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Automatic Circuit Troubleshooter

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SENIOR DESIGN

TECHNICAL REPORT

for

AUTOMATIC CIRCUIT TROUBLESHOOTER

title

in partial fulfillment of the requirements

for the degree of

BACHELOR OF SCIENCE



presented to the

ELECTRICAL ENGINEERING TECHNOLOGY FACULTY

INDIANA UNIVERSITY-PURDUE UNIVERSITY AT FORT WAYNE

April 24, 1981

date

by

Keith J. Lampro

GRADE: _____

APPROVED: _____

ABSTRACT

The Automatic Circuit Troubleshooter (ACT) was designed to troubleshoot a horizontal oscillator board (HOB) from a Heathkit GR-2000 Color Television Receiver. The ACT would perform a series of eight voltage tests on the HOB, to detect any faulty stages that existed. Four of these tests would be conducted on DC voltages from the HOB, the remaining four tests would be conducted on AC signals from the HOB. If a stage was faulty on a HOB the ACT would display a code indicating the faulty stage and test failed. A practical application for the ACT would be in a manufacturing environment, where these horizontal oscillator boards are mass produced. A non-technical worker could test a HOB with the ACT. If it was found to be faulty, it could be tagged with the display code from the ACT and sent to a repair section. In such an environment, the ACT would be most beneficial, saving time in testing and troubleshooting procedures.

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