





USER'S GUIDE

NSK
ELECTRONICS



AUTOMATIC COLLEGE BELL



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This device can be used in the SCHOOL, COLLEGES for automatic period bells and it replaces the Manual Switching of the Bell in the College. In this we can set different 25 no of alarms, and We can give delay time or ring time for each alarm, When this time equals to the Bell Ringing time, then the Relay for the Bell is switched on, The Bell Ringing time can be edited at any Time, so that it can be used at Normal Class Timings as well as Exam Times. The Real Time Clock is displayed on LCD display. PIC Microcontroller is used to control all the Functions, it get the time through the keypad and store it in its Memory. And when the Real time and Bell time get equal then the Bell is switched on for a predetermined time. And also operate in manual mode.

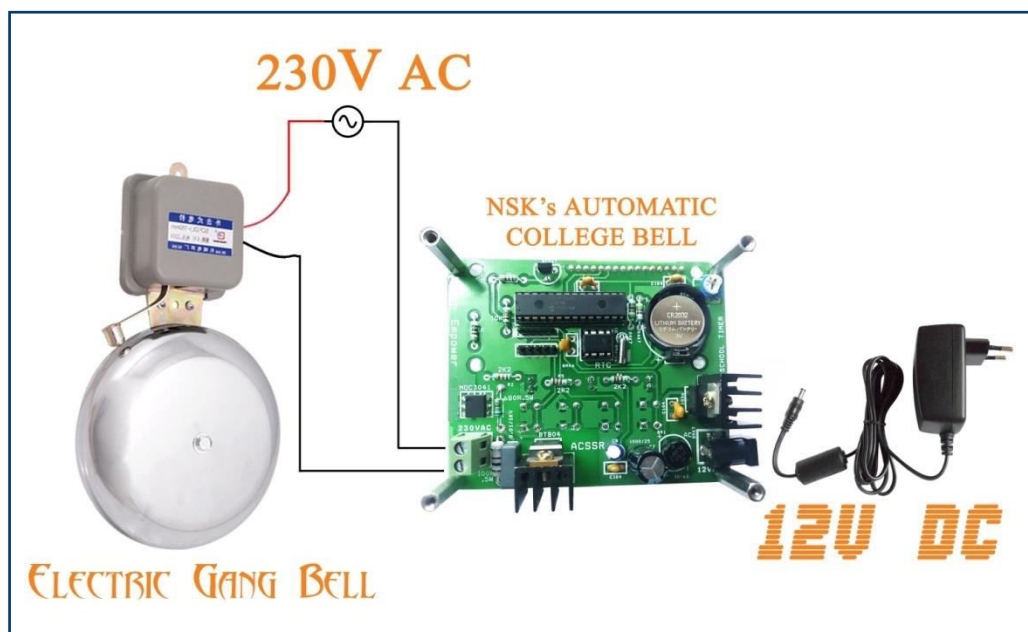
SPECIFICATION

1. The operating voltage is 12v DC.
2. In the output we can drive up to 230 volt, 50 Hz AC.
3. Four push buttons are used to set the data and alarms, namely switch 1 is for increment, switch 2 for decrement, switch 3 for both programming and next (move cursor). And switch 4 for storing the data like (ok button) at each time when we altered the values.



4. Three LEDs Red, Yellow and Green are used to indicate Power on, manual and output respectively.
5. 16x2 LCD for the display time and alarms.
6. It has an Inbuilt Real Time Clock (DS1307) which tracks over the Real Time and lithium 3v cell for the offline RTC storage.

CONNECTON DIAGRAM



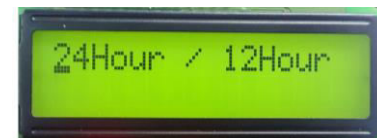
Settings for School Timer

Step 1: Connect Battery, Electric Gang Bell and Give the 12v DC for the power to automatic college bell (Connection diagram above).

Step 2: Press the switch 3 (program/next) to enter program mode.



Step 3: Press the switch 4 to select program, and select the time format -12/24 hrs (**Program 1**).



Step 4: Press switch 3 to set RTC data (**Program 2**).



Step 5: Again press the switch 3 to set alarm on time for manual mode (**Program 3**).



Step 6: In order to set the alarm time alarm no 1 to 25 and set the delay time or ring time (**Program4**).



Step 7: For Manual Bell, Press Button 2 in Home screen. In home screen it changed from **auto** to **Manual**. Then press button 1. Manual bell rings.



HOME SCREEN

NOTE: After every alteration in data and alarms we have to store by Pressing switch 4 i.e. switch 4 is like a “ok” switch.

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