

Engineer's notebook

DIP switch isolates faults in system

by Robert A. Dougherty

RAD Technical Consulting, Dunedin, Fla.

A time-honored technique for isolating faults in a digital system is to bend up a pin of a dual in-line package, thus breaking the circuit by removing that pin from its socket. Sometimes, however, the circuit is not the only thing that breaks, because DIP pins are delicate.

The new in-line DIP switches offer a better way to disconnect one pin from the circuit. Two 16-pin DIP switches, each with eight spst slide switches, plus a 16-pin DIP socket and a 16-pin DIP component carrier, form a neat package that allows selective removal of any or all pins from the circuit at will. The DIP device is plugged into the socket on top of this package, and then the package is plugged into the circuit.

The accompanying sketch and photo show the simple assembly. (A 12-pin switch was used in the unit that was photographed.)

Test assembly. DIP switches are mounted between socket and carrier to provide handy unit for isolating faults in a digital system. When a DIP IC is plugged into the socket and the whole assembly is plugged into the system, any pin or pins of the IC can be disconnected and reconnected quickly and safely.

