

The auto Azan

1. Features:

- 1- Displaying the **time, date, temperature**, and the **prayer times** in different display modes.
- 2- **Full Azan** at each prayer time with a **high quality** sound.
- 3- Audio alarm (four Takbirat) when it's the time for Iqama.
- 4- The sound is from an **internal speaker** or from an **external audio amplifier**.
- 5- A **control out** to switch on/off an external audio amplifier, with possibility to add extra control outs at request.
- 6- Possibility to choose the Azan sound (Makah, Almedienh, Alkuds ...) when purchasing the product.
- 7- Prayer times for **/28/ different cities**.
- 8- Setting the prayer times according to the authorized prayer times in the cities and villages all over the world.
- 9- **Hijri/Georgian** date, auto calculation of the Hijri date with possibility to adjust it easily.
- 10- **12/24** hour time mode.
- 11- Automatic and manual switching between **summer/winter** time modes (for countries with double time mode).
- 12- It's controlled by **local keypad** and **remote control**.
- 13- The time isn't affected by the main power cut.
- 14- Low power consumption.
- 15- Different sizes, front panel with multi languages, new design is welcome at customer request.

2. The authorized prayer times:

The prayer times and the sunrise time are programmed according to the authorized prayer times in each city; these are not related to any astronomic mathematic calculations, so they can't be changed by the user.

When you want to change these times, you need to advise the manufacturing company or the authorized agent in your region.

3. The outside description:

① Digital display consisted of six decimal digits for displaying the time, date, temperature, prayer times, and sunrise time consecutively.



② Eight light indicators (LEDs) to indicate the number is being displayed on the digital display (Is it date, temperature, or prayer times?).

③ An audio out is to be connected to an external audio amplifier.

④ Temperature sensor.

⑤ DC power input (+5Vdc).

⑥ AC power cable (110~220Vac).

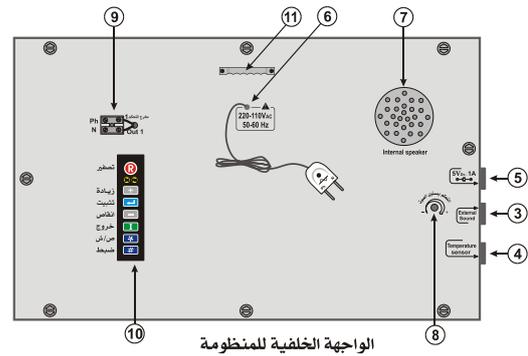
⑦ Internal loud speaker.

⑧ An aperture to control the internal speaker volume.

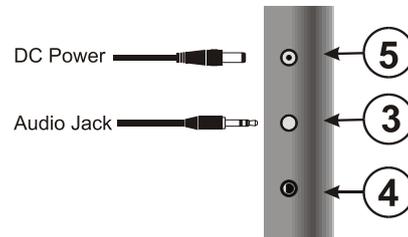
⑨ The first control out (Out1) to switch on/off the external audio amplifier.

⑩ Local keypad.

⑪ Hook to hang the device.



الواجهة الخلفية للمنظومة

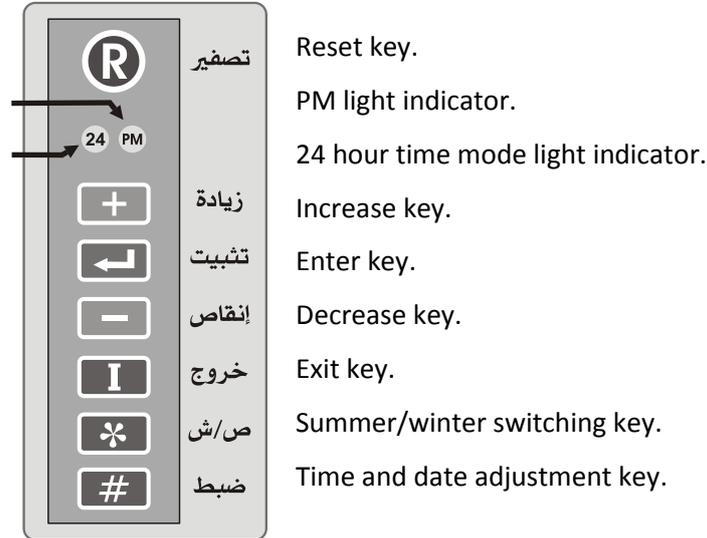


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4. The control:

The control functions can be achieved by a local keypad or a remote control.

The local keypad: It consists of seven keys and two light indicators:



The remote control:

Key symbol	function
	Turning on/off.
	Summer/winter switching.
	12/24 time mode switching.
	Switching the date displaying mode (Hijri/Georgian)
	Increase key.
	Enter key.
	Decrease key.
	Exit key, reset key
	The remaining time for Iqama adjustment.
	The time and date adjustment.
	The programming key (advanced settings).
	To turn on and test Azan sound.
	AM/PM switching.
	To test the displays.
	Switching the display mode
	turning on/off the first control out Out1
	turning on/off the second control out Out2

Note: the other keys of the remote control are not used in this product.

5. The power supply:

The operating voltage of the system is +5Vdc; this voltage is provided via an electrical transformer (external or internal).

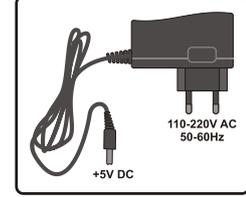
1- The first model (external transformer):

- The system of this model is powered by an external AC adaptor which is enclosed with the product.

- The electrical characteristics of the adaptor:

Input: 110~220Vac, 50~60Hz **Output:** +5Vdc, 1A

- The adaptor out is to be connected to the DC power input (+5Vdc) ⑤ which is located at the left side of the system.



- In this model there is no AC power cable (110~220Vac) ⑥. The connection is illustrated in page 5.

2- The second model (internal transformer):

- The system of this model is powered by the AC main power directly.
- The AC main power is 110~220Vac, 50~60Hz.
- This model has an AC power cable (110~220Vac) ⑥ to be connected to the AC main power outlet.
- In this model there is no DC power input (+5Vdc) ⑤ at the side of the system. The connection is illustrated in page 5.

6. The system connection to an external amplifier:

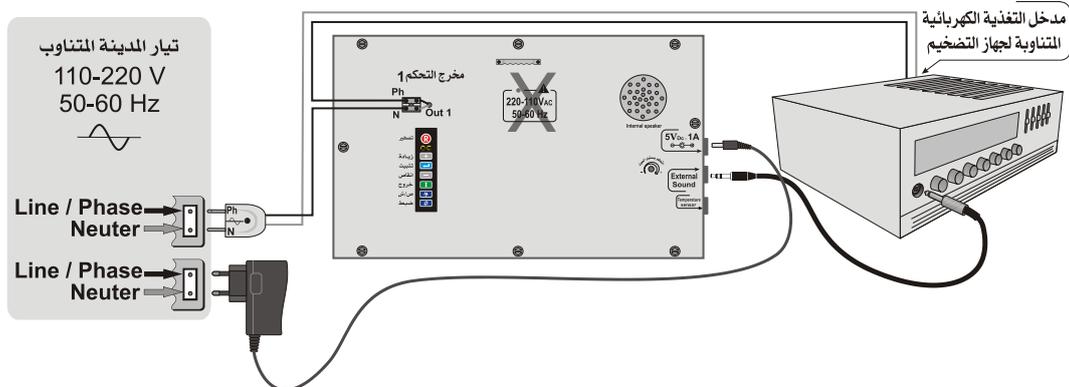
- The system launches (initiates) the sound (full Azan, Iqama Takbirat) on the internal speaker ⑦ and you can control the volume by a screw driver through the aperture ⑩ located at the back side of the system.
- In case of connecting the audio out ③ to an external amplifier, you need a cable with a **2.1mm audio jack (male, stereo)** connected to one of its two ends and the other end is to be connected to the external amplifier through a suitable audio jack. The **2.1mm audio jack** is illustrated in the next figure.



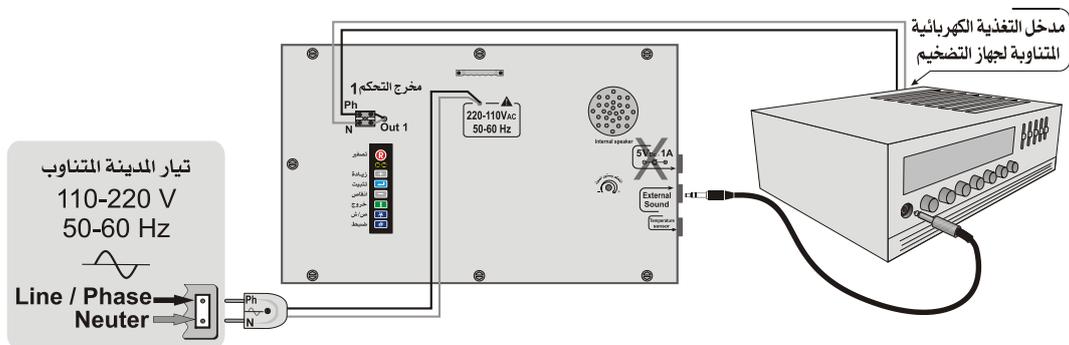
- Connect this cable to the audio out ③ which is located at the side of the system.
- The audio jack is not enclosed with the product; you can have it from the sales agent or the maintenance agent.

- The audio jack for the PC speakers is the same as the previous jack (in general).
- When connecting the audio out to an external amplifier, the internal speaker stops operating automatically and the volume control is by the external amplifier.
- The system has a control out /Out1/ ⑨ to control switching on/off the external amplifier automatically, in this case when it's the time for Azan, the system do the following:
 1. Switch on the external audio amplifier.
 2. Switch on Azan sound after five seconds.
 3. Switch off the amplifier after the end of Azan.
- The control out is an electrical switch (relay 10A).
- A second control out is optional at request.
- There are two ways to connect the system to an amplifier; this is according to the electrical transformer used with the system (external, internal):

1- The system uses an external adaptor:



2- The system uses an internal transformer:



7. Important instructions for installation:

- The system should operate normally and display the time when you connect it to the main power.
- If nothing appeared on the display after five seconds of connecting the system to the main power; do the following:
 1. Press the  key on the remote control.
 2. If nothing appeared press the  key on the local keypad.
 3. If nothing appeared press the reset  key and adjustment  key simultaneously (on the local keypad), release the  key first then the  key, the system will return back to the default settings:
 - The date: 1st Jan. of software version issuing year.
 - The time: 12:00 PM
 4. Press the adjustment / key to adjust the date and time, follow the instructions explained later.
 5. If the time display is bugged, press the reset  key on the local keypad to refresh the clock.
 6. If no response occurred after these five steps, contact the authorized maintenance agent.
- Press  on the remote control to test Azan sound.
- Press  on the remote control to test turning on/off the external audio amplifier.
- Run the display operation test program (page16).

Notes:

- When the main power is off; the display is off, but the internal timing circuit is still working by means of an internal battery, so the system doesn't need to be readjusted even if the main power cut lasted one month.
- Keep the system away from moisture, heat sources and direct sunlight.
- Clean the system by a wet cotton cloth, wipe it gently and slowly to avoid electrostatic charges.

8. Adjusting the date and time:

- Press and hold the adjustment **#/#** key for five seconds, the Georgian year digits will appear flashing.
- Use the increase **▲/+** or decrease **▼/-** keys to set the required value then press **OK/←**, the year digits will disappear and the month and day digits appear, the month digits will be flashing.
- Set the month (1~12) by the increase/decrease keys then press **OK/←**, the day digits will start flashing.
- Set the day (1~ 31) then press **OK/←**, the time will appear on the display.
- Set the hour then press **OK/←**, pay attention to the **AM/PM** time (the letter **A** appears in the place of seconds to indicates the AM, and the letter **P** indicates the PM).
- Set the minutes then press **OK/←**.
- Press the increase **▲/+** key to switch between **AM/PM**, note the status of the **PM** light indicator on the local keypad:
 - The time is **PM** when the indicator is **on**.
 - The time is **AM** when the indicator is **off**.
- Press the **OK/←** key, the clock will operate normally.



Notes:

- Make sure to adjust the time and date precisely (every three months) because this affects the prayer and Iqama times.
- Check the **PM** light indicator status; it should be **ON** when the time is **PM** and **OFF** when the time is **AM**.
- In case of setting a wrong value, press **EXIT/I** or reset **R** to cancel the adjustment process; then start it over.

9. Correcting the Hijri date:

The system calculates the Hijri date equivalent to the Georgian date automatically; so make sure to adjust the Georgian date accurately, in case of mismatching between the calculated Hijri date and the actual one; you can adjust it as follows:

When the system is in the normal operation mode press and hold the **OK**/**←** key continuously, the system will display three consecutive probabilities of the Hijri date (month and day), these probabilities are: the calculated Hijri date plus one day, the calculated Hijri date, and the calculated Hijri date minus one day; release the **OK**/**←** key at the actual Hijri date.

10. The display settings:

1. Display modes: there are two display modes

The first mode: the system displays the time, date, temperature, and prayer times consecutively; the time period of displaying each is three seconds.

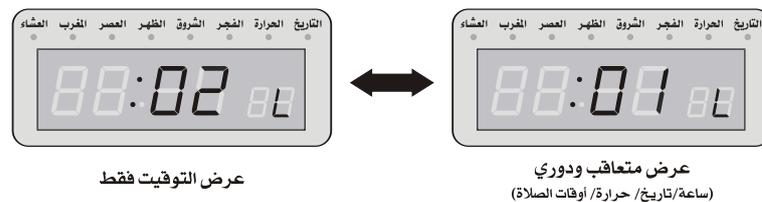
The second mode: the system displays the time only.

In both display modes:

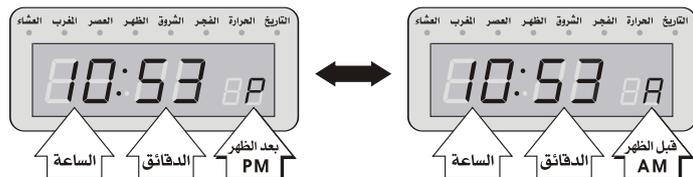
- Press **F4** to switch between the time, date, temperature, and prayer times manually.
- When the time is displayed, all the light indicators are off.
- When it's the time for a prayer, the corresponding light indicator starts flashing for one minute and the time appears on the display during this minute.

To switch between the two display modes press and hold **F4**, the current mode appears first on the display then the other mode appears; release **F4** at the required mode.

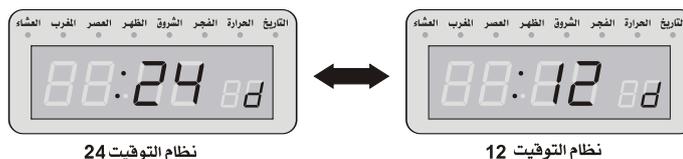
The next figure illustrates the process (see the L setting in the advanced settings table, page17).



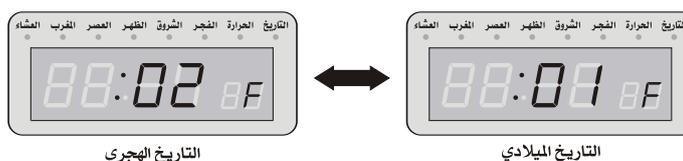
2. **Switching between AM/PM**: press and hold **+**/**F2**; the letter **A** (indicates AM) or **P** (indicates PM) appears on the display and they are exchanged (swapped) and the PM light indicator status changes on/off, release **+**/**F2** at the required value.



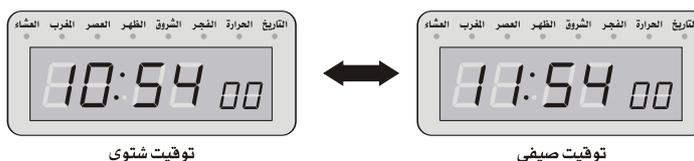
3. **Switching between 12/24 time modes:** press and hold  key; the current time mode appears first on the display then the other mode appears and they are exchanged (swapped); the /24/ light indicator status also changes on/off, release  key at the required mode.



4. **Switching between the Hijri/Georgian dates:** press and hold  key; the current date mode appears first on the display then the other mode appears and they are exchanged (swapped); release  key at the required mode.



5. **Switching between summer/winter time modes:** the system switches automatically between summer/winter time mode at the beginning of April and October or November.



To switch manually between summer/winter time

modes; press and hold  key on the local keypad or  key on the remote control until the switching occurs, note that the time and prayer times increase/decrease by one hour.

Note: it's not possible to use  key or  key to switch between summer/winter if the setting **E** is set to /0/ or /1/. See the advanced settings table.

6. **The display operation test:** this test mode is to check the status and operation of all the digit displays; you can enter to this mode as follows:

On the remote control: press the display operation test key ().

On the local keypad: press the reset () and () key simultaneously, release the () key first then the () key, the system will start the test program which is an incremental count (0 9) on all the displays.

You can pause the incremental count to check the displays status at any time by pressing () key, to resume the incremental count press () key.

During the incremental count, press the Iqama key (/) to see the city file number on the display.

Press (/) key to return back to the normal operation mode.

If the numbers didn't appear correctly, contact the sales agent or the authorized maintenance agent.

11. Adjusting the Iqama times:

The Iqama times can be set to launch an audio alarm (four Takbirat) when it's the time for Iqama, the audio alarm can be enabled or disabled (see the advanced settings table, setting **P**).

The Iqama time can be set individually for each prayer as follows:

- Press and hold the Iqama time  key, the preset Iqama time of AL-Fajr prayer appears flashing and AL-Fajr light indicator switches on as illustrated in the nearby figure, (for instance, the figure says that the system launches four Takbirat when it's the Iqama time for AL-Fajr prayer, after 25 minutes of AL-Fajr Azan).



- Press increase /+ or decrease /- key to set the required value then press , the Iqama time of AL-Duhr prayer appears flashing and AL-Duhr light indicator switches on.



- Repeat the last step to set the Iqama time for the other prayers.
- After setting the Iqama time for the five prayers, press the Iqama time  key to save the new settings and return back to the normal operation mode.
- The Iqama time ranges from zero to 60 minutes [0~60], when you set the Iqama time to zero; the audio alarm (four Takbirat) for Iqama will be disabled.
- The system doesn't launch the Iqama sound at AL-Duhr prayer on Friday.

12. The advanced settings:

1. The advanced settings table

The next table explains these settings, their symbols, and their ranges.

symbol	Name	Range	Explain
A	The city number	1 28	
b	The time difference in minutes.	+60 -60	The time difference in minutes from the city selected in the previous setting A .
C	The time constant		it is set by the manufacturer and written on the label at the back side of the system
D	The time mode	12/24	
E	Summer/winter	00	Always winter (you can't use  or  to switch between summer/winter)
		01	Always summer (you can't use  or  to switch between summer/winter)
		02	Switching summer/winter at the beginning of April and October
		03	Switching summer/winter at the beginning of April and November
F	The date displaying mode	01	Always Hijri
		02	Always Georgian
H	AL-Isha prayer	00	Ordinary according to the authorized time
		01	One hour and half after AL-Maghrib prayer
		02	Two hours after AL-Maghrib prayer in Ramadan only, one hour and half in the other months.
L	Display mode	01	Displaying the time, date, temperature, and prayer times consecutively
		02	Displaying time only
P	Azan and Iqama Takbirat (in case of Azan sound circuit is in attendance)	00	Without sound of Azan or Iqama Takbirat
		01	Iqama Takbirat sound only
		02	Azan sound only
		03	sound of Azan and Iqama Takbirat

The system has several preset advanced settings; it's preferred not to change these settings except when it's urgent.

Warning: don't change the settings A, b, C, E, and H before you advice the technical support in your region and read the following sections carefully.

2. About some settings:

A The city number:

- This number is set by the manufacturer, sales agent, or the authorized maintenance agent.
- The range of this number is from 1 to 28 maximum, it can be less than 28 according to the number of cities stored in the system memory.
- Some memories have only one city time so /A/ equals to /1/ and can't be changed.

⏸ The time difference from a city (in minutes):

This is used for the regions (villages) that have constant time difference from the main city which its number has already been set in the setting **A**.

⏸ The time constant (correction factor):

- It is well-known that the specifications of the electronic elements change with temperature, and since the system may operate in different countries with different temperatures, this may cause the time in the system to be displaced, so the system has a software adjustment mechanism to secure the time accuracy.
- The time constant /C/ which is written on the label at the back side of the system defines the time displacement in seconds that may occur within one week.
- For instance, when the time constant value is /+3/, this means that the system is three seconds late every week, so the system is going to add automatically /3/ seconds to the time every week.
- When the time constant value is /-5/, this means that the system is five seconds advanced every week, so the system is going to subtract automatically /5/ seconds from the time every week.
- When the time constant value is more than /+7/ or less than /-7/, /+10/ for instance, the system is going to add one second every day and /3/ seconds every end of week.
- The correction principle can be summarized as follows:

To add/subtract the division result of C/7 every day

To add/subtract the division remainder of C/7 every week

- If you noticed that the system time is not accurate, the time constant needs to be corrected according to the time displacement within one week.
- When you replace the settings memory, you need to set the time constant to the written value on the label at the back side of the device.

3. How to set the advanced settings:

▪ Entering to the advanced settings:

On the remote control: Press and hold the programming key (**⊛**) until the symbol (**⏸**) appears flashing, release the (**⊛**) key, the number (**00**) will appear on the display.

On the local keypad: Press and hold the reset (**R**) and (**←**) keys simultaneously, then release the reset key (**R**) first while you are still pressing the (**←**) key until the symbol (**⏸**) appears flashing, release the (**←**) key, the number (**00**) appears on display.



الدخول الى الإعدادات المتقدمة

- **Changing the settings:**

Use the increase/decrease keys to change the number (00) to (05) then press (OK), the city number appears on the display.

Use the increase/decrease keys to set the city number then press (OK), the symbol (b) appears flashing; repeat the last step to set the other settings (P, L, H, F, E, D, C, b).



- **Saving the settings:**

As you have finished all the settings, the symbol (00) appears flashing and the number (05) appears on the display, use the increase/decrease key to set the number (03) then press (OK), the settings will be saved and the symbol (00) will appear steadily.

Press the reset (⏻/R) key to return back to the normal operation mode.

Notes:

When you are changing the settings, you can move to the saving stage any time by pressing the Iqama key (👤/I).

At any stage of the advanced settings; you can exit without saving changes by pressing the (EXIT) key or reset (R) key.