

ABSTRACT

A Community Electronic Security Device

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Community neighbourhood watch programs have always been faced with the problem of how to reliably inform neighbours of possible breach of security at a specific location.

This thesis describes a fully designed and constructed electronic security device which can be easily interfaced to standard detector systems. The device utilizes the principles of phase locked loop (PLL) transmission and reception of digital codes on a carrier frequency of 150 MHz. A microcontroller circuit decodes and displays all received messages. Each device has a unique digital code which indicates its exact location.

Devices must be installed in each household and reliably communicate with each other upon activation. The received messages will be displayed, thus informing the neighbours of the precise household location of a possible burglary or emergency. Planned course of action can then be effectively carried out.