

SAZ Series Time Zone Clock

Description

Sapling's new SAZ Series Time Zone analog clocks have multiple time zone capability on one system. The SAZ Series has a switch for offsetting the time zone, making it adjustable for any location. The SAZ analog clocks have a variety of features such as multi-functional software which allows the clock itself to identify communication protocols in the field. The clocks contain built-in test procedures for last received communication time and an analysis of the clock itself. The SAZ Series have LEDs to display the transmission and receipt of data for the RS485 system. SAZ clocks can run self-diagnostic routines and relay the results to the user. This enhanced connectivity allows all system clocks to be diagnosed from a remote master clock location. The microprocessor based movement incorporates an advanced two (2) wire digital communication protocol or Sapling's RS485 communication. These clocks contain an automatic polarity detection feature which protects the system in case data is received with reversed polarity. The SAZ analog clocks have a variety of features such as multi-functional software which allows the clock itself to identify communication protocols in the field. The two (2) wire digital communication protocol and RS485 communication protocol transmits a stream of data that constantly checks and corrects every clock in the system. This feature prevents the system clocks from deviating from each other, while providing five (5) minute (max) system correction. Sapling SAZ Series Time Zone analog clocks are energy efficient and reliable. The SAZ Series uses a shatterproof, side molded polycarbonate crystal. By using electronic components, the Sapling SAZ Series analog clocks have a much less chance of mechanical failure.



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Highlights

- ▶ Switch for time zone offset in one (1) hour increments
- ▶ Microprocessor based movement
- ▶ Two (2) wire digital communication or RS485 system
- ▶ Built-in diagnostics for maintenance ease
- ▶ Built-in self-test function
- ▶ Diagnostic LED for verifying the results of diagnostic tests
- ▶ Data LEDs for verifying the results and receipt of data
- ▶ Automatic polarity detection
- ▶ Remote system diagnostic
- ▶ Quick correction for time change (max. five (5) minutes)
- ▶ Clocks will not deviate from each other
- ▶ Ideal for renovation projects using existing wiring, or for new installations
- ▶ Works with existing two (2) wire or RS485 systems
- ▶ Hour, minute and second hands
- ▶ Energy efficient
 - 20 mA @ 24 VAC (voltage)
 - 15 mA @ 110 VAC (voltage)
 - 10 mA correction
- ▶ Wide dynamic range for input voltage
 - 7 VAC —28 VAC (24 V model, three (3) wire system)
 - 85 VAC —135 VAC (110 V model, three (3) wire system)
- ▶ Does not require custom back box
- ▶ Shatterproof side molded polycarbonate crystal
- ▶ Smooth surface metal housing available in many colors
- ▶ A variety of dials and hands
- ▶ Lettering available in black, white and blue
- ▶ Plug in Molex connectors
- ▶ Available in 110 VAC and 24 VAC
- ▶ Made in U.S.A.
- ▶ Patents pending

Architectural & Engineering Specifications

The secondary clock shall be a Sapling SAZ Series analog clock and will have a time zone switch to offset the hour to the user's preference. The clock shall include automatic protocol detection. The clock has self-diagnostic capabilities, as well as remote diagnostics from the master clock location. It shall have automatic polarity detection. The clock will have a maximum correction time of five (5) minutes. The clock shall be designed to be used with Sapling 2000 or 3000 Series Master Clock systems, as well as the SSM Master Clock or the GPS which can regulate it via Sapling two (2) wire digital communication protocol or RS485 protocol. Upon receipt of the digital signal, the clock will immediately self-correct. The secondary clock shall have a microprocessor based movement. The clock will have a low-profile, semi-flush smooth surface metal case. The crystal is to be shatterproof polycarbonate material with no visible molding marks. Glass and visible molding marks are unacceptable. The clock shall have black hour and minute hands, as well as a red second hand. The clock shall be FCC compliant.

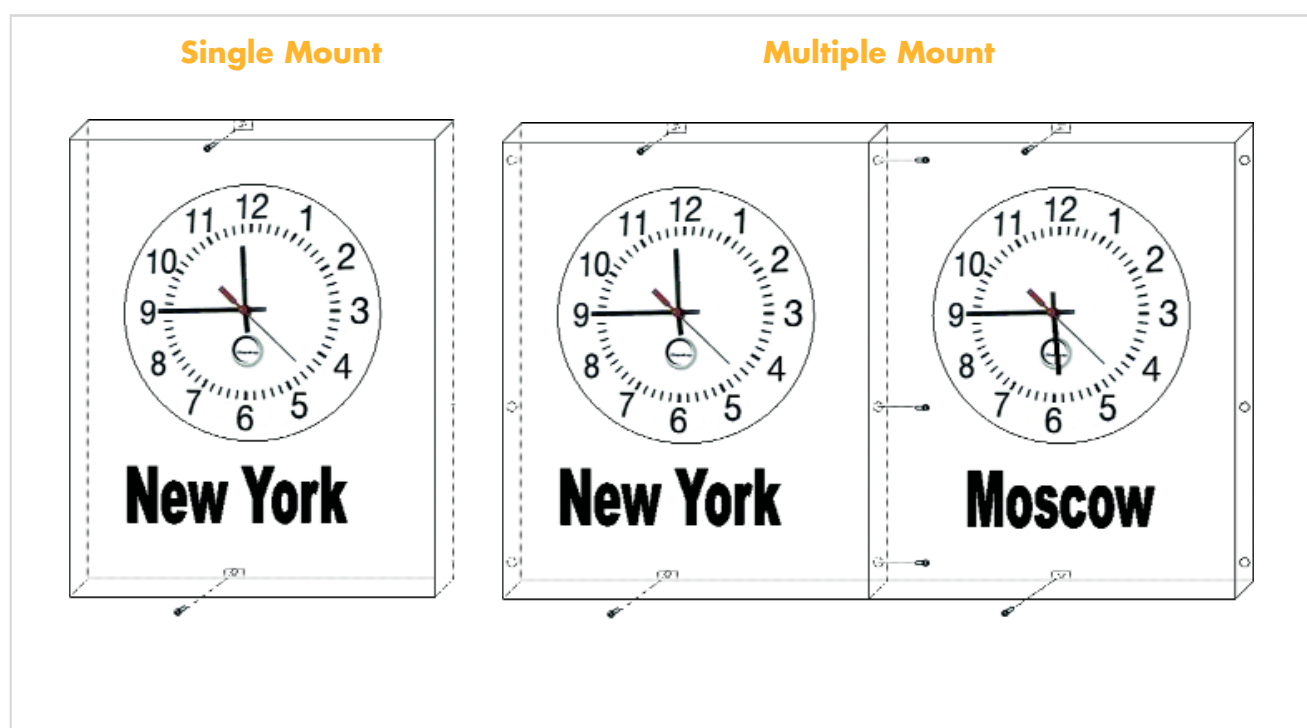


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Specifications

Time Base:	50/60 Hz (RS485 system) Quartz (two (2) wire system)
Voltage Input:	85–135 VAC / 60 Hz 7–28 VAC / 60 Hz
Average Current Consumption:	20 mA @ 110 VAC 15 mA @ 24 VAC
Correction Current Consumption:	10 mA
Display:	12 or 24 hour format
Color:	Standard black or white (custom colors available)
Clock Size (L x W x D):	18.625" x 16.0625" x .998"
Dial:	Durable polystyrene material
Case:	Shallow profile, smooth surface metal housing
Crystal:	Shatterproof, side molded polycarbonate crystal
Hand Tolerance	
Hour and Minute hand:	± ¼ minute
Second hand:	± ½ second
Temperature Range	
Operating:	0°C–45°C
Shelf:	-15°C–75°C
Movement Dimensions: (L x W x D)	2.93" x 2.84" x .937"
Housing Dimensions: (L x W x D)	18.56" x 16" x 1"
Shipping Weight:	6 lbs.
Power Kit Includes:	1–5 pin power harness (18 AWG) 1–4 pin RS485 harness 1–ground wire (18 AWG) 2–sheet metal screw, 10 x 1.5"
Compliance:	FCC approved

Mechanical Drawing



Hands Options

STANDARD CHOICE



Style 1

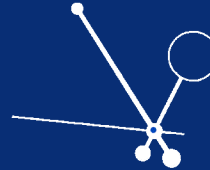
CUSTOM CHOICES



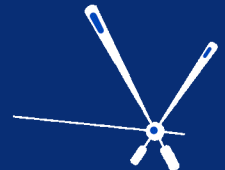
Style A



Style B



Style C



Style D

Dial Options

STANDARD CHOICE

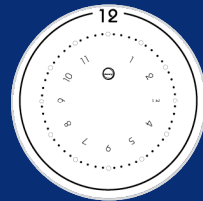


12 Hour
Style 1



24 Hour
Style 2

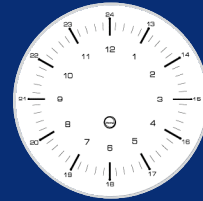
CUSTOM CHOICES



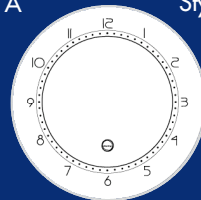
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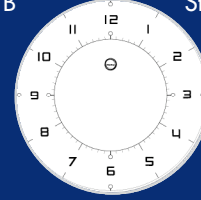
Style B



Style C



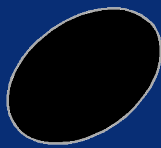
Style D



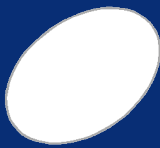
Style E

Color Options

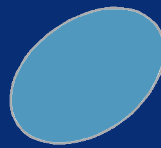
STANDARD CHOICE



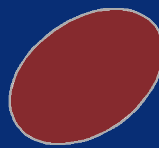
Black
Style 1



White
Style 2



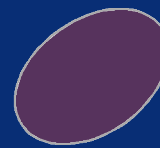
#645
Style A



#188
Style B



#281
Style C



#519
Style D



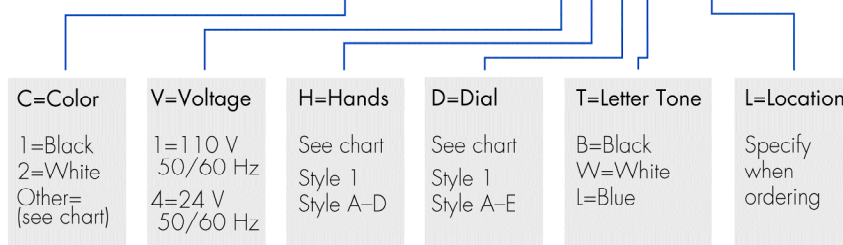
#166
Style E

CUSTOM CHOICES

Ordering Information

Zone Clock

SAZ-ACS-12R-VHDT-L

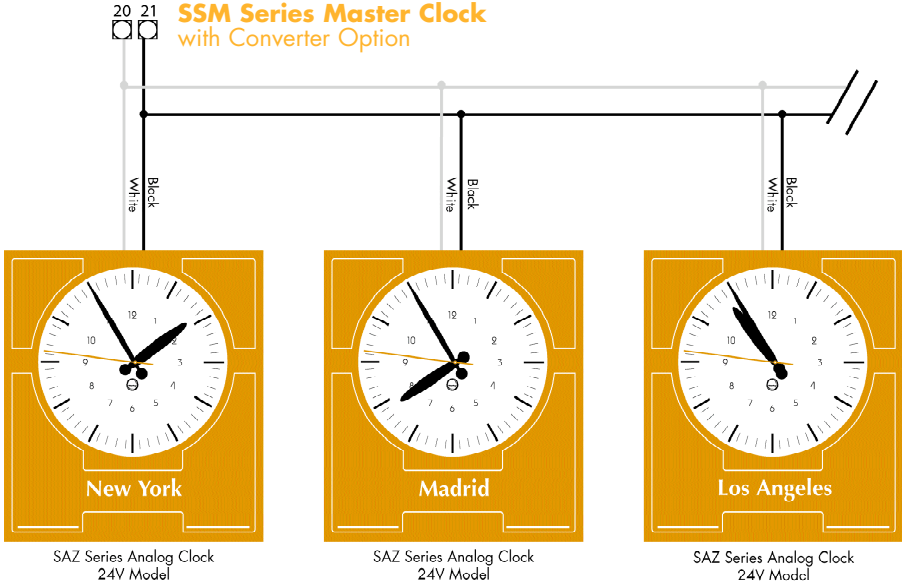


Options: Additional Power Kits: 12": A-PKZ-12-1

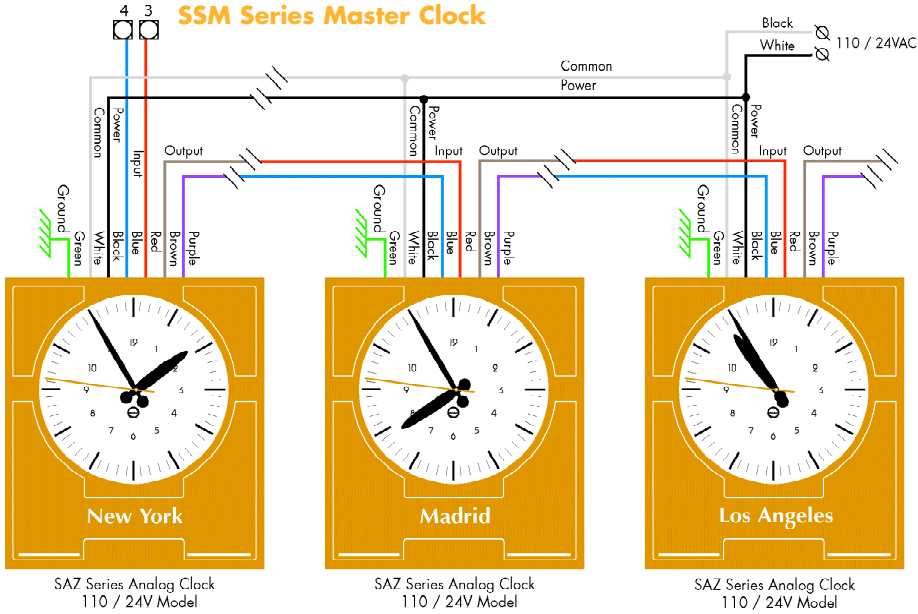
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2 Wire Digital Communication



RS485 Communication



**
If a transformer is needed for a 24 volt system, please select from the following:

- Part Number:
- 35-M015** (6.2A)
 - 35-M020** (10.4A)
 - 35-M025** (20.8A)
 - 35-M030** (31.2A)