



Precision timekeeping and automated bell systems that ensure accurate synchronization across facilities.



KEMET
INNOVATION TECHNOLOGIES

www.kemet-technologies.com



Master Clock & Time Synchronization Systems

WAQT by Kemet Technologies is a complete Master Clock and Slave Clock time synchronization solution designed to deliver accurate, consistent, and centrally managed time across facilities. The system is suitable for environments where precise timekeeping is essential, including educational institutions, healthcare facilities, industrial units, corporate buildings, and public infrastructure.

WAQT consists of Master Clock hardware, Slave Clock displays, and supporting software applications, working together to ensure all connected clocks operate with identical and reliable time.

Master Clock Systems

The WAQT Master Clock acts as the primary time source for the entire system. All connected clocks synchronize directly with the Master Clock, ensuring uniform time across all locations.

General Features

1. High Precision Timekeeping:

- Integration with high accuracy RTC.
- GPS synchronization to maintain nanosecond-level precision(optional).

2. Multi-Protocol Compatibility:

- Support for Network Time Protocol (NTP) and Precision Time Protocol (PTP). Acts as the primary source of time for the entire system.

3. Scalability:

- Modular design allows for expansion with additional clocks and synchronization modules.

4. Time Zone

- Supports multiple time zones for global synchronization at the same time.

5. Security:

- Robust authentication and encryption to protect time synchronization data.

6. Output Interface:

- Ethernet wired or wireless (Wi-Fi) or RS485.

7. Alarm and Event Management:

- Event logging and reporting to track system performance.
- Real-time alarm notifications.

8. Temperature and Environmental Monitoring:

- Integration with environmental sensors (Temperature and Humidity) for monitoring conditions affecting system performance.

9. Customization:

- Options for hardware and software customization to meet specific requirements.

10. User Documentation and Support:

- User manuals.
- Access to technical support for assistance.





KMC101

Master Clock Wall Mounted

- Wall Mounted
- LCD 2x16 Char Display.
- Automatic time setting on all clocks.
- Identical time on all clocks at the same location.
- Automatic summer/winter time changeover.
- Time Protocol selection.
- 15x28 cm
- 12 V 1 A



KMC102

Master Clock Rack Mounted

- LCD 2x16 Char Display.
- Automatic time setting on all clocks.
- Identical time on all clocks at the same location.
- Automatic summer/winter time changeover.
- Time Protocol selection.
- 12 V 1 A



KMC103

Kiosk Based Master Clock

- Touchscreen display with many variants 15", 17" 21".
- Windows, Linux and Android-based interface.
- Automatic time setting on all clocks.
- Identical time on all clocks at the same location.
- Automatic summer/winter time changeover.
- Time Protocol selection.
- Event logger.

Slave Clock General Features:

1. Synchronization:

- Relies on the Master Clock as its primary time source.
- Receives time signals and synchronizes its timekeeping to match the Master Clock..

2. Protocol Compatibility:

- Supports the same time synchronization protocols (NTP, PTP) as the Master Clock.

3. Management and Monitoring:

- Can be configured and monitored through the Master Clock interface.

4. Clock Distribution:

- Distributes synchronized time to devices connected to the Slave Clock.

5. Alarm and Event Monitoring:

- Reports events and alarms to the Master Clock for centralized monitoring.

6. Temperature and Environmental Monitoring:

- May have built-in environmental sensors or rely on sensors from the Master Clock for monitoring conditions.

7. Customization:

- Limited customization options, mainly focusing on synchronization parameters.

8. User Documentation and Support:

- User manuals and support are often provided by the Master Clock manufacturer.



KMC201

Single Sided Clock

- No flicker
- Hrs, Mins
- High Brightness
- Max Power Consumption: 10W
- High Viewing Angle
- Available in different colors segments
- Dimensions: 29x10x5 cm
- 12 V 1A

OPTIONS

- Single / Double Sided
- No of Digits: 4 (HH:MM) | 6 (HH:MM:SS)
- Segment Size: 2.3" | 3" | 4", 5"
- Segment Color: Red | Green | Blue | White
- Power Source: 12 V DC | POE 12 V DC | 110/220 AC
- Connectivity: Ethernet | WiFi | RS485
- Temperature Measurement.
- Humidity Measurement
- Recorded Messages with Internal Amplifiers – Usable for School Bell systems and pre-recorded alarms.

GEN	Side Single or Double	HR:Min	Seg Size	Seg Color	Power	Connectivity	Temperature	Humidity	Recorded Sound
KSC	Single = 1	HMN = Hrs - Min no Sec	2.3 = 23	R	12 = D	WiFi = W	Exists = T	Exists = H	RS
Kemet Slave Clock	Double = 2	HMS = Hrs - Min - Sec	3=30	G	POE = P	Ethernet = E	not Exists = N	not Exist = N	N
			4=40	B	110/220 AC = A	RS485 = R			
			5=50	W					

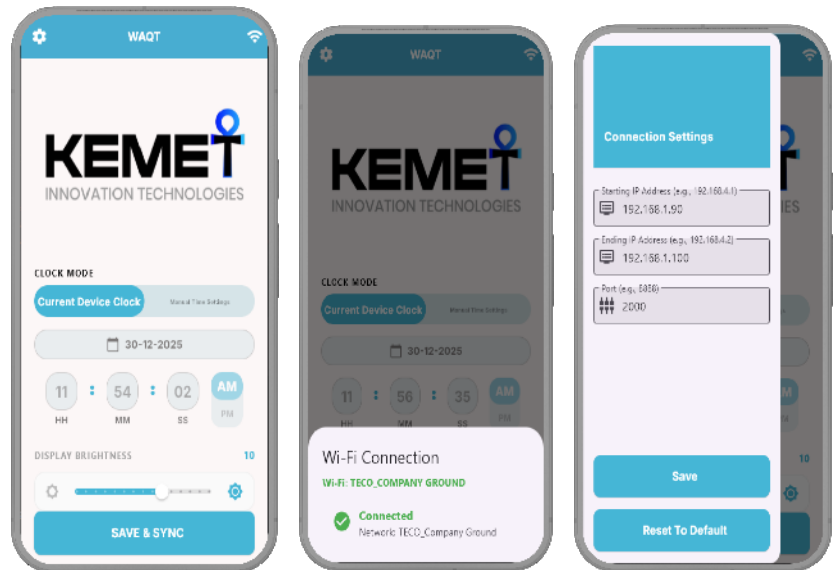
SOFTWARE PACKAGES

KSA301

Stand Alone Mobile App

FEATURES:

- **Automatic & Manual Time Control:**
 - **Automatic Mode**
The system automatically sets the correct time using the device's current time.
 - **Manual Mode**
Users can manually adjust the time whenever needed.
- **Send settings to one clock**
- **Brightness Adjustment:**
 - *Easily adjust the display brightness of connected clocks.*
- **Wi-Fi Status Display:**
 - *Shows the currently connected clock network and Clearly indicates whether the system is Connected or Disconnected*
- **Local Settings Storage:**
 - *All configurations are saved locally*
 - *User can*
Reuse previous settings | Update settings at any time
- **Platform Support**
 - *Mobile devices*

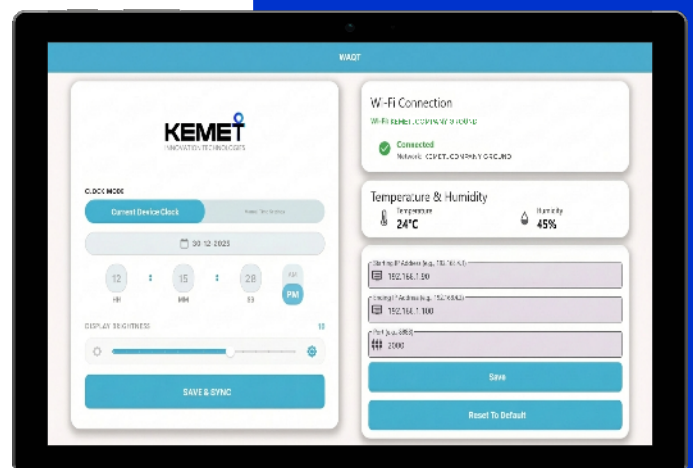


KSA302

Stand Alone Desktop App

FEATURES:

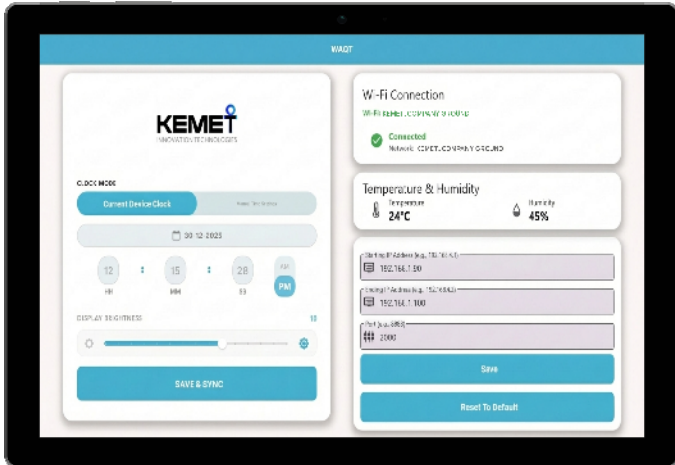
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- **Platform Support**
 - *PC Devices*



Stand Alone Desktop App - Temp and Humidity

FEATURES:

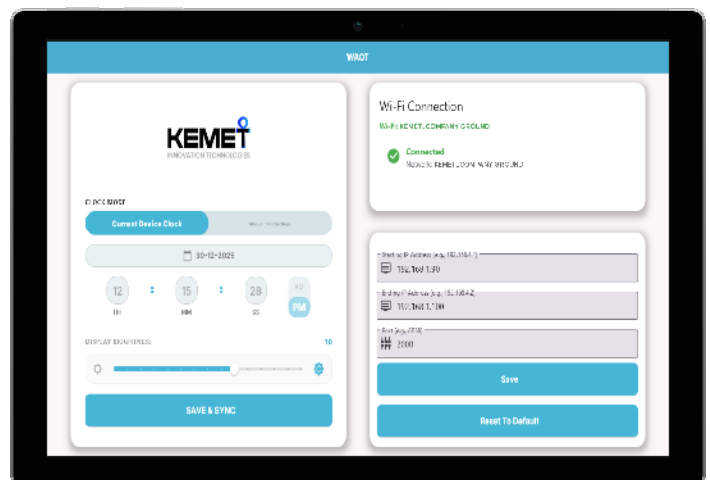
- **Automatic & Manual Time Control:**
 - **Automatic Mode**
The system automatically sets the correct time using the device's current time.
 - **Manual Mode**
Users can manually adjust the time whenever needed.
- **Centralized Clock Management:**
 - *Easily adjust the display brightness of connected clocks.*
 - *Send settings to one clock or many clocks simultaneously.*
- **Brightness Adjustment:**
 - *Easily adjust the display brightness of connected clocks.*
- **Wi-Fi Status Display:**
 - *Shows the currently connected clock network and Clearly indicates whether the system is Connected or Disconnected*
- **Local Settings Storage:**
 - *All configurations are saved locally*
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Reuse previous settings | Update settings at any time
- **Temperature & Humidity Display**
 - *Shows the current temperature and humidity inside the building*
- **Platform Support**
 - *Desktop devices*



Stand Alone Desktop App - Temperature and Humidity

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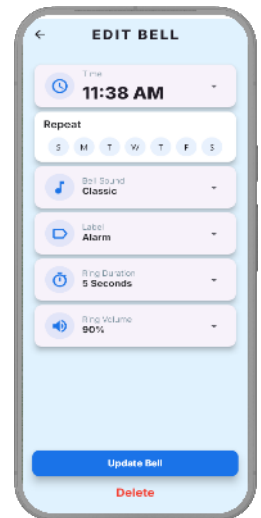
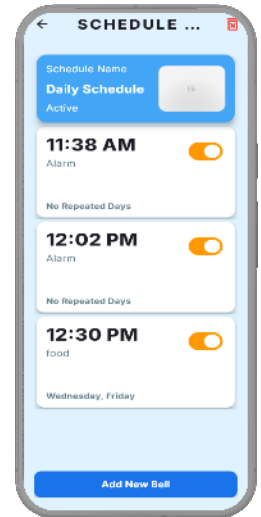
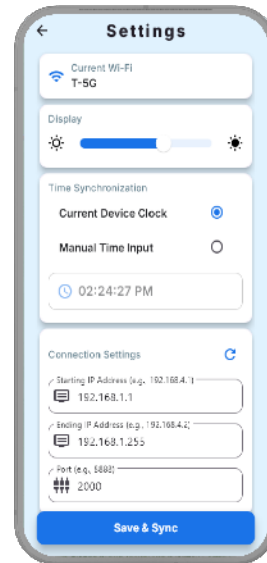
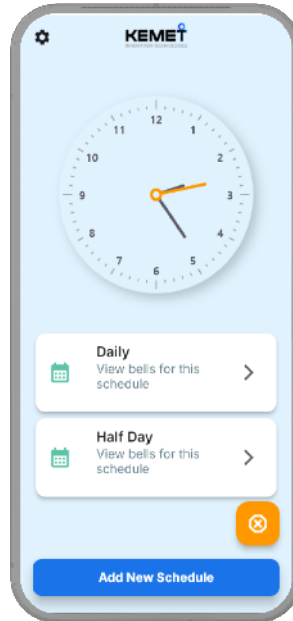
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 - *Control multiple clocks at once from a single application.*
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Master School Bell – Pre-Recorded Alarms – Mobile App Version

FEATURES:

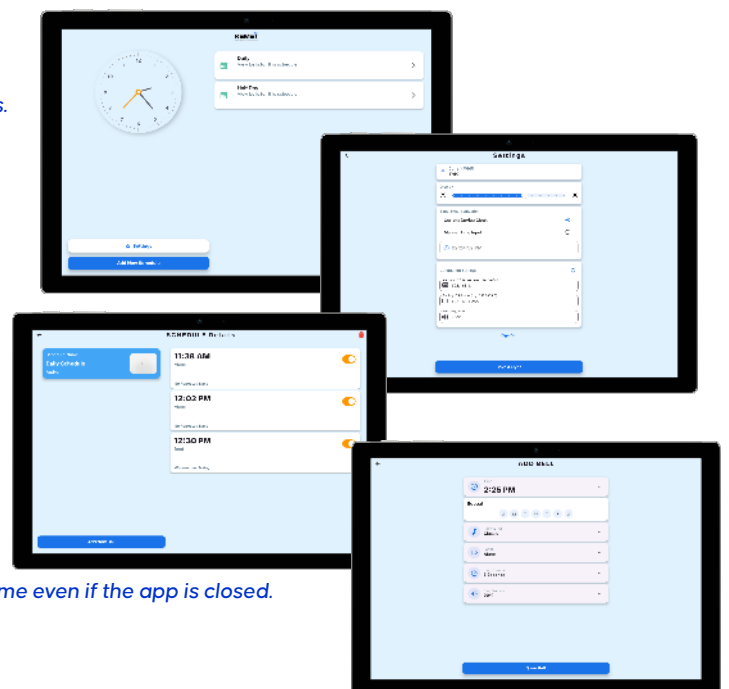
- **School Account Management:**
 - Schools can create their own account using an email address.
 - Secure login system for easy access to bell schedules and settings.
 - Each school manages its own data independently.
- **Flexible Bell Scheduling:**
 - Create multiple schedules based on school needs.
 - Each schedule can have its own set of bells.
- **Custom Bell Creation:**
 - Each bell can be customized with:
 - Specific time
 - Predefined bell sounds
 - Repeat options
 - Selected days of the week
 - Supports
 - One-time bells
 - Repeated bells on chosen days
- **Easy Bell Management:**
 - Schools can:
 - Add new bells
 - Edit existing bells
 - Temporarily disable bells
 - Delete bells when no longer needed
 - Full control over all bell timings and sounds
- **Reliable Operation:**
 - Bells will ring on time even if the app is closed.
- **Platform Support**
 - Mobile devices



Master School Bell – Prerecorded Alarms – Desktop App Version

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