

# **HOTLINE EQUIPMENT**

**This thesis is presented to fulfil the requirement of  
Advanced Diploma in Electrical Engineering  
of MARA Institute of Technology.**

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## ***ABSTRACT***

Intercom was introduced as a telecommunication system which does not use telephone exchanges. But it has drawbacks such as unusual ringing sound without ringing tone, shorter distance coverage and its main need to a key button to function.

In our project, our objective was to design a hotline equipment to be used as a point-to-point communication independently from the telephone exchange but has the same features like the existing hotline service provided by Telekom Malaysia. Details of the design and technical description of our hotline equipment as well as the comparison with the existing hotline and intercom systems are discussed in this report.

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## **1. INTRODUCTION**

Communication using the telephone is the cheapest at present, but the Public Switched Telephone Network (PSTN) to a certain extent is not that reliable. In certain cases when the telephone exchanges are busy, urgent messages for key personnel in some organisations may not get through. In order to overcome this situation, stand-alone telephone equipment is necessary.

The hotline equipment which uses the telephony cable network, without going through the telephone exchanges provides a very reliable point-to-point communication. It is widely used among the corporate key-personnels. The hotline equipment consists of a two-wire automatic unit which provides automatic ringing towards either end of a two-party two-wire circuit when the opposite end goes off-hook. Ringback tone is received by the calling party for acknowledgement. Ringing continues until the calling party answers, or in the event of an unanswered call - until the calling party reverts to on-hook condition.