

SEVENTH EDITION

MODERN
DICTIONARY
of
ELECTRONICS

RUDOLF F. GRAF



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auto light range—The range of light (e.g., sunlight to moonlight) over which a TV camera is capable of automatically operating at specified output.

autoluminescence—The luminescence of a substance that is produced by energy within it (e.g., radioactive material).

auto-man—A locking switch that controls the method of operation (i.e., automatic or manual).

automata—A plural form of automaton.

automated communications—Combination of techniques and facilities by which intelligence is conveyed from one point to another without human effort.

automatic—1. Self-regulating or self-acting; capable of producing a desired response to certain predetermined conditions. 2. Self-acting and self-regulating; operating without human intervention; often implying the presence of a feedback control system. 3. Pertaining to a process or device that, under specific conditions, performs its functions without intervention by a human operator.

automatic-alarm receiver—Complete receiving, selecting, and warning device capable of being actuated automatically by intercepted radio-frequency signals forming the international automatic-alarm signal.

automatic-alarm-signal keying device—A device that automatically keys the radio-telegraph transmitter on board a vessel to transmit the international automatic-alarm signal.

automatic answer—A feature by which a communicating word processor, twx, etc., may receive text without an operator in attendance.

automatic back bias—A radar-receiver technique that consists of one or more automatic gain-control loops to prevent large signals from overloading a receiver, whether by jamming or by actual echoes.

automatic bass compensation—Abbreviated abc. 1. A circuit used in a receiver or audio amplifier to make the bass notes sound more natural at low-volume settings. The circuit, which usually consists of resistors and capacitors connected to taps on the volume control, automatically compensates for the poor response of the human ear to weak sounds. 2. A circuit used in some audio equipment to increase the amplitude of the bass notes to make them appear more natural at low volume settings.

automatic bias—See self-bias.

automatic brightness control—A circuit used in television receivers to keep the average brightness of the reproduced image essentially constant. Its action is similar to that of an automatic volume-control circuit.

automatic call—A communications feature that allows a transmission control unit to automatically establish a connection with one or more message recipients.

automatic call distributor—See ACD.

automatic calling unit—Abbreviated ACU. A dialing device, supplied by the communication common carrier, that permits a business machine to dial calls automatically over the communication networks.

automatic carriage—A control mechanism for a typewriter or other listing device that can automatically control the feeding, spacing, skipping, and ejecting of paper or preprinted forms.

automatic check—An operation performed by equipment built into an electronic computer to automatically verify proper operation.

automatic chrominance control—A color-television circuit that automatically controls the gain of the chrominance bandpass amplifier by varying the bias.

automatic circuit breaker—A device that automatically opens a circuit, usually by electromagnetic means, when the current exceeds a safe value. Unlike

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a fuse, which must be replaced once it blows, the circuit breaker can be reset manually when the current is again within safe limits.

automatic coding—A technique by which a digital computer is programmed to perform a significant portion of the coding of a problem.

automatic color purifier—See automatic degausser.

automatic computer—A computer capable of processing a specified volume of work without a need for human intervention other than program changes.

automatic connections—Connections between users made by electronic switching equipment without human intervention.

automatic constant—In a calculator, a provision that allows the user to multiply or divide a series of numbers by the same divider or multiplier without reentering each time.

automatic contrast control—A television circuit that automatically changes the gain of the video intermediate-frequency and radio-frequency stages to maintain proper contrast in the television picture.

automatic controller—A device or instrument for measuring and regulating that operates by receiving a signal from a sensing device, comparing this signal with a desired value, and issuing signals for corrective action.

automatic crossover—1. A type of current-limiting circuit on a power supply provided with an adjustment for setting the short-circuit current to an adjustable maximum value. 2. A term applied to bimodal power supplies (constant voltage/constant current) that describes the transferral from one operating mode to the other at a predetermined value of load resistance. Usually the crossover point is preset by means of front panel controls.

automatic current limiting—An overload-protection mechanism designed to limit the maximum output current of a power supply to a preset value. Usually it automatically restores the output when the overload is removed.

automatic cutout—A device, operated by electromagnetism or centrifugal force, to automatically disconnect some parts of an equipment after a predetermined operating limit has been reached.

automatic data processing—Abbreviated ADP. The processing of digital information by automatic computers and other machines. Also called integrated data processing.

automatic data-processing system—A system that includes electronic data-processing equipment together with auxiliary and connecting communications equipment.

automatic degausser—Also called automatic color purifier and degausser. An arrangement of degaussing coils mounted around a color-television picture tube. These coils are energized only for a short while after the set is turned on. They serve to demagnetize any parts of the picture tube that may have been affected by the earth's magnetic field or the magnetic field of any nearby home appliance.

automatic dial—A communications feature whereby a calling unit has the ability to automatically establish a connection with one or more message recipients.

automatic dialer—1. Device that will automatically dial any of a group of preselected telephone numbers. 2. A device that automatically dials telephone numbers on a network.

automatic dialing unit—Abbreviated ADU. A device capable of generating dialing digits automatically.

automatic digital network—Automatic communications network for end-to-end message-switched digital data communication.