ABTRACT

This micro controller based code lock can be used for preventing unauthorized access to devices or solenoid operated locks electrical devices. This code lock built around microchip's PIC16F84A microcontroller.

Different passwords are used to access operate different devices. So the code lock can be used as a multi-user code lock, where the users can access respective devices by entering the device number followed by password. The password length for each device can be between 4 and 15 digits as desired by the user. A buzzer has been added to provide suitable feed back with respect to the data entered via keyboard. When any one trying to access the device enters the incorrect password three times, the circuit sounds an alarm can be configured to work in two modes: auto reset and latch up. In auto reset alarm mode, all the keys pressed are ignored and the buzzer keeps beeping continuously for one minute and thereafter the code lock resets automatically. If the user wants additional security, he can enable the latch up mode. In this alarm mode the code lock never switches to the normal mode from the alarm mode and the only way to reset the code lock is to interrupt power. When not in use the code lock goes to sleep mode, and it wakes up if any key is pressed. This feature reduces the power consumption by the microcontroller.

INTRODUCTION

Here's microcontroller based code lock that can be used for preventing unauthorized access to devices. This code is built around PIC16F84 microcontroller. Different passwords are used to access different devices. The password is used to different devices. The password can be changed by the user and no external back up supply is needed to retain the password.

A buzzer has been added to provide suitable feed back with respect to the data entered. The number of beeps indicates whether the data has been entered correctly or not. When any one enters the incorrect password, three times the circuit sounds the alarm.

BLOCK DIAGRAM