NetClock® WiSync™
Wireless Clock System

Features

- Synchronize clocks to computer networks, voice and video systems, telephony, security systems, building automation, access control, fi re alarms, electronic record systems, etc.

- Wireless, battery-powered analog (24/110 VAC also available)

- 2.5" and 4", 4- and 6-digit clocks

- Each clock acts as a transmitter and a repeater for a robust wireless mesh network

- Proven 915 – 928 MHz frequency-hopping technology for clear signal and to eliminate any interference issues

- No FCC license required in North America (contact local regulatory authorities for other regions)

- Made in the USA

Applications

- Hospital
- Higher Education campuses
- Manufacturing/Industrial complexes
- Government buildings
- Transportation centers

Spectracom's wireless clock system offers a unique time display option for organizations with time-sensitive operations. The system uses the security and reliability-leading NetClock®/GPS network time server as its master clock for traceability to UTC (Coordinated Universal Time). Legally Traceable Time® from the NetClock is broadcast by a transmitter, synchronizing the displays to all other network systems and devices throughout the facility.

This innovative system offers an easy, cost-effective solution by providing accurate, synchronized time displays without expensive, disruptive installation procedures. Because there are no wiring requirements, install times are drastically reduced, and it is ideal for renovation projects – no need to worry about asbestos issues or messy, in-wall electrical installation work – as well as new construction.

The system uses a rack-mount network-based transmitter with a remote antenna that works much like an IEEE-802.11 wireless router. It receives its time from a network time server via NTP (or from RS-485 from a NetClock® via a twisted pair). It transmits a time signal every minute. Once a Spectracom clock receives and synchronizes to the signal, it becomes a transmitter, creating a robust and effi cient wireless mesh network. Such a system provides signifi cant advantages by improving signal strength and coverage territory as more clocks are added.

The system is easily scalable as additional needs develop in the future. In applications across a large campus, Spectracom offers an optional repeater to maintain the signal. Spectracom's wireless clocks transmit a stream of data every minute from powered versions and every two hours in normal mode (5 year life) or every four hours in economy mode (8 year life) from battery powered units.

New features include greater clock sensitivity for longer transmission range, enhanced clock diagnostics, and network-manageable transmitter. All new system components are backwards compatible with previous generations.

Performance

Operating Frequency
915 – 928 MHz frequency-hopping technology.
No FCC license required.

RF Power Output
Transmitter: 30 dBm
Repeater: 30 dBm
Clock: 8 dBm

Input Sensitivity
-103 dBm

Transmitter and Repeater Specifications

Antenna
remote (transmitter), integral (repeater)

Range
6,500 ft. in open space

Power
Transmitter: 85 – 265 VAC, 50 – 60 Hz (power cord supplied)
Repeater: 85 – 230 VAC, 50 – 60 Hz, hardwired (power cord not supplied)

Size/Weight
Transmitter:
11" L x 17.5" W x 1.75" D/6.5 lbs.
Repeater and remote Antenna:
11" L x 8" W x 1.7" D/4 lbs.
Display (transmitter only): .56" 6-digit LED
Temperature Range:
Operating: 0° C to +45° C
Storage: -15° C to +70° C

Warranty

Two-Year Limited

Clock Specifications

Analog
- 12" or 16" diameter clock face
- Dial: Arabic numerals, 12- or 24-hour format, durable polystyrene
- Housing: black smooth surface ABS
- Crystal: shatterproof, side-molded, polycarbonate
- Hands: red second hand; black hour and minute hands
- Time to synchronize hands: 5-minute maximum
- Quiet operation
- Diagnostics: rear panel test buttons and LED indicates last sync, signal strength, mechanical test, battery level
- Battery versions: 2 "D" cell (included), 5-yr normal mode, 8-yr economy mode, provided good reception
- AC versions: hardwired (power cord not supplied)

Digital
- 4 or 6 red digits, 2.5" or 4.0"
- 100 ft. visibility (2.5")
- 250 ft. visiblity (4.0")
- 12- or 24-hour mode
- 2 brightness settings
- Loss of communications alert
- Time offset in each clock for "zone clocks" (6-digit clocks only)
- Hardwired (power cord not supplied)

Analog Clock Size (Housing Dimensions)
12" Analog:
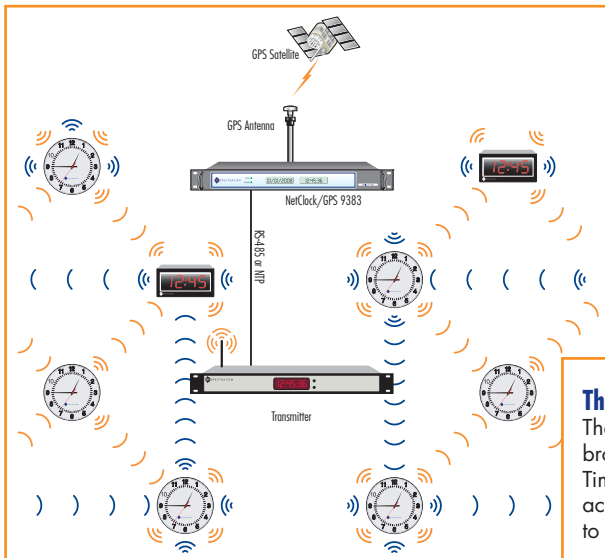12.65" Ø x 2.18" D
16" Analog:
16.65" Ø x 2.18" D

Digital Clock Size (Housing Dimensions)
2.5", 4 Digit:
11.06" L x 5.35" W x 3.90" D
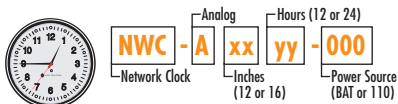**2.5", 6 Digit:**
14.41" L x 5.35" W x 3.90" D
4.0", 4 Digit:
14.10" L x 7.56" W x 3.86" D
4.0", 6 Digit:
19.26" L x 7.56" W x 3.86" D

GPS Satellite

GPS Antenna

NetClock/GPS 9383
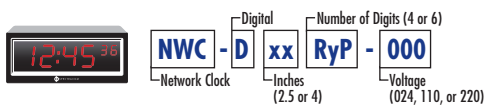
RS-485 or NTP

Transmitter

The Wireless Mesh Time Network
The Transmitter wirelessly broadcasts Legally Traceable Time® to the clocks. Each clock acts as a repeater and transmitter to the other clocks in the network.

Ordering Information

NWC - A xx yy - 000
Network Clock | Inches (12 or 16) | Analog | Hours (12 or 24) | Power Source (BAT or 110)

Example:
NWC-A1224-BAT = Battery-operated, 12-Inch, 24-Hour Analog Clock
NWC-A1612-110 = 110V, 16-Inch, 12-Hour Analog Clock

NWC - D xx RyP - 000
Network Clock | Inches (2.5 or 4) | Digital | Number of Digits (4 or 6) | Voltage (024, 110, or 220)

Example:
NWC-D25R6P-024 = 2.5-Inch, 6-Digit, 24V Digital Clock
NWC-D40R4P-220 = 4.0-Inch, 4-Digit, 220V Digital Clock

Transmitter: TCVR-NTP-2000

Repeater: RPTR-RS-2000

Master Clock:
NetClock network time server: consult factory for options

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