EXHIBIT A

THE ILLUSTRATED DICTIONARY OF ELECTRONICS

FIFTH EDITION

RUFUS P. TURNER & STAN GIBILISCO

The
Illustrated
Dictionary of
Electronics

Fifth Edition

FIFTH EDITION
FIRST PRINTING

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Questions regarding the content of this book should be addressed to:

Reader Inquiry Branch
TAB Books
Blue Ridge Summit, PA 17294-0850

Acquisitions Editor: Roland S. Phelps
Technical Editor: Lisa A. Doyle
Production: Katherine G. Brown

inhibit pulse   In a computer, a drive pulse that keeps other pulses from changing the direction of magnetization in the cells of a magnetic core memory.

inhibit signal   In digital computer and logic practice, the signal that causes an inhibit action. *Also see* INHIBIT, 1.

initial drain   The current supplied by a battery or cell at its rated voltage.

initial failure   The first failure occurring in the operation of a circuit or device.

initial instructions   A resident computer routine used to aid program loading. Also called *initial order*.

initial inverse voltage   The peak inverse anode voltage following conduction in a rectifier tube.

initial ionizing event   In the operation of a radioactivity counter, the first event that starts the chain of similar events constituting the count.

initialization   A computer program instruction that sets the value of a variable to zero.

initial permeability   Permeability in the low magnetization region of a material.

initial-velocity current   In an electron tube, the current that flows as the result of electrons passing from the hot cathode to another element, such as a grid or plate that has no external voltage applied to it.

initiate   *See* TRIGGER.

injection   1. Introducing a signal into a circuit or device. 2. Introducing current carriers (electrons or holes) into a semiconductor.

injector   1. An element or electrode for injection (*see* INJECTION, 1, 2). 2. A signal injector.

injector electrode   *See* INJECTOR, 1.

injector grid   In a multigrid converter tube, the grid to which the local-oscillator signal is applied.

ink bleed   In the printing of matter for optical character recognition, ink flow around the characters, often making them unrecognizable to the reader.

ink-jet galvanometer   A galvanometer whose movement controls the pressure of a jet of ink for making a recording on a paper chart. *Also see* LIQUID-JET OSCILLOGRAPH.

ink-mist recorder   A graphic recorder in which the line is traced by a mist of ink.

ink recorder   A graphic recorder employing a pen-and-ink stylus.

ink squeeze-out   In the printing of matter for optical character recognition, the squeezing of ink from a character's center.

ink-vapor recorder   *See* INK-MIST RECORDER.

in-lb   Abbreviation of INCH-POUND.

inlead   The part of an electrode going through that which encapsulates a device (tube envelope; transistor base, etc.).

inline procedure   The main portion of a COBOL computer program, responsible for the primary operations.

inline processing   The action peculiar to a system that processes data almost immediately upon receipt, i.e., one that needn't be capable of storing a lot of unprocessed data.

vice that displays digits side-by-side horizontally.

inline subroutine   A subroutine that must be written each time it is needed, as compared with one that can be accessed by a program branch.

inline tuning   Tuning of all the stages of a channel, such as an intermediate-frequency amplifier, to the same frequency.

inner conductor   The inner wire or rod of a coaxial cable or coaxial tank. *Compare* OUTER CONDUCTOR.

inorganic   Consisting of materials other than carbon compounds, and therefore not related to living things.

inorganic electrolyte   Any electrolyte that is completely inorganic: containing no compounds of carbon.

in phase   The condition in which alternating or pulsating waves or wave phenomena are in step with each other at all points. *Compare* OUT-OF-PHASE.

in-phase carrier   *See* I-PHASE CARRIER.

in-phase current   Resistive current in an ac circuit, i.e., current in phase with voltage. *Compare* QUADRATURE CURRENT.

in-phase feedback   Feedback in phase with a main signal. Also called POSITIVE FEEDBACK and *regeneration*.

in-phase voltage   A voltage which is in phase with another (reference) voltage.

inplant system   An automatic data communications system within a specific building or complex.

input   1. Energy or information delivered or transferred to a circuit or device. *Compare* OUTPUT, 1. 2. The terminals of a device or circuit to which energy or information is applied. *Compare* OUTPUT, 2. 3. To deliver or transfer energy or information to a circuit or device (as to input data from a computer peripheral to memory).

input admittance   Symbol, Y_i. The internal admittance of a circuit or device, as seen from the input terminals; the reciprocal of input impedance. *Compare* OUTPUT ADMITTANCE.

input area   In a computer memory, an area set aside for data input from a source other than a program.

input bias current   The input bias required by an operational amplifier.

input capacitance   Symbol, C_i. 1. The internal capacitance of a circuit or device, as seen from the input terminals. *Compare* OUTPUT CAPACITANCE. 2. The grid-cathode capacitance of an electron tube.

input capacitor   1. In a capacitance-coupled circuit, the input coupling capacitor. *Compare* OUTPUT CAPACITOR. 2. The first capacitor in a capacitor-input filter, i.e., that capacitor electrically nearest the rectifier output electrode.

input choke   The first choke in a choke-input filter i.e., that choke electrically nearest the rectifier output electrode, when no "preceding" capacitor is employed.

input circuit   The circuit or subcircuit constituting the input section of a network or device. *Also see* INPUT, 1, 2 and INPUT TERMINALS. *Compare* OUTPUT CIRCUIT.

input clamp current   The current from an input when the input is in a state below ground potential. A test for the

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