♣	——	——	——	5000	2.0†	1621
							PUSH-PULL PENTODE CLASS A AMPLIFIER	300	−30.0	300	6.5♣	38.0♣	——	——	——	4000	5.0†	
1622	BEAM POWER AMPLIFIER See Note B	D7	7AC	H	6.3	0.9	PUSH-PULL CLASS A AMPLIFIER	300	−20.0	250	4.0♣	86.0♣	——	——	——	4000	10.0†	1622
1629	ELECTRON-RAY TUBE	D2	FIG. 7	H	12.6	0.15	VISUAL INDICATOR	For other characteristics, refer to Type 6E5 in Chart I.										1629
1631	BEAM POWER AMPLIFIER See Note C	D7	7AC	H	12.6	0.45	AMPLIFIER	Max. Plate Dissipation = 16 watts. For other characteristics, refer to Type 6L6 in Chart I.										1631

1632	BEAM POWER AMPLIFIER See Note C	C2	7AC	H	12.6	0.6	AMPLIFIER	Characteristics are the same as those of the 25L6-GT/G (see Chart I.) within the following ratings of the 1632: Plate Volts, 117; Screen Volts, 117; Plate Dissipation, 5.5 watts.													1632
1633	TWIN-TRIODE AMPLIFIER See Note D	C3	6BD	H	25.0	0.15	AMPLIFIER	For other characteristics, refer to Type 12SN7-GT in Chart I.													1633
1634	TWIN-TRIODE AMPLIFIER See Note D	B3	6S	H	12.6	0.15	AMPLIFIER	For other characteristics, refer to Type 12SC7 in Chart I.													1634
1635	CLASS B TWIN-TRIODE AMPLIFIER	C3	G-6B‡	H	6.3	0.6	CLASS B AMPLIFIER Sustained Signal	300	0	—	—	Power Output is for one tube at stated plate-to-plate load.				12000	10.4	1635			
							CLASS B AMPLIFIER Variable Signal	400	0	—	—	Power Output is for one tube at stated plate-to-plate load.				14000	17.0				
1642	TWIN-TRIODE AMPLIFIER	D3	FIG. 8	H	6.3	0.6	EACH UNIT AS AMPLIFIER	250	−16.5	—	—	8.3	7600	1375	10.4	—	—	1642			
1644	TWIN-PENTODE POWER AMPLIFIER	C3	FIG. 9	H	12.6	0.15	EACH UNIT AS AMPLIFIER	180	− 9.0	180	2.8	13.0	160000	2150	——	10000	1.0	1644			
1851	TELEVISION AMPLIFIER PENTODE	C7	7R	H	6.3	0.45	AMPLIFIER	For other characteristics, refer to Type 6AC7/1852 in Chart I.													1851
2050	GAS-TETRODE	D3	FIG. 12	H	6.3	0.6	GRID-CONTROLLED RECTIFIER	Max. Peak Forward Volts, 650. Max. Peak Inverse Volts, 1300. Shield Grid Volts, 0. Max. Peak Anode Ma., 500. Max. Average Anode Ma., 100. Grid Resistor, 0.01 min., 10 max. megohms. Tube Voltage Drop, 8 volts, approx.													2050
2051	GAS-TETRODE	D3	FIG. 12	H	6.3	0.6	GRID-CONTROLLED RECTIFIER	Max. Peak Forward Volts, 350. Max. Peak Inverse Volts, 700. Shield Grid Volts, 0. Max. Peak Anode Ma., 375. Max. Average Anode Ma., 75. Grid Resistor, 0.01 min., 10 max. megohms. Tube Voltage Drop, 14 volts, approx.													2051
9001	SHARP CUT-OFF H-F PENTODE Midget Type	A2	FIG. 10	H	6.3	0.15	CLASS A AMPLIFIER	90	− 3.0	90	0.5	1.2	1§	1100	——	——	——	9001			
								250	− 3.0	100	0.7	2.0	1+§	1400	——	——	——				
							MIXER IN SUPERHETERODYNE	100	− 5.0	100	—	—	Oscillator Peak Volts = 4.								
								250	− 5.0	100	—	—									
9002	H-F TRIODE Midget Type	A2	FIG. 11	H	6.3	0.15	CLASS A AMPLIFIER	90	− 2.5	—	—	2.5	14700	1700	25	——	——	9002			
								250	− 7.0			6.3	11400	2200	25						
9003	REMOTE CUT-OFF H-F PENTODE Midget Type	A2	FIG. 10	H	6.3	0.15	CLASS A AMPLIFIER	250	− 3.0	100	2.7	6.7	700000	1800	——	——	——	9003			
							MIXER IN SUPERHETERODYNE	100	−10.0	100	—	—	Oscillator Peak Volts = 9.								
								250	−10.0	100											
9004	U-H-F DIODE Acorn Type	A0a	FIG. 5	H	6.3	0.15	DETECTOR RECTIFIER	Maximum A-C Voltage.....117 Volts, RMS Maximum D-C Output Current.....5 Milliamperes Resonant Frequency.....850 Megacycles, Approx.													9004

RCA TYPE	NAME	DIMENSIONS SOCKET CONNECTIONS		CATHODE TYPE AND RATING			USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUPPLY VOLTS	GRID BIAS ‖ VOLTS	SCREEN SUPPLY VOLTS	SCREEN CURRENT MA.	PLATE CURRENT MA.	A-C PLATE RESISTANCE OHMS	TRANSCONDUCTANCE (GRID-PLATE) μMHOS	AMPLIFICATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUTPUT WATTS	RCA TYPE
		DIMEN.	S. C.	C. T.	VOLTS	AMP.												
9005	U-H-F DIODE Acorn Type	A2s	FIG. 6	H	3.6	0.165	DETECTOR RECTIFIER	Maximum A-C Voltage 117 Volts, RMS Maximum D-C Output Current 1 Milliampere Resonant Frequency 1500 Megacycles, Approx.										9005
VR 75-30	VOLTAGE REGULATOR	D2	FIG. 13	Cold	—	—	REGULATOR	Min. D-C Starting Supply Volts, 105. D-C Operating Volts, 75.				D-C Operating Ma., 5-30.						VR 75-30
VR 105-30	VOLTAGE REGULATOR	D2	FIG. 13	Cold	—	—	REGULATOR	Min. D-C Starting Supply Volts, 127. D-C Operating Volts, 105.				D-C Operating Ma., 5-30.						VR 105-30
VR 150-30	VOLTAGE REGULATOR	D2	FIG. 13	Cold	—	—	REGULATOR	Min. D-C Starting Supply Volts, 180. D-C Operating Volts, 150.				D-C Operating Ma., 5-30.						VR 150-30

Note A: For applications critical as to microphonics.
Note B: For applications requiring continuity of service.
Note C: For applications critical as to uniformity of characteristics.
Note D: For applications critical as to matching of the two units.

◆ For two tubes.

† Power output is for two tubes at stated plate-to-plate load.
§ Megohms.
□ Grid # 2 tied to plate.
✕ Applied through plate resistor of 250000 ohms.

NOTE: KEY TO TUBE DIMENSIONS IS GIVEN AT END OF NOTES FOR CHART 1.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Havana
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Trinidad
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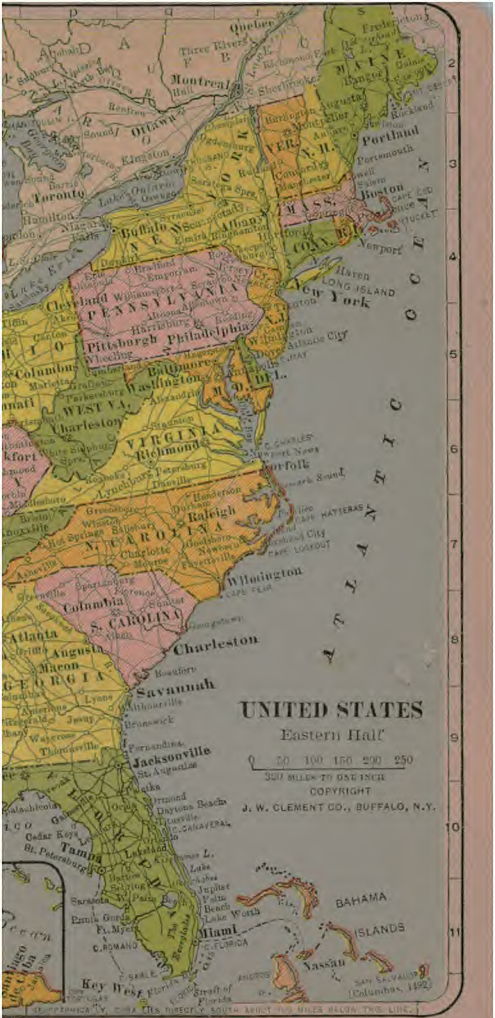
Santa Cruz
CUBA.
Same Scale as Main Map.
Havana is 100 Miles (⅓ inch) south of Key West.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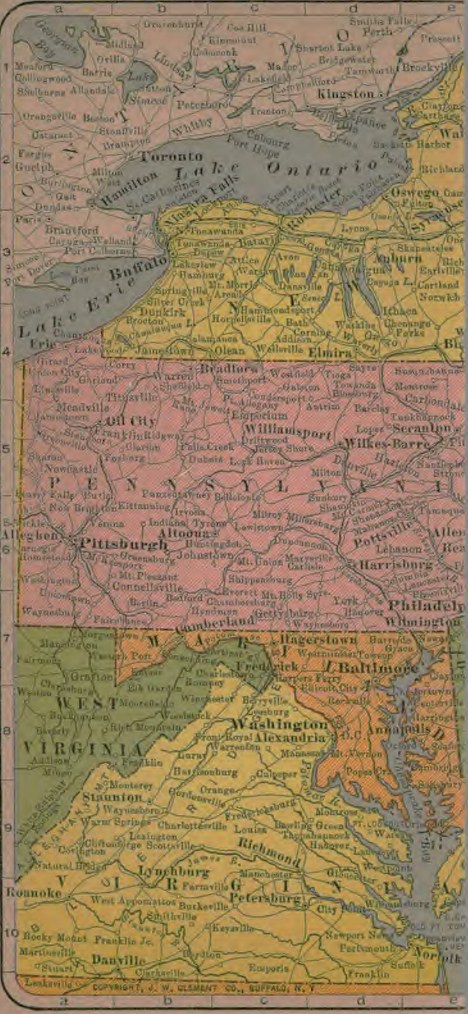
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Ciudad Juarez
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Chihuahua
Guaymas
Houston
San Antonio
Galveston
New Orleans
Piedras Negras
Nuevo Laredo
Tampa
Gulf of California
Parral
Torreon
Saltillo
Monterrey
Matamoros
Gulf of Mexico
Miami
Nassau
BAHAMA ISLANDS (Br.)
WATLING (San Salvador)
ANDROS IS.
Key West
ATLANTIC OCEAN
C. San Lucas
Durango
Mazatlan
Zacatecas
San Luis Potosi
Aguascalientes
Tampico
Havana
CUBA
TROPIC OF CANCER
WEST INDIES
Guadalajara
Leon
Queretaro
Pachuca
Progreso
Merida
ISLE OF PINES
GREATER ANTILLES
Santiago
HISPANIOLA
C. Corrientes
REVILLA GIGEDO IS.
Manzanillo
Morelia
Mexico
Veracruz
Campeche
Bay of Campeche
Yucatan Channel
HAITI
DOM. REP.
Ciudad Trujillo
San Juan
PUERTO RICO (U. S.)
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ANTIGUA (Br.)
GUADELOUPE (Fr.)
Puebla
Orizaba
Puerto Mexico
Belize
BR. HON.
G. of Honduras
JAMAICA (Br.)
Kingston
Port au Prince
DOMINICA (Br.)
MARTINIQUE (Fr.)
ST. LUCIA (Br.)
BARBADOS
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GRENADA (Br.)
LESSER ANTILLES
Acapulco
Oaxaca
GUATEMALA
HONDURAS
Tegucigalpa
C. Gracias a Dios
Caribbean Sea
PACIFIC OCEAN
Salina Cruz
Guatemala
San Salvador
SALVADOR
NICARAGUA
Leon
Managua
L. Nicaragua
CENTRAL AMERICA
CURACAO (Du.)
Caracas
Port of Spain
TRINIDAD (Br.)
COSTA RICA
San Jose
Colon
Panama Canal
PANAMA
Panama
Barranquilla
SOUTH AMERICA
Longitude West from Greenwich


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Leningrad
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UNION
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LITH.
Moscow
Vilna
Memel
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EAST PRUSSIA
WHITE RUSSIA
Warsaw
Brest Litovsk
POLAND
UKRAINE
Krakow
MORAVIA
Mtn. Ostrau
SLOVAKIA
Kassa
BESSARABIA
Kishinev
Vienna
Budapest
HUNGARY
TRANSYLVANIA
RUMANIA
Bucharest
BLACK SEA
Belgrade
YUGOSLAVIA
SERBIA
BULGARIA
Istanbul
ADRIATIC SEA
MONTE NEGRO
ALBANIA
TURKEY
GREECE
Athens
IONIAN SEA
IONIAN ISLANDS
Messina
SICILIA
CRETE
MEDITERRANEAN


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SHETLAND IS (Br.)
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Glasgow
GREAT BRITAIN
North Sea
IRE
London
Eng. Chan.
Bay of Biscay
C. Finisterre
PORTUGAL
Lisboa
C. St. Vincent
Str. of Gibraltar
MADEIRA IS. (Port.)
CANARY IS. (Sp.)
Villa Cisneros
RIO DE ORO (Sp.)
MOROCCO
Rabat
Tropic of Cancer
C. Blanco
C. Verde
Dakar
Bathurst
GAM.
PORT. GUINEA
FR. GUINEA
SIERRA LEONE
Monrovia
LIBERIA
SEN.
FRENCH SUDAN
FRENCH WEST AFRICA
Tombouctou
Niger R.
IVORY COAST
TOGO
G.C.
Accra
Gulf of Guinea
ASCENSION I (Br.)
ST. HELENA I. (Br.)
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Warsaw
GERMANY
POL.
U S S R
Kiev
Vienna
Budapest
HUN.
RUM.
Danube R.
Paris
FRANCE
Milan
Marseilles
Belgrade
Rome
ITALY
ALB.
BULG.
Istanbul
Madrid
SPAIN
Barcelona
Gibraltar (Br.)
MEDITERRANEAN SEA
Athens
Algiers
Tunis
TUNISIA
Alexandria
Tripoli
Bengasi
LIBYA (It.)
Cairo
EGYPT
ALGERIA
SAHARA
FRENCH EQUAT. AFRICA
NIGERIA (Br.)
CAMEROONS (Fr.)
Lagos
Yaounde
RIO MUNI
Chad L.
Khartoum
ANGLO EGYPTIAN SUDAN
Addis Ab
SÃO THOME (Port.)
Brazzaville
Congo R.
BELGIAN CONGO
Leopoldville
Tanganyika L.
Cabinda (Port.)
Benguela
ANGOLA (Port.)
Nova Lisboa
NOR. RHO.
Lusaka
C. Frio
SOUTH WEST AFRICA
Walvis Bay (U. of S.A.)
Windhoek
SOU. RHO.
BECH.
Salisbury
Johannesburg
SOUTH AFRICA
Capetown
C. of Good Hope
Longitu
0
20
40
60


Dvina R.
Ob R.
UNION OF SOVIET
Perm
Tobolsk
Gorki
Sverdlovsk
Moskva
(Moscow)
Kazan
Omsk
Tomsk
Novosibirsk
Samara
Irtish R.
Voronezh
Saratov
Volga R.
Stalingrad
KIRGHIZ STEPPE
L. Balkhash
Rostov
Aral Sea
Caspian Sea
Tashkent
Tiflis
Baku
SINKIANG
Samarkand
CHINA
Tehran
Baghdad
Kabul
AFGHANISTAN
TIBET
IRAQ
IRAN
(PERSIA)
Lahore
THE HIMALAYAS
Persian Gulf
Indus R.
Delhi
Ganges R.
KUWAIT
SAUDI ARABIA
Riyadh
INDIA
Masqat
Calcutta
Red Sea
Mecca
Ahmedabad
Bombay
Hyderabad
ARABIAN SEA
Bay of Bengal
Aden
Gulf of Aden
GOA (Port.)
Madras
Asmara
SOCOTRA I.
Guardafui
Berbera
C. Comorin
CEYLON
ETHIOPIA
Colombo
MALDIVE IS. (Br.)
Equator
Mogadiscio
INDIAN OCEAN
Nairobi
Mombasa
SEYCHELLES IS. (Br.)
Zanzibar (Br.)
AFRICAN IS. (Br.)
CHAGOS IS.
Dar es Salaam
AMIRANTE IS. (Br.)
COMORO IS. (Fr.)
Mozambique Channel
Tananarive
RODRIGUEZ IS. (Br.)
MADAGASCAR
MAURITIUS I. (Br.)
RÉUNION I. (Fr.)
Tropic of Capricorn
C. Ste Marie
AFRICA
and parts of
EUROPE AND ASIA
East of Greenwich
60
40
20
0
40
60
80