Final YEAR PROJECT DIPLOMA IN ELECTRONICS ENGINEERING SCHOOL OF ENGINEERING MARA INSTUTE OF TECHNOLOGY SHAH ALAM. SELANGOR

PROJECT TITLE:

DIGITAL TACHOMETER

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PREFACE

This report describes a "DIGITAL TACHOMETER" which has been operating successfully after going through some trouble shooting during the initial build up. To build this project, one must first select devices to meet the requirement.

This project involves a large number of components i.e. transistor, resistor, capacitors, diodes, intergrated circuit and seven segment display. Each device is introduced by presenting a simple, precise and concise physical picture of the internal behaviour of the device and its basic charateristics which is relevant in implementing the project concerned. However combination of the devices, particularly in intergrated circuit form are exploited as basic system building blocks. Reader is presented the operation of the system by building blocks method.

This report touches basically five basic section, i.e. Pulse input conditioning block and pulse multiplier the time base and counter display block and lastly the power supply.

1.00 INTRODUCTION

Driving enthusiasts appreciate the need of comprehensive dashboard instrumentation to keep them informed about the conditions under the bonnet of their vehicle.

The trend that modern car manufactures seem to be following however, to equip the "average" small or family car with the bare minimum of gauges, most having replace with simple warning lights.

The argument for this simplification is the many drivers who merely use thier car as a convenient means of transportation do not want to be confused by a bank of complicated looking dial and readouts.

Whilst this is a valid point, many car sympathetic driver do like some form of running commentary about the state of the vehicle they are running.

One of the most important instruments is "TACHOMETER".