

NATIONAL TIME has simplified the wireless clock system with the TimeCast™ family of clock products. This wireless technology utilizes license-free frequency bands to communicate synchronized time to all of the clocks in your building. A cost-effective base station is the heart of the system keeping accurate time using a local or internet SNTP time server. Time and other data is broadcast from the base station to nearby clocks using a low wattage transmitter. Each clock in the system is capable of relaying this data to more distant clocks. A flood of time information synchronizes the time throughout your facility in fractions of a second. This efficient two-way data transmission provides verification of time synchronization, battery level, signal strength, and other clock information. All of this information is available to the user via National Time's free cloud service. Reports of clock system health can be accessed through the internet or by scheduled e-mail messages.

Installation of the system is simplified with National's exclusive interactive display on the back of each TimeCast™ clock. The display provides a user friendly interface to simplify installation as well as providing status information such as signal strength, battery strength, number of other clocks in range, time and date received, check in times, and firmware information. Help screens aid in fixing problems eliminating tech support and service calls. In the absence of a base station, the time and date can be entered by the user or acquire time from a nearby clock. This allows installation of the clocks if the network infrastructure for the base station is not yet installed.

Fast, Easy Setup -National's *Exclusive* multi-line display for user-friendly, step-by-step help and diagnosis.

Free Cloud Monitoring -National Time's free cloud service monitors each clock's vitals and check-in history. Get notified of low batteries or synchronization failure *before* it becomes a problem.

Robust Communication -Multiple path Flooding TimeCast™ technique is simple and reliable for trouble-free data transmission.

License Free -Using low energy and ISM frequency bands does not require a site license application or fee.

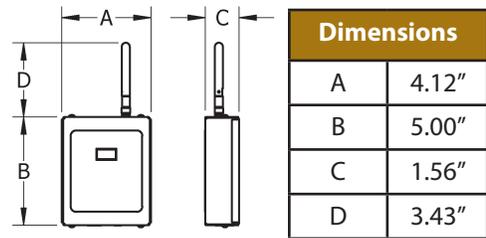
Support -Proudly designed, manufactured, and supported in Michigan USA.



TimeCast™ Base Station



A cost-effective base station is the beginning of your TimeCast™ system. This Power-over-Ethernet (POE) unit is small enough to mount wherever needed. For installations without POE, the unit can be powered with a 24VDC wall transformer (included). The easy to understand user interface with 4-line display makes setup a breeze. The LAN connection can use a local or internet SNTP time server to keep accurate time. The battery backup can keep internal time during outages. TimeCast™ signals are transmitted to all nearby clocks and are repeated by each clock for complete building coverage. All secondary clock information is gathered by the base station and stored locally or uploaded to the free National Time cloud service.

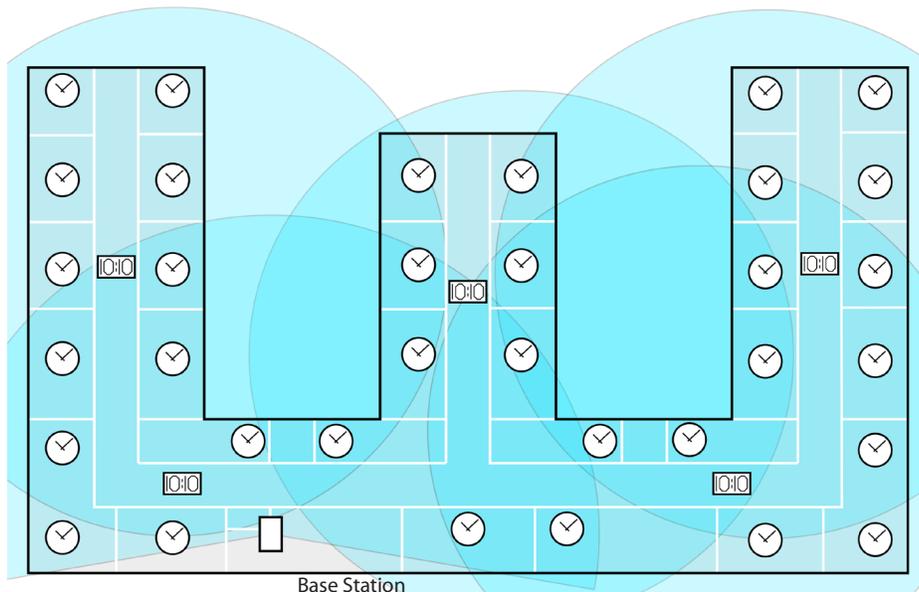


Model Number	Description
TC-BS-WM	TimeCast Base Station, POE; Wall Mount

TimeCast™ Operation

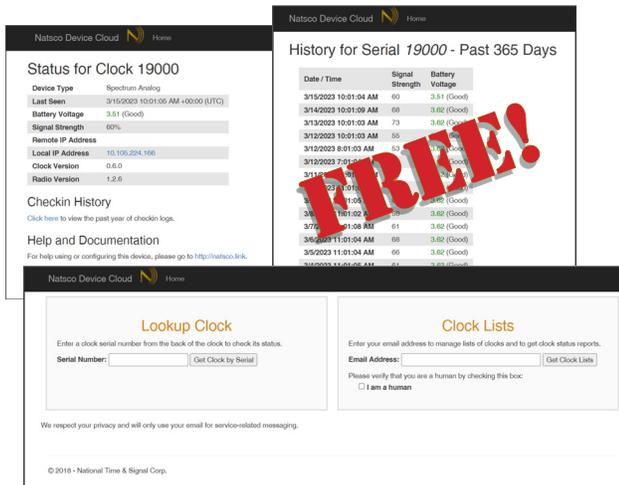
Each clock repeats TimeCast™ signals to more distant clocks creating a "Flood" of data lasting only a fraction of a second.

120V and 24V powered analog and digital clocks as well as battery powered analog clocks are available.



Wired clocks function as remote base stations. This makes installation and battery changes to the non-wired clocks effortless.

National Time Cloud



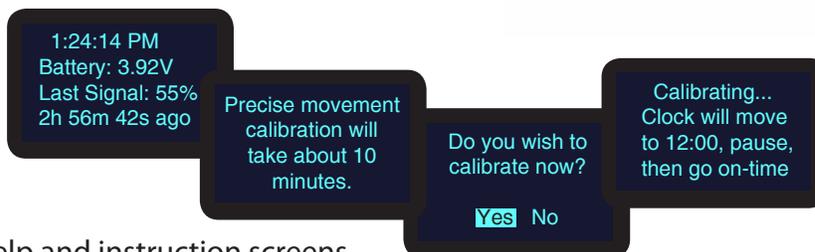
The National Time Device Cloud is a free service available to all customers. This browser based interface works on all devices without any software to install or manage. The cloud service can be used for National Time's Wifi and TimeCast™ series of devices. View information about the clocks such as firmware version, battery voltage and signal strength. Even historical data is available to help diagnose past problems. Custom lists can be created to view the status of multiple clocks and reports can be scheduled to send by email.

TimeCast™ Clock User Interface

Industry first and only OLED display at each clock provides easy setup and diagnosis. Quickly determine if TimeCast™ signal and time data has been received. At a glance, determine the signal strength from the clock back to the base station, battery voltage, number of peer clocks within range and other information.

User buttons provide menu navigation and setting initial time and date if necessary.

Unique QR code at each clock directly links to the free NATSCO cloud service. Complete check-in history with signal and battery strength is displayed as well as product information and trouble shooting assistance.



Easy to understand help and instruction screens.

TimeCast™ Analog Secondary Clocks



The TimeCast™ battery powered analog clocks make clock system expansion simple. Hang wherever a clock is desired without the need for additional system wiring. These energy efficient clocks have a life expectancy of 2.5 years on (3) AA batteries and 5 years with the six battery option.

When battery maintenance is not desired, order the 24V wired version. The 24V version can be powered with 24VAC or 24VDC. These can leverage easier to install low voltage power-limited wiring for less costly installation. For line voltage 120V installations, there is a choice of a hard wired transformer that fits in a standard electrical box or a wall transformer that plugs

into a nearby standard outlet. Double face clocks can share a single transformer. All versions include National Time's exclusive user display interface to simplify installation and troubleshooting.

For detailed specifications of the TimeCast™ analog clocks, refer to Bulletin C-626.

TimeCast™ Digital Secondary Clocks



The TimeCast™ digital clock series has more features that benefit your organization than any other. NATSCO's exclusive automatic dim feature decreases the brightness to compensate for low ambient light levels associated with surgical suites and video productions. This not only provides a pleasant brightness level, but also saves energy during nighttime hours. Nine brightness levels may be selected to satisfy the brightest locations. Add a durable metal housing to the long life epoxy filled digit segments and you won't find better value.

The 24VAC/DC version can leverage easier to install, low voltage, power-limited wiring for less costly installation. The 120V version can use a local 120V circuit. The hard wired version includes a 120/24V transformer that mounts in a standard electrical box. The wall transformer version can plug into a nearby standard 120V outlet.

The OLED display on the side of each clock provides easy setup and diagnosis. Quickly determine if the TimeCast™ signal and time data has been received. At a glance, determine the signal strength from the clock back to the base station, last check-in, number of peer clocks within range and other information. User buttons provide menu navigation and setting initial time and date if necessary. Clock settings such as brightness, auto-dim thresholds, time zone and test routines also utilize this easy to understand display.

For detailed specifications of the TimeCast™ wireless digital clocks, refer to Bulletin C-627.

