PYRAMID TimeTrax Sync Clock System User Guide

Contents

PYRAMID TimeTrax Sync Clock System

Specifications

- Product Name: TimeTrax Sync Clock System
- Time Source Options: NTP, GPS, PC Time
- Frequency: 902-928MHz
- Operating System: Windows 10 and higher x64
- Processor Requirement: Pentium IV 2.0 GHz or greater
- Memory Requirement: Minimum 8GB of RAM, recommended 16GB or greater
- Browser Compatibility: Chrome or Firefox 4x or faster

Product Usage Instructions

Product Overview

The TimeTrax Sync Clock System is an engineered modular time system capable of synchronizing wired, wireless, or Power over Ethernet (POE) devices using the TimeTrax Sync software.

Wireless Synchronized Clock System

The Pyramid Wireless RF Transmitter utilizes 902-928MHz frequency-hopping technology to wirelessly transmit synchronization signals from designated time sources to Analog and Digital Clocks. The transmitters can pull time from NTP, designated Network Time, GPS, or PC Time.

System Requirements

To operate the system, you will need a Windows 10 or higher x64 operating system, a Pentium IV 2.0 GHz or greater processor, a minimum of 8GB of RAM (recommended 16GB or greater), at least 20GB of free space, and a compatible internet browser like Chrome or Firefox.

RF Transmitters

The Wireless RF Transmitters come in different configurations like Shelf Transmitter with Software, Wall Transmitter with Software, Shelf Secondary Transmitter Without Software, and Wall Secondary Transmitter Without Software. These transmitters can capture time signals from NTP, GPS, or PC Time sources and broadcast them to an unlimited number of clocks.

Wireless RF Transmitter Installation

1. Choose an appropriate location for the Wireless RF Transmitter.
2. If using GPS as the time source, ensure coverage is within 250,000 sq ft or less.
3. Locate the transmitter within 50ft cable reach and centrally for optimal signal distribution.

FAQ

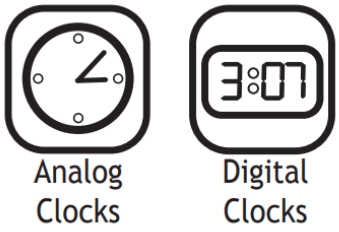
- **Q: How often does the TT Sync Wireless RF Transmitter broadcast time signals?**
  - A: The transmitter broadcasts precise time every 20 seconds using frequency-hopping technology.
- **Q: Can additional Wireless RF Secondary Transmitters be added for extended coverage?**
  - A: Yes, additional Secondary Transmitters can be added where \needed to enhance signal coverage.

Don’t Forget to register your product online: **www.pyramidtimesystems.com/support/product-registration**

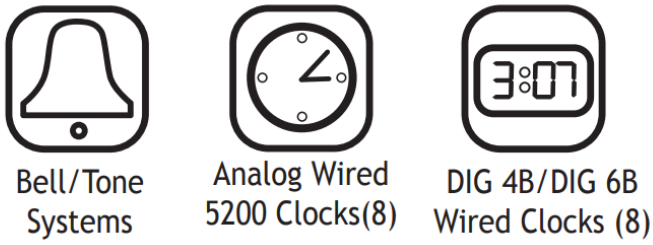
Copyright Information

PRODUCT OVERVIEW

TimeTrax Sync™ Clock System is an engineered modular time system \able to synchronize wired, wireless or Power over Ethernet (POE)\ devices using TimeTrax Sync™ software. Wireless Synchronized Clock System The Pyramid Wireless RF Transmitter uses 902-928MHz frequency-hopping technology to wirelessly transmit synchronization signals from designated time source to the following devices:



The Pyramid Wireless RF Transmitter controls BCD signals via auxiliary ports:



The wireless transmitters are able to pull time from the following sources:

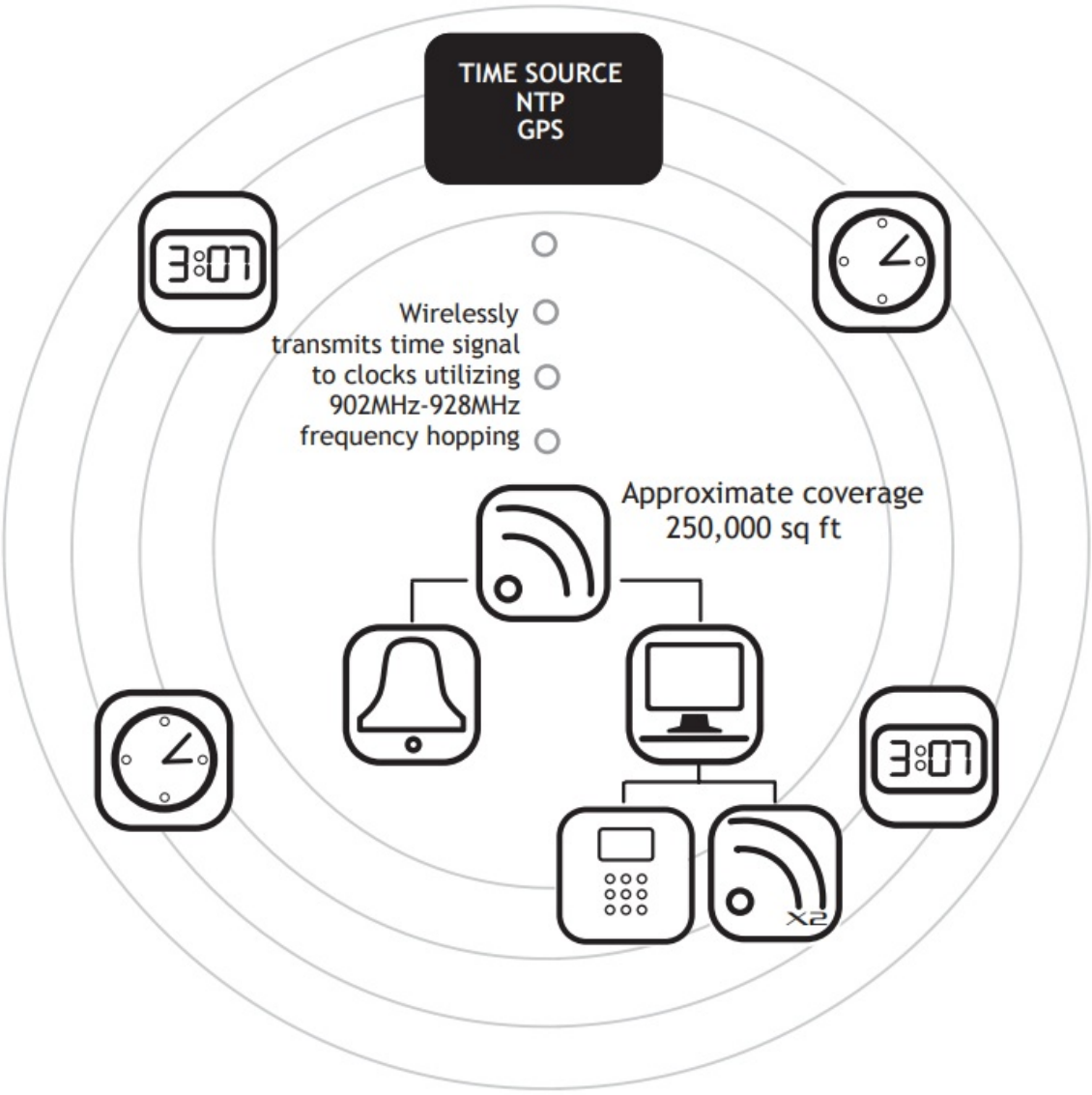
A list of Internet NTP Primary Servers is available with TimeTrax Sync™ software and updated periodically by Pyramid Time Systems.

SYSTEM REQUIREMENTS

- Part# SASDLCWDXX – TimeTrax Sync™ Software
- Operating Windows 10 and higher
- PC x64 Pentium IV 2.0 GHz or greater
- Memory Minimum 8GB of RAM, recommended 16GB or greater
- Free Space 20GB or greater
- Internet Browser Chrome or Firefox
- CD-ROM 4x or faster

RF TRANSMITTERS

- Part# DESCRIPTION
- 9T1W1 Shelf Transmitter with Software
- S9DWXSLAUB Wall Transmitter with Software
- S9DSX0LAUB Shelf Secondary Transmitter Without Software
- 42337 Wall Secondary Transmitter Without Software
-

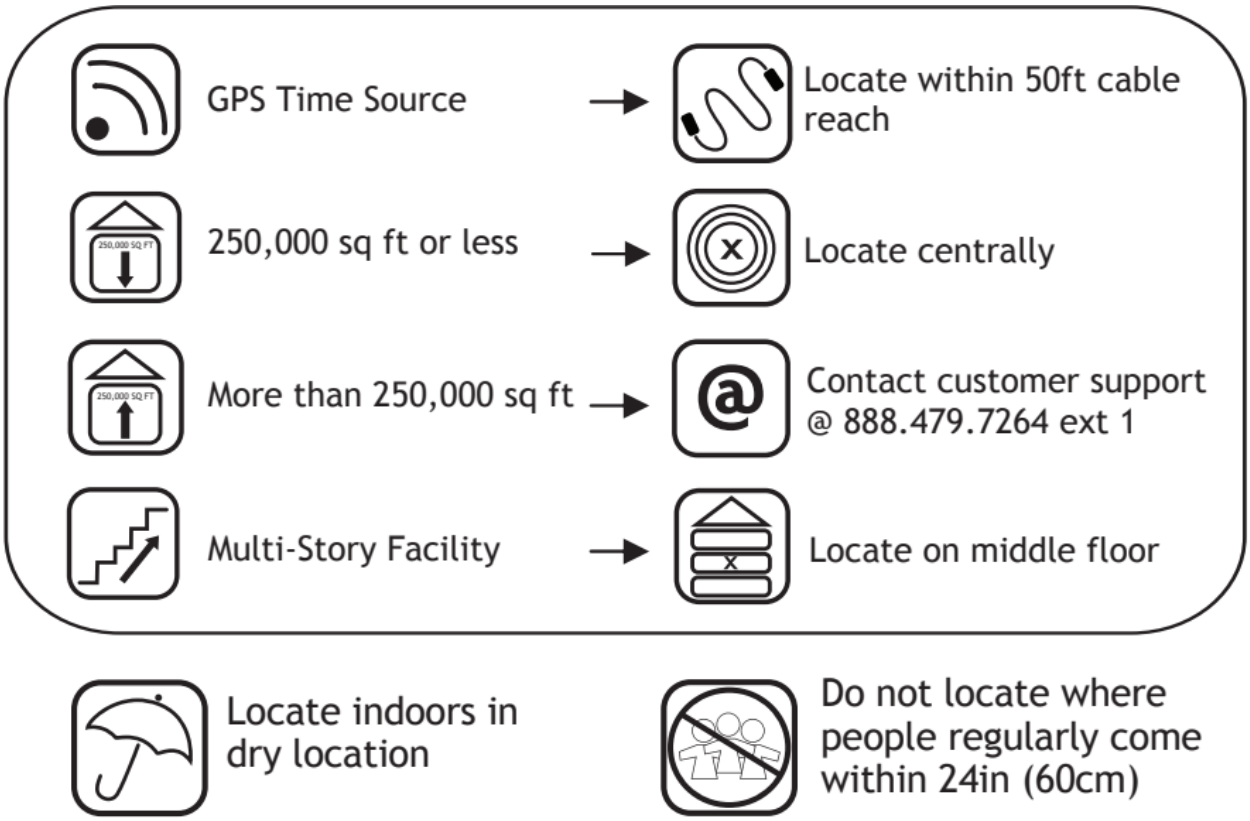


TT Sync Wireless RF Transmitter captures the main time source via GPS, NTP, or PC TIME.

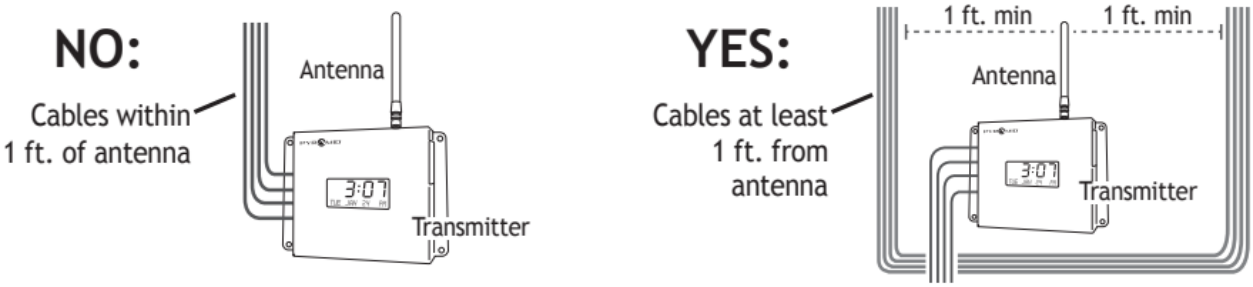
- The transmitter utilizes frequency-hopping technology to broadcast precise time between 902MHz-928MHz (128 signaling channels) every 20 seconds), to an unlimited number of clocks.
- TT Sync software synchronizes PoE clocks & enables Pyramid transmitters to be designated time source for TimeTrax™ Sync Clock & Tone Systems.
- Wireless RF Secondary Transmitter(s) may be added for additional coverage where content or construction obstructs the existing RF transmitter signal.
- One software controls all transmitters.

WIRELESS RF TRANSMITTER INSTALLATION

Choose the appropriate location to install the Wireless RF Transmitter

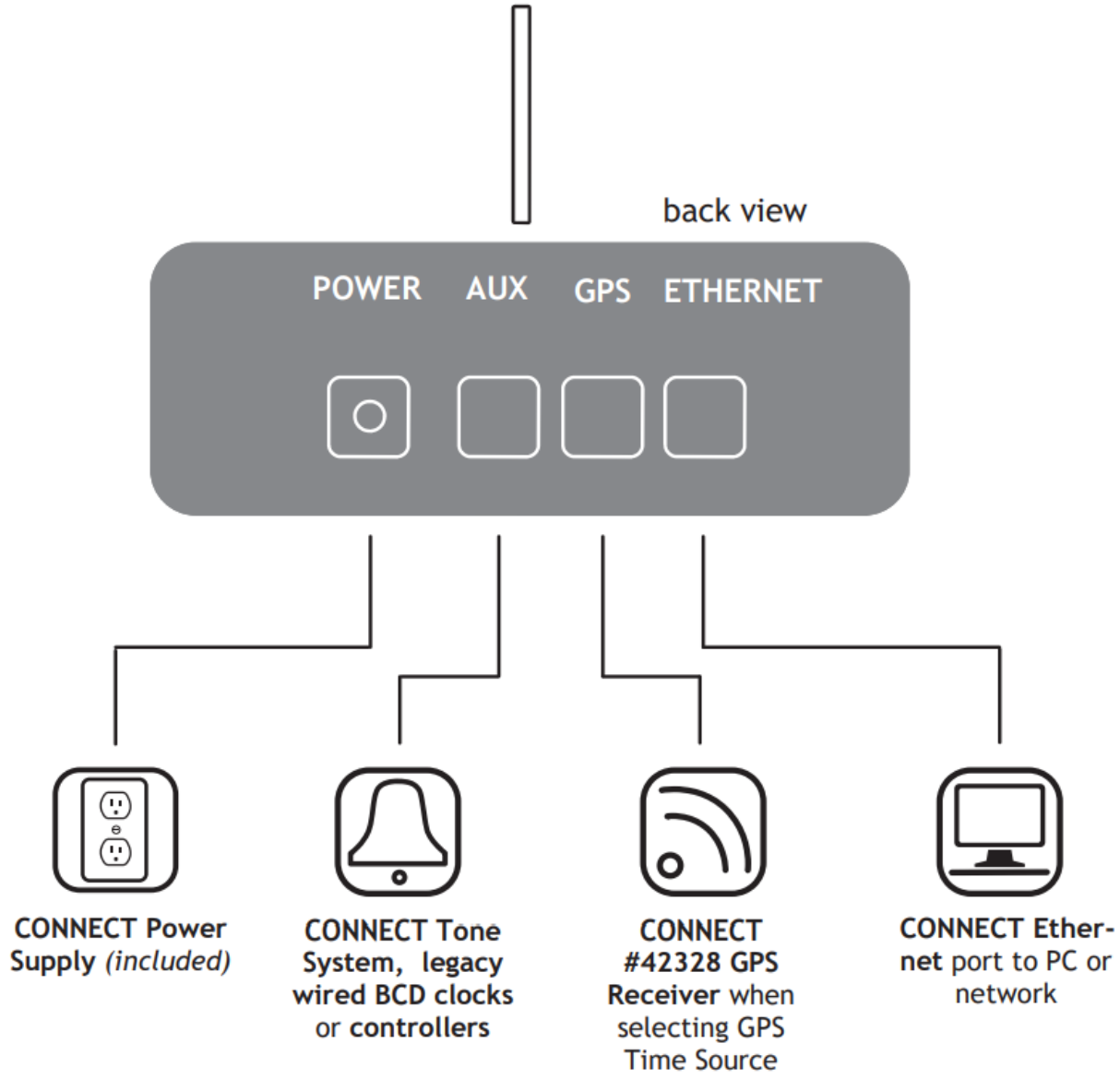


1. Attach supplied antenna to top of 9T1WI Wireless RF Transmitter by rotating in a clockwise direction.[1]
2. Place or mount transmitter so antenna is positioned vertically. This is required for optimum performance.Drill holes using template as a guide.
3. Connect Ethernet Port to computer or network. The transmitter will be configurable from anywhere on local network.
4. If GPS Receiver is to be used as time source, install and connect to GPS port of transmitter.
5. Connect power supply (supplied) to transmitter and to any standard wall outlet.
6. TTSync software controls more than one Wireless RF Secondary Transmitter.
7. TTSync software will discover the device & assign global setting.
8. All wires must be a minimum of 1 ft. away from the antenna.

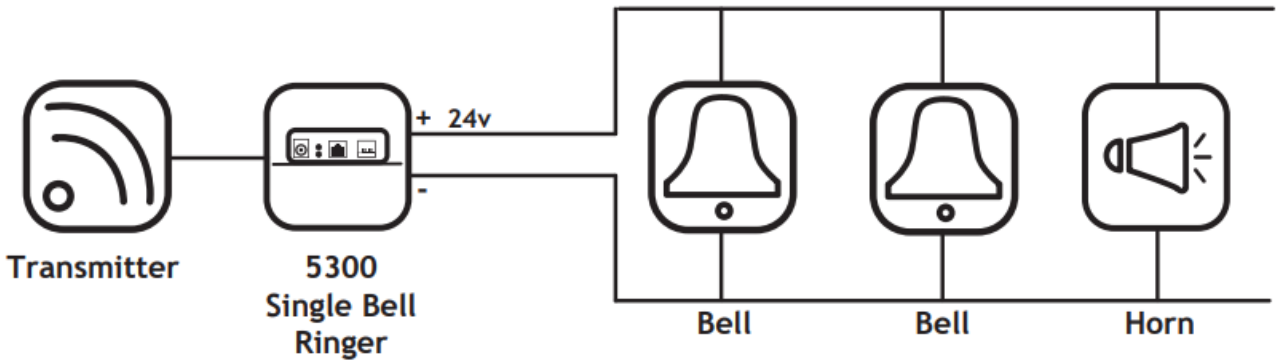


1. Using anything other than the included Power Supply or included Antenna in a horizontal orientation may be unsafe, cause improper operation, and violate FCC regulations.

Pyramid Wireless RF Transmitter Ports



Horn/Bell/Tone System



Each Transmitter controls a different bell/tone system

SET UP SOFTWARE

1. Contact Pyramid Time Systems for software access via download at:

- Phone: 888.479.7264
- Email: **WirelessSales@ptitime.com**

2. Install TimeTrax Sync™ Software into a networked computer or one that is able to be directly connected to a transmitter via ethernet cable.
3. Installation should automatically run once the software is downloaded and you open the file. The software will self-guide you through the initial stages of installation.
4. After the software is successfully installed, run the program by double-clicking the Pyramid icon on your desktop. The Pyramid TimeTrax™ Sync Login Screen will appear. You are now ready to sign in.
5. “User Account Control,” press “YES”.
6. Enter the following User Name and Password (password is case sensitive): User Name: ADMIN Password: PTI
7. Click the LOGIN button. TimeTrax Sync™ security is independent of Windows Security, therefore user accounts need to be created for all users. For security purposes, users of TimeTrax Sync™ are required to log in to usethe software every time. In addition, it is advisable to change the password for the ADMIN user account to prevent unauthorized use of the software to manipulate transmitter configuration settings. You can do this under the Administration/User Accounts.
8. The software will automatically discover & list any Pyramid Ethernet device on the network.
9. Before you program your settings, make sure your clock or transmitter is marked as Active and you have a green check mark under OK.
   *NOTE: The firewall ports required are TCP Ports 3330, 3331, and 3333. The direction of the firewall access is both inbound and outbound which is needed for communication between a PoE clock to/from the software or an RF transmitter to/from the software.

GLOBAL SETTINGS

The default settings are set to Eastern Standard Time, AM/PM display and USA date format and 4 digit year.

To change these settings follow these steps:

1. Click on Edit Global Setting Tab.
2. Click the drop-down arrow in the Time Zone window and choose your time zone.
3. Select your Daylight Savings Setting.
4. Choose your Time Format.
5. Click Save & Close

CUSTOM SETTINGS FOR INDIVIDUAL DEVICE

To change settings for individual devices, follow these steps:

1. Click on EDIT on the device discovery list.
2. Clock on Custom Setting Button
3. Change the Device name if you choose.
4. Click on NTP/NTP Servers, PC Time, or GPS (only if the GPS hardware is installed for your transmitter)
5. Select your Time Zone and your Daylight Savings Time settings
6. Choose your Time Format

7. Click Save & Close

*The SED2R14LRD (Time and Date PoE clock) will default to USA date format with a 4-digit year. If you would like to change to Euro Date format or Julian Date, click on Advanced it the upper right corner.

SETTING UP YOUR BELL SCHEDULE

1. Click on Event Schedules
2. Click on Add Schedule
3. Name your Schedule under Event Schedule ID.
4. Click Add Event
5. Choose your Event Time, Event Duration and Select the Days for the Bells to ring
6. Click Save & Close
7. Continue to add as many events as needed. Once your schedule is completed, click Close
8. Click UPLOAD. Choose the schedule you want to upload and then put a checkmark in front of the device you want to upload it to
9. Click UPLOAD & CLOSE

ETHERNET AUX GPS: SPECIFICATIONS

- Auto Speed 10/100TX Any 10 or 100Mbs, Switch or PC
- Auto MDI/MDIX No Crossover cable is needed

ETHERNET: (NOTE THAT ANY IP SETTINGS BELOW CAN BE SET OR OVERRIDDEN BY TIMETRAX SYNC™ SOFTWARE)

- Auto Discovery No IP address or DHCP server is required to discover the transmitter, direct connect
- DHCP IP Address, Subnet Mask, Gateway
- NTP Source List from TTSync Software; pull time from Internet or Intranet
- NTP Server RFC2030 compliant Time Server; serve time to Internet or intranet

OPTIONAL AUXILIARY PORT (RJ45 COMPATIBLE FEMALE CONNECTOR) :

BCD out/AUX

- Sends BCD signals to TimeTrax™ analog & digital clocks (wired)
- Sends BCD signals to Pyramid Tone Systems 5300 bell relay

OPTIONAL GPS PORT (RJ45 COMPATIBLE FEMALE CONNECTOR) :

- IEC RS232 Compatible 4800 Baud I/O to receive NMEA time and 1-second edge sync signals
- GPS Signal Receiver Part #42328

TT SYNC WIRELESS RF TRANSMITTER: SPECIFICATIONS

RF Power Output		1 watt (30dBm)
Frequency Range		902-928MHz Frequency Hopping Technology
Channel Spacing		~200KHz
Modulation		Raised Cosine 2FSK Modulation; 10KHz Maximum Deviation
Data		Encrypted 2400 BPS
Frequency Stability		2ppm
Clock Time Update		Every 20 seconds
NTP Time Update		6 Hr Default (can be set)
GPS Time Update		Once per second
Coverage		Approximately 250,000 sq ft
SHELF	**Size (WxHxD)**	6 .5in x 2 .5in x 6 .5in (16 .5cm x 6 .5cm x 16 .5cm)
	Weight	4lbs (1 .81kg)
WALL	**Size (WxHxD)**	5 .5in x 5in x 1 .75in (13 .9cm x 12 .7cm x 4 .4cm)
	Weight	3 .3lbs (1 .49kg)
Antenna Length		5in (12 .7cm)
Required Voltage		Universal 100-240VAC 50/60Hz

POE CLOCK SPECIFICATIONS

Time Base	NTP	
Time Update Frequency	Configurable (1/minute, 1/week)	
Method	NTP Time Server	
	Ethernet RJ45	**Cord**
Power Input	48VDC	105-120VAC
Average Power Consumption	4 .848 Watts	5 .6 Watts
Operating Temp	-30F (-34 .44C) to 130F (54 .44C)	
Warranty	3-year manufacturer’s limited warranty	
Guarantee	30-day money back guarantee	
Includes	Clock, security mounting bracket, screws and anchors, mounting templat e, security key and install instructions.	

DISPLAY:

Display Format	12 or 24 hour mode SED2R14LDR-Time and Date . Date format in US or Euro with Julien Dat e or 4 digit year option .
Digits	7 segment LED digits
Visibility	100ft . (30 .5m) 2 .5in digit height 200ft (60 .96m) 3in digit height 250ft (76 .05m) 4in digit height SED2R14LDR -Time 60ft, Date 35ft
LED Color	Red, White, Blue

CASE-DIGITAL

Case	Smooth surface 94VO/5VA ABS
Bezel Color	Black or Silver SED2R14LDR(time & date) black only
Lens	Shatterproof, side molded, polished polycarbonate crystal
Mounting	Wall, Dual Wall, Dual Ceiling

CASE-ANALOG:

Dial Material	Polystyrene	
Lens Material	Non glare, shatterproof transparent polycarbonate	
Bezel Material	Reinforced Acrylonitrite Butadiene St yrene (ABS)	Hardwood
Bezel Color/Finish	Black or Silver	Cherry, Oak or Walnut
Dial Format	12 Hour, 12 Hour with seconds, 12/2 4 hour or custom .	12 Hour or Roman Numeral

DIMENSIONS/WEIGHTS – DIGITAL:

DIMENSIONS/WEIGHTS – DIGITAL:	WxHxD (in)	WxHxD (cm)	Wt.(lb)	Wt.(kg)
2.5in/6-digit (red LED)	11 .25×4 .5×1 .5	28 .28×11 .5×3 .75	1 .5	0 .68
3in/4-digit (red LED)	11 .25×4 .5x 1 .5	28 .28×11 .5×3 .75	1 .5	0 .68
4in/4-digit (red, white LED)	11 .5×6 .25×1 .5	29×15 .7×3 .75	1 .9	0 .86
4in/6-digit (red or white LED)	15 .5×6 .25×1 .5	39×15 .75×3 .75	2 .3	1 .04
SED4R6TALB (4 in/6 digit count up/down clock) CTPLATEKIT required. Red LED	15 .5×6 .25×1 .5	39×15 .75×3 .75	2 .85	1 .29
SED2R14LDR (time and date clock 6 digit clock) Red LED	11 .5×6 .25×1 .5	29×15 .24×3 .75	2 .35	1 .06
DIMENSIONS/WEIGHTS – ANALOG:	**Dia.x D (in)**	**Dia.x D (cm)**	**Wt.(lb)**	**Wt.(kg)**
13″ Analog	13 .25 x 2 .5	33 .6 x 6 .35	3 .0	1 .36
17″ Analog	17 x 2	43 .1 x 5 .08	4 .3	1 .95
Hardwood Analog	16 .5 x 2 .25	41 .9 x 5 .7	7 .5	3 .40

ENVIRONMENTAL : INDOOR USE ONLY

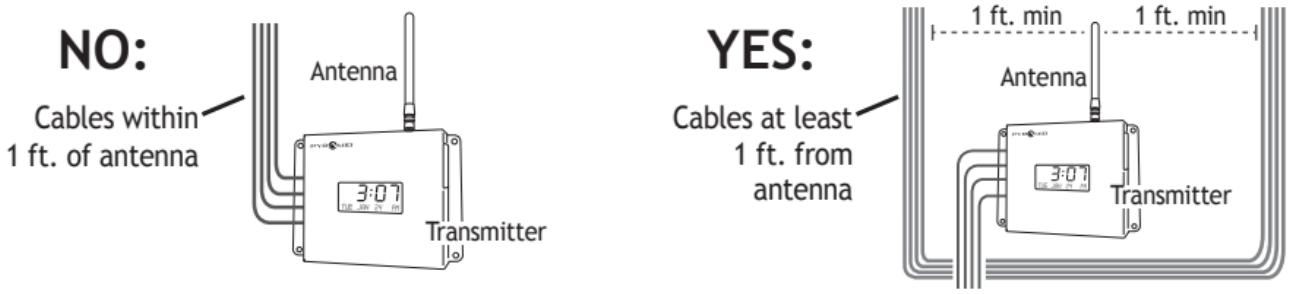
- Storage Temp -30°C to 80°C, 22°F to 176°F
- Operating Temp 0°C to 70° , 32°F to 158°F
- Condensing 95% RH non-condensing

TRANSMITTER SAFETY

- Do not place the transmitter in close proximity of life support systems or critical safety systems.
- To limit RF exposure, this transmitter must be installed to provide a separation distance of at least 24in (60cm) from all persons.
- Do not touch the antenna connector on top of the enclosure when the transmitter is in operation.
- Use only the provided power supply and antenna.
- Install the transmitter indoors in dry area.

TRANSMITTER EQUIPMENT PRECAUTIONS

- The antenna should be connected and oriented vertically before power is applied.
- Using anything other than the provided antenna is prohibited by FCC regulations.
- There are no serviceable or adjustable parts inside the case of the transmitter.
- Opening the transmitter case voids all warranties.
- Any modifications to the transmitter, antenna, or stated operating conditions violate FCC regulations and may be detrimental to health or safety.
- All wires must be a minimum of 1 ft. from the antenna.



RF ANALOG CLOCKS

1. Complete Transmitter installation and/or software set-up prior to clock installation
    - Locate indoors in dry location unless using weather cover
2. Choose the appropriate location to install the clock(s).
3. Wired clock(s) should be hard-wired to a standard electrical box by a qualified electrician.
4. Mount clock(s) using any of the following options:
    1. Direct Wall Mount: Mount to surface using template (included) &
    2. #8 screws. Insert screws into keyhole slots in back of the clock.
    3. Security Mount: Using the security bracket & template (included), screw the bracket directly to the surface with (2) #8 screws. To hang the clock, align holes on back of clock with security bracket hooks.
    4. Dual Clock Wall or Ceiling Mount: Use optional brackets.

CLOCK MOUNTING BRACKETS

- 42320 Dual Clock Wall Bracket Kit, 13in Analog, 4 x 6 Digital
- 42443 Dual Clock Ceiling Bracket Kit, Analog & Digital

Clock(s) will automatically synchronize upon completion of transmitter and/or software set-up. Clock(s) must be within approximately 250,000 sq. ft. range of transmitter. Transmitter is necessary to update RF Clocks

The battery-operated clock(s) search for updated signal once per day at 2am and after battery installation.

RF DIGITAL CLOCKS

1. Complete Transmitter installation and/or software set-up prior to clock installation
    - Locate indoors in dry location unless using weather cover
2. Choose the appropriate location to install clock(s).
3. Wired clock(s) should be hard-wired to a standard electrical box by a qualified electrician.
4. Mount clock(s) using any of the following options:
    1. Direct Wall Mount: Mount to surface using template (included) & #8 screws. Insert screws into keyhole

slots in back of clock.

2. Security Mount: Using the security bracket & template (included), screw bracket directly to surface with (2) #8 screws. To hang clock, align holes on back of clock with security bracket hooks.
3. Dual Clock Wall or Ceiling Mount: Use optional brackets.

CLOCK MOUNTING BRACKETS

- 42247J Security Mounting Bracket Kit, Digital and Analog
- 42320 Dual Clock Wall Bracket Kit, 13in Analog, 4×6 Digital
- 42321 Dual Clock Wall Bracket Kit, 2.5×6 & 3×4 Digital
- 42443 Dual Clock Ceiling Bracket Kit, Analog & Digital

Clock(s) will automatically synchronize upon completion of transmitter & software set-up. Clock(s) must be within approximately 250,000 sq ft range of transmitter. Transmitter is necessary to update RF Clocks.

- A DIG clocks search for updated signal every 20 seconds. The battery-operated DIG clock(s) search for updated signal once per day at 2am and after battery installation.
- To set “Time Format” – Global or custom, click “Edit” then “Advanced” AM/PM (PM = Dot left top corner), Military (24HR)

POE CLOCK INSTALLATION

Please consult your PoE Installation Guide (Part# I2253 -Digital Clocks or Part #I2252 – Analog Clocks) which is included with your PoE Clock.

ACCESSORIES

PART#	ITEM DESCRIPTION
SASDLCWDXX	TimeTrax™ Synchronized Clock System Software
42337	Wall, Secondary Transmitter (without software)
S9DSX0LAUB	Shelf, Secondary Transmitter (without software)
42328	Receiver, GPS Signal
41269	BCD Extension Cable, 50ft
41314	BCD Extension Cable, 100ft
41313	BCD In-line Cable Coupler
43193-1	Wire Guard Kit, Chrome, 13in Analog Wire Guard Kit, Chrome, 17in A nalog
43193-3	Wire Guard Kit for all Digital Clocks
42320	Dual Clock Wall Bracket Kit, 13in Analog, 4×6 Digital
42321	Dual Clock Wall Bracket Kit, 2 .5×6, 3×4 & 4×4 Digital
42443	Dual Clock Ceiling Bracket Kit, 13in Analog & all Digital
42247J	Security Mounting Bracket 13in & all Digital
42689	Wash Down Enclosure – Digital
42690	Wash Down Enclsure – Analog 13”
42429E-1	Replacement Key, Security Mount (analog/digita)
41361	Bell, 6in 24 Volt DC
41392	Bell, 8in 24 Volt DC
41362	Horn, 24 Volt DC
5300	Bell Ringer, Single Zone, 24 Volt DC
41449	Bell Wire, 100ft Spool
41450	Bell Wire, 250ft Spool
42520C	Power Supply for all RF Transmitters
42362A	Antenna for all Transmitters
APOEPI	Ethernet Port Injector with 6ft Power Cord

WARRANTY AND TECHNICAL SUPPORT

3-YEAR LIMITED WARRANTY

Pyramid warrants its Synchronized Clock Systems to the original user against defective material or workmanship for a period of 3 years from date of purchase.

1. The manufacturer’s responsibility under this Warranty is limited to repair or replacement of defective part or parts.

2. Pyramid reserves the right to determine whether parts failed because of defective material, workmanship, or other causes.
3. Failure caused by accident, alteration, misuse or improper packaging of the returned unit is not covered by this Warranty.
4. Any repair to equipment other than by Pyramid voids the Warranty.
5. The rights under this Warranty are limited to the original user and may not be transferred to subsequent users.

TECHNICAL SUPPORT CONTACT

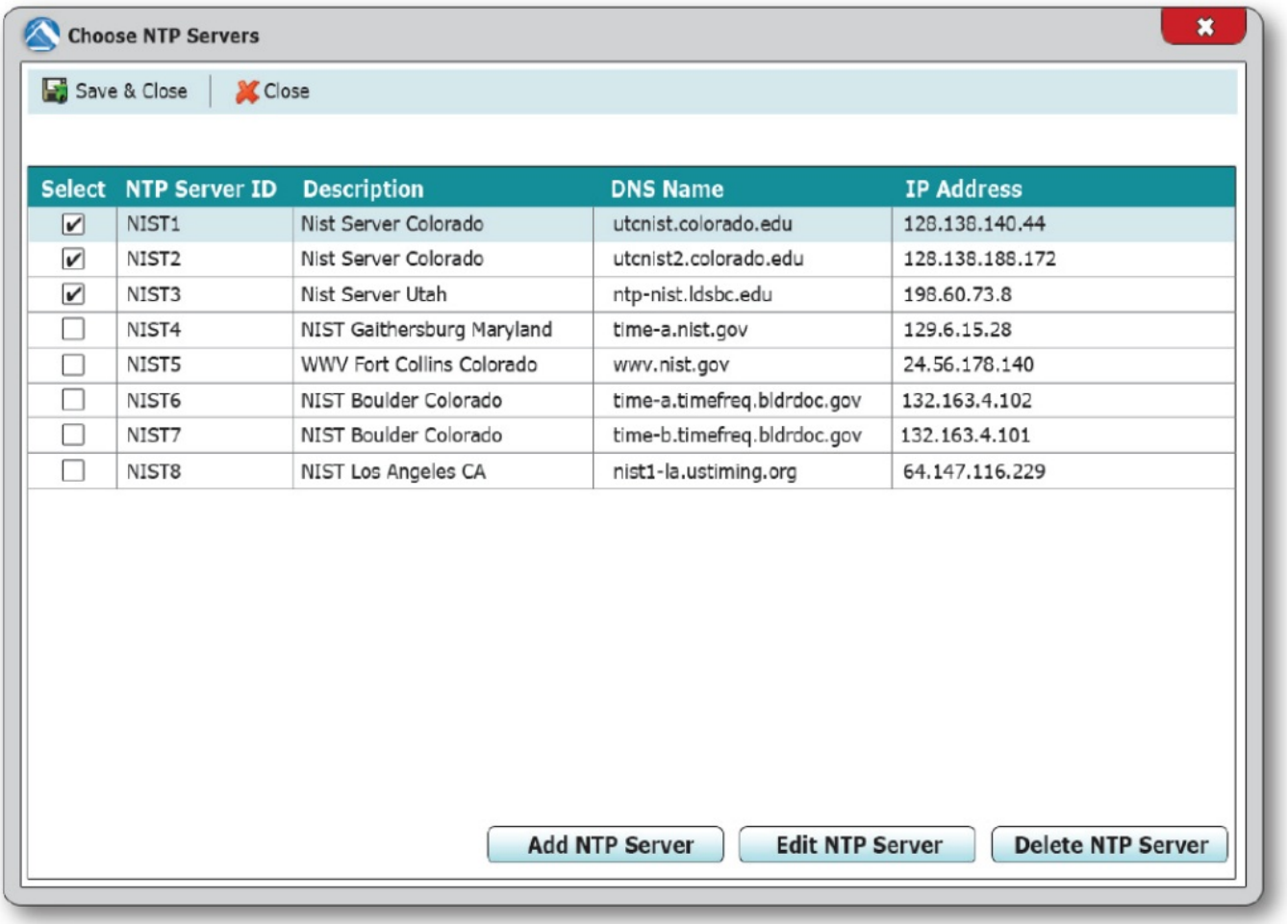
- Should you need to speak live to one of our representatives, please call Toll-free (US/Canada): 888.479.7264 during regular business hours:
- 8:30am—5:00pm EST, Monday-Friday
- Email: **WirelessSales@ptitime.com**

If Customer Service cannot troubleshoot your problem over the phone, we will replace your unit free of charge if it is within the warranty period.
For details, please contact Customer Support at: 888.479.7264

ACTIVATE YOUR 3 YEAR WARRANTY:

- **https://www.pyramidtimesystems.com/support/product-registration-synchronized-clocks**

Pyramid™ TimeTrax Sync™ seamlessly synchronizes clocks and tone systems to promote productivity, reliability and efficiency in the workplace



Time Selection —
12 or 24 hour time format and multiple time zone selection\ capability.
Automatic Adjustment —
Automatically adjusts for Daylight Savings Time & power outages.
Scheduling —
Schedule bell/tone systems with the click of a mouse.

Scan with smart device to go to Pyramid Synchronized Clocks

Resources:

For more information, visit pyramidtimesystems.com for digital guide copies, support resources, and accessories. *When printing off copies of user guides for templates, please open in Adobe Acrobat and follow the following print options: Size: Actual (Measure template for accuracy before using when printing) Booklet (If printing just the template page, make sure it is set to actual size and not shrink to fit) Front & Back Print

CONTACT US

- For more information, visit pyramidtimesystems.com or call our technical support team at 888.479.7264 during regular business hours:
- 8:30am-5pm EST, Monday-Friday.
- Email: **WirelessSales@ptitime.com**
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Documents / Resources

	**PYRAMID TimeTrax Sync Clock System** [pdf] User Guide TimeTrax Sync Clock System, Sync Clock System, Clock System

References

- Employee time management solutions from Pyramid Time Systems
- Synchronized Clock - Pyramid Time Systems
- User Manual