

R.C. SYMBOLS

1 CELL OR 1-1/2 VOLTS		AIR CORE TRANSFORMER OR COIL		QUARTZ CRYSTAL	
MULTIPLE CELLS OR A BATTERY		CONNECTION OF TWO WIRES		FIXED CONDENSER	
CHASSIS OR GROUND		NO CONNECTION		VARIABLE CONDENSER	
FIXED RESISTOR		ANTENNA OR AERIAL		TANK CIRCUIT	
VARIABLE RESISTOR OR POTENTIOMETER		0-5 VOLTMETER		TRIODE 3 ELEMENTS; FILAMENT, GRID, AND PLATE	
R.F. CHOKE		0-3 MILLIAMMETER		DUO OR DUAL TRIODE 2 TRIODE SECT- IONS IN 1 GLASS ENVELOPE	
AIR CORE COIL		0-3 MILLIAMMETER		PENTODE 5 ELEMENTS; FILAMENT, 3 GRIDS AND A PLATE	
				GAS FILLED (THRATRON) RK-6I AND XFG-1 ARE TRIODES. DOT IS GAS	

GLOSSARY

A Supply—The battery or power source used to heat the filament of a tube. For our use, usually 1½ volts. Symbol given as A plus and A minus in a diagram.

Amplifier—Usually a vacuum tube circuit used to amplify or build up the radio energy, in either the transmitter or receiver.

Antenna—A length of wire or rod used to radiate radio energy from a transmitter and used to pick up such radiated energy at the receiver.

Audio—Audio or AF (audio frequency) covers the range of tones capable of being heard by the human ear about 15,000 to 20,000 cycles per second. Audio tones are used in radio control work to broaden the number of controls which can be transmitted over the same radio frequency.

B Supply—The high voltage applied to the plate of a tube and used to produce an electron flow from the filament to the plate. Usually 45 to 67½ volts for receivers and 67½ to 180 volts for transmitters. Symbol given as B plus and B minus in a diagram.

Battery—The source of power for any electrical or electronic device requiring a portable arrangement. Delivers voltage and current.

Carrier—A term applied to the radio frequency energy radiated from a transmitter. Carrier operation is dependent upon only the radio frequency energy.

Choke—A coil which impedes the passage of an alternating current. The lower the frequency the larger the inductance of the coil (See RFC).

Condenser—A device for storing electrical energy and also blocking the flow of direct current. A condenser will allow an alternating or radio frequency voltage to pass through it. Made in either fixed or variable types. Unit of measure is the farad; for our use generally microfarad (uf or mf) or micro-micro-farad (uufd or mmf), micro meaning one millionth of a farad.

Crystal—A quartz or Rochelle salt crystal cut into a small thin disc or square, used for maintaining a given frequency, the frequency being almost totally dependent upon the thickness. A crystal has the properties of producing a voltage when compressed and released, and of producing a physical displacement when voltage is applied. Crystals are cut at different angles to the axis of the "mother" crystal and therefore several crystals, although all cut for the same frequency, will require different circuits for correct operation.

Filament—The heater in a tube, similar to the filament wire in an electric light bulb. The purpose is to emit electrons which will be attracted toward the plate.

Grid—A screen, or screens, between the filament and the plate, used to control the flow of electrons, depending on the voltage applied to it.

Ground—The A plus or B minus side of a battery and the point to which all connections common to these points are made. Usually made directly to the metal chassis.

Inductance—The term applied to the strength of a magnetic field with relation to the current causing it. Used when speaking of coils of wire. For our work is expressed in millihenries or microhenries, a millihenry being one thousandth of the unit of measure, in this case the henry. Any wire with a current passing through it has inductance, a coiled wire having more

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than the equivalent length of straight wire.
Interrupted carrier—A radio frequency carrier which has been pulsed or turned on and off for control purposes.

Kilocycles—One thousand cycles.

Megacycles—One million cycles.

Meter—An electro-mechanical unit for measuring current, voltage, or resistance. Polarity is shown on back of meter case near or on terminal.

Milliampere—One thousandth of an ampere, the current range generally used in radio control work. Usually spoken of as "mils"; i.e., a receiver relay current of 1.5 mils means that 1-1/2 thousandth of an ampere is flowing through the circuit. Generally written as MA or ma.

Modulation—The process of superimposing an audio frequency upon the radio frequency carrier in order to radiate the audio frequency into space.

Ohm—The unit of resistance. A wire has a resistance of one ohm when one volt applied to it causes one ampere of current to flow through the wire.

Plate current—The current which flows through the plate circuit of a tube. Measured in milliamperes. To measure plate current, connect the correct range milliammeter in series with "B plus" lead.

Power input—The wattage fed into a radio tube as determined by voltage applied times current consumed. Current is in amperes or fractions thereof.

Power output—The power delivered into the tank circuit of a tube. Always less than the power input by 20 to 50 per cent due to losses in the tube (heat losses, internal resistance) and in circuit components.

RF—Abbreviation for radio frequency.

RFC—Radio frequency choke. For our work, usually a small cylindrical form wound with one layer of wire, due to the relatively high frequency.

Resistance—The opposition set up in a conducting medium which opposes the flow of current.

Resistor—A device for introducing resistance

in a circuit. Usually made of many turns of high resistance wire or various forms of carbon. Widely used in radio control work and available in varied shapes and sizes, both fixed and variable.

Superregenerative receiver—A particular type of receiver, almost universally used in RC work, with a circuit in which the incoming signal is greatly amplified in the detector tube.

Tank circuit—The coil and condenser combination placed in the plate circuit of a tube. Used to tune to the resonant frequency desired.

Volts—The "force" in a battery or power source which pushes the electrons, constituting the current, through the circuit. Analogous to a pump in a water system.

Watts—The unit of electrical power, power being the rate of doing work. Any time current flows through a conductor, power is used and this is expressed in watts. The greater the voltage and the current flow, the greater the wattage. In a formula, watts equal voltage times current. Symbol is "W."
