

Programmable Automatic Digital Timetable System



User's Guide

Preface:

The main function (purpose) of this system is to manage the time and schedule the jobs, tasks, and events inside any social establishment (school, company, factory ...).

By means of this system; you can easily schedule the on duty time and the rest periods, arrange the regular activities in a software timetable, store alarming times and modify them via a Personal Computer.

This system has been developed by "AL-Awail company for electronic engineering" to make it easy to control (switch on/off) a school bell at the beginning and ending of the school terms (for instance), to announce (publicize) that the rest period is over, to inform people in an establishment that the on duty time is over, and so on.

The system also launches (initiates) an audio alarm at a preset time to indicate this time clearly; in addition to the possibility of controlling external devices (bells, audio amplifiers) and their operating durations.

Thank you for purchasing our products, and since you trust us; we declare that we are obligated to provide you with a full technical support and maintenance services, we hope that our products will be at your convenience.

Please read this user's guide in whole and follow its instructions to get the system operating properly, keep the user's guide because you may need it later.

Main features:

- ✓ A digital programmable clock with a six-digit display.
- ✓ 12/24 time modes.
- ✓ Automatic and manual switching between summer/winter time modes.
- ✓ Displaying temperature which ranges from -9°C to $+60^{\circ}\text{C}$.
- ✓ Five display modes (time, date, temperature).
- ✓ It's controlled by a local keypad and a remote control.
- ✓ It's programmable via a PC.
- ✓ A possibility to schedule up to /120/ alarming times in a timetable for each day of week.
- ✓ The timetable can be saved in a software file that can be modified and loaded later.
- ✓ An audio circuit for launching an alarming sound for each preset time.
- ✓ It can be connected to an audio amplifier or external speakers.
- ✓ It can control (switch on/off) external devices (amplifier, bell...) according to a preset timetable.
- ✓ The main power cut doesn't affect the time even if it lasted more than one month.
- ✓ The operating voltage is (100 ~240) Vac.
- ✓ Low power consumption (economical).

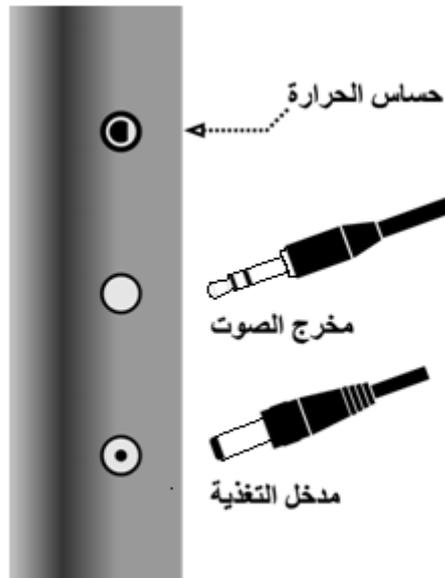
Installation and operation:

To switch on the system; follow the next steps:

- 1- Plug the enclosed adaptor (9V/2.5A) in the AC main power outlet.

- 2- Plug the adaptor output jack in the power input socket located on the right side of the system.
- 3- The system will operate and display the preset time on the display.
- 4- To set new time, follow the instructions in **(date and time adjustment)** paragraph.
- 5- To program the timetable, follow the instructions in **(programming the timetable)** paragraph.
- 6- To connect an audio amplifier or external speakers, follow the instructions in **(external speaker connection)** paragraph.
- 7- To connect the control out to an external device, follow the instructions in **(how to connect the control out)** paragraph.

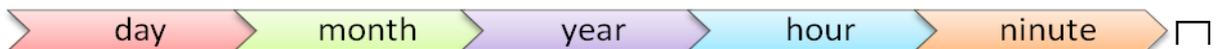
The temperature sensor is located on the upper right side of the system frame, be careful not to close the aperture allocated for this sensor in order to have an actual measurement of the ambient temperature.



Connecting the adaptor output and the audio out

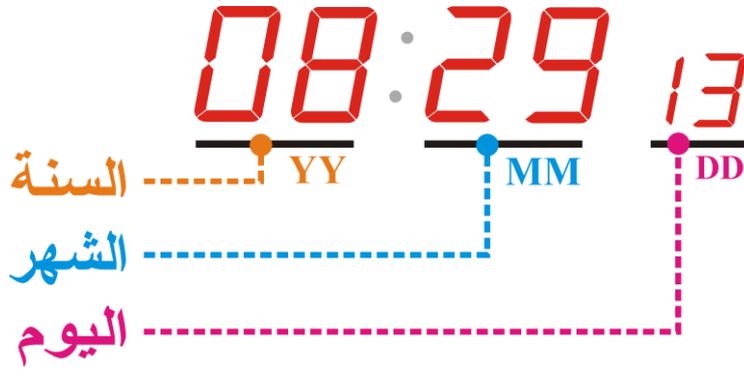
Date and time adjustment via remote control:

You can enter the date and time adjustment mode by means of the adjustment key as follows:

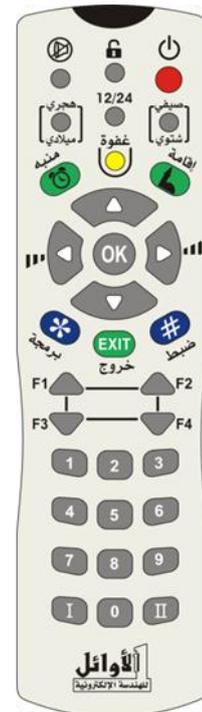
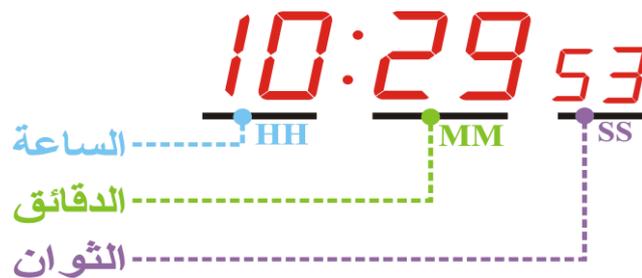




- 1- Press the adjustment key **#** to enter the date and time adjustment mode.



- 2- The day two digits (at the left) start flashing.
- 3- Use the increase  /decrease  keys to set the day.
- 4- Press **OK** key.
- 5- The month two digits (in the middle) start flashing.
- 6- Repeat step3 then press **OK** key.
- 7- The year two digits (at the right) start flashing.
- 8- Repeat step3 then press **OK** key.
- 9- You will be prompted to set the hour two digits (at the left).
- 10- Repeat step3 and step4 to adjust the hour and the minutes; then press **OK**.
- 11- As you have finished the adjustment, the clock will return back to the normal operation mode and resets the seconds' digits to zero.



Note1: no need to adjust the week days, they are calculated automatically according to the stored date.

Note2: in case you want to exit from the adjustment mode without saving changes, press **EXIT** key.

Extra functions on the remote control:

- To switch between 12/24 time modes, press  key.
- To switch between summer/winter time modes, press  key.
- To switch between the display modes (time/date/temperature), press the following keys:
 - **1** To display the time and temperature consecutively every five seconds.
 - **2** To display the time only.
 - **3** To display temperature only.
 - **4** To display the time and date consecutively every five seconds.
 - **5** To display the time, date, and temperature consecutively every three seconds.
- To mute the alarming sound press  key.
- To disable the control out while operating, press  key.
- To enter the display test mode, press  key.
- To exit the display test mode, press **EXIT** key.

Date and time adjustment via local keypad:

The system has a local keypad located on the back side (rear panel), the keypad contains seven keys and two light indicators (LEDs).

The steps of the time and date adjustment via the local keypad are exactly the same as the adjustment steps via remote control.

The next table lists the keys and their functions on the local keypad.

Key symbol	Key function
	Reset key
	/24/ hour light indicator
	PM light indicator
	Increase key
	Enter key
	Decrease key
	Summer/winter switching key
	12/24 time mode switching key
	Adjustment key
	Display modes switching key

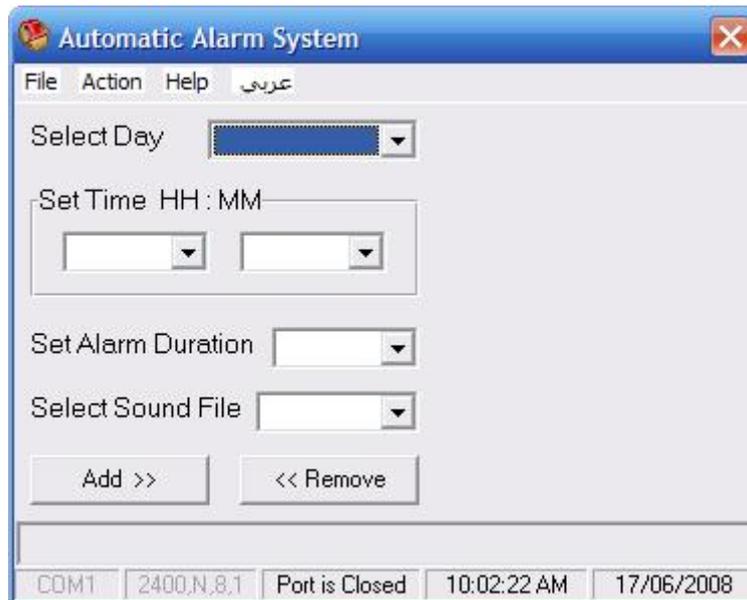


Programming the timetable via computer:

The timetable is programmed by means of the software supplied with the system.

Install this software (setup.exe) on your PC, during the installation you may encounter a message asks to replace an already existed file; press ok (agree to replace).

As you have finished the software installation; you can run the program from the start menu, you will see the graphical user interface illustrated in the next figure.

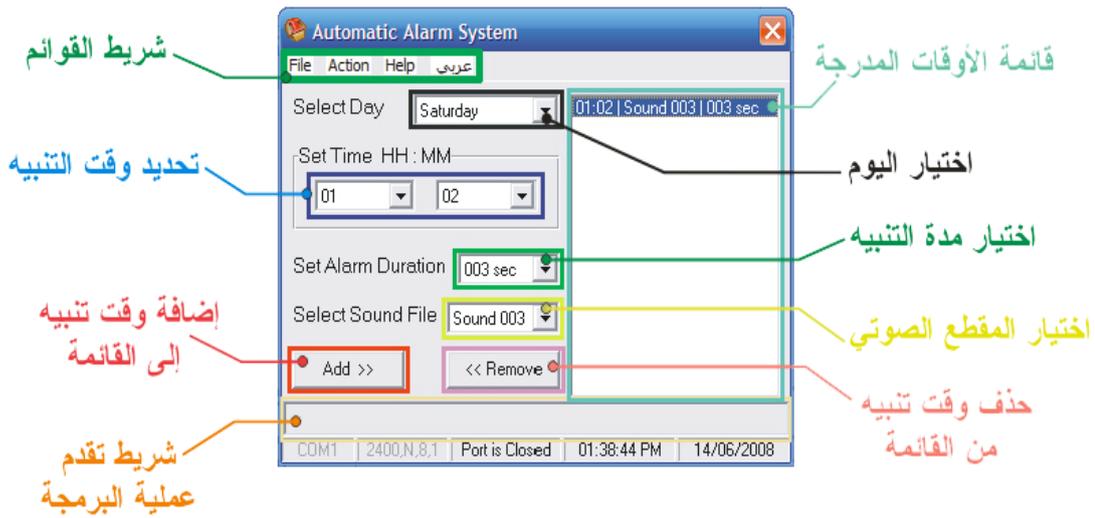


The user interface has been designed to be a user-friendly (you can deal with easily), you can change the user interface language to Arabic from 'عربي' menu.

Dealing with the program:

The main window of the program contains the following:

- 1- The main menu bar.
- 2- The Select Day popup menu.
- 3- The Set Time box (two popup menus).
- 4- The Set Alarm Duration popup menu.
- 5- The Select Sound File popup menu.
- 6- Add button to add the settings to the timetable.
- 7- Remove button to remove the settings from the timetable.
- 8- The scheduled time list.
- 9- The progress bar.



1. The main menu bar:

☒ File:

1. **New data file:** erase all the settings in the scheduled time list to configure new ones.
2. **Load data file:** load the settings from a data file.
3. **Save data file:** save the settings to a data file.
4. **Print data file:** print the data file.
5. **Exit:** close the program.

☒ Action:

1. **Programming system:** upload (write) the settings in the scheduled time lists to the system.
2. **Erasing data memory:** erase the settings in the system data memory.
3. **Language:** select the interface language (Arabic/English).

☒ Help:

1. **User's guide:** information about how to use the software.
2. **About us:** information about the manufacturer company (company profile).
3. **Our web site:** a link to our web site.
4. **About program:** the version of the software and other information.

2. "Select Day" menu:

This menu is to select the day you want to schedule the times in.

Note: each day has its own list which contains the scheduled times, you can switch between the lists from the "Select Day" menu.



3. "Set Time" box:

This box has two popup menus, one of them is for the hour setting and the other is for the minutes setting.

To set the alarming time, select the hour (HH) and minute (MM) in each popup menu.

Note: setting the time is in 24 hour time mode.



4. "Set Alarm Duration" menu:

The system has a control out for switching on/off external devices (audio amplifier, school bell...), the operation time duration of the control out is determined in the "Set Alarm Duration" menu.

You can select a different duration for each scheduled time.

Note: select the value "000 Non" to disable the control out.



5. "Select Sound File" menu:

You can select a different sound section (audio alarm) for each scheduled time; the audio alarming sections are previously recorded in a digital chip contained in the system.

Specified audio sections can be previously recorded at request.

Note: the maximum number of the audio sections that can be programmed (by the manufacturer) is /120/.

To disable the audio section for a scheduled time; select "000 Non".



6. "Add" button:

As you have finished selecting the previous settings (day, time, alarm duration, and sound file); you can add these settings to the scheduled time list of this day by pressing "Add" button.

Note: the maximum number of the alarming times that can be added to the scheduled time list of one day is /120/.

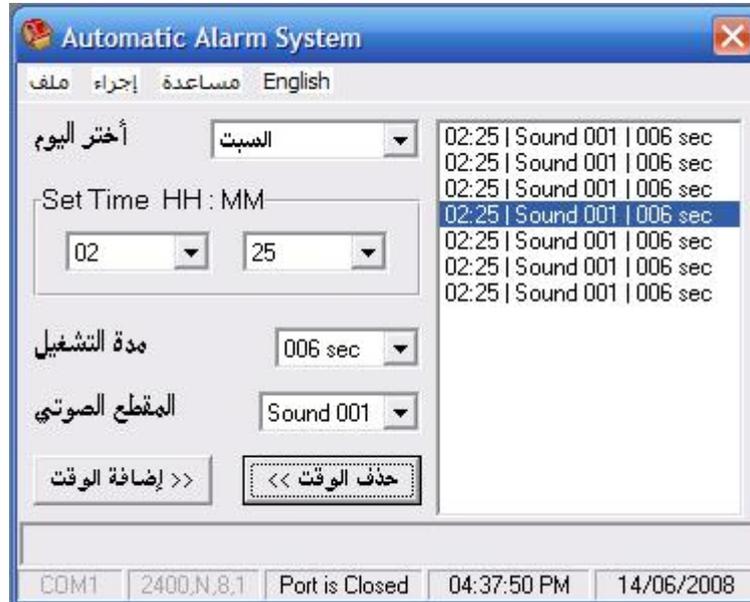
Note: the alarming time will be added to the scheduled time list only when you select the day + the time + the alarm duration or sound file or both of them.



7. "Remove" button:

You can remove any scheduled time from the scheduled time list for a preselected day by selecting this time then pressing "Remove" button.

You can also remove any time from the scheduled time list by double click on it.



8. The scheduled time lists:

The list which is located on right side of the window contains all the scheduled times for the selected day, so we have seven individual lists (a list for each day).

The alarming times appear in the scheduled time list for the selected day in the "Select Day" menu.

Note: the maximum number of the alarming times that can be added to one day list is /120/.

You can remove any time by double click on it.

The order of the scheduled times in the list is not important, the system will handle the times according to their values regardless of their order in the list.

Programming the system

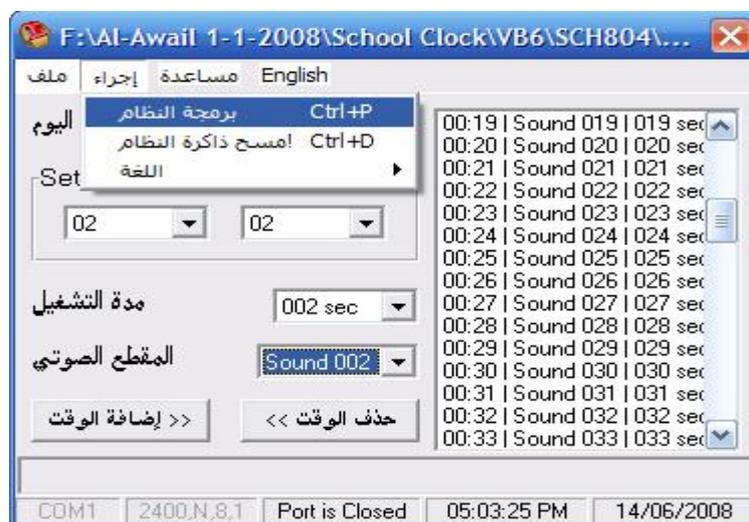
To upload the settings to the system, connect it to the COM port of your PC, the next figure shows the COM port on the back side (rear panel) of the PC.



Use the enclosed cable (programming cable) to connect the system to the PC, the system should be switched on while programming.



After making sure that the connection between the PC and the system has been done correctly, select the command "Programming system" from the "Action" menu, the uploading process will start; you shouldn't execute any command during the upload process.



Upon selecting the " **programming system** " command from the " **Action** " menu, the software will look for the COM port connected to the system, then it will transfer the data to the system (the progress bar indicates the progress of the data transferring process), at the end this process the program will originate a message says: "the system has been programmed successfully".



The progress bar in the bottom of the window will show the progress of the uploading process, after a few seconds the system will originate a message says: "the system has been programmed successfully".

Note: as you have finished programming the system, disconnect the programming cable and restart the system.

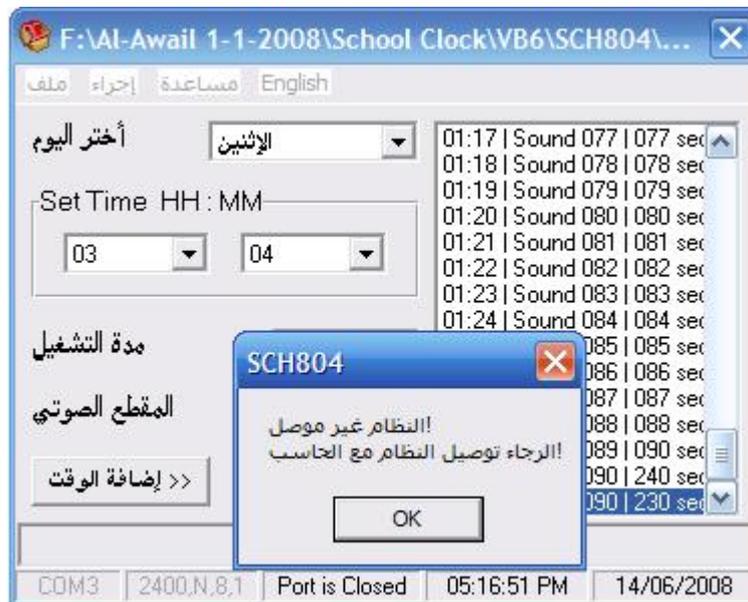
Note: in some cases you may have error messages:

"Port already open & used" this message says that the port is occupied by another application and you need to close it and start over programming the system.

If you don't know the application that occupy the port, restart the PC or log off and on; the port will be closed automatically.



"System is not connected! Please connect the system with COM port" this message says that there is no connection between the system and the software; you need to connect the programming cable correctly and retry the uploading process.



Note: in case the problem is still exist, contact the technical support in the company or send an E-mail.

How to connect the control out:

The system has a control out for switching on/off external devices (amplifier, bell...), these external devices are switched on according to the settings scheduled in the timetable.

Note: the maximum power consumption of the loads connected to the control out should not exceed /2000/W.

There is on the rear panel of the system an electrical white cable with two plugs (male and female) at each end, connect the male plug to the main power outlet (220V) and the female plug to the load.

