

**INTERNATIONAL JOURNAL OF ENGINEERING SCIENCES & RESEARCH
TECHNOLOGY****SCHOOL PURPOSE AMPLIFIER****DeokarAditya, Gadge Omkar, Mule Ganesh, Mrs.Bhalla D.A**

Department of Electronics and Telecommunication Engineering, Jaihind Polytechnic, Kuran, India

ABSTRACT

The world over the decade's has made considerable advancement in automation ,automation is employed in home ,industries, commercial & educational sector. In this work ,a microcontroller base automatic school bell timer amplifier is design.When school or collage start then amplifier is ON & play's the National anthem after this the amplifier off automatically & after every period the buzzer play through the speaker. When the last lecture is finished then the national song ("Vandemataram") is play through the amplifier. Then operation is done without any human intervention so we get high degree of accuracy. This kit contains eight different timing interval in only one ic. The timing modes & delay ranges are selected by on board push on switch's. Simply select the time delay you want . Timer can display the real time clock in 24 hour mode.

KEYWORDS: .Microcontroller,Amplifier,EEPROM,Keypad,Display

INTRODUCTION

The complete system divided in different section. The time keeping section, keyboard interface ,displayinterfacing , memory interfacing , relay & amplifier interfacing & power supply section. Using a microcontroller greatly reduces the component cout while providing more feature's. The cost of microcontroller is lower. The keyboard buttons are used to select the time interval after which the bell has to be buzz through the speakers. The display gives the real time and also displays the time setting while programming the bell time intervals. The microcontroller gives output when the specified time occurs. This output is not sufficient to run the amplifier output so relay operation is used so that the amplifier gives the output when relay contact is closed which is controlled through microcontroller.The amplifier not only provides interface with microcontroller but also can be used with any other external input. So different notices can be given through the existing system. The amplifiedoutput is then provided to the speakers.

METHODS

The input given through the keyboard which can be used to select,increment,go to program mode,time setting & bell time setting .The set time and bell intervals are moved to the EEPROM through the microcontroller.By the use of EEPROM we can store the bell program for years.The controller gives output corresponding to the time intervals .This output are given to the memory element in which audios of National anthem,National song and bell are stored.This inputs are provided to the Amplifier .

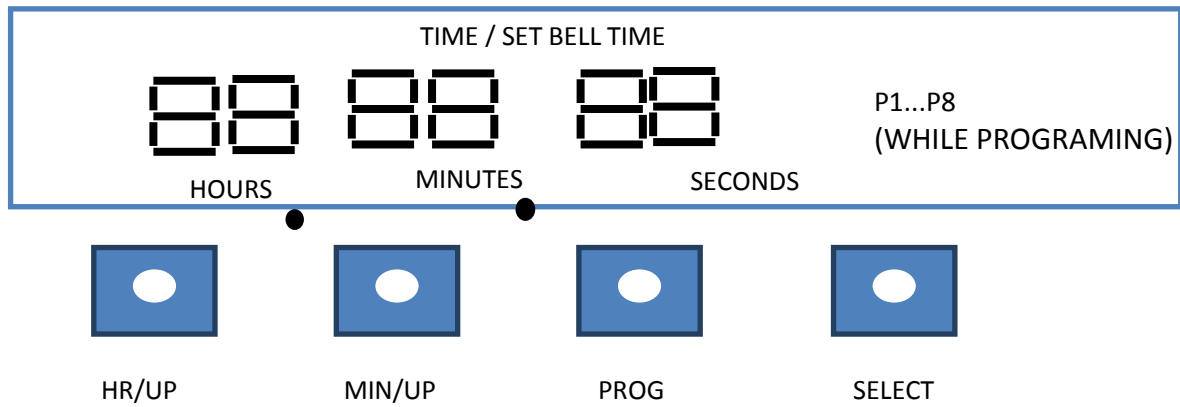


Fig1. Bell Time Setting

Block diagram:

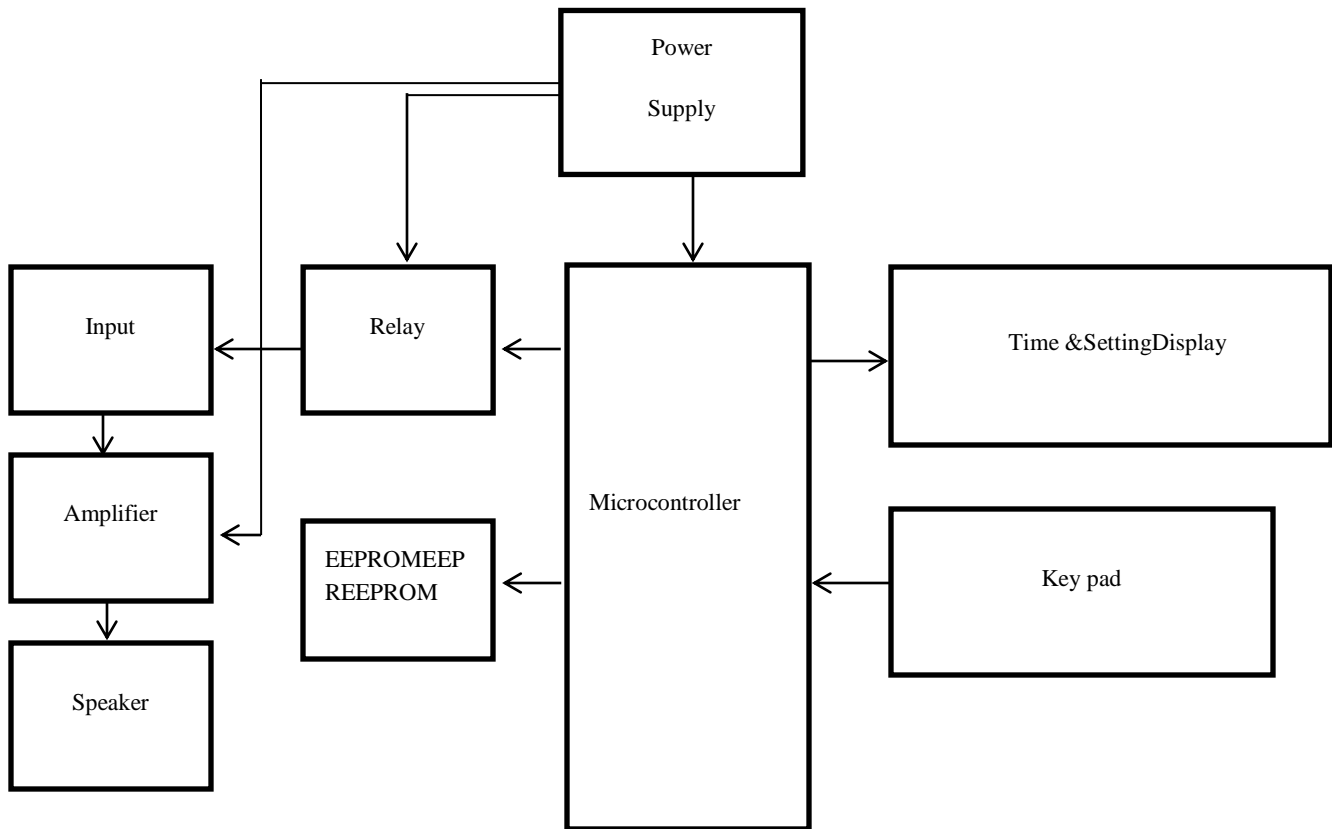


Fig2. School Purpose Amplifier

ADVANTAGE

- Stand alone device.
- Easy to programme.
- Can access the already existing notice system.
- Other function can also run along with timer.

APPLICATIONS

- It is purposely designed for Schools and Colleges
- It can be used in industries for indications of manual operation timing.

CONCLUSION

Thus we have built a School Purpose Amplifier which can handle school bell timing operations as well as also perform the functions which a normal PA amplifier can do.

REFERENCES

- [1] Henry OhianiOhize,ElizabethNonyeOnwuka, Ahmed Ibrahim”Design of Microcontroller-based Automatic School Bell” AU J.T. 15(2): 121-128 (Oct. 2011).
- [2] U.B Mujumdar”Microcontroller based school Timer”Electronics For You(July 2001)
- [3] 8952.datasheet.Available
<http://www.alldatasheet.com/datasheet-pdf/pdf/82391/ATMEL/AT89S52-24AC.html>
- [4] AT24C04.Datasheet. Available
<http://www.alldatasheet.com/datasheet-pdf/pdf/56064/ATMEL/AT24C04.html>
- [5] <https://en.wikipedia.org/wiki/Amplifier>
- [6] <http://www.circuitstoday.com/mosfet-amplifier-circuits#50-watts>
- [7] <http://www.engineersgarage.com/microcontroller/8051projects/LCD-digital-alarm-clock-AT89C51-circuit>