

The SPECTRUM series analog clock operates on a wide range of wired clock system types. From historical 3-wire synchronous systems to 2-wire midnight resets to 2-wire On-Demand reset systems, from 24V to 120V -- the SPECTRUM Series has it covered. The energy efficient design uses less power than previous systems allowing longer wire distances with less power supplies. An on-board microprocessor monitors the hand position to ensure accurate time display and does not require any user intervention to re-calibrate the hand location like clocks by others.

3-Wire Synchronous Operation. This microprocessor based time piece can automatically discern the reset protocol transmitted from the master clock (by National Time or others) and synchronize with the existing clocks on the system. Reset schemes from popular manufacturers such as IBM, Simplex, Lathem, Rauland, Cincinnati, Honeywell, Standard Electric Time, Faraday, Stromberg, and others are supported. Refer to the compatibility list in bulletin C-578 for details. When used with master clock by others, the SPECTRUM series clock can coexist with the existing clocks and operate similarly. However with a National Time master clock, the clocks can coexist on the same circuit but the SPECTRUM clocks can reset immediately after a power outage without the 12 hour reset cycle required by historical clocks using National's exclusive On-Demand reset transmission on the existing motor wiring. This provides a means to upgrade your clock system to a higher level of operation incrementally as older clocks fail or funds become available.

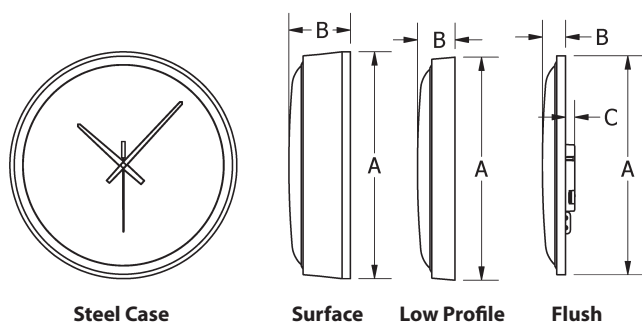
2-Wire Operation. With a master clock by others, a simple 0.25 second pulse at midnight can synchronize the clocks. With a National Time master clock, the On-Demand reset protocol transmits power and time information using two wires to send the clocks to the correct time at any time. This eliminates the waiting period for errant clocks following a power interruption.

Case Styles. SPECTRUM series clocks are available in either steel or ABS cases. The steel clock is equipped with an all metal case and white polystyrene dial having black markings and hands. Cases are attractively finished in Powder Gray enamel, other finishes are available upon request. A shatter-proof lens is standard. The ABS clock is composed of grey or black durable ABS with a shatter-proof polycarbonate lens. The dial is white polystyrene with black markings and hands. All clocks are furnished with a sway-proof hanger plate that securely holds clock to wall.

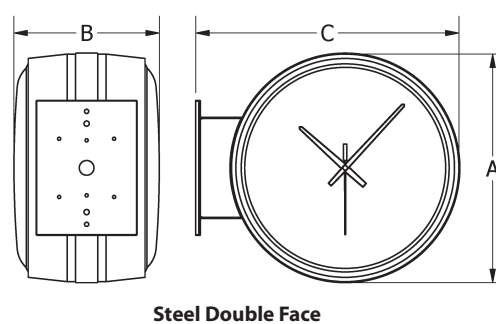


Benefits:

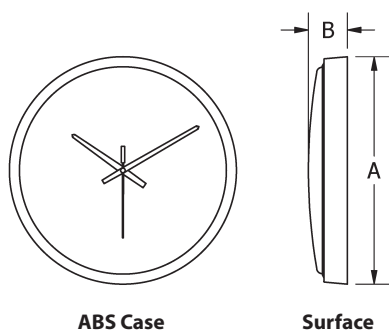
- Easily synchronize to existing clocks
- Low current consumption saves energy, reduces power supply requirements and allows longer wire distances
- Microprocessor controlled hand position for unsurpassed accuracy
- Instant correction reduces down time and occupant confusion
- Long, wide hands increase visibility over competition
- Made in USA
- UL Listed



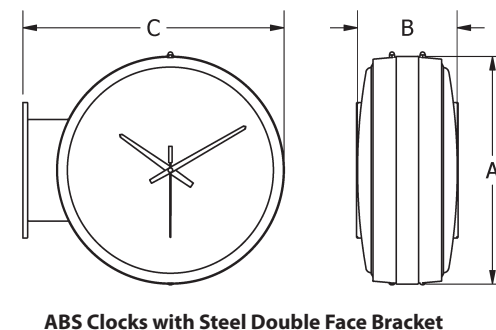
Dial Size	A	B	C
10" Steel - Surface	11.65"	3.25"	-
10" Steel - Flush	11.13"	1.38"	0.55"
12" Steel - Low Profile	13.38"	2.22"	-
12" Steel - Flush	13.00"	1.38"	0.55"
16" Steel - Low Profile	16.87"	2.50"	-
16" Steel - Flush	16.50"	1.38"	0.55"



Dial Size	A	B	C
10" Steel - Double Face	11.65"	8.63"	14.00"
12" Steel - Double Face	13.50"	8.63"	16.00"
16" Steel - Double Face	17.00"	8.63"	19.00"



Dial Size	A	B	C
12" ABS - Surface	13.35"	2.28"	-



Dial Size	A	B	C
12" ABS/Steel - Double Face	13.50"	5.88"	16.00"

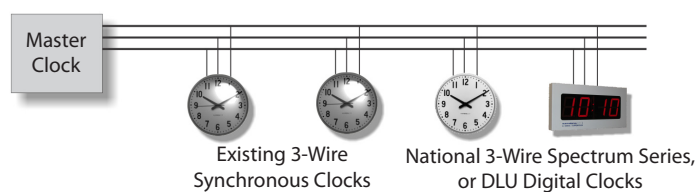
For supported reset formats, refer to the Spectrum Series Installation Instructions (Bulletin C-578)

Current Draw		
Clock Type	Run	Reset
3-Wire 120VAC	15mA	1mA
3-Wire 24VAC	20mA	1mA

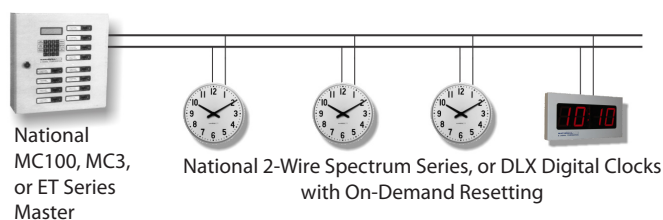
Current Draw	
Clock Type	Run
2-Wire 120VAC	15mA
2-Wire 24VAC	20mA
2-Wire 24VDC	9mA

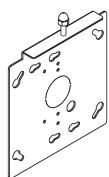
Typical System Layouts

Existing Systems with Conventional Reset



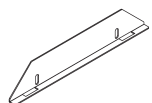
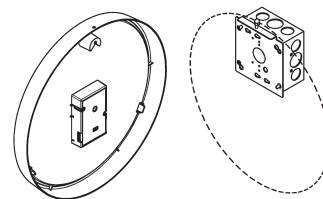
National Time Systems with Instant Correction





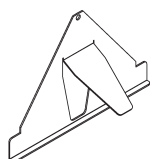
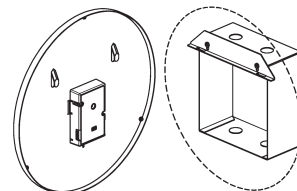
Anti-Sway Surface Hanger Bracket

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



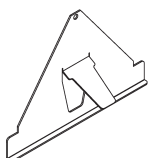
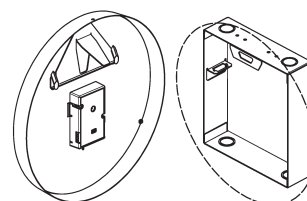
Flush Mount Hanger Bracket

Included with all *Flush* clocks. Mounts to National Time 143 Wall Box installed flush with the wall surface. 143 Wall Box ordered separately.



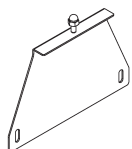
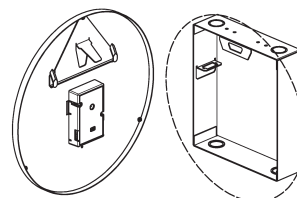
LR-12ADAPT-ST : Single Tab Mounting Adapter (Low Profile Steel)

Adapter plate allowing standard two tab mounting clocks to be used as single tab mounted clocks on clock boxes of other manufacturers like Simplex and others. Fits low profile steel 12" round clocks (LR-12XX).



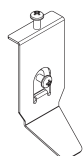
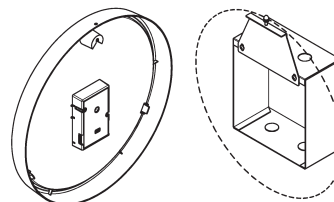
FR-12ADAPT-ST : Single Tab Mounting Adapter (Flush Steel)

Adapter plate allowing standard two tab mounting clocks to be used as single tab mounted clocks on clock boxes of other manufacturers like Simplex and others. Fits flush steel 12" round clocks (FR-12XX).



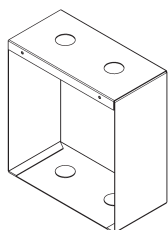
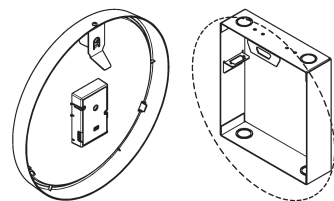
SRP-12ADAPT-NF : Flush Mount Adapter (Surface ABS)

Adapter plate allowing the Surface ABS case to mount to a National Time 143 Flush Clock Box. Typically used for clock replacements at existing flush mount clock locations. 143 Wall Box ordered separately.



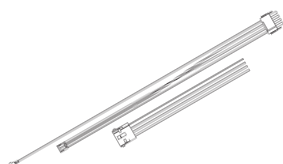
SRP-12ADAPT-ST : Single Tab Mounting Bracket (Surface ABS)

This is a single tab bracket allowing the Surface ABS case to mount to wall boxes by other manufacturers such as Simplex and others.



143 : National Time 143 Flush Clock Box

Flush Back Box for all sizes. The 143 Wall Box dimensions are 7 $\frac{1}{8}$ " H x 6 $\frac{5}{8}$ " W x 3 $\frac{1}{4}$ " D. A back box is required for all *Flush* clocks.



SS-MOLEX HARNESS : Spectrum Series Molex Wire Harness

This wire harness plugs into the Spectrum Series Universal Clocks (SS-24V, SS-120V) and converts to a Molex style plug that is compatible with plugs used by other manufacturers. Includes both halves of harness when used for new installations.

24V Full Clock Assemblies

Model Number	Description
12" ABS Analog Clocks	
SRP-12SS-24V	12" Surface Round ABS; 24V SPECTRUM Series Universal or On-Demand Reset Clock; Grey
SRP-12SS-24V-BLK	12" Surface Round ABS; 24V SPECTRUM Series Universal or On-Demand Reset Clock; Black
DRP-12SS-24V	12" Double Face Round ABS/Steel; 24V SPECTRUM Series Universal or On-Demand Reset Clock; Grey
DRP-12SS-24V-BLK	12" Double Face Round ABS/Steel; 24V SPECTRUM Series Universal or On-Demand Reset Clock; Black
12" Steel Analog Clocks	
FR-12SS-24V-SP	12" Flush Round Steel; 24V SPECTRUM Series Universal or On-Demand Reset Clock
LR-12SS-24V-SP	12" Low Profile Round Steel; 24V SPECTRUM Series Universal or On-Demand Reset Clock
DR-12SS-24V-SP	12" Double Face Round Steel; 24V SPECTRUM Series Universal or On-Demand Reset Clock
16" Steel Analog Clocks	
FR-16SS-24V-SP	16" Flush Round Steel; 24V SPECTRUM Series Universal or On-Demand Reset Clock
LR-16SS-24V-SP	16" Low Profile Round Steel; 24V SPECTRUM Series Universal or On-Demand Reset Clock
DR-16SS-24V-SP	16" Double Face Round Steel; 24V SPECTRUM Series Universal or On-Demand Reset Clock

120V Full Clock Assemblies

Model Number	Description
12" ABS Analog Clocks	
SRP-12SS-120V	12" Surface Round ABS; 120V SPECTRUM Series Universal or On-Demand Reset Clock; Grey
SRP-12SS-120V-BLK	12" Surface Round ABS; 120V SPECTRUM Series Universal or On-Demand Reset Clock; Black
DRP-12SS-120V	12" Double Face Round ABS/Steel; 120V SPECTRUM Series Universal or On-Demand Reset Clock; Grey
DRP-12SS-120V-BLK	12" Double Face Round ABS/Steel; 120V SPECTRUM Series Universal or On-Demand Reset Clock; Black
12" Steel Analog Clocks	
FR-12SS-120V-SP	12" Flush Round Steel; 120V SPECTRUM Series Universal or On-Demand Reset Clock
LR-12SS-120V-SP	12" Low Profile Round Steel; 120V SPECTRUM Series Universal or On-Demand Reset Clock
DR-12SS-120V-SP	12" Double Face Round Steel; 120V SPECTRUM Series Universal or On-Demand Reset Clock
16" Steel Analog Clocks	
FR-16SS-120V-SP	16" Flush Round Steel; 120V SPECTRUM Series Universal or On-Demand Reset Clock
LR-16SS-120V-SP	16" Low Profile Round Steel; 120V SPECTRUM Series Universal or On-Demand Reset Clock
DR-16SS-120V-SP	16" Double Face Round Steel; 120V SPECTRUM Series Universal or On-Demand Reset Clock

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

10" Steel Analog Clocks Available Upon Request.

Clock Movement Only

Model Number	Description
<i>Clock Movements with 10" Hands</i>	
SS-24V-10HD	24V SPECTRUM Series Universal or On-Demand Reset Clock Movement with 10" Hands
SS-120V-10HD	120V SPECTRUM Series Universal or On-Demand Reset Clock Movement with 10" Hands
<i>Clock Movements with 12" Hands</i>	
SS-24V-12HD	24V SPECTRUM Series Universal or On-Demand Reset Clock Movement with 12" Hands
SS-120V-12HD	120V SPECTRUM Series Universal or On-Demand Reset Clock Movement with 12" Hands
<i>Clock Movements with 16" Hands</i>	
SS-24V-16HD	24V SPECTRUM Series Universal or On-Demand Reset Clock Movement with 16" Hands
SS-120V-16HD	120V SPECTRUM Series Universal or On-Demand Reset Clock Movement with 16" Hands

Accessories

Model Number	Description
LR-12ADAPT-ST	Single-Tang Mounting Adapter for 12" Low Profile clocks
FR-12ADAPT-ST	Single-Tang Mounting Adapter for 12" Flush clocks
SRP-12ADAPT-NF	Flush Mount Adapter for 12" Surface ABS clocks
SRP-12ADAPT-ST	Single-Tang Mounting Adapter for 12" Surface ABS clocks
SS-MOLEX HARNESS	Wire Harness Adapter common to other manufacturers
143	National Time Flush Back Box for all sizes
12WGS	Wire Guard for 10" and 12" Round Clocks
16WGS	Wire Guard for 16" Round Clocks