The TimeCast™ series analog clocks are the next generation of National Time's wireless clocks. These clocks offer both Radio Frequency and WiFi functionality to make TimeCast™ the simple choice for your wireless clock system, whether you want to leverage your building's existing WiFi network infrastructure or build a dedicated Radio Frequency timekeeping network. Whichever you choose, TimeCast™ clocks ensure reliable, synchronized time throughout your facility. TimeCast™ clocks can be configured in the factory or in the field for either Radio Frequency or WiFi operation.

Exclusive Interactive Display. The TimeCast™ series analog clocks feature National Time's exclusive interactive display on the back of each clock. The display provides a user friendly interface to simplify installation as well as provide status information such as signal strength, battery strength, WiFi network status or number of other Radio Frequency clocks in range, time and date received, check in times, and firmware information. In the absence of a base station or WiFi network, the time and date can be entered by the user through the display interface or acquire time from a nearby clock. All TimeCast™ clocks report to National Time's free cloud service which monitors each clock's vitals and check-in history.

TimeCast™ Radio Frequency System. 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. The multiple path Flooding TimeCast™ technique is simple and reliable for trouble-free data transmission. 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.

WiFi Clock System. In WiFi mode, each TimeCast™ clock connects to the existing building WiFi network and receives accurate time information from an SNTP time server. WiFi settings can easily be configured using National's WiFi Wizard setup interface. Using only a web browser on any WiFi enabled device, the user is led step-by-step through the fast setup process. TimeCast™ clocks connect to 2.4GHz 802.11b/g/n WiFi using WPA, WPA2, WEP, and open networks. The clocks also support EAP authentication with 802.1x MSCHAPv2. When WiFi clocks receive the time from the network, they also check-in to the National Time Device Cloud to report their battery level, signal strength, and other clock information. A base station is not required for WiFi operation as each clock operates individually.

Power Choices. 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.

Case Styles. The TimeCast™ series analog clocks are available in either steel or plastic cases. The steel clock is equipped with an all metal case with a shatter-proof lens. Cases are attractively finished in Powder Grey enamel, other finishes are available upon request. The plastic clock is composed of grey or black durable ABS plastic with a shatter-proof polycarbonate lens. Both case styles have a white polystyrene dial with black markings and hands. Double face clocks have a sturdy steel mounting ring and bracket.

Benefits:

- Fast, easy setup with National Time's exclusive multi-line display
- License Free low energy, ISM band Radio Frequency technology
- Multiple path Flooding TimeCast™ technique for reliable two-way Radio Frequency system
- Can utilize existing WiFi infrastructure
- Free Cloud service shows status for both Radio Frequency and WiFi clocks
- Microprocessor controlled hand position for unsurpassed accuracy
- Long, wide hands increase visibility over competition
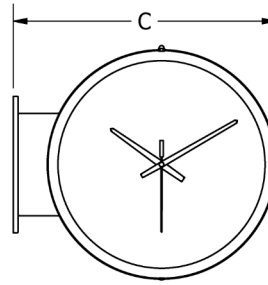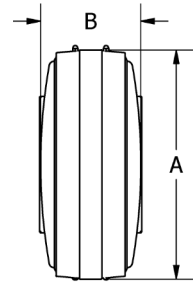- Made in USA
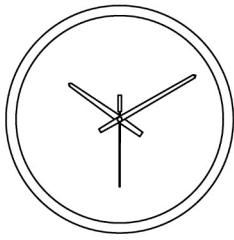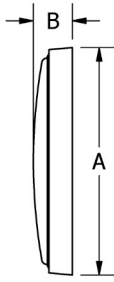
Plastic Case **Surface**
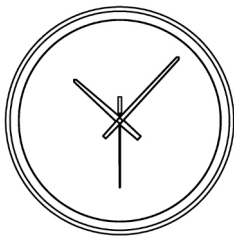
Dial Size	A	B
12" Round Plastic - Surface	13.35"	2.28"

Plastic Clocks with Steel Double Face Bracket

Dial Size	A	B	C
12" Round Plastic - Double Face	13.50"	5.88"	16.00"
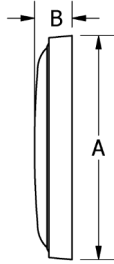
Steel Case **Low Profile**

Dial Size	A	B
12" Round Steel - Low Profile	13.38"	2.22"
16" Round Steel - Low Profile	16.87"	2.50"
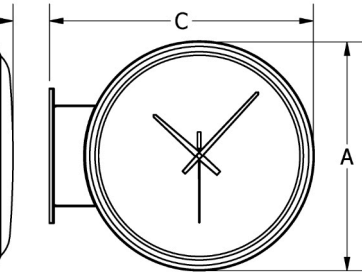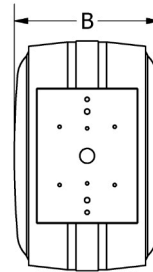
Steel Double Face

Dial Size	A	B	C
16" Round Steel - Double Face	17.00"	8.63"	19.00"

Indoor Use Only

Frequency: 2.4GHz ISM band; <1 Watt

Power: **3B/6B**: 3 or 6 AA Alkaline Batteries
24V: 27mA@24VAC (16-28VAC);
17mA@24VDC (15-35VDC)
120V Hard Wired: 20mA@120VAC (108-132VAC)
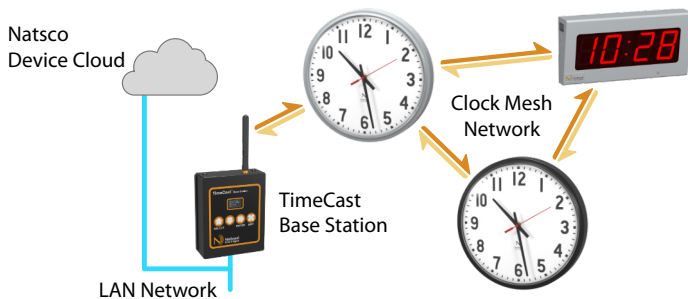**120V Wall Transformer:** 15mA@120VAC (100-240VAC)

Supported WiFi Networks:
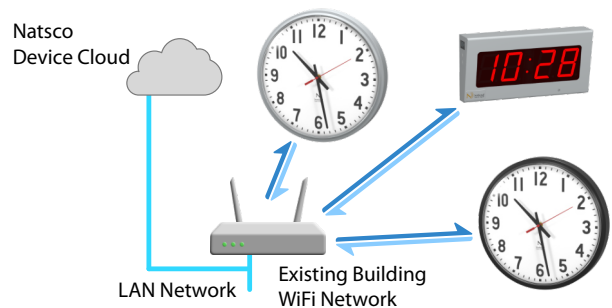
802.11b/g/n using WPA, WPA2, WEP, open, EAP using 802.1x MSCHAPv2
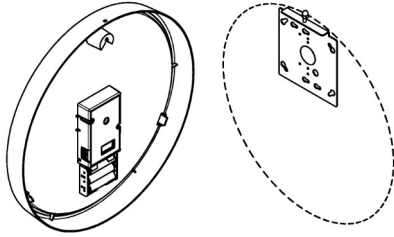
Typical System Layouts

TimeCast Radio Frequency Clock System

Natsco Device Cloud

Clock Mesh Network

TimeCast Base Station

LAN Network

TimeCast WiFi Clock System

Natsco Device Cloud

LAN Network
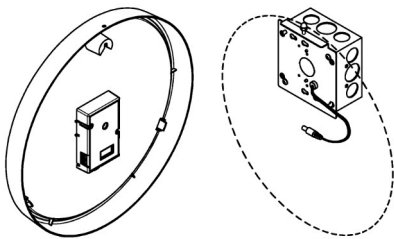
Existing Building WiFi Network

Typical Installations

Battery Clocks with Standard Surface Bracket
Included with all *Surface* and *Low Profile Surface* clocks. Mounts to wall or Handy/Single Gang/Double Gang/4 Square electrical boxes.

24V Clocks with Standard Surface Bracket
A barrel connector and strain relief are included with 24V clocks. The Standard Surface Bracket mounts to Handy/Single Gang/Double Gang/ 4 Square electrical boxes. Make wiring connections in the electrical box and secure the barrel connector to the bracket with the strain relief.
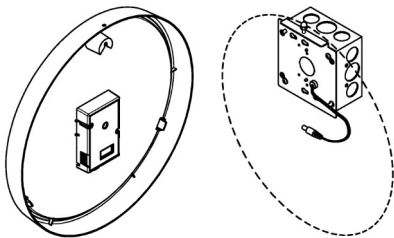
120V Hard Wired Transformer
The transformer assembly comes mounted to the back of the Standard Surface Bracket. Connect the 120VAC wires to the transformer and mount the bracket to a Deep 4 Square box with the transformer inside the box.
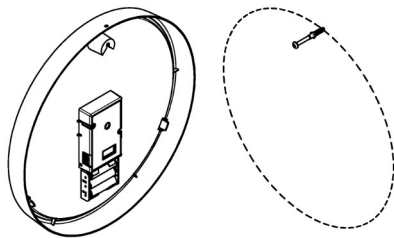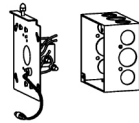
Battery Clocks with Screw Mount
Each plastic clock has a screw mount feature on the back of the clock. Use an appropriate wall anchor for the wall construction and place a screw 1.2" lower than the desired height of the clock case. Leave at least ¼" of the screw protruding from the wall.
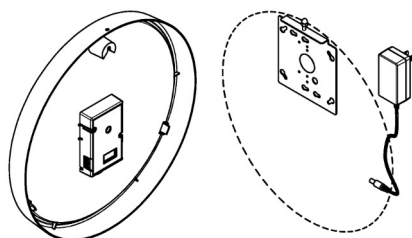
120V Wall Transformer
Includes a Standard Surface Bracket. The wall transformer with 6' cord plugs into a nearby outlet. Notch clock case for desired wire location.

National Time & Signal

Battery Radio Frequency Clocks

Model Number	Description
12" Plastic Analog Clocks	
SRP-12TC-3B-RF	12" Surface Round Plastic, TimeCast Clock, (3)AA Battery, Radio Frequency, Grey
SRP-12TC-3B-RF-BLK	12" Surface Round Plastic, TimeCast Clock, (3)AA Battery, Radio Frequency, Black
SRP-12TC-6B-RF	12" Surface Round Plastic, TimeCast Clock, (6)AA Battery, Radio Frequency, Grey
SRP-12TC-6B-RF-BLK	12" Surface Round Plastic, TimeCast Clock, (6)AA Battery, Radio Frequency, Black
DRP-12TC-3B-RF	12" Double Face Round Plastic, TimeCast Clock, (3)AA Battery, Radio Frequency, Grey
DRP-12TC-3B-RF-BLK	12" Double Face Round Plastic, TimeCast Clock, (3)AA Battery, Radio Frequency, Black
DRP-12TC-6B-RF	12" Double Face Round Plastic, TimeCast Clock, (6)AA Battery, Radio Frequency, Grey
DRP-12TC-6B-RF-BLK	12" Double Face Round Plastic, TimeCast Clock, (6)AA Battery, Radio Frequency, Black
12" Steel Analog Clocks	
LR-12TC-3B-RF	12" Low Profile Round Steel, TimeCast Clock, (3)AA Battery, Radio Frequency
LR-12TC-6B-RF	12" Low Profile Round Steel, TimeCast Clock, (6)AA Battery, Radio Frequency
16" Steel Analog Clocks	
LR-16TC-3B-RF	16" Low Profile Round Steel, TimeCast Clock, (3)AA Battery, Radio Frequency
LR-16TC-6B-RF	16" Low Profile Round Steel, TimeCast Clock, (6)AA Battery, Radio Frequency
DR-16TC-3B-RF	16" Double Face Round Steel, TimeCast Clock, (3)AA Battery, Radio Frequency
DR-16TC-6B-RF	16" Double Face Round Steel, TimeCast Clock, (6)AA Battery, Radio Frequency

24V Radio Frequency Clocks

Model Number	Description
12" Plastic Analog Clocks	
SRP-12TC-24V-RF	12" Surface Round Plastic, TimeCast Clock, 24VAC/DC, Radio Frequency, Grey
SRP-12TC-24V-RF-BLK	12" Surface Round Plastic, TimeCast Clock, 24VAC/DC, Radio Frequency, Black
DRP-12TC-24V-RF	12" Double Face Round Plastic, TimeCast Clock, 24VAC/DC, Radio Frequency, Grey
DRP-12TC-24V-RF-BLK	12" Double Face Round Plastic, TimeCast Clock, 24VAC/DC, Radio Frequency, Black
12" Steel Analog Clocks	
LR-12TC-24V-RF	12" Low Profile Round Steel, TimeCast Clock, 24VAC/DC, Radio Frequency
16" Steel Analog Clocks	
LR-16TC-24V-RF	16" Low Profile Round Steel, TimeCast Clock, 24VAC/DC, Radio Frequency
DR-16TC-24V-RF	16" Double Face Round Steel, TimeCast Clock, 24VAC/DC, Radio Frequency

Default Color is Grey for Steel Clocks. Add Suffix -BLK to Part Number for Special Order Black Enclosures.

National Time & Signal

120V Hard-Wired Radio Frequency Clocks

Model Number	Description
12" Plastic Analog Clocks	
SRP-12TC-120V-RF	12" Surface Round Plastic, TimeCast Clock, Hard-Wired Xfmr, Radio Frequency, Grey
SRP-12TC-120V-RF-BLK	12" Surface Round Plastic, TimeCast Clock, Hard-Wired Xfmr, Radio Frequency, Black
DRP-12TC-120V-RF	12" Double Face Round Plastic, TimeCast Clock, Hard-Wired Xfmr, Radio Frequency, Grey
DRP-12TC-120V-RF-BLK	12" Double Face Round Plastic, TimeCast Clock, Hard-Wired Xfmr, Radio Frequency, Black
12" Steel Analog Clocks	
LR-12TC-120V-RF	12" Low Profile Round Steel, TimeCast Clock, Hard-Wired Xfmr, Radio Frequency
16" Steel Analog Clocks	
LR-16TC-120V-RF	16" Low Profile Round Steel, TimeCast Clock, Hard-Wired Xfmr, Radio Frequency
DR-16TC-120V-RF	16" Double Face Round Steel, TimeCast Clock, Hard-Wired Xfmr, Radio Frequency

120V Wall Transformer Radio Frequency Clocks

Model Number	Description
12" Plastic Analog Clocks	
SRP-12TC-120VWT-RF	12" Surface Round Plastic, TimeCast Clock, Plug-in Wall Xfmr, Radio Frequency, Grey
SRP-12TC-120VWT-RF-BLK	12" Surface Round Plastic, TimeCast Clock, Plug-in Wall Xfmr, Radio Frequency, Black
12" Steel Analog Clocks	
LR-12TC-120VWT-RF	12" Low Profile Round Steel, TimeCast Clock, Plug-in Wall Xfmr, Radio Frequency
16" Steel Analog Clocks	
LR-16TC-120VWT-RF	16" Low Profile Round Steel, TimeCast Clock, Plug-in Wall Xfmr, Radio Frequency

Clock Movement Only - Radio Frequency

Model Number	Description
Clock Movements with 12" Hands	
TC-3B-12HD-RF	TimeCast Clock Movement with 12" Hands, (3)AA Battery, Radio Frequency
TC-6B-12HD-RF	TimeCast Clock Movement with 12" Hands, (6)AA Battery, Radio Frequency
TC-24V-12HD-RF	TimeCast Clock Movement with 12" Hands, 24VAC/DC, Radio Frequency
TC-120V-12HD-RF	TimeCast Clock Movement with 12" Hands, 120VAC Hard-Wired Xfmr, Radio Frequency
TC-120VWT-12HD-RF	TimeCast Clock Movement with 12" Hands, 120VAC Plug-in Wall Xfmr, Radio Frequency
Clock Movements with 16" Hands	
TC-3B-16HD-RF	TimeCast Clock Movement with 16" Hands, (3)AA Battery, Radio Frequency
TC-6B-16HD-RF	TimeCast Clock Movement with 16" Hands, (6)AA Battery, Radio Frequency
TC-24V-16HD-RF	TimeCast Clock Movement with 16" Hands, 24VAC/DC, Radio Frequency
TC-120V-16HD-RF	TimeCast Clock Movement with 16" Hands, 120VAC Hard-Wired Xfmr, Radio Frequency
TC-120VWT-16HD-RF	TimeCast Clock Movement with 16" Hands, 120VAC Plug-in Wall Xfmr, Radio Frequency

Default Color is Grey for Steel Clocks. Add Suffix -BLK to Part Number for Special Order Black Enclosures.

National Time & Signal

Battery WiFi Clocks

Model Number	Description
12" Plastic Analog Clocks	
SRP-12TC-3B-WiFi	12" Surface Round Plastic, TimeCast Clock, (3)AA Battery, WiFi, Grey
SRP-12TC-3B-WiFi-BLK	12" Surface Round Plastic, TimeCast Clock, (3)AA Battery, WiFi, Black
SRP-12TC-6B-WiFi	12" Surface Round Plastic, TimeCast Clock, (6)AA Battery, WiFi, Grey
SRP-12TC-6B-WiFi-BLK	12" Surface Round Plastic, TimeCast Clock, (6)AA Battery, WiFi, Black
DRP-12TC-3B-WiFi	12" Double Face Round Plastic, TimeCast Clock, (3)AA Battery, WiFi, Grey
DRP-12TC-3B-WiFi-BLK	12" Double Face Round Plastic, TimeCast Clock, (3)AA Battery, WiFi, Black
DRP-12TC-6B-WiFi	12" Double Face Round Plastic, TimeCast Clock, (6)AA Battery, WiFi, Grey
DRP-12TC-6B-WiFi-BLK	12" Double Face Round Plastic, TimeCast Clock, (6)AA Battery, WiFi, Black
12" Steel Analog Clocks	
LR-12TC-3B-WiFi	12" Low Profile Round Steel, TimeCast Clock, (3)AA Battery, WiFi
LR-12TC-6B-WiFi	12" Low Profile Round Steel, TimeCast Clock, (6)AA Battery, WiFi
16" Steel Analog Clocks	
LR-16TC-3B-WiFi	16" Low Profile Round Steel, TimeCast Clock, (3)AA Battery, WiFi
LR-16TC-6B-WiFi	16" Low Profile Round Steel, TimeCast Clock, (6)AA Battery, WiFi
DR-16TC-3B-WiFi	16" Double Face Round Steel, TimeCast Clock, (3)AA Battery, WiFi
DR-16TC-6B-WiFi	16" Double Face Round Steel, TimeCast Clock, (6)AA Battery, WiFi

24V WiFi Clocks

Model Number	Description
12" Plastic Analog Clocks	
SRP-12TC-24V-WiFi	12" Surface Round Plastic, TimeCast Clock, 24VAC/DC, WiFi, Grey
SRP-12TC-24V-WiFi-BLK	12" Surface Round Plastic, TimeCast Clock, 24VAC/DC, WiFi, Black
DRP-12TC-24V-WiFi	12" Double Face Round Plastic, TimeCast Clock, 24VAC/DC, WiFi, Grey
DRP-12TC-24V-WiFi-BLK	12" Double Face Round Plastic, TimeCast Clock, 24VAC/DC, WiFi, Black
12" Steel Analog Clocks	
LR-12TC-24V-WiFi	12" Low Profile Round Steel, TimeCast Clock, 24VAC/DC, WiFi
16" Steel Analog Clocks	
LR-16TC-24V-WiFi	16" Low Profile Round Steel, TimeCast Clock, 24VAC/DC, WiFi
DR-16TC-24V-WiFi	16" Double Face Round Steel, TimeCast Clock, 24VAC/DC, WiFi

Default Color is Grey for Steel Clocks. Add Suffix -BLK to Part Number for Special Order Black Enclosures.

National Time & Signal

120V Hard-Wired WiFi Clocks

Model Number	Description
12" Plastic Analog Clocks	
SRP-12TC-120V-WiFi	12" Surface Round Plastic, TimeCast Clock, Hard-Wired Xfmr, WiFi, Grey
SRP-12TC-120V-WiFi-BLK	12" Surface Round Plastic, TimeCast Clock, Hard-Wired Xfmr, WiFi, Black
DRP-12TC-120V-WiFi	12" Double Face Round Plastic, TimeCast Clock, Hard-Wired Xfmr, WiFi, Grey
DRP-12TC-120V-WiFi-BLK	12" Double Face Round Plastic, TimeCast Clock, Hard-Wired Xfmr, WiFi, Black
12" Steel Analog Clocks	
LR-12TC-120V-WiFi	12" Low Profile Round Steel, TimeCast Clock, Hard-Wired Xfmr, WiFi
16" Steel Analog Clocks	
LR-16TC-120V-WiFi	16" Low Profile Round Steel, TimeCast Clock, Hard-Wired Xfmr, WiFi
DR-16TC-120V-WiFi	16" Double Face Round Steel, TimeCast Clock, Hard-Wired Xfmr, WiFi

120V Wall Transformer WiFi Clocks

Model Number	Description
12" Plastic Analog Clocks	
SRP-12TC-120VWT-WiFi	12" Surface Round Plastic, TimeCast Clock, Plug-in Wall Xfmr, WiFi, Grey
SRP-12TC-120VWT-WiFi-BLK	12" Surface Round Plastic, TimeCast Clock, Plug-in Wall Xfmr, WiFi, Black
12" Steel Analog Clocks	
LR-12TC-120VWT-WiFi	12" Low Profile Round Steel, TimeCast Clock, Plug-in Wall Xfmr, WiFi
16" Steel Analog Clocks	
LR-16TC-120VWT-WiFi	16" Low Profile Round Steel, TimeCast Clock, Plug-in Wall Xfmr, WiFi

Clock Movement Only - WiFi

Model Number	Description
Clock Movements with 12" Hands	
TC-3B-12HD-WiFi	TimeCast Clock Movement with 12" Hands, (3)AA Battery, WiFi
TC-6B-12HD-WiFi	TimeCast Clock Movement with 12" Hands, (6)AA Battery, WiFi
TC-24V-12HD-WiFi	TimeCast Clock Movement with 12" Hands, 24VAC/DC, WiFi
TC-120V-12HD-WiFi	TimeCast Clock Movement with 12" Hands, 120VAC Hard-Wired Xfmr, WiFi
TC-120VWT-12HD-WiFi	TimeCast Clock Movement with 12" Hands, 120VAC Plug-in Wall Xfmr, WiFi
Clock Movements with 16" Hands	
TC-3B-16HD-WiFi	TimeCast Clock Movement with 16" Hands, (3)AA Battery, WiFi
TC-6B-16HD-WiFi	TimeCast Clock Movement with 16" Hands, (6)AA Battery, WiFi
TC-24V-16HD-WiFi	TimeCast Clock Movement with 16" Hands, 24VAC/DC, WiFi
TC-120V-16HD-WiFi	TimeCast Clock Movement with 16" Hands, 120VAC Hard-Wired Xfmr, WiFi
TC-120VWT-16HD-WiFi	TimeCast Clock Movement with 16" Hands, 120VAC Plug-in Wall Xfmr, WiFi

Default Color is Grey for Steel Clocks. Add Suffix -BLK to Part Number for Special Order Black Enclosures.