AUTOMATIC INSTRUMENT TURN OFF/ON FOR ERROR CORRECTION

ABSTRACT

To accomplish automatic error correction in an electronics instrument, the instrument includes a controller (100), coupled to at least one peripheral unit (105;110;115;120;130) via a communications bus (135) for bidirectional communication with the peripheral unit, coupled to a memory circuit (125) for storing data indicative of the operational status of the peripheral unit, and coupled to a power supply (140;150) which supplies power to the peripheral unit. The controller reads the operational status data from the peripheral unit and upon detection of an error condition, writes (210) data indicative of status to the memory circuit and causes (220) a removal of power, for a predetermined time, from said peripheral unit, followed by the reapplication of the power. The power supplies themselves are also monitored and, in the event of a detected error in power supply output, the power supply is turned off and turned on in an attempt to clear the problem. In this way, a peripheral unit not having an external reset pin can, nevertheless, be reset by the controller to clear problems caused by transient interference. If the problem persists after a predetermined number of attempts (230) to clear it, the electronics instrument is automatically shut off (270).

Fig 1