



PETER PEPPER PRODUCTS  
EXPRESSIVE ESSENTIALS®

## PRICE LIST & SPECIFICATIONS

Effective September 1, 2022

All Prices are Suggested List Price

## Section 2.1

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**Wireless Synchronized Time**  
*Digital & Analog Clocks*

**Wi-Fi Wireless Clock System**  
**2.4 GHz Wireless Clock System**

2.1

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osbpd

OSHPD Seismic Compliant  
Anchorage in California



## Wi-Fi Synchronized Clock System

Combine wireless simplicity with synchronization as clocks receive time information over Wi-Fi from an internet or in-house NTP Server. Simply power the clocks, connect to your network, and go. PPP Wi-Fi Clocks connect to a wireless local network and are capable of taking the accurate time from any NTP server, so a master clock is only needed where the facilities Wi-Fi signal does not cover the entire area requiring clock installations. The Wi-Fi receiver clocks can be pre-programmed with the addresses of public internet or in-house NTP servers.

Model	Description	Size	List	Est. Ship Wt.
	<b>Movements</b> SyncTech® Electric Movement, 120V AC, 60Hz		\$ 185 upcharge	1

2.1

### To Order Specify

1. Quantity
2. Model
3. Options

Customer's own Wi-Fi network and internet service are required and not included with the SyncTech® Synchronized Time System.

## 2.4 GHz Synchronized Clock System

The 2.4 GHz Wireless Synchronized Time System provides a multi-path mesh network for clock-to-clock transmission of synchronized time. The time signal is then broadcast to all clocks once per second. Each battery-operated clock transmits up to 150 feet in all directions, repeating the synchronized time signal clock-to-clock, throughout an entire facility.

2.4 GHz master clocks obtain accurate U.S. time from two sources: Network Time Protocol and GPS.



**WCMNT5-2.4**  
2.4 GHz Master Clock



**WR2.4**  
2.4 GHz Wall Repeater

Model	Description	Size	List	Est. Ship Wt.
<b>Network Time Protocol Master Clock</b> Obtains time from local or internet time servers via the on-board Ethernet interface card**				
<b>WCMNT5-2.4</b>	2.4 GHz Transmitter	9½w x 2½h x 5½d	\$ 3,870	4
<b>GPS Master Clock</b> Receives time updates from Global Positioning Satellites through the rooftop antenna and 100 foot cable (included)				
<b>WCMGP5-2.4</b>	2.4 GHz Transmitter	9½w x 2½h x 5½d	4,642	4
<b>Wall Repeater</b> Repeaters are used to provide continuous network coverage where clock placement is greater than every 150 feet. The repeater simply plugs into a wall outlet and begins repeating time updates. No configuration is required				
<b>WR2.4</b>	2.4 GHz Wall Repeater	2¼w x 4½h x 1½d	577	2
<b>WR2.4C</b>	Drop ceiling grid tile with built-in 2.4 GHz Repeater Contact factory for details	12w x 24d	1,454	12
<b>Movements</b> SyncTech® Electric Movement, 120V AC, 60Hz			\$ 185 upcharge	1

**2.1**

### To Order Specify

1. Quantity
2. Model
3. Options

#### Master Clock Specifications

2.4 GHz Transmitter included on all master clocks.  
No FCC License required.

Our standard 2.4 GHz transmitter is sufficient for most single commercial building construction.

Each battery-operated clock transmits up to 150 feet in all directions, repeating the synchronized time signal clock-to-clock, throughout an entire facility. All clocks receive and re-broadcast time updates once per second, creating a Multi-path mesh network. However, depending on construction, layout and features, repeaters may be required.

Automatic Daylight Savings Time adjustments.  
A Mini Master is included with every master clock. It can be used to confirm signal coverage, as an accurate time source for installing analog clocks or as a temporary repeater.

Site plan/surveys are available to help determine your exact needs. Contact the factory.

Ethernet connector supplied for NTP time acquisition.  
Simultaneous GPS acquisition permitted with Wireless GPS receiver.

Accurate to a fraction of a second over 10 years.  
Operating temperature: 32°F - 120°F  
Humidity: 0-95% non-condensing

#### Time Zones

Multiple LED time zone models available.  
Contact Factory.

#### Alarms

Using a wireless relay the 2.4 GHz System can be used to activate mechanical bells or horns. Can activate any combination of 12 alarm zones.

#### Power Requirements

110V AC.  
UL listed wall 'plug-in' type. 10-year lithium battery back up.

\*\* Internet service is required and not included with the PPP Wireless Synchronized Time System.



WC2001



WC300



WC100



WC105

2.1

Model	Description	Size	List	Est. Ship Wt.
<b>Digital Clocks</b>				
	2" h Red hours and minutes, 1.8" h seconds			
WC2000	Segmented 4 digit Red LED Display	12¼w x 6¼h x 2¼d	\$ 1,231	5
WC2001	Segmented 6 digit Red LED Display	18¼w x 6¼h x 2¼d	1,702	7
Although the signal is wireless, the LED's require 120V AC, 60Hz power to illuminate this clock. Other: 4" digit height, Green and Blue colors available at upcharge. Please submit your requirements				
WC300	Digital LCD Wall Clock, 2.4 GHz Wireless. Hour, minute and second display. Calendar with day of week and temperature display. Battery powered, 3 year battery pack	17w x 10½h x 1½d	863	3
<b>2.4 GHz system only</b>				

### To Order Specify

1. Quantity
2. Model
3. Receiver: Wi-Fi or 2.4 GHz
4. Frame Finish (Models WC2000 - WC2001)

#### Frame Finish

Brushed Aluminum  
Black Aluminum

<b>WC100 &amp; 105 Analog Clocks</b>				
Model	Description	Size	List	Est. Ship Wt.
WC100	Brushed Aluminum bezel & face graphics	11¾ dia. x 2d	\$ 716	5
WC105	Black Plastic bezel & face graphics	11¾ dia. x 2d	585	5

### To Order Specify

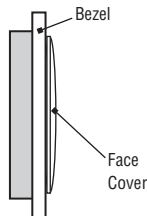
1. Quantity
2. Model
3. Receiver: Wi-Fi or 2.4 GHz

### Specifications

- Models available only as listed.
  - Cover: Glass, non-tempered.
  - Red second hand included on all Analog Receiver Clocks.
  - Standard 10 year lithium battery pack. 3 year battery pack on Model WC300 only.
- For optional electric movement, *See pages 82 - 83.*



361MA



#### 361MA Clock - 13" Diameter

Model	Description	Size	List	Est. Ship Wt.
361MA	Natural Maple Veneer With Acrylic Cover	13 dia. x 2½d	\$ 804	5

#### To Order Specify

1. Quantity
2. Model
3. Receiver: Wi-Fi or 2.4 GHz
4. Clock Face Number

Select Face Number from 'Clock Face Selector'. See page 88.

#### Specifications

- Bezel: Natural Maple veneer only on baltic birch.
  - Red second hand included on all Analog Receiver Clocks.
  - Standard 10 year lithium battery pack.
- For optional electric movement, See pages 82 - 83.

2.1



300P



382



843P

#### 300P, 382, 386 & 843P Analog Clocks

Model	Description	Size	Finishes		Est. Ship Wt.
			A	H	
300P	With Acrylic Cover	10 dia. x 2¾d	\$ 893	\$ 1,002	4
382	With Acrylic Cover	12 dia. x 2d	958	1,085	5
386	With Acrylic Cover	16 dia. x 2d	1,103	1,258	6
843P	With Acrylic Cover	14 dia. x 2d	999	1,137	6

#### To Order Specify

1. Quantity
2. Model
3. Receiver: Wi-Fi or 2.4 GHz
4. Bezel Finish
5. Clock Face Number

Select Face Number from 'Clock Face Selector'. See page 88.

#### Finishes

- A PPP Color
- H Polished Chrome

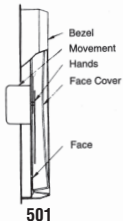
See PPP Color Card

#### Specifications

- Bezel available in any PPP Color or Polished Chrome.
  - Red second hand included on all Analog Receiver Clocks.
  - Standard 10 year lithium battery pack.
- For optional electric movement, See pages 82 - 83.



501



501

2.1



820 Clock

Shown with Face Number 36



845 - Front & Side View



Model	Description	Size	List	Est. Ship Wt.
501	With Acrylic Cover	14 dia. x 2d	\$ 1,025	6

## To Order Specify

1. Quantity
2. Model
3. Receiver: Wi-Fi or 2.4 GHz
4. Bezel Finish
5. Housing Finish
6. Clock Face Number

### Bezel Finishes

A PPP Color

Select Face Number from 'Clock Face Selector'. See page 88.

See PPP Color Card or Web

820 Clock		Size	List	Est Ship Wt.
Model	Description			
820	With flush Acrylic Cover	13 7/8 dia. x 1 5/8 d	\$ 904	5

## Faces for Model 820 Only



36



37



38



39

## To Order Specify

1. Quantity
2. Model
3. Bezel Finish
4. Clock Face Number (select face number)

### Bezel Finish

A PPP Color

See PPP Color Card or Web

## Specifications

- Bezel available in any PPP Color. ....
- Quartz battery movement.
- Red sweep second hand included.
- Standard 10 year lithium battery pack.
- For optional electric movement, See pages 82 - 83.

845 Analog Clock <i>Designed by Joe Sohn</i>			Finishes		Est. Ship Wt.
Model	Description	Size	A	H	
845	With Acrylic Cover	14 dia. x 2 1/4 d	\$ 1,031	\$ 1,180	6

## To Order Specify

1. Quantity
2. Model
3. Receiver: Wi-Fi or 2.4 GHz
4. Bezel Finish
5. Clock Face Number

### Bezel Finishes

A PPP Color

H Polished Chrome

Select Face Number from 'Clock Face Selector'. See page 88.

See PPP Color Card or Web

## Specifications

- Bezel available in any PPP Color or Polished Chrome.
- Red second hand included on all Analog Receiver Clocks.
- Standard 10 year lithium battery pack.
- For optional electric movement, See pages 82 - 83.

	SyncTech® Wi-Fi	SyncTech® 2.4 GHz
Master Clock	None.  Clocks independently receive accurate time from an NTP server via a facility's own Wi-Fi network.	2.4 GHz transmitter included on all master clocks.  A Mini Master is included with every master clock. It can be used to confirm signal coverage, as an accurate time source for installing analog clocks or as a temporary repeater.
Time Sources	NTP	NTP GPS  NTP + GPS receivers can be used in single or simultaneous configurations.
Accuracy	Accurate to a fraction of a second over 10 years.	Accurate to a fraction of a second over 10 years.
Operating Temperature	32°F - 120°F.	32°F - 120°F.
Operating Humidity	0 - 95% non-condensing.	0 - 95% non-condensing.
FCC License Requirements	No license required.	No license required.
Power Requirements (Master Clocks)	–	110V AC, internal transformer (included). UL listed wall 'plug-in' type. 10-year lithium battery back up.
Time Zones	–	–
Alarms	–	Mechanical bells or horns. Activate any combination of 12 alarm zones.
Typical Installation	• Single or multi-building campuses with wireless infrastructure.	• Single building construction with receiver clocks placed within 150' radius of one another.
Site Survey	A site plan/survey is available to help determine your exact needs. Contact the factory.	

## SYNCHRONIZED TIME EVERYWHERE

### CORPORATE

Eliminate HR time related conflicts including employee tardiness, missed meetings, or presentations off schedule. Scheduling problems due to an inaccurate time system can impact the entire facility and company. Synchronizing clocks between multiple buildings is easy and cost effective.

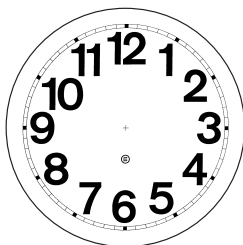
### HEALTHCARE

Within healthcare organizations, accurate, synchronized time is critical.

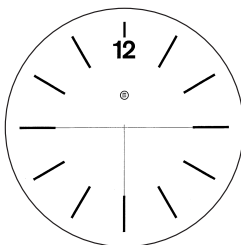
The legal consequences of inaccurate time can be devastating to any facility. syncTECH® eliminates potential liabilities from inaccurate, independently set clocks when documenting the exact time for vital statistics, procedures and medical timelines. Transmitter operates on a business frequency, a time tested method of transmitting information, without interference with sensitive medical equipment.

### EDUCATION

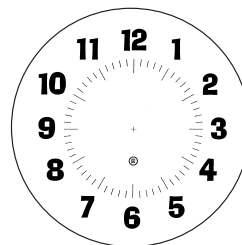
Wirelessly synchronize clocks between multiple buildings and across the entire campus. Inaccurate clocks can have a negative impact on the overall image of the university. Students may be late for class due to the inaccurate university time displays. This problem is compounded when time displays differ between buildings on campus.



2

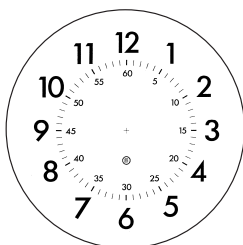


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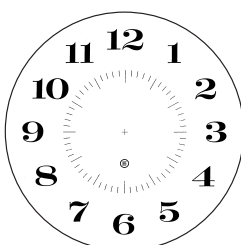


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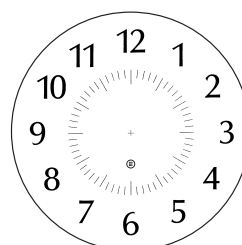
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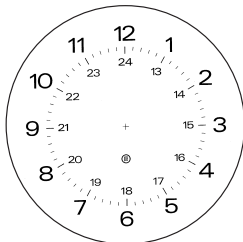
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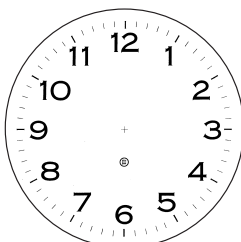
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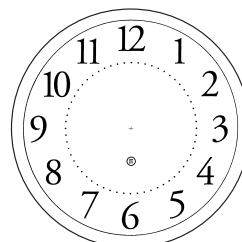
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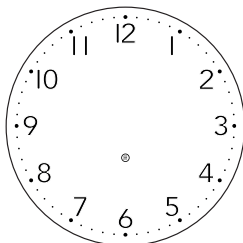


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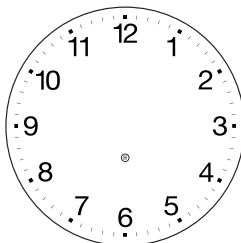


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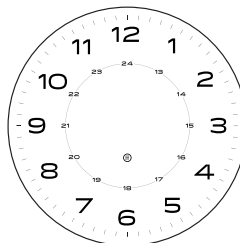
**FACES 36-39  
FOR MODELS 820 ONLY**



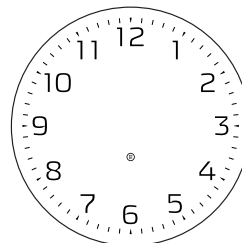
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37



38



39