

Glossary of Wireless Terms

From week to week we give here a section of the glossary of wireless terms from the "Listener's Guide."

SHUNT.—See "Parallel."

SIGNAL-STRENGTH.—Sound-volume of the received signals. For exact laboratory purposes measurement of signal-strength is often made of the actual current induced in the receiving aerial in order to gauge the sensitiveness of the receiver.

"SILENT POINT."—When in searching for weak, distant signals, the reaction coupling is increased until the valve oscillates, the carrier wave of the distant transmission is heterodyned by the oscillations of the receiving valve and the "beat" is heard as a rising or falling whistle as the tuning is varied. When the receiver and the oscillations of the receiving valves are exactly tuned to the frequency of the carrier wave, there is no beat note this is known as the "silent-point." Silence of the beat-note, however, is not a sign that the receiver is not oscillating, but only that its oscillations are in phase with those of the transmission. Under no circumstances should these conditions be allowed to persist in the receiver.

SPARK TRANSMISSION.—The earliest form of wireless communication is rapidly being superseded by continuous wave apparatus. Sometimes known as damped wave transmission.

SINGLE-VALVE.—In a single-valve set, the valve has simultaneously to amplify and rectify; and, if it be used to receive continuous wave Morse, to oscillate as well. Such a set is little better than a crystal receiver unless reaction is employed, when careful handling is necessary to avoid causing interference. If one valve only is used it is better to use a crystal in conjunction or to wire it up with a crystal as rectifier (detector), and a low-frequency transformer feeding back the rectified energy to the grid of the valve which thus operates as a dual amplifier simultaneously at high and low frequency. Single valve receivers are most unsatisfactory pieces of apparatus for broadcast reception, both from the point of view of the user and his neighbours.

SLIDER.—A sliding contact by which the number of turns of a tuning coil in use may be varied.

"SOFT" VALVE.—A valve having small gas content or low degree of vacuum, useful for rectification (detection), but of little value for amplification.

SOLENOID.—A type of electro-magnet in which the armature is attracted into the central space in the interior of the windings, when current is passed through the coil. Used for operating mechanical contrivances from a distance by electrical means.

SPADE-END.—A small forked piece of metal to which the end of a wire is clipped or soldered; the fork slips between the nuts of pillar type terminals and thus makes good firm contact.

SPAGHETTI.—The term Spaghetti, as used in wireless, is applied to an insulated sleeving for the purpose of covering busbar wire. Spaghetti has a very high resistance, and is easily threaded on to the busbar wire for wiring the set. Made in four different colours, this method of wiring is very efficient, neat, and rigid, besides making it a simple matter to trace any particular lead.

SPEED OF RADIO SIGNALS.—The waves sent out from a broadcast station maintain a constant speed of about 186,200 miles per second, on any wavelength. This is the same speed as that of light. Frequency in cycles per second divided into this figure in metres (300,000,000), gives the wavelength in metres. Conversely, the wavelength in metres divided into 300 million gives the frequency in cycles. See "Wavelength."

STATION.—Stationary element of a vario-meter, vario-coupler, or the stationary plates of a condenser.

STATIC.—An alternative term for "atmospheric" disturbance. Natural or atmospheric static is a source of considerable interference with long-distance reception at times. Up to the present there is no known method of reducing interference from static without a corresponding reduction in the signal strength of reception, except by the use of elaborate and most costly appliances.

"STRAIGHT" CIRCUIT.—The colloquial term for a straightforward circuit in which each valve is called upon to perform a single function only, and in which reaction is not pushed past the verge of oscillation, as in "super-regenerative" circuits.

SUPER-HETERODYNE, SUPER-SONI HETERODYNE (usual abbreviation Super-Het).—A method of reception whereby signals are combined with local oscillations of a definite frequency deliberately set up (see "Heterodyne") are detected, and the third frequency set up on a long wavelength of usually 4000 metres is amplified and detected in the usual manner. There are many good features, such as ease of control and high selectivity obtainable. This method of reception should only be used with a loop in New Zealand, unless special tests on the receiver have been made by the P. and T. Department.

TAPPINGS.—Variation of the number of turns of a tuning coil in use is sometimes made by taking "tappings" from various points in the winding to the contact studs of a multi-contact switch.

TELEGRAPHY.—The system of the transmission of intelligence per wire or radio by means of the Morse or other telegraphic code.

TELEPHONE RECEIVER.—The apparatus with which the signals are changed back from the electrical vibrations to which the initial speech or music has been converted for the purposes of transmission to sound waves, and so made audible.

RADIO DIRECTORY

What to Buy and Where

AUCKLAND

ATWATER-KENT RADIO .. All Radio Dealers.

ALTONA & HAMMARLUND. Frank Wiseman, Ltd.
170-172 Queen Street, Auckland.

ROBERTS SETS. Johns, Ltd.
Chancery Street, Auckland.

AMPLION LOUDSPEAKERS . Superadio, Ltd.,
147 Queen Street, Auckland.

BREMER-TULLY RADIO .. All Radio Dealers.

BURGESS RADIO BATTERIES, All Radio Dealers.

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FADA RADIO National Electric & Eng. Co., Ltd.
Customs St.; Radio Supplies, Symond St.

FEDERAL, MOHAWK, GLOBE Federal Radio House,
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GILFILLAN AND KELLOGG . Harrington's, Ltd.,
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MARCONI ECONOMY VALVES All Radio Dealers.

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RADIOLA RECEIVERS Farmers' Trading Co., Ltd.,
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RADIOTRON VALVES All Radio Dealers.

RELIANCE BATTERIES .. N.Z. Made
96 Albert Street, Auckland.

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COUNTRY TOWNS

ANCHORADIO, BREMER-TULLY, RADIOLA, BROWNING-DRAKE, AND ATWATER-KENT RADIO Radio House,
Hamilton. G. S. Anchor, Manager.

BROWNING-DRAKE SALES AND SERVICE J. H. Sinclair,
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CROSLEY ELECTRICAL AND BATTERY MODELS The Forrest-Crosley Radio Co., Ltd. Cuba Street, Palmerston North.

GAROD, CROSLEY, RADIO AND ACCESSORIES The Hector Jones Electrical Co.
King and Queen Streets, Hastings.

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PHILIPS VALVES AND APPARATUS All Good Radio Dealers,

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at NEW LOW PRICES. 7-Tube Battery Sets from £11-10-0; Complete from £29-10-0. 7-Tube Electric Sets from £48; Complete from £54.

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