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An Automatic Volume Controller For Automotive Component Stereo Audio Equipment

Michael O'Boyle

Indiana University - Purdue University Fort Wayne

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SENIOR DESIGN

TECHNICAL REPORT

for

AN AUTOMATIC VOLUME CONTROLLER
FOR AUTOMOTIVE COMPONENT STEREO AUDIO EQUIPMENT
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

December, 1979
date

by

Michael O'Boyle

GRADE: _____

APPROVED: _____

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ABSTRACT

The automatic volume controller for automotive component stereo audio equipment is a design that simply keeps the signal to noise ratio constant within the passenger area of a car where the signal is from an automotive hifidelity stereo audio unit installed in the car and the noise is from, for example, air rushing in an open window. Some design considerations are the type of stereo system used, temperature extremes, and engine noise. The design is made up of two main sections. One is the input section which includes pre-amplifiers, filters, rectifiers, and a comparator. The other is the automatic volume controller section which includes an inverting D.C. amplifier and a D.C. gain controlled A.C. amplifier.