

NetClock® WiSync™

Wireless Clock System



Features

- Synchronize clocks to computer networks, voice and video systems, telephony, security systems, building automation, access control, fire 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

- Hospitals and Medical Centers
- 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 efficient wireless mesh network. Such a system provides significant 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
Repeaters: 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)
Repeaters: 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.
Repeaters 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

¹The warranty period may be dependent on country.

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 max.
- 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. visibility (4.0")
- 12- or 24-hour mode
- 2 brightness settings
- Loss of communications alert
- Hardwired (power cord not supplied)
- Elapsed Timer Model NWT: dual-function ToD and count-up, count-down capability (See NetClock® WiSync™ Options and Accessories datasheet for more information)

Analog Clock Size (Housing Dimensions)

12" Analog:
12.65" Ø x 2.18" D
16" Analog:
16.65" Ø x 2.18" D

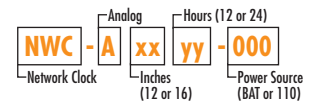
Digital Clock Size (Housing Dimensions)

2.5", 4 Digit:
10.31" L x 4.69" W (26.19 cm x 11.91 cm)
2.5", 6 Digit:
13.56" L x 4.69" W (34.44 cm x 11.91 cm)
4.0", 4 Digit:
13.31" L x 6.75" W (33.8 cm x 17.15 cm)
4.0", 6 Digit:
18.31" L x 6.75" W (46.5 cm x 17.15 cm)

Agency Approvals

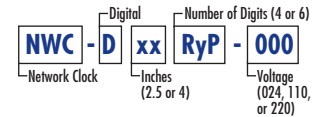
UL, cUL, FCC

Ordering Information



Example:

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



Example:

NWC-D25R6P-110 = 2.5-Inch, 6-Digit, 110V Digital Clock

Double-Sided Displays

Available for wall or ceiling-mounting. You must order two clocks using the above part number scheme, plus the Universal Double-Mount Pole: Model MDDP-UNIV, P/N 1168-0005-8UNIV

Transmitter: TCVR-NTP-2000 – This wireless transmitter/transceiver synchronizes the wireless clock system using a network-based time server such as our NetClock GPS NTP Time Server as its reference.

Repeaters: RPTR-IP-2000 – This wireless repeater provides synchronization to the wireless clock system by re-broadcasting the signal obtained from a network-based time server such as our NetClock GPS NTP Time Server.

RPTR-RS-2000 – This wireless repeater/transceiver synchronizes the wireless clock system by re-transmitting the signal that it receives from other transmitters, wireless clocks, and/or repeaters in the network

Elapsed Timer Control Box: NWT-ETCB-2

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

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.

